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ABSTRACT

This four-part guide describes how service members can receive college credits for their military training and experience. Each volume provides instructions for finding and using exhibits and recommendations, as well as information on awarding credit for extrainstitutional learning, transfer and award of credit, and a model policy on awarding such credit. Volume 1 contains recommendations for formal courses offered by the Army, Army Reserve, and Army National Guard. Each course exhibit has these components: identification number; military course number with course version numbers and titles; location; length; exhibit dates; learning outcomes; instruction; credit recommendation; and related occupational codes. Volume 2 contains recommendations for Army enlisted and warrant officer military occupational specialties (MOS). Each MOS exhibit has these components: identification number; title and MOS designation; career management field; description; and recommendation. Volumes 3 and 4 contain recommendations for formal courses offered by the Navy and by the Air Force, Coast Guard, Marine Corps, and Department of Defense, respectively. Each course exhibit has the same components as those for courses in Volume 1. Coast Guard Rating exhibits, Coast Guard Warrant Officer exhibits, and Marine Corps exhibits have generally the same components as those in Volume 2. Appendixes to the volumes may contain a keyword index, course number index, occupational title indexes, and sample military records. (YLB)

ED336622

THE 1990 GUIDE TO THE EVALUATION OF EDUCATIONAL EXPERIENCES IN THE ARMED SERVICES

1. Army Courses
2. Army MOS's
3. Navy
4. Air Force, Coast Guard, Department of Defense, Marine Corps

American Council on Education, One Dupont Circle, Washington, DC 20036-1193

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1 Army Courses

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

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THE CHAIRMAN, JOINT CHIEFS OF STAFF
WASHINGTON D C 20318

5 October 1990

Dear Service Member,

I support the DOD policy of providing postsecondary education opportunities for all active duty and Reserve Service members. I strongly advise you to take advantage of the voluntary education program to catch up with your education before you leave the military. The Military Services need well-trained, educated people. Your pursuit of higher education will not only enhance your military job performance and chance for promotion, but will also improve your job opportunities when you return to civilian life.

The Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education, describes how you can receive college credits for your military training and experience and is widely recognized by the colleges and universities that grant credit for this training and experience. This guide is available for your reference at your base or post Education Center.

A number of programs are available through education centers on military installations, including courses taught in the classroom, independent study, testing of all kinds, and education guidance. Take advantage of these resources and educational programs during your military tour, and continue to use educational and Montgomery GI Bill benefits when you return to civilian life.

I wish you good luck and success in pursuit of your educational goals.

Sincerely,

COLIN L. POWELL
Chairman
Joint Chiefs of Staff

CE

1 Army Courses

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

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Foreword

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in military life. ACE has worked cooperatively with the Department of Defense and the armed services in assisting hundreds of thousands of service men and women to achieve recognition for their learning. The long-term success of the *Guide* evaluation system for military training has resulted in its serving as a model for the evaluation of programs offered by other noncollegiate organizations, including business, industry, government agencies, voluntary and professional associations, and labor unions. These formalized efforts to evaluate noncollegiate-sponsored programs enable students to combine their extrainstitutional learning with study at postsecondary institutions to achieve degree-related educational objectives. Not only is this sound educational practice, it is also an efficient use of educational resources and an incentive for the persons affected to undertake further study.

Special recognition must be paid to hundreds of individuals who have served as evaluators and the many educational institutions, professional and disciplinary associations, and the apprenticeship training community for their wholehearted cooperation in this endeavor. Without their support and assistance, the *Guide* would not have been possible. We are greatly indebted to them.

Once again, we are pleased to commend this work to you in your continuing work with service men and women and veterans.

ROBERT H. ATWELL
President
American Council on Education

How to Find and Use Course Exhibits

This volume contains recommendations for formal courses offered by the Army, Army Reserve, and Army National Guard that have been evaluated through June 1990.

The instructions that follow provide a step-by-step procedure for finding and using the exhibits and recommendations. Readers unfamiliar with the ACE evaluation procedures should read Appendix A. Additional information on using the *Guide* and awarding credit is provided in the Questions and Answers section.

Step 1

Have the applicant complete a Request for Course Recommendation form.

A Request for Course Recommendation form appears at the back of this volume. It may be reproduced and should always be filled out by the applicant, using the information provided on official and personal records, as well as the applicant's own knowledge of the service course. *Applicants should not refer to the* ***Guide*** *while completing the form.* (See questions 5, 8 and 10 in Questions and Answers.)

Step 2

Verify course completion from military records.

It is the responsibility of the school official to verify course completion. The following military records are normally used to verify successful completion of course requirements:

1. AARTS Transcript, Army/ACE Registry Transcript Service. This transcript may be used to document military training and experience—available to Army enlisted active-duty personnel and veterans who entered the service on or after October 1, 1981 by writing to: AARTS Operations Center, Ft. Leavenworth, KS 66027-5073. (See question 29 in Questions and Answers.) DA Form 5454R Request for Army/American Council on Education Transcript may be found in Appendix B and may be duplicated as necessary.
2. DD Form 295, Application for the Evaluation of Educational Experiences During Military Service or Application for the Evaluation of Learning Experiences During Military Service—available to active-duty service personnel from military education officers. (Form must be certified by an authorized commissioned officer or his/her designee in order to be official.)
3. DD Form 214, Armed Forces of the United States Report of Transfer or Discharge—available to veterans, together with other in-service training records, from the General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132.
4. Course Completion Certificates—may be used to complement other records or when service courses are not recorded on official records.

If these records are not available, see question 14 in the Questions and Answers section for alternative forms of verification. (See questions 2, 4, 14 and 16 in Questions and Answers.)

The following steps refer to a course exhibit. See sample course exhibit, page xi.

Step 3

Find the course exhibit by identifying the American Council on Education (ACE) ID number in the Course Number Index or the Keyword Index.

A. *Course Number Index.* All available military course numbers are listed in the Course Number Index in alphanumeric sequence. If the applicant's military course number cannot be located in the Course Number Index, search for the course title in the Keyword Index.

B. *Keyword Index.* Identify all possible keywords within a formal course title. For example, the keywords in the title "Ground Radio Communications Equipment Technician" are *Ground, Radio, Communications,* and *Equipment.* Find one or all of those keywords in the Keyword Index and search the listing under the keyword for the course title. *If the title cannot be found under one keyword, search all other possible keywords.*

C. *Identify ACE ID number.* When the title or military course number has been located, note the corresponding ACE ID number. This number refers to the course exhibit's location in the *Guide.* The two-letter prefix refers to the specific service, i.e., AR = Army. ACE ID numbers are presented in numeric sequence. (See question 3 in Questions and Answers.)

Step 4

Match the course-identifying information with the corresponding data in the course exhibit.

Course-identifying information includes the official military title, military course number, length of course, dates of attendance, location, etc., and is provided by the applicant on the Request for Course Recommendation form. When the course exhibit consists of multiple versions, determine which version applies to the applicant's course by considering exhibit dates and course length. (See questions 7, 8, 10 and 18 in Questions and Answers.) **It is important to match all items.**

Step 5

Read the course description.

Consideration should be given not only to the amount of credit and to the subject area, but also to the course objectives, or learning outcomes, and instruction which are part of the course exhibit. (See question 9 in Questions and Answers.) These portions of the exhibit outline the course content and scope and also provide essential information about the nature of the course. (See question 15 in Questions and Answers.) This information will help you determine the appropriate placement of credit for each individual student within the requirements and programs at your institution.

Step 6

Award credit as appropriate.

Users are free to modify the credit recommendations in accordance with institutional policy and the educational goals of each individual applicant. (See questions 22, 23, 24 and 25 in Questions and Answers.)

Step 7

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

Whenever problems arise and assistance is desired, you may submit a properly completed Request for Course Recommendation form (questions 6, 7, 8 and 10) to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036–1193
ATTN: Military Evaluations
(202) 939-9470

Sample Course Exhibit

ID Number. A number assigned by ACE to identify each course

Military Course Number. The number(s) assigned to the course by the military. Listed by version, if applicable

Learning Outcomes. The skills, knowledge, and competencies the student is expected to achieve upon completion of a course. Previously evaluated courses have objectives. (See question 9.)

Instruction. Description of instruction, including teaching methods, facilities, equipment, major subject areas covered

Related Occupational Codes. A cross reference to related MOS exhibits. Officials awarding credit for a course and an MOS should compare the exhibit for the course with that for the MOS before awarding credit

AR-1715-0669

FIXED COMMUNICATIONS SECURITY (COMSEC) EQUIPMENT REPAIR

Course Number: *Version 1:* 160-29F10. *Version 2:* 160-29F10. *Version 3:* 160-29F10/160-29F10 (ST)

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 15–16 weeks (562 hours). *Version 2:* 19–23 weeks (699–808 hours). *Version 3:* 23–24 weeks (903 hours).

Exhibit Dates: *Version 1:* 1/89–Present. *Version 2:* 10/87–12/88. *Version 3:* 10/85–9/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will identify series, parallel and series/parallel DC circuits and determine values of resistance, voltage, and current in the circuits; comprehend AC circuit concepts including frequency, phase and reactance; solder and desolder wire to various types of electronic terminals; and perform limited maintenance on communications security equipment. *Version 2:* Upon completion of the course the student will be able to perform simple circuit analysis of DC and transistor circuits and be able to connect and test these circuits; be able to perform limited maintenance on various types of COMSEC equipment; be able to troubleshoot secure communications terminals. *Version 3:* Upon completion of the course the student will be able to perform simple circuit analysis . . .

Instruction: *Version 1:* Classroom and practical exercises on topics in DC and AC circuits, soldering techniques, and on the specific equipment. *Version 2:* Lectures and performance exercises in DC/AC circuits and in operation and maintenance of COMSEC equipment. Strong emphasis is placed on limited maintenance of secure communications equipment. Soldering techniques are covered. *Version 3:* Lectures and performance exercises in DC/AC circuits . . .

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 1 in basic electronics laboratory, and 1 in electronic systems troubleshooting and maintenance (7/89). *Version 2:* In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, and 1 in solid state electronics (6/88). *Version 3:* In the vocational certificate category, . . .

Related Occupation Codes: 29F.

Important: The appropriate course version can be found by using the course title and number, its length, exhibit dates, and location.

Course Version Numbers and Titles. Version 1 is the most recent. If course has only one version, version number is omitted throughout exhibit.

Location. By version. The service school, military installation, state and continent if applicable.

Length. The length of the course in weeks, with contact hours in parentheses.

Exhibit Dates. By version. The start and end dates, by month and year. Date of course materials when the course was first evaluated. "Present" denotes publication. Cut-off for this edition of the *Guide* (6/90).

Credit Recommendation. By version. Given in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. Expressed in semester hours. (See Appendix A for detailed explanation of credit categories.)

Evaluation Date. Date when the credit recommendation was established. Month and year are given in parentheses following each recommendation.

Questions and Answers

This section is designed to answer questions that may arise about using the **Guide** *and awarding credit.*

1

Which learning experiences have been evaluated for the Army?

Formal courses offered by the active Army, Army Reserve, and Army National Guard are all eligible to be evaluated. They are contained in this volume. In addition, Army Military Occupational Specialties (MOS's) have been evaluated. See Volume 2 for information and credit recommendations.

2

An applicant at my institution has submitted a DD Form 214 that lists abbreviated course titles which I cannot decipher. The form does not contain enough information for me to find the courses in the *Guide*. What should I do?

Military records often provide insufficient information for civilian education officials to properly identify courses. For that reason, The Center has designed the Request for Course Recommendation form, which can be used to supplement records. Applicants for credit should be responsible for interpreting the information on their records and presenting the data in readable form. You may also use course completion certificates and other training records to verify entries on the DD Forms 214 and 295. It is recommended that you automatically require students to complete the Request for Course Recommendation form. Then, if you need help, authorize the form and submit it to The Center. *No abbreviations please.*

3

When an applicant submits information on a number of courses completed, I can usually find exhibits for only some of the courses in the *Guide*. Am I doing something wrong?

The course evaluations done by The Center probably represent about 60 percent of the total number of courses offered by the armed services. The remaining 40 percent cannot be evaluated for one reason or another. In general, courses evaluated and published in the *Guide* are those offered on a full-time basis. After 1981 The Center began evaluation of courses that are 45 academic hours in length. Prior to that time, courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the courses had to include a minimum total of sixty contact hours of academic instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours. Another requirement for evaluation is that a course be formal as defined by the services, i.e., offered to meet servicewide training requirements and cited in the formal school listing for the service. This requirement generally excludes locally organized and command-level training programs, as well as courses offered on a one-time basis.

Very few correspondence courses are listed in the *Guide* because such programs were not evaluated until the mid-1970s. However, we have begun to evaluate selected correspondence courses. These courses will be listed in the Keyword Index under "Correspondence" for easy identification. One criterion for reviewing correspondence courses is the establishment of an ongoing proctored end-of-course examination program. In order to qualify for the credit recommendation in the *Guide*, students must present verification of successful completion of the proctored end-of-course examination for those courses offered by the Army Institute for Professional Development.

You will find no courses conducted prior to 1954 listed in this guide. You must always submit a Request for Course Recommendation form to this office for assistance with courses taken from the 1940s up until 1954. When in doubt about the availability of an evaluation for any service course, contact the Advisory Service by telephone or by submitting a Request for Course Recommendation form.

Keep in mind that the *Guide* is constantly being updated. New courses evaluated after the publication date may be found in the *Handbook* or you my submit a Request for Course Recommendation form.

4

I understand many military records were destroyed in a fire at the General Services Administration a number of years ago. What should I do if the applicant's military records were among those destroyed?

Many records were reclaimed or reconstructed and are now available. In addition, the applicant's copies of certificates may be used in lieu of records destroyed in the GSA fire.

5

May I submit a Request for Course Recommendation form that the student has filled out with information from the *Guide?*

A form filled out by a student who copies information from the *Guide* cannot be used by the Advisory Service staff for research purposes because that information only duplicates published data. One of the purposes of the Request for Course Recommendation form is to secure information about a course from students, ideally through official records, but also from their personal knowledge or memory of the course. With this firsthand information, you may find the correct course exhibit in the *Guide*. If you cannot find it, you may send the request form to the Advisory Service.

The Center staff can then use this additional information to search its extensive files for matching information. When students attempt to identify a course taken years ago by extracting *current* titles or course numbers from the *Guide*, they may in fact be identifying a *similar* course but not the one they took. Therefore, a form filled out with material copied from the *Guide* can be misleading and can seriously handicap the research staff. *Only accurate and verified information is to be submitted.*

6

Who should send in the Request for Course Recommendation form?

The form should be completed by the applicant and authorized by you, the institution official or military representative. Credit recommendations will be forwarded to you only when you authorize us to do so. While we do provide credit recommendations to applicants upon receipt of their requests, we encourage them to apply through their schools. We do not normally send a credit recommendation to a college at the request of a student applicant or a military counselor.

7

Why is so much information needed on the Request for Course Recommendation form?

You cannot be sure that you have identified the correct exhibit in the *Guide* unless all the information on the form matches the corresponding items in the course exhibit. The course title, course number, name and location of the service school, and length of the course shown on the form should be identical to the information in the exhibit. In addition, the dates of attendance must fall within the exhibit dates. Credit recommendations are for *specific* courses; therefore, all items must be identical if a positive identification is to be made.

A complete and accurate form will also help the Advisory Service research the course.

8

What do I do when the information on the Request for Course Recommendation form does not exactly match the information in the course exhibit?

Send an authorized form to the Advisory Service. Send the form in yourself; do not give it to the student to submit. If just one item differs from that in the exhibit you have located (for example, "Length"), you should circle the item to bring it to the attention of the research staff. Send *copies* of military records only if you think they will provide useful additional information. If the staff cannot identify the course and supply a credit recommendation, you may still grant credit to the applicant by conducting your own assessment of the applicant's learning. (See question 24 for information about assessment techniques.)

9

I've come across a few exhibits with *Learning Outcomes* instead of *Objectives*. Why the change?

Institutions are increasingly using learning outcomes in their own course descriptions. To make it easier for institutional decision makers to compare competencies acquired in a military course to those competencies acquired in courses offered at their own institutions, the Military Evaluations program adopted this new format in courses evaluated since 1987.

The Council on Postsecondary Accreditation (COPA) and its Committee on Recognition (the committee which recognizes the various accrediting bodies in this country) are placing more emphasis on the use of learning outcomes. The committee expects recognized accrediting bodies to apply COPA's provision regarding the use of learning outcomes and their assessment.

10

How long does it take to receive a response if I submit a properly completed request form?

About three weeks for most requests, longer for those requiring extensive research. Every effort will be made to respond as quickly as possible. If you wish, you may call in requests; be sure to have all pertinent information (see question 7) available to give to the staff person.

11

The Course Number Index in the *Guide* contains Army course numbers that are eight digits long, but service records usually provide only a five-digit course number. How can I identify a course with a five-digit number?

The Army course numbering system consists of the three-digit DoD Enlisted Occupation Code followed by the Army five-digit Military Occupational Specialty (MOS) code. (See Volume 2 for information on Army MOS's.) Many service records, however, provide only the MOS code that relates to an Army course. To identify the correct course exhibit when you have only an MOS code, refer to the Conversion of Army Enlisted MOS's to DoD Enlisted Occupational Codes table at the back of this volume.

To use this table, you must identify the first three digits of the five-digit MOS code (e.g., the first three digits of MOS 35E20 are 35E). Look up the three-digit code (35E) in the table and find the corresponding DoD code (198). You now have the complete Army Course Number (198-35E20) and are able to use the Course Number Index.

12

I found the correct exhibit in my 1990 *Guide*, but under "Credit Recommendation" it says "Pending evaluation." My student cannot wait for the 1992 *Guide* to find out what credit she might receive. What should I do in such a case?

Staff members regularly schedule site evaluations. We publish evaluation locations and occupations in the office newsletter so that you may be aware of the availability of recommendations. In addition, colleges and military counselors on The Center and the military mailing list should receive updates for the *Handbook to the Guide*. These updates contain credit recommendations for courses and occupations evaluated since the 1990 *Guide*. When a course or occupation is listed as "Pending evaluation," and does not appear in the *Handbook*, you may call the office to find out if a credit recommendation is available or you may simply send in your authorized Request for Course Recommendation or Request for Army Enlisted and Warrant Officer MOS Exhibits form. The *Guide* system is constantly growing as courses and occupations are added to the data base.

13

The Keyword Index is somewhat confusing. Can you offer some tips on locating courses by title?

You can generally locate an exhibit by searching in the keyword index under the main words in the title. Generic terms such as "Repair," "Technician," and "Officer" are not keywords.

Some keywords may consist of two words. For example, "electronic warfare" and "field artillery" are keywords.

The computer's system of alphabetizing places abbreviations and acronyms at the end of a sequence. Numbers are arranged in the following sequence:

AN/TSQ-114
AN/TSQ-38
AN/TSQ-51
AN/TSQ-73

As you can see, 114 appears before 38 and letters alphabetize before numbers.

It is important to check under more than just one word if you cannot locate a course right away.

14

One of my students completed a formal military course but does not have a DD Form 295 or DD Form 214 because he was not on active-duty service. Can I grant credit for the course, and how can I verify that he actually completed the course?

We recommend that school officials use the DD 295 or DD 214 whenever it is available to verify successful completion of a service course. This suggestion is not intended to exclude those individuals who do not have access to the forms because the individuals were (1) on reserve status, (2) in the National Guard, or (3) civilians attending military courses. In such cases, we suggest that alternative forms of certification, such as course completion certificates or other acceptable records of training, be used to verify eligibility for credit.

Veterans may use *Request Pertaining to Military Records*, standard form 180, available from Veterans Administration offices to obtain records of their military training.

15

How can I get additional information about the courses in the *Guide*? Sometimes the descriptive material in the exhibit is not detailed enough for me to make a decision about granting credit. What do I do then?

With the exception of a few computer-taught or classified courses, The Center has the programs of instruction on file for most courses listed in the *Guide*. When necessary, the staff can provide the topic outline from the military syllabus; and when an entire program of instruction is needed, arrangements can be made to photocopy the complete syllabus. Please note that the credit recommendations are based on more information than that cited in the syllabus.

16

What are USAFI and DANTES? Can I grant credit for the courses and tests listed on an applicant's USAFI or DANTES military test reports?

USAFI was the United States Armed Forces Institute, which offered an extensive educational program to active-duty personnel. USAFI correspondence, seminar, and self-study courses, end-of-course tests, and Subject Standardized Tests (SSTs) were made available to service personnel worldwide until 1974, when USAFI was disestablished. Credit recommendations for USAFI courses and examinations may be found in the *Handbook to the Guide*.

Subsequently, the Defense Activity for Non-Traditional Education Support (DANTES) was established in 1974, and that agency continued the development and administration of Subject Standardized Tests and other educational services. The Center continues to recommend credit for USAFI offerings and DANTES SSTs.

Credit recommendations for DANTES SSTs are found in the *Handbook to the Guide*. In addition, detailed descriptions may be found in the *Guide to Educational Credit by Examination*, which can be purchased through ACE Publications.

In verifying completion of USAFI or DANTES courses or tests, the military test report should not be considered official. That report is given to all service personnel who have taken a course or test. To obtain official USAFI or DANTES transcripts, refer to the addresses provided in Appendix A, under "Other Recommendations."

17

What is the significance of the date which appears after each credit recommendation?

That date is called the "evaluation date" and represents the month and year the credit recommendation was established. Each time a course is evaluated, a date is provided to indicate when the course was last considered for a credit equivalency. The date tells you how recently a recommendation was established so that you can judge the currency of the credit recommended. This information is particularly useful in subject areas where "state of the art" is important in determining the applicability of credit. You can also use the evaluation date when your institution has established a "statute of limitations" for acceptance of transfer credit. The date is provided purely for your information; do not confuse the date with exhibit dates.

18

An applicant completed a course in 1973, but the *Guide* exhibit dates are 5/74 to Present. Should I grant credit based on the *Guide*?

The exhibit dates shown in the *Guide* indicate the time period for which The Center has information on the course. The course may have been offered for several years prior to the exhibit "start" date, but since the service branch did not submit information on the course during that time period, we are not able to backdate the exhibit to cover it. If you can be reasonably sure, from other information provided by the applicants (length, course content description), that their course was the same or similar to the course listed in the *Guide*, then you may want to grant credit based on the *Guide* recommendation. If the applicant's course was a number of weeks longer or shorter than the one covered in the *Guide* exhibit, you may be able to grant credit based on a comparison of the applicant's information with the descriptive information in the *Guide*. The Center encourages you to conduct your own assessment of courses for which no credit recommendation is available. (See question 24 for information about assessment techniques.) The Center staff may be able to provide you with military formal school catalog course descriptions for periods of time outside the exhibit dates. This should help you determine whether you might apply the credit listed in the *Guide* exhibit based on your own comparison.

19

We have received a transcript from a military service school listing semester credits and carrying the statement that the school is accredited by one of the six regional accrediting associations. How do we handle this?

At this time we know of no military schools that are accredited above the certificate level other than the following: Community College of the Air Force, which is accredited at the two-year community college level; Army Command and Staff College at Fort Leavenworth, Kansas, which is accredited to grant an M.A. degree; Air Force Institute of Technology at Wright-Patterson Air Force Base, Ohio, which is accredited through the doctoral level; Defense Intelligence College, Washington, DC, accredited to grant an M.A. degree; Naval Postgraduate School, Monterey, CA, accredited through the doctoral level; Uniformed Service University of the Health Sciences School of Medicine, Bethesda, MD, accredited through the doctoral level; and, of course, the Service Academies.

We recommend that you handle the certificate-level credit listings in accordance with your institutional policy regarding certificate-level credit.

20

I have looked up several courses and MOS's for one applicant. It appears that a lot of the recommended credit is in the same subject area. How can I avoid granting too much or duplicate credit to this person? Also, if I grant credit for a course, should I also grant credit for the MOS?

You may grant credit for any combination of learning experiences. In doing so, however, you must be alert to the possibility of overlapping credit recommendations. When the person is applying for credit for more than one learning experience, the recommendations might cover some of the same learning. In such cases, awarding a simple total of the recommended credits could result in the award of more credit than the learning merits. Credit recommendations may overlap between (1) related courses, (2) courses and related MOS's, (3) related enlisted MOS's, and (4) enlisted and warrant officer MOS's. The

MOS and course exhibits contain information that will assist you in identifying cases of duplication.

1. *Course recommendations* will overlap when the individual has participated in several military courses in the same subject area and at the same level.

2. *Course recommendations and MOS recommendations* will overlap when the individual has acquired his or her proficiency, or a significant portion of it, through completion of one or more formal service school courses. That is, some formal courses are MOS-producing; successful completion of the course leads to the award of a specific MOS. Other courses often supplement on-the-job training and work experience and are clearly related to the skills, competencies, and knowledge required for proficiency in an MOS. Related MOS's include those awarded upon completion of the course, those required as a prerequisite to the course, and those for which the course is supplementary.

3. *Enlisted MOS recommendations* will overlap when the soldier or veteran has held two or more MOS's that require related qualifications and the performance of related or similar duties. MOS's in the same career management field or subfield are probably related. You may also encounter overlap in the apprenticeship recommendations for two or more enlisted MOS's. You may wish to evaluate the individual's proficiency by performance examination before awarding advanced standing in an apprentice training program or waiving apprenticeship requirements.

4. *Enlisted and warrant officer MOS recommendations* will probably overlap because most warrant officers progress through the enlisted ranks, in enlisted MOS's directly related to warrant officer positions. Related MOS's are noted in the "Career Pattern" item in warrant officer MOS exhibits.

To reconcile overlapping credit recommendations, compare the descriptions and recommendations for all courses and/or MOS's and interview the soldier or veteran to obtain additional information. When the learning outcomes, courses in which credits are recommended, and the number of credits recommended for a given course or subject are the same or very similar, there is overlap, and you should modify the credit recommendations to avoid granting duplicate credit. To determine how much credit without duplication may be awarded to an individual who has completed a number of courses and held a number of MOS's, use the following steps:

1. Identify Army MOS's held and formal courses completed by the individual from the official military records the individual provides.
2. Locate all pertinent and available MOS exhibits and course exhibits in the *Guide*, and note the "Related Occupation Codes" listed in the course exhibit.
3. For enlisted MOS's, locate the correct skill level within each enlisted MOS exhibit; for courses, locate the correct version within each course exhibit.
4. Read and compare all the descriptions.
5. On the basis of the person's program of study, identify the appropriate recommendations in each exhibit.
6. Read and compare all the pertinent recommendations. It may be helpful to list the amount of credit and the subject areas of each recommendation.
7. If necessary, obtain additional information from the individual through interview or further assessment.
8. When the nature and extent of the individual's learning has been identified, refer to all pertinent recommendations and make decisions on how much credit may be awarded without duplication. Credit should be awarded as appropriate to the educational goals of the individual and the institution's policy.

If you cannot determine whether duplication exists, write to the Advisory Service.

21

Why does the MOS I just looked up have more credit recommended than the course that leads to it?

It is rare for the subject matter covered in a course to perfectly coincide with the learning represented by occupational proficiency. In most cases, there is quite a difference in scope: a difference in the subject matter mastered by the learner and, when the subject matter is the same, a difference in the depth and breadth of the learning.

Usually the scope of a course is narrower than that of the job. Most Army courses are designed to prepare the soldier to be able to function on the job or to take on additional tasks. As such, the courses normally provide entry-level occupational skills and competencies. However, successful performance in an MOS is predicated on the additional factor of job experience and/or extensive self-instruction.

Enlisted and warrant officer MOS's related to courses are listed in the course exhibit item "Related Occupation Codes" in Army course exhibits. A related MOS may be one that is awarded upon completion of the course, one for which the course is supplementary, or one which is required as a prerequisite to the course. Therefore, this item in the course exhibit tells you that there is a relationship—a likelihood of overlapping credit recommendations—between the MOS and the course. The term "overlapping" connotes that at least part of the learning represented by the MOS is the same as that for the course; therefore, some of the credits recommended may duplicate each other. A suggested procedure for resolving duplication is given in the answer to question 20.

22

When credit is recommended in more than one category, what should I do?

Credit has frequently been recommended in more than one category. One reason for multiple-category recommendations is that the scope of a given MOS or course reflects learning in several subject fields at different levels of complexity. The learning outcomes acquired in a course or MOS in one subject field may apply to courses normally included in lower-division baccalaureate/associate degree programs, while those in another subject field may apply to courses normally included in upper-division baccalaureate programs. Another reason for multiple-category recommendations is that learning in a given subject field can be applied to courses and programs of study encompassed by more than one of the categories. That is, learning in business, for example, may apply to the vocational certificate category and to the lower-division baccalaureate category. A thorough reading of the exhibit will help you to determine which category is the best for you to apply. You will need to read the exhibit and compare learning outcomes achieved and course objectives and content with those of your own institution.

In the first instance—learning in several subject fields—the recommended credits may be added as long as all the subjects are applicable to the student's program of study at your institution.

> *Example A:*
>
> In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/75).

In Example A, up to 5 semester hours may be awarded if they apply to the student's program: 1 in communication skills, 1 in principles of management, and 3 in personnel management.

In the second instance—learning in a given subject field that is applied to two or more categories—the recommended credits probably should not be added. You will have to determine how they apply to the student's program of study at your institution.

> *Example B:*
>
> In the vocational certificate category, 15 semester hours in electricity or electronics. In the lower-division baccalaureate/associate degree category, 10 semester hours in electricity or electronics. In the upper-division baccalaureate category, 5 semester hours in electricity or electronics (6/75).

In Example B, to determine how many credits to award, compare the information in the exhibit description with the desired outcomes of electricity or electronics or related courses and programs of study at your institution. Award credit based on comparison of these outcomes.

In the third instance—a combination of Examples A and B—you may combine the credit categories when the subject areas are different, but should not add subject areas with the same title.

> *Example C:*
>
> In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in management (11/75).

The 3 semester hours in office management recommended in the lower-division baccalaureate/associate degree category and the 3 in office management recommended in the upper-division baccalaureate category should not be combined for a total of 6. Eight semester hours might be granted if they apply to the student's program: 3 in typing, 3 in office management, and 2 for field experience in management. The evaluators have described the course content, and using that description from the course exhibit, you must determine the appropriate application of the credit recommendation.

All three examples are from early evaluations. In recent evaluations, evaluators place the credit in a given subject area in the highest, most appropriate, category. If credit is placed in more than one category, specific subjects will be cited. For example, if credit in the lower division is in personnel supervision, credit in the upper division might be in human resource management.

As a general rule, you should read the course description or the MOS summary and skill level descriptions, and then award credit as it best applies to the student's program of study, as determined through academic counseling.

Credit may be applied to a student's program in various ways: (1) applied to the major to replace a required course, (2) applied as an optional course within the major, (3) applied as a general elective, (4) applied to meet basic degree requirements, or (5) applied to waive a prerequisite. Credit granted by a postsecondary institution will depend on institutional policies and degree requirements.

For additional help in this area, see the Model Policy on page xxvii.

23

Do I have to grant credit *exactly* as it appears in the recommendation?

No. You are under no obligation to grant credit, although most colleges do recognize learning that occurs in a military setting. The use of ACE recommendations is the prerogative of education officials and employers. The recommendations are provided to assist you in assessing the applicability of military learning experiences to a student's educational program or occupation.

You may modify the recommendations in accordance with your institution's policies and practices.

You should keep in mind that the recommendations are advisory and are designed as a tool for use in giving due recognition to individuals for their learning experiences in the armed services. You should also keep in mind that the learning of some service personnel may exceed the skills, competencies, and knowledge evaluated for a specific course or MOS. In these cases, you may wish to conduct further assessment. (See question 24 for information about assessment techniques.)

24

May I conduct my own assessment of an applicant's learning?

Yes. In a sense, you are *always* conducting your own assessment, even when you use the recommendations in this book. The *Guide* is one of many tools you can use to assess what an applicant has learned and how that learning can be applied to a specific program of study at your institution. When you cannot find a recommendation in the *Guide* or cannot obtain one from the Advisory Service, we encourage you to use other means to assess what the person has learned.

There is a wide variety of assessment techniques that you can use, e.g., written examinations, oral examinations, faculty committee assessment, evaluation of materials supplied by the applicant, personal interviews, performance tests, and standardized examinations such as CLEP. A combination of several techniques will usually result in a reliable assessment of the person's learning.

You may learn more about assessment techniques through the publications of the Council for Adult and Experiential Learning (CAEL). Their publications may be purchased from CAEL, 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606 (312-922-5909).

The *ACE Guide Series* now comprises this *Guide* and companion volumes, *The National Guide to Educational Credit for Training Programs* (which lists recommendations for courses offered by business and industry, government agencies, professional and voluntary associations, and labor unions), and the *Guide to Educational Credit by Examination* (which provides descriptions and credit recommendations for nationally recognized testing programs). This *Guide* and the *National Guide* may be purchased through Macmillan Professional Books Division, Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022 (800-257-5755). The *Guide to Educational Credit by Examination* is available from ACE Publications.

25

Should a two-year college use only the lower-division credit recommendations? And, should a four-year college use only upper-division credit recommendations?

Not necessarily. Evaluators are instructed to be as general as possible. That is, they place a course recommendation in the category in which it is *generally* taught at most institutions. If your institution teaches a given course at a different level, you are encouraged to grant the credit at that level.

Depending on the recommendation, the programs of study available at the institution, and the objectives of the student, all types of institutions can use any or *all* of the four categories used in the *Guide*, namely the vocational certificate category, the lower-division baccalaureate/associate degree category, the upper-division baccalaureate category, and the graduate degree category. Evaluators now place credit recommendations in the highest appropriate credit category. Please read "Categories of Credit" in Appendix A. (See also questions 20, 21, 22, 23, 24 and 27.)

26

When will The Center begin evaluating overseas courses?

We have. Starting in 1981 selected courses offered by the Seventh Army Combined Arms Training Center and held in Bad Toelz, Vilseck, Munich, Pirmasens, and Zweibruecken, West Germany, have been evaluated. Future evaluation visits to Europe are planned.

27

I am an employer. How will the *Guide* be useful to me?

As an employer, you may find the exhibits helpful when hiring and placing veterans in jobs. The recommendations and descriptions enable you to compare a veteran's training and experience with the qualifications and requirements for jobs. The recommendations relate learning to postsecondary courses and curricula and, in some cases, to apprentice training programs.

28

What is the *Handbook to the Guide to the Evaluation of Educational Experiences in the Armed Services?*

The *Handbook to the Guide* was designed to keep institutional and military representatives up to date on the activities of ACE and The Center as well as to provide credit recommendations for courses and occupations evaluated since the latest *Guide* was printed. Revisions are mailed to military education personnel and civilian institutions. Sections most likely to be revised are those on exams, other aids, and evaluation updates.

29

I have heard that active duty Army personnel may obtain a transcript containing a servicemember's military training and educational experiences while in the Army. Is this true?

Yes. An Army/ACE Registry System (AARTS) transcript is available to active duty enlisted personnel and veterans who entered the service on/after October 1, 1981. The transcript will document courses, Military Occupational Specialties (MOS's) held, Skill Qualification Test (SQT) scores, and college-level standardized test results with descriptions and American Council on Education (ACE) credit recommendations.

The servicemembers can obtain a request form (DA Form 5454-R) from their local education center office, the *Guide*, or *The Handbook*, or send a request directly to: AARTS Operations Center, Ft. Leavenworth, KS 66027-5073. There is no charge for the transcript. (Please see Appendix B for a sample transcript and a sample request form.) The request form may be duplicated as necessary.

30

Why don't all courses taken by a soldier or a veteran while on active duty in the Army appear on the AARTS transcript?

Automation of military course completion records began in 1984. As a result you may find omissions in the military course completion section of the transcript. ACE has determined that transcript omissions are permissable based on results of their survey of college registrars. When information is missing from AARTS transcripts, soldiers should use DD Form 295 and veterans should use DD Form 214 to supplement transcripts.

31

What distinguishes an official AARTS transcript from an unofficial issuance?

An official AARTS transcript has the phrase "institutional copy" printed at the top of each page of the transcript. When a soldier or veteran requests that a transcript be sent to a particular college or university, entry of that institution's "FICE code" alerts the system to automatically print "institutional copy" on the transcript pages. This procedure was recommended by the committee of college registrars who have advised AARTS since the initial development of the transcript registry. Transcripts going to soldiers, veterans, education center counselors or employers do not contain the phrase "institutional copy." For soldiers applying for admission to colleges and universities prior to their transition from active duty, AARTS transcripts included in the Admissions Packet from the United States Army Continuing Education System are not official transcripts. They are provided for information and initial planning purposes only. You should have the soldier request that an official transcript be sent to your institution to meet your established time requirements.

32

An Army student I'm counseling has taken an Air Force course. It's not in Volume 4 of the *Guide*. What should I do?

Anyone attending an Air Force school or course can obtain a Community College of the Air Force (CCAF) transcript which documents that training if the school or course is recognized by CCAF for credit. The transcript may be used to request transfer of credit to another institution or otherwise document college credit, since non-Air Force personnel cannot enroll in CCAF. CCAF does not award credit for all Air Force courses, but only those regularly attended by Air Force enlisted personnel and taught by CCAF-affiliated schools.

A CCAF transcript may be obtained by sending a completed AF Form 2099 or a brief letter requesting transcript service to CCAF/RRRA, Maxwell Air Force Base, AL 36112-6655. A certificate of training must accompany the request. DD Form 214 is not acceptable. Specify the type of transcript (personal or official) and the address to which the transcript is to be mailed. Provide full name, social security number, and ensure that the person whose transcript is requested signs the form. The transcripts are free. Official transcripts will be mailed only to institutions.

33

I've found exhibits for most enlisted occupations, but not for the Air Force and Marine Corps. How come?

The student may write to the Community College of the Air Force (CCAF) to obtain a transcript which will include credit for the AFSCs held, reported as internship. The student should write to CCAF/RRRA, Office of the Registrar, Maxwell AFB, AL 36112–6655.

Marine Corps MOS recommendations are included in the 1990 *Guide*. Recent evaluations have been conducted for MOS's in the aircraft maintenance and avionics occupational fields. The exhibits begin on page 4-1 in volume 4. Refer to How to Find and Use Marine Corps MOS Exhibits and Appendix A (both in volume 4) for information on the Marine Corps MOS system.

If you are not already receiving the newsletter, write to the Editor, Update, The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036–1193.

Awarding Credit for Extrainstitutional Learning

The following statement by the ACE Commission on Educational Credit and Credentials
has been approved by the ACE Board of Directors
and endorsed by the Council on Postsecondary Accreditation.

The American Council on Education recommends that postsecondary education institutions develop policies and procedures for measuring and awarding credit for learning attained outside their sponsorship.[1]

American society abounds in resources for learning at the postsecondary level. Public, private, and proprietary education institutions exercise the central but not exclusive responsibility for instruction and learning. Associations, business, government, industry, the military, and unions sponsor formal instruction. In addition, independent study and reading, work experiences, the mass media, and social interaction contribute to learning and competency.

Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning:

- Educational credentials have a significant bearing on the economic, professional, and social status of the individual. Thus, social equity requires that equivalent learning, regardless of where and how it is achieved, be incorporated into the system of rewards for learning and competency.
- Recognition encourages learning and contributes to pedagogical effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

In the development of institutional policies and procedures, the American Council on Education recommends the following guidelines and resources.

Guidelines

1.

Reliable and valid evaluation of student achievement is the sine qua non in awarding credit. Experience, whether acquired at work, in social settings, in the library, at home, or in the formal classroom, is in itself an inadequate basis for awarding credit. Increased attention in choosing evaluation procedures and techniques and more thorough evaluation are necessary when learning has been attained without participation in a program of study prescribed by an educational institution and offered by its faculty.

2.

In determining whether it is appropriate to accept a student's extrainstitutional learning for credit, the governing considerations should be its applicability to the student's program of study, including graduation requirements, and the relationship of the learning to the institution's mission, curricula and standards for student achievement. Learning should be articulated, documented and measured in these terms.

3.

Institutions should evaluate extrainstitutional learning only in subject-matter fields in which they have or can arrange for faculty expertise or where they can rely on nationally validated examinations or other procedures for establishing credit equivalencies. Institutions should award credit in these areas only if the quality of learning meets their standards for student achievement. Normally, institutions should evaluate learning and award credit only in subject fields in which they offer courses or curricula. However, if the acquisition of college level learning outcomes has been demonstrated in an area not taught by the institution, but related to the student's program of study, an exception may and ought to be made.

4.

Institutions awarding credit for extrainstitutional learning should develop clearly stated policies regarding administrative responsibility, student eligibility, means of assessment, recording of results on transcripts, storage of documentation, student fees, and maximum number of credits allowable. Information on these and related institutional policies and procedures should be disseminated to students and faculty for maximum awareness and utilization.

5.

Institutional policy should include provision that the institution's policies and procedures for awarding credit for extrainstitutional learning should be subject to periodic reevaluation.

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[1] "Extrainstitutional learning" is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and unions.

Resources

1\.

Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education and available from Macmillan Publishing Company.

2\.

The National Guide to Educational Credit for Training Programs, published by the American Council on Education and available from Macmillan Publishing Company.

3\.

Credentialing Educational Accomplishment, edited by Jerry W. Miller and Olive Mills, published by the American Council on Education and available from Macmillan Publishing Company.

4\.

Guide to Educational Credit by Examination, published by the American Council on Education and available from ACE Publications.

5\.

Publications of the Council for Adult and Experiential Learning, 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606.

Transfer and Award of Credit

The following set of guidelines was developed by the three national associations whose member institutions are directly involved in the transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation. The need for such a statement came from an awareness of the growing complexity of transfer policies and practices, which have been brought about, in part, by the changing contours of postsecondary education. With increasing frequency, students are pursuing their education in a variety of institutional and extrainstitutional settings. Social equity and the intelligent use of resources require that validated learning be recognized wherever it takes place.

The statement is intended to serve as a guide for institutions developing or reviewing policies dealing with transfer and award of credit. The statement is under periodic review by the three associations, and reactions to it would, of course, be welcome. Comments may be directed to Henry Spille, Vice President, ACE, and Director, The Center for Adult Learning and Educational Credentials.

Robert H. Atwell, President
American Council on Education

This statement is directed to institutions of postsecondary education and others concerned with the transfer of academic credit among institutions and award of academic credit for extrainstitutional learning. Basic to this statement is the principle that each institution is responsible for determining its own policies and practices with regard to the transfer and award of credit. Institutions are encouraged to review their policies and practices periodically to assure that they accomplish the institutions' objectives and that they function in a manner that is fair and equitable to students. Any statements, this one or others referred to, should be used as guides, not as substitutes, for institutional policies and practices.

Transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extrainstitutional learning, as well as transfer between institutions and curricula with similar characteristics. As their personal circumstances and educational objectives change, students seek to have their learning, wherever and however attained, recognized by institutions where they enroll for further study. It is important for reasons of social equity and educational effectiveness, as well as the wise use of resources, for all institutions to develop reasonable and definitive policies and procedures for acceptance of transfer credit. Such policies and procedures should provide maximum consideration for the individual student who has changed institutions or objectives. It is the receiving institution's responsibility to provide reasonable and definitive policies and procedures for determining a student's knowledge in required subject areas. All institutions have a responsibility to furnish transcripts and other documents necessary for a receiving institution to judge the quality and quantity of students' work. Institutions also have a responsibility to advise the students that the work **reflected** on the transcript **may or may not** be accepted by a receiving institution.

INTERINSTITUTIONAL TRANSFER OF CREDIT

Transfer of credit from one institution to another involves at least three considerations:

(1) the educational quality of the institution from which the student transfers

(2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution

(3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.

Accredited Institutions

Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Users of accreditation are urged to give careful attention to the accreditation conferred by accrediting bodies recognized by the Council on Postsecondary Accreditation (COPA). COPA has a formal process of recognition which requires that all accrediting bodies so recognized must meet the same standards. Under these standards, COPA has recognized a number of accrediting bodies, including:

(1) regional accrediting commissions (which historically accredited the more traditional colleges and universities but which now accredit proprietary, vocational-technical, and single-purpose institutions as well)

(2) national accrediting bodies that accredit various kinds of specialized institutions

(3) certain professional organizations that accredit freestanding professional schools, in addition to programs within multipurpose institutions (COPA annually publishes a list of recognized accrediting bodies, as well as a directory of institutions accredited by these organizations).

Although accrediting agencies vary in the ways they are organized and in their statements of scope and mission, all accrediting bodies that meet COPA's standards for recognition function to assure that the institutions or programs they accredit have met generally accepted minimum standards for accreditation.

Accreditation affords reason for confidence in an institution's or a program's purposes, in the appropriateness of its resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals, insofar as these things can be judged. Accreditation speaks to the probability, but does not guarantee, that students have met acceptable standards of educational accomplishment.

Comparability and Applicability

Comparability of the nature, content, and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by the receiving institution are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from catalogues and other materials and from direct contact between knowledgeable and experienced faculty and staff at both the receiving and sending institutions. When such considerations as comparability and appropriateness of credit are satisfied, however, the receiving institution should have reasonable confidence that students from accredited institutions are qualified to undertake the receiving institution's educational program.

Admissions and Degree Purposes

At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may accept previous work, place a credit value on it, and enter it on the transcript. However, that previous work, because of its nature and not its inherent quality, may be determined to have no applicability to a specific degree to be pursued by the student.

Institutions have a responsibility to make this distinction, and its implications, clear to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind. Institutions also should make every reasonable effort to reduce the gap between credits accepted and credits applied toward an educational credential.

Unaccredited Institutions

Institutions of postsecondary education that are not accredited by COPA-recognized accrediting bodies may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards. That being the case, students transferring from such institutions may encounter special problems in gaining acceptance and transferring credits to accredited institutions. Institutions admitting students from unaccredited institutions should take special steps to validate credits previously earned.

Foreign Institutions

In most cases, foreign institutions are chartered and authorized by their national governments, usually through a ministry of education. Although this policy provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to voluntary accreditation. The Division of Higher Education of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is engaged in a project to develop international compacts for the acceptance of educational credentials. At the operational level, four organizations—the Council on International Educational Exchange (CIEE), the National Council on the Evaluation of Foreign Student Credentials (CEC), the National Association for Foreign Student Admissions (NAFSA), and the National Liaison Committee on Foreign Student Admissions (NLC)—often can assist institutions by distributing general guidelines on admission and placement of foreign students. Equivalency or placement recommendations are to be evaluated in terms of the programs and policies of the individual receiving institution.

VALIDATION OF EXTRAINSTITUTIONAL AND EXPERIENTIAL LEARNING FOR TRANSFER PURPOSES

Transfer-of-credit policies should encompass educational accomplishment attained in extrainstitutional settings as well as at accredited postsecondary institutions. In deciding on the award of credit for extrainstitutional learning, institutions will find the services of the American Council on Education's Center for Adult Learning and Educational Credentials helpful. One of The Center's functions is to operate and foster programs to determine credit equivalencies for various modes of extrainstitutional learning. The Center maintains evaluation programs for formally structured courses offered by the military, and civilian noncollegiate sponsors such as business, corporations, government agencies, and labor unions. Evaluation services are also available for examination programs, for occupations with validated job proficiency evaluation

systems, and for correspondence courses offered by schools accredited by the National Home Study Council. The results are published in a Guide series. Another resource is the General Education Development (GED) Testing Program, which provides a means for assessing high school equivalency.

For learning that has not been validated through the ACE formal credit recommendations process or through credit-by-examination programs, institutions are urged to explore the Council for Adult and Experiential Learning (CAEL) procedures and processes.

USES OF THIS STATEMENT

This statement has been endorsed by the three national associations most concerned with practices in the area of transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation.

Institutions are encouraged to use this statement as a basis for discussions in developing or reviewing institutional policies with regard to transfer. If the statement reflects an institution's policies, that institution might want to use this publication to inform faculty, staff, and students.

It is recommended that accrediting bodies reflect the essential precepts of this statement in their criteria.

Approved by the Executive Committee, American Association of Collegiate Registrars and Admissions Officers
November 21, 1978 and reaffirmed in 1989.

Approved by the American Council on Education/Commission on Educational Credit and Credentials
December 5, 1978 and reaffirmed in 1989.

Approved by the COPA Board
October 10, 1978

Elements of a Model Policy on Awarding Credit for Extrainstitutional Learning

Extrainstitutional learning is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary education institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military and unions.

I. Example Statement of General Policy

Degree credit shall be awarded for postsecondary-level extrainstitutional learning. Such credit awards shall be made under protocols designed to assure that reliable and valid measures of learning outcomes are or have been applied.

Rationale

Adult students are demanding that their learning acquired in extrainstitutional settings be assessed and that appropriate degree-related credit be awarded. This is a reasonable request and also one in keeping with the national interest. Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning.

American society abounds in resources for learning at the postsecondary level. Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials accordingly have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

Educational credentials have a significant bearing on the economic, professional, and social status of the individual. It follows that social equity requires that equivalent learning regardless of where and how it is achieved be incorporated into the system of rewards for learning and competency. Recognition encourages learning and contributes to teaching effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Through reliable and valid assessment of extrainstitutional learning, more persons can be enabled to enter college and work successfully toward degrees and other academic goals. Many of these individuals are those who have been educationally disadvantaged in the past.

II. Example Policy for Administrative Responsibility

Responsibility for administering policies and procedures for awarding credit for extrainstitutional learning rests with the Academic Vice President (or other designated senior academic official).

Rationale

Awarding credit is an academic matter. Therefore, administrative responsibility for the policies and procedures pertaining to awarding credit for extrainstitutional learning should be assigned to the institution's senior academic official. Policy implementation and application may be delegated to other institutional officials such as deans, department chairpersons, and registrars. However, oversight of their policy implementation and application is performed by a senior academic official.

Example of Application of the Policy

The academic vice president delegates to the institutional registrar the responsibility for transcripting credit awarded on the basis of recommendations in the ACE Guides (the policy was approved through the institution's usual governance procedures) and provides the registrar with guidelines for performing this responsibility. Included in the guidelines are a series of steps to follow in determining how to apply the ACE credit recommended for a course whose title is not the same as the title of any course offered by the institution.

The ACE *Guide* recommends 3 semester hours in automotive maintenance, but the institution's courses are more specific and carry titles such as Tune-Up I, Auto Brakes, and Automatic Transmission I. In accordance with the guidelines, the registrar compares course descriptions in the institution's catalog with the course description in the *Guide*, finds that the learning outcomes acquired through Tune-Up I match very closely the learning outcomes acquired through the military's automotive maintenance course, and transcripts 3 semester hours in Tune-Up I.

III. Example Policy on Learning That Will Be Evaluated and Who Will Conduct the Evaluations

Extrainstitutional learning related to subject areas, courses and programs of study will be evaluated for registered students. Established institutional evaluation procedures will be followed, using one or more of the authorized publications and methods for effecting assessment. Students of any age may apply for credit for extrainstitutional learning at any time during a period of enrollment.

Rationale

The learning that is evaluated must be in subject areas in which faculty expertise is available or in which expertise can be arranged. This expertise is essential for conducting evaluations and making credit-award decisions. If subject-matter experts do not conduct the evaluations and make the decisions, the credibility of the activity is suspect.

While the great majority of students requesting credit for extrainstitutional learning will be of relatively mature years, it is possible that "young students" may have acquired learning in extrainstitutional settings. Providing a student can document the attainment of appropriate learning outcomes, he or she should receive credit regardless of age. While most applications for award of extrainstitutional learning credit will be received at the time of enrollment from new students, it is possible that students already enrolled may realize that they, too, have extrainstitutional learning experiences that might qualify for credit awards. It is also possible that enrolled students, especially those who are employed, will continue to learn in noncollegiate settings, and will want their learning assessed. Student initiatives with respect to extrainstitutional learning assessment shall not be limited or restricted to the initial term of enrollment.

Example of Application of the Policy

A 19-year old student has been enrolled at Local College for two years and is about to enter her junior year. At the time of enrollment, it did not occur to her that the foreign language requirement might be satisfied with a language other than one of those taught at the institution. This student's parents were refugees from Hungary who entered the United States in 1958. The Hungarian language is spoken in the home and the student speaks the language fluently. The student is able to document to the satisfaction of the institution's language faculty, through evaluation done by a person in the community fluent in Hungarian, that she is, indeed, proficient in Hungarian. She received 6 credits in Hungarian that satisfy the foreign language requirement for the bachelor's degree.

IV. Example Policy on Publications and Methods for Use in Awarding Credit for Extrainstitutional Learning

Nine publications and methods are permitted for use in awarding credit for extrainstitutional learning. These publications and methods are: (1) ACE *Guide to the Evaluation of Educational Experiences in the Armed Services*, (2) ACE *National Guide to Educational Credit for Training Programs*, (3) ACE *Guide to Educational Credit by Examination*, (4) New York Regents *Guide to Educational Programs in Noncollegiate Organizations*, (5) College Entrance Examination Board Advanced Placement Program (CEEB/AP), (6) department challenge examinations and/or faculty end-of-course examinations, (7) degree-relevant extrainstitutional learning credit awarded and transcripted by other accredited institutions, as well as that credit transcripted by ACE on the Army/ACE Registry Transcript System (AARTS) and the Registry of Credit Recommendations (ROCR), (8) subject-matter experts who are not members of the institution's faculty but who evaluate extrainstitutional learning at the faculty's request, and (9) individual portfolios using Council for Adult and Experiential Learning (CAEL) or other standardized guidelines.

In addition, advice on using other publications and methods for awarding credit for extrainstitutional learning may be sought from the American Council on Education.

Rationale

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in the military. More recently, the *National Guide to Educational Credit for Training Programs* and the *Guide to Educational Credit by Examination* have attained similar stature. ACE has worked cooperatively with the Department of Defense, the armed services, business, industry, labor unions, other organizations providing education and training, and test publishers, as well as with accredited colleges and universities in developing the credit recommendations presented in the *Guide* series. All recommendations carried are the result of careful and periodic review by evaluation teams that consist of university and college faculty members who are subject-matter experts. All evaluation teams work under policies and procedures approved by the ACE Commission on Educational Credit and Credentials and under protocols and supervision provided by the staff of the ACE Center for Adult Learning and Educational Credentials.

The policies and procedures used to develop the exhibits in the New York Regents *Guide to Educational Programs in Noncollegiate Organizations* are similar to those used by the American Council on Education.

The CEEB/AP program permits high school students to demonstrate the attainment of college-level learning outcomes; the important factor is that learning outcomes are attained, not where the learning took place (in a high school) or who taught the course (usually a high school teacher).

The practice of administering departmental or individual faculty member challenge examinations or end-of-course examinations is long-standing and permits the faculty members to make direct judgements about the equivalence of learning for specific courses.

Credit transcripted on the basis of extrainstitutional learning should be treated the same as that transcripted for courses; in both instances the faculty of the sending institution has attested to the student's attainment of required learning outcomes. Credit transcripted on ACE's Army/ACE Registry Transcript System (AARTS) and Registry of Credit Recommendations (ROCR) for the Army component of the Military Evaluations Program and participants in the Program on Noncollegiate Sponsored Instruction (PONSI) should also be treated as that transcripted for courses; in these instances, teams of fac-

ulty members from accredited colleges and universities have evaluated the learning and judged its equivalence to learning acquired on campuses.

Sometimes the expertise to evaluate extrainstitutional learning is not available on the faculty; in these instances, the faculty can designate an expert to conduct the evaluation. Criteria for selection of "outside" experts should be established.

The portfolio assessment guidelines promulgated by CAEL are widely accepted by faculty assessors and are considered exemplary. The portfolio provides a reliable method for evaluating learning outcomes acquired individually, as opposed to a set of learning outcomes acquired by large numbers of persons, such as through a course offered by the U.S. Army for soldiers.

Example of Application of the Policy

A student (soldier), upon entering Local College, provides an AARTS transcript that confirms completion of a course entitled "Advanced Geodetic Surveyor" at the Engineer School, Ft. Belvoir, Virginia, in October 1981, while holding the rank of sergeant in the U.S. Army. Information on the transcript and in the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services* indicates that the soldier completed this course when it was taught at Ft. Belvoir between January 1977 and November 1983. Its objectives were to train warrant officers and senior noncommissioned officers in advanced geodetic survey techniques. The course was delivered by means of lectures and practical exercises in advanced geodetic surveying techniques including map compiling, vertical and horizontal control surveys, gravity, astronomic observations, and mathematics. The *Guide* recommends that a college or university award 6 semester hours in geodesy at the upper-division baccalaureate level; this recommendation also appears on the AARTS transcript. After review of this recommendation, Local College awards this student 6 semester hours of credit in geodesy toward completion of a planned major in mathematics.

V. Example Policy on Maximum Number of Credits That May Be Awarded for Extrainstitutional Learning

The maximum number of credits that may be awarded for extrainstitutional learning is three-fourths the number required for a degree.

Rationale

Most postsecondary education institutions have a requirement that stipulates that a minimum of one-fourth of the credits required for a degree must be earned in residence. The balance of the required credits could be awarded on the basis of extrainstitutional learning. However, the credits awarded for extrainstitutional learning and those earned in residence would have to satisfy all degree requirements before a degree could be awarded. In the absence of a residency requirement, all degree requirements conceivably could be met through extrainstitutional learning.

Example of Application of the Policy

John Smith is a newly registered student at Local College. He is a financial vice president of a major U.S. corporation, CPA, and licensed realtor; he is fluent in three foreign languages—German, French, and Spanish; he has published seven articles in domestic and foreign journals and has contributed chapters in two books on international economics; he is knowledgeable about foreign countries and cultures as a result of having lived abroad for eleven years; and he is proficient in computer programming (COBOL and FORTRAN).

On the basis of Mr. Smith's demonstrated knowledge, skills, and competencies, the faculty awarded him 106 credits. The college requires 124 credits for a degree and has a 24 credit residency requirement. Therefore, Mr. Smith must earn 24 credits in residence. What courses does he take to earn 24 credits? His academic advisers decided, and Mr. Smith concurred, that he lacked knowledge about the environment, a special focus and thrust of the college's general education requirement. He took courses to satisfy this requirement and was awarded a degree.

VI. Example Policy on Recording Credits Awarded for Extrainstitutional Learning on Transcripts

The credit awarded for extrainstitutional learning shall be transcripted in the same manner as credits awarded for course completions.

Rationale

The faculty members have either evaluated the learning or approved the other means by which credit can be awarded. They have verified that learning has occurred and is equivalent to the learning acquired in their courses and programs. Therefore, special notation or differentiation of courses and credits awarded on the basis of extrainstitutional learning is unnecessary.

Example of the Application of the Policy

Examples of the way in which Mr. Smith's credit was transcripted are:

Accounting 261	—Financial Information Systems—3 semester hours
Accounting 360	—Financial Reporting Theory and Practice—3 semester hours
Computer Science 251	—Principles of Programming—FORTRAN—4 semester hours
Computer Science 252	—Principles of Programming—COBOL—4 semester hours
German 101	—Elementary German—4 semester hours
German 201	—Intermediate German—4 semester hours
German 309	—Advanced Conversation—3 semester hours

VII. Example Policy on Retention of the Documentation of Extrainstitutional Learning

Documents used to verify the award of credit for extrainstitutional learning shall be retained for one calendar year.

Rationale

The length of time documentation for the credits awarded for extrainstitutional learning shall be retained should be consistent with the length of time documentation for credits awarded for classroom learning are retained. Consistency facilitates equitable handling of student documents and represents sound recordkeeping practices.

Example of Application of the Policy

Local College keeps students' final exams on file for one calendar year, after which they are shredded. Mr. Smith's documentation—copies of articles and chapters he authored, copies of his computer programs, notes and summaries of interviews faculty members had with him, etc.—were kept on file for one calendar year and were then shredded.

VIII. Student Fees for Assessing Extrainstitutional Learning

A fee for the assessment of extrainstitutional learning shall be charged.

Rationale

Assessing extrainstitutional learning, transcripting the credits awarded, etc., are valuable services to students. These services require faculty and staff time. Students should therefore pay a fee for these services just as they pay fees for other institutional services.

Example of Application of the Policy

The fee for assessing extrainstitutional learning and transcripting the results at Local College is based on its average hourly salaries for various faculty ranks (assistant professor, professor, etc.) and administrative positions plus the costs for benefits and administrative services which are computed as percentages of salaries. The average hourly salaries are multiplied by the amount of time spent in performing the evaluation and administrative functions, rounded up to the half-hour. The fee for assessing Mr. Smith's extrainstitutional learning and transcripting the results was $880.

IX. Example Policy on Oversight of the "Program"/Activity

An Oversight Committee, broadly representative of the institution's divisions/departments, shall be appointed (by the "program" administrator or through the institution's usual means of appointing committees). The major function of this committee is to review the credit award decisions to assure consistency across the institution.

Rationale

To protect the integrity and credibility of the activity, consistency is absolutely necessary. If either the faculty or the students perceive that credit awards are made capriciously, their confidence in the activity will be lost. When this occurs, the activity will no longer be viable.

Example Application of the Policy

The Oversight Committee detected that, when a faculty evaluation team for portfolio assessment was comprised of three specific faculty members, the credit awards seemed overly "generous." The Oversight Committee recommended to the administrator that these three faculty members not comprise a team. The administrator discussed the credit-award information with the three faculty members, and they agreed with the Oversight Committee's recommendation, which was then implemented.

X. Example Policy on "Program" Evaluation

The "program" for assessing extrainstitutional learning shall be evaluated on an annual basis by the academic vice-president or his designee(s).

Rationale

It is sound administrative practice to evaluate "programs" on a regular basis to determine if "program" objectives are being met. It is especially important to evaluate new "programs" so that problems are detected early on and changes can be made, if necessary. Evaluation should probably be done jointly by "program" staff and the staff of the Office of Institutional Research.

Example of Application of the Policy

At Local College, responsibility for "program" evaluation is assigned to the Office of Institutional Research, but the Office involves the "program" staff. "Program" evaluation includes but is not limited to, an indepth look at the academic performance of students who have received credit for extrainstitutional learning. Recent data showed that their overall performance, in terms of GPA, was higher than that of the student body as a whole; the average number of credits carried each semester was equivalent to the average number carried by the student body as a whole; they were enrolled in all academic departments of the college, etc. Credit awards were examined by age categories and by assessment instrument used. This information was useful to the college faculty and administrators in deciding to continue the "program."

Course Exhibits

AR

AR-0101-0001

DOD Pest Management

Course Number: 6H-F12/323-F12.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2-3 weeks (89-136 hours).

Exhibit Dates: 10/77-1/88.

Objectives: To prepare individuals in general and special pest management.

Instruction: Lectures and practical exercises in pest management including fertilization programs, classification and mode of action herbicides, biology and control of weeds, and natural resources conservation programs. Students completing the course are eligible to take the certification examination in their specialized area of pest control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in agricultural pest management; for those students completing the herbicide certification, an additional 1 credit in herbicide management; for those completing the pest management certification, an additional 3 credits in agricultural pest management (8/79).

AR-0102-0001

Army Medical Department (AMEDD) Officer Orientation (VC)

Course Number: 6-8-C21(VC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 6 weeks (234-253 hours).

Exhibit Dates: *Version 1:* 6/79-6/87. *Version 2:* 2/79-5/79.

Objectives: To provide veterinary officers with the necessary skills and techniques to supervise subordinate personnel in the performance of all military veterinary activities.

Instruction: *Version 1:* Conferences, demonstrations, and practical exercises in food technology, food hygiene, safety and quality assurance. *Version 2:* Conferences and practical exercises in general administration; meat and waterfood technology, including inspection of meats; dairy and poultry science, including inspection, identification, and evaluation of milk products; surveillance inspections; preventative veterinary medicine; and sanitation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in food technology and 4 in food purchasing (product characteristics, grading and inspection) (9/85). *Version 2:* In the graduate degree category, 4 semester hours in general administration, 4 in the field of veterinary science (8/79).

AR-0102-0002

Animal Care Specialist
(Veterinary Specialist)

Course Number: *Version 1:* 321-91T10. *Version 2:* 321-91T10. *Version 3:* 321-91T20.

Location: Walter Reed Institute of Research, Washington, DC.

Length: *Version 1:* 9 weeks (354 hours). *Version 2:* 9 weeks (313 hours). *Version 3:* 8 weeks (290-302 hours).

Exhibit Dates: *Version 1:* 1/84-8/89. *Version 2:* 10/79-12/83. *Version 3:* 3/67-9/79.

Objectives: To provide enlisted personnel with a general and working knowledge of the basic principles and techniques of animal care, management, and treatment, to enable them to assist the veterinary officer.

Instruction: *Version 1:* Lectures and clinical practicum in laboratory procedures including preparation of solutions and administration of drugs; anatomy and physiology; pathology; animal diseases including parasitology; handling, care and treatment of animals; surgical procedures including anesthesia; and radiological techniques. Course includes public health education. *Version 2:* Lectures and clinical practicum in laboratory procedures including preparation of solutions and administration of drugs; anatomy and physiology; pathology; animal diseases including parasitology; handling, care and treatment of animals; surgical procedures including anesthesia; and radiological techniques. *Version 3:* Lectures and clinical practicum in laboratory procedures; anatomy and physiology; veterinary pathology; diseases of the systems; handling, care and treatment of animals; surgical procedures; and veterinary diseases.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 10 semester hours in veterinary science/technology or 10 in animal science/technology or 10 in laboratory animal technology and, in addition to the above, 4 in clinical practicum (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in veterinary science/technology or 8 in animal science/technology or 8 in laboratary animal technology, and in addition to the above, 4 in clinical practicum (9/80). *Version 3:* In the lower-division baccalaureate/associate degree category, 4 semester hours in basic veterinary science and 2 in clinical practicum (6/75).

Related Occupation Codes: 91T.

AR-0102-0003

1. Installation Veterinary Services
2. Installation Veterinary Activities

Course Number: 6G-F3/321-F3; 6G-F3; 321-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (79-80 hours).

Exhibit Dates: *Version 1:* 4/85-Present. *Version 2:* 5/77-3/85.

Objectives: To provide selected officers and enlisted personnel with training to supervise veterinary activities.

Instruction: *Version 1:* Conferences, demonstrations, discussions and practical exercises in administration, meat and seafood technology and quality assurance, veterinary preventive medicine and surveillance inspections. *Version 2:* Lectures and practical exercises in administration, meat and waterfood technology and quality assurance, surveillance inspections and veterinary preventative medicine.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in administration, 1 in food technology and 1 in food inspection procedures (9/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in administration, 1 in food technology, 1 in inspection procedures, 1 in veterinary preventative medicine (8/79).

Related Occupation Codes: 91R.

AR-0102-0004

Biometrics in Research and Epidemiology
(Veterinary Officer Statistics and Epidemiology)

Course Number: 6G-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (126 hours).

Exhibit Dates: 4/78-1/88.

Objectives: To enable veterinary officers to perform statistical analysis, design experiments and analyze epidemiological data to the degree that they can present and interpret epidemiological problems.

Instruction: Instruction and practical exercises in statistics, including probability, distribution, limit theorem and sampling, hypothesis testing, analysis of variance, regressive and Chi theorem and nonparamedic statistics. Principles of epidemiology are also discussed including data interpretation, strategies, variances, investigative techniques and experimental design.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in statistics, 3 in epidemiology (8/79).

AR-0102-0005

Advanced Animal Care Specialist

Course Number: 321-91T30.

Location: Walter Reed Institute of Research, Washington, DC.

Length: 10 weeks (331-348 hours).

Exhibit Dates: 1/83-Present.

Objectives: To provide veterinary animal care specialists training in administration, advanced medical skills, and preventive medicine aspects of community health. Emphasis will be given to leadership situations involving practical problems of administrative control in animal disease prevention and control facilities.

Instruction: Lectures, practical exercises, and examinations in administration and public relations, pathogenesis and management of disease, public health and preventive medicine, emergency medicine, surgery and anesthesia, diagnostic procedures, parasitology, laboratory animals in research, and equine medicine and husbandry.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in administration, 1 in preventive medicine (6/88); in the upper-division baccalaureate category, 6 semester hours in veterinary science/technology or 6 in animal science/technology or 6 in animal laboratory technology (6/88).

AR-0102-0006

AMEDD MEDICAL DEPARTMENT OFFICER BASIC ORIENTATION (VC)

Course Number: 6-8-C21 (VC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 6 weeks (208 hours).

Exhibit Dates: 6/87-12/88.

Learning Outcomes: Upon completion of the course the student will be able to apply acquired skills to supervise subordinate personnel in performance of military veterinary activities.

Instruction: Conferences and practical exercises in general administration, food technology/hygiene, dairy and poultry sciences, meat inspection, surveillance inspection, and sanitation.

Credit Recommendation: In the graduate degree category, 4 semester hours in administration and 4 in veterinary science (4/88).

AR-0102-0007

ANIMAL CARE SPECIALIST

Course Number: 321-91T10.

Location: Academy of Health Sciences Ft. San Houston, TX.

Length: 9 weeks (331 hours).

Exhibit Dates: 9/89–Present.

Learning Outcomes: Upon completion of the course, the specialist is expected to gain a knowledge of the basic principles and techniques of animal care, disease preventive; recognition of disease states, diagnostic laboratory procedures and treatment methods so as to enable them to assist the veterinary medical officer.

Instruction: Course consists of lecture, laboratory exercises and demonstration covering the basic services related to animal structure and function, pathology, elementary pharmacology, animal handling and care and diagnositic laboratory procedures. Clinical components include radiological techniques, anesthesiology and surgical procedures and public health education.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours veterinary science/technician, animal sciences, or laboratory animal science (3/90).

AR-0104-0001

1. VETERINARY FOOD INSPECTION SPECIALIST ADVANCED
2. VETERINARY SPECIALIST
3. VETERINARY SPECIALIST
4. FOOD INSPECTION PROCEDURES ADVANCED
5. FOOD INSPECTION ADVANCED

Course Number: *Version 1:* 321-91R20. *Version 2:* 321-91R20. *Version 3:* 321-91R20. *Version 4:* 321-91R20; 8-R-934.2. *Version 5:* 8-E-37.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 2:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 3:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 4:* Medical Department Veterinary School, Chicago, IL; *Version 5:* Medical Department Veterinary School, Ft. Sam Houston,TX.

Length: *Version 1:* 9 weeks (344-348 hours). *Version 2:* 8-9 weeks (337 hours). *Version 3:* 10 weeks (340 hours). *Version 4:* 10–16 weeks (440-704 hours). *Version 5:* 24 weeks (1056 hours).

Exhibit Dates: *Version 1:* 6/83–Present. *Version 2:* 6/79–5/83. *Version 3:* 4/76–5/79. *Version 4:* 3/58–3/76. *Version 5:* 2/56–2/58.

Objectives: To provide food inspection specialists with a working knowledge of advanced procedures and techniques of food hygiene, safety and quality assurance inspections in order to supervise subordinate personnel.

Instruction: *Version 1:* Conferences, practical exercises and demonstrations of the procedures and techniques of food inspection including principles of sanitation, facility inspections, and quality assurance techniques for produce, dairy, meat, poultry and seafood products. *Version 2:* Conference, demonstration, discussion and practical exercises in procedures and techniques of food inspection, including applied chemistry and microbiology; processing, handling, and inspecting dairy, poultry, and meat products; food-borne illness; inspection of food storage and food processing facilities; detection, salvage, and disposition of deteriorated subsistence items. *Version 3:* Lectures and practical exercises in procedures and techniques of food inspection, including applied chemistry and microbiology; processing, handling, and inspecting dairy, poultry, and meat products; inspection of food storage and food processing facilities; detection, salvage, and decontamination of foods exposed to chemical, biological, or radiological contaminants. *Version 4:* Lectures and practical exercises in procedures and techniques of food inspection, including applied chemistry and microbiology; processing, handling, and inspecting dairy, poultry, and meat products; inspection of food storage and food processing facilities; detection, salvage, and decontamination of foods exposed to chemical, biological, or radiological contaminants. *Version 5:* Lectures and practical exercises in procedures and techniques of food inspection, including applied chemistry and microbiology; processing, handling, and inspecting dairy, poultry, and meat products; inspection of food storage and food processing facilities; detection, salvage, and decontamination of foods exposed to chemical, biological or radiological contaminants.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food sanitation, 6 in food service and product inspection and 1 in administration (8/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in inspection procedures and regulations (5/82); in the upper-division baccalaureate category, 6 semester hours in food science, 3 in veterinary preventive medicine (5/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 9 semester hours in food science, 6 in inspection procedures and regulations, 2 in veterinary preventive medicine (6/77). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food science (2/74); in the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene, 3 in veterinary laboratory procedures (12/68). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food science (2/74); in the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene, 6 in veterinary laboratory procedures (12/68).

Related Occupation Codes: 91R.

AR-0104-0002

1. VETERINARY FOOD INSPECTION SPECIALIST
   (Veterinary Specialist Basic)
2. FOOD INSPECTION PROCEDURES BASIC
   (Food Inspection)

Course Number: *All Versions:* 321-91R10. *Version 2:* 8-E-2; 8-R-934.1.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 2:* Medical Department Veterinary School (Medical Service Meat and Dairy Hygiene School), Chicago, IL; Medical Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 8 weeks (279-352 hours). *Version 2:* 8–10 weeks (275-440 hours).

Exhibit Dates: *Version 1:* 6/76–Present. *Version 2:* 2/56–5/76.

Objectives: To provide food handlers with the necessary skills to perform food hygiene, safety and basic quality assurance inspection techniques under supervision.

Instruction: *Version 1:* Conferences, demonstrations and practical exercises in administration, food technology and inspection, and veterinary preventive medicine so that when given applicable documents, inspection equipment and raw materials for meat, dairy products, poultry and waterfood, students perform appropriate component, process or end item inspection; conduct surveillance inspections for a variety of fresh fruits and vegetables; perform product wholesomeness inspection and detect unsanitary conditions in food handling facilities. *Version 2:* Lectures and practical exercises in the fundamentals of food inspection techniques, including detection and reporting of sanitary defects, field and surveillance inspection, and contract administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in administration, 4 in meat and waterfood technology, 3 in dairy and poultry science, 3 in food inspection techniques, 1 in veterinary preventive medicine (3/87). *Version 2:* In the vocational certificate category, 3 semester hours in food inspection (2/74).

Related Occupation Codes: 91R.

AR-0104-0003

MEAT PLANT MANAGEMENT

Course Number: 10-E-6.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (352 hours).

Exhibit Dates: 9/54–12/56.

Objectives: To train meat cutters and food handlers to supervise the operation of a central meat plant or field butchery unit.

Instruction: Lectures in the basic principles of meat plant management, including types, classes, and grades of fresh meat and poultry; meat processing; personnel management and supervision; and modern plant organization and administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meat plant management (1/74); in the upper-division baccalaureate category, 3 semester hours in meat plant management (12/68).

AR-0104-0004

QUALITY AUDIT OF SUBSISTENCE

Course Number: 6G-F5/321-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 1 week (43 hours).

Exhibit Dates: 9/82–8/89.

Objectives: To provide selected veterinary personnel with training to insure uniform interpretation of policies and application of procedures when performing quality audits of subsistence.

Instruction: Demonstration, conferences and practical exercises in food technology, food hygiene, safety and equal by assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food technology (1/87).

AR-0104-0005

Veterinary Preventive Medicine and Food Inspection

Course Number: 6-G-3221.

Location: Medical Service Veterinary School, Chicago, IL.

Length: 8 weeks (364 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To provide veterinarians with a working knowledge of applied food hygiene and technology.

Instruction: Lectures in the fundamentals of applied food hygiene and technology, including contract administration, surveillance inspection, and food procurement, storage, and shipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

AR-0104-0006

Hospital Food Service Specialist Advanced

Course Number: 800-94F30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 7 weeks (273–284 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide training to selected personnel to apply administrative practices, nutrition and clerical dietetics principles, and food production and supply techniques to the management of patient food service. Individuals learn to perform administrative duties, provide nutritional care, and carry out financial management and supply tasks in the operation of a hospital food service operation.

Instruction: Conferences, practical exercises, and examinations in nutrition care and clinical dietetics principles, personnel management, administration and food production and supply management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in nutritional care, 3 semester hours in food production management, 1 semester hour in personnel management, 1 in administration (8/88).

Related Occupation Codes: 94F.

AR-0104-0008

1. Subsistence Officer
2. Subsistence Officer
3. Subsistence Officer
4. Subsistence Technology

Course Number: *Version 1:* 8D-4130. *Version 2:* 8D-4130. *Version 3:* 8D-4130; 10-G-4130. *Version 4:* 10-G-4130.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 13 weeks (452 hours). *Version 2:* 13 weeks (466 hours). *Version 3:* 18 weeks (642–660 hours). *Version 4:* 24 weeks (837–856 hours).

Exhibit Dates: *Version 1:* 1/74–6/85. *Version 2:* 6/70–12/73. *Version 3:* 7/63–5/70. *Version 4:* 1/60–6/63.

Objectives: To provide commissioned officers with a working knowledge of policies, principles, standards, technology, techniques, and procedures involved in management of the subsistence commodity.

Instruction: *All Versions:* Lectures and practical exercises in food science, food packaging and packing, meat products, water foods, dairy products and eggs, fresh and processed fruits and vegetables, and general products. *Version 1:* Includes personnel and food supply management, food science, food packaging, and the characteristics of various food types. *Version 3:* Includes subsistence management, marketing, and procurement. *Version 4:* Includes subsistence management, marketing, and procurement.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in food service management (6/75). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in institutional food management, 4 in general business, and 2 in applied science (7/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in institutional food management, 4 in business management, 3 in food marketing, and 2 in applied science (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in institutional food management, 6 in business management, 3 in food marketing, 3 in food preparation, 2 in nutrition, and 2 in applied science (12/68).

AR-0104-0009

Warrant Officer Food Inspection Technician Basic

Course Number: 6G-051A.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 6 weeks (237 hours).

Exhibit Dates: 2/82–11/88.

Objectives: To provide food inspection technicians with an appreciation of their responsibilities as warrant officers. Emphasis is placed on leadership problems, combined with practical experiences in the veterinary food inspection services.

Instruction: Conferences, practical exercises and seminars in military science, preventive medicine, health care administration, and veterinary medicine

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 2 in sanitation and 1 in medicine terminology (9/85).

AR-0104-0010

Veterinary Services Technician (Basic)

Course Number: 6G-640A(WO).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (98 hours).

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide at the organizational level: food inspection services including coordination and completion of applicable reports and records; assistance to public health officers and veterinarian in preventing and controlling zoonotic and foodborne diseases; and to perform inspections of food in the various categories in accordance to applicable contractual requirements. Emphasis is placed on leadership problems.

Instruction: Prerequisite courses required. Course consists of lectures, practicums and seminars in veterinary science food technology, public health and preventive medicine and health care administration.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in meat and dairy hygiene, and 2 in community health and hygiene (3/90).

AR-0104-0011

Veterinary Food Inspection Specialist (Basic) (Reserve Component) Phase II

Course Number: 321-91R10 (RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (69 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course, under the direction of a veterinarian medical officer, the specialist is expected to be able to independently provide inspection of food from several categories including: red meats, poultry and eggs, waterfood, dairy products, fresh fruits and vegetables. Acquired skills enable the specialist to perform these inspections from the standpoint of food hygiene, safety and quality assurance.

Instruction: Prerequisite courses required. This course consist of 29 hours conference, 12 hours in demonstration and 49 hours of practicum. Topics covered include: contracts and standards interpretation, deteriorative and adulterative changes in foods of various categories, inspection procedures for red meat, waterfoods, poultry and eggs and dairy products. Sampling techniques for bulk foods, inspection methods for meat byproducts and methods for decontamination of foods are presented.Facility inspection training is not included in this program.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food service (3/90).

AR-0202-0001

Graphics Documentation Specialist Basic Noncommissioned Officer (NCO)

Course Number: G3AZR23171-000.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (216 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to manage a graphics documentation team in providing visual information support services including Diazo overhead transparencies and computer graphics for presentation and publication purposes. Student will plan, supervise, and direct the operation of the graphics documentation team and the maintenance of the equipment.

Instruction: Lectures and practical exercises reinforced by application in a field operational test where the unit must plan and execute a move to support a military operation requiring visual information support for briefings, documentation and training. Course also includes a common core of leadership subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in graphics management (5/90). For credit for the common core see AR-1406-0090.

AR-0301-0001

Accounting

Course Number: 14-O-21.

Location: Finance School, Ft. Benjamin Harrison, IN.
Length: 17 weeks (600 hours).
Exhibit Dates: 8/56–6/57.
Objectives: To train finance officers in the principles of accounting.
Instruction: Lectures and practical exercises in the principles of accounting, including cost accounting, intermediate and advanced accounting, auditing theory, municipal and governmental accounting, and analysis of financial statements.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 14 semester hours in elementary through advanced accounting, 3 in cost accounting (7/74).

AR-0301-0002

Cost Estimating for Engineers

Course Number: None.
Location: Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.
Length: 2 weeks (69–73 hours).
Exhibit Dates: 7/72–1/88.
Objectives: To provide an understanding of cost estimating techniques and the analytical and statistical methods of predicting system costs.
Instruction: Lectures and practical exercises in the qualitative and quantitative techniques of cost estimating and analysis, and methods of developing cost estimates and evaluating uncertainties.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in cost analysis (12/73); in the graduate degree category, 1 semester hour in cost analysis (12/73).

AR-0306-0001

Reading Improvement

Course Number: 1-19-XQ-100.
Location: Military Police School, Ft. McClellan, AL.
Length: Self-paced 1–2 weeks (50 hours).
Exhibit Dates: 6/81–Present.
Objectives: To improve the student's ability to read more effectively by increasing both speed and comprehension rates.
Instruction: This is primarily a laboratory course using the Science Research Associates (SRA) conceptual approach to reading improvement through individualized programmed instruction, the student demonstrates progressive mastery of the multilevel power builder and rate builder reading programs.
Credit Recommendation: In the vocational certificate category, credit in reading improvement on the basis of institutional evaluation (3/82).

AR-0317-0001

Operations Research/Systems Analysis Executive

Course Number: 5A-F4.
Location: *Version 1:* Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S. *Version 2:* Management School, Ft. Belvoir, VA.
Length: *Version 1:* 4 weeks (153–159 hours). *Version 2:* 4–5 weeks (168–177 hours).
Exhibit Dates: *Version 1:* 1/73–1/88. *Version 2:* 9/67–12/72.
Objectives: To train officers in operations research and systems analysis methodologies.
Instruction: *All Versions:* Lectures and practical exercises in operations research and systems analysis methodologies, including economic analysis, concepts of games and strategy, calculus and algebra, mathematical models, model construction and analysis, statistics, decision theory, linear programming, dynamic programming, measures of effectiveness, effectiveness analysis, queuing theory, and human factors. *Version 1:* Includes risk analysis, communications, linear algebra, mathematical programming and applications, input/output analysis, reliability theory, network analysis and theory, sequencing, probability concepts and applications, experimental design, forecasting and statistical application to logistics. *Version 2:* Includes basic elements of automatic data processing.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in operations research (8/74); in the graduate degree category, 3 semester hours in operations research (8/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in operations research in the field of computer science (8/74).

AR-0317-0002

Operations Research Models and Techniques

Course Number: 5A-F1.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 4 weeks (157 hours).
Exhibit Dates: 7/75–4/86.
Objectives: To provide students with a working knowledge of, and an ability in, formulating and analyzing problems concerned with optimal allocation of resources, and to provide training in the use of probabilistic methods for solving managerial, scientific and engineering problems involving random processes. Emphasis is on practical field applications.
Instruction: Course is concerned with development of mathematical and probabilistic principles necessary to formulate and use operations research models. Topics include basic probability concepts, combinational analysis, distribution theory, generating function, birth and death processes, and statistical inference. Applications are made in the areas of sequential decisions processes, waiting lines, production processes, maintenance replacement, and competitive strategies. The application of mathematical programming techniques to the assignment problem, transportation problem, and network flow problems is made. Advanced mathematical concepts are described. Experience is gained in formulating problems for the computer.
Credit Recommendation: In the graduate degree category, 4 semester hours in operations research (11/76).

AR-0317-0003

Operations Research and Systems Analysis Familiarization
(ORSA Familiarization)
(Operations Research and Systems Analysis)

Course Number: ALM-64-0258.
Location: Army Logistics Management Center, Ft. Lee, VA; On-site, Continental U.S.
Length: Self-paced 2–3 weeks (80 hours).
Exhibit Dates: 6/80–Present.
Objectives: To provide an overview of quantitative methodologies used in statistical analysis, with emphasis on familiarization with basic operation research algorithms.
Instruction: Instruction consists of lecture-conferences and practical exercises covering a variety of statistical and operations research topics including probability sampling, deterministic and probabilistic modeling and programming, and cost and decision analysis.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in introduction to operations research (5/81).

AR-0317-0004

Special Correspondence Course for Management Review and Analysis Specialists

Course Number: 120.
Location: Army Institute for Professional Development, Ft. Eustis, VA.
Length: Maximum 156 weeks.
Exhibit Dates: 10/81–5/86.
Objectives: To provide selected personnel with a working knowledge of principles and procedures of management review and analysis of functional and organizational management.
Instruction: Instruction is through home study modules. This is a course in the principles and techniques of planning, programming, and budgeting with emphasis on quantitative analysis, work measurement and manpower management towards review analysis. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in operations research (1/81).

AR-0326-0001

Army Management
(Command Management)

Course Number: 900-G-F1; 400-O-2.
Location: Army Management School, Ft. Belvoir, VA; Command Management School, Ft. Belvoir, VA.
Length: 3 weeks (92–132 hours).
Exhibit Dates: 1/56–12/68.
Objectives: To train commissioned officers to manage military installations.
Instruction: Lectures and practical exercises in the management of a military installation. Course includes general management procedures, military management concerns, and executive practices.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management (7/74).

AR-0326-0002

Quartermaster Commodity

Course Number: 10-O-38.
Location: Quartermaster School, Ft. Lee, VA.
Length: 10 weeks (350 hours).
Exhibit Dates: 12/55–12/68.
Objectives: To provide commissioned officers with training in the nature and characteristics of the primary commodities procured, stored, and distributed by the Quartermaster Corps.
Instruction: Lectures and practical exercises in the nature and characteristics of the primary commodities procured, stored, and distributed by the Quartermaster Corps, including foods and food industries; petroleum products and industries; chemicals and

allied chemical industries; textile and apparel industries; laundry and dry cleaning; leather and shoe industries; embalming, funerals, and other-nation customs; metal industries; quartermaster inspection service; forest products industries; and quartermaster research and development.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in institutional management introduction (7/74); in the upper-division baccalaureate category, credit in institutional management introduction on the basis of institutional evaluation (12/68).

AR-0326-0003

1. Associate Logistics Executive Development
2. Associate Logistics Executive Development
3. Associate Logistics Executive Development
4. Associate Army Logistics Management

Course Number: *Version 1:* 8A-F19. *Version 2:* 8A-F19. *Version 3:* 8A-F19. *Version 4:* 8A-F5.

Location: Logistics Management Center, Ft. Lee, VA.

Length: *Version 1:* 10 weeks. *Version 2:* 10 weeks (350 hours). *Version 3:* 10 weeks (350 hours). *Version 4:* 8 weeks (284 hours).

Exhibit Dates: *Version 1:* 7/79–Present. *Version 2:* 12/76–6/79. *Version 3:* 12/70–11/76. *Version 4:* 10/67–11/70.

Objectives: To teach officers logistics management.

Instruction: *All Versions:* Lectures and practical exercises in logistics management, including management systems and development; inventory management; personnel management; financial management; statistical methods; maintenance management; logistical organization of the military; procurement; contract law, policies, and definitions; contract development and administration; depot operations management; containerization; distribution management; and maintenance economics. *Version 1:* Lecture conferences, cases, practical exercises, guest speakers, and field trips covering management principles, financial management, the acquisition process, assets management, economic and statistical principles, and logistics management. Note: Course is offered two weeks a year for five years. *Version 2:* Lecture conferences, cases, practical exercises, guest speakers, and field trips covering management principles, financial management, the acquisition process, assets management, economic and statistical principles, and logistics management. Note: Course is offered two weeks a year for five years. *Version 3:* Includes logistics planning, information systems, transportation services and disposal operations, mathematics, computer applications, systems analysis, international logistics, personnel support logistics, facilities management, and combat support operations. Note: Course is offered two weeks a year for five years. *Version 4:* Includes additional contract subjects and warehouse operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in general management, 4 in economic principles and decision making, and 6 in logistics management (12/76); in the graduate degree category, 3 semester hours in general management (12/76). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in general management, 4 in economic principles and decision making, and 6 in logistics management (12/76); in the graduate degree category, 3 semester hours in general management (12/76). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in general management electives on the basis of institutional evaluation (8/74); in the graduate degree category, 3 semester hours in general management electives on the basis of institutional evaluation (8/74). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in general management electives (8/74).

AR-0326-0004

1. Logistics Management Development
2. Army Integrated Materiel Systems Management
3. Army Integrated Materiel Systems Management

Course Number: *All Versions:* 8A-F16; ALM-66-0210.

Location: Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: *Version 1:* 4 weeks (148-150 hours). *Version 2:* 6 weeks (223 hours). *Version 3:* 6 weeks (223-225 hours).

Exhibit Dates: *Version 1:* 9/75–1/88. *Version 2:* 6/73–8/75. *Version 3:* 8/69–5/73.

Objectives: To provide military and civilian personnel with an overview of the Army wholesale logistics system and to develop their managerial skills.

Instruction: *Version 1:* Lectures, conferences, seminars, simulation exercises, and case studies. Topics include life-cycle material management, procurement, functional management of assets, information concepts for managers, management theory and decision making, quantitative techniques, working capital funds, and introduction to defense financial management. *Version 2:* Lectures and practical exercises in integrated materiel management systems and logistics management structures, including behavioral and management considerations, quantitative methods for economic analysis, management and systems engineering, automatic data processing systems and systems applications, financial management, procurement management, concept formation, contract definition and development, materiel life-cycle operations, and production and disposal. *Version 3:* Lectures and practical exercises in integrated materiel management systems and logistics management structures, including behavioral and management considerations, quantitative methods for economic analysis, management and systems engineering, automatic data processing systems and systems applications, financial management, procurement management, concept formation, contract definition and development, material life-cycle operations, and production and disposal.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in basic materiel systems management (12/75). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in materiel systems management (8/74); in the graduate degree category, 2 semester hours in materiel systems management (8/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in principles of management (8/74).

AR-0326-0005

Maintenance Management

Course Number: *All Versions:* 8A-F3. *Version 4:* 400-1-F4.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.

Length: *Version 1:* 4-5 weeks (148-176 hours). *Version 2:* 6 weeks (228 hours). *Version 3:* 6 weeks (227-228 hours). *Version 4:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 6/75-1/88. *Version 2:* 7/72-5/75. *Version 3:* 10/65-6/72. *Version 4:* 10/57-9/65.

Objectives: To train officers and warrant officers in maintenance management techniques.

Instruction: Lectures and practical exercises in maintenance systems management, including management development, supply functions, maintenance control, communications skills, human relations, programming and financial management, maintenance organization and policies, reporting, repair parts management, and production management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in production management (12/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in production management (8/74); in the upper-division baccalaureate category, 3 semester hours in production management (12/73); in the graduate degree category, 2 semester hours in production management (12/73). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68).

Related Occupation Codes: 421A; 441A; 630A; 631A; 632A; 310A; 521A; 621A; 214E; 241F; 214G; 222B; 251B; 223B; 223D; 251D; 224B; 500A; 561B; 561C; 561D; 561E; 510A; 562B; 562C; 562D; 562E.

AR-0326-0006

Defense Advanced Inventory Management

Course Number: 8B-F12.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 5 weeks (188 hours).

Exhibit Dates: *Version 1:* 7/72-12/75. *Version 2:* 10/67-6/72.

Objectives: To train inventory management officers in advanced inventory management.

Instruction: *All Versions:* Lectures and practical exercises in inventory management, including management relationships and philosophy, management of human resources, financial management and controls, management control techniques, inventory management, computer-assisted logistics management, and interface with procurement and maintenance. *Version 1:* Includes performance measurement for management control and computer-assisted industrial management. *Version 2:* Includes international logistics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in inventory management (8/74); in the graduate degree category, 2 semester hours in inventory management (8/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in inventory management (8/74).

AR-0326-0007

Logistics Support Design Management

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 5 weeks (263 hours).

Exhibit Dates: 7/72–6/75.

Objectives: To train officers to apply integrated logistics support management and system engineering techniques in all life-cycle phases.

Instruction: Lectures and practical exercises in the application of integrated logistics support management and system engineering techniques in all life-cycle phases, including new-item or system field actions and support, support and engineering interrelationships, mathematics and simulation support requirements, trade-off determinations and analyses, maintenance support planning, maintenance engineering analysis, and analytical techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial management (8/74); in the graduate degree category, 2 semester hours in industrial management (8/74).

AR-0326-0008

1. Army Depot Operations Management
2. Army Depot Operations Management
3. Defense Depot Operations Management
4. Defense Depot Operations Management

Course Number: *Version 1:* 8B-F10; ALM-42-0228. *Version 2:* 8B-F10. *Version 3:* 8B-F10. *Version 4:* 8B-F10A.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.

Length: *Version 1:* 4 weeks (156 hours). *Version 2:* 5 weeks (194 hours). *Version 3:* 6 weeks (229 hours). *Version 4:* 6 weeks (218 hours).

Exhibit Dates: *Version 1:* 6/80–Present. *Version 2:* 5/75–5/80. *Version 3:* 7/72–4/75. *Version 4:* 10/67–6/72.

Objectives: To teach officers and civilian personnel depot directorate-level management.

Instruction: *Version 1:* Instructional methods include lectures, case discussions, computer-assisted simulations, an oral project, field trips, written analysis, guided discussion, seminars, workshops, and presentations by guest speakers. Topics include the management of major depot functions of receipt, storage, care, preservation, distribution, and control of materiel. *Version 2:* Lecture-conferences, guest speakers, computer-assisted simulations, workshop, cases and field trip. Topics include depot operations management, general management and practices, automated logistics simulation, and procurement, maintenance, and disposal management. *Version 3:* Lectures and practical exercises in depot management, including management philosophy, management of human resources, scientific management and controls, financial management, computer-assisted simulations, automatic data processing systems, procurement management, property disposal management, maintenance management, transportation and traffic management, inventory, international logistics, distribution systems, receipt, storage, material handling, quality control, packaging, shipping, and installation management. *Version 4:* Lectures and practical exercises in depot management, including management philosophy, management of human resources, scientific management and controls, financial management, computer-assisted simulations, automatic data processing systems, procurement management, property disposal management, maintenance management, inventory, international logistics, distribution systems, receipt, storage, material handling, quality control, packaging, shipping, and installation management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in management of warehousing operations (5/81). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in supply depot management. *Version 3:* In the upper-division baccalaureate category, 6 semester hours in management of physical distribution (8/74); in the graduate degree category, 3 semester hours in management of physical distribution (8/74). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in supply management (8/74).

Related Occupation Codes: 761A; 726A.

AR-0326-0009

1. Management of Defense Acquisition Contracts
   (Defense Procurement Management)
2. Defense Procurement Management
   (Defense Basic Procurement)
   (Armed Services Procurement Management)
3. Procurement Management

Course Number: *All Versions:* 8D-4310; 8D-4320. *Version 3:* 400-1-4320.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.

Length: *Version 1:* 4 weeks (153–155 hours). *Version 2:* 5–6 weeks (184–200 hours). *Version 3:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 2/71–1/88. *Version 2:* 7/62–1/71. *Version 3:* 9/56–6/62.

Objectives: To train officers in procurement management.

Instruction: *All Versions:* Lectures and practical exercises in procurement management, including statutes, regulations, and policies; budgets and funds; specifications and allocations; potential contractors; small business and labor surplus programs; elements of a contract; government roles in contracts; purchase by advertisement; negotiation; cost and price analysis; contract types and purposes; clauses and provisions; taxes and other financial considerations; coordinated procurement; contract administration and modifications; quality control; termination of contracts; labor problems; and appeals. *Version 1:* Includes construction procurement and foreign purchases.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in procurement management (8/74); in the graduate degree category, 2 semester hours in procurement management (8/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in purchasing or procurement (8/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in purchasing or procurement (8/74).

Related Occupation Codes: 761A; 762A.

AR-0326-0010

Management of Defense Acquisition Contracts Course Advanced
(Management of Acquisition Contracts Advanced)

Course Number: 8D-F12.

Location: Logistics Management COllege, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: *Version 1:* 1–2 weeks (102 hours). *Version 2:* 2–3 weeks (101–105 hours). *Version 3:* 2–3 weeks (115 hours).

Exhibit Dates: *Version 1:* 6/85–Present. *Version 2:* 6/73–5/85. *Version 3:* 1/64–5/73.

Objectives: To train procurement management officers in advanced procurement management.

Instruction: *All Versions:* Lectures and practical exercises in procurement management, including procurement planning, funding, technical requirement impact; small business, labor surplus and disaster area relief operations; procurement by formal advertising and negotiation; contract types and purposes; cost and price analysis; contract administration; terminations and remedies; patents and data; and procurement trends. *Version 1:* Lectures and practical exercises in planning for contract management including acquisition planning, socioeconomic programs and cost/price analysis; contract management including bidding, negotiations, modifications, and termination. *Version 3:* Includes industrial readiness planning, coordinated procurement, and control services.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in acquisition management (10/88); in the graduate degree category, 1 additional hour in contract management (10/88). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in procurement management (8/74); in the graduate degree category, 1 semester hour in procurement management (8/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in procurement management (8/74).

AR-0326-0011

Planning and Conducting Management Audits and Studies

Course Number: 7A-F53.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (78 hours).

Exhibit Dates: 9/76–4/86.

Objectives: To provide students with the capability to plan and conduct management audits and studies so that they can analyze and solve management problems and improve the utilization of resources.

Instruction: Covers management audits and studies; styles of studies and audits; planning the management study; study initiation and problem analysis; developing problem alternatives and solutions; preparing recommendations and reports; measuring management performance; modern styles of analytical approach planning and conducting of studies; and the future of management.

Credit Recommendation: In the graduate degree category, 3 semester hours in management controls (11/76).

AR-0326-0012

Decision Risk Analysis

Course Number: ALMC-DA.

Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: 2 weeks (73–78 hours).

Exhibit Dates: 7/72–Present.

Objectives: To provide a basic understanding of the concepts and techniques of decision risk analysis for the design, analysis, and control of large-scale military programs.

Instruction: Lectures and practical exercises in the theory and application of qualitative and quantitative techniques of decision risk analysis.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in risk analysis (3/86); in the graduate degree category, 1 semester hour in risk analysis (3/86).

AR-0326-0013

Decision Risk Analysis for
Logisticians

Course Number: None.

Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: 2 weeks (74-78 hours).

Exhibit Dates: 7/72-Present.

Objectives: To provide a basic understanding of concepts and techniques of decision risk analysis as applied to logistics problems.

Instruction: Lectures and practical exercises in analysis techniques in logistics problems; application of analysis techniques; and case studies of actual problems in such logistics areas as requirements, procurement, distribution, and disposal.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in decision risk analysis (4/85). in the graduate degree category, 1 semester hour in decision risk analysis (12/73).

AR-0326-0014

Advanced Decision Risk Analysis

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: 1-2 weeks (72 hours).

Exhibit Dates: 7/72-5/80.

Objectives: To provide knowledge of advanced methods and techniques of decision/risk analysis.

Instruction: Lectures and practical exercises in decision analysis and risk analysis, including application of Bayes' Theorem to update distributions, measures of effectiveness and Markov processes, decision analysis using decision trees and computer models, advanced cost and schedule modeling, multiattribute decision techniques and critical review of studies and analyses.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced risk analysis (12/75); in the graduate degree category, 1 semester hour in advanced risk analysis (12/75).

AR-0326-0015

Modern Analytic Techniques for
Executive Decision Making

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (93 hours).

Exhibit Dates: 10/68-12/71.

Objectives: To provide personnel with the basic knowledge of modern analytic techniques that are amenable to the decision-making process within the U.S. Army Materiel Command.

Instruction: Instruction includes overview of mathematics, statistics, and economic analysis; regression and forecasting techniques; design of experiments and hypotheses testing; simulation, behavioral, probability, replacement, and network models, mathematical and dynamic programming; industrial dynamics; game and information theory; and gaming.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in quantitative methods (8/74).

AR-0326-0016

1. Army Medical Department
   Officer (AMEDD) Advanced
2. Army Medical Department
   Officer Advanced (AMEDD)-
   Army Nurse Corps Officers
   (Army Medical Service Officer
   (AMEDD) Advanced)
   (Army Medical Service Officer Career)
3. Army Medical Service Officer
   Career
4. Army Medical Service Officer
   Career
   (Army Medical Service Officer
   (AMEDD) Advanced
5. Army Medical Service Officer
   Advanced

Course Number: *Version 1:* 6-8-C22. *Version 2:* 6-8-C22; 8-A-C22. *Version 3:* 8-A-C22. *Version 4:* 8-A-C22. *Version 5:* 8-A-C4.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 22-23 weeks (766-796 hours). *Version 2:* 21-23 weeks (646-785 hours). *Version 3:* 33 weeks (1023 hours). *Version 4:* 21-22 weeks (662-739 hours). *Version 5:* 34 weeks (1031-1341 hours).

Exhibit Dates: *Version 1:* 10/71-5/87. *Version 2:* 7/65-9/71. *Version 3:* 7/62-6/65. *Version 4:* 7/56-6/62. *Version 5:* 7/54-6/56.

Objectives: To provide Nurse Corps and Medical Department officers with knowledge of management principles, tools, and techniques required to function as administrative officers.

Instruction: Classroom and practical instruction in principles of management; organization and control; planning, purchasing, and scheduling; electronic data processing; communications; and various military-related topics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of management (7/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (7/74). *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business organization and management (7/74). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (7/74). *Version 5:* In the upper-division baccalaureate category, 9 semester hours in business organization and management (7/74).

AR-0326-0017

Development and Readiness Command
Installation Management
(Army Materiel Command Installation
Management)

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (114 hours).

Exhibit Dates: 9/75-12/83.

Objectives: To improve management effectiveness within Army Materiel Command installations by providing military and civilian managers with a knowledge of techniques and skills required for the solution of contemporary management problems.

Instruction: Lecture-conference sessions, case studies, workshops, and guest speakers to examine organizational structures and areas of management responsibility within an Army Materiel Command installation. Topics include command relationships, personnel management, labor relations, nonappropriated fund activities, ecology and abatement control, management of real property and family housing, comptroller activities, Army Industrial Fund, and management information systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general management (12/75).

AR-0326-0018

Integrated Logistics Support and
Materiel Acquisition (ILS-R)
(Materiel Acquisition and Integrated Logistics Support Design Management
(LSDM))

Course Number: 8A-F21; ALM-35-0284.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 4 weeks (152-153 hours).

Exhibit Dates: 7/75-10/87.

Objectives: To train officers and civilian personnel to apply integrated logistics support management and analytical systems engineering techniques to the materiel acquisition process and support systems.

Instruction: Lecture-conferences and practical exercises. Topics include concepts and techniques of materiel acquisition and life cycle management; logistics support analysis; economic analysis; and support/design engineering analysis and trade-off determinations. This is the four week presentation of the course which is also offered in two week long phases, listed as AR-0326-0019 and AR-0316-0020.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in materiel acquisition process and support systems (12/75); in the graduate degree category, 2 semester hours in materiel acquisition process and support systems (12/75).

AR-0326-0019

Integrated Logistics Support
Management Techniques in
Materiel Acquisition (ILS-MGT)
(Management Techniques in Materiel Acquisition and Integrated Logistics Support Design Management
(LSDM-MGT))

Course Number: ALM-35-0294.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (73-76 hours).

Exhibit Dates: 9/75-10/87.

Objectives: To train management-level officers and civilian personnel in the application of integrated logistics support managerial techniques for planning acquisition strategy of military materiel.

Instruction: Lecture-conferences, practical exercises, and case discussions. Topics include policies, procedures, and concepts of materiel acquisitions and project management, logistic support analysis, and limited quantitative techniques. NOTE: Exhibit AR-0326-0020, combined with this exhibit, duplicates the four week presentation of the course listed as AR-0326-0018. This exhibit does not duplicate the credits listed in AR-0326-0020.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in materiel acquisition process and support systems (12/75); in the graduate degree category, 1 semester hour in materiel acquisition process and support systems (12/75).

AR-0326-0020

1. Defense Reutilization and Marketing Operations Advanced
2. Logistics Support Analysis Techniques in Materiel Acquisition (LSAT)
(Quantitative Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSD-Quant))

Course Number: *Version 1:* ALMC-LR. *Version 2:* ALM-35-0285.

Location: Logistics Management Center, Ft. Lee, VA; Off-site locations, Continental US.

Length: 2 weeks (73-74 hours).

Exhibit Dates: *Version 1:* 8/89-Present. *Version 2:* 10/75-7/89.

Objectives: To train officers and civilian personnel in the concepts and quantitative techniques employed by the system engineer and logistics planner in the application of integrated logistics support.

Instruction: Lecture-conferences, practical exercises, and computer simulations in the application of integrated logistics support management. Topics include concepts, principles, and policies of materiel acquisition and logistics management; quantitative techniques in materiel acquisition and integrated logistics support; analytical techniques related to decision making and cost effectiveness; and trade-off determinations using logistic parameters. NOTE: The credits listed in exhibits AR-0326-0019 and AR-0326-0020 duplicate the credits listed in AR-0326-0018, but not each other. The course listed as AR-0326-0018 is the four-week version the two two-week presentations of the course.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 2 semester hours in materiel acquisition process and support systems (12/75); in the graduate degree category, 1 semester hour in materiel acquisition process and support systems (12/75).

AR-0326-0021

Economic Analysis for Decision Making

Course Number: 7A-F10.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (77 hours).

Exhibit Dates: 9/72-4/86.

Objectives: To provide the concepts and economics analysis techniques for evaluating cost impacts on an organization prior to final management decisions.

Instruction: Lecture, conferences, practical exercises, programmed instruction, and case study to include management and decision making, cost estimating techniques, time value money, basic methods for comparison of alternatives, equipment replacement, regulating policies, and cost-benefit analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in financial management (11/76).

AR-0326-0022

DIMES Analyst Basic (Work Methods and Standards)

Course Number: 7A-F19.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: *Version 1:* 5 weeks (197 hours). *Version 2:* 5-8 weeks (200-317 hours).

Exhibit Dates: *Version 1:* 7/74-4/86. *Version 2:* 5/64-6/74.

Objectives: To develop skills necessary to analyze and design work methods and procedures, establish engineered and non-engineered work measurement standards, and design and use a work measurement hierarchical structure that will support the information needs of the management processes of budgeting, manpower control and work planning and control.

Instruction: Thorough grounding is provided in the various techniques employed in methods improvement and work measurement. Topics include cost analysis, job enrichment, human relations, human factors engineering, value engineering, work sampling, process analysis, operations analysis and multi-activity analysis. Lecture and practical exercise activity in analyzing, designing, developing and presenting improved methods for the flow of work, man activities, and man-machine and crew activities. In work measurement, instruction is directed to developing skills in engineered standards via direct-time study, rated-work sampling, standard and predetermined time systems.

Credit Recommendation: *Version 1.* In the upper-division baccalaureate category, 4 semester hours in time and motion theory, production management techniques and systems, or work measurements and methods (11/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in work measurement (7/74); in the upper-division baccalaureate category, 2 semester hours in work measurement and 1 in principles of management (7/74).

AR-0326-0023

Defense In-Plant Quality Assurance

Course Number: 8D-F34.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (78 hours).

Exhibit Dates: 7/75-4/86.

Objectives: To provide an understanding of the principles of industrial quality systems; government requirements related to such systems; and the principles of governing quality assurance activities relating to individual systems.

Instruction: Course covers objectives of defense in-plant quality assurance and planning; contract review; review and appraisal of contractor's quality plan; audit of contractor's quality-related operations; validation of contractor's quality plan and operations; and government acceptance inspection.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement quality control (11/76).

AR-0326-0024

Administrative Systems Analysis and Design

Course Number: 7A-F18.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (78-80 hours).

Exhibit Dates: 1/66-4/86.

Objectives: To provide students with the principles and techniques employed in analyzing, evaluating, improving, and designing effective administrative systems to support management policy and decision making.

Instruction: Lecture conferences and group and individual practical exercises to cover an introduction to administrative systems, systems analysis, flow charting (procedures), forms and report analysis and design, various automated systems, planning for systems, role of manager and analyst, and a major analysis and design project of a current management problem.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business systems management (11/76).

AR-0326-0025

Project Planning and Control Techniques

Course Number: 5L-F1.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (77 hours).

Exhibit Dates: 5/62-4/86.

Objectives: To provide knowledge and develop skills in selecting and applying techniques for planning and controlling projects.

Instruction: Practical exercises, group projects and computer simulations are used in addition to lecture presentations to provide the student with a systematic approach to planning and controlling the cost, schedule, and technical performance of medium-to-large-sized projects. Techniques include network-based management techniques such as PERT and CPM, work breakdown structures, requirements determination, cost estimating, economic analysis, risk analysis long-range and detail cost, schedule and technical performance planning, design impact on cost, configuration management, data and systems management, and technical performance management.

Credit Recommendation: In the graduate degree category, 3 semester hours in industrial and systems engineering management or program and project management (11/76).

AR-0326-0026

Engineered Performance Standards (EPS) for Facilities Engineering Estimators

Course Number: AMETA-11.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (78 hours).

Exhibit Dates: 7/74-4/86.

Objectives: To provide a working knowledge of engineered performance standards for planning and estimating work relative to facilities engineering.

Instruction: Thorough development of skill in application of standard data for real-property maintenance applications. Covers the fundamentals of general data available in the areas of job preparation, craft allowance and travel time, fundamentals of craft data, job phasing, data presentation, and the procedures for applying engineering standards using job planning sheets and monographs.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in public works administration (11/76).

AR-0326-0027

Human Behavior in Organizations

Course Number: 7C-F7.

Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (78 hours).
Exhibit Dates: 10/76–4/86.
Objectives: Course is designed to provide an understanding and working knowledge of the principles and applications of the behavioral sciences in order to increase individual achievement and group performance in organizational settings.
Instruction: Provides for a behavioral approach to management; coverage of traditional theories of behavior in organizations; the role of communications; individual behavior and increasing individual effectiveness; organizational behavior, communication programs, and development; process consultation; and a synthesis of theory of the behavioral sciences and management.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in organizational behavior (11/76).

AR-0326-0028

Managing with Contractor Performance Measurement Data

Course Number: AMETA-14.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 9/70–4/86.
Objectives: To provide skills necessary to effectively obtain, analyze, and use performance measurement data in the management of the material-acquisition process for weapon-equipment systems.
Instruction: Lecture and case study method is utilized to explain the need for cost, schedule, and technical performance measurement. Experience in the selection, acquisition, and use of performance measurement data is provided. Emphasis is on the validation, full-scale development, and production phases of the material-acquisition, life-cycle processes which are project or product managed.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement management (11/76).

AR-0326-0029

Management of Managers

Course Number: 7A-F38.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (78 hours).
Exhibit Dates: 9/75–4/86.
Objectives: To assist in the development of practicing managers at the intermediate or upper level of responsibility.
Instruction: Course covers management behavior, various management systems, skill development (i.e., team building, interviewing, counseling) and consideration of principles, philosophies, and ethical values to broaden the scope and growth of the administrator. Methods include lectures, discussion, case studies, simulation, role playing, and laboratory activities.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in practices and philosophies of management (11/76).

AR-0326-0030

Organization Planning

Course Number: 7A-F8.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (78 hours).
Exhibit Dates: 1/66–4/86.
Objectives: To provide students with a knowledge of the practical concepts, principles, and techniques of systematic organization planning and design.
Instruction: Course covers fundamentals of organizational planning; impact of behavioral sciences; organization guidelines and departmentalization; staff and special considerations; and future organizational considerations.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in organization planning (11/76).

AR-0326-0031

Principles and Applications of Value Engineering

Course Number: 8D-F27.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 12/64–4/86.
Objectives: To provide students with a working knowledge of the principles and techniques of value engineering and their application to current engineering projects.
Instruction: Lecture-conferences, practical exercises and group projects to include description of value engineering methodology, application in the design process considering life-cycle effects, uses of cost estimating, analytical techniques and standards and description of contractual provisions for use of value engineering. Emphasis is on class study and case studies in which value engineering methodology is applied to current and real projects.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement management (11/76).

AR-0326-0032

Defense Work Measurement Standard Time Data (DWMSTD)

Course Number: 7A-F17.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 7/75–4/86.
Objectives: To provide students with a working knowledge of the defense work measurement standard time data program and the latest techniques of work measurement for use in the development of standard time data.
Instruction: Emphasis is on uniform application of the standard time data elements included in the DWMSTD program. Topics include coding structures, source and location of various levels of data and selection of universal and occupation-related data. Emphasis is on application of the data in developing labor performance data through utilization of standard time data.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in time study, work measurement, time and motion study, or standard time (11/76).

AR-0326-0033

Systems Engineering

Course Number: AMETA-15.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (76 hours).
Exhibit Dates: 7/70–4/86.
Objectives: To provide students with a working knowledge of systems engineering theory, procedures, and managerial practices. Emphasis is on using the system engineering process as a methodical, analytical approach to the development of total systems; and examining the functions of systems engineering management.
Instruction: Practical exercises and lectures to include the systems engineering process, functional analysis, synthesis, evaluation and decision, system description, systems engineering management and relationships, system engineering in the request for proposal and evaluating system engineering management plans.
Credit Recommendation: In the graduate degree category, 3 semester hours in systems development management (11/76).

AR-0326-0034

Technical Data Package Development/Preparation

Course Number: AMETA-13.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 7/71–4/86.
Objectives: To provide students with a working knowledge of the requirements and responsibilities for the development and preparation of technical data packages used for procurement and production of military design equipment.
Instruction: Lecture-conferences, individual and team practical exercises, and case studies covering current practices in technical data package, acquisition and preparation of technical data package, quality assurance provisions, and review, proofing, maintenance, improvement, and transmission of the technical data package.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement management—quality assurance (11/76).

AR-0326-0035

Product/Production Engineering Intern Program

Course Number: None.
Location: DARCOM Intern Training Center, Red River Depot, Texarkana, TX.
Length: 52 weeks (1,890 hours).
Exhibit Dates: 7/75–6/84.
Objectives: To provide comprehensive training in disciplines required for enhancing the producibility and production of components designed and manufactured for Army materiel.
Instruction: Lectures, practical exercises, computer simulation, cases, field trips, and individual and group research to cover the following areas: general administration, data processing, quantitative methods, product and production engineering, and production management and control.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in engineering management, 2 in economic analysis, 4 in engineering applications of computer technology, 3 in mathematical statistics, 3 in statistical quality control, 3 in operations analysis, 3 in systems engineering, 4 in product and production engineering, 2 in cost estimating for engineers, 2 in production system design, 5 in operations management (12/76); in the graduate degree category, 1 semester hour in general and industrial administration and management, 1 in data systems, 6 in quantitative and statistical methods and operations, 3 in product and production engineering, 1 in production management (12/76).

AR-0326-0036

Army Depot Operations Management Correspondence Course

Course Number: 8B-F10.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Course is by correspondence.

Exhibit Dates: 6/76–1/88.

Objectives: To train officers and civilian personnel in depot directorate-level management.

Instruction: Correspondence lessons cover depot operations management; general management and practices; and procurement, maintenance, and disposal management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply depot management (12/76).

AR-0326-0037

Army Maintenance Management Correspondence Course

Course Number: 8AF-F3.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Course is by correspondence.

Exhibit Dates: 6/75–1/88.

Objectives: To train officers in maintenance management techniques.

Instruction: Correspondence lessons cover maintenance system management, including management development, supply functions, maintenance control, communications skills, human relations, programming and financial management, maintenance organization and policies, reporting, repair parts management, and production management.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in production management (12/76).

AR-0326-0038

Defense Procurement Management by Correspondence

Course Number: 8D-4320.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Course is by correspondence.

Exhibit Dates: 12/76–1/88.

Objectives: To train officers in procurement management.

Instruction: Lessons cover fundamentals of procurement, procurement law, the procurement function and post-award functions.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement management (12/76).

AR-0326-0039

Organizational Effectiveness Consultant

(Organizational Effectiveness Staff Officer)

Course Number: 7C-2260-57; 7C-ASI-52.

Location: Organizational Effectiveness Training Center, Ft. Ord, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 10/77–12/83.

Objectives: To provide selected personnel with training in the integrated and systematic military application of selected organizational effectiveness methods and related advanced management and behavioral skills and techniques.

Instruction: Lectures, discussions, personal learning experiences and examinations in organizational effectiveness staff officer skill development, human behavior in organizations, internship and systems theory.

Credit Recommendation: In the graduate degree category, 6 semester hours in organizational development, 6 in practicum and seminar in organizational development, 4 in leadership and personal skills development (4/78).

AR-0326-0040

Logistics Management Development by Correspondence

Course Number: 8A-F16.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Average 4 weeks.

Exhibit Dates: 7/77–1/88.

Objectives: To provide personnel with an overview of the Army wholesale logistics system and to develop managerial skills.

Instruction: Correspondence lessons cover life-cycle material management, procurement, functional management of assets, information concepts for managers, management theory and decision making, quantitative techniques, working capital funds, and an introduction to defense financial management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in basic materiel systems management (3/78).

AR-0326-0041

Administrative Systems Analysis and Design

Course Number: RM-409.

Location: Seventh Army Combined Arms Training Center, Munich, Germany; On-site other European locations.

Length: 2 weeks (78–80 hours).

Exhibit Dates: 6/79–7/80.

Objectives: To provide students with the principles and techniques employed in analyzing, evaluating, improving, and designing effective administrative systems to support management policy and decision making.

Instruction: Lecture conferences and group and individual practical exercises to cover an introduction to administrative systems, systems analysis, flow chart procedures, forms and report analysis and design, various automated systems, planning for systems, role of manager and analyst, and a major analysis and design project of a current management problem.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office management (9/80).

AR-0326-0042

Army Medical Department Officer Advanced

Course Number: 6-8-C22.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 20 weeks (569 hours).

Exhibit Dates: *Version 1:* 6/90–Present. *Version 2:* 6/87–5/90.

Learning Outcomes: Upon completion of the course the student will have acquired general and specific advanced level military education and training. The AMEDD officer will be prepared to take command, leadership and staff positions of greater responsibility.

Instruction: Lectures, seminars, conferences, demonstrations and practical exercises with particular emphases on military science topics and health care administration. Students attend a common core, then subject-specific tracks.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 9 semester hours in business management and organization (4/88).

AR-0326-0044

Master Planner

Course Number: EH 456.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/81–Present.

Learning Outcomes: Upon completion of the course, the student will be able to make limited studies in technical areas; coordinate information and approvals required to prepare a master plan; develop documents of the master plan, including environmental impact, land use, general site, utilities, road networks and technical support services; define functional requirements as Military Construction Army (MCA) programming; provide MCA details regarding cost estimates, construction criteria, energy requirements, and equipment programming; provide justification paragraphs and site sketches.

Instruction: Demonstrations, conference classes and practical exercises in the techniques, policies, and documents necessary for master planning considerations and construction planning. Main topics include development of a master plan to include documents, articulation with a community planning board, construction planning, and cost estimating.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in project management and 1 in community planning (10/88).

AR-0326-0045

Manprint Staff Officers

Course Number: 7C-F27/500-F18.

Location: Humphreys Center, Ft. Belvoir, VA; Soldier Support Center, Ft. Belvoir, VA; Xerox Center, Leesburg, VA.

Length: 2–3 weeks (117 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to introduce human factors engineering considerations into the management of a material development and acquisition process in order to increase performance in the total system.

Instruction: Includes classroom instruction, practical exercises, and independent study in the issues of manpower management, personnel, training, safety, human performance and workload analysis, and their effect on an acquisition system.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in organizational behavior (with an emphasis on the non-theoretical approach) (12/88).

AR-0326-0046

Organizational Development Consultants

Course Number: ODCC 1-90.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 15 weeks (579 hours).

Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to directly apply negotiation and consulting skills in accomplishing organizational objectives.

Instruction: Instruction includes lecture, practical experience, structual experience, objective examination, discussion, reports, student demonstration, team development and feedback to individuals.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in human resources management consulting (7/90).

AR-0406-0001

Commissary Middle Management,
Phase III (Commissary Produce
Management)
(Commissary Produce Management)

Course Number: 800-F7; 800-F5.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (69-70 hours).

Exhibit Dates: 10/72-6/85.

Objectives: To train enlisted personnel in the principles, procedures, and responsibilities involved in the operation of commissary produce markets.

Instruction: Lectures, conferences, demonstrations, and practical exercises in identifying sources of supply of fresh fruits and vegetables; produce market management; and personnel supervision.

Credit Recommendation: In the vocational certificate category, 1 semester hour in produce market management (6/75).

Related Occupation Codes: 76X; 76Z.

AR-0406-0002

Air Force Commissary Management

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 9/71-6/85.

Objectives: To train commissary personnel to obtain, store, issue, sell, and account for authorized subsistence supplies.

Instruction: Lectures and practical exercises in the problems of subsistence supply; commissary accounting, processing technology, and inspection; and commissary resale store management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in retail management (2/74); in the upper-division baccalaureate category, 3 semester hours in retail management (2/74).

AR-0406-0003

1. Commissary Management
2. Commissary Management
   (Commissary Operations)
3. Commissary Operations
   (Commissary Officer)

Course Number: *Version 1:* 8G-82D/551 ASIU5; 8G-82D/551-F2-ASI U5. *Version 2:* 8G-82D; 8G-4223; 551-F2; 10-G-4223. *Version 3:* 10-O-15.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6 weeks (210 hours). *Version 2:* 6-7 weeks (205-252 hours). *Version 3:* 4-5 weeks (148-176 hours).

Exhibit Dates: *Version 1:* 6/83-5/86. *Version 2:* 6/59-5/83. *Version 3:* 9/54-5/59.

Objectives: To provide officer, enlisted, and civilian personnel with training in the principles and procedures of commissary operation and management.

Instruction: *Version 1:* This course offers lectures and practical exercises in a food retailing operation to include management, accounting, fiscal procedures, food processing technology, sanitation, merchandising, human resource management, and inventory management and control; student will have the knowledge of principles, procedures, and responsibilities for the acquisition, storage, merchandising, marketing, sanitation, and accounting for a supermarket installation including the maintenance and management of the facility and the staff. *Version 2:* Lectures and practical exercises in commissary operation and management, including accounting, fiscal procedures, processing technology, merchandising, personnel management, installation-level supply management, and inventory management and control. *Version 3:* Lectures and practical exercises in commissary operation and management, including accounting, fiscal procedures, processing technology, merchandising, personnel management, installation-level supply management, and inventory management and control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in food service sanitation (9/88); in the upper-division baccalaureate category, 3 semester hours in retail (supermarket) management (8/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in retail management (2/74); in the upper-division baccalaureate category, 3 semester hours in retail management or store management (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in retail management (2/74); in the upper-division baccalaureate category, 2 semester hours in store management (12/68).

Related Occupation Codes: 76Z; 76X; 82D.

AR-0406-0004

Commissary Middle Management,
Phase IV (Commissary
Administration Management)
(Commissary Administration Management)

Course Number: 800-F7; 800-F3.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (75-76 hours).

Exhibit Dates: 10/72-6/85.

Objectives: To train enlisted personnel in the principles, procedures, duties, and responsibilities of commissary administration management.

Instruction: Conferences, lectures, demonstrations, and practical exercises in subsistence supply, commissary accounting, personnel management, and commissary equipment and fiscal procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in grocery store office management (6/75).

Related Occupation Codes: 76Z; 76X.

AR-0406-0005

Commissary Middle Management,
Phase II (Commissary Meat
Market Management)
(Commissary Meat Market Management)

Course Number: 800-F7; 800-F4.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 11/72-6/85.

Objectives: To provide enlisted personnel with a working knowledge of the principles, procedures, duties, and responsibilities involved in commissary meat market management.

Instruction: Instruction is through lectures, conferences, demonstrations, and practical exercises. Topics include manpower and subsistence supply; and processing, technology, merchandising, and preservation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in meat market management (6/75).

Related Occupation Codes: 94C.

AR-0406-0006

Commissary Middle Management,
Phase I (Commissary Store
Management)
(Commissary Store Management)

Course Number: 800-F7; 800-F6.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 11/72-6/85.

Objectives: To provide enlisted personnel with a working knowledge of the principles, procedures, duties, and responsibilities involved in commissary store management.

Instruction: Instruction is through lectures, conferences, demonstrations, and practical exercises. Topics include subsistence supply and store operations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in grocery store management (6/75).

Related Occupation Codes: 76P; 76X; 76Z.

AR-0417-0001

Army Housing Management

Course Number: ALM-61-0298.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (117 hours).

Exhibit Dates: 10/77-12/83.

Objectives: To familiarize personnel with the policies and procedures for the management of all types of family, bachelor, transient and guest housing.

Instruction: Lectures, guided discussions, and practical exercises in various phases in the management of military housing: budgeting, maintenance, construction and inventory.

Credit Recommendation: In the vocational certificate category, 1 semester hour in housing management (3/78).

AR-0418-0001

Travel Clerk

Course Number: 542-F4.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 3 weeks (115 hours).

Exhibit Dates: 4/84-Present.

Objectives: To prepare students to function as travel clerks.

Instruction: Lectures and practical exercises on travel allowances, travel regulations and preparation of travel vouchers.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/88).

AR-0418-0002

Travel Supervisor

Course Number: 542-F5.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 2 weeks (77 hours).

Exhibit Dates: 4/84-Present.

Objectives: To train selected personnel to perform the duties of a travel supervisor.

Instruction: Lectures and practical exercises in the use of travel regulations and forms, travel allowances and organization and management of a travel branch.

Credit Recommendation: In the vocational certificate category, 1 semester hour in travel procedures (3/85).

AR-0418-0004

Passenger Travel Specialist

Course Number: 8C-F11/542-F6.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/83-Present.

Objectives: To train personnel in basic skills to function in a passenger travel office as a passenger travel specialist.

Instruction: Lectures and practical exercises in routing, documentation, entitlements, carrier guides and tariffs, group movements, travel orders, rentals and electronic reservation and ticketing system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in travel and tourism (7/85).

AR-0418-0005

Travel Supervisor

Course Number: 7D-F22/542-F5.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (78 hours).

Exhibit Dates: 8/85-1/89.

Learning Outcomes: Upon completion of the course, the student will be able to supervise or function as the lead voucher examiner in a travel audit section with a comprehensive knowledge of travel regulations, travel entitlement programs, and policies and procedures of travel processing.

Instruction: Lectures and practical exercises in the use of travel regulations, forms allowances, and the organization and supervision of a travel branch.

Credit Recommendation: In the vocational certificate category, 1 semester hour in travel procedures (12/88).

AR-0419-0001

1. Cargo Specialist
2. Cargo Specialist
   (Terminal Operations Coordinator)
3. Terminal Operations Specialist
   (Cargo Handler)
4. Cargo Handler
   (Basic Stevedore)
5. Stevedore

Course Number: *Version 1:* 822-57H10. *Version 2:* 822-57H10. *Version 3:* 822-57H10. *Version 4:* 822-57H20; 822-56E20. *Version 5:* 55-E-32.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 6–7 weeks (237 hours). *Version 2:* 3–4 weeks (105 hours). *Version 3:* 6 weeks (191–199 hours). *Version 4:* 5 weeks (184–192 hours). *Version 5:* 6 weeks (246 hours).

Exhibit Dates: *Version 1:* 9/84–12/86. *Version 2:* 4/82–8/84. *Version 3:* 2/71–3/82. *Version 4:* 4/67–1/71. *Version 5:* 7/55–3/67.

Objectives: To provide enlisted entry level personnel with skills training in ship's cargo rigging, winch operation, cargo handling, and signalman's duties.

Instruction: For the course after 12/86 see AR-0419-0046. *All Versions:* Lectures and practical experience in cargo handling, including the rigging and operation of ship's gear, winch operations, and storage and safety of cargo. *Version 2:* Lectures and practical exercises in marlinspike seamanship, rigging and repairing ship's cargo gear, visual signal procedures, loading and unloading operations, cargo protection, and safety procedures. Course also includes ship's security and stability. *Version 3:* Characteristics of water terminal facilities, forklift operation, cargo transfer operations, stevedoring, and marking supplies for overseas shipment. *Version 5:* Rigging of booms, wire rope splicing, and block and tackle.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in marine cargo operations (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in marlinspike seamanship and 1 in industrial safety (3/83). *Version 3:* In the vocational certificate category, 5 semester hours in stevedoring and containerization (6/75). *Version 4:* In the vocational certificate category, 3 semester hours in transportation/stevedoring (2/74). *Version 5:* In the vocational certificate category, 6 semester hours in transportation/stevedoring (2/74).

Related Occupation Codes: 88H; 57H.

AR-0419-0002

Movements Specialist Supervision
(Transportation Movements Control Supervision)

Course Number: 514-F1.

Location: Transportation School, Ft. Eustis, VA.

Length: 5–6 weeks (202–208 hours).

Exhibit Dates: 10/65–7/72.

Objectives: To provide enlisted personnel with a working knowledge of the operating procedures, organization, and supervision of transportation movements in the military service.

Instruction: Introduction to transportation regulation and Department of Defense traffic management; movement of dependents; shipment of personal property; routing of freight shipments; classification rates and tariffs; small shipment services; demurrage; documentation of freight shipments; and unitization.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in traffic management (12/68).

AR-0419-0003

Ammunition (Entry)
(Ammunition Helper)

Course Number: 9-R-410.0; 9-E-32.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280–304 hours).

Exhibit Dates: 4/56–12/68.

Objectives: To train enlisted personnel to assist in the receipt, storage, shipment, issuance, and maintenance of ammunition.

Instruction: Conferences and practical exercises in the ammunition field; military explosives; ammunition material; safety and hand tools; storage and handling; transportation of ammunition; surveillance, maintenance, and destruction; ammunition documentation; and operation of field ammunition installations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-0419-0004

Cargo Handler Supervisor
(Stevedore Supervisor)
(Stevedore Supervision)

Course Number: 822-57H40; 822-56E40; 55-R-555.7; 55-E-31.

Location: Transportation School, Ft. Eustis, VA.

Length: 6–9 weeks (234–315 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to perform cargo handling activities at water, air, motor, and rail terminals and transfer points.

Instruction: Lectures and practical exercises in terminal cargo operations and documentation procedures; cargo transfer operations; wharf and beach management; supply organization; transportation modes; and stevedoring, including blocking, bracing, and stowage of cargo and cargo-handling gear; and safety procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation or cargo handling (2/74).

AR-0419-0005

1. Traffic Management Coordinator
   Primary Technical
2. Traffic Management Coordinator
   Primary Technical
3. Traffic Management Coordinator
   Primary Technical
   (Movements Specialist)
4. Transportation Movement
   Specialist
5. Transportation Movement
   Control
6. Transportation Movements
   (Transportation Movement Control)

Course Number: *Version 1:* 514-71N20. *Version 2:* 514-71N20. *Version 3:* 514-71N20. *Version 4:* 514-71N20. *Version 5:* 514-719.1. *Version 6:* 55-R-719.1; 55-E-39.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 3–5 weeks (90–167 hours). *Version 2:* 3–5 weeks (90–167 hours). *Version 3:* 3–5 weeks (90–167 hours). *Version 4:* 5–6 weeks (178–213 hours). *Version 5:* 4–5 weeks (168 hours). *Version 6:* 7 weeks (245–308 hours).

Exhibit Dates: *Version 1:* 9/85–Present. *Version 2:* 8/81–8/85. *Version 3:* 9/73–6/78. *Version 4:* 2/68–8/73. *Version 5:* 10/65–1/68. *Version 6:* 8/55–9/65.

Objectives: To provide enlisted personnel with the techniques and procedures necessary to control the movement of supplies and personnel by rail, water, highway, and air.

Instruction: *All Versions:* Lectures and practical demonstrations in modes of transportation; transportation procedures and regulations; personnel and passenger movement; and motor, rail, water, and terminal transportation systems. *Version 1:* Topics include the development of transportation tariff and rate structures, and regulations of traffic management.Also includes air systems. *Version 2:* Includes coordination and documentation of cargo movements by sea, land, and air. Topics include bill of lading, preparing tracer actions, discrepancyreports, terminal operations, load planning carrier selection, and traffic distribution. *Version 3:* Topics include the development of transportation tariff and rate structures, and regulations of traffic management. *Version 4:* Lectures include air transportation management. *Version 5:* Lectures include military tactics, overseas supply processing, and transportation movements. *Version 6:* Lectures include military tactics, overseas supply processing, and traffic management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in transportation or traffic operations (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic management (7/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in transportation or traffic operations (3/83). *Version 4:* In the vocational certificate category, 6 semester hours in transportation or traffic operations (2/74). *Version 5:* In the vocational certificate category, 6 semester hours in traffic operations (2/74); in the upper-division baccalaureate category, 2 semester hours in traffic operations (12/68). *Version 6:* In the vocational certificate category, 6 semester hours in traffic operations (2/74); in the upper-division baccalaureate category, 3 semester hours in traffic operations (12/68).

Related Occupation Codes: 71N.

AR-0419-0006

1. Motor Transport Operation and Maintenance
2. Motor Transport Operation and Maintenance

(Highway Transportation Operation and Maintenance)
(Highway Transport Operations)

Course Number: *All Versions:* 55-B-0600; 55-B-0605; 55-B-0660. *Version 1:* 55-B-631A. *Version 2:* 55-0-6.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 9 weeks (310 hours). *Version 2:* 12 weeks (419 hours).

Exhibit Dates: *Version 1:* 9/60–12/68. *Version 2:* 11/54–8/60.

Objectives: To train officers and warrant officers to manage and supervise the operation and maintenance of transportation highway units and administrative motor pools.

Instruction: Diverse training in many areas of transportation, including transportation intelligence, guerilla and antiguerilla operations, motor transportation in a theatre of operations, convoy organization and operation, vehicle research and development planning, highway traffic planning, commercial truck operations, and dispatch methods and procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in transportation and maintenance management (2/74); in the upper-division baccalaureate category, 4 semester hours in transportation and maintenance management (12/68). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in transportation and maintenance management (12/68).

Related Occupation Codes: 630A; 631A; 632A.

AR-0419-0007

Railway Operations

Course Number: 55-R-663.1; 55-E-36.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 9/55–12/68.

Objectives: To train enlisted personnel to coordinate and control railway rolling stock by means of proper car distribution and car accounting.

Instruction: Teaches personnel to recognize and use terms of rolling stock; block and yard operations; familiarity with demurrage, car records, and railway office procedures; includes practical railroad experience on the Baltimore and Ohio Railroad.

Credit Recommendation: In the vocational certificate category, 6 semester hours in transportation or railway operations (2/74).

AR-0419-0008

Theater of Operations Movements Officer

Course Number: 8C-F8.

Location: Transportation School, Ft. Eustis, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/69–5/72.

Objectives: To give commissioned officers working knowledge of the responsibilities and duties in managing import and export movement of cargo and personnel in a theater of operations.

Instruction: Principles of transportation movements; movements programming; demurrage; unitization; management of transportation resources; aerial port operations; routing of retrograde shipments; and traffic management research.

Credit Recommendation: In the vocational certificate category, 1 semester hour in transportation and traffic movements (2/74).

AR-0419-0009

Supply (SU-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 5-SU-C40B.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8–10 weeks (299–371 hours). *Version 2:* 12 weeks (365 hours).

Exhibit Dates: *Version 1:* 5/74–3/76. *Version 2:* 8/72–4/74.

Objectives: To provide selected enlisted personnel with the knowledge and skills required to perform the duties of a noncommissioned officer.

Instruction: Lectures and practical exercises in leadership training; military operations and management; communication skills; transportation modes and supply; planning and documentation; and supply operations, including loading and unloading.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in stevedoring and containerization (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in transportation and supply (2/74).

Related Occupation Codes: 57H.

AR-0419-0010

Cargo Handler (SU-CMF) Noncommissioned Officer (NCO) Advanced

(Supply (SU-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: 5-SU-C42B.

Location: Transportation School, Ft. Eustis, VA.

Length: 8–12 weeks (278–385 hours).

Exhibit Dates: 9/72–7/85.

Objectives: To provide enlisted personnel with the necessary supervisory skills to perform as noncommissioned officers.

Instruction: Discussions and practical exercises in logistical combat support, leadership, management, communication techniques, storage operations, procurement management, and property disposal.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of management (6/75).

Related Occupation Codes: 76N; 76Q; 76S; 76U; 76X; 76P; 76R; 76T; 76V; 76Y.

AR-0419-0011

Marine (MR-CMF) Noncommissioned Officer (NCO) Basic

(Amphibian Operator, Skill Development Base)

Course Number: 0-MR-C40; 813-61D40-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 8–17 weeks (304–795 hours).

Exhibit Dates: 10/68–7/85.

Objectives: To train selected enlisted personnel in the operation and maintenance of amphibious watercraft.

Instruction: Lectures and practical exercises in leadership and supervisory training; communication skills; marine electrical systems; high-speed marine diesel engines; power trains and auxiliaries; navigation and piloting; diving techniques and equipment; marine hull repair; welding; and pipefitting.

Credit Recommendation: In the vocational certificate category, 6 semester hours in transportation and watercraft operation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (6/75).

Related Occupation Codes: 61B; 61C; 61D; 61E; 00B.

AR-0419-0012

Marine Noncommissioned Officer (NCO) Advanced

(Marine (MR-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *Version 1:* 0-642-C42. *Version 2:* 0-642-C42. *Version 3:* 0-MR-C42.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA; *Version 2:* Transportation School, Ft. Eustis, VA; *Version 3:* Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13 weeks (457 hours). *Version 2:* 5–6 weeks (176 hours). *Version 3:* 8–10 weeks (275–288 hours).

Exhibit Dates: *Version 1:* 2/83–10/86. *Version 2:* 9/77–1/83. *Version 3:* 8/72–8/77.

Objectives: To provide enlisted personnel with the knowledge of marine operations and supervisory techniques necessary to perform the duties of a senior noncommissioned officer.

Instruction: *Version 1:* For more recent version of this course see AR-0419-0045. Lectures and practical exercises on military operations, leadership styles and communications, marine navigation and basic marine engineering including diesel engine operation and service, electrical system, auxiliary equipment and refrigeration. *Version 2:* Lectures and practical exercises on military operations; leadership styles and communications; inland water terminal operations; amphibian operations; marine hull repair; and the supervision of associated marine repair activities. *Version 3:* Lectures and practical exercises on military operations; leadership styles and communications; inland water terminal operations; amphibian operations; marine hull repair; and the supervision of associated marine repair activities.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, for those in 61F3, 2 semester hours in principles of supervision; for those in 61C3, 2 semester hours in principles of supervision, 3 in principles of marine engineering; for those in 61B3, 2 semester hours in principles of supervision, 3 in marine navigation (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 3 in marine depot operations (3/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine depot operations (6/75); in the upper-division baccalaureate category, 3 semester hours in principles of management (6/75).

Related Occupation Codes: 61B; 61C; 61D; 61E; 00B.

AR-0419-0013

Motor Transport (MT-CMF)
Noncommissioned Officer (NCO)
Basic

Course Number: 8-MT-C40.

Location: Transportation School, Ft. Eustis, VA.

Length: 7-9 weeks (244-319 hours).

Exhibit Dates: 6/72-6/76.

Objectives: To train enlisted personnel to perform as noncommissioned officers in the motor transportation field.

Instruction: Lectures and practical exercises in motor pool organization and administration; personnel management, communications skills, and human development; motor vehicle operation, maintenance, and safety; and special motor transport problems, such as dangerous cargo transport, accident reports, and night driving.

Credit Recommendation: In the vocational certificate category, 2 semester hours in motor transportation supervision (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (6/75).

Related Occupation Codes: 64C.

AR-0419-0014

Railway Dispatching

Course Number: 55-R-664.2; 55-E-15.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel in all aspects of railway dispatching.

Instruction: Lectures and practical experience in basic railway operation, including control and coordination of train movements, transportation rules and regulations, railway station operation, and on-the-job training in railway dispatching.

Credit Recommendation: In the vocational certificate category, 3 semester hours in railway operations (1/74).

AR-0419-0015

Truckmaster

Course Number: 55-R-643.6.

Location: Transportation School, Ft. Eustis, VA.

Length: 9 weeks (318 hours).

Exhibit Dates: 2/57-2/65.

Objectives: To train qualified heavy vehicle drivers to supervise the operation and maintenance of wheeled vehicles and to control motor transport movements of personnel, supplies, and equipment.

Instruction: Lectures and practical exercises in the supervision of wheeled vehicle operation and maintenance and the control of motor transport movements, including internal combustion engines; lubrication, electrical, and fuel systems; brakes; transmission; tires and wheels; supervision and inspection; motor transport and planning operations; and dispatch procedures and reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in transportation management programs, 3 in truck driver training, 2 in automotive technology (4/74).

AR-0419-0016

Administration (AG-CMF)
Noncommissioned Officer (NCO)
Basic

Course Number: 5-AG-C40B.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8-9 weeks (295-337 hours). *Version 2:* 11 weeks (365 hours).

Exhibit Dates: *Version 1:* 4/74-3/76. *Version 2:* 10/72-3/74.

Objectives: To train noncommissioned officers in the administration of Army transportation units.

Instruction: Lectures and practical exercises in transportation unit administration. Course includes principles of leadership; problem solving in personnel management; communications skills in testing, writing, and methods of instruction; transportation movements of supplies and personnel; traffic management; organization of transportation offices; freight shipping routing; commercial freight services; demurrage; unitization loss and damage; modes of transport; movements planning; procedures for air and surface transportation documentation; marshalling; aerial port operations; railway services and equipment, and beach operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in transportation, 3 in personnel administration or human relations (6/74); in the upper-division baccalaureate category, 3 semester hours in transportation (6/74).

Related Occupation Codes: 71N.

AR-0419-0017

1. Traffic Management Coordinator
   Noncommissioned Officer (NCO)
   Advanced
2. Movements Specialist
   Noncommissioned Officer (NCO)
   Advanced
3. Movements Specialist (AG-CMF)
   Noncommissioned Officer (NCO)
   Advanced
4. Administration (AG-CMF)
   Noncommissioned Officer (NCO)
   Advanced

Course Number: *Version 1:* 5-641-C42; 5-641-C42B. *Version 2:* 5-641-C42B. *Version 3:* 5-AG-C42B. *Version 4:* 5-AG-C42B.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA; *Version 2:* Transportation School, Ft. Eustis, VA. *Version 3:* Transportation School, Ft. Eustis,VA; *Version 4:* Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 7-11 weeks (264-370 hours). *Version 2:* 5-6 weeks (195 hours). *Version 3:* 8 weeks (291 hours). *Version 4:* 10 weeks (313 hours).

Exhibit Dates: *Version 1:* 12/83-Present. *Version 2:* 1/78-11/83. *Version 3:* 11/74-12/77. *Version 4:* 9/72-10/74.

Objectives: To train noncommissioned officers to handle administrative responsibilities in a transportation unit.

Instruction: Lectures and practical exercises in leadership styles, supply procedures, traffic management, demurrage, carrier qualifications, claims, freight movements, computerized movements management, rates and tariffs, freight classification, documentation of freight shipments, loss and damage, and terminal operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision, 3 in principles of traffic and transportation management (3/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision and 2 in introduction to transportation (3/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (6/75). *Version 4:* In the vocational certificate category, 4 semester hours in transportation, and 3 in personnel administration or human relations (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in transportation, and 3 in personnel administration or human relations (6/74); in the upper-division baccalaureate category, 4 semester hours in transportation (6/74).

Related Occupation Codes: 71N.

AR-0419-0018

Associate Transportation Officer
Career

Course Number: 55-A-C23.

Location: Transportation School, Ft. Eustis, VA.

Length: 12-17 weeks (432-610 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To train commissioned officers to perform as transportation officers.

Instruction: Lectures and practical exercises in duties of transportation officers, including utilization and management of transportation modes (aviation, motor, rail, and water); terminal operations; transportation movements; intelligence and communications procedures; nuclear weapons; chemical, biological, and radiological warfare; logistics; personnel and administration; and military science and tactics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (12/68).

AR-0419-0019

Transportation Officer Advanced
(Transportation Officer Career)

Course Number: *Version 1:* 8-55-C22. *Version 2:* 8-55-C22; 8-55-C22A; 8-55-C22B; 8-55-C22C; 8-55-C22D. *Version 3:* 8-55-C22. *Version 4:* 8-55-C22; 55-A-C22. *Version 5:* 55-A-C4; 8-55-C22; 55-O-3. *Version 6:* None.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 20-23 weeks (751-905 hours). *Version 2:* 26-34 weeks (679-1181 hours). *Version 3:* 32 weeks (1065 hours). *Version 4:* 36 weeks (1095 hours). *Version 5:* 24-30 weeks (529-918 hours). *Version 6:* 35-36 weeks (1059-1400 hours).

Exhibit Dates: *Version 1:* 11/84-Present. *Version 2:* 12/75-10/84. *Version 3:* 1/75-

11/75. *Version 4:* 6/72-12/74. *Version 5:* 5/58-5/72. *Version 6:* 9/54-4/58.

Objectives: To qualify commissioned officers, who have completed the transportation officer basic course or its equivalent, for command and staff duties at battalion, brigade or comparable levels, and in the duties of Transportation Corps officers.

Instruction: *Version 1:* Lectures and practical exercises on the duties of Transportation Corps officers including leadership and management; logistics with review of data processing and operations research applications; tactics involving nuclear, biological, and chemical operations; air, motor, rail and water terminals and transport; traffic management; and written and verbal communication techniques. *Version 2:* Lectures and practical exercises on the duties of Transportation Corps officers including leadership and management; logistics with review of data processing and operations research applications; tactics involving nuclear, biological, and chemical operations; air, motor, rail and water terminals and transport; traffic management, and written and verbal communication techniques. *Version 3:* Lectures and practical exercises on the duties of Transportation Corps officers at command and staff levels, including military staff; management; internal defense and development; military operations; logistics; nuclear, biological and chemical operations; air, motor, rail, and water terminals and transport, traffic management; and educational development. Other topics include economics, data processing, and public speaking. *Version 4:* Lectures and practical exercises on the duties of Transportation Corps officers at command and staff levels, including military staff; management; internal defense and development; military operations; logistics; nuclear, biological, and chemical operations; air, motor, rail, and water terminals and transport; traffic management; and educational development. *Version 5:* Lectures and practical exercises on the duties of Transportation Corps officers at command and staff levels, including military staff; management; internal defense and development; military operations, logistics; nuclear, biological, and chemical operations; air, motor, rail, and water terminals and transport; traffic management; and educational development. Other topics include operations and intelligence, aviation, personnel and administration, nuclear weapons, communication skills, counterinsurgency, and professional development. *Version 6:* Lectures and practical exercises on the duties of Transportation Corps officers at command and staff levels, including military staff; management; internal defense and development; military operations; logistics; nuclear, biological, and chemical operations; air, motor, rail, and water terminals and transport; traffic management; and educational development. Other topics include map reading and the organization and operation of the U.S. Army, the U.S. Navy, and the Canadian Army.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory personnel management, 2 in introductory data processing, 3 in principles of transportation, 3 in business communications and report writing, and 2 in public speaking; in the upper-division baccalaureate category, 6 semester hours in traffic management (8/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory personnel management, 2 in introductory data processing, 3 in principles of transportation, 3 in business communications and report writing, and 2 in public speaking; in the upper-division baccalaureate category, 6 semester hours in traffic management (7/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory data processing, 3 in public speaking, and 6 in principles of transportation (6/75); in the upper-division baccalaureate category, 6 semester hours in transportation management and 6 in economics of transportation (6/75). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in general management, 6 in traffic management (7/74). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in business organization, 6 in traffic management (12/68). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in business organization, and 6 in traffic management (12/68).

AR-0419-0020

Transportation Officer Familiarization

Course Number: 55-A-C21.

Location: Transportation School, Ft. Eustis, VA.

Length: 7 weeks (245-252 hours).

Exhibit Dates: 11/59-12/68.

Objectives: To train commissioned officers to perform as transportation officers.

Instruction: Lectures and practical exercises in transportation, including subjects of military significance (logistics, operation, and intelligence), transportation organization, plans and employment, general transportation aviation, transportation movements, and rail, motor, and water transport.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation organization and management (12/68).

AR-0419-0021

Air Transportability

Course Number: 822-F10.

Location: Transportation School, Ft. Eustis, VA.

Length: 2 weeks (74 hours).

Exhibit Dates: 8/72-11/75.

Objectives: To train selected noncommissioned officers to plan, organize, and conduct air management training and/or operations in their organizations.

Instruction: Lectures and practical exercises in the planning, organization, and coordination of air management training and/or operations. Topics include aircraft characteristics, unit air movement planning, loading and lashing fundamentals, shoring, and handling of dangerous cargo.

Credit Recommendation: In the vocational certificate category, 2 semester hours in air transportation (7/74).

AR-0419-0022

Associate Transportation Officer Advanced

Course Number: 55-O-4.

Location: Transportation School, Ft. Eustis, VA.

Length: 12-16 weeks (421-579 hours).

Exhibit Dates: 11/55-6/60.

Objectives: To train officers to be transportation officers.

Instruction: Lectures and practical exercises in organization, planning, and management of air, rail, motor, and water transportation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (12/68).

AR-0419-0023

Transportation Officer Orientation

Course Number: 8-55-C21.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (168-209 hours).

Exhibit Dates: 9/67-12/71.

Objectives: To provide initial branch training and orientation for commissioned officers assigned to the Transportation Corps.

Instruction: Lectures and practical exercises in transportation, including officer orientation, logistics, air and rail transport, terminal and water transport, motor transport, transportation movements, and integrated training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in transportation management and organization (7/74); in the upper-division baccalaureate category, 2 semester hours in transportation organization and management (12/68).

AR-0419-0024

1. Motor Transport Noncommissioned Officer (NCO) Advanced
2. Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: *Version 1:* 8-641-C42. *Version 2:* 8-MT-C42.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 5-7 weeks (187-238 hours). *Version 2:* 8-10 weeks (284-301 hours).

Exhibit Dates: *Version 1:* 9/77-Present. *Version 2:* 10/72-8/77.

Objectives: To train noncommissioned officers in motor transport operations.

Instruction: *Version 1:* Lectures and practical exercises in the duties of a noncommissioned officer in motor transportation. Topics include military operations; leadership styles and communications; staff functions; truck transport planning; and the organization, operation, mission, and function of specific motor transportion units. *Version 2:* Lectures and practical exercises in the duties of a noncommissioned officer in motor transportation. Topics include military operations, military staff and management; general transportation subjects (air, marine, rail, and motor); and the organization, operation, mission, and function of specific transportation units.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision and 2 as a technical elective in transportation (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in motor transport supervision (6/75); in the upper-division baccalaureate category, 3 semester hours in principles of management (6/75).

Related Occupation Codes: 64C.

AR-0419-0025

Transportation Officer Candidate

Course Number: 8-55-F1.

Location: Transportation School, Ft. Eustis, VA.

Length: 23 weeks (862 hours).
Exhibit Dates: 8/66–3/68.
Objectives: To train officers for duty in transportation units.
Instruction: Lectures and practical exercises in transportation, including military science and tactics; nuclear weapons and CBR; map and air photo reading; general communication skills; air, motor, and rail transport; terminal and water transport; and transportation movements.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in transportation organization, and credit in advanced military training at institutions which normally offer such credit (12/68).

AR-0419-0026

AIRDROP LOADMASTER

Course Number: None.
Location: Quartermaster School, Ft. Lee, VA.
Length: 3 weeks (146 hours).
Exhibit Dates: 8/64–12/68.
Objectives: To train personnel to pack cargo parachutes used in airdrops.
Instruction: Lectures and practical exercises in packaging procedures, airdrop containers, and aircraft operations, including parachute packing and cargo parachutes, rigging supplies and equipment, aircraft loading, rehabilitation of equipment, heavy-drop extraction procedures, recovery, cargo platform preparation, parachute release assemblies, cargo slings and bags, and parachute release assemblies.
Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation—airdrop loadmaster (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in transportation—airdrop loadmaster (7/74).

AR-0419-0027

STRATEGIC MOBILITY PLANNING

Course Number: 8C-ASI3S/822-F10; 8C-F2; 822-F10.
Length: 3–4 weeks (109–137 hours).
Location: Transportation School, Ft. Eustis, VA.
Exhibit Dates: 2/81–Present.
Objectives: To train selected commissioned officers, warrant officers, and enlisted personnel in planning, organizing, and conducting unit movements.
Instruction: Lectures and practical exercises including air movements and planning operations; preparation of equipment; restraint fundamentals; departure and arrival airfield procedures; dangerous cargo; joint combat airlift; helicopter landing procedures; unit movement by rail; railway equipment capabilities; loading, blocking, and tracing equipment on rail cars.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in general transportation and planning (3/88).

AR-0419-0028

1. CARGO SPECIALIST NONCOMMISSIONED OFFICER (NCO) ADVANCED
2. CARGO SPECIALIST NONCOMMISSIONED OFFICER (NCO) ADVANCED
3. CARGO SPECIALIST NONCOMMISSIONED OFFICER (NCO) ADVANCED
4. TERMINAL OPERATIONS COORDINATOR NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: *Version 1:* 5-88-C42A. *Version 2:* 5-641-C42A. *Version 3:* 5-641-C42A. *Version 4:* 5-641-C42A.
Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.
Length: *Version 1:* 7–8 weeks (158–292 hours). *Version 2:* 7–8 weeks (193–280 hours). *Version 3:* 7–8 weeks (257 hours). *Version 4:* 5–6 weeks (182 hours).
Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 12/85–9/88. *Version 3:* 12/82–11/85. *Version 4:* 9/77–11/82.
Objectives: To provide enlisted personnel with the knowledge of water transportation terminals, water transport units and supervisory techniques necessary to perform the duties of a senior noncommissioned officer.
Instruction: Lectures and practical exercises on military operations; leadership styles and communications; staff functions; water transport operations; and the supervision associated with water terminal operations.
Credit Recommendation: *Version 1:* Pending evaluation; see AR-1404-0035 for Common Core. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (5/86) and see AR-1404-0035 for the Common Core (3/85); in the upper-division baccalaureate category, for the Common Core see AR-1404-0035 (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/85). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision (3/83).
Related Occupation Codes: none.

AR-0419-0029

1. TRAINMAN
2. RAILWAY TRAINMAN

Course Number: *Version 1:* 55-R-662.1. *Version 2:* 55-E-3.
Location: Transportation School, Ft. Eustis, VA.
Length: *Version 1:* 8 weeks (280 hours). *Version 2:* 10 weeks (374 hours).
Exhibit Dates: *Version 1:* 7/58–12/61. *Version 2:* 9/54–6/58.
Objectives: To train enlisted personnel to operate trains and handle railway cars in railway yards and over the road.
Instruction: Lectures in railway operating rules, train and engine service, and practical experience on the B & O railroad.
Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in trainman techniques (7/74). *Version 2:* In the vocational certificate category, 8 semester hours in trainman techniques (7/74).

AR-0419-0030

1. LOCOMOTIVE OPERATION
2. RAILWAY LOCOMOTIVE OPERATION

Course Number: *Version 1:* 55-R-661.2. *Version 2:* 55-E-7.
Location: Transportation School, Ft. Eustis, VA.
Length: *Version 1:* 8 weeks (280 hours). *Version 2:* 10 weeks (350 hours).
Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 9/55–6/58.
Objectives: To train enlisted personnel to operate steam and diesel-electric locomotives used in yard and road service.
Instruction: Lectures and practical exercises in steam and diesel-electric locomotive operation, including railway operating rules, locomotive operation, locomotive inspection and maintenance, and practical exercises on the B & O railroad.
Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in locomotive operation (7/74). *Version 2:* In the vocational certificate category, 8 semester hours in locomotive operation (7/74).

AR-0419-0031

AIR TRANSPORTABILITY PLANNING

Course Number: 8C-F2/822-F10.
Location: Transportation School, Ft. Eustis, VA.
Length: 2 weeks (84–85 hours).
Exhibit Dates: 9/65–11/81.
Objectives: To train commissioned officers and warrant officers to plan, organize, and conduct unit air movement training and operations.
Instruction: Lectures and practical exercises in the duties of a unit air movement officer. Course includes manifesting procedures, aircraft characteristics, air movement planning, loading fundamentals, and handling dangerous cargo.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in air transportation planning (7/74).
Related Occupation Codes: 160A; 103A; 100B.

AR-0419-0032

1. CARGO OFFICER
2. STEVEDORE OFFICER

Course Number: *All Versions:* 8C-0804. *Version 2:* 55-A-0804.
Location: Transportation School, Ft. Eustis, VA.
Length: *Version 1:* 9 weeks (346 hours). *Version 2:* 8–9 weeks (278–315 hours).
Exhibit Dates: *Version 1:* 6/68–5/75. *Version 2:* 9/57–5/68.
Objectives: To train officers to be cargo and stevedore officers in transportation terminal units.
Instruction: *All Versions:* Lectures and practical exercises in introduction to transportation modes, terminal facilities involved in cargo handling, water transportation terminal cargo planning and documentation, stevedore operations supervision, and cargo preparation and loading for shipment. *Version 2:* Instruction emphasizes stevedore operations and terminal organization and operations.
Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in cargo handling (7/74). *Version 2:* In the vocational certificate category, 5 semester hours in cargo handling (7/74).

AR-0419-0033

TRANSPORTATION OFFICER BASIC
(Transportation Officer Orientation)

Course Number: *All Versions:* 8-55-C20. *Version 1:* 8-55-C20-95A/C/D; 8-55-C20-88A/C/D. *Version 2:* 55-A-C20; 55-O-A; 55-A-C1.
Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.
Length: *Version 1:* 12–20 weeks (515–828 hours). *Version 2:* 8–11 weeks (286–426 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 9/55–6/74.

Objectives: To train newly commissioned officers for transportation operations management.

Instruction: *All Versions:* Lectures and practical exercises in the organization, planning, and management of air, motor, rail, and water transportation movements, including truck company operations, convoy, rail operations, loading and blocking, terminal operations and management, cargo planning, stowage, dangerous cargo, traffic management, and freight movements and planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 2 in principles of depot operations (3/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in transportation organization and management (7/74); in the upper-division baccalaureate category, 3 semester hours in transportation organization and management (7/74).

AR-0419-0034

1. Harbor Craft Deck Officer
2. Harbor Craft Deck Operations
3. Harbor Craft Deck Operations
   (Harbor Craft Deck Officer)

Course Number: *Version 1:* 8C-561E; 8C-0820; 8C-0825; 8C-561D; 062-F1. *Version 2:* 8C-0820; 771-F1; 55-H-0820. *Version 3:* 55-OE-24.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 19–20 weeks (720–783 hours). *Version 2:* 18 weeks (661 hours). *Version 3:* 18–19 weeks (630–714 hours).

Exhibit Dates: *Version 1:* 10/71–3/84. *Version 2:* 7/68–9/71. *Version 3:* 10/55–6/68.

Objectives: To train officers and enlisted personnel to plan, direct, and supervise operations on military harbor craft.

Instruction: *All Versions:* Lectures and practical exercises in harbor craft deck operations, including navigation by the sun and stars, general shipboard subjects, open-water navigation, and piloting and operation. *Version 1:* Topics include general marine subjects, maintenance management, ship's deck and cargo gear, marlinspike seamanship, and radio communications. *Version 2:* Topics include communications, ship and tug handling, courses and bearings, organizational administration, cargo stowage and handling, and navigational equipment. *Version 3:* Topics include general shipboard subjects; cargo stowage and handling; ship handling; ship's instruments, accessories, electronic equipment, and magnetic variances; courses and bearings; weather principles, tides, and currents; and shipboard emergencies.

Credit Recommendation: *Version 1.* In the vocational certificate category, 3 semester hours in seamanship (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine navigation (6/75). *Version 2:* In the vocational certificate category, 17 semester hours in transportation—water navigation (7/74); in the lower-division baccalaureate/associate degree category, 13 semester hours in transportation—water navigation (7/74); in the upper-division baccalaureate category, 4 semester hours in transportation—water navigation, and additional credit in mathematics on the basis of institutional examination (7/74). *Version 3:* In the vocational certificate category, 17 semester hours in transportation—water navigation (7/74); in the lower-division baccalaureate/associate degree category, 13 semester hours in transportation—water navigation (7/74); in the upper-division baccalaureate category, 4 semester hours in navigation, and credit in trigonometry on the basis of institutional examination (12/68).

Related Occupation Codes: 561D.

AR-0419-0035

Defense Advanced Traffic
Management
(Advanced Traffic Management)

Course Number: *Version 1:* 8C-F3. *Version 2:* 8C-F3. *Version 3:* 8C-F3. *Version 4:* 8C-F3; 55-G-F3. *Version 5:* 55-O-15.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 3 weeks (108 hours). *Version 2:* 3 weeks (100 hours). *Version 3:* 4 weeks (140 hours). *Version 4:* 4 weeks (140-147 hours). *Version 5:* 6 weeks (208-219 hours).

Exhibit Dates: *Version 1:* 8/85–Present. *Version 2:* 1/74–7/85. *Version 3:* 4/70–12/73. *Version 4:* 12/58–3/70. *Version 5:* 2/54–11/58.

Objectives: To train commissioned officers with prior schooling in traffic management in advanced managerial procedures for traffic and general transportation.

Instruction: Lectures and practical exercises in managerial procedures for traffic and general transportation, including economics of transportation, characteristics of various modes and carriers, transportation services and regulations, industrial and military traffic management, transportation in logistics, movement of regular and special cargo (weapons and missiles), household goods and passengers, claim prevention,and rate negotiation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in transportation management, 2 in economics of transportation (5/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in economics of transportation (6/75). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in transportation management (7/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in transportation management (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in transportation management (12/68).

AR-0419-0036

1. Installation Traffic Management
2. Installation Transportation

Course Number: *Version 1:* 8C-F4; 55-G-F1. *Version 2:* 55-O-8.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 4 weeks (143–155 hours). *Version 2:* 8 weeks (280–320 hours).

Exhibit Dates: *Version 1:* 2/61–Present. *Version 2:* 6/54–1/61.

Objectives: To train commissioned officers in the performance of commercial and military traffic functions and in the military transportation functions of an installation transportation officer.

Instruction: *All Versions:* Lectures and practical exercises in installation traffic management, including passenger, freight, and personal property traffic. *Version 1:* Topics include carrier qualifications, modes and storage selection, quality control procedures, traffic management, specialized freight movements, small-shipment services; organization and field installations, commercial transportation service, procurement, integrated accounting, and movement of units and large groups. *Version 2:* Topics include organization and field installations, movement problems, Transportation Corps Field Services in the continental United States, administration and supply, utility railways and equipment, and operation and functions of aviation sections.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in transportation management (4/84). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in transportation management (12/68).

AR-0419-0037

Basic Joint Personal Property
(Joint Personal Property)

Course Number: *Version 1:* 8C-S13V/553-ASIH2; 8C-F5/514-F2. *Version 2:* 8C-F5; 514-F2.

Length: 2 weeks (74–77 hours).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Exhibit Dates: *Version 1:* 2/85–Present. *Version 2:* 6/81–1/85.

Objectives: To train commissioned officers, warrant officers, and civilians in traffic management functions associated with personal property shipments.

Instruction: Lectures, practical exercises, and field experiences including entitlement and authorization, shipping procedures, carrier contracts, utilization of carrier rate tariffs, establishment of a traffic distribution record, inspection of shipments and facilities of carrier, claim procedures, and traffic and control procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic distribution, freight loss, and damage claims (3/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to traffic distribution and 2 in freight loss and damage claims (3/83).

AR-0419-0038

Transportation Company Officer

Course Number: *Version 1:* 55-A-C2. *Version 2:* 55-O-1; 55-A-C2. *Version 3:* 55-O-1.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 21 weeks (643 hours). *Version 2:* 34–36 weeks (1083–1146 hours). *Version 3:* 30 weeks (1056 hours).

Exhibit Dates: *Version 1:* 6/58–12/68. *Version 2:* 8/56–5/58. *Version 3:* 9/55–7/56.

Objectives: To train commissioned officers in the responsibilities appropriate to company grade transportation officers.

Instruction: Lectures and practical exercises in transportation, including personnel and administration; intelligence; operations and training; logistics; motor and rail transport; terminal and water transport; aviation; general transport; U.S. Navy, U.S. Air Force, and Canadian Army transportation procedures; and instructional methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business organization, 3 in traffic management (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business organization, and 6 in traffic management (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in business organization, 3 in traffic management (12/68).

AR-0419-0039

MARINE WARRANT OFFICER ADVANCED

Course Number: 8-55-C32; 8C-561C; 4H-562C.

Location: Transportation School, Ft. Eustis,VA.

Length: Phase I, Common core, 2-3 weeks; Phase II, Track A, 18-19 weeks; Phase II, Track B, 13 weeks for a total of 15-22 weeks (Phase I, Common core, 101 hours; Phase II, Track A, 712 hours, Phase II, Track B, 426 hours).

Exhibit Dates: 8/76-6/86.

Objectives: In Phase I, to review military, logistic, and marine subjects; in Phase II Track A, to provide warrant officers with sufficient knowledge to pass the deck officer's license examination; In Phase II Track B, to provide warrant officers with sufficient knowledge to pass the engineering officer's license examination.

Instruction: For this course after 6/86 see AR-1722-0005. Phase I includes lectures, films, and self-study periods to review current military subjects and regulations. These subjects are presented from a management point of view of the ship's master or chief engineer. Phase II Track A includes lectures, films, and computer time periods to obtain a working knowledge of the duties and responsibilities of a ship's master. Two-thirds of the course is learning established skills, celestial navigation, electronic navigation, logarithms etc. and one-third is practical exercises displaying the student's level of proficiency in understanding the skills. Phase II Track B includes lectures, films, and demonstration periods to provide a working knowledge of the duties and responsibilities of a ship's chief engineer. One-half of the course is learning established theories, systems, and mathematics; one-half of the course is practical exercises (OJT) displaying the student's level of proficiency in understanding the learned skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Phase II Track A: 3 semester hours in basic math, 3 in celestial navigation, 6 in advanced seamanship, and 1 in basic computers; in the upper-division baccalaureate category, 3 in principles of supervision; in the lower-division baccalaureate/associate degree category, for Phase II Track B: 3 semester hours in basic math, 4 in diesel technology, 1 in basic electricity, and 2 in basic refrigeration; in the upper-division baccalaureate category, 3 in principles of supervision (3/83).

AR-0419-0040

TRAFFIC MANAGEMENT COORDINATOR

Course Number: 514-71N10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 5-6 weeks (202 hours). *Version 2:* 5-6 weeks (194-210 hours).

Exhibit Dates: *Version 1:* 3/85-Present. *Version 2:* 7/78-2/85.

Objectives: To provide enlisted personnel with the knowledge of transportation and related activities necessary to perform entry-level duties.

Instruction: *Version 1:* lectures and practical exercises in performance of critical tasks related to cargo documentation, planning, loss and damage control, unit movements, passenger movements, overview of installation traffic officer functions, and orientation on computerized traffic movement management systems. *Version 2:* Lectures, practical exercises, and self-paced learning strategies are utilized covering commercial classification, and rates; transportation control and movement documents; routing of freight; commercial transport; ocean cargo documentation; bill of lading; beginning typing; and physical fitness.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to traffic and transportation (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in personal typing, 3 in introduction to traffic and transportation, and 1 in physical education (3/83).

Related Occupation Codes: 71N.

AR-0419-0041

TRAFFIC MANAGEMENT COORDINATOR
BASIC NONCOMMISSIONED OFFICER
(NCO) TRAFFIC MANAGEMENT
COORDINATOR BASIC TECHNICAL

Course Number: 514-88N30; 514-71N30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: 3-8 weeks (92-239 hours).

Exhibit Dates: 10/81-Present.

Objectives: To provide enlisted personnel with the techniques and procedures necessary to supervise and control the movement of supplies and personnel by rail, highway, and air.

Instruction: As of 10/87 this course contains a common core of instruction. Please see exhibit AR-1406-0090. Lectures and practical demonstrations in modes of transportation; transportation procedures and regulations; management of personnel and passenger movement; and supervision of motor, rail, water, and terminal transportation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic operations supervision or as a technical elective in transportation and traffic management (10/88). For credit for the common core (included after 10/87), see AR-1406-0090 (3/88).

Related Occupation Codes: 71N.

AR-0419-0042

INSTRUCTOR TRAINING

Course Number: 19-82.

Location: Training Center, Ft. Dix, NJ.

Length: 2 weeks (77 hours).

Exhibit Dates: 8/82-Present.

Objectives: To provide personnel assigned as instructors with the knowledge, skills, and techniques necessary for teaching military subjects.

Instruction: Instruction in principles of lesson planning, selection of visual aids, instructional strategies and techniques, and the learning of teaching skills. Instructional styles including conference classes, demonstrations, performance-oriented instruction, and remedial instruction are emphasized. Students are required to give various types and lengths of presentations which are critiqued by instructional staff.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in speech or public speaking (9/83); in the upper-division baccalaureate category, 3 semester hours in methods of instruction (9/83).

AR-0419-0043

TRANSPORTATION FIELD GRADE OFFICER
REFRESHER

Course Number: 8C-F13.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/86-Present.

Objectives: To provide a braod knowledge base in the current organization and practices of transportation activities.

Instruction: This course will utilize lectures, demonstrations, and practical exercises to give the individual a broad base of knowledge of current organization and management practices of the Transportation Corps activities.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in transportation management (5/86).

AR-0419-0044

DEFENSE BASIC TRAFFIC MANAGEMENT

Course Number: 8C-F12/553-F1.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 3/85-Present.

Objectives: To provide select individuals with a broad base of knowledge in commercial transportation systems as applied to government freight transportation.

Instruction: Lectures and practical exercises in the knowledge of commercial transportation systems and the skills to procure services from commercial sources as applied to Department of Defense freight transportation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in transportation practices (5/86).

AR-0419-0045

WATERCRAFT OPERATOR ADVANCED
NONCOMMISSIONED OFFICER (NCO)

Course Number: 062-88K40.

Location: Transportation School, Ft. Eustis, VA.

Length: 12-13 weeks (445 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform watercraft supervision and administration including logbooks, presail inspections, and shipboard emergency drills. The student will be able to perform cargo handling operations, obtain weather information, interpret international code flags,and flashing light signals. The student will be able to use naviagtional aids and to serve as a mate on a multiscrew vessel.

Instruction: Lectures and practical exercises including the operation of multiple screw vessels. Course also includes a common core. See AR-1404-0035 for its description.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principle of supervision, 3 in marine navigation and 1 in multiple screw vessel operation (3/88). See AR-1404-0035 for common core credit.

Related Occupation Codes: 88K.

AR-0419-0046

CARGO SPECIALIST

Course Number: 822-88H10.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, Va.

Length: 9-10 weeks (336 hours).
Exhibit Dates: 1/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform cargo handling, operations, loading procedures, and transhipment of cargo at air, rail and marine terminals.
Instruction: Includes lectures, demonstrations and performance exercises in rigging and positioning ship's cargo-handling gear and safety nets, operating materials-handling equipment, winches and cranes, lift on/off and roll on/off stevedoring operations aboard ship for vehicles, heavy lifts, container, and general cargo operations of Hagglund's crane and the rough terrain forklift. Also includes some preventive maintenance.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine cargo operations (3/88).
Related Occupation Codes: 88H.

AR-0419-0047

Transportation Officer Advanced - Reserve Phases II and IV

Course Number: 8-55-C22-RC.
Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.
Length: 4 weeks (148 hours).
Exhibit Dates: 5/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to manage the movement and handling of cargo, determine and develop marine terminal cargo capacity, account for cargo shipments and receivals, manage highway movements and rail transportation.
Instruction: Includes lectures, demonstrations and performance exercises in marine cargo packaging and handling, containerization, ship loading techniques, cargo discharge operation, deployment, cargo accountability, motor transportation planning and control, convoy operations, rail equipment capabilities, rail planning and train operations, yard and terminal operations, railway construction and rehabilitation. Phases II and IV are resident phases; the others are completed by correspondence.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/88).

AR-0505-0001

1. Equal Opportunity Representative
2. Part-Time Unit Discussion Leader

Course Number: DL 471.
Location: Combined Arms Training Center, Vilseck, W. Germany.
Length: *Version 1:* 2 weeks (68 hours). *Version 2:* 2-3 weeks (102 hours).
Exhibit Dates: *Version 1:* 3/86-Present. *Version 2:* 3/79-2/86.
Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to gather information on possible equal opportunity violations; lead guided discussions on equal opportunity subjects; identify and discriminate between actual and suspected equal opportunity violations; prepare and present an information briefing; and effectively communicate with all soldiers, regardless of race, sex, or religion. *Version 2:* Upon completion of the course, the student will be able to lead group discussions; interpret current equal opportunity regulations and policies; orally communicate with small groups or individuals; and prepare and present instructions.
Instruction: *Version 1:* Lectures, demonstration, and seminar in which the student is required to give a three to five minute impromptu speech, a ten minute lecture, and lead a twenty minute group discussion. *Version 2:* Lectures, guided discussions, and seminars in which the student is required to present formal instruction.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in speech communications (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in interpersonal communications (10/88).

AR-0602-0001

U.S. Army Institute for Advanced Russian and East European Studies

Course Number: None.
Location: Institute for Advanced Russian and East European Studies, Garmisch, Germany.
Length: 104 weeks (3120 hours).
Exhibit Dates: 7/69-1/79.
Objectives: To train officers in advanced Russian language and area studies, and in East European area studies.
Instruction: Lectures, readings, and student research and discussions in advanced Russian language and area studies, and in East-European area studies, including intensive review of Russian, basic vocabulary, and grammar; armed forces subjects, including tactics and training, command and staff structures, map reading, history and organization of the Soviet armed forces, mobilization procedures of the Soviet armed forces, military operations on the Eastern front in World War II, logistics, counterintelligence and intelligence studies, Soviet military doctrine and strategy, principles of war, roles of insurgency and revolution, and current Soviet military affairs and problems; physical geography of the U.S.S.R.; economic subjects, including economic theories of Marx, Engels and Lenin, Soviet planning and control methods, organization of the Soviet economy, principles of Soviet regionalization, impact of recent economic reforms, and a study of the history, characteristics, production, distribution, development, and overall role of each branch in the economic complex; political subjects, including political history of Russia and the U.S.S.R. since 1800, development of the Soviet state, role of the Communist Party, organs of centralized control, elements of the population, communist doctrine and ideology, contemporary revisionism and dogmatism, governmental structure of the Soviet Union, contrast of the official and actual Soviet system of government, tactics of the Communist Party, leading personalities and opposition to the party, the U.S.S.R. in international relations since 1918, communist insurgency and subversive activities, and Soviet law and judicial system; communist states subjects, including international economic organization of the states, and the geography, population, natural resources, economy, history, government, foreign relations, strategic importance, and relationship to the Soviet Union of East Germany, Poland, Czechoslovakia, Hungary, Rumania, Bulgaria, Yugoslavia, and Albania; and social science subjects, including brief treatments of contemporary Soviet literature, drama, television, painting and music, survey of the Soviet press and organization of published materials, seminar on Soviet society, and development of Russian and Soviet literature with emphasis on elements of continuity and change.
Credit Recommendation: In the graduate degree category, for the entire two-year program, 6 semester hours in advanced Russian language, including formal instruction and total immersion in content courses taught in Russian, 3 in Russian and Soviet literature, 6 in politico-economic area studies (8/74).

AR-0602-0002

Military Assistance Training Advisor Senior Noncommissioned Officer (NCO)

Course Number: None.
Location: Institute for Military Assistance, Ft. Bragg, NC; Special Warfare School, Ft. Bragg, NC.
Length: 6 weeks (196-233 hours).
Exhibit Dates: 2/66-4/73.
Objectives: To provide senior noncommissioned officers selected for advisory duty in Vietnam, with a familiarization with the Vietnamese language and a general knowledge of the duties and responsibilities of the military advisor.
Instruction: Lectures and practical exercises to provide a general background orientation to the history and present social, political and economic environment of Vietnam; the insurgent threat and allied programs being conducted to counter the insurgency.
Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese on the basis of institutional evaluation (12/68). NOTE: If the student has a Defense Language Institute (DLI) transcript indicating completion of the entire 12-week Vietnamese course, 8 semester hours in Vietnamese may be granted.

AR-0602-0003

Military Assistance Training Advisor Field Grade Officer

Course Number: None.
Location: Institute for Military Assistance, Ft. Bragg, NC.
Length: 6 weeks (218 hours).
Exhibit Dates: 1/70-4/73.
Objectives: To provide officers selected for duty in the Republic of Vietnam with a working knowledge of the duties, organizations, programs, techniques, and procedures that make up the advisory effort.
Instruction: Lectures and practical exercises in the history, geography, ethnic groups, social structure, and other general subjects dealing with the background of Vietnam; map reading, first aid, weapons, field fortifications, communications, and other general subjects; and Vietnamese language. Language training in this course is the first 4 weeks of the 12-week Vietnamese (Saigon dialect) course given by the Defense Language Institute (DLI) at Ft. Bliss. If the entire 12-week course has been completed, student will have a DLI transcript.
Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese on the basis of institutional examination (7/74). Note: If student has a DLI transcript indicating completion of the entire 12-week Vietnamese course, 8 semester hours in Vietnamese may be granted.

AR-0602-0004

Military Assistance Training Advisor CORDS Officer

Course Number: None.
Location: Institute for Military Assistance, Ft. Bragg, NC.
Length: 6 weeks (200 hours).
Exhibit Dates: 11/71-4/73.

Objectives: To provide selected officers with a knowledge of duties of a military advisor and to familiarize them with the Vietnamese language.

Instruction: Lectures and practical exercises to include general orientation to Vietnam, the art and technique of the advisor, internal defense and internal development, Vietnamese familiarization. Language training in this course is the first 4 weeks of the 12-week Vietnamese (Saigon dialect) course given by the Defense Language Institute (DLI) at Ft. Bliss. If entire 12-week course has been completed, student will have a DLI transcript.

Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese on the basis of institutional examination. Note: If student has a Defense Language Institute (DLI) transcript indicating completion of the entire 12-week Vietnamese course, 8 semester hours in Vietnamese may be granted (7/74).

AR-0602-0005

Military Assistance Training Advisor
Company Grade Officer

Course Number: None.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 6 weeks (219 hours).

Exhibit Dates: 1/70–4/73.

Objectives: To provide officers selected for advisory duty in the Republic of Vietnam with a working knowledge of the duties, organizations, programs, techniques, and procedures that make up the advisory effort.

Instruction: Lectures and practical exercises in the political, social, and economic environment of Vietnam, the stability operations and pacification program, community tactics and strategy of indirect approach, Communist military tactics, and Vietnamese language. Language training in this course is the first 4 weeks of the 12-week Vietnamese (Saigon dialect) course given by the Defense Language Institute (DLI) at Ft. Bliss. If the entire 12-week course has been completed, student will have a DLI transcript.

Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese on the basis of institutional examination (7/74). Note: If student has a DLI transcript indicating completion of the entire 12-week Vietnamese course, 8 semester hours in Vietnamese may be granted.

AR-0602-0006

Military Assistance Training Advisor
ARVN Officer

Course Number: None.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 6 weeks (200 hours).

Exhibit Dates: 11/71–4/73.

Objectives: To provide commissioned officers selected for advisory duty with a unit of the Army of the Republic of Vietnam with a working knowledge of the duties and responsibilities of the military advisor.

Instruction: Conferences and practical exercises in the organization, programs, and operations of the U.S. advisory effort, and familiarization with the Vietnamese language.

Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese on the basis of institutional evaluation. Note: If the student has a Defense Language Institute (DLI) transcript indicating completion of a 12-week Vietnamese course, 8 semester hours in Vietnamese may be granted (7/74).

AR-0602-0007

English 3200: Programmed Course in
Grammar and Usage

Course Number: 1-19-XR-100.

Location: Military Police School, Ft. McClellan, AL; Chemical School, Ft. McClellan, AL.

Length: Self-paced 2-3 weeks (104 hours).

Exhibit Dates: 10/80–Present.

Objectives: To provide selected enlisted personnel, noncommissioned and commissioned officers with a working knowledge of English usage.

Instruction: Self-paced instruction utilizing a programmed workbook. Course covers grammar usage, sentence construction, and punctuation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in grammar or English usage (3/82).

AR-0701-0001

Dental Laboratory Specialist Basic
(Dental Laboratory Procedures Basic)
(Dental Laboratory)

Course Number: 331-42D10; 8-R-452.1; 8-E-1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 8 weeks (315 hours). *Version 2:* 8-16 weeks (280-704 hours).

Exhibit Dates: *Version 1:* 3/77–9/85. *Version 2:* 2/56–2/77.

Objectives: To train enlisted personnel to perform basic dental prosthetic laboratory techniques.

Instruction: *All Versions:* Lectures and practical exercises in basic dental prosthetic laboratory techniques. Course includes anatomy and tooth morphology, basic dental materials, and complete denture prosthetics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in tooth anatomy, 1 in dental materials, 2 in dental laboratory techniques (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and tooth morphology, 1 in dental materials, 1 in complete dentures (6/77).

Related Occupation Codes: 42D; 42F.

AR-0701-0002

1. Dental Hygiene
2. Dental Hygienist
   (Dental Assistant Advanced)
3. Dental Hygienist
   (Dental Assistant Advanced)
4. Dental Hygienist
   (Dental Assistant Advanced)

Course Number: *Version 1:* 330-X2. *Version 2:* 330-F3. *Version 3:* 330-91E30. *Version 4:* 330-91E20; 330-91E30; 8-R-917.2; 8-E-35.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 16 weeks (664 hours). *Version 2:* 48 weeks (2048 hours). *Version 3:* 44 weeks (1611 hours). *Version 4:* 8-20 weeks (281-1760 hours).

Exhibit Dates: *Version 1:* 12/83–Present. *Version 2:* 3/81–11/83. *Version 3:* 5/78–2/81. *Version 4:* 3/56–4/78.

Objectives: To provide the student with the knowledge and skills to perform the duties of dental hygienist and an expanded dental assistant under the supervision of a dental corps officer.

Instruction: *Version 1:* Instruction includes: performing oral hygiene, prophylactic procedures; conducting individual oral disease programs; applying pit and fissure sealants to the teeth; exposing, processing, and mounting dental radiographs; making preliminary dental impressions on patients and fabricating diagnostic casts; placing and finishing dental restorations; cleaning and sterilizing dental instruments and equipment. *Version 2:* Lectures, practical exercises and laboratories in the performance of oral hygiene prophylactic procedures, determination of patients' individual problems relative to oral health, counseling of patients, flossing techniques, tooth brushing methods and application and flourides. Course provides skills through application that will enable the graduate to perform dental hygiene procedures. Emphasis is placed on clinical prophylactic procedures, oral disease control, dental radiography, dental materials and expanded functions. *Version 3:* Lectures, practical exercises and laboratories in the performance of oral hygiene prophylactic procedures, determination of patients' individual problems relative to oral health, counseling of patients, flossing techniques, tooth brushing methods and application and flourides. *Version 4:* Lectures, practical exercises and laboratories in the performance of oral hygiene prophylactic procedures, determination of patients' individual problems relative to oral health, counseling of patients, flossing techniques, tooth brushing methods and application and flourides.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental science, 2 in dental health, 8 in clinical training in dental hygiene, 3 in dental materials, 2 in nutrition and 2 in dental anatomy and physiology (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category. This course meets all requirements for the technical aspects of all dental hygiene curricula. Program is accredited by the Commission on Accreditation of the American Dental Association. Graduates are eligible to sit for the National Board examination (5/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental science, 2 in dental health, 8 in clinical training, 3 in dental materials, 2 in nutrition and 2 in dental anatomy and physiology (5/82). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental science, 2 in dental health, 8 in clinical training, 3 in dental materials (6/77).

Related Occupation Codes: 91E.

AR-0701-0003

Dental Laboratory Specialist Senior

Course Number: 331-42D30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 10 weeks (356-394 hours).

Exhibit Dates: *Version 1:* 6/79–4/88. *Version 2:* 12/76–5/79.

Objectives: To train enlisted personnel in advanced prosthetic dental laboratory techniques, including basic orthodontic procedures and ceramic (porcelain) procedures.

Instruction: Lectures and practical exercises in basic orthodontic-pedodontic procedures. Emphasis is placed on porcelain fused to metal restorations. Course includes an introduction to basic maxillofacial appliances.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maxillofacial appliances, 5 in porcelain fused to metal restoration, 2 in semi-precision attachments, 1 in ceramic alloys (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hours in dental anatomy (occlusion), 2 in orthodontic procedures, 4 in dental ceramic procedures (6/77).

Related Occupation Codes: 42D.

AR-0701-0004

DENTAL ADMINISTRATION

Course Number: 330-F1.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 4 weeks (140–176 hours).

Exhibit Dates: 10/67–6/87.

Objectives: To provide enlisted personnel with a working knowledge of dental administration in treatment facilities.

Instruction: Lectures and practical experience in the basic principles of dental administration, including personnel management, dental equipment supply and maintenance, dental facility organization, implementing a preventive dentistry program, and administration of a field dental treatment facility.

Credit Recommendation: Credit is not recommended because of the military nature of the course (9/85).

Related Occupation Codes: 91E; 42D; 42F.

AR-0701-0005

DENTAL FIXED PROSTHETIC SPECIALIST

Course Number: 331-42F20.

Location: *Version 1:* Brooke Army Medical Center, Ft. Sam Houston, TX. *Version 2:* Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 10 weeks (405 hours). *Version 2:* 10 weeks (368 hours).

Exhibit Dates: *Version 1:* 7/70–8/79. *Version 2:* 10/67–6/70.

Objectives: To provide dental removable prosthetic specialists with a working knowledge of fixed partial denture techniques.

Instruction: Lectures and laboratories in the fundamentals of fixed partial denture techniques, including applied dental sciences; dental metals and materials; inlays, crowns, and fixed partial dentures; models, dies, and waxing; and maintenance of dental laboratory equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in dental laboratory on the basis of institutional examination (2/74); in the upper-division baccalaureate category, credit in dental laboratory on the basis of institutional examination (2/74). *Version 2:* In the vocational certificate category, 3 semester hours in dental laboratory on the basis of institutional examination (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in dental laboratory on the basis of institutional examination (2/74); in the upper-division baccalaureate category, credit in dental laboratory on the basis of institutional examination (12/68).

Related Occupation Codes: 42D; 42F.

AR-0701-0006

1. DENTAL LABORATORY SPECIALIST INTERMEDIATE
   (Dental Laboratory Specialist Advanced)
2. DENTAL REMOVABLE PROSTHETIC SPECIALIST
3. DENTAL REMOVABLE PROSTHETIC SPECIALIST
   (Dental Laboratory Procedures Advanced)

Course Number: *All Versions:* 331-42D20. *Version 2:* 8-R-452.2; 8-E-34.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Service School, Ft. Houston, TX.

Length: *Version 1:* 15 weeks (556–631 hours). *Version 2:* 10 weeks (350 hours). *Version 3:* 10–20 weeks (352–630 hours).

Exhibit Dates: *Version 1:* 5/76–1/88. *Version 2:* 1/72–4/76. *Version 3:* 3/56–12/71.

Objectives: To train personnel to perform basic and advanced dental prosthetic laboratory techniques.

Instruction: *Version 1:* Lectures and practical exercises in basic and advanced dental prosthetic laboratory techniques. Course includes study of dental anatomy including immediate dentures, relines and rebases; removable partial dentures and fixed restorative procedures. *Version 2:* Complete maxillofacial prostheses; removable partial maxillofacial prostheses; orthodontic appliances; splints. *Version 3:* Dental materials; complete and partial dentures; fixed and removable partial dentures; inlays and crowns.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in complete dentures, 3 in partial dentures, 3 in fixed restorative, 1 in dental anatomy (tooth morphology) (6/77). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in dental technology (7/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 5 semester hours in dental technology (7/74); in the upper-division baccalaureate category, credit in dental laboratory technology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 42D; 42F.

AR-0701-0007

DENTAL SPECIALIST BASIC
(Dental Assistant Basic)
(Dental Specialist)

Course Number: *All Versions:* 330-91E10. *Version 2:* 330-91E20; 8-R-917.1; 8-E-21.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service, Ft. Sam Houston, TX.

Length: 6–8 weeks (196–245 hours).

Exhibit Dates: *Version 1:* 7/80–10/87. *Version 2:* 1/56–6/80.

Objectives: To provide enlisted personnel with a working knowledge of fundamental procedures necessary to assist the dental officer in examination, care and treatment of the oral region.

Instruction: Lectures and practical experience in the basic principles of performing dental assisting duties, learning to expose, process, and mount dental radiographs for diagnostic value, mix commonly used dental restoration and impression materials, prepare instrument setups, and sterilize and disinfect used dental instruments.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic dental science, 2 in radiology, 1 in dental materials, 2 in chairside assisting, and 1 in cardiopulmonary rescusitation (CPR) (6/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic dental science, 3 in chairside assisting, 8 in clinical training, 1 in emergencies, 3 in dental radiology (6/77).

Related Occupation Codes: 91E; 42D.

AR-0701-0008

DENTAL THERAPY ASSISTANT

Course Number: 330-91E30; 330-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 54 weeks (1470 hours).

Exhibit Dates: 10/74–4/78.

Objectives: To provide personnel with knowledge of the basic principles and techniques of the practice of dentistry and to enable them to assist dental officers in the care and treatment of patients, including specified reversible procedures performed on patients under direct supervision of dental officer.

Instruction: Lectures and clinical exercises in the duties of the dental therapy assistant, learning to apply rubber dam, place and finish restorations in cavity preparations in patients, perform functions in the areas of preventive dentistry, utilize techniques of four-handed dentistry, make preliminary impressions, pour casts, expose radiographs and panographic x-rays, perform endodontic procedures, and provide emergency care.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in dental material, 2 in dental health, 1 in four-handed dentistry, 8 in clinical training, 2 in related dental science (6/77).

Related Occupation Codes: 91E.

AR-0701-0009

DENTAL SPECIALIST RESERVE COMPONENT
(NONRESIDENT/RESIDENT)

Course Number: 330-91E10(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase II 2 weeks (70 hours).

Exhibit Dates: 1/78–4/83.

Objectives: To provide prior-service reserve component enlisted personnel with a working knowledge of all procedures necessary to assist the dental officer in the examination, care, and treatment of the oral region.

Instruction: Phase II, the resident portion of the course, consists of conferences and practical exercises in basic dental sciences, radiology, materials, and records and also covers the duties of the dental specialist.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic dental science, 1 in dental materials (8/79). NOTE: Phase 1 is nonresident in nature with no credit recommendation. Credit recommendation is based on phase II only.

Related Occupation Codes: 91E.

AR-0701-0010

DENTAL LABORATORY SPECIALIST BASIC
RESERVE COMPONENT
(NONRESIDENT/RESIDENT)

Course Number: 331-42D10(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase II 2 weeks (80 hours).

Exhibit Dates: 10/77–1/83.

Objectives: To provide prior-service reserve component personnel with a working knowledge of basic dental laboratory procedures.

Instruction: Phase II, the resident portion of the course, consists of demonstrations, lectures, and examinations covering the basic dental laboratory procedures for the fabrication of preliminary and final dental casts, impression trays, occlusion rims, and denture repair.

Credit Recommendation: 3 semester hours in basic dental laboratory procedures (8/79). NOTE: Phase I of this course is non-resident in nature and carries no credit. Credit recommendation is based on Phase II only, the resident portion of the course.

Related Occupation Codes: 91E.

AR-0701-0011

Dental Administration

Course Number: 330-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 4 weeks (148 hours).

Exhibit Dates: 7/82–11/89.

Learning Outcomes: Upon completion of the course the student will be able to perform administrative duties in dental treatment facilities.

Instruction: Lectures and practical experience in the basic principles of dental administration, including personnel management, dental equipment supply and maintenance, dental facility organization, implementing a preventive dentistry program, and administration of a field dental treatment facility.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in health care administration (4/88).

AR-0701-0012

Dental Specialist Reserve Component (Nonresident/Resident) Phase II

Course Number: 330-91E10(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (70–75 hours).

Exhibit Dates: 5/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the procedures necessary to assist the dental officer in the examination, care, and treatment in the oral region.

Instruction: Phase II, the resident portion of the course, consists of conferences and practical exercises in basic dental sciences, radiology, materials, and records and also covers the duties of the dental specialist.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in dental radiology and 2 in chairside assisting (4/88).

AR-0701-0013

Dental Specialist

Course Number: 330-91E10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 6 weeks (221 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the procedures necessary to assist the dental officer in care, examinations and treatment of the oral region.

Instruction: Lectures and practical experience in the basic principles of performing dental assisting duties, learning to expose, process, and mount dental radiographs for diagnostic value, mix commonly used dental restoration and impression materials, prepare instrument setups, and sterilize and disinfect used dental instruments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic dental science, 2 in dental radiology, and 2 in chairside assisting (4/88).

AR-0701-0014

Dental Laboratory Specialist (Basic)

Course Number: 331-42D10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 19 weeks (804–855 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform dental prosthetic laboratory techniques.

Instruction: Lectures and practical exercises in basic dental prosthetic laboratory techniques. Course includes anatomy and tooth morphology, basic dental materials, and complete denture prosthetics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in tooth anatomy, 1 in dental materials, 6 in dental laboratory procedures (5/88).

AR-0701-0015

Dental Laboratory Specialist (Senior)

Course Number: 331-42D30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 10 weeks (328-393 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to fabricate complex dental appliances to a clinically acceptable standard including; ceramic crowns, porcelain fused-to-metal crowns, fixed partial dentures, fixed removable semiprecision appliances, and complex orthodontic and surgical appliances.

Instruction: This course includes lectures, discussions, conferences, demonstrations, and practical exercises in coronal morphology, Hallow bulb obturator, maxillary crowns and dentures, acid etched bridge, porcelain jacket crowns, mandibular partial dentures, semi-precision attachments, denture repair, and post-solder techniques (3/90).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maxillofacial appliances, 5 in porcelain fused to metal restorations, 2 in semi-precision attachments, and 1 in ceramic alloys.

AR-0702-0001

Medical Laboratory Specialist Advanced
(Medical Laboratory Procedures Advanced)

Course Number: 311-92B30; 8-R-931.2; 8-E-26.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX; Walter Reed Army Medical Center, Washington, DC.

Length: 48–50 weeks (1895–2199 hours).

Exhibit Dates: 1/55–10/85.

Objectives: To provide medical laboratory specialists with the knowledge and skills necessary to perform as technical specialists and/or laboratory supervisors.

Instruction: Lectures and practical experience in medical laboratory supervision, equipment use, clinical chemistry, microbiology, parasitology, hematology, urinalysis, histopathology, and cytotechnology and immunology.

Credit Recommendation: In the vocational certificate category, 30 semester hours in medical technology (2/74); in the lower-division baccalaureate/associate degree category, 30 semester hours in medical technology or 10 in biology or chemistry (2/74).

Related Occupation Codes: 92B.

AR-0702-0002

Medical Laboratory Specialist
(Medical Laboratory Procedures Basic)

Course Number: 311-92B10; 311-92B20; 8-R-931.1; 8-E-8.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: 14–16 weeks (420–632 hours).

Exhibit Dates: *Version 1:* 2/82–4/87. *Version 2:* 8/54–1/82.

Objectives: To provide graduates with the necessary knowledge and techniques to perform basic procedures in a medical laboratory.

Instruction: Lectures and practical exercises in hematology, immunohematology, clinical chemistry, bacteriology, urinalysis, serology, and parasitology basic procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in medical laboratory techniques toward a medical laboratory technician certificate (5/82); in the lower-division baccalaureate/associate degree category, 10 semester hours in basic hematology, urinalysis, parasitology, microbiology, or clinical chemistry laboratory techniques, 1 in introduction to medical technology (5/82). *Version 2:* In the vocational certificate category, 10 semester hours in a certified laboratory assistant program (6/77); in the lower-division baccalaureate/associate degree category, 15 semester hours in basic procedures in hematology, clinical chemistry and urinalysis, medical bacteriology, parasitology, and immunohematology and serology in a Medical Laboratory Technician program (6/77).

Related Occupation Codes: 92B.

AR-0702-0003

Blood Grouping, Collecting and Processing

Course Number: 311-F1.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: 6 weeks (264 hours).

Exhibit Dates: 6/68–8/79.

Objectives: To provide enlisted personnel with the knowledge necessary to apply the principles and techniques of grouping, collecting, and processing whole blood on a large-volume basis.

Instruction: Lectures and practical exercises in selection of blood donors, collection of blood for transfusions, donor care, blood processing, and grouping and typing of blood.

Credit Recommendation: In the vocational certificate category, credit for blood banking portion of CLA course (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in blood banking (2/74);

Related Occupation Codes: 92B.

AR-0702-0004

Blood Banking

Course Number: None.

Location: Medical Research Laboratory, Ft. Knox, KY.

Length: 52 weeks.

Exhibit Dates: 1/73–12/73.

Objectives: To train medical laboratory personnel to direct and supervise blood bank centers and to assist in the training of others in blood bank techniques.

Instruction: Lectures on practical techniques, theory, administration, and management of large blood banks, including blood banking and immunohematology.

Credit Recommendation: In the vocational certificate category, credit for blood banking portion of CLA curriculum (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in blood banking (2/74); in the upper-division baccalaureate category, 8 semester hours in medical technology, 4 in biology (2/74).

AR-0702-0005

Renal Dialysis Technician
(Dialysis Technician)

Course Number: 300-F2.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX. Walter Reed Army Medical Center, Washington, DC. *Version 2:* Walter Reed Army Medical Center, Washington, DC. *Version 3:* Walter Reed Army Medical Center, Washington, DC.

Length: *Version 1:* 20 weeks (734–735 hours). *Version 2:* 20 weeks (800 hours). *Version 3:* 24 weeks (898–928 hours).

Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 9/77–12/83. *Version 3:* 1/70–8/77.

Objectives: To provide selected personnel with knowledge and skills required to perform safe and effective hemodialysis and peritoneal dialysis.

Instruction: *Version 1:* This course provides the student with a comprehensive introduction to renal dialysis/hemo dialysis technician education and consists of clinical and didactic instruction. *Version 2:* Lectures and practical exercises in theory and principles of hemodialysis, peritoneal dialysis, and intensive patient care. *Version 3:* Lectures and practical exercises in theory and principles of hemodialysis, peritoneal dialysis, and intensive patient care.

Credit Recommendation: *Version 1:* This course is the equivalent of a basic certificate nephrology technician program. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to hemo/renal dialysis theory, 2 in anatomy and physiology of cardiovascular system, 2 in anatomy and physiology of renal system, 2 in pathophysiology of cardiac and renal diseases, 8 in instrumental analysis in hemo/renal dialysis, 4 in clinical practicum in hemo dialysis and 4 in clinical practicum in renal dialysis (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic chemistry, 1 in management (8/79); in the upper-division baccalaureate category, 6 semester hours in clinical practice in renal pathology with emphasis on dialysis, 2 in renal pathology, 1 in renal physiology (8/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 22 semester hours in health sciences, renal dialysis, or circulatory system technology (6/75).

AR-0702-0006

Urology Procedures

Course Number: 300-F12.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 24 weeks (338 hours).

Exhibit Dates: 4/85–Present.

Objectives: To provide the knowledge and skills necessary to function as a urology technician in both clinics and operating rooms.

Instruction: Didactic, laboratory and clinical instruction in all phases of urological care including, anatomy and physiology, radiology, laboratory procedures, urological examinations and patient care. Didactic and laboratory instruction is followed by 16 week practicum.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in laboratory procedures in urology, 1 in anatomy/physiology in urology, 2 in urologic pharmacy/pharmacology, 4 in radiologic procedures in urology, 6 in physical assessment and diagnostic procedures in urology, and 2 in clinical practicum in urology (9/85).

AR-0702-0007

Medical Laboratory Specialist
Advanced

Course Number: 311-92B30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 50 weeks (2049–2199 hours).

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the techniques and procedures appropriate to a technical specialist and/or laboratory supervisor.

Instruction: Lectures and practical experience in medical laboratory supervision, equipment use, clinical chemistry, microbiology, parasitology, hematology, urinalysis, histopathology, and cytotechnology and immunology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 30 semester hours in medical technology or in biology or chemistry (11/89).

AR-0702-0008

Medical Laboratory Specialist (Basic)

Course Number: 311-92B10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 15 weeks (587 hours).

Exhibit Dates: 5/87–10/89.

Learning Outcomes: Upon completion of the course the student will be able to perform basic procedures in a medical laboratory.

Instruction: Lectures and practical exercises in hematology, immunohematology, clinical chemistry, bacteriology, urinalysis, serology, and parasitology basic procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hematology procedures, 3 in clinical chemistry, 3 in bacteriology, 2 in immunohematology, 2 in urinalysis, 2 in parasitology, and 1 in introduction to medical laboratory technology (4/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in hematology procedures, 2 in immunohematology, 2 in clinical chemistry, 2 in bacteriology, 1 in urinalysis, 1 in parasitology, 1 in introducton to medical laboratory technology (6/88).

AR-0702-0010

Special Forces Medical Sergeant

Course Number: 011-18D30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: Phase I, 5 weeks; Phase III, 18 weeks (1,477 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to determine, by use of aerial photographs and maps, locations, elevations, desirable routes of travel, and location of specific points; practice proper techniques for small boat operations; navigate to designated points; prepare military orders; practice survival techniques; plan air drop-zone operations; establish and supervise a medical facility in an unconventional warfare environment including surgical procedures, assessment and management of diseases, animal husbandry, and veterinary medicine in providing military personnel and others with appropriate medical care.

Instruction: Phase II is conducted at Ft. Sam Houston and can be found in exhibit AR-0705-0010. Course includes lectures, demonstrations, and practical exercises in orienteering, small boat operations and navigation, and survival skills. Medical topics include: advanced cardiac life support, x-ray, hematology, trauma management, examinations, and anesthesia. In addition, training is included in the care and use of laboratory equipment and medical laboratory skills such as bacteriology, parasitology, urinalysis, parasitology, and mycology. Course includes a common core of leadership subjects, see AR-1406-0090.

Credit Recommendation: For the completion of phases I and III, in the lower-division baccalaureate/associate degree category, 2 semester hours in orienteering, 1 in water safety, 6 in applied medical sciences, applied science, or introduction to biological sciences, and 3 in medical laboratory, medical laboratory procedures, nursing, or physician assisting (12/88). For credit for phase II see AR-0705-0010. For credit for the common core see AR-1406-0090.

Related Occupation Codes: 18D.

AR-0702-0011

Crytology Specialist

Course Number: 311-92E20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 50 weeks (1829 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to process and prepare all types of cytology specimens, identify and characterize the degree of normality or abnormality of the cellular material examined (for all types of specimens), mark the abnormal cells for the pathologist examination, identify and review histologic specimens for quality control, demonstrate methods and knowledge of laboratory safety, organization and management.

Instruction: Includes lectures, demonstration, case study, laboratory and clinical practice. Topics covered include gynecologic and non-gynecologic body sites including: all organ systems, body cavities, bone and soft tissue tumors. This is an American Medical Association (CAHEA) accredited program.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours for field experience in introduction to cytology (including cytoprep), 3 for female genital tract-benign, 4 for female genital tract, 2 for respiratory tract, 2 for gastrointestinal tract, 3 for central nervous system and effusion, 2 in urinary tract, 3 in fine needle aspiration cytology (including breast, lymph node, head and neck bone, 2 in research and 18 in clinical practicum (3/90).

AR-0702-0012

CARDIOVASCULAR TECHNICIAN

Course Number: 300-Y6.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 52 weeks (1774 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to review and/or record patient history and supporting clinical data, perform appropriate procedures and record anatomical, pathological and/or physiological data for further diagnosis; understand the invasive cardiovascular principles of cardiac catheterization, coronary angiography and angioplasty; understand the non invasive cardiovascular principles of echocardiogiopy, phonocardiography, and electrocardiogiophy; and understand the non invasive peripheral vascular principles of Doppler ultrasound.

Instruction: Phase I is a combination of conference, demonstration and practical experience in cardo-vascular disease and practice. Phase II offers clinical practice and internship in cardiovascular diagnosis, treatment and care in the medical center setting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology of coronary and pulmonary system, 8 in principles of radiography, 6 in pathophysiology of cardiopulmonary disease, 2 in pharmacology, 5 in non invasive cardiology, 9 in invasive cardiology for Phase I (3/90); 19 semester hours in clinical internship in cardiovascular technician for Phase II (3/90).

AR-0702-0013

MEDICAL LABORATORY SPECIALIST (BASIC)

Course Number: 311-92B10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 15 weeks (591 hours).

Exhibit Dates: 11/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic laboratory procedures in urinalysis, hematology, immunohematology, microbiology and clinical chemistry.

Instruction: Lectures and practical exercises in hematology, immunohematology, clinical chemistry, bacteriology, urinalysis, serology, and parasitology basic procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introducation to medical laboratory technology, 3 in microbiology, 3 in clinical chemistry, 2 in hematology, 2 in immunohematology, and 1 in serology (3/90).

AR-0703-0001

ANESTHESIOLOGY FOR ARMY NURSE CORPS OFFICERS

(Anesthesiology Nursing for Army Nurse Corps Officers)

Course Number: *Version 1:* 6F-66F. *Version 2:* None.

Location: *All Versions:* Army Hospitals, U.S.A.; Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 103–106 weeks (3064–4204 hours). *Version 2:* 78–82 weeks (3064–3082 hours).

Exhibit Dates: *Version 1:* 11/77–5/83. *Version 2:* 12/70–10/77.

Objectives: To train Nurse Corps officers as beginning practitioners in anesthesiology nursing.

Instruction: *All Versions:* Lectures and practical exercises in anesthesiology nursing, including anatomy, physiology, pathophysiology and implications for practice; chemistry, physics, and mathematics related to anesthesia; pharmacology; professional practices of the nurse anesthetist; fundamentals of anesthesia; clinical orientation. *Version 1:* Instruction includes psychology of crisis intervention.

Credit Recommendation: *Version 1:* In the graduate degree category, 8 semester hours in physiology and anatomy of the respiratory system, 4 in statistics, 3 in chemistry/physics, 4 in pharmacology, 8 in anesthesiology, 3 in physical assessment, 3 in administration, and 1 in psychology (8/79). *Version 2:* In the upper-division baccalaureate category, 10 semester hours in anatomy and physiology, 2 in chemistry and physics, 4 in pharmacology, 5 in fundamentals of anesthesiology, 3 in physical education, 1 in psychology, 1 in medical mathematics, 45 in clinical experience and practice in anesthesiology (8/74).

AR-0703-0002

CHIEF NURSES' ORIENTATION

Course Number: 6F-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (67–75 hours).

Exhibit Dates: 8/73–5/88.

Objectives: To provide nurse corps officers with the necessary knowledge and skills in resource management concepts and educational training activities to function as chief nurses in Army medical facilities.

Instruction: Lectures and seminars on utilization of resources, fundamentals of training management, staff development, parameters and standards of supervision, health care trends and concepts.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in nursing (5/82).

AR-0703-0003

MEDICAL DEPARTMENT OFFICER CLINICAL HEAD NURSE

(Army Medical Department (AMEDD) Clinical Head Nurse)

Course Number: 6F-F3.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 2:* Academy of Health Sciences, Ft. Sam Houston, TX. *Version 3:* Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: *Version 1:* 2 weeks (90 hours). *Version 2:* 2–3 weeks (67–116 hours). *Version 3:* 3 weeks (116 hours).

Exhibit Dates: *Version 1:* 1/81–6/82. *Version 2:* 8/74–12/80. *Version 3:* 6/71–7/74.

Objectives: To provide Army Nurse Corps officers with the supervisory and administrative knowledge and skills required for assignment as clinical head nurses.

Instruction: Lectures in planning and coordination of patient care, applied communication skills, personnel management, and facilities, supplies, and equipment management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in nursing (5/82). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in nursing (6/75). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in nursing (2/74).

AR-0703-0004

HEALTH NURSING ORIENTATION

Course Number: 6F-F1.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: 5 weeks (177 hours).

Exhibit Dates: 12/69–8/79.

Objectives: To provide nurse corps officers with a basic knowledge of health nursing and preventive medicine practices.

Instruction: Lectures and practical exercises in planning and provision for health nursing services; preventive dentistry; physical rehabilitation services; community mental health; socioeconomic implications of military family life; philosophy, principles, purpose, and evaluation of inservice education; methods and practices of preventive medicine; preventable diseases and injuries, Army veterinary service; participation in surveys, studies, and epidemiological investigations.

Credit Recommendation: In the upper-division baccalaureate category, credit in public health nursing on the basis of institutional evaluation (6/75).

AR-0703-0005

MEDICAL AIDMAN BASIC

Course Number: 8-E-24.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 12 weeks (280 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train enlisted personnel to perform as medical aidmen in field medical facilities.

Instruction: Lectures and practical exercises in field medical aid procedures, including advanced techniques and procedures in field surgery, principles of preventive medicine, dispensary and sick call procedures, basic anatomy and physiology, medical records, diagnostic and nursing procedures, and field sanitation procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in first aid and hygiene, 2 in physiology, and, on the basis of institutional evaluation, 6 in nursing (2/74); in the upper-division baccalaureate category, credit in first aid and hygiene on the basis of institutional evaluation (12/68).

AR-0703-0006

ARMY NURSE CORPS OFFICER ORIENTATION

(Army Nurse Corps Officer Basic)

Course Number: 8-A-C20C; 8-A-C1C.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 4–9 weeks (139–316 hours).

Exhibit Dates: 3/58–12/68.

Objectives: To provide newly commissioned Medical Service Corps and Army Nurse Corps officers with a basic knowledge of medical service organization and administration.

Instruction: Lectures and practical exercises in medical service organization and administration, including personnel management, medical supply procedures, medical records, mass casualties management, emergency medical treatment procedures, field medical service orientation, preventive medicine, principles of nursing administration, and duties and responsibilities of Medical Service Corps and Army Nurse Corps personnel.

Credit Recommendation: In the vocational certificate category, credit in nursing on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in nursing on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, credit in nursing on the basis of institutional evaluation (12/68).

AR-0703-0007

Medical Specialist Basic
(Basic Medical Specialist)

Course Number: 300-91B10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 6 weeks (237-247 hours). *Version 2:* 8 weeks (237-247 hours).

Exhibit Dates: *Version 1:* 6/78-1/85. *Version 2:* 1/75-5/78.

Objectives: To provide enlisted personnel with the basic skills and knowledge required to perform emergency medical treatment and routine patient care.

Instruction: Lectures and practical exercises in basic medical-surgical foundations for emergency and patient care.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency medical procedures-basic level (8/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to nursing procedures (6/77).

Related Occupation Codes: 91B; 91C; 91D; 91F; 91H; 91J; 91L; 91N; 91U; 91V; 91Y; 42C; 91G; 91P; 91Q.

AR-0703-0008

Neuropsychiatric Nursing

Course Number: 8-O-7.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 20 weeks (638-842 hours).

Exhibit Dates: 4/54-12/61.

Objectives: To train nurses to perform nursing duties in hospital psychiatric and neurological disease wards and to function as in-service training program instructors.

Instruction: Instruction in principles of neuropsychiatric nursing, with emphasis on interpersonal relationships; supervision and teaching in neuropsychiatric nursing; psychiatry; neurology; psychology; and psychiatric social work.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in abnormal psychology, 3 in occupational therapy, and credit in mental health or psychiatric nursing procedures on the basis of institutional evaluation (2/74).

AR-0703-0009

Military Nursing Advanced

Course Number: 8-A-C4C.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 22-23 weeks (714-734 hours).

Exhibit Dates: 3/58-12/68.

Objectives: To provide Nurse Corps officers with a working knowledge of the duties and responsibilities of nursing service personnel at all levels.

Instruction: Lectures and practical exercises in personnel administration, management of health care units, emergency medical treatment procedures, military science, neuropsychiatry, nursing science, and preventive medicine.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in nursing administration, 2 in hospital management, 2 in personnel management, and 6 in clinical practicum (6/75).

AR-0703-0010

Operating Room Nursing

Course Number: 6F-66E.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Academy of Health Sciences, Brooke Army Medical Center,Ft. Sam Houston, TX; Madigan Army Medical Center, Tacoma, WA; William Beaumont Army Medical Center, El Paso, TX.

Length: 16 weeks (585-588 hours).

Exhibit Dates: *Version 1:* 3/79-Present. *Version 2:* 8/78-2/79.

Objectives: This course is designed to prepare junior Army Nurse Corps officers to function as entry-level nurses in the operating room.

Instruction: Classroom instruction and clinical demonstrations in principles of microbiology, sterilization, disinfection, sterilization and preparation of surgical supplies; operating room nursing and environmental control in hospital operating rooms; and the use of specialized equipment.

Credit Recommendation: *Version 1:* In the graduate degree category, 3 semester hours in advanced surgical/operating room nursing, 4 in advanced operating room techniques/practicum (1/88). *Version 2:* In the graduate degree category, 10 semester hours in operating room or medical/surgical nursing (8/79).

Related Occupation Codes: 66E; 66H; 66J.

AR-0703-0011

Nurse Practitioner—Pediatrics

Course Number: 6F-66D.

Location: Fitzsimmons Army Medical Center, Denver, CO.

Length: *Version 1:* 22 weeks (797 hours). *Version 2:* 22 weeks (504 hours).

Exhibit Dates: *Version 1:* 8/81-12/87. *Version 2:* 11/77-7/81.

Objectives: To prepare Army Nurse Corps officers to function as first-level pediatric nurse practitioners with the ability to assume increased responsibility for providing comprehensive health care for newborn infants, children, and adolecents in hospital and ambulatory care settings.

Instruction: Lectures, discussion, and clinical demonstrations in data gathering and physical assessment of the patient, health maintenance, human development, sick-childcare management and family socio-psychology.

Credit Recommendation: *Version 1:* In the graduate degree category, 4 semester hours in pediatric nursing, 3 in child and adolescent psychology, 3 in physical assessment, 4 in supervised clinical experience (5/82). *Version 2:* In the graduate degree category, 30 semester hours in graduate nurse practitioner education (8/79).

Related Occupation Codes: 66D.

AR-0703-0012

1. Obstetrical and Gynecological Nursing
2. Nurse Practitioner—Obstetrics and Gynecology
3. Nurse Practitioner—Obstetrics and Gynecology

Course Number: *Version 1:* 6F-66G. *Version 2:* 6F-F4. *Version 3:* 6F-F4.

Location: Womack Army Hospital, Ft. Bragg, NC.

Length: *Version 1:* 20 weeks (768 hours). *Version 2:* 22 weeks (820 hours). *Version 3:* 22 weeks (820 hours).

Exhibit Dates: *Version 1:* 4/85-9/88. *Version 2:* 6/78-3/85. *Version 3:* 8/77-5/78.

Objectives: To prepare Army Nursing Corps officers to function as first-level nurse practitioners in obstetrics and gynecology.

Instruction: *Version 1:* Includes directed practice in OB/GYN. *Version 2:* Lectures and clinical demonstrations in assessment and care of the antepartum, postpartum, and selected gynecological patient, maternal and fetal monitoring and screening techniques, bio-psycho-social aspects of childbearing, childbearing family planning, sterility, abortion, patient and family counseling and education through the use of the nursing process. *Version 3:* Lectures and clinical demonstrations in assessment and care of the antepartum, postpartum, and selected gynecological patient, maternal and fetal monitoring and screening techniques, bio-psycho-social aspects of childbearing, childbearing family planning, sterility, abortion, patient and family counseling and education through the use of the nursing process.

Credit Recommendation: *Version 1:* In the graduate degree category, 1 semester hour in health education and counseling, 1 in physical assessment, 5 in obstetrical nursing, 2 in family planning and 5 in directed practice in OB/GYN (9/85). *Version 2:* In the graduate degree category, 3 semester hours in physical assessment, 3 in obstetrical nursing, 3 in family planning and gynecological assessment, 4 in supervised clinical experience (5/82). *Version 3:* In the graduate degree category, 30 semester hours in nurse practitioner OB/GYN education (8/79).

AR-0703-0013

Nurse Practitioner Adult Medical-Surgical Health Care

Course Number: 6F-66H.

Location: Silas B. Hays Army Hospital, Ft. Ord, CA.

Length: 22 weeks (798-822 hours).

Exhibit Dates: *Version 1:* 11/81-12/87. *Version 2:* 1/78-10/81.

Objectives: To prepare Army Nurse Corps officers to work interdependently with the physician and other members of the health care team.

Instruction: Lectures, discussions and clinical experiences in the principles and practices of ambulatory health care including diagnostic, therapeutic, health maintenance and rehabilitation for adult patients; pathophysiology of chronic disease.

Credit Recommendation: *Version 1:* In the graduate degree category, 3 semester hours in physical assessment, 6 in adult health nursing, 4 in supervised clinical experience (5/82). *Version 2:* In the graduate degree category, 30 semester hours in nursing care for adults including 16 semester hours in gerontology for nurses, 11 in general adult nursing procedures and 3 in physical assessment (8/79).

AR-0703-0014

Critical Care Nursing
(Intensive Care Nursing)

Course Number: 6F-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Fitzsimmons Army Medical Center, Denver, CO.

Length: *Version 1:* 22 weeks (799-818 hours). *Version 2:* 22 weeks (799-818 hours).

Exhibit Dates: *Version 1:* 9/81-7/85. *Version 2:* 8/77-8/81.

Objectives: To prepare the Army nurse to function in an intensive care setting.

Instruction: *All Versions:* Lectures and clinical practicum in the care of the critically ill patient with pulmonary, cardiovascular, renal, hematologic, oncologic or neurological dysfunctions.

Credit Recommendation: *Version 1:* In the graduate degree category, 1 semester hour in physical assessment, 5 in critical care nursing, 4 in supervised clinical experience (5/82). *Version 2:* In the graduate degree category, 5 semester credits in each of the following specialized nursing areas: pulmonary dysfunction, cardiovascular dysfunction, renal dysfunction, hematologic and oncologic dysfunction, neurological dysfunction and 6 in specialized clinic, for a total of 31 hours (8/79).

AR-0703-0015

1. PRACTICAL NURSE
2. PRACTICAL NURSE, PHASE I AND II

Course Number: 300-91C20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* Phase I 6 weeks (270 hours); Phase II 54 weeks practicum. *Version 2:* Phase I 6 weeks (270 hours); Phase II 46 weeks practicum.

Exhibit Dates: *Version 1:* 7/88 Present. *Version 2:* 7/87–6/88.

Learning Outcomes: *Version 1:* Upon completion of the Phase I, the student will be able to demonstrate a body of theoretical knowledge by written and oral examinations in preparation for clinical care of clients.In Phase II, the student will have the opportunity to implement the body of knowledge acquired in Phase I in administering basic nursing care to a selected group of patients in a variety of health care settings, under the supervision of as Registered Nurse. Upon completion, the graduate is eligible to take the State Board examination for licensure. *Version 2:* Upon completion of this course the student will be able to provide complete basic nursing care to a selected group of patients, in a variety of health settings, functioning under the supervision of the Registered Nurse. Eligibility to take the State Board Examination for license is provided upon completion.

Instruction: *Version 2:* The instruction includes lectures/demonstrations in basic concepts of anatomy, physiology, microbiology, nutrition, pharmacology, and principles of nursing. Opportunity to provide nursing care for a group of patients is also included.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 16 semester hours for Phase I to include 1 semester hour in medical emergencies/casualties, 2 in dosage calculations and pharmacology, 5 in anatomy and physiology, 2 in microbiology, 2 in nutrition, and 4 in basic nursing care (3/90). *Version 2:* In the vocational certificate category, 3 semester hours in nursing for Phase I (5/88); In the lower-division baccalaureate/associate degree category, 5 semester hours in anatomy and physiology, 2 in microbiology, 2 in nutrition, and 16 in nursing for completion of both Phases I and Phases II (5/88).

AR-0703-0016

CRITICAL CARE NURSING

Course Number: 6F-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 20 weeks (748 hours).

Exhibit Dates: *Version 1:* 1/88–Present. *Version 2:* 8/85–12/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to amplify the knowledge introduced in a basic baccalaureate program in nursing, and using the nursing process, demonstrates the knowledge and skills necessary for caring for a critically ill patient. *Version 2:* Upon completion of the course the student will be able to give total competent care for a patient in a crtical care environment. Functional in a relationship with other members of the health team in assessing needs of critically ill patients.

Instruction: *Version 1:* Includes theory content as well as practical application in caring for patients with medical/surgical, neonatal pediatric, and surgical/trauma conditions. *Version 2:* Includes lectures, demonstrations, conferences, and practical experience to meet the objectives. Student presentations of case studies are a vital element of the course.

Credit Recommendation: *Version 1:* In the graduate degree category, 16 semester hours in critical care nursing (theory) for the course; 15 semester hours in clinical or practicum for critical care nursing for the practicum (4/88). *Version 2:* In the graduate degree category, 18 semester hours in critical care nursing (theory) for the course; 13 semester hours in the practicum (4/88).

AR-0703-0017

RENAL DIALYSIS NURSE EDUCATION, PHASE II AND III

Course Number: 6F-F8.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase II: 6 weeks (197 hours). Phase III: 12 weeks (433 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to implement the nursing process in caring for patients undergoing renal replacement therapy, and plan an educational program for paraprofessional personnel relating to the dialysis unit.

Instruction: Includes guest speakers, self-pace, care planning, patient teaching plans, and videotapes. Clinical experience is provided in peritoneal and renal dialysis as well as renal transplants.

Credit Recommendation: In the graduate degree category, 4 semester hours in practicum for Phase II (Phase I must be completed prior to Phase II) and 8 in practicum for Phase III (Phase I and II must be completed prior to Phase III) (4/88).

AR-0703-0018

PEDIATRIC NURSING

Course Number: 6F-66D.

Location: Fitzsimmons Army Medical Center, Aurora, CO.

Length: 16 weeks (264 hours plus 318 hours clinical)

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to build upon the knowledge acquired in the area of pediatrics for the baccalaureate graduate and expand in depth and scope as pertains to the practice of pediatric nursing in an expanded role.

Instruction: Includes lectures and demonstrations as well as practice of additional skills in the practitioner role. Emphasis on the nursing process in relating to patient care and family interventions.

Credit Recommendation: In the graduate degree category, 15 semester hours related to pediatric nursing for the course; 15 semester hours in clinical practicum (4/88).

AR-0703-0019

OPERATING ROOM NURSING FOR ANC OFFICER (RESERVE COMPONENT)

Course Number: 6F-66E(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase I 8 weeks (278 hours), Phase II 6 weeks (224 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will function as entry level practitioner in the surgical suite.

Instruction: Review of principles of anatomy, physiology, and microbiology. Clinical practicum, the major component, with conferences, seminars and examinations where appropriate.

Credit Recommendation: In the graduate degree category, 2 semester hours in nursing theory for Phase I and 6 semester hours in practicum for Phase II (4/88). NOTE: Must have completed Phase I prior to Phase II.

AR-0703-0020

NURSE PRACTITIONER ADULT MEDICAL-SURGICAL HEALTH CARE

Course Number: 6F-66H.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 22 weeks (746 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to implement the nursing process while serving as a primary health care provider to adults with selected medical conditions. Where applicable, refers patients to other members of the health team to insure comprehensive, as well as continuous care of the individual. Compares and contrasts the role of the nurse practitioner in civilian and military environments, and the variations in the law pertaining to the practice of nursing.

Instruction: Methodology of teaching includes lectures, conferences, demonstrations, and clinical practice. Review of anatomy, physiology, pathology as a base for preparation in development of such skills as completing a health history and techniques for screening of various normal/abnormal conditions in the realm of physical and psychosocial. Clinical experience provided in acute and chronic illnesses, with delivery of primary health care under the supervision of faculty or assigned medical doctor. Communication skills are developed with the interview process, problem oriented medical record, prescription writing and leadership training.

Credit Recommendation: In the graduate degree category, 10 semester hours in theory and 12 in clinical practicum (4/88).

AR-0703-0021

ARMY MEDICAL DEPARTMENT OFFICER CLINICAL HEAD NURSE

Course Number: 6F-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (74 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the skilles and administrative knowledge to function as a clinical level nurse.

Instruction: Instruction includes lecture, discussion panel participation in managerial principles communication issues, risk management , the law as pertains to the practice of nursing, and use of standards of nursing care in developing criteria for monitoring and evaluating activities.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in nursing administration (3/90).

AR-0703-0022

Principles of Advanced Nursing Administration for Army Nursing Corps Officers

Course Number: 6F-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (74 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply the knowledge and skills in management concepts and educational activities to function as a charge nurse in a medical facility.

Instruction: Methods of instruction include lecture/discussion/role playing in current trends in resource management, health care economics, ethics, and various styles of leadership.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in nursing (3/90).

AR-0703-0023

Obstetrical and Gynecological Nursing

Course Number: 6F-66G.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 16 weeks (472-566 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assume responsibility for the primary health care for women during childbearing and interconceptive periods. Such competency will reflect concern for the physical and psychosocial well-being of the childbearing woman and her family.

Instruction: Lecture, discussion, examinations, and clinical demonstrations in assessment and care of the antepartum and postpartum patient, and bio-psycho-social aspects of childbearing, family planning, and patient/family counseling through the use of the nursing process.

Credit Recommendation: @ GRAD 2 semester hours in physical assessment, 2 in family planning, 2 in health education and counseling, 5 in normal obstetrical nursing, 1 in newborn care, 2 in high risk pregnancy, and 9 in clinic practicum (3/90).

AR-0703-0024

Principles of Military Preventive Medicine (MC/VC/DC)

Course Number: 6A-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 9 weeks (365 hours).

Exhibit Dates: 10/88–5/90.

Learning Outcomes: Upon completion of the course, the student will be able to serve as preventive medicine officer, public health veterinarian, or preventive dentist.

Instruction: This course includes lectures, discussions, and clinical practice in preventive medicine, environmental hygiene, infection control, epidemiology, public health, water quality, and communicable diseases.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in preventive medicine, 2 in environmental hygiene, 1 in infection control, 1 in epidemiology, 1 in public health, and 1 in water quality (3/90). In the graduate degree category, 2 semester hours in communicable diseases (3/90).

AR-0704-0001

1. Physical Therapy Specialist
2. Physical Therapy Specialist
3. Physical Therapy Aide
   (Physical Therapy Procedures)
   (Physical Therapy Specialist)
   (Physical Therapy Enlisted)

Course Number: *Version 1:* 303-91J10. *Version 2:* 303-91J10. *Version 3:* 303-91J20; 8-R-921.1; 8-E-19.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* Phase I, 17 weeks, Phase II, 8–10 weeks, for a total of 25–27 weeks (Phase I, 610 646 hours, Phase II, 320–400 hours, for a total of 930–1010 hours). *Version 2:* 27 weeks (1034 hours). *Version 3:* 4–12 weeks (176–528 hours).

Exhibit Dates: *Version 1:* 9/81–Present. *Version 2:* 11/74–8/81. *Version 3:* 12/54–10/74.

Objectives: To provide qualified medical corpsmen with knowledge and skills in physical therapy techniques and to promote continuing education in the profession.

Instruction: *Version 1:* Lectures and practical exercises in functional anatomy and physiology; human growth and development; basic principles and clinical application of physical modalities; ethical standards and proper techniques of handling and positioning patients; therapeutic exercises; development of patient therapy programs. *Version 2:* Lectures and practical exercises in functional anatomy and physiology; human growth and development; basic principles and clinical application of physical modalities; ethical standards and proper techniques of handling and positioning patients; therapeutic exercises; development of patient therapy programs. *Version 3:* Lectures and practical exercises in anatomy; muscle functions; handling and positioning of patients; concepts of ethical standards; therapeutical exercises and routines; reconditioning exercises; and physical therapy modalities and gait training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in functional anatomy and physiology, 3 in applied psychology, 13 in physical therapy principles and procedures, 10 in supervised clinical experience and 1 in disease pathology (1/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in anatomy and physiology, 3 in general psychology, 13 in physical therapy principles and procedures and 10 in field experience (6/77); in the upper-division baccalaureate category, credit in anatomy, physiology, and physical therapy on the basis of institutional examination (6/77). *Version 3:* In the vocational certificate category, certificate in physical therapy and physical rehabilitation (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in physical therapy and physical rehabilitation (2/74); in the upper-division baccalaureate category, credit in anatomy, physiology, and physical therapy on the basis of institutional evaluation (12/68).

Related Occupation Codes: 91A; 91J.

AR-0704-0002

Occupational Therapy Procedures

Course Number: 8-E-23.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 12 weeks (352 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train enlisted personnel to assist occupational therapists, with emphasis on arts and crafts therapy techniques.

Instruction: Lectures and practical experience in the fundamentals of occupational therapy, including basic sciences, psychiatry, clinical therapy techniques, surgical conditions, social work, workshop activities, and therapy for tuberculars, the physically disabled, and neuropsychiatric and surgery patients.

Credit Recommendation: In the vocational certificate category, 15 semester hours in occupational therapy (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in occupational therapy and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, credit in occupational therapy on the basis of institutional evaluation (12/68).

AR-0704-0003

Physical Reconditioning Specialist

Course Number: 8-E-12.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 12 weeks (528 hours).

Exhibit Dates: 1/56–12/68.

Objectives: To train medical corpsmen as assistants in the physical reconditioning of medical, surgical, and neuropsychiatric patients.

Instruction: Lectures on anatomy and physiology; patient examinations; conditioning aquatics and exercises; functional anatomy and physical rehabilitation; medical ethics; resistive exercises and social work; medical and surgical conditions; and clinical observation.

Credit Recommendation: In the vocational certificate category, 15 semester hours in physical education instruction (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in physical therapy or physical and mental rehabilitation (2/74); in the upper-division baccalaureate category, 3 semester hours in physical education instruction (12/68).

AR-0704-0004

Occupational Therapy Specialist

Course Number: *Version 1:* 303-91L10. *Version 2:* 303-91L10. *Version 3:* 303-91L20.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States. *Version 2:* Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States. *Version 3:* Valley Forge General Hospital, Phoenixville, PA.

Length: *Version 1:* Phase I 17 weeks (632 hours), Phase II 8 weeks (360 hours) for a total of 25 weeks. *Version 2:* 25 weeks (915 hours). *Version 3:* 21 weeks (716 hours).

Exhibit Dates: *Version 1:* 6/80–Present. *Version 2:* 4/76–5/80. *Version 3:* 2/73–3/76.

Objectives: To train enlisted personnel in the knowledge of physical and behavioral sciences; principles and concepts related to implementation of remedial, health maintenance, and preventive occupational therapy procedures.

Instruction: Lectures and practical exercises in anatomy and physiology, occupational therapy processes, psychology, and pathologic conditions as related to occupational therapy.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in functional anatomy and physiology, 3 in applied psychology, 12 in occupational therapy techniques, 9 in supervised clinical experience, 1 in disease pathology (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 3 in general psychology, 12 in occupational therapy techniques, 9 in field experience (6/77). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 3 in general psychology, 12 in occupational therapy techniques, 6 in field experience (6/77).

Related Occupation Codes: 91L.

AR-0704-0005

Orthopedic Specialist
(Orthopaedic Specialist)

Course Number: 304-91H10; 304-91H20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States.

Length: 12 weeks (474 hours).

Exhibit Dates: 9/75-12/84.

Objectives: To prepare individuals to assist physicians and nurses in the care and treatment of orthopedic patients.

Instruction: Lectures and clinical experiences in anatomy and physiology and the principles of orthopedic surgery, including the preparation of patients for major surgical procedures and assisting the physician in minor surgical procedures; care and treatment of orthopedic patients to include giving proper instruction to patients such as care of casts and splints, proper crutch walking techniques and precautions; fabricating, modifying and applying plaster casts; applying casts and splints used in surgery; performing change of dressing, sterile scrubs and suture removal observing the principles of asepsis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy, 1 in physiology, 4 in principles of orthopedics and patient care, 4 in orthopedic methods and materials, 5 in clinical application of principles of orthopedics (6/77).

Related Occupation Codes: 91A; 91H.

AR-0704-0006

Orthotic Specialist
(Brace Specialist)

Course Number: 304-42C10; 304-42C20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States.

Length: 52 weeks (2000-2100 hours).

Exhibit Dates: 5/77-6/88.

Objectives: To prepare the individual to design, construct, fit, and repair orthotic devices.

Instruction: Lectures, shop, and clinical experiences in design, construction, fitting, and repair of orthotic devices. Student is provided with a working knowledge of medical terminology and definitions, anatomy and physiology as related to orthopedics; detailed instruction in kinesiology and biomechanics; and detailed instruction to include materials and hand tools and plastics in orthotics, shoe corrections and arch supports, plaster of Paris procedures, leather techniques, orthotics for body components to include spinal, lower-extremity and upper-extremity orthotics; and professional and administrative subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy, 1 in physiology, 1 in kinesiology, 24 in orthotic techniques, 6 in applied design, 2 in shop practices (6/77).

Related Occupation Codes: 42C; 91B.

AR-0704-0007

Respiratory Specialist

Course Number: 300-91V10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 32-37 weeks (1280-1440 hours).

Exhibit Dates: 4/76-2/87.

Objectives: To provide specialists with basic knowledge of aerosol/humidity therapy, ventilation therapy, pulmonary function testing; infection control; cardiopulmonary drug administration and critical patient care performed under the supervision of a physician.

Instruction: Lectures, demonstrations, and practical exercises in selected basic science courses related to respiratory care, e.g., anatomy, respiration, physiology, pharmacology and microbiology, physical therapy, clinical medicine, and medical materiel management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 3 in general chemistry-physics, 3 in cardiopulmonary physiology, 1 credit each for pharmacology, microbiology, and cardiopulmonary resuscitation, 3 for clinical medicine, 6 for inhalation therapy, and 9 in clinical experience, for a total of 30 hours in inhalation therapy (8/79).

Related Occupation Codes: 91B; 91V.

AR-0704-0008

Respiratory Specialist

Course Number: 300-91V10.

Location: Phase I, Academy of Health Sciences, Ft. Sam Houston, TX; Phase II, Academy of Health Sciences, Ft. Sam Houston, TX; Wilford Hall, Lackland AFB, TX; State Chest Hospital, San Antonio, TX.

Length: Phase I: 16 weeks (627 hours); Phase II: 16 weeks (550 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to conduct procedures related to aerosol/humidity therapy, ventilation therapy, plumonary function testing, infection control, cardiopulmonary drug administration and critical patient care performed under the supervision of a physician.

Instruction: Lectures, demonstrations, and practical exercises in selected basic science courses related to respiratory care, e.g., anatomy, respiration, physiology, pharmacology and microbiology, physical therapy, clinical medicince, and medical materiel management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 3 in general science, 3 in cardioplumonary physiology, and 3 in clinical medicine for Phase I; for Phase II, 9 semester hours in respiratory care techniques and 9 in clincial experience (4/88).

AR-0704-0009

Orthopedic Specialist

Course Number: 304-91H10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase I: 6 weeks (209 hours). Phase II: 6 weeks (232 hours).

Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to prepare patients for major surgical procedure, assist the physician in minor surgical procedures, instruct patients regarding care procedures, maintain mechanical equipment in an orthopedic clinic an maintain appropriate medical records.

Instruction: Lectures and clinical experiences in anatomy and physiology and the principles of orthopedic surgery, including the preparation of patients for major surgical procedures and assisting the physician in minor surgical procedures; care and treatment of orthopedic patients to include giving proper instruction to patients such as care of casts and splints, proper crutch walking techniques and precautions; fabricating, modifying and applying plaster casts; applying casts and splints used in surgery; performing change of dressing, sterile scrubs and suture removal observing the principles of asepsis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy, 1 in physiology, 4 in principles of orthopedics and patient care, 4 in orthopedic methods and materials for Phase I. For Phase II, 5 semester hours in practicum; clinical application of principles of orthopedics (4/88).

AR-0704-0010

Orthotic Specialist

Course Number: 304-42C10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 52 weeks (1698 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to take impressions using apropriate technique and media; measure, design, fabricate and fit orthotics in accordance with prescriptions.

Instruction: Lecture, discussion, demonstration, conferences, shop, and clinical practice in the design, manufacture, fitting, and repair of orthotic devices including medical terminology, ethics, materials, and tools. This course includes extensive instruction in orthopedic anatomy, physiology, biomechanics and kinesiology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy, 2 in physiology, 3 in kinesiology, 8 in orthotics, 3 in orthotic shop technique techniques, and 10 in clinical practice for Phase I; for Phase II, 16 semester hours in clinical practices (3/90).

AR-0705-0001

X-Ray Specialist
(Radiographic Procedures Basic)
(X-Ray Procedures Basic)
(X-Ray Specialist)

Course Number: *Version 1:* 313-91P10. *Version 2:* 313-91P10; 313-91P20; 8-R-935.1. *Version 3:* 8-E-4.

Location: *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX; Selected MEDACS, MEDCENS, Continental United States *Versicn 2:* Academy of Health

Sciences, Ft. Sam Houston, TX. *Version 3:* Medical Field Service, Ft. Sam Houston, TX.

Length: *Version 1:* 20 weeks (802 hours) Phase I; 22 weeks (880 hours) Phase II. *Version 2:* 19 weeks (722-836 hours). *Version 3:* 16 weeks (704 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 1/58–9/88. *Version 3:* 1/56–12/57.

Objectives: To provide enlisted personnel with a working knowledge of fundamental x-ray clinic procedures.

Instruction: Lectures and practical experience in the fundamentals of x-ray clinic operations and procedures, including applied anatomy and physiology, manual and automatic x-ray film processing, equipment operation and maintenance, sterile techniques and radiation safety measures, and diagnostic radiograph production. Note: Version 1, Phase 2, is conducted at selected medical centers and activities in the continental United States. Version 2 in conducted in two phases, one of 13 weeks (507 hours), the second of 6 weeks, (240–270 hours). Phase 2 is offered at various medical centers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in medical terminology, 4 in anatomy and physiology, 1 in radiographic exposure, 2 in radiographic equipment, 1 in radiographic film processing, 3 in radiation physics, 1 in radiation biology, 1 in radiation protection, 6 in radiographic procedures, 1 in quality assurance, 1 in medical ethics, 1 in computer literacy, and, for Phase II, 8 in clinical practicum. Both phases must be completed. *Version 2:* In the vocational certificate category, certificate in radiologic technology (6/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in medical terminology, 3 in radiographic physics, 4 in radiographic positioning, 3 in radiographic techniques, 2 in darkroom procedures, 3 in clinical internship (6/77). *Version 3:* In the vocational certificate category, certificate in x-ray technology (2/74); in the lower-division baccalaureate/associate degree category, 30 semester hours in x-ray technology (2/74); in the upper-division baccalaureate category, 3 semester hours in elementary anatomy (12/68).

Related Occupation Codes: 91P.

AR-0705-0002

X-Ray Techniques Advanced

Course Number: 8-E-38.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 20 weeks (880 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train x-ray specialists in the advanced techniques of radiology.

Instruction: Lectures and practical exercises in advanced x-ray techniques, including personnel management and administration, anatomy and physiology, x-ray technical teaching, calibration of x-ray apparatus, principles of radiographic exposure, and x-ray supply procedures.

Credit Recommendation: In the vocational certificate category, certificate in x-ray technology (2/74); in the lower-division baccalaureate/associate degree category, 45 semester hours in x-ray technology (2/74); in the upper-division baccalaureate category, 3 semester hours in physiology (12/68).

AR-0705-0003

Radiological Safety

Course Number: 7K-F3.

Location: Ordnance School, Aberdeen Proving Ground, MD; Chemical School, Ft. McClellan, AL.

Length: 3 weeks (112–120 hours).

Exhibit Dates: *Version 1:* 5/83–Present. *Version 2:* 3/70–4/83.

Objectives: To provide officer, enlisted, and civilian personnel with basic instruction in radiological safety.

Instruction: *Version 1:* Conferences, case studies, and practical exercises in radiological safety principles, including storage, handling, transportation, disposal, reporting, control, and general safety for radioisotopes, neutronic sources, microwave, laser, and machine-produced radiation. *Version 2:* Lectures in nuclear warfare and radiological defense, structure of matter, radioactivity, radiation units, nature of x-ray and gamma radiation, isotopes, charged particles shielding, radium hazards and controls, radiation detection basics, radiac instruments, safe handling and storage of radioactive materiel, nuclear reactors, and medical aspects of ionizing radiation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of radiological safety (6/87). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in radiological safety (1/78).

Related Occupation Codes: 214E; 241F; 214G; 222B; 251B; 223B; 223D; 251D; 224B.

AR-0705-0004

Radiology Noncommissioned Officer (NCO) Management

Course Number: 313-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 1–2 weeks (60 hours).

Exhibit Dates: 4/85–Present.

Objectives: To provide Noncommissioned Officer management training for personnel assigned to management positions in a department of radiology.

Instruction: Areas of instruction include: administrative procedures; supervision and performance of supply and maintenance procedures; implementation of Army quality assurance program; methods of improving radiological health care delivery by application of current techniques; planning organization and operation of departments of radiology in the US and overseas; principles in unit and/or patient administration and personnel management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radiology management (9/85).

AR-0705-0005

Medical X-Ray Survey Techniques

Course Number: 6H-F18/322-F18; 6H-F18/323-F18.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (84–88 hours).

Exhibit Dates: 11/83–Present.

Objectives: Provides students with basic knowledge and techniques required to evaluate potential hazards from medical diagnostic radiation exposure related to federal safety standards.

Instruction: Units of instruction include principles of X-ray production, overview of diagnostic procedures, utilization of survey instruments, biological effects of radiation, and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radiation safety (8/90).

AR-0705-0006

Health Physics Specialist

Course Number: 311-91X20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 45 weeks

Exhibit Dates: 9/85–10/86.

Objectives: To give selected personnel a working knowledge in the theory and practice of health physics and radiation protection.

Instruction: Lectures, conferences, demonstrations, and discussions in physical science, radiation detection, measurement, dosimetry, regulatory requirements, radiation and the environment, and medical x-ray survey procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of physical sciences, 4 in introduction to health physical sciences, 2 in environmental and legal aspects of radiation, 5 in medical x-ray survey procedures,and 5 in field experience in applied health physics (9/85).

Related Occupation Codes: 91X.

AR-0705-0007

Polyphase X-Ray Systems

Course Number: 4B-F5/198-F5.

Location: Equipment and Optical School, Aurora, CO.

Length: 3 weeks (102-116 hours).

Exhibit Dates: 8/80–Present.

Objectives: To provide warrant officers and enlisted personnel training on polyphase x-ray systems with emphasis on operation, maintenance, and calibration.

Instruction: A study of operating procedures and purpose of several x-ray systems. Includes use of manufacturer's literature in operator calibration and maintenance. Practical experiences in diagnosis and repair of malfunctioning x-ray equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in x-ray equipment operation (9/85).

AR-0705-0008

BRH Compliance Testing

Course Number: 4B-F6/198-F6.

Location: Equipment and Optical School, Aurora, CO.

Length: 2 weeks (67–76 hours).

Exhibit Dates: 8/80–Present.

Objectives: To provide warrant officers and enlisted personnel training on the Radiation Control Health and Safety Act of 1968 with particular emphasis on compliance testing procedures.

Instruction: Student learns to perform tests, measurements, and adjustments necessary to keep x-ray equipment within government guidelines for radiation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in X-ray machine calibration (9/85).

AR-0705-0009

1. Health Physics Specialist
2. Radiation Safety Specialist

Course Number: 311-91X20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 12 weeks (400-506 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 11/86-3/90.

Learning Outcomes: Upon completion of the course the student will be able to conduct radiation surveys of Nuclear Medicine clinics, radioisotope laboratories, and medical x-ray machines, inspect incoming radioisotope shipments, dispose of radioactive waste, assist in maintaining acceptable radiation procedures and assist in evaluating directed energy hazards.

Instruction: Lectures, conferences, demonstrations, and discussions in physical science, radiation detection, measurement, dosimetry, regulatory requirements, radiation and the environment, and medical x-ray survey procedures.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of physical sciences, 3 in physical sciences laboratory, and 3 in x-ray survey techniques (4/88).

AR-0705-0010

Special Operations Medical Sergeant
Phase IIA

Course Number: 011-18D30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 21 weeks (854 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to assume medical duties and responsibilities including assessment and management of specified surgical emergencies in field conditions, patient management, administration of local anesthesia for dental conditions, dosage calculations and administration of medicinal agents.

Instruction: Includes lectures, laboratories, and clinical training in the areas of anatomy, physiology, dental sciences, psychiatry, physical therapy, medicine, nursing, and field medical service.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory medical laboratory procedures, and credit in nursing or physician assisting on the basis of institutional evaluation (4/88); in the upper-division baccalaureate category, 3 semester hours in physiology and hygiene, 2 in medical laboratory procedures (4/88).

Related Occupation Codes: 18D.

AR-0706-0001

Eye Specialist

Course Number: 300-91Y10; 300-91Y20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.; Selected Army Hospitals, Continental United States.

Length: *Version 1:* Phase I, 6 weeks, Phase II, 7 weeks, for a total of 13 weeks (Phase I, 230 hours, Phase II, 240 hours, for a total of 470 hours). *Version 2:* 13 weeks (520 hours).

Exhibit Dates: *Version 1:* 10/81-5/88. *Version 2:* 4/75-9/81.

Objectives: To provide personnel with a basic knowledge of eye care.

Instruction: Lectures, demonstrations, and practical exercises in anatomy, physiology, pharmacology, ophthalmology, optometry, and administrative care. Training includes applying general principles and techniques related to the care and treatment of eye patients; assisting the physician and/or optometrist in the care and treatment of eye patients; conducting visual measurements and diagnostic tests; administering prescribed medications; and performing first aid procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in ophthalmic assistant techniques, 4 in optometric technician competencies, 1 in physiologic optics (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in anatomy and physiology, 4 in ophthalmology subjects, 2 in optometry subjects, 8 in clinical assistance in ophthalmology and optometry experiences (6/77).

Related Occupation Codes: 91B; 91Y.

AR-0706-0002

Eye Specialist

Course Number: 300-91Y10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 13 weeks (476 hours).

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to provide full assistance to opthamologists and optometrists in military eye clinics and field hospitals and in combat units.

Instruction: Phase I of the course is conducted through conferences, demonstrations, and lectures emphasizing principles of opthamology and optometry including routine diagnostic medications and minor repairs to spectacles; Phase II is a clinical practicum in opthamology and optometry.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Phase II, 3 semester hours in principles of opthamology, 2 in principles of optometry, and 1 in anatomy and physiology; for Phase II, 4 semester hours in opthamology practicum and 4 in optometry practicum. Both phases must be completed (8/90).

Related Occupation Codes: 91Y.

AR-0707-0001

1. Preventive Medicine Procedures Advanced
2. Preventive Medicine Procedures Advanced
(Preventive Medicine Advanced)

Course Number: *Version 1:* 322-91S20. *Version 2:* 8-R-933.2; 8-E-36.

Location: *Version 1:* Brooke Army Medical Center, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX. *Version 2:* Medical Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 8-10 weeks (352-428 hours). *Version 2:* 16-20 weeks (704-880 hours).

Exhibit Dates: *Version 1:* 7/67-10/75. *Version 2:* 3/56-6/67.

Objectives: To provide preventive medicine specialists with advanced training in military preventive medicine.

Instruction: Study of the etiology of selected diseases and application of epidemiological principles in the control of each; planning and implementation of technical surveys and the solving of operational problems; preparation of environmental sanitation reports from raw data; bacteriological and/or chemical analyses of self-produced potable water from raw sources; assistance in surveys involving the operation and maintenance of manual and powered control equipment; planning and implementation of instructional training programs for field sanitation teams; and study and identification of the veterinary aspects of preventive medicine.

Credit Recommendation: *Version 1:* In the vocational certificate category, 30 semester hours in environmental health and sanitation (2/74); in the lower-division baccalaureate/associate degree category, 30 semester hours in environmental health and sanitation, and additional credit in environmental health and sanitation on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in sanitation and disease control (12/68). *Version 2:* In the vocational certificate category, 30 semester hours in environmental health and sanitation (2/74); in the lower-division baccalaureate/associate degree category, 30 semester hours in environmental health and sanitation, and additional credit in environmental health and sanitation on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in sanitation and disease control (12/68).

Related Occupation Codes: 91S.

AR-0707-0002

Preventive Medicine Procedures Basic
(Preventive Medicine Specialist)
(Preventive Medicine Enlisted)

Course Number: 322-91S10; 8-E-20; 322-933.1; 8-R-933.1.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: 7-12 weeks (308-528 hours).

Exhibit Dates: 3/51-10/75.

Objectives: To provide enlisted personnel with comprehensive training in sanitation, preventive medicine, and environmental health.

Instruction: Lectures and practical experience in the collection of water samples for bacteriological analysis; recognition of sanitary deficiencies in water supplies; performance of water disinfection procedures; garrison and field waste-disposal methods; recognition and correction of sanitary deficiencies in food service facilities; identification, collection, preservation, and shipment of medically important arthropods; rodent control procedures; mixing and dispersing of pesticides; operation and maintenance of control equipment; and compilation of medical statistical data.

Credit Recommendation: In the vocational certificate category, 15 semester hours in sanitation and disease control (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in sanitation and disease control, additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 4 semester hours in sanitation and disease control (12/68).

Related Occupation Codes: 91S.

AR-0707-0003

1. Principles of Military Preventive Medicine
2. Community Health and Environmental Science

Course Number: 6A-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 9-11 weeks (405-495 hours). *Version 2:* 9 weeks (331 hours).

Exhibit Dates: *Version 1:* 7/80-6/82. *Version 2:* 9/74-6/80.

Objectives: To provide sanitary engineers and military environmental sanitarians, Medical Corps and Veterinary Corps officers, entomologists, and Nurse Corps officers with knowledge of military community health administration, infectious disease epidemiology, and environmental health and engineering practice.

Instruction: *Version 1:* Course provides medical service corps, medical corps and veterinary corps, and Army nurse corps with knowledge of military community health administration, infectious disease epidemiology, and environmental health and engineering practices and specific skills and knowledge in the four track specialty areas. Lectures and practical exercises for the four categories of individuals in common instruction elements and selected specific instruction elements unique to each of the four personnel track specialty areas. *Version 2:* Lectures and practical exercises for the four categories of individuals in common instruction elements and selected specific instruction elements unique to each of the four personnel categories—administration, infectious disease epidemiology, environmental health, and engineering.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in industrial hygiene for all Tracks; for Track 1, Medical Service Corps/Engineer, 3 semester hours in environmental science/sanitary engineering (5/82); for Track 2, Medical Corps/Veterinary Corps, 3 in epidemiology (5/82); for Track 3, Medical Service Corps/Entomologist, 3 in entomology (5/82); for Track 4, Army Nursing Corps, 3 in community health nursing (5/82). *Version 2:* Credit is not recommended because of the professional nature of the course (6/75).

AR-0707-0004

PREVENTIVE MEDICINE ORIENTATION

Course Number: 6A-F3; 6-B-F1; 8-A-F11; 8-O-36.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 6 weeks (210–226 hours).

Exhibit Dates: 6/54–1/88.

Objectives: To provide medical officers with a basic working knowledge of military preventive medicine and environmental control functions.

Instruction: Classroom and practical instruction in preventive medicine, including environmental sanitation, occupational/industrial health, medical entomology, and disease and injury prevention.

Credit Recommendation: Credit is not recommended because of the professional nature of the course (6/75).

AR-0707-0005

ENVIRONMENTAL HEALTH SPECIALIST
(Preventive Medicine Specialist)

Course Number: 322-91S10; 322-91S20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 15 weeks (530–587 hours).

Exhibit Dates: 8/75–9/88.

Objectives: To train environmental health science specialists to identify and control specific environmental factors which affect the health of all personnel.

Instruction: Conferences, lectures, demonstrations, and practical exercises in the identification of sanitary deficiencies in water supply and waste water systems; inspection of and discrepancies in food service facilities; identification of hazards relating to the work environment in industrial, technical, and training areas; identification, collection, preservation and shipment of medically important arthropods and rodents; selection, safe handling, mixing, allocation and disposal of pesticides to include pest control procedures; performance of environmental health surveys; identification of potential health hazards in facilities producing ionizing and non-ionizing radiation; description of disease chain of transmission; and compilation of medical statistical data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in sanitation and disease control, 15 in environmental health, 4 in environmental emergency science (6/77).

Related Occupation Codes: 09B; 09E; 91S.

AR-0707-0006

PREVENTIVE MEDICINE PROGRAM
MANAGEMENT
(Community and Environmental Health
Program Management)

Course Number: 6A-F6.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (68–75 hours).

Exhibit Dates: 4/74–Present.

Objectives: To provide a working knowledge of the administrative, logistical, and managerial aspects of supervising, at the local level, a comprehensive preventive medicine program.

Instruction: Lectures, conferences, and case studies in health care administration, health, and the environment, including infectious disease control, health education, environmental protection, prevention of disease, pesticide management, community health, legal issues in health and environment, radiation protection and nuclear security, the OSHA Act of 1970, and the role of the veterinarian in the hospital environment. After 1980, lectures were dropped from the instructional format and the course did not cover OSHA Act of 1970 but did include computer use in preventive medicine.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in environmental health (9/85).

AR-0707-0007

ENVIRONMENTAL HEALTH SPECIALIST
RESERVE COMPONENT
(NONRESIDENT/RESIDENT)

Course Number: 322-91S10(RC).

Location: Academy of Health Sciences (Phase II), Ft. Sam Houston, TX.

Length: Phase II 2 weeks (104 hours).

Exhibit Dates: 2/78–9/80.

Objectives: To train selected reserve component enlisted personnel to perform environmental health duties in field units.

Instruction: Phase II, the resident portion of this course, consists of performance testing of critical tasks studied by correspondence during Phase I. Topics include environmental health engineering and sanitation and medical entomology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health and sanitary engineering, 3 in medical entomology (8/79). NOTE: Phase I of this course is nonresident in nature and carries no credit. Credit recommendation is based on only Phase II, the resident portion of the course (5/82).

Related Occupation Codes: 91S.

AR-0707-0008

BASIC INDUSTRIAL HYGIENE TECHNIQUES

Course Number: 6H-F11; 323-F11.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (74–90 hours).

Exhibit Dates: 5/82–5/88.

Objectives: To teach basic industrial hygiene techniques involved in the recognition, evaluation and control of occupational health hazards.

Instruction: The course presents a variety of topics in industrial hygiene in detail: vision and hearing, pesticide evaluation, Army's occupational health program, the science of industrial hygiene and survey and research, heat and cold environmental calculations, entry and action of toxic contaminants, use of I.H. reference material, hazards associated with chemicals, threshold limit values, sampling methods and administration (AIR), principles of ventilation, protective equipment, respiratory protection, sound, radiation health.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in industrial hygiene (8/88).

AR-0707-0009

PREVENTIVE MEDICINE OFFICER
ORIENTATION

Course Number: 6A-F7.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (73 hours).

Exhibit Dates: 8/82–12/88.

Objectives: This course provides the student with an introduction and foundation to occupational and environmental hygiene.

Instruction: Instruction includes conceptual basics of disease prevention related to environmental and occupational hygiene and their management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in introduction to environmental and occupational hygiene (9/85).

AR-0707-0010

ARMY MEDICAL DEPARTMENT (AMEDD)
OFFICER BASIC

Course Number: 6-8-C20 (MSC/WO).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 8–9 weeks (355 hours).

Exhibit Dates: 1/83–Present.

Objectives: To train entry level commissioned medical service corps officers and warrant officers in military management skills.

Instruction: Instruction primarily informs the student of military management procedures with a specific health-related unit in industrial/occupational hygiene related to handling of hazardous materiel.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic EMS first aid; in the upper-division baccalaureate category, 3 semester hours in industrial/occupational hygiene in hazardous materials (9/85).

AR-0707-0011

BASIC ENVIRONMENTAL COORDINATOR'S

Course Number: ALMC-BE.

Location: Logistics Mamagement College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (67–76 hours).

Exhibit Dates: 5/85–Present.

Objectives: To teach environmental staff personnel the preparation and evaluation of reports on the effects of military actions on environmental pollution.

Instruction: Lecture conference and case method instruction in pollution abatement, environmental regulations, and the preparation of environmental documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in environmental management (11/88).

AR-0707-0014

PREVENTIVE MEDICINE PROGRAM MANAGEMENT

Course Number: 6A-F6.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (71 hours).

Exhibit Dates: 9/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply acquired management skills and problem solving in the preventive medicine area.

Instruction: Conference and practical exercises in manpower and resource management current issues in preventive medicine and leadership.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business management and organization (4/88).

AR-0707-0015

HUMAN IMMUNODEFICIENCY VIRUS (HIV)/SEXUALLY TRANSMITTED DISEASES (STD) INTERVENTION

Course Number: 6H-F9/323-F9.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (69 hours).

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as sexually transmitted disease intervention specialist taking a major role in the implementation and operation of programs aimed at the prevention and control of sexually transmitted diseases including the human immunodeficiency virus (HIV).

Instruction: This course includes lecture, discussion, and clinical practice. Topics covered include the basic pathology and epidemiology of all of the major STD's, case management, medical and sexual history, interviewing, counseling, reporting requirements, specimen collection and microscopy techniques.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in sexually transmitted disease (3/90).

AR-0707-0016

PREVENTIVE MEDICINE SPECIALIST

Course Number: 322-91510.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 15 weeks (624 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will understand the principles of sanitary science and disease control, understand the fundamentals of environmental science, including occupational safety and health, and radiological and chemical protection, and understand advanced concepts of entomological research and practice. Student will be able to apply the principled of environmental health to the control of those environmental factors affecting the health and wellbeing of personnel in military areas.

Instruction: Conferences, lectures, demonstrations, and practical exercises in the identification of sanitary deficiencies in water supply and waste water systems; inspection of and discrepancies in food sevice facilities; identification of hazards relating to the work environment in industrial, technical, and training areas; identification, collection, preservation, and shipment of medically important anthropods and rodents; selection, safe handling, mixing, allocation and disposal of pesticides to include pest control procedures; performance of environmental health surveys; identification of potential health hazards in facilities producing ionizing and non-iodizing radiation; description of disease chain of transmission; and the compilation of medical statistical data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in sanitary science and disease control, 19 semester hours in environmental science or public health (3/90); in the upper-division baccalaureate category, 7 semester hours in advanced zoology/entomology (3/90).

AR-0707-0017

PREVENTIVE MEDICINE SPECIALIST RESERVE COMPONENT (NONRESIDENT/RESIDENT) PHASE II

Course Number: 322-91510 (RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (71-85 hours).

Exhibit Dates: 9/88-Present.

Learning Outcomes: Upon completion of the course, the student will understand the fundamentals of sanitation of food services, water analysis, field waste management, and rodent and pest control.

Instruction: Combination of conference, demonstration, and practical experience in sanitary and environmental science. Credit is based on Phase II only.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in community health and sanitary science, and 3 in medical emtomology (3/90).

AR-0707-0018

BASIC INDUSTRIAL HYGIENE TECHNICIAN

Course Number: 6H-F11/323-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (79 hours).

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to teach basic industrial hygiene techniques involved in the recognition, evaluation and control of occupational health hazards.

Instruction: Method of instruction include lectures, problem solving, calibrations, testing and measurements. Variety of topics include: industrial technology, hazard communication and evaluation, occupational diseases, direct and indirect air sampling instruments, respiratory protection, industrial ventilation, current trends in industrial hygiene, IH survey techniques, equipment calibration, utilization and storage, health hazard information module (HHIM), hazards associated with chemical reports, and ergonomic stress in the workshop.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in industrial hygiene (3/90).

AR-0708-0001

PSYCHIATRIC SPECIALIST

(Psychiatric Procedures Basic)
(Neuropsychiatric Procedures Basic)
(Neuropsychiatric Specialist)
(Neuropsychiatry)

Course Number: *Version 1:* 302-91F10; 302-91F20. *Version 2:* 302-91F20; 8-R-914.1; 8-E-13.

Location: *Version 1:* (Phase I) Academy of Health Sciences, Ft. Sam Houston, TX; (Phase II) Medical Field Service School, Oakland, CA; (Phase II) Naval, Regional Medical Center, Portsmouth, VA; Wilford Hall AF Medical Center, Lackland AFB, TX; Audie Murphy Memorial Veterans Hospital, San Antonio, TX; Naval School of Health Sciences Naval Hospital, San Diego, CA; Naval Regional Medical Center, Continental U.S.A.; Civilian/Military Medical Facilities, Continental U.S.A.. *Version 2:* Medical Field Service School, Ft. Sam Houston, TX.

Length: 8-12 weeks (176-457 hours).

Exhibit Dates: *Version 1:* 1/69-1/88. *Version 2:* 1/56-12/68.

Objectives: To provide nursing personnel with practical knowledge and skills to assist in the care and treatment of psychiatric patients.

Instruction: *Version 1:* Lectures and practical exercises in the performance of managerial, clerical and security duties of psychiatric attendants; identification, preparation, administration and observation for side effects of medication as required, observation, recording, and reporting of patient behavior, assistance in psychiatric therapies, evaluation and fulfillment of the physical and psychological nursing needs of psychiatric patients, behavioral recognition; therapeutic intervention procedures; lectures on understanding human development; etiology, dynamics and symptomatology of mental illness. *Version 2:* Principles and practices of neuropsychiatric patient care; psychiatric nomenclature; description of the psychiatric patient; recognition of abnormal behavior; anxiety, stress, and frustration; mechanism of defense; social and emotional aspects of illness.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in abnormal psychology, 3 in psychiatric nursing, 3 in psychiatric therapies, 5 in psychiatric or mental health clinical practice (8/88); in the upper-division baccalaureate category, credit in psychology and psychiatris nursing on the basis of institutional evaluation (6/77). *Version 2:* In the vocational certificate category, certificate in psychiatric assisting (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in psychiatric nursing (2/74); in the upper-division baccalaureate category, credit in psychiatric nursing on the basis of institutional evaluation. (12/68).

Related Occupation Codes: 91F.

AR-0708-0002

NEUROPSYCHIATRIC TECHNIQUES ADVANCED

Course Number: 8-E-28.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 20 weeks (640 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To provide psychiatric nurses with advanced training in neuropsychiatric techniques.

Instruction: Lectures and clinical experience in advanced neuropsychiatric techniques, including diagnostic and therapeutic techniques; review of anatomy and physiology of the nervous system; and care of patients with spinal cord injuries, back pain, epilepsy, or brain injury and diseases.

Credit Recommendation: In the vocational certificate category, certificate in psychiatric assisting (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in nursing, 15 in mental health technology (2/74); in the upper-division baccalaureate category, 3 semester hours in clinical psychology, 3 in psychiatry (12/68).

AR-0708-0003

Psychiatric Mental Health Nurse

Course Number: 6F-66C.

Location: Dwight David Eisenhower Army Medical Center, Augusta, GA; Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 22 weeks (838 hours).

Exhibit Dates: 7/79–Present.

Objectives: To prepare Army Nurse Corps officers to provide care and treatment for psychiatric patients within a hospital setting.

Instruction: This course utilizes lecture, conference and practical experience to cover therapeutic psychiatric nursing, psychiatric dysfunctions, group therapy, somatic therapy, therapeutic milieu, nursing unit management. All subject areas include a directed clinical practicum.

Credit Recommendation: In the graduate degree category, 2 semester hours in psychological dysfunction, 3 in group therapy, 3 in therapeutic psychiatric nursing, 4 in supervised clinical experience in psychiatric nursing (1/88).

AR-0709-0001

Operating Room Specialist
(Operating Room Technician)
(Operating Room Procedures Basic)

Course Number: 301-91D10; 301-91D20; 8-E-10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Brooke Medical Center, Ft. Sam Houston, TX; Selected Army Hospitals, Continental United States.

Length: *Version 1:* Phase 1, 6 weeks; Phase 2, 6 weeks (538–580 hours). *Version 2:* 12–14 weeks (528–616 hours).

Exhibit Dates: *Version 1:* 4/67–12/85. *Version 2:* 5/54–3/67.

Objectives: To train enlisted personnel in sterilization procedures, sterile technique, and patient care procedures in the operating room and central materiel section.

Instruction: *Version 1:* In Phase I (6 weeks) there are lectures and practical exercises in operating room and central materiel sterilization and sterile techniques; maintenance and practice of good surgical housekeeping and personal hygiene, identification of surgical instruments and supplies, maintenance and operation of operating room and central materiel equipment; safety, scrub and circulating techniques, operating room ethics and responsibilities to patients. In Phase II (6 weeks) there is supervised applicatory training in operating room and central materiel procedures and techniques. *Version 2:* Lectures and practical exercises in surgical suite housekeeping; sterile techniques; recognition of surgical instruments; operation and maintenance of operating room equipment; safety, scrub and circulating techniques; and surgical and anesthetical assistance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures, 3 in basic surgical science procedures, 4 in basic operating room techniques for Phase I (6 weeks); 4 semester hours in operating room practicum for Phase II (6 weeks) (6/77); in the upper-division baccalaureate category, 1 semester hour in anatomy for Phase I and additional credit based on institutional examination for Phase I and Phase II (6/77). *Version 2:* In the vocational certificate category, certificate in operating room techniques (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in operating room techniques (2/74); in the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (12/68).

Related Occupation Codes: 91A; 91D.

AR-0709-0002

Ear, Nose, and Throat Specialist
(Eye, Ear, Nose, and Throat Specialist)

Course Number: *Version 1:* 300-91U10. *Version 2:* 300-91U10. *Version 3:* 300-91U10; 300-91U20. *Version 4:* 300-91U10; 300-91U20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Army Medical Centers and Activities, Continental U.S.

Length: *All Versions:* Phase I: 4–6 weeks (225 hours); Phase II: 7–9 weeks (272–528 hours).

Exhibit Dates: *Version 1:* 6/85–Present. *Version 2:* 4/78–5/85. *Version 3:* 5/75–3/78. *Version 4:* 6/67–4/75.

Objectives: To train enlisted personnel to assist physicians and nurses in specialized outpatient services.

Instruction: *All Versions:* Lectures and practical exercises in sterile techniques, audiometric and optical examinations, administration of medications, preparation and safeguarding of medical records, ordering and storing medical supplies, and identification and care of specialized instruments and equipment. *Version 1:* Anatomy and physiology is more general in this version. Optics is not included.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in medical assisting (3/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in anatomy and physiology, 1 in audiology and 4 in practicum in otolaryngology (3/90). *Version 2:* In the vocational certificate category, 6 semester hours in medical assisting; in the lower-division baccalaureate/associate degree category, 1 in anotomy and physiology of ENT, 1 in audiology/optics and 4 in practicum in otolaryngology (9/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in anatomy and physiology, 3 in principles of otolaryngology, 4 in practicum in otolaryngology (6/77). *Version 4:* In the vocational certificate category, credit in medical assisting or health optics on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in medical assisting or health optics on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, credit in medical technology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 91B; 91U.

AR-0709-0003

Medical Specialist
(Medical Technician)

Course Number: 8-E-6.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 12–14 weeks (492–616 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train medical corpsmen and aidmen as assistants in hospital, clinical, and medical patient care and treatment.

Instruction: Academic study in professional sciences; surgical nursing care procedures; functions of neuropsychiatry; medical rotation techniques and procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (12/68).

AR-0709-0004

Orthopedic Laboratory Procedures
(Orthopedic Specialist)

Course Number: 8-R-451.1; 8-E-33.

Location: *Version 1:* Medical Service School, Ft. Sam Houston, TX. *Version 2:* Walter Reed Hospital, Washington, DC.

Length: 4 weeks (88 hours).

Exhibit Dates: 1/56–12/68.

Objectives: To train enlisted personnel to assist in fabricating, repairing, and adjusting casts and orthopedic devices.

Instruction: Lectures and practical exercises in the fundamentals of orthopedic laboratory procedures, including anatomy, medical terminology, orthopedic conditions, care and handling of orthopedic patients, and methods and materials used for orthopedic appliances.

Credit Recommendation: In the vocational certificate category, credit in orthopedic assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in orthopedic assisting (2/74).

AR-0709-0005

Pharmacy Specialist

Course Number: 312-91Q10; 8-R-932.2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: 17–18 weeks (570–680 hours).

Exhibit Dates: *Version 1:* 8/81–Present. *Version 2:* 5/62–7/81.

Objectives: To provide pharmacy auxiliary personnel with a working knowledge of drugs, their sources, preparation, uses, incompatibilities and doses; pharmaceutical symbols and terms; and storage, control procedures and dispensing procedures performed under the supervision of a pharmacist or physician.

Instruction: Lectures and practical experience in the fundamentals of pharmacy, including manufacture and labeling of pharmaceutical prescriptions, preparation of common drugs and medicines, use of pharmaceutical reference texts, and applied accounting and control procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in pharmacy administration and calculation, 1 in pharmaceutical chemistry, 2 in physiology and pathology, 3 in pharmacology, 4 in hospital pharmacy, and 3 in pharmaceutical preparations (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in pharmacy assisting, additional credit (up to 15 semester hours) on the basis of institutional evaluation (6/77); in the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory, 2 in pharmaceutical mathematics (6/77).

Related Occupation Codes: 91Q.

AR-0709-0006

Special Operations Medical Sergeant
(Special Forces Aidman (Airborne))

Course Number: *Version 1:* 300-F1. *Version 2:* 300-F1.

Location: *Version 1:* Medical Field Service School, Ft. Sam Houston, TX; *Version 2:* Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 19 weeks (572-646 hours). *Version 2:* 17 weeks (440 hours).

Exhibit Dates: *Version 1:* 8/72-9/85. *Version 2:* 4/66-7/72.

Objectives: To provide medical corpsmen with specialized knowledge of the procedures and techniques necessary to function independently in emergency situations.

Instruction: *All Versions:* Medical and dental diagnosis; psychiatric and dental emergency treatment; clinical laboratory techniques; emergency surgical procedures; preventive medicine techniques; field emergency medical, surgical and nursing care and treatment; principles of pharmacology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in medical laboratory procedures, credit in nursing or physician assisting on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in medical laboratory procedures, credit in nursing or physician assisting on the basis of institutional evaluation (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in medical laboratory procedures, credit in nursing or physician assisting on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in physiology and hygiene, 2 in medical laboratory procedures (12/68).

Related Occupation Codes: 18D; 91A; 91B.

AR-0709-0007

Medical Aidman Advanced

Course Number: 8-E-25.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 20 weeks (330 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train medical aidmen in the advanced techniques and procedures of field medicine, surgery, and triage as an assistant to the medical officer.

Instruction: Lectures and practical exercises in field medicine, surgery, preventive medicine, pharmacology, dispensary and sick call procedures, field sanitation, and medical records and supply.

Credit Recommendation: In the vocational certificate category, 30 semester hours in medical assisting, physician assisting, or emergency service technology (2/74); in the lower-division baccalaureate/associate degree category, 30 semester hours in medical assisting, physician assisting, or emergency service technology, and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in physiology and hygiene (12/68).

AR-0709-0008

Electroencephalographic Procedures
(Electroencephalographic Specialist)

Course Number: 8-R-914.3; 8-E-14.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 8 weeks (352 hours).

Exhibit Dates: 1/56-12/68.

Objectives: To train medical corpsmen in electroencephalography laboratory procedures and equipment operation and maintenance.

Instruction: Lectures and practical experience in the fundamentals of electroencephalography laboratory procedures and techniques, including electroencephalographic equipment maintenance, production and interpretation of EEG readings, and the standardization of four- and six-channel EEGs.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in psychiatric assisting (2/74).

AR-0709-0009

1. Clinical Specialist
2. Clinical Specialist
3. Medical Specialist Advanced
   (Advanced Medical Specialist)

Course Number: *Version 1:* 300-91C10; 300-91C30. *Version 2:* 300-91C20. *Version 3:* 8-R-911.3.

Location: Army Hospitals, Continental United States.

Length: 40 weeks (1372-1760 hours).

Exhibit Dates: *Version 1:* 4/76-1/90. *Version 2:* 6/68-3/76. *Version 3:* 2/61-5/68.

Objectives: To provide medical specialists with the advanced skills and knowledge necessary to supervise and perform patient-care duties appropriate to hospital and field medical assistants.

Instruction: *Version 1:* Study of basic principles of management and administration including personnel development; professional nursing sciences; pharmacology in patient care; basic principles of health and environment related to Army medical field service; fundamental clinical experience emphasizing medical and surgical patient care including surgical follow-through, plus immediate postoperative care as well as ambulatory patient, maternal and newborn patient, and pediatric patient care. *Version 2:* Study of the basic principles of management and administration, including personnel, equipment, and ward organization; medical management of mass disaster casualties; emergency medical and dental recognition and treatment; military preventive medicine; pharmacology in patient care; advanced principles and practice of total patient care; medical-surgical nursing; intensive care nursing; principles and procedures of prenatal, neonatal, and postnatal care; pediatric care; dispensary procedures; development of advanced medical specialist skills in operating room; general knowledge of specialized nursing, i.e., rehabilitation and cancer nursing. *Version 3:* Study of the basic principles of management and administration, including personnel, equipment, and ward organization; medical management of mass disaster casualties; emergency medical and dental recognition and treatment; military preventive medicine; pharmacology in patient care; advanced principles and practice of total patient care; medical-surgical nursing; intensive care nursing; principles and procedures of prenatal, neonatal, and postnatal care; pediatric care; dispensary procedures; development of advanced medical specialist skills in operating room; general knowledge of specialized nursing, i.e., rehabilitation and cancer nursing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 12 semester hours in clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy amd physiology, 3 in maternal and child nursing, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric medicine, 3 in environmental health (6/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 30 semester hours in physician assisting (2/74); in the upper-division baccalaureate category, 3 semester hours in first aid, 2 in nursing management, and, for students enrolled in nursing programs, additional credit in medical-surgical nursing on the basis of institutional evaluation (9/71). *Version 3:* In the lower-division baccalaureate/associate degree category, 60 semester hours in physician assisting (2/74); in the upper-division baccalaureate category, 2 semester hours in first aid, 2 in nursing management, and credit in physiology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 91B; 91C; 91Z.

AR-0709-0010

Military Physician's Assistant
(Physician's Assistant)

Course Number: 6H-011A; 6H-911A.

Location: Academy of Health Sciences (Phase 1), Ft. Sam Houston, TX; Army Medical Centers (Phase 2), Continental U.S.; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* Phase 1, 39-52 weeks; Phase 2, 52 weeks (3645-3835 hours). *Version 2:* 72 weeks (2900 hours).

Exhibit Dates: *Version 1:* 7/75-12/84. *Version 2:* 6/71-6/75.

Objectives: To provide students with the skills and knowledge of fundamental medical processing procedures and techniques necessary to assume the duties and responsibilities of physician assistants.

Instruction: *All Versions:* Lectures and practical exercises in behavioral sciences, basic sciences, dental sciences, health care administration, medicine and surgery, military sciences, preventive medicine, and pathology and laboratory sciences. *Version 2:* Phase 1 involves classroom instruction; Phase 2 involves a clinical practicum.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 60 semester hours in physician assisting (6/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 60 semester hours in physician assisting (2/74); in the upper-division baccalaureate category, credit in physician assisting on the basis of institutional evaluation (2/74).

AR-0709-0011

Battalion Surgeon Assistant

Course Number: 7M-F4.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 4 weeks (140 hours).

Exhibit Dates: 3/66-12/68.

Objectives: To train medical service officers to assist in routine patient care and emergency treatment.

Instruction: Lectures and practical exercises in common disease diagnosis and care; nursing care procedures; emergency medical apparatus usage; emergency treatment of combat casualties; communicable disease control measures and environmental sanitation methods; familiarization with psychiatric and neurological problems; and description, uses, and dosages of various drugs.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in first aid or hygiene (12/68).

AR-0709-0012

Memorial Activities

Course Number: *All Versions:* 492-57F20. *Version 2:* 10-R-547.1.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6 weeks (192-273 hours). *Version 2:* 8 weeks (352 hours).

Exhibit Dates: *Version 1:* 4/75-6/85. *Version 2:* 8/60-12/68.

Objectives: To train enlisted personnel to search for, recover, evacuate, identify, and make disposition of deceased personnel.

Instruction: Lectures and practical exercises in search, recovery, evacuation, and disposition operations, including logistics, map reading and air crash recovery; identification by fingerprinting, dental charts, anatomy and skeletal assembly; and cemetery operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in mortuary science or forensic science (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mortuary science or forensic science (6/74); in the upper-division baccalaureate category, 2 semester hours in mortuary science or forensic science (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in mortuary science or forensic science (6/74); in the lower-division baccalaureate/associate degree category, 3 semesterhours in mortuary science or forensic science (6/74); in the upper-division baccalaureate category, 2 semester hours in mortuary science or forensic science (6/74).

Related Occupation Codes: 57F.

AR-0709-0013

Patient Administration

Course Number: 7M-F3; 8-A-F18.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: 7-8 weeks (244-293 hours).

Exhibit Dates: *Version 1:* 6/78-9/87. *Version 2:* 1/64-5/78.

Objectives: To train medical service officers in the principles and procedures required for administration of patients in Army medical treatment facilities.

Instruction: *Version 1:* Lectures and practical exercises in the principles and procedures required for the administration of patients in Army Medical Treatment facilities, including patient administration, health care organization and analysis, and human resources management. *Version 2:* Lectures and practical exercises in the principles and procedures required for administration of patients in Army medical treatment facilities, including patient administration, medical and military law, special aspects of medical materiel management, personnel management, resource management and operations research, introduction to dental and medical science, introduction to anatomy and physiology, neuropsychiatric services, nursing services, and military community health, and aeromedical evacuation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in administration and management procedures, 1 in health care organization, and 1 in human resources management (10/87). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in hospital administration (7/74).

AR-0709-0014

Army Dietetic Internship

Course Number: None.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX; Walter Reed Army Medical Center, Washington, DC.

Length: 39 weeks (1432 hours).

Exhibit Dates: 3/74-12/85.

Objectives: To provide learning experiences for dietetic internship-qualified candidates to gain competency for practice of dietetics.

Instruction: Lectures and practical exercises in hospital dietetics, equipment management, financial management, menu planning, nutritional care, personnel management, quantity food production, safety procedures, sanitation procedures, security procedures, space design, and subsistence management.

Credit Recommendation: Credit is not recommended because of the professional nature of the course (6/75).

AR-0709-0015

Optical Laboratory Specialist

Course Number: *Version 1:* 311-42E10. *Version 2:* 311-42E20.

Location: Medical Equipment and Optical School, Denver, CO.

Length: *Version 1:* 21 weeks (815-945 hours). *Version 2:* 21 weeks (756 hours).

Exhibit Dates: *Version 1:* 6/82-Present. *Version 2:* 2/74-5/82.

Objectives: To provide students with a theoretical basis and working knowledge of ophthalmic optics, optical laboratory procedures, and optical equipment to fabricate prescribed eyewear.

Instruction: *Version 1:* Lectures and practical exercises to include prescription analysis, laboratory procedures and production of eyewear, ocular anatomy and physiology, skill development, lens verification, equipment maintenance and repair, and safety precautions. *Version 2:* Lectures and practical exercises to include prescription analysis; laboratory procedures in surfacing and fabrication of eyewear; skill development; lens verification; equipment maintenance and repair; and safety precautions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in ophthalmic optics, 7 in optical laboratory procedures, 7 in optical laboratory production and 6 in optical laboratory apprenticeship (7/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in introduction to the field of ophthalmic optics, 5 in introduction to lens surfacing procedures, 3 in pre-surfacing laboratory procedures, 12 in surfacing and fabrication technology, and 5 in laboratory production experience (10/75).

AR-0709-0016

Allergy-Clinical Immunology Specialist

Course Number: 300-F4.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Walter Reed Army Medical Center, Washington, DC.

Length: 8 weeks (301 hours).

Exhibit Dates: 11/75-1/88.

Objectives: To train individuals to assist in the specialized field of allergy-immunology.

Instruction: Lectures, laboratory, and clinical experience to include clinical administration, allergy-clinical immunology, basic sciences, immunoglobulins and mediators of hypersensitivity, allergic manifestations and treatment, diagnostic procedures, preparation of allergen extracts and clinical rotations through allergy-immunization clinic, allergen extract laboratory, allergy-immunology research laboratory, pulmonary function laboratory, and physical medicine service.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in anatomy and physiology of allergies, 2 in allergy symptoms, 1 in allergy extracts, 3 in allergy clinic (6/77).

Related Occupation Codes: 91B; 91C.

AR-0709-0017

Pharmacy Sterile Products

Course Number: 6H-68H/312-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* Self-paced, maximum 2 weeks (83 hours). *Version 2:* 2 weeks (70 hours).

Exhibit Dates: *Version 1:* 3/78-Present. *Version 2:* 5/75-2/78.

Objectives: To provide pharmacy personnel with a working knowledge of the techniques, procedures, and administrative functions involved in preparing sterile products.

Instruction: Lectures, demonstrations, and practical exercises relative to the work environment, the preparation, calculation, and administration of sterile products, and the management of a pharmacy sterile product section. *Version 1:* Course has 2 elements: pre-course self-study requiring student to complete self-paced exportable modules pertaining to pharmaceutical calculations, and a two-week resident phase.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in specialized pharmacy or pharmaceutical chemistry (6/89). *Version 2:* In the upper-division baccalaureate category, credit on the basis of institutional evaluation (6/77).

Related Occupation Codes: 91Q.

AR-0709-0018

Automated Military Outpatient System (AMOSIST) Training

Course Number: 300-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase I, 2 weeks; Phase II, 3 weeks; Phase III, 7 weeks (468 hours).

Exhibit Dates: 1/76-12/85.

Objectives: To provide training to insure quality health care for adult walk-in patients by triaging to appropriate health care provider.

Instruction: Practical exercises and lectures to include elementary diagnosis, anatomy and physiology, first aid, patient management. Course is conducted in three phases, a didactic phase followed by two phases of practical experience under close supervision of physicians and certified AMOSISTs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 1 in medical care management for completion of the two-week Phase I; 2 semester hours in medical care internship for the three-week Phase II; 3 semester hours in medical care internship for the seven-week Phase III (9/85).

Related Occupation Codes: 91B; 91C.

AR-0709-0019

Clinical Specialist Primary Technical

Course Number: 300-91C20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Medical Centers, Continental United States.

Length: 16 weeks (592 hours).

Exhibit Dates: 6/77–6/87.

Objectives: To provide medical specialists with the skills and techniques required to perform duties in therapy and preventive and emergency care.

Instruction: Study of the basic principles of ethical medico-legal responsibilities, structure, and duties of the department of nursing; principles of medical records; measurement of temperature, pulse, respirations and blood pressure; recognition of signs and symptoms and needs of the patients; demonstration of medical and surgical asepsis; pre- and post-operative care of the surgical patient; care of the immobilized patient; identification of simple disorders of the skin; nursing procedures for respiratory conditions; digestive disorders and disorders of the bowel; psychosocial acceptance of death and dying; postmortem care; assisting with physical examination; collection and storage of specimens; recognition of EENT conditions; basic cardiopulmonary resuscitation techniques; recognition of anaphylactic shock; immunization techniques and principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in physician assisting (6/77); in the upper-division baccalaureate category, 2 semester hours in first aid, 2 in nursing procedures (6/77).

Related Occupation Codes: 91B; 91C.

AR-0709-0020

Patient Administration Reserve Component (Nonresident/Resident)

Course Number: 7M-F3(RC).

Location: Academy of Health Sciences (Phase II), Ft. Sam Houston, TX.

Length: Phase II 2 weeks (71 hours).

Exhibit Dates: 10/77–2/85.

Objectives: To provide medical science reserve officers with a working knowledge of Army procedures for patient administration.

Instruction: Phase II, the resident portion of this course, consists of conferences and practical exercises in Army medical patient administration procedures, including admissions and disposition reports and medical statistical reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in medical records technology or health care management (8/79). NOTE: Phase I of this course is nonresident in nature. Credit recommendation is based on only Phase II, the resident portion of this course.

Related Occupation Codes: 67E.

AR-0709-0021

Patient Administration Specialist Reserve Component (Nonresident/Resident)

Course Number: 513-71G10(RC).

Location: Academy of Health Sciences (Phase II), Ft. Sam Houston, TX.

Length: Phase II 2 weeks (72 hours).

Exhibit Dates: 10/77–1/88.

Objectives: To provide enlisted personnel with a working knowledge of basic administrative procedures associated with the hospitalization of patients in an Army facility.

Instruction: Lectures and practical exercises in administration procedures and maintenance, and disposition of patient medical records in an Army facility.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in medical records technology or health care management (8/79).

Related Occupation Codes: 71G.

AR-0709-0022

Orientation to Army Medical Department (AMEDD) Pharmacy Services

Course Number: 6-8-C26.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (75–106 hours).

Exhibit Dates: 2/76–4/88.

Objectives: To provide newly commissioned pharmacy officers with a general knowledge of the organization and operation of an AMEDD pharmacy service and the responsibilities and duties of an AMEDD officer.

Instruction: Lectures and classroom discussion on administrative and managerial problem solving and utilization of management principles for development of subordinate staff and the hospital organization.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/88).

Related Occupation Codes: 3318; 3506.

AR-0709-0023

Cardiac Specialist

Course Number: 300-91N10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 12 weeks (513 hours). *Version 2:* 4 weeks (142 hours).

Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 11/76–6/85.

Objectives: To provide skills and knowledge of fundamental techniques necessary to assume duties and responsibilities of the cardiac specialist.

Instruction: *Version 1:* Course provides a comprehensive introduction to noninvasive cardiology technology consisting of 159 hours didactic and 354 hours of clinical practicum. Topics include: interpretation of EKG patterns, performance of cardiac stress test and use of quantitative assessment with holtor monitor and 12 lead EKG for normal and abnormal cardiac conditions. *Version 2:* Lectures and clinical practicum in electrocardiogram techniques, equipment maintenance, cardiac arrest procedures, and management of a heart station.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours of didactic instruction in noninvasive cardiology technology and 1 in clinical practicum in cardiology technology (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electrocardiography, 2 in clinical practice in electrocardiography, and 1 in anatomy and physiology of the cardiovascular system (8/79).

AR-0709-0024

Patient Care Specialist

Course Number: 300-91C10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase I, 4 weeks, Phase II, 12 weeks, for a total of 16 weeks (Phase I, 141 hours, Phase II, 515 hours, for a total of 720 hours).

Exhibit Dates: 3/81–6/87.

Objectives: Provides skills and knowledge to perform duties of the health care team in preventive, therapeutic, and emergency care; nursing care process in-care and treatment of acutely, seriously, and chronically ill patients.

Instruction: This course utilizes lectures, conferences and practicum to develop competency in communication techniques, fundamentals of patient care, ambulatory health care and basic administration and leadership.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to nursing science, 2 in fundamentals of patient care, 8 in medical/surgical practicum (5/82).

AR-0709-0025

Special Forces Medical Diving Technician

Course Number: None.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/79–6/89.

Objectives: To qualify the Special Forces Medical Aidman as a medical diving technician.

Instruction: For this course after 6/89 see AR-0709-0039. Course covers recognition and treatment of diving accidents, sicknesses and diseases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in diving medical technician (4/83).

AR-0709-0026

Graves Registration Specialist Advanced Individual Training

Course Number: 492-57F10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (192–215 hours).

Exhibit Dates: 2/78–7/87.

Objectives: To educate and train enlisted personnel to search for, recover, evacuate, document, and dispose of deceased personnel and associated personal effects.

Instruction: Conferences, field training exercises, demonstratons, and examinations in mortuary affairs; search for, recovery, collecting operations, identification by fingerprinting, anatomical and skeletal charts; and process all required forms and records.

Credit Recommendation: In the vocational certificate category, 9 semester hours in mortuary science or forensic sciences (8/85).

Related Occupation Codes: 57F.

AR-0709-0027

Graves Registration Specialist Basic Technical

Course Number: 492-57F30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3–9 weeks (120 hours).

Exhibit Dates: 1/85–Present.

Objectives: To educate and train enlisted personnel in supervision of a graves registration activity.

Instruction: Lectures, conferences, practical exercises, demonstrations, and examinations in serach and recovery missions, mass casualty operations, operating procedures for collecting points, and temporary cemeteries.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mortuary science or forensic sciences (8/88).

Related Occupation Codes: 57F.

AR-0709-0028

Service Noncommissioned Officer (NCO) Advanced (Graves Registration Specialist Track)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7 weeks (248 hours).

Exhibit Dates: 6/78–12/86.

Objectives: To educate and train enlisted personnel to search for, recover, collect, identify, and make disposition of deceased personnel, and to educate enlisted personnel in organizational effectiveness and leadership.

Instruction: Conferences, practical exercises, demonstration, case studies, television and film and examinations in organizational leadership; search for, recovery, collecting operations, and disposition operations; identification by fingerprinting, dental charts, anatomy and skeletal assembly, burial and disinterment operations, depot and cemetery operations are all included.

Credit Recommendation: In the vocational certificate category, 9 semester hours in mortuary science or forensic sciences (7/85); in the lower-division baccalaureate/associate degree category, 3 semester hours in mortuary administration (7/85).

AR-0709-0029

Flight Medical Aidman

Course Number: 300-F6.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (135 hours).

Exhibit Dates: 1/85–9/89.

Objectives: To train medical aidmen to assess and treat urgent combat casualties on board an air ambulance without medical supervision, to administer a flight physical exam, and to supervise the flight dispensary.

Instruction: Units of instruction include: introduction to and history of Army aviation medicine, aeromedical evacuation, crash rescue, helicopter indoctrination, crash rescue procedures, patient transfer preparation, investigation of aircraft accidents, in-flight care and safety, chemistry of fire, aircraft avionics, aircraft maintenance, extraction techniques, aviation physiology, EKG setup and operation, inhalation therapy, psychiatric disorders, toxicology, lifesaving procedures, examination and evacuation of psychiatric and trauma patients.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (8/85). After 9/89 see AR-0709-0040.

AR-0709-0030

Army Medical Department (AMEDD) Officer Orientation
(Physician Assistant)

Course Number: 6-8-C21 (PA).

Location: Medical Corps School, Ft. Sam Houston, TX.

Length: 3 weeks (128 hours).

Exhibit Dates: 3/81–12/89.

Objectives: To give the student an orientation in the duties of physician assistant in preparation for combat management.

Instruction: Course content includes a brief introduction and orientation to drug and alcohol abuse and introduction and orientation to military combat management and preparation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-0709-0031

Special Forces Medical Sergeant (Special Operations Medical Sergeant Phases I and III)

Course Number: 011-18D30.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: *Version 1:* 17 weeks (1,559 hours) *Version 2:* Phase I, 5 weeks; Phase III, 18 weeks (1,477 hours). *Version 3:* Phase I, 17 weeks; Phase III, 4 weeks (1,634 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/87–9/89. *Version 3:* 10/85–9/87.

Learning Outcomes: *Version 1:* Pending evaluation. *Version 2:* Upon completion of the course the student will be able to determine, by use of aerial photographs and maps, locations, elevations, desirable routes of travel, and location of specific points; practice proper techniques for small boat operations; navigate to designated points; prepare military orders; practice survival techniques; plan air drop-zone operations; establish and supervise a medical facility in an unconventional warfare environment including surgical procedures, assessment and management of diseases, animal husbandry, and veterinary medicine in providing military personnel and others with appropriate medical care. *Version 3:* Upon completion of the course the student will be able to assume medical duties and responsibilities including assessment and management of specified surgical emergencies in field conditions, patient management, administration of local anesthesia for emergency dental conditions, dosage calculation and administration of medicinal agents.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Phase II can be found in exhibit AR-0705-0010. Course includes lectures, demonstrations, and practical exercises in orienteering, small boat operations and navigation, and survival skills. Medical topics include: advanced cardiac life support, x-ray, hematology, trauma management, examinations, and anesthesia. In addition, training is included in the care and use of laboratory equipment and medical laboratory skills such as bacteriology, parasitology, urinalysis, and mycology. Course includes a common core of leadership subjects, see AR-1406-0090. *Version 3:* Includes lectures, discussions, laboratories, and practicum in anatomy, physiology, pharmacology, dental sciences, psychiatry, physical therapy, medicine, nursing, and field medical service.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* For the completion of phases I and III, in the lower-division baccalaureate/associate degree category, 2 semester hours in orienteering, 1 in water safety, 6 in applied medical sciences, applied science, or introduction to biological sciences, and 3 in medical laboratory, medical laboratory procedures, nursing, or physician assisting (12/88). For credit for phase II see AR-0705-0010. For credit for the common core see AR-1406-0090. *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in medical laboratory procedures and credit in nursing or physician assisting on the basis of instututional evaluation; in the upper-division baccalaureate category, 3 semester hours in physiology and hygiene and 2 in medical laboratory procedures (4/88). Both phases must be completed before credit is awarded.

Related Occupation Codes: 18D.

AR-0709-0032

Medical Specialist

Course Number: 300-91A10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 10 weeks (360 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to measure and assess vital signs, complete and maintain records, perform CPR, administer oxygen, manage a patient with artificial airways, manage wounds, administer infections and immunizations, treat chemical injuries, initate measures to prevent spread of communicable disease, initiate basic field sanitation procedures.

Instruction: Lectures, laboratories, demonstrations in anatomy and physiology, medical records, nursing care procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in physiology, 2 in first aid, and 1 in nursing care (4/88).

AR-0709-0033

Medical Noncommissioned Officer (NCO)

Course Number: 300-91B20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 12 weeks (471 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to function at the noncommissioned officer level in the battlefield or in garrison prehospital care and emergency/ambulatory treatment facilities.

Instruction: Lectures, laboratories in pharmacology, anatomy, physiology, paramedic skills, clinical skills, infectious diseases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in hygiene and 2 in pharmacology (4/88); in the upper-division baccalaureate category, 3 semester hours in physiology and credit for physician assistant programs determined by the institution (4/88).

AR-0709-0034

Medical Noncommissioned Officer (NCO) (Reserve Component)

Course Number: 300-91B30(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 254 hours.

Exhibit Dates: 10/86–12/87.

Learning Outcomes: Upon completion of the course the student will be able to function at the noncommissioned officer level in the battlefield or in garrison prehospital care and emergency/ambulatory treatment facilities.

Instruction: Lectures, laboratories and self-study materials in pharmacology, anatomy, physiology, paramedic skills, clinical skills, infectious diseases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in hygiene and 2 in pharmacology (4/88); in the upper-division baccalaureate category, 3 semester hours in physiology and credit for physician assistant programs determined by the institution (4/88).

AR-0709-0035

Operating Room Specialist

Course Number: 301-91D10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 12 weeks (216-254 hours).

Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify, maintain and sterilize surgical instruments, sutures, needles, blades, and metal ware; carry out the duties of scrub and circulator; transport and position patients; prepare sterile supplies; handle specimens.

Instruction: Lectures, laboratories and clinical practicum in operating room and sterilization techniques, hygiene and physiology. Both Phases must be completed.

Credit Recommendation: In the vocational certificate category, certification in operating room techniques (4/88); in the lower-division baccalaureate/associate degree category, 15 semester hours in operating room techniques and 1 in physiology for Phase I (4/88). NOTE: No credit for Phase I unless Phase II is completed. Phase II alone does not provide credit. Phase II is offered at various locations.

AR-0709-0036

Patient Administration

Course Number: 7M-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 6-7 weeks (264 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the principles and procedures required for administration of patients in Army medical treatment facilities.

Instruction: Lectures and practical exercises in the principles and procedures required for the administration of patients in Army Medical Treatment facilities, including patient administration, health care organization and analysis, and human resources management.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in health care organization and management (4/88).

AR-0709-0037

Graves Registration Specialist
Advanced Noncommissioned
Officer (NCO)

Course Number: 492-57F40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 5-6 weeks (128 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise personnel for cemetery operations, mortuary service contracts, and coordinate graves registration matters.

Instruction: Includes conferences, television, and performance exercises in the review of mortuary service contracts; graves registration operations, cemetery layout requirements; escort services; arrangement of matters such as temporary cemetery locations, emergency burials, security and disposition of remains and personal effects, inspection and shipment of remains.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in forensic sciences, 1 in management sciences (10/88).

Related Occupation Codes: 57F.

AR-0709-0038

Graves Registration Specialist

Course Number: 492-57F10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (284-287 hours).

Exhibit Dates: 8/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform search, recovery, evacuation, documenation, and proper disposition of remains and associated personal effects.

Instruction: Includes lectures, demonstrations, television, and performance exercises in mortuary affairs; search for, recovery, and collecting operations; identification by fingerprinting, anatomical, and skeletal charts; and processing all required forms and records.

Credit Recommendation: In the vocational certificate category, 9 semester hours in mortuary science or forensic studies (10/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in forensic sciences (10/88).

Related Occupation Codes: 57F.

AR-0709-0039

Special Forces Diving Medical
Technician

Course Number: 011-F22.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 4 weeks (150 hours).

Exhibit Dates: 7/89-Present.

Learning Outcomes: Upon completion of the course the student will be able understand the effects of pressure on the human body during diving operations, injuries resulting from excessive exposure to pressure, and the diagnostic procedures involved in these injuries; diagnose and treat diving emergencies and injuries peculiar to combat diving operations; plan diving operations including the use of recompression chambers for treating diving injuries, neurological examinations, catheterization, intravenous infusions, inturbation, and aeromedical evacuation.

Instruction: Includes lectures, demonstrations, and performance exercises in physiology and diagnostic procedures, diving emergencies and injuries, and diving operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in applied medical science, medical diving technician, or applied science (12/88).

AR-0709-0040

Flight Medical Aidman

Course Number: 300-F6.

Location: Academy of Health Sciences, School of Aviation Medicine, Fort Rucker, AL.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to train medics in skills needed to be a member of an aeromedical evacuation team; train medics in skills necessary to evaluate wounded from a battlefield; assist flight surgeon; install, inspect and maintain hoist on helicopter; operate hoist during evacuation; treat victims who have head wounds, are struggling, are unconscious; triage wounded; perform and comprehend basic life support skills; including patient assessment, bandage and splinting, emergency child birth, triage and transport and evacuation.

Instruction: Units of instruction inclure: introduction to and history of Army aviation medicine, aeromedical evacuation, crash rescue, helicopter indoctrination, patient transfer preparation, investigation of aircraft accidents, in-flight care and safety, chemistry of fire, aircraft avionics, aircraft maintenance, extraction techniques, aviation physiology, EKG setup and operation, inhalation therapy, psychiatric disorders, toxicology, lifesaving procedures, examination and evacuation of psychiatric and trauma patients. Also, underwater survival and egress techniques, and training in flight simulator. Course is conducted through a combination of conferences, demonstration and practical experience in the fundamentals of basic life support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in emergency medical technology basic (3/90).

AR-0709-0041

Orientation to Army Medical
Department (AMEDD) Pharmacy
Services

Course Number: 6-8-C26.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2-3 weeks (101 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to begin working as an Army Pharmacist with a general knowledge of the organization and operation of an Army pharmacy.

Instruction: Course includes lecture, discussions, and practical experience in the organization of Army hospitals and pharmacies, inventory management, personnel management, pharamacy computerization, staffing, budgeting, and physical security.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in pharmacy management and 1 in personnel management (3/90).

AR-0709-0042

Quality Audit of Subsistence

Course Number: 6G-F5/321-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (86 hours).

Exhibit Dates: 8/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide quality audits of subsistance using standardized, uniform interpretation of policies and procedures, and will provide wholesomeness inspection of red meat, poultry, and waterfood.

Instruction: This course consists of lectures, demonstrations, problem solving, and practicum in food science and food hygiene.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service/technology (3/90).

AR-0709-0043

Patient Administration Reserve Component (Nonresident/Resident)

Course Number: 7M-F3(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (56-81 hours).

Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and list components of quality assurance programs; list and select branches of patient administration (including entitlement-military and civilian, line of duty, admissions and disposition of trust funds); understand and utilize medical statistical reports; understand procedures for reporting and follow-up of deceased; understand procedures relating to release of medical information; administration of patients in combat zone hospital; understand medical accounting practices, know the procedure for evacuation and transfer of patients; understand hospital accreditation procedure; identify and discuss physician/administrator relationships; understand patient-centered/staff-centered factors; understand disposition of medically unfit (percentage of disability), understand reporting of seriously-ill/very seriously ill patients, be familiar with issues affecting the role of the patient administrator.

Instruction: Instructional modes include conference/lecture covering above topics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in patient care administration (3/90).

AR-0709-0044

Army Medical Department (TDA) Table of Distribution and Allowances Pre-command

Course Number: 7M-F9.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (65-83 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to review and discuse current issues in health care administration.

Instruction: Instruction involves a series of guest lectures, covering Army Health Care Administration facilities, Dental Care Systems and Family Advocacy Programs (3/90).

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course.

AR-0709-0045

Principles of Military Preventive Medicine (ENTO)

Course Number: 6A-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 9 weeks (365 hours).

Exhibit Dates: 10/88–5/90.

Learning Outcomes: Upon completion of the course, the student will be able to serve as an entomologist.

Instruction: This course includes lecture, discussion, and practice in preventive medicine, environmental hygiene, infection control, epidemiology, and public health.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in preventive medicine, 2 in environmental hygiene, 1 in infection control, 1 in epidemiology, 3 in entomology, and 1 in public health (3/90).

AR-0799-0001

Army Medical Department (AMEDD) Officer Orientation (MSC)
(Medical Department Officer Orientation (MSC))

Course Number: 6-8-C21(MSC); 6-8-C21.

Location: Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: 3–5 weeks (128–179 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To provide medical service corps officers with a basic general knowledge of military medical service.

Instruction: Conferences and practical exercises in health care administration, preventive medicine, medical problems in field service, leadership of medical units; planning and supervision of unit training of medical troops; and medical unit administration and supply.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

AR-0799-0002

Army Medical Service (AMEDS) Noncommissioned Officer (NCO)

Course Number: 513-F1; 8-R-F10; 8-E-17.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 12–15 weeks (528–660 hours).

Exhibit Dates: 9/56–10/78.

Objectives: To provide noncommissioned officers with the knowledge and skills necessary to become assistant hospital administrators.

Instruction: Lectures and practical exercises in the fundamentals of hospital administration, including personnel and resource management, organization and supervision of departments and staff sections, coordination of staff activities, and hospital missions organization and functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 30 semester hours in hospital administration (2/74); in the upper-division baccalaureate category, 3 semester hours in hospital administration, 2 in first aid and hygiene (12/68).

AR-0799-0003

Advanced Nursing Administration

Course Number: *Version 1:* 8-A-3430. *Version 2:* 8-O-27.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 27 weeks (1188 hours). *Version 2:* 23 weeks (734 hours).

Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 4/54–6/58.

Objectives: To provide selected nurses with advanced medical training, enabling them to qualify as hospital assistants or chief nurses.

Instruction: Lectures and practical experience in personnel and nursing management; medical, hospital, and nursing administration; nursing station and services; medical records and law; statistics; written and oral communication; human relations; supply principles and procedures; and teaching and research in nursing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in nursing administration, 2 in hospital management, 2 in personnel management, and credit in instructional methods on the basis of institutional evaluation (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 14 semester hours in nursing administration (2/74); in the upper-division baccalaureate category, 6 semester hours in nursing administration, 3 in hospital management, 3 in personnel management, 2 in instructional methods, and credit in speech on the basis of institutional evaluation (12/68).

AR-0799-0004

Army Medical Department (AMEDD) Reserve Component General Staff

Course Number: 7M-F1(RC); 7M-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/75–12/88.

Objectives: To provide information related to the performance of duties associated with command and staff positions for Army medical department reserve component officers.

Instruction: Lectures and practical exercises in health care delivery in the Army, health and environmental sciences, and health care administration.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

AR-0799-0005

Army Aviation Medicine Basic
(Aviation Medicine Basic)

Course Number: 6A-3160; 1-A-3160.

Location: Aviation School, Ft. Rucker, AL.

Length: 4–7 weeks (148–261 hours).

Exhibit Dates: 4/64–1/88.

Objectives: To provide Medical Corps officers with a working knowledge of aviation medicine.

Instruction: Lectures and practical exercises in administration, medical flying standards, aeromedical problems associated with flying, tactics on various aircraft, and operation of flying units.

Credit Recommendation: Credit is not recommended because of the professional nature of the course (6/75).

AR-0799-0006

Clinical Technician

Course Number: 8-E-18.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 48 weeks (1440 hours).

Exhibit Dates: 1/54–12/56.

Objectives: To train enlisted personnel in advanced nursing procedures and ward management functions.

Instruction: Principles and procedures of patient care; common diseases; personal and community health; body structure and function; first aid; care of neuropsychiatric patients; child care; clinical application in care of medical, surgical, neurosurgical, outpatient, and orthopedic patients; clinical application in mother and child care.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and hygiene, and additional credit in physiology on the basis of institutional evaluation (12/68).

AR-0799-0007

Essential Medical Training for Army Medical Department (AMEDD) Aviators Nonresident/Resident

(Essential Medical Training for Army Medical Department (AMEDD) Aviators Associate)

Course Number: 2C-F7(RC); 2C-F7(R).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: In residence 2 weeks (80 hours).

Exhibit Dates: 11/74–7/89.

Objectives: To provide AMEDD aviators with general knowledge about the medical problems encountered in the aeromedical evacuation of the sick and wounded.

Instruction: The course consists of a 54-hour nonresident phase of correspondence study and a 2-week resident phase of lectures and practical exercises in elementary diagnosis, emergency medical treatment procedures, and medical support in the theater of operations. Credit recommendation is based on resident phase.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in emergency medical care, 2 in anatomy and physiology (6/77).

AR-0799-0008

Army Medical Department (AMEDD) Officer Advanced Nonresident/Resident

Course Number: 6-8-C22(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: In residence 2 weeks (75 hours).

Exhibit Dates: 11/74–3/87.

Objectives: To provide selected Reserve medical officers with a knowledge of AMEDD command and staff duties.

Instruction: The course consists of an 84-hour nonresident (correspondence) phase prerequisite to 75-hour (two week) formal resident phase. Phase I includes subject matter generally unique to the Army Medical Department and some, such as preventive medicine, with wider applicability. Phase II emphasizes military application and description of military organizational function, with some wider range of content relating to matter of public health, such as geographic distribution of disease.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/77).

AR-0799-0009

Drug and Alcohol Rehabilitation

Course Number: 5H-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (70 hours).

Exhibit Dates: 7/76–8/79.

Objectives: To provide selected personnel with training related to the rehabilitation of individuals with drug and alcohol problems.

Instruction: Lectures and practical experiences in applying basic skills on individual counseling techniques and small-group leadership skills in drug and alcohol treatment settings; psychosocial and medical aspects of drug and alcohol abuse; treatment and rehabilitation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in drug/alcohol abuse overview (6/77).

AR-0799-0010

Alcohol and Drug Abuse Team

Course Number: 5H-F2/302-F2; 302-F1; 302-F2; 5H-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (66–70 hours).

Exhibit Dates: 7/76–11/85.

Objectives: To prepare personnel for duties on alcohol and drug abuse teams.

Instruction: Lectures and practical exercises in drug/alcohol abuse problem identification, treatment, rehabilitation, and prevention.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in social and behaviorial sciences, 2 in drug and alcohol abuse overview (5/82).

AR-0799-0012

Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Advanced

Course Number: 6-8-C42.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 10-12 weeks (414–505 hours). *Version 2:* 12 weeks (410 hours).

Exhibit Dates: *Version 1:* 5/78–1/88. *Version 2:* 5/75–4/78.

Objectives: To train selected noncommissioned officers to assume responsibilities and duties required of a Army Medical Department non-commissioned officer.

Instruction: *Version 1:* Lectures, conferences, and practical exercises in the behavorial sciences, preventative medicine and health care administration, military science, and management of a health care facility. The course has a common base and then splits up into four MOS speciality areas including dental science, health care administration, military science, and food service specialist. *Version 2:* Lectures and practical exercises in human relations, medical effects of radiation from nuclear accidents or incidents, occupational safety and health, management and administration of medical facilities and organizations, and military medical support operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in health care management and preventative medicine, 3 in military science, and 1 in behavioral science. For those students completing 91E or 42D, an additional 3 semester hours in dental administration; for those completing 76J, an additional 7 credits in business management; for those completing 91B, an additional 3 credits in military science, and for those completing 94F, and additional 4 credits in food service administration (8/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in radiation hazard control, 2 in principles of management, 2 in oral communication, 1 in health care management (6/77).

Related Occupation Codes: 35G; 71G; 76J; 94F; 92B; 42D; 42E; 35S; 35T; 01H.

AR-0799-0013

Army Medical Department (AMEDD) Executive Management Program

Course Number: 7M-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Brooke Army Medical Center, Ft. Sam Houston, TX.

Length: 2 weeks (83 hours).

Exhibit Dates: 7/70–12/85.

Objectives: To prepare officers to perform as commanders and administrators of hospitals and medical departments.

Instruction: Lectures and classroom discussion on health care administration, resource management and patient management. Students also review case studies in management of a hospital facility.

Credit Recommendation: In the graduate degree category, 6 semester hours in hospital administration (8/79).

AR-0799-0014

Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff.

Course Number: 6-8-C24.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (72 hours).

Exhibit Dates: 6/77–1/88.

Objectives: To provide Army medical specialists with a general knowledge of command and staff principles.

Instruction: Lectures conferences and practical exercises in command and staff management functions including health and environment, health care administration, resource management systems and military science.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/79).

AR-0799-0015

Reserve Component Army Medical Department Officer Advanced, Phase II

Course Number: 6-8-C22 (RC-OAC/P2).

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Selected Reserve locations, USA.

Length: 2 weeks (81 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply training in military medical support operations within the duties and responsibilities of AMEDD officers.

Instruction: Lectures, conferences, and practical exercises with primary focus on military science applied to the medical field.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military science (4/88).

AR-0799-0016

Reserve Component Army Medical Department Officer Advanced, Phase III

Course Number: 6-8-C22 (RC-OAC/P3).

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Designated Reserve Schools, USA.

Length: 2 weeks (75 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply training in military medical support operations within the duties and responsibilities of AMEDD officers.

Instruction: Lectures, conference, demonstrations and practical exercise with emphasis on organization, administration, preventive medicine and behavioral science.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in military science (4/88); in the graduate degree category, 1 semester hour in preventive medicine and 1 in health care administration (4/88).

AR-0799-0017

ARMY MEDICAL DEPARTMENT STAFF DEVELOPMENT (RESERVE COMPONENT) (NONRESIDENT/RESIDENT)

Course Number: 7M-F4(RC)/300-F4(RC).
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 2 weeks (80 hours).
Exhibit Dates: 10/87–Present.
Learning Outcomes: Upon completion of the course the student will have knowledge and skills necessary to perform in staff assignments at corps level and above.
Instruction: Lectures, conferences and practical exercises with particular emphasis on military science.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/88).

AR-0799-0018

ESSENTIAL MEDICAL TRAINING FOR ARMY MEDICAL DEPARTMENT (AMEDD) AVIATORS

Course Number: 2C-F7 (MS/WO/RC).
Location: Academy of Health Sciences, School of Aviation Medicine, Fort Rucker, AL.
Length: 2 weeks (72 hours).
Exhibit Dates: 8/89–Present.
Learning Outcomes: Upon completion of the course, the student will understand the concepts of adminstering Basic Life Support Skills, and understand the assessment of the sick and wounded including traige, bandaging and splinting, IV therapy, assessment of vital signs, emergency child birth, interpreting electrocardiographs. Will also understanc evacuation and transportation of the sick and injured.
Instruction: Conference, lectures, demonstrations and practical experience in the administration of basic life support procedures, patient assessment and triage, and technical procedures including emergency child birth, I.V. therapy and evacuation and transport of the sick and injured.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in EMT first responder and emergency medical technician (3/90).

AR-0799-0019

HEALTH SERVICES MAINTENANCE TECHNICIAN

Course Number: 4B-670A/198-670A.
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 4 weeks (128 hours).
Exhibit Dates: 7/88–Present.
Learning Outcomes: Upon completion of the course, the student will be able to manage medical equipment and systems, maintenance programs, train and supervise personnel performing medical equipment maintenance, determine maintenance and safety requirements, develop recommendations for installation of equipment, maintain records of equipment maintenance, contract maintenance, repair parts inventory sand equipment inspection, determine staffing requirements and develop procedures for effective scheduling of manpower, time and finances.
Instruction: Training includes instruction in biomedical maintenance, automated maintenance management systems, logistical planning, manpower management, communications skills and non-medical maintenance. Hands-on training is provided on field equipment, electrical safety issues, vechicle maintenance and deployable medical equipment.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in biomedical equipment maintenance management, and 3 for field experience in biomedical equipment maintenance management (3/90).

AR-0799-0020

PRINCIPLES OF MILITARY PREVENTIVE MEDICINE (CHN)

Course Number: 6A-F5.
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 9 weeks (365 hours).
Exhibit Dates: 10/88–5/90.
Learning Outcomes: Upon completion of the course, the student will be able to serve as a community health nurse.
Instruction: This course includes lecture, discussion, and practice in preventive medicine, environmental hygiene, infection control, epidemiology, and community health nursing.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in preventive medicine, 2 in environmental hygiene, 1 in infection control, 1 in epidemiology, and 4 in community health (3/90).

AR-0799-0021

ARMY MEDICAL DEPARTMEMT (AMEDD) AVIATOR ADVANCED

Course Number: 2C-F8.
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 3 weeks (100 hours).
Exhibit Dates: 10/88–Present.
Learning Outcomes: Upon completion of the course, the student will be able to identify the various command units and list their functions, history and resources; understand the objectives of planning, programming and budgeting; list and describe objectives of the manpower management systems; understanding behavioral objectives (sleep logistics, psychological aspects of warfare); list levels of administration in the Army dental care system; understand principles of triage; understand the organization and function of the Military Science Division (identify mission, organization and functions of a division and corps practice exercises).
Instruction: Instruction consists primarly of lecture/conferences and practical exercises.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in health care administration, and 2 in military science (3/90).

AR-0799-0022

ARMY FLIGHT SURGEON

Course Number: 6A-61N9D.
Location: Academy of Health Sciences, School of Aviation Medicine, Fort Rucker, AL.
Length: 7 weeks (302-303 hours).
Exhibit Dates: 6/82–Present.
Learning Outcomes: Upon completion of the course, the student will be able to supply medical support to Army aviation units, to include unit level health service support, aeromedical staff advice, medical investigation of aircraft accidents, and the application of medical and scientific information and techniques to the conduct of military aviation operations.
Instruction: This course includes lecture, discussion, demonstration, and practical experiences in aircraft systems, principles of aviation, aviation safety, flight training, atmospheric physics, and clinical and preventive medical topics as applied to aviation.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in general aviation, and 5 in flight training (3/90); in the graduate degree category, 5 semester hours in aviation medicine (3/90).

AR-0801-0001

1. ESSENTIAL MEDICAL TRAINING FOR AMEDD (ARMY MEDICAL DEPARTMENT) AVIATORS (MS/WO/RC)
2. ESSENTIAL MEDICAL TRAINING FOR AMEDS (ARMY MEDICAL SERVICE) AVIATORS

Course Number: 2-C-F7.
Location: Academy of Health- Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.
Length: *Version 1:* 2 weeks (75–78 hours). *Version 2:* 4 weeks (116–150 hours).
Exhibit Dates: *Version 1:* 1/82–Present. *Version 2:* 1/65–12/81.
Objectives: To teach first aidprocedures for sick and wounded.
Instruction: Lectures and practical exercises in first aid procedures, including basic anatomy and physiology review, basic pharmacology, emergency treatment procedures, basic nursing care, aeromedical evacuation, transporting casualties, combat psychiatry, chemical and biological warfare casualty management, and preventive medicine and environmental sanitation.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in medical assisting; in the lower-division baccalaureate/associate degree category, 4 semester hours in basic level emergency medical technician (ambulance) (9/85). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in first aid (12/68).

AR-0801-0002

HAZARDOUS DEVICES

Course Number: None.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 3 weeks (114–115 hours).
Exhibit Dates: 10/72–1/90.
Objectives: To train civilian public safety personnel to cope with the dangers of improvised explosive and incendiary devices.
Instruction: Lectures and practical exercises in the functions of hazardous devices, demolition procedures, safety procedures, and disposal of hazardous devices, including past incidents and current trends, basic physical laws and principles, incendiary materials, incident investigation and reporting procedures, location and render-safe procedures, disposal procedures, safety and control of explosives, and removal techniques.
Credit Recommendation: In the vocational certificate category, 2 semester hours in bomb disposal or police science (3/78).

AR-0801-0003

Drug and Alcohol Rehabilitation Training Individual
(Army Drug and Alcohol Rehabilitation Training Advanced)

Course Number: 5H-F4/302-F4; 302-F4/5H-F4.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (60-81 hours).

Exhibit Dates: 10/77-Present.

Objectives: To provide selected military personnel and civilian Army employees with a working knowledge of skills and techniques to counsel clients and to perform consultative functions within the Army alcohol and drug abuse rehabilitation program.

Instruction: Lectures, conferences and practical exercises, including individual counseling, small-group processing, and client outreach and consultation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in substance abuse rehabilitation counseling (11/89).

AR-0801-0004

Aviation Mishap Prevention Management
(Aviation Accident Prevention Management)

Course Number: 7K-F13.

Location: Safety Center, Ft. Rucker, AL.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/77-11/86.

Objectives: To train selected personnel in techniques of establishing accident prevention programs; to familiarize them with the procedures of aircraft mishap investigation; and to provide a working knowledge of basic safety information concepts.

Instruction: Conferences and practical exercises in management techniques, mishap prevention, aircraft mishap investigation, aviation medicine, and aviation law.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation safety and accident investigation (10/78).

Related Occupation Codes: 67A; 67B; 67F; 67G; 67H; 67N; 67U; 67V; 67W; 67Y; 67Z; 68K; 71P.

AR-0801-0005

Army Alcohol and Drug Abuse Prevention and Control Program Management

Course Number: 5H-F6/302-F6.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (79 hours).

Exhibit Dates: 11/82-12/86.

Objectives: Completion of this course provides personnel with skills to effectively administer and supervise an alcohol and drug

Instruction: After 1986, see exhibit AR-0801-0015. Course content includes: identification and prevention of substance abuse, concepts of addiction; most commonly used drugs; effects of abuse including symptoms and resulting medical problems; drug records management; legal aspects; disciplinary option; drug education, individual role and responsibility; community needs analysis, resourse management; clinical intervention; theory and technique of adult education.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to drug abuse and treatment, 3 in health care administration; in the upper-division baccalaureate category, 3 semester hours in theory and techniques of adult education (9/85).

AR-0801-0006

Army Drug and Alcohol Rehabilitation

Course Number: 5H-F4/302-F4.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (78 hours).

Exhibit Dates: 9/79-3/87.

Objectives: To provide personnel with techniques necessary to effectively counsel clients who are substance abusers.

Instruction: Course provides skills and techniques in individual counseling that include communication awareness skills; theory in treatment modalities, i.e., transactional analysis, reality therapy, and behavioral evaluation; psychiatric emergencies; overview of drugs; practicum in individual counseling; training in human relations and substance abuse.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in human relations training (T groups), 2 in theory and techniques of individual counseling, and 1 in practicum in individual counseling (9/85).

AR-0801-0007

Army Drug and Alcohol Rehabilitation Training Group
(Army Drug and Alcohol Rehabilitation)

Course Number: 5H-F5/302-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (78-81 hours).

Exhibit Dates: 9/79-Present.

Objectives: To provide personnel with a working knowledge of group process and technique necessary to effectively counsel clients who are substance abusers.

Instruction: Course includes important components of techniques of group development and process; group phenomena; case notes and reporting; group emotional distress, termination and follow-up; counselor growth and development.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in techniques of group counseling, and 2 in practicum in group processing (11/89).

AR-0801-0008

Army Medical Department (AMEDD) Officer Basic Health Professions Scholarship Program

Course Number: 6-8-C20 (HPSP).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 18 weeks (720 hours).

Exhibit Dates: 4/79-Present.

Objectives: To provide training in orientation and management to medical, dental, veterinary and optical students enrolled in health professions scholarship program.

Instruction: Instruction consists of specific rotations in specific health disciplining and is a highly specialized training program.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/85).

AR-0801-0009

Chemical Operations Specialist

Course Number: 494-54B10; 494-54B10(ST).

Location: Chemical School, Ft. McClellan, AL.

Length: *Version 1:* 13-14 weeks (528 hours). *Version 2:* 16 weeks (569 hours).

Exhibit Dates: *Version 1:* 1/88-Present. *Version 2:* 7/86-12/87.

Objectives: To provide enlisted personnel with training in nuclear, biological, and chemical (NBC) reconnaissance, decontamination operations, fuel handling, and smoke operations.

Instruction: Lectures and instruction in smoke generator operator-level maintenance, maintenance of NBC survey and decontamination equipment, decontamination operations, smoke operations and reconnaissance operations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in nuclear instrumentation, 3 in radiological safety (11/86).

Related Occupation Codes: 54B.

AR-0801-0010

Chemical Operations Specialist Basic Noncommissioned Officer (NCO) Reclassification

Course Number: 494-54B20(T); 494-54B(R).

Location: Chemical School, Ft. McClellan, AL.

Length: 11-14 weeks (396-483 hours).

Exhibit Dates: 1/86-Present.

Objectives: To train enlisted personnel to operate, maintain, and supervise the use of nuclear, biological, and chemical (NBC) detection and decontamination equipment, smoke generators, and NBC defense measures.

Instruction: Conferences, practical exercises, and examinations in individual protective skills, radiological, chemical decontamination, smoke, biological operations, tactical training, and new equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radiological safety (1/88).

Related Occupation Codes: 54B.

AR-0801-0011

Radiac Calibrator Custodian

Course Number: 4J-F1/493-F3.

Location: Chemical School, Ft. McClellan, AL.

Length: 1 week (40-45 hours).

Exhibit Dates: 9/83-4/87.

Objectives: To train commissioned officers, warrant officers, enlisted personnel, and civilians to serve as calibrator custodians/radiation protection officers.

Instruction: Conferences, practical exercises, and examinations in radiological safety, radiac calibration, principles of nuclear radiation, basics of radiation detection, specific radiac instruments, and medical aspects of radiation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radiological safety (11/86).

AR-0801-0012

Chemical Operations Specialist (Basic Noncommissioned Officer (NCO))

Course Number: 494-54B.

Location: Chemical School, Ft. McClellan, AL.

Length: 9-12 weeks (325-451 hours).

Exhibit Dates: 1/86-Present.

Objectives: To train Chemical Operations Specialists to assist in the establishment, administration, and application of nuclear, biological, and chemical (NBC) defense measures, and to operate, maintain, and supervise the use of NBC detection and decontamination equipment and smoke generators.

Instruction: Conferences, practical exercises, and examinations in individual protective skills, radiological, chemical decontamination, smoke and biological operations, tactical training, and new equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radiological safety (1/88).

Related Occupation Codes: 54B.

AR-0801-0013

Nuclear, Biological, Chemical (NBC) Specialist (Transition)

Course Number: 494-54E20-T.

Location: Chemical School, Ft. McClellan, AL.

Length: 7-8 weeks (253 hours).

Exhibit Dates: 4/85-12/85.

Objectives: To prepare enlisted personnel for positions as reconnaissance/decontamination team or squad leader and nuclear, biological, chemical (NBC) operations sergeant.

Instruction: Lectures and practical exercises in chemical/biological operations, decontamination and radiological skills, smoke operations, and training exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radiological safety (11/86).

Related Occupation Codes: 54E.

AR-0801-0014

Alcohol and Drug Abuse Prevention and Control Program Clinical Director/Clinical Consultant

Course Number: 5H-F9/301-F9.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 1 week (54-55 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to implement, administer, and evaluate the clinical aspects of the alcohol and drug abuse prevention and control program.

Instruction: Review of the role of Health Services Command, Clinical Certification Program including current initiatives, role of clinical consultant, and quality assurance. Screening alcohol and other substance abuse referrals. Training includes clinical supervision of counselors, current trends in the substance abuse field and a tour of a drug testing laboratory. Training is also provided in the treatment of substance abuse.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in substance abuse education (8/90).

AR-0801-0015

Alcohol and Drug Abuse Prevention and Control Program Alcohol and Drug Control Officer

Course Number: 5H-F6/302-F6.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 1 week (49 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise an alcohol and drug abuse prevention program including selection and management of program personnel and engage in community resource development.

Instruction: Course content includes understanding of policies and regulations relating to management of substance abuse programs and understanding trends in substance abuse prevention.

Credit Recommendation: In the upper-division baccalaureate category, 3 semster hours in introduction to substance abuse or 3 in health care administration (8/90).

AR-0801-0019

General Medical Orientation

Course Number: 300-F10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 4 weeks (113 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will have a beginning foundation in anatomy and physiology, medical terminology, first aid, medical acepsis and field sanitation.

Instruction: Lectures, demonstrations and hands-on experience in vital signs, CPR techniques, splinting, bleeding management, food and water sanitation, waste disposal, insect and rodent control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/88).

AR-0801-0023

NBC Defense Officer and Noncommissioned Officer (NCO) (NBC Defense)

Course Number: NBC 54.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (61-80 hours).

Exhibit Dates: 5/79-Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize and react to chemical, biological, or radiological hazards; prepare graphic models of hazard zones; survey contaminated zones, using detection kits, radiac instruments and dosimeters; supervise expeditious measures for decontamination; establish and maintain a library of documents and prepare associated reports; establish a training program for teaching others; use prediction devices to determine nature of, magnitude of, and hazards due to chemical, biological, and radiological devices.

Instruction: Conference, classes, practical exercises, and performance examinations. Topics include toxic and nuclear hazards, detection of chemical agents, radiological monitoring, use of protective clothing, decontamination procedures, hazard predictions and warning/reporting systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/88).

AR-0801-0024

Principles of Military Preventive Medicine (MS)

Course Number: 6A-F5.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 9 weeks (365 hours).

Exhibit Dates: 10/88-5/90.

Learning Outcomes: Upon completion of the course, the student will be able to serve as nuclear medical science officer, an environmental science officer, or as a sanitary engineer.

Instruction: This course includes lecture, discussion and clinical practice in preventive medicine, environmental hygiene, infection control, epidemiology, water quality, sanitation, and industrial hygiene.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in preventive medicine, 2 in environmental hygiene, 1 in infection control, 1 in epidemiology, 2 in water quality, 1 in sanitation, and 1 in industrial hygiene (3/90).

AR-0802-0001

Technical Escort

Course Number: 2E-SI5J/494-ASIJ5; 2E-SI5J/494J5; 2E-F21; 494-F3. *Version 1:* 2E-ASI5J/494-ASIJ5.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Chemical School, Ft. McClellan, AL.

Length: 4-5 weeks (131-168 hours).

Exhibit Dates: *Version 1:* 1/76-Present. *Version 2:* 12/66-12/75.

Objectives: To train enlisted personnel as technical escorts for hazardous materials.

Instruction: Lectures and practical experience in the handling of hazardous materials. Topics include the packaging and storing of chemical, biological, and radiological agents; the effects of these agents on humans; safety precautions; and the use of instruments to measure radiation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in hazardous materials handling (10/90). *Version 2:* Credit is not recommended because of the military-specific nature of the course (5/74).

Related Occupation Codes: 55D; 54B; 54E; 54D; 411A; 4514.

AR-0802-0002

Explosive Ordnance Disposal, Phase I

Course Number: 4E-F3/431-55D20; 4E-F3; 431-55D10; 431-55D20; 431-413.1.

Location: Missile and Munitions School, Redstone Arsenal, AL; Chemical School, Ft. McClellan, AL.

Length: 2-3 weeks (72-76 hours).

Exhibit Dates: 2/65-Present.

Objectives: To train enlisted personnel and commissioned officers in the disposal of chemical and biological agents found in unexploded ordnance.

Instruction: Lectures and practical exercises in explosive ordnance disposal. Instruction includes biological agents; chemical and biological defense; recognition of the chemical, physical, and the physiological effects on the body; and treatment procedures for personnel exposed to chemical agents. Upon completion, the student will be able to identify biological materials and chemical munitions; perform leak sealing, packaging procedures; dispose of chemical and biological materials. Instruction includes chemical agents and compounds,biological materials, decontaminants, and protective clothing.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/86)

Related Occupation Codes: 55D.

AR-0802-0003

Nuclear, Biological, Chemical (NBC) Enlisted

(Chemical, Biological, Radiological

(CBR) Enlisted with ARADCOM Track)
(Chemical, Biological, Radiological (CBR) Enlisted)

Course Number: 494-F1; 3-R-F2.
Location: Ordnance School, Aberdeen Proving Ground, MD; Chemical Corps School, Ft. McClellan, AL.
Length: 4 weeks (134–148 hours).
Exhibit Dates: 5/57–1/78.
Objectives: To train enlisted personnel in nuclear, biological, and chemical (NBC) or chemical, biological, and radiological (CBR) operations.
Instruction: Lectures in CBR or NBC operations, including organization and staff responsibilities, technical aspects of chemical and biological operations, nuclear warfare and radiological defense, and explosive ordnance.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AR-0802-0004

Nuclear Weapons Employment and Radiological Defense
(Nuclear Weapons Employment and Radiological Warfare)
(Atomic Defense)

Course Number: 3-G-F3; 3-I-F3; 3-O-6.
Location: Chemical Corps School, Ft. McClellan, AL.
Length: 6–7 weeks (214–268 hours).
Exhibit Dates: 4/55–12/68.
Objectives: To train officers and civilian personnel in nuclear weapons employment and defense.
Instruction: Lectures and practical exercises in nuclear weapons employment and defense, including personnel and administrative procedures; nuclear weapon effects; nuclear weapons; target analysis and weapon employment; residual radiation; nuclear hazards, accidents, and incidents; radiation; radiac instruments; and radiological surveys and radiological safety.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-0802-0005

Guided Missile, Nuclear Weapons and ARADCOM Safety

Course Number: 9-L-F30.
Location: Ordnance Guided Missile School, Redstone Arsenal, AL.
Length: 3 weeks (94 hours).
Exhibit Dates: 10/61–12/68.
Objectives: To train enlisted personnel in guided missile and nuclear weapons safety practices, hazards and precautions at ARADCOM Nike tactical sites.
Instruction: Lectures and practical exercises in guided missiles, nuclear weapons and ARADCOM safety factors and procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-0802-0006

Safety Engineering Intern Training Program

Course Number: None.
Location: DARCOM Intern Training Center, Red River Depot, Texarkana, TX.
Length: 48 weeks (1920 hours).
Exhibit Dates: 12/76–6/84.
Objectives: To provide a foundation in general concepts and techniques of safety engineering.
Instruction: Lectures and practical exercises to cover safety engineering principles in industrial and commercial systems; principles of radiological safety, including basic theory of nuclear reactions, radioactivity, the sources of radiation and their interaction with matter; human relations and management psychology stressing understanding of behavior processes and patterns and including human factors engineering in systems design of hardware, personnel subsystems, and system procedures for operation and maintenance; design analysis; structural safety and failure modes analysis; safety in the occupational environment; and chemical safety in the industrial environment, to cover chemical compounds and solutions, their properties, uses, limitations, actions on the human body and practical means of safeguarding against their associated hazards.
Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in tools and methods of analysis, 6 in radiological safety, 4 in human factors, 4 in industrial hygiene, 16 in design analysis and applications (12/76); in the graduate degree category, 2 semester hours in tools and methods of analysis, 3 in radiological safety, 7 in design analysis and applications (12/76).

AR-0802-0007

Explosive Ordnance Disposal Supervisor

Course Number: 9-OE-90.
Location: Ordnance School, Aberdeen Proving Ground, MD.
Length: 6 weeks (210 hours).
Exhibit Dates: 5/57–12/68.
Objectives: To train officers and enlisted personnel in supervisory and managerial functions of explosive ordnance disposal operations.
Instruction: Lectures and practical exercises in disposal of ammunition, chemical fillers, and guided missile fuels and propellants; training for civil defense units and Federal civil defense organization and planning; salvage appraisal; and advanced map reading.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

AR-0802-0008

Army Safety Program Management
(Army Safety Program Organization and Administration)

Course Number: 7K-F9.
Location: Safety Center, Ft. Rucker, AL; Adjutant General School, Ft. Benjamin Harrison, IN.
Length: 2–4 weeks (74–155 hours).
Exhibit Dates: 9/67–3/85.
Objectives: To provide personnel with a working knowledge of the management duties and responsibilities of an installation safety officer.
Instruction: Conferences, practical exercises, and demonstrations in injury prevention procedures management, safety administration, and accident prevention management.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial safety management (3/75).

AR-0802-0009

Atomic Demolition Munitions (Enlisted)
(Atomic Demolition Munitions)

Course Number: 431-12E20.
Location: Engineer School, Ft. Belvoir, VA.
Length: 3 weeks (93–102 hours).
Exhibit Dates: 1/69–11/86.
Objectives: To provide enlisted personnel with a working knowledge of atomic demolitions utilizing either a SADM or MADM system.
Instruction: Lectures and practical exercises in atomic demolition warheads, security and storage, firing device, safety and emergency procedures, personal protection, safeguarding of nuclear control orders, nuclear effects, maintenance and transportation.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (9/79).
Related Occupation Codes: 12A; 12E.

AR-0802-0010

Atomic Demolition Munitions (Officer)

Course Number: 4E-F1.
Location: Engineer School, Ft. Belvoir, VA.
Length: 2 weeks (71–75 hours).
Exhibit Dates: 10/71–1/88.
Objectives: To provide commissioned officers with working knowledge of planning and executing an atomic demolition mission at the combat engineer level.
Instruction: Conferences, demonstrations, and practical exercises in staff and mission planning ordinance support, responsibilities as carrier and convoy commander, cratering, fallout prediction, and target analysis techniques, remote command equipment, nuclear accident/incident control, characteristics of nuclear explosives employment, safety rules, security and storage of devices, and emergency procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (9/79).

AR-0802-0011

Chemical, Biological, Radiological (CBR) Officer
(CBR Officer with ARADCOM Track)

Course Number: 2E-F5; 3-A-F1; 3-O-5.
Location: Ordnance School, Aberdeen Proving Ground, MD; Chemical School, Ft. McClellan, AL.
Length: 4 weeks (138–147 hours).
Exhibit Dates: 4/55–12/79.
Objectives: To provide selected officers with a general knowledge of chemical, biological, and radiological weapons systems.
Instruction: Lectures and practical exercises in management and leadership, the technical aspects of chemical, biological, and radiological operations, nuclear warfare and radiological defense, and explosive ordnance.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/78).

AR-0802-0012

Ammunition Technician

Course Number: 4E-411A.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 8 weeks (253 hours).

Exhibit Dates: 7/75-10/82.

Objectives: To provide warrant officers—and, until 5/76, commissioned officers—with a knowledge of the organization, management, and operation of ammunition supply activities.

Instruction: Instruction includes conventional ammunition material and destruction; storage and transportation of ammunition; and ammunition service and destruction.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives handling (8/77).

Related Occupation Codes: 55B; 55C; 55D; 55X; 55Z; 411A; 411A.

AR-0802-0014

Ammunition Inspector
Correspondence/Resident
(Abbreviated Version)

Course Number: 645-55X40.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 4 weeks (157 hours).

Exhibit Dates: 4/79-12/84.

Objectives: To provide Army and National Guard Reserve personnel with the skills and knowledge necessary to perform as ammunition inspectors.

Instruction: Phase II presents ammunition types, storage handling, transporting, maintenance and surveillance and destruction, previously studied by correspondence. Physical experiences are then conducted in these areas, on site. Phase IV presents guided missile operation; propellants; propellant storage; shipping, handling, and disposal of chemical and hazardous chemical agents. Physical experiences are then conducted in these areas, on site. NOTE: Students will have completed phases I and III through correspondence before reporting for phases II and IV. Credit recommendation is based only on phases II and IV.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives handling (8/79).

Related Occupation Codes: 55B; 55D; 55G.

AR-0802-0015

Aviation Mishap Prevention
(Aviation Accident Prevention)

Course Number: 7K-F14.

Location: Safety Center, Ft. Rucker, AL.

Length: 2 weeks (66 hours).

Exhibit Dates: 4/77-11/86.

Objectives: To train selected Army aviation personnel in the techniques of establishing and conducting accident prevention programs; to familiarize them with conducting aircraft accident investigations; and to provide a working knowledge of basic safety information concepts.

Instruction: Lectures and study assignments in establishing and conducting safety and accident prevention programs and in investigating aircraft accidents. A considerable amount of training is provided in general safety information and concepts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aviation safety and accident investigation (10/78).

AR-0802-0016

Nuclear, Biological, Chemical (NBC)
Specialist,
(Chemical Operations Specialist)

Course Number: 494-54E10.

Location: Chemical School, Ft. McClellan, AL; Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 9-10 weeks (321-389 hours).

Exhibit Dates: 7/77-5/86.

Objectives: To train enlisted personnel in nuclear, chemical, and biological reconnaissance and decontamination operations.

Instruction: Lectures and practical experiences in chemical and biological defense, nuclear warfare and radiological defense, decontamination, smoke and flame operations and NBC reconnaissance.

Credit Recommendation: Credit is not recommended due to the limited specialized nature of the course (11/86).

AR-0802-0017

Ammunition Technician Entry

Course Number: 4E-411A.

Location: Missile and Munitions Center and School, Redstone Arsenal, AL.

Length: 12 weeks (437 hours).

Exhibit Dates: 5/83-11/85.

Objectives: To provide selected warrant officers with a knowledge of the organization, management, and operation of ammunition supply activities.

Instruction: For this course after 11/85, see AR-0802-0021. This course includes lectures and practical exercises in the identification, storage, transportation, and disposal of ammunition, chemical agents/munitions, amd nuclear weapons.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives handling (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in operational management (11/83).

Related Occupation Codes: 411A0.

AR-0802-0018

Health Aspects of Design Review

Course Number: 6H-F16; 323-F16.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (79 hours).

Exhibit Dates: 5/83-1/88.

Objectives: Provide instruction, training and guidance on the health aspects of design review, in accordance with good engineering practice.

Instruction: The topics in detail are: introduction to design review, organization of installation facilities engineers, project design, sequence, review and funding, introduction to blueprint reading, swimming pool design review, health care facilities planning, food service facilities and planning, fire protection, laboratory and hospital safety, ventilation design review, illumination design review, water distribution design review, child care facilities design review, radiation protection, design review and dental clinics, hazardous waste design review, pest control facilities, design review of a TMC.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in health aspects of design review (9/85).

AR-0802-0019

Nuclear Weapons Technician

Course Number: 4-9-C32-260A0.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 5-6 weeks (199 hours).

Exhibit Dates: 9/85-Present.

Objectives: To provide warrant officers with the technical training to qualify them in new maintenance techniques and management procedures of special ammunition units.

Instruction: Lectures and practical exercises in leadership, training management, electronic warfare and nuclear fundamentals.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).

Related Occupation Codes: 260A0.

AR-0802-0020

First Sergeant

Course Number: 521-SQIM.

Location: McGraw Barracks, Munich, W. Germany; Sergeants Major Academy, Ft. Bliss, TX.

Length: 8 weeks (257 hours).

Exhibit Dates: 10/81-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise units of up to 100 personnel.

Instruction: Includes lectures, seminars, demonstrations, and performance exercises in safety, stress management, substance abuse, maintenance and control of equipment, motivation, leadership skills, and written and verbal skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health and fitness, 1 in supply management, 1 in fundamentals of communication; in the upper-division baccalaureate category, 1 semester hour in human resource management (9/87).

AR-0802-0021

1. Ammunition Technician Technical and Tactical Certification
2. Ammunition Technician Certification

Course Number: *Version 1:* 4E-910A. *Version 2:* 4E-411A.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 9 weeks (331 hours). *Version 2:* 13 weeks (490 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 12/85-9/88.

Learning Outcomes: Upon completion of the course the student will demonstrate the technical skills necessary to perform duties as an ammunition supply technician.

Instruction: Lectures, discussion, and role playing in conventional and chemical munitions, the Standard Army Ammunition System, software to control supply of munitions, and munitions safety and storage. For this course before 12/85, see AR-0802-0017.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the miltary specific nature of the course (4/88).

Related Occupation Codes: 411A.

AR-0802-0022

Ammunition Technician Warrant
Officer Advanced

Course Number: 4-9-C32-411AO.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: 9-10 weeks (350 hours).

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform management function and procedures in conventional and special ammunition units.

Instruction: Lectures, discussions, role playing and films in leadership in military units, Soviet/Warsaw Pact threat, ammunition management, and storage and space management for ammunition.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/88).

Related Occupation Codes: 411AO.

AR-0802-0025

Nuclear and Chemical Target Analysis

Course Number: 2E-ASI5H-A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (146 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze and provide predictive data about nuclear and chemical detonations, use semilogarithmic graphs, nomograms, tabular data and probability statistics; compute characteristics of overall effects, using prescribed techniques and processes. For course prior to 1/87, see AR-2201-0187.

Instruction: Lectures and practical exercises in the fundamental effects of nuclear weapons; damage estimation and target analysis; chemical weapons employment and the tactical application of nuclear and chemical weapons; nuclear and chemical trends and developments; foreign nuclear, biological, and chemical capabilities; math formulas, nomograms, semi-logarithmic graphs, circular map scales, and slide rule, and probability statistics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in applied mathematics (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in nuclear technology and 2 in nuclear safety and damage estimation (6/89).

AR-0803-0001

Special Forces Combat Diver Qualification
(Special Forces Underwater Operations)

Course Number: 2E-F38/011-ASIW7/W9; 011-F8.

Location: Institute for Military Assistance, Ft. Bragg, NC; Naval Air Station, Key West, FL.

Length: 3-6 weeks (130-200 hours).

Exhibit Dates: *Version 1:* 5/79–9/88. *Version 2:* 8/72–4/79.

Objectives: To provide personnel with training in underwater operations.

Instruction: For this course after 9/88 see AR-0803-0006. *All Versions:* Lectures and practical exercises in surface swims, underwater swims with open- and closed-circuit diving equipment, diving physics, diving hazards, underwater demolition training, submarine training, special techniques and advanced tactics, and maintenance and use of equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in scuba diving (4/87). *Version 2:* In the vocational certificate category, 3 semester hours in swimming and physical education (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in swimming and physical education (5/74); in the upper-division baccalaureate category, 2 semester hours in physical education (5/74).

AR-0803-0002

Basic Airborne (Women)

Course Number: 011-F1B.

Location: Infantry School, Ft. Benning, GA.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/75–1/78.

Objectives: To train personnel in the techniques of parachuting and in the development of leadership and self-confidence through mental and physical training.

Instruction: Practical exercise training in basic parachuting techniques including landing falls, door exits, malfunctions, jump tower training, and jumps from aircraft.

Credit Recommendation: Credit is not recommended because of the military nature of the course (9/85).

AR-0803-0003

Physical Activities Specialist
Advanced Individual Training
(AIT)

Course Number: 562-03C10.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 7–8 weeks (274 hours).

Exhibit Dates: 1/84–1/88.

Objectives: To provide training in the management, supervision and coordination of sports and physical activities.

Instruction: Course includes coordination of physical fitness facilities, coordination of physical fitness programs, management of sports programs and management of aquatic facilities. Included in the instruction are minimal components in wellness, first aid, conditioning and swimming instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in sports management or organization and administration of sports programs and 1 in exercise science (3/85).

Related Occupation Codes: 03C.

AR-0803-0004

Master Fitness Trainer

Course Number: 7B-F7/562-F2.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 4 weeks (138 hours).

Exhibit Dates: 9/83–9/86.

Objectives: To train selected noncommissioned officers and officers in the Army's total fitness system and to perform as a unit advisor to the commander and to establish and monitor fitness programs.

Instruction: This course is a comprehensive exercise science course equivalent to an undergraduate exercise science orientation or bioscientific foundations course. Included are basic exercise physiology, principles of fitness and exercise prescription, basic nutrition, stress management and relaxation techniques, smoking cessation, sports medicine and running injuries, sleep physiology, and exercise adherence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in exercise science or bioscientific foundations and 2 in exercise science or bioscientific foundations laboratory (3/85).

AR-0803-0005

Physical Activities Specialist
(Physical Activities Specialist Transition)
(Physical Activities Specialist Functional)

Course Number: 500-03C.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 7–8 weeks (262 hours).

Exhibit Dates: 10/82–1/88.

Objectives: To train students in skills required to coordinate and manage Army sports programs.

Instruction: Course includes four major components: coordination and management of sports programs, management of physical fitness facilities, development and coordination of physical conditioning programs, and supervision of physical activities personnel. Also included are minimal units in first aid, sports medicine, and water safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours of sports management or organization and administration of sports programs and 2 in exercise science (3/85).

Related Occupation Codes: 03C.

AR-0803-0006

Special Forces Combat Diver Qualification

Course Number: 2E-SI4W/4Y/011-ASIW7/W9.

Location: Naval Air Station, Key West, FL.

Length: 4–5 weeks (214–215 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to complete open water dives using open-circuit and closed-circuit equipment in a safe and effective manner.

Instruction: Each successful student completes at least 100 hours of laboratory-based, skill-acquisition activity in scuba diving.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in scuba diving (12/88).

AR-0803-0007

Survival, Evasion, Resistance, and Escape (SERE) High Risk

Course Number: 3A-F38/012-F27.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3–4 weeks (306–310 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will demonstrate skills in: personal survival techniques, resistance to interrogation and exploitation, and escape and evasion procedures.

Instruction: Course includes 120 hours field training where student executes survival skills, laboratory-based learning activities, and lectures and demonstrations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in survival skills/outdoor pursuits (10/90).

AR-0803-0008

Special Operations Qualification
Reserve Component Phase 2

Course Number: 011-18B30/18C30/18E30/2E-18A.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (177-178 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will demonstrate map reading, small boat operations, long-range reconnaissance patroling, fieldcraft, survival, air operations, endurance,and confidence building requisite to special forces operations.

Instruction: Course material includes map and compass reading, patroling, fieldcraft, survival, and air operations by means of lectures, demonstrations and laboratories.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in orienteering (12/88).

Related Occupation Codes: 18C; 18B; 18E.

AR-0803-0009

SPECIAL OPERATIONS QUALIFICATIONS RESERVE COMPONENT PHASE 6

Course Number: 011-18B30/18E30/2E-18A.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (264 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate knowledge of landing zone operations, drop zone procedures; conduct of an unconventional warfare mission and detachment premission training.

Instruction: Lectures, demonstrations and participation in practical field exercises are used to assure acquisition of requisite knowledge and skills.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/88).

Related Occupation Codes: 18B; 18C; 18E.

AR-0803-0011

RESERVE COMPONENT MASTER FITNESS TRAINER
(Master Fitness Trainer - Reserve Component)

Course Number: 7B-F9/562-F4-RC.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (97 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to design, set-up, and monitor a physical fitness program for a group or an individual.

Instruction: Course includes lectures and practical exercises in the science of human anatomy and physiology, body composition, exercise assessment, nutrition, stress management, exercise techniques and games, and the organization of group and individual fitness and exercise programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to health and recreation (12/88).

AR-0803-0012

MASTER FITNESS TRAINER

Course Number: 7B-F7/562-F2.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 4 weeks (154 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to design, set-up, and monitor a physical fitness program for groups or for an individual.

Instruction: Course includes lectures and practical exercises in the science of human anatomy and physiology, body composition, exercise assessment, nutrituion, stress management, exercise techniques and games, and the organization of groups and individual fitness and exercise programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in exercise science of which 2 are specifically in exercise science laboratory, OR 3 semester hours in introduction to health and recreation (12/88).

AR-0804-0001

SPECIAL SERVICES (SS-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

Course Number: 5-SS-C40.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 10 weeks (307 hours).

Exhibit Dates: 11/72-11/75.

Objectives: To qualify enlisted personnel as special services noncommissioned officers.

Instruction: Lectures and instruction in special services operations. Course includes military writing, effective speaking, and special service activities such as recreation, arts and crafts, and management and administration of recreational and athletic facilities.

Credit Recommendation: In the vocational certificate category, 3 semester hours in recreational leadership, and credit in sports and recreation on the basis of institutional evaluation (5/74); in the lower-division baccalaureate/associate degree categorv, 3 semester hours in recreational leadership (5/74).

Related Occupation Codes: 03B; 03C; 03D.

AR-0804-0002

RECREATION SERVICES OFFICER
(Special Services Officer)

Course Number: 7N-5000; 12-A-5000.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (108-115 hours).

Exhibit Dates: 3/63-2/75.

Objectives: To train commissioned officers in the administration and operation of recreation services activities.

Instruction: Lectures and practical exercises in the administration and operation of recreation services activities, including funds and budgets, recreation services programs, organization and administration, special subjects, and special activities.

Credit Recommendation: In the vocational certificate category, 2 semester hours in methods and techniques of recreational programs (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in methods and techniques of recreational programs (8/74); in the upper-division baccalaureate category, 2 semester hours in methods and techniques of recreational programs (12/68).

AR-1108-0001

MATHEMATICAL PROGRAMMING

Course Number: None.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 3 weeks (117 hours).

Exhibit Dates: 9/64-12/68.

Objectives: To train enlisted personnel in mathematical programming.

Instruction: Lectures and practical exercises in matrix algebra review, linear programming, network flows, parametric programming, integer programming, nonlinear programming, and electronic computers.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in operations research (12/68).

AR-1112-0001

LACROSSE OFFICER

Course Number: 6-A-1187; 6-A-1190C.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4-5 weeks (176-199 hours).

Exhibit Dates: 11/57-12/68.

Objectives: To train commissioned officers to command and operate Lacrosse missiles and associated equipment.

Instruction: Lectures and practical exercises in operation of Lacrosse missile systems and associated command duties. Topics include gunnery and target procedures, missile guidance, and launcher assemblies; and use of mathematical tables for target trajectories and solutions to gunnery problems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in mathematical analysis (6/74).

AR-1115-0001

DESIGN AND ANALYSIS OF EXPERIMENTS

Course Number: None.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 3 weeks (117 hours).

Exhibit Dates: 6/64-12/68.

Objectives: To train engineers, scientists, and research analysts in statistical concepts and techniques related to research experimentation.

Instruction: Lectures and practical exercises in introduction to statistics, introductory probability and random variables, mathematical models and sampling, statistical estimation, hypotheses tests, linear regression, and design of experiments.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in statistics (7/74).

AR-1115-0002

PROBABILISTIC METHODS IN OPERATIONS RESEARCH

Course Number: None.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 3 weeks (117 hours).

Exhibit Dates: 7/64-12/68.

Objectives: To train engineers, scientists, and operations research analysts in the theory of probability and random variables, and the development of mathematical models.

Instruction: Lectures and practical exercises in probabilistic methods in operations research, calculus review, differential equations, partial fractions, finite differences, generating functions, matrix algebra, notion of probability distribution theory, finite Markow chains and statistical inference, production and decision processes, inventories, maintenance, replacement, and competitive strategy.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in statistical probability (7/74).

AR-1115-0003

MANAGEMENT STATISTICS BY CORRESPONDENCE

Course Number: 7E-F15.

Location: Management Engineering Training Agency, Rock Island, IL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/75–4/86.
Objectives: To provide a basic understanding of the methods used in the collection, presentation, analysis, interpretation, and evaluation of data for management purposes.
Instruction: Methods of instruction used include programmed learning, self-testing, practical exercises, and problem solving to cover statistics and management; data presentation; descriptive statistics; normal probability distribution; sampling for estimation and control; and correlation and regression analysis. All examinations administered by enrollee's local training officer.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in applied statistics (11/76).

AR-1115-0004

Statistical Quality Control II

Course Number: 8D-F23A.
Location: Army Management Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 7/64–6/73.
Objectives: To provide skills necessary to employ significance tests, sequential analysis, and life testing procedures in quality control and reliability activities.
Instruction: Provides a review of statistical quality control fundamentals; tests of significance; sequential analysis; life testing and regression analysis; and designated experiments through lecture-conferences and practical exercises.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in statistics applications—quality control (11/76).

AR-1115-0005

Reliability Engineering

Course Number: 5A-F2.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 3 weeks (117 hours).
Exhibit Dates: 7/75–4/86.
Objectives: To provide knowledge of the fundamentals of reliability, availability, and maintainability (RAM) engineering and the basic policies of Department of Defense with respect to RAM programs and management, and to teach students to apply basic RAM engineering techniques.
Instruction: Lecture-conferences and practical exercises to include the history of Department of Defense RAM efforts, policies, and programs, probability and statistics, systems and subsystems reliability, introduction to RAM design, parameter estimation, predictions and apportionments. Description and experiences in concept-of-failure modes and effects analysis, field failure data feedback and reliability growth. RAM requirements generation and survey of testing, demonstration, and verification requirements.
Credit Recommendation: In the graduate degree category, 3 semester hours in industrial and systems engineering (11/76).

AR-1115-0006

Statistical Analysis and Designed Experiments

Course Number: 8D-F33.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 3 weeks (117 hours).
Exhibit Dates: 7/73–4/86.
Objectives: To provide students with a working knowledge of the concepts and techniques of experimental design and analysis.
Instruction: Use of statistical methods in data collection analysis and interpretation for a wide variety of functional areas covering research engineering management science, operations research, and testing of materials and/or products.
Credit Recommendation: In the graduate degree category, 3 semester hours in statistical design of experiments (11/76).

AR-1115-0007

Statistical Inference

Course Number: 8D-F32.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 3 weeks (117 hours).
Exhibit Dates: 7/73–4/86.
Objectives: To provide students with a knowledge of the techniques of statistical inference and the facility for application of these techniques to problems in science and engineering.
Instruction: Lecture-conferences and practical exercises to cover probability, descriptive statistics, elements of distribution theory, inference under risk, Bernoulli experiments, Poisson processes and exponential distributions, distribution-free methods of statistical analysis, sequential tests of hypothesis, and Bayesian confidence intervals.
Credit Recommendation: In the graduate degree category, 3 semester hours in statistical inference (11/76).

AR-1115-0008

Statistical Quality Control

Course Number: 8D-F23.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (77 hours).
Exhibit Dates: 5/63–4/86.
Objectives: To provide students with a working knowledge of basic statistical techniques and the application, interpretation, and evaluation of process controls and acceptance sampling plans.
Instruction: Lecture-conferences and practical exercises to include probability models and sampling distribution, probability and descriptive statistics; statistical process controls using variables data and attributes data; sampling procedures for inspection by variables and by attributes.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in statistics applications—quality control (11/76).

AR-1115-0009

Maintainability Engineering
(Maintainability Engineering Intern Training Program)

Course Number: None.
Location: DARCOM Intern Training Center, Red River Depot, Texarkana, TX.
Length: 52 weeks (2080 hours).
Exhibit Dates: 7/75–6/84.
Objectives: To provide the graduate with comprehensive engineering background in maintainability design to help influence the design of future weapons systems in such a way as to reduce their maintenance costs.
Instruction: Lectures, conferences, practical exercises, computer simulation, cases, on-the-job training and research to cover the following general areas: reliability and maintainability engineering, quantitative and statistical methods, management and computer science, operations research, design of engineering experiments, logistics support analysis, techniques of cost estimation, failure modes analysis, and management information systems.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in maintainability analysis, 1 in logistics support analysis, 3 in systems engineering, 2 in problems in maintainability engineering, 2 in failure mode analysis, 2 in human operation in complex systems, 2 in advanced engineering mathematics techniques, 6 in mathematical statistics, 3 in statistical quality control, 3 in design of engineering experiments, 2 in techniques in cost estimating, 2 in management information systems, 2 in general management, 2 in engineering applications of computer technology, 2 in computer simulation for system design, 3 in operations analysis (12/76); in the graduate degree category, 4 semester hours in reliability and maintainability engineering, 1 in computer science, 7 in quantitative and statistical methods (12/76).

AR-1115-0010

Basic Statistics for Logistics Management

Course Number: ALM-63-0449.
Location: Army Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, On-site Continental U.S.
Length: Self-paced 2-3 weeks (82 hours).
Exhibit Dates: 8/80–Present.
Objectives: To develop and increase knowledge and understanding of statistics as applied to logistics management.
Instruction: Self-paced individualized instruction in the areas of descriptive statistics, concepts and methods, inferential statistics, time series analysis, and simple linear regression. This course stresses basic statistical skills, and emphasis is placed on developing the ability to understand, apply, and analyze statistics.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in statistics (5/81).

AR-1115-0011

Management Statistics

Course Number: RM 404.
Location: 7th Army Combined Training Program, McGraw Kaserne, Germany.
Length: 2 weeks (76 hours).
Exhibit Dates: 6/78–7/80.
Objectives: To give the student a basic introduction to applied business statistics. The course orientation is practical and operational.
Instruction: The course covers the most important techniques for the collection, preparation and interpretation of business statistics. It briefly covers such topics as the relevance of statistics to management data collection and preparation, probability calculations, the normal curve, regression analysis, the central limit theorem, control charting, economic analysis and forecasting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in orientation to basic statistics (10/80).

AR-1115-0012

Resource Management Quantitative

Course Number: 7D-F25; 7D-F25/541-F9.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.
Length: 1-2 weeks (67 hours).
Exhibit Dates: 2/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to initiate the use of statistical measures including descriptive statistics, inference, regression analysis, PERT and economic analysis using PC computer.
Instruction: Topics covered include: descriptive measures, normal curve, statistical sampling, determination of sample size, population inferences, Lotus spreadsheet, regression analysis, goodness of fit, PERT, and present value.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory statistics (12/88).

AR-1115-0013

Battlefield Spectrum Management

Course Number: 4C-SI5D/260-ASID9.
Location: Signal School, Ft. Gordon, GA.
Length: 4-5 weeks (158-159 hours).
Exhibit Dates: 10/89-Present.
Learning Outcomes: Upon completion of the course the student will apply principles of mathematics, wave propagation, transmission lines, and antennas to the coordination, planning, engineering, and controlling of theater radio frequencies.
Instruction: Lectures and practical exercises on topics in mathemetics and electronic communications and their applicability to the battlefield.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical mathematics and 2 in electronic communications (6/90).

AR-1205-0001

Advanced Bandsman
(Bandmaster Preparatory)

Course Number: 12-N-5241, 12-OE-25.
Location: School of Music, Washington, DC.
Length: 20 weeks (800 hours).
Exhibit Dates: 8/56-12/68.
Objectives: To train accomplished musicians in advanced techniques of band conducting, leadership, organization, administration, and instrumentation.
Instruction: Lecture series includes: exercise of authority and responsibility in chain of command; development of leadership techniques; management of music supplies and equipment; developing skills in basic tone production; reading skills; sight singing and music dictation; scale intervals; triads; four-part harmony; modulation; principles of form, phrases, and acoustics; musical instrument classification and transposition; examination, analysis, and playing of arrangements; scoring for ensembles and bands; reading and studying of scores for rehearsals; historical development of conducting; supervised preparation and rehearsal of band numbers; marching formations and parade duties; baton signals for drum majors; verbal command of marching band units; dance band techniques and styles; major types of band literature; historical development of military bands; observation and field trips, including attendance at concerts and ceremonies of various service bands; and individual practice under faculty supervision.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in applied music, 1 in band, 7 in music theory, 6 in music education, 2 in music literature (2/74).
Related Occupation Codes: 031A.

AR-1205-0002

1. Bandmaster/Warrant Officer Technical and Tactical Certification
2. Warrant Officer Bandmaster

Course Number: *Version 1:* 7N-42C. *Version 2:* None.
Location: U.S. Army Element, Navy School of Music, Norfolk, Little Creek, VA.
Length: *Version 1:* 21 weeks (756 hours). *Version 2:* 20 weeks (718 hours).
Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 3/75-12/88.
Objectives: To train selected warrant officers and enlisted personnel in the advaned techniques of band conducting, instrumental techniques, applied music theory, band management and leadership, organization, mission and function, supply and administration.
Instruction: *Version 1:* Pending evaluation. *Version 2:* This course is comprised of block courses in advanced music theory, including form and analysis, survey of music history/literature of all eras to include band literature; basic choral arranging; band arranging, including principles of march scoring and advanced concert band scoring; advanced conducting, including applied rehearsal techniques and concert presentation; band management, including administration, personnel, supply and operations.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in advanced theory/harmony/ ear training, 2 in survey of music literature (3/79); in the upper-division baccalaureate category, 1 semester hour in choral arranging, 2 in band arranging, 2 in band management and personnel leadership as an elective, 2 in advanced conducting (3/79); in the graduate degree category, 2 semester hours in advanced conducting (3/79).

AR-1205-0003

Enlisted Bandleaders

Course Number: None.
Location: U.S.Army Element, Navy School of Music, Norfolk, Little Creek, VA.
Length: 20 weeks (718 hours).
Exhibit Dates: 3/75-1/88.
Objectives: To train selected enlisted personnel in the techniques of band conducting, leadership, administration, music theory, military band formations and instrument proficiency.
Instruction: This course is comprised of block courses in advanced theory including part writing, non-harmonic tones, dominant 7th chords, secondary dominants, simple modulation, altered tones and altered chords; ear training including sight singing, rhythmic, melodic and harmonic dictation; species counterpoint, basic keyboard techniques; conducting basic beat patterns, interpretation; rehearsal techniques; basic dance band arranging including dance band harmony, chord progression, voicing and rhythm section; marching band evolutions and baton signals, military commands, ceremonies and band management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in theory/harmony/ear training, 1 in elementary class piano, 1 in instrument techniques, 2 in applied music (individual instruction, principal instrument) (3/79); in the upper-division baccalaureate category, 3 semester hours in dance band techniques, 1 in dance band arranging, 2 in advanced conducting, 2 in military marching band techniques as an elective (3/79).

AR-1205-0004

Army Band Advanced
Noncommissioned Officer (NCO)
(ANCOC)

Course Number: 450-97-C42.
Location: Army Element, School of Music, Naval Amphibious Base, Norfolk, VA.
Length: 12-13 weeks (203-430 hours).
Exhibit Dates: 6/84-Present.
Objectives: To gain skill in band administration, concert band rehearsal, and stage band rehearsal.
Instruction: Topics include band administration, operation and supply skills in conducting, score reading, style analysis and concert band rehearsal techniques. Course includes a 6 week common core conducted at Fort Benjamin Harrison, IN.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, see exhibit AR-1404-0035 for the Common Core (3/85); in the upper-division baccalaureate category, see AR-1404-0035 for the Common Core (3/85), and 1 in band administration, 2 in concert band techniques, and 3 in stage band techniques (10/86).

AR-1205-0005

Music, Class A, Basic
(Basic Course (Class A))
(Naval School of Music, Class A, Basic)
(Bandsman Basic (Army))
(Band Instrumentalist (Army))

Course Number: A-450-0010; 450-F1.
Location: Army Element,School of Music, Little Creek, Norfolk, VA.
Length: *Version 1:* 23 weeks (416-602 hours). *Version 2:* 24-36 weeks (618 hours).
Exhibit Dates: *Version 1:* 1/79-1/88. *Version 2:* 5/68-12/78.
Objectives: To provide Navy musicians with essential performance skills and with basic knowledge of theory, harmony, and ear training for purposes of instrumental technique improvement.
Instruction: *All Versions:* Fundamental notation; directions for performance and dance band devices; elementary phrase and triad construction; transposition and instruments; dance band notation reading; marching signal recognition; tuning, ensemble, and sight reading; marching position and drills; elements of music: aural and written rhythms and tonal relationships; transposing; self-study discipline and private instruction; indoctrination in history, structure, and procedures of Navy school. *Version 2:* Includes simple four-part writing.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary theory/harmony (excluding four part writing), 1 in ear training/sight singing, 2 in jazz theory/ improvisation, 2-4 in applied performance (individual instruction) (2/79); in the upper-division baccalaureate category, 2 semester hours in performing ensembles (2/79) *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in music ensemble, 6 in music theory, 4 in applied music (2/74).

AR-1303-0001

1. Chemical Laboratory Procedures
2. Chemical Laboratory Procedures
3. Chemical Laboratory Procedures (Chemical Laboratory)

Course Number: *Version 1:* 491-92D20. *Version 2:* 491-92D20. *Version 3:* 3-R-904.1; 3-E-5.

Location: *Version 1:* Chemical School, Ft. McClellan, AL; Ordnance School, Aberdeen Proving Ground, MD. *Version 2:* Chemical School, Ft. McClellan, AL. *Version 3:* Chemical School, Ft. McClellan, AL.

Length: *Version 1:* 13 weeks (438-440 hours). *Version 2:* 10 weeks (392-399 hours). *Version 3:* 8 weeks (280-306 hours).

Exhibit Dates: *Version 1:* 6/74-1/88. *Version 2:* 11/66-5/74. *Version 3:* 4/54-10/66.

Objectives: To train personnel in chemical laboratory procedures.

Instruction: Lectures and practical exercises in chemical laboratory procedures, including standard laboratory procedures using chemicals and special equipment to analyze, identify, or synthesize a variety of organic and inorganic compounds, basic radiological physics, radiac instruments, radiological techniques, microbiological laboratory techniques, biological, chemical, atomic, and radiological warfare.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in chemistry, 1 in microbiology, and 3 in nuclear physics (1/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to nuclear instrumentation (5/74); in the upper-division baccalaureate category, 5 semester hours in general chemistry (12/68). *Version 3:* In the upper-division baccalaureate category, 5 semester hours in general chemistry (5/74).

Related Occupation Codes: 92D.

AR-1303-0002

Nuclear Weapons Effects Officer

Course Number: 3-A-7330.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 12 weeks (431-439 hours).

Exhibit Dates: 1/59-12/68.

Objectives: To train Army officers possessing degrees in Math, Engineering, or the Physical Sciences to function as nuclear warfare effects specialists.

Instruction: Course covers meteorology, radiation effects and monitoring methods, and a thorough study of modern physics, including types of electronic instrumentation.

Credit Recommendation: In the vocational certificate category, 7 semester hours in physics, 2 in mathematics, and 1 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in physics, 1 in mathematics, and 1 in electronics laboratory (6/74); in the upper-division baccalaureate category, 6 semester hours in general physics and 2 in general mathematics (12/68).

AR-1303-0003

Nuclear, Biological, Chemical (NBC) Specialist, Primary Technical

Course Number: 494-54E20.

Location: Chemical School, Ft. McClellan, AL.

Length: 5-6 weeks (203 hours).

Exhibit Dates: 4/85-12/85.

Objectives: To provide enlisted personnel with training for positions as nuclear, chemical, and biological reconnaissance and decontamination team leaders and noncommissioned officers.

Instruction: Theory and practical exercises in nuclear and biological surveys, decontamination, operations, reconnaissance, leadership, and management.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 54E.

AR-1304-0001

Meteorological Observation

Course Number: 420-93E20; 420-905.1; 11-R-905.1; 11-E-36.

Location: Field Artillery School, Ft. Sill, OK; Signal School, Ft. Monmouth, NJ.

Length: 13-22 weeks (470-769 hours).

Exhibit Dates: 12/55-6/76.

Objectives: To train enlisted personnel to observe, compile, and interpret meteorological phenomena at locations away from fixed weather installations.

Instruction: Lectures and practical exercises in the observation, compilation, and interpretation of meteorological phenomena at locations away from fixed weather installations, including meteorological theory (atmospheric physics, cloud principles, and atmospheric phenomena), meteorological and micrometeorological instrumentation (thermometry, phychrometry, pressure and wind measurements, radiometry), surface and upper-air observations, plotting techniques, and coding.

Credit Recommendation: In the vocational certificate category, 12 semester hours in meteorology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in meteorology (5/74); in the upper-division baccalaureate category, 3 semester hours in meteorology (12/68).

Related Occupation Codes: 93E.

AR-1304-0002

1. Field Artillery Meteorological Crew Member (Field Artillery Meteorological Crewman)
2. Artillery Ballistic Meteorology

Course Number: *Version 1:* 420-93F10; 420-93FIT(ST). *Version 2:* 5B-F1; 420-93F20; 6-H-103.1; 6-N-215.2; 6-OE-35.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* Self-paced, 8-12 weeks (240-360 hours). *Version 2:* 10-11 weeks (353-417 hours).

Exhibit Dates: *Version 1:* 10/79-12/87. *Version 2:* 4/56-9/79.

Objectives: To train enlisted personnel in artillery ballistic meteorology effects, equipment used, and the installation and operation of an artillery meteorology station.

Instruction: *Version 1:* Laboratories and practical exercises on artillery meteorology, surface measurements and equipment, airborne radiosonde/balloons, visual equipment, theodolite, zone and ballistic winds avemometer, psychsometer, computing meteorological effects both manually and by computer and setting up and operating a meteorological station. Prior to 5/82, the course was self-paced with a laboratory basis, individual evaluations, and continuous performance evaluations. Effective 5/82, the course is no longer self-paced; it is currently 9 weeks in length. For course after 12/87, see AR-1304-0011. *Version 2:* Lectures and practical exercises on artillery ballistic meteorology, including mathematics; elementary meteorology; surface instruments and equipment; pibal and surface observation method; radiosondes and accessory equipment, radiosonde recorder and data; visual instruments and equipment; rawin set AN/GMD-1; computer; NATO; fallout and sound ranging winds; air weather service operations; and visual equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in elementary meteorology (1/80); in the upper-division baccalaureate category, 1 semester hour in elementary meteorology (1/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary meteorology (5/74); in the upper-division baccalaureate category, 2 semester hours in elementary meteorology (12/68).

Related Occupation Codes: 93F; 35D.

AR-1304-0003

Meteorological Observer Noncommissioned Officer (NCO) Advanced

Course Number: 420-93E50-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9-10 weeks (298-338 hours).

Exhibit Dates: 10/71-1/88.

Objectives: To train qualified meteorological observers in advanced meteorological observation techniques.

Instruction: Lectures and practical exercises in the duties of noncommissioned officers in meteorological observations, including artillery transport, leadership brigade, weapons, leadership, tactics and combined arms, command and staff, nuclear employment, target acquisition, meteorological equipment, RDT & E administrative policies, and USAFAS demonstration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology (6/74).

Related Occupation Codes: 93E.

AR-1304-0004

1. Cannon Fire Direction Specialist
2. Field Artillery Cannon Operations/Fire Direction Assistant
3. Field Artillery Cannon Operations/Fire Direction Assistant

Course Number: *All Versions:* 250-13E10. *Version 1:* 13E10-OSUT.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 6-14 weeks (203-648 hours). *Version 2:* 5-12 weeks (205-529 hours). *Version 3:* 7 weeks (246 hours).

Exhibit Dates: *Version 1:* 3/84-2/89. *Version 2:* 7/78-2/84. *Version 3:* 3/75-6/78.

Objectives: Basic instruction in translating map and meteorological information into azimuth and elevation information for aiming cannon.

Instruction: *All Versions:* Course includes basic mathematics (addition, subtraction, multiplication, division, and proportion), map reading and use of radio and telephone equipment. Several hours of drill in converting map and meteorological information into azimuth and elevation information for a range of conditions. *Version 1:* Longer course includes basic training. *Version 2:* Twelve week course includes basic training. For course after 2/89, see AR-1715-0844.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in map reading, 1 in radio operations (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in basic mathematics (1/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading or plotting (1/80). *Version 3:* Credit is recommended on the basis of institutional evaluation (1/80).

AR-1304-0005

Field Artillery Target Acquisition Basic Technical

Course Number: 241-17C30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 3-4 weeks (114 hours). *Version 2:* 9 weeks (305 hours).

Exhibit Dates: *Version 1:* 10/84-10/85. *Version 2:* 4/82-9/84.

Objectives: To train enlisted personnel to perform the duties of a target acquisition specialist.

Instruction: *Version 1:* Lectures and demonstrations in map reconnaissance, sound ranging, basic use of instruments to determine and record weather data, and target acquisition. *Version 2:* Lectures, demonstrations, and practical exercises in targeting, radio operations, electronic warfare, map reading, management, and counseling.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in meteorology (11/85). *Version 2:* In the vocational certificate category, 2 semester hours in map reading (11/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology (11/85).

Related Occupation Codes: 17C.

AR-1304-0006

Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)

(Field Artillery Meteorological Crewmember Basic Technical)

Course Number: 420-93F30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 5-6 weeks (181 hours). *Version 2:* 8-9 weeks (286 hours).

Exhibit Dates: *Version 1:* 10/84-9/86. *Version 2:* 4/82-9/84.

Objectives: To provide noncommissioned officers with skills and knowledge to supervise a meteorological observation station.

Instruction: *Version 1:* Lectures, demonstrations, and practical exercises in operation and maintenance of the radiosonde system. For course after 9/86, see AR-1304-0010. *Version 2:* Lectures and demonstrations in tactics, communication, maintenance, and supply related to field artillery meteorological stations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in map reading (10/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 2 in weather instruments (10/83).

Related Occupation Codes: 93F.

AR-1304-0008

Field Artillery Meteorological Crewmember (NCO) Noncommissioned Officer Advanced

Course Number: 420-93F40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7 weeks (252 hours).

Exhibit Dates: 10/85-Present.

Objectives: To provide enlisted personnel with the knowledge of the supervisory responsibilities and techniques for the installation, operation and maintenance of the field artillery meteorology section.

Instruction: Lectures and practical experiences in positioning the meteorological section, learning teaching techniques for personnel training, and using test equipment and tools to adjust and maintain the section equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, see AR-1404-0035 for the Common Core (3/85); in the upper-division baccalaureate category, see AR-1404-0035 for the Common Core (3/85).

Related Occupation Codes: 93F.

AR-1304-0009

Marine Artillery Operations Chief

Course Number: 250-0848.

Location: Field Artillery School, Ft. Sill, OK.

Length: 13-14 weeks (506 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform technical duties in fire direction, artillery meteorology, surveying, targeting, fire support coordination, fire planning, and observed fire.

Instruction: Lecture and practical exercises on computation of firing data, operating procedure of the Backup Computer System (BUCS), firing charts, surveying, ballistics, meteorology, and targeting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in meteorology and 1 in surveying (6/89).

AR-1304-0010

Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)

Course Number: 420-93F30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5 weeks (175 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as meteorological shift supervisor to support division artillery firing battalions.

Instruction: Lectures and practical exercises in the RAWIN system for upper air measurements, computer analysis of RAWIN data to produce ballistic temperatures and densities, evaluation and quality control of derived data, plus a review of management, maintenance and leadership techniques. For credit recommendation prior to 10/86, see AR-1304-0006.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorological measurements (6/89); for credit for the common core, see exhibit AR-1406-0090.

AR-1304-0011

Field Artillery Meteorological Crewmember

Course Number: 420-93F10.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 13 weeks (513 hours). *Version 2:* 15 weeks (540 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 1/88-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to install and operate necessary meteorological measuring equipment needed to produce required data for calculation of meteorological effects on artillery ballistics.

Instruction: Lectures on basic meteorology and applications to artillery ballistics, lectures and field exercises utilizing surface meteorological equipment, installation of complete Rawin System, calibration, release and tracking of radiosonde, preparation of radiosonde data with aid of system computer, installation and operation of visual theodolites, as well as the operation of field generators.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic meteorology (6/89); in the upper-division baccalaureate category, 1 semester hour in meteorological instruments (6/89).

AR-1401-0001

1. Military Accounting
   (Financial Management—Integrated Accounting)
2. Financial Management—Integrated Accounting

Course Number: *Version 1:* 7D-44B, 7D-6101; 7D-6301; 541-F4; 7D-F2; 541-733.1; 14-K-733.1; 14-L-733.1. *Version 2:* 14-OE-9.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 3-5 weeks (154-220 hours). *Version 2:* 3 weeks (120-132 hours).

Exhibit Dates: *Version 1:* 7/56-12/85. *Version 2:* 6/55-6/56.

Objectives: To train officer, enlisted, and civilian personnel in military accounting principles and procedures.

Instruction: *All Versions:* Lectures and practical exercises in basic principles of military accounting, including installation accounting, ADP systems theory and practice, stock fund accounting, and the use of accounting machines and equipment. *Version 2:* Lectures include a review of basic accounting, financial code, and distribution operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in government accounting (3/85). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in government accounting (12/68).

AR-1401-0002

1. Finance Specialist
2. Finance Specialist
3. Finance Specialist
   (Pay/Disbursing Specialist)

Course Number: *Version 1:* 542-73C10; 542-73C10 (ST). *Version 2:* 542-73C20. *Version 3:* 542-73C20.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Institute of Administration, Ft. Benjamin Harrison, IN.

Version 3: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 6-7 weeks (218 hours). *Version 2:* 6 weeks (204 hours). *Version 3:* 5-8 weeks (164-281 hours).

Exhibit Dates: *Version 1:* 7/83-9/86. *Version 2:* 6/74-6/83. *Version 3:* 1/67-5/74.

Objectives: To train enlisted and civilian personnel in the principles of military pay procedures and financial recordkeeping.

Instruction: *Version 1:* Lectures and practical exercises in military pay procedures to include entering data into a console terminal and financial recordkeeping with preparation of related forms and documents. *Version 2:* Lectures and practical exercises in military pay procedures and in the organization and operation of finance offices, including audit and review techniques, travel voucher preparation and computation, and various disbursing methods. *Version 3:* Lectures and practical exercises in military pay procedures and in the organization and operation of finance offices, including audit and review techniques, travel voucher preparation and computation, and various disbursing methods.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations, 3 in clerical records management and 2 in clerical procedures (3/85). *Version 2:* In the vocational certificate category, 2 semester hours in finance or clerical operations (3/75). *Version 3:* In the vocational certificate category, 3 semester hours in finance or clerical operations (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in finance or clerical operations (2/74); in the upper-division baccalaureate category, 3 semester hours in finance and disbursing (12/68).

Related Occupation Codes: 71B; 73C.

AR-1401-0003

AUDITING

Course Number: 14-OE-4.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 8 weeks (296 hours).

Exhibit Dates: 4/56-12/68.

Objectives: To train Army personnel in the establishment and auditing of various systems of accounts.

Instruction: Practical exercises in general and property accounting and auditing procedures, auditing of financial reports and records, and auditing methods of nonappropriated funds.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general accounting, 3 in auditing (12/68).

AR-1401-0004

ACCOUNTING SPECIALIST

Course Number: 541-73D10; 541-73D20.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 6-8 weeks (210-247 hours). *Version 2:* 7-8 weeks (240-280 hours).

Exhibit Dates: *Version 1:* 3/68-5/86. *Version 2:* 7/66-2/68.

Objectives: To train enlisted personnel in the principles, policies, and procedures of accounting.

Instruction: *Version 1:* Lectures and practical exercises in commercial accounting, nonappropriated fund accounting, and stock fund accounting. *Version 2:* Lectures and practical exercises in appropriated funds; pay of military personnel, disbursing operations, internal review and auditing, and introduction to the fiscal code.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in fund accounting (3/75). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in government accounting (12/68).

Related Occupation Codes: 71B; 73D.

AR-1401-0005

COMMAND STOCK FUND ACCOUNTING

Course Number: None.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (110 hours).

Exhibit Dates: 1/62-12/68.

Objectives: To provide military personnel with a general knowledge and understanding of stock fund accounting.

Instruction: Lectures and practical exercises in financial management, general accounting review, military supply accounting, case studies of stock fund accounting problems, and application of data processing to stock fund operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in stock fund accounting (12/68).

AR-1401-0006

DISBURSING SPECIALIST

Course Number: 542-732.1; 14-S-732.1.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 4-6 weeks (174-220 hours).

Exhibit Dates: 2/59-12/68.

Objectives: To train enlisted personnel in disbursement methods and procedures and related office procedures.

Instruction: Lectures and practical exercises in military pay, civilian pay, travel allowances, commercial accounts, disbursing operations, accounting, and supervision.

Credit Recommendation: In the vocational certificate category, 3 semester hours in bookkeeping and clerical operations (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to accounting, 1 in office administration (2/74); in the upper-division baccalaureate category, 3 semester hours in fiscal procedures (12/68).

AR-1401-0007

FINANCE PROCEDURES

Course Number: *Version 1:* 542-730.0; 14-R-730.0. *Version 2:* 14-E-2.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5-6 weeks (169-210 hours). *Version 2:* 8 weeks (280-287 hours).

Exhibit Dates: *Version 1:* 2/59-12/68. *Version 2:* 11/55-1/59.

Objectives: To train enlisted personnel in the financial procedures of acquisition, disbursing, and accounting for public funds.

Instruction: *All Versions:* Lectures and practical application of military personnel payment procedures, travel allowances and commercial accounts, disbursing operations, office machine equipment operation, and basic fiscal code. *Version 1:* Lectures on introduction to military accounting. *Version 2:* Practical typing exercises.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in government accounting (12/68). *Version 2:* In the vocational certificate category, 2 semester hours in government accounting (2/74); in the upper-division baccalaureate category, 3 semester hours in government accounting (12/68).

AR-1401-0008

LIFE CYCLE COST ANALYSIS OF WEAPONS SYSTEMS

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 4 weeks (142 hours).

Exhibit Dates: 1/71-12/73.

Objectives: To provide commissioned officers and civilian personnel with practical experience in preparing a life-cycle cost analysis study.

Instruction: Practical exercises in the quantitative aspects of cost estimation and cost analysis; cost implications of the Army life-cycle management model; and procedures and problems in the preparation of life-cycle cost analysis of major weapons systems.

Credit Recommendation: In the vocational certificate category, credit in cost analysis/cost accounting on the basis of institutional evaluation (2/74).

AR-1401-0009

1. FINANCE OFFICER ADVANCED
2. FINANCE OFFICER ADVANCED
3. FINANCE OFFICER CAREER
4. FINANCE OFFICER CAREER
5. FINANCE OFFICER CAREER
6. FINANCE OFFICER CAREER
7. FINANCE OFFICER ADVANCED
8. FINANCE OFFICER ADVANCED
9. FINANCE OFFICER ADVANCED

Course Number: *Version 1:* 7-14-C22. *Version 2:* 7-14-C22. *Version 3:* 7-14-C22. *Version 4:* 14-A-C22. *Version 5:* 14-A-C22. *Version 6:* 14-A-C22. *Version 7:* 14-A-C4. *Version 8:* 14-A-C4; 14-O-3. *Version 9:* 14-O-3.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 33-35 weeks (1002-1136 hours). *Version 2:* 33 weeks (990-997 hours). *Version 3:* 23 weeks (799-821 hours). *Version 4:* 35 weeks (1225 hours). *Version 5:* 35 weeks (1190 hours). *Version 6:* 35 weeks (1206-1326 hours). *Version 7:* 36 weeks (1260 hours). *Version 8:* 36 weeks (1268-1284 hours). *Version 9:* 35 weeks (1242 hours).

Exhibit Dates: *Version 1:* 7/69-9/75. *Version 2:* 6/67-6/69. *Version 3:* 5/65-5/67. *Version 4:* 5/64-4/65. *Version 5:* 5/63-4/64. *Version 6:* 8/60-4/63. *Version 7:* 7/58-7/60. *Version 8:* 8/56-6/58. *Version 9:* 9/55-7/56.

Objectives: To train commissioned officers to manage financial operations.

Instruction: Lectures and practical exercises in military accounting, programming and budgeting, management principles, statistical reporting and analysis, supply management, government purchasing and contracting, finance and accounting office operations, administrative practices, economic principles, and military science and tactics. For the course (later entitled Financial Management Officer Advanced) after 9/75, see exhibit AR-1401-0027.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in data processing, 6 in management and organizational behavior, 2 in economic principles, and 1 for the selected elective (3/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing, 2 in business administration, and, on the basis of institutional evaluation, 2 semester hours as an elective in ADP systems, operations research, programming theory and techniques, internal review, advanced managerial accounting, communicative arts, current economic problems, international relations, or government (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 3 in cost accounting, 2 in business administration, 3 in computer principles, 3 in finance and disbursing (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing, 2 in business administration (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 2 in finance and fiscal programs, 2 in business administration, 2 in computer principles (12/68). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in accounting, 2 in data processing (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 3 in cost accounting, 3 in finance and disbursement, 2 in business administration, 3 in computer principles (12/68). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in accounting (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 3 in cost accounting, 3 in finance and disbursement, 2 in business administration (12/68). *Version 6:* In the lower-division baccalaureate/associate degree category, 3 semester hours in accounting (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 3 in cost accounting, 3 in finance and disbursing, 3 in computer principles (12/68). *Version 7:* In the lower-division baccalaureate/associate degree category, 4 semester hours in general accounting, and 3 in general business administration (7/74); in the upper-division baccalaureate category, 3 semester hours in general accounting, 3 in cost accounting, 3 in finance and disbursing, 3 in personnel management, and 2 in general business administration (12/68). *Version 8:* In the lower-division baccalaureate/associate degree category, 14 semester hours in elementary through advanced accounting, 3 in cost accounting, and 6 in business administration (7/74); in the upper-division baccalaureate category, 14 semester hours in elementary through advanced accounting, 3 in cost accounting, and 6 in business administration (12/68). *Version 9:* In the lower-division baccalaureate/associate degree category, 6 semester hours in business administration, 4 in economics, 3 in business law, and 6 in general accounting (7/74); in the upper-division baccalaureate category, 6 semester hours in business administration, 4 in economics, 3 in business law, and 6 in general accounting 12/68).

AR-1401-0010

Internal Review

Course Number: 7D-F6; 541-F3; 14-K-F15; 14-L-F15; 14-I-F15.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (142-148 hours).

Exhibit Dates: 9/59-4/76.

Objectives: To provide enlisted personnel who are knowledgeable in accounting with a basic understanding of the principles, procedures, and techniques of internal review.

Instruction: Lectures and practical application of automated accounting systems, fundamental military operational accounting, management of resources, and implications of internal review.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business procedural analysis (12/68).

Related Occupation Codes: 73D.

AR-1401-0011

Accounting Intermediate

Course Number: 14-G-F8.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (140 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train commissioned officers and civilians to handle accounting responsibilities at the intermediate level.

Instruction: Lectures and practical exercises in accounting duties and procedures. Course includes accounting cycles, working-capital analysis, net worth studies, balance sheet accounts, statements of funds, and problem assignments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in intermediate accounting (6/74); in the upper-division baccalaureate category, 4 semester hours in intermediate accounting (12/68).

AR-1401-0012

Accounting Basic

Course Number: 14-G-F7.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (140 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train personnel in the basic principles of accounting.

Instruction: Lectures and practical exercises in the basic principles of accounting, including basic accounting theory, working papers, accounting procedures, theory and miscellaneous matters, correlation of commerical accounting and integrated accounting, alternative adjustment procedures, proprietorships, partnerships, merchandise operations, and books of original entry.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in first principles of accounting (6/74).

AR-1401-0013

Special Purpose Equipment Repair
Parts Specialist

Course Number: 551-76Q20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (128 hours). *Version 2:* 4-5 weeks (148-172 hours).

Exhibit Dates: *Version 1:* 8/74-11/77. *Version 2:* 9/67-7/74.

Objectives: To train enlisted personnel to receive, store, inspect, identify, preserve, and ship special-purpose equipment repair parts.

Instruction: Lectures and practical exercises in the repair and storage of special-purpose equipment repair parts. Course includes maintenance equipment records system, supply bulletins, item identification, repair parts records, storage operations, and shipping procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in repair parts management techniques (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in business accounting (7/74).

Related Occupation Codes: 76P; 76Q.

AR-1401-0014

Accounting Advanced

Course Number: 14-G-F9.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (180 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train commissioned officers and civilians in advanced accounting methods.

Instruction: Lectures and practical exercises in advanced accounting methods. Course includes study of home office and branch accounting, consolidated statements, auditing, comparative financial statements, working-capital analysis, income statement analysis, analysis of long-term financial conditions, and government accounting applications.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in advanced accounting (12/68).

AR-1401-0015

Cost Accounting

Course Number: 14-G-F10.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (140 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train commissioned officers in cost accounting.

Instruction: Lectures and practical exercises in the principles of cost accounting. Course includes job order costing, process costing, standard costs, budgets, industrial funds, and administrative cost procedures for installations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in cost accounting (7/74); in the upper-division baccalaureate category, 4 semester hours in cost accounting (12/68).

AR-1401-0016

1. Materiel Control and Accounting
   Specialist
2. Materiel Control and Accounting
   Specialist
   (Stock Control Specialist)
3. Stock Control and Accounting
   (Stock Control and Accounting
   Specialist)
4. Stock Control and Accounting
   (Stock Control and Accounting
   Specialist)

Course Number: *Version 1:* 551-76P10. *Version 2:* 551-76P10. *Version 3:* 551-76P20. *Version 4:* 551-76P20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8 weeks (288 hours). *Version 2:* 8 weeks (268 hours). *Version 3:* 8 weeks (250-257 hours). *Version 4:* 5-7 weeks (193-228 hours).

Exhibit Dates: *Version 1:* 2/84-3/88. *Version 2:* 11/78-1/84. *Version 3:* 6/72-10/78. *Version 4:* 9/67-5/72.

Objectives: To train enlisted personnel to function as stock control and accounting specialists using manual and automated systems.

Instruction: Lectures and practical exercises in the duties of a stock control and accounting specialist. Topics include stock record accounting, managing stock records, automated stock control, and accounting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester

hours in supply records processing and 3 in computer operations (8/85). *Version 2:* In the vocational certificate category, 3 semester hours in supply records processing (5/81). *Version 3:* In the vocational certificate category, 2 semester hours in supply records processing (6/75). *Version 4:* In the vocational certificate category, 1 semester hour in accounting principles (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting principles (7/74).

Related Occupation Codes: 76P; 76Q; 76R; 76S; 76T; 76U.

AR-1401-0017

Army Materiel Command
Comptrollership

Course Number: 7D-F9.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5–6 weeks (178–219 hours). *Version 2:* 6 weeks (207 hours).

Exhibit Dates: *Version 1:* 7/68–4/76. *Version 2:* 7/67–6/68.

Objectives: To train officers and civilian personnel in materiel command comptrollership operations.

Instruction: Lectures and practical exercises in comptrollership concepts and practices; planning; programming and budgeting; managerial accounting; review and analysis; management techniques; and internal review and audit.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in managerial accounting (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in managerial accounting (7/74); in the upper-division baccalaureate category, 2 semester hours in managerial accounting (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in managerial accounting (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in managerial accounting (7/74); in the upper-division baccalaureate category, 3 semester hours in finance and fiscal procedures (12/68).

AR-1401-0018

Associate Finance Officer Career

Course Number: 14-A-C23.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 19 weeks (711 hours). *Version 2:* 19 weeks (711 hours). *Version 3:* 19 weeks (778 hours).

Exhibit Dates: *Version 1:* 9/64–8/66. *Version 2:* 9/63–8/64. *Version 3:* 11/62–8/63.

Objectives: To train officers in the duties and responsibilities of Finance Corps officers.

Instruction: *All Versions:* Lectures and practical exercises in the responsibilities of Finance Corps officers, including accounting subjects, comptroller subjects, staff finance subjects, and military science and tactics, government purchasing and contracting, programming and budgeting, accounting foundations, and progress and statistical reporting and analysis. *Version 1:* Topics include command and staff actions/finance operations, and utilization of automatic data processing equipment in accounting systems. *Version 2:* Topics include management engineering and economic aspects of geopolitics. *Version 3:* Topics include analysis and managerial use of accounting data, and utilization of EAM in accounting systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in principles of accounting (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in principles of accounting (7/74); in the upper-division baccalaureate category, 2 semester hours in business administration, 3 in government accounting, 3 in finance and disbursing, 1 in computer principles (12/68). *Version 2:* In the vocational certificate category, 6 semester hours in principles of accounting (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in principles of accounting (7/74); in the upper-division baccalaureate category, 3 semester hours in business administration, 4 in government accounting, 3 in finance and disbursing, 1 in computer principles (12/68). *Version 3:* In the vocational certificate category, 6 semester hours in principles of accounting (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in principles of accounting (7/74); in the upper-division baccalaureate category, 3 semester hours in computer principles, 2 in general business administration, 3 in government accounting, 3 in finance and disbursing (12/68).

AR-1401-0019

Pay Specialist

Course Number: 12-R-716.2.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3–4 weeks (105–154 hours).

Exhibit Dates: 8/62–12/68.

Objectives: To train enlisted personnel to maintain and review military pay data records and to prepare and submit unit payrolls and vouchers for various pay collections and entitlements.

Instruction: Lectures and practical exercises in the military pay voucher system. Topics include pay administration, pay records, personnel records, and pay operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AR-1401-0021

Department of Defense (DOD) Cost
Accounting Standards Workshop
(Cost Accounting Standards Workshop)

Course Number: ALMC-CF; ALM-36-0217.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/77–Present.

Objectives: To instruct personnel in the utilization of cost accounting standards used in connection with defense contracts.

Instruction: Lectures/conferences and practical exercises on the latest regulations of the Cost Accounting Standards Board.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in cost accounting standards (3/78).

AR-1401-0022

Internal Review

Course Number: RM415.

Location: 7th Army Combined Arms Training Center, Munich, Germany.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/79–Present.

Objectives: To provide accountants/auditors with an orientation of the requirements for auditing within federal agencies; specifically appropriated/non-appropriated fund accounting systems.

Instruction: This course provides specialized audit standards, terminology, survey of verification techniques, workpapers preparation, appropriated/ non-appropriated fund control verification, follow-up reviews and communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in business report writing and 1 in auditing practices (10/80).

AR-1401-0023

Fund Control

Course Number: RM412.

Location: 7th Army Combined Arms Training Center, On-site at various locations in Europe.

Length: 2 weeks (57 hours).

Exhibit Dates: 4/79–4/80.

Objectives: To provide an understanding of the basic principles and procedures involved in controlling appropriated funds.

Instruction: Lectures and practical exercises covering the introduction to financial management, fund control, accounting, supply, reimbursements, introduction to the army standard finance system and reconciliation procedures of the resource control ledger.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/80).

AR-1401-0024

Special Correspondence Course for
Military Accounting Supervisors

Course Number: J02.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 156 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide selected personnel with the knowledge and skills required of accounting supervisors.

Instruction: Instruction is through home study modules. A course to provide a knowledge of principles and techniques of fund accounting to include expenditure classifications, reimbursement, and miscellaneous transactions and reporting procedures. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in fund accounting (1/81).

AR-1401-0025

Special Correspondence Course for
Military Comptrollers

Course Number: 143.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 156 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide selected personnel with a working knowledge of the principles and practices of controllership.

Instruction: Instruction is through home study modules. A course in principles, techniques, and procedures, used to perform the budgeting, managerial accounting, statistical analyses, and management review processes essential to controller functions. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in controllership (1/81).

AR-1401-0027

1. Finance Officer Advanced
2. Finance Officer Advanced
3. Financial Management Officer Advanced

Course Number: *Version 1:* 7-14-C22. *Version 2:* 7-14-C22. *Version 3:* 7-14-C22.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 3:* Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 20 weeks (761 hours). *Version 2:* 23 weeks (799 hours). *Version 3:* 23-26 weeks (810-818 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 7/80-12/84. *Version 3:* 10/75-6/80.

Objectives: To train commissioned officers to manage financial operations.

Instruction: *Version 1:* Lectures and practical exercises in administrative services, communications skills, management, data processing, unit organization and operations, accounting and finance, combat service support, command and staff procedures and special services. Course consists of a common and a technical core and electives in the areas of communication skills, automation literacy, force integration, programming and budgeting, quantitative decision making and travel supervision. *Version 2:* Lectures and practical exercises in administrative services, communications skills, management, data processing, unit organization and operations, accounting and finance, combat service support, command and staff procedures and special services. *Version 3:* Lectures and practical exercises in military accounting, programming and budgeting, management principles, statistical reporting and analysis, supply management, government purchasing and contracting, finance and accounting office operations, administrative practices, economic principles and military science and and tactics. For earlier versions of the course, entitled Finance Officer Advanced (or Career) see AR-1401-0009.

Credit Recommendation: *Version 1:* For the common and technical cores: in the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 3 as an elective in basic accounting; in the upper-division baccalaureate category, 3 semester hours in principles of management. For the communication skills elective: in the lower-division baccalaureate/associate degree category, 4 additional semester hours in technical communications. For the automation literacy elective: in the lower-division baccalaureate/associate degree category, 4 semester hours in microcomputer operation. For the quantitative decision making techniques elective: in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to statistical analysis; in the upper-division baccalaureate category, 2 semester hours in statistical analysis. For the programming and budgeting elective: in the upper-division baccalaureate category, 4 semester hours in introduction to financial analysis (8/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications, 3 as an elective in basic accounting and 2 in introduction to statistical analysis; in the upper-division baccalaureate category, 3 semester hours in principles of management and 2 in statistical analysis (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing, 2 in principles of economics (1/78); in the upper-division baccalaureate category, 1 semester hour in quantitative management, 3 in management and organizational behavior, 3 in financial management, 2 in managerial accounting (1/78).

AR-1401-0028

Central Accounting Officer

Course Number: 7D-F15.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 2 weeks (72-77 hours).

Exhibit Dates: 11/83-4/86.

Objectives: To train personnel to perform the duties of a central accounting officer.

Instruction: Lectures and practical experiences in the overall management and supervision of nonappropriated funds. Instruction provides students with a working knowledge of the techniques, practices and organization of the central accounting office of the finance and accounting office. The student also learns about the internal controls and external controls necessary in accounting for nonappropriated funds.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in accounting; in the upper-division baccalaureate category, 2 semester hours in financial statement analysis (3/85).

AR-1401-0029

Advanced Noncommissioned Officer (NCO) MOS 73C/D

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credits for the Common Core.

Related Occupation Codes: 73C/D.

AR-1401-0030

Basic Internal Audit
(Management Audit Level I - Basic)

Course Number: None.

Location: National Guard Bureau Management Auditer School, Aberdeen, MD.

Length: 2 weeks (65-70 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify auditing tools, identify elements in an audit to include: auditing techniques, elementary statistical sampling, flow charting, field work and problem solving, organize findings, and effective communication of findings.

Instruction: Lectures, discussion and practical exercises in: auditing tools, auditing standards, auditing techniques, statistical techniques, audit documentation, and presentation of findings and recommendations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in operational auditing (basic) (5/88).

AR-1401-0031

Intermediate Internal Audit
(Management Audit Level II - Intermediate)

Course Number: None.

Location: National Guard Bureau Management Auditer School, Aberdeen, MD.

Length: 2 weeks (65-74 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply human relations principles; expand the use of auditing tools and techniques; understand the role of the audit team leader; and organize and conduct an audit.

Instruction: Lectures, discussion and practical exercises in: human relations, audit team management, analytical techniques, audit simulation, and presentation of audit findings and recommendations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in operational auditing and 1 in human relations in management (5/88).

AR-1401-0032

Materiel Control and Accounting Specialist Advanced-Individual Training

Course Number: 551-76P10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (288 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish stock record accounts, and process documents for the materiel supply function, including use of both a manual and an automated standard supply system.

Instruction: Lectures, demonstrations, and practical exercises in processing supply documents, and in posting to and maintaining stock record accounts. Topics include utilization of automated supply procedures, determination of stockage criteria, diskette and tape handling, and diskette processing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in records processing (10/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding (10/88).

Related Occupation Codes: 76P.

AR-1401-0033

Finance Specialist

Course Number: 543-73C10; 543-73C10 (ST).

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 7-8 weeks (250-288 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and determine the types of incentive pay plans, prepare pay vouchers, complete pay documents, and compute pay allowances.

Instruction: Methods of instruction include lecture, role playing, and in-class exercises. Topics covered include financial operations, data entry operations, and payroll processing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in payroll accounting (12/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer applications (12/88).

Related Occupation Codes: 73C.

AR-1401-0034

MILITARY ACCOUNTING

Course Number: 7D-44A/541-F4; 7D-44B/541-F4.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 4-5 weeks (165 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use generally accepted accounting principles in government fund accounting, define basic comptrollership functions, outline the elements of the budgeting process, reconcile cash, use subsidiary ledgers, identify and correct errors and record year end adjusting transactions.

Instruction: Methods of instruction include lectures and class exercises. Topics covered include program planning and budgeting, accounting classifications, funds receipt and disbursement, administration controls, non-apppropriated funds, reimbursement concepts and cash classifications.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in governmental accounting (12/88).

AR-1401-0035

FINANCE SPECIALIST BASIC
NONCOMMISSIONED OFFICER (NCO)

Course Number: 542-73C30; 542-73C/D30.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 7-8 weeks (272-280 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to review and verify disbursing records, review and compute travel vouchers, develop accountability statements, and prepare financial office reports.

Instruction: Methods of instruction include lecture, in-class exercises and class discussions. Topics covered include payroll accounting, accounting classifications, cash reconciliations, and accounting documents.

Credit Recommendation: In the vocational certificate category, 2 semester hours in payroll accounting (12/88); in the lower-division baccalaureate/associate degree category, see AR-1404-0090 for credit recommendation for the common core; in the upper-division baccalaureate category, 2 semester hours in governmental accounting (12/88).

Related Occupation Codes: 73C.

AR-1401-0036

CENTRAL ACCOUNTING OFFICER

Course Number: 7D-F15.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (77 hours).

Exhibit Dates: 5/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to outline the basic concepts and codes of unappropriated grants, work with automated accounting systems, analyze financial statements, and prepare budgets.

Instruction: Methods of instruction include lectures, case studies, and in-class exercises. Topics of discussion include unappropriated funds, financial statements, comparative relationships, budget planning and internal controls.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in government accounting, 1 in financial statement analysis (12/88).

AR-1401-0037

DISBURSING OPERATIONS

Course Number: 7D-F18/542-F8.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (74 hours).

Exhibit Dates: 9/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain cash books, review collection and disbursement vouchers, process overages, and process cancelled checks.

Instruction: Lectures, classroom discussion, and practical exercises in cash and check collection, disbursement vouchers, deposits and reconciliation statements, imprest funds transactions, and accountability statements.

Credit Recommendation: In the vocational certificate category, 1 semester hour in disbursement operations (12/88).

AR-1401-0038

RESOURCE MANAGEMENT BUDGET

Course Number: 7D-F23.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (71 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage funds flow, implement control functions, coordinate the approval process, implement the procurement function, and recommend adjustments.

Instruction: Instruction methods include lecture, class participation, and role playing. Topics covered include budget planning and implementation, funded and nonfunded expenses and budget review and analysis.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in budget application (12/88).

AR-1401-0039

ACCOUNTING SPECIALIST ADVANCED
NONCOMMISSIONED OFFICER (NCO)

Course Number: 541-73D40.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 9 weeks (288 hours).

Exhibit Dates: 10/86-1/87.

Learning Outcomes: Upon completion of the course the student will be able to develop a budget plan, classify accounts, prepare summary reports, verify checks, maintain a check register, and maintain support documents.

Instruction: Methods of instruction include lecture and in-class exercises. Topics include budget planning and execution, account classification, and appropriated funds. Course includes a common core of leadership and administrative subjects. See AR-1404-0035.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in governmental accounting (12/88). For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 73D.

AR-1401-0040

FINANCE SPECIALIST ADVANCED
NONCOMMISSIONED OFFICER (NCO)

Course Number: 542-73C42.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 9 weeks (288 hours).

Exhibit Dates: 10/86-1/87.

Learning Outcomes: Upon completion of the course the student will be able to develop a budget plan, classify accounts, prepare summary reports, verify checks, maintain a check register, and maintain support documents.

Instruction: Methods of instruction include lecture and in-class exercises. Topics include budget planning and execution, account classification, and appropriated funds. Course includes a common core of leadership and administrative subjects. See AR-1404-0035.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in governmental accounting (12/88). For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 73D.

AR-1401-0041

ACCOUNTING SPECIALIST

Course Number: 541-73D10.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 8-9 weeks (332 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply generally accepted accounting principles in governmental fund accounting; use a detailed coding procedure, process expenditures, reimbursement and miscellaneous transactions; describe the basic organizational structure in government accounting; and use the correct forms and format in fund accounting.

Instruction: Method of instruction consists of lectures, in class exercises, topics covered include expenditures and reimbursements, commercial accounts, fiscal codes and budget execution.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in governmental fund accounting (12/88).

AR-1401-0042

BUDGET

Course Number: 800.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (64 hours).

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to implement the basic principles of planning, programming, budgeting, and execution system (PPBES) as it applies to a major U.S. Army reserve unit.

Instruction: Topics covered: basic principles and applications of financial management, including the programming, budgeting, and execution system; army management, manpower, and automated ledger and budget concepts; budget procedures to include interfund transfers, requirements-based budget preparation and fund distrubution, rules of obligation, cost estimating, budget processing to include reading and interpreting automated fund control reports, budget execution and tracking, determining status of operating resources, completion of year-end close.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in budgeting or financial management (7/89).

AR-1401-0043

Budget Management

Course Number: 2300.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (50 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare unit budgets for operations and maintenance, and for personnel using proper fund and accounts using PPBES (planning, programming, budgeting and execution systems); identify and interpret accounting classifications and resource codes; identify and interpret funds available for budget construction and expenditures; determine unit need for operations and maintenance and personnel budgets.

Instruction: Reading and lectures in PPBES, reserve appropriations, purchase order and contract management, budgetory procedures, fund controls, automated budget systems fund distributions and budget reconciliation reports; practical exercises in accounting classifications within regulation guidelines, budgetory expenditures and obligations, identification of budget requirements and funds, distribution of funds and budget reconciliation reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in budget management (7/89).

AR-1402-0001

1. Systems Analysis
   (Advanced Automatic Data Processing (ADP) Systems Analysis)
2. Assistant Systems Analyst

Course Number: *All Versions:* 531-74G20. *Version 1:* 7F-F23.

Location: *All Versions:* Adjutant General's School, Ft. Benjamin Harrison, IN. *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 4 weeks (145–150 hours). *Version 2:* 5 weeks (206 hours).

Exhibit Dates: *Version 1:* 9/71–10/75. *Version 2:* 10/66–8/71.

Objectives: To train commissioned officers, warrant officers, enlisted and civilian personnel in the techniques of system analysis, including establishment of automated systems and extension of existing systems.

Instruction: Lectures and practical exercises in data processing; systems analysis; ADP management; and statistical methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business systems analysis (3/75). *Version 2:* In the vocational certificate category, 2 semester hours in systems analysis and 2 in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in systems analysis and 2 in data processing principles (4/74); in the upper-division baccalaureate category, 2 semester hours in systems analysis (12/68).

Related Occupation Codes: 74F; 74G; 74Z.

AR-1402-0002

Computer Systems Operator
Noncommissioned Officer (NCO)

Course Number: 531-74E20.

Location: *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 2:* Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 15 weeks (173–181 hours).

Exhibit Dates: *Version 1:* 12/74–10/76. *Version 2:* 9/70–11/74.

Objectives: To teach enlisted and civilian personnel the procedures for operating automatic data processing systems.

Instruction: *All Versions:* Following a brief introduction to data processing, instruction includes lectures and practical exercises on preparation of input/output devices, operating systems for producing, assembling, compiling, and testing in a non-multiprogramming environment; operation of computer system in multiprogramming environment; operation of computer system in teleprocessing environment. *Version 1:* Instruction does not include the operation of computer system in teleprocessing environment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (3/75). *Version 2:* In the vocational certificate category, 4 semester hours in computer operations (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer operations (2/74); in the upper-division baccalaureate category, 2 semester hours in computer operations (2/74).

Related Occupation Codes: 74D.

AR-1402-0003

Automatic Data Processing (ADP)
Systems Analysis Officer
(Automatic Data Processing (ADP) Systems Analysis)

Course Number: 7E-F1; 12-G-F4; 12-1-F4.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3–4 weeks (116–161 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To train personnel in the principles and procedures of analyzing and designing automatic data processing systems.

Instruction: Introductory lectures on automatic data processing systems; COBOL programming; principles of punched-card data processing; systems and design, including program evolution and review techniques; problem definition; narrative flow techniques; record and file design; and conversion problems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in business systems analysis (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business systems analysis (2/74); in the upper-division baccalaureate category, 2 semester hours in computer programming and data processing analysis (12/68).

AR-1402-0004

Finance (FI-CMF) Noncommissioned
Officer (NCO) Basic

Course Number: 5-FI-C40.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 12 weeks (367–395 hours).

Exhibit Dates: 2/73–1/88.

Objectives: To train enlisted personnel to perform the duties of noncommissioned officers in the financial management field.

Instruction: Lectures in accounting, comptrollership, staff finance, disbursing, and management principles.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of accounting, 1 in principles of management (3/75).

Related Occupation Codes: 73C; 73D.

AR-1402-0005

Information Systems Officer (ISO)
(Basic Automatic Data Processing Systems (ADPS) Analysis)

Course Number: 7E-F22; 531-F5.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (148–152 hours).

Exhibit Dates: 8/72–12/78.

Objectives: To acquaint non-data processing personnel with general data processing principles.

Instruction: Lectures and practical exercises in punched card data-processing concepts, programming techniques, and systems analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (3/75).

Related Occupation Codes: 290A; 341A; 721A.

AR-1402-0006

Telecommunication Automation
Software Technician

Course Number: 4C-741E.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10 weeks (305 hours).

Exhibit Dates: 3/72–7/76.

Objectives: To train warrant officers to supervise data processing and telecommunications automation activities.

Instruction: Lectures and practical exercises in planning, operation, and programming of electronic data processing equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

Related Occupation Codes: 741E.

AR-1402-0007

AN/TSQ-51 System Maintenance

Course Number: *All Versions:* 4B-361A. *Version 1:* 4F-361A; 150-25K20. *Version 2:* 150-25K20. *Version 3:* 150-F2.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 42–47 weeks (1561–1633 hours). *Version 2:* 34–35 weeks (1314–1344 hours). *Version 3:* 33 weeks (1290 hours).

Exhibit Dates: *Version 1:* 1/75–5/79. *Version 2:* 12/69–12/74. *Version 3:* 5/67–11/69.

Objectives: To train enlisted personnel and warrant officers with prior experience in electronic engineering or computer maintenance to operate and maintain fire control computer-linked radar systems.

Instruction: *All Versions:* Lectures and practical exercises in theory and operation of computer-linked fire control radar systems, with emphasis on developing diagnostic testing techniques to isolate faults and repair and maintain equipment; and a general review of computer fundamentals, including numbering systems, programming concepts, flow diagrams, logic functions and circuits, registers, counters, storage devices, and input and output devices. *Version 1:* Topics include AC/DC circuit fundamentals, basic electronics (vacuum tube and solid state), digital fundamentals, machine language programming, and systems operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics and 6 in digital logic and computer science (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and 4 in digital logic and computer science (2/75); in the upper-division baccalaureate category, 3 semester hours as an elective in computer science (2/75). *Version 2:* In the vocational certificate category, 5 semester hours in digital logic or computer science (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital logic or computer science (4/74). *Version 3:* In the vocational certificate category, 5 semester hours in digital logic or computer science (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital logic or computer science (4/74); in the upper-division baccalaureate category, 2 semester hours in digital logic or computer science, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 09B; 25H; 25B, 25C; 25D; 25E; 25G; 25J; 25K; 25Z; 361A.

AR-1402-0008

PERSINSD Automatic Data
Processing (ADP) Intern
Program

Course Number: None.

Location: PERSINSD, Alexandria, VA.

Length: 26 weeks.

Exhibit Dates: 1/75–Present.

Objectives: To attract, develop, and retain qualified civilian and military personnel designated as management interns to serve as programmers and systems analysts in the Personnel Systems Command, Department of the Army.

Instruction: Through lectures, laboratory periods, video-assisted instruction, practical projects, and directed study, the following areas are covered: introduction to UNIVAC 1108 hardware; principles of data processing; systems analysis and design; COBOL programming; data communication concepts and design; operations research techniques; personnel applications project; and the UNIVAC 1100 executive operating system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in COBOL programming, 3 in data processing principles, and 2 in operating systems (5/76); in the upper-division baccalaureate category, 3 semester hours in business systems analysis (5/76).

AR-1402-0009

Auditing of Automatic Data
Processing (ADP) Systems

Course Number: 7E-F5; 14-I-F21.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 2–3 weeks (73–92 hours).

Exhibit Dates: 7/64–4/76.

Objectives: To train commissioned officers and civilians to audit data processing systems.

Instruction: Lectures and practical exercises in automatic data processing characteristics, computer programming, controls, system flow charting, data processing systems auditing, statistical sampling, and a case study project.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (4/74).

AR-1402-0010

Automatic Data Processing (ADP)
Systems Programming

Course Number: 12-Q-2404; 12-Q-745.1.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/58–12/60.

Objectives: To train warrant officers, enlisted, and civilian personnel to program automatic data processing (ADP) equipment.

Instruction: Lectures and practical exercises in ADP systems basic assembler-programming techniques, including loop and address modification, scaling, and index registers usage; advanced programming techniques; and practical programming exercises.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

Related Occupation Codes: 290A; 341A; 721A.

AR-1402-0011

1. AUTODIN Switching Center
   Specialist
2. Automatic Digital Message
   Switching (ADMS) Traffic
   Service Supervisory

Course Number: *Version 1:* 580-72G30. *Version 2:* 622-F10.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 5 weeks (160 hours). *Version 2:* 6 weeks (198 hours).

Exhibit Dates: *Version 1:* 7/70–7/76. *Version 2:* 11/68–6/70.

Objectives: To train data communications switching center specialists to operate an automatic digital message switch in an overseas AUTODIN switching center.

Instruction: Lectures and practical exercises in AUTODIN switching center equipment configuration; technical control facilities operations; off-line operations, including equipment configuration, data word formats, journal and reference trace, printouts, journal balance, tape generation, recovery operations, updating security, and on-site operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in computer operations (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in computer operations (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (4/74).

Related Occupation Codes: 72G.

AR-1402-0012

Advanced Machine Accounting

Course Number: 12-E-13.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (140 hours).

Exhibit Dates: 12/55–12/68.

Objectives: To train experienced punch card machine operators to supervise electrical accounting equipment operation and wiring.

Instruction: Lectures and practical exercises in machine records activities, procedure development and analysis, electrical accounting machine operation, recent development in electrical accounting machines, office management, and training techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in unit record data processing (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in unit record data processing (4/74).

AR-1402-0013

Stock Control and Accounting
Specialist, Skill Development
Base

Course Number: 551-76P20-I.

Location: Quartermaster School, Ft. Lee, VA.

Length: 14 weeks (480 hours).

Exhibit Dates: 2/69–9/84.

Objectives: To train stock control and accounting specialists to supervise inventory control and accounting systems.

Instruction: Lectures and practical exercises in DSU and ASDA accounting procedures, automatic data processing systems, miscellaneous accounting and administrative procedures, map reading, inspection procedures, leadership training, physical conditioning, and use of data processing techniques in inventory control.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (4/74).

Related Occupation Codes: 76P.

AR-1402-0014

Data Processing (DP-CMF)
Noncommissioned Officer (NCO)
Basic

Course Number: 5-DP-C40.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 10 weeks (319 hours).

Exhibit Dates: 11/72–10/75.

Objectives: To train enlisted personnel in basic data processing.

Instruction: Lectures and practical exercises in computer system operations, including advanced computer programming; basic ALC, RPG, and COBOL languages; data processing; advanced card punch machine operating techniques and punch card accounting machine operation; and personnel and leadership management and administration.

Credit Recommendation: In the vocational certificate category, 3 semester hours in unit record data processing, and 3 in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in unit record data processing, and 3 in computer programming (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (4/74).

Related Occupation Codes: 71U; 74D; 74E; 74F.

AR-1402-0015

Computer Programming

Course Number: 7E-F10.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 3 weeks (118 hours).

Exhibit Dates: 9/61-4/86.

Objectives: To train military and civilian personnel, who have completed an introductory automatic data processing course, in digital programming languages.

Instruction: Lectures and practical exercises in automatic data processing and numbering systems introduction, program documentation, assembler language, FORTRAN and COBOL languages, writing and debugging programs in various languages, and PL/1 and Algol languages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer concepts (11/76).

AR-1402-0016

Machine Accounting

Course Number: 12-R-753.1; 12-E-3.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 7-8 weeks (256-290 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train enlisted personnel to wire and operate electrical accounting machines and to perform related entry-level duties in machine-accounting activities.

Instruction: Lectures and practical exercises in the wiring and operation of electrical accounting machines and in related machine-accounting activities, including principles of punched-card accounting; operation of card punch, sorter, interpreter, reproducing punch, collator, accounting machine, calculating punch, and accounting machine equipment; and automatic data processing systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in unit record data processing (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in unit record data processing (4/74).

AR-1402-0017

1. Programmer/Analyst
2. Computer Programmer
3. Computer Programmer Automatic Data Processing Systems (ADPS) (Automatic Data Processing Systems (ADPS) Programming Specialist)
4. Automatic Data Processing System (ADPS) Fieldata Programming Course

Course Number: *Version 1:* 532-74F10; 532-74F20. *Version 2:* 532-74F20. *Version 3:* 532-74F20. *Version 4:* 11-R-745.1.

Location: *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 2:* Adjutant General's School, Ft. Benjamin Harrison, IN. *Version 3:* Adjutant General's School, Ft. Benjamin Harrison, IN; Security Agency School, Ft. Devens, MA. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 9-10 weeks (320-342 hours). *Version 2:* 8 weeks (304 hours). *Version 3:* 8-10 weeks (292-357 hours). *Version 4:* 10-11 weeks (356-396 hours).

Exhibit Dates: *Version 1:* 12/74-9/75. *Version 2:* 5/73-11/74. *Version 3:* 1/66-4/73. *Version 4:* 10/59-12/65.

Objectives: To train enlisted personnel in computer programming techniques.

Instruction: *All Versions:* Lectures, demonstrations, and practical exercises in compiler-level language programming techniques, including COBOL, FORTRAN, and RPG; assembler language (SAAL) for UNIVAC 1005 system; debugging procedures; program documentation; and automatic data processing fundamentals. *Version 1:* Includes lectures and practical exercises in COBOL and BAL for the IBM 360/370 until 1979. Course then utilizes structured COBOL for an IBM 4331 and IBM 360/40.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in computer programming (3/75). *Version 2:* In the vocational certificate category, 5 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 5 semester hours in computer programming (4/74). *Version 3:* In the vocational certificate category, 5 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 3 semester hours in computing science (12/68). *Version 4:* In the vocational certificate category, 5 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 5 semester hours in computing science (12/68).

Related Occupation Codes: 74F; 74G; 74Z.

AR-1402-0018

1005 Card Processor Programmer

Course Number: 532-F1.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (104 hours).

Exhibit Dates: 4/67-12/68.

Objectives: To train enlisted personnel to program and operate a Univac 1005 in assembler language.

Instruction: Lectures and practical exercises in Univac 1005 assembler language, including instruction set; looping techniques; hardware characteristics; program organization; input/output and transfer instructions; edit, multiply, divide, shift, jump return, jump exit, auxiliary read, read paper tape and punch paper tape instructions; stored program concept; and block-diagram analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer programming (4/74); in the upper-division baccalaureate category, credit in computer programming on the basis of institutional examination (12/68).

AR-1402-0019

Automated Communications Systems Staff Officer

Course Number: 4C-F14.

Location: Signal School, Ft. Monmouth, NJ.

Length: 3 weeks (104 hours).

Exhibit Dates: 8/69-7/76.

Objectives: To train military and civilian personnel in automated communications systems management.

Instruction: Lectures in computer components, number systems, input and output devices, real-time and time sharing, computer programming, data transmission and communications control, and AUTODIN and automated command systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (4/74).

AR-1402-0020

Automatic Digital Message Switching Center (ADMSC) Operation Supervisory

Course Number: 580-72G40; 4C-F10; 622-F3.

Location: Signal School, Ft. Monmouth, NJ.

Length: 7-8 weeks (242-288 hours).

Exhibit Dates: 4/68-7/76.

Objectives: To train enlisted data communications specialists and communication center officers to supervise the operation of an overseas AUTODIN automatic digital message switching center.

Instruction: Lectures and practical exercises in supervision of the operation of an overseas AUTODIN automatic digital message switching center, including computer numbering systems, block diagrams, and programming; and AUTODIN tributaries, equipment configuration and subsystems, programming, operations, and off-line operating procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 72B

AR-1402-0021

Automatic Digital Message Switching (ADMS) Programmer

Course Number: 622-F9; 4C-F15.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 10 weeks (342-362 hours). *Version 2:* 7 weeks (248 hours).

Exhibit Dates: *Version 1:* 4/70-7/76. *Version 2:* 4/68-3/70.

Objectives: To train enlisted automatic data processing programming specialists and automatic data processing plans and operations officers to write, document, and implement changes in assembly languages associated with AUTODIN automatic digital message switching centers.

Instruction: Lectures and practical exercises in writing, documentation, and change implementation in assembly languages associated with AUTODIN automatic digital message switching centers, including information flow, arithmetic and logic; shifting and branching instructions; processor configuration, programming, and console operations; and operational programming.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 7 semester hours in computer programming (4/74). *Version 2:* In the vocational certificate category, 5 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 5 semester hours in computer programming (4/74).

Related Occupation Codes: 74F.

AR-1402-0022

DATA PROCESSING (DP-CMF) NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: 5-741-C42; 5-DP-C42.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 10–12 weeks (373–444 hours).

Exhibit Dates: 12/72–6/86.

Objectives: To provide enlisted personnel with training in data processing principles and data processing analysis.

Instruction: For this course after 6/86 see AR-1402-0119. Lectures and practical exercises in automatic data processing principles, computer programming techniques, systems analysis and design, operations research techniques, data processing management techniques, creative writing, and effective speaking.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles, 2 in business systems analysis, 1 in communication skills, and 1 in management principles (3/75).

Related Occupation Codes: 74C; 74D; 74E; 74F; 74G.

AR-1402-0023

IMPROVED HAWK FIRE CONTROL REPAIR TRANSITION

Course Number: *All Versions:* 104-24H20-T. *Version 1:* 104-24H40-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 29 weeks (1152 hours). *Version 2:* 19 weeks (666–672 hours).

Exhibit Dates: *Version 1:* 1/77–8/80. *Version 2:* 1/72–12/76.

Objectives: To train enlisted personnel to maintain the electronic systems of the improved Hawk battery control central, the information and coordination central, and the improved radar signal simulator.

Instruction: Lectures and practical exercises in Hawk battery control central special circuits and test equipment; computer mathematics introduction; computer codes, logic circuits, memory units, input/output units, and control units; data processing; power unit distribution systems; radar signal simulator and associated test equipment operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in computer fundamentals, 6 in electronics laboratory (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals, 1 in electronics laboratory (8/77). *Version 2:* In the vocational certificate category, 3 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 3 semester hours in data processing principles (4/74).

Related Occupation Codes: 23Q; 24H.

AR-1402-0024

PERSONNEL DATA ANALYST SPECIALIST

Course Number: 531-74C20.

Location: *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 2:* Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 7 weeks (220 hours). *Version 2:* 6 weeks (202 hours).

Exhibit Dates: *Version 1:* 6/74–9/75. *Version 2:* 4/72–5/74.

Objectives: To train enlisted personnel to analyze and code personnel data and source documents for automated processing.

Instruction: *All Versions:* Lectures and practical exercises in the duties of personnel data analysts and specialists. *Version 2:* Course work includes principles of punched card accounting and personnel accounting systems principles and procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military nature of the course (3/75). *Version 2:* In the vocational certificate category, 1 semester hour in punch card processing (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in punch card processing (2/74).

Related Occupation Codes: 71H; 74C.

AR-1402-0025

SUPPLY AND SERVICE OFFICER

Course Number: 8A-4200; 8B-4200.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9–10 weeks (320–346 hours).

Exhibit Dates: 1/68–6/85.

Objectives: To train commissioned officers to manage supply activities.

Instruction: Lectures and practical exercises in supply operations in a theater of operations, including supply organization, supply accounting procedures, automatic data processing, procurement and property disposal, financial management, storage operations, maintenance services, military management, and mechanized stock accounting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automatic data processing, 2 in purchasing or procurement (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automatic data processing, 2 in purchasing or procurement (6/74); in the upper-division baccalaureate category, 1 semester hour in automatic data processing, 1 in purchasing or procurement (6/74).

AR-1402-0026

FIELD ARTILLERY BALLISTIC MISSILE OFFICER

Course Number: 2E-1190.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 9 weeks (319–328 hours).

Exhibit Dates: 3/68–1/90.

Objectives: To train commissioned officers to supervise tactical deployment, system maintenance, and operation of Pershing and Sergeant missile systems.

Instruction: Lectures and practical exercises in Pershing and Sergeant missile systems operations supervision. Course includes communications and electronics (equipment, procedures, and systems); digital computers; guided missiles, including warheads, launchers, and organizational and preventive maintenance; and tactical subjects.

Credit Recommendation: In the vocational certificate category, 1 semester hour in digital computer familiarization (6/74).

AR-1402-0027

IMPROVED HAWK MAINTENANCE TECHNICIAN/CHIEF TRANSITION

Course Number: 4F-251D-T; 121-24V50-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 20 weeks (670 hours). *Version 2:* 19 weeks (664–670 hours).

Exhibit Dates: *Version 1:* 8/75–11/78. *Version 2:* 1/72–7/75.

Objectives: To train warrant officers and enlisted personnel to supervise the maintenance and logistics activities for the Improved Hawk system and associated test equipment.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of maintenance activities on the Improved Hawk missile system. Course includes all aspects of the missile system and digital computer fundamentals. *Version 1:* Includes significant coverage of computer architecture and programming.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in computer fundamentals, 3 in electronics laboratory (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals (8/77). *Version 2:* In the vocational certificate category, 3 semester hours in digital computer fundamentals (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer fundamentals (6/74).

Related Occupation Codes: 251D; 24V; 251C; 23V.

AR-1402-0028

ASSOCIATE ADJUTANT GENERAL OFFICER CAREER

Course Number: 7-12-C23; 12-A-C23.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 16 weeks (589–620 hours).

Exhibit Dates: 6/62–12/68.

Objectives: To train commissioned officers, who have completed the AG officer basic course or its equivalent, in the duties and responsibilities of Adjutant General Corps officers.

Instruction: Lectures and practical exercises in the duties and responsibilities of Adjutant General Corps officers, including fundamental military subjects, general education subjects, administrative services, personnel actions, personnel management, postal services, special services, data processing, fundamentals of division operations, combat and combat service support, and command and staff operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (7/74); in the upper-division baccalaureate category, 3 semester hours in personnel management (12/68).

AR-1402-0029

SPECIAL PURPOSE EQUIPMENT REPAIR PARTS SPECIALIST, SKILL DEVELOPMENT BASE

Course Number: 551-76Q20-I.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (427 hours).

Exhibit Dates: 12/68-6/85.

Objectives: To train enlisted special purpose equipment repair parts specialists to perform as seasoned supervisors and technicians.

Instruction: Lectures and practical exercises in the duties of special purpose equipment repair parts specialist supervisors, including exercise of command, inspections, map reading, internal defense/development, field training, administration, instructor training, DSU accounting procedures, ASDA accounting procedures, automatic data processing systems, storage operations, and special purpose equipment repair parts supply.

Credit Recommendation: In the vocational certificate category, 1 semester hour in data processing (7/74).

Related Occupation Codes: 76Q.

AR-1402-0030

COMPUTER MACHINE OPERATOR
(Automatic Data Processing (ADP) Machine Operation Specialist)
(Data Processing Equipment Operator)

Course Number: *Version 1:* 531-74D10; 531-74D10 (ST). *Version 2:* 531-74D10. *Version 3:* 531-74D20. *Version 4:* 531-74D20; 531-74A10; 12-R-740.0; 531-740.0.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 3:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 4:* Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 9-10 weeks (362 hours). *Version 2:* 5 weeks (184 hours). *Version 3:* 5 weeks (168 hours). *Version 4:* 5-8 weeks (152-302 hours).

Exhibit Dates: *Version 1:* 11/83-9/87. *Version 2:* 8/79-10/83. *Version 3:* 12/74-7/79. *Version 4:* 3/59-11/74.

Objectives: To train enlisted personnel to operate automatic data processing systems.

Instruction: For this course after 9/87 see AR-1402-[illegible]17. *All Versions:* Lectures and practical exercises in the operation of automatic data processing systems. Course includes principles of punched card accounting; introduction to automatic data processing systems; preparation of i/o devices; operating systems for production, compiling, and testing in a non-multiprogramming environment; and operation of a computer system in a multiprogramming environment. *Version 1:* Does not include operating systems. *Version 2:* Includes communication with the IBM 360 computer system while operating with a Disc Operating System and a Disc Operating System Enhanced. *Version 3:* Includes instruction in unit-record equipment, including the 129 data recorder, the 083 sorter, the 557 interpreter, the 188 collator, and the Univac 1005 card processor.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in operating mainframe computers; in the lower-division baccalaureate/associate degree category, 1 semester in introduction to data processing (3/85). *Version 2:* In the vocational certificate category, 3 semester hours in unit record data processing (2/80). *Version 3:* In the vocational certificate category, 3 semester hours in unit record data processing (3/75). *Version 4:* In the vocational certificate category, 2 semester hours in unit record and computer operation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in unit record and computer operation (7/74); in the upper-division baccalaureate category, 2 semester hours in unit record and computer operation (12/68).

Related Occupation Codes: 74E.

AR-1402-0031

AUTOMATIC DATA PROCESSING SYSTEMS (ADPS) FOR STAFF OFFICERS

Course Number: FE-F2; 11-G-F3; 11-G-F1; 11-O-33.

Location: Signal School, Ft. Monmouth, NJ.

Length: 3-5 weeks (110-159 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train commissioned officers and civilians in the fundamentals, applications, and systems engineering techniques of military automatic data processing systems.

Instruction: Lectures and practical exercises in military automatic data processing systems, including computer programming, ADP systems analysis, command control systems, instruction and coding, Common Business Oriented Language (COBOL), detailed flow charting; tactical automated command control systems; and trends in computer and auxiliary equipment development.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to data processing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/74).

AR-1402-0032

COBOL PROGRAMMING

Course Number: 7E-F11.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 2 weeks (78 hours).

Exhibit Dates: 10/63-4/86.

Objectives: To provide the student with an introduction to COBOL programming and the necessary elements—language structure, compiler functions, and COBOL standards—to write programs of significant complexity.

Instruction: Course provides an introduction to ANSI COBOL including formulations of divisions, language structure, program logic and design and analysis techniques of compiled programs. Completion of several COBOL programs involving increasingly more difficult programming concepts is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL programming (11/76).

AR-1402-0033

1. FINANCIAL MANAGEMENT SYSTEMS AUTOMATED APPLICATIONS
2. FINANCIAL MANAGEMENT SYSTEMS—AUTOMATED DATA PROCESSING (ADP)

Course Number: *Version 1:* 7E-F20; 531-F4. *Version 2:* 7E-F3; 531-F3; 14-K-F20.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 4 weeks (151-160 hours). *Version 2:* 3-4 weeks (113 hours).

Exhibit Dates: *Version 1:* 7/67-12/68. *Version 2:* 5/64-6/67.

Objectives: To train officer, enlisted, and civilian personnel in financial management and supply accounting.

Instruction: Lectures in data processing, machine language and components, orientation to COBOL, accounting systems, financial management and supply accounting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in introduction to data processing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/74); in the upper-division baccalaureate category, 2 semester hours in computer programming and analysis in the field of data processing (12/68). *Version 2:* In the vocational certificate category, 3 semester hours in introduction to data processing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/74); in the upper-division baccalaureate category, 2 semester hours in data processing in financial operations (12/68).

AR-1402-0034

1. FINANCIAL MANAGEMENT—MACHINE ACCOUNTING SYSTEMS
2. FINANCIAL MANAGEMENT—MACHINE ACCOUNTING

Course Number: *Version 1:* 14-K-F14. *Version 2:* 14-L-F14.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5 weeks (189 hours). *Version 2:* 3 weeks (112-114 hours).

Exhibit Dates: *Version 1:* 7/63-12/68. *Version 2:* 5/60-6/63.

Objectives: To train officers and enlisted personnel to operate punched-card equipment and the automatic data processing for supply accounting systems.

Instruction: Lectures and practical exercises in punched-card machine operation, automatic data processing procedures and equipment operation, computer languages, and flow-charting techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in data processing or financial operations (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing or financial operations (7/74); in the upper-division baccalaureate category, 2 semester hours in data processing or financial operations (12/68). *Version 2:* In the vocational certificate category, 2 semester hours in unit record equipment (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in unit record equipment (7/74).

AR-1402-0035

1. SYSTEMS AUTOMATION
2. SYSTEMS AUTOMATION
3. AUTOMATIC DATA PROCESSING (ADP) OFFICER
   (Automatic Data Processing System (ADPS) Plans and Operations Officer)
   (Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer)
4. AUTOMATIC DATA PROCESSING (ADP) OFFICER
   (Automatic Data Processing System (ADPS) Plans and Operations Officer
   (Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer)
5. AUTOMATIC DATA PROCESSING (ADP) OFFICER

(Automatic Data Processing System (ADPS) Plans and Operationa Officer)
(Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer)

Course Number: *All Versions:* 7E-53C; 7E-2402; 7E-741C. *Version 1:* 7E55A/B/7E-741A (CT). *Version 2:* 7E-53A. *Version 3:* 7E-741A. *Version 4:* 7E-2402; 11-A-2402.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 3:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 4:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 5:* Adjutant General's School, Ft. Benjamin Harrison, IN; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 17 weeks (654 hours). *Version 2:* 17 weeks (669 hours). *Version 3:* 13 weeks (486 hours). *Version 4:* 13 weeks (462 hours). *Version 5:* 11 weeks (385-414 hours).

Exhibit Dates: *Version 1:* 5/83-2/87. *Version 2:* 7/82-4/83. *Version 3:* 5/76-6/82. *Version 4:* 7/74-4/76. *Version 5:* 7/61-6/74.

Objectives: To train commissioned and warrant officers to manage automated systems and apply automation technology in solving administrative problems.

Instruction: *All Versions:* Lectures and practical exercises in principles of automated data processing systems, communications in automated data processing systems, techniques in computer programming, and systems analysis. *Version 1:* Lectures and practical application covering introduction to ADP, computer languages, operating systems, ADP costing, handware, data base management systems, systems analysis, ADP management and teleprocessing. *Version 2:* Lectures and practical exercises including flowcharting, COBOL, FORTRAN, assembler, computer systems operations, statistics, quantitative analysis, mainframe hardware, data base mangement, systems analysis and ADP management. *Version 3:* Includes principles and techniques of automatic data processing, computer programming, quantitative analysis, systems analysis and design , and management of ADP systems. *Version 4:* Includes programming techniques in COBOL and BAL, installation management, quantitative analysis, systems analysis, and general principles of data processing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in COBOL programming and 2 in BASIC programming; in the upper-division baccalaureate category, 3 semester hours in systems and procedures and 3 in ADP management (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in COBOL, 2 in FORTRAN, 1 in assembler, 3 in operation of ADP systems and 1 in introduction to statistics; in the upper-division baccalaureate category, 2 semester hours in data base management, 3 in systems analysis and 3 in ADP management (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in quantitative analysis and decision theory, 1 in CIS language (assembler), 2 in CIS language (COBOL), 2 in CIS language (operating systems) (1/78); in the upper-division baccalaureate category, 3 semester hours in operations research and planning, 3 in management of ADP systems (1/78). Credit is to be granted in either the lower division baccalaureate/associate degree category or the upper division category but not in both. *Version 4:* In the upper-division baccalaureate category, 2 semester hours in data processing management, 1 in data processing principles, 4 in computer programming, and 3 in systems analysis (3/75). *Version 5:* In the vocational certificate category, 3 semester hours in principles of data processing, 3 in assembler language programming, and 3 in systems analysis (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing, 3 in assembler language programming, and 3 in systems analysis (7/74); in the upper-division baccalaureate category, 3 semester hours in principles of data processing (12/68).

AR-1402-0036

1. AUTOMATIC DATA PROCESSING SYSTEMS (ADPS) CONSOLE OPERATOR
2. AUTOMATIC DATA PROCESSING SYSTEM (ADPS) CONSOLE OPERATION
3. AUTOMATIC DATA PROCESSING SYSTEM (ADPS) (FIELDATA) CONSOLE OPERATION

Course Number: *Version 1:* 531-74E20. *Version 2:* 531-744.1. *Version 3:* 11-R-744.1.

Location: *Version 1:* Security Agency School, Ft. Devens, MA. *Version 2:* Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 10-11 weeks (363-395 hours). *Version 2:* 9 weeks (326 hours). *Version 3:* 9 weeks (318 hours).

Exhibit Dates: *Version 1:* 6/67-9/70. *Version 2:* 7/65-5/67. *Version 3:* 5/59-6/65.

Objectives: To train enlisted personnel to operate a computer console (IBM 1401).

Instruction: Lectures and practical exercises in the operation of a computer console (IBM 1401). Course includes electrical accounting machines; operation of tape units; coding instructions for components; production of reports using reports program generator (RPG) and general file operators (GFO).

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in principles of data processing, 3 in computer operations (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing (7/74); in the upper-division baccalaureate category, 3 semester hours in principles of data processing (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in principles of data processing, 3 in computer operations (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing (7/74); in the upper-division baccalaureate category, 5 semester hours in computer operation in the field of data processing (12/68). *Version 3:* In the vocational certificate category, 3 semester hours in principles of data processing, 3 in computer operations (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing (7/74); in the upper-division baccalaureate category, 3 semester hours in computer operation in the field of data processing (12/68).

Related Occupation Codes: 74E; 74F.

AR-1402-0037

AUTOMATIC DATA PROCESSING (ADP) FOR AUDITORS

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: *Version 1:* 2 weeks (78 hours). *Version 2:* 3 weeks (117 hours).

Exhibit Dates: *Version 1:* 3/75-3/86. *Version 2:* 1/73-2/75.

Objectives: To train auditors and internal review personnel in ADP systems concepts and controls.

Instruction: Lectures and practical exercises in automatic data processing, including ADP systems input, output, and processing characteristics and controls; organizational controls; preinstallation controls; documentation controls; computer operations controls; and tools for developing and evaluating controls.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in introduction to data processing (12/75). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in automatic data processing (12/68).

AR-1402-0038

ARMY SECURITY AGENCY CARD AND TAPE WRITER

Course Number: 531-74B20.

Location: Security Agency School, Ft. Devens, MA.

Length: 6-8 weeks (274 hours).

Exhibit Dates: 1/65-Present.

Objectives: To train enlisted personnel to be key punch operators.

Instruction: Lectures in communications fundamentals, cryptanalysis, basic data processing, automatic data processing, electrical accounting machine use, and key punch operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in data processing (2/74).

Related Occupation Codes: 74B; 74D; 74E; 74F.

AR-1402-0039

AUTOMATIC DATA PROCESSING (ADP) INTERN PROGRAM

Course Number: AMETA-22.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 15 weeks (587 hours).

Exhibit Dates: 7/71-4/86.

Objectives: Course is designed for new programmers to provide them with in-depth knowledge and practice in several programming languages, including COBOL, S360 Assembler, and Job Control Language, and in debugging techniques and systems analysis and design concepts.

Instruction: This course covers the fundamentals of computer programming; S360 Assembler Language; JCL for COBOL programmers; COBOL programming, special features, and debugging; JCL and utilities workshop; ADP systems analysis and design; COBOL access methods; and DARCOM orientation. The intern program provides a continuing environment of computing exercises and interaction with the instructors and peers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL, 3 semester hours in advanced COBOL (11/76); in the upper-division baccalaureate category, 4 semester hours in S360 Assembler Language, 3 in systems analysis (11/76).

AR-1402-0040

S360 Assembler Language

Course Number: AMETA-28.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (78 hours).
Exhibit Dates: 10/73–4/86.
Objectives: To provide an introduction to IBM S360 Assembler language and to provide the details of the language so that the student can write, test, and debug programs on an S360.
Instruction: This course provides the instruction to write programs using the S360 Assembler Language. Topics covered and practiced include instruction formats of arithmetic logic, data movement and branching instructions. Also covered are the input/output MACROS, data types and formats, including binary, character, and packed. Progressively more difficult programs are assigned to apply newly acquired programming instructions and techniques.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in S360 Assembler Language (11/76).

AR-1402-0041

Automatic Data Processing (ADP)
Systems Analysis and Design

Course Number: 7E-F18.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 2 weeks (78 hours).
Exhibit Dates: 9/64–4/86.
Objectives: To provide a study of the overall computer-based systems analysis and design process and to prepare the student to assist in the development of a system which will be consistent with the potential of the computer and management needs.
Instruction: Course provides an overview of computer systems, detailed explanation and use of systems analysis techniques, including flowcharting, grid charting document relationships, constructing decision tables, designing records and files for computer processing and case studies for application of the techniques.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer systems analysis (11/76).

AR-1402-0042

Defense Numerical Control (APT)
Part Programming
(Computer-Aided Manufacturing Part Programming (APT))
(Numerical Control Part Programming)

Course Number: AMETA-17; 7A-F46.
Location: Management Engineering Training Agency, Rock Island, IL.
Length: 3 weeks (117 hours).
Exhibit Dates: 1/71–4/86.
Objectives: To provide students with a working knowledge of the Automatically Programmed Tools (APT) language. Primary emphasis is placed on qualifying students to write part programs for numerically controlled machine tools.
Instruction: Technique training in the use of the APT part-programming language. Increasingly difficult programming exercises in writing part programs are presented and tested on appropriate computers. An actual worksite project is completed. Because of similarity of APT, UNIAPT, ADAPT, and EXAPT part-programming languages, most of the training in this course is directly applicable to those using computer languages other than APT.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in numerical control programming (11/76).

AR-1402-0043

1. Basic Assembler Language Coding (ALC)
2. Assembler Programming

Course Number: None.
Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.
Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 4–5 weeks (140 hours).
Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 6/70–12/80.
Objectives: To provide students with an understanding of Basic Assembler Language for the IBM 360/370.
Instruction: *Version 1:* Subject matter includes standard instruction set, decimal instruction set, branching, logic, Boolean instructions, editing, and translation. I/O macros, debugging, indexing and necessary job control language are included. *Version 2:* Program consists of two modules: Assembly Language Coding (also called Basic Assembler Language Coding) and Assembly Language Coding Workshop. Subject matter includes standard instruction set, decimal instruction set, branching, logic, Boolean instructions, editing, and translation. Subroutine linkage, I/O macros, debugging, indexing, and necessary job control language are included. Objectives can be accomplished through self-study or formal classroom.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in assembler programming (11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in assembler programming (5/77).

AR-1402-0044

Data Processing Principles

Course Number: None.
Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.
Length: *Version 1:* 4–5 weeks (176 hours). *Version 2:* 4 weeks (126 hours).
Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 6/70–12/79.
Objectives: To provide students with an understanding of how a computer works and its major components.
Instruction: *Version 1:* This course consists of four modules: Data Processing Concepts, Fundamentals of Programming, Structured Programming Technologies Overview, and Introduction to Systems 360/370.Students must complete each module. Subject matter included programming concepts, problem analysis, decision tables, coding, number systems, and structured design techniques. Additional problem solution techniques such as program loops, subroutes, counters and switches, and tables are covered. The architecture and organization of the IBM 360/370 are included. *Version 2:* Program consists of three modules: Computer Systems Fundamentals, (also called Data Processing Concepts) Fundamentals of Programming, and Introduction to System 360/370. Subject matter includes programming concepts, problem analysis, flow charting, decision tables, coding, number systems, and punched-card principles. Additional problem solution techniques, such as program loops, subroutines, counters and switches, and tables, are covered. The architecture and organization of the IBM 360/370 are included.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (5/77).

AR-1402-0045

Operating Systems

Course Number: None.
Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.
Length: *Version 1:* 4–5 weeks (176–184 hours). *Version 2:* 5 weeks (140 hours).
Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 6/70–12/79.
Objectives: To provide students with an overview of operating systems, with emphasis the IBM OS operating system.
Instruction: *Version 1:* Program consists of five modules: OS Concepts and Facilities, OS Job Control Language, OS Advanced Job Control Language Concepts and Techniques, OS Utilities and Workshop, and File Organization and Accessing Methods (FOAM). Course covers concepts, facilities,vocabulary, and characteristics of the IBM operating systems. *Version 2:* Program consists of six modules: Disk Operating System Job Control Language (DOS JCL), Introduction to Disk Operating Systems (DOS), (also called DOS Concepts and Job Control Language), Operating Systems (OS) Concepts and Facilities,(also called OS Concepts and Facilities) Operating Systems Job Control Language (OS JCL), Operating Systems (OS) Utilities, (also called OS Utilities Workshop) and File Organization and Access Methods (FOAM). Course covers concepts, facilities, vocabulary and characteristics of operating systems. Topics include Disk Operating Systems (DOS), DOS Job Control Language (DOS JCL), Operating Systems (OS) Concepts and Facilities, OS Utilities, OS Job Control Language (JCL), and File Organization and Access Methods (FOAM). The course objectives can be accomplished by self-study or by formal classroom.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (operating systems) (11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in operating systems (5/77).

AR-1402-0046

1. Advanced COBOL Workshop
2. COBOL Programming Advanced

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 4-5 weeks (168 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 6/70–12/79.

Objectives: To provide advanced ANS COBOL skills so that students may code complex programs.

Instruction: *Version 1:* Course consists of one module :Advanced COBOL Workshop. The lecture/workshop programs involves coding at least three programs in which skills in the following areas are developed: use of source language storage system (TSO),use of the SORT verb, table handling features, sub-programming techniques, and ISAM applications. *Version 2:* Program consists of three modules: Structured Coding Workshop, Structured Programming Technologies Overview, and Practical Workshop in Advanced COBOL (also called Advanced COBOL Workshop). The program involves modification of an Indexed Sequential Access Method (ISAM) program to conform to radically changed specifications. The student must also modify a program to run under a different operating system. Structured coding and ISAM applications are emphasized. Objectives may be accomplished through self-study or formal classroom.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (COBOL) (11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced COBOL programming (5/77).

AR-1402-0047

1. Introduction to ANS COBOL
2. Basic ANS COBOL
   (COBOL Programming)

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.

Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 3-4 weeks (140 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 6/70–12/79.

Objectives: To provide programmers with an entry level knowledge of ANS COBOL.

Instruction: *Version 1:* Program consists of Basic ANS COBOL. The ANS COBOL instructions are presented in a structured programming environment with an emphasis on the syntax of the language. Students mode at least three programs requiring a skill in data manipulation and table processing. *Version 2:* Program consists of two modules: ANS COBOL and ANS COBOL Workshop (also called Basic ANS Workshop) fundamentals. In addition, the SORT verb is included. Several practical programming exercises emphasize both sequential and indexed sequential file organization methods. Objectives can be accomplished through self-study or formal classroom presentation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (COBOL) (11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in COBOL programming (5/77).

AR-1402-0048

Business Systems Analysis

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA; Army Computer Systems Command, Support Group, Ft. Lee, VA; Army Computer Systems Command, Support Group, Ft. McPherson, GA; Army Computer Systems Command, Support Group, Ft. Shafter, HI; Army Computer Systems Command, Zweibruecken, Germany.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 4 weeks (140 hours).

Exhibit Dates: *Version 1:* 1/82–Present. *Version 2:* 6/70–12/81.

Objectives: To provide students with an understanding of systems analysis, design, and implementation for organizational problem solving.

Instruction: *Version 1:* The course comprises two modules:Systems Analysis Training for Programmers (also called Systems Analysis for Computer Programmers) and Design/Documentation Workshop. Course covers principles and techniques required in the analysis and design of information processing systems. Topics include defining objectives, interviewing and gathering information, documentation, analyzing available information, selecting and designing a solution,types of controls, quantitative techniques and structured design techniques including the top down approach, HIPO, and Program Design Language. Guidelines for distinguishing between good design and bad design are included. *Version 2:* Program consists of two modules: System Analyst Training (SAT) and Structured Design/Documentation Workshop. Course covers principles and techniques required in the analysis and design of information processing systems. Topics include defining study objectives, interviewing and gathering information, documentation, analyzing available information, selecting and designing a solution, types of controls, quantitative techniques and structured design techniques including the top down approach, HIPO, and Program Design Language.

Credit Recommendation; *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (systems analysis)(11/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business systems analysis (5/77).

AR-1402-0049

1. Communications-Electronics Advanced
2. Combat Communications-Electronics Advanced

Course Number: *Version 1:* 4-11-C22-25A. *Version 2:* 4C-OA25.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 26 weeks (955 hours). *Version 2:* 14 weeks (550 hours).

Exhibit Dates: *Version 1:* 1/82–2/85. *Version 2:* 12/76–12/81.

Objectives: To provide signal officers with the technical updating necessary to serve as staff officers.

Instruction: *Version 1:* This course familiarizes a signal corps officer with all aspects of military communications, planning, system integration, personnel training methods and military administration. An overview of communication theory with specific reference given to the functional capabilities of radio equipment, teletype systems, telephone systems, combat communications and ADP equipment is given. *Version 2:* Lectures, demonstrations and practical exercises in antenna and wave form propagation procedures, teletype, transmission, and functional systems relevant to requirements, and effective combat communications.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and management (7/85); in the upper-division baccalaureate category, 5 semester hours in system management (7/85). *Version 2:* In the vocational certificate category, 3 semester hours in introduction to data processing (4/77).

AR-1402-0050

Automated High Frequency Direction Finding (HFDF) System Operation (EELPOT)

Course Number: 231-F11.

Location: Intelligence School, Ft. Devens, MA.

Length: 5 weeks (200 hours).

Exhibit Dates: 6/76–9/86.

Objectives: To familiarize direction-finding operators with the EELPOT system, its configuration, equipment, and manned-operator positions.

Instruction: Operation of the net control processing unit (NCPU), the out-station processing unit (OPU), a video-display computer terminal, a line printer, and the direction-finding (DF) controller. Program is oriented to maintenance and operation of Honeywell equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operation (9/77).

AR-1402-0051

Security in Automated Systems (SAS)
(Security in Automatic Data Processing Systems (ADPS))

Course Number: ALMC-DX; ALM-51-0297.

Location: Logistics Management College, Ft. Lee, VA; Off-site Locations, Continental U.S.

Length: 1-2 weeks (60-78 hours).

Exhibit Dates: 6/76–Present.

Objectives: To provide students with an awareness of the necessity for and means of achieving a satisfactory level of security in automatic data processing facilities.

Instruction: Lectures and workshop exercises cover the design of security systems for automatic data processing facilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in ADP systems security (4/89).

AR-1402-0052

Operations Research/Systems Analysis Military Applications Course I

Course Number: None.

Location: Logistics Management College, Ft.Lee, VA; Logistics Management Center, Ft. Lee, VA.

Length: *Version 1:* 13 weeks (500 hours). *Version 2:* 13 weeks (500 hours). *Version 3:* 12 weeks (470 hours).

Exhibit Dates: *Version 1:* 2/89–Present. *Version 2:* 11/84–1/89. *Version 3:* 7/77–10/84.

Objectives: To provide commissioned officers and civilian personnel with knowledge and understanding of military applications of operations research and systems analysis methodologies so that they may perform and evaluate operations research and systems analysis studies.

Instruction: Course consists of lecture presentations, practical exercises, and case studies in both the theoretical nature and practical application of operation research and systems analysis methodologies. Subject-matter areas include introduction to operations research and systems analysis, probability statistics,and mathematical programming, modeling and simulation, deterministic/probablistic models, design and analysis of experiments, and decision analysis. Special emphasis is placed on military application.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic statistics, 6 in computer programming (Pascal) (3/86); in the upper-division baccalaureate category, 1 semester hour in cost analysis, 2 in quantitative methods in management (3/86); in the graduate degree category, 6 semester hours in operations research (3/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in FORTRAN IV, 3 in college mathematics (1/81); in the upper-division baccalaureate category, 3 semester hours in statistics (1/81); in the graduate degree category, 3 semester hours in operations research, an additional 3 in statistics (1/81).

AR-1402-0053

Digital European Backbone (DEB) Multiplex Equipment Repair

Course Number: 101-F17.

Location: Signal School, Ft. Gordon, GA.

Length: 5 weeks (183 hours).

Exhibit Dates: 5/77–8/79.

Objectives: Student learns to repair several specific pieces of electronic digital multiplex systems.

Instruction: The course includes a brief introduction to digital logic circuits and block diagrams and discussion of each block of the system. Emphasis is on troubleshooting the system. Actual input and output waveforms are related to system blocks.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital circuits, 2 in troubleshooting (8/79); In the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuitry, 1 in troubleshooting (8/79).

Related Occupation Codes: 26V; 32F.

AR-1402-0054

Programmer Analyst

Course Number: 532-74F10.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 6–10 weeks (368 hours).

Exhibit Dates: 10/75–1/87.

Objectives: To provide a knowledge of techniques of compiler-level language programming, using ANSI COBOL and the principles and techniques of compiler programming, and to teach students to write, analyze, interpret, and debug COBOL programs and read assembler language programs. Through

Instruction: For this course after 1/87 see AR-1402-0114. lectures, demonstrations, and laboratory exercises using the IBM 360 and supported software, students acquire knowledge of and competencies for programming functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automatic data processing, 5 in CIS COBOL (3/85).

Related Occupation Codes: 74F.

AR-1402-0055

Computer/Machine Operator

Course Number: 531-74D10.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 5 weeks (212 hours).

Exhibit Dates: 11/75–1/88.

Objectives: To provide a knowledge of the principles of punched card data processing, to introduce automatic data processing, and to prepare the student for disk operating systems and the operation of a computer system in a multiprogramming environment.

Instruction: Lectures and demonstrations emphasizing hands-on experience with the computer and peripheral equipment.

Credit Recommendation: In the vocational certificate category, 5 semester hours in computer operator training (2/78).

Related Occupation Codes: 74D.

AR-1402-0056

Management Systems Support Agency (USAMSSA) ADP Intern Program

Course Number: None.

Location: Management Systems Support Agency, Washington, DC.

Length: 16 weeks (611 hours).

Exhibit Dates: 9/77–1/88.

Objectives: To provide junior-level programmers with a basic knowledge of computer hardware and operating systems.

Instruction: Students will obtain a general knowledge of the history and scope of data processing; learn the flow of a job from submission to completion; learn to solve elementary arithmetic problems in hexadecimal and binary systems, flowchart programming problems, code basic Job Control Language statements, and code, test, and debug elementary FORTRAN and COBAL programs. Topics include fundamentals of programming, system analysis, introduction to ASKIT/CALIT/GETIT, system 370, utilities, and computer operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in COBOL programming, 2 in data processing principles, 2 in operating systems, 2 in business systems analysis (6/78).

AR-1402-0057

Integrated Facilities System

Course Number: ALMC-5D; ALM-59U210; ALM-59U260; ALM-59U310.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2–3 weeks (74–95 hours).

Exhibit Dates: 1/75–Present.

Objectives: To train functional personnel to convert to and update computer files in real property maintenance, asset accounting, and facilities engineering management systems.

Instruction: Programmed instruction texts and practical exercises in real property maintenance, asset accounting, and facilities engineering management systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in integrated facilities system application (3/86).

AR-1402-0058

Land Combat Support System Test Specialist/Lance Repair Transition.

Course Number: 121-27B20-T.

Location: Missile & Munitions Center, Redstone Arsenal, AL.

Length: Phase I, 18 weeks; Phase II, 4 weeks, for a total of 22 weeks (711 hours).

Exhibit Dates: 10/77–12/80.

Objectives: In Phase I qualified personnel (MOS 27D) are trained in the new procedures and techniques required to repair an updated version of a Land Combat Support System. In Phase II qualified personnel (MOS 27B) are trained in new procedures and techniques of repairing an updated version of a Lance Missile System.

Instruction: Phase I includes lectures and practical exercises on equipment relative to the Land Combat Support System including computer display panels, computer printers, computer processing and other computer components; Boolean algebra, logic functions, logic electronics and basic computer electronics; computer systems operation and troubleshooting including digital multimeter, programmable power supplies, waveform generators and other various test instruments. Phase II consists of lectures and practical exercises in the operation, maintenance and repair of a Lance Missile System including guidance system, rocket motor testing, storage procedure and NI-CAD battery servicing.

Credit Recommendation: In the vocational certificate category, for those completing MOS 27D 6 semester hours in computer electronics repair and maintenance (8/79); in the lower-division baccalaureate/associate degree category, for those completing MOS 27D 3 semester hours in basic computer systems, 3 in computer systems operations, 3 in computer electronics maintenance and repair (8/79). NOTE: For those students completing MOS 27B (Phase II) credit is not recommended because of the military-specific nature of the course (8/79).

Related Occupation Codes: 27B, 27D, 27Z.

AR-1402-0059

Decentralized Automated Service Support System (DAS3)

Course Number: 8B-F38; 551-ASIU8.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (141 hours).

Exhibit Dates: 3/80–Present.

Objectives: To provide selected warrant offices, noncommissioned officers, and enlisted personnel with comprehensive knowledge and skills required to operate an automated data processing system used to support a logistical management information system and a standard supply system.

Instruction: Types of instruction include equipment demonstrations, practical exercises, lectures, and performance examinations. Topics include introduction to the central processing unit and related peripheral devices, the use of application software programs, and the operation of magnetic type subsystems, line printers, and disc drives.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to computer operations (4/81).

AR-1402-0060

Systems Analysis and Design

Course Number: ADP-8.

Location: Automatic Data Processing Training Division, Zweibruecken, Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/73–Present.

Objectives: To provide a study of the overall computer based systems analysis and design process and to prepare the student to assist in the development of a system which will be consistent with the potential of the computer and management needs.

Instruction: The course provides an overview of computer systems and a detailed explanation and use of systems analysis techniques including flow charting, grid charting, document relationships, construction of decision tables, design of records and files for computer processing and case studies for application of the techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer systems analysis (10/80).

AR-1402-0061

Programming and Budgeting

Course Number: RM403.

Location: 7th Army Combined Arms Training Center, Munich, Germany.

Length: 2 weeks (71 hours).

Exhibit Dates: 4/79–4/80.

Objectives: To train fund managers in programming, administrative control of appropriations and general budgeting techniques.

Instruction: The course includes budget formulation, budget execution, reimbursements and fund control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to budgeting (10/80).

AR-1402-0062

1401 Basic Autocoder Programming

Course Number: ADP-4-OEC.

Location: 7th Army Combined Arms Training Center, Vilseck, Germany.

Length: 2 weeks (75 hours).

Exhibit Dates: 4/77–7/80.

Objectives: To provide the student with the skills needed to write autocoder programs for the IBM 1401.

Instruction: The course includes an introduction to the IBM 1401 computer and its functional characteristics, program flow charting, instruction sets, magnetic tape usage, the I/O control system and the SORT/MERGE program. Five programming problems of varying degrees of complexity are covered in the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing (10/80).

AR-1402-0063

Adjutant General Noncommissioned Officer (NCO) Advanced (Data Processing) by Correspondence

Course Number: S16.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 416 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide selected personnel with a working knowledge of automated data processing techniques and principles and supervisory skills for the management of such activities.

Instruction: Instruction is through home study modules. A course of instruction which includes principles and techniques, organizational design and management to include personnel administration, activities associated with automated data processing principles to include hardware and software concepts, analysis and design of systems survey of COBOL language and analysis techniques is included. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of management, 2 om ADP (1/81); in the upper-division baccalaureate category, 1 semester hout in personnel management, 1 in information systems (1/81). Require verification of the proctored final examination before granting credit.

AR-1402-0064

Special Correspondence Course in Information Systems Officer

Course Number: J05.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 156 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To train selected personnel in the management of ADP activities.

Instruction: Instruction is through home study modules. A course to provide the principles and techniques required for the operation and management of an ADP activity. Includes a survey of hardware and software components, a review of analysis and design functions, and a survey of COBOL processes. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in ADP (1/81).

AR-1402-0065

Disk Operating Systems (DOS) Concepts and Job Control Language (JCL)

Course Number: ADP-30.

Location: Combined Arms Training Center, Zweibruecken, Germany.

Length: 2 weeks (74 hours).

Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 5/80–12/82.

Objectives: To train personnel to use disk operating system (DOS) concepts and Job Control Language (JCL).

Instruction: *Version 1:* Lectures and hands-on computer application in the areas of DOS supervision, program status words, input/output tables, communication regions, supervisor transient areas, DOS problem program areas, and the non-resident DOS supervisor. *Version 2:* Lectures and practical exercises (no hands-on application) in the areas of DOS supervision, program status words, input/output tables, communication regions, supervisor transient areas, DOS problem program areas, and the non-resident DOS supervisor.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in Job Control Language (JCL) (10/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in Job Control Language (JCL) (10/82).

Related Occupation Codes: 74 series; 741A.

AR-1402-0066

Disk Operating System (DOS) Executive Software

Course Number: ADP-31.

Location: Combined Arms Training Center, Zweibruecken, Germany.

Length: 2 weeks self-paced (80 hours).

Exhibit Dates: 7/80–Present.

Objectives: To provide students with the necessary knowledge and skills to utilize software programs that support a disk operating system.

Instruction: Self-paced independent reading course dealing with the application of special military software packages; includes required practical exercises (without hands-on time).

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/82).

Related Occupation Codes: 74E; 741.

AR-1402-0067

Structured Coding Workshop (Structured Coding Using COBOL)

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA.; Army Computer Systems Command,Support Group, Ft. Lee, VA.; Army Comuter Systems Command, Support Group, Ft. McPherson, GA.; Army Computer Systems Command, Support Group, Ft. Shafter, HI.; Army Computer Systems Command, Zweibruecken, Germany.

Length: 1 week (40–45 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide coverage of structured coding techniques using COBOL.

Instruction: The program consists of one module: Structured Coding Workshop which covers IPO charts, top-down design tools, Nursi-Schneiderman/Chapin charts (NSCC) and structured flow charts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in data processing (structured design) (11/82).

AR-1402-0068

DAS3 Executive Language and Editor

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA.; Army Computer Systems Command, Support Group, Ft. Lee, VA.; Army Computer Systems Command, Support Group, Ft. McPherson, GA.; Army Computer Systems Command, Support Group, Ft. Shafter, HI.; Army Computer Systems Command, Zweibruecken, Germany.

Length: 1–2 weeks (59 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide programmers with the ability to create, modify, (edit) and execute tasks on the Honeywell Level 6/DAS3 computer system.

Instruction: The course consists of two modules: Introduction to DAS3 and DAS3 Executive Language and Editor Function. Detailed instruction and workshop in systems configuration and user interaction with the Level 6 MOD 400 operating system via the command processor and utilities. The course covers commands, data file organization, editor directives, linker, command files and sort-merge.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing (executive language —JCL) (11/82).

AR-1402-0069

DAS3 COBOL Specifics

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA.; Army Computer Systems Command, Support Group, Ft. Lee, VA.; Army Computer Systems Command, Support Group, Ft. McPherson, GA.; Army Computer Systems Command, Support Group, Ft. Shafter, HI.; Army Computer Systems Command, Zweibrucksn, Germany.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide experienced COBOL programmers with Honeywell Level 6 COBOL differences.

Instruction: Program consists of one module: DAS3 COBOL Specifics. This course provides a review of MOD 400 COBOL needed to create and run application programs on the Level 6 computer. Emphasis is placed on communication and file accessing concepts, data representation, differences between Version 69 and 74 COBOL.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in data processing (COBOL) (11/82).

AR-1402-0070

Introduction to Data Base Management Systems

Course Number: None.

Location: Army Computer Systems Command, Ft. Belvoir, VA.; Army Computer Systems Command, Support Group, Ft. Lee, VA.; Army Computer Systems Command, Support Group, Ft. McPherson, GA.; Army Computer Systems Command, Support Group, Ft. Shafter, HI.; Army Computer Systems Command, Zweibruecken, Germany.

Length: 1-2 weeks (64 hours).

Exhibit Dates: 1/80-Present

Objectives: To provide personnel with an understanding of data base management systems and how they operate.

Instruction: The course comprises two modules: Introduction to Data Base Concepts and Management Systems and Overview of Data Base Management Systems. Both modules must be completed. Course includes the basic components of a data base management system, various data models such as true structures, and converting logical designs into physical representations. The importance of privacy/security, tuning and other operational factors are considered. An overview of fine data base management systems is presented.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in data processing (11/82).

AR-1402-0071

Tactical Fire (TACFIRE) Support Element Liaison Officer

Course Number: 2G-ASI4D/250-ASIX3; 2G-F52.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-7 weeks (200-255 hours).

Exhibit Dates: 5/81-Present.

Objectives: To provide selected personnel with the knowledge and skills required to tactically employ, operate, and maintain the Variable Format message Entry Device.

Instruction: Self-paced instruction covering the use of the tactical fire communications system, the Variable Format Message Entry Device (VFMED),and fire support/liaison procedures using the VFMED. Course was self-paced until 12/84.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer operations (10/83).

AR-1402-0072

Tactical Fire (TACFIRE) Tactical Operations Center

Course Number: *All Versions:* 250-F14. *Version 1:* 2G-ASI4D/250-F14. *Version 2:* 2G-F53.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 4-5 weeks (160 hours). *Version 2:* Self-paced 6 weeks (280 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 5/81-12/84.

Objectives: To provide selected personnel with the knowledge and skills necessary to employ, operate, and maintain TACFIRE remote devices.

Instruction: Instruction in TACFIRE capabilities, characteristics, organization, applications, and operating procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in computer operations (10/83).

AR-1402-0073

1. Pershing II Noncommissioned Officer (NCO) Transition
2. (Pershing Noncommissioned Officer (NCO) Course)

Course Number: *Version 1:* 043-15E20/30-T. *Version 2:* 043-15E20/15E30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 4 weeks (140 hours). *Version 2:* 8-9 weeks (291 hours).

Exhibit Dates: *Version 1:* 11/84-4/86. *Version 2:* 6/80-10/84.

Objectives: To train noncommissioned officers to operate the Pershing erector-launcher and to prepare it for power operation,and to supervise emplacement and preparation of missile for firing.

Instruction: Instruction in map reading, land navigation, operation and maintenance of communications equipment, including computers.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations and 1 in map reading (10/83).

Related Occupation Codes: 15E.

AR-1402-0074

Tactical Fire (TACFIRE) Direction System Fire Support
(TACFIRE Fire Direction System Fire Support with Fire Support Element Module)

Course Number: 250-F6; 2GF30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9-11 weeks (383 hours).

Exhibit Dates: 2/79-Present.

Objectives: To provide selected fire direction operations and intelligence personnel with the knowledge and skills required to tactically employ, operate, and maintain a tactical fire direction system at the field artillery battalion and division level.

Instruction: Instruction at the systems level in the operation and organizational maintenance of a military tactical fire direction system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations, 1 in computer maintenance (10/83).

AR-1402-0075

Firefinder Radar Repairer

Course Number: 104-ASIX5.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 27-28 weeks (1001-1037 hours). *Version 2:* 24-25 weeks (927 hours).

Exhibit Dates: *Version 1:* 9/83-Present. *Version 2:* 2/82-8/83.

Objectives: To provide the skills and knowledge required to inspect, test, and perform direct support maintenance at the block diagram level of field artillery firefinder sets.

Instruction: Lecture and laboratory instruction in basic electronics, digital fundamentals and logic, operation of radar sets, direct support maintenance and calibration procedures required to provide mission support maintenance on field artillery firefinder radar equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radar maintenance and operation, 3 in digital theory (11/85). *Version 2:* In the vocational certificate category, 3 semester hours in electro-mechanical devices repair, 3 in radar maintenance and repair (10/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuits, 3 in basic digital theory, 3 in computer technology (10/83).

AR-1402-0076

Teleprocessing Operations Officer Course II

Course Number: None.

Location: Signal Center, Ft. Gordon, GA.

Length: 28 weeks (320 hours).

Exhibit Dates: 6/80-1/89.

Objectives: To provide senior commissioned officers with a thorough working knowledge of real-time, digital tactical, teleprocessing operations.

Instruction: Advanced-level instruction in algorithm design, digital systems, logic design, operating systems and file structures, software, systems acquisition, system architecture, minicomputers and microprocessors, software engineering, and computer data base systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in algorithm design using PASCAL, 3 in introduction to microprocessors, 3 in structural design (2/84); in the graduate degree category, 3 semester hours in digital logic and computer design, 3 in operating systems, 3 in computer management - software acquisition, 3 in computer data base systems (2/84).

AR-1402-0077

Overseas AUTODIN Switching Center Programmer

Course Number: 4C-F15.
Location: Signal Center, Ft. Gordon, GA.
Length: 16–17 weeks (640 hours).
Exhibit Dates: 9/80–10/89.

Objectives: To provide officer and warrant officer personnel with a working knowledge of the techniques required to write, document, and implement changes to the master programs of the overseas AUTODIN (automatic digital message switching center).

Instruction: Lectures and practical exercises in the use of FORTRAN and assembly languages for the PDP-11 and PHILCO-102; systems programming and operation of the AUTODIN RSX-11 system; topics include information, arithmetic, and logic; shifting and branching instructions; PMD analysis for FORTRAN and assembly languages; processor configuration, programming techniques and console operations; operational programming.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to FORTRAN programming, 6 in Assembly language programming (2/84); in the upper-division baccalaureate category, 3 semester hours in introduction to operating systems (telecommunications) (2/84).

AR-1402-0078

Automatic Message Switching Central AN/TYC-39(V)
(Automatic Message Switching Central (AN/TYC-39))

Course Number: 260-ASIZ2.
Location: Signal School, Ft. Gordon, GA.
Length: 7–8 weeks (263 hours).
Exhibit Dates: 7/82–Present.

Objectives: To provide the student with the ability to perform duties of a mobile automatic message switching central operator/supervisor.

Instruction: Nontechnical instruction in the operation of AN/TYC-39 system to include system start-up and management, traffic service and file control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/90).

Related Occupation Codes: 72E.

AR-1402-0079

Automatic Message Switching Central AN/TYC-39 Repairer

Course Number: 622-ASIP3, 622-F20.
Location: Signal School, Ft. Gordon, GA.
Length: 10–11 weeks (399 hours).
Exhibit Dates: 1/83–7/86.

Objectives: To train personnel to install and perform basic maintenance on an automatic message switching system.

Instruction: Course includes functional capabilities and purpose of an automatic switching system and its subsystems including installation and basic maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance of automatic telephone switching equipment (7/85).

AR-1402-0080

Decentralized Automated Service Support System (DAS3)/Direct Support Unit Standard Supply System (DS4)
(DAS3/DS4 Operator)

Course Number: 8B-F39/551-ASIM6.
Location: Quartermaster School, Ft. Lee, VA.
Length: 7 weeks (250 hours).
Exhibit Dates: 1/85–2/88.

Objectives: To train personnel to operate a Decentralized Automated Service Support System and a Direct Support Unit Standard Supply System.

Instruction: Lecture and practical experience in the operation of decentralized, mobile computer systems including the system hierarchy and commands, development of program logic, applications programs, electronic data processing site management and preparation of the van for movement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in computer operations, 3 semester hours in systems analysis (8/85).

AR-1402-0081

Advanced Materiel Management

Course Number: 8-10-0A-92A.
Location: Quartermaster School Ft. Lee, VA.
Length: 8 weeks (286 hours).
Exhibit Dates: 5/85–Present.

Objectives: To prepare the student to plan, program, and supervise a materiel management center in the field.

Instruction: Lecture, discussion and practical exercises in materiel management direct and general support activities, including the management of manual and automated systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic data processing operations (8/85), in the upper-division baccalaureate category, 3 semester hours in logistics planning (8/85).

AR-1402-0082

Tactical Fire (TACFIRE) Operations Specialist

Course Number: 250-13C10.
Location: Field Artillery School, Ft. Sill, OK.
Length: 4–5 weeks (173–181 hours).
Exhibit Dates: 1/85–2/89.

Objectives: To provide training in the TACFIRE direction system.

Instruction: Lectures and demonstrations on the TACFIRE system capabilities organization, application, operating procedures, map reading, operation of radio sets, operational maintenance of communications equipment. For course after 2/89, see AR-1715-0832.

Credit Recommendation: In the vocational certificate category, 1 semester hour in map reading, 1 in radio operations, 1 in operational maintenance (11/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations (6/89).

Related Occupation Codes: 13C.

AR-1402-0083

Tactical FIRE (TACFIRE) Battalion Fire Direction Officer

Course Number: 2G-F57.
Location: Field Artillery School, Ft. Sill, OK.
Length: 7 weeks (252–266 hours).
Exhibit Dates: 7/85–Present.

Objectives: To provide training to selected personnel to perform as tactical fire (TACFIRE) battalion fire direction officers.

Instruction: Lectures and demonstrations on the TACFIRE system, equipment, organization, operation, operating procedures, and maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations, 1 in maintenance management (1/88).

AR-1402-0084

Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element

Course Number: 2E-ASI4F/250-ASIY1.
Location: Field Artillery School, Ft. Sill, OK; Field Artillery School, 7th Army, Grafenwoehr, Germany.
Length: 6–7 weeks (237–266 hours).
Exhibit Dates: 7/85–Present.

Objectives: To provide training to selected personnel to perform as tactical fire (TACFIRE) fire direction control officers and noncommissioned officers.

Instruction: Lectures and demonstrations on employing, operating, and maintaining the tactical fire (TACFIRE) direction system, applications of data processing, and fire control elements.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations, 1 in maintenance management (10/87).

AR-1402-0085

Operations Research Systems Analysis Military Applications Course II

Course Number: ALMC-SK.
Location: Logistics Management Center, Ft. Lee, VA.
Length: 3 weeks (113 hours).
Exhibit Dates: 2/83–5/89.

Objectives: To provide a refresher program in operations research systems analysis techniques to previously trained analysts.

Instruction: Lecture conference and case instruction in statistical analysis (including regression, correlation, and analysis of variance), linear programming, PERT and other network analysis, risk analysis, and fundamentals of decision analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hour in business statistics (3/86), 1 semester hour in quantitative methods in business (3/86).

AR-1402-0086

Ammunition Stock Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
(Ammunition Stock Control and Accounting Specialist Basic Technical)

Course Number: 551-55R30.

Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 7-10 weeks (261-363 hours).
Exhibit Dates: 4/85-Present.
Objectives: To provide personnel with the skills and knowledge required to perform ammunition stock control and accounting duties, and operation of computer equipment associated with the Standard Army Ammunition System.
Instruction: Personnel will be trained to operate the computer equipment associated with the Standard Army Ammunition System. Includes use of software and routine maintenance of line printer, teleprinter and magnetic tape units.
Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to computer operations (10/89).
Related Occupation Codes: 55R.

AR-1402-0087

Chaplain Assistant
(Chaplain's Assistant)
(Chapel Activities Specialist)

Course Number: 561-71M10.
Location: Chaplain Center and School, Ft. Monmouth, NJ.
Length: *Version 1:* 8-9 weeks (306 hours). *Version 2:* 8-9 weeks (311 hours).
Exhibit Dates: *Version 1:* 6/89-Present. *Version 2:* 10/85-5/89.
Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to develop interpersonal interaction skills, provide comfort to distressed people, prepare a chapel for various religious services, assist in tactical deployment, operate a motor vehicle safely, and perform various basic clerical skills, including typing and filing. *Version 2:* Upon completion of the course the student will be able to comfort distressed persons, prepare a chapel for various religious services, assist in tactical deployment, operate a motor vehicle safely, and perform various basic clerical skills, including typing and filing.
Instruction: *Version 1:* Topics include interpersonal interaction skills, chapel preparations, identification of ecclesiastical vestments and items, religious training and worship scheduling, religious practices, motor vehicle operation, tactical deployment equipment, casualty assistance, administrative office practice, typing, and filing. *Version 2:* Topics include chapel preparations, identification of ecclesiastical vestments and items, religious training and worship scheduling, religious practices, motor vehicle operation, tactical deployment equipment, casualty assistance, administrative office practice, typing, and filing.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in interpersonal communications, 1 in data entry/keyboarding, and 1 in clerical duties (filing and typing) (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in data entry/keyboarding and 1 in clerical duties (filing and typing) (4/87).
Related Occupation Codes: 71M.

AR-1402-0088

Pastoral Coordinator

Course Number: 5G-ASI7F.
Location: Chaplain Center and School, Ft. Monmouth, NJ.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/84-Present.
Learning Outcomes: Upon completion of the course the student will be able to prepare a computerized comprehensive master plan of religious activities taking into account budgeting, manpower, and resource considerations, to monitor program execution, and to account for fund expenditures.
Instruction: Topics include microcomputer applications to planning, programming, budgeting, contracts and property, manpower considerations, and spiritual dimensions.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications (4/87); in the upper-division baccalaureate category, 1 semester hour in budget management (4/87).

AR-1402-0089

Technical Control and Analysis Center Operator, AN/TSQ-130 (V)

Course Number: 232-F5.
Location: Intelligence School, Ft. Devens, MA.
Length: *Version 1:* 5 weeks (171-172 hours). *Version 2:* 3-4 weeks (136 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/85-9/88.
Learning Outcomes: Upon completion of the course, the student will be able to operate a TCAC to draft, format and process messages, to manipulate the data base, to monitor message flow as well as prepare the system for relocation and reinstallation.
Instruction: Instruction includes hands-on training in the operation and reinstallation of a technical control and analysis center, including the use of function keys and management of the data base.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations (5/87).

AR-1402-0090

Electronic Processing and Dissemination System Operator/Analyst

Course Number: 3B-F9/233-F11.
Location: Intelligence School, Ft. Devens, MA.
Length: 9-10 weeks (353 hours).
Exhibit Dates: 6/84-12/86.
Learning Outcomes: Upon completion of the course, the student will be able to operate the electronic processing and dissemination system and perform operational analyses on the data base at the operator position.
Instruction: Lectures, tapes, demonstrations, and performance exercises in startup and shutdown of system, executing data transfers, processing and analyzing data bases, operating and performing analysis within the interim tactical electronic processor.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer familiarization (5/87).

AR-1402-0091

Electronic Processing and Dissemination System Operator/Analyst

Course Number: 243-F10/232-F7.
Location: Intelligence School, Ft. Devens, MA.
Length: 4-5 weeks (157 hours).
Exhibit Dates: 6/84-12/86.
Learning Outcomes: Upon completion of the course, the student will be able to operate the electronic processing and dissemination system and perform operational analyses on the data base at the operator position.
Instruction: Lectures, tapes, demonstrations, and performance exercises in start-up and shut-down of systems, in executing data transfers, and processing and analyzing the data base.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer familiarization (5/87).

AR-1402-0092

Advanced Noncommissioned Officer (NCO) MOS 74D/F Basic

Course Number: 7-71-C42.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.
Length: 5-17 weeks (168-444 hours).
Exhibit Dates: 3/81-Present.
Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.
Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning COBOL; in the upper-division baccalaureate category, 1 semester hour in statistics and 3 in systems analysis (3/85). See AR-1404-0035 for Common Core credits.
Related Occupation Codes: 74D/F.

AR-1402-0093

Advanced Noncommissioned Officer (NCO) MOS 74F/F Advanced

Course Number: 7-71-C42.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.
Length: 5-17 weeks (168-444 hours).
Exhibit Dates: 3/81-Present.
Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.
Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in systems analysis and 3 in advanced COBOL (3/85).See AR-1404-0035 for Common Core.
Related Occupation Codes: 74D/F.

AR-1402-0094

Console Control Operations

Course Number: WHO2.
Location: White House Communications Agency, Washington, D.C.

Length: Phase 1, classroom: 10 weeks (96 hours); Phase 2, practicum: 14 weeks (168 hours).

Exhibit Dates: 3/78–Present.

Learning Outcomes: Upon completion of the course, the student will be able to act as a communications assistant for information and provide communication to the members of the Executive Branch of the government; establish and operate voice transmissions which insure security, both on telephone lines and radio nets; integrate telephone/radio communications from ground, mobile, and air units; establish telephone communications as requested, including mobile phone calls, matrix calls, conference calls, and special-handling calls between top government officials; provide emergency communications systems for the Executive Branch as required.

Instruction: Topics include the organization of the Executive Branch; computer training; communications security and installation of communications networks including telephone, radio, and satellite; installation and use of sophisticated telecommunications systems, both commercial and military; maintenance of records and files of daily telephone communications; operation of switchboard consoles. Instructional methods include lectures, seminars, and practical exercises. Course includes 14 weeks of supervised on-the-job training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (9/87).

AR-1402-0095

Standard Port System-Enhanced/Decentralized Automated Service Support System (DASPE-E/DAS3)

Course Number: 531-ASIM6.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 7 weeks (252 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and perform operator maintenance on computer software and hardware.

Instruction: Lectures, practical exercises and demonstrations on the use of the Army Standard Post System-Enhanced/Decentralized Automated Service Support System. Includes identification of major system components, power-up/power-down procedures; entering of data and document production; processing data and production of status reports; generating tables and report printouts; and downloading data to microcomputers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operation (3/88).

AR-1402-0096

Director of Information Management (DOIM)/Echelons Above Corps (EAC) Operations Officer

Course Number: 7E-F35/531-F10.

Location: Signal School, Ft. Gordon, GA.

Length: 5 weeks (180 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to disseminate Army information using telecommunications, automation, print media, and visual presentations.

Instruction: Instruction includes classroom, laboratory exercises, tours of various media production sites, terrestrial transmission and satellite communications systems, defense data systems, records management, and print/visual methods of presentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in methods of information dissemination (6/88).

AR-1402-0097

Advanced Theory and Expert System Building
(Advanced Course in Artificial Intelligence Theory and Expert Systems Building)

Course Number: 7E-F37/150-F11.

Location: Signal School, Ft. Gordon, GA.

Length: 3–4 weeks (116–150 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will possess a working knowledge of the theory of artificial intelligence as it relates to expert systems building. The student will also possess a working knowledge of artificial intelligence software.

Instruction: Lectures and practical exercises in predicate logic, PROLOG, LISP, SEARCH, and knowledge representation. Includes case studies and hands-on experience with graphics-oriented artificial intelligence software.

Credit Recommendation: In the graduate degree category, 2 semester hours in artificial intelligence (6/90). A student completing both this and 7E-F36/150-F10 should receive a total of 3 semester hours in artificial intelligence.

AR-1402-0098

1. Expert Systems Architecture and Object-Oriented Programming
2. Expert Systems Architecture and Advanced Skills in Object-Oriented Programming

Course Number: *Version 1:* 7E-F38/150-F12. *Version 2:* 7E-F38/150-F12.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 3 weeks (116 hours). *Version 2:* 8 weeks (304 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 4/88–9/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will perform advanced programming techniques for expert systems architecture and object-oriented programming environments. *Version 2:* Upon completion of the course the student will be able to do advanced expert systems development without technical supervision.

Instruction: *Version 1:* Lectures and exercises in advanced LISP programming, debugging methods, and user/designer interfaces. The course is a logical extension of 7E-F37/150-F11. *Version 2:* Lectures and practical exercises in advanced LISP programming, object-oriented programming, advanced issues in expert systems architecture and the use of LISP machines to build large expert systems with graphics-based user interfaces. This course is a logical extension of 7E-F37/150-F11.

Credit Recommendation: *Version 1:* In the graduate degree category, 2 semester hours in advanced problem solving in artificial intelligence (6/90). *Version 2:* In the graduate degree category, 3 semester hours in advanced problem solving in artificial intelligence (6/88).

AR-1402-0099

Knowledge Engineering and Basic Expert Systems Building

Course Number: 7E-F36/150-F10.

Location: Signal School, Ft. Gordon, GA.

Length: 2 weeks (73–78 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will possess a working knowledge of problem assessment, design, cost analysis, testing techniques and methodologies for the project management and building of rule-based expert systems.

Instruction: Lectures and practical exercises in problem solving, construction of knowledge systems, evaluation of knowledge systems and the construction of expert systems prototypes.

Credit Recommendation: In the graduate degree category, 1 semester hour in artificial intelligence (6/88).

AR-1402-0100

Data Processing Systems Repair Technician Warrant Officer Advanced

Course Number: 4-11-C32-387A.

Location: Signal School, Ft. Gordon, GA.

Length: 14 weeks (527 hours).

Exhibit Dates: 10/86–12/88.

Learning Outcomes: Upon completion of the course the student will be able to lead and manage subordinates in air/land battle and make use of electronic warfare, communications, data processing and logistics.

Instruction: Course includes a common core of leadership subjects. Classroom lectures designed to broaden the intellectual depth, managerial ability, and leadership skills of warrant officers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer literacy and 1 in leadership (6/88).

AR-1402-0101

Tactical Army Combat Service Support Computer System/Standard Army Maintenance System (TACCS/SAMS)

Course Number: 551-ASIB5.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (108 hours).

Exhibit Dates: 10/87–Present.

Objectives: Upon completion of the course, the student will understand the operation of a microcomputer-based system and an applications-oriented system designed for this hardware and will become proficient in keyboarding skills to enter data and commands to the system.

Instruction: Classroom lectures, demonstration, and practical exercises needed to teach the operation of microcomputer operations including diskette and tape cassette drives and printer operation; applications system operation includes all functions associated with data input, processing, reports, and file backups.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in microcomputer applications (10/88).

AR-1402-0102

Decentralized Automated Service Support System (DAS3) and The Direct Support Unit Standard Supply System (DS4) Operator

Course Number: 8B-F39/551-ASIM6.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (212 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand the operation of a minicomputer environment including a full complement of peripheral devices, and will understand the functions of an operating system used to control the computer hardware.

Instruction: Classroom lectures, demonstrations, and practical exercises are used to teach the operation of a minicomputer and associated tape drives, printer, communications gear, and disk drives. The function and operation of the operating system exposes the student to console control of applications jobs, utilities, backup processes and problem determination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer operations (10/88).

AR-1402-0103

Multiple Virtual Storage (MVS) 5 Concepts and Operations

Course Number: MVS 5.

Location: Combined Arms Training Center, Pirmasens, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the function of IBM 4341 OS/VS2 Multiple Virtual Storage (MVS) job control language (JCL); list the nine JCL statements and code simple JCL statements; identify standard IBM utility programs and be able to code JCL to execute simple utility functions; explain the concept of virtual storage and the functional areas of MVS; describe the path of a job through the system; explain how processing interaction occurs; initialize an OS/VSL MVS system and use system commands; use JES 2 commands; explain relationships among VTOCS, labels, and control blocks.

Instruction: Methods of instruction includes lectures, hands-on experience, examinations, and demonstrations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer operations (10/88).

AR-1402-0105

Multiple Virtual Storage (MVS) 3 Advanced Concepts

Course Number: MVS 3.

Location: Combined Arms Training Center, Pirmasens, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to do the following on an IBM 4341 OS/V52 Multiple Virtual Storage (MVS) system: Code simple skeletal assembler programs; use macros to invoke the functions of the program, task, and data management systems; locate and map control blocks and data areas in virtual storage dumps.

Instruction: Methods of instruction include classroom lecture, examination, practical exercise (including hands-on) and demonstration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer concepts (10/88).

AR-1402-0107

COBOL Programming

Course Number: ADP 27.

Location: Combined Arms Training Center, Munich, W. Germany.

Length: 2 weeks (73 hours).

Exhibit Dates: 5/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to read, write, and debug simple COBOL programs including program structures (divisions), input/output, arithmetic and logic operations.

Instruction: Methods of instruction include lecture, demonstration, program writing, program entry on a computer, execution and analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to COBOL (10/88).

AR-1402-0108

Structured Systems Analysis and Design

Course Number: ADP 50.

Location: Combined Arms Training Center, Munich, W. Germany.

Length: 2 weeks (69 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze data flow and operation of existing systems, then design new, structured systems; prepare specialized forms for analyzing data (for example, grid charts, decision tables, data flow diagrams, data dictionaries, and structure charts).

Instruction: Methods of instruction include lecture, practical exercises (simulations), and study of text material.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to structured systems (10/88).

AR-1402-0109

Tactical Army Combat Service Support Computer System (TACCS) Programming

Course Number: ADP 30.

Location: Combined Arms Training Center, Munich, W. Germany.

Length: 2 weeks (73 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe and explain: the computer structure and capabilities of the military computer system (TACCS); unpack, set up, and check out the functioning of the TACCS unit; use floppy diskettes to install software; create and modify text files; utilize password protection to safeguard files; create an archival volume; access files; describe difference between compilers and interpreters, program development and the sequence of compile-link-execute; compile and execute programs in COBOL, BASIC, and PASCAL; use a systems debugger to locate and modify memory; explain basic communication concepts and use a terminal emulator for initiation of asynchronous terminal emulator communications; build and transmit a file; perform bootstrap ROM diagnostic functions and correct malfunctions noted by monitor error codes; define system errors and status codes; interpret error messages; perform recovery procedures; perform reboot procedures.

Instruction: Through lecture/conference classes and practical exercises, the student is taught and then performs hands-on exercises in setting up a computer system followed by activation and fault isolation; instruction in and application of software; understanding and use of the programming languages of COBOL, BASIC, and PASCAL; instruction in procedures for administration functions and security of files; procedures for performing system manager functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of computer applications (10/88).

AR-1402-0110

SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator

Course Number: 531-F8(75B/C/F).

Location: Adjutant General School, Soldier Support Center, Ft. Benjamin Harrison, IN.

Length: 2 weeks (75 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate a microcomputer-based personnel information system, word processing, graphics, and spreadsheet package.

Instruction: Instruction includes classroom instruction and practical exercises in the hardware components of a microcomputer system to include the keyboard, printer, monitor, switches, and both the operating system software and application software which includes word processor, graphics package, spreadsheet, and a personnel system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputers (or in computer literacy) and 1 in computer applications (12/88).

Related Occupation Codes: 75B; 75C; 75F.

AR-1402-0111

Target Acquisition Radar Technician–Warrant Officer Advanced

Course Number: 2-6-C32-131A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3–4 weeks.

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to communicate effectively, both orally and in writing, edit military correspondence, provide leadership to technical staff, coordinate with agencies in the military community, use word processing and Lotus 1-2-3 software, and apply supply and management concepts.

Instruction: Lectures on the latest technological changes and advanced concepts in occupational fields with emphasis on effective communication skills, leadership ability, supply and management concepts and hands-on experience in word processing and spreadsheet software use.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to application software (Lotus 1-2-3) (6/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications (oral and written) (6/89).

AR-1402-0112

OH-58D FIELD ARTILLERY AERIAL FIRE SUPPORT OBSERVER

Course Number: 250-F32.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5 weeks (218 hours).

Exhibit Dates: 3/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as an aerial observer, providing fire support information for artillery organizations at the brigade level, able to operate specialized, new technology systems including a computerized laser-guided system, thermal imagery optics, digital message device and laser rangefinder; perform procedures for requesting and directing accurate artillery fire; able to provide advice and guidance to commanders for the coordinated use of all fire support assets.

Instruction: Conferences, simulations and extensive practical exercises, followed by field training exercises which emulate live fire digital missions by day and night; flight training and aerial missions to develop skill proficiency; examinations to test competence in topics such as fire support planning, use of communications equipment (voice and digital messages), use of special munitions and their guidance systems, offensive and defensive operations and procedures for adjusting artillery fire on targets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in communications system operations (6/89).

AR-1402-0113

BRANCH AUTOMATION OFFICER

Course Number: 7E-SI4H.

Location: Signal School, Ft. Gordon, GA.

Length: 10-11 weeks (382 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the duties of a data processing manager; able to specify, acquire, and develop data processing systems; use software application packages; demonstrate a working knowledge of operating systems, hardware architecture, local area networks, structured programming, and data base management techniques; able to manage implementation and maintenance of data processing systems.

Instruction: Lectures, practical exercises, and exams on topics including computer hardware architecture, operating systems, software application packages, systems analysis and design, local area networks, project management, data base management, structured programming and system testing, implementation and management. Both microcomputers and mainframes are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to systems analysis, 3 in computer literacy, 1 in data base management, 1 in operating systems, 1 in computer programming concepts, and 3 in data communications; in the upper-division baccalaureate category, 3 in computer systems management (7/89).

AR-1402-0114

PROGRAMMER/ANALYST

Course Number: 532-74F10(ST).

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: 9-11 weeks (322-396 hours).

Exhibit Dates: 2/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to prepare flow charts for a project; and analyze, write, modify, and debug COBOL programs.

Instruction: For this course before 2/87 see AR-1402-0054. Classroom lectures, exercises, and demonstrations using appropriate computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automated data processing and 5 in COBOL programming (5/90).

Related Occupation Codes: 74F.

AR-1402-0115

SYSTEMS AUTOMATION

Course Number: *Version 1:* 7E-53A. *Version 2:* 7E-53A/B/7E-741A(CT).

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 19-20 weeks (716 hours). *Version 2:* 17 weeks (654 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 3/87-12/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to perform the duties of an information systems engineer; able to demonstrate a working knowledge of MS-DOS, UNIX, and a Burroughs operating system, a specific commercial microcomputer spreadsheet, word processor, data base, and graphics program, security management concepts, acquisition management concepts, information center management concepts, hardware architecture and data communications concepts; able to completely install and troubleshoot an Ethernet local area network; demonstrate a working knowledge of two international data communication standards, basic concepts of digital electronics, and concepts of software engineering; able to design a data base system and program in Ada and DB III; able to design, develop, and build expert systems. *Version 2:* The student will demonstrate the skills needed to manage the development, maintenance, operation, security, and application of data processing systems; able to program in COBOL; able to demonstrate a working knowledge of a number of mainframe operating systems; able to use structured systems analysis techniques to analyze and design systems; able to design data communications systems; able to define software requirements and write software specifications; and manage the development and maintenance of software.

Instruction: *Version 1:* Lectures, practical exercises, computer-aided instruction, and tests over the course topics. This is a rigorous and intensive course covering the topics in great depth. Only personnel with baccalaureate degrees that support advanced study in computer science and information systems engineering are admitted to the course. *Version 2:* Lectures, practical exercises and tests on the topics covered. This is an intensive course with the topics covered in great depth.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in operating systems, 3 in data communications, 1 in DB III programming, 3 in application software, and 1 in digital principles; in the upper-division baccalaureate category, 3 semester hours in advanced data communications, 3 in software system design, 3 in Ada programming, and 3 in information systems management; in the graduate degree category, 3 semester hours in expert systems and 2 in system data base (7/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in COBOL, 2 in mainframe operating systems, and 3 in computer literacy; in the upper-division baccalaureate category, 3 semester hours in systems analysis, 1 in data communications, 3 in software engineering, and 3 in information systems management (7/89).

Related Occupation Codes: 53A.

AR-1402-0116

COMPUTER/MACHINE OPERATOR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 531-74D30.

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: 3-4 weeks (120 hours).

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course the student will write operating system control statements; correct a production halt or abnormal termination; and devise a continuity of operation plan for a military data handling computer.

Instruction: Classroom and practical exercises using the applicable computer. Course includes a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems operation (7/89). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 74D.

AR-1402-0117

COMPUTER SYSTEMS OPERATOR

Course Number: 531-74D10/531-74D10(ST).

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: 6-7 weeks (239 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a data processing computer including input/output devices and perform automated data processing support functions.

Instruction: Classroom and practical exercises using the appropriate equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to data processing and 3 in computer systems operation (7/89).

Related Occupation Codes: 74D.

AR-1402-0118

TACTICAL ARMY COMBAT COMPUTER SYSTEM (TACCS) SOFTWARE

Course Number: 7E-F33/532-F4.

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: 3-4 weeks (138 hours).

Exhibit Dates: 1/87-10/89.

Learning Outcomes: Upon completion of the course the student will be able to perform the duties of a computer programmer/analyst. This includes operating and managing a computer system by using operating system tools for signon, signout, initial program load, file management, file transfer, and program compilation and linking (COBOL, BASIC, PASCAL), and using typical application packages (word processing and spreadsheets).

Instruction: Classroom and laboratory exercises involving a military combat service support computer system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy and 3 in computer system operation (7/89).

AR-1402-0119

1. Data Processing Advanced Noncommissioned Officer (NCO)
2. Advanced Noncommissioned Officer (NCO) Data Processing

Course Number: 5-741-C42.

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Gordon, GA.

Length: *Version 1:* 14-15 weeks (518 hours). *Version 2:* 14-15 weeks (528 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 7/86-12/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to use LOTUS 1-2-3, Multimate, and DB III; program in DB III and Ada; configure and design data communications networks; manage the acquisition, installation, maintenance, and security of information systems; demonstrate a working knowledge of and design expert systems. *Version 2:* Student will be able to write COBOL programs; use LOTUS 1-2-3, Multimate, and DB III; demonstrate a working knowledge of operating systems, data processing procedures, and security.

Instruction: *Version 1:* Lectures and practical exercises over the topics. *Version 2:* Lectures and practical exercises over the topics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in application software, 1 in DB III programming, 2 in Ada programming, 2 in data communications; in the upper-division baccalaureate category, 3 in information systems management; in the graduate degree category, 2 semester hours in expert systems (7/89). For credit for the common core see AR-1404-0035. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in COBOL programming, 1 in application software, and 2 in data processing principles; in the upper-division baccalaureate category, 3 semester hours in systems analysis (7/89). For credit for the common core see AR-1404-0035.

AR-1402-0120

Programmer/Analyst Basic Noncommissioned Officer (NCO)

Course Number: 532-74F30.

Location: Signal School, Ft. Gordon, GA; Institute for Administration, Ft. Benjamin Harrison, IN.

Length: 10 weeks (368 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to use techniques of systems analysis to design, implement or modify computer systems; manage such systems, including security capacity, quality assurance, and network considerations; create or manage system data base by using various techniques and writing COBOL programs; update and manipulate indexed sequential files, and create screen forms and associated interactive programs.

Instruction: Classroom instruction in the various topic areas and practical application of theory using case studies as well as introductions to the Honeywell system and the Tactical Army Computer System. Course includes a common core of leadership subjects.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in systems analysis and 3 in data base management systems (7/89). For credit for the common see AR-1406-0090.

Related Occupation Codes: 74F.

AR-1402-0122

Fire Direction Officer

Course Number: TS111B.

Location: Seventh Army Combined Arms Training Center, Vilseck, West Germany.

Length: 7-8 weeks (290 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain the computer system known as TACFIRE; power up the system, load database, compose and transmit message formats, modify the operations system data base, and reconfigure the system to operate under alternative mode operations; enter, retrieve, and validate files; print plans and lists; load and perform maintenance procedures to correct a system malfunction.

Instruction: Conference, practical exercises, simulations of operational missions, exercises to troubleshoot malfunctions, and written examinations to test competence in topics such as computer operations, processing messages, malfunctions and corrections, maintenance procedures, and computer systems functioning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/89).

AR-1402-0123

Tactical Fire (TACFIRE) Tactical Operations Center

Course Number: TS112.

Location: Seventh Army Combined Arms Training Center, Vilseck, West Germany.

Length: 5-6 weeks (211 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to utilize the computer system, TACFIRE, to support fire planning in a Tactical Operations Center (TOC); operate and maintain the computer system including the loading of database, composing and transmitting message formats, modifying database, reconfiguring the system for alternate mode operations, and performing tactical fire planning processes; use digital message device to provide data input; retrieve target information from files; correct for system malfunctions.

Instruction: Conference, extended practical exercises, simulated fire planning missions, malfunction simulations and written examinations on topics such as tactical fire planning, computer operations, processing messages, malfunctions and corrections, maintenance procedures and computer systems functioning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/89).

AR-1402-0124

Tactical Fire (TACFIRE) Fire Support Element

Course Number: TS113.

Location: Seventh Army Combined Arms Training Center, Vilseck, West Germany.

Length: 5-6 weeks (211 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to utilize the computer system, TACFIRE, to perform planning of artillery fire support and the conduct of operations in a Fire Support Element (FSE); operate and maintain the computer system including the loading of database, composing and transmitting message formats, modifying database, reconfiguring the system for alternate mode operations, and performing fire planning processes; use special digital message device to provide data input; retrieve target information from files; correct for system malfunctions.

Instruction: Conference, extended practical exercises, simulated processes and fire planning missions, malfunction simulations and written examinations on topics such as fire planning, computer operations, processing messages, malfunctions and corrections, maintenance procedures and computer systems functioning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/89).

AR-1402-0125

Tactical Fire (TACFIRE) Operations Specialist

Course Number: TS111A.

Location: Seventh Army Combined Arms Training Center, Vilseck, West Germany.

Length: 8 weeks (314 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain the computer system known as TACFIRE; power up the system, load database, compose and transmit message formats, modify the operations system data base, and reconfigure the system to operate under alternative mode operations; enter, retrieve, and validate files; print plans and lists; load and perform maintenance procedures to correct a system malfunction.

Instruction: Conference, practical exercises, simulations of operational missions, exercises to troubleshoot malfunctions, and written examinations to test competence in topics such as computer operations, processing messages, malfunctions and corrections, maintenance procedures, and computer systems functioning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/89).

AR-1402-0126

1. Counter-Signals Intelligence Specialist Basic Noncommissioned Officer (NCO)
2. Counter-Signals Intelligence Sergeant Basic Noncommissioned Officer (NCO)

Course Number: 231-97G30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 10 weeks (360 hours). *Version 2:* 8 weeks (285 hours).

Exhibit Dates: *Version 1:* 11/89-Present. *Version 2:* 5/87-10/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will demonstrate technical, analytical, and managerial skills; make decisions in an intelligence setting; and perform computer simulations. *Version 2:* Upon completion of the course the student will demonstrate technical, analytical, and managerial skills; make decisions in an intelligence setting; and perform computer simulations.

Instruction: *Version 1:* Lectures, classroom testing and computer simulation are methods of instruction. Course also contains a common core of leadership subjects. *Version 2:* Lectures, classroom testing and computer simulation are methods of instruction. Course also contains a common core of leadership subjects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in management problems (6/90). For credit for the common core see **AR-1406-0090**. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in management problems (6/90). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 97G.

AR-1402-0127

Counter-Signals Intelligence Specialist

Course Number: 231-97G10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 7-9 weeks (272-324).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to read maps; configure, set up, and use a data base; safeguard classified information; define signal theory/wave propagation; and explain the intelligence and electronic warfare mission.

Instruction: Lectures, classroom testing, and computer laboratory work on the above subject areas.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and 3 in data base applications (6/90).

Related Occupation Codes: 97G.

AR-1402-0128

Military Intelligence Common Core Phase 1

Course Number: 3A-WOTTC-CC.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6 weeks (232-240 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will have a basic knowledge of military intelligence; discuss the relationship between the National Security Agency and other intelligence organizations; become familiar with the basic terms and concepts associated with data processing; and make decisions on the basis of intelligence data.

Instruction: Lectures, classroom testing, and case studies are the modes of instruction. Students also participate in a computer simulation of a warfare system in the classroom. Players make decisions as they would in the field involving battle and counterattack. The computer workstation utilizes all facets of intelligence communication and information.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automated data processing; in the upper-division baccalaureate category, 3 semester hours in simulation exercises in decision making (6/90).

AR-1402-0130

Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification

Course Number: 4C-250B.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (684 hours).

Exhibit Dates: 10/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to present a formal oral report; prepare a written staff study; requisition parts and equipment; maintain property records; make inventory adjustments; maintain equipment status and maintenance records; manage and evaluate preventive maintenance systems; explain the budgeting process; explain basic computer concepts; set up a microcomputer system; use an integrated software system including word processing, spread sheet and data base; explain the principles, capabilities, and limitations of digital multiplexed voice and data communications; explain the operation and management of a message switch network; use diagnostics to isolate faults in network equipment.

Instruction: Classroom lectures, practical exercises and tours are used to present topics in automated voice and data networks.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications, 3 in computer literacy, 3 in maintenance management, and 2 in data communications (6/90).

Related Occupation Codes: 250B.

AR-1402-0131

Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification

Course Number: 4C-256A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (684 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to present a formal oral report; prepare a written staff study; requisition parts and equipment; maintain property records; make inventory adjustments; maintain equipment status and maintenance records; manage and evaluate preventive maintenance systems; explain the budgeting process; explain basic computer concepts; set up a microcomputer system; use an integrated software system including word processing, spread sheet and data base; explain the principles, capabilities, and limitations of UHF, VHF, and microwave communication systems; troubleshoot a variety of communications systems; explain site security techniques and procedures; explain communication facilities management procedures.

Instruction: Classroom lectures, practical exercises and tours are used to present topics in signal systems management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications, 3 in computer literacy, 3 in maintenance management, and 2 in electronic communications (6/90).

Related Occupation Codes: 256A.

AR-1402-0132

Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification

Course Number: 4C-250A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (760 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to present a formal oral report; prepare a written staff study; requisition parts and equipment; maintain property records; make inventory adjustments; maintain equipment status and maintenance records; manage and evaluate preventive maintenance systems; explain the budgeting process; explain basic computer concepts; set up a microcomputer system; use an integrated software system including word processing, spread sheet and data base; explain site security techniques and procedures; explain communication facilities management procedures.

Instruction: Classroom lectures, practical exercises and tours are used to present topics in communications site management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications, 3 in computer literacy, and 3 in maintenance management (6/90).

Related Occupation Codes: 250A.

AR-1402-0133

TMDE Maintenance Support Specialist Advanced Noncommissioned Officer (NCO)

Course Number: G2ASR32470-017.

Location: Technical Training Center, Lowry AFB, CO.

Length: 13 weeks (504 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to explain microcomputer concepts; use an integrated software system for word processing, spread sheet, and data transmission via modem; archive files; supervise and train subordinates involved in maintenance and calibration of test and measurement equipment.

Instruction: Classroom lectures and practical exercises are used to present topics in supervision and management of a test and measurement maintenance unit. Course includes a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer literacy and 3 in maintenance management (6/90). For credit for the common core see AR-1404-0035.

AR-1402-0135

Introduction to Personal Computing

Course Number: PEC-C-IPC.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1 weeks (45 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand concepts of hardware verus software, be able to boot MS DOS machines and manipulate applications and files in DOS, and run ENABLE software, using the word processing, spreadsheet, and database modules effectively.

Instruction: Hands-on performance-based instruction with specific exercises, examples, and problems. The course requires a mandatory laboratory committment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personal computers (7/90).

AR-1402-0136

Supply Accounting Management
Information System

Course Number: SAMIS #-90.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1-2 weeks (80 hours).

Exhibit Dates: 8/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to input data into the Supply Accounting Management Information System on Burroughs/UNIS45 equipment, organize data for input, generate specific reports using the SAMIS system, understanding input, output, and review data and reports generated by the SAMIS system.

Instruction: Course is performance-based, with students working with the SAMIS system, inputting data and generating reports. Evaluation is continuous, with each of 21 critical tasks.

Credit Recommendation: In the vocational certificate category, 1 semester hour in data entry operator (7/90).

AR-1403-0001

Patient Administration Specialist
(Medical Records Specialist)
(Medical Records and Reports Basic)

Course Number: 513-71G10; 513-71G20; 8-R-715.1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: 6-8 weeks (210-312 hours).

Exhibit Dates: 9/58-8/87.

Objectives: To train enlisted personnel in basic and advanced medical records administration.

Instruction: Lectures and practical exercises in the preparation, processing, and review of medical records and reports; familiarization with medical terminology; general administrative procedures; and physical conditioning.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in medical terminology (5/84).

Related Occupation Codes: 71G.

AR-1403-0002

1. Legal Specialist
   (Legal Clerk)
2. Legal Clerk

Course Number: *Version 1:* 512-71D10; 512-71D10 (ST). *Version 2:* 512-71D20.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 10 weeks (345-395 hours). *Version 2:* 8-9 weeks (257-345 hours).

Exhibit Dates: *Version 1:* 8/82-Present. *Version 2:* 2/73-7/82.

Objectives: To provide enlisted personnel with introductory concepts of military administrative law and Army claims systems with emphasis on the practical processing skills and procedures involved.

Instruction: Lectures on Army claims system and board proceedings, e.g. investigative boards; Article 15; non-judicial punishment; identification and preparation of charges and specifications for summary court martial proceedings and special court martial proceedings; posttrial actions. Practical exercises in the use of basic forms in the above areas including drafting documents, application of rules of law to facts, digesting testimony, and preliminary legal research.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 4 as an elective in paralegal training (1/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in paralegal training programs (11/75).

Related Occupation Codes: 71B, 71D.

AR-1403-0003

Medical Records Clerk Advanced
(Medical Records)

Course Number: 8-E-29.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 15 weeks (432-531 hours).

Exhibit Dates: 2/54-12/68.

Objectives: To train enlisted personnel in advanced medical records administration.

Instruction: Course is presented through lectures and practical exercises in medical records administration, including communication skills, hospital supply, human relations, hospital organization and management patient records and medical reports, medical terminology, medical records processing, and medical units administrative principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in office procedures or medical record technology on the basis of institutional evaluation (7/74).

AR-1403-0004

1. Personnel Administration
   Specialist
2. Personnel Administration
   Specialist
   (Unit Clerk)

Course Number: 500-75B10; 500-75B20.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 7-8 weeks (228-272 hours).

Exhibit Dates: *Version 1:* 9/82-1/86. *Version 2:* 5/74-8/82.

Objectives: To provide selected personnel with a working knowledge of military clerical duties, including typewriting, filing, and office procedures.

Instruction: Classroom instruction and practical exercises, including basic typewriting instruction, unit files and publications, reports and correspondence.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in office procedures and 1 in clerical recordkeeping (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in general office practices (2/78).

AR-1403-0005

Legal Clerk

Course Number: LC100.

Location: 7th Army Combined Arms Training Center, Vilseck, Germany.

Length: 3 weeks (117 hours).

Exhibit Dates: 8/80-Present.

Objectives: To train personnel in legal and quasilegal clerical functions.

Instruction: Lectures, demonstrations and practical exercises covering the clerical processing of various legal administrative actions and pre-trial materials.

Credit Recommendation: In the vocational certificate category, 1 semester hour in legal secretarial programs (10/80).

AR-1403-0006

Lawyer's Assistant

Course Number: LC102.

Location: 7th Army Combined Arms Training Center, Vilseck, Germany.

Length: 2 weeks (71 hours).

Exhibit Dates: 4/78-Present.

Objectives: To prepare personnel to serve as paraprofessional assistants to army trial attorneys.

Instruction: Lectures, demonstrations and practical exercises covering court-martials, obtaining physical evidence, interviewing witnesses, performing legal research, obtaining information and assistance from military and civilian law enforcement agencies and processing court-martial documents.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in paralegal training (10/80).

AR-1403-0007

Administrative Specialist

Course Number: 510-71L10.

Location: Administration School, Ft. Jackson, SC.

Length: Self-paced 4-10 weeks (284-327 hours).

Exhibit Dates: 12/79-Present.

Objectives: To prepare selected enlisted personnel to function as administrative clerks.

Instruction: Instruction and practical exercise in typing and assembling various types of correspondence, establishing and maintaining files, recordkeeping, and processing classified material. Top students will enter Fast Track, an additional 36 hours for advanced and in depth study.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 1 in filing and 2 in business communications (9/89).

Related Occupation Codes: 71L.

AR-1403-0008

Personnel Information System
Management Specialist

Course Number: 500-75F10.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 9-10 weeks (306-314 hours).

Exhibit Dates: 8/81-9/85.

Objectives: To train enlisted personnel to perform data preparation and to verify data accuracy.

Instruction: Instruction and practical exercise including straight copy typing, preparation and verfication of input data for SIDPERS, input/output control procedures and common military training.

Credit Recommendation: In the vocational certificate category, 1 semester hour in records clerk (10/86); in the lower-division baccalaureate/associate degree category, 1 semester hours in typing (10/86).

Related Occupation Codes: 75F.

AR-1403-0010

Patient Administration Specialist

Course Number: 513-71G10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 8 weeks (284 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand medical terms, AMEDD basic medical records administration, medical statistical reports and procedures.

Instruction: Lectures and classroom exercises in preparation, processing and review of medical records and reports; general administrative procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in medical records technology (4/88).

AR-1403-0011

Unit/Organization Supply Procedures

Course Number: *Version 1:* LOG 73. *Version 2:* LOG 73-OEC; LOG 73.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: *Version 1:* 2 weeks (71 hours). *Version 2:* 2 weeks (61–67 hours).

Exhibit Dates: *Version 1:* 8/87–Present. *Version 2:* 11/76–7/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to review army supply publications, supply records, forms, and inventory control records; recognize when an inventory should be conducted; conduct an inventory; understand the inventory concepts of control, balance, and centralization/decentralization; apply concepts to ammunition, clothing and equipment, petroleum, oil and lubricants, meals (ready to eat), and arms. *Version 2:* Upon completion of the course, the student will be able to interpret army supply publications; prepare supply records, forms, and inventory control records; account for lost, damaged, and destroyed property; maintain a manual property book.

Instruction: *All Versions:* Lectures and practical exercises using actual forms and records.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management and 1 in clerical procedures (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in record keeping and 1 in clerical procedures (10/88).

AR-1403-0013

Personnel Information System
Management Specialist

Course Number: 500-75F10/75F10 ST.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 10-11 weeks (240 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify the components of a personnel information system, identify error conditions in the system and take corrective action, enter data, and review personnel system output reports.

Instruction: Classroom and practical exercises in the use and operation of a microcomputer, and how to enter data, process, and output data in a personnel information system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel recordkeeping; in the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications and 1 in keyboarding (12/88).

Related Occupation Codes: 75F.

AR-1403-0014

Personnel Service Center Basic
Noncommissioned Officer (NCO)

Course Number: 500-75C/D/E30.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 7 weeks (263 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to review manning reports; prepare requisitions; determine eligibility for promotion; understand actions to be taken regarding pay and benefits and changes in personnel classification; execute specific applications in word processing, graphics, and spread sheets.

Instruction: Instruction includes extensive classroom lectures involving personnel record supervision, review of personnel benefits, training and leadership skills. Includes experience in word processing, graphics, and spreadsheets pertaining to personnel activities. Brief attention is given to counseling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration, and 1 in filing and records control (12/88).

Related Occupation Codes: 75C; 75D; 75E.

AR-1403-0016

Unit Clerk

Course Number: PEC-P-UC1.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2-3 weeks (97 hours).

Exhibit Dates: 3/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic personnel and administrative actions with emphasis on the preparation of military personnel forms.

Instruction: Lecture and in-class exercises designed to prepare the student to complete forms addressing administrative, financial, and information management actions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in business systems and procedures (7/90).

AR-1404-0001

Postal Operations

Course Number: *Version 1:* 510-ASIF5. *Version 2:* 7A-42B/515-ASIF5; 7A-42B; 515-ASIF5. *Version 3:* 7A-0030; 515-71F20; 515-71F30; A-515-0018 (USN); 7A-515-0161 (USMC); 7A-515-0160 (USMC); 12-R-714.1; 12-E-14.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 4-5 weeks self-paced (155–181 hours). *Version 2:* 4-5 weeks (141-217 hours). *Version 3:* 4-5 weeks (124-187 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 5/83–9/88. *Version 3:* 8/55–4/83.

Objectives: To provide officers and enlisted personnel with the fundamental techniques and procedures of military post office management.

Instruction: Lectures in postal organization, facilities, and operations; and practical experience in mail handling.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in postal operations (1/89). *Version 2:* In the vocational certificate category, 3 semester hours in postal operations (9/88). *Version 3:* Credit is not recommended because of the military-specific nature of the course (3/74).

Related Occupation Codes: 71F.

AR-1404-0002

Cryptography

Course Number: 11-R-722.1; 11-E-18.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 9 weeks (318–320 hours).

Exhibit Dates: 12/55–12/68.

Objectives: To train enlisted personnel to use cryptographic systems and equipment to encrypt and decrypt classified messages.

Instruction: Lectures and practical exercises in basic communications center procedures, military cryptography, military typing, teletypewriter operation, and tape relay.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

AR-1404-0003

Amplitude Modulated Radio
Teletypewriter Equipment
Operation

Course Number: 201-F1.

Location: Signal School, Ft. Gordon, GA.

Length: 2 weeks (63 hours).

Exhibit Dates: 11/78–9/82.

Objectives: To provide selected personnel with knowledge to install, operate, and perform operator maintenance on specialized radio teletypewriter and radio set.

Instruction: Provides a working knowledge of radio teletypewriter AN/GRC-46 and radio set AN/GRC 26D, including operation, installation, tuning, modes of operation, and performance testing. Student must demonstrate ability on equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/79).

Related Occupation Codes: 05C.

AR-1404-0004

Central Office Switchboard
Operator
(Telephone Switchboard Operation)
(Switchboard Operator)
(Central Office Telephone Switchboard Operation)

Course Number: 580-72C20; 11-R-724.1; 11-E-32.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: 6-8 weeks (206–284 hours).

Exhibit Dates: 11/55–12/77.

Objectives: To train enlisted personnel in the operation, installation, and maintenance of telephone switchboards.

Instruction: Practical experience in operation, maintenance, and installation of telephone switchboard equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

Related Occupation Codes: 72C; 31Z.

AR-1404-0005

SIGNAL SECURITY (SIGSEC) SPECIALIST
(Communications Security Monitor)

Course Number: 231-97G10; 231-05G10; 231-05G20.

Location: Security Agency School, Ft. Devens, MA; Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 20-21 weeks (597-631 hours). *Version 2:* 17-18 weeks (519-610 hours).

Exhibit Dates: *Version 1:* 11/81-9/87. *Version 2:* 4/77-10/81.

Objectives: To train enlisted personnel to monitor electronic communications and to safeguard classified information.

Instruction: For this course after 9/87 see AR-1402-0127. Lectures and practical experience in communications and security procedures of a limited technical nature. Course includes map reading, signal communications, cryptosecurity, security analysis, electronic security and warfare, and SIGSEC organization and monitoring operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic typing (2/84). *Version 2:* In the vocational certificate category, 2 semester hours in typing, PBX operation (9/77).

Related Occupation Codes: 97G; 05G.

AR-1404-0006

SIGNAL OFFICER BASIC
(Signal Officer Orientation)
(Signal Corps Officers Basic)

Course Number: *Version 1:* 4-11-C20. *Version 2:* 4-11-C20. *Version 3:* 4-11-C20; 11-A-C20. *Version 4:* 11-O-A. *Version 5:* 11-O-A.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ. *Version 4:* Signal School, Ft. Monmouth, NJ. *Version 5:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 19-20 weeks (725-814 hours). *Version 2:* 12 weeks (587 hours). *Version 3:* 8-12 weeks (341-551 hours). *Version 4:* 9-10 weeks (350-366 hours). *Version 5:* 19 weeks (780 hours).

Exhibit Dates: *Version 1:* 2/85-Present. *Version 2:* 6/79-1/85. *Version 3:* 3/60-5/79. *Version 4:* 5/54-2/60. *Version 5:* 8/53-4/54.

Objectives: To provide newly commissioned officers with the basic understanding of principles of different means of communications at a tactical division communication center.

Instruction: *Version 1:* Instruction in leadership functions, personnel and operations management, technician electronics, supply operations and military subjects. *Version 2:* Planning, site selecting, installing, operating, troubleshooting, and supervising of a tactical division communication center are covered. The course also provides a basic awareness of problems arising from ethical dilemnas, drug and alcohol abuse. *Version 3:* Lectures and practical exercises in basic Signal Corps procedures, including unit and team tactics and battle procedures; atomic, chemical, biological, radiological, and mine warfare; intelligence procedures; map and aerial photograph reading; supply management; motor vehicle maintenance; combined arms and weapons; communications center procedures; and radio and wire communications principles and tactics. *Version 4:* Lectures and practical exercises in basic Signal Corps procedures, including unit and team tactics and battle procedures; atomic, chemical, biological, radiological, and mine warfare; intelligence procedures; map and aerial photograph reading; supply management; motor vehicle maintenance; combined arms and weapons; communications center procedures; and radio and wire communications principles and tactics. *Version 5:* Lectures and practical exercises in basic Signal Corps procedures, including unit and team tactics and battle procedures; atomic, chemical, biological, radiological, and mine warfare; intelligence procedures; map and aerial photograph reading; supply management; motor vehicle maintenance; combined arms and weapons; communications center procedures; and radio and wire communications principles and tactics. Includes personnel management, military photography and Signal Corps officers duties.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic electricity and electronics; in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (6/90). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in fundamentals of management, 3 in human relations (10/81). *Version 3:* In the upper-division baccalaureate category, credit in radio, wire communications, and telegraph systems on the basis of institutional examination (6/74). *Version 4:* In the upper-division baccalaureate category, credit in radio and wire communications on the basis of institutional examination (12/68). *Version 5:* In the upper-division baccalaureate category, 2 semester hours in business organization and management, and 3 in radio and electricity (12/68).

AR-1404-0007

AUTOMATIC DATA TELECOMMUNICATIONS CENTER OPERATORS
(Data Communications Switching Center Specialist)
(AUTODIN Switching Center Traffic Operations)

Course Number: 260-72G10; 580-72G10.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 9-11 weeks (253-393 hours).

Exhibit Dates: 5/70-3/81.

Objectives: To train enlisted personnel in automatic digital message switching center traffic operations, and as data communication switching center specialists.

Instruction: Lectures and practical exercises on AUTODIN switching center traffic operations, including introduction to communications, teletypewriter keyboard operations, COMSEC accounting, COMSEC equipment, introduction to AUTODIN, AUTODIN tributary and peripheral equipment operations, message handling procedures, and basic communication principles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing (7/85).

Related Occupation Codes: 72G; 09B.

AR-1404-0008

RADIO OPERATOR NONCOMMISSIONED OFFICER (NCO) SUPERVISOR CANDIDATE

Course Number: 201-05B42-1.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 26 weeks (1772 hours).

Exhibit Dates: 5/71-1/88.

Objectives: To qualify enlisted personnel as noncommissioned officers and supervisors in a special forces unit. This includes a working knowledge of doctrine, tactics, techniques and field training of special forces units and operation of a field radio.

Instruction: Lectures and practical exercises in field radio operation and leadership skills of special forces noncommissioned officers and supervisors. Course includes military skills, Morse code (at 15 words per minute), and field communications procedures. Some attention is given to communication system general familiarization.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

Related Occupation Codes: 05B.

AR-1404-0009

1. SINGLE CHANNEL RADIO OPERATOR
2. RADIO TELETYPE OPERATOR
(Radio Teletypewriter Operator)
(Radio Teletype Operation)

Course Number: *Version 1:* 201-31C10. *Version 2:* 201-05C10-CELT; 201-05C10; 201-05C20; 11-R-053.1; 11-E-48.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: *Version 1:* 12-14 weeks (437-477 hours). *Version 2:* 10-15 weeks (397-609 hours).

Exhibit Dates: *Version 1:* 6/83-Present. *Version 2:* 11/55-5/83.

Objectives: To train enlisted personnel to install, operate, and maintain field radio teletypewriter sets and related equipment.

Instruction: *Version 1:* Lectures and practical exercises in teletypewriter sets installation, operation, and maintenance, including keyboard operation proficiency, radio telegraph procedures, and equipment familiarization. *Version 2:* Lectures and practical exercises in teletypewriter sets installation, operation, and maintenance, including keyboard operation proficiency, Morse code, radio telegraph procedures, and equipment familiarization. After 2/79 Morse code was deleted.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (5/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (6/74).

Related Occupation Codes: 31C; 05C.

AR-1404-0010

HIGH SPEED RADIO OPERATION

Course Number: 11-E-15.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 23 weeks (850 hours).

Exhibit Dates: 11/55-12/68.

Objectives: To train enlisted personnel to operate high-speed radios.

Instruction: Lectures and practical exercises in the operation of radio communications equipment, receipt of international Morse code, and transmission of code groups, including radio procedure, introduction to communications, international Morse code, typing, teletypewriter procedure and operation, tactical traffic, field radio sets, and field radio operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typewriting, telecommunications, basic radio, or teletype operation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting, telecommunications, basic radio, or teletype operation (7/74); in the upper-division baccalaureate category, credit in typewriting, telecommunications, basic radio, or teletype operation on the basis of institutional evaluation (12/68).

AR-1404-0011

International Morse Code

Course Number: 231-ASIA4.
Location: Signal School, Ft. Gordon, GA.
Length: 4–8 weeks (165-288 hours).
Exhibit Dates: 11/78–10/90.
Objectives: Provides student with knowledge and capability to send and receive international Morse Code at a minimum speed of 15 words per minute.
Instruction: Course includes practice in sending and receiving international Morse Code, military lettering, phonetic alphabet, and radio telegraph procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in Morse Code radio operator (10/90).
Related Occupation Codes: 05B; 05C.

AR-1404-0012

1. WAC Officer Basic/WAC Officer Candidate
2. WAC Officer Basic/WAC Officer Candidate
(WAC Officer Basic)

Course Number: *All Versions:* 7-35-C20; 7-35-F1. *Version 2:* 35-O-1.
Location: Women's Army Corps School, Ft. McClellan, AL.
Length: *Version 1:* 18 weeks (625 hours). *Version 2:* 18–20 weeks (672–740 hours).
Exhibit Dates: *Version 1:* 11/70–12/73. *Version 2:* 1/55–10/70.
Objectives: To prepare newly commissioned officers for their first duty assignments and to prepare selected personnel to be commissioned Second Lieutenants in the Reserve component of the U.S. Army.
Instruction: Lectures and practical exercises covering a wide range of subjects including Army management, military leadership, and effective oral and written expression.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communications (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communications (7/74); in the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

AR-1404-0013

Communications Center Operation

Course Number: *All Versions:* 4C-209A; 4C-0221; 4C-25B; 4C-26B; 4C-721A. *Version 2:* 11-B-0221; 11-B-0224; 11-O-22.
Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.
Length: *Version 1:* 4 weeks (107-117 hours). *Version 2:* 5 weeks (167-183 hours). *Version 3:* 7-8 weeks (245-285 hours).
Exhibit Dates: *Version 1:* 9/76-12/84. *Version 2:* 10/70–8/76. *Version 3:* 6/55–9/70.
Objectives: To provide commissioned and warrant officers with a working knowledge of tactical and fixed telecommunications center procedures.
Instruction: Course covers logistics and personnel, electronic warfare, tactical communications centers, automatic data processing, and fixed communications centers.
Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (4/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in communications (8/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communications center management (12/68).

AR-1404-0014

Signal Company Grade Officer Refresher

Course Number: 11-A-C7.
Location: Signal School, Ft. Monmouth, NJ.
Length: 4 weeks (130 hours).
Exhibit Dates: 2/57–12/68.
Objectives: To provide refresher training in the duties and responsibilities of a signal corps officer at the company level.
Instruction: Conferences and practical exercises in signal supply and maintenance, wire and radio communication equipment, communication center operations, and signal corps organization and systems.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-1404-0015

Telecommunications Center Operator
(Telecommunications Center Specialist)

Course Number: 580-72E10; 580-72E10-CELT; 580-72E20.
Location: Signal School, Ft. Gordon, GA.
Length: 10–16 weeks (393–653 hours).
Exhibit Dates: 1/75–12/83.
Objectives: To provide training in the basic operation of communications equipment.
Instruction: Essentially Army basic training acquainting the student with basic skills required to perform as a soldier in a technical environment. Includes 68 hours of typing instruction and 46 hours of teletypewriter operation. Prior to 1979 course consisted of lectures and practical exercises in message processing, teletype operation, and installation and operation of specific military communications networks.
Credit Recommendation: In the vocational certificate category, 2 semester hours in keypunch and teletype operation (8/79).
Related Occupation Codes: 72E.

AR-1404-0016

Morse Interceptor

Course Number: 231-05H20.
Location: Security Agency School, Ft. Devens, MA.
Length: 9 weeks (315 hours).
Exhibit Dates: 9/64–3/77.
Objectives: To train enlisted personnel to intercept and record manual Morse signals.
Instruction: Lectures and practical exercises in international Morse code reception and recording; operation and maintenance of radio receivers and telegrapher typewriter; and employment of intercept procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in telegraphy (7/74).
Related Occupation Codes: 05H.

AR-1404-0017

Voice Radio Operator

Course Number: 201-05E20.
Location: Signal School, Ft. Gordon, GA.
Length: 5 weeks (164 hours).
Exhibit Dates: 2/76–12/86.
Objectives: To provide students with the knowledge to install and operate AM, FM, and SSB radiotelephone sets in voice radio networks.
Instruction: Instruction in the procedures used to set up, transmit, and receive voice communications on a radio network.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/77).
Related Occupation Codes: 09B; 05E.

AR-1404-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
(VHF/UHF Multichannel Intercept)
(Electronic Warfare (EW) Cryptologic Interceptor—Very High Frequency/Ultra High Frequency
(UHF/VHF Intercept Operations)

Course Number: 231-F10(K9); 231-F10; 231-ASIK9.
Location: Intelligence School, Ft. Devens, MA.
Length: 3–4 weeks (86–98 hours).
Exhibit Dates: 12/76–9/86.
Objectives: To train personnel in the operation of VHF/UHF intercept equipment.
Instruction: Instruction is devoted solely to operation of radio intercept equipment; trains individuals to search in selected categories of non-Morse VHF/UHF signals using non-Morse VHF/UHF intercept systems.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/83).

AR-1404-0019

Fixed Telecommunications Systems Advanced

Course Number: 4C-OA26.
Location: Signal School, Ft. Gordon, GA.
Length: 14 weeks (482 hours).
Exhibit Dates: 6/77–1/85.
Objectives: To prepare Signal Corp officers for aspects of planning, installation and operation of non-tactical communications systems and facilities.
Instruction: The course covers general knowlege of radio fundamentals, radio principles, TV principles, RF transmission lines, factors influencing ground wave propagation, sky wave propagation, antenna effects, and Fresnel zone effects. Procedure for frequency planning, telecommunications center operation and organization and knowledge of specific telecommunications systems (AUTODIN) or cable TV are also covered.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in telecommunications systems electives (8/79).

AR-1404-0027

Pershing Communication Specialist

Course Number: 101-31D20.
Location: Field Artillery School, Ft. Sill, OK.
Length: 10 weeks (319 hours).
Exhibit Dates: 11/74–10/79.
Objectives: To train qualified students to select location, install, tune, operate and perform general maintenance on a radio telephone terminal associated with a Pershing missile communication system.
Instruction: The course covers the principles of operation and signal flow for a portable radio telephone terminal associated with a Pershing missile communication system including the telephone typewriter, switchboard, portable motor generator,

power amplifier, antenna set-up and other related equipment. The student learns to set-up, operate, tune, and perform general maintenance of the system. The course also includes map reading, topographic analysis and map coordinates and measurements for the purpose of selecting suitable installation sites.

Credit Recommendation: In the vocational certificate category, credit is recommended on the basis of institutional evaluation (1/80).

Related Occupation Codes: 31D.

AR-1404-0028

Radio Teletypewriter Team Chief
(Radio Teletypewriter Operator)

Course Number: SIG 7.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 3 weeks (113-116 hours).

Exhibit Dates: 3/81-1/87.

Objectives: To provide students with the skills necessary to supervise operators of specific Army radio teletypewriter sets.

Instruction: Topics include communication procedures including making and answering radio calls, preparing and sending messages, presetting and tuning the radio teletypewriter equipment and performing operator preventive maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 05C.

AR-1404-0029

AN/UGC-74 Operator

Course Number: UGC-3.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 1-2 weeks (60-74 hours).

Exhibit Dates: 11/81-Present.

Objectives: To train radio teletypewriter operators and combat telecommunications center operators in the operation of a new teletypewriter set.

Instruction: Topics include the purpose, use, and components of a teletypewriter set, editing, transmitting, and receiving messages using the teletypewriter set.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 05C; 72E.

AR-1404-0030

Teleprocessing Operations Officer

Course Number: 4C-OB-25B.

Location: Signal Center, Ft. Gordon, GA.

Length: 9 weeks (235 hours).

Exhibit Dates: 4/82-1/85.

Objectives: To provide commissioned officers with a general working knowledge of tactical teleprocessing operations.

Instruction: Instruction in automated tactical data technology, computerized voice and data communication, ADA language, automation and data base management, computer communication networks and overall system performance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management of computer resources, 3 in computer performance measurement and evaluation, 3 in data base management systems (2/84); in the graduate degree category, 3 semester hours in principles of digital telecommunications (2/84).

AR-1404-0032

Postal Supervisor

Course Number: *Version 1:* 7A-F59/510-ASIF5. *Version 2:* 7A-F59/510-F7; 7A-F59.

Location: Institute for Personnel and Resource Management, Ft Benjamin Harrison, IN.

Length: *Version 1:* 5-6 weeks (214 hours). *Version 2:* 2-3 weeks (69-84 hours).

Exhibit Dates: *Version 1:* 4/88-Present. *Version 2:* 11/83-3/88.

Objectives: To train noncommissioned officers in all military branches in postal technical skills and management skills necessary for first-time postal supervisors.

Instruction: Lectures and practical exercises in the protection and safeguarding of mail, customer relations, management information systems, post office operations, and the U.S. and military postal services.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in postal services management (8/88).

AR-1404-0033

Operator/Call Service Attendant
AN/TTC-39

Course Number: 621-ASIK4.

Location: Signal School, Ft. Gordon, GA.

Length: 8-9 weeks (320 hours).

Exhibit Dates: 5/83-4/86.

Objectives: To train enlisted personnel to operate and perform operator maintenance on a tactical automatic telephone central office.

Instruction: After 4/86 see AR-1404-0036. Lectures and practical exercises in control and switching shelter, power initialization, automatic data process start up procedures, and other start up procedures associated with an automatic telephone central office; course includes overall system fault isolation and system fault priorities.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/85).

AR-1404-0034

Single Channel Radio Operator
Primary Technical

Course Number: 201-31C20.

Location: Signal School, Ft. Gordon, GA.

Length: 7 weeks (210 hours).

Exhibit Dates: 6/83-2/86.

Objectives: To provide enlisted personnel with the skills to train personnel in the installation, operation and maintenance of radio and radioteletype equipment.

Instruction: After 2/86 see AR-1715-0037. Lectures and practical exercises in supervising the installation and maintenance of tactical AM/SSB radio and radioteletype systems, cryptographic equipment and power systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/85).

Related Occupation Codes: 31C.

AR-1404-0035

Advanced Noncommissioned Officer
(NCO) Common Core

Course Number: None.

Location: Army Installations, Continental U.S. and overseas.

Length: *Version 1:* 1-2 weeks (57 hours). *Version 2:* 2-3 weeks (107 hours). *Version 3:* 5-15 weeks (168-444 hours).

Exhibit Dates: *Version 1:* 2/89-Present. *Version 2:* 8/86-1/89. *Version 3:* 3/81-7/86.

Learning Outcomes: *All Versions:* Upon completion of the course the student will be able to provide mid-level supervision and leadership in units of up to 400 personnel.

Instruction: *Version 1:* Includes lectures, demonstrations, and performance exercises in motivation, training, morale, supervision, effective writing, verbal communications and listening skills. *Version 2:* Includes lectures, demonstrations, and performance exercises in motivation, training, morale, supervision, effective writing, verbal communications and listening skills. *Version 3:* Lectures and practical exercises in a basic core includes written and oral communication, management principles, unit training, and combat survival. This core is usually taken in conjunction with a specific MOS track or as part of a noncommissioned officer course. Check records. The recommendation is in addition to MOS specific track.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in military science, 1 in communication (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership and 1 in fundamentals of communication (9/87). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in oral communications; in the upper-division baccalaureate category, 3 semester hours in principles of management and 1 in educational administration (3/85).

AR-1404-0036

Operator/Call Service Attendent
AN/TTC-39(V)

Course Number: 621-ASIK4.

Location: Signal School, Ft. Gordon, GA.

Length: 8-9 weeks (321 hours).

Exhibit Dates: 5/86-9/86.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, and perform operator maintenance on tactical automatic telephone central office equipment AN/TTC-39(V). Student will be able to perform tasks such as power initialization, start-up procedures, loading, generating, and changing data base tape, keying and rekeying, installation, testing, and fault isolation.

Instruction: Training includes introduction to equipment control and switching shelter, power initialization, automatic data processing, start-up procedures, installation of telephone central office equipment, determining system fault priorities, troubleshooting, preventive maintenance. Teaching methods include readings, lectures, discussions and exercises. Evaluation is by written and performance test.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telecommunications (2/87).

AR-1404-0037

Single Channel Radio Operator Basic
Noncommissioned Officer (NCO)

Course Number: 201-31C20.

Location: Signal School, Ft. Gordon, GA.

Length: 6 weeks (216 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise personnel in the installation, operation, and maintenance of radio and radio teletype equipment.

Instruction: Lectures and practical exercises in supervising the installation and maintenance of AM/single sideband radio and radio teletype systems. Course includes a common core of instruction. See AR-1406-0090. For this course before 3/86, see AR-1404-0034.

Credit Recommendation: In the vocational certificate category, 1 semester hour in AM and single sideband radio communications (6/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 31C.

AR-1404-0038

Single Channel Radio Team Chief

Course Number: SIG 7.

Location: Combined Arms Training Center, Bad Toelz, W. Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to set up, operate, and maintain a radio network for secure voice and teletypewriter communications; determine appropriate antenna lengths for various types of applications; identify components of a radio teletype message, a radio teletypewriter, and encryption equipment; troubleshoot and isolate faults in DC loop circuits.

Instruction: Lectures, practical experience (hands-on and simulation), and examinations (written and performance).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio and radio telegraphy and security (10/88).

AR-1405-0001

Ordnance Officer Orientation

Course Number: 4-9-C21.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 4 weeks (139 hours).

Exhibit Dates: 7/70–12/73.

Objectives: To provide commissioned officers assigned to the Ordnance Corps with initial branch training and orientation in ordnance familiarization and organizational supply and maintenance.

Instruction: Lectures and practical exercises in supply management and maintenance, and military procedures and publications relating to Army ordnance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AR-1405-0002

Quartermaster Supply Procedures

Course Number: 10-G-F10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (144 hours).

Exhibit Dates: 5/61–12/68.

Objectives: To provide commissioned officers and civilian personnel with a working knowledge of quartermaster supply, stock control, and related procedures.

Instruction: Lectures and practical exercises in installation supply procedures, supply and distribution procedures, and the Army command management system.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AR-1405-0003

Storage Officer

Course Number: 8B-4445.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (146 hours).

Exhibit Dates: 10/71–6/85.

Objectives: To provide commissioned officers with a working knowledge of storage facility supervision and administration.

Instruction: Lectures in the organization and operation of Army supply systems, storage procedures, stock locator systems, depot operations, special warehouse layout and management problems, receiving and shipping, equipment handling, and special materials and commodities handling.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in warehousing (2/74).

AR-1405-0004

Noncommissioned Officers (NCO) Logistics Program

Course Number: 551-F5.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 9 weeks (324 hours). *Version 2:* 7–9 weeks (260–289 hours). *Version 3:* 8–9 weeks (282–317 hours).

Exhibit Dates: *Version 1:* 4/83–9/88. *Version 2:* 10/78–3/83. *Version 3:* 3/67–9/78.

Objectives: To provide enlisted personnel with the necessary knowledge and skills to conduct field logistic operations.

Instruction: *Version 1:* This course will provide the student with a broad overview of logistics operations and the ability to perform logistics operations at different levels of organizations in a wide variety of logistics tasks. This is achieved through lectures, conferences, computer supported instruction, case studies, demonstrations, seminars, and visual aids covering communications and management skills, logistics functions, systems management and resource and wholesale logistics management. *Version 2:* Types of instruction include lectures, conferences, computer assisted instruction, case studies, demonstrations, seminars, television, and practical exercises. Topics include oral and written communications, stock fund concepts, logistics planning, supply procedures, transportation management, inventory control procedures, and logistics systems. *Version 3:* Lectures and practical exercises in management procedures, financial management, storage, procurement and property disposal, transportation, maintenance, and inventory and financial management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of management (8/85); in the upper-division baccalaureate category, 3 semester hours in logistics management (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (5/81) *Version 3:* In the vocational certificate category, 2 semester hours in supply management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (2/74); in the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

AR-1405-0005

Financial Management—Inventory Accounting and Army Stock Fund Operations

Course Number: 14-I-F4; 14-O-19.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (110 hours).

Exhibit Dates: 6/55–12/68.

Objectives: To provide warrant officers, commissioned officers, and civilian personnel with a basic knowledge of financial inventory accounting and stock fund management.

Instruction: Lectures in financial inventory accounting, inventory control, balance sheet examination, stock fund operations, budgeting, general accounting review, and financial management planning.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in financial management (12/68).

AR-1405-0006

Property Disposal Specialist

Course Number: 822-F12.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (91 hours).

Exhibit Dates: 6/71–6/85.

Objectives: To train enlisted personnel to operate a property disposal holding activity and collecting point.

Instruction: Lectures and practical exercises in disposal responsibilities, processing property for disposal, accounting procedures for a disposal holding activity, and disposition of property and removal action.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 76V; 76Z.

AR-1405-0007

Installation/Direct Support Supply Officer

Course Number: 10-I-F19.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (222 hours).

Exhibit Dates: 12/63–12/68.

Objectives: To train commissioned officers, warrant officers, and civilian personnel in the procedures involved in supplying equipment and repair parts to using organizations.

Instruction: Lectures and practical exercises in organization, supply, storage, and procurement procedures; financial management; and basic management skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (2/74); in the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

Related Occupation Codes: 761A; 762A.

AR-1405-0008

1. Medical Supply and Services
2. Medical Supply Officer

Course Number: *Version 1:* 8B-4490. *Version 2:* 8-O-44.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 10 weeks (369 hours). *Version 2:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 12/67–12/68. *Version 2:* 3/55–11/67.

Objectives: To train officers to perform and supervise item and financial accounting for medical supplies and equipment, and to direct and supervise the requisitioning, receipt, storage, and issue of those supplies in Army hospitals and field medical units.

Instruction: *All Versions:* Lectures and practical exercises in personnel and financial management methods. *Version 1:* Organization of supply units, accounting, medical materiel storage and handling, maintenance of medical technical equipment, and medical equipment planning. *Version 2:*

Work simplification techniques, principles of human relations, and organization and function of supply and logistical agencies.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in accounting, 3 in occupational safety, 1 in finance, 2 in business management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in accounting, 3 in occupational safety, 1 in finance, 2 in business management (2/74); in the upper-division baccalaureate category, 3 semester hours in accounting, 3 in occupational safety, 1 in finance, 2 in business management (2/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in supply management (12/68).

AR-1405-0009

ASSOCIATE QUARTERMASTER OFFICER ADVANCED

Course Number: *Version 1:* 10-A-CF. *Version 2:* 10-O-4.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 15 weeks (525-548 hours). *Version 2:* 15 weeks (529-532 hours).

Exhibit Dates: *Version 1:* 12/57-12/68. *Version 2:* 10/54-11/57.

Objectives: To train commissioned officers as field grade Quartermaster Corps officers.

Instruction: *All Versions:* Lectures and practical exercises in duties of field grade Quartermaster Corps officers, including supply and distribution systems, command management, and procurement; instructor training; map and aerial photograph reading; tactical employment of arms; atomic, chemical, biological, and radiological warfare; signal communications and electronic warfare; stock control and depot operations; petroleum logistics; airborne subjects; and maintenance administration. *Version 2:* Includes intelligence operations, personnel, and logistics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in materials management, 3 in business organization and management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management, 3 in business organization and management (6/74); in the upper-division baccalaureate category, 4 semester hours in supply management, 2 in business organization and management (12/68). *Version 2:* In the vocational certificate category, 3 semester hours in materials management, 3 in business organization and management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management, 3 in business organization and management (6/74); in the upper-division baccalaureate category, 4 semester hours in supply management, 4 in business organization and management (12/68).

AR-1405-0010

DSU/GSU MECHANIZED STOCK CONTROL

Course Number: 551-F4.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (140-175 hours).

Exhibit Dates: 7/67-6/85.

Objectives: To train enlisted personnel in mechanized stock accounting using the NCR 500 magnetic ledger type computer system.

Instruction: Lectures and practical exercises in mechanized stock accounting using the NCR 500 magnetic ledger computer system. Course includes mechanized record systems, review of supply procedures, familiarization with machine operations, data preparation, and program loading.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 76P.

AR-1405-0011

SIGNAL SUPPLY AND PARTS SPECIALIST
(Signal Supply)

Course Number: 11-R-765.1; 11-E-29.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 5-7 weeks (175-247 hours).

Exhibit Dates: 5/56-12/68.

Objectives: To train enlisted personnel to receive, store, issue, ship, identify, and salvage Signal Corps supplies and equipment.

Instruction: Lectures and practical exercises in the receipt, storage, issue, shipping, identification, and salvage of Signal Corps supplies and equipment, including communications procedures, item identification, cataloging and nomenclature, records and stock control, layout and numbering systems, and financial inventory accounting and stock fund techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74).

AR-1405-0012

SIGNAL PARTS SUPPLY

Course Number: 11-E-41.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 5 weeks (175 hours).

Exhibit Dates: 5/56-12/68.

Objectives: To train enlisted personnel to provide technical advice and assistance on the use, availability, interchangeability, and identification of signal parts, and to maintain stock records pertaining to receipt, storage, and issue of parts for signal equipment.

Instruction: Lectures and practical exercises in the use, availability, interchangeability, and identification of signal parts and maintenance of records for the supply of signal parts. Course includes introduction to communications, signal parts identification, stock control and storage, and signal maintenance and salvage.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AR-1405-0013

ORDNANCE PARTS SUPPLY

Course Number: 9-R-773.1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 6 weeks (210 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train enlisted personnel to use, identify, classify, and store ordnance repair parts and supplies.

Instruction: Lectures and practical exercises in the management of ordnance parts and supplies. Course includes reference publications, supply accounting procedures, survey of ordnance material, parts identification, armament and automotive parts, and storage methods.

Credit Recommendation: In the vocational certificate category, 1 semester hour in parts management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in parts management (6/74).

AR-1405-0014

DEFENSE PROPERTY DISPOSAL OPERATIONS
(Property Disposal Operations)
(Basic Property Disposal Operations)

Course Number: 8G-F1; 822-F9; 10-K-F9; 10-L-F9.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.; Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (140-156 hours).

Exhibit Dates: 1/61-1/89.

Objectives: To train enlisted personnel and commissioned officers to perform property disposal activities.

Instruction: Lectures and practical exercises in property disposal activities, including disposal responsibilities and processing property for disposal, property disposition, hazardous waste, presale action at holding offices and sales offices, sale and contracting procedures, and management controls and operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in property disposal management (3/86).

Related Occupation Codes: 411A; 621A.

AR-1405-0015

SUPPLY MANAGEMENT CAREER INTERN TRAINING PROGRAM
(DARCOM Supply Management Career Intern Training)

Course Number: None.

Location: DARCOM Intern Training Center, Red River Depot, Texarkana, TX.

Length: 44 weeks (1664 hours).

Exhibit Dates: 7/76-6/84.

Objectives: To train graduates to perform effectively at journeyman level in a variety of Army supply activity management positions and to prepare for progression into mid-level and upper-level positions in supply management.

Instruction: Lectures, conferences, practical exercises, on-the-job training, field trips, simulations, guest speakers, cases, and research covering the following general areas: general management, supply procedures, inventory management, supply distribution and storage management, preservation and packaging, and logistics related functions.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in general management, 2 in supply procedures, 5 in inventory management, 6 in supply distribution and storage management, 3 in logistics related functions (12/76).

AR-1405-0016

MISSILE REPAIR PARTS SPECIALIST, SKILL DEVELOPMENT BASE

Course Number: 551-76R20-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (427 hours).

Exhibit Dates: 3/69-6/85.

Objectives: To train enlisted personnel who are trained as missile repair parts specialists to perform as supervisors.

Instruction: Lectures and practical exercises in the duties of missile repair parts specialist supervisors, including leadership, exercise of command, inspections, map reading, internal defense/development, field training, DSU and ASDA accounting procedures, automatic data processing systems, storage operations, and missile repair parts supply.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

Related Occupation Codes: 76R.

AR-1405-0017

Communications-Electronics Repair Parts Specialist

Course Number: 551-76U20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (123 hours). *Version 2:* 4–5 weeks (148–161 hours).

Exhibit Dates: *Version 1:* 8/74–11/77. *Version 2:* 9/67–7/74.

Objectives: To train enlisted personnel who are qualified as stock control and accounting specialists to perform as communications and electronics repair parts specialists.

Instruction: Lectures and practical exercises on the receipt, storage, inspection, identification, preservation and shipment of repair parts, including repair parts classification and disposal, component identification, end-item identification, parts identification, repair parts records, receiving operations, stock locator, storage and handling procedures, inventory procedures, shipping procedures, and general repair parts procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in repair parts management techniques (6/75). *Version 2:* In the vocational certificate category, 1 semester hour in inventory supervision (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in inventory supervision (6/74).

Related Occupation Codes: 76P; 76U.

AR-1405-0018

Aircraft Repair Parts Specialist

Course Number: 551-76T20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (127 hours). *Version 2:* 4–5 weeks (148–172 hours).

Exhibit Dates: *Version 1:* 8/74–11/77. *Version 2:* 9/67–7/74.

Objectives: To train stock control and accounting specialists to receive, store, inspect, identify, preserve, and ship aircraft repair parts.

Instruction: Lectures and practical exercises in the receipt, storage, inspection, identification, preservation, and shipment of aircraft repair parts, including use of reference data and inventory records, item identification, examination, and condition classification; establishment and review of stock levels; transaction processing and physical inventory.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in repair parts management techniques (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in parts management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in parts management (6/74).

Related Occupation Codes: 76P; 76T.

AR-1405-0019

Communications-Electronics Repair Parts Specialist, Skill Development Base

Course Number: 551-76U20-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (427 hours).

Exhibit Dates: 5/69–6/85.

Objectives: To train enlisted personnel to serve as supervisory technicians in the field of communications and electronics repair parts.

Instruction: Lectures and practical exercises in the field of communications and electronics repair parts. Course includes leadership and administration, instructor training, map reading, supply accounting procedures, the use of automatic data processing, storage operations, and inventory and control of communications and electronics repair parts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in leadership, 3 in parts management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 3 in parts management (6/74).

Related Occupation Codes: 76U.

AR-1405-0020

Signal Supply Officer
(Signal Supply Basic)

Course Number: 11-A-4400; 11-B-4400; 11-O-7.

Location: Signal School, Ft. Monmouth, NJ.

Length: 8 weeks (280–320 hours).

Exhibit Dates: 9/54–12/68.

Objectives: To train commissioned and warrant officers in signal supply.

Instruction: Lectures and practical exercises in the direction and supervision of requisition, receipt, storage and issue of signal supplies and equipment at organizational and direct-support levels in both CONUS and overseas, including fundamentals of supply operation, direct supply support, theater and CONUS signal supply systems, unit and organization supply, station supply, depot organization and management analysis, Army management, and depot maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74); in the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

Related Occupation Codes: 761A; 762A.

AR-1405-0021

Installation Supply Procedures

Course Number: 551-F1; 10-S-F27.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (107–108 hours).

Exhibit Dates: 3/65–6/85.

Objectives: To familiarize enlisted or civilian personnel who have had previous experience in supply procedures with the operation of consolidated supply activities.

Instruction: Lectures and practical exercises in installation supply procedures, including basic supply procedures, issue and turn-in procedures, initial processing of documents, stock accounting phase I and the economic inventory policy system, types of property, authorization media, procurement and sources of supply, storage procedures, automatic data processing, financial management, and stock fund concepts.

Credit Recommendation: In the vocational certificate category, 1 semester hour in materials management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (6/74).

AR-1405-0022

Ground Control Radar Repair, Specialist Candidate
(Ground Control Radar Repair, Skill Development Base)

Course Number: 104-26D20-1.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (584–624 hours).

Exhibit Dates: 11/68–7/76.

Objectives: To qualify enlisted personnel with prior training as ground control radar repairmen specialists.

Instruction: Lectures and practical exercises on ground control radar repair, including leadership and supervisory responsibilities, small unit administration; patrolling and reconnaissance; techniques of military instruction and military justice; maintenance and supply management; TAERS; vehicle maintenance, shop organization and administration; shop layout and construction; shop operations; installation requirements; site selection; equipment serviceability criteria; and direct and general support maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management (6/74).

Related Occupation Codes: 26D; 26W.

AR-1405-0023

Defense International Logistics Management

Course Number: 8A-F12.

Location: Logistics Management Center, Ft. Lee, VA.

Length: *Version 1:* 2 weeks (75 hours). *Version 2:* 2–3 weeks (74–111 hours).

Exhibit Dates: *Version 1:* 9/75–9/77. *Version 2:* 9/71–8/75.

Objectives: To familiarize Department of Defense personnel with the administration of security assistance programs.

Instruction: *Version 1:* Lecture-conferences, case discussions and analyses, practical exercises, and workshops. Topics include an introduction to Foreign Assistance Programs and Organizations, the Military Assistance Grant Aid program, and the Foreign Military Sales program. *Version 2:* Lectures and practical exercises in defense international logistics management, including problem solving and management techniques, resource and financial management in international logistics, introduction to foreign assistance programs and organizations, military assistance grant aid programs, foreign military sales programs, cooperative logistics programs, international logistics, and material management.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (12/75). *Version 2:* In the vocational certificate category, 3 semester hours in logistics management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in logistics management

(6/74); in the upper-division baccalaureate category, 3 semester hours in logistics management (6/74).

AR-1405-0024

Medical Supply Specialist
(Medical Supply Procedures)
(Medical Material Procedures)

Course Number: 551-76J10; 551-76J20; 551-767.1; 8-E-44.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 5–7 weeks (182–242 hours). *Version 2:* 4 weeks (140–143 hours).

Exhibit Dates: *Version 1:* 12/76–Present. *Version 2:* 3/56–11/76.

Objectives: To train enlisted personnel in medical supply procedures.

Instruction: Lectures in publications, property control and stock-accounting procedures, supply and services procedures at the installation level, and a survey of management methods.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in stock control accounting and inventory management (7/87). *Version 2:* In the vocational certificate category, 1 semester hour in materials management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (6/74).

Related Occupation Codes: 76A; 76J; 098.

AR-1405-0025

General Warehousing

Course Number: 10-R-551.1; 10-E-43.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (280 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train enlisted personnel as general warehousemen.

Instruction: Lectures and practical exercises on the receipt, storage, issue, and transportation of supplies. Topics include basic mathematics; Army supply system; packaging and packing; depot, installations, organizations, and unit supply systems; storage operations; protection of stored supplies; storage and materials handling problems, equipment and equipment operation; advanced operations; and maintenance service.

Credit Recommendation: In the vocational certificate category, 2 semester hours in warehousing (6/74).

AR-1405-0026

Ordnance Supply

Course Number: 551-R-763.1; 9-R-763.1; 9-E-7.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 5–8 weeks (192–294 hours).

Exhibit Dates: 6/56–12/68.

Objectives: To train enlisted personnel in stock control, storage, and inventory as applied to ordnance supplies and equipment.

Instruction: Lectures in supply economy, publications, repair parts transactions, allowance lists, field stock control, requisitioning and issue, turn-in, receiving and storage, preservation and safety, and supply organization.

Credit Recommendation: In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74).

AR-1405-0027

1. Quartermaster Supply
2. Quartermaster Storage

Course Number: *Version 1:* 10-R-764.1; 10-R-764.10; 10-E-24. *Version 2:* 10-E-24.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (140 hours). *Version 2:* 8 weeks (277 hours).

Exhibit Dates: *Version 1:* 3/56–12/68. *Version 2:* 8/54–2/56.

Objectives: To qualify enlisted personnel with prior training as supply clerks to perform as quartermaster supply specialists.

Instruction: Lectures and practical exercises on the receipt, storage, issue and stock-control procedures of quartermaster supplies and material, including installation supply; stock control and requisitioning; receipt, shipment, and inventory procedures; packaging; packaging problems and trends of development; classification and disposal; procedures and problems in classifying QM property; QM storage operations; stock control; and commissary operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (6/74). *Version 2:* In the vocational certificate category, 3 semester hours in materials handling (7/74).

AR-1405-0028

Materiel Storage and Handling Specialist Primary Technical
(Storage Specialist Primary Technical)
(Equipment Storage Specialist)

Course Number: 551-76V20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 3–6 weeks (119–202 hours). *Version 2:* 8 weeks (277–279 hours).

Exhibit Dates: *Version 1:* 7/74–6/85. *Version 2:* 12/67–6/74.

Objectives: To train personnel as equipment storage and supplies handling specialists.

Instruction: Lectures and practical exercises on the federal supply system, storage operations, packaging, packing, and materials-handling equipment, including basic mathematics; flow and distribution of supplies; duties and assignments; storage operations; protection procedures for general supplies; receiving, shipping, and inspection procedures; palletization of supplies and equipment; materials-handling equipment; and basic and advanced operation of specific equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in warehousing operations (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74).

Related Occupation Codes: 76V.

AR-1405-0029

1. Unit and Organization Supply Noncommissioned Officer (NCO)
(General Supply Supervision)
2. General Supply Supervision

Course Number: *All Versions:* 10-R-768.6. *Version 1:* 552-F1. *Version 2:* 10-R-F25.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (175–193 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 10/62–6/85. *Version 2:* 10/58–9/62.

Objectives: To qualify enlisted general supply specialists as general supply supervisors.

Instruction: Lectures and practical exercises in general supply duties, operations and logistics, including Army supply system, publications pertinent to supply, unit and organization supply, installation stock control and accounting procedures, depot storage operations, military packaging, supervision and management of personnel, supply and service operations in TOPNS, logistical support and TOPNS, and maintenance and inspection.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74). *Version 2:* Credit is not recommended because of the technical nature of the course (6/74).

AR-1405-0030

Chemical Supply

Course Number: 3-E-6.

Location: Chemical Corps School, Ft McClellan, AL.

Length: 8 weeks (352 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train enlisted personnel to store and handle chemical supplies and equipment, including chemical munitions.

Instruction: Lectures and practical exercises in the handling and storage of chemical supplies and munitions. Course includes technical aspects of atomic, biological, and chemical warfare; chemical munitions protection, materials handling, and organization and procedures for inventory control and processing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in materials management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (6/74).

AR-1405-0031

Ordnance General Supply Officer

Course Number: 9-B-4530.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 5–6 weeks (186–212 hours).

Exhibit Dates: 3/58–12/68.

Objectives: To train commissioned and warrant officers to organize, manage, and supervise ordnance supply activities.

Instruction: Lectures in the duties of ordnance general supply officers. Course includes instruction in supply accounting, warehousing and storage, special aspects of supply, and supply operations in wartime conditions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management (6/74); in the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

Related Occupation Codes: 761A; 762A.

AR-1405-0032

Procurement Sergeant

Course Number: 551-76N40.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (175 hours). *Version 2:* 4 weeks (141 hours).

Exhibit Dates: *Version 1:* 9/69-6/85. *Version 2:* 9/67-8/69.

Objectives: To train enlisted personnel in procurement and procurement administration.

Instruction: Lectures in procurement regulations, contracts, specifications, ethics and standards, small business and labor surplus policies, qualifying contractors, advertisement and negotiation, finance, taxes, assurance, performance evaluation, termination, and disputes and appeals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in procurement (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in procurement (6/74). *Version 2:* In the vocational certificate category, 2 semester hours in procurement (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in procurement (6/74); in the upper-division baccalaureate category, 2 semester hours in procurement (12/68).

Related Occupation Codes: 73C; 76P; 76N; 76Z.

AR-1405-0033

Transportation Supply and Parts Specialist
(Transportation Supply)
(Transportation Supply Specialist)

Course Number: 55-R-766.1; 551-76H20; 55-E-60.

Location: Transportation School, Ft. Eustis, VA.

Length: 4-7 weeks (140-246 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train selected enlisted personnel to receive and store transportation supplies.

Instruction: Lectures and practical exercises in general supply procedures and operations. Course includes supply subjects, transportation technical training and counterinsurgency. Course covers training in the receipt and storage of transportation supplies, exclusive of spare parts. Course includes military science, aviation supply, and railway supply.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

Related Occupation Codes: 76H.

AR-1405-0034

Missile Repair Parts Specialist

Course Number: 551-76R20.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-5 weeks (129-168 hours).

Exhibit Dates: 9/67-11/77.

Objectives: To train stock control and accounting specialists to perform as missile repair parts specialists.

Instruction: Lectures, demonstrations, and practical exercises in receipt, storage, inspection, identification, preservation, and shipment of missile repair parts, including review of flow of repair parts; missile system and item identification; missile component identification; repair parts procedures; missile system float, shop stock, and cannibalization; introduction to storage operations; equipment planning; receiving operations; and inventory and shipping procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in repair parts management techniques (6/75).

Related Occupation Codes: 76P; 76R.

AR-1405-0035

Automotive Repair Parts Specialist

Course Number: 551-76S20.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (123 hours). *Version 2:* 4-5 weeks (148-168 hours).

Exhibit Dates: *Version 1:* 8/74-11/77. *Version 2:* 9/67-7/74.

Objectives: To train enlisted personnel to receive, store, inspect, identify, preserve, and ship automotive repair parts.

Instruction: Lectures, demonstrations, and practical exercises in the receipt, storage, inspection, identification, and shipment of automotive repair parts. Course includes parts identification systems, cataloguing and storage, accounting procedures, and records maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in repair parts management techniques (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in parts merchandising or inventory control (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in parts merchandising or inventory control (7/74); in the upper-division baccalaureate category, 3 semester hours in parts merchandising or inventory control (7/74).

Related Occupation Codes: 76P; 76S.

AR-1405-0036

Automotive Repair Parts, Skill Development Base

Course Number: 551-76S20-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (427 hours).

Exhibit Dates: 4/69-2/73.

Objectives: To train selected enlisted personnel as supervisors of automotive repair parts supply operations.

Instruction: Lectures and practical exercises in the duties of an automotive repair parts specialist, military command subjects, instructor training, accounting procedures, data processing systems, and storage operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in parts and service merchandising or supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in parts and service merchandising or supply management (7/74); in the upper-division baccalaureate category, 3 semester hours in parts and service merchandising or supply management (7/74).

Related Occupation Codes: 76S.

AR-1405-0037

Associate Ordnance Company Officer

Course Number: 9-A-C3; 9-O-2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 14 weeks (504-505 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train officers in the duties and responsibilities of company grade ordnance officers.

Instruction: Lectures and practical exercises in the duties of associate ordnance company officers, including tactics and staff procedures, ordnance service fundamentals, military leadership and management fundamentals, ordnance general supply, management of organizational supply, maintenance logistics, field and depot supply and maintenance management, ordnance ammunition service, logistical aspects of new Army organizations, guided missile and special weapons logistics, problems in ordnance service management, and specific materiels.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AR-1405-0038

Supply Handling

Course Number: 10-R-550.0; 10-E-35.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (280 hours).

Exhibit Dates: 8/53-12/68.

Objectives: To train enlisted personnel as supply handlers.

Instruction: Lectures and practical exercises in loading and unloading supplies and equipment, operation of materials handling equipment, and the receipt, storage, issue, sale, and salvage of technical or general material. Course includes basic mathematics, Army supply system, packing and crating, classification and disposal, storage operations, materials handling equipment, and petroleum products handling.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials handling (7/74).

AR-1405-0039

Army Supply Management

Course Number: 400-O-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (441 hours).

Exhibit Dates: 2/56-12/57.

Objectives: To train supply managerial personnel in advanced aspects of supply management.

Instruction: Lectures and practical exercises on supply management, including Army supply organization, logistical careers, mobilization supply planning, control of levels and requirements, modernization of the Army, industrial mobilization base, cataloging and commodity assignment, effects of procurement on supply, factors affecting procurement, Army distribution system, stock control, maintenance, disposal of excess stocks, delegation of supply responsibility, transportation and traffic management, personnel management, management controls, control devices, monetary controls, and logistical problems.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in administration and supply (12/68).

AR-1405-0040

1. Petroleum Officer
2. Petroleum Officer
   (Petroleum Products Supply Officer)
   (Petroleum Products Analysis and Supply)
3. Petroleum Products Supply
4. Petroleum Products Supply
5. Petroleum Products Analysis and Control Officer

Course Number: *Version 1:* 8B-4960. *Version 2:* 8B-4960; 10-A-4960. *Version 3:* 10-O-12. *Version 4:* 10-O-12. *Version 5:* 10-O-12.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 12 weeks (418-424 hours). *Version 2:* 13-16 weeks (467-558 hours). *Version 3:* 14 weeks (490 hours). *Version 4:* 8 weeks (280 hours). *Version 5:* 15 weeks (563 hours).

Exhibit Dates: *Version 1:* 7/68-6/85. *Version 2:* 8/58-6/68. *Version 3:* 6/56-7/58. *Version 4:* 6/55-5/56. *Version 5:* 9/54-5/55.

Objectives: To provide commissioned officers with a working knowledge of the functions, duties, and responsibilities of petroleum supply and laboratory techniques.

Instruction: Lectures and practical exercises in general petroleum subjects; basic laboratory subjects and tests; chemical laboratory tests; petroleum supply operations; terminal operations; and pipeline operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in petroleum laboratory techniques (6/75); in the upper-division baccalaureate category, 3 semester hours in petroleum supply management (6/75). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in petroleum products supply management, 2 in laboratory analysis (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in petroleum products supply management (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in petroleum products supply management (12/68). *Version 5:* In the upper-division baccalaureate category, 2 semester hours in petroleum products supply management, 2 in laboratory analysis (12/68).

AR-1405-0041

Quartermaster Company Officer

Course Number: *Version 1:* 10-A-C2. *Version 2:* 10-O-1. *Version 3:* 10-O-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 20 weeks (609-657 hours). *Version 2:* 35-36 weeks (1129-1243 hours). *Version 3:* 24 weeks (762 hours).

Exhibit Dates: *Version 1:* 12/57-12/68. *Version 2:* 9/55-11/57. *Version 3:* 4/55-8/55.

Objectives: To train commissioned officers in the duties and responsibilities of company grade Quartermaster Corps officers.

Instruction: *All Versions:* Lectures and practical exercises in the duties and responsibilities of company grade Quartermaster Corps officers. *Version 1:* Topics include command and staff procedures, organization and tactics of combat arms, supply and distribution procedures, QM operations in TOPNS, commissary operations, tactical employment of combat arms, intelligence and operations, and combat zone. *Version 2:* Topics include unit organization supply, principles of procurement, combat arms defensive operations, intelligence and operations, basic metals and metal fabricating, contract law, Army command management, and installation supply. *Version 3:* Topics include unit and organization supply, station supply, commissary operations, command and staff, food service, comptroller and financial management, operation and maintenance, and QM functions.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in business organization and management, and 4 in supply management (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and 6 in supply management (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in business organization and management, and 5 in supply management (12/68).

AR-1405-0042

Storage and Distribution Management
(Distribution Management)

Course Number: 400-1-F3.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 5/57-12/68.

Objectives: To train officers and civilians in storage and distribution management.

Instruction: Lectures and practical exercises in storage and distribution management, including interrelationship of logistics functions, organization and management of the Army distribution system, the depot system, tools of distribution management, management of depot operations, traffic management, and management controls.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (7/74).

AR-1405-0043

Transportation Parts Specialist
(Transportation Parts Supply)

Course Number: 55-E-45.

Location: Transportation School, Ft. Eustis, VA.

Length: 4 weeks (145-153 hours).

Exhibit Dates: 7/54-12/68.

Objectives: To train enlisted personnel to perform as transportation parts specialists.

Instruction: Lectures and practical exercises on the use, interchangeability, and identification of transportation spare parts, and the receipt, storage, and issuance of parts for transportation equipment, including general supply procedures; identification, classification, and interchangeability of spare parts; receiving, storage, and issue procedures; and shipment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (7/74).

AR-1405-0044

Subsistence Supply Specialist
(Subsistence Storage Specialist)

Course Number: *Version 1:* 822-76X10. *Version 2:* 822-76X10; 822-56D2; 10-R-533.1. *Version 3:* 10-E032; 10-R-533.1.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6-7 weeks (228-253 hours). *Version 2:* 5-6 weeks (178-229 hours). *Version 3:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 1/85-9/88. *Version 2:* 10/63-12/84. *Version 3:* 3/56-9/63.

Objectives: To train enlisted personnel to receive, store, issue, and ship subsistence supplies.

Instruction: *Version 1:* Lectures, conferences, and practical exercises in subsistence supplies requisitioning and receiving; storage, shipment, issues, materiels handling equipment, packaging, depot stock control procedures and subsistence operations, organization, and layout of field storage areas are all covered in this course. *Version 2:* Lectures and practical exercises in subsistence supplies requisitioning and receiving, storage, shipping, issue, materials-handling equipment, packaging, depot stock control procedures, commissary operations, and supply system organization. *Version 3:* Lectures and practical exercises in subsistence supplies requisitioning and receiving, storage, shipping, issue, materials-handling equipment, packaging, depot stock control procedures, commissary operations, and supply system organization. Instruction includes basic mathematics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in materiel handling (10/88) *Version 2:* In the vocational certificate category, 2 semester hours in materials handling (7/74). *Version 3:* In the vocational certificate category, 3 semester hours in materials handling (7/74).

Related Occupation Codes: 76X.

AR-1405-0045

Transportation Supply Officer

Course Number: 55-B-4474.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (175 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To train officers to direct and supervise receipt, storage, and issue of Transportation Corps supplies and equipment.

Instruction: Lectures and practical exercises in general supply and transportation supply management functions, including receipt, storage, and issue of Transportation Corps supplies and equipment, manpower control, industrial funds, introduction to accounting, stock funds and consumer funding, performance analysis and work measurement, aircraft technical publications, and officer indoctrination and physical conditioning.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AR-1405-0046

Associate Quartermaster Officer Career

Course Number: 8-10-C23; 10-A-C23.

Location: Quartermaster School, Ft. Lee, VA.

Length: 15-16 weeks (525-579 hours).

Exhibit Dates: 10/60-12/68.

Objectives: To train commissioned officers as Quartermaster Corps officers.

Instruction: Lectures and practical exercises in duties of Quartermaster Corps officers, including supply control, storage, and distribution; financial management; automated supply systems; communicative skills; map and air photograph reading; nuclear, chemical, biological, electronics, and radiological warfare; emergency planning; signal communications; and logistics and combat operations.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in supply management, 2 in business organization and management (12/68).

AR-1405-0047

General Supply Specialist
(Unit Supply)

Course Number: 10-R-768.2; 10-R-768.1; 10-E-12.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6-8 weeks (210-284 hours).

Exhibit Dates: 8/53-12/68.

Objectives: To train supply clerks to perform as general supply specialists.

Instruction: Lectures and practical exercises in general unit supply duties, general supply operations and logistics, organizational maintenance of small arms, and duties of unit armorer, including unit and organization supply, installation supply, fitting of clothing and footwear, packing and crating, organizational maintenance of small arms, federal supply system, supply publications, surveillance, storage, and preparation for unit movement.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AR-1405-0048

Ordnance Officer Basic

Course Number: *Version 1:* 4-9-C20. *Version 2:* 9-A-C1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9-12 weeks (339-464 hours). *Version 2:* 9 weeks (344 hours).

Exhibit Dates: *Version 1:* 9/70-6/77. *Version 2:* 10/57-8/70.

Objectives: To train newly commissioned officers in the duties and responsibilities of Ordnance Corps officers.

Instruction: *All Versions:* Lectures and practical exercises in the duties and responsibilities of ordnance officers, including basic officer military orientation, administration, and ordnance materiel supply. *Version 1:* Topics include management and general subjects, organizational supply and maintenance, and ordnance familiarization. *Version 2:* Topics include operations, tactics and staff procedures, ordnance service organization, and ordnance field service.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in management (1/78). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in supply management, and credit in advanced military at institutions which normally offer such credit (12/68).

AR-1405-0049

Quartermaster Supply Supervision

Course Number: 10-E-33.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (277 hours).

Exhibit Dates: 8/54-12/68.

Objectives: To train enlisted personnel to supervise supply activities.

Instruction: Lectures and practical exercises in the supervision of supply activities, excluding petroleum and subsistence stores. Course includes supply management, station supply, and depot and storage operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials handling (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AR-1405-0050

Quartermaster Parts Supply

Course Number: 551-774.1; 10-R-774.1; 10-E-39.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (140-145 hours).

Exhibit Dates: 12/53-12/68.

Objectives: To train enlisted personnel to use, identify, receive, store, and issue repair parts for quartermaster equipment.

Instruction: Lectures and practical exercises in the receipt, storage, and identification of repair parts for quartermaster equipment. Course includes interchangeability of repair parts; packaging; stock control; identification and relationship of major and minor assemblies of materials handling equipment; and special-purpose vehicles and equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in materials handling (7/74).

AR-1405-0051

Medical Supply Specialist Reserve Component (Nonresident/Resident)

Course Number: 551-76J10 (RC).

Location: Academy of Health Sciences (Phase II), Ft. Sam Houston, TX.

Length: Phase II 2 weeks (74-84 hours).

Exhibit Dates: 12/77-10/89.

Objectives: To provide medical supply specialists with a working knowledge of medical materiel procedures.

Instruction: Phase II, the resident portion of the course, consists of lectures and practical exercises in medical supply procedures including property control, automated property control, and stock accounting procedures for medical units.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (8/87). Note: Phase I of this course is nonresident in nature and carries no credit. Credit recommendation applies only to Phase II, the resident portion of the course.

Related Occupation Codes: 76J.

AR-1405-0052

Signal Supply Officer Advanced
(Signal Supply Advanced)

Course Number: 11-A-F1; 11-O-23.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12-13 weeks (456-478 hours).

Exhibit Dates: 2/55-12/68.

Objectives: To train commissioned officers to manage signal supply activities, including requirements, national stock control, and supply control.

Instruction: Lectures and practical exercises in the management of signal supply activities. Course includes oral and written communications, general management, personnel management, financial inventory management, and production management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-1405-0053

Property Disposal

Course Number: 10-O-14

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (148 hours).

Exhibit Dates: 9/54-12/68.

Objectives: To train commissioned officers to dispose of property.

Instruction: Lectures and practical exercises in the functions, duties, and responsibilities of property disposal officers. Course includes general management, commercial law, general supply procedures, receipt and processing property for disposal, disposition of property and salvage operations.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in general management, 1 in business law (7/74).

AR-1405-0054

Ammunition Records Clerk, Skill Development Base

Course Number: 551-76M20-1.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 12 weeks (425 hours).

Exhibit Dates: 10/68-12/70.

Objectives: To train selected enlisted personnel to perform the duties of an ammunition records clerk.

Instruction: Lectures and practical exercises in the duties of an ammunition records clerk. Course includes leadership training; ammunition material, storage, handling, and movement; chemical ammunition; and maintenance and destruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

Related Occupation Codes: 76M; 55B.

AR-1405-0055

Chemical Supply Supervision

Course Number: 3-R-761.6; 3-E-15.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 3 weeks (116-118 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train noncommissioned officers who are qualified as chemical supply and parts specialists to supervise the operations of depot supply activities.

Instruction: Lectures and practical exercises in the supervision of the operations of depot supply activities, including logistics, general supply management, procurement, military transportation, supply policies and procedures, distribution and storage, maintenance, theater supply and service operations, military training and operations, combat arms, technical aspects of biological and chemical weapons systems, nuclear warfare, and medical training and support.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-1405-0056

Engineer Supply and Spare Parts Officer

Course Number: 5-O-20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8 weeks (286 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train commissioned and warrant officers to perform as engineer supply and spare parts officers.

Instruction: Lectures and practical exercises on the direction and supervision of the procurement and storage of engineer supplies, equipment, and spare parts, including organization for supply, depot organization and services, stock control, storage, engineer repair parts supply, and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

Related Occupation Codes: 761A; 762A.

AR-1405-0057

Requirements Management

Course Number: 400-1-F2.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 8 weeks (240-352 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train officers in inventory control, mathematics, requirements computation, and commodity management problems.

Instruction: Lectures and practical exercises in inventory control, mathematics, requirements computation, and commodity management problems, including management and communications, basic statistical mathematics and graph work, human relations, pipeline principles and operation, supply-level analysis, system limitations, collection and evaluation of data, material control of principal and secondary items, demand forecasting, inventory modernization, financial management, standardization, and various policies and concepts applicable to inventory management.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in business management (12/68).

Related Occupation Codes: 711A.

AR-1405-0058

PROPERTY DISPOSAL

(Property Disposal Management)

Course Number: 400-1-4600.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 5 weeks (152-200 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train property disposal officers in property disposal management.

Instruction: Lectures and practical exercises in property disposal management, including regulatory statutes, governmental regulations and policies, property disposal operations, logistics, excess-property screening, types of property, preparation for sale and other disposal methods, display procedures, financial relationships, personnel management, and strategic material disposal.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in property disposal management (12/68).

Related Occupation Codes: 411A; 621A.

AR-1405-0059

ENGINEER SUPPLY

Course Number: 5-E-35.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train enlisted personnel to perform supply duties and maintain records for the receipt, storage, issue, shipment, classification, and salvage of engineer material.

Instruction: Lectures and practical exercises in supply procedures and record maintenance for the receipt, storage, issue, shipment, classification, and salvage of engineer material, including depot and station supply operations; supply storage, packing, crating, processing, preserving, and marking of materiel; repair parts supply; supply installations security; equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (7/74).

AR-1405-0060

SUPPLY STAFF OFFICER, G4/S4

Course Number: 8A-4010.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3-4 weeks (105-143 hours).

Exhibit Dates: 11/68-6/85.

Objectives: To train commissioned officers to plan, direct, supervise, and coordinate composite activities related to supply, evacuation, transportation services, and other logistical activities.

Instruction: Lectures and practical exercises in supply activities, including evacuation concerns, transport, and other related concerns. Course includes policies and procedures related to acquisition, control and maintenance, and distribution of supplies, and financial accounting in tactical organizations, posts, and installations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AR-1405-0061

UNIT SUPPLY SPECIALIST ADVANCED INDIVIDUAL TRAINING

(Unit Supply Specialist)

Course Number: 552-76Y10.

Location: Quartermaster School, Ft. Lee, VA; Quartermaster School, Ft. Jackson, SC.

Length: 7-8 weeks (254-260 hours).

Exhibit Dates: 1/83-Present.

Objectives: To train selected enlisted personnel to perform supply duties and to maintain small arms.

Instruction: Lectures and practical exercises in supply operations and the maintenance of small arms. Course includes basic mathematics, typewriting, use of technical publications, unit and organization supply procedures, and organizational maintenance of small arms.

Credit Recommendation: In the vocational certificate category, 1 semester hour in records maintenance, 1 in supply supervision and maintenance (8/88).

Related Occupation Codes: 76Y.

AR-1405-0062

SUBSISTENCE SUPPLY SUPERVISION

Course Number: 10-R-553.6; 10-E-34.

Location: Quartermaster School, Ft. Lee, VA.

Length: 5-8 weeks (177-277 hours).

Exhibit Dates: 8/54-12/68.

Objectives: To train subsistence storage specialists to supervise the receipt, storage, issue, and sale of subsistence supplies.

Instruction: Lectures and practical exercises in the supervision of the receipt, storage, issue, and sale of subsistence supplies, including administrative procedures, basic mathematics, financial management, supply and accounting procedures, depot and commissary operations, procurement, food service, logistics, processing, packaging, crating and marking, materials handling equipment, teaching principles, and defense operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (7/74).

AR-1405-0063

QUARTERMASTER OFFICER ORIENTATION

Course Number: 8-10-C21.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (128-142 hours).

Exhibit Dates: 9/67-12/73.

Objectives: To train commissioned officers as Quartermaster Corps officers.

Instruction: Lectures and practical exercises in duties of Quartermaster Corps officers, including supply management and accounting procedures, airborne operations, food operations, financial management, procurement, maintenance procedures, property disposal, automated supply systems, and military subjects.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (7/74).

AR-1405-0064

SUPPLY SPECIALIST REFRESHER

Course Number: 551-F6.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/67-6/85.

Objectives: To provide enlisted personnel with refresher training in supply operations, inventory control procedures, and storage operations.

Instruction: Lectures and practical exercises in supply operations, inventory control, and storage operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

Related Occupation Codes: 76P; 76Q; 76R; 76S; 76T; 76U; 76V; 76Y; 76Z.

AR-1405-0065

DEFENSE REUTILIZATION AND MARKETING OPERATIONS - ADVANCED

(Defense Advanced Disposal Management)

Course Number: 8B-F17.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.

Length: *Version 1:* 3 weeks (115 hours). *Version 2:* 4 weeks (151-152 hours). *Version 3:* 4 weeks (150 hours).

Exhibit Dates: *Version 1:* 9/83-Present. *Version 2:* 7/69-8/83. *Version 3:* 10/67-6/69.

Objectives: To train military and civilian personnel in the management of property disposal activities.

Instruction: Lecture-conferences, practical exercises, and cases in property disposal management. Topics include management principles and techniques, Department of Defense disposal program, and management of disposal operations—marketing by and administration of holding activities, property control, materiel processing, and contracting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hours in general management (3/86). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in general management (3/78). *Version 3:* In the vocational certificate category, 1 semester hour in supply management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/74); in the upper-division baccalaureate category, 3 semester hours in surplus property disposal management (12/68).

Related Occupation Codes: 411A; 621A; 630A; 631A; 632A.

AR-1405-0066

SUBSISTENCE STORAGE SPECIALIST SKILL DEVELOPMENT BASE

Course Number: 822-76X40-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (437 hours).

Exhibit Dates: 3/69–6/85.

Objectives: To train selected enlisted personnel to perform as supervisors and technicians in subsistence storage and supply.

Instruction: Lectures and practical exercises in the duties of a subsistence storage specialist. Course includes leadership subjects, inspections, map reading, internal defense and development, administrative concerns, accounting, ration breakdown operations, depot storage operations, and subsistence supply.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

Related Occupation Codes: 76X.

AR-1405-0067

Electronic Warfare (EW) Intercept Systems Repairman Basic Technical

Course Number: 102-33S30; 102-F29.

Location: Intelligence School, Ft. Devens, MA.

Length: 2 weeks (61 hours).

Exhibit Dates: 2/76–9/86.

Objectives: To train technicians in organizational supply for communications systems maintenance.

Instruction: Methodology and practices in property accounting, structuring and operation of a unit supply operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply and maintenance management (9/77).

Related Occupation Codes: 33S.

AR-1405-0068

1. Missile and Munitions Officer
   (Ammunition and Missile Maintenance Officer)
2. Ammunition and Missile Maintenance Officer
   (Guided Missile and Special Weapons Staff Officer)
   (Ordnance Staff Officer Guided Missile and Special Weapons)
   (Ordnance Staff Officer Guided Missile and Nuclear Weapons)

Course Number: *All Versions:* 4F-4515. *Version 2:* 9-A-4513.

Location: *All Versions:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 8–20 weeks (247–703 hours). *Version 2:* 12–18 weeks (433–646 hours).

Exhibit Dates: *Version 1:* 4/69–12/73. *Version 2:* 12/58–3/69.

Objectives: To provide company commanders and field grade officers with an overview of the various Army missile systems.

Instruction: *All Versions:* Lectures and practical exercises covering operational aspects of Army missile systems and ammunition and missile maintenance, service, and supply. *Version 2:* Includes a brief overview of electrical and electronic circuits.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (6/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in supply management (12/68).

AR-1405-0069

1. Quartermaster Officer Basic
2. Quartermaster Officer Basic, Common Core
3. Quartermaster Officer Basic
4. Quartermaster Officer Basic
5. Quartermaster Officer Orientation
   (Quartermaster Officer Basic)

Course Number: *Version 1:* 8-10-C20-81A/82A/92A. *Version 2:* 8-10-C20. *Version 3:* 8-10-C20. *Version 4:* 10-A-C20; 10-O-A; 10-A-C1. *Version 5:* 10-O-A.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 19 weeks (794 hours). *Version 2:* 10 weeks (373 hours). *Version 3:* 12 weeks (440–456 hours). *Version 4:* 9 weeks (300–328 hours). *Version 5:* 8–14 weeks (296–490 hours).

Exhibit Dates: *Version 1:* 5/82–Present. *Version 2:* 8/78–4/82. *Version 3:* 6/73–7/78. *Version 4:* 4/68–5/73. *Version 5:* 6/55–3/68.

Objectives: To train newly commissioned quartermaster officers for their first duty assignment.

Instruction: *All Versions:* Lectures and practical exercises in basic quartermaster officer training, including officer orientation, skill functions, unit functions, combined arms, and skill application. *Version 1:* Practical exercises, conferences, demonstrations, film and television, seminars, case studies, and examinations all present materials designed to train newly commissioned quartermaster officers as either petroleum, subsistence supply, or supply and service management officers. Course covers officer orientation and professional development, unit logistics and functions, unit supply and maintenance, materiel management, automatic data processing, subsistence management, food service management, petroleum operations, and water supply operations. *Version 2:* Topics include organizational effectiveness, human relations, and unit logistics, including the Army maintenance management system, supply procedures, and petroleum operations. Also included are an introduction to military justice, civil disturbance operations, and operations security. *Version 4:* Topics include methods and conduct of inspection, conditioning activities, methods of instruction, military briefing techniques, Army maintenance management system, fuel system supply point and tank vehicles, dining facility accounting, CBR operations, basic supply, electronic countermeasures and counter-countermeasures, and qualification firing. *Version 5:* Topics include map and air photograph reading, CBR and nuclear weapons, communications equipment, supply and distribution procedures, maintenance and inspection, installation supply, and company administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to management, 2 in supply management (8/85); in the upper-division baccalaureate category, 4 semester hours in organizational behavior (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in law enforcement on the basis of institutional evaluation; in the upper-division baccalaureate category, 2 semester hours in organizational behavior and 3 in supply management (5/81). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in organizational behavior and leadership and 3 in supply management (6/75). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management, 2 in business organization and management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management, 2 in business organization and management (7/74). *Version 5:* In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management, 2 in business organization and management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management and credit in military science at institutions which normally offer such credit (12/68).

AR-1405-0070

1. Supply and Service Management Officer
2. Supply and Service Management Officer
3. Supply Management Officer
   (Supply and Service Management Officer)
   (Army Supply Officer)

Course Number: *Version 1:* 8B-92A/B/8B-761A/762A. *Version 2:* 8B-762A; 8B-761A; 8B-921A. *Version 3:* 8B-92A; 8B-762A; 8B-761A; 8B-4201; 10-B-761A.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 9–10 weeks (342 hours). *Version 2:* 9–10 weeks (342 hours). *Version 3:* 7 weeks (248–251 hours).

Exhibit Dates: *Version 1:* 1/82–5/85. *Version 2:* 1/68–12/81. *Version 3:* 8/64–12/67.

Objectives: To train officers in supply and logistics policies, principles, and procedures.

Instruction: *All Versions:* Lectures and practical exercises in supply and maintenance operations, supply accounting, inventory management, automatic data processing,financial management, storage, procurement, and property disposal. *Version 1:* Lectures, discussions, seminars and logistics exercises in supply and maintenance operations, principles of acquisition, materials management, supply accounting, inventory management, automatic data processing, financial management, storage, procurement, and property disposition are all covered. Emphasis is on unit, direct and general support procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in logistics management (8/85). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in supply management (6/75). *Version 3:* In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (7/74).

Related Occupation Codes: 761A; 762A.

AR-1405-0071

1. Logistics Executive Development
2. Army Logistics Management
   (Army Supply Management)

Course Number: *Version 1:* 8A-F17. *Version 2:* 8A-F1; 400-G-F1.

Location: Logistics Management Center, Ft. Lee, VA.

Length: *Version 1:* 19 weeks (677–691 hours). *Version 2:* 12 weeks (306–480 hours).

Exhibit Dates: *Version 1:* 7/70–1/88. *Version 2:* 12/57–6/70.

Objectives: To train officers in logistics management.

Instruction: *All Versions:* Lectures and practical exercises in logistics management, including general materiel management, inventory and maintenance management, depot operation management, and disposal; management philosophy, decision-making and problem-solving techniques, management development, personnel management and human resources, and communications and information systems management; financial management, procurement, contract definition, and economics of management; computer applications, and management planning; and international logistics. *Version 1:* Includes development of national strategy, military strategy, and foreign policy; logistics organizations and overview; quantitative analysis and systems analysis; engineering with relation to acquisition of materiel; distribution and transportation management; planning, operation, maintenance, and management of buildings, grounds, and facilities; future trends in logistics doctrine; joint and combined operational commands and field logistics, and electives in defense procurement, assets, or inventory management; risk decision analysis; cost estimating; automatic data processing on an executive level; system development requirements; computers in logistics; research and development/test management; national security management; logistics research; or operations research/systems analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in general management electives, 6 in quantitative analysis, 6 in logistics management (8/74); in the graduate degree category, 9 semester hours in general management and quantitative analysis (8/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in supply management (8/74).

AR-1405-0072

Quartermaster Officer Familiarization

Course Number: 10-A-C21.

Location: Quartermaster School, Ft. Lee, VA.

Length: 5 weeks (175 hours).

Exhibit Dates: 12/60-12/68.

Objectives: To provide commissioned officers with branch training in the organization and operation of the Quartermaster Corps.

Instruction: Lectures and practical exercises in the organization and operation of the Quartermaster Corps, including quartermaster missions, installation supply and stock control procedures, procurement operations, depot and storage operations, Army management, maintenance and inspection, petroleum supply, and organization and procedures for supply of QM commodities in TOPNS.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AR-1405-0073

1. Installation Stock Control (Quartermaster Stock Control)
2. Quartermaster Stock Control

Course Number: *All Versions:* 10-O-7. *Version 1:* 10-G-F1; 10-I-F1.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 3-4 weeks (119-140 hours). *Version 2:* 6 weeks (213 hours).

Exhibit Dates: *Version 1:* 9/55-12/68. *Version 2:* 9/54-8/55.

Objectives: To provide training in quartermaster stock control and accounting procedures at post, camp, or station.

Instruction: Emphasis is on basic supply procedures, installation stock control, and financial management of inventory. Course also covers property accountability and responsibility, supply functions, property accounts, stock records, processing of requisitions, installation and use of storage facilities, and bids and contracts.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in supply management (12/68). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

Related Occupation Codes: 761A; 762A.

AR-1405-0074

1. Ordnance Maintenance Management Officer Basic
2. Ordnance Officer Basic
3. Ordnance Officer Basic Ordnance Maintenance Management

Course Number: *Version 1:* 4-9-C20-91B; 4-9-C20-91A. *Version 2:* 4-9-C20. *Version 3:* 4-9-OB-91A.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 19-20 weeks (669-759 hours) *Version 2:* 19-20 weeks (734 hours). *Version 3:* 18-19 weeks (579 hours).

Exhibit Dates: *Version 1:* 1/86-Present. *Version 2:* 11/83-12/85. *Version 3:* 3/80-10/83.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to perform the duties of a vehicle maintenance administrator which would include logistics, instructions, communications, and skills and knowledge of vehicle maintenance. *Version 2:* Newly commissioned ordnance officers will be able to function as platoon leaders and maintenance management officers. *Version 3:* Upon completion of the course the student will be able to perform the duties of a vehicle maintenance administrator which would include logistics, instructions, communications, and skills and knowledge of vehicle maintenance.

Instruction: *Version 1:* Lectures, demonstrations, and practical exercises in unit administration. logistics, supply, effective communications and the skills and knowledge of vehicle maintenance. *Version 2:* Instruction in platoon leadership, unit training management and administration, supply management, maintenance management, automotive and support equipment fundamentals, armament maintenance, recovery operations, mission and layout of machine shop and metal repair shops, tactical training, and effective writing. *Version 3:* Lectures, demonstrations, and practical exercises in unit administration. logistics, supply, effective communications and the skills and knowledge of vehicle maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 2 in automotive/heavy equipment fundamentals (3/87); in the upper-division baccalaureate category, 3 semester hours in principles of supervision, 3 in vehicle maintenance management, 2 in fundamentals of instruction, and 4 in logistics (3/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills (writing), 2 in automotive/heavy equipment and support equipment fundamentals (2/84); in the upper-division baccalaureate category, 3 semester hours in supervision, 3 in maintenance management, 2 in training management, 4 in supply management (2/84). *Version 3:* 1 semester hour in communication skills, 2 in automotive/heavy equipment fundamentals (3/87); in the upper-division baccalaureate category, 3 semester hours in principles of supervision, 3 in vehicle maintenance management, 2 in fundamentals of instruction, and 4 in logistics (3/87).

AR-1405-0075

Army Provisioning Management
(Army Initial Provisioning Management)

Course Number: ALM-43-0239.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 4 weeks (108-125 hours).

Exhibit Dates: 7/72-12/86.

Objectives: To train military and civilian personnel in the Army provisioning process how to determine the initial materiel support requirements of Army equipment.

Instruction: Lecture-conferences, practical exercises, workshops and cases. Topics include planning for functional interrelationships in the provisioning process (procurement, maintenance, and supply functions), provisioning management controls and techniques, and logistic support engineering and the provisioning process.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in logistics management (5/81).

Related Occupation Codes: 761A; 762A.

AR-1405-0076

Defense Inventory Management

Course Number: 8B-F11.

Location: Logistics Management Center, Ft. Lee, VA; On-Site and Off-Campus Locations, Continental U.S.

Length: 5-6 weeks (186-227 hours).

Exhibit Dates: 1/66-1/88.

Objectives: To provide officers and civilian personnel with an understanding of the principles and techniques involved in the management of Defense Department materiel inventories.

Instruction: Lecture-conferences, practical exercises, computer-assisted simulations and guest lectures. Topics include inventory theory, material requirements determination, priority determinations, procurement, cataloging and inventory management at wholesale and retail levels.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in inventory management (12/75).

Related Occupation Codes: 761A; 762A; 411A; 630A; 631A; 632A; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1405-0077

Supply (SU-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 5-SU-C42A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11 weeks (363-368 hours).

Exhibit Dates: 3/73-12/77.

Objectives: To provide selected enlisted personnel with the necessary supervisory skills to perform as noncommissioned officers.

Instruction: Lectures and practical exercises in logistical combat support, leadership, maintenance management, communication techniques, automatic data processing, storage operations, procurement management, and property disposal.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 76N; 76P; 76Q; 76R; 76S; 76T; 76U; 76V; 76X; 76Y; 76Z.

AR-1405-0078

Defense Reutilization and Marketing
Operations - Advanced by
Correspondence
(Defense Advanced Disposal Management by Correspondence)

Course Number: 8B-F17.

Location: Sponsored by Logistics Management Center, Ft. Lee, VA.

Length: Course is conducted through correspondence.

Exhibit Dates: 9/76–1/88.

Objectives: To train personnel in the management of property disposal activities.

Instruction: Correspondence lessons cover management techniques and skills, Department of Defense disposal program, and management of disposal operations; marketing by and administration of holding activities, property control, materiel processing, and contracting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in general management (12/76).

AR-1405-0079

Defense Inventory Management
Correspondence Course

Course Number: 8B-F11.

Location: Sponsored by Logistics Management Center, Ft. Lee, VA.

Length: Course is conducted through correspondence.

Exhibit Dates: 7/76–1/88.

Objectives: To provide students with an understanding of the principles and techniques involved in the management of Defense Department materiel inventories.

Instruction: Topics include inventory theory, materiel requirements determination, priority determination, procurement cataloging, and inventory management at wholesale and retail levels.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in inventory management (12/76).

AR-1405-0080

Defense Property Disposal Operations
Correspondence Course

Course Number: 8G-F1.

Location: Sponsored by Logistics Management Center, Ft. Lee, VA.

Length: Course is conducted through correspondence.

Exhibit Dates: 9/76–1/89.

Objectives: To train students to perform property disposal activities.

Instruction: Correspondence lessons cover disposal responsibilities and processing property for disposal, property disposition, presale action at holding offices and sales offices, sale and contracting procedures, and management controls and operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in property disposal management (12/76).

AR-1405-0081

Logistics Executive Development by
Correspondence

Course Number: 8A-F17.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Course is conducted through correspondence.

Exhibit Dates: 6/75–1/88.

Objectives: To train officers in logistics management.

Instruction: Correspondence lessons cover management principles, financial management, the acquisition process, assets management, economic and statistical principles, and logistics management.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hours in general management, 4 in economic principles and decision making, and 6 in logistics management (12/76); in the graduate degree category, 3 semester hours in general management (12/76).

AR-1405-0082

Army Cataloging
(AMC Cataloging)

Course Number: ALM-58R900.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Self-paced 3 weeks (Averaging about 92 hours).

Exhibit Dates: 7/75–12/80.

Objectives: To provide the knowledge and skill necessary to perform supply parts cataloging functions.

Instruction: Programmed instruction and practical exercises covering the Federal Cataloging System, the Defense Integrated Data System, and the Commodity Command Standard System. Initial, intermediate, and final surveys are used to examine the students throughout the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply cataloging (12/76).

AR-1405-0083

Commodity Command Standard
System (CCSS) Supply
Management

Course Number: ALM-54E099.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Self-paced 3 weeks (Averaging about 96 hours).

Exhibit Dates: 4/76–12/83.

Objectives: To provide commodity managers with the knowledge required for job performance in the functional field of supply management under a Commodity Command Standard System operating environment.

Instruction: Programmed instruction texts and video taped lectures cover report analysis and problem identification, input preparation, and interface considerations. Lecture conferences and workshops are used for orientations and critiques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (12/76).

AR-1405-0084

Commodity Command Standard
System (CCSS) Stock Control

Course Number: ALM-54429.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Self-paced 2 weeks (Averaging about 76 hours).

Exhibit Dates: 4/76–12/83.

Objectives: To provide commodity managers with the knowledge to perform stock control managerial functions within a Commodity Command Standard System operation environment.

Instruction: Programmed instruction and video taped lectures covering related files, input transactions, processing requisition and management reports on a variety of subjects, including inventory and accounting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory control (12/76).

AR-1405-0085

Commodity Command Standard
System (CCSS) Procurement and
Production

Course Number: ALM-55110.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Self-paced 3 weeks (Averaging about 96 hours).

Exhibit Dates: 4/76–12/81.

Objectives: To enable Commodity Command personnel to acquire the detailed knowledge necessary to employ the automated integrated procurement and production system successfully.

Instruction: Programmed instruction, video taped lectures, and surveys covering the procurement and interface factors of the Commodity Command Standard System.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in procurement procedures (12/76).

AR-1405-0086

Commodity Command Standard
System (CCSS) Army Stock Fund

Course Number: ALM-55-H210.

Location: Logistics Management Center, Ft. Lee, VA.

Length: Self-paced 2 weeks (Averaging about 60 hours).

Exhibit Dates: 4/76–12/81.

Objectives: To enable the student to acquire the knowledge and skills necessary to perform Army stock fund accounting functions within the Commodity Command Standard ADP System.

Instruction: Lectures, video tapes, programmed instruction, simulations and practical exercises covering the maintenance of automated accounting files, to include preparation of input and evaluation of output. File structure and processes are explained, as well as functional interfaces with supply management, procurement, and inventory control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in stock fund automated accounting procedures (12/76).

AR-1405-0087

1. Depot Physical Inventory Management
2. Standard Depot System Physical Inventory Management

(DARCOM Depot Physical Inventory Management)

Course Number: ALM-58R700.

Location: Logistics Management Center, Ft. Lee, VA. Logistics Management Center, Off-site locations.

Length: Self-paced 2 weeks (Averaging about 75 hours).

Exhibit Dates: *Version 1:* 6/89–Present. *Version 2:* 12/75–5/89.

Objectives: To enable Commodity Command personnel to acquire the detailed knowledge necessary to employ the automated integrated depot physical inventory system.

Instruction: Programmed instruction and practical exercises covering location survey, record audit/matches, materiel release denials, reports and quality control; reinforcement of knowledge gained in a complete physical inventory action is depicted in a computerized simulation; video tape lectures introduce each block of instruction; initial, intermediate, and final surveys are used to examine the students throughout the course.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (12/76).

AR-1405-0088

Commodity Command Standard Systems (CCSS) Physical Inventory Management
(DARCOM Commodity Command Physical Inventory Management)

Course Number: ALM-58R800.

Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; Logistics Management Center, Off-site locations.

Length: Self-paced 2 weeks (Averaging about 53 hours).

Exhibit Dates: 12/75–1/88.

Objectives: To enable Commodity Command personnel to acquire the detailed knowledge necessary to employ the automated integrated physical inventory program.

Instruction: Programmed instruction and practical exercises covering requesting/reconciling inventories, receipt processing/control procedures, materiel release denails/zero balance flasher, and quality control. Reinforcement of knowledge gained in the location record audit/match is depicted in an audio tape case; video tape lectures are utilized to introduce each block of instruction; initial, intermediate, and final surveys are used to examine students throughout the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (6/89).

AR-1405-0089

Ordnance Officer Basic Missile Materiel Management
(Ordnance Officer Basic Ordnance Missile Material Management)

Course Number: 4-9-C20-73A; 4-9-OB-73A.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD; Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 11–19 weeks (711–714 hours). *Version 2:* 18 weeks (1036 hours). *Version 3:* 18–22 weeks (809 hours).

Exhibit Dates: *Version 1:* 10/81–11/87. *Version 2:* 2/80–9/81. *Version 3:* 6/77–1/80.

Objectives: To prepare newly commissioned officers for duty assignment in missile material maintenance specialty.

Instruction: For this course after 12/87 see exhibit AR-1405-0159. *Version 1:* Course includes logistical subjects such as support shop operations, direct support supply/maintenance exercises, and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Also covered is missile material and maintenance personnel management. Subjects include calibration and load testing, unit safety, basic electronics, guided missile fundamentals, nuclear weapons storage and safety, introduction to radar and introduction to various military missile subjects. *Version 2:* Lectures and practical exercises in the nanagement and technical aspects of missile material management. Topics include: electronic warfare, environmental protection, maintenance management, personnel management, professional ethics, supply operations, and leadership. *Version 3:* Phase I training at Aberdeen Proving Ground includes logistical subjects such as support shop operations, direct support supply/maintenance exercises, and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Phase II at Redstone Arsenal covers missile material and maintenance personnel management. Subjects to include calibration and load testing, unit safety, basic electronics, guided missile fundamentals, nuclear weapons storage and safety, introduction to radar and introduction to various military missile subjects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in organizational management (11/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in organizational management, 3 in personnel management (11/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (8/79); in the upper-division baccalaureate category, 3 semester hours in management (1/78)

AR-1405-0090

Ordnance Officer Basic Chemical

Course Number: 4-9-C20-74A.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 17 weeks (631 hours).

Exhibit Dates: 6/77–1/88.

Objectives: To prepare newly commissioned officers for duty assignment in chemical specialty.

Instruction: Topics include logistical subjects such as support shop operations, direct support supply/maintenance exercises and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Chemical specialty subjects include technical aspects of chemical operations and defense, biological defense, chemical weapons employment, nuclear warfare, radiological defense, NBC material and maintenance and defense operations, and smoke and flame operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management, 3 in radiological safety (1/78).

AR-1405-0091

Ordnance Officer Basic Munitions Materiel Management

Course Number: 4-9-C20-75A; 4-9-C20-75B.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD; Missile and Munitions School, Redstone Arsenal, AL.

Length: 18–20 weeks (688–746 hours).

Exhibit Dates: 6/77–11/87.

Objectives: To prepare newly commissioned officers for duty assignment in munitions materiel management.

Instruction: Phase I training at Aberdeen Proving Ground includes logistical subjects such as support shop operations, direct support supply/maintenance exercises, and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Phase II at Redstone Arsenal covers ammunition identification, functioning, use, safety precautions associated with firing and procedures for destruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management (4/86).

AR-1405-0092

Ordnance Officer Basic Armament Materiel Management

Course Number: 4-9-C20-76A.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 18 weeks (660 hours).

Exhibit Dates: 6/77–2/80.

Objectives: To prepare newly commissioned officers for duty assignment in armament materiel management.

Instruction: Topics include logistical subjects such as support shop operations, direct support supply/maintenance exercises and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Armament materiel management specialty provides student with a working knowledge of small arms materiel in the current inventory to include description, characteristics, and principles of operation and functioning of major components and assemblies associated with small arms weapons; of equipment maintenance procedures and maintenance problems, their causes, and solutions; and of test and diagnostic equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management (1/78).

AR-1405-0093

Ordnance Officer Basic Tank and Ground Mobility Materiel Management

Course Number: 4-9-C20-77A; 4-9-C20-77B; 4-9-C20-77C; 4-9-C20-77D.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 16 weeks (603 hours).

Exhibit Dates: 6/77–2/80.

Objectives: To prepare newly commissioned officers for duty assignment in tank and ground mobility materiel management specialty.

Instruction: Topics include logistical subjects such as support shop operations, direct support supply/maintenance exercises and logistical assistance, and military subjects such as unit and organizational management, combined arms operation and tactical field training exercises. Tank and ground mobility materiel management subjects include topics to provide the student with general knowledge of the basic principles of design and operation of mechanical, electrical and hydraulic devices and components which are common to major items of military equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 6 semester hours in automotive (1/78); in the upper-division baccalaureate category, 3 semester hours in management (1/78).

AR-1405-0094

Ordance Officer Advanced Missile Materiel Management, Phase II

Course Number: 4-9-C22-E.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 14 weeks (444-467 hours).

Exhibit Dates: 7/78-10/83.

Objectives: To provide students with knowledge of missile management concepts, including nuclear munitions, research and development, test and evaluation, production and procurement, distribution, maintenance and supply, storage and disposal.

Instruction: Discussion of overall management perspective of missile systems, including introduction to weapon systems, stockpiling, and accountibility of nuclear weapons; missile support systems, including radar logistics, maintenance, and emergency procedures. Support organizations are discussed, including computer assisted maintenance simulation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/79).

AR-1405-0095

Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USMMCS)

Course Number: 1-27-C42.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 10 weeks (324–334 hours).

Exhibit Dates: *Version 1:* 3/78–12/79. *Version 2:* 5/75–2/78.

Objectives: To provide enlisted personnel with knowledge of duties and supervisory skills required of a senior NCO in combat missile maintenance.

Instruction: *Version 1:* Provide knowledge of basic missile guidance, control, propulsion, radar, and support systems for various missile systems. Discussion of material management and maintenance of these systems. *Version 2:* Lectures and practical exercises in military subjects to include effective writing, effective speaking, administrative exercises, and management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communications arts, 3 in maintenance management, and 2 in materials/supply handling and control (8/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills (6/79).

Related Occupation Codes: 27B; 27D; 27E; 27F; 27G; 27H.

AR-1405-0096

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command (COSCOM)
(SAILS Materiel Management COSCOM)

Course Number: ALM-62W200.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/77–12/83.

Objectives: To develop the operational skills of personnel assigned to positions at installations and Corps Support Commands (COSCOMs) within the automated environment of SAILS. Specific emphasis will be devoted to the day-to-day operations in the functional field of supply.

Instruction: This course covers the managerial and operational aspects of SAILS Level A/B operations at the installation materiel management activity. It includes multimedia and individualized instruction in card format I/O controls, requirements and excess determination, file description, ADP techniques, supply related financial reports and systems interface.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory managerial (3/78).

AR-1405-0097

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management

Course Number: ALM-62W100.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/77–12/83.

Objectives: To develop the operational skills of personnel assigned to positions at installations functioning within the automated environment of SAILS. Specific emphasis will be devoted to the day-to-day operations in the functional field of supply.

Instruction: This course covers the managerial and operational aspects of SAILS Level A/B at the installation materiel management activity. It includes multimedia and individualized instruction in card format I/O controls, requirements and excess determination, file description, ADP techniques, supply related financial reports and systems interface.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (3/78).

AR-1405-0098

Standard Army Intermediate Level Supply Subsystem (SAILS) Management.

Course Number: ALM-62-0317.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: *Version 1:* 12/79–12/83. *Version 2:* 1/77–11/79.

Objectives: To provide commissioned and noncommissioned officers and civilian managers with training in the Standard Army Intermediate Level Supply Subsystem at the installation or Corps support command levels.

Instruction: *All Versions:* Lectures, seminars and practical exercises in the standard supply system. Includes the interpretation and analysis of various supply reports and techniques for monitoring system parameters. Provides procedures to cope with system operating problems. *Version 1:* Includes increased emphasis in the areas of system orientation and system support.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in inventory management (4/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (3/78).

AR-1405-0099

Electrical/Electronic Devices Maintenance (35-CMF) Noncommissioned (NCO) Basic

Course Number: 1-352-C40.

Location: Engineer School, Ft. Belvoir, VA.

Length: 5 weeks (174 hours).

Exhibit Dates: 8/75–1/88.

Objectives: To train electrical/electronic device maintenance personnel to supervise the management of repair and maintenance of electrical/electronic devices operations.

Instruction: Conferences and practical exercises in the management and supervision of maintenance and repair operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management, 2 in introduction to industrial management (9/79).

AR-1405-0100

Professional Development Workshop for Logistics Assistance Personnel

Course Number: ALM-66-0299.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 3/79–12/83.

Objectives: To provide logistics assistance personnel with training in materiel management systems and in personal development.

Instruction: Course touches on leadership skills, development of human resources, awareness of business environment and action plan workshop.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in management development (5/81).

AR-1405-0101

Manpower and Force Management (ALMC-MG)

Course Number: ALMC-MG; ALM-61-0444.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (105–106 hours).

Exhibit Dates: 10/78–4/87.

Objectives: To develop and increase the understanding of military and civilian personnel in manpower and force management functions.

Instruction: Curriculum concentrates on manpower and force management functions. Subjects address fundamental aspects of force analysis, development, management, planning, programming, budgeting, allocating, and documenting.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in manpower management (5/81).

AR-1405-0102

Management of Quality Function

Course Number: ALM-34-0254; 8D-F18.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (69 hours).

Exhibit Dates: 10/78–7/84.

Objectives: To provide a forum for the discussion and analysis of the total quality assurance program or system relative to Defense Department materiel acquistion and management.

Instruction: Methods of instruction include films, cases, guest speakers, and practical exercises. Course presents Defense Department management concepts relative to quality/product assurance throughout the materiel life cycle.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in quality control and materiel management (5/81).

AR-1405-0103

Major Item Management (ALMC-MH)

Course Number: ALM-41-0339.

Location: Logistics Management School, Ft. Lee, VA.

Length: 2-3 weeks (98-114 hours).

Exhibit Dates: 7/79-Present.

Objectives: To develop and increase knowlege and understanding of materiel managers in the management of major items.

Instruction: Methods of instruction include lecture-conferences, practical exercises, workshops, and computer assisted simulations within decision making exercises. The course covers the entire life cycle of major items from the entry of new equipment to the inventory to the ultimate disposal of the equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in management of high value equipment (7/87).

AR-1405-0104

Unit Supply Specialist Primary Technical

(Unit and Organization Supplyman Primary Technical)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-5 weeks (159 hours).

Exhibit Dates: 5/77-6/83.

Objectives: To provide selected enlisted personnel with comprehensive knowledge and skills required to perform as a unit and organization supply specialist in grade E-5.

Instruction: Types of instruction include lectures, conferences, demonstrations, film, television, self-paced instruction, practical exercises, and examinations. Topics include issue procedures, hand receipts, accounting for lost, damaged, or destroyed property, storage of supplies, and manual property book recordkeeping.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply records procedures (4/81).

AR-1405-0105

Division Logistics Systems (DLOGS)

Course Number: 8B-F29/551-ASIF4/F9.

Location: Quartermaster School, Ft. Lee, VA.

Length: Phase 1, 3-4 weeks (105 hours), Phase 2, 3 weeks (93-94 hours).

Exhibit Dates: 9/75-6/83.

Objectives: Phase 1: To provide selected officers and enlisted personnel with a knowledge of the procedures and operations of the automated property books and equipment status reporting system for use in the division supply office of the division logistics system. Phase 2: To provide selected officers and enlisted personnel with a knowledge of the UNIVAC automated system for use in the technical supply office of the division logistics system.

Instruction: Types of instruction include conferences, practical exercises, and examinations. Phase 1 topics include processing of inventory documents, accounting for lost, damaged, and destroyed items, preparing and processing of monthly cycle transactions, and other automated property book procedures. Phase 2 topics include automated supply record keeping procedures, including the processing of receipt, storage and issue documents.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Phase 1, 2 semester hours in automated supply systems and procedures; for Phase 2, 2 hours in automated supply systems and procedures (4/81).

AR-1405-0106

Unit Supply Specialist Advanced Noncommissioned Officer (NCO)

(Unit Supply Specialist Noncommissioned Officer (NCO) Advanced)

(Unit and Organization Supplyman Noncommissioned Officer (NCO) Advanced)

Course Number: 5-761-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7-15 weeks (247-312 hours).

Exhibit Dates: 8/77-2/87.

Objectives: To provide selected enlisted personnel with the comprehensive knowledge and skills required to perform as unit supply specialists in grade E-7.

Instruction: NOTE: This course may include up to five weeks of common core subjects including map reading and unit functions. Types of instruction include lectures, conferences, films, demonstrations, self-paced instruction, and practical exercises. Topics include organizational effectiveness and leadership, control and maintenance of arms and ammunition, property book management, inventory conducting, and accountability for lost and damaged property.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior and 2 in supply management (4/81).

Related Occupation Codes: 76Y.

AR-1405-0107

Direct Support Unit Standard Supply System (DS4)

Course Number: 8B-F37/551-ASIT8.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-5 weeks (150-163 hours).

Exhibit Dates: 5/79-12/87.

Objectives: To provide selected commissioned officers, warrant officers, and noncommissioned officers with the knowledge and skills required to operate an automated supply management and information system.

Instruction: Types of instruction include lectures, examinations, and practical exercises. Topics include manager input parameters, inventory and adjustment procedures, demand analysis, and supply system operating procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply systems and procedures (8/88).

AR-1405-0108

Materiel Supply Specialist Noncommissioned Officer (NCO) Advanced

(Materiel Supplyman Noncommissioned Officer (NCO) Advanced)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6-12 weeks (237-302 hours).

Exhibit Dates: 10/77-9/84.

Objectives: To provide selected enlisted personnel with the comprehensive knowledge and skills required to perform as a materiel supply specialist in grade E-7.

Instruction: NOTE: This course may include up to five weeks of common core subjects including unit functions and map reading. Types of instruction include lectures, conferences, case studies, films, demonstrations, and practical exercises. Topics include organizational effectiveness and leadership, demand analysis, shipping and receiving procedures, inventory adjustment procedures, supply performance measures and local purchase procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior, 2 semester hours in supply management (4/81).

AR-1405-0109

Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)

(Stock Control Specialist Noncommissioned Officer (NCO) Advanced)

(Stock Control Supplyman Noncommissioned Officer (NCO) Advanced)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (145 hours). 6-11 weeks (210-375 hours).

Exhibit Dates: 10/77-7/87.

Objectives: To provide selected enlisted personnel with the comprehensive knowledge and skills required to perform as stock control specialists in grade E-7.

Instruction: NOTE: This course may include up to five weeks of common core subjects including unit functions and map reading. Types of instruction include lectures, conferences, case studies, films, demonstrations, and practical exercises. Topics include organizational effectiveness and leadership, demand analysis, shipping and receiving procedures, inventory adjustment procedures, supply performance measures, and local purchase procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior, 2 semester hours in supply management (4/81).

Related Occupation Codes: 76P.

AR-1405-0110

1. Storage Supplyman Noncommissioned Officer (NCO) Advanced
2. Storage Specialist Noncommissioned Officer (NCO) Advanced

(Storage Supplyman Noncommissioned Officer (NCO) Advanced)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4-5 weeks (134 hours). *Version 2:* 5-11 weeks (202-367 hours).

Exhibit Dates: *Version 1:* 3/84-Present. *Version 2:* 11/77-2/84.

Objectives: To provide enlisted personnel with knowledge and skills required to perform as noncommissioned officers in grade E-7.

Instruction: *Version 1:* Types of instruction include lectures, conferences, case studies, demonstrations, and practical exercises. Topics include management of supplies, storage operations management, organizational effectiveness, and inventory management. *Version 2:* NOTE: This course may include up to five weeks of common core subjects including unit functions and map reading. Types of instruction include lectures, conferences, case studies, demonstrations, and practical exercises. Topics include management of supplies, storage operations management, organizational effectiveness, and inventory management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior, 3 in supply management (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior; In the upper-division baccalaureate category, 3 semester hours in supply management (4/81).

AR-1405-0111

Materiel Supply Specialist
(Materiel Supplyman)

Course Number: 551-76D10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12-14 weeks (441-477 hours).

Exhibit Dates: 12/77-6/85.

Objectives: To provide enlisted personnel with knowledge and skills required to perform as a materiel supply specialist in the grades of E-1 to E-4.

Instruction: Types of instruction include lectures, conferences, films, demonstrations, and practical exercises. Topics include editing of supply request documents, stock records keeping, automated stock control procedures, unit supplly procedures, performance of physical inventory, and preparation of maintenance records for organizational equipment.

Credit Recommendation: In the vocational certificate category, 9 semester hours in supply records processing (4/81).

Related Occupation Codes: 76D.

AR-1405-0112

Standard Army Intermediate Level
Supply Systems ABX

Course Number: 551-ASIF3.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* Track I, 2 weeks; Track II, 2-3 weeks (Track I, 61 hours; Track II, 107 hours). *Version 2:* 4 weeks (142 hours).

Exhibit Dates: *Version 1:* 9/79-9/86. *Version 2:* 2/77-8/79.

Objectives: To provide commissioned and noncommissioned officers with knowledge of policies and procedures applicable to SAILS and SAILS ABX.

Instruction: *All Versions:* Methods of instruction include lectures, conferences, practical exercises and examinations. *Version 1:* For all tracks topics include materiel management procedures, demand analysis, supply procedures, and stock fund functions. In addition, Track II includes concepts of storage operations, physical asset control procedures, and quality assurance. *Version 2:* Topics include functions of an item manager, analysis of outputs, management controls, stock fund budgets, physical assets, control procedures and quality assurance in storage activities.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, Track I, 2 semester hours in supply management; Track II, 3 semester hours in supply management (4/81). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in supply management (4/81).

AR-1405-0113

Equipment Records and Parts
Specialist
(Equipment Records and Repair Parts Specialist)

Course Number: 551-76C10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (315 hours).

Exhibit Dates: 6/80-9/87.

Objectives: To provide enlisted personnel with the comprehensive knowledge and skills required to perform as prescribed load list clerks, Army maintenance system clerks, shop clerks, and shop stock clerks in manual and automated systems in grades E-1 to E-5.

Instruction: Types of instruction include television, practical exercises, and comprehensive examinations. Topics include procedures for requesting, receiving, and shipping spare parts, maintaining bench stock, parts inventory control, and preparing and maintaining maintenance records.

Credit Recommendation: In the vocational certificate category, 4 semester hours in parts inventory control (4/81).

Related Occupation Codes: 76C.

AR-1405-0114

Logistics Management for Auditors

Course Number: ALM-41-0251.

Location: Army Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, On-site Continental U.S.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/80-Present.

Objectives: To inform audit personnel of Army logistics functions, systems, facilities and activities.

Instruction: Methods include lectures, guest speakers, practical exercises, and the use of simulated models of the logistics system throughout the Army. Course includes differentiation of management systems comprising the Department of Army wholesale and retail systems and their relationship to planning, programming, and controlling functions.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in auditing of the materiel management function (5/81).

AR-1405-0115

Defense Disposal Executive Workshop

Course Number: ALM-44-0227.

Location: Army Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, On-site Continental U.S.

Length: 1-2 weeks (57 hours).

Exhibit Dates: 10/79-12/83.

Objectives: To promote the efficiency of the property disposal program by providing top management with executive skills required to oversee such programs.

Instruction: Instructional methods include case discussions, panel discussions, televised student-led workshops, and lecture-conferences by guest speakers and resident faculty. Areas covered include executive philosophies and attitudes, problem solving techniques, and executive staff functions unique to disposal operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in management of property disposal (9/81).

AR-1405-0116

Defense Integrated Disposal
Management System Course
(ALMC-IC)

Course Number: ALMC-IC; ALM-44-0282.

Location: Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, On-site Continental U.S.

Length: 2-3 weeks (77-114 hours).

Exhibit Dates: 11/79-Present.

Objectives: To improve the proficiency of personnel engaged in recordkeeping functions so that they can initiate and maintain accurate computerized property records and be able to use management output listings for the control of property at the Defense Revitalization and Marketing Office.

Instruction: Instructional methods include the use of lecture-conferences, practical exercises, study group workshops, guest speakers, examinations, and critiques. Topics include automated recordkeeping procedures related to property disposal, transfers, sales, adjustments, and reversals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in data entry and automated systems output (2/89).

AR-1405-0117

1. Materiel Storage and Handling
Specialist
2. Storage Specialist
(Storage Supplyman)

Course Number: 551-76V10.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5-6 weeks (198 hours). *Version 2:* 4-5 weeks (147 hours).

Exhibit Dates: *Version 1:* 4/85-6/87. *Version 2:* 5/76-3/85.

Objectives: To provide the student with a knowledge of the federal supply system, storage operations, and materiels-handling equipment.

Instruction: *Version 1:* Lectures and practical exercises in the basic principles of materiels storage and materiels handling equipment. Topics include shipping and receiving, M-H equipment operation, and materiels storage. *Version 2:* Types of instruction include practical exercises, television, films, lectures, seminars, demonstrations, and on the job training. Academic subjects covered include preparation for storage and handling of supplies, receiving, storage, shipping, and moral leadership responsibility.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in materiels-handling and storage (9/85). *Version 2:* In the vocational certificate category, 4 semester hours in physical distribution (4/81).

Related Occupation Codes: 76V.

AR-1405-0118

Commodity Command Standard
System (CCSS) Functional

Course Number: ALMC-3L; ALM-56-M115.

Location: Logistics Management College, Ft. Lee, VA; Army Logistics Management Center, Ft. Lee, VA; Army Logistics Management Center, On-site Continental U.S.

Length: 2 weeks (69-80 hours).

Exhibit Dates: 8/80-Present.

Objectives: To enhance the ability of those working at the Army Material Development and Readiness Command to perform their duties more efficiently and effectively through the utilization of a particular automated system.

Instruction: Methods of instruction include lecture-conferences, practical exercises, workshops, videotaped lectures, computer-assisted simulation. Topics include logistics management concepts, computerized data systems, and how the above interface with the initial provisions and replenishment cycles.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in automated systems in logistics management (6/89).

AR-1405-0119

Special Correspondence Course on Records Management

Course Number: J04.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 104 weeks.

Exhibit Dates: 10/81-1/88.

Objectives: To provide selected personnel with knowledge and skills associated with records management.

Instruction: Instruction is through home study modules. A course to provide a working knowledge of the applications, techniques, use, maintenance and management of office records to include file systems, correspondence, various forms, and publications. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in records management (1/81).

AR-1405-0120

Motor Officer

Course Number: LOG214.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (69 hours).

Exhibit Dates: 10/81-12/87.

Objectives: To train officers assigned or being assigned as motor officers in the management of maintenance operation.

Instruction: Practical classroom exercise covering administration and organizational requirements to effectively manage vehicle workshops.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive administration (1/82).

Related Occupation Codes: 63B.

AR-1405-0121

Motor Sergeant

Course Number: LOG213.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (69 hours).

Exhibit Dates: 1/81-12/87.

Objectives: To provide motor sergeants with technical and administrative expertise required for unit motor pool operations. This course is also suitable for NCO's assigned as motor officers.

Instruction: Practical classroom activity and exercises covering technical, administrative and organizational requirements to effectively manage vehicle workshops and small steel operations. Material procurement and necessary documentation is a significant part of this course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical automotive maintenance and administration (1/82).

Related Occupation Codes: 63B; 63T; 63E; 63N; 63R(DMOS).

AR-1405-0123

Automated Inventory Management

Course Number: 8B-F22/551-F22; 8B-F22.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (83-84 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide a functional knowledge of automated inventory management procedures to include concepts and interface with other automated and manual supply management functional areas.

Instruction: Conference, self-study, and practical exercises in inventory management, data processing and storage, and purchase procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management science (5/87).

AR-1405-0124

Ammunition Stock Control and Accounting Specialist

Course Number: 645-55R10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 12 weeks (444 hours).

Exhibit Dates: 10/81-8/85.

Objectives: To provide enlisted personnel with the skill and knowledge needed to perform enlisted ammunition stock control and accounting duties and to operate computer equipment associated with the Standard Army Ammunition System (SAAS).

Instruction: For this course after 8/86 see AR-1405-0155. Course provides each enlisted student with knowledge of ammunition identification and the essential skills and knowledge necessary to function as a stock control specialist in manual and automated ammunition supply systems at the ammunition storage and corps support command levels. This course also includes the operator and systems skills necessary to run ammunition software programs on computer hardware. Upon completion of the course the student will be able to identify various ammunition, demolition, and pyrotechnic material and select the proper storage facilities for the identified material; perform ammunition stock control and accounting functions including use of specialized software for dedicated computer processing systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control and accounting (11/83).

AR-1405-0126

Force Integration—Manning the Force

Course Number: 7D-F14/500-F8.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 3 weeks (118 hours).

Exhibit Dates: 6/84-Present.

Objectives: To train active Army or reserve officers to perform high level personnel positions.

Instruction: Lectures and practical applications in personnel and materials management, the force structure and authorization system, new equipment fielding, and mobilization and interrelationship of the Army's systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel management and 1 in inventory management (3/85).

AR-1405-0127

Communications-Electronics Noncommissioned Officer (NCO) Advanced

Course Number: 1-31-C42.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (681 hours).

Exhibit Dates: 9/84-9/88.

Objectives: To prepare the NCO to supervise single and multichannel radio operators and switching facilities.

Instruction: For this course after 9/88 see AR-1406-0109. Lectures and practical exercises in communications electronics operations including personnel performance and unit training problems, planning, supervising and directing the installment, operation and maintenance of signal modes and communications equipment and systems at the division and corps levels in support of tactical ground missions. Course includes a common core which has been evaluated separately.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (7/85); for credit for the common core see AR-1404-0035.

AR-1405-0128

WOTCC Telecommunications Technician

Course Number: 4C-250A; 4C-290A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (608 hours).

Exhibit Dates: 12/84-9/89.

Objectives: To train students as telecommunications technicians.

Instruction: For this course after 9/89 see AR-1402-0132. Instruction in general communications equipment subjects, speech communication, leadership development, logistics, stock and acquisition management, ADP fundamentals and military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in stockroom management; in the lower-division baccalaureate/associate degree category, 2 semester hours in ADP fundamentals (7/85).

Related Occupation Codes: 290A.

AR-1405-0129

Warrant Officer Technical Certification (WOTCC) Communications-Electronics Equipment Repair Technician

Course Number: 4C-256A; 4C-286A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (608 hours).

Exhibit Dates: 12/84-9/89.

Objectives: To train students as communications equipment repair technicians.

Instruction: For this course after 9/89 see AR-1402-0131. Instruction in general communications equipment subjects, speech communications, leadership development, logistics, stock and acquisition management, ADP fundamentals, equipment maintenance and military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in stockroom management; in the lower-division baccalaureate/associate degree category, 2 semester hours in ADP fundamentals (7/85)

Related Occupation Codes: 286A.

AR-1405-0130

Warrant Officer Technical Certification (WOTTC) Data Processing System Repair Technician

Course Number: 4B-287A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (608 hours).

Exhibit Dates: 12/84–10/88.

Objectives: To train students as data processing system repair technicians.

Instruction: Instruction in general communications equipment subjects, speech communications, leadership development, logistics, stock and acquisition management, ADP fundamentals, microprocessor training and computer systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in stockroom management; in the lower-division baccalaureate/associate degree category, 2 semester hours in ADP fundamentals and 4 in microprocessors and computer systems (7/85).

Related Occupation Codes: 287A.

AR-1405-0131

Warrant Officer Technical Certification (WOTCC) Calibration and Repair Technician

Course Number: 4B-252A.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (684 hours).

Exhibit Dates: 12/84–Present.

Objectives: To train students as calibration and repair technicians.

Instruction: Instruction in general communications equipment subjects, speech communication, leadership development, logistics, stock and acquisition management, ADP fundamentals, calibration management field experience and military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in stockroom management; in the lower-division baccalaureate/associate degree category, 2 semester hours in ADP fundamentals (7/85).

Related Occupation Codes: 252A.

AR-1405-0132

Subsistence Supply Specialist Basic Technical

Course Number: 551-76X30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 3 weeks (96 hours). *Version 2:* 9–10 weeks (164 hours).

Exhibit Dates: *Version 1:* 4/85–1/89. *Version 2:* 9/83–3/85.

Objectives: To train enlisted personnel to perform and supervise a subsistence supply operation.

Instruction: *Version 1:* Lectures and practical exercises in subsistence supply functions, including receipt, storage, distribution, and accounting. *Version 2:* Lectures and practical exercises in subsistence supply functions. Topics include receipt, storage, distribution, and accounting of materiel and supplies.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in inventory control system, 1 in supervisory management (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in inventory control system, 1 in supervisory management (8/85).

Related Occupation Codes: 76X.

AR-1405-0134

Communications-Electronic Materiel Management Advanced

Course Number: 4B-OA72.

Location: Signal School, Ft. Gordon, GA.

Length: 14 weeks (471 hours).

Exhibit Dates: 5/77–12/85.

Objectives: To provide advanced management training to commissioned signal corps officers.

Instruction: The course content is presented through practical exercises, conferences, demonstrations, guest speakers, case studies and examinations. Topics covered include logistic materiel management, materiel planning, procurement management, supply and inventory management, maintenance management, and control and automated logistical systems.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in supply management (8/85).

AR-1405-0135

General Supply Technician Warrant Officer Technical Certification

(General Supply Technician Warrant Officer Entry)

Course Number: 8B-761A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks.

Exhibit Dates: 10/84–11/85.

Objectives: To train warrant officer candidates in a broad range of general supply activities.

Instruction: Lectures and practical exercises in property accountability, logistics operations and management, general supply support activities, maintenance management, automated inventory control procedures and systems operations, and administrative reporting.

Credit Recommendation: In the vocational certificate category, 6 semester hours in inventory control systems (8/85); in the lower-division baccalaureate/associate degree category, 3 semester hours in logistics management (8/85).

AR-1405-0137

Unit Supply Specialist Basic Technical

(Unit and Organization Supply Specialist and Armorer)

Course Number: 552-76Y30; 552-76Y20/552-76Y30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8 weeks (432 hours). *Version 2:* 8 weeks (288 hours). *Version 3:* 12–15 weeks (513 hours). *Version 4:* 7–9 weeks (283–314 hours). *Version 5:* 7–9 weeks (262–308 hours).

Exhibit Dates: *Version 1:* 2/87–Present. *Version 2:* 10/84–1/87. *Version 3:* 8/83–9/84. *Version 4:* 9/71–7/83. *Version 5:* 9/67–8/71.

Objectives: To provide the student with the ability to supervise a supply organization.

Instruction: Conferences, practical exercises, and seminars to review the nature of supply organizations and the role of the supply supervisor in records management, using manual and automated procedures. Emphasis is on inventory management, preventive maintenance, order control, accounting, and distribution control of large quantities among diversified inventories.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 2 semester hours in inventory management, 1 in quality control (8/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in records management (8/85); in the upper-division baccalaureate category, 3 semester hours in inventory management, 1 in quality *Version 4:* In the vocational certificate category, 2 semester hours in supply record maintenance (6/75). Note: This recommendation is based on completion of Phase I. Credit is not recommended for Phase II because of the military nature of the training. *Version 5:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in supply management (7/74).

AR-1405-0138

Senior Supply Sergeant

Course Number: 551-76Z50.

Location: Quartermaster School, Ft. Lee, VA.

Length: 13 weeks (468 hours).

Exhibit Dates: 10/85–12/86.

Objectives: To provide senior technical personnel with the ability to manage supply and service operations in large organizations.

Instruction: Lectures, discussions, and demonstrations covering supply and service operations, leadership, automated supply systems, supervision techniques, staffing procedures, relationship of supply to other logistical functions to include maintenance, transportation, and management of the above functions in a large military organization are all included.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply and service management (8/85).

AR-1405-0139

Standard Army Intermediate Level (SAILS) Supply System Materiel Management

Course Number: 8B-F42/551-F12.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (100 hours).

Exhibit Dates: 10/84–7/86.

Objectives: To provide the student with operating and management skills for intermediate level supply system.

Instruction: Lectures and discussions to include supply system file structure, supply management, management reports, demand analysis problem solution and storage operations. System interfaces and financial management are included.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours supply management (8/85).

AR-1405-0140

Combat Services Support Pre-Command

Course Number: 2G-F46.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (77 hours).

Exhibit Dates: 5/85–Present.

Objectives: To assist individuals in preparation for large organizational management responsibilities and to ensure a common understanding of training, personnel, logistics management, and tactical doctrine. This is a refresher Course for selected management level personnel.

Instruction: Discussions, lectures, tours, and reviews in management concepts to include supply, maintenance, and training management; logistics management appropriate to this unit is also covered.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in senior seminar in logistics management (8/88).

AR-1405-0141

Standard Property Book System Functional

Course Number: 8A-F32/552-F2.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks.

Exhibit Dates: 4/85-3/87.

Objectives: To train personnel in the terminology, policies and procedures, and operation of an automated inventory control system at division level.

Instruction: This course includes instruction in nomenclature, coding and preparation of documents for inventory control systems; posting inventory transactions at various organizational levels; cyclical functions and historical development of inventory control system; evaluate reports.

Credit Recommendation: In the vocational certificate category, 3 semester hours in inventory control (8/85).

AR-1405-0142

Logistics Officer

Course Number: 8A-F33.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-5 weeks (175 hours).

Exhibit Dates: 1/84-Present.

Objectives: To provide the student with a knowledge of the planning, directing, supervising, and coordinating functions related to supply, maintenance; transportation and administrator services related to transportation and logistics.

Instruction: The course covers lectures, discussions and demonstrations logistics operations of large organization supply, transportation, maintenance and service functions of logistics management including financial management and procurement.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in transportation and logistics management, 2 semester hours in financial management, 1 in inventory management and 1 in budgeting (8/85).

AR-1405-0143

Materiel Control and Accounting Specialist Basic Technical

Course Number: 551-76P30.

Location: Quartermaster School Ft. Lee, VA.

Length: 7 weeks (252 hours).

Exhibit Dates: 9/84-4/87.

Objectives: To train personnel to supervise and manage materiel control and accounting functions using manual and automated supply systems.

Instruction: Lectures and practical experiences in the operation and management of three separate supply accounting systems, one manual and two automated. Topics include management and supervision of operating personnel, operating policies and procedures, and management of electronic data processing systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in supply records processing, 3 in computer operations (8/85).

AR-1405-0144

Materiel Storage and Handling Specialist Basic Technical

Course Number: 551-76V30.

Location: Quartermaster School Ft. Lee, VA.

Length: 8 weeks (114 hours).

Exhibit Dates: 10/84-5/87.

Objectives: To train noncommissioned officers in the operation and management of storage facilities.

Instruction: Lectures in storage operations and management including supplies storage and inspection, inventory control, security procedures, and preparation of storage reports.

Credit Recommendation: In the vocational certificate category, 3 semester hours in inventory control systems (8/85).

Related Occupation Codes: 76V.

AR-1405-0145

Facilities Engineering Supply System Management

Course Number: ALMC-SC.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (79 hours).

Exhibit Dates: 5/85-Present.

Objectives: To develop the operational and management skills required for positions in the automated environment of Facilities Engineering Supply System.

Instruction: Course covers the operation of the FESS system daily operation, systems interface, data input, management and system reports, and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automated supply systems (3/86).

AR-1405-0146

Ordnance Officer Advanced Munitions Materiel Management Field Operations

Course Number: 4E-F0A-F10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 4 weeks (152 hours).

Exhibit Dates: 5/85-Present.

Objectives: To prepare the company grade officer to function as a company commander in support of munitions materiel

Instruction: Personnel will receive training to include war planning strategies, battalion materiel operations and standard army ammunition systems reports and decision making.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).

AR-1405-0147

Ordnance Officer Advance Missile Materiel Management Field Operations

Course Number: FE-F0A-F19.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 3 weeks (110 hours).

Exhibit Dates: 5/85-Present.

Objectives: To prepare company grade ordnance officer to function effectively as commander or officer in support of missile systems.

Instruction: Personnel will receive training to include equipment and logistics updates, and management concepts and policy at the brigade level and below, for air defence, land combat and ballistic weapons systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).

AR-1405-0148

Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management

Course Number: 4E-F0A-F11; 4F-F0A-F20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 4 weeks (152 hours).

Exhibit Dates: 5/85-Present.

Objectives: To prepare the company grade ordnance officer to function as a munitions materiel manager assigned to any one of the various munitions conmodity commands, depots, and as ammunition plant executive officer.

Instruction: Personnel receive training which includes logistics management, budget system overview and mission area analysis. Students receive an overview of ammunition industrial base management and an understanding of the Army Ammunition Management System.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).

AR-1405-0150

Ordnance Officer Advanced Maintenance Management

Course Number: 4-9-C22-91A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 20 weeks (720 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to lead and train personnel, provide personnel with management concepts of designated systems and equipment, test, evaluate production an procurement, supply and storage.

Instruction: Instruction includes logistics, procurement, management (finances, personnel and equipment) law, communication skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in financial management (3/87); in the upper-division baccalaureate category, 3 semester hours in maintenance management, 3 in personnel management, and 1 in logistics (3/87).

Related Occupation Codes: 91A.

AR-1405-0151

Ordnance Maintenance Management Officer Advanced

Course Number: 4-9-C22-91A RC.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: Phase II 2 weeks (66 hours); Phase IV 2 weeks (66 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand and carry out management duties required by the student's specialty.

Instruction: Instruction includes maintenance mangement procedures, inventory management. Credit is recommended based on the two resident phases. Phases I and III are taken by correspondence and are not prerequisite to the resident phases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management and 1 in inventory management (3/87).

AR-1405-0152

Repair Shop Technician Warrant Officer Advanced

Course Number: 4-9-C32-441A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 12 weeks (429-445 hours).

Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage a repair shop maintenance facility. The student will also be able to operate and maintain machine shop equipment. Also be able to operate and maintain welding equipment and keep maintenance records on equipment coming into repair shop.

Instruction: Instruction includes lectures and hands-on with emphasis on management and communication skills, general shop operations, body repair, welding with considerable emphasis on machine shop operation and maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 1 in management, 1 in heavy equipment maintenance management, 6 in general machine shop, 2 in welding, and 1 in body repair (3/87).

Related Occupation Codes: 441A.

AR-1405-0153

Light Systems Maintenance Technician Warrant Officer Advanced

Course Number: 4-9-C32-630B.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 14 weeks (610-620 hours).

Exhibit Dates: 1/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, manage, and keep maintenance records on light and medium duty equipment. Also be able to troubleshoot and make repairs on light and medium duty equipment through a management position.

Instruction: Instruction includes lectures and hands-on with emphasis on management, maintenance management, and communication skills. Considerable emphasis is placed on troubleshooting and repair on light and medium duty equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 1 in management, 3 in heavy equipment maintenance management, 1 in automotive electrical systems, and 3 in diesel and heavy equipment mechanics (3/87).

AR-1405-0154

Ordnance Officer Advanced Maintenance Additional Specialty

Course Number: 4N-91A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 11 weeks (406-407 hours).

Exhibit Dates: 7/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to administer facilities, personnel, financial, contract maintenance and logistics management status reports to upper management and administrative levels.

Instruction: Instruction includes management in the areas of organizational, financial, material, maintenance and contract management and logistics.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management, 3 in material management, and 1 in logistics (3/87).

AR-1405-0155

Ammunition Stock Control and Accounting Specialist

Course Number: 551-55R10/551-55R10(RC).

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 9-10 weeks (294 hours). *Version 2:* 8-9 weeks (300 hours).

Exhibit Dates: *Version 1:* 10/90-Present. *Version 2:* 8/86-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to identify demolition materials, pyrotechnics, and explosives; keep proper records, stock and inventory control of ammunition; understand computer printouts, register, and lot location records as well as computerized subsystems; and perform basic duties as a supply clerk.

Instruction: For this course before 6/86 see AR-1405-0124. Lectures and hands-on training with data processing equipment, discussion, role playing, and testing in data processing, inventory and stock control, and record keeping.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in stock control and 2 in introduction to data processing (4/88).

Related Occupation Codes: 55R.

AR-1405-0156

Ordnance Missile Materiel Management Officer-Reserve

Course Number: None.

Location: Odnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: Resident 4 weeks (total 412 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will understand and practice techniques of good management; develop an understanding and awareness of maintenance personnel and assist in improvement of their skills; understand and practice proper storage procedures, inventory control, and logistics.

Instruction: Lectures, discussions, tests, and role-playing in management skills and responsibilities, demands upon materiels management, and evaluation of shop supply operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (4/88).

AR-1405-0157

Ordnance Munitions Materiel Management Officer-Reserve

Course Number: None.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: Resident 4 weeks (total of 412 hours).

Exhibit Dates: 7/86-9/90.

Learning Outcomes: Upon completion of the course, the student will have a working knowledge of the Standard Army Ammunition System and its distribution channels from manufacturer to user; understand and utilize the Army's management system for maintenance and upkeep of ammunition.

Instruction: Discussion, lecture, and field training in munitions fundamentals, organization and management. Only the two resident phases (Phase II and Phase IV) were evaluated.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/88).

AR-1405-0158

Ordnance Munitions Materiel Management Officer Basic

Course Number: 4-9-C20-91D.

Location: Ordnance Missile and Munitions School, Redstone Arsenal, AL.

Length: 18-19 weeks (750 hours).

Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to write, interpret, and follow training plans and objectives and to follow these plans through performance objectives; understand and utilize comunication techniques including letter and report writing; develop leadership and decision making techniques; and understand and interpret financial management and budgeting, as well as be able to recognize and analyze problems in budgeting.

Instruction: Includes logistical subjects such as support shop operations, direct support supply/maintenance exercises and logistical assistance. Also includes unit and organizational management, combined arms, and tactical field training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of finance; in the upper-division baccalaureate category, 3 semester hours in principles of management (4/88).

AR-1405-0159

Ordnance Munitions Materiel Management Officer Basic

Course Number: 4-9-C20-91C.

Location: Ordnance Missile and Munitions School, Redstone Arsenal, AL.

Length: 18-19 weeks (750 hours).

Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to write, interpret, and follow training plans and objectives and to follow these plans through performance objectives; understand and utilize comunication techniques including letter and report writing; develop leadership and decision making techniques; and understand and interpret financial management and budgeting, as well as be able to recognize and analyze problems in budgeting.

Instruction: Includes logistical subjects such as support shop operations, direct support supply/maintenance exercises and logistical assistance. Also includes unit and organizational management, combined arms, and tactical field training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of finance; in the upper-division baccalaureate category, 3 semester hours in principles of management (4/88).

AR-1405-0160

Standard Army Ammunition System (SAAS) Manager Training

Course Number: 8B-F44/551-F16.
Location: Odnance, Missile, and Munitions School, Redstone Arsenal, AL.
Length: 2 weeks (75 hours).
Exhibit Dates: 11/85-9/90.
Learning Outcomes: Upon completion of the course, the student will be able to understand the internal operation operation and responsibilities of the SAAS; perform minor tasks in the data processing area of supply; and understand the requisition and reporting procedures for the SAAS.
Instruction: Topics include stock control/stock accounting, documentation of data processing procedures and structures. Mode is lectures, discussions, and the use of manuals. Includes hands-on training with computer equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in data input; in the lower-division baccalaureate/associate degree category, 3 semester hours in stock management and control (4/88).

AR-1405-0161

Materiel Control and Accounting Specialist Basic Noncommissioned Officer (NCO)

Course Number: 551-76P30.
Location: Quartermaster School, Ft. Lee, VA.
Length: 7 weeks (252 hours).
Exhibit Dates: 6/88-Present.
Learning Outcomes: Upon completion of the course, the student will be able to supervise the use of procedures in operating both manual and automated supply systems, including knowing proper inventory-taking procedures.
Instruction: Lectures, demonstrations, practical exercises, and examinations in supervising operations of a manual and an automated supply system, including procedures for conduct of a physical inventory.
Credit Recommendation: In the vocational certificate category, 3 semester hours in supply supervision, 1 in computerized record-keeping (10/88). See AR-1406-0090 for credits for the common core.
Related Occupation Codes: 76P.

AR-1405-0162

Unit Supply Specialist Advanced Noncommissioned Officer (NCO)

Course Number: 5-761-C42.
Location: Quartermaster School, Ft.Lee, VA.
Length: 10 weeks (180 hours).
Exhibit Dates: 3/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to supervise the requesting and receiving of supply items and the property accounting function, and will understand computerized record-keeping.
Instruction: Lectures, class discussions, practical exercises, and examinations in computerized record-keeping, supply management (including supply of bulk petroleum), and transportation management.
Credit Recommendation: In the vocational certificate category, 1 semester hours in computerized record-keeping (10/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in materiel management. See AR-1404-0035 for the common core.
Related Occupation Codes: 76Y.

AR-1405-0163

Materiel Storage and Handling Specialist Advanced Noncommissioned Officer (NCO)

Course Number: 551-76V40.
Location: Quartermaster School, Ft. Lee, VA.
Length: 7-8 weeks (257-259).
Exhibit Dates: 7/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to supervise warehouse storage and materiel handling operations.
Instruction: Lectures, demonstrations, practical exercises and examinations in storage operations. Topics include storage operations, selections of materiel handling equipment, quality assurance for supplies in storage, preservation and repacking, and maintenance of storage records.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in materiel management (10/88), and credit for the common core as listed in AR-1404-0034.
Related Occupation Codes: 76V.

AR-1405-0164

Materiel Storage and Handling Specialist Basic Noncommissioned Officer (NCO)

Course Number: 551-76V30.
Location: Quartermaster School, Ft. Lee, VA.
Length: 5-6 weeks (211-213 hours).
Exhibit Dates: 6/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to supervise storage operations and the taking of inventories; be familiar with the techniques for preservation and packing of materials; and be able to perform computerized record keeping.
Instruction: Lectures, demonstrations, and practical exercises and examinations in storage operations, inventory control, preservation of supplies, packing operations, and the processing of transactions in a computerized supply system.
Credit Recommendation: In the vocational certificate category, 3 semester hours in inventory control, 1 in computerized record-keeping (10/88); for credit for the common core, see AR-1406-0090.
Related Occupation Codes: 76V.

AR-1405-0165

Standard Property Book System Functional

Course Number: 8A-F32/552-F2.
Location: Quartermaster School, Ft. Lee, VA.
Length: 3 weeks (108 hours).
Exhibit Dates: 4/85-2/87.
Learning Outcomes: Upon completion of the course, the student will be able to prepare input transactions, understand the processing function, and read and interpret reports of a computerized inventory control system.
Instruction: Includes classroom lectures and practical exercise (hands-on) in preparing input transactions, reading reports, identifying system codes, and other clerical tasks involved in the use of a computerized inventory control system.
Credit Recommendation: In the vocational certificate category, 1 semester hour in inventory control and 1 in computerized record keeping (10/88).

AR-1405-0166

Standard Property Book System - Redesigned

Course Number: 8B-F46/551-F23.
Location: Quartermaster School, Ft. Lee, VA.
Length: 4 weeks (152 hours).
Exhibit Dates: 3/87-Present.
Learning Outcomes: Upon completion of the course, the student will understand the operating procedures, prepare input transactions, understand the processing functions, and read and interpret reports of a microcomputer-based inventory control system.
Instruction: Includes classroom instruction, demonstrations, and practical (hands-on) exercises in the basic operations of a microcomputer, and the preparation of input transactions, the processing of the transactions, and reading reports of an automated inventory control system.
Credit Recommendation: In the vocational certificate category, 1 semester hour in inventory control, 1 in computerized record keeping (10/88).
Related Occupation Codes: 76Y; 76Z; 761A; 92A; 92B.

AR-1405-0167

Noncommissioned Officer (NCO) Logistics Program

Course Number: 551-F5.
Location: Quartermaster School, Ft. Lee, VA.
Length: 6 weeks (209 hours).
Exhibit Dates: 10/88-Present.
Learning Outcomes: Upon completion of this course, the student will understand the processes involved in logistics management and will have the knowledge to function in all levels of an organization.
Instruction: Classroom lectures and practical exercises enable the student to understand the requirements of logistics operation as it applies to many levels of an organization; supply, ammunition, transportation, and maintenance. Automated systems are introduced in support of the logistics function.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to logistics (10/88)

AR-1405-0169

Standard Army Intermediate Level Supply (SAILS) ABX

Course Number: 551-ASIF3.
Location: Quartermaster School, Ft. Lee, VA.
Length: 4 weeks (144 hours).
Exhibit Dates: 10/86-Present.
Learning Outcomes: Upon completion of the course, the student will understand the processes involved in operating an automated supply system.
Instruction: A significant number of classroom exercises and some lectures designed to introduce the student to the processes involved in operating an automated supply system to support all aspects of an inventory control operation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in inventory control and 1 in computerized record keeping (10/88).
Related Occupation Codes: 76J; 76P; 76W; 76V; 76Z.

AR-1405-0170

General Supply Technician Warrant Officer Technical Certification

Course Number: 8B-761A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (324-343 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage a property accounting function, know the fundamentals of stock fund accounting, and know the basic concepts of microcomputer applications; will also be able to solve problems in the use of an integrated supply management system.

Instruction: Lectures, class discussion, demonstrations, case studies, and practical exercises in property accounting, maintenance management, governmental accounting (stock funds, microcomputer applications, and integrated supply management systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications, 1 in governmental accounting, and 3 in material management (10/88).

Related Occupation Codes: 761A.

AR-1405-0171

Standard Army Intermediate Level Supply (SAILS) System Supervisor

Course Number: 8B-F42/551-F12.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (104 hours).

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course, the student will understand the processes involved in operating an automated supply system.

Instruction: A significant number of classroom exercises and some lectures devoted to teaching the student the processes involved in an automated supply system to support all aspects of an inventory control operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in inventory control, 1 in computerized record keeping (10/88)

AR-1405-0172

Support Supply Technical Warrant Officer Technical Certification

Course Number: 8B-762A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (324 hours).

Exhibit Dates: 5/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage a property accounting function using an automated system, be familiar with governmental accounting using a stock fund, and know the fundamentals of microcomputer applications.

Instruction: Lectures, class discussions, demonstrations, practical exercises, and examinations in microcomputer applications, governmental accounting (stock funds and property records), inventory control, and logistics management (including maintenance, petroleum supply, water supply, and materiel supply).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications, 2 in governmental accounting, and 3 in logistics management (10/88).

AR-1405-0173

Senior Supply/Services Sergeant

Course Number: 551-76Z50.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10 weeks (360 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage supply and service operations in large organizations. This entails the planning and coordination of personnel and equipment for large stationary as well as mobile operations.

Instruction: Methods of instruction include lectured instruction, group discussions, practical exercises and written examinations. Topics covered include supply and service operations, leadership, automated supply systems, supervision techniques, staffing procedures, relationship of supply to other logistical functions to include maintenance, transportation, and management of these functions in a large organization. Also includes procurement and types of physical inventories.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply and service management (10/88).

Related Occupation Codes: 76Z.

AR-1405-0174

Subsistence Supply Specialist Basic Noncommissioned Officer (NCO)

Course Number: 551-76X30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3-4 weeks (180 hours).

Exhibit Dates: 2/89-Present.

Learning Outcomes: Upon completion of the course, the student will understand the basics of supervision, motivation, and management of subordinates; understand the inventory control process, utilize an inventory system, calculate supply requisitions.

Instruction: Classroom lecture, seminars, and practical exercises pertaining to the inventory control processes of requisitioning, receipts, storage, security, and issue of supplies; use of an inventory system to control the above; motivate and supervise subordinates to meet the objectives of an organization responsible for an inventory control function.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in principles of supervision, 2 in inventory control/materials management (10/88). See AR-1406-0090 for credit recommended for the common core.

Related Occupation Codes: 76X.

AR-1405-0175

Equipment Records and Parts Specialist Advanced Individual Training

Course Number: 551-76C10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10-11 weeks (370-375 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a clerk in organizations requiring clerical operations in manual as well as automated situations.

Instruction: Practical exercises, demonstration and some classroom lectures to provide the student with the skills necessary to be a stock clerk including parts inventory maintenance, use of catalogs and reference materials, completion of forms, processing repair parts and preventive maintenance document keeping.

Credit Recommendation: In the vocational certificate category, 4 semester hours in stock keeping or parts inventory control (10/88).

Related Occupation Codes: 76C.

AR-1405-0176

Direct Support Unit Standard Supply System (DS4)

Course Number: 8B-F37/551-ASIT8.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (144 hours)

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the inventory control function using a standard supply system.

Instruction: Lectures, simulations, and practical exercises in managing the inventory control function utilizing a standard supply system. Topics include processing supply requisitions and receipts, producing demand analysis and economic order quality listings, and conduct of an inventory using the standard system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in inventory control, warehousing, and/or storekeeping, 1 in computerized record keeping (10/88.); in the lower-division baccalaureate/associate degree category, 2 semester hours in inventory management (10/88).

AR-1405-0177

Supply and Services Management Officer

Course Number: *Version 1:* 8B-92A/B/8B-920A/920B. *Version 2:* 8B-92A/B8B-761A/762A.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8-9 weeks (313-314 hours). *Version 2:* 9-10 weeks (353 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 6/85-9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will understand the processes involved in logistics management for all classes of supply and field services. *Version 2:* Upon completion of the course the student will manage logistics support for a large organization with emphasis on the supply function, including determination of supply requirements and application of planning factors.

Instruction: *Version 1:* Classroom lectures and practical exercises to enable student to understand the management of a logistics operation including facets of stock ordering, receipt, control, and movement. *Version 2:* Lectures, discussion, and practical exercises in supply management, food service support, transportation management (rail, air, motor vehicle, and water), small order purchasing, and maintenance management. Included are determination of supply requirements and the application of planning factors.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control or material management, 1 in microcomputer applications (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in logistics management (10/88).

AR-1405-0178

Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)

Course Number: 5-761-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (145 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise the use of manual and automated inventory control procedures, including constructing the data base; and will understand the flow of requests from customers to source of supply.

Instruction: Lectures, demonstration, and practical exercises in inventory control procedures including use of an automated supply system. Topics include preparation of support parameter cards, constructing a data base, processing and editing supplying requests, and the flow of requests from customer to the source of the supply.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (10/88); for credit for the common core, see AR-1404-0035.

AR-1405-0179

Materiel Storage and Handling Specialist Advanced Individual Training

Course Number: 551-76V10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6–7 weeks (246 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a materials handling and packaging storage operator familiar with an automated supply system.

Instruction: Lectures, demonstrations, and operation of equipment. Topics include packing and crating, warehousing, materials handling and inventory of physical items and of petroleum products. Also included is familiarization with use of an automated supply system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials handling and storage (10/88).

Related Occupation Codes: 76V.

AR-1405-0180

Troop Subsistence Activity Management

Course Number: 8E-F3/551-F15.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (144 hours). *Version 2:* 3 weeks (109 hours).

Exhibit Dates: *Version 1:* 4/89–Present. *Version 2:* 10/85–3/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to utilize basic management skills and knowledge in tandem with administrative and warehousing practices and procedures in effectively conducting troop issue subsistence activities. Student will understand and use a basic food management information system related to the troop issue subsistence activity. *Version 2:* Upon completion of the course, the student will be able to utilize basic management skills and knowledge in tandem with administrative and warehousing practices and procedures in effectively conducting troop issue subsistence activities.

Instruction: *Version 1:* Methods of instruction include lectures, a comprehensive warehouse practical exercise, review, and written test. Course content includes management functions, supervisory skills development, subsistence record keeping (receiving, processing, and issuing), and inventory maintenance, sanitation, and control. Course also includes a computer applications component. *Version 2:* Methods of instruction include lectures, a comprehensive warehouse practical exercise, review, and written test. Course content includes management functions, supervisory skills development, subsistence record keeping (receiving, processing, and issuing), and inventory maintenance, sanitation, and control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer application system, 2 in personnel management, 1 in storeroom operations (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management, 1 in storeroom operations (10/88).

AR-1405-0181

Repair Parts Technician Senior Warrant Officer - Reserve Components

Course Number: 8-10-C32-920C-RC.

Location: Quartermaster School, Ft.Lee, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic functions of the logistics operations of material acquisition and control.

Instruction: Classroom lectures and some exercises to develop an awareness of the logistics functions of determining requirements, distribution, finance management, and data processing support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in logistics management (10/88).

AR-1405-0182

Supply Supply Activity (SSA) Management

Course Number: 8B-F48.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (144 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will understand the inventory control process from receipt of materials through issue and reporting.

Instruction: Classroom lecture and practical exercises pertaining to the inventory control processes of requisitioning, receipt, storage, and warehousing security and issue of supplies; basic understanding of data processing principles and the use of an automated stock control system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control materials management (10/88).

AR-1405-0183

Subsistence Supply Specialist

Course Number: 822-76X10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7 weeks (253 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use prescribed methods of warehousing, including receiving, storing and issuing substance items. Additonally, he/she will be able to maintain sanitation standards, and utilize preventive maintenance scenarios for materials and/or warehousing equipment.

Instruction: Methods of instruction include lectures by instructors and students, practical exercises by participants, written examinations, and a comprehensive test. Topics covered: warehouse sanitation, requisitioning of food and supplies, receiving, storing and shipping semiperishable subsistences, materials equipment handling, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in material handling (10/88).

Related Occupation Codes: 76X.

AR-1405-0184

Property Book Technician Senior Warrant Officer Training - Reserve Component

Course Number: 8-10-C32-920A-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (71 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical leadership of a major/large scale property management function.

Instruction: Includes classroom instruction, demonstration, and practical exercises in basic data processing concepts, regulations, logistical concepts, and a computerized inventory control system.

Credit Recommendation: In the vocational certificate category, 1 semester hours in computerized record keeping and 1 in inventory control (10/88).

Related Occupation Codes: 920A.

AR-1405-0185

Property Book Technician Quartermaster Warrant Officer Technical/Tactical Certification

Course Number: 8B-920A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (324 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be understand the principles of property management including accountability, audit trails, work flow, physical considerations such as safety, storage, and security; will understand the operational requirements of accounting for various types of property; will use a micro-computer-based property management/inventory control system; and will provide technical leadership of a small to mid-sized property management function.

Instruction: Includes mostly classroom instruction on the principles of property management and the specific procedures of accounting for various types of property; and classroom instruction and practical hands-on exercises in the operations, transaction requirements, and capabilities of a property control system.

Credit Recommendation: In the vocational certificate category, 1 semester hours in computer record keeping (10/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control (10/88).

Related Occupation Codes: 920A.

AR-1405-0186

Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component

Course Number: 8B-920A-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical leadership in a small to mid-sized property management function.

Instruction: Includes classroom instruction in the principles of property management and the specific procedures of accounting for various types of property, and classroom instruction, demonstration, and practical exercise in the use and operation of a computerized inventory control system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computerized record keeping and 1 in inventory control (10/88).

Related Occupation Codes: 920A.

AR-1405-0187

Property Book Technician Senior Warrant Officer Training

Course Number: 8-10-C32-920A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11 weeks (394 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand many general military subjects and will have sufficient knowledge in all phases of property management, regulations, procedures and computerized inventory control systems to managem a major/large scale property control function.

Instruction: Includes classroom instruction, demonstration, and practical exercises in supervision, communication skills, general military topics, supply management, property management, inventory control, elementary accounting, and the use of a computerized property management system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computerized record keeping (10/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications, 1 in supply management, 1 in inventory control, and 1 in principles of supervision (10/88).

Related Occupation Codes: 920A.

AR-1405-0188

Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification

Course Number: 8B-920B.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (321 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand the processes of logistics support for the repair parts supplies function.

Instruction: Classroom lectures and a significant amount of practical exercises designed to teach the student inventory processes of requisitioning, receiving, stocking, and issue of different types of supplies. Automated support of inventory systems is introduced.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control warehousing and/or stock keeping , 1 in microcomputer applications (10/88).

AR-1405-0190

Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component

Course Number: 8B-920B-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic functions of the logistics operations of materiel acquisition and control.

Instruction: Classroom lectures and some exercises to develop an awareness of the logistics functions of determining requirements, distribution support, finance management, and data processing support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in logistics management (10/88).

AR-1405-0191

Advanced Logistics Management

Course Number: 8A-F37.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (144 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will understand the functions associated with procurement, storage, issue, and supply of all items necessary to maintain the operating level of an organization.

Instruction: Instruction is primarily a classroom activity through seminars and lectures to develop an understanding of the logistics process including developing usage requirements, contract principles, negotiation, contract administration, project management, depot operations, and automated systems support.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in logistics management (10/88).

AR-1405-0192

Quartermaster Field Grade Refresher

Course Number: 8A-F-34-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (68–76 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the logistics support for a large organization to include menu planning, nutrition, programming, sanitation and quality assurance, food preparation, food service, and record keeping.

Instruction: Lectures and class discussions in supply management, maintenance management, and other logistics functions, including that for a mobile organization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in logistics management (10/88).

AR-1405-0194

Supply Support Activity (SSA) Management

Course Number: LOG 71.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the basic functions of the supply support activity and storage operations; explain and implement a system of proper issuing, receiving, and shipping procedures; build and maintain a supply system (construct a data base, manage parameters, update data files, process supply status documents, follow-ups and cancellation requests, control inventory based on demand analysis and excess process); utilize and adjust a priority load list; identify and correct processing errors; understand the purpose and use of management reports and supply performance measures; analyze future supply systems and related concepts.

Instruction: Lectures and practical exercises using actual documentation and publications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hour in supply management (10/88).

AR-1405-0195

The Army Maintenance Management System and Prescribed Loading List (TAMMS and PLL)

Course Number: LOG 74.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (72 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to accurately prepare, maintain, and dispose of necessary maintenance and supply forms and records; maintain a publications library for unit equipment, supply, and maintenance operations; prepare, maintain, and dispose of historical records; use microfiche and records to identify and locate specific requirements for maintenance and supply functions; demonstrate a basic understanding of the prescribed load list policies and procedures.

Instruction: Lectures, demonstrations, and seminars in identifying, preparing, and stating the disposition of various maintenance and supply forms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in clerical procedures (10/88).

AR-1405-0196

Personnel Information Systems Management Specialist Basic Noncommissioned Officer (NCO)

Course Number: 500-75F30.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 7 weeks (285 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify and make proper corrections in a personnel information system and review data input.

Instruction: Classroom instruction and practical experience in the use and operation of a microcomputer, and instruction and practical applications of data entry, processing, and data output.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel recordkeeping; in the lower-division baccalaureate/associate degree category, 1 semester hour in computer applications and 1 in keyboard operations (12/88).

Related Occupation Codes: 75F.

AR-1405-0197

LOGISTICS MANAGEMENT

Course Number: 600.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (100 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to administer and maintain systems for transportation, delivery, and movement of supplies, including how to use documents for automation, facility management, publications, safety, and food service; how to prepare for mobilization using such systems as unit mobilization, force integration, inventory control, load planning, and hazardous cargo planning.

Instruction: Lectures and practical applications through quizzes, handouts, take-home materials, and a final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in material or supply management (7/89); in the upper-division baccalaureate category, 2 semester hours in logistics management (7/89).

AR-1405-0198

UNIT MOBILIZATION PLANNERS

Course Number: 2000.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (76 hours).

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform unit mobilization planning for U.S. army reserve units including transportation operating agency actions and relationships, mobilization and development planning and execution, and installation/mobilization station activities during post-mobilization actions.

Instruction: Classroom lectures and discussions, workbook exercises, quizzes, and final examination; topics include fundamentals of Department of Defense and Department of the Army mobilization planning process; coordination of transportation and ADP systems' mobilization requirements; mobilization planning responsibilities in the areas of security, personnel and administration, logistics, movement planning; completion of a detailed mobilization plan for a unit.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in logistics management (7/89).

AR-1405-0199

TRAINING MANAGEMENT

Course Number: 500.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (75 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify U.S. army reserve training needs and priorities; develop short and long range training strategy; and plan integrated budget and administrative support to satisfy different mobilization scenarios.

Instruction: Methods of instruction are lectures, discussions, related projects, quizzes, final examinations; topics covered: an overview of the U.S. Army force structure; fundamentals of the Army Training Management System; developing short and long range prioritized training strategies; identifying training needs with requisite budget and administrative resources; mobilization levels and phases and their impact on training requirements and readiness.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in training management (7/89).

AR-1405-0200

RESERVE SUPPLY

Course Number: 1000.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand and apply organizational supply systems; appropriately use control inventory and workflow principles as they relate to utilization of requisition procedures and forms, hand-receipt procedures, property disposition, physical security, and material condition status reports; customer support is also a major consideration.

Instruction: Lectures, discussions, quizzes and final examination; full attendance and active participation in structured exercises, students must meet the academic standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures (7/89).

AR-1405-0201

MOVEMENT OFFICER

Course Number: 3400.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to complete and analyze a unit's load plan for hazardous cargo, including proper marking and documentation requirements; develop a convey plan and record its elements; identify the elements of and develop a rail movement plan for a given unit; develop an air movement plan including a load plan for a specific aircraft as well as air lift support elements, teams, and team responsibilities.

Instruction: Includes homework and series of practical exercises for each unit; lectures, discussions, quizzes, and final examinations are part of a total point requirement.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in logistics management (7/89).

AR-1405-0202

MEDICAL SUPPLY SPECIALIST (BASIC) RESERVE COMPONENT PHASE 2

Course Number: 551-76J10 (RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (90 hours).

Exhibit Dates: 11/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the supply and equipment inventory system of a medical unit using the federal supply catalog, DOD Medical Catalog, microfiche viewer, DLA customer supply assistance booklet, and an automated system containing the Theater Army Medical Information System.

Instruction: This is a two phase course. Phase I is conducted as a correspondence course. Phase II is the resident portion. This second phase includes lecture, discussion, and practical exercises in the federal supply catalog, military standard requisitioning issue procedures, general administrative procedures, manual and automated property and inventory control, stock accounting, and the Theater Army Medical Management Information System.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in materials management (supply management) (3/90).

AR-1405-0203

MEDICAL LOGISTICS NONCOMMISSIONED OFFICER (NCO)

Course Number: 551-F1.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 4 weeks (157 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to interpret and implement policies and procedures using computer literacy in inventory management, financial management and Management Information System.

Instruction: Combination of conference and practical experiences covering computer literacy and management applications to finance, inventory and Management Information System.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems mangagement (3/90).

AR-1405-0204

SUPPLY NONCOMMISSIONED OFFICER (NCO)

Course Number: SNCO #-90.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1 week (54-56 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to address issues related to office and supply. Personnel issues related to subsistance, maintenance of equipment and security are addressed.

Instruction: Instruction strategies include lecture, discussion, structural exercise, and practical application exercises. Content includes key security, clothing control, maintenance request, meal accounting, subsistance, cash voucher and other supply type issues.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office procedures (7/90).

AR-1405-0205

SENIOR LEVEL LOGISTICS

Course Number: SLL #-90.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise the accountability of medical, finance, environment, food service, and property resources.

Instruction: Instruction strategies include proctoral experience, structural exercises, lecture and discussion. Course content includes accountability management of medical, financial, maintenance, environment, food service and property.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/90).

AR-1405-0206

ORGANIZATION DEVELOPMENT FACILITATORS

Course Number: PEC-O ODF.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 3 weeks (114 hours).

Exhibit Dates: 6/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to facilitate group discussion on issues critical to organizational group processes.

Instruction: Instruction includes lecture, discussion, practical exercises, student demonstrations, structural experiences, demonstrations, reports, and objective evaluation. Content covered includes learning theory, group concepts, group process, briefing/reporting skills including research, organization, delivery, and audio-visual aide, and units on dyadic communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in oral group communication skills (7/90).

AR-1405-0209

ORGANIZATIONAL MAINTENANCE SHOP (OMS)/UNIT TRAINING EQUIPMENT SITE (UTES)

Course Number: #-90 OMS/UTE6.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1 week (63 hours).

Exhibit Dates: 3/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the safety of hazardous materials, supervise security of materials in a unit accounting inventory, and maintain records of materials and content.

Instruction: Lecture, discussion and exercise are the primary instructural methods. The content includes management of an office on the issues of safety, hazardous material safety, inventory and accounting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply supervision (7/90).

AR-1405-0210

ORGANIZATIONAL MAINTENANCE SHOP (OMS)/UNIT TRAINING EQUIPMENT SITE (UTES) TOOL AND PARTS ATTENDANT

Course Number: #-90 OMS/UTES.

Location: Professional Educational Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1 weeks (49 hours).

Exhibit Dates: 3/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise safety, hazardous materials, security and accounting of tools and parts.

Instruction: Instruction strategies include correspondence, securities, accounting, safety, records, inventory, hazardous materials.

Credit Recommendation: Credit is not recommended because of the the military-specific nature of the course (7/90).

AR-1406-0001

FACULTY DEVELOPMENT

Course Number: 5K-F3/520-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 4 weeks (146–176 hours). *Version 2:* 4 weeks (146–176 hours).

Exhibit Dates: *Version 1:* 8/75–3/87. *Version 2:* 9/69–7/75.

Objectives: To train military personnel and civilians as instructors and supervisors of instructors.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises in instructional principles and techniques including instructional objectives, test construction, student counseling, lesson plan preparations, and instructional technology. *Version 2:* Lectures in instructional methods, teaching aids, principles of learning, examination construction, counseling and evaluation of students, preparation of lesson plans, formulating lesson objectives, school organization and regulations, and management of the learning environment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods, 1 in student counseling (8/79). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

AR-1406-0002

RESERVE COMPONENTS REENLISTMENT NONCOMMISSIONED OFFICER (NCO)
(Army National Guard Career Counseling)

Course Number: 501-79D30-A.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 2 weeks (95 hours).

Exhibit Dates: 12/77–1/88.

Objectives: To provide enlisted personnel with the knowledge, skills, and techniques needed to perform as military career counselors.

Instruction: Practical exercises and classroom instructions in elementary counseling and use of military information guides. Career counseling subjects include retention and interview counseling, career management, and communication skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in interviewing techniques (2/70).

Related Occupation Codes: 79D.

AR-1406-0004

PERSONNEL MANAGEMENT OFFICER
(Personnel Staff Officers)
(Personnel Resources Management)

Course Number: 7C-41A; 7C-2260; 7C-F3; 12-G-F1; 12-B-F1; 12-O-7.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 4–6 weeks (149–213 hours).

Exhibit Dates: 7/55–10/78.

Objectives: To provide senior commissioned officers with a knowledge of personnel management principles and procedures.

Instruction: Lectures on manpower management, financial management, civilian personnel management and labor relations, military personnel management, community relations, management information systems, and data processing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel management (12/68).

AR-1406-0005

PERSONNEL STAFF NONCOMMISSIONED OFFICER (NCO)

Course Number: 500-F1.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (73 hours).

Exhibit Dates: 8/72–5/75.

Objectives: To train enlisted personnel to serve as advisors to brigade and battalion commanders on personnel matters.

Instruction: Lectures on the functions and procedures in personnel administration, record keeping, and control/information systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

Related Occupation Codes: 71H.

AR-1406-0006

ADVANCED PERSONNEL MANAGEMENT ENLISTED

Course Number: 12-E-2.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (175–186 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To provide supervisors with advanced training in personnel management.

Instruction: Lectures and practical experience in personnel management systems and organization functions, including command and staff organizational procedures and a simulated play to develop proficiency in theory application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel management (2/74).

AR-1406-0007

MILITARY PERSONNEL OFFICER/PERSONNEL TECHNICIAN
(Military Personnel Officer/Unit Personnel Technician)
(Military Personnel Officer)

Course Number: *All Versions:* 7C-2200; 7C-711A0; 7C-711A. *Version 1:* 7C-42A/711AO; 7C-42A; 7C-42A/711A. *Version 2:* 12-B-2200; 12-B-711A; 12-B-F8.

Location: *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 2:* Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5 weeks (185–189 hours). *Version 2:* 15 weeks (175–194 hours).

Exhibit Dates: *Version 1:* 6/74–2/89. *Version 2:* 10/58–5/74.

Objectives: To train commissioned and warrant officers as personnel administrators.

Instruction: *Version 1:* Lectures and practical exercises in personnel administration and records management and reporting procedures. *Version 2:* Lectures and practical exercises in organization and management, personnel administration, payrolls, and records management and reporting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management (9/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel management (12/68).

Related Occupation Codes: 711A; 713A.

AR-1406-0008

Recruiting, Reenlistment and Induction Officer
(Recruiting and Reenlistment Officer)

Course Number: 7C-2310; 12-A-2310D.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (107-117 hours).

Exhibit Dates: 3/59-12/68.

Objectives: To train commissioned officers to recruit personnel and handle reenlistment procedures.

Instruction: Lectures in the recruitment and reenlistment of personnel. Topics include fundamentals of military personnel procurement, principles and techniques of recruiting, effective speaking, and recruiting management.

Credit Recommendation: In the vocational certificate category, 1 semester hour in salesmanship (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in salesmanship (6/74).

AR-1406-0009

OH-13 Instructor Pilot Qualification

Course Number: 2C-F17.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (178 hours).

Exhibit Dates: 8/68-11/86.

Objectives: To train commissioned and warrant officer aviators as OH-13 instructor pilots.

Instruction: Lectures and practical exercises in OH-13 instructor pilot qualification, including MOI flight training, MOI academic subjects, refresher and qualification flight training, effective teaching methods, helicopter aerodynamics, maintenance subjects, autorotations, OH-13 flight controls and main rotor heads and blades, inspection, intermediate and advanced maneuvers, principles of flight instruction, engine operation, and fuel and oil system.

Credit Recommendation: In the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 160A; 103A.

AR-1406-0010

Adjutant General Officer Orientation

Course Number: 7-12-C21.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (194 hours).

Exhibit Dates: 8/67-8/73.

Objectives: To train commissioned officers to be adjutant general officers.

Instruction: Lectures in administrative and special services, personnel management, data processing, organization, and command and staff procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel management (12/68).

AR-1406-0011

Personnel Records Specialist

Course Number: *Version 1:* 500-75D10. *Version 2:* 500-75D20.

Location: Army Training Center, Ft. Jackson, SC.

Length: 7 weeks (211-244 hours).

Exhibit Dates: *Version 1:* 9/82-Present. *Version 2:* 3/76-8/82.

Objectives: To train personnel to maintain personnel records.

Instruction: *Version 1:* Conferences and practical exercises in personnel records maintenance through such source documents as courts-martial orders, orders, efficiency reports, suspension of favorable personnel actions, requested and completed personnel actions; in- and out-processing of personnel records; and the initiation, use, and updating of standard installation/division personnel system (SIDPERS) documentation. *Version 2:* Conferences and practical exercises in personnel records maintenance through such source documents as courts-martial orders, orders, efficiency reports, suspension of favorable personnel actions, requested and completed personnel actions; in- and out-processing of personnel records; and the initiation, use, and updating of standard installation/division personnel system (SIDPERS) documentation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in clerical bookkeeping and 2 in office procedures (8/88). *Version 2:* Credit is not recommended because of the military-specific nature of the course (9/77).

Related Occupation Codes: 09B; 09E; 75B; 75D.

AR-1406-0012

Recruiting Indoctrination—WAC Officer

Course Number: 12-A-2310B; 12-O-17.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (105-121 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train officers of the Women's Army Corps to recruit and interview personnel for enlistment into the armed services.

Instruction: Lectures and practical exercises in the recruitment of new personnel into the armed services. Course includes recruiting techniques and effective speaking.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-1406-0013

Recruiting
(Recruiting, Enlisted)

Course Number: 12-R-075.7A; 12-E-7.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (112-114 hours).

Exhibit Dates: 10/56-10/58.

Objectives: To train recruiting specialists in the techniques and procedures of recruiting and in the management of a recruiting activity.

Instruction: Lectures and practical exercises in the techniques and procedures of recruiting and in the management of a recruiting activity, including eligibility, opportunities, and benefits; recruiting salesmanship; effective speaking; principles and techniques of supervision; sales psychology; radio and press copywriting; research; and market analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-1406-0014

Recruiting Management Officer

Course Number: 12-A-2310A; 12-O-6.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3-4 weeks (112-140 hours).

Exhibit Dates: 10/55-12/68.

Objectives: To train commissioned officers to perform as recruiting and induction officers.

Instruction: Lectures and practical exercises in recruiting techniques and procedures and in the management of a recruiting activity, including recruiting prerequisites; product, market, and prospect needs; communication aids and sales tools; radio and press copywriting; effective speaking; recruiting management; selection of recruiting personnel; supervising and training the sales force; and qualitative aspects of procurement.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-1406-0015

Military Personnel Recruiting WAC/ANC Officer

Course Number: 7C-2310-B.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (114 hours).

Exhibit Dates: 4/68-12/73.

Objectives: To train female commissioned officers to recruit candidates for the armed services.

Instruction: Lectures and practical exercises in the recruitment of candidates for the armed services. Course includes fundamentals of personnel procurement, principles and techniques of recruiting, effective speaking and writing, and sales management.

Credit Recommendation: In the vocational certificate category, 1 semester hour in salesmanship (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in salesmanship (7/74).

AR-1406-0016

Personnel and Administration
(Reserve Components)

Course Number: 7C-F5; 520-F1.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (111-112 hours).

Exhibit Dates: 7/66-1/88.

Objectives: To train enlisted personnel in personnel administration.

Instruction: Lectures and practical exercises in personnel administration, including administration fundamentals, enlisted evaluation system, personnel records, service and training obligations, pay and allowances, officer and enlisted qualification, appointments and reductions, data processing, publications, screening, and retirement point records.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management (7/74).

AR-1406-0017

ARMY CAREER COUNSELING

Course Number: 12-D-2310C; 12-D-075.7B; 12-OE-26.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (132 hours).

Exhibit Dates: 2/57–10/58.

Objectives: To train commissioned officers and enlisted personnel to reenlist personnel into the armed services.

Instruction: Lectures and practical exercises in military career counseling and reenlistment procedures. Course includes a description of eligibility, opportunities, and benefits in the armed services; principles of human relations; oral communication; and interviewing and counseling techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in speech communication, 2 in guidance and counseling (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in speech communication, 2 in guidance and counseling (8/74); in the upper-division baccalaureate category, 1 semester hour in speech communication, 2 in guidance and counseling (8/74).

AR-1406-0018

ASSOCIATE ADJUTANT GENERAL OFFICER ADVANCED

Course Number: 12-A-C5; 12-O-4.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 12 weeks (428–470 hours).

Exhibit Dates: 9/55–6/60.

Objectives: To train commissioned officers in the duties and responsibilities appropriate to field grade Adjutant General's Corps officers.

Instruction: Lectures and practical exercises in the duties and responsibilities of field grade Adjutant General's Corps officers, including professional development and orientation; combat support and arms; special types of operations; foreign armies; command and staff organization, principles, and procedures; general staff functions and techniques; and Adjutant General's Corps functions and operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel management (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management (8/74); in the upper-division baccalaureate category, 3 semester hours in personnel management (12/68).

AR-1406-0019

PERSONNEL ADMINISTRATION SPECIALIST

Course Number: 12-R-716.1.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 8 weeks (280 hours). *Version 2:* 4 weeks (135–139 hours).

Exhibit Dates: *Version 1:* 9/62–12/68. *Version 2:* 11/58–8/62.

Objectives: To train enlisted personnel to perform the duties of personnel administration specialists.

Instruction: Lectures and practical exercises in the duties of a personnel administration specialists. Course includes administrative functions, personnel administration, personnel records, and personnel compensation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (7/74). *Version 2:* Credit is not recommended because of the military-specific nature of the course (7/74).

AR-1406-0020

1. RETENTION NONCOMMISSIONED OFFICER (NCO)
2. RETENTION TRANSITION
   (Army Reenlistment Noncommissioned Officer (NCO))
3. ARMY REENLISTMENT
   (Army Recruiting and Career Counseling)
4. ARMY RECRUITING AND CAREER COUNSELING

Course Number: *Version 1:* 501-79D30; 501-00R30. *Version 2:* 501-79D30. *Version 3:* 501-00E40; 501-79D30. *Version 4:* 501-00E40; 501-075.6; 12-R-075.6.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 6–7 weeks (223–225 hours). *Version 2:* 5 weeks (190–222 hours). *Version 3:* 4–5 weeks (133–203 hours). *Version 4:* 3–5 weeks (101–193 hours).

Exhibit Dates: *Version 1:* 1/85–Present. *Version 2:* 3/81–12/84. *Version 3:* 2/70–2/81. *Version 4:* 11/58–1/70.

Objectives: To train enlisted personnel to manage a recruiting and reenlistment office.

Instruction: *All Versions:* Lectures and practical exercises in the management of a recruiting and reenlistment office. Course includes principles and techniques of recruiting and reenlistment, and effective speaking. *Version 1:* Conference instruction and practical exercises in service computation, bonuses, interviewing and counseling techniques and maintenance of enlistment program. *Version 2:* Lectures and practical exercises including how to determine reenlistment eligibility, determine incentives, apply administrative skills to maintain a reenlistment program. *Version 3:* Topics include interviewing and sales techniques.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (3/85). *Version 2:* In the vocational certificate category, 1 semester hour in sales presentations (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in sales techniques (3/75). *Version 4:* Credit is not recommended because of the limited technical nature of the course (12/68).

Related Occupation Codes: 00E.

AR-1406-0021

MANPOWER CONTROL OFFICER

Course Number: *All Versions:* 12-G-2265. *Version 1:* 7-C-2265. *Version 2:* 12-O-8.

Location: Adjutant General School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 3–4 weeks (111–154 hours). *Version 2:* 5–6 weeks (193–210 hours).

Exhibit Dates: *Version 1:* 8/58–12/68. *Version 2:* 9/55–7/58.

Objectives: To provide selected personnel with working knowledge of the principles and procedures employed in the control, distribution, and utilization of manpower at all levels of command.

Instruction: Course covers manpower management, controls, and survey techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in manpower management (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in manpower management (12/68).

AR-1406-0022

SIDPERS MANAGEMENT

Course Number: 531-F6, 7E-F24.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 2 weeks (73 hours).

Exhibit Dates: 3/74–11/77.

Objectives: To train personnel in the use of the Army's automated personnel system.

Instruction: Classroom presentation and drills in the use of manuals basic to the Army personnel system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/75).

Related Occupation Codes: 74C.

AR-1406-0023

PERSONNEL MANAGEMENT SPECIALIST

Course Number: *Version 1:* 500-75C10. *Version 2:* 500-75C10; 500-75C10 (ST). *Version 3:* 500-75C20.

Location: *Version 1:* Soldier Support Institute, Ft. Benjamin Harrison, IN. *Version 2:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 3:* Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 10–11 weeks (371 hours). *Version 2:* 9–10 weeks (332–353 hours). *Version 3:* 7–8 weeks (268 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 7/82–9/88. *Version 3:* 10/74–6/82.

Objectives: To provide instruction in personnel record keeping.

Instruction: Lectures and practical exercises in the techniques of record keeping, requisition, transfer, classification, utilization, and typewriting.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in personnel records clerical procedures; in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (1/88). *Version 3:* In the vocational certificate category, 2 semester hours in personnel records clerical procedures and additional credit in typewriting on the basis of institutional evaluation (3/75).

Related Occupation Codes: 75B; 75C.

AR-1406-0024

PERSONNEL SENIOR SERGEANT

Course Number: 500-75Z40.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 5 weeks (171–188 hours).

Exhibit Dates: 1/74–9/86.

Objectives: To provide personnel with the skills and knowledge required to perform personnel management functions.

Instruction: Instruction includes personnel management techniques and procedures related to military records and evaluations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management (3/85).

Related Occupation Codes: 75C; 75D; 75E; 75Z.

AR-1406-0025

ADMINISTRATION NONCOMMISSIONED OFFICER (NCO) ADVANCED
(Administrative (AG-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *Version 1:* 5-AG-C42A. *Version 2:* 5-AG-C42A.

Location: Institute of Administration, Ft.Benjamin Harrison, IN.
Length: 7-10 weeks (195-359 hours).
Exhibit Dates: *Version 1:* 6/75-2/81. *Version 2:* 9/73-5/75.
Objectives: To provide selected personnel with the skills and knowledge to perform administrative and clerical duties in adjutant general offices.
Instruction: *Version 1:* Lectures and practical exercises in military administration including personnel procedures administrative service and unit administration. *Version 2:* Instruction includes manpower management, leadership, data processing, communications, and personnel management.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in general office practices (2/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management (3/75); in the upper-division baccalaureate category, 3 semester hours in personnel management (3/75).
Related Occupation Codes: 71C; 71D; 71E; 71F; 71L; 71M; 71Q; 75Z; 71R.

AR-1406-0026

Personnel Actions Specialist

Course Number: *Version 1:* 500-75E10; 500-75E10 (ST). *Version 2:* 500-75E20.
Location: Army Training Center, Ft. Jackson, SC.
Length: *Version 1:* 7-8 weeks (277 hours). *Version 2:* 7 weeks (211 hours).
Exhibit Dates: *Version 1:* 9/82-Present. *Version 2:* 2/76-8/82.
Objectives: To train students to prepare, process, and review records relating to personnel matters.
Instruction: *Version 1:* Instruction and practical exercises in the preparation, processing and review of records pertaining to personnel actions along with field training experiences. *Version 2:* Conferences and practical experience in the preparation, processing, suspension, and review of correspondence pertaining to medical examinations, reenlistments, discharges, separations, suspension of favorable personnel actions, military/dependent ID cards, and dependent travel and affairs; the uses of personnel records and standard installation/division personnel system (SIDPERS) documentation, and proper interview techniques to accomplish such actions.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing and 3 in clerical recordkeeping (8/88). *Version 2:* Credit is not recommended because of the military-specific nature of the course (9/77).
Related Occupation Codes: 09B; 09E; 75B; 75E.

AR-1406-0027

Recruiter

Course Number: 501-00E20; 501-SQI4; 501-00E40.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN; Institute of Administration, Ft. Benjamin Harrison, IN.
Length: 4-6 weeks (148-231 hours).
Exhibit Dates: 10/76-9/86.
Objectives: To provide enlisted personnel with the skills and techniques necessary to perform effectively as military recruiters.
Instruction: Conference instruction and practical exercises in counseling fundamentals, sales interview, telephone technique, selling techniques, enlistment eligibility, sales communication, and military recruiting materials.
Credit Recommendation: In the vocational certificate category, 2 semester hours in sales techniques (3/85).
Related Occupation Codes: OOE.

AR-1406-0028

Career Counselor

Course Number: 501-00E40-A.
Location: Institute of Administration, Ft. Benjamin Harrison, IN.
Length: 4 weeks (146 hours).
Exhibit Dates: 3/77-8/78.
Objectives: To provide enlisted personnel with the skills, techniques and basic technical knowledge required to perform as career counselors.
Instruction: Topics include reenlistment eligibility, interview techniques, career counselor exercises and effective listening.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in interviewing techniques (1/78).
Related Occupation Codes: 00E.

AR-1406-0029

Criterion-Referenced Instruction
(CRI) Workshop

Course Number: TDI-101.
Location: Intelligence School, Ft. Devens, MA; Defense Language Institute, Monterey, CA; Air Defense School, Ft. Bliss, TX; Sergeants Major Academy, Ft. Bliss, TX; Engineer School, Ft. Belvoir, VA; Infantry School, Ft. Benning, GA; Intelligence School, Ft. Huachuca, AZ; Chemical School, Ft. McClellan, AL; Military Police School, Ft. McClellan, AL; Missile and Munitions School, Redstone Arsenal, AL; Quartermaster School, Ft. Lee, VA; Signal School, Ft. Gordon, GA; Transportation School, Ft. Eustis, VA; Aviation School, Ft. Rucker, AL; Institute for Military Assistance, Ft. Bragg, NC; 7th Army Combined Training Center, Vilseck, Germany; Training Center Engineer, Ft. Leonard Wood, MO.
Length: Self-paced 3 weeks (120 hours).
Exhibit Dates: 8/77-1/88.
Objectives: Course is designed for U.S. Army officers, enlisted personnel and civilian employees having responsibility for analyzing jobs, designing or developing instruction, teaching, or evaluating service school education/training programs.
Instruction: The course focuses on developing and/or improving the skills required to develop an effective instructional program and emphasizes skills needed for analysis, design and implementation. The course is conducted in a self-paced workshop format and provides learning materials, multi-media instruction, and resource persons to enrollees. Some students prepare a research paper.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional design (8/77); in the graduate degree category, credit may be considered on the basis of individual institutional policy and evaluation (8/77).

AR-1406-0030

Reserve Components Recruiter
(Reserve Components Recruiting and Retention Training)

Course Number: 7C-F11; 501-00E30RC; 501-00E40B.
Location: Institute of Administration, Ft. Benjamin Harrison, IN.
Length: 2-3 weeks (57-111 hours).
Exhibit Dates: 4/75-10/84.
Objectives: To provide unit recruiting and retention personnel with a knowledge of the techniques and procedures of obtaining new accessions and for retaining qualified members in the Reserve Components.
Instruction: Classroom instruction and practical exercises in military benefits and opportunities, eligibility and forms, selections and training of recruiting personnel, and interview training.
Credit Recommendation: In the vocational certificate category, 1 semester hour in sales techniques (2/78).
Related Occupation Codes: 00E.

AR-1406-0032

Recruiting Station Commanders

Course Number: 501-F2.
Location: Army Institute of Administration, Ft. Benjamin Harrison, IN.
Length: 2-3 weeks (76-114 hours).
Exhibit Dates: *Version 1:* 10/82-Present. *Version 2:* 5/79-9/82.
Objectives: To provide selected enlisted personnel with the skills to perform as supervisor of a recruiting station.
Instruction: *Version 1:* Conference and practical execises in responsibility, leadership, management, personnel training, sales promotion and administration of recruiting stations. *Version 2:* Lectures and practical exercises in the management of a military recruiting office including training and motivation of subordinates, market analysis, advertising and sales promotion.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of supervision for the 3-week course (3/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in sales techniques (2/80).
Related Occupation Codes: 00E.

AR-1406-0033

Manpower Management

Course Number: RM407.
Location: 7th Army Combined Arms Training Center, Munich, Germany; 7th Army Combined Arms Training Center, On-site at various locations in Europe.
Length: 2 weeks (56 hours).
Exhibit Dates: 10/78-Present.
Objectives: To train management analysts in policies, procedures and techniques used in determining requirement and distribution of manpower resources.
Instruction: Lectures and practical exercises covering an introduction to manpower management, the army authorization document system, establishing manpower requirements, manpower controls and utilization and special group projects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel staffing management (10/80).

AR-1406-0034

Leadership and Management
Development Trainers Course

Course Number: None.
Location: Organizational Effectiveness Center and School, Ft. Ord, CA.; Selected Army locations.
Length: 4 weeks (148-149 hours).
Exhibit Dates: 5/79-Present.

Objectives: To provide instruction and experience in training to officer and senior enlisted personnel selected to instruct Leadership and Management Development Trainers Course. Selected training techniques for leadership methods and related advanced management development and behavioral science skills are incorporated.

Instruction: Basic introduction to leadership/interpersonal relations training. Focus of the course is the application of training and instructional techniques which will provide the students with skills in conducting a basic course in leadership and management development. Topics include group dynamics, communication modes, interpersonal relationships models, and performance and personal counseling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership/interpersonal relations (4/81); in the upper-division baccalaureate category, 1 semester hour in training and development (4/81).

AR-1406-0035

Air Defense Artillery (ADA) Advanced Noncommissioned Officer (NCO)

(Air Defense Missile (23-CMF) Noncommissioned Officer (NCO) Advanced)

(Air Defense (27-CMF) Noncommissioned Officer (NCO) Advanced)

(Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced)

(Air Defense Artillery (ADA) (23-CMF) Noncommissioned Officer (NCO) Advanced)

(Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: O-16-C42; 1-23-C42; 1-27-C42B; 1-27-C42.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 8-9 weeks (312 hours). *Version 2:* 10 weeks (426 hours). *Version 3:* 10 weeks (426 hours).

Exhibit Dates: *Version 1:* 3/84–Present. *Version 2:* 1/81–2/84. *Version 3:* 10/79–12/80.

Objectives: To provide senior enlisted personnel with a working knowledge of the duties, instructional methods and general overall knowledge necessary to perform as senior noncommissioned officers in air defense management.

Instruction: *Version 1:* The conferences and practical exercises include topics such as small unit self-defense, pilot tactics, and instruction in HIMAD and SHORAD systems deployment. *Version 2:* Lectures and practical exercises in communicative arts, principles of leadership, personnel management, subjects relating to military survival, air defense maintenance, systems orientation and weapons operation. Course also includes lectures in platoon management. *Version 3:* Lectures and practical exercises in communicative arts, principles of leadership, personnel management, subjects relating to military survival, air defense maintenance, systems orientation and weapons operation.

Credit Recommendation: *Version 1:* Credit is recommended for the common core only. Please see exhibit AR-1404-0035 (11/88). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in public speaking, 3 in principles of curriculum development and 1 in personnel management (3/81). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in public speaking and 3 in curriculum development (3/81).

AR-1406-0036

A Systems Approach to Training (Instructional Systems Development)

Course Number: 5K061FD90; 5K061FD92.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/80–Present.

Objectives: The student prepares instructional materials, learns task analysis and teaching by objectives.

Instruction: Through lectures, demonstrations and assigned projects the student learns to recognize tasks and objectives, develop several types of instructional materials including self-paced instructional materials and validation techniques. The material covered emphasizes using student performance objectives and criteria testing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional materials development (2/80).

AR-1406-0037

Instructor Training

Course Number: 5K061FD90.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (83 hours).

Exhibit Dates: 8/79–Present.

Objectives: To provide faculty with the necessary skills and techniques needed for classroom instruction.

Instruction: The course includes instruction in the principles of accessing needs, selecting proper audio visual and demonstration equipment, classroom management, criterion testing and editing instructional materials. The student is required to give various types and lengths of presentations that are critiques by the instructional staff.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in speech or public speaking (2/80); in the upper-division baccalaureate category, 3 semester hours in teaching methods (2/80).

AR-1406-0038

Technical Services Officer (TSO) Leadership Workshop

Course Number: None.

Location: Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Baltimore, MD; Deputy Chief of Staff for Personnel, Dallas, TX; Deputy Chief of Staff for Personnel, San Francisco, CA.

Length: 1–2 weeks (64 hours).

Exhibit Dates: 1/80–1/90.

Objectives: To provide an overview of certain aspects of the personnel management function and its interface with other functional areas of the organization.

Instruction: Lectures and practical exercises in the fundamentals of personnel management, including human resource planning, the regulatory base, wage and salary administration, records management, and labor relations. No formal evaluation of students is conducted.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0039

Basic Training and Development

Course Number: None.

Location: Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Baltimore, MD; Deputy Chief of Staff for Personnel, Dallas, TX; Deputy Chief of Staff for Personnel, San Francisco, CA.

Length: 1–2 weeks (64 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide and overview of training and development policies, administrative practices, management procedures and program constraints within the civilian personnel force of the Department of the Army.

Instruction: The course utilizes a variety of instructional methods including pre-course text readings, lectures, handouts, case study, audio-visual materials, and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in training and development within the Department of the Army, subject to departmental interview (assessment/evaluation) (8/81).

AR-1406-0040

Personnel Management for Executives

Course Number: None.

Location: Deputy Chief of Staff for Personnel, U.S. Military Academy, West Point, NY; Deputy Chief of Staff for Personnel, Aberdeen Proving Ground, MD; Deputy Chief of Staff for Personnel, Annapolis, MD; Deputy Chief of Staff for Personnel, Williamsburg, VA; Deputy Chief of Staff for Personnel, Ft. McPherson, GA; Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Indianapolis, IN; Deputy Chief of Staff for Personnel, Sacramento, CA; Deputy Chief of Staff for Personnel, Ft. Sam Houston, TX; Deputy Chief of Staff for Personnel, Colorado Springs, CO; Deputy Chief of Staff for Personnel, Korea; Deputy Chief of Staff for Personnel, Japan; Deputy Chief of Staff for Personnel, Heidleberg, Germany.

Length: 1–2 weeks (64 hours).

Exhibit Dates: 11/79–4/86.

Objectives: To provide opportunities for participants to examine their personal management philosophies, styles, behaviors, and values. These self assessments are then compared to manager's philosophies, styles, behaviors and values in successfully performing organizations.

Instruction: This course encompasses a variety of management topics. Leadership styles, power and authority, organizational groups, conflict management, innovations in management, management development, management of change and organizational systems are examined. Instructional methodologies include case discussions, lectures, films, small group work and individual research. No formal course evaluations are administered.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in organizational theory and behavior based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0041

Civilian Personnel Officer

Course Number: None.

Location: Deputy Chief of Staff for Personnel, Washington, DC; Deputy Chief of Staff for Personnel, Leesburg, VA.
Length: 2-3 weeks (80 hours).
Exhibit Dates: 3/76-4/86.
Objectives: To develop skills and abilities in recognizing and solving federal sector personnel management problems associated with personnel office organizations and structure, organizational and personnel-related functional concepts and management of change.
Instruction: The course examines the roles of a federal sector personnel officer as a manager of resources, program manager, staff advisor, and a leader of change. Methodologies include small group sessions, group interactions, case studies, individual study sessions, attendee involvement and participation. No formal course evaluations are given.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in public sector personnel management based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0042

Basic Position and Pay Management

Course Number: None.
Location: Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Baltimore, MD; Deputy Chief of Staff for Personnel, Dallas, TX; Deputy Chief of Staff for Personnel, San Francisco, CA.
Length: 1-2 weeks (80 hours).
Exhibit Dates: 3/79-4/86.
Objectives: To provide the student with a basic knowledge of job classification and position management, with an emphasis on guided practical experience.
Instruction: Using lecture and extensive guided practical experiences (exercises and discussions), course provides knowledge of job analysis, job description, and job evaluation utilizing factor evaluation. Position management includes the determination of competitive levels, the application of the Fair Labor Standards Act with its provisions regarding exempt status and the impact of labor relation legislation upon the classification specialist. No formal evaluation is administered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in job analysis, job description, and job evaluation based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0043

Basic Staffing

Course Number: None.
Location: Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Baltimore, MD; Deputy Chief of Staff for Personnel, Dallas, TX; Deputy Chief of Staff for Personnel, San Francisco, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 3/81-4/86.
Objectives: To provide a foundation for the application of processes and techniques of the staffing function in the federal sector.
Instruction: Lectures and practical exercises in the fundamentals of staffing, including the regulatory base, evaluation, promotion, and reduction in force in the federal sector. There is no formal evaluation of students.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in federal sector staffing, based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0044

Management Employee Relations

Course Number: None.
Location: Deputy Chief of Staff for Personnel, Atlanta, GA; Deputy Chief of Staff for Personnel, Baltimore, MD; Deputy Chief of Staff for Personnel, Dallas, TX; Deputy Chief of Staff for Personnel, San Francisco, CA.
Length: 1-2 weeks (40-45 hours).
Exhibit Dates: 1/81-4/86.
Objectives: To provide the public sector personnel intern and specialist with information and skills in administrative functions and responsibilities of a labor relations specialist by using lectures and small group activities.
Instruction: Course teaches administrative functions and responsibilities of a public sector labor relations specialist. Topics include communications lectures and discussion, labor relations lectures and discussion, performance appraisal lectures and group work, discipline and adverse action lectures and group work, mock learning group work. No formal course evaluation is administered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in public sector labor relations based on departmental evaluation (assessment/interview) (8/81).

AR-1406-0045

Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Recruitment and Retention) by Correspondence

Course Number: S14.
Location: Army Institute for Professional Development, Ft. Eustis, VA.
Length: Maximum 312 weeks.
Exhibit Dates: 10/81-5/86.
Objectives: To prepare selected personnel for responsibilities in office and personnel management.
Instruction: Instruction is through home study modules. The course includes practical applications of records and office management and fundamentals of personnel management to include recruitment, retention, and manpower control. of successful completion of this optional examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office administration, 2 in introduction to personnel management. Receiving institution should require verification of successful completion of the optional final subcourse, the proctored examination, prior to granting credit. (1/81).

AR-1406-0046

Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Administration) by Correspondence

Course Number: S20.
Location: Army Institute for Professional Development, Ft. Eustis, VA.
Length: Maximum 312 weeks.
Exhibit Dates: 10/81-5/86.
Objectives: To prepare selected personnel for responsibilities in office and personnel management in military occupational specialty (MOS) 71L.
Instruction: Instruction is through home study modules. The course includes practical procedures and applications of records and office management, concepts of leadership and problem-solving processes, organizational behavior, and fundamentals of personnel management. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management, 1 in introduction to personnel management (1/81); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (1/81). Receiving institutions should require verification of successful completion of the proctored end of course examination prior to granting credit.
Related Occupation Codes: 71L; 71F.

AR-1406-0047

Adjutant General Noncommissioned Officer (NCO) Education System (Administration) by Correspondence

Course Number: S18.
Location: Army Institute for Professional Development, Ft. Eustis, VA.
Length: Maximum 260 weeks.
Exhibit Dates: 10/81-5/86.
Objectives: To prepare selected personnel for responsibilities in office and personnel management in military occupational specialties (MOSs) 71C/D/E/L.
Instruction: Instruction is through home study modules. The course includes practical procedures and applications of records and office management, concepts of leadership and problem-solving processes, organizational behavior, and fundamentals of personnel management. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management, 1 in introduction to personnel management (1/81); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (1/81).
Related Occupation Codes: 71C; 71D; 71E; 71L.

AR-1406-0048

Adjutant General Noncommissioned Officer (NCO) Education System (Administration) Advanced by Correspondence

Course Number: S19.
Location: Army Institute for Professional Development, Ft. Eustis, VA.
Length: Maximum 312 weeks.
Exhibit Dates: 10/81-5/86.
Objectives: To prepare selected personnel for responsibilities in office and personnel management in military occupational specialty (MOS) 75Z.
Instruction: Instruction is through home study modules. The course includes practical procedures and applications of records and office management, concepts of leadership and problem-solving processes, organizational behavior and fundamentals of personnel management. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of

successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management, 1 in introduction to personnel management (1/81); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (1/81).Receiving institutions should require verification of successful completion of the proctored final examination before granting credit.

Related Occupation Codes: 75Z.

AR-1406-0049

Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Administration) by Correspondence

Course Number: S12.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 156 weeks.

Exhibit Dates: 10/81-5/86.

Objectives: To prepare selected personnel for responsibilities in office and personnel management for military occupational specialty (MOS) 71M.

Instruction: Instruction is through home study modules. The course includes practical procedures, applications and concepts of leadership and problem-solving processes, organizational behavior and fundamentals of personnel management. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to personnel management (1/81); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (1/81). Receiving institutions should require verification of successful completion of the proctored final examination prior to granting credit.

Related Occupation Codes: 71M.

AR-1406-0050

Personnel Administration Officer Basic by Correspondence

Course Number: E07.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 208 weeks.

Exhibit Dates: 10/81-5/86.

Objectives: To provide selected personnel with a knowledge of basic personnel management principles and the applicable tools and techniques for unit personnel administration.

Instruction: Instruction is through home study modules. This is a course in basic personnel administration, emphasizing office and personnel management and appropriate organizational design and operation. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office administration, 1 in introduction to management (1/81); in the upper-division baccalaureate category, 1 semester hour in human resource management (1/81).

AR-1406-0051

Personnel Administration Officer Advanced by Correspondence

Course Number: E32.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 260 weeks.

Exhibit Dates: 10/81-5/86.

Objectives: To prepare selected management officers for staff responsibilities in personnel administration and related duties.

Instruction: Instruction is through home study modules. The course includes fundamentals, terminology, methods, techniques and tools of management emphasizing the human resource management areas of procurement, classification, utilization and career development of personnel. Elementary automatic data processing and office management are included. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automated date processing, 3 in introduction to management, 2 in office management (1/81); in the upper-division baccalaureate category, 2 semester hours in human resource management, 1 in organizational behavior (1/81).

AR-1406-0052

Principles of Counseling

Course Number: 1-19-XL-100.

Location: Military Police School, Ft. McClellan, AL; Chemical School, Ft. McClellan, AL.

Length: Self-paced 1-2 weeks (50 hours).

Exhibit Dates: 10/80-Present.

Objectives: To train instructors/trainers in the basic skills of counseling for an academic environment.

Instruction: This course focuses on developing the basic skills of counseling required to improve instructor/trainer-student communications. The course is conducted in a self-paced workshop and provides learning materials, multimedia instruction, and resource personnel for students.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in guidance and counseling (3/82).

AR-1406-0053

Skill Qualification Tests (SQT)

Course Number: 1-19-X5-100.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 2 weeks (80 hours).

Exhibit Dates: 9/80-Present.

Objectives: To provide participants with a working knowledge of the techniques and procedures for the analysis, design, development, and validation of skill qualification tests (SQTs).

Instruction: This course provides participants with instruction on the development and validation of both hands-on and written components of the Army Skill Qualification Tests (SQTs). The instructional methodology employed is in a self-paced format with an allowance for course manager discussion.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/82).

AR-1406-0054

Basic Instructor Training Course

Course Number: 1-19-XB-100; 19H-BIT.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 3-4 weeks (94-110 hours).

Exhibit Dates: 1/77-Present.

Objectives: To provide students with knowledge and skills needed to become effective basic instructors.

Instruction: Cognitive and practical experiences within a systems approach to instructional needs analysis, design, presentation, and evaluation are utilized. Instructional strategies and platform skills are emphasized.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in methods of instruction (3/82).

AR-1406-0055

Techniques and Procedures for Field Manual Development

Course Number: 1-19-XT-100.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 1-2 weeks (58 hours).

Exhibit Dates: 6/81-Present.

Objectives: To provide student with techniques and strategies for designing and developing varied instructional materials.

Instruction: This course includes an introduction to manual writing techniques and procedures. Performance evaluation of the actual writing project is coordinated with a course manager, editor, and graphics specialist.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional materials design (3/82).

AR-1406-0056

Instructor Training Course

Course Number: None.

Location: Chemical School, Ft. McClellan, AL.

Length: 2-3 weeks (102 hours).

Exhibit Dates: 1/82-Present.

Objectives: To provide selected officers, noncommissioned officers, enlisted personnel, and civilians with the knowledge and skills needed to be competent resident instructors.

Instruction: Includes a systems approach to instructor training that emphasizes analysis, design, and appropriate instructional strategies. The course focuses on developing behaviorial learning objectives and generating a variety of platform skills.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in methods of instruction (3/82).

AR-1406-0057

Job and Task Analysis (ISD Phase 1)

Course Number: 1-19XC-100.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 3-4 weeks (120 hours).

Exhibit Dates: 10/80-Present.

Objectives: To provide selected enlisted personnel, non-commissioned and commissioned officers with general knowledge of the instructional system design process.

Instruction: Self-paced instruction and practical exercises in job analysis, tasks identification, developing objectives, and job performance measures as defined by criterion tests. Participants receive instruction in selecting instructional materials, instructional settings, and delivery systems. Management decisions relevant to the job and task analysis process are covered, along with the conduct of internal and external evaluations for instructional system revision.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in job and task analysis (3/82).

AR-1406-0058

DESIGN (ISD PHASE II); DEVELOP (ISD PHASE III); CONTROL/EVALUATION (ISD PHASE V); VALIDATION PROCEDURES FOR COURSE MATERIALS AND TESTS

Course Number: 1-19-XD-100; 1-19-XE-100; 1-19-XG-100; 1-19-XM-100.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 3 weeks (89-90 hours).

Exhibit Dates: 6/81-Present.

Objectives: To train participants in the following techniques and procedures: designing instruction using job analysis information, course development, course material and test validity, and control/evaluation.

Instruction: These four short courses emphasize objectives, mastery, test design, sequencing of instruction, learning activities, material and media selection and evaluation/control.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional materials and methods of teaching for the completion of ALL FOUR courses (3/82).

AR-1406-0061

ARMY REENLISTMENT OFFICER

Course Number: 7C-F17.

Location: Recruiting and Retention School, Ft. Benjamin Harrison, IN.

Length: 1 week (50 hours).

Exhibit Dates: 7/84-Present.

Objectives: To prepare officers for responsibilities as unit/installation reenlistment officers.

Instruction: Instruction and practical exercises including policies and responsibilities related to a reenlistment program, such as separation, retention, reenlistment ceremony, award and incentives and computation of service time.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

AR-1406-0062

PERSONNEL ADMINISTRATION BASIC TECHNICAL

Course Number: 500-75B30.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 7 weeks (251 hours).

Exhibit Dates: 6/82-9/86.

Objectives: To train enlisted personnel to supervise personnel administrative units.

Instruction: Lectures and practical exercises in personnel administration, office procedures, leadership skills, training management and common military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communication and 3 in administrative supervision; in the upper-division baccalaureate category, 3 semester hours in personnel administration, 3 in military operations, and 1 in educational administration (3/85).

Related Occupation Codes: 75B.

AR-1406-0063

BATTALION S1

Course Number: 7C-F14.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-7 weeks (181-202 hours).

Exhibit Dates: 4/80-Present.

Objectives: To train officers in the duties of a battalion personnel management staff officer.

Instruction: Lectures and practical exercises in personnel management, troop preparedness estimates, unit strength and soldier quality of life. Major emphasis is on selection, evaluation and improvement of personnel, staffing needs and personnel problems. Automated office equipment and procedures are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automated office systems and 1 in administrative management; in the upper-division baccalaureate category, 3 semester hours in staffing and organization (3/85).

AR-1406-0064

GUIDANCE COUNSELOR (Station Commander)

Course Number: 501-F6.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 3 weeks (104 hours).

Exhibit Dates: 10/81-5/86.

Objectives: To train selected personnel to perform the duties of a guidance counselor (recruiter).

Instruction: Lectures and practical exercises in processing and sales techniques needed for military enlistment of personnel.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (3/85).

AR-1406-0065

COMBAT TELECOMMUNICATIONS CENTER OPERATOR

Course Number: 260-72E10.

Location: Signal School, Ft. Gordon, GA.

Length: 10-11 weeks (381 hours).

Exhibit Dates: 2/83-12/89.

Objectives: To provide enlisted personnel with the skills and knowledge to operate a tactical telecommunications center.

Instruction: Student practices typing and handwriting and learns operator's preventative maintenance on teletypewriter. Course includes study of procedures for sending and receiving messages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (11/86).

AR-1406-0066

DIAL/MANUAL CENTRAL OFFICE REPAIRER BASIC TECHNICAL

Course Number: 622-36H30.

Location: Signal School, Ft. Gordon, GA.

Length: 11-12 weeks (400 hours).

Exhibit Dates: 6/83-9/86.

Objectives: To train enlisted personnel to supervise subordinates who perform maintenance, troubleshooting, and repair of dial/manual central office telephone exchange equipment.

Instruction: For this course after 9/86 see AR-1406-0093. Lectures in personnel supervision and evaluation, inventory control and other management techniques necessary to manage a dial/manual central office. The student is required to prepare the necessary documents and establish standard procedures to organize the office. Included is a comprehensive review of the tasks and skills of those repairers being supervised.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision (7/85).

Related Occupation Codes: 29N; 36H.

AR-1406-0067

ELECTRONIC MAINTENANCE NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: 1-29-C42.

Location: Signal School, Ft. Gordon, GA.

Length: 12-14 weeks (446-530 hours).

Exhibit Dates: 9/84-9/88.

Objectives: To train students to plan, supervise and manage the maintenance of certain communication and airborne navigation equipment.

Instruction: Includes instruction in advanced NCO duties, unit administration, management of signal security and repair facilities of communication equipment. Training for CMF 29 provides the NCO with basic instruction in communication equipment; CMF 28 provides training in management of maintenance of avionics communication and navigational equipment; CMF 74 provides training in supervision of maintenance of digital communication equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (7/85). For the common core see exhibit AR-1404-0035.

Related Occupation Codes: 32Z.

AR-1406-0068

BASIC NONCOMMISSIONED OFFICER (NCO) FOR 11B TRACK

Course Number: 010-1-11B30; 010-2-11B30; 010-3-11B30; 010-4-11B30; 010-5-11B30; 010-6-11B30; 010-7-11B30; 010-9-11B30; 010-10-11B30; 010-12-11B30; 010-13-11B30; 010-14-11B30; 010-15-11B30; 010-16-11B30; 010-18-11B30.

Location: Infantry School, Ft. Benning, GA; NCO Academy, Ft. Knox, KY; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Benning, GA; NCO Academy, Ft. Stewart, GA; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Polk, LA; NCO Academy, Ft. Riley, KS; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Ord, CA; NCO Academy, Ft. Lewis, WA; NCO Academy, Alaska; NCO Academy, Hawaii; NCO Academy, Panama; NCO Academy, Europe.

Length: 5 weeks (222 hours).

Exhibit Dates: 8/83-Present.

Objectives: To train infantry leaders to manage, lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: Performance oriented training techniques in leadership and management skills using lectures and demonstrations. This course includes leadership, maintenance, tactics communications, navigation, weapons, and management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management (9/85).

AR-1406-0069

Basic Noncommissioned Officer (NCO) for 11C Track

Course Number: 010-1-11C30; 010-2-11C30; 010-3-11C30; 010-4-11C30; 010-5-11C30; 010-6-11C30; 010-7-11C30; 010-9-11C30; 010-10-11C30; 010-12-11C30; 010-13-11C30; 010-14-11C30; 010-15-11C30; 010-16-11C30; 010-18-11C30.

Location: Infantry School, Ft. Benning, GA; NCO Academy, Ft. Knox, KY; NCO Academy, Ft. Bragg,NC; NCO Academy, Ft. Benning,GA; NCO Academy, Ft. Stewart,GA; NCO Academy, Ft. Campbell,KY; NCO Academy, Ft. Polk, LA; NCO Academy, Ft. Riley, KS; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO;. NCO Academy, Ft. Ord, CA;. NCO Academy, Ft. Lewis, WA;. NCO Academy, Alaska;. NCO Academy, Hawaii; NCO Academy, Panama; US Army Europe, Federal Republic of Germany.

Length: 5 weeks (205 hours).

Exhibit Dates: 6/83–Present.

Objectives: To train infantry leaders to lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: Performance oriented training techniques in management and leadership skills using lectures and demonstrations. The course includes maintenance, tactics, communications, navigation, and training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management (9/85).

AR-1406-0070

Basic Noncommissioned Officer (NCO) for 11M Track

Course Number: 010-1-11M30; 010-2-11M30; 010-3-11M30; 010-4-11M30; 010-5-11M30; 010-6-11M30; 010-7-11M30; 010-9-11M30; 010-10-11M30; 010-12-11M30; 010-13-11M30; 010-14-11M30; 010-15-11M30; 010-16-11M30; 010-18-11M30.

Location: Infantry School, Ft. Benning, GA; NCO Academy, Ft. Knox, KY; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Benning, GA; NCO Academy, Ft. Stewart, GA; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Polk, LA; NCO Academy, Ft. Riley, KS; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft.Ord, CA; NCO Academy, Ft.Lewis, WA; NCO Academy, Ft. Greeley, AL; NCO Academy, Hawaii; NCO Academy, Panama, CZ; NCO Academy, Europe.

Length: 5–6 weeks (263 hours).

Exhibit Dates: 6/83–Present.

Objectives: To train personnel in management, leadership, and critical job tasks.

Instruction: Performance oriented and training techniques in management leadership skill development using lectures and demonstrations. Students are rotated through leadership positions during the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management (9/85).

AR-1406-0071

Basic Noncommissioned Officer (NCO) for 11 H Track

Course Number: 010-1-11H30; 010-2-11H30; 010-3-11H30; 010-4-11H30; 010-5-11H30; 010-6-11H30; 010-7-11H30; 010-9-11H30; 010-10-11H30; 010-12-11H30; 010-13-11H30; 010-14-11H30; 010-15-11H30; 010-16-11H30; 010-18-11H30.

Location: Infantry School, Ft. Benning, GA; NCO Academy, Ft. Knox, KY; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Benning, GA; NCO Academy, Ft. Stewart, GA; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Polk, LA; NCO Academy, Ft. Riley, KS; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Ord, CA; NCO Academy, Ft. Lewis, WA; NCO Academy, Ft. Greeley, AK; NCO Academy, Hawaii; NCO Academy, Panama, CZ; NCO Academy, Europe.

Length: 5–6 weeks (187 hours).

Exhibit Dates: 6/83–Present.

Objectives: To train infantry section leaders to lead, train, and direct subordinates to maintain, operate, and employ weapons.

Instruction: Performance oriented training in management and leadership skills and techniques using lectures and demonstrations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management (9/85).

AR-1406-0072

T-42 Instructor Pilot (IP) Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: Self-paced 4 weeks (157 hours).

Exhibit Dates: 5/79–1/90.

Objectives: To train aviators to conduct transition training for T-42 instructor pilots.

Instruction: Self-paced proficiency advancement course employing completely individualized instruction in T-42 aircraft systems, flight training, and methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (11/86).

AR-1406-0073

UH-1 Combat Skills Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4 weeks (137 hours).

Exhibit Dates: 10/79–6/83.

Objectives: To qualify selected helicopter instructor pilots as UH-1 combat skills instructor pilots.

Instruction: Topics include flight and academic training in night and day combat skills, night vision goggle, UH-1 aircrew training, maneuvers under combat conditions, and emergency conditions in combat.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1406-0074

CH-47D Instructor Pilot

Course Number: 2C-ASI5K/2C-SQIC(CH-47D).

Location: Aviation Center, Ft. Rucker, AL.

Length: 2–3 weeks (90 hours).

Exhibit Dates: 6/86–9/88.

Objectives: To train selected pilots as CH-47D transition and training instructor pilots.

Instruction: Academic instruction in CH-47D helicopter aircraft systems and transition flight methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (11/86).

AR-1406-0075

TH-55 Instructor Pilot Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6 weeks (189 hours).

Exhibit Dates: 8/79–1/90.

Objectives: To qualify rotary-wing pilots as instructor pilots for primary rotary-wing flight training.

Instruction: Course provides academic and flight instruction which includes regulations and procedures, aircraft systems, forms and records, instructing fundamentals, flight safety, aerodynamics, transition flight training, and human relations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (11/86).

Related Occupation Codes: 15A; 100B.

AR-1406-0076

UH-1 Contact Instructor Pilot (Interim)

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4–6 weeks (153–225 hours).

Exhibit Dates: 1/82–1/90.

Objectives: To train selected commissioned and warrant officer aviators as unit instructor pilots in transition/standardization training in the UH-1 helicopter.

Instruction: Lectures and practical training in day/night visual flight training; before-flight, basic-flight, approach/landing, and emergency tasks; application of principles and techniques of flight instruction, aircraft systems and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (11/86).

AR-1406-0077

UH-1 Contact Instructor Pilot Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6 weeks (225 hours).

Exhibit Dates: 7/86–Present.

Objectives: To train selected commissioned and warrant officer aviators as unit instructor pilots in transition/standardization training in the UH-1 helicopter.

Instruction: Lectures and practical training in day/night visual flight rules; before-flight, basic-flight, approach/landing, and emergency tasks; application of principles and techniques of flight instruction; aircraft systems and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (11/86).

AR-1406-0078

OH-58D Instructor Pilot
(OH-58D Field Artillery Instructor Pilot)

Course Number: 2C-SI5K/2C-SQIC (OH-58D); 2C-ASI-5K/2C-SQIC(OH-58D).

Location: Aviation Center, Ft. Rucker, AL.

Length: 13-14 weeks (488-492 hours).

Exhibit Dates: 10/86-9/89.

Objectives: To train commissioned and warrant officers as OH-58D instructor pilots.

Instruction: Classroom and practical training in aircraft systems, flight and cockpit procedures training, communications, navigation, mast-mounted sight, airborne target handover system, mission planning and safety.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/87).

AR-1406-0079

UH-60 Instructor Pilot

Course Number: 2C-F33.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-5 weeks (175-187 hours).

Exhibit Dates: 2/80-Present.

Objectives: To train UH-60 aviators as intructor pilots capable of teaching and evaluating UH-60 flight training.

Instruction: Flight and academic instruction in the UH-60 helicopter and in methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter and flight systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/86).

AR-1406-0080

UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 8 weeks (209 hours).

Exhibit Dates: 7/83-Present.

Objectives: To qualify selected helicopter instructor pilots as UH-1 Combat Skills Day/Night/Night Vision Goggles instructor pilots.

Instruction: Flight and academic training in combat skills, night-day night vision goggle UH-1 aircrew training, and manual maneuver tasks under combat conditions.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1406-0081

Office Machine Repairer Noncommissioned Officer (NCO) Advanced
(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 41J)

Course Number: 670-41J40; 6-63-C42 (41J).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 6-8 weeks (217-355 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 41J.

AR-1406-0082

Chaplain Candidate

Course Number: 5G-F5.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: 5-6 weeks (204 hours).

Exhibit Dates: 10/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic soldier survival skills, will know military protocol, customs, and organization, the role of the chaplain in the Army, and be proficient in lesson and training planning.

Instruction: Topics include military organization, customs, courtesies, and ceremonies, physical fitness, military survival skills, health and first aid, military administration and training, pastoral ministry to minorities, hospital patients, and other chaplains.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communication and 2 in health and first aid (4/87); in the upper-division baccalaureate category, 1 semester hour in human relations (4/87).

AR-1406-0083

Division Chaplain

Course Number: 5G-F4.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: 2 weeks (84 hours).

Exhibit Dates: 4/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to serve as the senior supervising chaplain in an Army division (10,000 persons) using management skills (personnel, fiscal, logistics, and training) in the tactical garrison environment and in mobilization and deployment conditions.

Instruction: Topics include command and staff relationships, pastoral responsibilities, personnel management, the master religious program, training programs, fund management, logistical support, spiritual dimensions, and civilian/military religious liaison.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/87).

AR-1406-0084

Installation Chaplain

Course Number: 5G-F3.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 2 weeks (81 hours). *Version 2:* 2 weeks (87 hours).

Exhibit Dates: *Version 1:* 4/88-Present. *Version 2:* 6/85-3/88.

Learning Outcomes: Upon completion of the course the student will be able to serve as supervising chaplain at an Army installation, including managing chapel facilities and fiscal resources, supervising personnel, planning and programming activities, and advising senior command and staff personnel on the religious, ethical, and moral climate of the installation.

Instruction: *Version 1:* Topics include command and staff relationships, pastoral responsibilities, supervision and management of religious ministry resources, personnel programs and training, deployment responsibilities and transitioning issues. *Version 2:* Topics include command and staff relationships, pastoral responsibilities, supervision of religious ministry resources, personnel programs and training, deployment responsibilities and transitioning issues.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of management (6/90). *Version 2:* Credit is not recommended because of the limited, specialized nature of the course (4/87).

AR-1406-0085

Staff and Parish Development Consultant

Course Number: 5G-ASI7D.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: 3 weeks (132 hours).

Exhibit Dates: 5/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan and implement interventions, to apply staff/parish development concepts to organizational scenarios, to perform data analysis, and to evaluate interventions.

Instruction: Topics include entering a consultant/client contractual relationship, contracting, data gathering skills, concepts in intervention planning, intervention strategies, group and organizational issues, feedback and analysis concepts, evaluating interventions, and exiting a consultant/client contractual relationship. Course includes small-group scenarios.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in organizational group dynamics (4/87).

AR-1406-0086

Advanced Noncommissioned Officer (NCO) MOS 75Z

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credits for the Common Core.

Related Occupation Codes: 75Z.

AR-1406-0087

ADVANCED NONCOMMISSIONED OFFICER (NCO) MOS 00U

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in personnel management (3/85). See AR-1404-0035 for the Common Core.

AR-1406-0088

ADVANCED NONCOMMISSIONED OFFICER (NCO) MOS 00E

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision (3/85). See AR-1404-0035 for Common Core credits.

Related Occupation Codes: 00E.

AR-1406-0089

ADVANCED NONCOMMISSIONED OFFICER (NCO) MOS 79D

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credit for the Common Core.

Related Occupation Codes: 79D.

AR-1406-0090

BASIC NONCOMMISSIONED OFFICER (NCO) COMMON CORE

Course Number: None.

Location: Various Army Training Centers, U.S. and overseas.

Length: 1-2 weeks (45-49 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to lead a squad or section, to train soldiers to fight and survive on a modern battlefield, to develop and maintain discipline, to supervise maintenance activities and property accountabililty, and to use a systems approach to training.

Instruction: Topics include leadership, personal and performance counseling, training, management, resource management, and military skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (10/88).

AR-1406-0091

SKILL QUALIFICATION TEST (SQT) DEVELOPER'S WORKSHOP

Course Number: None.

Location: Various locations, Continental United States.

Length: 80 hours.

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the workshop the student will be able to develop, validate, prepare for printing, and maintain quality control/assuramce for skill qualification tests.

Instruction: Self-paced instruction in criterion-referenced measurement is presented. The workshop modules cover (a)task selection, (b) item writing, (c) item tryout and analysis, (d) establishing training standards, time limits, and minimun passing score, (e) preparing final test materials, (f) creating scoring templates, and (g) monitoring test performance, quality control/assurance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in an introductory course in criterion-referenced measurement (6/87).

AR-1406-0092

FACULTY DEVELOPMENT

Course Number: 5K-F3/520-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (117 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to assigned as instructor at the Academy of Health Sciences.

Instruction: Lectures, demonstrations and practical exercises including instructional objectives, test construction, student counseling, lesson plan preparation, teaching aids, school organization and regulations, management of the learning environment.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in instructional methods (4/88).

AR-1406-0093

TELEPHONE CENTRAL OFFICE REPAIR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 622-29N30.

Location: Signal School, Ft. Gordon, GA.

Length: 6-7 weeks (230-232 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise subordinates who perform maintenance, troubleshooting and repair of dial/manual central office telephone exchange equipment and perform technical inspections.

Instruction: For this course before 10/86 see AR-1406-0066. Course contains a common core of leadership subjects, see AR-1406-0090. Classes, demonstrations, lectures on operating, testing, maintaining, and repairing specific telephone exchange equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone central exchange supervision; in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (5/90). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 29N.

AR-1406-0094

INSTRUCTOR TRAINING WORKSHOP

Course Number: IT24.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (68 hours).

Exhibit Dates: 9/81-Present.

Learning Outcomes: Upon completion of the course the student will be able to write and edit instructional objectives, performance tests and lesson plans; select and develop training aids, student handouts, and practical exercises; counsel students with educational problems; prepare and present classes using a practical exercise, performance test, and self-paced/small group presentation.

Instruction: Lecture, demonstration, and seminar; the student is required to demonstrate mastery of several instructional skills and methods by means of student presentations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional methods (10/88).

AR-1406-0095

ANTITERRORISM INSTRUCTOR QUALIFICATION

Course Number: 5K-F5/012-F30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 1-2 weeks (67-70 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to teach antiterrorism to individuals and units deploying overseas in order to minimize vulnerability to enemy attack.

Instruction: Lectures and examinations in the following topics: introduction to terrorism, terrorism operations, individual protective measures, and hostage survival techniques.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in test construction (10/90).

AR-1406-0096

Special Operations Technician Warrant Officer Technical Certification

Course Number: 2E-180A.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, TX.

Length: 13-14 weeks (618 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to implement leadership and management duties to conduct special operations including: security, intelligence, psychological operations, civil affairs, operations command, deployment, and reconnaissance.

Instruction: Lectures, discussion, demonstrations, and field-based exercises are used to instruct students. Included are topics in supervision and management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hous in business organization and management and 2 in principles of supervision (12/88).

AR-1406-0097

National Guard Recruiting and Retention Manager

Course Number: 7C-F21.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 1-2 weeks (63 hours).

Exhibit Dates: 10/85-3/86.

Learning Outcomes: Upon completion of the course the student will be able to develop a sales presentation, use advertising and promotional programs, interpret demographic data, and use coaching skills to stimulate performance.

Instruction: Lectures, role playing, and classroom discussions on methods of evaluation, interviewing skills, sales techniques, budget management, demographics, interpersonal communications, and promotional programs.

Credit Recommendation: In the vocational certificate category, 1 semester hour in sales techniques (12/88).

AR-1406-0098

National Guard Recruiter
(Army National Guard Recruiter, Basic)
(Army National Guard Recruiting Supervisor)

Course Number: 501-00E20-ARNG; 7C-F16/501-F5; 7C-F11/501-00E20-ARNG.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2-4 weeks (74-149 hours).

Exhibit Dates: 3/85-9/88.

Learning Outcomes: Upon completion of the course, the student will be able to prospect for leads, describe features and benefits, use time management skills, conduct interviews, and close the sales presentation.

Instruction: Methods of instruction include lectures, role playing, and class presentations. Course topics include prospecting leads, the sales presentation, answering objections, time management techniques, and closing strategies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in sales techniques (12/88).

AR-1406-0099

Personnel and Administration Center

Course Number: 7E-F32/500-F19.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (104 hours).

Exhibit Dates: 10/86-12/88.

Learning Outcomes: Upon completion of the course, the student will be proficient in personnel and administration center operations and will be familiar with new equipment associated with the tactical Army combat service support computer system.

Instruction: Course consists of four phases:1) classroom - provides review and cross training on personnel service support technical tasks; 2) simulation of technical tasks; 3) field training; and 4) new equipment training on tactical Army combat service support computer system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of topics covered (12/88).

AR-1406-0100

Personnel Administration Specialist Basic Noncommissioned Officer (NCO)

Course Number: 500-75B30.

Location: Soldier Support Institute, Ft. Benjamin Harrison,

Length: *Version 1:* 5-6 weeks (209 hours). *Version 2:* 5 weeks (182 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 10/86-12/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to perform appropriate functions in a personnel office including review of personnel evaluations, personnel classification, assignment of personnel based on qualifications and to understand promotion policies and procedures. Student will also be familiar with computer set-up, activation and operation involving assessing, creating, editing, retention of documents, word processing and printing. *Version 2:* Upon completion of the course the student will be able to perform appropriate functions in a personnel office including review of personnel evaluations, personnel classification, assignment of personnel based on qualifications and to understand promotion policies and procedures.

Instruction: *Version 1:* Instruction involves lectures, demonstrations, and in-class exercises in principles of supervision, computer operations, and personnel management. *Version 2:* Instruction involves lectures, demonstrations, and in-class exercises in principles of supervision and personnel management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 1 in introduction to computer applications (12/88); in the upper-division baccalaureate category, 1 semester hour in personnel management (12/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision; in the upper-division baccalaureate category, 1 semester hour in personnel management (12/88).

Related Occupation Codes: 75B.

AR-1406-0101

National Guard Recruiting Advanced

Course Number: 501-F16.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Ben Harrison, IN.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to develop a sales presentation, demonstrate interpersonal skills, and analyze demographic data.

Instruction: Lectures and classroom discussion on interpersonal communications, selling skills, positive reenforcement, performance evaluation techniques and the use of demographic data.

Credit Recommendation: In the vocational certificate category, 1 semester hour in sales fundamentals and 1 in interpersonal communications (12/88).

AR-1406-0102

Personnel Sergeant Advanced Noncommissioned Officer (NCO)

Course Number: 500-75Z40.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 10 weeks (360-369 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage a medium-sized personnel function.

Instruction: Includes classroom instruction and practical exercises in leadership, communication skills, training management, personnel records management, evaluation and classification systems and programs, as well as military specific subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel management (12/88).

Related Occupation Codes: 75Z.

AR-1406-0103

Recruiter

Course Number: 501-SQI4.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 6 weeks (238-249 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to set goals and establish practices, develop a sales presentation, use competitive strategies, evaluate market data, use interviewing skills and make public promotional presentations.

Instruction: Methods of instruction include lectures, role playing, and class room discussion. Topics covered include sales prospecting, market analysis, effective communication, public speaking, interviewing skills and techniques, and time management.

Credit Recommendation: In the vocational certificate category, 2 semester hours in sales fundamentals, 2 in interpersonal communications (12/88).

AR-1406-0104

Battalion S1/Adjutant Staff Officer
(Battalion S1)

Course Number: 7C-F14.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 5-6 weeks (214-244 hours).

Exhibit Dates: 5/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the personnel resources functions of a medium to large organization.

Instruction: Includes classroom and practical exercises in business communications, safety programs, training, leadership, motivation, performance management, classification systems, evaluation techniques, and

personnel information systems and recordkeeping.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in business communications (12/88); in the upper-division baccalaureate category, 3 semester hours in human resource management (12/88).

AR-1406-0105

Personnel Administration Specialist

Course Number: 500-75B10; 500-75B10/75B10 ST.
Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.
Length: 7-9 weeks (239-306 hours).
Exhibit Dates: 2/86-Present.
Objectives: Upon completion of the course, the student will be knowledgeable of clerical duties, including typewriting, filing, office procedures, and computer application.
Instruction: Classroom instruction and practical excercises including basic typewriting and computer application, unit files and publications, reports and correspondence.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 2 in office procedures, and 1 in clerical record keeping (12/88).
Related Occupation Codes: 75B.

AR-1406-0106

Personnel Administration Specialist Transition

Course Number: 500-75B10.
Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.
Length: 7-8 weeks (248 hours).
Exhibit Dates: 3/87-9/88.
Learning Outcomes: Upon completion of the course the student will be able to perform clerical duties, type, file, and perform office procedures.
Instruction: Classroom instruction and practical exercises including basic typing, unit files and publications, reports, and correspondence.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in office procedures, and 1 in clerical record keeping (12/88).
Related Occupation Codes: 75B.

AR-1406-0107

Electronics Equipment Maintenance Advanced Noncommissioned Officer (NCO)

Course Number: 1-29-C42 (39X).
Location: Signal School, Ft. Gordon, GA.
Length: 14-15 weeks (553 hours).
Exhibit Dates: 10/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to use microcomputers including using DOS, word processors, data bases, and spreadsheets; receive and send Army messages; prepare Army forms related to shop management; describe at the overview level a numbers of pieces of communications equipment.
Instruction: Lectures, practical exercises, and exams on the subject material. Course includes a common core of leadership subjects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy (7/89). For credit for the common core see AR-1404-0035.
Related Occupation Codes: 39X.

AR-1406-0108

Test, Measurement, and Diagnostic Equipment (TMDE) Advanced Noncommissioned Officer (NCO)

Course Number: 1-29-C42 (35H).
Location: Signal School, Ft. Gordon, GA.
Length: 11-12 weeks (417 hours).
Exhibit Dates: 10/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to use microcomputers including using DOS, word processors, data bases, and spreadsheets; receive and send Army messages; prepare Army forms related to shop management; describe at the overview level a number of pieces of communications equipment.
Instruction: Lectures, practical exercises, and exams on the subject material. Course includes a common core of leadership subjects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy (7/89). For credit for the common core see AR-1404-0035.
Related Occupation Codes: 35H.

AR-1406-0109

Signal Operations Advanced Noncommissioned Officer (NCO)

Course Number: 1-31-C42.
Location: Signal School, Ft. Gordon, GA.
Length: 18-19 weeks (707-714 hours).
Exhibit Dates: 10/88-Present.
Learning Outcomes: Upon completion of the course the student will supervise, coordinate, and provide technical assistance in installing, operating, and managing single and multichannel communications facilities.
Instruction: Lectures and practical experience in microcomputer concepts and application including components and functions, operating systems, programming languages, and types of software. Includes operation and management of communications facilities. Course includes a common core of leadership subjects. See AR-1404-0035.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy (6/90). For credit for the common core see AR-1404-0035.

AR-1406-0110

Personnel Management

Course Number: 300.
Location: Reserve Readiness Training Center, Ft. McCoy, WI.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/86-Present.
Objectives: Upon completion of the course, the student will be able to identify the personnel and administrative requirements of the preparatory and alert phase of mobilization; determine the unit's personnel requirements and recommend a personnel management plan; determine the requirements for conducting military boards and investigations and review actions of appointing and reviewing authorites; interpret reenlistment eligibility criteria; and evaluate officer and enlisted promotion criteria and officer appointment criteria.
Instruction: Lecture, discussion in the areas of the personnel phase of organizational planning including mobilization, authorization documents, personnel reporting requirements, manning reports; personnel managements systems including officer and enlisted personnel systems; personnel actions including promotions/appointments, reenlistements, qualitative management, casulty reporting, and awards and decorations; and strength management including retention, strength accounting and benefits for USAR (United States Army Reserve) members and families; practical activities in determining personnel and position requirements, recommendation of personnel managements plan, determining requirements for conducting military boards and investigations, interpretation of reenlistment eligibility criteria and evaluation of officer and enlisted promotion criteria and officer appointment criteria.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in administrative management (7/89).

AR-1406-0111

Instructor

Course Number: 5000.
Location: Reserve Readiness Training Center, Ft. McCoy, WI.
Length: 2 weeks (48 hours).
Exhibit Dates: 7/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to analyze, develop and design course and training materials using various learning strategies; make presentations to adult participants using audience participation, work illustrations, humor and student motivation to learning materials; prepare and sequence objectives and competencies for future classes; prepare examination questions for quizzes and pre- and post-tests; develop graphics, audio visual and written instructional materials; gather and validate instructional materials; develop lesson plans, class outlines, and materials list needed for classroom presentations.
Instruction: Reading, lecture and discussions of effective presentations, on teaching methods, audio-visual materials, testing and evaluation of students and ordering of equipment and materials needed for classroom participation; practical exercises: preparing exams questions, preparing sequence of objectives/learning elements, developing graphics and using audio-visual equipment, preparing stock and equipment orders for classroom materials, and classroom visit to observe teaching techniques, and classroom presentation.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional methods (7/89).

AR-1406-0112

Warrant Officer Professional Development

Course Number: 2600; 8500.
Location: Reserve Readiness Training Center, Ft. McCoy, WI.
Length: 2 weeks (48 hours).
Exhibit Dates: 4/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to solve problems and make decisions involving leadership and planning with the ability to delegate authority, manage resources and develop an information feedback system, and communicate with peers and subordinates using effective communication skills, both verbal and written.
Instruction: Reading, lecture and discussions; leadership orientation including pro-

fessional ethics within the warrant officer system, supervisory skills, principles and techniques in directing, delegating authority and managing resources; leadership topics involving arms on the air-land battlefield, soldiers team development, stress and battlefield leadership and other leaderships skills involving training management evaluation and physical fitness needs of a soldier; show the skills required to lead a unit, address topics such as communications skills, unit assessment, take charge of the unit, and the effects of fear, panic and stress while leading a unit, prepare and present a military briefing using proper leadership and communications skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision (7/89).

AR-1406-0113

UH-1 Contact, Tactics, Night/Night Vision Goggle (N/NVG) Instructor Pilot Methods of Instruction

Course Number: 2C-SI5K/SQIC (UH-1).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 14 weeks (461 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the UH-1 Helicopter.

Instruction: Includes principles of instruction, aerodynamics, aircraft systems, night tactics, aeromedical factors, weapon systems, combat skills, and appropriate flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0114

AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle)

Course Number: 000-SI5K/SQIC (AH-1).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 10–11 weeks (368 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the AH-1 Helicopters.

Instruction: Includes academic instruction in principles of instruction, aerodynamics, aircraft systems, aeromedical factors, night flight, gunnery, weapon systems and appropriate flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0115

UH-60 Method of Instruction

Course Number: 2C-SI5K/SQIC (UH-60).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 8 weeks (278 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the UH-60 helicopter.

Instruction: Includes fundamentals of instructing, aerodynamics, communication, aerodynamics, aeromedical factors, night operations, aircraft systems of UH-60 and appropriate flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation, and 3 in flight training for flight instructor (4/90).

AR-1406-0116

U-21 Instructor Pilot

Course Number: 2B-SI5K/2B-SQIC (U-21).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 6–7 weeks (239 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the U-21 Helicopters.

Instruction: Includes fundamentals of instruction, aerodynamics, navigation, air traffic control, air crew communication, aircraft systems, aeromedical and physiological factors, and appropriate flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0117

AH-1S Instructor Pilot

Course Number: 2C-SI5K/2C-SQIC.

Location: Army Aviation Center, Fort Rucker, AL.

Length: 10–11 weeks (373 weeks).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors in the AH-1S Helicopter.

Instruction: Includes academic instruction in principles of instruction, aerodynamics, aircraft systems, aeromedical factors, night flight, weapon systems, combat skills, and appropriate flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0118

OH-58D Instructor Pilot Methods of Instruction (MOI)

Course Number: 2C/SI5K/SQIC (OH-58D).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 10–11 weeks (431 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the OH-58D Helicopter.

Instruction: Consists of mental and physical skills required for accomplishing instructor pilot duties (day and night tasks) including aircraft systems, airway communications, principles of instruction, navigation, mast mounted sight, airborne target, handover systems, cockpit procedures trainer, mission planning, safety and aeromedical factors.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0119

OH-58D Instructor Pilot

Course Number: 2C-SI 5K/2C-SQIC (OH-58D).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 8–9 weeks (349 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors on the OH-58D helicopter.

Instruction: Consists of mental and physical skills required for accomplishing instructor pilot duties (day and night tasks) including aircraft systems airway communication, principles of instruction, navigation, mast mounted sight, airborne target, handover systems, cockpit procedure trainer, mission planning, safety, and aeromedical factors.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0120

CH-47D Instructor Pilot

Course Number: 2C-SI5K/2C-SQIC (CH-47D).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 10 weeks (386 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors for CH-47D Helicopters.

Instruction: Includes fundamentals of instruction, aviation medical factors, night flying orientation, CH-47D aircraft systems and practical application to flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0121

AH-64 Instructor Pilot Methods of Instruction

Course Number: 2C-SI5K/SQIC (AH-64).

Location: Army Aviation Center, Fort Rucker, AL.

Length: 9–10 weeks (361 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors of the AH-64 Helicopter.

Instruction: Includes aviation subjects, both academic and flight, on regulation, principles of instruction, aerodynamics, effective communication, night vision systems, aeromedical factors, weapon systems, aircraft systems and flight training in AH-64 helicopter.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0122

OH-58 A/C Instructor Pilot

Course Number: 2C-SI5K/2C-SQIC.

Location: Army Aviation Center, Fort Rucker, AL.

Length: 8 weeks (292 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, pilots will be qualified as instructors in OH-58 A/C Helicopters.

Instruction: Consists of mental and physical skills required for accomplishing instructor pilot duties (day and night tasks) including aircraft systems, airway communications, principals of instruction navigation, mast mounted sight, airborne target handover systems, cockpit procedure trainer, mission planning, safety, and aeromedical factors.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in flight instructor academic preparation and 3 in flight training for flight instructor (4/90).

AR-1406-0123

PERSONNEL AND LOGISTICS STAFF NONCOMMISSIONED OFFICER (NCO)

Course Number: 500-F22.

Location: Sergeants Major Academy, Ft. Bliss, TX.

Length: 4–5 weeks (123 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise those providing logistical and personnel services.

Instruction: This intruction includes lectures, small group instruction, and performance exercises in leadership and resource management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science (4/90).

AR-1406-0125

MILITARY INTELLIGENCE ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 2-96-C42.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 9–10 weeks (407 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to lead, manage, supervise, and train intelligence personnel in performing the tactical and strategic intelligence tasks of a military intelligence unit, and to prepare and communicate various plans and reports in written and oral form.

Instruction: Instruction includes classroom and practical exercises in leadership, management, administration, and communication skills. Course also contains a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing; in the upper-division baccalaureate category, 1 semester hour in leadership and 2 in human resource management (6/90). For credit for the common core see AR-1404-0035.

AR-1406-0126

ELECTRONIC WARFARE (EW)/ CRYPTO ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 2-98-C42.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 9–10 weeks (407 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to lead, manage, supervise, and train intelligence personnel in performing the tactical and strategic intelligence tasks of a military intelligence unit, and to prepare and communicate various plans and reports in written and oral form.

Instruction: Instruction includes classroom and practical exercises in leadership, management, administration, and communication skills. Course also contains a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing; in the upper-division baccalaureate category, 1 semester hour in leadership and 2 in human resource management (6/90). For credit for the common core see AR-1404-0035.

AR-1406-0127

ELECTRONIC WARFARE (EW)/INTERCEPT SYSTEM MAINTENANCE ANALYST ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 2-33-C42.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 12–13 weeks (510 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to lead, manage, supervise, and train intelligence personnel in performing the tactical and strategic intelligence tasks of a military intelligence unit, and to prepare and communicate various plans and reports in written and oral form. Student will also be able to plan and supervise maintenance operations on mechanical and electronic equipment and manage supply procedures for a military intelligence unit.

Instruction: Instruction includes classroom and practical exercises in leadership, management, administration, and communication skills, as well as maintenance concepts, plans and supervision. Course also contains a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing and 3 in maintenance management; in the upper-division baccalaureate category, 1 semester hour in leadership and 2 in human resource management (6/90). For credit for the common core see AR-1404-0035.

AR-1406-0128

MILITARY INTELLIGENCE OFFICER ADVANCED (SIGNALS INTELLIGENCE/ELECTRONIC WARFARE (SIGINT/EW))

Course Number: 3-30-C22-35G.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 20 weeks (767 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will perform military intelligence operations including threat analysis and staff and management functions; make decisions based on intelligence data; write effectively; and be able to apply basic principles of electronic communications.

Instruction: Topics include management, leadership, writing, military history, geopolitical studies of conflict areas in Central and South America and the USSR/Eastern Europe. Students also participate in computer simulation of a warfare system. Players make decisions as they would in the field involving battle and counterattack. Workstation utilizes all facets of intelligence information and communications. Electronics topics include radio wave propagation, modulation, antennas, transmitters and receivers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing and 1 in electronic communication; in the upper-division baccalaureate category, 3 semester hours in simulation exercise in decision making, 1 in principles of personnel and organizational management, and 2 in international studies in areas of conflict (6/90).

AR-1406-0129

TACTICAL TELECOMMUNICATIONS CENTER OPERATOR AUTOMATIC DATA TELECOMMUNICATIONS CENTER OPERATOR

Course Number: 260-72E10/260-72G10.

Location: Signal School, Ft. Gordon, GA.

Length: 11–12 weeks (405 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a telecommunications center and prepare and type messages.

Instruction: Lectures and practical exercises focused on learning to type, operating the communications equipment, and preparing messages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in keyboarding (6/90).

AR-1406-0130

CHAPLAIN ASSISTANT BASIC NONCOMMISSIONED OFFICER (NCO) RESERVE COMPONENT

Course Number: 161-71M20(RC).

Location: Chaplain Center and School, Ft. Monmouth, NJ; Various Reserve Training Locations.

Length: 117 hours.

Exhibit Dates: 4/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to lead and organize small group activities involving land navigation, maintenance, training, tactical deployment, and equipment operation; will be able to account for appropriated funds, communicate effectively, and care for battle fatigue casualties.

Instruction: Topics include leadership, communications, battle fatigue casualty, religious program management, volunteer management, tactical deployment, equipment operation, tactical operations, and leadership skills.

Credit Recommendation: Credit is recommended for the Common Core only. See AR-1406-0090.

Related Occupation Codes: 71M.

AR-1406-0132

PERSONNEL STAFF NONCOMMISSIONED OFFICER (NCO) MILITARY PERSONNEL TECHNICIAN

Course Number: PEC-P-PS2.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic administrative and personnel actions with emphasis on the preparation and review of military personnel forms.

Instruction: Lecture and in-class exercises designed to prepare the student to complete forms addressing administrative, financial, and information management actions as well as retention and fitness concerns.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management (7/90).

AR-1406-0133

Battalion Training Officer

Course Number: PEC-T-BTO-X-XX.

Location: Professional Education Center, CP. Joseph Robinson, North Little Rock, AR.

Length: 1-2 weeks (46 hours).

Exhibit Dates: 3/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare training outlines, prepare training and evaluation plans, insure career-path coordination with training objectives and evaluate training calendars.

Instruction: This course is performance-based, with exercises performed by students individually and in groups. evaluation is accomplished through exercises and testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in training and development (7/90).

AR-1406-0134

National Guard (ARNG) Advanced Recruiter and Sales

Course Number: 501-F16-ARNG.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (79 hours).

Exhibit Dates: 9/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function effectively as a recruiter by using knowledge, skills, and techniques relative to sales management.

Instruction: Lectures and in-class exercises in advanced sales management, incressing human effectiveness, and goal setting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in sales management (7/90).

AR-1406-0135

Noncommissioned Officer (NCO) in Charge

Course Number: PEC-T-NCOIC-X-XX.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (55-56 hours).

Exhibit Dates: 3/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand, discuss, and practice good management skills in the specific areas of listening, stress management, dynamic subordination, personnel evaluation, delegation, and the basic concepts of situational leadership.

Instruction: This course is performance-based, with individual and group exercises performed by the students. Evaluation is accomplished through exercises and testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (7/90).

AR-1406-0136

Training Noncommissioned Officer (NCO)

Course Number: PEC-T-TNCO-X-XX.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 3 weeks (72 hours).

Exhibit Dates: 3/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare training outlines, prepare training and evaluation plans, insure career-path coordination with training objectives, identify proper resources needed to implement a training program, and set up physical requirements to accommodate training.

Instruction: Course is performance-based, with exercises performed by students individually and in groups. Evaluation is accomplished through exercises and testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in training and development (7/90).

AR-1406-0137

Battalion Supply

Course Number: BSC#-90.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 1-2 weeks (54 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to process or initiate reports associated with inventory of property, equipment and finance.

Instruction: Instruction strateges include proctoral exercises, structural exercises, discussion and lecture. Content includes forms and procedures related to property, equipment, and finance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office personnel (7/90).

AR-1406-0138

Battalion Training Enlisted

Course Number: PEC-T-BTE-X-XX.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks, (46 hours).

Exhibit Dates: 3/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare training outlines, training and evaluation plans, insure career-path coordination with training objectives, and evaluate training calendars.

Instruction: This course is preformance based, with exercises performed by students individually and in groups. Evaluation is accomplished through exercises and testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in training and development (7/90).

AR-1406-0139

National Guard (ARNG) Recruiter and Sales

Course Number: 501-00E20-ARNG.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 4 weeks (149 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function effectively as a recruiter by using knowledge, skills, and techniques relative to sales management.

Instruction: Lecture and in-class exercises in stress management, interpersonal communications, market analysis, interviewing, and sales techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in sales management (7/90).

AR-1406-0207

Organizational Development Practitioners

Course Number: PEC-O-ODP.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 3 weeks (123 hours).

Exhibit Dates: 11/88-8/89.

Learning Outcomes: Upon completion of the course, the student will be able to train or instruct personnel in group communication processes.

Instruction: Instructional method include structural exercises, evaluated proctoral exercises, team reports, lecture, dicussion and direct feed back. Content is provided on building group cohesion, preparations of briefings, group presentations, instruction of content, processing data within an instructional setting and general communication skills related to groups.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in group communication (7/90).

AR-1406-0208

Senior Executive Transition

Course Number: *Version 1:* PEC-T-O-SET91. *Version 2:* PEC-T-O-SET.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: *Version 1:* 1 week (51 hours). *Version 2:* 2 weeks (66 hours).

Exhibit Dates: *Version 1:* 9/90-Present. *Version 2:* 4/88-1/90.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to identify various human relations, self-analysis, and communication skills and to use those skills to achieve strategic organization objectives. *Version 2:* Upon completion of the course, the student will be able to visualize organizational future to effectively communicate that vision to others and to implement their vision.

Instruction: *Version 1:* Lecture, group discussion, and in-class exercises in areas of interpersonnal communication, team building, situtional leadership, values, assessment, and stress management. *Version 2:* Lecture, group discussion, practical experience and group exercise. The topics covered are human relations skills to implement leadership concepts.

Credit Recommendation: Credit is not recommended because there is no provision for formal student evaluation (7/90).

AR-1407-0001

1. Executive Administrative Assistant
(Secretary)

2. SECRETARY
(Stenography)

Course Number: *Version 1:* 511-71C10. *Version 2:* 511-71C10A; 511-71C20A; 12-R-712.1; 12-E-8.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN; Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 12 weeks (434 hours). *Version 2:* 15-19 weeks (555-672 hours).

Exhibit Dates: *Version 1:* 2/83-9/86. *Version 2:* 6/55-1/83.

Objectives: To train enlisted personnel to function as secretaries.

Instruction: *Version 1:* Lectures and practical exercises providing advanced typing skills, transcription from audio tapes, English grammar and usage, filing, administrative procedures social usage and protocol and correspondence. *Version 2:* Practical exercises in shorthand, typing, grammar and usage, and administrative procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in technical communications, 3 in transcription (3/85); in the upper-division baccalaureate category, 3 semesters hours in advanced typing (3/85). *Version 2:* In the vocational certificate category, 6 semester hours in shorthand, 3 in typing, 3 in office procedures (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in shorthand, 3 in typing, 3 in office procedures (3/74); in the upper-division baccalaureate category, 6 semester hours in shorthand, 3 in typing, 3 in office procedures (3/74).

Related Occupation Codes: 71B; 71C; 09B.

AR-1407-0002

STENOGRAPHY—WAC

Course Number: 511-71C20B; 35-E-4.

Location: Women's Army Corps School, Ft. McClellan, AL.

Length: 4-12 weeks (84-436 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train enlisted personnel to take dictation at a minimum rate of 90 w.p.m., to type at a minimum rate of 45 w.p.m., and to perform related tasks in a military office.

Instruction: Lectures and practical exercises in shorthand, typing, English grammar, filing, correspondence, and military procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in shorthand, and 3 in office practice laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in shorthand, and 3 in office practice laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours in typing, 3 in shorthand, and 3 in office practice laboratory (3/74).

Related Occupation Codes: 71C.

AR-1407-0003

ADVANCED NONCOMMISSIONED OFFICER
(NCO) MOS 71D/E

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in paralegal training (3/85). See AR-1404-0035 for Common Core.

Related Occupation Codes: 71D/E.

AR-1407-0004

ADVANCED NONCOMMISSIONED OFFICER
(NCO) MOS 71C

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1406-0089 for credits for the Common Core.

Related Occupation Codes: 71C.

AR-1407-0005

ADVANCED INTERNATIONAL MORSE CODE
(IMC)

Course Number: 011-ASIA4 (CMF 18).

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 8 weeks (296 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to copy and send International Morse code at a speed of 13 five-letter code groups per minute.

Instruction: Instruction includes practice in receiving and sending International Morse code.

Credit Recommendation: In the vocational certificate category, 3 semester hours in Morse Code techniques (12/88).

AR-1407-0006

COURT REPORTER NONCOMMISSIONED
OFFICER (NCO) ADVANCED

Course Number: 512-71E40.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 5 weeks (180 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe various styles of leadership; use feedback to modify activities; evaluate progress; and apply counseling techniques.

Instruction: Methods of instruction include lecture and group discussion. Topics include leadership, motivation, counseling, communication and discipline.

Credit Recommendation: Credit is recommended for the common core only. See AR-1404-0035 (12/88).

Related Occupation Codes: 71D.

AR-1407-0007

LEGAL SPECIALIST NONCOMMISSIONED
OFFICER (NCO) ADVANCED

Course Number: 512-71D40.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 5 weeks (180 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe various styles of leadership; use feedback to modify activities; evaluate progress; and apply counseling techniques.

Instruction: Methods of instruction include lecture and group discussion. Topics include leadership, motivation, counseling, communication and discipline.

Credit Recommendation: Credit is recommended for the common core only. See AR-1404-0035 (12/88).

Related Occupation Codes: 71D.

AR-1407-0008

EXECUTIVE ADMINISTRATIVE ASSISTANT

Course Number: 511-71C10.

Location: Adjutant General School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 12 weeks (440 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to type, file, handle correspondence using good English grammar, transcribe, and be familiar with proper social protocol.

Instruction: Lectures and practical exercises in office administration, keyboarding, word processing, filing, correspondence, English grammar and usage, transcription, and social protocol.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in English composition, 3 in typing, 1 in word processing concepts, 1 in office procedures, and 3 in machine transcription (12/88).

Related Occupation Codes: 71C.

AR-1407-0009

LEGAL SPECIALIST/ COURT REPORTER
BASIC NONCOMMISSIONED OFFICER
(NCO)

Course Number: 512-71D/E30.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN; Adjutant General School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (193-203 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to review administrative separations, evaluate personal property claims, review courts martial, conduct legal research, and prepare files for disposal.

Instruction: Instruction includes lectures and class discussion on file preparation and disposal, legal research, administrative separations, court martial documents, and personal property claims.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in legal research and 2 in a criminal justice elective (12/88).

Related Occupation Codes: 71E; 71D.

AR-1408-0001

1. PLANNING, PROGRAMMING AND

Budgeting Systems
2. Planning, Programming and Budgeting Systems
3. Planning, Programming and Budgeting Systems
4. Planning, Programming and Budgeting Systems
5. Programming and Budgeting
(Financial Management—Budget)

Course Number: *All Versions:* 7D-6302; 541-F2. *Version 1:* 7D-45B/541-F2. *Version 2:* 7D-45B. *Version 3:* 3R-OPMS-45B. *Version 5:* 7D-F5; 14-K-F3; 14-I-F3; 14-O-10.

Location: *Version 1:* Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN. *Version 2:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 3:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 4:* Finance School, Ft. Benjamin Harrison, IN. *Version 5:* Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 2-3 weeks (98-104 hours). *Version 2:* 4 weeks (143 hours). *Version 3:* 4 weeks (152 hours). *Version 4:* 4 weeks (136 hours). *Version 5:* 4-5 weeks (143-189 hours).

Exhibit Dates: *Version 1:* 1/84-5/85. *Version 2:* 11/79-12/83. *Version 3:* 10/77-9/79. *Version 4:* 3/72-9/77. *Version 5:* 8/56-2/72.

Objectives: To provide a working knowledge of planning, programming and budgeting principles, procedures and techniques.

Instruction: *Version 1:* Lectures in basic principles of budget planning and programming including resource management, fiscal rules, control of funds and stock fund concepts. Included are statistical and quantitative techniques and an overview of the Army accounting system. Emphasis is placed on budget formulation and execution. *Version 2:* Lectures in basic principles of budget planning and programming including resource management, fiscal rules, control of funds, stock fund concepts, and statistical techniques. *Version 3:* Lectures in the basic principles of financial management, including programming and budgeting principles and applications, expense accounting, stock funds, control of funds, and applied statistics. Includes statistical and accounting analysis toward budget formulation and execution. *Version 4:* Lectures in the basic principles of financial management, including programming and budgeting principles and applications, expense accounting, stock funds, control of funds, and applied statistics. *Version 5:* Lectures in the basic principles of financial management, including programming and budgeting principles and applications, expense accounting, stock funds, control of funds, and applied statistics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in statistical analysis (3/85); in the upper-division baccalaureate category, 3 semester hours in budgeting and/or financial management (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in statistical analysis (2/80); in the upper-division baccalaureate category, 2 semester hours in budgeting (2/80). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in statistical analysis and 1 in accounting principles (2/78); in the upper-division baccalaureate category, 2 semester hours in financial management (2/78). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in programming or budgeting (2/74); in the upper-division baccalaureate category, 2 semester hours in programming or budgeting (2/74). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in programming or budgeting (2/74); in the upper-division baccalaureate category, 3 semester hours in budgeting (12/68).

AR-1408-0002

1. Finance (FI-CMF) Noncommissioned Officer (NCO) Advanced
2. Finance (FI-CMF) Noncommissioned Officer (NCO) Advanced
(Finance Operations Noncommissioned Officer (NCO))

Course Number: *Version 1:* 5-713-C42; 5-FI-C42. *Version 2:* 542-FI.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 9-12 weeks (347-418 hours). *Version 2:* 9 weeks (310-315 hours).

Exhibit Dates: *Version 1:* 2/73-1/88. *Version 2:* 5/65-1/73.

Objectives: To provide enlisted personnel with training in financial management, enabling them to function as financial and accounting supervisors.

Instruction: Practical application of basic accounting concepts of control, data processing tools, and principles of finance with limited emphasis on management fundamentals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in financial management (2/78). *Version 2:* In the vocational certificate category, 3 semester hours in financial management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in financial management (2/74); in the upper-division baccalaureate category, 3 semester hours in financial management (12/68).

Related Occupation Codes: 73C; 73D.

AR-1408-0003

Sergeants Major Academy

Course Number: 1-250-C5.

Location: Sergeants Major Academy, Ft. Bliss, TX.

Length: 22 weeks (650-880 hours).

Exhibit Dates: 11/72-4/85.

Objectives: To provide senior Army sergeants with a basic foundation in international and national affairs, enabling them to qualify as senior advisors to higher commands.

Instruction: Lectures on world affairs, modern history, U.S. military strategy and foreign policy, military management principles and systems, human relations, and oral and written presentations.

Credit Recommendation: After 4/85 see exhibit AR-1408-0148. *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in management, 6 in psychology/sociology, 6 in international affairs (2/74); in the upper-division baccalaureate category, 6 semester hours in management, 6 in psychology/sociology, 6 in international affairs (2/74).

AR-1408-0004

Recreation Services (SS-CMF) Noncommissioned Officer (NCO) Advanced
(Special Services (SS-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: 5-SS-C42.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 10 weeks (329-342 hours).

Exhibit Dates: 4/73-6/75.

Objectives: To provide selected enlisted personnel with a working knowledge of special services duties performed by senior noncommissioned officers.

Instruction: Lectures and practical exercises in leadership, management, manpower, data processing, personnel management, and military operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations/personnel administration (2/74).

Related Occupation Codes: 03B; 03C; 03D; 03Z.

AR-1408-0005

Machine Accounting Specialist

Course Number: 32-5-74D20.

Location: Security Agency School, Ft. Devens, MA.

Length: 11 weeks (379 hours).

Exhibit Dates: 1/65-9/86.

Objectives: To provide enlisted personnel with a working knowledge of electrical accounting machines and a general knowledge of data processing.

Instruction: Lectures and practical exercises in general data processing; automatic data processing; electrical accounting machines, including card punch, sorter, collator, document originating machine, and accounting machine.

Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing or machine accounting (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing or machine accounting (2/74); in the upper-division baccalaureate category, 3 semester hours in data processing or machine accounting (2/74).

Related Occupation Codes: 74D.

AR-1408-0006

Chapel Activities Specialist, Primary Technical
(Chaplain Enlisted Assistant Technical Training)

Course Number: 561-71M20.

Location: *Version 1:* Chaplain Center and School, Ft. Monmouth, NJ. *Version 2:* Chaplain School, Ft. Wadsworth, NY. *Version 3:* Chaplain School, Ft. Hamilton, NY.

Length: *Version 1:* 2 weeks (68 hours). *Version 2:* 8 weeks (275 hours). *Version 3:* 4 weeks (140 hours).

Exhibit Dates: *Version 1:* 9/81-4/85. *Version 2:* 10/74-8/81. *Version 3:* 10/70-9/74.

Objectives: To provide enlisted personnel with the necessary technical skills to function as chaplain assistants.

Instruction: *Version 1:* Topics include clerical skills, personnel management, counseling, and training. *Version 2:* Lectures on office procedures equipment supply and maintenance, principles of religious support, administration of chapel funds; emphasis on office practices. *Version 3:* Lectures on office procedures equipment supply and maintenance, principles of religious support, and administration of chapel funds.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (4/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office practice and credit in typing on the basis of proficiency evaluation (11/77). *Version 3:* In the lower-division baccalaureate/associate degree category, credit in church administration on the basis of institutional examination (2/74).

Related Occupation Codes: 70A; 71M.

AR-1408-0007

PERSONNEL MANAGEMENT SPECIALIST

Course Number: 500-71H30; 12-R-716.2; 500-71K20; 12-R-716.3.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3-6 weeks (112-220 hours).

Exhibit Dates: 2/58-4/88.

Objectives: To provide personnel specialists with a working knowledge of the principles, functions, and procedures of personnel management.

Instruction: Lectures in personnel procedures and devices, maintenance of personnel records and control devices, and evaluation and interpretation of personnel functions.

Credit Recommendation: In the vocational certificate category, 4 semester hours in personnel management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel management (12/68).

Related Occupation Codes: 71H.

AR-1408-0008

ADVANCED ARMY ADMINISTRATION

Course Number: 12-E-5.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 8 weeks (280-308 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to supervise administrative and clerical operations in a military headquarters or office.

Instruction: Lectures and practical exercises in records administration, management, filing, personnel administration, and problem solving.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (2/74); in the upper-division baccalaureate category, 3 semester hours in office administration (12/68).

AR-1408-0009

ARMY/AIR FORCE EXCHANGE SERVICE EXECUTIVE DEVELOPMENT

Course Number: 8F-F1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3 weeks (116-124 hours).

Exhibit Dates: 7/65-12/68.

Objectives: To provide commissioned officers and civilian personnel of the Army/Air Force Exchange Service with training in advanced management.

Instruction: Lectures on general management, communication, creative problem solving, personnel, retail management, and research.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in retail management (2/74); in the upper-division baccalaureate category, 2 semester hours in business administration (12/68).

AR-1408-0010

ARMY-AIR FORCE EXCHANGE OPERATIONS (Army Exchange Operations)

Course Number: 823-F1; 8F-4210; 10-G-4210; 10-A-4210; 10-O-21.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-6 weeks (162-211 hours).

Exhibit Dates: 6/55-6/85.

Objectives: To train commissioned officers, noncommissioned officers, and civilians to manage and operate installation exchanges.

Instruction: Lectures and practical exercises in management, exchange operation procedures, financial management, and food operations procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in business retail management (2/74); in the upper-division baccalaureate category, 3 semester hours in business retail management (12/68).

AR-1408-0011

MANAGEMENT REVIEW AND ANALYSIS (Techniques of Review and Analysis)

Course Number: 7D-F4; 541-F1; 14-K-F1; 14-I-F1; 14-O-7.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (95-110 hours).

Exhibit Dates: 1/55-4/76.

Objectives: To provide commissioned officers and civilian personnel with a basic knowledge of the principles and procedures of review and analysis as applied to organizational management.

Instruction: Lectures in the fundamentals of review and analysis, a survey of budgeting techniques, and review and analysis applied to budgeting techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business management (12/68).

AR-1408-0012

ARMY PROJECT MANAGER

Course Number: 8A-F2.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (113 hours).

Exhibit Dates: 6/66-12/68.

Objectives: To provide officer and civilian executives in project management offices with training in Army project management.

Instruction: Lectures and practical exercises in organization and staffing of project management offices; management of procurement, material, and financing, procurement law; and value analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in project management (2/74); in the upper-division baccalaureate category, 2 semester hours in business administration (12/68).

AR-1408-0013

WARD ADMINISTRATION AND SUPERVISION

Course Number: 8-O-41.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 22 weeks (713 hours).

Exhibit Dates: *Version 1:* 3/56-12/68. *Version 2:* 4/54-2/56.

Objectives: To provide Nurse Corps officers with basic knowledge of the duties and responsibilities of head nurses and nursing service supervisors in clinical units.

Instruction: Lectures and practical experience in clinical nursing unit administration, including personnel management, medical records, human relations, statistics, dental education and training, aeromedical evacuation procedures, clinical teaching fundamentals, preventive medicine, nursing service counseling and guidance, and familiarization with basic psychology and neuropsychiatry.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in institutional management, 3 in nursing administration, 3 in personnel management, 3 in oral and written communication, and 2 in abnormal psychology (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in institutional management, 2 in nursing administration, 2 in personnel management, 3 in oral and written communication, and 2 in abnormal psychology (12/68).

AR-1408-0014

1. ADJUTANT GENERAL OFFICER BASIC
2. ADJUTANT GENERAL OFFICER BASIC
3. ADJUTANT GENERAL OFFICER BASIC (Personnel Administration Officer Basic)
4. ADJUTANT GENERAL OFFICER BASIC (Adjutant General Officer Orientation)

Course Number: *All Versions:* 7-12-C20-42A; 7-12-C20. *Version 3:* 12-A-C20; 12-A-C1; 12-O-A.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 13 weeks (608 hours). *Version 2:* 16 weeks (552 hours). *Version 3:* 8-11 weeks (310-387 hours). *Version 4:* 11 weeks (296-384 hours).

Exhibit Dates: *Version 1:* 8/88-Present. *Version 2:* 6/82-7/88. *Version 3:* 4/75-5/82. *Version 4:* 8/55-3/75.

Objectives: To train commissioned officers to perform personnel and administrative functions.

Instruction: *All Versions:* Lectures and practical exercises in personnel functions, including personnel activities and management, administrative services, postal services, military subjects and operations fundamentals, and special services. *Version 1:* Pending evaluation. *Version 2:* Course includes communication skills. *Version 3:* Includes data processing, and additional hours in national defense organization, oral and written communications, combined arms, various types of warfare, signal communications, and other military subjects.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in technical communications, 2 in administrative management, 1 in budgeting, 1 in automated office systems and 2 in records management (8/88); in the upper-division baccalaureate category, 2 semester hours in personnel management and 3 in advanced military science (8/88). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in personnel management and additional credit in advanced military science at institutions which regularly grant such credit (6/75). *Version 4:* In the vocational certificate category, 2 semester hours in personnel management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management (6/74); in the upper-division baccalaureate category, 2 semester hours in personnel management and credit in advanced military science at institutions which regularly offer such credit (12/68).

AR-1408-0015

1. Medical Department Officer Basic
2. Medical Service Corps Officer Orientation

(Medical Service Corps Officer Basic)

Course Number: *Version 1:* 6-8-C20. *Version 2:* 8-A-C20B; 8-A-C1B; 8-O-33.

Location: *All Versions:* Medical Field Service School, Ft. Sam Houston, TX. *Version 1:* Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 2-9 weeks (63-320 hours). *Version 2:* 8-16 weeks (345-576 hours).

Exhibit Dates: *Version 1:* 1/68-1/83. *Version 2:* 10/54-12/67.

Objectives: To provide newly commissioned medical officers with training in medical service organization and administrative procedures.

Instruction: *All Versions:* Lectures and practical exercises in basic medical service administration. *Version 1:* Topics include orientation subjects specific to the various corps of the Army Medical Service. *Version 2:* Topics include organization, personnel management, medical records and reports, supply procedures, emergency medical care, casualty-handling methods and procedures, casualty evacuation planning, preventive medicine, and familiarization with the nurse corps, veterinary service, and neuropsychiatry.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military nature of the course (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in business organization and management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business organization and management (2/74); in the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

AR-1408-0016

Army Medical Service (AMEDS) Company Officer

Course Number: 8-A-C2; 8-O-1.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 22-26 weeks (699-1004 hours).

Exhibit Dates: 7/54-12/68.

Objectives: To provide officers with the knowledge and skills necessary to perform as company grade medical service corps officers.

Instruction: Lectures in medical service organization and administration, including personnel management; human relations; financial management; medical and military law; medical supply procedures; field medical service organization; hospital planning, construction, and maintenance; preventive medicine; and sanitation and insect and rodent control.

Credit Recommendation: In the vocational certificate category, 5 semester hours in business organization, 2 in hygiene or first aid (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in business organization, 2 in hygiene or first aid (2/74); in the upper-division baccalaureate category, 5 semester hours in business organization, 2 in hygiene or first aid (12/68).

AR-1408-0017

Central Office Supervision

Course Number: 11-R-333.6; 11-E-19.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 19 weeks (698 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train selected personnel in the operation, characteristics, and control of communications facilities.

Instruction: Practical experience in radio communications, switchboards, teletypewriters, and plant operations.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

AR-1408-0018

Associate Medical Service Corps Officer Career

(Associate Army Medical Service Officer Advanced)

(Army Associate Medical Service Officer Advanced)

Course Number: 8-A-C5; 8-O-4.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 15-17 weeks (526-624 hours).

Exhibit Dates: 7/54-12/68.

Objectives: To provide medical service officers with supplemental or refresher training in the duties and responsibilities of commanders and staff officers.

Instruction: Lectures on the administrative duties of medical service commanders and staff officers, including hospital organization; problem-solving principles and methods; financial management; military and medical law; medical records and reports; personnel management; field medical service organization and operation; heavy casualty management; familiarization with neuropsychiatry, veterinary service, and preventive medicine; and hospital plant planning principles and standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management (2/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management (12/68).

AR-1408-0019

Air Defense Artillery (ADA) Officer Advanced

(Air Defense Artillery (ADA) Officer Advanced)

Course Number: 2-44-C22.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 20-26 weeks (731-986 hours). *Version 2:* 26 weeks (895 hours). *Version 3:* 36 weeks (1190 hours). *Version 4:* 34-37 weeks (1101-1311 hours).

Exhibit Dates: *Version 1:* 12/83-Present. *Version 2:* 8/75-11/83. *Version 3:* 10/74-7/75. *Version 4:* 4/68-9/74.

Objectives: To train air defense artillery officers for command and staff duties in air defense battalions and brigades.

Instruction: *All Versions:* Lectures and practical experience in automatic data processing introduction; flow charting; basic language programming; financial management systems; maintenance systems; quality assurance and control; nuclear, biological, and chemical weapons employment; Nike and Hawk air defense systems characteristics and capabilities; air defense tactics; and elective in two of the following: automatic data processing, communicative arts, logistics management, electronics, or insurgent warfare. *Version 1:* Lectures and discussions in effective communications, leadership, logistics, threat weapons and warfare, tactics, Patriot missile system, and either the Hawk or SHORAD missile system. Does not include the elective sequence, data processing, flow charting, or programming. *Version 2:* This version does not include the electives program. Lectures on overview of leadership and motivation principles; lectures on fundamentals of weapons defense and combat operations concepts; introduction to tactics and maneuver operations. Course includes electronics and warfare phases on selected specialized weapons.

Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (10/89). *Version 2:* Credit is not recommended because of the military-specific nature of the course (8/77). *Version 3:* Credit in the subject area covered in the electives program on the basic of institutional evaluation (6/75). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, and additional credit for the electives program on the basis of institutional evaluation (12/68).

AR-1408-0020

Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 5-CO-C42A.

Location: Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA.

Length: 10-12 weeks (369-423 hours).

Exhibit Dates: 6/73-1/85,

Objectives: To train enlisted personnel in personnel management and communications operations.

Instruction: Lectures and practical exercises in advanced educational development, military correspondence, unit administration, and personnel management and administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in English composition, 1 in speech, 1 in psychology, 2 in personnel management and administration (5/74); in the upper-division baccalaureate category, 1 semester hour in English composition, 1 in speech, 1 in psychology, and 2 in personnel management and administration (5/74).

Related Occupation Codes: 05B; 05C; 05F; 72B; 72C; 72F; 72H.

AR-1408-0021

Administration (AG-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 5-AG-C40A.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 7-10 weeks (247-318 hours). *Version 2:* 10 weeks (307-313 hours).

Exhibit Dates: *Version 1:* 1/74-1/88. *Version 2:* 11/72-12/73.

Objectives: To train enlisted personnel in administration and personnel management.

Instruction: *All Versions:* Lectures on administrative functions; correspondence; publications; mail handling; manpower management system; work measurement techniques; authorization documents, orders, records, and files; data processing systems; and personnel management. *Version 1:*

Common subjects for all personnel emphasize personnel and records administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel records administration (6/77). *Version 2:* In the vocational certificate category, 6 semester hours in personnel management (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in personnel management (5/74); in the upper-division baccalaureate category, 6 semester hours in personnel management (5/74).

Related Occupation Codes: 71B; 71C; 71D; 71E; 71F; 71L; 71M; 71Q; 71R; 71U; 74C; 75C; 75D; 75E; 76L; 01K; 03B; 03C; 03D.

AR-1408-0022

Engineer Construction Contracting

Course Number: 4A-F4.

Location: Engineer School, Ft. Belvoir, VA.

Length: 2 weeks (72-73 hours).

Exhibit Dates: 8/69-11/86.

Objectives: To train commissioned officers and civilian personnel to procure and manage civil works and military construction contracts, and architect/engineer design contracts.

Instruction: Lectures and practical exercises in contract administration and other aspects of construction, including critical path method for construction management, general principles of construction contract law, critical path method and its use in time and cost analysis and control of a project, disputes procedures, termination of contracts, contract case studies, construction estimating procedures, and contract procurement.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in construction contracting (9/79).

AR-1408-0023

1. Associate Signal Officer Career (Associate Signal Officer Advanced)
2. Associate Signal Officer Advanced

Course Number: *Version 1:* 11-A-C23; 11-A-C5. *Version 2:* 11-0-4.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 13-19 weeks (455-680 hours). *Version 2:* 12-15 weeks (436-630 hours).

Exhibit Dates: *Version 1:* 12/57-12/68. *Version 2:* 11/53-11/57.

Objectives: To train commissioned officers as Signal Corps officers.

Instruction: *All Versions:* Lectures and practical exercises in the duties of Signal Corps officers, including radio and wire communications, modern warfare, and Signal Corps organization and tactics. *Version 1:* Includes automatic data processing systems, logistics, personnel and administration, electronic warfare, and communications center operations. *Version 2:* Includes map reading and signal supply and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in business organization and management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (6/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management (12/68). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in business organization and management (12/68).

AR-1408-0024

Radio Teletype Operator Noncommissioned Officer (NCO) Basic

Course Number: 201-05C40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 12 weeks (463 hours).

Exhibit Dates: 3/71-12/74.

Objectives: To train noncommissioned officers to supervise radio teletype operations.

Instruction: Lectures in the administration and supervision of radio teletype operations. Course includes many aspects of administration including financial, personnel, records, maintenance management, and numerous military-related concerns such as military leadership and command tactics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in administrative management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in administrative management (6/74).

Related Occupation Codes: 05C.

AR-1408-0025

Cost Estimating Techniques for Systems Acquisition

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 4-5 weeks (151-183 hours).

Exhibit Dates: 10/70-12/73.

Objectives: To train commissioned officers to estimate costs of military systems acquisition and support.

Instruction: Lectures and practical exercises in cost estimation of military systems acquisition and support, including parametric techniques and constraints of cost estimation, cost estimation relationship, mathematics and statistics, learning-curve theory, economic analysis, managerial accounting, acquisition policy and management, risk analysis techniques, cost growth, computer model estimation of life cycle costs, and industrial engineering.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in cost analysis (6/74).

AR-1408-0026

Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-RM-C40A.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11 weeks (378 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To train enlisted personnel to maintain nonintegrated radar.

Instruction: Lectures in nonintegrated radar maintenance, including maintenance and supply management, maintenance shop organization and administration, and general military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (6/74); in the upper-division baccalaureate category, 3 semester hours in principles of management (6/74).

Related Occupation Codes: 26B; 26D; 26H; 26P.

AR-1408-0027

Quartermaster Officer Candidate

Course Number: 8-10-F1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 23 weeks (859 hours).

Exhibit Dates: 10/66-12/68.

Objectives: To train personnel as quartermaster officers.

Instruction: Lectures and practical exercises in the duties and responsibilities of quartermaster officers engaged in the supervision of supplies and equipment procurement. Course includes leadership, organizational administration, effective writing, supply accounting, storage and inventory, procurement procedures, map and air photograph reading, instructor training, communications, and conduct of selected military operations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in business organization and management, and credit in advanced military on the basis of institutional evaluation (12/68).

AR-1408-0028

1. Field Artillery Officer Advanced
2. Field Artillery Officer Advanced
3. Field Artillery Officer Advanced
4. Artillery Officer Career
5. Artillery Officer Career

Course Number: *All Versions:* 2-6-C22. *Version 3:* 6-A-C22.

Location: Artillery and Missile School, Ft. Sill, OK; Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 20 weeks (710-720 hours). *Version 2:* 26 weeks (826-902 hours). *Version 3:* 40 weeks (1268-1310 hours). *Version 4:* 37 weeks (1260 hours). *Version 5:* 32-42 weeks (1117-1690 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 10/75-12/84. *Version 3:* 5/68-9/75. *Version 4:* 6/67-4/68. *Version 5:* 2/60-5/67.

Objectives: To train commissioned officers to be field artillery officers.

Instruction: *Version 1:* Lectures and practical exercises in battle doctrine, artillery fire support, target acquisition, tactics, combined arms, technical writing, organizational communications, supervision, and data processing. *Version 2:* Lectures and practical exercises in artillery transport, communications, guided missiles, gunnery, tactics, target acquisition, and two electives in psychological operations, communicative arts, management, automatic data processing and systems analysis, stability operations, meteorology, or military history. Electives program has been eliminated. *Version 3:* Lectures and practical exercises in artillery transport, communications, guided missiles, gunnery, tactics, target acquisition, and two electives in psychological operations, communicative arts, management, automatic data processing and systems analysis, stability operations, meteorology, or military history. *Version 4:* Lectures and practical exercises in artillery transport, communications, guided missiles, gunnery, tactics, target acquisition, and two electives in psychological operations, communicative arts, management, automatic data processing and systems analysis, stability operations, meteorology, or military history. *Version 5:* Lectures and practical exercises in artillery transport, communications, guided missiles, gunnery, tactics, target acquisition, and two electives in psychological operations, communicative arts, management, automatic data processing and systems analysis, stability operations, meteorology, or military history. Instruction does not include electives.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing/word processing, 1 in technical writing (11/85); in the upper-division baccalaureate category, 2 semester hours in supervision (11/85). *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/77). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in group dynamics or human relations for students who have completed the psychological operations elective, 3 in composition or technical writing and 3 in public speaking for those who have completed the communicative arts elective, 6 in organization and management for those who have completed the management elective, 3 in automatic data processing and 3 in operations research for those who have completed the automatic data processing systems and operations research systems analysis elective, 6 in political science for those who have completed the stability operations elective, 6 in meteorology for those who have completed the meteorology elective, and/or 6 in military history for those who have completed the military history elective (6/74). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in organization and management for the students who have completed the management elective, 6 in group dynamics or human relations for those who have completed the psychological operations elective, 3 in composition or technical writing and 3 in public speaking for those who have completed the effective writing and oral presentation elective, 4 in political science for those who have completed the stability operations elective, 4 in military history for those who have completed the military history elective, 4 in meteorology for those who have completed the meteorology elective, 2 in operations research and systems analysis for those who have completed the operations research and systems analysis elective and/or 2 in automatic data processing for those who have completed the automatic data processing elective (6/74). *Version 5:* Credit is not recommended because of the limited specialized nature of the course (6/74).

AR-1408-0029

1. ADJUTANT GENERAL OFFICER ADVANCED
2. ADJUTANT GENERAL OFFICER ADVANCED
3. PERSONNEL ADMINISTRATION OFFICER ADVANCED
4. PERSONNEL ADMINISTRATION OFFICER ADVANCED
5. ADJUTANT GENERAL OFFICER ADVANCED
6. ADJUTANT GENERAL OFFICER ADVANCED
7. ADJUTANT GENERAL OFFICER CAREER
   (Adjutant General Officer Career Advanced)
   (Adjutant General Officer Advanced)

Course Number: *All Versions:* 7-12-C22. *Version 5:* 12-A-C4; 12-O-3.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 20 weeks (756 hours). *Version 2:* 24-25 weeks (784 hours). *Version 3:* 21 weeks (751 hours). *Version 4:* 26 weeks (803 hours). *Version 5:* 33-35 weeks (1006-1008 hours). *Version 6:* 25-30 weeks (851-1059 hours). *Version 7:* 24-38 weeks (796-1277 hours).

Exhibit Dates: *Version 1:* 10/84-12/86. *Version 2:* 9/83-9/84. *Version 3:* 12/77-8/83. *Version 4:* 9/75-11/77. *Version 5:* 8/72-8/75. *Version 6:* 7/67-7/72. *Version 7:* 8/55-6/67.

Objectives: To train commissioned officers as personnel and administrative officers.

Instruction: *Version 1:* Lectures and practical exercises in administration services, communication skills, personnel management, information and data processing, unit organization and operations, combat service support, command and staff procedures, and special services. Course consists of common and technical cores and electives in the areas of communications skills, automation literacy, force integration, programming and budgeting, quantitative decision making and travel supervision. *Version 2:* Lectures and practical exercises in administration services, communication skills, personnel management, information and data processing, unit organization and operations, combat service support, command and staff procedures, and special services. *Version 3:* Lectures and practical exercises in administrative services, personnel management, postal services, data processing, unit organization and operations, combat service support, command and staff procedures, and special services. Students learn managerial techniques necessary for basic personnel administration skills; develop interpersonal and managerial skills necessary for proper management of people and organizations including problem solving techniques; provide a knowledge of automated pay and personnel systems. *Version 4:* Lectures and practical exercises in administrative services, personnel management, postal services, data processing, unit organization and operations, combat service support, command and staff procedures, and special services. *Version 5:* Lectures and practical exercises in administrative services, personnel management, postal services, data processing, unit organization and operations, combat service support, command and staff procedures, and special services. *Version 6:* Lectures and practical exercises in administrative services, personnel management, postal services, data processing, unit organization and operations, combat service support, command and staff procedures, and special services. *Version 7:* Lectures and practical exercises in administrative services, personnel management, postal services, data processing, unit organization and operations, combat service support, command and staff procedures, and special services.

Credit Recommendation: *Version 1:* For the common and technical cores in the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in introduction to information processing (3/85); in the upper-division baccalaureate category, 3 semester hours in principles of management and 5 in personnel management (3/85). For the communication skills elective in the lower-division baccalaureate/associate degree category, 4 additional semester hours in technical communications (3/85). For the automation literacy elective in the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations and 2 in BASIC programming (3/85). For the quantitative decision making elective in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to statistical analysis (3/85); in the upper-division baccalaureate category, 2 semester hour in statistical analysis (3/85). For the programming and budgeting elective in the upper-division baccalaureate category, 4 semester hours in introduction to financial management (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in introduction to information processing; in the upper-division baccalaureate category, 3 semester hours in principles of management and 5 in personnel amanegement (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to automatic data processing and 3 principles of management (1/78); in the upper-division baccalaureate category, 3 semester hours in organization development, 5 in personnel management, 3 in cases in personnel and organizational administration (1/78). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business management, 3 in personnel management (6/76). *Version 5:* In the vocational certificate category, 3 semester hours in business management, 3 in personnel management (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business management, 3 in personnel management (5/74). *Version 6:* In the vocational certificate category, 3 semester hours in business organization and management, 3 in personnel management (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management, 3 in personnel management (5/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in personnel management, and credit in data processing on the basis of institutional evaluation (12/68). *Version 7:* In the vocational certificate category, 3 semester hours in business organization and management, 3 in personnel management (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management, 3 in personnel management (5/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in personnel management (12/68).

AR-1408-0030

ASSOCIATE AIR DEFENSE OFFICER ADVANCED
(Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced)

Course Number: 44-A-C5.

Location: Air Defense School, Ft. Bliss, TX.

Length: 19-21 weeks (666-703 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train officers as field-grade air defense artillery officers and nuclear weapons employment officers.

Instruction: Lectures and practical exercises in the duties of field-grade air defense artillery officers and nuclear weapons employment officers, including general military and leadership subjects, intelligence and counterintelligence, communications procedures, electronics, basic radar circuits, gunnery and materiel, atomic weapons, Nike, Ajax, and Hercules systems, combined arms, and missile tactics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in business organization and management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (6/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (6/74).

AR-1408-0031

1. ORDNANCE OFFICER ADVANCED
2. ORDNANCE OFFICER CAREER
   (Ordnance Officer Advanced)

Course Number: *Version 1:* 4-9-C22. *Version 2:* 9-A-C22; 9-A-C4.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 36 weeks (1170 hours). *Version 2:* 22-24 weeks (713-739 hours).

Exhibit Dates: *Version 1:* 11/70-1/76. *Version 2:* 1/58-10/70.

Objectives: To train commissioned officers in advanced ordnance operations.

Instruction: Lectures and practical exercises in advanced ordnance operations, including organization for logistics; administration and operations; tactics and staff procedures; logistics management; management functions and techniques; supply and maintenance operations; ammunition, armament, automotive, and fire control materiel; guided missile and rocket materiel; special weapons materiel; and problems in ordnance service.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in business organization and management and 4 in supply management (12/68). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

AR-1408-0032

1. QUARTERMASTER OFFICER ADVANCED
2. QUARTERMASTER OFFICER ADVANCED, COMMON CORE
3. QUARTERMASTER OFFICER ADVANCED
4. QUARTERMASTER OFFICER ADVANCED
5. QUARTERMASTER OFFICER CAREER
   (Quartermaster Officer Advanced)
6. QUARTERMASTER OFFICER ADVANCED

Course Number: *Version 1:* 8-10-C22-A. *Version 2:* 8-10-C22A. *Version 3:* 8-10-C22. *Version 4:* 8-10-C22. *Version 5:* 8-10-C22; 10-A-C22; 10-A-C4. *Version 6:* 10-A-C4; 10-O-3.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 13-18 weeks. *Version 2:* 18 weeks (571-635 hours). *Version 3:* 32-36 weeks (1132-1172 hours). *Version 4:* 31 weeks (952-987 hours). *Version 5:* 24-32 weeks (720-960 hours). *Version 6:* 33-35 weeks (1023-1132 hours).

Exhibit Dates: *Version 1:* 2/80-8/87. *Version 2:* 9/75-1/80. *Version 3:* 10/72-8/75. *Version 4:* 7/68-9/72. *Version 5:* 2/59-6/68. *Version 6:* 10/54-1/59.

Objectives: To prepare Quartermaster officers for command and staff positions.

Instruction: *Version 1:* Lectures, conferences, practical exercises, and examinations in general management subjects including organizational supply, maintenance management, financial and acquisition management, materiel management, transportation, and automated systems and systems management. Other topics include military justice, military history, graves registration and combined arms. The course includes petroleum, materiel, and food tracks which are completed by all students. *Version 2:* Instruction covers general management subjects, including objectives, concepts, and functions of management; organization theory; personnel development; theory of leadership; data processing, systems analysis, and statistics; supply management and support; storage operations; installation logistics; industrial mobilization planning; and written and oral communication. NOTE: This course includes 6-11 additional weeks of one of three specialties. Please find them under their individual titles: General Troop Support Materiel Management Quartermaster Officer Advanced, Petroleum Management Quartermaster Officer Advanced, and Food Management Quartermaster Officer Advanced. Types of instruction in the common core include lectures, conferences, case studies, programmed instruction, seminars, and practical exercises. Topics include human relations and leadership training, oral communications, supply and service operations, the Army maintenance system, use of logistical planning factors, storage operations, and transportation management. *Version 3:* Instruction covers general management subjects, including objectives, concepts, and functions of management; organization theory; personnel development; theory of leadership; data processing, systems analysis, and statistics; supply management and support; storage operations; installation logistics; industrial mobilization planning; and written and oral communication. *Version 4:* Instruction covers general management subjects, including objectives, concepts, and functions of management; organization theory; personnel development; theory of leadership; data processing, systems analysis, and statistics; supply management and support; storage operations; installation logistics; industrial mobilization planning; and written and oral communication. *Version 5:* Instruction covers general management subjects, including objectives, concepts, and functions of management; organization theory; personnel development; theory of leadership; data processing, systems analysis, and statistics; supply management and support; storage operations; installation logistics; industrial mobilization planning; and written and oral communication. *Version 6:* Instruction covers general management subjects, including objectives, concepts, and functions of management; organization theory; personnel development; theory of leadership; data processing, systems analysis, and statistics; supply management and support; storage operations; installation logistics; industrial mobilization planning; and written and oral communication.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management (8/85); in the upper-division baccalaureate category, 3 semester hours in logistics management (8/85). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in logistics management and 3 in human relations in management (5/81). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 in organization and management, and 3 in supply management (6/75). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in business organization and management, 4 in supply management, and additional credit for the electives on the basis of institutional examination (7/74). *Version 5:* In the upper-division baccalaureate category, 4 semester hours in supply management and 4 in business organization and management (12/68). *Version 6:* In the upper-division baccalaureate category, 4 semester hours in supply management and 6 in business organization and management (12/68).

AR-1408-0033

ASSOCIATE QUARTERMASTER COMPANY OFFICER

Course Number: 10-B-C3; 10-A-C3; 10-O-2.

Location: Quartermaster School, Ft. Lee, VA.

Length: 15 weeks (525-546 hours).

Exhibit Dates: 10/54-12/68.

Objectives: To train commissioned officers as company grade Quartermaster Corps officers.

Instruction: Lectures and practical exercises in the duties of a company grade Quartermaster Corps officer. Course includes general military subjects, weapons, map reading, command and staff procedures, organization and tactics, supply and distribution procedures, and quartermaster operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials handling (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management, 3 in business organization and management (12/68).

AR-1408-0034

FINANCIAL MANAGEMENT—MOBILIZATION DESIGNEES

Course Number: None.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (70-74 hours).

Exhibit Dates: 5/55-12/68.

Objectives: To train commissioned officers in financial management and administration.

Instruction: Lectures and practical exercises in financial management and administration, including financial management training, installation operating schedule and budget execution plan, cost and performance reporting, Finance Corps procedures and responsibilities, pistol qualification, civil emergencies, and comptrollership.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AR-1408-0035

1. DEFENSE SPECIFICATION MANAGEMENT
2. SPECIFICATION MANAGEMENT

Course Number: *Version 1:* 8D-F1. *Version 2:* 400-G-F7.

Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: *Version 1:* 2 weeks (69-71 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 8/73-Present. *Version 2:* 1/64-7/73.

Objectives: To familiarize military and civilian personnel in the development, preparation, and use of specifications.

Instruction: *Version 1:* Lecture-conferences and practical exercises. Topics include fundamentals of specifications, requirements of specifications, specifications and procurement, quality assurance, preparation for delivery, and management practices. *Version 2:* Lectures and practical exercises in management decision making for the development, preparation, and use of specifications, including management concepts and policies for military and federal specifications, quality assurance, preparation for delivery, automatic data processing systems, specifications requirements and legal aspects of specifications.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in procurement (10/88). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in procurement management (12/68).

AR-1408-0036

AVIATION COMMANDER'S READINESS
(Aviation Command and Resource Management)

Course Number: 2G-F15.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 2 weeks (61-63 hours). *Version 2:* 12 weeks (60 hours).

Exhibit Dates: *Version 1:* 8/74-11/86. *Version 2:* 3/73-7/74.

Objectives: To train commissioned officers as commanders of aviation units.

Instruction: Lectures and practical exercises in the duties of commanders of aviation units, including management functions (communications, problem solving, decision making), maintenance management, personnel procedures, supply management, drug abuse and race relations, aviation safety and medicine, and military subjects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management (10/78). *Version 2:* In the vocational certificate category, 1 semester hour in administrative management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in administrative management (7/74).

AR-1408-0037

WORK PLANNING AND CONTROL

Course Number: 7A-F21.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: *Version 1:* 2 weeks (77 hours). *Version 2:* 3 weeks (117 hours).

Exhibit Dates: *Version 1:* 9/76-1/88. *Version 2:* 11/66-8/76.

Objectives: To train enlisted personnel to design and use work planning and work control systems.

Instruction: *All Versions:* Lectures and practical exercises in the design and use of work planning and work control systems, including systems study, types of work planning and work control systems, forecasting, statistical control of forecasting, product and process planning, routing, material control and management, scheduling and loading, dispatching, progress reporting, and corrective actions. *Version 2:* Includes job acceptance, time estimating, emphasis on achievement of effective information system, network based management techniques, breakeven analysis, economic order quantity determination and computer application in work planning and control. Course paper is required.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in production planning and management, production management systems, or industrial engineering techniques (11/76). *Version 2:* In the vocational certificate category, 2 semester hours in work measurement (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in work measurement (7/74).

AR-1408-0038

ORDNANCE OFFICER ADVANCED MISSILE

Course Number: 4-9-C22E.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 26 weeks (822-906 hours).

Exhibit Dates: 2/76-6/78.

Objectives: To train commissioned Officers in advanced ordnance operations.

Instruction: Lectures and practical exercises in advanced ordnance operations, including organization for logistics; administration and operations; tactics and staff procedures; management functions and techniques and missile material management.

Credit Recommendation: In the upper-division baccalaureate category', 3 semester hours in business organization and management, 3 in supply management (1/78).

AR-1408-0039

MANPOWER VALIDATION

Course Number: None.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 4 weeks (157 hours).

Exhibit Dates: 9/64-12/68.

Objectives: To train commissioned officers in manpower validation management.

Instruction: Lectures and practical exercises in manpower validation. Course includes the management process, introduction to methods improvement, basic mathematics and statistics, work sampling, methods improvement techniques, introduction to work management, time study and standard-data appreciation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in work measurement (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in work measurement (7/74); in the upper-division baccalaureate category, 2 semester hours in industrial engineering (12/68).

AR-1408-0040

PERSONNEL SPECIALIST-WAC

Course Number: 500-71H20B.

Location: Women's Army Corps School, Ft. McClellan, AL.

Length: 4 weeks (142 hours).

Exhibit Dates: 4/70-12/73.

Objectives: To train clerks to prepare and maintain personnel records.

Instruction: Lectures and practical exercises in the preparation and maintenance of nonfinancial personnel records and actions, including military structure, records routines, and administration.

Credit Recommendation: In the vocational certificate category, 2 semester hours in office administration (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in office administration (7/74).

Related Occupation Codes: 70A; 71H.

AR-1408-0041

ASSOCIATE CHEMICAL OFFICER CAREER

Course Number: 5-3-C23; 3-A-C23.

Location: Chemical School, Ft. McClellan, AL.

Length: 17-20 weeks (638-723 hours).

Exhibit Dates: 10/60-12/68.

Objectives: To train commissioned officers to be Chemical Corps officers.

Instruction: Lectures and practical exercises in management and administration; personnel; supply and maintenance; military arts and operations; and the technical aspects of chemical, biological, and nuclear warfare and defense.

Credit Recommendation: In the vocational certificate category, 2 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, and credit in chemistry on the basis of institutional evaluation (12/68).

AR-1408-0042

ASSOCIATE FIELD ARTILLERY OFFICER CAREER
(Associate Field Artillery Officer Advanced)

Course Number: 6-A-C23; 6-A-C5; 6-O-4A.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 18-19 weeks (665-724 hours).

Exhibit Dates: 5/56-8/67.

Objectives: To train officers to be senior field artillery officers.

Instruction: Lectures and practical exercises in communications, electronics, missiles, gunnery, tactics, and employment of combined arms.

Credit Recommendation: In the vocational certificate category, 2 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-1408-0043

EQUIPMENT STORAGE SPECIALIST, SKILL DEVELOPMENT BASE

Course Number: 551-76V40-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (426 hours).

Exhibit Dates: 12/68-6/85.

Objectives: To train selected enlisted personnel to perform as equipment storage specialists.

Instruction: Lectures and practical exercises in the duties of equipment storage specialists. Course includes military leadership; map reading; administration; packaging; storage; materials handling; automatic data processing; and selected military subjects.

Credit Recommendation: In the vocational certificate category, 1 semester hour in principles of management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management (7/74).

Related Occupation Codes: 76V; 76Z.

AR-1408-0044

SUPPLY (SU-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

Course Number: 5-SU-C40A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10-12 weeks (353-420 hours).

Exhibit Dates: 3/73-6/85.

Objectives: To train enlisted personnel to perform as noncommissioned officers in supply.

Instruction: Lectures and practical exercises in the function of noncommissioned officers in supply, including leadership, logistical combat support, maintenance management, communicative techniques, introduction to career management field, DSU accounting procedures, mechanized stock control procedures at DSU level, ASDA accounting procedures for repair parts, storage of repair parts, special accounting procedures, and ASDA accounting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (7/74); in the upper-division baccalaureate category, 3 semester hours in principles of management (7/74).

Related Occupation Codes: 76P; 76Q; 76R; 76S; 76T; 76U; 76V; 76X; 76Y.

AR-1408-0045

Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 5-CO-C42B.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11 weeks (396 hours).

Exhibit Dates: 11/72-12/77.

Objectives: To train noncommissioned officers in advanced communications operations.

Instruction: Lectures and practical exercises in communication operations, including general military subjects, administrative and management practices, combat service support operations, field training exercises, satellite communications, communication security, fixed-station radio communications, data processing and data communications, and dial exchange equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic telephone circuits, 1 in administrative management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in administrative management (6/74).

Related Occupation Codes: 72G.

AR-1408-0046

Chemical Officer Advanced
(Chemical Officer Career)

Course Number: *Version 1:* 4-3-C-22-74A. *Version 2:* 5-3-C22; C22-74A; 4-3-74A-C22. *Version 3:* 5-3-C22. *Version 4:* 5-3-C22; 3-A-C22. *Version 5:* 3-A-C4. *Version 6:* 3-O-3.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: *Version 1:* 20 weeks (755 hours). *Version 2:* 24-26 weeks (906-959 hours). *Version 3:* 36 weeks (1200 hours). *Version 4:* 28-36 weeks (958-1203 hours). *Version 5:* 36 weeks (1085-1173 hours). *Version 6:* 38 weeks (1396 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 3/80-12/84. *Version 3:* 1/73-2/80. *Version 4:* 3/60-12/72. *Version 5:* 12/55-2/60. *Version 6:* 9/54-11/55.

Objectives: To prepare Chemical Corps officers for command and staff positions.

Instruction: Lectures and practical exercises in the duties of Chemical Corps officers, including personnel and administrative procedures; management; technical aspects of biological and chemical operations; nuclear warfare and radiological defense; CBR defense and materiel; medical training and support; CBR plans, training, and operation; and logistics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in management (11/86); in the upper-division baccalaureate category, 3 semester hours in nuclear instrumentation, 3 in principles of radiological safety (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in management (3/82); in the upper-division baccalaureate category, 3 semester hours in nuclear instrumentation and 3 in radiological safety (3/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in nuclear instrumentation and 3 in radiological safety (5/74); in the upper-division baccalaureate category, 3 semester hours in nuclear instrumentation and 3 in radiological safety (5/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 6 semester hours in management, 3 in science (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management, and additional credit in chemistry on the basis of institutional evaluation (12/68). *Version 5:* In the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management and additional credit in physics or nuclear technology on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management and additional credit in physics or nuclear technology on the basis of institutional evaluation (12/68). *Version 6:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management and additional credit in physics or nuclear technology on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management and additional credit in physics or nuclear technology on the basis of institutional evaluation (12/68).

AR-1408-0047

Associate Chemical Officer Advanced

Course Number: 3-A-C5; 3-O-4.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 15-18 weeks (533-633 hours).

Exhibit Dates: 7/56-6/60.

Objectives: To train Chemical Corps company officers in the duties appropriate to field grade Chemical Corps officers.

Instruction: Lectures and practical exercises in the duties of field grade Chemical Corps officers, including personnel and administrative procedures; logistics; management; CBR plans, training, and operations; technical aspects of chemical and biological warfare; technical aspects of atomic and radiological warfare; protection; materiel; and combat arms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business management (7/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, and credit in chemistry on the basis of institutional evaluation (12/68).

AR-1408-0048

1. Noncommissioned Officer (NCO) Special Assignment Advanced
(Recruitment and Retention Noncommissioned Officer (NCO) Advanced)
2. Army Recruiter and Career Counselor Noncommissioned Officer (NCO) Advanced Assignment
3. Special Assignment (SP-CMP) Noncommissioned Officer (NCO) Advanced

Course Number: *All Versions:* 5-SP-C42. *Version 1:* 5-79-C42.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 4 weeks (152 hours). *Version 2:* 5 weeks (166 hours). *Version 3:* 9 weeks (283 hours).

Exhibit Dates: *Version 1:* 3/78-11/80. *Version 2:* 3/76-2/78. *Version 3:* 11/72-2/76.

Objectives: To provide a working knowledge of duties required in personnel management and administration.

Instruction: *All Versions:* Lectures and practical exercises in leadership, management, manpower, data processing, fundamentals of military operations, personnel administration, and English composition. *Version 1:* Includes evaluation of recruiting techniques and training methods for new recruiters. *Version 2:* Includes military recruiting and reenlistment subjects and career counseling. Emphasis is on techniques and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in sales techniques (2/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in interviewing techniques (2/78). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management and administration, 1 in English composition (2/74); in the upper-division baccalaureate category, 3 semester hours in personnel management and administration, 1 in English composition (2/74).

Related Occupation Codes: 00E.

AR-1408-0049

Civil Affairs and Military Government Officer Advanced

Course Number: 41-I-F2.

Location: Civil Affairs and Military Government School, Ft. Gordon, GA.

Length: 4 weeks (163-169 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train selected officers and civilians in the conduct of civil affairs and military government operations.

Instruction: Course covers civil affairs and military government planning, tactical units and operations, and civil emergencies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in business organization and management (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in business organization and management (8/74); in the upper-division baccalaureate category, 2 semester hours in business organization and management (8/74).

AR-1408-0050

Area Signal Center Officer

Course Number: 4C-022-0.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 5 weeks (236-257 hours). *Version 2:* 5 weeks (276 hours).

Exhibit Dates: *Version 1:* 1/70-1/85. *Version 2:* 6/67-12/69.

Objectives: To provide Signal Corps officers with knowledge of the installation, operation, and maintenance of an army signal center.

Instruction: Course covers communications system planning, engineering, and analysis and a variety of military subjects.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-1408-0051

Finance Officer Mobilization Basic, Phase II

Course Number: 7-14-C1.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 7 weeks (234-235 hours).

Exhibit Dates: 1/68-4/76.

Objectives: To train finance officers of the reserve components for duty at the company level.

Instruction: Lectures and practical exercises in the duties of finance officers, including military science operations and command, control of appropriated funds, automatic data processing, finance organizations, entitlements, operations, programming (UNIVAC 1005), nuclear weapons employment, pay and allowances of military personnel, and disbursing operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in finance and disbursing (12/68).

AR-1408-0052

Finance Officer Basic
(Finance Officer Orientation)

Course Number: *Version 1:* 7-14-C20-44B/C. *Version 2:* 7-14-C20-44B/C. *Version 3:* 7-14-C20. *Version 4:* 7-14-C20. *Version 5:* 7-14-C20. *Version 6:* 7-14-C20; 14-A-C20. *Version 7:* 14-A-C20. *Version 8:* 14-A-C1; 14-O-A.

Location: Finance School, Ft. Benjamin Harrison, IN; Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 16 weeks (548 hours). *Version 2:* 12 weeks (430 hours). *Version 3:* 15 weeks (496 hours). *Version 4:* 12 weeks (383-390 hours). *Version 5:* 9 weeks (292-314 hours). *Version 6:* 9 weeks (323 hours). *Version 7:* 8-9 weeks (307-333 hours). *Version 8:* 12-14 weeks (456-540 hours).

Exhibit Dates: *Version 1:* 6/82-5/86. *Version 2:* 5/80-5/82. *Version 3:* 9/75-4/80. *Version 4:* 3/73-8/75. *Version 5:* 5/66-2/73. *Version 6:* 8/64-4/66. *Version 7:* 7/60-7/64. *Version 8:* 8/55-6/60.

Objectives: To train officers in the duties and responsibilities of Finance Corps officers.

Instruction: *All Versions:* Lectures and practical exercises on the duties of officers in the Finance Corps, including military science, finance and accounting practices, travel allowances, pay of military personnel, disbursing operations, and finance office operations. *Version 1:* Course includes military science, travel allowances, pay of military personnel, disbursing operations, communication skills and finance office operations. *Version 2:* Course includes military science, travel allowances, pay of military personnel, disbursing operations, communication skills and finance office operations. *Version 3:* Some attention is given to the fundamentals of behavioral management. *Version 4:* Topics include personnel and leadership functions. *Version 5:* Topics include control of appropriated funds, automatic data processing, finance organizations, and entitlements. *Version 6:* Topics include finance organizations, entitlements, impact and control of errors, commercial accounts, civilian pay, model office, military correspondence, reports of survey, fiscal code, military accounting, appropriation allotment accounting, and introduction to punched-card machines. *Version 7:* Topics include tactics, integrated accounting, command management system, fiscal code, and financial management machine accounting. *Version 8:* Topics include integrated accounting, command management system, nonappropriated funds, general accounting review, military comptrollership, fiscal code, civilian pay operations, commercial accounts, prevention of erroneous and fraudulent claims, tactics, and savings bond promotion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in cashier training (3/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications, 2 in administrative management and 3 in finance and disbursements (3/85). *Version 2:* In the vocational certificate category, 1 semester hour in cashier training; in the lower-division baccalaureate/associate degree category, 2 semester hours in administrative management and 3 as an elective in basic accounting (3/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of accounting, 1 in management fundamentals (1/78); in the upper-division baccalaureate category, 2 semester hours in financial management (1/78). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in financial management and 1 in principles of management (3/75). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in finance and disbursing and additional credit in accounting procedures on the basis of institutional evaluation (8/74). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in finance and disbursing and 1 in accounting procedures (12/68). *Version 7:* In the upper-division baccalaureate category, 3 semester hours in finance and disbursing and 2 in accounting procedures (12/68). *Version 8:* In the upper-division baccalaureate category, 3 semester hours in finance and disbursing and 3 in accounting procedures (12/68).

AR-1408-0053

1. Facilities Engineering Management
2. Facilities Engineering Management
3. Post Engineer Management
4. Post Engineer Management
   (Post Engineer)

Course Number: *Version 1:* 4A-21C. *Version 2:* 4A-21C; 4A-7130. *Version 3:* 4A-F2. *Version 4:* 5-O-6.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 3 weeks (99 hours). *Version 2:* 4 weeks (135 hours). *Version 3:* 3 weeks (106 hours). *Version 4:* 4 weeks (99-132 hours).

Exhibit Dates: *Version 1:* 6/79-1/88. *Version 2:* 9/72-5/79. *Version 3:* 1/67-8/72. *Version 4:* 9/55-12/66.

Objectives: To train commissioned officers, warrant officers, and civilian personnel in facilities engineering management.

Instruction: *All Versions:* Lectures and practical exercises in facilities engineering management, including management and administration, maintenance and repair, and miscellaneous services. *Version 1:* Lectures, seminars, and practical exercises in facilities engineering management, including management administration, maintenance, and miscellaneous services. Topics include cost accounting master planning at installations, environmental management and property management. *Version 2:* Topics include cost accounting; master planning at installations; maintenance methods for paved surfaces; fire prevention and protection; organization and responsibilities; and natural and nuclear disaster relief and rehabilitation operations. *Version 3:* Topics include RPMA program management, management and analysis, contract management, environmental engineering management, and facilities engineering support services. *Version 4:* Topics include field inspections; cost engineering, budgets, and funds; fire prevention and protection; utilities; refrigeration, electrical facilities; atomic, biological, chemical, and radiological aspects; preventive maintenance; supervision; and master planning at installations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (7/79). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (9/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in business organization and management (7/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

Related Occupation Codes: 310A; 521A.

AR-1408-0054

Adjutant/Adjutant General Officer Familiarization

Course Number: 12-A-C21.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (187-189 hours).

Exhibit Dates: 1/60-12/68.

Objectives: To train commissioned officers to serve effectively in Adjutant General's Corps officer positions.

Instruction: Lectures and practical exercises in the duties of Adjutant General's Corps officer. Course includes staff functions, roles and operations of Adjutant General's Corps, administrative actions, personnel actions, and personnel management.

Credit Recommendation: In the vocational certificate category, 2 semester hours in office management (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in office management (8/74); in the upper-division baccalaureate category, 2 semester hours in office management (12/68).

AR-1408-0055

Army Installation Management

Course Number: 1B-F1.

Location: *Version 1:* Logistics Management College, Ft. Lee, VA. *Version 2:* Logistics Management Center, Ft. Lee, VA. *Version 3:* Management School, Ft. Belvoir, VA.

Length: *Version 1:* 2 weeks (122 hours). *Version 2:* 3 weeks (113-135 hours). *Version 3:* 13 weeks (142 hours).

Exhibit Dates: *Version 1:* 4/87-Present. *Version 2:* 6/69-3/87. *Version 3:* 8/65-5/69.

Objectives: To train personnel in the techniques, practices, and fundamentals of Army installation, management, management of Army resources, minimization of operational costs, and enhancement of unit readiness.

Instruction: *All Versions:* Lecture-conference sessions, cases studies, workshops and guest lectures. *Version 1:* pending evaluation. *Version 2:* Topics include financial management, general management, logistics management, managerial tools and techniques, management information systems, civilian personnel management, force development and manpower management, and installation operations management. *Version 3:* Topics include financial and logistics management, operations management, labor-management relations, and management information data systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in general management (12/75). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

AR-1408-0056

Cost Analysis for Decision Making

Course Number: None.

Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA.

Length: 4 weeks (153-157 hours).

Exhibit Dates: 5/73-Present.

Objectives: To train commissioned officers and civilian personnel in the theory and application of cost and economic analysis as applied to the development, acquisition and operation of Army weapons systems and facilities.

Instruction: Lectures, practical exercises and workshops in cost analysis theory and application. Includes regression analysis, learning curve theory, non-statistical estimating methods, uncertainty analysis, inflation theory and practice, design-to-cost, and development of cost estimating relationships.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cost analysis (11/85); in the graduate degree category, 1 semester hour in cost analysis (11/85).

AR-1408-0057

1. Structured Functional Systems Descriptions and Design (SFSDD)
2. General Functional Systems Requirement (GFSR) in Systems Development

Course Number: *Version 1:* ALMC-SD; ALM-51-0338. *Version 2:* None.

Location: Logistics Management Center, Ft. Lee, VA; On-Site Locations, Continental U.S.

Length: *Version 1:* 2 weeks (73-79 hours). *Version 2:* 3 weeks (118 hours).

Exhibit Dates: *Version 1:* 3/80-11/89. *Version 2:* 1/73-2/80.

Objectives: To train ADP systems and functional analysts in the techniques and procedures required to develop the functional specifications for a new or revised automated system.

Instruction: Lecture-conferences, workshops, and practical exercises in the techniques required in the development of general functional systems requirements, including management information systems concepts; general ADP system requirements; system structuring; system and workloading data; performance requirements; system conversion; resource requirements and benefits to be achieved; and functional system requirements.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in techniques of systems analysis (3/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in systems analysis (12/75).

AR-1408-0058

Associate Adjutant General Company Officer

Course Number: 12-B-C3; 12-O-2.

Location: Adjutant General School, Ft. Benjamin Harrison, IN.

Length: 12-14 weeks (426-522 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train selected Army officers for duty with the Adjutant General's Corps.

Instruction: The course covers oral and written communation, conduct, administrative services, personnel management and administration, automatic data processing, and military combat support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (8/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-1408-0059

Associate Command and General Staff Officer

Course Number: 1-250-C3; 250-A-C3; 250-O-3.

Location: Command and General Staff College, Ft. Leavenworth, KS.

Length: 16-18 weeks (528-662 hours).

Exhibit Dates: 7/54-8/67.

Objectives: To prepare selected officers for duty as commanders and as principal general staff officers of divisions and logistical commands.

Instruction: Subjects include introduction to command structure, staff procedures and techniques, tactical and logistical organizations, and the fundamentals of various types of operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-1408-0060

1. WAC Officer Advanced
2. WAC Officer Career
   (WAC Officer Advanced)

Course Number: *Version 1:* 7-35-C22. *Version 2:* 35-A-C22; 35-O-3.

Location: Women's Army Corps School, Ft. McClellan, AL.

Length: *Version 1:* 25 weeks (664-700 hours). *Version 2:* 20-24 weeks (653-785 hours).

Exhibit Dates: *Version 1:* 11/70-12/73. *Version 2:* 1/55-10/70.

Objectives: To provide WAC officers with an understanding of command functions, for command support and development of managerial and specialist skills.

Instruction: Course covers automatic data processing, combat-related subjects, leadership and management, oral communication, effective writing, international relations, operations research, and personnel management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in international relations, and 3 in oral and written communication (7/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in business organization and management, and 2 in oral and written communication (12/68).

AR-1408-0061

Military Comptrollership

Course Number: *Version 1:* 7D-45A. *Version 2:* 7D-2800. *Version 3:* 7D-2800. *Version 4:* 7D-2800. *Version 5:* 7D-F1; 14-G-F13; 14-G-2800; 14-G-6000; 14-O-16.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Finance School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 4-5 weeks (169-195 hours). *Version 2:* 7 weeks (257-258 hours). *Version 3:* 7 weeks (253-254 hours). *Version 4:* 10 weeks (343 hours). *Version 5:* 6 weeks (217-235 hours).

Exhibit Dates: *Version 1:* 10/76-1/84. *Version 2:* 10/73-9/76. *Version 3:* 5/68-9/73. *Version 4:* 1/68-4/68. *Version 5:* 9/55-12/67.

Objectives: To train commissioned officers to be comptrollers in the field.

Instruction: *All Versions:* Instruction includes concepts and functions of comptrollership, principles of management, fund accounting, planning programming, and budgeting. *Version 1:* Course includes programming and budgeting formulation, budget execution, managerial accounting including review and analysis. Provides a general orientation in statistical techniques, automatic data processing, and fund management. *Version 5:* Includes internal review; program and statistical reporting and analysis; management engineering; and supply management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in business and economic analysis and 3 in financial management (3/85). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in financial management, 1 in fund accounting (3/75). *Version 3:* In the upper-division baccalaureate category, 5 semester hours in management control systems (7/74). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in management control systems (7/74). *Version 5:* In the upper-division baccalaureate category, 4 semester hours in management control systems (7/74).

AR-1408-0062

1. Army Basic Procurement Operations
   (Army Station Procurement)
2. Army Procurement

Course Number: *All Versions:* 10-O-13. *Version 1:* 10-I-F5; 10-G-F5.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 3-4 weeks (95-140 hours). *Version 2:* 8 weeks (282 hours).

Exhibit Dates: *Version 1:* 9/56-12/68. *Version 2:* 10/54-8/56.

Objectives: To train officers, warrant officers, and civilian employees in basic principles and procedures applicable to positions of limited authority and responsibility in procurement operations at central, regional, and installation procurement offices.

Instruction: *All Versions:* Lectures and practical exercises in procurement, with emphasis on contract procedures, types of contracts, and contract administration. *Version 2:* Course includes a limited amount of comptroller and financial management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in purchasing or procurement (12/68). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in purchasing or procurement and additional credit in public administration on the basis of institutional evaluation (12/68).

AR-1408-0063

Aviation Senior Warrant Officer Training

(Aviation Warrant Officer Advanced)

Course Number: 2-1-C32.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 12 weeks (415 hours). *Version 2:* 11-12 weeks (422 hours). *Version 3:* 15-16 weeks (511-528 hours). *Version 4:* 21-22 weeks (661-678 hours). *Version 5:* 22-23 weeks (678-691 hours). *Version 6:* 23 weeks (723-767 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/85-9/88. *Version 3:* 7/78-9/85. *Version 4:* 8/75-6/78. *Version 5:* 5/72-7/75. *Version 6:* 7/69-4/72.

Objectives: To prepare aviation officers to perform in a variety of unit aviation functions.

Instruction: *Version 1:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts and scope of management; general instruction in aviation safety in both accident prevention and investigation; microcomputer terminology and programming with hands-on operating experience. *Version 2:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts and scope of management; general instruction in aviation safety in both accident prevention and investigation; microcomputer terminology and programming with hands-on operating experience. *Version 3:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts and scope of management. Course also covers general instruction in aviation safety in both accident prevention and investigation. *Version 4:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts and scope of management. Course also covers general instruction in aviation safety in both accident prevention and investigation. *Version 5:* Conferences on general military subjects, general aviation subjects, management, and aviation medicine. *Version 6:* Conferences on aviation unit staff functions/procedures, aviation safety and accident prevention, airfield operations, air traffic control, and combined-arms operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills and 3 in basic microcomputers (4/90); in the upper-division baccalaureate category, 3 semester hours in principles of management, 2 in aircraft safety, and 3 in interpersonal relations (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in communication skills, and 3 in basic microcomputers (10/88); in the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in aviation safety (10/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 in communication skills (11/86); in the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in aviation safety (11/86). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 in communicative skills (10/78); in the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in aviation safety (10/78). *Version 5:* In the vocational certificate category, credit in airport management on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in airport management and 3 in introduction to management (2/74); in the upper-division baccalaureate category, 3 semester hours in airport management and 3 in introduction to management (2/74). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in airport management (2/74).

Related Occupation Codes: 152B; 152C; 152D; 152F; 152G; 153A; 153B; 153C; 153D; 154A; 154B; 154C; 155A; 155D; 155E; 156A; 100C; 100D; 100E; 100F; 100G; 100P; 100Q; 100R; 100Z; 103A; 101B; 101C; 102A; 671B; 671C; 671D; 671E.

AR-1408-0064

Sergeants Major Academy Correspondence Program

(Sergeants Major Academy Nonresident Program)

Course Number: None.

Location: Sergeants Major Academy, Ft. Bliss, TX.

Length: Average 104 weeks.

Exhibit Dates: 7/74-3/84.

Objectives: To prepare active-duty and reserve component noncommissioned officers for positions of greater responsibility in the areas of leadership and human relations, resource management, military organization and world studies.

Instruction: After 3/84 see exhibit AR-1408-0149. Course consists of seven phases consisting of 102 weeks and a two-week resident phase. Lessons and examinations require comprehensive written and oral solutions. A proctored comprehensive evaluation is conducted in the final phase. Curriculum includes military subjects (overview of U.S. defense policy); world studies (modern history and interrelationships of countries and their governments, the role of the U.S. as determined by foreign policy and military strategy); leadership and human relations (human behavior, individually and collectively, contemporary problems and their impact on morale, discipline and efficiency of soldiers); resource management (fundamentals of managing people, materiel, systems, and money); training and maintenance management (unit readiness, installation management). In the resident phase the principles and concepts developed in nonresident phases are reinforced in group discussion and applied in problem-solving situations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in management, 6 in psychology/sociology, 6 in international relations (3/77).

AR-1408-0065

Chaplain Officer Basic

(Chaplain Officer Orientation)

Course Number: 16-A-C20; 5-16-C20.

Location: Chaplain School, Ft. Slocum, NY; Chaplain School, Ft. Wadsworth, NY; Chaplain School, Ft. Hamilton, NY.

Length: 9 weeks (241-330 hours).

Exhibit Dates: 4/60-9/83.

Objectives: To prepare newly commissioned chaplains for their first duty assignment and to provide basic training for staff specialists.

Instruction: Lectures and practical exercises in pastoral care and counseling, command and leadership, management, and communication.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management (6/75).

AR-1408-0066

Ordnance and Chemical Officer Advanced

(Ordnance Officer Advanced Chemical)

Course Number: 4-9-C22-74A; 4-9-C22A.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 26 weeks (828-874 hours).

Exhibit Dates: 2/76-6/83.

Objectives: To train commissioned officers in advanced ordnance operations.

Instruction: Lectures and practical exercises in advanced ordnance operations including organization for logistics; administration and operations; tactics and staff procedures; management functions and techniques and a chemical track including radiological safety.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in radiological safety, 3 in business organization and management, 3 in supply management (4/80).

AR-1408-0067

Medical Logistics Management

Course Number: 8B-F20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 10 weeks (356-431 hours).

Exhibit Dates: 2/75-Present.

Objectives: To provide officers with knowledge of concepts and tools of management logistics as related to Army hospitals and field medical units.

Instruction: Lectures and practical exercises in medical materials management, planning, programming, budgeting, basic computer concepts, and logistics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in materials management (10/86).

AR-1408-0068

Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Basic

Course Number: 6-8-C40.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 8-9 weeks (262 hours).

Exhibit Dates: *Version 1:* 5/78-Present. *Version 2:* 8/74-4/78.

Objectives: To provide enlisted personnel with the knowledge and skills required to perform administrative duties in the Army Medical Department.

Instruction: *All Versions:* Conferences, demonstrations, and practical exercises in military correspondence, oral communications, supervisory management, and general military topics. *Version 1:* Instruction includes resource management and problem solving techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in administration, 1 in interpersonal communication, and 1 in military science (8/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management/counseling (6/77).

Related Occupation Codes: 76J; 35G; 94F; 71G.

AR-1408-0069

MANAGEMENT PRACTICES IN TOE/TDA UNIT INSTRUCTOR TRAINING

Course Number: 7A-F36; 510-F4.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 3 weeks (112 hours).

Exhibit Dates: 3/74–2/75.

Objectives: To provide students with knowledge and skills related to management practices in TOE/TDA units.

Instruction: Lectures and practical exercises in instructor training, management practices, and general military subjects.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

Related Occupation Codes: 711A.

AR-1408-0070

RESOURCE INTERN FINANCIAL MANAGEMENT

(Comptroller Intern Financial Management)

Course Number: 7D-F13.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 1–2 weeks (51–63 hours).

Exhibit Dates: 3/74–6/86

Objectives: To provide a basic introduction to financial management for newly assigned comptroller interns.

Instruction: Lectures and exercises in comptrollership, military accounting concepts and procedures, economic analysis, and management techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in financial management (3/85).

AR-1408-0071

CHAPLAIN OFFICER ADVANCED

(Chaplain Officer Career)

Course Number: *Version 1:* 5-16-22. *Version 2:* 16-A-C22. *Version 3:* 16-A-C22.

Location: Chaplain School, Ft. Hamilton, NY. *Version 1:* Chaplain School, Ft. Wadsworth, NY.

Length: *Version 1:* 36 weeks (1115-1338 hours). *Version 2:* 34 weeks (1114 hours). *Version 3:* 21 weeks (738 hours).

Exhibit Dates: *Version 1:* 6/72–12/84. *Version 2:* 4/64–5/72. *Version 3:* 7/63–3/64.

Objectives: To provide Army chaplains with an understanding of command functions, branch responsibilities for command support, and development of managerial skills.

Instruction: *All Versions:* Lectures and practical exercises in pastoral activities; medical support; chaplain staff duties; methods of instruction; psychology and counseling; religious education; and military operations to include command and staff procedures, civil defense, intelligence, leadership, weapons employment, and organization and employment of combat and support units. *Version 1:* Topics cover management to include reviews and analysis, programs and budget, office organization and administration, organizational concepts, and public speaking.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business management, 1 in oral communications (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in oral communications on the basis of institutional examination (7/74). *Version 3:* Credit is not recommended because of the limited technical nature of the course (7/74).

AR-1408-0072

1. MASTER WARRANT OFFICER
2. WARRANT OFFICER SENIOR
3. WARRANT OFFICER SENIOR

Course Number: *Version 1:* 1-250-C8. *Version 2:* 1-250-C7. *Version 3:* 1-250-C7.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 8 weeks (288 hours). *Version 2:* 19 weeks (669 hours). *Version 3:* 21–22 weeks (638–663 hours).

Exhibit Dates: *Version 1:* 9/88–Present. *Version 2:* 12/83–8/88. *Version 3:* 7/74–11/83.

Objectives: To provide senior warrant officers with a working knowledge of subject matter essential to their careers in various duty assignments and to provide a background required for the progression of senior warrant officers into technical staff positions.

Instruction: *Version 1:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts, scope of management, microcomputers, operating systems, programming, and hands-on operation. Includes 100 hours of non-resident training. *Version 2:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts, scope of management, microcomputers, operating systems, programming, and hands-on operation. *Version 3:* Lectures and practical exercises in management, including general instruction in the principles, philosophies, concepts, and scope of management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 sester hours in technical writing, 2 in interpersonal relations, and 1 in basic microcomputers (4/90); in the upper-division baccalaureate category, 3 semester hours in human resources management and 3 in management problems (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in communication skills, 3 in human relations, and 3 in basic microcomputers (11/86); in the upper-division baccalaureate category, 3 semester hours in management seminar and 3 in personnel management (11/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 in communicative skills (10/78); in the upper-division baccalaureate category, 3 semester hours in management seminar and 3 in personnel management (10/78).

AR-1408-0073

METHODS-TIME MEASUREMENT 1 (MTM1)

Course Number: 7A-F24.

Location: Management Engineering Training Agency, Rock Island, IL.

Length: 3 weeks (117 hours).

Exhibit Dates: 9/64–1/88.

Objectives: To train students to apply the methods-time measurement technique for establishing engineered standards.

Instruction: A standardized course of instruction developed by the Methods-Time Measurement Association is used to cover procedures used in the study and analysis of work and motions and the assigning of proper time values to each basic motion. Attention is given to developing and improving methods, establishing procedures time standards, developing standard data and in using MTM data for estimating, scheduling, and training operators. The course is taught by Association-certified MTM instructors. A standardized test is given to qualify students for MTM-1 Applicator certificates.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in methods time measurement (11/76).

AR-1408-0074

PERSONNEL MANAGEMENT FOR EXECUTIVES

Course Number: 300-0-7; 400-G-F16.

Location: Civilian Training Center, The Pentagon, Washington, DC.

Length: 2–3 weeks (120–142 hours).

Exhibit Dates: 6/56–12/60.

Objectives: To provide senior officers with the current developments in personnel management.

Instruction: Relationship of personnel management to the total management function; principles of organization; delegation of authority; human behavior, motivations, and productivity; interpersonal relationships; communication media and channels; and management techniques and approaches.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel management (12/68).

AR-1408-0075

DIRECTORATE OF LOGISTICS

(Directorate of Industrial Operations)

Course Number: ALMC-DT; ALM-61-0235.

Location: Logistics Management College, Ft. Lee, VA.

Length: 3-4 weeks (100–143 hours).

Exhibit Dates: 6/76-Present.

Objectives: To enable officer and civilian graduates to improve their management performance in various installation support activities.

Instruction: Lectures, practical exercises, and group discussions covering general management principles; financial management; and management of support activities such as transportation, housing, supply, and facilities maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general management (5/88).

AR-1408-0076

FINANCE OFFICER ADVANCED NONRESIDENT/RESIDENT - RESERVE

(Finance Officer Advanced (Nonresident/Resident))

Course Number: 7-14-C23.

Location: Institute of Administration, Ft. Benjamin Harrison, IN.

Length: *Version 1:* In residence 2-4 weeks (151 hours). *Version 2:* In residence 5-6 weeks (240 hours). *Version 3:* In residence 8-10 weeks (298 hours).

Exhibit Dates: *Version 1:* 6/88-Present. *Version 2:* 7/81-5/88. *Version 3:* 10/74-6/81.

Objectives: To prepare Finance Officers of the Reserve Components for branch command and staff duties.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Students must complete nonresident Phase IA prior to resident attendance at Phases II,IV and VI. Course consists of Phases I,IA,II,III,IV,V, and VI, all of which may be taken by correspondence. Recommendation refers only to the three phases which may be completed in residence. *Version 3:* Phase IA includes fundamental branch subjects, primarily automated data processing, governmental cost accounting, and basic statistics. Phases II through VI include military accounting subjects, general military subjects/combat skills, controller subjects, command and staff subjects, staff finance subjects and JUMPS-Army management.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in cashier training (8/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to statistics, 3 in budgeting and 2 in introduction to computers (8/88); in the upper-division baccalaureate category, 2 semester hours in financial management (8/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic computers (2/78); in the upper-division baccalaureate category, 2 semester hours in fundamental financial management (2/78).

AR-1408-0077

ORDNANCE OFFICER ADVANCED MUNITIONS MATERIEL MANAGEMENT
(Ordnance Officer Advanced Munitions)

Course Number: 4-9-C22-75A, 4-9-C22D.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 26 weeks (822-874 hours).

Exhibit Dates: 2/76-6/83.

Objectives: To train commissioned officers in advanced ordnance operations.

Instruction: Lectures and practical exercises in advanced ordnance operations, including organization for logistics; administration and operations; tactics and staff procedures; management functions and techniques and munitions materiel management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in supply management (1/78).

AR-1408-0078

ORDNANCE OFFICER ADVANCED TANK/GROUND MOBILITY MATERIEL MANAGEMENT
(Ordnance Officer Advanced Tank Ground Mobility)

Course Number: 4-9-C22-77A; 4-9-C22B.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 26 weeks (812-844 hours).

Exhibit Dates: 2/76-6/83.

Objectives: To train commissioned officers in advanced ordnance operations.

Instruction: Lectures and practical exercises in advanced ordnance operations including organization for logistics; administration and operations; tactics and staff procedures; management functions and techniques, logistics management, and tank ground mobility track, including electrical materials.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive or heavy equipment repair (1/78); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in supply management, 3 in human relations (1/78).

AR-1408-0079

PROJECT MANAGER DEVELOPMENT

Course Number: ALM-31-0319.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 6 weeks (218-235 hours).

Exhibit Dates: 11/77-12/83.

Objectives: To familiarize personnel with the principal functions associated with Army project management office responsibilities.

Instruction: Lectures and practical exercises in Army acquisition management, systems engineering/logistics management, contract management, financial management and property management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in systems management orientation (3/78).

AR-1408-0080

ELECTRIC POWER PRODUCTION (52-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC.

Course Number: 7-521-C40.

Location: Engineer School, Ft. Belvoir, VA.

Length: 5 weeks (174 hours).

Exhibit Dates: 8/75-1/88.

Objectives: To train electric power production maintenance personnel to supervise the management of maintenance and repair of electric power production equipment.

Instruction: Conferences and practical exercises in the management and supervision of maintenance and repair operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management, 2 in introduction to industrial management (9/79).

AR-1408-0081

ENGINEER EQUIPMENT MAINTENANCE (63-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC.

Course Number: 6-634-C40.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6-7 weeks (174-207 hours).

Exhibit Dates: 8/75-1/88.

Objectives: To train engineer equipment personnel to supervise the management of repair and maintenance of engineer equipment operations.

Instruction: Conferences and practical exercises in the management and supervision of maintenance and repair operations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel management for both Track A(62B) and Track B(62C) (9/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management 2 in industrial management, 1 in industrial engineering for Track A(62B), 1 in personnel management, 2 in industrial management for Track B(62C) (9/79).

AR-1408-0082

COMMUNICATIONS ELECTRONICS MATERIEL MANAGEMENT ADVANCED

Course Number: 4-11-C22-72A.

Location: Signal School, Ft. Gordon, GA.

Length: 26 weeks (952 hours).

Exhibit Dates: 1/82-1/85.

Objectives: To prepare signal officers to administer and train units in providing reliability, maintainability and support of the communications-electronics equipment and develop plans for overhauling or replacement of systems.

Instruction: Instruction in personnel management and administration, material planning requirements and acquisition, stock control, supply and maintenance management, field logistics and communications security procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management and administration (7/85).

AR-1408-0084

INITIAL MATERIEL SUPPORT COMPUTATION

Course Number: ALM-43-0323; ALM-31-0323.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (71-73 hours).

Exhibit Dates: 6/77-12/82.

Objectives: To train in the application of the Standard Initial Provisioning (SIP) Model as approved by the Department of the Army.

Instruction: Major emphasis of lectures, conferences, demonstrations and practical exercises is placed on elements of the Standard Initial Provisioning (SIP) Model which are fundamental to the calculation of provisioned items.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/78).

AR-1408-0085

ADVANCED CONTROLLERSHIP SYMPOSIUM

Course Number: None.

Location: Army Institute of Administration, Ft. Benjamin Harrison, IN.

Length: 1-2 weeks (65-67 hours).

Exhibit Dates: 5/79-Present.

Objectives: To broaden the professional development of commissioned officers and civilian personnel who are qualified comptrollers.

Instruction: Lectures and small group discussions of relevant military comptrollership policies and procedures including current issues, manpower management, budget, financial management and cost analysis.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in comptrollership (3/85).

AR-1408-0086

MORALE SUPPORT OFFICER

Course Number: None.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 4 weeks (146-165 hours).

Exhibit Dates: 8/82-Present.

Objectives: To educate personnel in the skills essential for soldier morale and welfare programs, military recreation activities, library activities and other community activities.

Instruction: Lectures and practical exercises in management activities such as programs, public relations, planning, supervision, evaluation and procurement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in budgeting and planning (3/85); in the upper-division baccalaureate category, 2 semester hours in principles of management (3/85).

AR-1408-0090

General Troop Support Materiel Management Quartermaster Officer Basic

Course Number: 8-10-0B-83A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (258 hours).

Exhibit Dates: 2/79–5/82.

Objectives: To prepare new officers for duty in general troop support materiel management.

Instruction: Types of instruction include lectures, practical exercises, seminars, and television tapes. Topics include procurement, use of data processing equipment, supply procedures, revolving stock funds, property accountability, mechanized stock accounting, supply basic cycle processing, and principles of storage.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in procurement and materials management (4/81).

AR-1408-0091

General Troop Support Materiel Management Quartermaster Officer Advanced

Course Number: 8-10-C22/83B.

Location: Quartermaster School, Ft. Lee, Va.

Length: 6 weeks (177–202 hours).

Exhibit Dates: 10/77–12/84.

Objectives: To provide commissioned officers with knowledge of the plans, programs, and techniques required to supervise a materiel management center.

Instruction: Types of instruction include lectures, conferences, television, and practical exercises. Topics include economic order quantity, inventory policies and procedures, operational readiness float, mechanized stock accounting, maintenance data collection and processing, materiel demand determination, supply system procedures, stock fund budgets, and storage operations management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in procurement and materiels management (4/81).

AR-1408-0092

Contracting Officers' Representative (ALMC-CL)

Course Number: ALMC-CL; ALM-37-0336.

Location: Army Logistics Management Center, On-site Continental U.S.

Length: 1–2 weeks (70–74 hours).

Exhibit Dates: 3/79–1/89.

Objectives: To improve job performance of personnel performing such contract functions as contract surveillance, property administration, and quality assurance.

Instruction: Methods of instruction include lecture-conferences, practical exercises, workshops, case discussions, and individual study. Topics include acquisition preaward and award functions, developing and writing work statements, and acquisition postaward functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in business communication in the area of contract writing (5/81).

AR-1408-0094

Nonappropriated Fund Accounting

Course Number: RM417.

Location: 7th Army Combined Arms Training Center, On-site at various locations in Europe.

Length: 2 weeks (71 hours).

Exhibit Dates: 2/80–Present.

Objectives: To teach students the fundamental accounting principles and how to apply these principles in accounting for nonappropriated funds.

Instruction: Lectures, practical exercises and audio visuals covering accounting principles and procedures including adjusting, closing and reversing entries, preparation of income statements, balance sheets, and specific application of the principles and procedures to nonappropriated fund accounting in the Army.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of accounting (10/80).

AR-1408-0095

Appropriated Fund Accounting

Course Number: RM413.

Location: 7th Army Combined Arms Training Center, Munich, Germany; 7th Army Combined Arms Training Center, On-site at other European locations

Length: 2 weeks (78 hours).

Exhibit Dates: 10/78–Present.

Objectives: To train accounting technicians to perform the accounting functions of analyzing, recording, and reviewing appropriated fund accounting transactions.

Instruction: Lectures and practical exercises in the following topics: introduction to Army accounting, type and receipt of funds, recording expenditure accounting transactions, document analysis of expenditures, reviewing unliquidated transactions of Army standard finance system edit and balance routine, error corrections appropriation reimbursement, standard finance system application and recapitulation and accounting policy and procedure updates.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in accounting procedures for appropriated funds (10/80).

AR-1408-0096

Finance Officer Advanced by Correspondence

Course Number: E30.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 260 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide selected personnel with a background in financial management to include tools and techniques.

Instruction: Instruction is through home study modules. A course in financial management to include techniques of automated data processing, statistical analysis, and basic accounting. Fund accounting budgeting and managerial finance are emphasized. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in ADP, 3 in quantitative analysis, 1 in elementary accounting, 1 in human resource management (1/81); in the upper-division baccalaureate category, 2 semester hours in fundamentals of accounting, 3 in financial management (1/81). Recommended credit applies to those providing verification of successful completion of the optional proctored final examination.

AR-1408-0097

Finance Officer Basic by Correspondence

Course Number: E06.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 208 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide for training of selected personnel in the basic duties and responsibilities for the management of a unit financial services office.

Instruction: Instruction is through home study modules. A course in the organization and operation of a financial services office to include necessary accounting, financial management, and records management activities.

Credit Recommendation: In the vocational certificate category, 1 semester hour in fundamentals of record management (1/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in elementary accounting (1/81); in the upper-division baccalaureate category, 2 semester hours in financial management (1/81). Credit recommended applies to those presenting verification of successful completion of the optional final subcourse, a proctored examination.

AR-1408-0098

Finance Noncommissioned Officer (NCO) Advanced by Correspondence

Course Number: S01.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 260 weeks.

Exhibit Dates: 10/81–5/86.

Objectives: To provide selected personnel with a working knowledge of supervisory duties required in the operation of a finance office for military occupational specialty (MOS) 73C.

Instruction: Instruction is through home study modules. This is a course in the management of a financial activity involving budgeting, programming, internal review, and the determination of requirements for, and supervision of necessary financial staff. Course concludes with optional end-of-course examination; credit recommendation applies to those students presenting documentation of successful completion of this proctored examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to financial management (1/81); in the upper-division baccalaureate category, 2 semester hours in human resources management (1/81). Course concludes with an optional final examination; credit recommendation applies to students presenting verification of successful completion of test.

Related Occupation Codes: 73C.

AR-1408-0099

Finance Noncommissioned Officer (NCO) Advanced by Correspondence

Course Number: S17.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 312 weeks.

Exhibit Dates: 10/81-5/86.

Objectives: To provide selected personnel with knowledge, skills, and attitudes associated with leadership, human resource and financial management for military occupational specialty (MOS) 73D.

Instruction: Instruction is through home study modules. A course in the management of human resources, the organization and operation of financial services within an organization, and concepts, principles, and practices associated with stock fund accounting. Course concludes with optional final optional final subcourse, a proctored examination. Credit recommended applies to those presenting verification of successful completion of this optional examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to financial management (1/81); in the upper-division baccalaureate category, 2 semester hours in human resources management, 2 in fund accounting (1/81). Credit recommended applies to those presenting verification of successful completion of the optional final proctored examination.

Related Occupation Codes: 73D.

AR-1408-0100

Special Correspondence Course for Military Personnel Officers

Course Number: I41.

Location: Army Institute for Professional Development, Ft. Eustis, VA.

Length: Maximum 156 weeks.

Exhibit Dates: 10/81-5/86.

Objectives: To provide selected personnel with specialized training in the principles, functions, and procedures in personnel operations.

Instruction: Instruction is through home study modules. A course in the principles and techniques of personnel management to include records management and the development and operation of programs for the procurement, utilization, career development and management of human resources. Course concludes with optional final subcourse, a proctored examination. Credit recommended applies to those students presenting verification of successful completion of this optional examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introductory records management (1/81); in the upper-division baccalaureate category, 2 semester hours in human resources management (1/81).

AR-1408-0101

Advanced Comptrollership

Course Number: None.

Location: Institute of Personnel and Resource Management, Ft. Benjamin Harrison,IN.

Length: 1-2 weeks (72 hours).

Exhibit Dates: 5/81-10/81.

Objectives: To enhance and broaden the professional development of commissioned officers in a comptrollership discipline.

Instruction: Course includes seminars and guest speakers on topics such as management styles, the Army budget, comptrollership at major command level, financial management of an installation, financial management workshops, and economics of national defense.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in financial management (3/85).

AR-1408-0102

Veterinary Corps Plans and Operations

Course Number: 6-8-C8.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (79 hours).

Exhibit Dates: 6/80-Present.

Objectives: To provide Veterinary Corps officers with a review of policies, procedures, and programs with emphasis on problem areas and solutions.

Instruction: Conference, demonstration, and practical exercises in administration; food technology/science, surveillance inspection, and veterinary preventive medicine.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management science (7/90).

AR-1408-0103

Army Medical Department (AMEDD) Officer Basic (ANC/AMSC)

Course Number: 6-8-C20, ANC/AMSC.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 11/80-1/83.

Objectives: To provide basic orientation and training to newly commissioned Army Medical Department officers including knowledge of responsibilities and preparation in limited but critical areas such as NBC decontamination and casualty management.

Instruction: Conferences and practical experience common to all tracks in management, personnel administration, health care administration, and military activiteres and procedures. In the dietitian track, additional instruction in food science; in the occupational therapist track, additional practice in health care administration.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in management, 2 in personnel administration and additional credit for specific tracks. For Army Nurse Corps Track, 1 in food service, 2 in health administration; for Occupational Therapy Track, 3 in health administration; for Physical Therapy Track, 2 in health administration; for Physical Therapy students, 2 in health administration (5/82).

AR-1408-0104

Army Medical Department Officer (AMEDD) Basic Uniformed Services University of Health Sciences

Course Number: 6-8-C20(USUHS).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 4 weeks (143-171 hours).

Exhibit Dates: 4/79-Present.

Objectives: To provide basic orientation and training to student officers of the uniformed services university of health sciences to include knowledge of responsibilities and duties of an officer.

Instruction: Lectures, conferences, and practical exercises in health care administration, preventive medicine, and military science.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in military science, 1 in administration, 1 in preventive medicine (5/82).

AR-1408-0105

TOW/Dragon Repairer Basic Technical (BT)

Course Number: 121-27E30.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 7-10 weeks (276-374 hours).

Exhibit Dates: 7/82-Present.

Objectives: To provide the student with the professional development, management, systems knowledge and skills required for the training and supervision of TOW/Dragon missile maintenance unit.

Instruction: Classroom and laboratory exercises in the activities and procedures which support unit maintenance actions. Upon completion of this course the student will be able to prepare a material condition status report; schedule activities which support maintenance actions; identify facts about alcohol and other drugs; solve problems associated with personnel problems or performance; and provide technical assistance to subordinates in equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in organizational management (4/88).

Related Occupation Codes: 27E.

AR-1408-0106

Warrant Officer Entry (Ammunition Technicial Entry)

Course Number: 4E-411A.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 13 weeks (434 hours).

Exhibit Dates: 9/81-1/88.

Objectives: To provide selected warrant officers with career development training in selected military subjects, staff functions, procedures, management, organizational mission of the Army. Also provides entry level warrant officers with the technical skills and knowledge necessary to perform their normal duties within their occupational specialty.

Instruction: Lectures and practical exercises in communicative arts, material, storage, movement regulations, surveillance and maintenance procedures, operations including inventory procedures, chemical agents/munitions, and nuclear weapons.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic management practices (11/83).

AR-1408-0107

Maintenance Management Additional Specialty

Course Number: XX91.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 10-11 weeks (362 hours).

Exhibit Dates: 1/84-9/90.

Objectives: To train officers to command maintenance units and to perform duties of a field maintenance staff officer.

Instruction: Course includes instruction in organizational supply and maintenance, automotive and support equipment fundamentals, supply operations, material acquisition, research and development and wholesale logistics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in automotive and related equipment fundamentals (2/84); in the upper-division baccalaureate category, 6 semester hours in maintenance management (2/84).

AR-1408-0108

ORDNANCE OFFICER ADVANCED

Course Number: 4-9-C22.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 26 weeks (847 hours).

Exhibit Dates: 7/83–Present.

Objectives: To prepare officers to command maintenance units and to perform duties of a field maintenance staff officer.

Instruction: Lectures and practical exercises in leadership development and supervision, personnel management, professional ethics and values, training management, logistics and supply operation, financial management, budgets and records, stock accounting and procurement. Also, maintenance management including material and manpower utilization, introduction to military tactics, operations, and training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in supervision, 3 in records management, 6 in maintenance management, and 1 in communications-writing (2/84).

AR-1408-0109

COMMUNICATIONS-ELECTRONICS WARRANT OFFICER ENTRY

Course Number: 4C-F16.

Location: Signal Center, Ft. Gordon, GA.

Length: 9 weeks (358 hours).

Exhibit Dates: 12/80–11/84.

Objectives: To familiarize newly-appointed warrant officers with military customs and the responsibilities of a warrant officer.

Instruction: Instruction in social and military customs, traditions, and responsibilities,and tactical and fixed communication principles, concepts, and operation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of personnel management, 3 in plant management (supply, maintenance, acquisition, production flow) (2/84).

AR-1408-0110

ADMINISTRATIVE WARRANT OFFICER ADVANCED

Course Number: 7-12-C32.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 10–11 weeks (341–358 hours).

Exhibit Dates: 8/81–2/85.

Objectives: To train warrant officers in skills and knowledge to perform in administrative fields.

Instruction: Lectures and practical exercises to expand and enhance managerial and professional skills including communication, computer skills, administration, statistics, personnel systems and general military information. See exhibit AR-1408-0167 for course after this end date.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to statistics, 3 in introduction to computers, 1 in communication and 3 in administrative management (3/85); in the upper-division baccalaureate category, 1 semester hour in personnel management and 1 in educational administration (3/85).

Related Occupation Codes: 021AO; 031AO; 711AO; 713AO; 741AO.

AR-1408-0111

TACTICAL TELECOMMUNICATIONS CENTER OPERATOR BASIC NONCOMMISSIONED OFFICER (NCO)

(Combat Telecommunications Center Operator Primary Technical)

Course Number: 260-72E20.

Location: Signal School, Ft. Gordon, GA.

Length: 6–8 weeks (219–258 hours).

Exhibit Dates: 11/83–12/89.

Objectives: To train enlisted personnel to perform as a first-line supervisors in a tactical telecommunications center.

Instruction: Training includes supervision and checking the installation, operation, troubleshooting, and maintenance on telecommunications vans, teletypewriter equipment, communications security equipment and equipment used in combat telecommunications systems, stations and facilities. Student checks the processing of incoming-outgoing messages, time analysis of origination and termination of messages, insures accountability of station logs and receipt and control of COMSEC material.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems management (10/86).

Related Occupation Codes: 72E.

AR-1408-0112

COMSEC MAINTENANCE CHIEF BASIC TECHNICAL

Course Number: 32F30; 160-31S30.

Location: Signal School, Ft. Gordon, GA.

Length: 9 weeks (342 hours).

Exhibit Dates: 1/85–2/87.

Objectives: To train selected personnel to perform as supervisors of personnel engaged in maintenance and repair of field COMSEC and fixed COMSEC equipment.

Instruction: Lectures and practical exercises in COMSEC accounting, management, material control, auditing, closing and organizational movements, transportation, emergency procedures, inspection, supply and maintenance procedures, and logistics, system concepts, shop practices, precision soldering.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to supervision (7/85).

Related Occupation Codes: 32S.

AR-1408-0113

QUARTERMASTER WARRANT OFFICER ADVANCED

Course Number: 8-10-C32.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks 325 hours.

Exhibit Dates: 4/82–9/88.

Objectives: To provide the student with communication skills and an understanding of the duties of a logistics staff officer.

Instruction: Conferences, case studies, demonstrations, seminars, visual aids, and practical exercises are included. Student will learn logistics staff officer duties to include wholesale logistics systems nationally, life cycle systems management models, project management programs, secondary and major item management, and the execution of logistics missions, a survey of acquisition management automatic data processing and financial management policies is included.

Credit Recommendation: In the vocational certificate category, 1 semester hour in automatic data processing (8/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in survey of financial management (8/85); in the upper-division baccalaureate category, 2 semester hours in material management, 1 semester hour in installation logistics (8/85).

Related Occupation Codes: 041AO; 401AO; 761AO; 762AO.

AR-1408-0114

LOGISTICS PRECOMMAND

Course Number: ALMC-PD.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 3 weeks (109 hours).

Exhibit Dates: 4/85–Present.

Objectives: To use problem indicators to recognize types and causes of management problems typical to specific types of organizations and to recognize analytical concepts applicable to the management of the organization's missions and resources.

Instruction: Lectures, seminars, field trips and guest speakers investigating manpower, management, civilian personnel management and labor relations, and Management systems organization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in administrative management (3/86).

AR-1408-0115

DEPUTY CHIEF OF STAFF FOR LOGISTICS MANAGEMENT

Course Number: None.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 7/82–6/85.

Objectives: To provide military and civilian personnel with an overview of the U.S. Army logistics system.

Instruction: Lecture on staff organization, PPBES, materiel acquisition, wholesale logistics, and communication skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to logistics management (3/86).

AR-1408-0116

INSTALLATION LOGISTICS MANAGEMENT

Course Number: ALMC-IN.

Location: Logistics Management Center, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA; Off0-campus locations, Continental USA.

Length: 2 weeks (66 hours).

Exhibit Dates: 11/85–Present.

Objectives: To provide knowledge of the policies and procedures governing management of the logistics function at Army installations, to include supply, maintenance, transportation, and contracting.

Instruction: Lecture conference and case method instruction in the various facets of management required for installation logistics management, including supply, transportation, maintenance, and procurement. NOTE: There are no quizzes, written exams or research papers required in this

course. Students must present orally their solutions to a budgeting case. The course is graded pass-fail.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in logistics management (5/88).

AR-1408-0117

Army Secondary Item Management

Course Number: ALMC-SJ.
Location: Logistics Management Center, Ft. Lee, VA.
Length: 3 weeks. (104-106 hours).
Exhibit Dates: 1/84-1/89.
Objectives: To increase the secondary item manager's range of knowledge in the materiel management process.
Instruction: Primarily a lecture format that centers around the secondary item manager's function of requirements determination, forecasting, financial management, and the concepts, methods, and procedures of managing wholesale inventories.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in inventory management (3/86).

AR-1408-0118

Force Modernization and Sustaining (Equipping the Force)
(Force Modernization Management (Equipping the Force))

Course Number: ALMC-FG.
Location: Logistics Management College, Ft. Lee, VA.
Length: 2-3 weeks (72-73 hours).
Exhibit Dates: 5/83-Present.
Objectives: To provide an understanding of the processes involved in the organizational interpretation of supportable equipment systems within the Department of the Army.
Instruction: Lectures and exercises on introduction to the modernization process, the resource management process, the materiel distribution and acquisition processes, and force development.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in resource planning (7/88).

AR-1408-0119

Management of Installation Level Contracts

Course Number: ALMC-IB.
Location: Logistics Management Center, Ft. Lee, VA,
Length: *Version 1:* 2 weeks (73 hours). *Version 2:* 3 weeks (109 hours).
Exhibit Dates: *Version 1:* 3/88-Present. *Version 2:* 8/85-2/88.
Objectives: To train personnel in the evaluation and management of the economic and legal issue of pre-and post award contract administration.
Instruction: Lectures, practical exercises, and case studies in contract negotiations and administration for services on installations.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 1 semester hour in contract law and 1 in contract administration (3/86).

AR-1408-0120

Defense Contracting for Information Resources

Course Number: ALMC-ZX.
Location: Logistics Management College, Ft. Lee, VA; On-site locations, Continental U.S.
Length: 2 weeks (57-74 hours).
Exhibit Dates: 8/85-Present.
Objectives: To understand the impact of legislation and other congressional action on the acquisition of information resources and to apply correct decision making techniques for making such acquisitions.
Instruction: Lectures and practical exercises providing detailed instructions in all significant aspects of contracting for informational resources. It is designed to provide a hand-on working familiarity with all pertinent government regulations, policies and procedures.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in contracting management (information resources) (10/88).

AR-1408-0121

Commercial Activities Process
(Commercial Activities Review Process)

Course Number: ALMC-CM.
Location: Logistics Management College, Ft. Lee, VA; Off-site Locations, Continental U.S.
Length: 1-2 weeks (56-66 hours).
Exhibit Dates: 8/85-Present.
Objectives: To provide instruction in preparing performance work statements and cost analyses of commercial activities and comparable military activities providing services to military installations.
Instruction: Lecture conference and case method instruction in work measurement, writing of performance work statements, and comparative cost analyses of governmental versus commercial activity provision of services.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in managerial analysis (4/88).

AR-1408-0122

Materiel Acquisition Management

Course Number: ALMC-ML.
Location: Logistics Management College, Ft. Lee, VA; Logistics Management Center, Ft. Lee, VA.
Length: 9 weeks (312-334 hours).
Exhibit Dates: 10/84-Present.
Objectives: To provide entry level training for personnel directly or indirectly involved with the U.S. Army's materiel acquisition process.
Instruction: Lectures, case studies, exercises, and discussions in materiel acquisition management including: financial and cost management, intergrated logistics support, force modernization, production management, and contract mamagement.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in logistics management (5/89); in the graduate degree category, 2 semester hours in contract management, 2 in financial/cost management, 1 in R & D management (5/89).

AR-1408-0123

Pre-Command Phase III Combat Service Support Missile and Munitions

Course Number: 9-26-F45.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 2 weeks (77 hours).
Exhibit Dates: 9/85-Present.
Objectives: To prepare missile and munitions command designees by providing update training on administration, supply, maintenance and training.
Instruction: Lectures and practical exercises in force development, supply procedures, readiness reporting, planographs, special weapons, materiel management and ammunition transportation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in material management (4/86).

AR-1408-0124

Ordnance Officer Advanced Missile/Munitions Materiel Management

Course Number: 4E-73A/4F-75A; 4-9-C22-73A/75A.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 12-20 weeks (727 hours).
Exhibit Dates: 11/84-12/87.
Objectives: To prepare company grade officers to lead, train, fight and maintain units and to manage missile materiel.
Instruction: For this course after 1/88 see AR-1408-0153 and AR-1408-0152. A study of battlefield leadership and techniques, army maintenance and support systems and munitions materiel management.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).
Related Occupation Codes: 73A; 75A.

AR-1408-0125

Chemical Officer ADSPEC

Course Number: 4K-74A.
Location: Chemical School, Ft. McClellan, AL.
Length: 13 weeks (486 hours).
Exhibit Dates: 1/85-Present.
Objectives: To prepare Chemical Corps officers for command and staff positions.
Instruction: Lectures and practical exercises in the duties of Chemical Corps officers, including technical aspects of biological and chemical operations, nuclear warfare and radiological defense; NBC defense and materiel; medical training and support; NBC plans, training, and operation; and logistics.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in nuclear instrumentation, 3 in principles of radiological safety (11/86).

AR-1408-0126

Inspector General

Course Number: None.
Location: Inspector General School, Ft. Belvoir, VA.
Length: 2-6 weeks (76-188 hours).
Exhibit Dates: 4/83-Present.
Learning Outcomes: Upon completion of the course the student will understand fundamental inspector general policies and procedures and how to apply the functional life cycle model of the Army to operational inspections.
Instruction: Course covers policies and processes in performing inspections, general functions of administrative investigations, inspection and assistance. Students learn the functional life cycle of the Army as it applies to inspector general policies and processes. Student is provided with knowledge of the functions, operations, systems, policies, and command structure of the total

Army, major commands and Army installations necessary to analyze potential problems and to conduct systemic inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to internal organizational auditing. Credit is not recommended for those students attending only the reserve portion (the first two weeks) of the course (2/87).

AR-1408-0127

1. Chaplain Assistant Advanced Noncommissioned Officer (NCO)
2. Chaplain's Assistant Supervisor Advanced Noncommissioned Officer (NCO)
   (Chapel Activities Supervisor Advanced Noncommissioned Officer (NCO))

Course Number: *Version 1:* 661-71M40. *Version 2:* 5-71-C42.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 7 weeks (254 hours). *Version 2:* 7 weeks (253 hours).

Exhibit Dates: *Version 1:* 5/89–Present. *Version 2:* 11/85–4/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to lead, supervise, manage, communicate effectively, prepare a religious activities program and budget, conduct training and maintenance activities, and manage the budget. *Version 2:* Upon completion of the course, the student will be able to lead, manage, and communicate effectively, prepare a religious activities program and budget, and conduct training, maintenance activities, and military ceremonies.

Instruction: Topics include advanced leadership and management skills, general military subjects, communication skills, training management, logistics management, and the unit ministry team in combat. Course includes common core training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision. See exhibit AR-1404-0035 for credit for the common core (6/90). *Version 2:* Credit is recommended for the common core only; see exhibit AR-1404-0035 (4/87).

Related Occupation Codes: 71M40.

AR-1408-0128

1. Chaplain Reserve Component General Staff College
2. Chaplain Reserve Component General Staff

Course Number: 5G-F2.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 6 weeks (216 hours). *Version 2:* Phase 1, nonresident, 295 hours; Phase 2, resident, 6 weeks (204 hours).

Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 12/81–9/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to serve as a high-level Chaplain Officer in a mobilization and combat environment, to assess management and leadership styles and principles, to demonstrate an understanding of the basic considerations involved in appropriated and non-appropriated fund support, to recommend procedures to be used during mobilization, and to develop training plans for a religious ministries team. *Version 2:* Upon completion of the course, the student will be able to serve as a high-level Chaplain Officer in a combat environment, to assess management styles and principles, to demonstrate an understanding of the basic considerations involved in formulating and implementing U.S. national strategy, to recommend procedures to be used during mobilization, and to develop training plans for a religious ministries team.

Instruction: *Version 1:* Topics include writing skills, management, budgeting, tactical logistics, mobilization issues, strategic studies, and ministry in combat. Course includes simulation of a combat scenario, case studies, and integration paper, and a seminar; also includes a non-resident portion. *Version 2:* Topics include writing skills, management, budgeting, tactical logistics, mobilization issues, strategic studies, and ministry in combat. Course includes simulation of a combat scenario, an integration paper, and a seminar.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in report writing (6/90); in the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in business organization and management (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in report writing (4/87); in the upper-division baccalaureate category, 3 semester hours in political science and 3 in business organization and management (4/87).

AR-1408-0129

Chaplain Training Manager

Course Number: 5G-ASI7E.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: 2 weeks (77 hours).

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to manage a chaplain's training program at an Army installation, apply instructional methods, demonstrate knowledge of training resources, staff coordination, supervision evaluation, and management of training programs.

Instruction: Topics include short/near term planning and long-range planning for training programs, identifying training resources and personnel, records maintenance, development of training goals and objectives, and monitoring/evaluating training proficiency.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in training programs management (4/87).

AR-1408-0130

Nonappropriated Chaplains' Fund Clerk

Course Number: 561-F2.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 2 weeks (72 hours). *Version 2:* 2 weeks (74 hours).

Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 10/86–9/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to apply the principles of single-entry fund accounting and perform clerical duties. *Version 2:* Upon completion of the course the student will be able to apply the principles of single-entry bookkeeping and perform clerical duties.

Instruction: Topics include preparation of supporting documents, assisting in the preparation of annual budgets, performing bookkeeping functions with regard to receipt, disbursements, and control of nonappropriated funds.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in fund accounting (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in bookkeeping (4/87).

AR-1408-0131

Nonappropriated Chaplains' Fund Custodian

Course Number: 5G-F6/561-F1.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 2 weeks (74 hours). *Version 2:* 2 weeks (72 hours).

Exhibit Dates: *Version 1:* 4/89–Present. *Version 2:* 2/86–3/89.

Learning Outcomes: Upon completion of the course the student will be able to use management by objectives and accounting control techniques to effectively and efficiently perform the functions of custodian, supervisor, and accountant for the nonappropriated chaplain's fund.

Instruction: Topics include single-entry accounting, document organization and management, internal control and interface of nonappropriated funds, managing the receipt of funds, preparation and certification of fund reports, supervision of clerical activities associated with nonappropriated funds control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in fund accounting and 1 in principles of management (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of accounting and 1 in personnel supervision (4/87).

AR-1408-0132

Electronic Warfare (EW)/Intercept Equipment Repair Technician–Warrant Officer Technical Certification

Course Number: 4C-285A.

Location: Intelligence School, Ft. Devens, MA.

Length: 12–13 weeks (482 hours).

Exhibit Dates: 12/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the operation, maintenance, and repair of computer-controlled equipment, to operate, maintain, and repair computer-controlled equipment, program in BASIC and Assembler language, write diagnostic programs and use them to troubleshoot CPV's and peripherals, employ the techniques of systems analysis to troubleshoot and repair computer-controlled systems.

Instruction: Lectures, tapes, demonstrations, written exams, and performance exercises in management of the operation, maintenance, and repair of computer-controlled systems, in programming in BASIC and Assembler language, in writing diagnostic programs and using them to troubleshoot and repair computer-controlled systems, develop and in using systems analysis techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 4 in peripherals maintenance and repair, 2 in BASIC programming, 2 in Assembler programming, 4 in microcomputer maintenance and repair or 4 in systems analysis and maintenance or 4 in computer system maintenance and repair (5/87).

AR-1408-0133

Morse Intercept Technician—Warrant Officer Technical Certification

Course Number: 3B-984A.

Location: Intelligence School, Ft. Devens, MA.

Length: 3-4 weeks (127-128 hours).

Exhibit Dates: 12/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the application of morse intercept and collection systems. This includes operation, coordination of systems, evaluation and analysis of morse intercept data.

Instruction: Instruction includes lecture, field trips and performance exercises in the management of the operation of morse intercept systems including evaluation and analysis of morse intercept data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

AR-1408-0134

Non-Morse Intercept Technician—Warrant Officer Technical Certification

Course Number: 3B-985A.

Location: Intelligence School, Ft. Devens, MA.

Length: 3-4 weeks (130 hours).

Exhibit Dates: 12/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the application of non-morse intercept and collection systems. This includes operation, coordination of systems, evaluations and analysis of non-morse intercept data.

Instruction: Instruction includes lectures, field trips and performance exercises in the management of the operation of non-morse intercept systems including evaluation and analysis of non-morse intercept data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

AR-1408-0135

Emitter Location/Identification Technician—Warrant Officer Technical Certification

Course Number: *Version 1:* 3B-352D. *Version 2:* 3B-986A.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 3 weeks (112 hours). *Version 2:* 5 weeks (178-179 hours).

Exhibit Dates: *Version 1:* 7/89-Present. *Version 2:* 12/84-6/89.

Learning Outcomes: Upon completion of the course, the student will be able to manage the location, employment, control and operation of direction finding equipment, and set-up office procedures to process these activities.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Instruction includes lectures, field trips, and performance exercises in management of the location, employment, control and operation of direction finding systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

AR-1408-0136

1. Emanations Analysis Technician Warrant Officer Texhnical/Tactical Certification
2. Emanations Analysis Technician—Warrant Officer Technical Certification

Course Number: *Version 1:* 3B-352J, Phase 2. *Version 2:* 3B-938A.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 3-4 weeks (134 hours). *Version 2:* 5 weeks (178-179 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 12/84-4/89.

Learning Outcomes: Upon successful completion of this course, the student will be able to organize, service, and operate equipment used in electronic intelligence gathering, conduct training programs for intercept operators and analysts, and supervise and manage personnel assigned to intelligence gathering units.

Instruction: Includes lectures, demonstrations and performance exercises in management and operations of intelligence gathering units.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

Related Occupation Codes: 983A.

AR-1408-0137

1. Traffic Analysis Technician Warrant Officer Technical/Tactical Certification
2. Traffic Analysis Technician—Warrant Officer Technical Certification

Course Number: *Version 1:* 3B-352C, Phase 2. *Version 2:* 3B-982A.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 5-6 weeks (203 hours). *Version 2:* 5-6 weeks (197-211 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 12/84-4/89.

Learning Outcomes: The student will be able to manage intelligence collection/processing equipment; this includes operation, collection, processing, analysis, and evaluation of intelligence traffic.

Instruction: Lectures, field trips, and performance exercises in the management of the operation of intelligence collection and processing equipment including analysis and evaluation of intelligence traffic.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

Related Occupation Codes: 982A.

AR-1408-0138

1. Voice Intercept Technician Warrant Officer Technical/Tactical Certification
2. Voice Intercept Technician—Warrant Officer Technical Certification

Course Number: *Version 2:* 3B-352G, Phase 2. *Version 2:* 3B-988A.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 3-4 weeks (134 hours). *Version 2:* 6 weeks (221-222 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 12/84-4/89.

Learning Outcomes: Upon completion of the course, the student will be able to manage the application of voice intercept and collection systems. This includes operation, coordination of systems, analysis and evaluation of voice intercept systems.

Instruction: Instruction includes lectures, field trips and performance exercises in the management of the operation of voice intercept systems including analysis and evaluation of voice intercept data.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management (5/87).

AR-1408-0139

Chaplain Assistant Basic Noncommissioned Officer (NCO)
(Chapel Activities Specialist Basic Noncommissioned Officer (NCO))

Course Number: 661-71M20.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 5 weeks (177 hours). *Version 2:* 5 weeks (190 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 5/85-4/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to lead and organize small group activities involving maintenance, land navigation, training, tactical deployment equipment operation, computer hardware and software operations, and will account for appropriated funds, communicate effectively, and care for battle fatigue casualties. *Version 2:* Upon completion of the course, the student will be able to lead and organize small group activities involving maintenance, land navigation, training, tactical deployment equipment operation, and will account for appropriated funds, communicate effectively, and care for battle fatigue casualties.

Instruction: *Version 1:* Topics include leadership, communications, battle fatigue casualty care, religious program management, volunteer management, computer hardware and software operations, tactical deployment equipment operation, and tactical operations leadership skills. *Version 2:* Topics include leadership, communications, battle fatigue casualty care, religious program management, volunteer management, tactical deployment equipment operation, and tactical operations leadership skills.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications. See exhibit AR-1406-0090 for the common core credit recommendation (6/90). *Version 2:* See exhibit AR-1406-0090 for the common core credit recommendation (4/87).

Related Occupation Codes: 71M.

AR-1408-0140

Chaplain Officer Advanced

Course Number: 5-16-C22.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 20 weeks (710-820 hours). *Version 2:* 20 weeks (743 hours).

Exhibit Dates: *Version 1:* 5/89–Present. *Version 2:* 1/85–4/89.

Learning Outcomes: Upon completion of the course the student will be able to perform administrative and ministerial duties in a large (up to 500 persons) military organization; duties include pastoral counseling, resolution of ethical and theological issues, fiscal management, and chaplain's tactical combat functions.

Instruction: *Version 1:* Topics include leadership, ethics, management, pastoral counseling, fiscal management, combat and tactical functions, appropriated and non-appropriated funds, marriage and the family, theological issues, and homily preparation. The final two weeks of the course are dedicated to a study of a directed elective in one of the following fields: homiletics/liturgics, marriage and family pastoral counseling, and automated religious support. *Version 2:* Topics include leadership, ethics, management, pastoral counseling, fiscal management, combat and tactical functions, appropriated and non-appropriated funds, marriage and the family, theological issues, and homily preparation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in ethics and theological issues and 3 in organizational management; if completed the automated religious support elective, 1 in microcomputer applications (6/90); in the graduate degree category, 3 semester hours in homiletics and 3 in marriage and family counseling; if completed the homiletics/liturgics elective, 1 additional semester hour in homiletics; if completed the marriage and family pastoral counseling elective, 1 additional semester hour in marriage and family counseling (6/90). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in ethics and theological issues and 3 in management (4/87); in the graduate degree category, 3 semester hours in homiletics and 3 in marriage and family counseling (4/87).

AR-1408-0141

Chaplain Officer Basic

Course Number: *Version 1:* 5-16-C20. *Version 2:* 5-16-C20-56A.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: *Version 1:* 11–12 weeks (408 hours). *Version 2:* 11–12 weeks (419 hours); Phase 1, 4–5 weeks (177 hours), Phase 2, 7 weeks (242 hours).

Exhibit Dates: *Version 1:* 1/90–Present. *Version 2:* 10/83–12/89.

Learning Outcomes: *Version 1:* Upon completion of this course, the student will be able to perform pastoral counseling, administrative duties, and pastoral ministry duties in a military setting, demonstrate leadership, management, supervision, and ethics in conducting a battalion chaplain's duties, resolve pastoral problems, and show knowledge of internal controls of fund management. *Version 2:* Upon completion of this course, the student will be able to perform administrative and pastoral ministry duties in a military setting, demonstrate leadership, management, and ethics in conducting a battalion chaplain's duties, resolve pastoral problems, and show knowledge of internal controls of fund management.

Instruction: *Version 1:* Topics include military and administrative skills, supervision skills, management, ethics, pastoral ministry in the military environment, pastoral counseling, internal controls, component training, and chaplain support activities. *Version 2:* Topics include military and administrative skills, management, ethics, pastoral ministry in the military environment, pastoral counseling, internal controls, component training, and chaplain support activities.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision (6/90); in the upper-division baccalaureate category, 1 semester hour in human relations, 2 in counseling, and 3 in principles of management (6/90). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in human relations, 2 in counseling, and 3 in principles of management (4/87).

Related Occupation Codes: 56A.

AR-1408-0142

Advanced Noncommissioned Officer (NCO) MOS 71L

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5–17 weeks (168–444 hours).

Exhibit Dates: 3/81–Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credits for the Common Core.

Related Occupation Codes: 71L.

AR-1408-0143

Advanced Noncommissioned Officer (NCO) MOS 71M

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5–17 weeks (168–444 hours).

Exhibit Dates: 3/81–10/85.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credit for the Common Core.

Related Occupation Codes: 71M.

AR-1408-0144

19D Armor Noncommissioned Officer (NCO) Advanced

Course Number: O-19-C42.

Location: Armor School, Ft. Knox, KY.

Length: 14–15 weeks (614 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to provide leadership in a specialized field.

Instruction: Includes tactical training, especially in maintenance procedures, training methods and techniques, leadership skills, and staff support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic surveying, 2 in communication skills, 3 in maintenance management, and 3 in personnel management (7/87).

AR-1408-0145

19E Armor Noncommissioned Officer (NCO) Advanced

Course Number: 0-19-C42.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (488 hours).

Exhibit Dates: 9/83–12/87.

Learning Outcomes: Upon completion of the course the student will be able to provide leadership in a specialized field.

Instruction: Includes emphasis in tactical training, especially in maintenance procedures, training methods and techniques, leadership skills, and staff support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic surveying, 2 in communication skills, 3 in maintenance management, and 3 in personnel management (7/87).

AR-1408-0146

Armor Officer Advanced

Course Number: 2-17-C22.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 26 weeks (1112 hours).

Exhibit Dates: 3/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to command armor or other combined arms units at company level and to serve in staff positions primarily at battalion and brigade level.

Instruction: Instruction includes lectures and practical exercises in military forces, weapons, principle staff and support functions, leadership, effective communication, tactical and field communications, automotive preventive maintenance, maintenance management, armor logistics, artillery operations, amphibious operations, map and air photograph reading and psychological warfare. Instruction includes motivation and the systems approach to organization. Foreign students also receive instruction in English language and communication skills.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in automotive maintenance management, 6 in military science (advanced), 2 in human relations, and 2 in communication skills (advanced) (7/87).

AR-1408-0147

Armor Pre-Command Branch Phase

Course Number: 2G-F24.

Location: Armor School, Ft. Knox, KY.

Length: *Version 1:* 2 weeks (126–127 hours). *Version 2:* 3 weeks (196 hours).

Exhibit Dates: *Version 1:* 1/88–Present. *Version 2:* 8/85–12/87.

Learning Outcomes: Upon completion of the course the student will be able to perform all officer duties in training, management, communications and demonstrate knowledge of maintenance, procedures, protective measures, and movement techniques of specific equipment.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Includes lectures in preventive maintenance, command and staffing, weapons armor training, maintenance management and familiarization with operation of a land vehicle.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance (land vehicles) operation (7/87); in the graduate degree category, 2 semester hours in military science and 3 in personnel management (7/87).

AR-1408-0148

Sergeants Major

Course Number: 1-250-C5.

Location: Sergeants Major Academy, Ft. Bliss, TX.

Length: 22 weeks (680–699 hours).

Exhibit Dates: *Version 1:* 1/88–Present. *Version 2:* 5/85–12/87.

Learning Outcomes: Upon completion of the course, the student will be able to provide leadership and management to the upper-level national defense structure.

Instruction: Includes lectures, demonstrations, and performance exercises in planning, group interaction, human relations, leadership, idea synthesis, oral and written communication, public speaking, listening, community understanding, history, resource management, military training, geopolitics, international studies, ideologies, US foreign policy, conflict resolution, ethics, human motivation, small group communication, leadership theories and management skills.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision, 3 in group dynamics, and 3 in communication; in the upper-division baccalaureate category, 4 semester hours in military science, 4 in international relations, 1 in human resource management and 1 in ethics (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in group dynamics and 3 in fundamentals of communication; in the upper-division baccalaureate category, 3 semester hours in military science, 5 in international relations, 1 in ethics and 3 in human resource management (9/87).

AR-1408-0149

Sergeants Major Corresponding Studies

(Sergeants Major Correspondence Studies)@

Course Number: 1-250-C5 (ACCP).

Location: Sergeants Major Academy, Ft. Bliss, TX.

Length: 104 weeks maximum (last two weeks in residence).

Exhibit Dates: *Version 1:* 7/90–Present. *Version 2:* 7/89–6/90. *Version 3:* 4/84–6/89.

Learning Outcomes: Upon completion of the course, the student will be able to provide leadership and management to the upper-level national defense structure.

Instruction: Primarily correspondence studies, plus two weeks residence training in planning, group interaction, human relations, oral and written communication skills, effective listening, history, resource management, military training, international studies, US foreign policy, conflicts, resolution, human motivation, small group dynamics, leadership theories and management skills.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communication, 2 in group dynamics (4/90); in the upper-division baccalaureate category, 4 semester hours in military science, 3 in international relations, and 1 in human resources management (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in group dynamics (4/90); in the upper-division baccalaureate category, 4 semester hours in military science, 3 in international relations, and 1 in human resource management (4/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in group dynamics and 3 in fundamentals of communication; in the upper-division baccalaureate category, 3 semester hours in military science, 5 in international relations, 1 in ethics and 3 in human resource management (9/87).

AR-1408-0150

Senior Officer Preventive Logistics

(Senior Officer Logistics Management)

Course Number: 8A-F23.

Location: Armor School, Ft. Knox,Ky.

Length: *Version 1:* 2 weeks (Track 1, 80 hours; Track 2, 38 hours). *Version 2:* 2 weeks (69–74 hours).

Exhibit Dates: *Version 1:* 11/86–Present. *Version 2:* 7/85–10/86.

Learning Outcomes: *Version 1:* Upon completion of Track 1 the student will be able to perform management functions in the area of preventative logistics with emphasis on supply, transportation, maintenance, procedures and Army concepts, publications, and records. Upon completion of Track 2, the student will be able to perform management functions in the area of preventative logistics with an emphasis on supply. *Version 2:* Upon completion of the course the student will be able to perform managment functions in the area of preventive logistics, with an emphasis on supply, transportation, and maintenance.

Instruction: *Version 1:* Track 1 in conducted through lectures, group discussions, and practical exercises including topics in policy review, records, accountability, and supply, transportation, maintenance procedures and inspection techniques and is cond conducted for Army officer; Track 2 is conducted through group discussions and practical exercises including topics in supply, transportation, maintenance procedures, and inspection techniques. This track is for Marine Corps, Air Force, Navy, and allied officers only. *Version 2:* This course includes preventative logistics, supply, transportation, and maintenance inspection and procedures.

Credit Recommendation: *Version 1:* In the graduate degree category, for students completing Track 1, 3 semester hours in management systems; for students completing Track 2, 2 semester hours in management systems (7/87). *Version 2:* In the graduate degree category, 3 semester hours in management systems (7/87).

AR-1408-0152

Ordnance Officer Missile/Munitions Additional Specialty (ADSPEC)

Course Number: 4D-91C/D.

Location: Ordnance Missile and Munitions School, Redstone Arsenal, AL.

Length: 11–12 weeks (408 hours).

Exhibit Dates: 1/88–9/90.

Learning Outcomes: Upon completion of the course the student will be able to exhibit leadership techniques for logistics, warehousing, and storage of munitions and supplies; organize subjects for briefings, conferences and departmental meetings; organize and design a conference and lead the conference utilizing competent management techniques.

Instruction: Lectures, role playing, discussions, films and testing on materiel management, leadership, administration, and personnel. For this course before 1/88 see AR-1408-0124.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in materiel management (4/88).

Related Occupation Codes: 91C.

AR-1408-0153

Ordnance Officer Advanced Missile/Munitions Materiel Management

Course Number: 4-9-C22-91C/D; 4-9-C22-91C/DD.

Location: Ordnance Missile and Munitions School, Redstone Arsenal, AL.

Length: 20 weeks (722 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 1/88–8/89.

Learning Outcomes: Upon completion of the course the student will be able to exhibit leadership techniques for logistics, warehousing, and storage of munitions and supplies; organize subjects for briefings, conferences and departmental meetings; organize and design a conference and lead the conference utilizing competent management techniques; manage materiel and munitions in mobilization as well as peacetime.

Instruction: Lectures, role playing, discussions, films and testing on materiel management, leadership, administration, and personnel. For this course before 1/88 see AR-1408-0124. Also includes US/Soviet army organization, Warsaw Pact, ammunition issue and disposal, nuclear weapons, and missile support systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in materiel management (4/88).

Related Occupation Codes: 91C.

AR-1408-0154

Medical Logistics Management Reserve Component

Course Number: 8B-F20(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (78 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply concepts and tools of management logistics as related to Army hospitals and field medical units.

Instruction: Lectures and practical exercises in medical materials management, planning, programming, budgeting, basic computer concepts, and logistics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (4/88).

AR-1408-0155

Quartermaster Officer Advanced

Course Number: 8-10-C22.

Location: Quartermaster School, Ft. Lee, VA.

Length: 20 weeks (709 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the logistics, military justice, administrative, and organizational functions in materiel and services, subsistence, and petroleum units.

Instruction: Lectures, conferences, practical exercises, and examinations in general management subjects including organizational supply, maintenance management, financial and acquisition management, materiel management, transportation, and automated systems and systems management. Other topics include military justice, military history, graves registration and combined arms. The course includes petroleum, materiel, and food tracks which are completed by all students.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management service/quantitative methods (10/88); in the upper-division baccalaureate category, 3 semester hours in logistics management (10/88).

AR-1408-0156

Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)

Course Number: 8-10-C32-921A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10 weeks (360 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand many general military subjects and will have sufficient knowledge in all phases of airdrops to supervise the technical aspects of an airdrop operation to include packing, rigging, maintenance, and record keeping.

Instruction: Includes classroom lectures and practical exercises in supervision, communication skills, general military subjects, and packing, rigging, planning and supervising an airdrop operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in advanced cargo rigging (10/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications and 1 in principles of supervision (10/88).

AR-1408-0157

Quartermaster Senior Warrant Officer

Course Number: 8-10-C32-922A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11 weeks (396 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to give an effective speech, know the operation of microcomputer applications, understand organizational behavioral relationships, understand principles of government financial accounting (stock funds), and be able to manage the food service function of a large organization.

Instruction: Lectures, class discussions, and practical exercises in effective speaking, microcomputer applications, organizational behavior (leadership), government financial accounting (including stock funds), food service management, including nutrition.

Credit Recommendation: In the vocational certificate category, 1 semester hour in analysis of food service operations (10/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications, 2 in business communications, 1 in organizational behavior, 1 in governmental financial accounting (10/88).

AR-1408-0158

Repair Parts Technician Senior Warrant Officer

Course Number: 8-10-C32-920B.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11 weeks (397 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand many general military subjects and have sufficient knowledge in all phases of logistics management including inventory control and reporting to supervise the technical aspects of such an operation.

Instruction: Primary classroom lectures with some practical exercises to prepare the student to function as a mid-level manager of a supply operation involving stock control, receipt and issue; and appropriate systems, automated and manual to monitor the operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in business communications, 1 in principles of supervision, 3 in material management and/or logistics management (10/88).

AR-1408-0159

Command Sergeants Major

Course Number: CSM 206.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 1 week (40–75 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a Command Sergeant Major or a Sergeant Major; interpret regulations in the context of existing policies; assist others in the management of drug and alcohol abuse programs; make judgments relating to family advocacy programs, evaluation of enlisted personnel, equal opportunity considerations, and the noncommissioned officer education system; demonstrate leadership through advising and consultation on matters of mission, policies, and available support services.

Instruction: A sequence of guest lecturer presentations, seminars, and conferences to provide an orientation to the role and functions of the Command Sergeant Major or Sergeant Major. Topics include military justice, drug and alcohol abuse prevention, personnel matters, support services, maintenance management, and training management. Designed for newly assigned or designated Sergeants Major, the orientation program consists of briefings from guest speakers and from instructors.

Credit Recommendation: Credit is not recommended because the nature of the program is a broad-based orientation and briefing (10/88).

AR-1408-0160

Company Commander and First Sergeant
(Company Commander)

Course Number: CC/FS25; CC205/FS202; CC205.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 1–2 weeks (46–86 hours).

Exhibit Dates: 4/78–Present.

Learning Outcomes: Upon completion of the course the student will be able to function as a company commander or first sergeant; make command/leadership decisions based on subjects treated in the course; establish programs in areas of maintenance management, administration, training management, and supply management; provide guidance in matters of pay and allowances, military law, personnel reliability and safety; implement equal opportunities policies.

Instruction: Conference classes and guest speakers in selected military subjects, particularly in those programs of interest to commanders and leaders. Topics of concentration include maintenance management, training management, military law, safety, personnel and administration matters, and equal opportunity policies.

Credit Recommendation: Credit is not recommended because the course is a broad-based orientation and briefing (10/88).

AR-1408-0162

Special Operations Technician Senior Warrant Officer

Course Number: 2-33-C32.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 9–10 weeks (331 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform common tasks and special operation-specific tasks; demonstrate leadership and management in Special Operations Forces units and on Army and joint staffs.

Instruction: Lectures, discussions, and written projects in warrant officer common subjects (communication arts, military history, leadership and ethics, program management, force integration, employment and tactics of U.S. forces, logistics, and selected general subjects) and advanced special operations subjects (low-intensity conflicts, civil affairs, psychological operations, threat, and S-2/S-3 duties).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management, 1 in psychology and 1 in leadership studies (12/88).

AR-1408-0163

Advanced Special Operations Techniques

Course Number: 2E-F141/011-F27.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: *Version 1:* 12 weeks (738 hours). *Version 2:* 13 weeks (798 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 7/88–9/89.

Learning Outcomes: Upon completion of the course the student will be able to employ advanced skills and techniques associated with defensive source nets in support of unconventional warfare, foreign internal defense, terrorism counteraction and strategic reconnaissance.

Instruction: Includes lectures, demonstrations, and performance exercises in instructional techniques necessary to train U.S. and foreign personnel in advanced special operations intelligence activities, the tactics and techniques employed in advanced areas of intelligence as it relates to special operations mission with a strong emphasis on practical application in both rural and urban environments.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management and 3 in principles of supervision (12/88).

AR-1408-0164

ADMINISTRATIVE SPECIALIST BASIC NONCOMMISSIONED OFFICER (NCO) (71L30)

Course Number: 510-71L30.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 3-4 weeks (129 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to lead a squad or section, to train others to fight and survive on a battlefield, and to develop, maintain, and supervise maintenance activities and product accountability.

Instruction: Topics include leadership subjects, personal and performance counseling, training, document preparation, and verification. A common core is included.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (12/88).

Related Occupation Codes: 71L.

AR-1408-0165

PLANNING, PROGRAMMING, BUDGETING AND EXECUTION SYSTEMS

Course Number: 7D-45A/B.

Location: Finance School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 1–2 weeks (61–65 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to explain the process of funds flow, discuss control functions, identify approval levels, describe the procurement appropriation process, and examine the program and budget cycle for security assistance.

Instruction: Methods of instruction include lectures, class discussions, and in-class exercises. Topics covered include budget planning process, funds acquisition, cost analysis, internal controls, organization efficiency, and audit compliance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in budgeting theory (12/88).

AR-1408-0166

FINANCE OFFICER BASIC

Course Number: 7-14-C20-44A.

Location: Finance School, Soldier Support Institute, Ft. Ben Harrison, IN.

Length: 15–16 weeks (567 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise and lead, effectively communicate, and perform supervisory accounting functions.

Instruction: Lectures and structured exercises replicating practical situations in supervision, leadership, and oral and written communications. Financial aspects include budgeting, disbursements, documentation and fund accounting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision, 1 as a communications elective, and 2 in governmental accounting (12/88).

Related Occupation Codes: 44A.

AR-1408-0167

ADMINISTRATIVE SENIOR WARRANT OFFICER ADVANCED
(Administrative Warrant Officer Advanced)

Course Number: 7-12-C32.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 5-6 weeks (202 hours). *Version 2:* 10 weeks (352 hours).

Exhibit Dates: *Version 1:* 6/89–Present. *Version 2:* 5/85–5/89.

Learning Outcomes: Upon completion of the course the student will be able to manage a medium-sized organization including personnel, supply data processing, and maintenance functions.

Instruction: Course includes classroom instruction and practical exercises in leadership, personnel management, computer systems, supply management, maintenance management, and effective communications.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to computers and 3 in principles of supervision (12/88).

Related Occupation Codes: C32.

AR-1408-0168

ADJUTANT GENERAL OFFICER ADVANCED

Course Number: 7-12-C22.

Location: Adjutant General School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 20 weeks (710–756 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to manage the human resources function of a large organization.

Instruction: Classroom, practical exercises, and self-guided instruction in business communications, safety programs, training programs, leadership, motivation, performance management, classification systems, evaluation techniques, goal setting, budgeting, fund accounting, PPB systems, ethics, and American military history.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in business communications and 1 in American military history (1/90); in the upper-division baccalaureate category, 3 semester hours in principles of supervision, 3 in human resource management, and 1 in governmental accounting (1/90).

Related Occupation Codes: C22.

AR-1408-0169

ADMINISTRATIVE SPECIALIST ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 510-71L40.

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 7 weeks (251–252 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise and lead units of up to 400 personnel.

Instruction: Instruction includes lectures and practical exercises in a core, including written and oral communication, management principles, unit training, and combat survival.

Credit Recommendation: Credit is recommended for the common core only. See AR-1404-0035 (12/88).

Related Occupation Codes: 71L.

AR-1408-0170

TARGET ACQUISITION/SURVEILLANCE RADAR REPAIRER BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 104-39C30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6 weeks (218 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform technical assistance, maintenance management, and shop operation procedures in a communication electronics facility.

Instruction: Training in the areas of supervisory functions for proper administration and operation of a communication electronics repair facility including maintenance management, supply procedures and quality control procedures, including diagnostic examination and awareness of future trends.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in material management (6/89); for credit for the common core, see exhibit AR-1406-0090.

AR-1408-0171

UNIT ADMINISTRATION

Course Number: 100.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (102 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare and administer financial procedures; define the organizational structure and chain of command; understand and track personnel management systems from selection through education, training, assignment, evaluation, and promotion; administer and process payroll systems including pay entitlements and incentive programs; apply the retention programs, including reenlistment, service obligations, participation requirements, and enforcement procedures.

Instruction: Lecture, discussion follow a pre-knowledge survey, a comprehensive performance examination is administered for each major topical unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in office administration or records and information management (7/89).

AR-1408-0172

UNIT MANAGER

Course Number: 400.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (85 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise civilian employees, write or change job descriptions for civilian employees; administer alcohol and drug abuse programs; manage work scheduling and leave administration including overtime and compensitory time within the Fair Labor Standards Act; recruit, interview and select personnel within Equal Employment Opportunity guidelines and write performance standards to be used in performance appraisals; manage personnel utilizing proper time management procedures, group decision making processes, stress management techniques and problems solving techniques; use automated systems applicable to unit management, determine the validity of data recorded for the units record of reserve training; and oversee training administrations and entitlements; utilize AGR (Army Guard and Reserve) assets; utilize FTUS (Fulltime Unit Status) model; fill vacancies and generate job descriptions for AGR soldiers; evaluate personnel; utilize the promotion, assignment/reassignment; cover development policies applicable to the AGR force and utilize the administrative and discripinary options; record and use proper fund control in budget expenditures and utilize the Requirements Based Budgeting Concept as applied to unit management, force integration and manpower needs.

Instruction: Reading, lecture and discussion on role of the supervisor of civilian and military personnel, job classifications work scheduling, leave administration, recruitment and selection of personnel, discipline administration, grievences and recognition of employees, Equal Employment Opportunity Standards, safety and occupational health, performance appraisal systems, resolution of work place conflicts, interpersonal relationships, utilization of motivational techniques and utilization of AGR assets; practical exercises and case studies in utilization of AGR assets, group decision making of problematic situations, leadership styles and task involvement of problem situations, evaluation plans and alternatives, validity of units record of reserve training, applicability of automated systems to unit management, readiness, grievences, employee recognition, descipline, Department of the Army guidelines and negotiated union contracts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/89).

AR-1408-0173

Unit Records Administration

Course Number: 1200.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (62 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish and maintain the various records required by a unit in the U.S. Army.

Instruction: Classroom lectures and discussions, workbook exercises, quizzes, final examination; topics covered: application of the Freedom of Information Act and Privacy Act; establishment of a records system for a U.S. army unit; health and dental records; automated personnel records; updates to the automated personnel data base; authorization documents; personnel management activities accounted for by by the automated personnel system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in records management (7/89).

AR-1408-0174

Field Artillery Officer Advanced, Reserve Component

Course Number: 2-6-C26.

Location: Field Artillery School, Ft. Sill, OK.

Length: 12 weeks (481 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a fire support officer, battery commander, and field artillery staff officer.

Instruction: Lectures, discussions, and practical exercises on battle doctrine, communications, tactics, fire support, targeting, weapons, and security. Topics include leadership, administration, report writing, procurement, supply accounting, map reading, and training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 2 in personnel supervision, and 1 in technical writing (6/89).

AR-1408-0176

1. Collection Management/Tencaps Operations Assignment Specific Module
2. Collection Management Assignment Specific Module

Course Number: *Version 1:* 3A-S13E/ASI9C/243-ASIT4. *Version 2:* 3A-F55/233-F16.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 3 weeks (116 hours). *Version 2:* 2 weeks (76 hours).

Exhibit Dates: *Version 1:* 1/90–Present. *Version 2:* 10/88–12/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will perform intelligence collection duties and manage a tactical exploitation of national capabilities operation. *Version 2:* Upon completion of the course the student will be able to perform collection intelligence duties.

Instruction: *Version 1:* Lectures and practical exercises on the analysis of all sources of intelligence collection requirements, reconnaissance, and surveillance; determining the availability and capability of collection resources; implementing collection procedures; evaluating intelligence reports; updating collection plans to include space intelligence collection activities. *Version 2:* Classroom and practical exercises in the planning, management, and analysis of all sources of intelligence collection requirements, reconnaissance, and surveillance; determining availablity and capability of collection resources; implementing collection procedures; and evaluating intelligence reports.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in planning and operations management (6/90). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in planning and operations management (6/90).

AR-1408-0177

Military Intelligence Officer Basic

Course Number: 3-30-C20-35D.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 23–24 weeks (915 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will have the skills in leadership, personnel management, security, and communication to command a military intelligence platoon.

Instruction: Instruction includes lectures and practical exercises in writing effectiveness, organization and planning, leadership and personnel management, maintenance, security, supply, signal interpretation, signal theory, Soviet, North Korean, and Warsaw Pact capabilities, and NATO capabilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of physical security and 1 in business writing; in the upper-division baccalaureate category, 1 in political science (areas of geopolitical struggle with emphasis on East/West Europe), 3 in human resource management, and 3 in principles of organization and management (6/90).

AR-1408-0180

Chaplain Officer Advanced Reserve Component

Course Number: 5-16-C23.

Location: Chaplain Center and School, Ft. Monmouth, NJ.

Length: 18 weeks (681 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform administrative and ministerial duties in a large (up to 500 persons) military organization; duties include pastoral counseling, resolution of ethical and theological issues, fiscal management, and chaplain's tactical combat functions.

Instruction: Topics include leadership, ethics, management, pastoral counseling, fiscal management, combat and tactical functions, appropriated and non-appropriated funds, marriage and the family, theological issues, and homily preparation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in ethics and theological issues and 3 in organizational management (6/90); in the graduate degree category, 3 semester hours in homiletics and 3 in marriage and family counseling (6/90).

AR-1408-0182

Administrative Officer

Course Number: PEC-P-A03.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform, and supervise others in the performance of basic administration and personnel actions with an emphasis on the review of military personnel forms.

Instruction: Lecture and in class exercises designed to prepare the student to supervise the preparation of forms addressing administrative, financial, and information management actions, as well as retention and fitness concerns.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in administrative management (7/90).

AR-1408-0183

National Guard (ARNG) Recruiting and Rentention Detachment Commander

Course Number: FC-F21-ARNG.

Location: Professional Education Center, Cp Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (77 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to engage in market evaluation and need satisfaction selling, develop a sales team, and conduct recruiter training programs. Course provides the student with technical expertise and interactive skills which effectively direct and influence the performance of individual recruiters.

Instruction: Lecture and in-class exercises in areas of time management, team building, human and material resource management, sales management, and personality measurement techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in general management (7/90).

AR-1408-0184

Guidance Counselor

Course Number: 501 A SIV7-ARNG.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (75 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide guidance to personnel on retention oppertunities.

Instruction: Structural exercises, lecture, discussion are the instructural stratagies. Content topics are recruitment, retention, processing information related to personnel.

Credit Recommendation: Credit is not recommended because of the militar-specific nature of the course (7/90).

AR-1408-0185

National Guard (ARNG) Recruiting Field Sales Manager

Course Number: 501-F31-ARNG.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to effectively use and develop skills covering such topics as: time management, sales team development, interpersonel management skills, identify and remedy causes of stress, use self-awareness studies (Meyer-Briggs) to improve communication and motivational strengths and techniques.

Instruction: This course is performance-based with many exercises, usually performed on an individual basis. Extensive use of materials developed privately as well as in the ARNG. Evaluation of exercises and material occurs throughout the course.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in sales management (7/90).

AR-1409-0001

Clerk-Typist
(Clerk Typist)
(Typing and Clerical Procedures—WAC)
(Clerical Procedures and Typing—WAC)

Course Number: 510-71B30; 510-71B20; 510-71B20B; 35-E-3.

Location: Training Center, Ft. Knox, KY; Training Center, Ft. Leonard Wood, MO; Training Center, Ft. Dix, NJ; Training Center, Ft. Jackson, SC; Training Center, Ft. Ord, CA; Training Center, Ft. Polk, LA; Training Center, Ft. McClellan, AL.

Length: Self-paced 4–8 weeks (84–287 hours).

Exhibit Dates: 9/55–1/88.

Objectives: To train enlisted personnel in the performance of administrative and clerical duties and to increase their typing proficiency to 30 w.p.m.

Instruction: Lectures and practical exercises in typing, clerical procedures, and English grammar.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in clerical practice (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in clerical practice (3/74).

Related Occupation Codes: 70A; 71B.

AR-1409-0002

Basic Army Administration

Course Number: None.

Location: Army Training Centers, Continental U.S.

Length: 8 weeks (280 hours).

Exhibit Dates: 9/62–12/68.

Objectives: To train enlisted personnel as clerk typists.

Instruction: Lectures and practical application of typing, character guidance, troop information, counterinsurgency training, military correspondence, and duplicating machine operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office procedures, 3 in typing (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in typing (3/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

AR-1409-0003

Basic Morse Code

Course Number: 231-F2.

Location: Security Agency School, Ft. Devens, MA.

Length: 13 weeks (456 hours).

Exhibit Dates: 5/70–9/86.

Objectives: To train enlisted personnel in the manual operation of international Morse code typewriters.

Instruction: Lectures and practical exercises in administrative processing, security briefing, touch typing, international Morse code receiving, magnetic tape-recorder-reproducer, cut numbers receiving, transmission, modulation, and cryptanalysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing (3/74).

Related Occupation Codes: 05D; 05H; 05K.

AR-1409-0004

Proxy Apprenticeship Training

Course Number: 231-F4.

Location: Security Agency School, Ft. Devens, MA.

Length: 7 weeks (275 hours).

Exhibit Dates: 12/67–9/86.

Objectives: To qualify personnel as proxy apprentices.

Instruction: Lectures and practical exercises in proxy apprenticeship, including preoperation functions, operator maintenance, review of intercept position tasking, search for and identification of designated signals, receiver operation, identification of activity, reaction, postoperative operator maintenance, position update, and performance of postoperational activities.

Credit Recommendation: In the vocational certificate category, 1 semester hour in typing (6/74).

Related Occupation Codes: 05H.

AR-1409-0005

Radio Teletypewriter Operator (Non Morse)

Course Number: 201-05F20.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: 10 weeks (353–359 hours).

Exhibit Dates: 11/72–12/77.

Objectives: To train enlisted personnel to install, operate, and maintain field radio teletypewriter equipment.

Instruction: Lectures and practical exercises in the operation of a radio teletypewriter. Course includes instruction in general communications, keyboard operations, radio telephone and teletypewriter procedures, and cryptographic devices.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (6/74).

Related Occupation Codes: 05F.

AR-1409-0006

Communication Center Specialist
(Teletype Operation)
(Teletypewriter Operation)

Course Number: 580-72B20; 580-72B10; 11-R-723.1; 11-E-25.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 8–12 weeks (280–437 hours).

Exhibit Dates: 1/54–12/74.

Objectives: To train enlisted personnel to operate tactical communication centers and to use cryptographic systems and equipment.

Instruction: Lectures and practical exercises in tactical communication center operations, and in the use of crytographic systems and equipment, including teletypewriting, message handling procedures, communications accounting, cryptographic security and procedures, tape relay procedures, AUTODIN and COMSEC equipment, and basic communications and communications center operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74).

Related Occupation Codes: 72B.

AR-1409-0007

Morse Data Preparation Operator's Training (AN/GGC-15)

Course Number: 231-F5.

Location: Security Agency School, Ft. Devens, MA.

Length: 3 weeks (105 hours).

Exhibit Dates: 3/64–9/86.

Objectives: To train enlisted personnel in the interception and recording of manual Morse signals under critical conditions.

Instruction: Lectures and practical exercises in the interpretation of Morse data. Course includes preoperation readiness, identification of and search for Morse signals; recording; scanning; informing designated recipients, postoperation field update; maintenance and operator handoff; and essential typing training.

Credit Recommendation: In the vocational certificate category, 1 semester hour in typewriting (6/74).

Related Occupation Codes: 05H.

AR-1409-0008

1. Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor
   (Electronic Warfare (EW) Signal Intelligence SIGINT) Morse Collector)
   (Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor, Morse)
2. Electronic Warfare (EW) and Cryptologic Interceptor—Morse

Course Number: 231-05H10.

Location: Intelligence School, Ft. Devens, MA.

Length: 23-24 weeks (678-686 hours).

Exhibit Dates: *Version 1:* 4/78-9/85. *Version 2:* 10/76-3/78.

Objectives: To train enlisted personnel in the procedures and techniques of copying manual Morse code signals.

Instruction: *Version 1:* Topics include Morse code, touch typing, mission awareness,message format, and assorted operational information. After 10/85, see AR-1409-0012. *Version 2:* Topics include Morse code, touch typing, mission awareness, message format, and assorted operational information concerning receivers, antennas, and direction-finding equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic typing (11/86). *Version 2:* In the vocational certificate category, 2 semester hours in basic typing (9/77).

Related Occupation Codes: 05H.

AR-1409-0009

1. Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Identifier/Locator
2. Electronic Warfare (EW) Cryptologic Special Identification Techniques Operator

Course Number: *All Versions:* 231-05D10.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 25-28 weeks (823-861 hours). *Version 2:* 31 weeks (972 hours).

Exhibit Dates: *Version 1:* 4/78-2/84. *Version 2:* 10/74-3/78.

Objectives: To train enlisted personnel to become special-identification-techniques operators.

Instruction: *Version 1:* Instruction in Morse code receiving and sending, message format, installing, operating, and troubleshooting radio-teletype, military science, intelligence and security, and basic typing. After 2/84, see AR-1409-0011. *Version 2:* Instruction in Morse code receiving and sending (20 groups/minute), message format, military science, intelligence and security, and basic typing (20 words/minute).

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic typing (2/84). *Version 2:* In the vocational certificate category, 2 semester hours in basic typing (9/77).

Releted Occupation Codes: 05D.

AR-1409-0011

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator

Course Number: 231-05D10.

Location: Intelligence School, Ft. Devens, MA.

Length: 20-28 weeks (717-859 hours).

Exhibit Dates: 2/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to send and receive international Morse code, install, operate and troubleshoot radio teletype equipment and type at 20 words per minute.

Instruction: Instruction includes lecture, computer aided instruction based performance exercises in code copying and transcription, typing proficiency, deployment, installation, and operation of a direction finding system, and proper equipment inspection and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in morse code (12/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (12/88.

AR-1409-0012

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor

Course Number: 231-05H10.

Location: Intelligence School, Ft. Devens, MA.

Length: 21-23 weeks (678-829 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to copy Morse code, detect, acquire, identify, and record foreign communications, type 25 words per minute, do basic word processing, evaluate incoming signals.

Instruction: Instruction includes lecture, perfromance exercises to test typing proficiency, copying Morse code, ability to operate equipment and procedures required to generate required data.

Credit Recommendation: In the vocational certificate category, 3 semester hours in Morse code (1/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in beginning typing (1/88).

AR-1511-0001

Foreign Area Officer Reserve Component

Course Number: 7B-F6.

Location: Ft. Bragg, NC. Institute for Military Assistance, Ft. Bragg, NC.

Length: Total of 4 weeks (117-133 hours).

Exhibit Dates: 10/77-12/84.

Objectives: To prepare reserve officers for foreign area officer assignments.

Instruction: For this course after 12/84 see AR-1511-0015. Lectures and practical exercises in area orientation methodology; political development; public administration, comparative government; internal conflict theory and practice; political theory and methodology and comparative foreign policy. Note that Phases I and III are nonresident, and the credit herein recommended is for resident Phases II and IV, each of which is two weeks in length.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in international relations (2/80).

AR-1511-0002

Civil Affairs
(Civil Affairs Officer)

Course Number: *Version 1:* 5D-8105. *Version 2:* 5D-8105; 5D-2920; 41-G-F5.

Location: *Version 1:* Institute for Military Assistance, Ft. Bragg, NC. *Version 2:* Civil Affairs School, Ft. Gordon, GA.

Length: *Version 1:* 7 weeks (361-377 hours). *Version 2:* 8 weeks (282-308 hours).

Exhibit Dates: *Version 1:* 3/73-6/88. *Version 2:* 7/62-2/73.

Objectives: To train commissioned officers as civil affairs unit commanders and staff officers.

Instruction: For this course after 6/88 see AR-1511-0016. *All Versions:* Lectures and practical exercises in civil affairs principles, policies, activities, organization, and procedures for the purpose of operational planning and execution of the civil affairs mission in support of cold, limited, and general war requirements, including civil affairs support of tactical operations and internal defense, and internal development at lower, intermediate, and higher echelons; and civil affairs operations in support of national strategic objectives. *Version 2:* Topics include civil affairs area study in support of U.S. internal defense/development objectives.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in public administration or political science (7/74); in the upper-division baccalaureate category, 6 semester hours in general social science—political science, public administration, economics and sociology (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in public administration or political science (7/74); in the upper-division baccalaureate category, 3 semester hours in military government (12/68).

AR-1511-0003

Foreign Area Officer
(Military Assistance Officer Command and Staff)

Course Number: 7B-F3.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: *Version 1:* 21-22 weeks (741-778 hours). *Version 2:* 20-22 weeks (662-685 hours).

Exhibit Dates: *Version 1:* 1/80-5/83. *Version 2:* 5/72-12/79.

Objectives: To train officers in the objectives, concepts, procedures, and techniques applicable to security assistance, stability operations, and politico-military activities throughout the conflict spectrum in the international field.

Instruction: For this course after 5/83 see AR-1511-0017. Lectures, seminars, and practical exercises in objectives, concepts, procedures, and techniques applicable to security assistance, stability operations, and politico-military activities throughout the conflict spectrum in the international field, divided into 5 course blocks as follows: (1) Conflict and Social Change, including physical geography and population; social change and personality; culture and institutions; theories of growth and development; industrialization; area orientations for Sub-Saharan Africa, Asia, Latin America, and the Middle East; internal conflict; comparative communism; and political development and legal traditions. (2) National Planning Considerations, including developmental agriculture; strategies; human resources and economic development; community development; development planning and administration; participation in the developmental process by the military, host countries, and organized labor; intelligence and concepts of internal defense; subversive insurgent methodology; population protection and resources management; military estimations for defense; counterguerrilla tactical operations; and analysis of U.S. presence in selected countries during stability operations.

(3) Security Assistance and Foreign Policy, including international law; security and intelligence agencies; special forces operations; Indochina case study; status of forces; cultural considerations and communication; press relationships; law in security assistance; assistance cycles and planning; fundamentals of programming; cooperative logistics; assistance from service branches; humanitarian assistance operations; U.S. involvement in international organizations; and Chinese People's Republic and Soviet foreign policy. (4) Civil Military Operations, including PSYOP planning, doctrine, and resources; civil affairs; contingency planning; and civil war military operations applications. (5) Specialized Subjects, including security and foreign policy perspectives; ideology conflicts; progress in the nonindustrialized world; modernization; development planning; policy analysis and resource allocation; congressional perspectives on U.S. foreign policy; urban insurgency movements and countermeasures; relation of various departments and agencies to foreign policy; international law in policy decisions; and national security assistance and the media. NOTE: Students select one of the following electives: graduate college subjects, in-house subjects, independent research, or language.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in international relations, 4 in developmental economics, 6 in political science, 6 in social science, 4 in area studies (12/88); in the graduate degree category, 6 semester hours to be selected from the following areas of study: international relations (3 semester hours), developmental economics (3 semester hours), political science (3 semester hours), or social science (3 semester hours) (12/88). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in international relations, 4 in developmental economics, 6 in political science, 6 in interdisciplinary social science (8/74); in the graduate degree category, a total of 6 semester hours to be selected from the following areas of study: international relations (3 semester hours), developmental economics (3 semester hours), political science (3 semester hours), and interdisciplinary social science (3 semester hours) (8/74). Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future goals and regulations of the admitting institution on transfer credit.

AR-1511-0004

Army War College Nonresident Program

Course Number: None.

Location: Army War College, Carlisle Barracks, PA.

Length: 104 weeks.

Exhibit Dates: 7/73–1/88.

Objectives: To train officers in the social sciences (with emphasis on international relations), in international policy and major world areas, and in military history, strategy, and management.

Instruction: Seminars and individualized reading and student research in the social sciences (with emphasis on international relations), in international policy and major world areas, and in military history, strategy, and management. The program spans two years, with a two-week seminar at the War College at the end of each year of correspondence study. The first year covers the domestic base and the international frame of reference of U.S. politico-military relationships and the cultural, political, and strategic factors which have significance for U.S. politico-military policy, including economics of national security, the bases of Soviet power and its international applications, and the Americas, the People's Republic of China, the states of Asia, and the Pacific area. The second year includes the history and concepts of military strategy and the application of such concepts to present and future problems of military policy and planning; management principles and theory, with applications to defense management; and extensive research on proposed topics.

Credit Recommendation: In the upper-division baccalaureate category, for the first year course work, 15 semester hours in multidisciplinary social science or international relations; for the second year course work, 3 semester hours in management, 9 in advanced military history (8/74); in the graduate degree category, for the first year course work, 9 semester hours in multidisciplinary social science or international relations; for the second year course work, 3 semester hours in management, 6 in advanced military history; for the research paper, 0–3 semester hours based upon the admitting institution's review of the applicant's paper (8/74). It is recommended that the receiving institution delay awarding credit until the student has successfully completed one semester of graduate work. Credit granted for thesis should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. No credit, undergraduate or graduate, should be given if the entire course is not successfully completed.

AR-1511-0005

U.S. Army War College

Course Number: None.

Location: Army War College, Carlisle Barracks, PA.

Length: *Version 1:* 45–46 weeks. *Version 2:* 45–46 weeks. *Version 3:* 45 weeks. *Version 4:* 42–45 weeks.

Exhibit Dates: *Version 1:* 8/75–1/88. *Version 2:* 8/68–7/75. *Version 3:* 8/67–7/68. *Version 4:* 5/57–7/67.

Objectives: To train officers in the international and domestic factors influencing national security and the achievement of national objectives, and in military contributions and strategy development.

Instruction: Lectures, seminars, readings, and student research in the international and domestic factors influencing national security and the achievement of national objectives, and in military contributions and strategy development.

Credit Recommendation: *Version 1:* In the graduate degree category, for the four courses of the common overview, 6 semester hours in American political, social, and economic issues, 6 in advanced military history and strategy, 6 in American foreign and military policy, 6 in public and business administration and management; 2 semester hours for each elective course completed based on the receiving institution's review of the student's course materials; 3 semester hours for participation in the oral history project; 0-6 semester hours for the research project based on the receiving institution's review of the project paper (1/76). Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 30 semester hours, with a suggested division as follows: 9 semester hours in U.S. government, 3 in international relations, 9 in U.S. foreign relations, 3 in communist states, 3 in preseminar, 3 in management (8/74); in the graduate degree category, 3–12 semester hours in international or public affairs, with the maximum credit to be apportioned as follows: 6 semester hours for the Core Curriculum plus the Military Strategy and Command and Management seminars, 3 in research and thesis; 3 for any combination of two of the following elective courses: Political Systems and National Security (government or political science curriculum), Economics of National Security (economics curriculum), Social Factors and National Security (sociology curriculum), International Law and National Security (international law curriculum), Management Information Systems (business curriculum), Analytical Techniques of Management (business curriculum), and Resource Management and Control (business curriculum) (8/74). Credit granted for thesis should be contingent upon the graduate school's evaluation of the research paper. *Version 3:* In the upper-division baccalaureate category, 6 semester hours in social science survey, 3 in recent history, 3 in economics, 3 in business administration, 3 in political science (including international relations), and credit for the following electives on the basis of institutional examination (NOTE: Maximum credit for each course is 3 semester hours, and credit granted for electives should not exceed 6 semester hours): Communicative Arts (speech curriculum), Political Systems and National Security (government or political science curriculum), Economics of National Security (economics curriculum), Social Factors and National Security (sociology curriculum), International Law and National Security (international law curriculum), Management Information Systems (business curriculum), Analytical Techniques of Management (business curriculum), and Resource Management and Control (business curriculum) (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in social science survey, 3 in recent history, 3 in economics, 3 in business administration, 6 in political science (including international relations), and credit for the following electives on the basis of institutional examination (NOTE: Maximum credit for each course is 3 semester hours, and credit granted for electives should not exceed 6 semester hours): Communicative arts (speech curriculum), Political Systems and National Security (government or political science curriculum), Economics of National Security (economics curriculum), Social Factors and National Security (sociology curriculum), International Law and National Security (international law curriculum), Management Information System (business curriculum), Analytical Techniques of Management (business curriculum), and Resource Management and Control (business curriculum) (12/68).

AR-1511-0006

1. Command and General Staff Officer

2. Command and General Staff Officer
3. Command and General Staff Officer
4. Command and General Staff Officer

(Command and General Staff Officer Regular)
(Regular Command and General Staff Officer)

Course Number: *Version 1:* 1-250-C2. *Version 2:* 1-250-C2; 250-A-C2. *Version 3:* 250-A-C2. *Version 4:* 250-A-C2; 250-0-1.

Location: Command and General Staff College, Ft. Leavenworth, KS.

Length: *Version 1:* 38 weeks (1140–1430 hours). *Version 2:* 38 weeks (1143–1344 hours). *Version 3:* 38 weeks (1146 hours). *Version 4:* 38–42 weeks (1146–1252 hours).

Exhibit Dates: *Version 1:* 7/70–8/74. *Version 2:* 4/63–6/70. *Version 3:* 6/62–3/63. *Version 4:* 7/54–5/62.

Objectives: To train officers in U.S. military strategy, elements of national power, management, national security policy planning, and international relations.

Instruction: Lectures, practical exercises, seminars, and student research in U.S. military strategy, elements of national power, management, national security policy planning, and international relations. This college is regionally accredited and grants a Master's degree. Contact the Registrar, U.S. Army Command and General Staff College at Fort Leavenworth, Kansas, for a transcript of credits.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 30 semester hours (to be apportioned by the receiving institution) in the areas of history, political science, international relations, and management (8/74); in the graduate degree category, 3 semester hours in international relations and U.S. national security policy, 3 in international relations (comparative government), 3–6 in public administration and management (exact amount to be determined by a qualifying examination), 0–6 in research and thesis, 3 as an elective in operations research/systems analysis within a public administration or business management curriculum, and 3 in advanced logistics management within a specialized program of military administration and management (8/74). Credit granted for thesis should be contingent upon the graduate school's evaluation of the research paper. Recommendations are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 9 semester hours in business organization and management, 3 in political science (including international relations) (8/74). *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business organization and management, and credit in political science and international relations on the basis of institutional examination (12/68). *Version 4:* In the upper-division baccalaureate category, 9 semester hours in business organization and management (12/68).

AR-1511-0007

Counterinsurgent Operations
(Counterinsurgency Operations)

Course Number: 2E-F9; 33-G-F6.

Location: Special Warfare School, Ft. Bragg, NC.

Length: 8–10 weeks (357–515 hours).

Exhibit Dates: 5/64–12/68.

Objectives: To provide students with a general knowledge of counterinsurgency operations.

Instruction: Lectures and practical exercises in insurgent problems; concepts and doctrine for counterinsurgency; and tactics and techniques and their application to counterinsurgency operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in political science (7/74).

AR-1511-0008

Civil Affairs in the Cold War

Course Number: 41-A-F6.

Location: Civil Affairs School, Ft. Gordon, GA.

Length: 4 weeks (149 hours).

Exhibit Dates: 5/61–12/68.

Objectives: To provide commissioned officers with a general knowledge about the civil affairs aspects of the Cold War.

Instruction: Lectures and seminars in Sino-Soviet Cold War activities; democratic systems, agencies, and policies; Cold War organization and programs; plans and programs for Cold War operations; insurgency and counterinsurgency activities.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in political science (including international relations) (7/74).

AR-1511-0009

Counterinsurgency and Special Warfare Staff Officer

Course Number: 33-G-F7.

Location: Special Warfare School, Ft. Bragg, NC.

Length: 4 weeks (139 hours).

Exhibit Dates: 10/63–12/68.

Objectives: To provide personnel with general information and knowledge on the latest doctrine and concepts of special warfare and counterinsurgency operations.

Instruction: Lectures and practical exercises in guerrilla warfare and Special Forces operations, counterinsurgency and psychological operations, and world politics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in political science (7/74).

AR-1511-0010

Civil Affairs Officer Advanced Nonresident/Resident - Reserve Component
(Civil Affairs Officer Advanced (Nonresident/Resident))

Course Number: 5-41-C23; 5D-48D; 500-F4.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC; Institute for Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (139 hours). 6 weeks (197–201 hours).

Exhibit Dates: 7/76–6/88.

Objectives: To prepare officers for civil affairs duties on of internal defense and development operations.

Instruction: For this course after 6/88 see AR-1511-0014. Lectures and practical exercises in history and current concepts and principles of civil affairs; organization of civil affairs functions in U.S. government; place of civil affairs in international relations and international law; comparative government and law; development theory and practice; public administration and civil affairs in typical conflict situations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in international relations and military tactics for persons completing all three resident sections of the course (2/80).

AR-1511-0012

Civil Affairs Enlisted Course

Course Number: 500-SQID.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (70–73 hours).

Exhibit Dates: 3/81–Present.

Learning Outcomes: Upon completion of the course the student will be able to carry out a wide range of civilian-related practical activities, including awareness of psychological effects of military action; prepare documents affecting public health, evacuees and refugees; and be sensitive to effects of cultural differences and difficulties of cross-cultural communication.

Instruction: Course consists of exercises and lectures involving role playing sessions in a wide range of civil affairs subject matter: public health, refugees, and psychological and cross-cultural problems. Student may also prepare an area study.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in public administration (1/90)..

AR-1511-0013

Senior Noncommissioned Officer (NCO) Operations and Intelligence

Course Number: 243-F11.

Location: McGraw Barracks, Munich, West Germany; Sergeants Major Academy, Ft. Bliss, TX.

Length: 10 weeks (347 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise operations and intelligence sections.

Instruction: Includes lectures, seminars, demonstrations, and practical exercises in battlefield tactics, military procedures, military doctrine, world situations, and military potential.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science and 1 in international relations (9/87).

AR-1511-0014

Civil Affairs Officer Advanced Nonresident/Resident Reserve Component

Course Number: 5-41-C23.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: Phase 2, 2 weeks (66 hours); Phase 4, 2 weeks (69 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will serve as civil affair officer; advise the commander as to the establishment/administration of local civilian government; communicate the psychological and cultural effects of unintended offending actions; analyze the cost of proper programs; cite the danger of terrorist activities; control civilian-refugee problems; preserve art, documents, and cultural treasures in conditions of military conflict.

Instruction: Lectures, seminars, students' oral presentations, and individual research papers, team area-study papers on the following topics: psychological and cross-cultural analysis, economic considerations, civil-military operations, sociology, low intensity conflict and terrorism, civil affairs and air land battle, and legal considerations. For this course before 7/88 see exhibit AR-1511-0010.

Credit Recommendation: In the upper-division baccalaureate category, for phase 2, 3 semester hours in international relations or public administration. For phase 4, in the upper-division baccalaureate category, 3 additional semester hours in international relations or public administration (12/88).

AR-1511-0015

FOREIGN AREA OFFICER
NONRESIDENT/RESIDENT

Course Number: 7B-F6.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2 weeks (66 hours) in residence. Course includes extensive correspondence work.

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to assess political/military problems in other countries; be sensitive to cultural differences; advise military commanders of cultural considerations which impact on military operations; use varied research methodology and research libraries.

Instruction: Lectures, seminars and presentations on interdisciplinary studies including use of specially prepared paradigm-model for politico-military analysis.

Credit Recommendation: To qualify for credit student must have completed all phases of this course. There is one resident phase and five nonresident phases. In the upper-division baccalaureate category, 2 semester hours in international relations, 2 in developmental economics, 3 in political science, and 3 in interdisciplinary social science; OR in the graduate degree category, a total of 3 semester hours to be selected from the following: international relations, developmental economics, political science or interdisciplinary social science (12/88).

AR-1511-0016

CIVIL AFFAIRS

Course Number: 5D-F6/500-F4.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 5–6 weeks (205 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to interpret Communist strategy, analyze effects of military operations on civilian and political affairs; understand how the Army structure deals with these questions; handle effects of civilian dislocation; and recognize and deal with low-intensity conflict.

Instruction: For this course before 7/88 see AR-1511-0002. Lectures, seminars, preparation of a country study paper, and simulations of field situations. Topics include civil-military history, psychological operations, air/land battle, economic considerations, cultual and religious impacts, sociology, and legal considerations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in public administration and 3 in sociology (12/88).

AR-1511-0017

1. FOREIGN AREA OFFICER ORIENTATION
2. FOREIGN AREA OFFICER

Course Number: 7B-F3.

Location: School of International Studies, Ft. Bragg, NC.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 21 weeks (752 hours).

Exhibit Dates: *Version 1:* 10/86–12/87. *Version 2:* 6/83–9/86.

Learning Outcomes: *Version 1:* Upon completion of the course the student will serve as defense attache, politico-military advisor or security assistance programmer/advisor; assess political and military problems in other countries being sensitive to cultural differences; advise military commanders of cultural considerations which impact military operations; use varied research methodology and research libraries. *Version 2:* Upon completion of the course the student will serve as defense attache or politico-military advisor; assess political/military problems in other countries taking cultural differences into account; understand and analyze terrorism and deal with political/military crisis; use research libraries and a variety of statistical methods.

Instruction: *Version 1:* Lectures, seminars, oral presentations, written papers and field trips to Washington to government agencies. Interdisciplinary studies involve the use of specially prepared paradigm-model for politico-military analysis. *Version 2:* Lectures, seminars, oral presentations, and short written papers covering interdisciplinary area studies including psychology, sociology, international economics, political science, ethnic conflict, revolution, USSR and Eastern Europe, and cultural affairs.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in international relations, 2 in political science, 2 in interdisciplinary social science and 2 in cultural anthropology; in the graduate degree category, a total of 2 semester hours to be selected from the following areas: international relations, political science, interdisciplinary social sciences, or cultural anthropology (12/88). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in international relations, 4 in developmental economics, 6 in political science, and 6 in interdisciplinary social science; in the graduate degree category, a total of 6 semester hours to be selected from the following subject areas: international relations, developmental economics, political science, or interdisciplinary social science (12/88).

AR-1511-0018

SPECIAL OPERATIONS RECONNAISSANCE
(Strategic Reconnaissance)

Course Number: 2E-F66/011-F25.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 8 weeks (469–503 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to construct antennas, perform elementary maintenance, and operate special field portable radio sets; identify and treat various medical ailments with little or no supplies or medications; recognize and treat effects of combat stress; recognize and report on Soviet Order of Battle Intelligence; identify Soviet military equipment and weapon systems; apply proper evasive techniques; use field photographic equipment.

Instruction: Includes lectures and hands-on training in basic and field radio set-up and operation, Warsaw Pact order of battle, weapon systems, minor medical emergencies and sustainment procedures, use of laser acquisition and beacon devices, evasive techniques for human and attack/sentry dogs, and proper use of field photographic equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in Soviet studies (12/88).

AR-1511-0019

PHASE 4 SPECIAL FORCES OPERATIONS AND INTELLIGENCE
RESIDENT/NONRESIDENT

Course Number: 244-ASIF1-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2 weeks (135–149 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform intelligence functions in support of Special Forces missions; analyze Soviet military organization; and conduct clandestine operations.

Instruction: Lectures, seminars, special conferences on intelligence, written reports, and oral presentations on aspects of Soviet military organization and conduct of intelligence operations by U.S. forces.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communications; in the upper-division baccalaureate category, 2 semester hours in Soviet studies, 1 in psychology, and 1 in political science (12/88).

AR-1511-0020

PHASE 2 SPECIAL FORCES OPERATIONS AND INTELLIGENCE
RESIDENT/NONRESIDENT

Course Number: 244-ASIF1-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2 weeks (128–137 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to support Special Forces missions; coordinate air/ground/nautical missions; analyze maps; and support air land battle.

Instruction: Lectures, seminars, simulation, and discussion on Special Forces operations, map interpretation, role of Special Forces in air land battle, aspects of Army organization, and terrorism.

Credit Recommendation: In the vocational certificate category, 1 semester hour in map interpretation; in the upper-division baccalaureate category, 1 semester hour in political science, 1 in psychology, and 1 in social science (12/88).

AR-1511-0021

ARMY WAR COLLEGE

Course Number: None.

Location: Army War College, Carlisle Barracks, PA.

Length: 44 weeks.

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student should have developed an understanding of the science of warfare in the area of national security studies, strategy, force planning, and international relations, in order to prepare officers for higher command positions. Students should develop an understanding of the process by which national strategy is formulated, including meeting changing threats to national security. This course is designed to train senior military officers in leadership, and the management of a large, complex organization. Students should demonstrate: heightened awareness of personal values, strengths, and leadership styles; the development of an ethical framework for reasoning and value judgment; the development of creative skills for leadership in a complex organization; an understanding of historical perspectives as they relate to operational and organizational perspectives; and an understanding of budgeting and human resources management as well as program planning.

Instruction: Course is presented through the following modes: lectures, seminars, reading and writing, simulation exercises, oral presentations, field trips, case studies, self assessment techniques, audiovisual presentations, and computer exercises. Individual group work is supported by extensive library access. There is a large resident faculty supplemented by distinguished guest speakers and by field trips. There is a small faculty-student ratio, and there are several group projects. Topics include ethics, leadership, joint services operations, science of military warfare including implementation at the regional and global levels and its application to future warfare, human resources techniques, budgeting techniques, professionalism, self assessment techniques, American military history, theory of war, international relations, and American foreign policy.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in international economics, 3 in political science, 3 in human resources management, and 3 in geography (1/90); in the graduate degree category, 6 semester hours in management, 3-6 for the research paper, based on the receiving institution's review of the paper, 3 in national security studies, 2 in American military history, 1 in international politics, and 3 in American foreign relations . Students will take up to eight individually selected advanced courses in the following areas: 1) national security policy and strategy, 2) regional studies, 3) operations, and 4) command and leadership. Up to 4 additional credits may be granted based on the receiving institution's review of materials submitted by the student (1/90).

AR-1511-0022

Army War College Corresponding (by Correspondence)

Course Number: None.

Location: Army War College, Carlisle Barracks, PA.

Length: 104 weeks maximum.

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student should have developed an understanding of the science of warfare in the area of national security studies, strategy, force planning, and international relations, in order to prepare officers for higher command positions. Students should develop and understanding of the process by which national strategy is formulated, including meeting changing threats to national security. This course is designed to train senior military officers in leadership, and the management of a large, complex organization. Students should demonstrate: heightened awareness of personal values, strengths, and leadership styles; the development of an ethical framework for reasoning and value judgment; the development of creative skills for leadership in a complex organization; an understanding of historical perspectives as they relate to operational and organizational perspectives; and an understanding of budgeting and human resources management as well as program planning.

Instruction: This is a correspondence course offered over two years time through readings and writing in military history and various strategic questions. There is a 2-week seminar at the War College at the end of each year of correspondence study.Students are required to complete substantial writing assignments which are critiqued. Topics include ethics, leadership, joint services operations, science of military warfare including implementation at the regional and global levels and its application to future warfare, human resources techniques, budgeting techniques, professionalism, self assessment techniques, American military history, theory of war, international relations, and American foreign policy.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in international economics, 3 in political science, 3 in human resources management, and 3 in geography (1/90); in the graduate degree category, 6 semester hours in management, 3-6 for the research paper, based on the receiving institution's review of the paper, 3 in national security studies, 2 in American military history, 1 in international politics, and 3 in American foreign relations . It is recommended that the receiving institution delay awarding of credit until the student has completed 3-6 graduate hours (1/90).

AR-1511-0023

Defense Strategy by Correspondence

Course Number: None.

Location: Army War College, Carlise Barracks, PA.

Length: *Version 1:* 18–26 weeks. *Version 2:* 16–26 weeks.

Exhibit Dates: *Version 1:* 1/89–1/90. *Version 2:* 1/88–12/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student should be familiar with the domestic and international environment as it impacts on the formulation of national security policy. *Version 2:* Upon completion of the course, the student should be familiar with principles of geopolitics, science and technology, and national security.

Instruction: *Version 1:* This is a correspondence course presenting national security strategy (domestic and international environments) and the development of a strategy to serve it. The writing component consists of several very short papers as well as one 1500-word paper on national strategy. *Version 2:* This is a correspondence course presenting geopolitics, trends in science and technology, and national security. The writing component consists of three papers of 750 words length.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in national security. There is not a proctored final examination (1/90). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in national security. There is not a proctored final examination (1/90).

AR-1511-0024

Intelligence in Combatting Terrorism
(Intelligence in Terrorism Counteraction)

Course Number: 3C-F14/244-F8.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2 weeks (72-73 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will have knowledge of terrorist movements, terrorist tactics, organizations, and ideologies, and of terrorism threat assessment.

Instruction: Lectures, discussions, and classroom testing are the methods of instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in international relations and terrorism (6/90).

AR-1512-0001

1. Psychological Operations Officer
2. Psychological Operations Officer
(Psychological Operations Unit Officer)
3. Psychological Operations Unit Officer (Modified)
(Psychological Operations Officer)

Course Number: *Version 1:* 3A-48B. *Version 2:* 3A-9305-A; 3A-9305. *Version 3:* 3A-9305-A; 3A-9305.

Location: *Version 1:* Institute for Military Assistance, Ft. Bragg, NC. *Version 2:* Institute for Military Assistance, Ft. Bragg, NC. *Version 3:* Special Warfare School, Ft. Bragg, NC.

Length: *Version 1:* 10–12 weeks (319-401 hours). *Version 2:* 12 weeks (555–585 hours). *Version 3:* 10–12 weeks (500–591 hours).

Exhibit Dates: *Version 1:* 10/77–5/87. *Version 2:* 8/72–9/77. *Version 3:* 2/64–7/72.

Objectives: To train officers for command and staff positions in psychological operations teams in foreign countries.

Instruction: For this course after 5/87 see AR-1512-0018. Lectures and practical exercises in psychological operations doctrine, concepts, procedures, organization, capabilities, and employment in support of military operations; analysis of foreign audiences; propaganda media development, production, and employment; and psychological operations effectiveness evaluation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in cross-cultural communications, including sociology (2/80). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in cross-cultural communications, including anthropology, social psychology, and sociology (5/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in social psychology, and credit in communications on the basis of institutional evaluation (12/68).

AR-1512-0002

Psychological Operations Enlisted

Course Number: *Version 1:* 244-F6. *Version 2:* 33-R-F11; 244-F6.

Location: *Version 1:* Institute for Military Assistance, Ft. Bragg, NC. *Version 2:* Special Warfare School, Ft. Bragg, NC.

Length: *Version 1:* 2 weeks (70–72 hours). *Version 2:* 3–4 weeks (108–140 hours).

Exhibit Dates: *Version 1:* 9/71–2/81. *Version 2:* 5/64–8/71.

Objectives: To train enlisted personnel to assist in the development and dissemination of propaganda information.

Instruction: Lectures and practical exercises in propaganda information development and dissemination, including psychological operations introduction, factors of human behavior and social organization, propaganda theory, intelligence for psychological operations, and planning and media use.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (5/74). *Version 2:* In the upper-division baccalaureate category, credit in social psychology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 11F; 32H; 35B; 71B; 71Q; 71R; 71L; 81E; 83D; 83F; 83Z; 84D; 84F; 96B; 04B; 04C; 00Z; 96C.

AR-1512-0003

Psychological Operations Staff Officer

Course Number: *Version 1:* 3A-F28. *Version 2:* 3A-9305-B.

Location: *Version 1:* Institute for Military Assistance, Ft. Bragg, NC; Special Warfare School, Ft. Bragg, NC. *Version 2:* Special Warfare School, Ft. Bragg, NC.

Length: *Version 1:* 10 weeks (340 hours). *Version 2:* 15 weeks (532 hours).

Exhibit Dates: *Version 1:* 9/71-10/74. *Version 2:* 5/68-8/71.

Objectives: To train commissioned officers with baccalaureate degrees to be psychological operations staff officers in major units and headquarters.

Instruction: Lectures and practical exercises in psychological operations concepts, propaganda media, social science, US policy and US agencies supporting psychological operations, foreign propaganda, and internal defense development doctrine and techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in political science (5/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in social psychology, and credit in political science on the basis of institutional evaluation (12/68).

AR-1512-0004

Clinical Psychology Procedures (Clinical Psychology Enlisted)

Course Number: 302-91G20; 8-R-915.1; 8-E-16.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 7-8 weeks (280-352 hours).

Exhibit Dates: 11/55-12/68.

Objectives: To train enlisted personnel in clinical psychology procedures.

Instruction: Lectures and practical exercises in neuropsychiatric nursing, neuropsychiatry, personality development, psychology, and social work.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in psychology, 3 in tests and measurement, and additional credit in psychology on the basis of institutional examination for social worker or occupational therapy students (7/74); in the upper-division baccalaureate category, 3 semester hours in abnormal psychology (12/68).

AR-1512-0005

Military Assistance Training Advisor Psychological Operations Orientation

Course Number: None.

Location: Special Warfare School, Ft. Bragg, NC.

Length: 6 weeks (206-225 hours).

Exhibit Dates: 2/66-12/68.

Objectives: To train commissioned officers as psychological operations advisors in the Republic of Vietnam.

Instruction: Lectures and practical exercises in the performance of psychological operations in the Republic of Vietnam, including area study, psychological operations, counterinsurgency operations, civil affairs, analysis of current propaganda, psychological operations planning, and the theory and practice of communism.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in social psychology on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in social psychology (12/68).

AR-1512-0006

Behavioral Science Specialist (Social Work/Psychology Procedures)

Course Number: 302-91G10; 302-91G20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX; Medical Field Service School, Ft. Sam Houston, TX.

Length: *Version 1:* 10 weeks (363-369 hours). *Version 2:* 10 weeks (440 hours). *Version 3:* 8 weeks (352 hours). *Version 4:* 10 weeks (440 hours).

Exhibit Dates: *Version 1:* 2/76-11/85. *Version 2:* 8/72-1/76. *Version 3:* 4/72-7/72. *Version 4:* 2/67-3/72.

Objectives: To train enlisted personnel in social, psychological, and psychiatric principles applicable to military problems.

Instruction: *All Versions:* Lectures and practical exercises in social, psychological, and psychiatric principles, including organization and ethics of medicine; childhood, adolescent, and adult behavior development; basic sociology and group concepts; culture and society; personality disorders and mental illness; psychological, physiological, and social factors influencing behavior; expressions of mental illness; observation and interviewing techniques, personality and intelligence tests and testing, and administrative procedures. *Version 1:* Includes drug abuse treatment, skill mastery, human development. *Version 2:* Includes behavioral problem areas (race relations, drug abuse, clinical problems) and corrections, crisis intervention, behavior modification, training group participation, and psychological theories. *Version 3:* Includes behavioral problem areas (race relations, drug abuse, clinical problems) and corrections, crisis intervention, behavior modification, and training group participation. *Version 4:* Includes military law and additional administrative procedures, and principles of research.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in sociology, 3 in psychology, 4 in psychological testing, 6 in clinical psychology and counseling (6/77). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in human development, 3 in counseling and testing, 3 in interviewing skills and techniques, 3 in social or abnormal psychology, and 1 in methods of clinical intervention (8/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in human development, 3 in counseling and testing, 3 in interviewing skills and techniques, 3 in social or abnormal psychology, 1 in methods of clinical intervention, and 2 in supervised clinical experience (8/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in human development, 3 in counseling and testing, 3 in interviewing skills and techniques, and 3 in social or abnormal psychology (8/74); in the upper-division baccalaureate category, 3 semester hours in abnormal psychology (12/68).

Related Occupation Codes: 91G.

AR-1512-0007

Reserve Component Psychological Operations (Nonresident/Resident)

Course Number: 3A-48BB.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 4 weeks (144 hours).

Exhibit Dates: 1/77-5/87.

Objectives: To train reserve officers for command and staff positions in psychological operations teams in foreign countries.

Instruction: For this course after 5/87 see AR-1512-0017. Lectures and practical exercises in psychological operations doctrine, concepts, procedures, organization, capabilities and employment in support of military operations; analysis of foreign audiences; propaganda media development, production and employment and psychological operations effectiveness evaluation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in cross cultural communications (2/80).

AR-1512-0010

Interpersonal Communications

Course Number: 1-19-XB-135.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 1-2 weeks (48 hours).

Exhibit Dates: 2/82-Present.

Objectives: To acquaint instructors and trainers with the awareness and development of skills necessary for effective interpersonal communications.

Instruction: Lectures/seminars, demonstrations, and practical exercises (role-playing) in the art of helping as related to effective interpersonal communications. Course includes basic principles of interpersonal communications: attending skills, listening/responding skills, summarizing "helpee" expressions, problem solving and goal development.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in human relations or as an elective in guidance and counseling (3/82).

AR-1512-0011

Family Advocacy Staff Training

Course Number: 5H-F20/302-F20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (128 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide specialized training to personnel working directly or indirectly in the area of family advocacy.

Instruction: Includes lectures, demonstrations, and experiential learning in the areas of management, needs assessment, evaluation, and counseling of child/spousal abuse.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in family counseling (1/90).

AR-1512-0012

Alcohol and Drug Abuse Prevention and Control Program Advanced Counseling Skills

Course Number: DA 484.

Location: Seventh Army Combined Arms Training Center, Munich, W. Germany.

Length: 1-2 weeks (54 hours).

Exhibit Dates: 7/82-Present.

Learning Outcomes: Upon completion of the course, the student is able to provide advanced counseling to alcoholics and substance abusers.

Instruction: Review of disease concept of alcoholism, counseling the alcoholic client, and family dynamics. Included also are the characteristics of drinking problems in women and knowledge about the current cultural/racial counseling issues with alcoholism. Instruction is provided on the recovery process.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in the counseling of alcoholics (7/87).

AR-1512-0013

Alcohol and Drug Abuse Prevention and Control Program Family Counseling

Course Number: DA 486.

Location: Seventh Army Combined Arms Training Center, Munich, W. Germany.

Length: 1-2 weeks (54 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assess and counsel families and to function as a clinical director/clinical supervisor in community and residential facilities.

Instruction: The methods of instruction include lecture, demonstration, and practice. Topics include family systems theory, alcohol abuse, ethical practice, community resources, patient assessment techniques, therapeutic techniques, and family counseling applications.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in family counseling (7/87).

AR-1512-0014

Alcohol and Drug Abuse Prevention and Control Program Group Counseling Skills

Course Number: DA-483.

Location: Seventh Army Combined Arms Training Center, Munich, W. Germany.

Length: 2 weeks (69 hours).

Exhibit Dates: 1/80–Present.

Learning Outcomes: Upon completion of the course the student will have beginning skills in the organization and conduct of counseling groups.

Instruction: Includes the design and development of groups including establishment of group rules, norms, and goals. Course includes both theory and practice related to leadership styles, negotiation of leader-member roles, and related facilitative skills.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in group dynamics (7/87).

AR-1512-0015

Alcohol and Drug Prevention and Control Program Individual Counseling Skills

Course Number: DA 482.

Location: Seventh Army Combined Arms Training Center, Munich, W. Germany.

Length: 1-2 weeks (53-54 hours).

Exhibit Dates: 9/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide individual counseling services in a substance abuse agency.

Instruction: The course provides students with knowledge, skills, and practice in the basic concepts and applications of reality therapy, communications, drug and alcohol assessment, and counseling practice.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory counseling (7/87).

AR-1512-0016

Behavioral Science Specialist

Course Number: 302-91G10.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 15 weeks (571-576 hours).

Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon completion of the course the student will be able, under professional supervision, to interview clients in several settings, to administer and score psychological tests, and to assist in determining client need for referral.

Instruction: Lectures and practical exercises in social, psychological and psychiatric principles, human development, group concepts, factors influencing behavior, behavioral problems, substance abuse disorders, psychological testing, counseling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in human development, 3 in counseling and testing, 3 in psychology, and 1 in sociology (10/89); in the upper-division baccalaureate category, 3 semester hours in abnormal psychology (10/89).

AR-1512-0017

Reserve Component Psychological Operations Officer

Course Number: 3A-SI5E-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: Phase 1, 2 weeks; Phase 2, 2 weeks; Phase 3, 3 weeks (total of 218 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will understand and communicate the role and structure of psychological operations (psyops) intelligence in support of national objectives; plan, organize, direct, and supervise the use of psyops in all military operations across the spectrum of conflict; train personnel in psyops doctrines and techniques; demonstate knowledge of social science theory and procedures in relation to psyops; analyze cross cultural communications; design propaganda programs for target audiences; coordinate, supervise, and disseminate psyops products using media skills, leadership skills, and decision making.

Instruction: Lectures, discussions, seminars, simulations, and practical exercises based on developing a scenario in a mythical region of the world. Topic include: psychological operations, doctrine and organization of U.S. psyop policy formulation and dissemination, social science theory and methodology including cross-cultural communication, anthropological content in the execution of psyops, target analysis, propaganda development, and use of media. For this course before 6/87 see AR-1512-0007.

Credit Recommendation: In the upper-division baccalaureate category. For phase 1, 1 semester hour in psychology, 1 in area studies, 1 in marketing and advertising and 1 in communications. In the upper-division baccalaureate category, for phase 2, 1 semester hour in psychology, 1 in area studies, and 1 in cross-cultural communications. In the upper-division baccalaureate category, for phase 3, 1 semester hour in media production and 1 in leadership studies (2/90). For those completing more than one phase the credit should be added.

AR-1512-0018

Psychological Operations Officer

Course Number: 3A-SI5E.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 6 weeks (218–221 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will understand and communicate the role and structure of psychological operations (psyops) intelligence in support of national objectives; plan, organize, direct, and supervise the use of psyops in all military operations across the spectrum of conflict; train personnel in psyops doctrines and techniques; demonstate knowledge of social science theory and procedures in relation to psyops; analyze cross cultural communications; design propaganda programs for target audiences; coordinate, supervise, and disseminate psyops products using media skills, leadership skills, and decision making.

Instruction: Lectures, discussions, seminars, simulations, and practical exercises based on developing a scenario in a mythical region of the world. Topic include: psychological operations, doctrine and organization of U.S. psyop policy formulation and dissemination, social science theory and methodology including cross-cultural communication, anthropological content in the execution of psyops, target analysis, propaganda development, and use of media. For this course before 6/87 see AR-1512-0001.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in psychology, 2 in communications theory, 2 in area studies, 1 in media production, 1 in marketing and advertising, and 1 in leadership studies (1/90).

AR-1512-0019

Special Operations Staff Officer

Course Number: 2E-F112.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 7 weeks (264 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will exhibit skills in planning operations and managing resources needed to implement operations including military forces, equipment and supplies; advise foreign policy developers in special operations activities with emphasis on peace time policy operations.

Instruction: Lectures and practical exercises in planning and employment of Special Operations forces in the low- and mid-intensity spectrums. Instruction includes Special Operations organization and mission, employment, command and control structure, U.S. foreign policy, regional studies, campaign planning, crisis action systems, and the joint deployment system and threat forces.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in logistics management, and 3 in international relations (12/88).

AR-1512-0020

Psychological Operations Basic Noncommissioned Officer (NCO)

Course Number: 243-96F30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 4 weeks (151 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to classify and document intelligence materials; brief superiors; work with social science research methodology; describe and critique target analysis process; identify and use counter-propaganda techniques; analyze Soviet psychological awareness programs; select, employ and evaluate communications media in developing a psychological operations compaign; coordinate supporting units; use automated data system; and use communications technology and audio-visual equipment.

Instruction: Lectures, student discussions, and exercises on topics such as map analysis and land navigation, intelligence, psychological operations, social science research methodology, propaganda analysis, target analysis and media selection, communications, automated data systems, and counter-propaganda techniques. Course includes a common core of leadership subjects; see AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing, 1 in map interpretation, and 1 in audio-visual techniques; in the upper-division baccalaureate category, 1 in social science, 1 in marketing or advertising and 1 in communications production (12/88). For credit in the the common core see AR-1406-0090.

AR-1512-0021

PSYCHOLOGICAL OPERATIONS SPECIALIST

Course Number: 243-96F10.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 9–10 weeks (333–377 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to use U.S. and foreign maps in support of tactical psychological operations (psyops) missions; process and use relevant intelligence to support tactical operations; identify and conceptualize psyops; analyse and respond to foreign propaganda; target an audience and market a propaganda product; use media equipment; identify Soviet psychological warfare techniques and capabilities; apply persuasive techniques in conducting counter propaganda campaigns.

Instruction: Lectures, small group discussions, and seminars on map reading and land navigation, audience analysis for propaganda campaigns, use of media/audio-visual equipment, use of printed media and its production, examination of intelligences sources and reports, U.S. policy formulation, dynamics of interpersonal and cross-cultural communications process, cultural biases, Soviet psyops. Course includes a simulation exercise dealing with the application of intelligence procedures in the field.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications technology; in the lower-division baccalaureate/associate degree category, 1 semester hour in map interpretation, 1 in marketing or advertising, 1 in record keeping, 1 in communications theory, 1 in principles of psychology, 1 in area studies and 2 in media production (1/90).

AR-1512-0022

RESERVE COMPONENT PSYCHOLOGICAL OPERATIONS SPECIALIST

Course Number: 243-96F10-RC IDT/ADT.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: Phase 1, 3 weeks (118 hours); Phase 2, 3 weeks (113 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to use U.S. and foreign maps in support of tactical psychological operations (psyops) missions; process and use relevant intelligence to support tactical operations; identify and conceptualize psyops; analyse and respond to foreign propaganda; target an audience and market a propaganda product; use media equipment; identify Soviet psychological warfare techniques and capabilities; apply persuasive techniques in conducting counter propaganda campaigns.

Instruction: Lectures, small group discussions, and seminars on map reading and land navigation, audience analysis for propaganda campaigns, use of media/audio-visual equipment, use of printed media and its production, examination of intelligences sources and reports, U.S. policy formulation, dynamics of interpersonal and cross-cultural communications process, cultural biases, Soviet psyops. Course includes a simulation exercise dealing with the application of intelligence procedures in the field.

Credit Recommendation: For phase 1, in the lower-division baccalaureate/associate degree category, 1 semester hour in map interpretation, 1 in recordkeeping, 1 in communications theory, 1 in area studies, 1 in psychology, and 1 in marketing or advertising. For phase 2, @voc 2 semester hours in communications technology; in the lower-division baccalaureate/associate degree category, 2 in media production (12/88).

AR-1512-0023

JOINT PSYCHOLOGICAL OPERATIONS STAFF PLANNING

(Joint Operations Staff Planning)

Course Number: 3A-F53/243-F12.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2 weeks (76–77 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to use planning skills in preparation and support of joint operations; understand role, mission, and functions of psychological operations; analyze foreign psychological operations, doctrines and practices.

Instruction: Lectures and exercises on the above topics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

AR-1513-0001

ASSOCIATE CHAPLAIN OFFICER CAREER

Course Number: 5-16-C23; 16-A-C23.

Location: Chaplain School, Ft. Hamilton, NY; Chaplain School, Ft. Slocum, NY.

Length: 10 weeks (350–358 hours).

Exhibit Dates: 2/62–12/68.

Objectives: To train commissioned officers and civilians in the administration and operation of special services activities.

Instruction: Lectures and practical exercises in the administration and operation of special services activities, including special subjects, organization and administration, funds and budgets, special services programs, and special activities at major command, army, and theater levels.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in guidance and counseling, 3 in contemporary Western religions (8/74); in the upper-division baccalaureate category, 2 semester hours in guidance and counseling, 3 in contemporary Western religions (8/74).

AR-1513-0002

PSYCHIATRIC SOCIAL WORK ENLISTED

(Social Work Enlisted)

(Social Work Procedures)

Course Number: 8-R[illegible]916.1; 8-E-15.

Location: Medical Service School, Ft. Sam Houston, TX.

Length: 8–16 weeks (352–704 hours).

Exhibit Dates: 1/53–1/67.

Objectives: To train enlisted personnel to assist social workers in obtaining information for individual social histories and to assist in treatments.

Instruction: Lectures and practical exercises in methods of obtaining information for individual social histories and in treatment procedures, including administration and personnel management; orientation to medical terminology; structure and function of the human body; growth and development; diseases; fundamental principles of nursing and observation, with emphasis on neuropsychiatric disorders and behavior abnormalities; case conferences; anxiety and mechanisms of defense; biological, social, cultural, and psychological effects on personality; differentiation between normal and abnormal behavior; and social work orientation, interviewing and data recording, methods of research, and clinical applications involving patient situations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in abnormal psychology, 3 in neuropsychiatric nursing, and 9 in social work (8/74); in the upper-division baccalaureate category, 3 semester hours in abnormal psychology (12/68).

AR-1513-0003

CIVIC ACTION

Course Number: 5D-F2; 41-I-F7.

Location: Civil Affairs School, Ft. Gordon, GA.

Length: 6 weeks (203 hours).

Exhibit Dates: 7/64–12/86.

Objectives: To provide personnel with a working knowledge in planning, developing, programming, and administering military civic action programs and activities.

Instruction: Lectures and practical exercises in internal defense and development; relationship of civil affairs to the functions of government; civil affairs operations; organizations and activities involved in internal defense and development; and military civic action in support of internal defense and development operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in social studies (7/74).

AR-1513-0004

DISTRICT AND CIVIL AFFAIRS ADVISOR (VIETNAM)

(Civil Affairs Advisor, Vietnam)

Course Number: None.

Location: Civil Affairs School, Ft. Gordon, GA.

Length: 6 weeks (210-216 hours).
Exhibit Dates: 10/65-1/88.
Objectives: To prepare personnel to serve as advisors and civil affairs officers in the Republic of Vietnam.
Instruction: Lectures and practical exercises to include fundamentals of insurgency; Republic of Vietnam, United States, and Free World organizations; advisor-counterpart relations and internal defense and development operations.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in social science (7/74).

AR-1513-0005

Community Service

Course Number: 5H-F1/F62-F3; 5H-F1.
Location: *Version 1:* Institute of Administration, Ft. Benjamin Harrison, IN. *Version 2:* Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 2 weeks (67-81 hours).
Exhibit Dates: *Version 1:* 3/78-7/79. *Version 2:* 7/76-2/78.
Objectives: To provide personnel with a working knowledge of concepts, mission, and goals of an Army community service program.
Instruction: *Version 1:* Lectures and practical exercises to orient military and civilian personnel with need for and availability of community human services. *Version 2:* Lectures and practical exercises in program planning and development, program management principles and techniques, and the delivery of human services in response to community needs.
Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (2/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles and techniques of management, 1 in introduction to sociology (6/77).

AR-1513-0006

Director of Personnel and
Community Activities
(DPCA/G1)

Course Number: 7C-F15.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.
Length: 3 weeks (95-103 hours).
Exhibit Dates: 10/81-9/87.
Objectives: To teach senior personnel to perform the duties of installation director of personnel and community activities.
Instruction: Course provides familiarization in personal readiness, unit cohesiveness and combat effectiveness. Course includes planning, organizing and coordinating personnel programs, administrative and personnel systems and community activities.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

AR-1513-0007

Army Community Service

Course Number: None.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.
Length: 1 week (49 hours).
Exhibit Dates: 10/83-Present.
Objectives: To train managerial personnel to manage community service centers.
Instruction: Conference and practical applications including publicity, funding sources, private organization, foster care, referrals and followups and community relations.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

AR-1513-0008

Army Community Service Mangement

Course Number: None.
Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.
Length: 3 weeks (114 hours).
Exhibit Dates: 10/83-Present.
Objectives: To provide managerial personnel within the Army community service area with the skills necessary for successful management of community service programs.
Instruction: Lectures and practice to prepare students to manage Army community service centers including needs assessment, programs, resource management, budgeting, staffing and administration.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in resource management and budgeting (3/85).

AR-1513-0009

Individual Terrorism Awareness

Course Number: 3A-F40/011-F21.
Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.
Length: 1 week (58 hours).
Exhibit Dates: 10/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to understand the nature of terrorism, evaluate motivation, organization, and tactics of terrorist groups; describe terrorist operations including planning and execution of terrorist attacks; reduce vulnerability to terrorist attack; demonstrate knowledge of counterterrorist surveillance, survival, individual protective measures; use hostage survival techniques and clandestine communication skills; describe the relationship between terrorism and the media and minimize terrorist use of media; teach others how to limit their vulnerability to terrorist selection and attack; teach others techniques to survive a terrorist assault and how to maximize survival in a hostage situation.
Instruction: Lectures and discussions including introduction to terrorism, terrorist operations, conducting terrorist surveillance, individual protective measures, survival, shooting techniques, hostage survival techniques including resistance to interrogation, clandestine communication techniques, and terrorism and the media.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in social science (10/90).

AR-1513-0010

Director of Personnel and
Community Activities (DPCA)

Course Number: 7C-F15/500-F17.
Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.
Length: 3-4 weeks (154 hours).
Exhibit Dates: 10/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to describe the duties and responsibilities of a human services manager, perform physical training exercises, manage budgets, develop internal controls, staff and manage a human services operation.
Instruction: Methods of instruction include lecture and classroom discussions. Topics covered are human resource operations, personnel counseling, personal counseling, and family support services.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in human services management (12/88).

AR-1601-0001

Maintenance Engineering Analysis
for Integrated Logistics Support

Course Number: None.
Location: Logistics Management Center, Ft. Lee, VA.
Length: 4 weeks (139 hours).
Exhibit Dates: 4/71-12/72.
Objectives: To provide maintenance engineers with training in integrated logistics support and system engineering techniques as applied to weapon systems life-cycle management.
Instruction: Lectures and practical exercises in applied integrated logistics support and system engineering, including development, use, and dangers of mathematical simulation support models; maintenance support planning effectiveness; and the purpose and role of maintenance engineering in accomplishing total integrated logistics support.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial engineering (2/74).

AR-1601-0002

Defense Spectrometric Oil Analysis
Operator/Evaluator

Course Number: 8B-F28; 491-F2.
Location: Quartermaster School, Ft. Lee, VA.
Length: *Version 1:* 2-5 weeks (87-195 hours). *Version 2:* 1-4 weeks (44-136 hours).
Exhibit Dates: *Version 1:* 7/73-6/85. *Version 2:* 6/72-6/73.
Objectives: To train personnel in spectrometric oil analysis.
Instruction: Lectures and practical exercises in the principles, procedures, and operation of fluid analysis spectrometers, and in the techniques used in spectrometric analysis of used oils for wear-metal content, including general concepts and evaluation of spectrometric results, functional groups familiarization and operation of the A/E 35U-3 fluid analysis spectrometer, and operation and component functions of the atomic absorption spectrometer.
Credit Recommendation: *Version 1:* In the vocational certificate category, certificate in chemical or petroleum technology (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in chemical or petroleum technology (6/74). *Version 2:* In the vocational certificate category, certificate in chemical or petroleum technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in chemical or petroleum technology (6/74).
Related Occupation Codes: 92C.

AR-1601-0003

Petroleum Distribution Supervision

Course Number: 821-F1.
Location: Quartermaster School, Ft. Lee, VA.
Length: 6 weeks (210 hours).
Exhibit Dates: 7/67-6/85.

Objectives: To train enlisted personnel to supervise the receipt, storage, and issue of petroleum products and the operation of cross-country pipelines.

Instruction: Lectures and practical exercises in the supervision and operation of petroleum pipelines, including general petroleum subjects, pipeline and terminal operations, fuel system supply point, tank vehicles, supervisory performance exercise, gaging and sampling, pump station operation, general laboratory subjects and basic laboratory tests, petroleum supply in the combat zone, and quality surveillance and laboratory operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in industrial technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in industrial technology (6/74).

AR-1601-0004

Forensic Chemist
(Chemical Analyst)

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 27 weeks (996 hours).

Exhibit Dates: 11/71-12/76.

Objectives: To qualify selected warrant officers and enlisted personnel as forensic chemists accepted as expert witnesses in forensic chemical analysis before judicial proceedings.

Instruction: Subjects include orientation and theory of the spectrum, optical system of spectograph, double and single path prisms, gratings and recording devices, theory and use of absorption spectrum tables, specimen preparation techniques, x-ray diffraction techniques, gas liquid chromatography including qualitative and quantitative analysis, photomicroscopy, theory of microscopy, light sources, specimen preparations, examinations utilizing fluorometry, polarimetry and refractometry, qualitative analysis of enzymes and hemoglobins, study and comparison of hairs, fibers and minerals.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in forensic chemistry or forensic science (4/78).

Related Occupation Codes: 951G; 951C.

AR-1601-0005

Petroleum Storage Specialist, Skill Development Base

Course Number: 821-76W20-I.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (427 hours).

Exhibit Dates: 12/68-6/85.

Objectives: To train personnel to perform as petroleum storage supervisors.

Instruction: Lectures and practical exercises in petroleum operations, including exercise of command; leadership; internal defense and development; field training; general petroleum subjects; supply point operations; pipeline and terminal operations; chemical, biological, radiological operations; small-unit ambush and counterambush tactics; squad battle drill; petroleum handling equipment and procedures exercise; and pump station operations.

Credit Recommendation: In the vocational certificate category, certificate in mechanical and petroleum technology (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in mechanical and petroleum technology (6/74).

Related Occupation Codes: 76W.

AR-1601-0006

Advanced Geodetic Surveyor

Course Number: 4M-F1; 412-F2.

Location: Engineer School, Ft. Belvoir, VA.

Length: 20 weeks (783 hours).

Exhibit Dates: 1/67-11/73.

Objectives: To train warrant officers and senior noncommissioned officers in advanced geodetic survey techniques.

Instruction: Lectures and practical exercises in advanced geodetic surveying techniques, including map compiling, vertical and horizontal control surveys, gravity, astronomic observations, and mathematics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 15 semester hours in geodesy or geodetic astronomy (5/74); in the upper-division baccalaureate category, 6 semester hours in geodesy, 4 in geodetic astronomy (12/68).

Related Occupation Codes: 821A.

AR-1601-0007

Topographic Engineer Officer

Course Number: 4M-7915; 5-A-7915.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (409-458 hours).

Exhibit Dates: 1/68-12/73.

Objectives: To provide officers with advanced training in surveying, photogrammetry, and cartography.

Instruction: Lectures and practical exercises in geodetic surveying, triangulation and astronomic observations, gravity surveying, map compilation and reproduction, color separation, care and operation of camera and equipment, and layout and offset press.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in geodetic surveying, photogrammetry, or cartography (5/74); in the upper-division baccalaureate category, 3 semester hours in geodetic surveying, 3 in cartography (12/68).

AR-1601-0008

Soils Analysis
(Soils Technician)

Course Number: 491-51G20; 5-R-517.1; 5-E-54.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8-9 weeks (266-396 hours).

Exhibit Dates: 1/53-11/86.

Objectives: To train enlisted personnel in analysis of soils, aggregates, concrete and allied construction materials for use in design, control, and evaluation of roads and airfields.

Instruction: Conferences and practical exercises in geology, unified soil classification system, California bearing ratio, various soil tests, horizontal construction emphasizing drainage systems, concrete and bituminous materials properties and testing, and the Marshall stability method of mix design.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in general science or credit in soil testing laboratory (9/79); in the upper-division baccalaureate category, 4 semester hours as an elective in general science or credit in soil testing laboratory (9/79).

Related Occupation Codes: 51G; 51Q.

AR-1601-0009

Soils Analyst, Skill Development Base
(Soils Analyst Noncommissioned Officer (NCO) Candidate)

Course Number: 491-51G20-I.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (466-468 hours).

Exhibit Dates: 1/68-11/86.

Objectives: To train enlisted personnel in soil analysis.

Instruction: Lectures and laboratory in soil analysis and conditions and construction procedures for concrete. Topics include hydrologic features of the earth; soil exploration; soils compaction; earthwork analysis as it pertains to roads and airfields; and soil engineering problems, including management of flexible pavements and methods for determining runoff. Laboratory and field experiences include performance of soil exploration, inspection techniques, and quality control testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in soils analysis laboratory (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in soils analysis laboratory (5/74); in the upper-division baccalaureate category, credit in soils analysis laboratory on the basis of institutional examination (12/68).

Related Occupation Codes: 51G.

AR-1601-0010

Construction Surveyor Noncommissioned Officer (NCO)/Supervisor Candidate
(Construction Surveyor Skill Development Base)
(Construction Surveyor Noncommissioned Officer (NCO) Candidate)

Course Number: 412-82B40-I.

Location: Engineer School, Ft. Belvoir, VA.

Length: 14 weeks (559-566 hours).

Exhibit Dates: 1/68-11/86.

Objectives: To train personnel to perform as construction surveying supervisors.

Instruction: Lectures and practical exercises in principles and procedures of surveying, including construction layout; supply and administration; combat operations, leadership, and counterinsurgency; combat support operations; protective mine warfare, booby trapping, and field fortifications, command indoctrination; methods of instruction; map reading and land navigation; and instrument adjustment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in construction surveying (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction surveying (5/74); in the upper-division baccalaureate category, 3 semester hours in construction surveying (12/68).

Related Occupation Codes: 82B; 82C.

AR-1601-0011

Engineer Graphics Warrant Officer Intermediate

Course Number: 4-5-C30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6 weeks (213 hours).

Exhibit Dates: 12/70-9/86.

Objectives: To train engineer warrant officers who are qualified as photomapping, survey, or map reproduction technicians to manage graphics operations.

Instruction: Lectures and practical exercises in management and its application to graphics operations, including maintenance management, geodetic surveying, photogrammetry, reproduction, topographic management, automatic data processing, signal communications, and weapons training and mine warfare.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in geodetic surveying and photogrammetry (5/74); in the upper-division baccalaureate category, 2 semester hours in geodetic surveying and photogrammetry (5/74).

Related Occupation Codes: 811A.

AR-1601-0012

TERRAIN ANALYST SKILL DEVELOPMENT BASE

(Terrain Analyst Noncommissioned Officer (NCO) Candidate)

Course Number: 491-51Q20-I.

Location: Engineer School, Ft. Belvoir, VA.

Length: 14 weeks (523 hours).

Exhibit Dates: 4/68-9/86.

Objectives: To train enlisted personnel who are qualified as soils analysts to perform as terrain analysis supervisors and technicians.

Instruction: Lectures and practical exercises in the duties of terrain analysis supervisors and technicians, including map reading, aerial photograph interpretation (soil and land form identification), preparation of slope maps, amphibious operations, leadership and counterinsurgency, combat operations, and analysis of various terrains.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air photographic soil interpretation (5/74); in the upper-division baccalaureate category, 6 semester hours in air photographic soil interpretation (5/74).

Related Occupation Codes: 51G; 51Q.

AR-1601-0013

1. COMBAT ENGINEERING (12-CMF) NONCOMMISSIONED OFFICER (NCO) ADVANCED
2. COMBAT ENGINEERING (CE-CMF) NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: *Version 1:* O-12-C42. *Version 2:* O-CE-C42.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 10 weeks (325-326 hours). *Version 2:* 12 weeks (379 hours).

Exhibit Dates: *Version 1:* 4/77-12/81. *Version 2:* 6/72-3/77.

Objectives: To train selected enlisted personnel in construction engineering to support combat operations.

Instruction: *Version 1:* Conferences, seminars, and demonstrations in construction engineering to support combat operations including general duties, field engineering, combat operations, tactical engineering such as camouflage, bunkering, demolitions, bridging, barrier and denial operations, combat construction management employing CPM for projects utilizing bituminous surface treatment equipment, earthworming equipment, lifting and trading equipment, soil properties, horizontal and vertical construction for Track A programs. Track B program is similar to Track A except ADM operations are substituted for soils and vertical construction projects. *Version 2:* Lectures and practical exercises in construction engineering, including management, map reading, soils engineering, concrete mixes, reinforcement and form work, bridges and bridge classification, building structures, critical path methods, construction equipment utilization, demolition, and combat engineering.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic (general) construction for Track A or Track B (9/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in general construction management for Track A or Track B (9/79); in the upper-division baccalaureate category, 4 semester hours in construction management for Track A; 3 semester hours in construction management for Track B (9/79). *Version 2:* In the vocational certificate category, 2 semester hours in general construction (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in general construction (5/74); in the upper-division baccalaureate category, 3 semester hours in general construction (5/74).

Related Occupation Codes: 12B; 12C; 12D; 12E; 12F.

AR-1601-0014

ENGINEER NONCOMMISSIONED OFFICER (NCO)

Course Number: 710-F1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 14-16 weeks (551-586 hours).

Exhibit Dates: 5/66-11/86.

Objectives: To train noncommissioned officers to supervise general construction.

Instruction: Lectures and practical exercises in construction surveys, sketching and drawings; rigging; explosives and demolition; floating equipage; soils and geology; roads and airfields; flexible pavements, concrete mix design and framework; bridges and bridge classification; buildings and construction; and construction management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in engineering construction (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (5/74); in the upper-division baccalaureate category, 3 semester hours in engineering construction (12/68).

Related Occupation Codes: 12B; 12C; 12D; 12E; 12F; 12Z; 00Z; 81B; 82B; 51B; 51C; 51D; 51E; 51G; 51F; 51H; 51J; 51K; 51L; 51N; 51P; 51R; 53B; 53C; 62D; 62E; 62F; 62G; 62H; 62J; 62K; 62L; 62M; 62N; 52B; 52C; 52D; 52E.

AR-1601-0015

MULTIPLEX MAP COMPILING

Course Number: 5-E-21.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (370-400 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train enlisted personnel in the theory and techniques of map compiling.

Instruction: Lectures and practical exercises in map preparation using multiplex equipment, including introduction to multiplex mapping, principles of multiplex, operation of multiplex, extension of control, multiplex mapping problem, aerial cameras, aerial photos, photogrammetry and stereoscopy, reduction printing, multiplex equipment, optical principles, logical contouring, control, projections and girds, and interior orientation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in aerial mapping (5/74); in the upper-division baccalaureate category, 4 semester hours in aerial mapping (12/68).

AR-1601-0016

ARTILLERY SURVEY NONCOMMISSIONED OFFICER (NCO)

Course Number: 412-F1; 6-R-F34.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4 weeks (148-157 hours).

Exhibit Dates: 4/64-12/68.

Objectives: To train personnel to supervise, coordinate, and participate in the operations of an artillery survey party, battery detail, or survey information center.

Instruction: Lectures and practical exercises in artillery survey, including mathematics, survey computations with the MSR, maps, use of UTM grid reference and grid coordinates, restitution, map and aerial photograph reading, equipment, traverse methods and computations, traverse adjustment, triangulation, astronomy, artillery battalion survey, division artillery survey, corps artillery survey, and demonstrations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in general surveying (5/74); in the upper-division baccalaureate category, 2 semester hours in general surveying (12/68).

AR-1601-0017

1. ENGINEER OFFICER ADVANCED
2. ENGINEER OFFICER ADVANCED
3. ENGINEER OFFICER CAREER
4. ENGINEER OFFICER ADVANCED

Course Number: *Version 1:* 4-5-C22. *Version 2:* 4-5-C22. *Version 3:* 4-5-C22; 5-A-C22. *Version 4:* 5-A-C4; 5-O-3.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 26 weeks (796-797 hours). *Version 2:* 32 weeks (1003-1077 hours). *Version 3:* 23-29 weeks (809-830 hours). *Version 4:* 39 weeks (1306-1313 hours).

Exhibit Dates: *Version 1:* 8/75-1/88. *Version 2:* 6/67-7/75. *Version 3:* 6/61-5/67. *Version 4:* 7/56-5/61.

Objectives: To train commissioned officers in training management and selected topics of a general nature.

Instruction: Lectures and practical exercises in civil engineering, including geology, soils, roads, airfields, drainage, flexible and rigid pavements, construction management, bridges, utilities, mapping, automatic data processing, and electives program.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in introductory civil engineering (9/79); in the upper-division baccalaureate category, 3 semester hours in business organization and management (9/79) *Version 2:* In the lower-division baccalaureate/associate degree category, 15 semester hours in civil engineering (5/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in engineering (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 12 semester hours in civil engineering (5/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in engineering construction (12/68). *Version 4:* In the vocational certificate category, 3 semester hours in administrative management (8/74); in the lower-division baccalaureate/associate degree category, 27 semester hours in civil engineering and 3 in administrative management (8/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management and 3 in engineering construction (12/68).

AR-1601-0018

Combat Engineering, Bridging, and Construction Supervision

Course Number: 5-E-65.

Location: Engineer School, Ft. Belvoir, VA.

Length: 15 weeks (537 hours).

Exhibit Dates: 4/56–12/68.

Objectives: To train enlisted personnel who are qualified as combat engineers, bridge or structure specialists, or masons to plan, control, and supervise combat construction and demolition operations.

Instruction: Lectures and practical exercises in the planning, control, and supervision of combat construction and demolition operations, including assembly, maintenance, and dismantling of fixed bridges, floating bridges, rafts, and ferries; construction and repair of structures and routes of communication; demolition; mine warfare activities; concrete and bituminous construction; rigging maintenance; electrical construction; drawings and aerial photographs reading; and construction tools and equipment.

Credit Recommendation: In the vocational certificate category, 8 semester hours in construction technology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology (5/74); in the upper-division baccalaureate category, credit in engineering or construction on the basis of institutional evaluation (12/68).

AR-1601-0019

Special Forces Engineer Training

Course Number: 030-F1.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 5 weeks (158 hours). *Version 2:* 6 weeks (215-223 hours). *Version 3:* 7 weeks (265 hours).

Exhibit Dates: *Version 1:* 1/70–1/87. *Version 2:* 8/67–12/69. *Version 3:* 10/66–7/67.

Objectives: To train Special Forces engineers in engineering tactics, techniques, equipment, and materials.

Instruction: *All Versions:* Lectures and practical exercises in Special Forces engineer training, including floating equipage, geology and soils, engineer construction, construction surveys, and utilization and maintenance of engineer equipment. *Version 1:* Topics include construction management and concrete design. *Version 2:* Topics include flexible pavements. *Version 3:* Topics include flexible pavements, sketchings and drawings, and fundamentals of combat operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in engineering construction (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in engineering construction (5/74); in the upper-division baccalaureate category, 2 semester hours in engineering construction (5/74). *Version 2:* In the vocational certificate category, 1 semester hour in engineering construction (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in engineering construction (5/74); in the upper-division baccalaureate category, 2 semester hours in engineering construction (12/68). *Version 3:* In the vocational certificate category, 2 semester hours in engineering construction (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in engineering construction (5/74); in the upper-division baccalaureate category, 2 semester hours in engineering construction (12/68).

Related Occupation Codes: 12B.

AR-1601-0020

Topography and Printing (TP-CMP) Noncommissioned Officer (NCO) Advanced

Course Number: 4-TP-C42.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (379 hours).

Exhibit Dates: 7/72–11/86.

Objectives: To train enlisted personnel who have a working knowledge of topography and printing to perform as cartographic draftsmen, map compilers, model makers, topographic computers, and surveyors, offset pressmen, or photolithographic chiefs.

Instruction: Lectures and practical exercises in advanced topography, printing, and management, including mathematics, leadership principles, field engineering, combat and combat support operations, topographic engineering, geodetic surveying, map reproduction and distribution, and production supervision. Electives offered in psychology, data processing, economics, constitutional government, military equipment, refrigeration, electrical physics, and electro-hydraulics.

Credit Recommendation: In the vocational certificate category, 4 semester hours in civil technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in civil technology (5/74); in the upper-division baccalaureate category, 6 semester hours as an elective in engineering (5/74).

Related Occupation Codes: 51Q; 81C; 81D; 81E; 81F; 82D; 82E; 83F.

AR-1601-0021

Topography and Printing (TP-CMF) Noncommissioned Officer (NCO) Basic

(Topographic Engineering and Map Reproduction (81-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 4-81-C40; 4-TP-C40.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 7–8 weeks (210-243 hours). *Version 2:* 12 weeks (379 hours).

Exhibit Dates: *Version 1:* 8/75–5/78. *Version 2:* 6/72–7/75.

Objectives: To qualify enlisted personnel who have basic training in topography and printing as noncommissioned officers with duties in the following areas: cartographic draftsman, map compiler, model maker, topographic surveyor, topographic computer, offset pressman and photolithography chief.

Instruction: Lectures and practical exercises in topography and printing, including mathematics, leadership and management, field engineering, combat and combat support, topographic engineering and computing, map reproduction and distribution, cartography and photogrammetry. Electives in psychology, data processing, economics and U.S. constitutional government, and military equipment, refrigeration, electrical physics, electro-hydraulics, slide rule construction, blueprint reading, and field adjustments of survey instruments.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in topographic shop supervision (12/78). *Version 2:* In the vocational certificate category, 4 semester hours in civil technology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in civil technology (5/74); in the upper-division baccalaureate category, 3 semester hours as an elective in engineering (5/74).

Related Occupation Codes: 81A; 81C; 81E; 82D; 82E; 41B; 83D; 83E; 83F; 41K.

AR-1601-0022

Topographic Surveying

Course Number: 412-82D20; 5-E-9.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (368–400 hours).

Exhibit Dates: 3/53–11/73.

Objectives: To train enlisted personnel in topographic surveying.

Instruction: Lectures and practical exercises in all methods of surveying, production of topographic maps and establishment of ground control data, including mathematics, theodolites, leveling, traverses, triangulation, taping, notebook keeping, symbols, photographic interpretation, elevation and relief, and equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in general or topographic surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in general surveying, 3 in topographic surveying (12/68).

Related Occupation Codes: 82D.

AR-1601-0023

Topographic Computing

Course Number: 412-82E20; 5-E-10.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 11 weeks (395 hours). *Version 2:* 16 weeks (602-616 hours).

Exhibit Dates: *Version 1:* 7/70-11/72. *Version 2:* 2/56–6/70.

Objectives: To train enlisted personnel in topographic mapping.

Instruction: Lectures and practical exercises in topographic mapping, including declination, dimensions of map sheets, coordinates, horizontal taping, electronic distance measurements, grid azimuth and triangulations, resections, geographic traverses, astronomic azimuths, and latitudes and longitudes.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 8 semester hours in geodetic surveying and computations (5/74); in the upper-division baccalaureate category, 6 semester hours in geodetic surveying and computations (5/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 12 semester hours in geodetic surveying and computations (5/74); in the upper-division baccalaureate category, 6 semester hours in geodetic computations, and credit in mathematics and field astronomy on the basis of institutional evaluation (12/68).

Related Occupation Codes: 82E.

AR-1601-0024

Construction Surveying

Course Number: *All Versions:* 412-82B20. *Version 2:* 5-E-8.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 11 weeks (414 hours). *Version 2:* 10 weeks (368-376 hours).

Exhibit Dates: *Version 1:* 7/71-6/72. *Version 2:* 2/56-6/71.

Objectives: To train enlisted personnel in plane surveying fundamentals.

Instruction: Lectures and practical exercises in plane surveying fundamentals, including surveying equipment use and adjustment, taping, planetable mapping, road surveys, earthwork estimations, and airfield construction.

Credit Recommendation: *Version 1:* In the vocational certificate category, 11 semester hours in general surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in general surveying (5/74); in the upper-division baccalaureate category, 4 semester hours in general surveying, 2 in construction surveying (5/74). *Version 2:* In the vocational certificate category, 10 semester hours in general surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in general surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in general surveying, 3 in construction surveying (12/68).

Related Occupation Codes: 82B.

AR-1601-0025

Artillery Flash Ranging Advanced

Course Number: 6-R-154.1; 6-R-101.1; 6-E-11.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 6 weeks (224-229 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train enlisted personnel to install and to operate a field artillery flash-ranging unit and be able to determine precise positions by observing smoke, flash, or gunfire.

Instruction: Lectures and practical exercises in the operation of an artillery flash-ranging unit at the advanced level. Topics include the maintenance, installation, and operation of flash-ranging equipment; use of slide rules, basic trigonometry; and gunnery.

Credit Recommendation: In the upper-division baccalaureate category, credit in surveying on the basis of institutional evaluation(12/68).

AR-1601-0026

Air Base Construction

Course Number: 5-O-11.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6 weeks (226 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train commissioned officers in the technical aspects of military airfield construction.

Instruction: Lectures and practical exercises in the technical aspects of military airfield construction. Course includes layout, drainage, construction survey, earthwork calculations, mass diagram, portable surfaces, construction scheduling, soil mechanics, asphalt and portland cement concretes, structures and utilities layout, pit and quarry operations, and maintenance and supervision of construction equipment and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in construction engineering (7/74); in the upper-division baccalaureate category, 3 semester hours in engineering construction (12/68).

AR-1601-0027

Field Artillery Target Acquisition Officer
(Artillery Target Acquisition Officer)
(Artillery Observation)

Course Number: 2E-13D; 2E-1154; 6-A-1154; 6-O-12.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 9-12 weeks (325-482 hours).

Exhibit Dates: 12/55-7/75.

Objectives: To train officers in sound-ranging, flash-ranging, and observation battalion survey techniques.

Instruction: Lectures and practical exercises in field artillery radar, ballistic meteorology, surveying, care and use of surveying instruments, traverse computations, triangulations, grid systems, taping, and astronomy.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in surveying (10/86).

AR-1601-0028

Engineer Construction Officer
(Construction Planning and Operations)
(Construction Planning and Management)

Course Number: 4A-F1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 3 weeks (105-119 hours).

Exhibit Dates: 12/65-11/86.

Objectives: To train commissioned officers in construction supervision.

Instruction: Lectures and practical exercises in construction supervision, including structures and utilities, roads and airfields, management techniques, and construction equipment utilization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in construction (management) (9/79).

AR-1601-0029

Engineer Officer Candidate

Course Number: 4-5-F1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 23 weeks (920-1021 hours).

Exhibit Dates: 3/66-11/86.

Objectives: To train officers for duty in the Corps of Engineers.

Instruction: Lectures and practical exercises in the functions of officers in the Corps of Engineers, including camouflage, engineer reconnaissance, roads and airfields, fixed bridges and bridge classification, maintenance management and equipment utilization, weapons training, combat operations, field fortifications, floating equipage, tools and rigging, map reading and land navigation, and combat engineer practical exercise.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 11 semester hours in civil engineering (7/74); in the upper-division baccalaureate category, 7 semester hours in civil engineering (7/74), and additional credit in advanced military science at institutions which regularly offer such credit (12/68).

AR-1601-0030

1. Petroleum Laboratory Specialist
2. Petroleum Laboratory Specialist
3. Petroleum Laboratory Specialist
4. Petroleum Products Analysis
   (Petroleum Products Analysis, Enlisted)

Course Number: *Version 1:* 491-77L10. *Version 2:* 491-77L10; 491-92C10. *Version 3:* 491-92C10. *Version 4:* 491-92C20; 10-R-903.1; 10-E-22.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 11 weeks (408 hours). *Version 2:* 11-12 weeks (408 hours). *Version 3:* 12 weeks (411 hours). *Version 4:* 11-14 weeks (382-490 hours).

Exhibit Dates: *Version 1:* 3/87-Present. *Version 2:* 12/83-2/87. *Version 3:* 10/78-11/83. *Version 4:* 9/54-9/76.

Learning Outcomes: Personnel will be able to conduct laboratory testing and analysis of petroleum products, and operate and maintain CFR test engines.

Instruction: *Version 1:* Lectures, demonstrations, and practical exercises in basic petroleum laboratory subjects; tests required for surveillance of petroleum products; procedures and techniques for the identification, evaluation, and disposition of petroleum products; and the organization and operation of the quality surveillance program in military petroleum facilities. *Version 2:* Practical exercises, programmed instruction and examinations, including general petroleum subjects and basic laboratory tests, chemical laboratory tests, physical tests of light and heavy distillates, performance examinations, quality surveillance program, and maintenance of laboratory equipment are all covered. *Version 3:* Lectures and practical exercises in petroleum products analysis, including general petroleum subjects and basic laboratory tests, physical test of light and heavy distillates and greases, standardization of chemical solutions and titration techniques, CFR test engine orientation, chemical laboratory test, identification laboratory tests, military quality surveillance facilities, calibration and maintenance of laboratory equipment, identification of unknowns, and petroleum storage and supply. *Version 4:* Lectures and practical exercises in petroleum products analysis, including general petroleum subjects and basic laboratory tests, physical test of light and heavy distillates and greases, standardization of chemical solutions and titration techniques, CFR test engine orientation, chemical laboratory test, identification laboratory tests, military quality surveillance facilities, calibration and maintenance of laboratory equipment, identification of unknowns, and petroleum storage and supply.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in testing and analysis of petroleum products (8/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in physical science (8/89). *Version 2:* In the vocational certificate category, 9 semester hours in testing and analysis of petroleum products (10/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in physical science (10/88). *Version 3:* In the vocational certificate category, 6 semester hours in laboratory testing of petroleum products; in the lower-division baccalaureate/associate degree category, 3 semester hours in physical science (5/81). *Version 4:* In the vocational certificate category, 6 semester hours in laboratory testing of petroleum products (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in laboratory testing of petroleum products, 3 in physical science (7/74); in the upper-division baccalaureate category, 4 semester hours in laboratory testing of petroleum products, 3 in physical science (7/74).

Related Occupation Codes: 77L; 92C.

AR-1601-0031

Petroleum Products Analysis, Officer

Course Number: *Version 1:* 10-A-7381. *Version 2:* 10-OE-22.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8 weeks (283 hours). *Version 2:* 14 weeks (490 hours).

Exhibit Dates: *Version 1:* 8/57-12/68. *Version 2:* 7/55-7/57.

Objectives: To train officers in the principles and procedures used in the laboratory testing and analysis of petroleum products.

Instruction: Lectures and practical exercises in petroleum products analysis, including general petroleum subjects, physical and chemical tests of petroleum products, CFR orientation, petroleum testing program, and laboratory management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in laboratory testing of petroleum products (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in laboratory testing of petroleum products (7/74); in the upper-division baccalaureate category, 3 semester hours in petroleum products (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in laboratory testing of petroleum products (6/74); in the upper-division baccalaureate category, 4 semester hours in laboratory testing of petroleum products (12/68).

AR-1601-0032

1. Army Air Defense Battery Officer
2. Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer

Course Number: *Version 1:* 44-A-C2. *Version 2:* 44-O-1.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 23-27 weeks (897-1017 hours). *Version 2:* 30 weeks (1158 hours).

Exhibit Dates: *Version 1:* 7/57-12/68. *Version 2:* 5/56-6/57.

Objectives: To qualify officers as artillery officers.

Instruction: Lectures and practical exercises in map reading and surveying, introduction to electronics, air defense artillery and missile systems, and tactics and operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in introduction to surveying (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to surveying (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical theory, 2 in introduction to surveying (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical theory, 1 in introduction to surveying (7/74).

AR-1601-0033

Artillery Survey Officer

Course Number: *All Versions:* 2G-1183. *Version 2:* 6-A-1183; 6-O-11.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 7 weeks (253 hours). *Version 2:* 7-8 weeks (275-308 hours).

Exhibit Dates: *Version 1:* 6/73-7/75. *Version 2:* 12/55-5/73.

Objectives: To train commissioned officers in reconnaissance and survey procedures.

Instruction: Lectures and practical exercises in reconnaissance and survey procedures, including target acquisition, mathematics, maps, survey equipment, traverse, triangulation, astronomy, field artillery battalion and division artillery survey, and corps artillery survey.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in surveying (7/74); in the upper-division baccalaureate category, 4 semester hours in surveying (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in surveying (7/74); in the upper-division baccalaureate category, 5 semester hours in general surveying (12/68).

AR-1601-0034

1. Field Artillery Surveyor
2. Artillery Survey Specialist
3. Artillery Survey Specialist
4. Artillery Survey Advanced

Course Number: *Version 1:* 82C10-OSUT; 412-82C10. *Version 2:* 412-82C10; 412-82C20; 412-153.1. *Version 3:* 6-R-153.1. *Version 4:* 6-E-16; 6-R-153.1; 6-R-145.2.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Field Artillery School, Ft. Sill, OK. *Version 3:* Artillery and Missile School, Ft. Sill, OK. *Version 4:* Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* Group-paced 9-14 weeks (785 hours). *Version 2:* 6-9 weeks (162-348 hours). *Version 3:* 5 weeks (205 hours). *Version 4:* 8-9 weeks (295-322 hours).

Exhibit Dates: *Version 1:* 10/82-9/86. *Version 2:* 1/66-9/82. *Version 3:* 7/64-12/65. *Version 4:* 3/56-6/64.

Objectives: To train enlisted personnel as artillery surveyors or artillery surveyor specialists.

Instruction: *All Versions:* Lectures and practical exercises in surveying, including mathematics, maps, equipment, traverse, triangulation, astronomy, military applications, artillery battalion survey. *Version 2:* Topics include higher-echelon survey. *Version 3:* Topics include corps artillery survey. *Version 4:* Topics include division and corps artillery survey. For course after 9/86, see AR-1601-0079.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in surveying (10/83); in the upper-division baccalaureate category, 3 semester hours in surveying (10/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in surveying (7/74); in the upper-division baccalaureate category, 5 semester hours in surveying (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 4 semester hours in surveying (7/74); in the upper-division baccalaureate category, 3 semester hours in surveying (12/68). *Version 4:* In the lower-division baccalaureate/associate degree category, 6 semester hours in surveying (7/74); in the upper-division baccalaureate category, 5 semester hours in surveying (12/68).

Related Occupation Codes: 82C.

AR-1601-0035

Engineer Officer Advanced

Course Number: 5-A-C4; 5-O-3.

Location: Engineer School, Ft. Belvoir, VA.

Length: 39 weeks (1306-1313 hours).

Exhibit Dates: 7/56-6/60.

Objectives: To train officers to perform as engineering officers.

Instruction: Lectures and practical exercises in the duties of an engineering officer. Course includes military subjects, engineering project planning; scheduling; management and construction of bridges and bridge components, roads, airfields, and other public works facilities; equipment utilization; soil classification; pavement design; construction material and terrain evaluation; effective writing; organization; facilities; and supply management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in administrative management (8/74); in the lower-division baccalaureate/associate degree category, 27 semester hours in civil engineering, 3 in administrative management (8/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management, 3 in engineering construction (12/68).

AR-1601-0036

Associate Engineer Officer Advanced

Course Number: 5-O-4.

Location: Engineer School, Ft. Belvoir, VA.

Length: 15-16 weeks (571-594 hours).

Exhibit Dates: 6/55-6/60.

Objectives: To train commissioned officers as commanders and staff officers of engineering battalions.

Instruction: Lectures and practical exercises on the responsibilities of field grade officers in the Corps of Engineers, including fundamentals of combat operations, combined-arms operations, special weapons officer training, logistics, protective construction, camouflage, soils engineering and geology, troop construction management, public works, maintenance and effective utilization of engineer equipment, CBR water contamination removal, fixed bridges, staff functions, troop construction management, mapping and map supply, map and aerial photograph reading, and floating stream-crossing equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in civil engineering (7/74); in the upper-division baccalaureate category, 3 semester hours in engineering construction, 2 in business organization and management (12/68).

AR-1601-0037

Artillery Calibration

Course Number: 9-R-422.2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train enlisted personnel to perform artillery calibrations.

Instruction: Lectures and practical exercises in artillery calibration, including ballistics fundamentals, artillery ammunition, geometric considerations in placement, air density problems, and transit operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in civil technology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in civil technology (8/74).

AR-1601-0038

Skysweeper Maintenance

Course Number: 44-E-17.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 4 weeks (138 hours).

Exhibit Dates: 10/56-12/68.

Objectives: To train enlisted personnel to maintain small arms and Skysweeper guns.

Instruction: Lectures and practical exercises in maintenance of small arms and Skysweeper guns. Course includes light antiaircraft artillery weapons, including .50 cal. machine gun, AAA generator sets, 15-mm gun and mount, loader-rammer M17, and inspection and fire control of weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in industrial or mechanical technology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in industrial or mechanical technology (8/74).

AR-1601-0039

Automatic Weapons Maintenance

(Light Antiaircraft Artillery (AAA) Maintenance)

Course Number: 44-E-18.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 4-7 weeks (140-229 hours).

Exhibit Dates: 10/55-12/68.

Objectives: To train enlisted personnel to maintain unit small arms and twin 40-mm guns (M42).

Instruction: Lectures and practical exercises in the maintenance of small arms and twin 40-mm guns (M42). Course includes fundamentals of AAA weapons, multiple .50 caliber machine guns, M45 mounts, self-propelled twin 40-mm guns, small arms (.30 cal. carbines, .30 cal. rifles, 3.5 inch rocket launchers), and inspection and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in industrial or mechanical technology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in industrial or mechanical technology (8/74).

AR-1601-0040

Smoke Generation Supervision

Course Number: 3-R-532.7.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 4 weeks (148 hours).

Exhibit Dates: 6/57-12/68.

Objectives: To train enlisted personnel to supervise the maintenance and operation of chemical smoke generators.

Instruction: Lectures and practical exercises in maintenance and operation of flame throwers and chemical generators; identification and detection of toxic chemical agents; and principles of supply and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in chemical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

AR-1601-0041

Mechanized Flame Thrower Surveillance

Course Number: None.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 4 weeks (155 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train personnel in the maintenance and repair of flame throwers.

Instruction: Lectures and practical exercises in the operation, troubleshooting, minor repair, and maintenance of various types of vehicle-mounted flame throwers; basic troubleshooting of the electrical, mechanical, and chemical systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in chemical/mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in chemical/mechanical technology (5/74).

AR-1601-0042

Chemical Equipment Repair

Course Number: 690-54D20; 3-R-533.1.

Location: *Version 1:* Ordnance and Chemical School, Aberdeen Proving Ground, MD. *Version 2:* Chemical School, Ft. McClellan, AL.

Length: *Version 1:* 8 weeks (232 hours). *Version 2:* 10-11 weeks (321-396 hours).

Exhibit Dates: *Version 1:* 4/77-1/88. *Version 2:* 6/64-3/77.

Objectives: To train personnel to perform basic repairs on chemical equipment.

Instruction: *Version 1:* Lectures and practical exercises to include operation and maintenance of gas masks, flame throwers, smoke generators and decontamination equipment. *Version 2:* Lectures and practical exercises to include operation and minor maintenance of gas masks, flame throwers, smoke generators, and decontamination equipment; introduction to basic repair shop operations including welding, use of power and hand tools and painting and machine tools, and supply and maintenance procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (1/78). *Version 2:* In the vocational certificate category, 3 semester hours in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical technology (5/74).

Related Occupation Codes: 54D.

AR-1601-0043

Petroleum Supply Specialist

(Petroleum Storage Specialist)

Course Number: 821-76W10; 821-76W20; 821-56C2; 10-R-552.1; 10-E-25.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8-9 weeks (274-294 hours).

Exhibit Dates: 9/54-4/87.

Objectives: To provide enlisted personnel with knowledge in receiving, storing, issuing, dispensing, and shipping of petroleum products.

Instruction: Lectures and practical exercises in packing operations, supply point operations, terminal operations, and pipeline operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in petroleum storage procedures (6/75).

AR-1601-0044

Engineer Officer Basic

(Regular Army Engineer Officer Basic)

Course Number: 4-5-C20; 4-5-C20 (RA); 5-A-C1; 5-O-A.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6-14 weeks (217-574 hours).

Exhibit Dates: 12/54-1/90.

Objectives: To prepare newly commissioned Engineer Corps officers for their first duty assignments.

Instruction: Instruction includes combat engineer operations and individual combat training, construction management and equipment operation, and general military subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in civil engineering and additional credit in advanced military science at institutions which normally offer such credit (9/79).

AR-1601-0045

Artillery Surveyor Noncommissioned Officer (NCO) Basic

Course Number: 412-82C40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 15 weeks (552 hours).

Exhibit Dates: 7/71-5/72.

Objectives: To provide enlisted personnel with a working knowledge of the duties required to perform as artillery surveyors.

Instruction: Lectures and practical exercises in general military subjects; artillery transport; communications; gunnery; tactics and combined arms; and target acquisition.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/76).

AR-1601-0046

Petroleum Quality Representative

(Petroleum Quality Assurance Representative)

Course Number: 8B-F33/821-F2.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2-4 weeks (137-142 hours).

Exhibit Dates: 2/75-6/85.

Objectives: To provide personnel with knowledge of the functions, duties, and responsibilities required to perform as petroleum quality assurance representatives.

Instruction: Programmed instruction, audio-visual presentation, lectures, and practical exercises in laboratory tests of light distillates, physical and chemical laboratory tests of light and heavy distillates, and petroleum supply operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in petroleum laboratory techniques (6/75).

Related Occupation Codes: 761A.

AR-1601-0047

Forensic Chemistry – Trace Evidence

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA; Criminal Investigation Laboratory, Frankfurt, Germany; Criminal Investigation Laboratory, Tokyo, Japan.

Length: 23 weeks (866 hours).

Exhibit Dates: *Version 1:* 2/77-1/88. *Version 2:* 11/71-1/77.

Objectives: To train personnel in the trace evidence aspect of forensic chemistry by preparing the analyst to properly and competently perform examinations and comparisons on known and questioned samples of evidence assisting the analyst in determining the forensic significance of the various types of trace evidence and assisting the analyst in reporting findings and presenting them in judicial proceedings.

Instruction: *Version 1:* Subjects include rules of evidence; courtroom procedures and the expert witness; handling and packaging of trace evidence; crime scene processing; safety, detection and analysis of flammable accelerants, paint, glass, soil, ink, wood, and paper and explosive residues examinations and microscopy. *Version 2:* Includes skeletal reconstruction, photography, chemical and physical properties, chemial tests, infrared and ultraviolet procedures, gas chromatograph separation and identification, microscopic examinations, thin-layer chromatography, neutron activation analysis, and botanical characteristics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in forensic chemistry or forensic science (4/78); in the graduate degree category, 0-9 semester hours, based on the student's research project, as assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and practical applied experience required (4/78). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in forensic science or forensic chemistry (4/78).

AR-1601-0048

FORENSIC DRUG CHEMIST

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA; Criminal Investigation Laboratory, Frankfurt, Germany; Criminal Investigation Laboratory, Tokyo, Japan.

Length: 30 weeks (1170 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To train personnel in forensic drug chemistry to qualify as expert witnesses before other judicial proceedings.

Instruction: Subjects include drug reference material; screening tests; ultraviolet-visible spectrophotometry, flurometry, microscopy, gas chromatography, GC-, MS-; TLC; LC; XRD; emission spectroscopy; NMR; separating techniques; amphetamines, barbiturates, LSD and other hallucinogens; opium alkaloids and derivatives; cocaine; and other controlled and non-controlled drugs; clandestine laboratories; drug syntheses; legal aspects of court and related topics testimony; drug analysis internship.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in forensic chemistry or forensic science (4/78); in the graduate degree category, 0-9 semester hours based on the student's research project as assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and practical applied experience required (4/78).

AR-1601-0049

MARIJUANA EXAMINER

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 8 weeks (312 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To qualify individuals as expert witnesses before judicial proceedings.

Instruction: Topics include marijuana in general, marijuana analysis procedures and legal aspects of forensic analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in forensic chemistry or forensic science (4/78).

AR-1601-0050

ENGINEER OFFICER ADVANCED RESERVE COMPONENT

Course Number: 4-5-C26.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (443 hours).

Exhibit Dates: 5/76-1/88.

Objectives: To prepare engineer officers to be competent company commanders and batallion staff officers; emphasis is placed on the management of training.

Instruction: Conferences, demonstrations, practical exercises, computer assisted instruction, and case studies in construction management and equipment operation, combat construction management employing CPM, organization for ground combat, engineer support of defensive and offensive operations, horizontal and vertical construction.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic construction (9/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in general construction management (9/79); in the upper-division baccalaureate category, 3 semester hours in general civil engineering elective (9/79).

AR-1601-0051

ENGINEER OFFICER BASIC RESERVE COMPONENT

Course Number: 4-5-C25.

Location: Engineer School, Ft. Belvoir, VA.

Length: 4 weeks (167 hours).

Exhibit Dates: 1/76-1/88.

Objectives: To teach newly commissioned second lieutenants in the Army National Guard (ARNG) and selected Army Reserve (USAR) officers in the same grade to perform the duties of a platoon leader in the corps of engineers.

Instruction: Conference, demonstration, practical exercise and case study in construction management and equipment operation, combat construction management employing CPM, organization for ground combat, engineer support of defensive and offensive operations, horizontal and vertical construction.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic construction (9/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in general construction management (9/79).

AR-1601-0052

GENERAL ENGINEERING (51-CMF) NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: 7-51-C42.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (334-337 hours).

Exhibit Dates: 4/76-1/88.

Objectives: To provide noncommissioned officers with advanced training in utilities and construction.

Instruction: Course emphasizes conferences, seminars, practical exercises, demonstrations, and case studies relating to military discipline and justice, leadership and management, maintenance management, field engineering, engineering support operations, foundations and materials, bituminous material, bridging, T/O structures, utilities and engineering construction management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in construction management, 1 in bituminous materials, 1 in electricity for those students completing Track A (9/79); 2 semester hours in construction management, 1 in bituminous materials for those students completing Track B (9/79).

AR-1601-0053

FORENSIC SEROLOGY

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA; Criminal Investigation Laboratory, Frankfurt, Germany; Criminal Investigation Laboratory, Tokyo, Japan.

Length: 32 weeks (1240 hours).

Exhibit Dates: *Version 1:* 1/77-1/88. *Version 2:* 5/74-12/76.

Objectives: To train personnel in forensic serology to qualify them as expert witnesses in the examination, identification, and interpretation of blood stains and stains of other body fluids and comparisons of hairs, before judicial proceedings.

Instruction: *Version 1:* History of forensic serology, handling of physical evidence, identification of blood, semen, saliva, and other biological samples; determination of species origin; interpretation of bloodstain patterns; ABO system; MN system; Rh system; polymorphic serum proteins and isoenzymes; ABO typing of hair; investigative techniques; legal aspects and court testimony. *Version 2:* Fundamentals of blood serology; microscopic examinations; photography; determination of blood; agglutinins of fresh blood; agglutinogens and agglutinins of dried blood; isoenzymes and hemoglobins; semenal and other body substances; study and comparison of hairs, fibers, and minerals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in forensic biology (4/78); In the graduate degree category, 0-9 semester hours (based on the student's research project) to be assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and the practical applied experience required (4/78). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in forensic chemistry or forensic sciences (4/78).

AR-1601-0054

Field Artillery Target Acquisition and Field Artillery Survey Officer

Course Number: *Version 1:* 2E-13D. *Version 2:* 2E-13D; 2E-1154/2G-1183.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 7-8 weeks ((267 hours) *Version 2:* 9-10 weeks (325-345 hours).

Exhibit Dates: *Version 1:* 8/85-Present. *Version 2:* 8/75-7/85.

Objectives: To train field artillery officers in the field of target acquisition/reconnaissance and survey.

Instruction: *Version 1:* Lecture, demonstrations, and field exercises on target acquisition systems including planning, employment, supervision, and training in survey, targeting, and radar. *Version 2:* Lectures, demonstrations and field work in surveying, map reading and plotting, celestial navigation principles and cannon fire direction. Mathematics including logarithms and trigonometry is also covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in radar operations (6/88); in the lower-division baccalaureate/associate degree category, 6 semester hours in surveying and 2 in astronomy (6/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in surveying and celestial navigation (1/80); in the upper-division baccalaureate category, 4 semester hours in surveying and celestial navigation (1/80). Credit is to be granted in either the lower or upper division category.

AR-1601-0055

Marine Corps Field Artillery Fire Controlman
(Marine Field Artillery Fire Controlman)

Course Number: 041-0844; 250-0844.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 7 weeks (267 hours). *Version 2:* 5-7 weeks (182-253 hours).

Exhibit Dates: *Version 1:* 2/82-Present. *Version 2:* 10/75-1/82.

Objectives: To train Marine Corps enlisted personnel in map reading, artillery surveying and cannon fire direction.

Instruction: Lectures, demonstrations and field exercises in map reading and plotting,cannon fire direction, artillery survey, and gunnery. Student is taught basic mathematics including logarithms and right triangle trigonometry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in surveying, 1 in technical mathematics (10/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in surveying (1/80); in the upper-division baccalaureate category, 3 semester hours in surveying (1/80); Credit is to be granted in either the upper or lower division, but not in both categories.

AR-1601-0056

Multiple Launch Rocket Systems (MLRS)/Lance Operations
(Lance Operations/Fire Direction Assistant)

Course Number: 250-15J10.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 11 weeks (392-411 hours). *Version 2:* 7-8 weeks (274 hours). *Version 3:* 6 weeks (214 hours).

Exhibit Dates: *Version 1:* 4/84-Present. *Version 2:* 8/82-3/84. *Version 3:* 4/78-7/82.

Objectives: To qualify enlisted personnel to become fire direction assistants in a Lance missile unit or Multiple Launch Rocket Systems unit.

Instruction: *Version 1:* Lectures and practical exercises in the operation and maintenance of Lance operation/MLRS Fire Direction System Platoon Leader Digital Message Device, hand-held calculator, and the use of fire direction system message formats. *Version 2:* Lectures and practical exercises in map reading, zone-to-zone grid transformation, basic mathematics including logarithms, computations both manually and with a FADAC computer; computes parameters for nuclear fire missions such as azimuth, orienting angle, time to fire and correction data; using FADAC student computes survey problems including altitude, declination, horizontal and vertical angles and horizontal distances for a minimum of four traverse stations. *Version 3:* Lectures and practical exercises in map reading, zone-to-zone grid transformation, basic mathematics including logarithms, computations both manually and with a FADAC computer; computes parameters for nuclear fire missions such as azimuth, orienting angle, time to fire and correction data; using FADAC student computes survey problems including altitude, declination, horizontal and vertical angles and horizontal distances for a minimum of four traverse stations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in map reading (11/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in basic mathematics (10/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and 2 in computer operations (10/83). *Version 3:* In the vocational certificate category, 1 semester hour in basic mathematics (1/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and 1 in introduction to computers (1/80).

Related Occupation Codes: 15J.

AR-1601-0065

1. Advanced Petroleum Management
2. Fuels and Energy Management

Course Number: 8-10-OA-81A.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8 weeks (293 hours). *Version 2:* 7 weeks (260 hours).

Exhibit Dates: *Version 1:* 5/85-Present. *Version 2:* 10/80-4/85.

Objectives: To prepare commissioned officers to perform duties in fuels and energy management.

Instruction: *Version 1:* Lectures, conferences, laboratory and practical exercises, inspections, tours, and demonstrations all present the materials covered in this course. Topics include advanced petroleum operations, basic petroleum mathematics and hydraulics, petroleum equipment and field operations, petroleum operations of each service, and the support relationships for joint operations, organization and operation of a quality surveillance program, and evaluation and disposition of petroleum products. *Version 2:* Types of instruction include lectures, conferences, computer assisted instruction, programmed instruction, seminars, television, demonstrations, and practical exercises. Topics include basic petroleum mathematics and hydraulics, supervision and planning of supply point operations and quality control operations, supervision of high pressure pipeline and terminal complexes, world energy problems, alternative sources of energy, and energy conservation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to petroleum management (8/85). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in management of energy resources (4/81).

AR-1601-0066

Petroleum Management
Quartermaster Officer Basic

Course Number: 8-10-0B-81A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (214-215 hours).

Exhibit Dates: 8/78-5/82.

Objectives: To provide the new officer with training in petroleum management to include introduction to petroleum operations, supervision of the use of petroleum handling equipment, orientation to petroleum laboratory functions, and supervision of terminal and pipeline operations.

Instruction: Types of instruction include lectures, conferences, practical exercises, programmed instruction, television tapes, laboratory tests, and equipment use demonstrations. Topics include introduction to petroleum operations, principles of operation of petroleum handling equipment, processing of petroleum samples and reporting of sample results, performance of laboratory tests including those for thermal stability and viscosity, principles of maintenance and operation of pipeline and terminal equipment, including storage tanks, trucks, and rail cars.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to petroleum operations; in the upper-division baccalaureate category, 5 semester hours in petroleum operations management (4/81).

AR-1601-0067

Petroleum Management
Quartermaster Officer
Advanced

Course Number: 8-10-C22/81A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11 weeks (422 hours).

Exhibit Dates: 10/75-6/85.

Objectives: To provide commissioned officers with the training required to perform duties as a petroleum management officer.

Instruction: Types of instruction include lectures, computer assisted instruction, programmed instruction, seminars, television, practical exercises, laboratory tests, and equipment use demonstrations. Topics include introduction to petroleum operations, principles of operation of petroleum handling equipment; petroleum laboratory testing including thermal stability and viscosity; management of pipeline operations including storage tanks, waterfront operations, and pump stations; terminal management including computer assisted laboratory analysis and the theory of flow; and energy management, including world energy problems, prepositioned reserve stocks, petroleum geology, energy conservation, and alternative sources of energy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to petroleum operations; in the upper-division baccalaureate category, 6 semester hours in petroleum operations management and 1 in energy management (4/81).

AR-1601-0068

Air Defense Artillery (ADA)
Operations and Intelligence
Assistant
(Air Defense Artillery (ADA) Operations
and Intelligence) Assistant

Course Number: 250-16H10-AIT; 250-16H10; 250-16H10-OSUT; 16H10-OSUT; 16H10-OSUT (Phase I); 16H10-OSUT(ST) (Phase I and II).

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 5–29 weeks (209–1259 hours). *Version 2:* 6–14 weeks (280–636 hours).

Exhibit Dates: *Version 1:* 3/83–Present. *Version 2:* 2/79–2/83.

Objectives: To train enlisted personnel to become Air Defense Artillery operators and intelligence assistants.

Instruction: *Version 1:* Course consists of conferences and practical exercises in basic soldier skills, and military occupational specialty operation skills . Topics include map reading, communication skills, tactical operations center operations, and AN/TSQ-73 system command/control console operator tasks. *Version 2:* Course content includes training in map reading practices, communications systems and procedures, and intelligence practices and operations. Those students completing the longer version of this course have completed basic military training through One Station Unit Training (OSUT).

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (11/88). *Version 2:* In the vocational certificate category, 1 semester hour in photogrammetry/map reading (3/81).

Related Occupation Codes: 16H.

AR-1601-0069

Bridge Specialist

Course Number: 12C10-OSUT; 030-12C10; 12C10-OSUT (ST).

Location: Training Center Engineer, Ft. Leonard Wood, MO.

Length: 7–13 weeks (565 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide instruction in military bridging operations for non-prior service personnel.

Instruction: Lectures and practical exercises in basic military tasks, technical training in engineer tools, mines, field fortifications and associated areas, river crossing operations and military bridge installation.Course may include basic training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/83).

Related Occupation Codes: 12C.

AR-1601-0070

Combat Engineer

Course Number: 12B10-OSUT; 030-12B10; 12B10-OSUT (ST).

Location: Training Center Engineer, Ft. Leonard Wood, MO.

Length: 7–13 weeks (567 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide personnel with specific military skills and knowledge required of a combat engineer.

Instruction: Lectures and practical experiences in specific military areas of demolition, mine/countermine operations, field fortifications, land navigation, camouflage operations, and offensive and defensive tactical operations. Course may include basic training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/83).

Related Occupation Codes: 12B.

AR-1601-0071

1. Petroleum Laboratory Specialist
   Basic Noncommissioned Officer
   (NCO)
2. Petroleum Laboratory Specialist
   Basic Technical

Course Number: 491-92C30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (147 hours). *Version 2:* 8–9 weeks (131 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 10/84–9/88.

Objectives: To educate and train enlisted personnel in the supervision of a petroleum laboratory test activity.

Instruction: Practical exercises, conferences and lectures, demonstrations, television, and examinations are the methods of presenting laboratory safety, sampling and gaging procedures, petroleum laboratory testing procedures, petroleum laboratory maintenance program, and quality surveillance operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in petroleum laboratory test activity (8/88). For credit recommended for the Common Core see exhibit AR-1406-0090. *Version 2:* In the vocational certificate category, 3 semester hours in petroleum laboratory test activity (8/85).

Related Occupation Codes: 92C.

AR-1601-0072

1. Petroleum Supply Specialist Basic
   Noncommissioned Officer (NCO)
2. Petroleum Supply Specialist Basic
   Specialist

Course Number: 821-76W30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (180 hours). *Version 2:* 13–14 weeks .

Exhibit Dates: *Version 1:* 3/86–Present. *Version 2:* 10/84–2/86.

Learning Outcomes: Upon completion of the course, the student will understand the functions of a petroleum supervisor.

Instruction: The course utilizes practical exercises, demonstrations, inspections, field excercises, and examination in general petroleum subjects, supply, point and terminal operations, pipeline systems, water supply operations, and laboratory tests.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in petroleum supply (10/88). *Version 2:* In the vocational certificate category, 5 semester hours in petroleum supply (8/85).

Related Occupation Codes: 76W.

AR-1601-0074

Field Artillery Cannon
Noncommissioned Officer (NCO)
Advanced

Course Number: 041-13B40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 11 weeks (455 hours).

Exhibit Dates: 10/85–2/89.

Objectives: To train selected noncommissioned officers to perform modern battlefield tactics as leaders of a cannon battalion.

Instruction: Lectures, field exercises, and demonstrations in tactics, communications, electronics, target acquisition, and weapons. For course after 2/89, see AR-1601-0078.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in oral communications, 1 in surveying (11/85); in the upper-division baccalaureate category, 3 semester hours in principles of management and 1 in educational administration (11/85).

Related Occupation Codes: 13B.

AR-1601-0075

Petroleum Supply Specialist

Course Number: 821-77F10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9–10 weeks (338 hours).

Exhibit Dates: 5/87–Present.

Objectives: Upon completion, the student will have knowledge in receiving, storing, issuing, dispensing, and shipping of petroleum products.

Instruction: Lectures and practical exercises in packing operations, supply point operations, terminal operations, and pipeline operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in petroleum storage procedures (10/88).

Related Occupation Codes: 77F.

AR-1601-0076

Petroleum Supply Reserve Specialist -
Reserve Component

Course Number: 821-77F10-RC.

Location: Quartermaster School, Ft. Lee, VA; Selected Reserve Component Schools, Continental United States.

Length: 2 weeks (88 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform skills in direct and general support of all areas involving petroleum products and water supply operations.

Instruction: Lectures, demonstrations, and practical exercises in general petroleum subjects including fire and safety precuations and health and handling hazards, class III supply paint operations, terminal and pipeline operations, and water supply operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in petroleum products (10/88).

Related Occupation Codes: 77F.

AR-1601-0078

Cannon Crewmember Advanced
Noncommissioned Officer (NCO)

Course Number: 041-13B40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8 weeks (288 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a chief noncommissioned officer in a common artillery unit, apply skills needed for reconnaissance and emplacement of an artillery battery, supervise all details for occupation of the selected location, and then coordinate the surveying procedures needed for accurate firing; specific competencies include the use of optical instruments, surveying instruments, communications equipment and computer equipment; the student will be able to provide leadership and skill in planning, organizing, supervising and coordinating the effective functioning of the unit.

Instruction: Methods of instruction include lectures, conferences, activities and field exercises covering topics in leadership, decision making, supervision, tactics, surveying procedures and communications systems; performance exercises and examinations cause the student to demonstrate competence in the topics taught.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in surveying, 1 in technical communications, 1 in principles of management (6/89); for credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 13B.

AR-1601-0079

Field Artillery Surveyor

Course Number: 412-82C10; 412-82C10/412-82C10(ST).

Location: Field Artillery School, Ft. Sill, OK.

Length: 9–11 weeks (373–424 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as a member of a field artillery survey party, employ proper map reading techniques, operate secure radio and wire communication equipment, establish distances and location of points by mechanical, electronic, and astronomical methods.

Instruction: Lectures and practice in the various map displays, astronomical observations and computations, use of aiming circle, horizontal taping, theodolite triangulation and electronic distance measuring equipment, gyroscopic azimuthal determinations, closure errors, methods of encoding and decoding messages, set-up and operation of various field radios, computation of grid locations, distances, directions, heights, and astronomic positions from field data with the aid of a computer and/or calculator.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in general surveying and 1 for basic field practice in surveying (10/89); in the upper-division baccalaureate category, 3 semester hours in advanced surveying methods and 1 for field practice in surveying (10/89).

Related Occupation Codes: 82C.

AR-1604-0172

Air Traffic Control Systems,
Subsystems, and Equipment
Repairer Supervisor Advanced
Noncommissioned Officer (NCO)

Course Number: 102-93D40.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 8–9 weeks (326–332 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise, administer, and evaluate air traffic control electronic systems, subsystems, equipment, and installation activities.

Instruction: Topics include general aviation subjects, field site training and related skills, communication skills, leadership, training management, with emphasis on maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (4/90). For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 93D.

AR-1606-0001

Intelligence Analyst
Noncommissioned Officer (NCO)
Basic

Course Number: 243-96B40-EC.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 10 weeks (307 hours).

Exhibit Dates: 1/72–1/89.

Objectives: To provide noncommissioned officers with a working knowledge of the duties of intelligence analysts.

Instruction: Lectures in intermediate-level supervisory skills in intelligence and security operations, communicative arts, personnel management, general intelligence subjects, ground and aerial surveillance, electronic suveillance devices, advanced photogrammetry, Soviet defense policy, Soviet/East European/Chinese communist armed forces, interrogation, and a military campaign case study.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business administration, 3 in industrial security, 3 in political science (1/74); in the upper-division baccalaureate category, 3 semester hours in business administration, 3 in industrial security, 3 in political science (1/74).

Related Occupation Codes: 96B.

AR-1606-0002

Image Interpreter Noncommissioned
Officer (NCO) Basic

Course Number: 242-96D40-EC.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 12 weeks (367 hours).

Exhibit Dates: 1/72–1/89.

Objectives: To provide noncommissioned officers with a working knowledge of image interpretation.

Instruction: Lectures in intermediate-level supervisory skills in intelligence and security operations, communicative arts, personnel management, general intelligence subjects, tactical intelligence, interrogation, advanced photogrammetry, mosaics, terrain analysis, imagery interpretation management, target folders, and target analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business administration, 3 in industrial security, 3 in political science (1/74); in the upper-division baccalaureate category, 3 semester hours in business administration, 3 in industrial security, 3 in political science (1/74).

Related Occupation Codes: 96C.

AR-1606-0003

Petroleum Distribution Supervision

Course Number: 821-F1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 7/67–6/85.

Objectives: To train enlisted personnel to supervise the receipt, storage, and issue of petroleum products and the operation of cross-country pipelines.

Instruction: Lectures and practical exercises in the supervision and operation of petroleum pipelines, including general petroleum subjects, pipeline and terminal operations, fuel system supply point, tank vehicles, supervisory performance exercise, gaging and sampling, pump station operation, general laboratory subjects and basic laboratory tests, petroleum supply in the combat zone, quality surveillance and laboratory operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in industrial technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in industrial technology (6/74).

Related Occupation Codes: 96D.

AR-1606-0004

1. Counterintelligence Agent
2. Counterintelligence Agent
   (Military Intelligence Specialist)

Course Number: 244-97B40.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 15 weeks (455 hours). *Version 2:* 15 weeks (526–566 hours).

Exhibit Dates: *Version 1:* 2/72–5/75. *Version 2:* 4/67–1/72.

Objectives: To provide enlisted personnel with investigative skills and with a basic knowledge of installation security procedures.

Instruction: Lectures and practical experience in administration, human relations, interviews and interrogations, basic investigative techniques, report writing, and oral briefing techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in public administration, investigative methods, or industrial security (1/74). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in intelligence methods (12/68).

Related Occupation Codes: 97B.

AR-1606-0005

Technical Intelligence

Course Number: 3A-F18; 243-F4.

Location: Intelligence School, Ft. Holabird, MD.

Length: 3 weeks (110 hours).

Exhibit Dates: 2/67–12/68.

Objectives: To provide officers and enlisted personnel with a working knowledge of technical intelligence.

Instruction: Lectures in basic intelligence methods, including gathering and processing intelligence information, geography and politics of foreign areas, characteristics of foreign military personnel, and map reading.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in political science (1/74); in the upper-division baccalaureate category, credit in intelligence methods on the basis of institutional evaluation (12/68).

AR-1606-0006

Flight Simulator (UH1FS) Specialist
(Flight Simulator (2B24) Specialist)

Course Number: 191-ASI F8; 191-F1.

Location: Aviation Center, Ft. Rucker, AL.

Length: 2–3 weeks (91 hours).

Exhibit Dates: 6/75–Present.

Objectives: To provide enlisted personnel with the knowledge to perform as synthetic flight training system (2B24 or UH1FS) console operators in order to provide instruction in instrument flight techniques to rotary wing rated Army aviators.

Instruction: Practical exercises and programmed instruction in the synthetic flight training system, UH1FS or 2B24.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 93D; 93J.

AR-1606-0007

Installation Intelligence

Course Number: 3C-F4; 243-F1.

Location: Intelligence School, Ft. Holabird, MD.

Length: 3 weeks (90-109 hours).

Exhibit Dates: *Version 1:* 5/69-1/80. *Version 2:* 5/67-4/69.

Objectives: To provide commissioned officers, enlisted personnel, and civilian personnel with a basic understanding of installation intelligence and physical security functions.

Instruction: Lectures in the basic principles of intelligence, including an analysis of domestic intelligence agencies and their functions, counterintelligence procedures, physical security of installations, and personnel screening methods.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial security (1/74); in the upper-division baccalaureate category, 2 semester hours in industrial security (1/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

Related Occupation Codes: 11F; 11D; 13E; 15J; 16H; 96B.

AR-1606-0008

Order of Battle Intelligence
Enlisted

Course Number: 30-E-6.

Location: Intelligence School, Ft. Holabird, MD.

Length: 13 weeks (455 hours).

Exhibit Dates: 5/57-12/68.

Objectives: To train enlisted personnel to perform administrative and clerical duties in the intelligence field.

Instruction: Lectures in political science, topography, administrative procedures, order of battle procedures, and organization and tactics of intelligence units.

Credit Recommendation: In the vocational certificate category, 3 semester hours in business or public administration (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business or public administration (1/74); in the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0009

Military Intelligence

Course Number: 30-R-971.1.

Location: Intelligence School, Ft. Holabird, MD.

Length: 10 weeks (315 hours).

Exhibit Dates: 12/57-12/68.

Objectives: To train enlisted personnel to perform clerical and administrative duties in the intelligence field.

Instruction: Lectures in the basic principles of processing intelligence reports, clerical administration, filing systems, and the use of office equipment.

Credit Recommendation: Insufficient data for evaluation (1/74).

AR-1606-0010

Intelligence Enlisted

Course Number: 30-E-3; 30-R-962.2.

Location: Intelligence School, Ft. Holabird, MD.

Length: 13 weeks (455 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train enlisted personnel in intelligence procedures.

Instruction: Lectures in basic intelligence methods, administrative procedures, political science, topography, and collection, processing, and dissemination of intelligence materials.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in political science or public administration (1/74); in the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0011

Non-Morse Communications Analyst
(Non-Morse Search and Development)

Course Number: 231-F1.

Location: Security Agency School, Ft. Devens, MA.

Length: 11 weeks (395 hours).

Exhibit Dates: 12/67-1/88.

Objectives: To provide enlisted personnel with a working knowledge of basic communications theory and the use of communications equipment.

Instruction: Lectures and practical experience in basic telecommunications theory, circuit analysis, and the use of electronic diagnostic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (1/74); in the upper-division baccalaureate category, 3 semester hours in electronics (1/74).

Related Occupation Codes: 05K.

AR-1606-0012

Radio Traffic Analyst
(Traffic Analysis)

Course Number: 232-98C20.

Location: Security Agency School, Ft. Devens, MA.

Length: 9 weeks (310 hours).

Exhibit Dates: 12/51-1/80.

Objectives: To provide enlisted personnel with a working knowledge of basic radio traffic analysis.

Instruction: Lectures and practical experience in the theory and operation of telecommunication equipment, informational analysis, radio program and technical report writing, and monitoring of radio transmissions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in telecommunications or credit in learning resources and media on the basis of institutional evaluation (1/74); in the upper-division baccalaureate category, 3 semester hours in telecommunications or credit in learning resources and media on the basis of institutional evaluation (1/74).

Related Occupation Codes: 98C.

AR-1606-0013

Operations and Intelligence
Specialist
(Infantry Intelligence and Operations Specialist)

Course Number: None.

Location: Institute for Military Assistance, Ft. Bragg, NC; Special Forces Training Group, Ft. Bragg, NC.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/65-2/73.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to perform as intelligence specialists.

Instruction: Lectures in the basic principles of intelligence gathering, including map reading, photography, authentication systems, and collecting, processing, and disseminating political and sociological information.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial security (1/74); in the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0014

Senior Officer Electronic Warfare
(EW) Cryptologist

Course Number: 2G-F10.

Location: Security Agency School, Ft. Devens, MA.

Length: 4 weeks (172 hours).

Exhibit Dates: 4/68-9/86.

Objectives: To train officers to perform the duties of a cryptologic officer.

Instruction: Lectures in the fundamentals of security procedures, including electronic countermeasures, cryptological operations, and collection of political, sociological, and geographical data about foreign countries.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in international relations or public administration on the basis of institutional evaluation (1/74); in the upper-division baccalaureate category, credit in international relations or public administration on the basis of institutional evaluation (1/74).

AR-1606-0015

Electronic Warfare (EW)
Cryptologic Officer Specialist

Course Number: 2G-F11.

Location: Security Agency School, Ft. Devens, MA.

Length: 3 weeks (102 hours).

Exhibit Dates: 1/68-9/86.

Objectives: To provide officers with a basic knowledge of the fields of intelligence and electronic countermeasures.

Instruction: Lectures in the fundamentals of intelligence operations, including electromagnetic theory, electronic countermeasures, human relations, and collection of political and geographical data on foreign countries.

Credit Recommendation: In the vocational certificate category, credit in basic electronics on the basis of institutional evaluation (1/74); in the lower-division baccalaureate/associate degree category, credit in basic electronics on the basis of institutional evaluation (1/74); in the upper-division baccalaureate category, credit in basic electronics on the basis of institutional evaluation (1/74).

AR-1606-0016

Radio Teletypewriter Analysis

Course Number: 232-F1.

Location: Security Agency School, Ft. Devens, MA.

Length: 7 weeks (316 hours).

Exhibit Dates: 11/66-9/86.

Objectives: To provide enlisted personnel with a working knowledge of telecommunications.

Instruction: Lectures and practical experience in various types of teletypewriter systems equipment, radio-teletypewriter operations, transmission and receipt of communications, and English.

Credit Recommendation: In the vocational certificate category, 3 semester hours in business communications (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications (1/74).

Related Occupation Codes: 98C.

AR-1606-0017

Cryptologic Electronic Warfare (EW) Officer Basic Specialist

Course Number: 2G-F12.

Location: Security Agency School, Ft. Devens, MA.

Length: 14 weeks (616 hours).

Exhibit Dates: 9/71-9/86.

Objectives: To provide officers with a basic knowledge of cryptology.

Instruction: Lectures in basic electronics, the principles of organization and management, collection of political and economic data, and human relations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in telecommunications, 4 in political science, public administration, or business administration (1/74); in the upper-division baccalaureate category, 2 semester hours in telecommunications, 4 in political science, public administration, or business administration (1/74).

AR-1606-0018

Intelligence Officer Basic
(Military Intelligence Officer Basic)

Course Number: 3-30-C20.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 9 weeks (291-333 hours).

Exhibit Dates: *Version 1:* 8/79-1/83. *Version 2:* 7/78-7/79. *Version 3:* 3/73-6/78.

Objectives: To provide officers with the skills necessary to perform as management personnel in the field of intelligence.

Instruction: *All Versions:* Lectures in intelligence operations, personnel management and supervision, military equipment and resources. *Version 2:* Course includes tactical operations and organizational effectiveness. *Version 3:* Course includes military legal system.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in principles of administration/ management (5/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in management, business administration, or public administration (1/74); in the upper-division baccalaureate category, 3 semester hours in management, business administration, or public administration (1/74).

AR-1606-0019

Basic Industrial Security

Course Number: 3C-F7.

Location: Intelligence School, Ft. Holabird, MD.

Length: 3 weeks (119 hours).

Exhibit Dates: 4/67-1/80.

Objectives: To train civilian and military personnel to perform the duties of an industrial security specialist.

Instruction: Lectures in the basic principles of physical security, mechanical and electronic protective devices, and principles of industrial security organization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in police administration or industrial security (1/74); in the upper-division baccalaureate category, 1 semester hour in management, 1 in political science (12/68).

AR-1606-0020

USASA Basic Cryptologic Supervisor

Course Number: 230-F3.

Location: Security Agency School, Ft. Devens, MA.

Length: 10 weeks (472 hours).

Exhibit Dates: 12/71-9/86.

Objectives: To train enlisted personnel to become supervisors in the field of cryptology.

Instruction: Lectures in the basic operation of a telecommunications organization, personnel management and supervision, human relations, and the functions and applied use of electronic telecommunications equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in public administration, 1 in electronics (1/74).

Related Occupation Codes: 98B; 98C; 98G; 98J; 05D; 05G; 05H; 05K.

AR-1606-0021

Security Assistance Management Orientation Seminar

Course Number: 7B-F5.

Location: Institute For Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (76-83 hours).

Exhibit Dates: 6/73-8/77.

Objectives: To provide officers with the knowledge necessary to qualify them for positions in military assistance programs with foreign governments.

Instruction: Lectures in security assistance resources and management, U.S. policies and foreign assistance programs, and national security objectives and responsibilities.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (1/74).

AR-1606-0022

National Senior Intelligence

Course Number: None.

Location: Defense Intelligence School, Washington, DC.

Length: 14 weeks (560 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To provide officers and civilian personnel with the knowledge necessary to hold management positions in the field of national and international intelligence.

Instruction: Lectures in the processing and management of intelligence information, development and implementation of U.S. foreign policy, the national intelligence structure, and government agencies involved in foreign policy.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in international relations, public administration, or political science (1/74).

AR-1606-0023

Command and Staff Officer Cover and Deception

Course Number: 2G-F14.

Location: Electronic Warfare School, Ft. Huachuca, AZ.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/72-1/89.

Objectives: To provide commissioned officers and civilian personnel with a working knowledge of cover and deception intelligence measures.

Instruction: Lectures in tactics and strategies in the deployment of combat forces, electronic countermeasures, electronic surveillance equipment, and case studies of cover and deception operations in World War II and the Vietnamese War.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

AR-1606-0024

Security Assistance Management
(Military Assistance Programmer/Advisor)

Course Number: 7B-F2; 012-F1.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 3-4 weeks (124-145 hours).

Exhibit Dates: 9/71-8/77.

Objectives: To provide officers and noncommissioned officers with a basic knowledge of U.S. foreign policy and international assistance programs.

Instruction: Lectures in the basic principles of security assistance resource management, including U.S. foreign policy, communicating in foreign cultures, foreign internal defense planning, and case studies of foreign assistance programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in comparative economics, international relations, or political science (1/74); in the upper-division baccalaureate category, 2 semester hours in comparative economics, international relations, or political science (1/74).

AR-1606-0025

Defense Against Methods of Entry

Course Number: 3C-F2; 244-F2.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 9 weeks (272 hours). *Version 2:* 6-9 weeks (213-324 hours).

Exhibit Dates: *Version 1:* 6/72-11/81. *Version 2:* 4/65-5/72.

Objectives: To provide military personnel with a working knowledge of protective security measures and devices.

Instruction: Lectures and practical experience in the use and repair of mechanical and electronic locking devices and alarm systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in physical security or police administration (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in physical security or police administration (1/74). *Version 2:* In the vocational certificate category, 1 semester hour in physical security or police administration (1/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in physical security or police administration (1/74).

Related Occupation Codes: 97B; 97C.

AR-1606-0026

Special Forces Operations and Intelligence

Course Number: *Version 1:* 244-ASIF1. *Version 2:* 244-F5.

Location: Institute for Military Assistance, Ft. Bragg, NC; Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 16 weeks (671–767 hours). *Version 2:* 15 weeks (537–540 hours).

Exhibit Dates: *Version 1:* 2/79–2/87. *Version 2:* 3/73–1/79.

Objectives: To provide enlisted personnel with the knowledge necessary to perform as supervisors in the intelligence field.

Instruction: For this course after 2/87 see AR-1606-0176. *Version 1:* Lectures and practical exercises intelligence gathering and techniques of information analysis, including map reading, counterintelligence techniques, basic photography and public administration. *Version 2:* Lectures in interrogation methods and techniques, information gathering and analysis, photograph and map reading, political and civil affairs operations in foreign nations, U.S. foreign policy, and counterintelligence techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic photography, 2 in public administration or political administration or physical security and 3 in physical education (2/80). *Version 2:* In the vocational certificate category, 2 semester hours in political science, public administration, or police administration/physical security (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in political science, public administration, or police administration/physical security (1/74).

Related Occupation Codes: 11B; 11C; 11F; 12B; 76Y; 91B; 96B; 00Z; 05B.

AR-1606-0027

1. Special Forces Intelligence
2. Intelligence Analyst (Special Forces)

Course Number: 244-F5.

Location: Intelligence School, Ft. Holabird, MD; Intelligence School, Ft. Huachuca, AZ.

Length: 7 weeks (247 hours).

Exhibit Dates: *Version 1:* 8/70–2/73. *Version 2:* 5/66–7/70.

Objectives: To provide enlisted personnel with the skills necessary to conduct interrogations and other intelligence activities.

Instruction: *All Versions:* Lectures in basic intelligence methods including personnel interviewing, report writing, and counterintelligence operations. *Version 1:* Topics include aerial and audio surveillance techniques, physical security, and foreign armies orientation. *Version 2:* Topics include interviews and interrogations, map reading, human relations, and the development of sources of information.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in political science, public administration, or police administration (1/74); in the upper-division baccalaureate category, 3 semester hours in political science, public administration, or police administration (1/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in political science or industrial security (1/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

Related Occupation Codes: 96B.

AR-1606-0028

Fixed Wing Qualification

Course Number: 2B-1980-B; 2B-101B-B; 2B-101C-B; 2B-061B-A; 2B-061C-F; 1B-1980-B; 1B-061B.

Location: Aviation School, Ft. Rucker, AL; Aviation School, Ft. Stewart, GA.

Length: 8–16 weeks (280–576 hours).

Exhibit Dates: 6/59–1/88.

Objectives: To train helicopter pilots to fly fixed-wing aircraft.

Instruction: Lectures and flight training in fixed-wing aircraft operation, including aircraft maintenance, navigation, meteorology, and air assault tactics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fixed-wing flight training, 2 in navigation or meteorology (2/74); in the upper-division baccalaureate category, credit in navigation or meteorology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D; 100E; 100Q; 100R; 160A; 103A.

AR-1606-0029

Special Identification Techniques Analyst

Course Number: 231-05D30.

Location: Security Agency School, Ft. Devens, MA.

Length: 9 weeks (381 hours).

Exhibit Dates: 9/64–3/77.

Objectives: To thoroughly train personnel operators in analytical techniques and to provide the skills and knowledge necessary to identify and report information by selected special identification techniques.

Instruction: Theories and principles of identification techniques analysis; administrative operational tasks; introduction to intelligence; preparation and maintenance of mission logs; mission processing and analysis from raw data; evaluation and validation of activity reports; accuracy studies; on-the-job training programs in military radio reconnaissance activities.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 05D.

AR-1606-0030

Special Identification Techniques Operator

Course Number: 231-05D20.

Location: Security Agency School, Ft. Devens, MA.

Length: 14 weeks (599 hours).

Exhibit Dates: 2/66–9/86.

Objectives: To train selected personnel in the operational procedures and techniques of telecommunication employing international codes at the intermediate speed classification level.

Instruction: Telecommunication theory and operational studies; radiotelegraph and teletypewriter procedures and operation; special identification techniques; cryptographic and communications security; signal recognition; radio direction finding.

Credit Recommendation: In the vocational certificate category, 2 semester hours in telecommunications, 1 in electronic theory (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in telecommunications, 1 in electronic theory (2/74); in the upper-division baccalaureate category, 2 semester hours in telecommunications, 1 in electronic theory (2/74).

Related Occupation Codes: 05D.

AR-1606-0031

Area Intelligence Specialist
(Area Intelligence Officer)

Course Number: 244-97C40; 3A-9668; 3A-972A.

Location: Intelligence School, Ft. Huachuca, AZ; Intelligence School, Ft. Holabird, MD.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/71–1/88.

Objectives: To provide selected intelligence officers with in-depth study in the political, historical, and geographical background of specific countries or areas, and to insure, through extensive study, a cultural understanding and language proficiency which will enable them to function as intelligence specialists.

Instruction: Historical, political, economic, and sociological aspects of national groups; strategic intelligence; U.S. intelligence structure; mission and employment of counterintelligence units; foreign intelligence organizations and techniques; use of automatic data processing in intelligence; intelligence collection by air reconnaissance; writing techniques and methods; map reading and cartographic materials; security-safeguarding military information; advanced operation of electronic and photographic equipment; radio communication; interviewing methods and written and oral interpersonal communications, including language interpretation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in political science or credit in public administration on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 9 semester hours in political science or credit in public administration on the basis of institutional evaluation (2/74).

AR-1606-0032

Intelligence Analyst, Specialist Candidate

Course Number: 243-96B20-I.

Location: Intelligence School, Ft. Holabird, MD.

Length: 12 weeks (425 hours).

Exhibit Dates: 8/70–12/80.

Objectives: To train intelligence analysts as senior technicians in the analysis of the political, economic, and military capability of selected foreign governments and/or entities.

Instruction: Organizational and managerial theory; administrative and interrogational procedures; public speaking; political, social, and military history and composition of Southeast Asia.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in international relations, 2 in political science, 2 in business administration (2/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (2/72).

Related Occupation Codes: 96B.

AR-1606-0033

1. Tactical Intelligence Staff Officer
2. Combat Intelligence Staff Officer

Course Number: 3A-9301.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, Md.

Length: *Version 1:* 6 weeks (181 hours). *Version 2:* 6 weeks (209 hours).

Exhibit Dates: *Version 1:* 3/72-1/88. *Version 2:* 3/68-2/72.

Objectives: To provide selected commissioned officers with the knowledge and techniques of combat intelligence at battalion, brigade, and division level.

Instruction: Staff organization and procedures; area and counterintelligence; tactical imagery interpretation facility and terrain models; functions and duties of combat intelligence officer.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in political science or credit in public administration on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in political science or credit in public administration on the basis of institutional evaluation (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in intelligence methods (3/70).

AR-1606-0034

Intelligence Analyst

Course Number: 243-96B20A.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 9 weeks (270 hours). *Version 2:* 9 weeks (316 hours).

Exhibit Dates: *Version 1:* 2/72-1/79. *Version 2:* 3/67-1/72.

Objectives: To prepare selected enlisted personnel to assist intelligence staff officers in intelligence operations by providing them with the necessary skills and knowledge of military intelligence training.

Instruction: Military organizational functions; counterintelligence; interrogation; aerial surveillance; psychological operations; civil affairs orientation; preparation of intelligence reports; preparation and supervision of intelligence training programs; collection and processing of military information; production and dissemination of military intelligence; typewriting; map reading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in public administration, 3 in political science (2/74); in the upper-division baccalaureate category, 3 semester hours in public administration, 3 in political science (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

Related Occupation Codes: 96B.

AR-1606-0035

Military Intelligence Coordinator

Course Number: 244-97D20.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, MD. *Version 3:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 7 weeks (210 hours). *Version 2:* 8 weeks (281 hours). *Version 3:* 8 weeks (279 hours).

Exhibit Dates: *Version 1:* 3/72-1/88. *Version 2:* 11/70-2/72. *Version 3:* 11/66-10/70.

Objectives: To provide enlisted personnel who have demonstrated writing skill with the international political knowledge necessary to qualify them as geopolitical assessors of a foreign nation.

Instruction: Business communications; typing; interviewing techniques; communist political ideology; international code radio operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business report writing, 3 in public administration or political science (2/74); in the upper-division baccalaureate category, 3 semester hours in business report writing, 3 in public administration or political science (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in intelligence methods and credit in typing on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods and credit in typing on the basis of institutional evaluation (12/68). *Version 3:* In the upper-division baccalaureate category, credit in intelligence methods and typing on the basis of institutional evaluation (12/68).

Related Occupation Codes: 97D; 97B; 97C.

AR-1606-0036

Diving

Course Number: *Version 1:* 4N-7242; 433-00B10; 433-00B20; 433-00B30. *Version 2:* 55-D-7242; 55-D-564.2. *Version 3:* 55-OE-13.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 22 weeks (771 hours). *Version 2:* 17 weeks (748 hours). *Version 3:* 17 weeks (748 hours).

Exhibit Dates: *Version 1:* 8/72-12/73. *Version 2:* 10/57-7/72. *Version 3:* 8/55-9/57.

Objectives: To train commissioned officers and enlisted personnel in the basic principles of scuba-diving equipment operation and maintenance.

Instruction: Lectures and practical experience in the maintenance of diving equipment, scuba-diving principles and safety, and scuba diving as applied to the maintenance and operation of underwater research equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in marine technology (12/73). *Version 2:* In the vocational certificate category, 3 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in ocean engineering (12/73); in the upper-division baccalaureate category, 1 semester hour in ocean engineering (12/73). *Version 3:* In the vocational certificate category, 6 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in ocean engineering (12/73); in the upper-division baccalaureate category, 6 semester hours in ocean engineering (12/73).

Related Occupation Codes: 00B.

AR-1606-0037

Underwater Operations

Course Number: None.

Location: John F. Kennedy Center for Special Warfare, Ft. Bragg, NC.

Length: 6 weeks (224 hours).

Exhibit Dates: 5/65-12/68.

Objectives: To provide the student with knowledge in surface swimming, diving and equipment, demolitions, and boating sufficient to perform water operations in a Special Forces unit.

Instruction: Surface swimming, diving, the use of diving equipment, marine life and hazards, underwater demolitions training, and small boat training.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-1606-0038

Diver Skill Development Base

Course Number: 433-00B30-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 26 weeks (1,007 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To provide selected enlisted personnel with knowledge and proficiency as divers for technical surface and underwater work.

Instruction: Seminars and practical exercises in diving equipment and techniques, diver tending principles, surface burning and welding, underwater cutting and welding, and explosives and demolition.

Credit Recommendation: In the vocational certificate category, 3 semester hours in physical education, 2 in demolitions, and 1 in welding (7/74).

Related Occupation Codes: 00B.

AR-1606-0039

1. Counterintelligence Officer/Technician
2. Counterintelligence Officer/Technician (Intelligence Research Officer/Technician)
3. Intelligence Research Officer

Course Number: *Version 1:* 3C-9666; 3C-971A. *Version 2:* 3C-9666; 3C-971A. *Version 3:* 30-B-9666.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Holabird, MD. *Version 3:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 15 weeks (450 hours). *Version 2:* 15 weeks (490-552 hours). *Version 3:* 14 weeks (490 hours).

Exhibit Dates: *Version 1:* 12/70-5/75. *Version 2:* 4/67-11/70. *Version 3:* 12/57-3/67.

Objectives: To train officers to be intelligence and counterintelligence investigators.

Instruction: Lectures and practical exercises in intelligence, friendly and hostile agencies, internal development, and tactical counterintelligence support.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in public administration, investigative methods, or industrial security (1/74). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in police or intelligence methods (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

Related Occupation Codes: 971A.

AR-1606-0040

O-1 Instructor Pilot Qualification

Course Number: 2B-F13.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (185 hours).

Exhibit Dates: 1/69-11/86.

Objectives: To qualify pilots as flight-training instructors.

Instruction: Flight training in primary and intermediate maneuvers, night flying, formation flying, uniform flight grading, and aircraft components and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructor pilot flight experience (2/74).

Related Occupation Codes: 100C.

AR-1606-0041

CH-21 (Shawnee) Pilot Transition

Course Number: 1-B-F36.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (154 hours).

Exhibit Dates: 12/62-12/68.

Objectives: To train Army aviators to operate the Shawnee helicopter.

Instruction: Lectures and operational training in the Shawnee helicopter, including flight training; helicopter maintenance; and survival, counterinsurgency, and escape tactics.

Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100C.

AR-1606-0042

CH-37 Instructor Pilot Qualification

Course Number: 2C-F24.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (160 hours).

Exhibit Dates: 7/69-11/86.

Objectives: To qualify commissioned and warrant officer aviators as instructor pilots for CH-37 standardization and transition training.

Instruction: Conferences and practical exercises in flight training, teaching methods, basic and advanced flight maneuvers, and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight instruction (2/74).

Related Occupation Codes: 100C.

AR-1606-0043

CH-47 Instructor Pilot

(CH-47 (Chinook) Instructor Pilot Qualification)

Course Number: 2C-F10.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 11-12 weeks (391 hours). *Version 2:* 4-6 weeks (133-231 hours).

Exhibit Dates: *Version 1:* 7/83-5/86. *Version 2:* 6/65-6/83.

Objectives: To train selected and qualified pilots as instructor pilots in the CH-47 helicopter.

Instruction: *Version 1:* Flight experience as instructor pilot; instruction in principles of aerodynamics and principles and methods of instruction. *Version 2:* Flight experience as instructor pilot and related academic subject matter including principles and methods of instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, 3 in principles and methods of instruction, and credit for flight training of the basis of institutional evaluation (11/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 100B; 100C; 100D; 100E; 100Q; 100R; 160A.

AR-1606-0044

Aeroscout Observer

Course Number: 250-11D2F.

Location: Armor School, Ft. Knox, KY.

Length: 3 weeks (87 hours).

Exhibit Dates: 6/72-1/84.

Objectives: To train enlisted personnel to perform aerial reconnaissance as members of an air cavalry unit.

Instruction: Conferences and practical exercises in combat and combat service support, tactical operations, aeroscout communications, leadership, map reading/air navigation, and aeroscout weapons.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 11D.

AR-1606-0045

CH-54 Aviation Qualification

Course Number: 2C-100D.

Location: Aviation School, Ft. Rucker, AL.

Length: 6 weeks (212 hours).

Exhibit Dates: 3/72-11/86.

Objectives: To train commissioned officers and noncommissioned officers in the operation of CH-54 helicopters.

Instruction: Flight training, including transition flight maneuvers and load operations and lectures on aircraft systems operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 100B; 100C; 100E; 102A.

AR-1606-0046

CH-54 Pilot Transition

Course Number: 2C-F16.

Location: Aviation School, Ft. Rucker, AL.

Length: 6 weeks (218-241 hours).

Exhibit Dates: 3/67-11/86.

Objectives: To train commissioned and warrant officers in the operation of CH-54 helicopters.

Instruction: Lectures and practical experience in transition flight training, CH-54 maintenance, instrumentation, rotary wing preflight briefing, and night flight operations.

Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 062B-100B; 062C-100C; 062D-100D.

AR-1606-0047

OH-58 Instructor Pilot

(OH-58 Transition/Gunnery Instructor Pilot (IP) Qualification)

Course Number: 2C-F23.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 4-5 weeks (150 hours). *Version 2:* 4-6 weeks (127-199 hours).

Exhibit Dates: *Version 1:* 7/85-Present. *Version 2:* 7/69-6/85.

Objectives: To train selected and qualified pilots as instructor pilots in the OH-58 helicopter.

Instruction: *Version 1:* Flight and academic training in day/night visual flight rules; before-flight, basic-flight, approach/landing, and emergency tasks; application of principles and techniques of flight instruction; aircraft systems and maintenance; principles and methods of instruction. *Version 2:* Course is self-paced beginning in 1976. Includes flight experience as instructor pilot and related academic subject matter including principles and methods of instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 100B; 100C; 100D; 100E; 102A.

AR-1606-0048

OH-58 Aviator Qualification

Course Number: 2C-F25.

Location: Aviation School, Ft. Rucker, AL.

Length: 2 weeks (79 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To qualify commissioned and warrant officer aviators to operate OH-58 helicopters under normal and emergency flight conditions.

Instruction: Flight briefings and transition flight training, including night operations and precautionary measures in critical conditions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

Related Occupation Codes: 100B.

AR-1606-0049

UH-1 Aviator Qualification

(UH-1 Pilot Transition)

Course Number: 2C-F18.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (129 hours).

Exhibit Dates: 9/68-11/86.

Objectives: To qualify commissioned and warrant officer aviators in the safe operation of the UH-1 helicopter.

Instruction: Preflight briefing, lectures in precautionary measures, transitional flight training, and maintenance of aircraft.

Credit Recommendation: Credit is not recommended because of limited technical nature of the course (2/74).

Related Occupation Codes: 100B.

AR-1606-0050

OV-1 Instructor Pilot

(OV-1 (Mohawk) Instructor Pilot Qualification

Course Number: 2B-F5.

Location: Aviation Center, Ft. Rucker, AL.

Length: Self-paced 6 weeks (210-246 hours).

Exhibit Dates: 6/65-1/88.

Objectives: To train selected and qualified pilots as instructor pilots in the OV-1 airplane.

Instruction: Course is self-paced beginning in 1976. Flight experience as instructor pilot and related academic subject matter, including principles and methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 101C.

AR-1606-0051

CH-37 (Mojave) Aviator Transition

Course Number: 2C-062D-A.

Location: Aviation School, Ft. Rucker, AL.

Length: 7 weeks (209-234 hours).

Exhibit Dates: 3/66-11/86.

Objectives: To train commissioned and warrant officers in the operation of CH-37 aircraft.

Instruction: Lectures in transition flight training, CH-37 maintenance and instrumentation, and aircraft flight experience.

Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100D.

AR-1606-0052

CH-54 Instructor Pilot
(CH-54 Instructor Pilot Qualification)

Course Number: 2C-F22.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6 weeks (210-237 hours).

Exhibit Dates: 11/68-2/77.

Objectives: To qualify selected commissioned and warrant officer aviators as unit instructor pilots.

Instruction: Flight experience; lectures on aircraft systems, principles of instruction, effective teaching methods, helicopter aerodynamics, precautionary measures, critical conditions, emergency procedures, and basic flight maneuvers.

Credit Recommendation: In the upper-division baccalaureate category, 3 in principles and methods of instruction (10/78).

Related Occupation Codes: 100B; 100C; 100D; 100E.

AR-1606-0053

1. UH-1 Contact Instructor Pilot
   (UH-1 Instructor Pilot)
2. UH-1 Instructor Pilot
   (UH-1 (Iroquois)Instructor Pilot
   (Transition/Gunnery) Qualification)

Course Number: *Version 1:* 2C-ASI5K/2C SQIC. *Version 2:* 2C-F3.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 6 weeks (225 hours). *Version 2:* 4-7 weeks (136-256 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 8/65-9/86.

Objectives: To train selected and qualified pilots as instructor pilots in the UH-1 helicopter.

Instruction: *Version 1:* Lectures and practical training in day visual flight rules/night UH-1, before-flight, basic flight, approach/landing, and emergency tasks; application of principles and techniques of flight instruction, aircraft systems and maintenance. *Version 2:* Flight experience as instructor pilot and related academic subject matter including principles and methods of instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principals and methods of instruction (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles and methods of instruction. Credit may be assigned after completion of Phase I (4 weeks) (10/78).

Related Occupation Codes: 100B; 100C; 100D; 100E; 102A.

AR-1606-0054

Air Cavalry/Attack Helicopter
Commander's Training

Course Number: 2E-F45.

Location: Armor School, Ft. Knox, KY.

Length: 4 weeks (124 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To provide officers with training in the management, organization, and tactical employment of air cavalry troop and attack helicopter companies.

Instruction: Conferences and practical exercises in management, leadership, and educational development; weapons; and command and staff procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in principles of management (2/74).

Related Occupation Codes: 100B; 100E.

AR-1606-0055

CH-37 (Mojave) National Guard
Transition and Instructor
Pilot—Instructor Pilot Phase

Course Number: 2C-F11.

Location: Aviation School, Ft. Rucker, AL.

Length: 8-10 weeks (273-400 hours).

Exhibit Dates: 6/65-11/86.

Objectives: To train National Guard pilots to fly, and serve as instructor pilots on, CH-37 helicopters.

Instruction: Flight training; practical exercises in maintenance, instruments, and tactical subjects; and instructor pilot training.

Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training and instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C.

AR-1606-0056

CH-37 (Mojave) National Guard
Transition and Instructor
Pilot—Transition Phase

Course Number: 2C-F11.

Location: Aviation School, Ft. Rucker, AL.

Length: 7-10 weeks (238-385 hours).

Exhibit Dates: 6/65-11/86.

Objectives: To train National Guard pilots to fly CH-37 helicopters.

Instruction: Flight training and practical exercises in maintenance, instruments, and tactical subjects.

Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C.

AR-1606-0057

1. AH-1S Instructor Pilot
2. AH-1G Instructor Pilot
3. AH-1G (Hueycobra) Instructor
   Pilot (Transition/Gunnery)
   Qualification

Course Number: *Version 1:* 2C-F14, 2C-F35. *Version 2:* 2C-F14. *Version 3:* 2C-F14.

Location: Aviation Center, Ft. Rucker, AL; Aviation Center, Ft. Stewart, GA.

Length: *Version 1:* 10-11 weeks (373 hours). *Version 1:* 6-7 weeks (249 hours). *Version 2:* 4-5 weeks (160-168 hours). *Version 3:* 6 weeks (229-238 hours).

Exhibit Dates: *Version 1:* 8/81-9/87. *Version 2:* 3/72-7/81. *Version 3:* 2/67-2/72.

Objectives: To train selected and qualified pilots as instructor pilots in the AH-1G or AH-1S helicopter.

Instruction: Flight experience as instructor pilot and related academic subject matter, including principles and methods of instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78). *Version 3:* In the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100E; 062B; 062C; 062D.

AR-1606-0058

AH-1S Aviator Qualification
(AH-1G Aviator Qualification)

Course Number: *Version 1:* 2C-ASI1M/2C-100E. *Version 2:* 2C-SI 1M/2C-152G; 2C-100E.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 6-7 weeks (251-254 hours). *Version 2:* 4-7 weeks (158-256 hours).

Exhibit Dates: *Version 1:* 2/82-Present. *Version 2:* 4/72-1/82.

Objectives: To qualify rated pilots with transition training on AH-1G (Cobra) or AH-1S type helicopters.

Instruction: *Version 1:* Lectures and practical exercises in transition flight training on AH-1S helicopters, including preflight inspections, ground procedures, night operations, instrument flying, regulations, flight planning, maintenance procedures, and principles of aerodynamics. *Version 2:* Lectures and practical exercises in transition flight training on AH-1G (Cobra) type helicopters, including preflight inspections, ground procedures, night operations, instrument flying, regulations, flight planning, and maintenance procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (6/87). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in advanced helicopter flight training (10/78).

Related Occupation Codes: 100E.

AR-1606-0059

AH-1G (Hueycobra) Pilot
Transition/Gunnery

Course Number: 2C-F15.

Location: Aviation School, Ft. Rucker, AL.

Length: 4-5 weeks (121-162 hours).

Exhibit Dates: 2/67-11/86.

Objectives: To qualify commissioned and warrant officer aviators in the operation of AH-1G Hueycobra helicopters.

Instruction: AH-1G transition and advanced tactical flight training, and lectures and practical experience in aircraft maintenance, gunnery, rotary-wing preflight briefing, and night and instrument operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

Related Occupation Codes: 100B; 100C; 100D.

AR-1606-0060

UH-1 Aviator Qualification (Navy)
(UH-1 Pilot Transition (Navy))

Course Number: 2C-F19.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (139–148 hours).

Exhibit Dates: 9/68–11/86.

Objectives: To train pilots in the safe operation of UH-1 helicopters and the techniques of air-to-ground helicopter gunnery operations.

Instruction: Lectures and practical experience in transition and tactical flight training, maintenance, precautionary measures, critical conditions, and emergency procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

AR-1606-0061

U-21 Instructor Pilot
(U-21 Standardization Instructor Pilot Qualification)

Course Number: 2B-F11.

Location: Aviation Center, Ft. Rucker, AL.

Length: Self-paced 6 weeks (196–250 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train selected and qualified pilots as instructor pilots in the U-21 airplane.

Instruction: Course is self-paced beginning in 1976. Flight experience as instructor pilot and related academic subject matter including principles and methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 101C; 061C.

AR-1606-0062

HU-1 Instructor Pilot Transition
(HU-1 Instructor Pilot Transition)
(HU-1A Instructor Pilot Transition)

Course Number: 1-B-F22.

Location: Aviation School, Ft. Rucker, AL.

Length: 4–5 weeks (132–177 hours).

Exhibit Dates: 2/59–12/68.

Objectives: To qualify aviators as instructor pilots.

Instruction: Flight experience and lectures on principles and methods of instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles and methods of instruction (2/74); in the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D.

AR-1606-0063

CH-34 Instructor Pilot Qualification

Course Number: 2C-F20.

Location: Aviation School, Ft. Rucker, AL.

Length: 6 weeks (223 hours).

Exhibit Dates: 10/68–2/81.

Objectives: To train aviators as instructor pilots.

Instruction: Flight experience and lectures on aircraft principles and methods of instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles and methods of instruction (2/74).

Related Occupation Codes: 100B; 100C; 100D.

AR-1606-0064

CH-47B/C Aviator Qualification
(CH-47 Aviator Qualification)
(CH-47 (Chinook) Pilot Transition)

Course Number: *Version 1:* 2C-ASI 1G-B/2C-100C-B; 2C-SI1G/2C-154B; 2C-ASI 1G-D/2C-100C-D. *Version 2:* 2C-ASI-1G/2C-100C-B; 2C-ASI 1G-B; 2C-100B-C; 2C-100C-B; 2C-ASI 1G-D; 2C-100C-D; 2C-062D-B; 1-B-F37.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 2–7 weeks (108–315 hours). *Version 2:* 6–9 weeks (219–339 hours).

Exhibit Dates: *Version 1:* 7/84–Present. *Version 2:* 8/63–6/84.

Objectives: To qualify rated pilots with transition training on CH-47 (Chinook) type helicopters.

Instruction: Lectures and practical exercises in transition flight training on CH-47 aircraft, including preflight inspection, ground procedures, night operations, instrument flying, regulations, flight planning and maintenance procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in advanced helicopter flight training (10/78).

Related Occupation Codes: 100B; 102A; 100C.

AR-1606-0065

Officer/Warrant Officer Fixed Wing Aviator—Primary Phase
(Warrant Officer Fixed Wing Aviator—Primary Phase)
(Officer Fixed Wing Aviator—Primary Phase)

Course Number: 1-H-1980A; 1-H-061B-B; 1-R-061B-B; 1-A-1980A.

Location: Aviation School, Ft. Rucker, AL.

Length: 16–19 weeks (604–702 hours).

Exhibit Dates: 8/60–4/65.

Objectives: To train commissioned officers in basic flying techniques and tactical employment of observation and utility fixed-wing aircraft.

Instruction: Lectures and practical exercises in utility fixed-wing and observation aircraft flying techniques, including primary and instrument flight, navigation, flight theory, and aircraft structure and systems operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in flight training, navigation, meteorology, aircraft maintenance, theory of flight, or flight experience (2/74); in the upper-division baccalaureate category, 2 semester hours in primary meteorology or navigation (12/68).

Related Occupation Codes: 100B; 100C.

AR-1606-0066

1. Officer/Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
2. Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
(Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase)
3. Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase

Course Number: *Version 1:* 1-H-1980A; 1-H-061B-B. *Version 2:* 1-R-061B-B; 1-A-1980A. *Version 3:* 1-A-1980A.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 6 weeks (219 hours). *Version 2:* 12 weeks (447–452 hours). *Version 3:* 12 weeks (443–446 hours).

Exhibit Dates: *Version 1:* 4/64–4/65. *Version 2:* 8/62–3/64. *Version 3:* 8/60–7/62.

Objectives: To train commissioned officers in advanced flying techniques and tactical employment of observation and utility fixed-wing aircraft.

Instruction: Lectures and practical exercises in utility fixed-wing and observation aircraft flying techniques, including primary and instrument flight, meteorology, flight theory, navigation, and aircraft structure and systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced flight instruction, meteorology, and aircraft maintenance (2/74); in the upper-division baccalaureate category, 1 semester hour in primary meteorology (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in advanced flight instruction, meteorology, and aircraft maintenance (2/74); in the upper-division baccalaureate category, 1 semester hour in primary meteorology (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 5 semester hours in advanced flight instruction, meteorology, and aircraft maintenance (2/74); in the upper-division baccalaureate category, 1 semester hour in primary meteorology (12/68).

Related Occupation Codes: 100B; 100C.

AR-1606-0067

Officer/Warrant Officer Fixed Wing Aviator—Instruments Phase
(Warrant Officer Fixed Wing Aviator—Instruments Phase)
(Officer Fixed Wing Aviator—Instruments Phase)

Course Number: 1-H-1980A; 1-H-061B-B; 1-R-061B-B; 1-A-1980A.

Location: Aviation School, Ft. Rucker, AL.

Length: 9–10 weeks (335–363 hours).

Exhibit Dates: 8/60–4/65.

Objectives: To train commissioned officers in basic flying techniques and tactical employment of observation and utility fixed-wing aircraft.

Instruction: Lectures and practical exercises in utility fixed-wing and observation aircraft instrument flying techniques and instrument flight theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in instrument flight or instrument flight theory (2/74).

Related Occupation Codes: 100B; 100C.

AR-1606-0068

OFFICER/WARRANT OFFICER FIXED WING AVIATOR

Course Number: *All Versions:* 2B-1980-A; 2B-061B-B; 2B-061C-B. *Version 1:* 2B-101B-A; 2B-101C-A; 2B-101B-B; 2B-101C-B.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 33 weeks (1203-1244 hours). *Version 2:* 36 weeks (1301-1339 hours).

Exhibit Dates: *Version 1:* 1/67-11/86. *Version 2:* 5/65-12/66.

Objectives: To provide commissioned officers with the knowledge and skills necessary to qualify as fully rated instrument pilots.

Instruction: Lectures and practical exercises in utility fixed-wing aircraft instrument flying techniques, basic flight training, meteorology, navigation, flight theory, aircraft maintenance, and aerodynamics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 23 semester hours in flight experience and instruction, meteorology, navigation, maintenance, aerodynamics, or flight theory (2/74); in the upper-division baccalaureate category, 3 semester hours in primary meteorology or navigation (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 21 semester hours in flight experience and instruction, meteorology, navigation, maintenance, aerodynamics, or flight theory (2/74); in the upper-division baccalaureate category, 3 semester hours in primary meteorology or navigation (12/68).

Related Occupation Codes: 100B; 100C.

AR-1606-0069

1. FLIGHT SIMULATOR SPECIALIST
   (Flight Simulator Operations and Maintenance)
2. FLIGHT SIMULATOR OPERATIONS AND MAINTENANCE

Course Number: 191-93D20; 1-R-902.1.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 11-16 weeks (398-547 hours). *Version 2:* 8 weeks (300 hours).

Exhibit Dates: *Version 1:* 4/61-1/88. *Version 2:* 2/57-3/61.

Objectives: To qualify enlisted personnel as operators and instructors in simulated-flight training.

Instruction: Lectures and practical experience in radio navigation, aircraft control and simulated instrument flight, and principles of instruction.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in radio navigation, 3 in principles of instruction (2/74). *Version 2:* In the vocational certificate category, 6 semester hours in flight simulator operation/maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in flight simulator operation/ maintenance (2/74).

Related Occupation Codes: 93D.

AR-1606-0070

OFFICER/WARRANT OFFICER ROTARY WING QUALIFICATION (RESERVE COMPONENT/ALLIED)

(Officer/Warrant Officer Rotary Wing Qualification)

Course Number: 2C-1981-A; 2C-100B-A; 2C-062B-A.

Location: Aviation School, Ft. Rucker, AL.

Length: 8 weeks (277-286 hours).

Exhibit Dates: 2/66-11/86.

Objectives: To qualify fixed-wing aircraft pilots as helicopter pilots.

Instruction: Flight experience and lectures on helicopter theory of flight and aerodynamics, and maintenance of helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in flight experience (2/74); in the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B.

AR-1606-0071

AH-1S (TOW) COBRA AVIATOR QUALIFICATION

(Tow Cobra Aviator Qualification)

Course Number: 2C-F29.

Location: Aviation Center, Ft. Rucker, AL.

Length: 2-3 weeks (61-90 hours).

Exhibit Dates: 11/75-8/83.

Objectives: To qualify selected AH-1G pilots and instructor pilots in the AH-1Q (TOW) Cobra.

Instruction: Lectures and practical exercises in AH-1Q academic subjects and AH-1Q flight subjects.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/78).

Related Occupation Codes: 100E; 102A.

AR-1606-0072

GENERAL OFFICER ROTARY WING QUALIFICATION

Course Number: None.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (206 hours).

Exhibit Dates: 1/67-12/68.

Objectives: To qualify aviators as helicopter pilots.

Instruction: Flight experience, and lectures on helicopter theory of flight, meteorology, navigation, and aircraft maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in flight experience, flight theory, meteorology, navigation, or aircraft maintenance (2/74); in the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

AR-1606-0073

GENERAL OFFICER ROTARY WING FLIGHT TRAINING

Course Number: 1-A-1981G.

Location: Aviation School, Ft. Rucker, AL.

Length: 16 weeks (548 hours).

Exhibit Dates: 4/59-12/68.

Objectives: To qualify aviators as helicopter pilots.

Instruction: Flight experience, and lectures and practical application of navigational techniques, meteorology, aircraft maintenance, flight physiology, and instrument flight theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in flight experience, navigation, meteorology, aircraft maintenance, or flight physiology (2/74); in the upper-division baccalaureate category, credit in meteorology and navigation on the basis of institutional evaluation (12/68).

AR-1606-0074

OFFICER/WARRANT OFFICER ROTARY WING AVIATOR

(Warrant Officer Candidate Rotary Wing Aviator)
(Rotary Wing Aviator Europe-NATO)
(Officer/Warrant Officer Rotary Wing Aviator)
(ORWAC/WORWAC)
(Initial Entry Rotary Wing Aviator)

Course Number: 2C-15B/2C-100B-B; 2C-15B; 2C-100-B; 2C-15ABX; 2C-100B-B; 2C-15A; 2C-100G; 2C-100B-C; 2C-1981-B; 2C-062B-B; 1-H-1981B; 1-H-062B; 1-H-062C; 1-R-062B-C; 1-R-062C-C; 1-B-1981B; 1-A-1981B; 1-R-1981C; 1-N-1981C.

Location: Aviation School, Ft. Rucker, AL.; Primary Helicopter School, Ft. Wolters, TX.

Length: 28-36 weeks (904-1472 hours).

Exhibit Dates: 3/59-Present.

Objectives: To train selected and qualified officers and warrant officers in primary rotary wing flying techniques and helicopter use; beginning in mid-1978 warrant officer candidates were also included; in 10/83, US Air Force, Euro-NATO, and Norway/Denmark officers were included.

Instruction: Flight experience and lectures on aerodynamics, meteorology, navigation, aircraft maintenance, instrument flight theory, and aviation physiology. This course is equivalent to the private and commercial pilot requirements.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in primary helicopter flight training subjects, 3 for flight experience, 3 in aerodynamics, 3 in meteorology, 3 in navigation, 3 in aircraft maintenance, and 3 in aviation physiology (11/86).

Related Occupation Codes: 100B.

AR-1606-0075

WARRANT OFFICER CANDIDATE ROTARY WING AVIATOR

Course Number: *All Versions:* 2C-100B-C. *Version 2:* 2C-062B-C. *Version 3:* 2C-062B-C.

Location: Primary Helicopter School, Ft. Wolters, TX; Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 38 weeks (1304 hours). *Version 2:* 36-38 weeks (1321-1385 hours). *Version 3:* 36 weeks (1342 hours).

Exhibit Dates: *Version 1:* 8/74-9/78. *Version 2:* 4/68-7/74. *Version 3:* 10/65-3/68.

Objectives: To qualify warrant officer candidates as helicopter pilots.

Instruction: For warrant officers candidate training after 9/78, see AR-1606-0074. Lectures and practical training in flight experience, aerodynamics, meteorology, navigation, aircraft maintenance, instrument flight theory, and aviation physiology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 18 semester hours in primary helicopter training, meteorology, navigation, aircraft systems fundamentals, and instrument flight training (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 21 semester hours in flight experience (2/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 21 semester hours in flight experience (2/74); in the upper-division baccalaureate category, 3 semester hours in primary meteorology and navigation, and additional credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C

AR-1606-0076

Military Intelligence Officer Advanced

Course Number: *Version 1:* 3-30-C22. *Version 2:* 3-30-C22. *Version 3:* 3-30-C22. *Version 4:* 30-A-C4.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Intelligence School, Ft. Huachuca, AZ. *Version 4:* Intelligence School Ft. Holabird, MD.

Length: *Version 1:* 26 weeks (834 hours). *Version 2:* 26-33 weeks (830-1013 hours). *Version 3:* 36 weeks (1094-1151 hours). *Version 4:* 38 weeks (1140 hours).

Exhibit Dates: *Version 1:* 9/79-1/89. *Version 2:* 10/73-8/79. *Version 3:* 7/67-9/73. *Version 4:* 12/57-6/67.

Objectives: To train commissioned officers to perform as intelligence officers at command and staff levels.

Instruction: *All Versions:* Lectures and practical exercises in intelligence functions, including command and staff procedures, organization and tactics of foreign armies, tactics and combined arms, and domestic emergencies. *Version 2:* Emphasis is on personal managerial skills, communicative arts, and interrelatedness of organizational systems. *Version 3:* Includes comparative government and foreign policies, legal principles, effective speaking and writing, national defense structure, air defense and civil affairs, communications, map reading, Army management, intelligence and security procedures and agencies, counterintelligence, and electives in communication, government and politics, management, and military arts.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic communications (oral/ written), 3 in techniques of leadership, 3 in physical plant security (10/84); in the upper-division baccalaureate category, 3 semester hours in political science (Soviet military studies), 3 in organization and management (public administration), 3 in geography/civil engineering (remote sensing) (10/84). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in personnel administration/management, 3 in oral and written communication, and 3 in world area studies (U.S.S.R.) (6/79). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in intelligence methods, 3 in business organization and management, and, on the basis of institutional evaluation credit in political science (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in intelligence methods, 3 in business organization and management, 6 in political science (12/68).

AR-1606-0077

Associate Military Intelligence Officer Advanced

Course Number: 30-A-C5.

Location: Intelligence School, Ft. Holabird, MD.

Length: 14 weeks (496 hours).

Exhibit Dates: 12/57-12/68.

Objectives: To provide commissioned officers with advanced intelligence training.

Instruction: Lectures and practical exercises in staff types and organization principles, staff officer functions, records and reports, personnel morale and services, information programs, Congressional relations, personnel educational development, management medical services, methods of instruction, military justice, and leadership and problems of command.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in intelligence methods, and credit in political science on the basis of institutional evaluation (12/68).

AR-1606-0078

Military Intelligence (Analysis) Enlisted

Course Number: 30-R-971.7.

Location: Intelligence School, Ft. Holabird, MD.

Length: 14 weeks (490 hours).

Exhibit Dates: 12/57-12/68.

Objectives: To train enlisted personnel to collect, evaluate, and disseminate information pertaining to espionage, treason, and subversive activities, and to conduct background investigations of military and civilian personnel.

Instruction: Lectures in military science, general intelligence methods and counterintelligence methods, national military establishment organization, intelligence units administration, investigative reports, expository writing and oral expression, combat operations, investigative legal principles, map reading, and physical conditioning.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0079

Communications Security Analyst
(Communications Security Analysis)

Course Number: 231-05G30; 232-98D20.

Location: Security Agency School, Ft. Devens, MA.

Length: 8-9 weeks (283 hours).

Exhibit Dates: 6/64-3/77.

Objectives: To train enlisted personnel to advise and assist the commander in communications security matters.

Instruction: Lectures and practical exercises in national defense organization, Army organizations and commands, intelligence organizations and functions, map reading introduction, message drafting and signal communications procedures, cryptologic material security requirements, crypto-security administration, and communication cover and deception.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

Related Occupation Codes: 05G.

AR-1606-0080

Counterintelligence Officer Transition
(Intelligence Research Officer Transition)

Course Number: 3C-9666-B.

Location: Intelligence School, Ft. Huachuca, AZ; Intelligence School, Ft. Holabird, MD.

Length: 7 weeks (234-264 hours).

Exhibit Dates: 8/66-1/89.

Objectives: To train intelligence officers and technicians in the security, operational, and legal aspects of counterintelligence operations.

Instruction: Lectures and practical exercises in the security, operational, and legal aspects of counterintelligence operations, including security investigations, review of criminal law, evidence, guarantees and rights of the individual, self-incrimination, interrogation procedures, personnel security investigations, countersabotage, counterespionage, and search and seizure.

Credit Recommendation: In the vocational certificate category, 2 semester hours in intelligence methods (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in intelligence methods (4/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

Related Occupation Codes: 971A, 972A.

AR-1606-0081

Order of Battle Intelligence Officer

Course Number: 30-A-9318.

Location: Intelligence School, Ft. Holabird, MD.

Length: 10 weeks (350 hours).

Exhibit Dates: 11/57-12/68.

Objectives: To train commissioned officers in intelligence, counterintelligence, and special intelligence operations.

Instruction: Lectures and practical exercises in military organization, tactics, and operations, including atomic warfare, guided missiles, defensive and offensive combat, tactical air operations, and map and photograph reading, general intelligence orientation, interrogation, technical intelligence, and weather and terrain, organization and tactics of selected foreign armies, and order-of-battle organization, principles, procedures, and techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0082

Military Intelligence Officer Orientation

Course Number: 3-30-C21, 3A-F1.

Location: Intelligence School, Ft. Holabird, MD.

Length: 4-6 weeks (142-211 hours).

Exhibit Dates: 7/65-12/68.

Objectives: To teach commissioned officers the principles of intelligence organization, doctrine, techniques, and operations.

Instruction: Lectures and practical exercises in the principles of intelligence organization, doctrine, techniques, and operations, including order of battle, interrogation, imagery interpretation, intelligence collection, production, and dissemination, counterintelligence; and security.

Credit Recommendation: In the vocational certificate category, 2 semester hours in intelligence methods (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in intelligence methods (4/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

AR-1606-0083

Special Forces Officer Intelligence

Course Number: 3C-F11.

Location: Intelligence School, Ft. Holabird, MD.

Length: 6 weeks (217 hours).

Exhibit Dates: 2/67-12/68.

Objectives: To teach basic intelligence and counterintelligence techniques to intelligence staff or special forces commissioned officers.

Instruction: Lectures and practical exercises in basic intelligence and counterintelligence techniques, including functions of intelligence staff officers, combat intelligence organization, interrogation and aerial surveillance and reconnaissance, nuclear warfare, communication security, and order of battle.

Credit Recommendation: In the vocational certificate category, 2 semester hours in intelligence methods (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in intelligence methods (5/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

AR-1606-0084

1. Image Interpretor Primary Technical
2. Image Interpretor Enlisted
3. Image Interpretation Enlisted
4. Image Interpretation Enlisted (Photointerpretation Enlisted)

Course Number: *Version 1:* 242-96D20. *Version 2:* 242-96D20. *Version 3:* 242-96D20. *Version 4:* 30-R-969.1.

Location: Intelligence School, Ft. Holabird, MD; Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 5-6 weeks (208 hours). *Version 2:* Self-paced 3-17 weeks (100-550 hours). *Version 3:* 13 weeks (390-465 hours). *Version 4:* 17-19 weeks (595-655 hours).

Exhibit Dates: *Version 1:* 5/82-1/89. *Version 2:* 1/74-4/82. *Version 3:* 4/67-12/73. *Version 4:* 8/57-3/67.

Objectives: To train enlisted personnel to perform as tactical image and photo interpreters.

Instruction: *All Versions:* Lectures and practical exercises in the interpretation of tactical images or photos; in aerial surveillance and military organization, planning, and operations; operation of intelligence teams; map reading and terrain analysis techniques; intelligence procedures; photo reading fundamentals and interpretation; photogrammetry; and tactics and military information. *Version 1:* Course has lectures, laboratories and self-paced instruction in the interpretation of aerial photographs and images. After October 1981 the course was 6 weeks (196 hours) in length.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in general college mathematics (including algebra and trigonometry), 3 in introduction to maps and air photos (10/84); in the upper-division baccalaureate category, 4 semester hours in aerial photo and image interpretation, 4 in photogrammetry (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in general college mathematics to include algebra and trigonometry, 3 in introduction to maps and air photos (6/79); in the upper-division baccalaureate category, 3 semester hours in aerial photo and image interpretation, 3 in photogrammetry (6/79) *Version 3:* In the upper-division baccalaureate category, 3 semester hours in imagery interpretation (12/68). *Version 4:* In the upper-division baccalaureate category, 5 semester hours in photographic interpretation (12/68).

Related Occupation Codes: 96D.

AR-1606-0085

Intelligence Staff Officer

Course Number: 30-A-9301.

Location: Intelligence School, Ft. Holabird, MD.

Length: 10 weeks (350 hours).

Exhibit Dates: 9/57-12/68.

Objectives: To train commissioned officers to perform as intelligence staff officers.

Instruction: Lectures and practical exercises in the duties of intelligence staff officers, including tactics and operations, map and photo reading, atomic warfare, organization and tactics of selected foreign armies, planning and briefings, communications reconnaissance, counterintelligence, security, interrogation, and order of battle.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AR-1606-0086

Electronic Warfare (EW)
Cryptologic Tactical Operations Officer

Course Number: 3-30-37A.

Location: Intelligence School, Ft. Devens, MA.

Length: 11 weeks (377 hours).

Exhibit Dates: 8/76-1/88.

Objectives: To prepare company-grade officers for assignment to tactical electronic warfare cryptologic units.

Instruction: Course covers a review of basic electrical circuits, receivers, transmitters, and electron devices. Specific topics include signal intelligence, tactical communications, and electronic countermeasures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

AR-1606-0087

OH-6 Aviator Qualification

Course Number: 2C-F26.

Location: Aviation School, Ft. Rucker, AL.

Length: 2 weeks (79 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To qualify commissioned and warrant officers to fly OH-6 aircraft.

Instruction: Lectures and practical exercises on the OH-6 aircraft, including transition flight training; briefing for night operation; maintenance subjects; power plant; fuel and oil systems; transmission systems; vibrations and tracking; weight and balance; test flight requirements; tactical subjects; XM27E1 introduction; and M134 disassembly, assembly, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 100B.

AR-1606-0088

Air Observer

Course Number: 1-A-F7.

Location: Aviation School, Ft. Rucker, AL.

Length: 8 weeks (303 hours).

Exhibit Dates: 5/57-12/68.

Objectives: To train commissioned officers to perform as air observers.

Instruction: Lectures and practical exercises in the functions of air observers, including general tactical subjects; engineer reconnaissance techniques and FTX; organization and equipment of aggressor-type units; combat intelligence; photo interpretation; intelligence FEX; joint air-ground operations; fire support; signal tactical subjects; flight subjects; general subjects; and tactical maps and photos.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AR-1606-0089

U-8 Instructor Pilot
(U-8 Instructor Pilot Qualification)

Course Number: 2B-F14.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4 weeks (155-159 hours).

Exhibit Dates: 2/69-2/77.

Objectives: To train aviators to perform as U-8 instructor pilots.

Instruction: Lectures and practical exercises in the functions of instructor pilots for the conduct of U-8 aircraft standardization and transition training, including MOI flight training (U-8); review of normal flight procedures and introduction to MOI techniques; emergency procedures; MOI for instrument flight procedures; aircraft systems familiarization; utility; electrical, propeller, landing gear, and brake systems; power plant and related systems; MOI flight subjects; and aviation medicine and life support.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 100C.

AR-1606-0090

Helicopter Door Gunner
Qualification

Course Number: 600-67A1F.

Location: Aviation School, Ft. Rucker, AL.

Length: 3 weeks (112-118 hours).

Exhibit Dates: 4/68-11/86.

Objectives: To qualify aircraft maintenance crewmen to perform as helicopter door gunners.

Instruction: Lectures and practical exercises in providing suppressive light automatic weapons fire and general armed security for assault- and cargo-class helicopters conducting tactical operations, and on the maintenance of the aircraft, including environmental training; attack helicopter orientation flight; duties of door gunners; visual search and target detection; M21 and M23 armament subsystem introduction; gunnery training; M23 aerial gunnery; and UH-1 maintenance subjects.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 67A.

AR-1606-0091

U-21 Aviator Qualification

Course Number: 2B-F17; 2B-F10.

Location: Aviation School, Ft. Rucker, AL.

Length: 3-4 weeks (123-151 hours).

Exhibit Dates: 10/67-11/86.

Objectives: To train commissioned and warrant officers who have aeronautical designation and instrument rating (fixed wing), and who are multiengine qualified, to operate U-21 airplanes.

Instruction: Lectures and practical exercises in the operation of U-21 airplanes, including flight briefing; preflight inspection and ground procedures; visual flight transition training; instrument flight transition training; hood or AI; procedures trainer; regulations and ATC; TACAN; weather flight planning and airborne weather radar; instruments and radios; landing gear and brake systems; fuel systems and performance data charts; electrical, utility, propeller, power plant and related systems; weight and balance; and test flight requirements.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 100C; 100D.

AR-1606-0092

OV-1 (Mohawk) Aviator Combat Surveillance Qualification

Course Number: 3A-F14.

Location: Intelligence School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ; Combat Surveillance School, Ft. Huachuca, AZ.

Length: 2-4 weeks (92-165 hours).

Exhibit Dates: 9/67-11/81.

Objectives: To train OV-1 aviators in aerial radar, infrared, camera and Doppler navigation systems, and in the organization and operations of aerial surveillance units.

Instruction: Lectures and practical exercises in OV-1 (Mohawk) aviator combat surveillance, including surveillance aircraft orientation; AN/ASN-64 Doppler navigation system; specific EW and radar warning receivers and countermeasures sets; and specific photographic, camera, electronic flasher, radar, and infrared surveillance systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 100R.

AR-1606-0093

1. Fixed Wing Instrument
2. Fixed Wing Instrument Qualification

Course Number: *All Versions:* 2B-101C-E. *Version 1:* 2B-F3. *Version 2:* 1-B-F40.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 7-8 weeks (260-299 hours). *Version 2:* 8-10 weeks (307-359 hours).

Exhibit Dates: *Version 1:* 1/71-11/86. *Version 2:* 1/65-12/70.

Objectives: To qualify pilots for instrument flight in fixed-wing aircraft.

Instruction: Lectures and practical exercises in instrument flight training, aircraft systems maintenance, aviation medicine and life support, radio navigation, airport surveillance radar, navigational computer, approach procedures, holding, instrument landing system, communications failure, pressure and winds, weather maps, teletype reports, synthetic flight training, and trainer planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in instrument flight qualifications (6/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in instrument flight qualifications (6/74); in the upper-division baccalaureate category, credit in instrument flying on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100C.

AR-1606-0094

Strategic Signal Intelligence (SIGINT) Officer

Course Number: 3-30-37B.

Location: Intelligence School, Ft. Devens, MA.

Length: 8 weeks (277 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To train military intelligence officers to supervise and manage activities at U.S. intelligence and security command field stations and to assume strategic cryptologic staff officer assignments.

Instruction: Course contains a review of basic electrical circuits, receivers, transmitters, and electron devices. Specific topics include message format and introduction to cryptologic analysis.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

AR-1606-0095

Army (Aviator) Transport Pilot—Phases I, II and III (Rotary Wing)

Course Number: 1-R-F10.

Location: Primary Helicopter School, Ft. Wolters, TX; Aviation School, Ft. Rucker, AL.

Length: 34 weeks (1294 hours).

Exhibit Dates: 2/58-12/68.

Objectives: To train enlisted personnel to pilot transport helicopters.

Instruction: Lectures and practical exercises in the duties of transport helicopter pilots, including basic officer orientation, primary and basic rotary-wing training, light helicopter transition, basic instrument flight familiarization and training, light transport helicopter day-and-night cross-country training, and maintenance, and tactical subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in commercial pilot training (6/74); in the upper-division baccalaureate category, 3 semester hours in primary meteorology and navigation, and credit in helicopter flight training on the basis of demonstrated skills and/or institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D.

AR-1606-0096

CV-2 (Caribou) Instructor Pilot Qualification

Course Number: 2B-F6.

Location: Aviation School, Ft. Rucker, AL.

Length: 6 weeks (238 hours).

Exhibit Dates: 6/65-12/68.

Objectives: To train aviators as instructor pilots in CV-2 aircraft.

Instruction: Lectures and practical exercises in instructing enlisted personnel in the operation of CV-2 aircraft. Topics include flight training, tactical flight operations, and aircraft systems and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100C.

AR-1606-0097

Rotary Wing Instrument Qualification

Course Number: 2C-F12.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (222 hours).

Exhibit Dates: 2/67-12/68.

Objectives: To qualify aviators for helicopter instrument flight.

Instruction: Lectures and practical exercises in helicopter instrument flight. Academic course work includes enroute and approach charts, radio navigation, flight regulations, air traffic control, dead reckoning computer, flight planning and navigation, operation of tactical and airborne radios and transponders, and tactical instrument procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instrument rating (6/74); in the upper-division baccalaureate category, credit in instrument flying on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D.

AR-1606-0098

Warrant Officer Candidate Preflight Indoctrination—Fixed Wing

Course Number: 2B-F8.

Location: Primary Helicopter School, Ft. Wolters, TX.

Length: 4 weeks (140 hours).

Exhibit Dates: 5/66-12/68.

Objectives: To train enlisted personnel as warrant officer aviators.

Instruction: Lectures and practical exercises in the duties of warrant officer aviators. Course consists largely of leadership and military-related subjects.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

Related Occupation Codes: 100Q; 100R.

AR-1606-0099

Army Aviation Tactics Refresher

Course Number: 1-A-F4.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (140 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train aviators to employ aircraft and allied equipment in tactical support of combat operations.

Instruction: Lectures and practical exercises in aircraft and allied equipment employment in support of combat operations. Course includes flight training refresher, navigation, gunnery, tactical communications, and instrument techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AR-1606-0100

H-13/H-34 Transition Flight Training

Course Number: 1-0-25.

Location: Aviation School, Ft. Rucker, AL.

Length: 13 weeks (483 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train fixed-wing pilots to fly and operate rotary-wing aircraft.

Instruction: Lectures and practical exercises in the operation of H-13 and H-34 helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter flight training (6/74).

AR-1606-0101

Army H-37 Helicopter Pilot's Transition Flight Training

Course Number: None.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (143 hours).

Exhibit Dates: 7/57-12/68.

Objectives: To train selected enlisted personnel to command and pilot H-37 transport helicopters.

Instruction: Lectures and practical exercises in piloting and commanding H-37 helicopters. Course includes transition flight training, maintenance, and tactical subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 100C.

AR-1606-0102

Army Transport Helicopter Pilot-Phase III

Course Number: 1-H-1981B.

Location: Aviation School, Ft. Rucker, AL.

Length: 14 weeks (490 hours).

Exhibit Dates: 10/57-12/68.

Objectives: To train commissioned and warrant officers and qualified enlisted personnel to pilot transport helicopters in aviation units and ambulance detachments.

Instruction: Lectures and practical exercises in piloting a transport helicopter. Course includes light cargo helicopter flight, instrument flight, day-and-night cross-country flight, aircraft maintenance, and tactical operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 100C.

AR-1606-0103

H-13/H-19 Transition Flight Training

Course Number: 1-0-23.

Location: Aviation School, Ft. Rucker, AL.

Length: 13 weeks (483 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train aviators who have had previous experience in fixed-wing aircraft to operate H-13 and H-19 helicopters.

Instruction: Lectures and practical exercises in the operation and tactical employment of H-13 and H-19 helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter flight training (6/74).

AR-1606-0104

U-8D Aviator Qualification
(U-8D (Seminole) Aviator Qualification)

Course Number: 2B-F16; 2B-F15; 2B-101C-D; 2B-061C-C.

Location: Aviation School, Ft. Rucker, AL.

Length: 3-4 weeks (128-159 hours).

Exhibit Dates: 1/69-11/86.

Objectives: To train commissioned and warrant officer pilots in the operation of U-8D (Seminole) airplanes.

Instruction: Lectures and practical exercises in the operation of U-8D (Seminole) airplanes, including transition flight training; briefing, preflight inspection, and ground procedures; general flight orientation; normal take-offs and landings; night operations; engine-out procedures; flight controls; maintenance of landing gear and brakes; electrical, utility, propeller, fuel, and power systems; synthetic instrument training; and instrument proficiency.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 100B; 100C.

AR-1606-0105

Army Aviator Helicopter

Course Number: 1-A-1981A.

Location: Aviation School, Ft. Rucker, AL.

Length: 10 weeks (396 hours).

Exhibit Dates: 9/57-12/68.

Objectives: To train fixed-wing aviators to perform as helicopter pilots.

Instruction: Lectures and practical exercises in the duties and skills necessary to perform as helicopter pilots. Course includes preflight, basic flight techniques, advanced flight maneuvers, maintenance of rotary wing vehicles, and tactical flight maneuvers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in flight training (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in flight training (6/74).

AR-1606-0106

Army Helicopter Transport Tactical

Course Number: 1-A-F12.

Location: Aviation School, Ft. Rucker, AL.

Length: 7 weeks (277 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train key aviator personnel to pilot transport helicopters.

Instruction: Lectures and practical exercises in transport helicopter operations, including helicopters in transport and utility operations; cross-country flights; and tactical operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AR-1606-0107

Army Aviation Tactics

Course Number: 1-A-1980.

Location: Aviation School, Ft. Rucker, AL.

Length: 19 weeks (712-715 hours).

Exhibit Dates: 9/57-12/68.

Objectives: To train commissioned officers who have had primary flight training to perform as fixed-wing aviators.

Instruction: Lectures and practical exercises in Army aviation tactics, including advanced flight training, tactical subjects, general subjects, advanced hood or actual instrument flight training, general instrument flight subjects, and MOI academics seminar.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in commercial and instrument pilot training (6/74); in the upper-division baccalaureate category, 3 semester hours in weather interpretation and elementary navigation (12/68).

AR-1606-0108

Instrument Flight Examiner

Course Number: 1-A-2519.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (154 hours).

Exhibit Dates: 5/57-12/68.

Objectives: To qualify instrument aviators as instrument flight examiners.

Instruction: Lectures and practical exercises in instrument flight examiner duties, including advanced hood or actual instrument flight training; flight and synthetic flight review; instrument navigation techniques and procedures; radio ranges (all types) and systems; ILS; radio compass; loop and ADF procedures; general instrument flight subjects; Jeppesen manual; regulations; flight service; ATC; E6B computer; IFR navigation; weather; instrument flying trends and equipment; and GCA.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-1606-0109

U1-A Transition Flight Training

Course Number: 1-A-F9.

Location: Aviation School, Ft. Rucker, AL.

Length: 3 weeks (110 hours).

Exhibit Dates: 12/56-12/68.

Objectives: To train commissioned officers and pilots to operate U1-A aircraft.

Instruction: Lectures and practical exercises in the operation of the U1-A aircraft. Course includes basic and advanced maneuvers, and maintenance as it pertains to safe operations and tactics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-1606-0110

Aviation Officer Advanced

Course Number: 1-A-F2.

Location: Aviation School, Ft. Rucker, AL.

Length: 8 weeks (280 hours).

Exhibit Dates: 6/57-12/68.

Objectives: To train qualified pilots to manage aviation training.

Instruction: Lectures and practical exercises in the management of aviation training activities at the advanced level. Course includes military organization, staff functions and responsibilities, supply and maintenance functions, and research and development testing.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AR-1606-0111

Fixed Wing Multi-Engine Qualification

Course Number: 2B-15A; 2B-1980; 2B-101C-H.

Location: Aviation Center, Ft. Rucker, AL.

Length: 10-15 weeks (366-649 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train commissioned or warrant officers for multiengine aircraft qualification and for an FAA instrument rating.

Instruction: Lectures and practical exercises in fixed-wing aircraft flight techniques, including contact flight training systems familiarization, principles of flight, contact transition flight training synthetic flight training, instrument academic subjects, and aviation medicine and life support.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in multiengine flight, 3 in instrument flight, and 3 in instrument ground training (10/78).

AR-1606-0112

Army Aviator Basic Flight Training (Helicopter)

Course Number: 1-OE-6.

Location: Aviation School, Ft. Rucker, AL.

Length: 12 weeks (483 hours).

Exhibit Dates: 6/55-6/57.
Objectives: To train personnel for assignment to pilot positions in helicopter-equipped Army transport aviation units and medical service ambulance detachments.
Instruction: Lectures and practical exercises in helicopter flight training, including intermediate and advanced rotary-wing flight training, basic instrument flight training, cross-country flight training, general subjects, tactical subjects for warrant officer candidates and aviation maintenance subjects.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in first aid and hygiene, and credit in helicopter flight training on the basis of institutional evaluation (12/68).
Related Occupation Codes: 100C.

AR-1606-0113

SENIOR ARMY OFFICER FLIGHT TRAINING

Course Number: 1-O-14.
Location: Aviation School, Ft. Rucker, AL.
Length: 35 weeks (1217 hours).
Exhibit Dates: 8/55-12/68.
Objectives: To train senior officers as fixed-wing and helicopter pilots.
Instruction: Lectures and practical exercises in the skills necessary to perform in aviation command and staff positions and to perform as fixed-wing and helicopter pilots. Course includes basic and advanced flight training (both fixed-wing and helicopter), selected maintenance subjects, meteorology, navigation, and tactical subjects.
Credit Recommendation: In the vocational certificate category, 6 semester hours in commercial flight, 6 in helicopter flight, 4 in navigation, and 4 in meteorology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in commercial flight, 3 in helicopter flight, 2 in navigation, and 2 in meteorology (7/74); in the upper-division baccalaureate category, 2 semester hours in elementary navigation and meteorology (12/68).

AR-1606-0114

WARRANT OFFICER INDOCTRINATION TRAINING—PREFLIGHT (FIXED WING)

Course Number: 1-R-F35.
Location: Aviation School, Ft. Rucker, AL.
Length: 4 weeks (149 hours).
Exhibit Dates: 7/63-6/66.
Objectives: To provide noncommissioned officers with preflight training.
Instruction: Lectures and practical exercises in preparation for flight training. Course is primarily an indoctrination course which reviews the overall military system and procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).
Related Occupation Codes: 100R; 106A.

AR-1606-0115

IMAGERY INTERPRETER (ENLISTED)
(Assistant Image Interpreter
(Image Interpreter Enlisted)

Course Number: 242-96D10.
Location: Intelligence School, Ft. Huachuca, AZ.
Length: *Version 1:* 14-15 weeks (513 hours). *Version 2:* 14 weeks (448 hours). *Version 3:* Self-paced 10-14 weeks (428-460 hours).
Exhibit Dates: *Version 1:* 11/82-12/86. *Version 2:* 4/80-10/82. *Version 3:* 4/79-3/80.
Objectives: To train personnel to perform air photo interpretation and photogrammetry with application to intelligence and environmental analysis.
Instruction: For this course after 12/86 see AR-1606-0193. Course includes lectures, laboratories, and self-paced instruction in the interpretation of aerial photos and images; map reading and the identification and anaylsis of physical and cultural features of the earth's surface, and photogrammetry.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory college mathematics, 3 in introduction to maps and air photos, 1 in technical report writing (10/84); in the upper-division baccalaureate category, 3 semester hours in aerial photo interpretation, 3 in photogrammetry (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing, 3 in introductory college mathematics, 3 in introduction to maps and air photos (11/81); in the upper-division baccalaureate category, 3 semester hours in aerial photo and image interpretation, 2 in photogrammetry (11/81). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory college mathematics, 3 in introduction to maps and air photos (6/79); in the upper-division baccalaureate category, 3 semester hours in aerial photo and image interpretation, 2 in photogrammetry (6/79).
Related Occupation Codes: 96D.

AR-1606-0116

CV-2 (CARIBOU) PILOT TRANSITION
(AC-1 (Caribou) Aviator Transition)

Course Number: 2B-061C; 1-B-061C; 1-B-F29.
Location: Aviation School, Ft. Rucker, AL.
Length: 6-7 weeks (190-233 hours).
Exhibit Dates: 12/61-12/68.
Objectives: To train fixed-wing aviators to operate multiengine short-takeoff-and-landing (STOL) aircraft.
Instruction: Lectures and practical exercises in the operation of multiengine short-takeoff-and-landing (STOL) aircraft. Course includes transition flight training, CV-2 specific maintenance subjects, medical subjects, and tactical aircraft usage.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).
Related Occupation Codes: 100C.

AR-1606-0117

GENERAL OFFICER FIXED WING FLIGHT TRAINING

Course Number: 1-A-1980G.
Location: Aviation School, Ft. Rucker, AL.
Length: 18 weeks (612 hours).
Exhibit Dates: 5/59-12/68.
Objectives: To train general officers to pilot fixed-wing aircraft.
Instruction: Lectures and practical exercises in piloting fixed-wing aircraft. Course includes flight training, instrument training, tactical subjects, aviation maintenance, aviation regulations and procedures, and meteorology.
Credit Recommendation: In the upper-division baccalaureate category, credit in elementary navigation and meteorology on the basis of institutional evaluation (12/68).

AR-1606-0118

H-37 HELICOPTER PILOT TRANSITION TRAINING

Course Number: 1-B-F11.
Location: Aviation School, Ft. Rucker, AL.
Length: 6 weeks (224-228 hours).
Exhibit Dates: 2/59-12/68.
Objectives: To train selected commissioned officers and warrant officers in transition flight training in the H-37 helicopter.
Instruction: Lectures and practical exercises in the operation of the H-37 helicopter. Course includes transitional flight training, systems operation, and maintenance of the H-37 helicopter.
Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training on the basis of institutional evaluation (12/68).
Related Occupation Codes: 100C.

AR-1606-0119

ARMY HELICOPTER TRANSPORT TACTICAL (H-21)(H-34)
(Army Helicopter Transport Tactical (H-21))
(Army Helicopter Transport Tactical (H-34))
(Army Helicopter Transport Tactical (H-19))

Course Number: 1-B-F12.
Location: Aviation School, Ft. Rucker, AL.
Length: 8 weeks (300-307 hours).
Exhibit Dates: 1/59-12/68.
Objectives: To train aviators to operate H-21 or H-34 light transport helicopters.
Instruction: Lectures and practical exercises in the operation of H-21 or H-34 helicopters. Course includes maintenance of light transport craft, physical fitness, and transition training in transport helicopters.
Credit Recommendation: In the upper-division baccalaureate category, credit in helicopter flight training (12/68).
Related Occupation Codes: 100B; 100C.

AR-1606-0120

ARMY AVIATION PRIMARY AND TACTICAL FLIGHT TRAINING

Course Number: 1-O-ZZ.
Location: Aviation School, Ft. Rucker, AL.
Length: 24 weeks (840 hours).
Exhibit Dates: 1/57-12/68.
Objectives: To train commissioned officers to employ fixed-wing observation aircraft in support of military operations.
Instruction: Lectures and practical exercises in the employment of fixed-wing observation aircraft in support of military operations. Course includes tactical subjects, flight training (both primary and advanced), instrument flight training, and related aeronautical subjects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (7/74); in the upper-division baccalaureate category, 3 semester hours in weather interpretation and elementary navigation (12/68).

AR-1606-0121

AVIATION WARRANT OFFICER ADVANCED
(Aviation Warrant Officer Intermediate)

Course Number: 2-1-C32; 2-1-C30.
Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 22 weeks (644-667 hours). *Version 2:* 23 weeks (684-726 hours).

Exhibit Dates: *Version 1:* 5/72-1/88. *Version 2:* 7/69-4/72.

Objectives: To qualify rated aviators or aviation repair technicians for aviation unit staff duties.

Instruction: *All Versions:* Lectures and practical exercises in principles of management, resources management, personnel management, supply management, effective writing and speaking, defensive and offensive operations, combat support, command and staff procedures, aviation medicine and life support, and physical conditioning. *Version 1:* Instruction includes aircraft accident investigation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in principles of management, 3 in aviation administration (safety) (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in principles of management, 2 in aviation administration (safety) (7/74); in the upper-division baccalaureate category, 2 semester hours in principles of management (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management, 2 in business organization and management, and credit in aeronautics on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D; 100E.

AR-1606-0122

OV-1 Aviator Qualification
(OV-1 (Mohawk) Aviator Transition)
(AO-1 (Mohawk) Aviator Transition)

Course Number: 2B-ASI2K; 2B-100R; 2B-F2; 2B-101D; 2B-061C-D.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6-8 weeks (222-301 hours).

Exhibit Dates: 2/64-1/88.

Objectives: To qualify rated pilots with transition training on OV-1 (Mohawk) type aircraft.

Instruction: Lectures and practical exercises in transition flight training on the OV-1 aircraft, including preflight inspection, ground procedures, night operations, instrument flying, regulations, flight planning; and maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in advanced multiengine turbine powered aircraft flight training (10/78).

Related Occupation Codes: 101B; 100Q; 100R.

AR-1606-0123

1. Rotary Wing Instrument
   (Helicopter Instrument Flying)
2. Helicopter Instrument Flying

Course Number: *All Versions:* 2C-F2. *Version 2:* 1-B-F18.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 6-8 weeks (192-261 hours). *Version 2:* 10-11 weeks (372-440 hours).

Exhibit Dates: *Version 1:* 3/68-11/86. *Version 2:* 2/58-2/68.

Objectives: To train helicopter pilots as instrument pilots.

Instruction: Course is self-paced beginning 1964. Lectures and practical exercises in helicopter instrument flying, including flight instruments, radio navigation, airport surveillance radar, navigational computer, approach and enroute procedures, instrument landing system, hazards to flight, weather maps, instrument preflight, and synthetic flight trainer planning.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in instrument ground school and 2 in instrument flight training (10/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in elementary meteorology and navigation (12/68).

Related Occupation Codes: 100B; 100C; 100D; 100E.

AR-1606-0124

Rotary Wing Instrument Flight Examiner
(Helicopter Instrument Flight Examiner)

Course Number: 2C-ASI 1V/2C-SQIF; 2C-F27; 2C-1985; 1-B-1985.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-8 weeks (140-303 hours).

Exhibit Dates: 4/58-9/88.

Objectives: To train selected and qualified pilots as instrument flight instructors and instrument flight examiners in rotorcraft.

Instruction: Lectures and practical exercises in helicopter instrument flight training, flight instructor and examiner techniques, flight evaluation, regulations, air traffic control, radio navigation, and weather flight planning, and methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction and 3 in instrument flight instructor (11/86).

AR-1606-0125

Fixed Wing Instrument Flight Examiner

Course Number: 2B-1984; 2B-101C-C; 2B-061C; 1-B-1984.

Location: Aviation School, Ft. Rucker, AL.

Length: 4-7 weeks (154-261 hours).

Exhibit Dates: 4/59-1/88.

Objectives: To train aviators to be fixed-wing instrument flight examiners.

Instruction: Lectures and practical exercises in instrument instructor flight techniques, air traffic control, and T-42 aircraft maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in fixed-wing instrument flight (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in fixed-wing instrument flight (7/74).

Related Occupation Codes: 100Q; 100R.

AR-1606-0126

1. OH-6 Instructor Pilot
   (OH-6 Transition/Gunnery Instructor Pilot (IP) Qualification)
2. OH-6 Transition/Gunnery IP Qualification
   (LOH Transition/Gunnery IP Qualification)

Course Number: 2C-F13.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 4-6 weeks (127-197 hours). *Version 2:* 6-7 weeks (197-229 hours).

Exhibit Dates: *Version 1:* 3/68-2/77. *Version 2:* 9/66-2/68.

Objectives: To provide commissioned and warrant officer aviators with OH-6 transition training, and to qualify OH-6 instructor pilots to conduct transition training in gunnery systems associated with OH-6 helicopters, including flight maneuvers and day and night range firing.

Instruction: *All Versions:* Lectures and practical exercises in OH-6 transition training and instructor training in gunnery systems associated with OH-6 helicopters, including flight training and OH-6 maintenance subjects. *Version 1:* Topics include LOH gunnery instructor pilot qualification. *Version 2:* Topics include OH-6 gunnery instructor pilot qualification.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78). *Version 2:* In the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100C.

AR-1606-0127

1. Rotary Wing Qualification (Army and Air Force)
   (Rotary Wing Qualification (USAF))
   (Officer/Warrant Officer Rotary Wing Qualification (Active Army))
2. Officer/Warrant Officer Rotary Wing Qualification (Active Army)

Course Number: *All Versions:* 2C-1981-D; 2C-062B-D; 2C-15A-AF; 2C-15AD-X; 2C-15AD-AF; 2C-100B-D. *Version 1:* 2C-ASI7Q; 2E-100B/D31.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 11-13 weeks (330-440 hours). *Version 2:* 13 weeks (438-476 hours).

Exhibit Dates: *Version 1:* 10/68-1/86. *Version 2:* 11/66-9/68.

Objectives: To train commissioned and warrant officer aviators in the primary flying techniques of rotary wing aircraft.

Instruction: Lectures and practical exercises in officer/warrant officer rotary wing qualification, including flight training, basic flight subjects, maintenance subjects, transition flight training, tactical flight training, tactical subjects, and instrument training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter pilot rating (10/78). *Version 2:* In the vocational certificate category, 6 semester hours in helicopter pilot rating (7/74); in the lower-division baccalaureate/associate degree category, credit in helicopter flight training on the basis of institutional evaluation (12/68).

Related Occupation Codes: 100B; 100C; 100D; 100E; 100Q; 100R.

AR-1606-0128

1. Image Interpreter, Skill Development Base
2. Image Interpreter Noncommissioned Officer (NCO) Candidate

Course Number: *Version 1:* 242-96D20-I. *Version 2:* 242-96D40-I.

Location: Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 16 weeks (606 hours). *Version 2:* 12 weeks (526 hours).

Exhibit Dates: *Version 1:* 4/69-1/78. *Version 2:* 1/68-3/69.

Objectives: To train image interpreters to perform as supervisors/technicians in image interpretation.

Instruction: *All Versions:* Lectures and practical exercises in image interpretation, including map reading, counterintelligence, order of battle, aerial surveillance operations and organization, high-altitude image interpretation, mathematics, oblique metrics, terrain analysis techniques, and leadership development. *Version 1:* Includes nuclear warfare, intelligence collection, and aerial surveillance tactics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in imagery interpretation (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in imagery interpretation (12/68).

Related Occupation Codes: 96D.

AR-1606-0129

MILITARY INTELLIGENCE (MI-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

Course Number: 2-MI-C40.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 11 weeks (351-372 hours).

Exhibit Dates: 5/73-1/89.

Objectives: To provide enlisted personnel with a general knowledge and understanding of the function of a military intelligence operator.

Instruction: Lectures and practical exercises in command and staff procedures, interrogation techniques, oral and written expression, military leadership, Army management and resources, automatic data processing, electronic warfare, signal intelligence, counterintelligence, military justice, map and aerial photograph reading, and field engineering.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-1606-0130

SIGNAL SECURITY (SIGSEC) OFFICER

Course Number: 3-30-37C.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-10 weeks (239-280 hours).

Exhibit Dates: 8/76-12/80.

Objectives: To prepare company-grade officers for assignment to signal security units and activities.

Instruction: Course contains a review of basic electrical circuits, receivers, transmitters, and electron devices. Specific topics include tactical doctrine, combat communications, and signal security.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

AR-1606-0131

AVIATION SAFETY OFFICER

Course Number: 7K-F12.

Location: Agency for Aviation Safety, Ft. Rucker, AL.

Length: 8-10 weeks (268-337 hours).

Exhibit Dates: 3/77-7/86.

Objectives: To train selected Army aviators in the organizational techniques and practices required to conduct effective aircraft accident prevention and investigation programs.

Instruction: Course is presented through lectures, clinics, seminars and field site investigations and surveys in aviation accident prevention, investigation, psychology, medicine, management communications, and law relative to the Army aviation safety programs.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in aviation safety (1/81); in the graduate degree category, 3 semester hours in aviation accident investigation (1/81).

AR-1606-0132

INTELLIGENCE ANALYST BASIC LEVEL

Course Number: 243-96B30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 3 weeks (100 hours).

Exhibit Dates: 7/75-9/86.

Objectives: To prepare personnel in the operations of an intelligence unit.

Instruction: For this course after 9/86 see AR-1606-0192. Course teaches students to determine needs, supervise the collection, analysis and evaluation of intelligence information. They will prepare and present reports in written and oral form, and learn to supervise personnel.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in management planning, administration, and personnel supervision (6/79).

Related Occupation Codes: 96B.

AR-1606-0133

1. UH-60 AVIATOR QUALIFICATION
2. UH-60 AVIATOR QUALIFICATION (UH-60 (Blackhawk) Aviator Qualification)

Course Number: 2C-ASI 1N.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 6 weeks (241 hours). *Version 2:* 4 weeks (142-159 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 3/78-9/85.

Objectives: To qualify rated pilots with training on UH-60 helicopters.

Instruction: *Version 1:* Flight and academic instruction in the UH-60 helicopter, maneuvers, combat skills, and pilot night vision goggles. *Version 2:* Lectures and practical exercises in transition flight training on the UH-60 helicopter, including preflight inspection, ground procedures, night operations, instrument flying, regulations, and flight planning and maintenance procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in advanced helicopter flight training (10/78).

Related Occupation Codes: 100B.

AR-1606-0134

INTELLIGENCE ANALYST (Intelligence Analyst Entry Level)

Course Number: 243-96B10; 243-96B10 (ST).

Location: Intelligence School, Ft. Huachuca AZ.

Length: *Version 1:* 9 weeks (303 hours). *Version 2:* 9 weeks (270 hours). *Version 3:* 8 weeks (250 hours).

Exhibit Dates: *Version 1:* 6/83-9/86. *Version 2:* 2/80-5/83. *Version 3:* 7/75-1/80.

Objectives: To qualify enlisted personnel in intelligence operation by providing them with basic necessary skills and knowledge of military intelligence training.

Instruction: For this course after 9/86 see AR-1728-0083. Course includes military organizations, map reading, terrain analysis, collection and interpretation of information, preparation of reports, Soviet threat and intelligence security.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to map reading (10/84); in the upper-division baccalaureate category, 3 semester hours in political science (world threats:Soviet) (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to map reading (10/84); in the upper-division baccalaureate category, 2 semester hours in political science (world threats:Europe) (10/84). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in introduction to the elements of geography, 3 in introduction to administration and management (6/79).

Related Occupation Codes: 96B.

AR-1606-0135

T-42 INSTRUCTOR PILOT

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4 weeks self-paced (126 hours).

Exhibit Dates: 4/75-11/86.

Objectives: To train selected and qualified pilots as instructors in the multi-engine airplane (T-42).

Instruction: Flight experience as instructor pilot and related academic subject matter including principles and methods of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles and methods of instruction (10/78).

Related Occupation Codes: 101C.

AR-1606-0136

MILITARY INTELLIGENCE WARRANT OFFICER ADVANCED

Course Number: 3-30-C32.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 5 weeks (176 hours). *Version 2:* 15 weeks (438 hours). *Version 3:* 15-16 weeks (464-513 hours).

Exhibit Dates: *Version 1:* 5/84-2/89. *Version 2:* 9/79-4/84. *Version 3:* 4/76-8/79.

Objectives: To prepare intelligence warrant officers for various levels of command and broaden their understanding of intelligence disciplines.

Instruction: For this course after 2/89 see AR-1606-0202. *Version 1:* Provides update material for military intelligence warrant officers on the latest doctrine, technological changes, and advanced concepts within military intelligence. *Version 2:* Topics include communications, leadership, organizational management, intelligence tactics, automatic data processing, and nuclear, chemical, and biological threats. *Version 3:* Course includes lectures, seminars and practical exercises in effective communications, operations research, systems analysis and internal defense and development.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic communications (oral/written), 3 in leadership and organizational management (10/84); in the upper-division baccalaureate category, 1 semester hour in political science (Soviet military studies) (10/84). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in communication skills, 3 in area studies (political science), 3 in management techniques (6/79).

AR-1606-0137

1. Tactical Intelligence Officer
2. Tactical Intelligence Officer
3. Intelligence Officer Basic Tactical

Course Number: *Version 1:* 3-30-OB-35A. *Version 2:* 3-30-0B-35A. *Version 3:* 3-30-C20-35A.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 10-11 weeks (314 hours). *Version 2:* 9 weeks (344 hours). *Version 3:* 18 weeks (554 hours).

Exhibit Dates: *Version 1:* 2/81-1/83. *Version 2:* 5/79-1/81. *Version 3:* 5/78-4/79.

Objectives: To provide newly commissioned officers with knowledge of a tactical intelligence nature.

Instruction: *Version 1:* Lectures, exercises, and seminars in intelligence usage, world threats, world forces, and tactical concepts, including surveillance. *Version 2:* Lectures, exercises, and seminars in intelligence usage, world threats, world forces, and tactical concepts, including surveillance. *Version 3:* Lectures and practical exercises in world threats, intelligence usage, tactical concepts, intelligence, reconnaisance, and surveillance; analysis of area operations and introduction to threat forces organizations.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (10/84). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in advanced political science (world area threats), 3 in information management (6/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in principles of administration/management (6/79); in the upper-division baccalaureate category, semester hours in advanced political science (world threat areas), 3 in information management (6/79).

AR-1606-0138

Night Hawk (Unaided)/Night Vision Goggle (NVG) Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4 weeks (118-119 hours).

Exhibit Dates: 3/78-6/83.

Objectives: To qualify selected rotary wing instructer pilots as night hawk/night vision goggle instructor pilots.

Instruction: Topics include night vision goggle flight training and night academics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1606-0139

Night Vision Goggle (NVG) AN/PVS5 Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 2-3 weeks (77-78 hours).

Exhibit Dates: 4/77-1/90.

Objectives: To train selected rotary wing instructor pilots as night vision goggle instructor pilots.

Instruction: Topics include night visual goggle flight training and night academics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1606-0140

Intelligence Officer Basic CI/HUMINT
(Counterintelligence Officer/Technician/Agent)

Course Number: *Version 1:* 3-30-OB-36A. *Version 2:* 3-30-0B-36A. *Version 3:* 3-30-C20-36A. *Version 4:* 3C-9666; 244-97B40; 3C-971A.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 22-23 weeks (724 hours). *Version 2:* 16 weeks (541 hours). *Version 3:* 25 weeks (862 hours). *Version 4:* 16 weeks (527 hours).

Exhibit Dates: *Version 1:* 12/80-12/83. *Version 2:* 5/79-11/80. *Version 3:* 7/77-4/79. *Version 4:* 5/75-6/77.

Objectives: To provide personnel with knowledge of security investigations and security practices needed to protect the national interests.

Instruction: Lectures and discussions including mediated instruction and field exercises in physical security, human relations, investigative techniques, report writing, and legal principles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in investigative principles, 2 in legal principles, 3 in security techniques, 3 for a security practicum on the basis of institutional evaluation (10/84); in the upper-division baccalaureate category, 3 semester hours in political science (foreign powers) (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 2 in introduction to maps/air photos, 3 in legal principles, 6 in industrial security techniques, 3 in loss prevention, 3 in principles of investigation, 3 in human/interpersonal relations (6/79); in the upper-division baccalaureate category, 3 semester hours in political science (major foreign powers/world tension areas), 3-6 in practicum/field training in physical security (6/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 2 in introduction to maps/air photos, 3 in legal principles, 6 in industrial security techniques, 3 in loss prevention, 3 in principles of investigation, 3 in human/interpersonal relations, 6 in principles of administration/management (6/79); in the upper-division baccalaureate category, 3 in political science (major foreign powers/world tension areas) 3-6 in practicum/field training in physical security (6/79). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 2 in introduction to maps/air photos, 3 in legal principles, 6 in industrial security techniques, 3 in loss prevention, 3 in principles of investigation, 3 in human/interpersonal relations (6/79); in the upper-division baccalaureate category, 3 in political science (major foreign powers/world tension areas), 3-6 in practicum/field training in physical security (6/79).

Related Occupation Codes: 97B.

AR-1606-0141

Counterintelligence Agent
(Counterintelligence Special Agent)
(Intelligence Agent)

Course Number: 244-97B20.

Location: Intelligence Center and School, Ft. Huachuca, AZ; Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 19-20 weeks (703 hours). *Version 2:* 18 weeks (571 hours). *Version 3:* 16 weeks (480-640 hours).

Exhibit Dates: *Version 1:* 9/83-12/87. *Version 2:* 7/79-8/83. *Version 3:* 10/78-6/79.

Objectives: To provide selected enlisted personnel with counterintelligence skills needed to protect the Army from hostile intelligence threats.

Instruction: For this course after 12/87 see AR-1728-0081. *Version 1:* Lectures, seminars, and practical exercises in operational security, Soviet doctrine, and counterintelligence tactics. *Version 2:* Lectures, seminars, and practical exercises in interviewing, intelligence systems, tactical operations, and support services. *Version 3:* Lectures, seminars, and practical exercises in physical security, human relations, investigative techniques, report writing, and legal practices.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of investigation, 3 in security techniques (6/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in interviewing and interrogations (6/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office management, 3 in industrial security techniques, 3 in loss prevention, 3 in legal principles, 3 in investigative principles (6/79); in the upper-division baccalaureate category, 3 semester hours in political science (major foreign powers), 3-6 in physical security practicum (6/79).

Related Occupation Codes: 97B.

AR-1606-0142

Imagery Analyst Basic Noncommissioned Officer (NCO)
(Imagery Interpreter Basic Technical)

Course Number: 242-96D30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5-6 weeks (217 hours).

Exhibit Dates: 6/83-9/87.

Objectives: To train image analysts to install, operate, and interpret remotely sensed data from the ground and air.

Instruction: For this course after 9/87 see AR-1606-0191. Instruction in image identification and the placement, operation, repair, and interpretation of remotely sensed data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in map and air photo interpretation (10/84); in the upper-division baccalaureate category, 3 semester hours in remote sensing (civil engineering, geography) (10/84).

Related Occupation Codes: 96D.

AR-1606-0143

Aerial Photoactive Sensor Repairer

Course Number: *Version 1:* 104-26F10. *Version 2:* 104-26F10.

Location: Intelligence Center and School, Ft. Huachuca, AZ.

Length: *Version 1:* 31-32 weeks (1046 hours). *Version 2:* 29 weeks (870-1143 hours).

Exhibit Dates: *Version 1:* 6/82-9/86. *Version 2:* 10/81-5/82.

Objectives: To train enlisted personnel to maintain aerial surveillance sensor equipment at the direct support and general support levels.

Instruction: For this course after 9/86 see AR-1606-0206. Lecture and practical exercises in the inspection, testing alignment and repair of aerial surveillance sensor equipment to include basic electricity/electronics, photographic group, panoramic cameras, still picture cameras, airborne data annotation systems and infrared detecting sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in the operation and repair of photographic processing machines and camera systems (10/84); in the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/ electronics, and laboratory credit on basis of institutional evaluation (11/81).

AR-1606-0144

Special Forces Diving Supervisor

Course Number: None.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 3-4 weeks (122 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train Special Forces commissioned and noncommissioned officers as diving supervisors.

Instruction: Course concentrates on diving plans, preparation and supervision.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/83).

AR-1606-0145

Counterintelligence Assistant

Course Number: 244-97B10.

Location: Intelligence Center and School, Ft. Huachuca, AZ.

Length: 11 weeks (330 hours).

Exhibit Dates: 3/81-12/87.

Objectives: To provide entry level skills needed to assist and participate in tactical counterintelligence (CI) and collection operations.

Instruction: For this course after 12/87 see AR-1728-0086. Course covers administrative and operational support, not involving investigations, for tactical CI activities to include CI estimates, plans, inspections and reports. Techniques of operational security and information collection, typing, and use of camera are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in security techniques (practicum), 1 in map interpretation, and 1 in interviewing techniques (11/81).

AR-1606-0146

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech

(Army-Unique Voice Interceptor Training (Czech))

Course Number: 231-F22; 231-F22(CX).

Location: Intelligence School, Ft. Devens, MA.

Length: 2-3 weeks (81 hours).

Exhibit Dates: 11/81-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Topics include map reading, reporting of intelligence information, and identification of significant communication facts.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

AR-1606-0147

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean

(Army-Unique Voice Interceptor Training (Korean))

Course Number: 231-F18; 231-F-KP; 231-F18(KP).

Location: Intelligence School, Ft. Devens, MA.

Length: 2 weeks (50 hours).

Exhibit Dates: 12/81-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Topics include map reading, reporting of intelligence information, and identification of significant communication facts.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

Related Occupation Codes: 98G.

AR-1606-0148

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish

(Army-Unique Voice Interceptor (Latin American Spanish))

Course Number: 231-F19; 231-F19(LA).

Location: Intelligence School, Ft. Devens, MA.

Length: 3-4 weeks (101 hours).

Exhibit Dates: 11/81-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Topics include map reading, reporting of intelligence information, and identification of significant communication facts.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

Related Occupation Codes: 98G.

AR-1606-0149

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin

(Army-Unique Voice Interceptor Training (Chinese—Mandarin))

Course Number: 231-F17; 231-F17(CM).

Location: Intelligence School, Ft. Devens, MA.

Length: 3 weeks (94 hours).

Exhibit Dates: 11/81-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Course includes security, map reading, reporting of intelligence, and identification of significant communication facts.

Credit Recommendation: Credit is not recommmended because of the limited, specialized nature of the course (2/83).

Related Occupation Codes: 98G.

AR-1606-0150

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German

(Army-Unique Voice Interceptor Training (German))

Course Number: 231-F14; 231-F14(GM).

Location: Intelligence School, Ft. Devens, MA.

Length: 3-4 weeks (124 hours).

Exhibit Dates: 12/81-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Topics include map reading, reporting of intelligence information, and identification of significant communication facts.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

Related Occupation Codes: 98G.

AR-1606-0151

Intelligence Analyst Primary Technical

Course Number: 243-96B20.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 4 weeks (144 hours).

Exhibit Dates: 10/84-1/89.

Objectives: To qualify selected personnel to perform the duties of skill level 20 of MOS 96B, Intelligence Analyst.

Instruction: Instruction in intelligence collection and utilization.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/84).

AR-1606-0152

Intelligence in Terrorism Counteraction

Course Number: 3C-F14/244-F8.

Location: Intelligence School Ft. Huachuca, AZ.

Length: 2 weeks (71 hours).

Exhibit Dates: 3/83-9/87.

Objectives: To provide personnel with a working knowledge of all types of terrorist movements and threats.

Instruction: For this course after 9/87 see AR-1511-0024. Instruction in terrorist threats, tactics, trends, and targets, counteractions, and analysis of terrorism.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in terrorism and international politics (political science, psychology, sociology, or international affairs) (10/87).

AR-1606-0153

Military Intelligence Officer Basic

Course Number: 3-30-C20-35A.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 24 weeks (924 hours).

Exhibit Dates: 2/83-9/86.

Objectives: To prepare newly commissioned officers in a military intelligence specialty with the knowledge of a tactical all-source intelligence officer.

Instruction: For this course after 9/86 see AR-1408-0177. Instruction in leadership, weapons, tactics, Army organization, signal operations, logistics, security, and intelligence sources.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in principles of physical security, 3 in principles of office administration (10/84); in the upper-division baccalaureate category, 3 semester hours in political science (areas of geopolitical conflict), 3 in the leadership process, 6 in military science where appropriate (10/84).

AR-1606-0154

Military Intelligence Warrant Officer Entry (Phase I)

Course Number: 3A-962A; 4C-285A; 3A-961A; 3A-972A; 3A-973A; 3B-982A; 3B-983A; 3B-984A; 3B-985A; 3B-986A; 3B-988A; 3A-964A; 3C-971A.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5-11 weeks (63-197 hours).

Exhibit Dates: 6/84-1/89.

Objectives: To provide newly-selected military intelligence warrant officers with knowledge enabling them to interface with intelligence disciplines outside their fields of expertise.

Instruction: Instruction in general military subjects, and the principles and precepts of the various military intelligence specialties. Track 962A includes instruction in the interpretation of radar imagery, and updates in the changing technology relating to aerial radar sensors.

Credit Recommendation: In the upper-division baccalaureate category, for students who took the 3A-962A track, 3 semester hours in photogrammetry (geography/civil engineering); credit is not recommended for the other tracks because of their military-specific nature (10/84).

AR-1606-0161

OH-58D Aviator Qualification

Course Number: 2C SI 1A/2C-152D; 2C-ASI1A/2C-152D.

Location: Aviation Center, Ft. Rucker, AL.

Length: 7-8 weeks (293-302 hours).

Exhibit Dates: 10/86-Present.

Objectives: To train commissioned and warrant officer rotary wing aviators as OH-58D pilots.

Instruction: Classroom and practical instruction in aircraft systems, flight training, communications, navigation, mast-mounted sight, airborne target handover systems, mission planning and safety.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86).

Related Occupation Codes: 152D.

AR-1606-0162

UH-60 Aviator Qualification

Course Number: 2C-ASI1N.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-6 weeks (143-241 hours).

Exhibit Dates: 10/83-Present.

Objectives: To train selected commissioned and warrant officers in flight and academic instruction for the UH-60 helicopter.

Instruction: Flight and academic instruction in the UH-60 helicopter, maneuvers, combat skills, and pilot night vision goggles.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86).

Related Occupation Codes: 100A.

AR-1606-0163

Aerospace Medicine Residency Flight Training

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-5 weeks (165 hours).

Exhibit Dates: 7/87-Present.

Objectives: To familiarize resident physicians with turbine-powered aircraft systems, rotary-wing flight principles, and operation.

Instruction: Training in electrical system, powerplant and related systems, fuel systems, rotor systems, powertrain systems, flight control system, weight and balance; flight training on the UH-1 helicopter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft systems (11/86); in the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86).

AR-1606-0164

CH-47D Aviator Qualification

Course Number: 2C-ASI 1G/2C-100C (CH-47D).

Location: Aviation Center, Ft. Rucker, AL.

Length: 7-8 weeks (277 hours).

Exhibit Dates: 6/85-7/87.

Objectives: To qualify rated pilots in the operation of the CH-47D helicopter.

Instruction: Lectures and practical exercises in flight training on CH-47 aircraft, including preflight inspection, ground procedures, night operations, instrument flying, regulations, flight planning, and maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, and credit for flight training on the basis of institutional evaluation (11/86).

Related Occupation Codes: 154C.

AR-1606-0165

OH-58 Aeroscout Instructor Pilot Methods of Instruction

Course Number: None.

Location: Aviation Center, Ft. Rucker, AL.

Length: 10-12 weeks (397-420 hours).

Exhibit Dates: 1/78-Present.

Objectives: To train commissioned and warrant officer aviators as OH-58 instructor pilots for contact, night, night vision goggles, and aeroscout flying.

Instruction: Classroom and practical training in day/night flying, and in principles and techniques of flight instruction, aircraft systems, combat skills, aeromedical factors, and night vision goggles.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/86).

AR-1606-0166

Rotary Wing Aviator Refresher Training

Course Number: 2C-F31.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-6 weeks (151-221 hours).

Exhibit Dates: 10/80-Present.

Objectives: To train, refresh, and requalify rotary wing aviators returning to flying status from non-flying assignments.

Instruction: Classroom and practical exercises in UH-1 helicopter systems and flight training sequences.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/89).

AR-1606-0167

AH-64 Aviator Qualification

Course Number: 2C-SI1L/2C-152F(T); 2C-ASI1L/2C-100K.

Location: Aviation Center, Ft. Rucker, AL.

Length: 14-15 weeks (539-573 hours).

Exhibit Dates: 9/84-1/88.

Objectives: To provide training in flight and academic instruction for the AH-64 helicopter.

Instruction: Topics include flight and academic instruction in AH-64 helicopter contact flying skills, gunnery, target acquisition and designation sight, combat skills, and pilot night vision sensor system.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight systems, and credit for flight training on the basis of institutional evaluation (11/86).

Related Occupation Codes: 100K.

AR-1606-0168

AH-64 Instructor Pilot

Course Number: 2C-F36.

Location: Aviation Center, Ft. Rucker, AL.

Length: 16-17 weeks (659 hours).

Exhibit Dates: 9/84-Present.

Objectives: To provide training in flight and academic instruction for the AH-64 helicopter, and teaching and evaluating AH-64 flight training.

Instruction: Topics include flight and academic instruction in AH-64 helicopter contact flying skills, gunnery, target acquisition and designation sight, combat skills, pilot night vision sensor system, and methods of instructing and evaluating AH-64 flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight systems, 3 in principles and methods of instruction, and credit for flight training on the basis of institutional evaluation (11/86).

AR-1606-0169

OH-58D Field Artillery Aerial Observer

Course Number: 2E-F109.

Location: Aviation Center, Ft. Rucker, AL.

Length: 5-6 weeks (203-207 hours).

Exhibit Dates: 12/86-Present.

Objectives: To train personnel to perform field artillery aerial observer duties on the OH-58D helicopter.

Instruction: Classroom and practical training in aerial observation including aircraft systems, avionics, mast-mounted sight, airborne handover systems, aircraft handling, mission planning and safety.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/86).

AR-1606-0170

Aviation Officer Basic

Course Number: 2-1-C20.

Location: Aviation Center, Ft. Rucker, AL.

Length: 9-10 weeks (366-367 hours).

Exhibit Dates: 10/85-Present.

Objectives: To provide newly commissioned aviation specialty officers with common military and arms training.

Instruction: Consists of lectures and practical exercises in common task skills, leadership, and arms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 1 in technical writing (6/88).

AR-1606-0171

Aviation Officer Advanced

Course Number: 2-1-C22.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 20 weeks (716 hours). *Version 2:* 20 weeks (725 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 1/85-4/89.

Objectives: To provide commissioned officers with advanced training in military subjects.

Instruction: Lectures and practical exercises in military subjects, leadership, management, technical writing skills, and combat planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in technical writing (4/90); in the upper-division baccalaureate category, 3 semester hours in principles of management (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing, 3 in fundamentals of management (11/86).

AR-1606-0172

Night/Night Vision Goggle Instructor Pilot

Course Number: 2C-F37.

Location: Aviation Center, Ft. Rucker, AL.

Length: 4-5 weeks (115 hours).

Exhibit Dates: 10/83-Present.

Objectives: To qualify selected rotary wing instructor pilots as night vision goggle instructor pilots.

Instruction: Topics include night visual goggle flight training and night academics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1606-0173

Aviation Pre-Command

Course Number: 2G-F42.

Location: Aviation Center, Ft. Rucker, AL.

Length: 2-3 weeks (78-110 hours).

Exhibit Dates: 8/79-Present.

Objectives: To provide update and refresher training in Army aviation subjects.

Instruction: Training in tactics, training management, maintenance and logistics, safety, aviation medicine, fire support, communications-electronics, NBC trends, and general military subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/88).

AR-1606-0174

Aviation Safety Officer

Course Number: 7K-F-12.

Location: Army Safety Center, Ft. Rucker, AL.

Length: 6 weeks (183-186 hours).

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of this course, the student will be able to demonstrate an understanding of the management system, and the safety professional's role in accident prevention; be able to gain the support of management in developing safety and accident prevention programs. The student will also be able to establish countermeasures and control measures for system defects using evaluations and survey data and will be able to initiate a safety program to fully implement all safety program requirements, and will be able to evaluate pre-accident plans, and have a working knowledge of OSHA Safety and Health Standards. Student will identify risks associated with particular operations and will have the ability to weigh these risks against overall training value to be gained.

Instruction: Lectures, demonstrations, and practical exercises in industrial safety and accident prevention.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of industrial safety, 3 in safety engineering, and 3 in risk management (3/88).

AR-1606-0175

Combat Intelligence

Course Number: INT 3; INT 3-OE.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (108-114 hours).

Exhibit Dates: 10/74-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the duties of an intelligence officer/non-commissioned officer in a battalion or a brigade; prepare information reports based on the process of planning, collecting, processing, and disseminating data; analyze and collate information from multiple sources; write periodic reports and summary reports based on information as collected; read maps and determine influence of terrain for military operations; maintain journal and workbook of activities; develop a situation map overlay; coordinate surveillance activities; prepare and present oral briefings; develop and implement security measures, with emphasis on personnel security and security of documents.

Instruction: Lectures, conferences, demonstrations, and seminar classes, with applications of learnings in practical exercises and a comprehensive simulation exercise; the student functions in an intelligence role within the simulated situation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-1606-0176

Special Forces Operations and Intelligence

Course Number: 244-ASIF1.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 16 weeks (666 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will perform operations and intelligence missions; advise and train in military operations; coordinate air/ground, nautical missions; develop and exploit intelligence information; understand principles of security and threats; work with Special Forces reporting systems.

Instruction: Lectures, discussions, and command post exercises on topics including psychological operations in air/land battle, support of unconventional warfare, cross-cultural communication, impact of terrorism, U.S. foreign policy, legal aspects of unconventional warfare, photography and map assessment, area studies, intelligence publications, mission planning process, clandestine operations, Soviet military structure and capabilites, intelligence collection and interpretation, and foreign internal defense. Before 3/87 see **AR-1606-0026**.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photography, 1 in map interpretation, and 1 in communications; in the upper-division baccalaureate category, 1 semester hour in cross-cultural communication, 2 in psychology, 2 in Soviet studies, 1 in social science, 2 in public administration, 1 in political science and 2 in police administration (12/88).

AR-1606-0177

Special Forces Combat Diving Supervisor

Course Number: 2E-F65/011-F23.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2-4 weeks (86-120 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to plan, prepare, and conduct dives; conduct inspections and postdiving checks; teach use of closed- and open-circuit apparatus; teach emergency medical treatment; teach field repair of equipment and handling of air/O2 systems; teach utilization of dive tables, tide and current charts; and teach submarine and chamber operations.

Instruction: Lectures, demonstrations, and laboratory participation involving the supervision of combat diving.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester in advanced scuba diving and 1 in scuba instruction (12/88).

AR-1606-0178

CH-47D Aviator Qualification

Course Number: 2C-SI 1B/2C-154C.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 10 weeks (371 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be qualified as a rotary wing pilot of a CH-47D helicopter.

Instruction: Lecture and practical exercise in flight training on the CH-47D helicopter, including preflight, night operation, emergency procedures, engine and power train systems, fuel and flight minor maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft systems and 3 in helicopter flight training (4/90).

AR-1606-0179

AH-64 Aviator Qualification

Course Number: 2C-SI1L/2C-152F.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 10 weeks (430 hours).

Exhibit Dates: 2/88–Present.

Learning Outcomes: Upon completion of the course, the student will be qualified as a pilot of an AH-64 rotary wing aircraft.

Instruction: Instruction in the basic AH-64 helicopter systems that include weapon systems, airframe, electrical, fuel, hydraulic, caution/warning, pressurized air, digital stabilization, fault location, the Modular Forward Looking Infrared and the Integrated Helmet and Sighting system, navigation systems, flight instrumentation as well as flight instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft systems and 3 in helicopter flight training (4/90).

AR-1606-0180

Rotary Wing Qualification

Course Number: 2C-ASI1Q/2C-100B-D.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 11–12 weeks (372 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will transition from an accomplished fixed wing aircraft pilot to the UH-1 rotary wing aircraft pilot.

Instruction: Lecture and practical exercises for officer/warrant officer transition to the UH-1 rotary wing aircraft, including flight training, basic flight subjects, maintenance procedures, tactical flight procedures, navigation, instrument flight, and recognition of hostile action.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter flight training and 3 in helicopter systems (4/90).

AR-1606-0181

Initial Entry Rotary-Wing Aviator Common Core

Course Number: 2C-OH-58/UH-1/AH-1/UH-60.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 20 weeks (764 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform at the level of private pilot on rotorcraft helicopters.

Instruction: Lectures and practical exercises in basic rotary-wing flight maneuvers, normal and emergency procedures, flight planning, basic instruments, and associated safety considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight regulations, 3 in aircraft navigation (visual), 3 in aviation meteorology, 3 in aircraft engines and systems, 3 in physiology of flight, 3 in aircraft performance, and 6 in private pilot flight training (helicopter).

AR-1606-0182

Initial Entry Rotary-Wing Aviator (UH-60)

Course Number: 2C-SI 1N/2C-153D (UH-60).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 18–19 weeks (665 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform at the level of private pilot on rotorcraft helicopters.

Instruction: Lectures and practical exercises in advanced rotary-wing flight maneuvers, normal and emergency procedures, instrument flight planning, advanced instruments, and associated safety considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft navigation (instrument), 3 in cockpit procedures training (helicopter), 3 in instrument rating (helicopter), and 6 in commercial pilot flight training (helicopter) (4/90).

Related Occupation Codes: 153D.

AR-1606-0183

Initial Entry Rotary-Wing Aviator (UH-1)

Course Number: 2C-SI 1E/2C-153B (UH-1).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 16–17 weeks (572 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform at the level of private pilot on rotorcraft helicopters.

Instruction: Lectures and practical exercises in advanced rotary-wing flight maneuvers, normal and emergency procedures, instrument flight planning, advanced instruments, and associated safety considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft navigation (instrument), 3 in cockpit procedures training (helicopter), 3 in instrument rating (helicopter), and 6 in commercial pilot flight training (helicopter) (4/90).

Related Occupation Codes: 153B.

AR-1606-0184

Initial Entry Rotary-Wing Aviator (OH-58)

Course Number: 2C-SI 1D/2C-152B (OH-58).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 16–17 weeks (592 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform at the level of private pilot on rotorcraft helicopters.

Instruction: Lectures and practical exercises in advanced rotary-wing flight maneuvers, normal and emergency procedures, instrument flight planning, advanced instruments, and associated safety considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft navigation (instrument), 3 in cockpit procedures training (helicopter), 3 in instrument rating (helicopter), and 6 in commercial pilot flight training (helicopter) (4/90).

Related Occupation Codes: 152B.

AR-1606-0185

Initial Entry Rotary-Wing Aviator (AH-1)

Course Number: 2C-SI 1M/2C-152G (AH-1).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 20–21 weeks (772 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform at the level of private pilot on rotorcraft helicopters.

Instruction: Lectures and practical exercises in advanced rotary-wing flight maneuvers, normal and emergency procedures, instrument flight planning, advanced instruments, and associated safety considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft navigation (instrument), 3 in cockpit procedures training (helicopter), 3 in instrument rating (helicopter), and 6 in commercial pilot flight training (helicopter) (4/90).

Related Occupation Codes: 152G.

AR-1606-0186

Aeroscout Observer

Course Number: 600-93B10.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 14–15 weeks (556 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of aeroscout observer in the OH-58A/C helicopter.

Instruction: Includes lectures and practical sessions in map reading, nontactical navigation, combat operations, target identification, aerial adjustment of artillery, nuclear, biological and chemical threats, night vision devices, fundamentals of aviation medicine, communication procedures, extensive aeroscout observer flight training that includes very low level and high altitude operations as well as emergency aircraft piloting instruction, aircraft systems, survival, evasion, resistance, and escape practices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aerial navigation, 1 in helicopter flight instruction (4/90).

AR-1606-0187

Aeroscout Observer Basic Noncommissioned Officer (NCO)

Course Number: 600-93B30.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 5 weeks (209 hours).

Exhibit Dates: 10/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to employ tactical operations consistent with aeroscout procedures.

Instruction: Lectures to prepare the noncommissioned officer for tactical operations, field exercises, aviation-related tasks, aeroscout procedures, and operations procedures.

Credit Recommendation: Credit for the common core only. See AR-1406-0090.

Related Occupation Codes: 93B.

AR-1606-0188

OH-58 A/C Field Artillery Aerial Observer

Course Number: 2E-F108.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 7 weeks (274 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a field artillery officer in the performance of OH-58 A/C helicopter systems operation, target identification and location, and aerial navigation.

Instruction: Topics include aerial navigation, radio procedures, practices and safety considerations in terrain following flights, combat and target identification, night operations, aviation medicine, and practical emergency pilot training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter flight instruction (4/90).

AR-1606-0189

CH-47D FLIGHT ENGINEER INSTRUCTOR

Course Number: 600-ASIN1.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 6 weeks (253 hours).

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as flight engineer instructors for the CH-47D helicopter.

Instruction: Lecture and practical exercises in preflight, inflight, and postflight task. In depth coverage of aircraft systems included, in addition to tactical light training tasks, physiology of flight, and aviation safety. Receives training in academic and flight methods of instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in methods of instruction, 2 in advanced aircraft systems, and 2 in inflight procedure training (4/90).

AR-1606-0190

ROTARY WING INSTRUMENT FLIGHT EXAMINER

Course Number: 2C-SI1V/2C-SQIF.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 7–8 weeks (303 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to train selected current and qualified flight instructors as instrument flight examiners.

Instruction: Lecture and practical exercises in helicopter basic and advanced instrument flight and emergency tasks and instructor/examiner techniques. Includes coverage of regulations, flight planning, air traffic control, approach criteria, cockpit communications, and fundamentals of instruction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in airline transport pilot (helicopter), and 3 in advanced instruction techniques (helicopter) (4/90).

AR-1606-0191

IMAGERY ANALYST BASIC
NONCOMMISSIONED OFFICER (NCO)

Course Number: 242-96D30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6–7 weeks (236 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify, plot, measure, and analyse remotely sensed data and images including conventional photographs, infrared, radar, and electrooptical sensors; to input data into computer-based files; to use the computer to record, store, sort, transmit, and display aerial data; manipulate and maintain a data base and generate displays of computer graphics.

Instruction: Instruction is achieved through small class instruction, laboratory, and practical exercises. Topics include basic map reading, photo and image interpretation, computer-assisted cartography, and the creation of geographic information systems. The course also contains a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in displays of geographic information; in the upper-division baccalaureate category, 3 semester hours in geographic information systems (6/90). For credit for the common core see AR-1406-0090.

AR-1606-0192

INTELLIGENCE ANALYST BASIC
NONCOMMISSIONED OFFICER (NCO)

Course Number: 243-96B30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6–7 weeks (180 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify types of intelligence reports and their uses; practice basic training techniques; and supervise selected field maintenance tasks.

Instruction: Lectures, practical exercises and simulations in intelligence reports review. This course also contains a common core of leadership subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90). For credit for the common core see AR-1406-0090.

AR-1606-0193

IMAGERY ANALYST

Course Number: 242-96D10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 16–18 weeks (583–648 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to read and interpret large scale maps and aerial photographs, radar and infrared images; write reports; and identify transportation and communication routes.

Instruction: Instruction is achieved through classroom and laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in displays of geographic information; in the upper-division baccalaureate category, 3 in aerial photo interpretation and 3 in remote sensing (6/90).

AR-1606-0194

MILITARY INTELLIGENCE OFFICER
ADVANCED (IMAGERY
EXPLOITATION)

Course Number: 3-30-C22-35C.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6–10 weeks (240–360 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the techniques and skills of aerial imagery analysis, including measuring features in aerial photographs; using the aerial slide rule and/or calculator; transferring features between maps and aerial photographs; identifying communication and transportation arteries; using image keys; and analyzing radar and multispectral images.

Instruction: Instruction is achieved through small classes with an emphasis on laboratory and practical exercises.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aerial photograph interpretation and 3 in remote sensing (6/90).

AR-1606-0195

MILITARY INTELLIGENCE WARRANT
OFFICER-RESERVE COMPONENT

Course Number: 3-30-C32-RC.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 1–2 weeks (96 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify specific computer hardware; identify Warsaw pact nations; identify other world threats; recognize the collection management process.

Instruction: Lectures on world threats and computer awareness.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0196

MILITARY INTELLIGENCE OFFICER
ADVANCED COMMON CORE

Course Number: C-30-C22-35.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 9 weeks (411 hours).

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform military intelligence operations including advanced threat analysis and staff and management functions; make decisions on the basis of intelligence data; and write effectively.

Instruction: Instruction includes leadership and management, effective writing, military history, geopolitical studies of conflict areas. Students participate in computer simulations of a warfare system. Players make decisions as they would in the field, involving attack and counterattack. Data analysis and resulting decisions are the major skills developed in this intensive 60 hour exercise.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing; in the upper-division baccalaureate category, 3 semester hours in simulation exercise in decision making, 1 in principles of personnel and organizational management, and 2 in international studies in areas of conflict (6/90).

AR-1606-0197

MILITARY INTELLIGENCE PRECOMMAND

Course Number: 2G-F41.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2 weeks (79 hours).

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will be familiar with general military subjects; recognize the role of various officers and command titles; will be updated on military intelligence.

Instruction: Lectures, discussions and forums on the subject matter.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

AR-1606-0198

Interrogator Basic Noncommissioned Officer (NCO)

Course Number: 241-97E30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5–6 weeks (197 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will understand military vocabulary and job-specific language skills and prepare battlefield intelligence.

Instruction: Lectures and practical exercises on the subject matter. Course also includes a common core of leadership subjects.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (6/90).

AR-1606-0199

Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician

Course Number: 3A-351E.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2–3 weeks (91–94 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform all phases of interrogation; be aware of interrogation reports; and know the role of interrogation technician.

Instruction: Lectures and simulation exercises comprise the methods of instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0200

Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician

Course Number: 3A-350D.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2–3 weeks (93 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will be updated on technology and new equipment; be familiar with imagery intelligence materials; and perform selected types of imagery interpretation.

Instruction: Lectures and classroom exercises comprise the methods of instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0201

Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician

Course Number: 3C-351B.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2–3 weeks (87 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will understand basic field office management; recognize basic counterintelligence functional areas; and know the role of a counterintelligence technician.

Instruction: Lectures and simulation exercises are the methods of instruction.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

Related Occupation Codes: 351B.

AR-1606-0202

Military Intelligence Senior Warrant Officer

Course Number: 3-30-C32.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5 weeks (175 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will be aware of technological changes and advanced concepts within the intelligence disciplines; be informed of world threats; and be aware of data processing principles.

Instruction: Lecture is the mode of instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0203

Aerial Intelligence Specialist Basic Noncommissioned Officer (NCO)

Course Number: 233-96H30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 3–4 weeks (116 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will supervise the planning, employment, and training of aerial surveillance operations including visual/photo reconnaissance missions, survival/evasion/resistance/escape equipment use, and flightline operation.

Instruction: Instruction includes classroom and practical exercises in visual/photo reconnaissance, technical operations, and supervision. Course also contains a common core of leadership subjects.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090.

Related Occupation Codes: 96H.

AR-1606-0204

Quickfix II System Qualification

Course Number: 2C-15C/2B-ASIB5.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 8–9 weeks (164 hours).

Exhibit Dates: 4/90–Present.

Learning Outcomes: Upon completion of the course the student will perform flight mission profiles; identify the major characteristics of low intensity conflict; define terrorism, describe aerial exploitation; and define radar terms and operational concepts.

Instruction: Lectures and practical exercises on the above subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0205

Quickfix II Crew Certification

Course Number: 233-F15.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 3 weeks (111 hours).

Exhibit Dates: 4/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate the Quickfix II system during airborne exercises and perform pre/post-flight procedures on the system.

Instruction: Lectures, demonstrations, and performance of in-flight procedures are the methods of instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1606-0206

Aerial Photoactive Sensor Repairer

Course Number: 198-ASIW1.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 11 weeks (391 hours).

Exhibit Dates: 10/86–1/88.

Learning Outcomes: Upon completion of the course the student will be able to maintain photoactive sensors, in particular, various cameras in the visible and near infrared spectrum, strobe lighting, and an infrared countermeasures set in a direct support environment.

Instruction: Lectures and practical exercises in the inspection, testing, alignment, and repair of the equipment to include panoramic cameras, still picture cameras, airborne data annotation systems, and infrared detecting sets.

Credit Recommendation: In the vocational certificate category, 8 semester hours in operation and repair of photographic processors and cameras (6/90).

AR-1606-0207

Ground Surveillance System Operator Basic Noncommissioned Officer (NCO)

Course Number: 231-96R30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5–6 weeks (182 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to function as a supervisor of ground surveillance system operators.

Instruction: Lectures and practical exercises in the use of ground surveillance systems and the supervision of system operators. Course also contains a common core of leadership subjects.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090.

AR-1606-0208

Aerial Intelligence Specialist

Course Number: 233-96H10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 8–9 weeks (313 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to read maps and plot information on them; have a working knowledge of the operation and operator maintenance of airborne photographic and radar surveillance systems; be able to troubleshoot and make minor repairs to aerial surveillance systems.

Instruction: Small classes are held in hangers, classrooms, flightline and inflight.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to map reading (6/90).

AR-1701-0001

Heating and Ventilating

Course Number: 5-E-49.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8 weeks (284 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train enlisted personnel to install, maintain, and repair heating and ventilating units and associated control devices.

Instruction: Lectures and practical exercises in the installation and maintenance of heating and ventilation systems. Course includes heat transfer, insulation, combustion principles, automatic controls, pipe fittings, gas burners, oil burners, combustion chambers, oil pumps, duct systems, furnace installation, steam and hot water heating, and natural and mechanical ventilation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in combustion (oil, gas, and coal furnaces), and additional credit on the basis of institutional evaluation (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in combustion (oil, gas, and coal furnaces), and additional credit on the basis of institutional evaluation (6/74).

AR-1701-0002

Utilities Equipment Repairer

Course Number: 662-52C20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11 weeks (323 hours).

Exhibit Dates: 4/79–1/90.

Objectives: To train the individual to diagnose, maintain and repair gas-turbine engines, refrigeration, high PSI air-compressors, air-conditioning and heater equipment.

Instruction: Conferences and practical exercises to teach the individual to diagnose, maintain, and repair gas-turbine engines, refrigeration equipment, high PSI air-compressors, air-conditioning and heater equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in refrigeration, 2 in mechanical power technology, 1 in air-conditioning (9/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in refrigeration, 2 in mechanical power technology, 1 in air-conditioning (9/79).

AR-1702-0001

Impregnation Equipment Operation

Course Number: 3-E-8.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 8 weeks (352 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to operate, install, inspect, and maintain impregnation equipment.

Instruction: Lectures and practical exercises in the operation, installation, inspection, and maintenance of impregnation equipment, including chemical munitions, special masks and clothing, map reading, supply operation, biological and chemical warfare, detection and identification of chemical agents, and chemical detection and processing plants.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

AR-1702-0002

Quartermaster Light Equipment Repair

Course Number: 690-63J20; 10-R-466.1.

Location: Ordnance School, Aberdeen Proving Ground, MD; Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (237–290 hours).

Exhibit Dates: 10/59–9/77.

Objectives: To train enlisted personnel to install, adjust, and repair light quartermaster machinery and equipment.

Instruction: Lectures and practical exercises in installation, maintenance, and repair of internal combustion engines, burner equipment and metal items, and clothing and textile sewing machines. Emphasis is on applied troubleshooting and repair. Includes maintenance and repair of wood materials, hardware and glues and mobile shoe repair equipment.

Credit Recommendation: In the vocational certificate category, 7 semester hours in industrial arts technology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in industrial arts technology (5/74).

Related Occupation Codes: 63J.

AR-1702-0003

Utilities Equipment Repairer

Course Number: 662-52C10.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11 weeks (393 hours).

Exhibit Dates: 2/79–Present.

Objectives: To train enlisted personnel to operate and maintain gas turbine engines and multi-output package equipment.

Instruction: Conferences and practical exercises in diagnostic procedures, maintenance and repair of gas turbine engines, refrigeration, air-conditioning and heater equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to electricity, 2 in air-conditioning and refrigeration (9/79).

Related Occupation Codes: 52C.

AR-1703-0001

1. Track Vehicle Mechanic
2. Track Vehicle Mechanic
3. Armor Track Vehicle Mechanic

Course Number: *All Versions:* 7-R-632.1; 7-R-632.2; 6-R-632.1; 6-R-632.2; 17-R-632.1; 17-R-632.2. *Version 1:* 611-63C10; 611-63C20. *Version 2:* 611-63C10; 611-63C20.

Location: *Version 1:* Armor School, Ft. Knox, KY. *Version 2:* Armor School, Ft. Knox, KY; Artillery and Missile School, Ft. Sill, OK; Infantry School, Ft. Benning, GA. *Version 3:* Armor School, Ft. Knox, KY.

Length: *Version 1:* 13 weeks (436 hours). *Version 2:* 7–12 weeks (264–404 hours). *Version 3:* 15 weeks (591–607 hours).

Exhibit Dates: *Version 1:* 11/76–6/83. *Version 2:* 7/64–10/76. *Version 3:* 9/56–6/64.

Objectives: To provide enlisted personnel with the skills and knowledge required to perform organizational maintenance on wheeled and tracked tank-automotive vehicles.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance and recovery of track vehicles or wheeled and tracked vehicles, including vehicle operations and engine and electrical subjects. *Version 1:* Includes gasoline engine subjects. *Version 2:* Includes powertrains, hull and suspension systems, hydraulic systems, and troubleshooting procedures. *Version 3:* Includes wheeled-vehicle engines, power transmission systems, chassis units, recovery operations, management, medium-gun tank and armored personnel carrier maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 10 semester hours in heavy equipment maintenance (1/78). *Version 2:* In the vocational certificate category, 8 semester hours in heavy equipment maintenance (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in heavy equipment maintenance (6/75). *Version 3:* In the vocational certificate category, 12 semester hours in heavy equipment, 4 in automotive repair (4/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in heavy equipment, 3 in automotive repair (4/74).

Related Occupation Codes: 63C.

AR-1703-0002

Artillery Track Vehicle Maintenance

Course Number: *Version 1:* 6-R-632.1. *Version 2:* 6-R-632.1. *Version 3:* 6-E-21.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 11–12 weeks (406–437 hours). *Version 2:* 14 weeks (589–604 hours). *Version 3:* 10 weeks (421 hours).

Exhibit Dates: *Version 1:* 1/61–12/68. *Version 2:* 6/57–12/60. *Version 3:* 7/56–5/57.

Objectives: To train enlisted personnel to troubleshoot and repair tracked-vehicle systems.

Instruction: Lectures and practical exercises in automotive engine, power train, carburetion, and ignition fundamentals, troubleshooting, diagnosis, and repair of vehicle components; motor pool tools and shop equipment; wheeled and tracked vehicles electrical systems; and maintenance management procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in internal-combustion engines, 2 in automobile electric systems, 2 in power trains, 2 in automobile mechanics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in internal-combustion engines, 2 in automobile electrical systems, 1 in power trains, 2 in automobile mechanics (4/74). *Version 2:* In the vocational certificate category, 5 semester hours in internal-combustion engines, 2 in automobile electrical systems, 1 in power trains, 2 in automobile mechanics (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in internal-combustion engines, 1 in automobile electrical systems, 1 in power trains, 2 in automobile mechanics (4/74). *Version 3:* In the vocational certificate category, 1 semester hour in internal-combustion engines, 3 in automobile electrical systems, 1 in power trains, 2 in automobile mechanics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in internal-combustion engines, 2 in automobile electrical systems, 1 in power trains, 2 in automobile mechanics (4/74).

AR-1703-0003

Tire Repair

Course Number: *Version 1:* 9-R-543.1; 9-E-4. *Version 2:* None.

Location: *Version 1:* Ordnance School, Aberdeen Proving Ground, MD. *Version 2:*

Ordnance Automotive School, Atlanta, GA.

Length: *Version 1:* 7 weeks (245-266 hours). *Version 2:* 8 weeks (304 hours).

Exhibit Dates: *Version 1:* 4/56-12/68. *Version 2:* 7/55-3/56.

Objectives: To train enlisted personnel to repair automotive tire inner tubes, make sectional repairs, and recap automobile, truck, and earth-moving equipment.

Instruction: Lectures and practical exercises in tires and tubes fundamentals, tube repair, spot and section repair preparation and build-up, tire recapping, specialized repair equipment operation, open-steam-chamber vulcanizing, and earthmover equipment operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in tire repair, recapping, and retreading (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in tire repair, recapping, and retreading (4/74). *Version 2:* In the vocational certificate category, 7 semester hours in tire repair, recapping, and retreading (4/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in tire repair, recapping, and retreading (4/74).

AR-1703-0004

RECOVERY AND EVACUATION

Course Number: *Version 1:* 610-63F20. *Version 2:* 610-63F20; 611-63F20; 9-R-633.1; 9-E-80.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9-10 weeks (278-324 hours). *Version 2:* 7-11 weeks (209-385 hours).

Exhibit Dates: *Version 1:* 11/74-1/87. *Version 2:* 6/56-10/74.

Objectives: To train enlisted personnel to perform recovery and evacuation operations for abandoned, damaged, disabled, or mired vehicles.

Instruction: *All Versions:* Lectures and practical exercises in the recovery and evacuation of abandoned, damaged, disabled, or mired vehicles, including oxyacetylene cutting, engines, power trains, steering, suspension components, brake and fuel systems, operation of various winches, transmission assemblies, gears and shafts, electrical systems, communication and map reading, and engine cooling systems. *Version 1:* Topics include operation of the 10 ton wrecker truck.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours as an elective in automotive technology (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in automotive technology (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in automotive technology (4/74).

Related Occupation Codes: 63F.

AR-1703-0005

JUNIOR OFFICERS MAINTENANCE (Motor Officer)

Course Number: 8C-77D; 8C-0600.

Location: Armor School, Ft. Knox, KY.

Length: 8-9 weeks (244-322 hours).

Exhibit Dates: 4/71-12/85.

Objectives: To train commissioned officers to supervise the maintenance of wheeled and tracked vehicles and associated armament and communications equipment.

Instruction: Lectures and practical exercises in the maintenance management of wheeled and tracked vehicles and associated armament and communications equipment, including records, gasoline engines, fuel systems, electrical systems, diesel engines, engine troubleshooting, power train components, tracked vehicles, auxiliary equipment, and vehicle recovery operations. After 1985, see **AR-1703-0057**.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in automotive technology (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in automotive technology (4/74).

Related Occupation Codes: 77D.

AR-1703-0006

ENGINEER EQUIPMENT REPAIRMAN NONCOMMISSIONED OFFICER (NCO) BASIC

Course Number: 612-62B40-EC.

Location: Engineer School, Ft. Belvoir, VA.

Length: 15 weeks (667 hours).

Exhibit Dates: 5/71-1/88.

Objectives: To train engineer equipment repairmen to supervise the repair of various types of engineering equipment.

Instruction: Lectures and practical exercises in the maintenance supervision of various types of engineering equipment, including instruction in basic mathematics, speech, map reading, personnel management, power generation, hydraulics, electrical systems, fuel systems, diesel engines, cylinder block assemblies, cylinder heads, ignition systems, gasoline engines, clutches, torque converters, transmissions, final drives, suspension systems, steering and lubrication systems, cooling systems, and electrical fundamentals.

Credit Recommendation: In the vocational certificate category, 5 semester hours as an elective in automotive technology (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours as an elective in automotive technology (4/74).

Related Occupation Codes: 62B.

AR-1703-0007

INFANTRY AUTOMOTIVE SUPERVISION

Course Number: 7-E-1.

Location: Infantry School, Ft. Benning, GA.

Length: 10 weeks (372 hours).

Exhibit Dates: 11/54-12/68.

Objectives: To train enlisted personnel to supervise motor pool operations.

Instruction: Lectures and practical exercises in tactical driver-training methods, internal combustion engine operation, chassis systems, track vehicle operation and maintenance, preventive maintenance procedures, field operations, map and aerial photograph reading, and logistics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive engines, 2 in automotive chassis systems (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive engines, 2 in automotive chassis systems (4/74).

AR-1703-0008

AIR BRAKE REPAIR

Course Number: 55-R-655.1; 55-E-35.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To train enlisted personnel to dismantle, inspect, repair, and maintain railroad air brake equipment and component parts on steam and diesel-electric locomotives, railway cars, and auxiliary railway mechanical equipment.

Instruction: Lectures and practical exercises in the inspection, repair, and maintenance of railroad air brake equipment and component parts on steam and diesel-electric locomotives, railway cars, and auxiliary railway mechanical equipment, including operation of various valves, gauges, governors and braking devices used on steam and diesel locomotives.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in mechanical technology (4/74).

AR-1703-0009

SPECIAL AMPHIBIAN TRANSITION

Course Number: None.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (182 hours).

Exhibit Dates: 6/62-12/64.

Objectives: To train enlisted personnel to operate and maintain amphibious lighters.

Instruction: Lectures and practical exercises in the operation and maintenance of amphibious lighters, including basic internal combustion engine maintenance, test equipment, electrical circuits, fuel system, operating controls and troubleshooting, transmission, technical inspections, and hydraulic system components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to internal combustion engines (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to internal combustion engines (4/74).

AR-1703-0010

COOPERATIVE FUELS RESEARCH (CFR) TEST ENGINE

Course Number: 491-91C30; 491-F1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (280 hours).

Exhibit Dates: 6/67-6/85.

Objectives: To train petroleum laboratory specialists to install, operate, inspect, and maintain cooperative fuels research (CFR) test engines.

Instruction: Lectures and practical exercises in the inspection, operation, and maintenance of CFR test engines, including principles of internal combustion engines and combustion knock, installation of CFR test engines, maintenance and overhaul procedures for CFR test engines, maintenance of CFR electrical apparatus, determination of humidity, starting and stopping of CFR test units, motor and research methods for rating fuels, and aviation method for rating aviation fuels.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive and mechanical technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive and mechanical technology (6/74).

Related Occupation Codes: 96C.

AR-1703-0011

AUTOMOTIVE REPAIR

Course Number: 610-63H20; 610-635.10; 9-R-635.1; 9-E-81.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 13 weeks (415 hours). *Version 2:* 14–18 weeks (486-635 hours).

Exhibit Dates: *Version 1:* 8/76–1/88. *Version 2:* 3/56–7/76.

Objectives: To train enlisted personnel to maintain, inspect, repair and overhaul wheeled vehicles and their systems.

Instruction: *All Versions:* Lectures and practical exercises in vehicle engine familiarization, operation, construction, disassembly, assembly, inspection, and troubleshooting; selective gear and hydraulic transmissions, including dry disk clutch, fluid coupling, and torque converter; power train and auxiliary components; recovery operations; and construction, operation, and maintenance of materials handling equipment. *Version 1:* Includes introduction to shop management and preventive maintenance scheduling.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 12 semester hours in heavy equipment service of which 6 semester hours is specifically in automotive service (1/78). *Version 2:* In the vocational certificate category, 6 semester hours in automotive repair, and 15 in heavy equipment repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive repair, and 10 in heavy equipment repair (5/74).

Related Occupation Codes: 63H.

AR-1703-0012

METAL WORKER
(Vehicle Body Mechanic)
(Vehicle Body Repairman
(Metal Body Repair)
(Metalworker)

Course Number: *Version 1:* 704-44B10; 704-47233; 704-3513. *Version 2:* 700-44B10. *Version 3:* 704-44B20; 225ABA47331 (USAF); 704-441.1. *Version 4:* 9-R-441.1. *Version 5:* 9-R-441.1; 9-E-3.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9-15 weeks (325–475 hours). *Version 2:* 8–14 weeks (266–442 hours). *Version 3:* 8–11 weeks (288–340 hours). *Version 4:* 10 weeks (336 hours). *Version 5:* 6 weeks (210–228 hours).

Exhibit Dates: *Version 1:* 3/83–9/84. *Version 2:* 1/76–2/83. *Version 3:* 2/66–12/75. *Version 4:* 4/58–1/66. *Version 5:* 6/56–3/58.

Objectives: To train Army, Air Force and Marine Corps personnel to repair, repaint, and install metal body components, radiators, fuel tanks, and glasswork, and to modify other related items.

Instruction: *All Versions:* Lectures and practical exercises in the repair, repainting, and installation of metal body components, radiators, fuel tanks, and glasswork, and in the modification of other related items. Instruction includes oxyacetylene welding, inert gas welding, utilization of metal body repair tools and equipment, after-operations checks, and trim, hardware and glasswork. For the course after 10/84, see exhibit AR-1703-0030. *Version 1:* Lectures and practical exercises in oxyacetylene, electric arc, and MIG and TIG welding, repair, repainting, installation and alignment of metal body components, radiators, fuel tanks, and glassworks. Also includes instruction in care and use of tools and equipment. *Version 2:* Army personnel study arc welding, inert gas welding and electric arc welding. *Version 4:* Includes major body repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in oxycetalyne, 2 in electric arc, 2 in MIG and TIG, 3 in auto body repair for Army personnel; 2 semester hours in oxycetylene, 1 in electric arc, 3 in auto body repair for Air Force personnel; 2 in oxycetylene, 1 in MIG and TIG, 3 in auto body repair for Marine Corps personnel (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in auto body repair, 1 in auto painting for all services and, for Army personnel only, 6 semester hours in welding (1/78) *Version 3:* In the vocational certificate category, 9 semester hours in automotive body repair or metal body repair (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive body repair or metal body repair (6/75). *Version 4:* In the vocational certificate category, 10 semester hours in automotive body repair or metal body repair (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive body repair or metal body repair (5/74). *Version 5:* In the vocational certificate category, 7 semester hours in automotive body repair or metal body repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive body repair or metal body repair (5/74).

Related Occupation Codes: 44B.

AR-1703-0013

AUTOMOTIVE REBUILD

Course Number: 9-E-83.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 12 weeks (456 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train automotive repairmen to rebuild engines, power train units, and chassis components of wheel and track vehicles.

Instruction: Lectures and practical exercises in the rebuilding of engines, power train units, and chassis components of wheeled and tracked vehicles, including removal and inspection of engine accessories, assembly and disassembly of water pump, air compressor, intake and exhaust manifolds, valve operating mechanism, cylinder head and valves, oil pan and cover, oil pump, connecting rods and pistons, flywheel, crankshaft, and camshaft; boring, grinding, and aligning procedures; and installation and assembly of engine and components.

Credit Recommendation: In the vocational certificate category, 15 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in automotive or heavy equipment (5/74).

AR-1703-0014

AUTOMOTIVE MAINTENANCE AND REPAIR

Course Number: 9-B-4805.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 7–8 weeks (245–280 hours).

Exhibit Dates: 11/56–12/68.

Objectives: To train officers to direct and supervise personnel in the repair of automotive vehicles.

Instruction: Lectures and practical exercises in automotive maintenance management and automotive engines, power trains, chassis components, and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive maintenance (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive maintenance (7/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

Related Occupation Codes: 630A; 631A; 632A.

AR-1703-0015

INFANTRY MOTOR TRANSPORTATION

Course Number: 7-O-8.

Location: Infantry School, Ft. Benning, GA.

Length: 10 weeks (417 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train officers to maintain motor transport equipment.

Instruction: Lectures and practical exercises in motor transport maintenance, including tactical driver training methods, engine, chassis, full-track vehicle familiarization, preventive maintenance, and operating procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in automotive programs (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in automotive programs (7/74).

AR-1703-0016

1. TRACK VEHICLE REPAIRER
2. AUTOMOTIVE REPAIR

Course Number: *Version 1:* 611-63H10. *Version 2:* 610-63H10.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 8 weeks (269 hours). *Version 2:* Self-paced 10 weeks (299 hours).

Exhibit Dates: *Version 1:* 10/82–8/85. *Version 2:* 7/76–9/82.

Objectives: To train enlisted personnel in the construction, operation, and servicing of automotive equipment by troubleshooting, replacing components, and minor repair of wheeled and tracked vehicles.

Instruction: *Version 1:* Lectures, training devices, and practical exercises in diesel engine familiarization, construction, inspection, replacement, and troubleshooting fuel injections and pumps, transmission assemblies, governors, and auxiliary components. Course trains enlisted personnel in the use of basic hand tools, measuring and diagnostic equipment and the construction, operations, and servicing of diesel equipment by troubleshooting, replacing components, and minor repair of diesel engine components. See AR-1703-0031 for later version. *Version 2:* Lectures and practical exercises in vehicle engine familiarization, operation, construction, inspection, replacement, and troubleshooting; selective gear and hydraulic transmissions, including dry disk clutch, fluid coupling, and torque converter; power train and auxiliary components; recovery operations; and construction, operation, and maintenance of materials-handling equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in hand tools and measuring devices, 4 in diesel engine repair (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 10 semester hours in heavy equipment repair of which 5 semester hours is specifically in automative repair (1/78).

Related Occupation Codes: 63H.

AR-1703-0017

Armor Vehicle Maintenance Supervision
(Armor Automotive Supervision)

Course Number: 17-R-632.6; 17-R-632.7; 17-E-7.

Location: Armor School, Ft. Knox, KY.

Length: 8 weeks (286-307 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train enlisted personnel in the supervision of organizational maintenance and motor activities in armor units.

Instruction: Lectures and practical exercises in the supervision of organizational maintenance and motor activities in armor units, including engine electricity, basic engines, wheeled-vehicle engines, tracked-vehicle engines, wheeled-vehicle power transmission systems and chassis units, tracked-vehicle power transmission systems and chassis units, automotive general, maintenance management, driving and driving principles, and preventive maintenance services.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive shop management (7/74); in the upper-division baccalaureate category, credit in automotive shop management on the basis of institutional evaluation (12/68).

AR-1703-0018

Warrant Officer Automotive Repair

Course Number: 4L-631A; 4L-632A.

Location: Ordnance Center and School, Aberdeen Proving Ground, MD.

Length: 19 weeks (646 hours).

Exhibit Dates: 3/72-1/84.

Objectives: To train enlisted personnel to perform as warrant officers and to repair and maintain automotive vehicles.

Instruction: Lectures and practical exercises in the repair and maintenance of automotive vehicles. Course includes military subjects, military management, automotive electricity and electronics, power plant maintenance and support systems, chassis and drive trains, and heavy equipment familiarization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in automotive or heavy equipment technology (2/79).

Related Occupation Codes: 630A; 631A; 632A.

AR-1703-0019

Fuel and Electrical Systems Repair

Course Number: *Version 1:* 610-63G10. *Version 2:* 610-63G10. *Version 3:* 610-63G20. *Version 4:* 610-63G20; 9-R-634.1. *Version 5:* 9-R-634.1; 9-E-30.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 10-11 weeks (349-369 hours). *Version 2:* 12 weeks (384 hours). *Version 3:* 13 weeks (398 hours). *Version 4:* 12 weeks (420-472 hours). *Version 5:* 10 weeks (350-380 hours).

Exhibit Dates: *Version 1:* 3/83-8/85. *Version 2:* 7/76-2/83. *Version 3:* 11/72-6/76. *Version 4:* 6/58-10/72. *Version 5:* 3/56-5/58.

Objectives: To train enlisted personnel to inspect, diagnose malfunctions, adjust, and repair fuel and electrical systems components, using diagnostic test equipment and procedures, and to service hydraulic brake system components.

Instruction: *All Versions:* Lectures and laboratories in inspection and repair of fuel and electrical systems. Course includes applied electricity; ignition, starting, and charging systems; gasoline and diesel fuel systems; and hydraulic brake systemcomponent repair. *Version 1:* Also includes carburetor repair, two Barre' overhaul and assemble, injector pumps and injector nozzle, power unit injector pump (construction and operation and repair). See AR-1703-0026 for later version.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in electrical systems (automotive), 1 in basic hydraulics, 3 in diesel fuel systems, 2 in auto fuel systems (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in gasoline fuel systems, 3 in diesel fuel systems, 5 in automotive electrical systems, and 1 in basic hydraulic brakes (1/78). *Version 3:* In the vocational certificate category, 3 semester hours in automotive fuel systems, 3 in diesel fuel systems, and 4 in automotive electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fuel systems, 3 in diesel engine fuel systems, and 4 in automotive electronics (7/74); in the upper-division baccalaureate category, 2 semester hours in automotive fuel systems, 2 semester hours in diesel fuel systems, and 3 in automotive electronics (7/74). *Version 4:* In the vocational certificate category, 3 semester hours in automotive fuel systems and 6 in automotive electrical systems (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fuel systems and 6 in automotive electrical systems (7/74). *Version 5:* In the vocational certificate category, 2 semester hours in automotive fuel systems and 4 in automotive electrical systems (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive fuel systems and 4 in automotive electrical systems (7/74).

Related Occupation Codes: 63G.

AR-1703-0020

Artillery Motor Transport

Course Number: 6-B-0600; 6-B-631A; 6-B-0606; 6-O-15.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 8-14 weeks (301-492 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To provide the student with a working knowledge of artillery wheeled and track vehicle maintenance and management.

Instruction: Lectures and practical exercises in power plants, chassis and systems, shop organization and maintenance, electrical systems, and turret systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive electricity and 3 in automotive power plants (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in transportation management, 3 in automotive electricity, and 3 in automotive power plants (7/74); in the upper-division baccalaureate category, 3 semester hours in transportation management (7/74).

Related Occupation Codes: 630A; 631A; 632A.

AR-1703-0021

Light Wheel Vehicle Mechanic
(Light Wheel Vehicle/Power Generation Mechanic)
(Power Generation and Wheeled Vehicle Mechanic)
(Wheeled Vehicle Mechanic)

Course Number: 63B10-OSUT; 63B10-0ST; 610-63B10; 610-63B10-OSUT.

Location: *Version 1:* Training Center, Ft. Jackson, SC; Training Center, Ft. Dix, NJ; Training Center, Ft. Leonard Wood, MO. *Version 2:* Ordnance and Chemical School, Aberdeen Proving Ground, MD; Training Center, Ft. Dix, NJ; Training Center, Ft. Jackson, SC; Training Center, Ft. Leonard Wood, MO.

Length: *Version 1:* 11-17 weeks (367-374 hours). *Version 2:* 8 weeks (251 hours).

Exhibit Dates: *Version 1:* 5/79-12/84. *Version 2:* 11/76-4/79.

Objectives: To train enlisted personnel to perform organizational maintenance of wheeled vehicles.

Instruction: *Version 1:* Lectures and practical exercises in troubleshooting, repairing and correcting disorders in engines, fuel, electrical and cooling systems, power trains, chassis and suspension system components of wheeled vehicles, power generation equipment, and use of recovery equipment (5-ton wrecker). Course may include basic training. For the course after 1/85, see exhibit AR-1703-0028. *Version 2:* Lectures and practical exercises in troubleshooting, repairing and correcting disorders in engines, fuel, electrical and cooling systems, power trains, chassis and suspension system components of wheeled vehicles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in automotive repair and 2 in power generator repair (9/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive repair (1/78).

Related Occupation Codes: 63B.

AR-1703-0022

Motor Transport Operator

Course Number: 811-64C10; 64C10-OSUT.

Location: Training Center, Ft. Dix, NJ. Training Center, Ft. Leonard Wood, MO.

Length: 7-14 weeks (183 hours).

Exhibit Dates: 5/81-3/85.

Objectives: To provide the skills, knowledge, experience, and technical ability required to perform the duties of a motor vehicle driver of light and medium vehicles.

Instruction: Instruction in operating 1/4-ton vehicle, performing driver-related tasks, making entries on forms and records, and driving a 5-ton and 14-ton tractor and semitrailer under varying operational conditions. NOTE: Course may include basic training.

Credit Recommendation: In the vocational certificate category, 2 semester hours in motor vehicle operation (9/83).

Related Occupation Codes: 64C.

AR-1703-0023

Light Wheel/ Power Generation Mechanic Basic Technical

Course Number: 610-63B30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 12 weeks (488-504 hours).

Exhibit Dates: 8/82-12/84.

Objectives: To teach supervision and performance of maintenance procedures on trucks and tracked vehicles, heavy fork lift trucks, and power generating equipment. Also includes basic management techniques.

Instruction: Lectures and practical exercises on the ignition and starting systems, chassis, electrical systems,steering and suspension systems, transmission, Diesel and gasoline engines; adjustment and testing of controls, steering system, wiring harnesses. Emphasis is placed on the use of diagnostic and measurement devices, service manuals, and troubleshooting. See AR-1703-0029 for later version.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 3 in heavy equipment electrical systems, and 6 in heavy equipment services of which 3 hours are specifically in truck maintenance (2/84).

Related Occupation Codes: 63B.

AR-1703-0024

WHEEL VEHICLE REPAIRER

Course Number: 610-63W10.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 11 weeks (376 hours).

Exhibit Dates: 10/82–6/85.

Objectives: To train enlisted personnel to perform maintenance on heavy equipment wheeled vehicles.

Instruction: Lectures and practical exercises in shop practice using hand tools and measurement devices, introduction to the engine and its systems, troubleshooting and repair to the suspension and steering systems; replacing and adjusting transmissions and front and rear differentials; replacing fuel injection pump; and emphasis on engine testing and repair. After 7/85 see AR-1703-0027.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive shop practice, 4 in heavy equipment engine maintenance (2/84).

Related Occupation Codes: 63W.

AR-1703-0025

LIGHT WHEEL VEHICLE MECHANIC PRIMARY TECHNICAL

Course Number: 610-63B20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 6 weeks (212 hours).

Exhibit Dates: 11/83–1/87.

Objectives: To train enlisted personnel to inspect, diagnose, and troubleshoot minor malfunctions in light wheel vehicles, and to perform organizational maintenance and recovery operations of these vehicles.

Instruction: Lectures and practical exercises in supply and maintenance management, shop operation, counseling and training of subordinate personnel, and organizational light wheel vehicle maintenance to include inspection, diagnosis, troubleshooting and minor repair on the engines, fuel systems, power train systems, suspension and steering systems, brakes, and electrical systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive mechanic fundamentals (2/84).

Related Occupation Codes: 63B.

AR-1703-0026

FUEL AND ELECTRICAL SYSTEMS REPAIRER

Course Number: 610-63G10/610-3524.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 4–14 weeks (158–508 hours). *Version 2:* For the Army: 18–19 weeks (667–668 hours); for the Marine Corps: 15–16 weeks (559–662 hours).

Exhibit Dates: *Version 1:* 1/88–Present. *Version 2:* 9/85–12/87.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, diagnose malfunctions, adjust, and repair fuel and electrical systems components using diagnostic test equipment and procedures, and to service hydraulic brake system components.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Instruction includes applied electricity, ignition, starting, and charging systems; gasoline and diesel fuel systems, and hydraulic brake system component repair. Also includes carburator repair, two Barre overhaul, injector pumps and injector nozzle, and power unit injector pump.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, for Army personnel: 5 semester hours in automotive electrical systems, 1 in basic hydraulics, 3 in diesel fuel systems and 2 in automotive fuel systems; for Marine Corps personnel: in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive electrical systems, 1 in basic hydraulics, 3 in diesel fuel systems and 2 in automotive fuel systems (7/87).

Related Occupation Codes: 63G/3524.

AR-1703-0027

WHEEL VEHICLE REPAIRER

Course Number: *Version 1:* 610-63W10 (CT). *Version 2:* 610-63W10.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 15–16 weeks (566 hours).

Exhibit Dates: 21 1/87–Present. *Version 2:* 7/85–12/86.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance on heavy equipment wheeled vehicles, including troubleshooting, removing, replacing, and adjusting transmissions, front and rear differentials, suspensions, steering, brakes, and engines.

Instruction: Lectures and practical exercises in shop practice using hand tools and measurement devices; introduction to the engine and its systems; troubleshooting and repair to the suspension and steering systems; replacing and adjusting transmissions and front and rear differentials; replacing fuel injection pump; troubleshooting and repairing of air and hydraulic brakes; troubleshooting and replacing charging and starting system components; and emphasis on engine testing and repair.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in automotive shop practices, 3 in heavy duty gasoline and diesel engine repair, 1 in heavy duty brakes, 1 in automotive electrical, 1 in heavy duty suspensions and steering, and 2 in heavy duty power trains (3/87).

Related Occupation Codes: 63W.

AR-1703-0028

LIGHT WHEEL VEHICLE MECHANIC

Course Number: 610-63B10.

Location: Training Center, Ft. Jackson, SC; Training Center, Ft. Dix, NJ; Training Center, Ft. Leonard Wood, MO; Training Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 14–15 weeks (534–535 hours). *Version 2:* 11 weeks (298 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 1/85–9/88.

Learning Outcomes: Upon completion the student will be able to perform general automotive maintenance and troubleshooting including electrical and brake systems.

Instruction: Lectures and practical exercises in troubleshooting, repairing, and correcting disorders in engines, fuel, electrical and cooling systems, power trains, chassis and suspension system components of wheeled vehicles. For the course as conducted earlier, see AR-1703-0021.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive shop, 2 in automotive electrical systems, and 2 in brake systems (3/87).

Related Occupation Codes: 63B.

AR-1703-0029

LIGHT WHEEL VEHICLE MECHANIC BASIC TECHNICAL

Course Number: 610-63B30.

Location: Ordnance School, Aberdeen Proving Ground, Md.

Length: *Version 1:* 12 weeks (428 hours). *Version 2:* 11 weeks (392 hours).

Exhibit Dates: *Version 1:* 4/87–Present. *Version 2:* 1/85–3/87.

Learning Outcomes: Upon completion of the course the student will be able to teach supervision and performance of maintenance and repair procedures on trucks and tracked vehicles, heavy fork lift trucks, and power generating equipment. Also capable of basic field/shop management repair and maintenance techniques.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and practical exercises on the ignition and starting systems, chassis, electrical systems, steering and suspension systems, transmission, Diesel and gasoline engines, adjustment and testing of controls, steering systems, wiring harnesses. Emphasis is on use of diagnostic and measurement devices, service manuals, and troubleshooting as well as on power generating equipment and the teaching of basic field/shop management and maintenance techniques. For the course as conducted prior to 1985, see AR-1703-0023.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in field/shop heavy equipment repair management, 3 in power generation equipment repair and maintenance, 6 in heavy equipment repair and maintenance of which 3 should be specifically in truck repair and maintenance (3/87).

Related Occupation Codes: 63B.

AR-1703-0030

METAL WORKER
(Vehicle Body Mechanic)
(Vehicle Body Repairman

Course Number: 704-44B10(USA); 704-44B10; 704-47233.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 9–15 weeks (325–475 hours).

Exhibit Dates: *Version 1:* 1/89–Present. *Version 2:* 10/84–12/88.

Learning Outcomes: Upon completion of the course the student will be abel to set up and use oxyacetylene, electric are, and MIG and TIG welding equipment, and also perform autobody repair.

Instruction: Lectures and practical exercises in the repair, oxyacetylene welding, inert gas welding, utilization of metal body repair tools and equipment, after-operations checks, and trim, hardware and glasswork. Also covers electric arc, and MIG and TIG welding, repair, repainting, installation and alignment of metal body components, instruction in care and use of tools and equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in oxyacetylene, 2 in electric arc, 2 in MIG and TIG, 3 in auto body repair for Army personnel; 1 semester hour in oxyacetylene, 1 in electric arc, 3 in auto body repair for Air Force personnel; 2 in oxyacetylene, 1 in MIG and TIG, 3 in auto body repair for Marine Corps personnel (7/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in oxyacetylene, 2 in electric arc, 2 in MIG and TIG, 3 in auto body repair for Army personnel; 2 semester hours in oxyacetylene, 1 in electric arc, 3 in auto body repair for Air Force personnel; 2 in oxyacetylene, 1 in MIG and TIG, 3 in auto body repair for Marine Corps personnel (3/87).

Related Occupation Codes: 44B.

AR-1703-0031

Track Vehicle Repairer

Course Number: 611-63H10; 611-63H10 (CT).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 16-17 weeks (593-603 hours).

Exhibit Dates: 9/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to dissasemble, inspect, assemble, and test various components and systems related to track vehicles.

Instruction: Lectures, demonstrations, and practical exercises in electrical systems, diesel and gasoline engines, fuel delivery systems, drive lines components, and hydraulic systems; principles of operation, troubleshooting, and the use of diagnostic test equipment is stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel engine systems, and 2 in automotive electrical systems (1/88).

Related Occupation Codes: 63H.

AR-1703-0032

Field Artillery Vehicle Maintenance Technician Warrant Officer Advanced

Course Number: 4-9-C32-630C.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 17 weeks (623 hours).

Exhibit Dates: 1/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to manage, maintain, and keep maintenance records on field artillery vehicles. Also troubleshoot and make repairs on field artillery vehicles.

Instruction: Instruction includes lecture and hands-on with emphasis on management, maintenance management and communication skills. Considerable emphasis is placed on troubleshooting and repair on field artillery vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 1 in management, 3 in heavy equipment maintenance management, 1 in automotive electrical systems, 1 in hydraulics, and 5 in diesel and heavy equipment mechanics (3/87).

AR-1703-0033

Armor/Cavalry Maintenance Technician Warrant Officer Advanced

Course Number: 4-9-C32-630D.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 19 weeks (700-745 hours).

Exhibit Dates: 1/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to manage, maintain and keep maintenance records on armor/ cavalry equipment, troubleshoot and make repairs through a management position.

Instruction: Instruction includes lectures and hands-on with emphasis on management, maintenance management and communication skills, considerable emphasis is placed on troubleshooting and repair on armor/cavalry equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 1 in management, 1 in heavy equipment maintenance management, 1 in hydraulics, 1 in automotive electrical and 5 in diesel and heavy equipment mechanics (3/87).

AR-1703-0034

Ordnance Officer Advanced Field Maintenance Management

Course Number: 4N-FOA-F6.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 6 weeks (212 hours).

Exhibit Dates: 6/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to serve as an automotive maintenance manager.

Instruction: Lectures, demonstrations and practical exercises in maintenance procedures, principles of weapon systems, logistic support of land battles and Army supply systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of automotive maintenance (3/87).

AR-1703-0035

Ordnance Officer Advanced Wholesale Maintenance Management

Course Number: 4N-FOA-F7.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 6 weeks (212 hours).

Exhibit Dates: 6/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to serve as an automotive maintenance material manager.

Instruction: Instruction includes lectures, demonstrations, and practical exercises in maintenance procedures for various military vehicles, principles of weapons systems, supply procedures, budgeting, distribution and procurement procedures using computer assistance. Role playing and student developed program techniques are widely used to support classroom instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of automotive maintenance and 2 in automotive parts management (3/87).

AR-1703-0036

Refresher Course, Heavy Wheel Vehicle Mechanic Individual Ready Reserve

Course Number: 610-F4-IRR.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (90 hours).

Exhibit Dates: 10/86-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to use tools and automotive test equipment to troubleshoot malfunctions in various automotive systems.

Instruction: A refresher course consisting of lectures, demonstrations, and practical exercises in diagnostic testing and troubleshooting of automotive engines, fuel systems, engine electrical systems, brake systems, cooling systems, and related systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive electrical systems and 1 in automotive diagnostic and testing (3/87).

Related Occupation Codes: 63S.

AR-1703-0037

Heavy Wheel Vehicle Mechanic

Course Number: 610-63S10.

Location: Training Center, Ft. Jackson, SC.

Length: *Version 1:* 13 weeks (476 hours). *Version 2:* 8 weeks (293-300 hours).

Exhibit Dates: *Version 1:* 10/87-Present. *Version 2:* 10/83-9/87.

Learning Outcomes: The student will be able to troubleshoot, remove, replace, adjust, and maintain engine components, clutch and drive train components, electrical system components, and steering system components. Also, the student will be able troubleshoot, repair, and adjust hydraulic and air brakes.

Instruction: Lectures and practical exercises in shop using hand tools and diagnostic equipment; introduction to the engine and its systems, troubleshooting and repair to the suspension and steering systems; replacing and adjusting drive train components; replacing and adjusting heavy duty hydraulic and air brakes; testing and replacement of electrical components; emphasis on gasoline engine component testing and replacement and also on disabled vehicle recovery.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hours in hydraulic air brakes, 1 in heavy duty gasoline engines, and 1 in automotive electrical (3/87).

Related Occupation Codes: 63S.

AR-1703-0038

Track Vehicle Repairer Individual Ready Reserve (63H30)

Course Number: 611-F6 (IRR).

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (77 hours).

Exhibit Dates: 10/86-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to use tools and automotive test equipment to troubleshoot malfunctions in various automotive systems.

Instruction: A refresher course consisting of lectures, demonstrations, and practical exercises in diagnostic testing and troubleshooting of automotive engines, fuel systems, engine electrical systems, cooling systems and related systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive electrical systems (3/87).

Related Occupation Codes: 63H

AR-1703-0039

Self-Propelled Field Artillery System Mechanic

Course Number: 611-63D10.

Location: Armor Center, Ft. Knox, KY; Ordnance School, Aberdeen Proving Ground, MD.

Length: 6-7 weeks (217-243 hours).

Exhibit Dates: 7/83-8/86.

Learning Outcomes: Upon completion of the course the student will be able to perform organizational maintenance on components of track and wheel vehicles and perform recovery operations using light and medium recovery vehicles.

Instruction: Includes servicing, lubricating, replacing, installing, adjusting, testing and troubleshooting systems, components, assemblies of engines, exhaust, cooling, electrical, engine powertrains, track, suspension, steering controls, cab and hull of specialized military track and wheel vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic automotive electricity laboratory (3/87).

Related Occupation Codes: 63D

AR-1703-0040

M1 Abrams Tank System Mechanic Basic Noncommissioned Officer (NCO)

Course Number: 611-63E30.

Location: Armor School, Ft. Knox, KY.

Length: 12-13 weeks (406 hours) for the 63E Track; 11 weeks (400 hours) for the 45E Track.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student is able to supervise and perform unit maintenance on the hull and tank turret of special track vehicles and the family of wheel vehicles.

Instruction: Includes maintenance management, recovery operation, diagnostics, supervision training management, inspection, testing, and repairing of systems and subsystems on track vehicles and wheel vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic automotive electricity laboratory and 2 in maintenance management for either the 63E or the 45E Tracks.

Related Occupation Codes: 63E; 45E.

AR-1703-0042

M60A1/A3 Tank Systems Mechanic

Course Number: 611-63N10.

Location: Armor School, Ft. Knox, KY

Length: 8-9 weeks (304-332 hours).

Exhibit Dates: 4/83-Present.

Learning Outcomes: Upon completion of the course, the student is able to perform organizational maintenance on chassis system and components of track vehicles and wheel vehicles and to conduct recovery operations using light and medium recovery vehicles.

Instruction: Instruction includes servicing, lubricating, removing and replacing, adjusting, testing, and troubleshooting systems and components and assemblies of engine, fuel, exhaust, cooling, electrical engine power trains, track, suspensions, steering controls, and hull of specialized military track and wheel vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic automotive electricity laboratory (3/87).

Related Occupation Codes: 63N.

AR-1703-0043

Track Vehicle Mechanic Initial Entry Training

Course Number: 611-63Y10.

Location: Armor Center, Ft. Knox, KY.

Length: *Version 1:* 13 weeks (468 hours). *Version 2:* 7-8 weeks (255-289 hours).

Exhibit Dates: *Version 1:* 10/87-Present. *Version 2:* 5/83-9/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform organizational maintenance on track recovery vehicles.

Instruction: Self-paced instruction and basic exercises in shop practice using hand tools and basic shop maintenance equipment on track recovery vehicle electrical, hydraulic, winch, brake and track equipment.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in automotive shop practice and 2 in automotive electrical (3/87).

Related Occupation Codes: 63Y.

AR-1703-0044

M60A3 Tank System Mechanic-Individual Ready Reserve Refresher

Course Number: 611-F11 (IRR); 63N20.

Location: Ordnance Center, Aberdeen Proving Ground, MD; Armor School, Ft. Knox, KY.

Length: 2 weeks (116-120 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to utilize the appropriate tool and diagnose equipment faults for the MOS in which the student was trained.

Instruction: Lectures and practical exercises in automotive systems, vehicle recovery operations and tank turret systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/87).

Related Occupation Codes: 63N.

AR-1703-0045

Bradley Fighting Vehicle System Turret Mechanic

Course Number: 643-45T10.

Location: Armor School, Ft. Knox, KY.

Length: 9-11 weeks (322-390 hours).

Exhibit Dates: 6/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, remove, repair, replace and adjust components and assemblies on the Bradley fighting vehicle turrets and also be able to perform PM checks and services as required using manuals and maintenance forms.

Instruction: Instruction includes lectures, and performance exercises on electrical and hydraulic systems and maintnance of the bradley fighting vehicle system turret. Emphasis is placed on troubleshooting, repair, replacement and adjustment of turret components and assemblies.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/87).

AR-1703-0046

Advanced Machinist
(Machinist)

Course Number: 702-42750.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 4-5 weeks (188-192 hours). *Version 2:* 6 weeks (216 hours).

Exhibit Dates: *Version 1:* 6/87-9/90. *Version 2:* 10/85-5/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform measuring and gauging operations, advanced milling and grinding and layout and heat treating of tool materials.

Instruction: Lectures and practical exercises in precision measuring and gauging, milling, tool grinding, cutting threads, reading shop drawings, fabrication of jigs and fixtures, tool and die making and heat treating of materials.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in precision measuring and gauging, 2 in advanced machine shop, and 2 in tool and die making (3/87).

AR-1703-0047

ITV/IFV/CFV Systems Mechanic Recovery Specialist

Course Number: 611-ASIH8 (63T).

Location: Armor School, Ft. Knox, KY.

Length: 4-5 weeks (163 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate light and medium recovery vehicles and associated equipment to recover track vehicles.

Instruction: Instruction includes operation, servicing, and the use of light and medium recovery vehicles and equipment, procedures for recovery and transportation of disabled vehicles.

Credit Recommendation: In the vocational certificate category, 1 semester hour in rigging and winch operation, 1 in vehicle operation and 1 in servicing and maintenance (3/87).

Related Occupation Codes: 63T.

AR-1703-0048

ITV/IFV/CFV Systems Mechanic

Course Number: 611-63T10.

Location: Armor School, Ft. Knox, KY.

Length: Self-paced 7 weeks (264 hours) average.

Exhibit Dates: 7/83-Present.

Learning Outcomes: Upon completion of the course the student is able to perform maintenance on automotive systems and components and also on related light and medium recovery vehicles.

Instruction: Includes service, remove, replace, adjust, and troubleshoot system components and assemblies of engine, exhaust, cooling, electrical, engine power train, track, suspension, and steering controls.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive maintenance and servicing, 1 in electrical automotive troubleshooting, and 1 in rigging, winch operation, and recovery (3/87).

Related Occupation Codes: 63T.

AR-1703-0049

Metalworker Individual Ready Reserve (44B20)

Course Number: 704-F1-IRR.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (90 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will be able to use welding and auto body repair tools and equipment for the MOS in which the student was trained.

Instruction: A refresher course in the operation and use of oxyacetylene, arc and inert gas welding equipment and in auto body repair techniques.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/87).

Related Occupation Codes: 44B.

AR-1703-0050

M1 Abrams Tank Turret Mechanic

Course Number: 643-45E10.

Location: Armor School, Ft. Knox, KY.

Length: 9 weeks (316–350 hours).

Exhibit Dates: 6/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance on a tank turret including the fire control and hydraulic systems.

Instruction: Lectures, demonstrations and practical exercises in basic electricity and electrical systems, principles and practices of hydraulics, special tools, shop safety, the fire control system and the armament system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of hydraulic systems and 1 in electrical systems shop (3/87).

Related Occupation Codes: 45E.

AR-1703-0051

M60A1/A3 Tank Recovery Specialist

Course Number: 611-ASIH8 (63N).

Location: Armor School, Ft. Knox, KY.

Length: 4–5 weeks (140 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use and operate wheel and tracked recovery vehicles.

Instruction: Lectures, demonstrations, and practical exercises in the operation, preventive maintenance, and utilization of wheel-type and track-type recovery vehicles. Other topics include driving instruction, boom operation and oxyacetylene cutting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment operation (3/87).

Related Occupation Codes: 63N.

AR-1703-0052

Light Wheel Vehicle Mechanic
(Recovery Specialist)

Course Number: 610-63B10 (ASIH8).

Location: Training Center, Ft. Jackson, SC; Training Center, Ft. Dix, NJ; Training Center, Ft. Leonard Wood, MO.

Length: 2 weeks (79 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon compeltion the student will be able to operate a wrecker truck for the recovery of light vehicles.

Instruction: Lectures, demonstration, and practical experience in the operation of a wheel type wrecker truck including the operation of recovery boom, rigging, and safety procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/87).

Related Occupation Codes: 63B.

AR-1703-0053

Track Vehicle Repairer Individual Ready Reserve Refresher

Course Number: 611-F4 (IRR).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (79 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will be able to disassemble, identify, inspect, reassemble, and test charging systems components to Diesel fuel system components. Will also be able to troubleshoot the electrical and fuel system on the Diesel engine, turbine engine, 6U53T Detroit Diesel engine, and Allison X200-4 automatic transmission. After troubleshooting the student will also be able to make needed repairs to failed systems.

Instruction: Includes lecture and hand-on training, stressing diagnosing and troubleshooting malfunctions on Detroit Diesel 6U53T engines, turbine engines, Allison X200-4 automatic transmissions, electrical systems, and fuel systems. Repair of charging and fuel system components and repair of failed systems after diagnosis are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment mechanics (3/87).

Related Occupation Codes: 63H.

AR-1703-0055

Wheel Vehicle Repairer Individual Ready Reserve (IRR) Refresher (63W20)

Course Number: 610-F3 (IRR).

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course, the student will be able to use tools and automotive test equipment to troubleshoot malfunctions in various automotive systems.

Instruction: A refresher course consisting of lectures, demonstrations, and practical exercises in troubleshooting of automotive engines, fuel systems, electrical systems, brake systems, steering and suspension systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive steering and suspension systems (3/87).

Related Occupation Codes: 63W.

AR-1703-0057

Junior Officer Maintenance

Course Number: 8C-77D.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 6 weeks (214 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise the maintenance of wheeled and tracked vehicles and associated armament equipment.

Instruction: Instruction includes lectures and practical exercises in maintenance and management of wheeled and tracked vehicles and associated armament equipment, including records, maintenance forms, administrative control of licensing and dispatch, use and control of tools and test equipment repair parts supplies and managing and performing scheduled maintenance services, and an emphasis is also placed on vehicle recovery and power plant maintenance and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in equipment maintenance management (7/87).

AR-1703-0058

Track Vehicle Repairer Individual Ready Reserve Refresher

Course Number: 63H30 (IRR).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (77 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course, the student will be able to disassemble, identify, inspect, reassemble, and test charging system components and diesel fuel system components, to troubleshoot the electrical system, fuel system on Cummins diesel engine, turbine engine, and power generation systems; after diagnosis, the student will be able to make needed repairs to the failed system.

Instruction: Includes lecture and hands-on training, stressing diagnosing and troubleshooting malfunctions on Cummins diesel engines, turbine engines, power generation units, electrical and fuel systems; repair of charging and fuel system components; repair of failed system after diagnosis; new equipment updates.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment mechanic (3/87).

Related Occupation Codes: 63H.

AR-1703-0059

Motor Transport Operator

Course Number: 811-88M10; 811-64C10.

Location: Training Center, Ft. Leonard Wood, MO; Training Center, Ft. Dix, NJ.

Length: 8 weeks (302 hours).

Exhibit Dates: 4/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate light, medium, and heavy-weight trucks and tractors and semitrailer under all road conditions. She will also be able to perform operator maintenance check on the vehicles.

Instruction: Lectures and practical exercises in the operation of quarter ton, two-and-a-half ton, and five ton cargo trucks and the five ton and 14 ton tractor and semitrailer. For this course prior to 10/87 see AR-1703-0022.

Credit Recommendation: In the vocational certificate category, 2 semester hours in truck driving (3/88).

Related Occupation Codes: 88M.

AR-1704-0001

AIR TRAFFIC CONTROL OPERATOR
(Air Traffic Control Tower Operator)

Course Number: 222-93H10; 222-93H20.

Location: Aviation Center, Ft. Rucker, AL.

Length: 11–14 weeks (411–527 hours).

Exhibit Dates: 1/70–9/87.

Objectives: To provide enlisted personnel with a basic knowledge of air traffic control operations, with emphasis on control tower operation.

Instruction: Lectures and practical experience in basic air traffic control and control tower operations, including aviation weather, federal aviation regulations, and air traffic control procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (11/86).

Related Occupation Codes: 93H.

AR-1704-0002

AIR TRAFFIC CONTROL APPROACH
CONTROL ENROUTE SPECIALIST

Course Number: 222-93K20.

Location: Aviation School, Ft. Rucker, AL.

Length: 16–19 weeks (553–656 hours).

Exhibit Dates: 2/70–11/86.

Objectives: To provide enlisted personnel with a basic knowledge of air traffic control, with emphasis on enroute procedures.

Instruction: Lectures and practical experience in air traffic control and enroute procedures, aviation weather, navigational aids, and federal aviation regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic management or control (6/75).

Related Occupation Codes: 93K.

AR-1704-0003

1. AIR TRAFFIC CONTROL RADAR CONTROLLER
   (Air Traffic Control Ground Control Approach Specialist)
2. AIR TRAFFIC CONTROL GROUND CONTROL APPROACH SPECIALIST

Course Number: *Version 1:* 222-93J10; 222-93J20. *Version 2:* 222-93J20.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 13–17 weeks (482–553 hours). *Version 2:* 15 weeks (514–612 hours).

Exhibit Dates: *Version 1:* 5/73–1/90. *Version 2:* 1/70–4/73.

Objectives: To train enlisted personnel in air traffic control UFR/IFR operations.

Instruction: Practical exercises and lectures in aviation weather, navigational aids, Federal Aviation Administration regulations, and air traffic control procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (2/74); in the upper-division baccalaureate category, credit in air navigation or meteorology on the basis of institutional evaluation (12/68).

Related Occupation Codes: 93J.

AR-1704-0004

AIR TRAFFIC CONTROL (AC-CMF)
NONCOMMISSIONED OFFICER (NCO)
BASIC

Course Number: 2-AC-C40.

Location: Aviation School, Ft. Rucker, AL.

Length: 8–12 weeks (252–364 hours).

Exhibit Dates: 11/72–11/86.

Objectives: To provide enlisted personnel with entry-level training in air traffic control.

Instruction: Practical exercises in ground control and airport surveillance and approach procedures, equipment utilization, radar operations, and precision approach techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in air traffic control approach radar techniques (2/74).

Related Occupation Codes: 71P; 93D; 93H; 93J; 93K.

AR-1704-0005

AIR TRAFFIC CONTROL (AC-CMF)
NONCOMMISSIONED OFFICER (NCO)
ADVANCED

Course Number: 2-644-C42; 2-AC-C42.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 7–10 weeks (227–360 hours). *Version 2:* 8–11 weeks (239–346 hours).

Exhibit Dates: *Version 1:* 8/76–9/88. *Version 2:* 8/72–7/76.

Objectives: To provide noncommissioned officers with advanced supervisory training.

Instruction: Lectures and practical exercises in unit training and administration, supply, communications and security management, preventive medicine and survival, civil operations, and air traffic control procedures. Topics also include personnel management and training, facility management, and advanced air traffic control procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic management management for students holding MOS 93H or 93J (11/86); in the upper-division baccalaureate category, 3 semester hours in business or personnel management for all students (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic management for students holding MOS 93H, 93J or 93K (10/78); in the upper-division baccalaureate category, 3 semester hours in business or personnel management for all students (10/78).

Related Occupation Codes: 71P; 93D; 93H; 93J; 93K.

AR-1704-0006

OFFICER/WARRANT OFFICER AIR TRAFFIC
CONTROL OFFICER

Course Number: 2G-F35; 2G-F13.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6–7 weeks (200–237 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train enlisted personnel in air traffic control operations and procedures.

Instruction: Lectures and practical experience in air traffic control, terminal and enroute procedures, FAA control tower operator certification, aviation weather, and navigation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic control (10/78).

Related Occupation Codes: 982A; 100B; 101B; 101C.

AR-1704-0007

FLIGHT OPERATIONS COORDINATOR
(Flight Operations Specialist)

Course Number: *Version 1:* 556-93P10; 556-93P10(ST); 556-71P10; 556-71P10 (ST); 517-71P10; 517-71P10 (ST). *Version 2:* 556-71P10; 556-71P10 (ST); 517-71P10; 517-71P20; 517-907.1; 1-R-907.1.

Location: Aviation Center, Ft. Rucker, AL.

Length: *Version 1:* 7 weeks (230–250 hours). *Version 2:* 5–7 weeks (168–229 hours).

Exhibit Dates: *Version 1:* 8/80–12/86. *Version 2:* 5/61–7/80.

Objectives: To train enlisted personnel to schedule and coordinate aircraft flights and perform related support functions.

Instruction: Lectures and practical exercises in airfield operations, including operations administration, meteorology, navigation, regulations, tactical operations, and flight information publications familiarization.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation flight operations OR 3 in aviation operations administration (11/86). *Version 2:* In the vocational certificate category, 3 semester hours in introduction to aviation operations (10/78).

Related Occupation Codes: 71P; 09B; 93B.

AR-1704-0008

1. AVIATION LIFE SUPPORT EQUIPMENT TECHNICIAN
2. AVIATION LIFE SUPPORT SPECIALIST

Course Number: *Version 1:* 2C-F51/4D-ASI1F/600-ASIQ2. *Version 2:* 600-ASIQ2; 860-ASIQ2.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 5–6 weeks (196–204 hours). *Version 2:* 5–7 weeks (167–234 hours).

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 1/81–2/88.

Objectives: To train personnel to perform job-related tasks within the scope of aviation life support equipment, life support survival equipment, and general maintenance duties and repairs.

Instruction: Lectures and practical exercises in the testing and maintenance of life support systems, such as: life preservers, life rafts, armor vests, helmets, oxygen masks, and first aid kits; publications, forms, and record control procedures; and shop, supply, and safety procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (10/89). *Version 2:* Credit is not recommended because of the military-specific nature of the course (9/88).

AR-1704-0009

AVIONICS MECHANIC, SKILL
DEVELOPMENT BASE

Course Number: 102-35K20-1.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 12 weeks (479 hours).

Exhibit Dates: 11/68–12/77.

Objectives: To train enlisted personnel as avionics mechanics and maintenance supervisors.

Instruction: Practical experience in maintenance management, and supervision and administration of aircraft systems and avionics configurations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in maintenance management, 2 in flight line operations, 2 in supervision of maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management, 1 in aircraft systems (3/74); in the upper-division baccalaureate category, 3 semester hours in advanced military science (12/68).

Related Occupation Codes: 35K.

AR-1704-0010

Airplane Repair

Course Number: 55-R-671.2; 55-E-46.

Location: Transportation School, Ft. Eustis, VA.

Length: 11-14 weeks (394-500 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to maintain and repair fixed-wing aircraft.

Instruction: Practical experience in servicing and maintenance of hydraulics, propellers, flight-line, and electrical systems; inspection of aircraft engines and structures; and rigging.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft repair (3/74).

AR-1704-0011

O-1/U-6 Airplane Repair, Skill Development Base

Course Number: 600-67B20-I.

Location: Aviation School, Ft. Rucker, AL.

Length: 13 weeks (521 hours).

Exhibit Dates: 10/68-11/86.

Objectives: To train enlisted personnel to perform as O-1/U-6 aircraft repairmen and maintenance supervisors.

Instruction: Practical experience in maintenance management, aircraft systems and inspection, and life support system equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance management, 3 in aircraft systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management, 1 in aircraft systems (3/74).

Related Occupation Codes: 67B; 67F.

AR-1704-0012

Aircraft Powertrain Repairer (Aircraft Powertrain Repair)

Course Number: *Version 1:* 602-68D10. *Version 2:* 602-68D10. *Version 3:* 602-68D20; 55-R-683.1. *Version 4:* 55-E-52; 55-R-683.1.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13-14 weeks (463-493 hours). *Version 2:* 14-15 weeks (446 hours). *Version 3:* 7-11 weeks (272-378 hours). *Version 4:* 15-16 weeks (525-575 hours).

Exhibit Dates: *Version 1:* 1/86-Present. *Version 2:* 2/77-12/85. *Version 3:* 5/63-1/77. *Version 4:* 7/56-4/63.

Objectives: To train enlisted personnel to maintain and repair helicopter powertrains and allied equipment.

Instruction: *All Versions:* Practical experience in helicopter powertrain maintenance and repair including aircraft structural hardware; equipment records systems; bearings, gears, and component preservation; and penetrant inspections, magnetic particle inspections, and radiographic and ultrasonic inspections. Also includes nondestructive testing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in helicopter powertrain maintenance and repair (10/89);, in the lower-division baccalaureate/associate degree category, 6 semester hours in theory, operation, maintenance, and repair procedures on helicopter powertrain systems (10/89). *Version 2:* In the vocational certificate category, 12 semester hours in aviation powertrain maintenance and repair including records (3/85); in the lower-division baccalaureate/associate degree category, 6 in aviation powertrain maintenance and repair including records (3/83). *Version 3:* In the vocational certificate category, 6 semester hours in aviation power train maintenance and records (3/74); in the lower-division baccalaureate/associate degree category, credit in aviation power train maintenance and records on the basis of institutional examination (3/74). *Version 4:* In the vocational certificate category, 12 semester hours in aviation power train maintenance, records, and repair (3/74); in the lower-division baccalaureate/associate degree category, credit in aviation power train maintenance, records, and repair (3/74).

Related Occupation Codes: 68D.

AR-1704-0013

OV-1D (Mohawk) Airborne Sensor Specialist

Course Number: 221-F4.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 4 weeks (132 hours). *Version 2:* 9 weeks (300 hours).

Exhibit Dates: *Version 1:* 10/74-11/81. *Version 2:* 6/72-9/74.

Objectives: To train enlisted personnel in the operation and maintenance of the surveillance and navigation systems of the OV-1D aircraft.

Instruction: *All Versions:* Lectures and practical exercises in the operation and trouble diagnosis of OV-1D aircraft systems. *Version 1:* Instruction covers troubleshooting, and limited use of test equipment in the maintenance of inertial navigation units, infrared detection units, and side-looking radar system. *Version 2:* Topics include practical experience in AN/ASM-86 inertial navigation, data annotation systems and electronic countermeasures, operating procedures, infrared surveillance, electronic warfare, and jamming.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in airborne sensor repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in airborne sensor repair (3/74).

Related Occupation Codes: 17L.

AR-1704-0014

Aircraft Carburetor Repair

Course Number: 55-R-682.1; 55-E-55.

Location: Transportation School, Ft. Eustis, VA.

Length: 8-11 weeks (280-380 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train aircraft component repair helpers in aircraft carburetion, repair, maintenance, and overhaul techniques.

Instruction: Lectures and practical exercises in aircraft carburetion systems repair; aircraft engine and power train shop maintenance; and aircraft fuel systems components, theory, operation, maintenance, installation, and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft appliance maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft appliance maintenance (3/74).

AR-1704-0015

Aircraft Component Repair (Entry) (Aircraft Component Repair Helper (Entry))

Course Number: 55-R-680.0; 55-E-54.

Location: Transportation School, Ft. Eustis, VA.

Length: 8-9 weeks (284-317 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to assist in aircraft components and systems repair.

Instruction: Lectures and practical exercises in general aircraft maintenance, aircraft structures and rigging, hydraulics, propeller and rotor, instrument and electrical systems, and engine and power train maintenance and repair.

Credit Recommendation: In the vocational certificate category, 5 semester hours in aircraft maintenance and repair (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft maintenance and repair (3/74).

AR-1704-0016

Aircraft Hydraulic Repair

Course Number: *Version 1:* 602-68H20. *Version 2:* 602-68H20; 602-687.1; 55-R-687.1. *Version 3:* 55-R-687.1. *Version 4:* 55-R-687.1; 55-E-53.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8-9 weeks (257-324 hours). *Version 2:* 7 weeks (254-259 hours). *Version 3:* 11-12 weeks (385-420 hours). *Version 4:* 9 weeks (315 hours).

Exhibit Dates: *Version 1:* 6/68-9/73. *Version 2:* 12/63-5/68. *Version 3:* 9/58-11/63. *Version 4:* 7/56-8/58.

Objectives: To train enlisted personnel in support maintenance of aircraft hydraulic and pneumatic systems and components.

Instruction: Lectures and practical exercises in general aircraft maintenance, basic aircraft maintenance, and aircraft hydraulic system and pneumatic system component maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in aircraft hydraulics systems and component repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft hydraulics systems and component repair (3/74). *Version 3:* In the vocational certificate category, 4 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74). *Version 4:* In the vocational certificate category, 4 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft hydraulics systems and component maintenance and repair (3/74).

Related Occupation Codes: 68H.

AR-1704-0017

1. UH-60 Tactical Transport Helicopter Repairer
2. Tactical Transport Helicopter Repairer
3. Tactical Transport Helicopter Repairer

Course Number: 600-67T10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation and Aviation Logistics School, Ft. Eustis, VA; Transporation School, Ft. Eustis, VA.

Length: *Version 1:* 14 weeks (539 hours). *Version 2:* 13 weeks (479 hours). *Version 3:* 10-13 weeks (366-471 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 1/85-9/89. *Version 3:* 5/78-6/83.

Objectives: To train personnel in the skills and knowledge pertaining to selected entry-level mechanic tasks related to the repair of helicopters.

Instruction: Lectures, programmed instruction, and practical exercises in general aircraft maintenance procedures and helicopter equipment, power plant, and powertrain maintenance, repair, and inspections.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 2 in helicopter systems inspection and repair (7/85). *Version 3:* In the vocational certificate category, 7 semester hours in helicopter maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (3/83).

Related Occupation Codes: 61T.

AR-1704-0018

UH-60 Helicopter Repairer Transition

Course Number: 600-67T20T.

Location: Transporation School, Ft. Eustis, VA.

Length: 8-9 weeks (252 hours).

Exhibit Dates: 5/78-Present.

Objectives: To train enlisted personnel in the skills and knowledge pertaining to selected mechanical skills related to the maintenance and repair of the UH-60 series helicopter.

Instruction: Lectures and practical exercises in aircraft maintenance and repair procedures, helicopter equipment, auxiliary equipment, powerplant and powertrain maintenance repair and inspections, including rotor and blade systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (3/83).

Related Occupation Codes: 67T.

AR-1704-0019

CH-47 Medium Helicopter Repairer
(Medium Helicopter Repair)
(CH-47 Helicopter Repair)

Course Number: 600-67U10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 19-20 weeks (543-701 hours). *Version 2:* 13-14 weeks (680 hours).

Exhibit Dates: *Version 1:* 7/84-9/86. *Version 2:* 4/77-6/84.

Objectives: To train personnel in the skills and knowledge pertaining to selected entry-level mechanic tasks related to the repair of series helicopters.

Instruction: For information on this course after 9/86, see AR-1704-0154. Lectures, programmed instruction, and practical exercises in general aircraft maintenance procedures, helicopter equipment, auxiliary equipment, and power plant maintenance and inspections.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 3 in helicopter systems inspections and repairs (10/87). *Version 2:* In the vocational certificate category, 8 semester hours in multiengine helicopter maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in multiengine helicopter maintenance (3/83).

Related Occupation Codes: 67U.

AR-1704-0020

Aircraft Powertrain Repair Specialist Candidate
(Aircraft Powertrain Repair Skill Development Base)

Course Number: 602-68D20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (475-495 hours).

Exhibit Dates: 10/68-10/72.

Objectives: To train aircraft power train repairmen as mechanic team leaders and repair specialists.

Instruction: Lectures and practical exercises in leadership, maintenance management, quality control, helicopter power train systems, ground supply records, and nondestructive inspections.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft power train repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft power train repair (3/74).

Related Occupation Codes: 68D.

AR-1704-0021

Aircraft Hydraulics Repair Specialist Candidate

Course Number: 602-68H20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: 12-13 weeks (478-520 hours).

Exhibit Dates: 10/68-7/72.

Objectives: To train aircraft hydraulics repairmen to perform hydraulic maintenance and repair at the management level.

Instruction: Lectures and practical exercises in maintenance management, personnel management, aircraft hydraulic components and test equipment maintenance, and aircraft hydraulic systems inspection and troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft hydraulics repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft hydraulics repair (3/74); in the upper-division baccalaureate category, 2 semester hours in aircraft hydraulics repair (3/74).

Related Occupation Codes: 68H.

AR-1704-0022

U-8/U-21 Airplane Repair, Skill Development Base

Course Number: 600-67G20-I.

Location: Transportation School, Ft Eustis, VA.

Length: 14 weeks (554 hours).

Exhibit Dates: 10/68-10/86.

Objectives: To train aircraft repairmen to perform as technicians and supervisors.

Instruction: Lectures and practical exercises in personnel management, unit administration, communication procedures and equipment, maintenance management, quality control, aircraft inspection and troubleshooting procedures, weight and balance, fuels and lubrication, propeller and electrical system maintenance, and aircraft engine run-up, taxi procedures, and damage evaluation.

Credit Recommendation: In the vocational certificate category, 7 semester hours in aircraft repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft repair (3/74).

Related Occupation Codes: 67G.

AR-1704-0023

Aircraft Rotor and Propeller Repair Skill Development Base

Course Number: 602-68E20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (494 hours).

Exhibit Dates: 10/68-9/71.

Objectives: To train aircraft rotor and propeller repairmen to be supervisors and technicians.

Instruction: Lectures and practical exercises in maintenance management, including quality control, publications and records, supply procedures, damage evaluation, and aircraft rotor blade and propeller inspection and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft rotor and propeller repair, and credit in maintenance management on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in aircraft rotor and propeller repair (3/74).

Related Occupation Codes: 68E.

AR-1704-0024

Modular Engine Test Stand (METS) Operator
(Aircraft Turbine Engine Test Cell Operator)

Course Number: 601-F2; 601-68B2T.

Location: Transportation School, Ft. Eustis, VA.

Length: 7-8 weeks (247-265 hours).

Exhibit Dates: 5/72-3/83.

Objectives: To train enlisted personnel to test gas turbine engines and to repair test equipment.

Instruction: Lectures and practical exercises in test equipment operation and repair, including fuel systems, performance calculations, and engine testing and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in turbine engine testing and test equipment repair (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine testing and test equipment repair (6/75).

Related Occupation Codes: 68B.

AR-1704-0025

Single-Engine Airplane Repair

Course Number: 55-R-671.4.

Location: Transportation School, Ft. Eustis, VA.

Length: 13 weeks (452–466 hours).

Exhibit Dates: 5/60–12/68.

Objectives: To train enlisted personnel to repair single-engine, fixed-wing aircraft.

Instruction: Lectures and practical exercises in single-engine, fixed-wing aircraft field maintenance procedures, including safety procedures; technical data interpretation; electrical, hydraulic, and fuel systems inspection; and engine and landing gear inspection, maintenance, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in single-engine aircraft repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in single-engine aircraft repair (3/74).

AR-1704-0026

Aircraft Reciprocating Engine Repair

Course Number: 601-68C20.

Location: Transportation School, Ft. Eustis, VA.

Length: 8 weeks (269–281 hours).

Exhibit Dates: 4/68–5/73.

Objectives: To train enlisted personnel in direct and general support maintenance of aircraft reciprocating engines and allied equipment used on Army aircraft.

Instruction: Lectures and practical exercises in general aircraft maintenance, including maintenance management, precision tools, safety devices, oil analysis, and nondestructive testing; fundamentals of reciprocating engines; and troubleshooting.

Credit Recommendation: In the vocational certificate category, 5 semester hours in aircraft reciprocating-engine repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft reciprocating-engine repair (3/74).

Related Occupation Codes: 68C; 68B.

AR-1704-0027

Multi-Engine Utility Airplane Repair

Course Number: 600-67G2T; 600-67K2T.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (162 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train airplane mechanics in support maintenance of multiengine utility aircraft, with emphasis on U-21A aircraft.

Instruction: Lectures and practical exercises in ground handling, ground operational checks, utility systems, landing gear, fuel systems, inspections, flight controls, engine and propeller, and electrical systems of the U-21A aircraft.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft field maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft field maintenance (3/74).

Related Occupation Codes: 67G; 67H; 67J; 67K; 67F.

AR-1704-0028

CH-47 Helicopter Repair Specialist Candidate
(CH-47 Helicopter Repair Skill Development Base)

Course Number: 600-67U20-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 12–13 weeks (465–507 hours).

Exhibit Dates: 8/68–11/77.

Objectives: To train helicopter repairmen to maintain and repair CH-47 helicopters.

Instruction: Lectures and practical exercises in military leadership, maintenance management, technical subjects, CH-47 systems, and life support equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in helicopter maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance (3/74); in the upper-division baccalaureate category, 2 semester hours in helicopter maintenance (3/74).

Related Occupation Codes: 67U.

AR-1704-0029

1. O-1/U-6 Airplane Repair
2. O-1/U-6 Airplane Repair
3. Single-Engine Observation and Utility Airplane Maintenance
4. Airplane Maintenance

Course Number: *All Versions:* 600-67B20. *Version 3:* 1-R-671.1. *Version 4:* 1-R-671.1.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 9 weeks (290 hours). *Version 2:* 8 weeks (267 hours). *Version 3:* 5 weeks (173–182 hours). *Version 4:* 6 weeks (230 hours).

Exhibit Dates: *Version 1:* 10/72–11/86. *Version 2:* 7/68–9/72. *Version 3:* 6/60–6/68. *Version 4:* 2/57–5/60.

Objectives: To train enlisted personnel to perform organizational, direct, and general support maintenance on fixed-wing aircraft.

Instruction: *All Versions:* Lectures and practical exercises in single-engine, fixed-wing aircraft maintenance, including inspection, servicing, repairing, and diagnosing operational defects. *Version 4:* Instruction deals with both single- and multi-engine aircraft.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in aircraft maintenance laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance laboratory (3/74). *Version 2:* In the vocational certificate category, 5 semester hours in aircraft maintenance laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance laboratory (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in aircraft maintenance laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance laboratory (3/74). *Version 4:* In the vocational certificate category, 4 semester hours in aircraft maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance (3/74).

Related Occupation Codes: 67B.

AR-1704-0030

U-1A Airplane Repair
(Single-Engine Light Transport Airplane Maintenance)

Course Number: 600-67C20; 1-R-671.2.

Location: Transportation School, Ft. Eustis, VA; Aviation School, Ft. Rucker, AL.

Length: 3–12 weeks (105–442 hours).

Exhibit Dates: 6/60–3/83.

Objectives: To train aircraft mechanics to repair U-1A aircraft.

Instruction: Lectures and practical exercises in U-1A maintenance, including ground handling and servicing; aircraft technical publications, forms, and records familiarization; engine inspection; and propeller, fuel, electrical, ignition, landing gear and brake, utility, instrument, and power plant systems maintenance and repair.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft repair (3/74).

Related Occupation Codes: 67C.

AR-1704-0032

OH-6A Helicopter Repair

Course Number: 600-67N2T.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (113 hours).

Exhibit Dates: 7/66–12/68.

Objectives: To train utility-helicopter repairmen to perform support maintenance on OH-6A helicopters.

Instruction: Lectures and practical exercises in OH-6A helicopter systems, including airframe, fuel and lubrication, hydraulic, rotor, and electrical systems maintenance and repair; inspection and troubleshooting; flight control; and ground handling equipment maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter repair (2/74).

Related Occupation Codes: 67N; 67W.

AR-1704-0033

1. Utility Helicopter Repairer (UH-1)
2. UH-1 Helicopter Repairer
3. UH-1 Helicopter Repair
4. UH-1 Helicopter Repair
5. Single-Rotor Turbine Utility Helicopter Repair

Course Number: *All Versions:* 600-67N10; 600-67N10 (ST); 600-67N20.

Location: Aviation School, Ft. Rucker, AL; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 10–11 weeks (388 hours). *Version 2:* 13 weeks (480 hours). *Version 3:* Self-paced, average 11 weeks (341–361 hours). *Version 4:* 8 weeks (271 hours). *Version 5:* 11 weeks (387–392 hours).

Exhibit Dates: *Version 1:* 7/84–Present. *Version 2:* 4/81–6/84. *Version 3:* 10/72–3/81. *Version 4:* 7/68–9/72. *Version 5:* 9/65–6/68.

Objectives: To provide personnel with the training necessary to perform organizational, direct, and general support maintenance tasks on the UH-1 utility helicopter.

Instruction: Lectures and practical exercises in helicopter systems fundamentals, including airframe, fuel and lubrication, hydraulic, rotor, and electrical systems maintenance and repair procedures; inspection and troubleshooting of helicopter systems;

flight control; and ground-handling equipment maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in helicopter maintenance (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (11/86). *Version 2:* In the vocational certificate category, 7 semester hours in helicopter maintenance (3/83); in the lower-division baccalaureate/associate degree category, 6 semester hours in helicopter maintenance (3/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in helicopter maintenance (10/78). *Version 4:* In the vocational certificate category, 5 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance (2/74). *Version 5:* In the vocational certificate category, 7 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (2/74).

Related Occupation Codes: 09B; 002; 67N; 67W; 67Z.

AR-1704-0034

1. CH-47 Helicopter Repair
2. CH-47 Helicopter Repair
3. Multi-Engine, Tandem-Rotor Helicopter Repair
4. Multi-Engine, Tandem-Rotor Helicopter Repair (CH-47 Aircraft Repair Transition)

Course Number: *Version 1:* 600-67U20. *Version 2:* 600-67U20. *Version 3:* 600-67U20; 600-67U30. *Version 4:* 4D-F1; 600-678.1; 600-678.4; 55-R-678.1; 55-R-678.4; 55-L-F21.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13 weeks (434–435 hours). *Version 2:* 11 weeks (414 hours). *Version 3:* 13 weeks (472 hours). *Version 4:* 6–7 weeks (212–261 hours).

Exhibit Dates: *Version 1:* 5/72–11/77. *Version 2:* 5/68–4/72. *Version 3:* 10/66–4/68. *Version 4:* 1/63–9/66.

Objectives: To train officer, enlisted, and civilian personnel in multiengine, tandem-rotor helicopter maintenance procedures.

Instruction: Lectures and practical experience in multiengine, tandem-rotor helicopter maintenance procedures, including hydraulic, electrical, instrument, flight control, stabilization, fuel, and auxiliary power systems; and helicopter structure and airframe, propulsion, rotor drive, and powerplant systems maintenance and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in multiengine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in multiengine helicopter maintenance (2/74). *Version 2:* In the vocational certificate category, 8 semester hours in multiengine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in multiengine helicopter maintenance (2/74). *Version 3:* In the vocational certificate category, 9 semester hours in multiengine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in multiengine helicopter maintenance (2/74). *Version 4:* In the vocational certificate category, 4 semester hours in multiengine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in multiengine helicopter maintenance (2/74).

Related Occupation Codes: 67U; 100B; 160A.

AR-1704-0035

1. Multi-Engine, Single-Rotor Helicopter Repair
2. Medium Transport Helicopter Repair
3. Medium Transport Helicopter Repair

Course Number: *Version 1:* 600-67T30; 600-677.4. *All Versions:* 55-R-677.4.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13–15 weeks (469–544 hours). *Version 2:* 17 weeks (626 hours). *Version 3:* 10 weeks (353 hours).

Exhibit Dates: *Version 1:* 12/63–12/68. *Version 2:* 6/63–11/63. *Version 3:* 10/62–5/63.

Objectives: To train enlisted personnel to repair multiengine, single-rotor helicopters.

Instruction: Lectures and practical experience in multiengine, single-rotor helicopter maintenance and repair, including engine structure fundamentals; operation, maintenance, and repair of hydraulic, electrical, instrument, fuel, oil, carburetion, ignition, and engine cooling systems; and operation of engine propulsion, power plant, and drive systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in multiengine, single-rotor helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in multiengine, single-rotor helicopter maintenance (2/74). *Version 2:* In the vocational certificate category, 11 semester hours in multiengine, single-rotor helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in multiengine, single-rotor helicopter maintenance (2/74). *Version 3:* In the vocational certificate category, 6 semester hours in multiengine, single-rotor helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in multiengine, single-rotor helicopter maintenance (2/74).

AR-1704-0036

Medium Helicopter Maintenance Supervisor/Technical Inspector Basic Technical

Course Number: 600-67U30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6–7 weeks (210 hours).

Exhibit Dates: 12/77–9/84.

Objectives: To train personnel in supervisory skills and inspection techniques related to the maintenance and repair of the medium helicopter series.

Instruction: Lectures, programmed instruction, and practical exercises in quality control techniques related to maintenance and repair of helicopter equipment, auxiliary equipment, power plant, drivetrain, rotor system, flight control systems, electrical systems, and hydraulics systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in helicopter maintenance; in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance and 2 in aviation maintenance management (3/83).

Related Occupation Codes: 67U.

AR-1704-0037

Airframe Welding

Course Number: 603-68G30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6 weeks (231–232 hours).

Exhibit Dates: 5/67–6/77.

Objectives: To train airframe repairmen to fuse ferrous and nonferrous metals using oxyacetylene welding, arc welding, or inert-gas welding equipment.

Instruction: Practical exercises in oxyacetylene welding, electric arc welding, inert-gas welding, and equipment maintenance.

Credit Recommendation: In the vocational certificate category, 5 semester hours in airframe welding (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe welding (2/74).

Related Occupation Codes: 68G.

AR-1704-0038

1. Observation Airplane Repairer (OV-1 Airplane Repair)
2. Observation Airplane Repairer (OV-1 Airplane Repair)
3. OV-1 Airplane Repair
4. Multi-Engine Observation Airplane Maintenance
5. Multi-Engine Observation Airplane Maintenance

Course Number: *Version 1:* 600-67H10. *Version 2:* 600-67H10; 600-67H20. *Version 3:* 600-67H20. *Version 4:* 600-67H20. *Version 5:* 600-672.2; 1-R-672.2.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA. *Version 2:* Transportation School, Ft. Eustis, VA. *Version 3:* Transportation School, Ft. Eustis, VA. *Version 4:* Aviation School, Ft. Rucker, AL. *Version 5:* Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 9–12 weeks (341–498 hours). *Version 2:* 9–10 weeks (325–341 hours). *Version 3:* 9–10 weeks (330–343 hours). *Version 4:* 6 weeks (221 hours). *Version 5:* 4 weeks (141–144 hours).

Exhibit Dates: *Version 1:* 7/83–Present. *Version 2:* 8/74–6/83. *Version 3:* 7/68–7/74. *Version 4:* 1/67–6/68. *Version 5:* 4/61–12/66.

Objectives: To train enlisted personnel in entry-level tasks, the maintenance of multiengine, turbine-powered aircraft.

Instruction: Lectures and practical exercises in the fundamentals of multiengine, turbine-powered aircraft, including operation, maintenance, troubleshooting and repair of hydraulic, electrical, instrument, fuel, power plant, propeller, landing gear, and flight control systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in aviation maintenance (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance (6/75). *Version 3:* In the vocational certificate category, 6 semester hours in multiengine, turbine-powered aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in multiengine, turbine-powered aircraft maintenance (2/74). *Version 4:* In the vocational certificate category, 4 semester hours in multiengine, turbine-powered aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in multiengine, turbine-powered aircraft maintenance (2/74). *Version 5:* In the vocational certificate category, 3 semester hours in multiengine, turbine-powered aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in multiengine, turbine-powered aircraft maintenance (2/74).

Related Occupation Codes: 67F; 67H; 67Z.

AR-1704-0039

H-37 Helicopter Mechanic Training

Course Number: None.

Location: Aviation School, Ft. Rucker, AL.

Length: 8 weeks (280 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train enlisted personnel to maintain and repair H-37 helicopters.

Instruction: Lectures and practical exercises in H-37 helicopter maintenance, including preflight and postflight inspection and troubleshooting; starting procedures, tracking and vibrations, and weight and balance techniques; hydraulic, utility, electrical, transmission, and power plant systems; and rotor-actuating mechanism maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (2/74).

AR-1704-0040

1. CH-34 Helicopter Repair
2. Single-Engine, Single-Rotor Helicopter Repair
3. Single-Engine, Single-Rotor Helicopter Repair
4. Observation, Utility and Transport Helicopter Repair

Course Number: *Version 1:* 600-67P20. *Version 2:* 600-67Q20; 600-675.4. *Version 3:* 55-R-675.4. *Version 4:* 55-R-675.4.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8 weeks (272 hours). *Version 2:* 14-16 weeks (478-544 hours). *Version 3:* 19 weeks (673 hours). *Version 4:* 22 weeks (774-803 hours).

Exhibit Dates: *Version 1:* 1/69-9/72. *Version 2:* 11/65-12/68. *Version 3:* 1/64-10/65. *Version 4:* 9/60-12/63.

Objectives: To train enlisted personnel in single-engine, single-rotor helicopter support maintenance.

Instruction: Lectures and practical exercises in single-engine, single-rotor helicopter support maintenance, including inspection and troubleshooting helicopter systems; ground handling equipment operation; and power train, airframe, fuel and lubrication, hydraulic, electrical, rotor, and instrument systems operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (2/74). *Version 2:* In the vocational certificate category, 12 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in helicopter maintenance (2/74); in the upper-division baccalaureate category, credit in helicopter repair shop on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 10 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in helicopter maintenance (2/74); in the upper-division baccalaureate category, credit in helicopter repair shop on the basis of institutional evaluation (12/68). *Version 4:* In the vocational certificate category, 16 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in helicopter maintenance (2/74).

Related Occupation Codes: 67Q; 67W.

AR-1704-0041

U-1A Airplane Repair, Skill Development Base

Course Number: 600-67C20-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 13 weeks (505 hours).

Exhibit Dates: 5/69-3/83.

Objectives: To train aircraft repairmen in the aviation maintenance management procedures applicable to the U-1A aircraft.

Instruction: Lectures and practical exercises in leadership, maintenance management, technical maintenance subjects, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft repair (3/74).

Related Occupation Codes: 67C; 67U.

AR-1704-0042

Aircraft Survivability Equipment Repair

(Aircraft Warning/Defense Equipment Repair)

Course Number: 104-26K10.

Location: Intelligence Center and School, Ft. Huachuca, AZ.

Length: 25 weeks (812 hours).

Exhibit Dates: 10/78-11/81.

Objectives: To train enlisted personnel in the functional knowledge needed to maintain aircraft survivability equipment.

Instruction: The course presents basic electronics training plus additional training in theory, operation, maintenance, installation, and repair of infrared, radar, and information processing systems used in aircraft survivability systems. These include infrared jammers, radar warning receivers, radar jammers and flare/chaff dispensers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in microwave, 2 in digital, 2 in troubleshooting and credit in electronics based on interview (5/79).

Related Occupation Codes: 26K.

AR-1704-0043

Multi-Engine Airplane Repair

Course Number: *Version 1:* 600-67K20. *Version 2:* 600-672.4; 55-R-672.4.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 16 weeks (561 hours). *Version 2:* 19 weeks (669-680 hours).

Exhibit Dates: *Version 1:* 9/66-12/68. *Version 2:* 8/63-8/66.

Objectives: To train enlisted personnel in field maintenance of multiengine, fixed-wing aircraft.

Instruction: Lectures and practical experience in basic aircraft structures, systems, and power plants; operation, inspection, maintenance, and troubleshooting of propellers, power plants, and power plant systems; instrument, electrical, and hydraulic systems repair; and engine structural repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in multiengine aircraft repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in multiengine aircraft repair (2/74). *Version 2:* In the vocational certificate category, 6 semester hours in multiengine aircraft repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in multiengine aircraft repair (2/74).

Related Occupation Codes: 67K; 67F.

AR-1704-0044

Smoke Operation Specialist

Course Number: 494-54C10.

Location: Chemical School, Ft. McClellan, AL.

Length: 6-7 weeks (265-290 hours).

Exhibit Dates: 6/80-Present.

Objectives: To provide enlisted personnel with training in smoke operations and fuel handling.

Instruction: Lecture demonstration and practical experience in chemical operations, smoke generator operations, fuel handling operations and tactical operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/82).

AR-1704-0045

Aircraft Engine Repair

Course Number: *All Versions:* 55-R-681.1. *Version 4:* 55-E-49.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8-9 weeks (305-317 hours). *Version 2:* 13 weeks (459 hours). *Version 3:* 11 weeks (385 hours). *Version 4:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 5/63-12/68. *Version 2:* 1/60-4/63. *Version 3:* 6/58-12/59. *Version 4:* 7/56-5/58.

Objectives: To train enlisted personnel to repair aircraft engines and allied equipment.

Instruction: Practical experience in maintenance procedures for aircraft power plants, hydraulic systems, instruments, and propellers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in aircraft power plant repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft power plant repair (2/74). *Version 2:* In the vocational certificate category, 8 semester hours in aircraft power plant repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft power plant repair (2/74). *Version 3:* In the vocational certificate category, 7 semester hours in aircraft power plant repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft power plant repair (2/74). *Version 4:* In the vocational certificate category, 6 semester hours in aircraft power plant repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft power plant repair (2/74).

AR-1704-0046

Smoke Operations Specialist (Transition)

Course Number: 494-54C20T.

Location: Chemical School, Ft. McClellan, AL.

Length: 6 weeks (193 hours).

Exhibit Dates: 8/81-Present.

Objectives: To train reclassified enlisted personnel for jobs as smoke and fuel supply team/squad leaders.

Instruction: Conferences and practical exercises on decontamination, operating and maintaining smoke generators, wind measuring sets, tank and pump units, and hand driven dispensing pumps.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/82).

AR-1704-0047

Airframe Repair

Course Number: *Version 1:* 603-68G20; 603-686.1. *Version 2:* 55-R-686.1. *Version 3:* 55-R-686.1. *Version 4:* 55-R-686.1; 55-E-42.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 11 weeks (381-405 hours). *Version 2:* 8-9 weeks (309-315 hours). *Version 3:* 13 weeks (455-465 hours). *Version 4:* 10 weeks (350-356 hours).

Exhibit Dates: *Version 1:* 3/66-6/77. *Version 2:* 8/63-2/66. *Version 3:* 5/59-7/63. *Version 4:* 7/56-4/59.

Objectives: To train enlisted personnel to inspect and repair aircraft structural members, sheet metal surfaces, fiberglass, and plastics.

Instruction: Lectures and practical exercises in general aircraft maintenance; structural repair, including metals, plastics, and fiberglass; sheet metal shop tools and procedures; forming processes; fasteners; and painting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in airframe repair shop (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe repair shop (2/74). *Version 2:* In the vocational certificate category, 5 semester hours in airframe repair shop (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe repair shop (2/74). *Version 3:* In the vocational certificate category, 8 semester hours in airframe repair shop (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in airframe repair shop (2/74). *Version 4:* In the vocational certificate category, 7 semester hours in airframe repair shop (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe repair shop (2/74).

Related Occupation Codes: 68G.

AR-1704-0048

Single-Rotor Turbine Utility Helicopter Maintenance

Course Number: 1-R-675.2.

Location: Aviation School, Ft. Rucker, AL.

Length: 3 weeks (101 hours).

Exhibit Dates: 12/63-12/68.

Objectives: To train enlisted personnel in the organizational maintenance of single-engine turbine helicopters.

Instruction: Lectures and technical experience in airframe, power plant, weight and balance, instruments, electrical, transmission flight control, inspection, troubleshooting, adverse weather operations, and armament.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter maintenance (2/74).

AR-1704-0049

1. CH-37 Helicopter Repair
2. Multi-Engine Medium Transport Helicopter Maintenance

Course Number: *All Versions:* 600-67T20. *Version 2:* 1-R-677.1.

Location: *Version 1:* Transportation School, Ft. Eustis, VA. *Version 2:* Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 12 weeks (412 hours). *Version 2:* 5-6 weeks (175-193 hours).

Exhibit Dates: *Version 1:* 1/67-9/70. *Version 2:* 6/60-12/66.

Objectives: To provide enlisted personnel with training in organizational, direct, and general support maintenance of CH-37 or multiengine, medium transport helicopters.

Instruction: Lectures and practical exercises in multiengine transport helicopter repair procedures; weight and balance; and airframe, reciprocating-engine, and rotor-blade maintenance and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in multiengine helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, credit in multiengine helicopter repair on the basis of institutional evaluation (2/74). *Version 2:* In the vocational certificate category, 4 semester hours in multiengine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, credit in multiengine helicopter maintenance on the basis of institutional evaluation (2/74).

Related Occupation Codes: 67A; 67T.

AR-1704-0050

Single-Rotor Light Transport Helicopter Maintenance

(Single-Rotor Utility and Light Transport Helicopter Maintenance)

Course Number: 600-67P20; 1-R-675.3.

Location: Aviation School, Ft. Rucker, AL.

Length: 4-5 weeks (140-184 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To train enlisted personnel to repair single-rotor, single-engine helicopters.

Instruction: Lectures and practical exercises in servicing, inspecting, and maintaining single-rotor, single-engine helicopters, fuel, lubrication, electrical, and ignition systems operation and maintenance; and power plant, transmission and drive systems, rotor and hydraulic systems, and automatic stabilization equipment maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in single-rotor, single-engine helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in single-rotor, single-engine helicopter maintenance (2/74).

Related Occupation Codes: 67A; 67P, 67W.

AR-1704-0051

AH-1G Helicopter Repair

Course Number: 600-67Y20.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 11 weeks (390 hours). *Version 2:* 11 weeks (375 hours). *Version 3:* 8 weeks (299 hours).

Exhibit Dates: *Version 1:* 1/74-11/77. *Version 2:* 11/72-12/73. *Version 3:* 7/68-10/72.

Objectives: To train enlisted personnel to repair AH-1G helicopters.

Instruction: *All Versions:* Lectures and practical exercises in general aircraft maintenance procedures and helicopter equipment, auxiliary equipment, and power plant maintenance and inspections. *Version 1:* Instruction is self-paced, with increased emphasis on practical training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in helicopter maintenance (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (2/74). *Version 3:* In the vocational certificate category, 5 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (2/74).

Related Occupation Codes: 67Y

AR-1704-0052

Tandem-Rotor Helicopter Maintenance

(Utility and Cargo, Tandem-Rotor Helicopter Maintenance)

Course Number: 1-R-674.1.

Location: Aviation School, Ft. Rucker, AL.

Length: 4-6 weeks (140-210 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train enlisted personnel to repair tandem-rotor helicopters.

Instruction: Practical experience in maintenance systems, electronics, flight control, loading gear and brakes, rigging, and forms and records.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter maintenance (2/74).

AR-1704-0053

Utility and Cargo Single-Rotor Helicopter Repair

Course Number: *All Versions:* 55-R-673.2. *Version 2:* 55-E-58.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 17-18 weeks (600-647 hours). *Version 2:* 14 weeks (506-508 hours).

Exhibit Dates: *Version 1:* 7/58-12/68. *Version 2:* 7/56-6/58.

Objectives: To train enlisted personnel to repair single-rotor helicopters.

Instruction: Practical experience in inspection, adjustment, removal, repair, and replacement of power trains, hydraulic and electrical systems, and rotor blade assemblies and components of single-rotor utility cargo helicopters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in single-rotor helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in single-rotor helicopter repair (2/74). *Version 2:* In the vocational certificate category, 5 semester hours in single-rotor helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in single-rotor helicopter repair (2/74).

AR-1704-0054

Aircraft Rotor and Propeller Repair

Course Number: *Version 1:* 602-68E20; 602-684.1; 55-R-684.1. *Version 2:* 55-E-50.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 14–15 weeks (509–544 hours). *Version 2:* 12 weeks (421 hours).

Exhibit Dates: *Version 1:* 6/58–8/77. *Version 2:* 7/56–5/58.

Objectives: To train enlisted personnel to repair aircraft propellers, rotor blades, and allied equipment.

Instruction: *All Versions:* Lectures and practical experience in shop procedures, repair, blueprint reading, wood and metal rotor and propeller repair. *Version 1:* Flight theory is included.

Credit Recommendation: *Version 1:* In the vocational certificate category, 11 semester hours in rotor and propeller repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in rotor and propeller repair (2/74). *Version 2:* In the vocational certificate category, 9 semester hours in rotor and propeller repair (2/74); in the lower-division baccalaureate/associate degree category, credit in rotor and propeller repair on the basis of institutional evaluation (2/74).

Related Occupation Codes: 68E.

AR-1704-0055

1. OH-13/OH-23 Helicopter Repair
2. Single-Rotor Observation Helicopter Maintenance

Course Number: *All Versions:* 600-67M20. *Version 2:* 1-R-675.1.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 9–11 weeks (301–338 hours). *Version 2:* 5 weeks (175-178 hours).

Exhibit Dates: *Version 1:* 7/68–11/86. *Version 2:* 6/60–6/68.

Objectives: To train enlisted personnel to repair single-engine, single-rotor helicopters.

Instruction: Practical experience in airframe and systems maintenance, and inspection of single-engine, single-rotor helicopters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in light-helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in light-helicopter maintenance (2/74). *Version 2:* In the vocational certificate category, 1 semester hour in light-helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in light-helicopter maintenance (2/74).

Related Occupation Codes: 67M.

AR-1704-0056

HU-1A Helicopter Repair

Course Number: 55-R-F14.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (105–109 hours).

Exhibit Dates: 9/59–12/68.

Objectives: To train enlisted personnel to repair helicopters.

Instruction: Lectures and practical experience in inspection, adjustment, removal, and replacement of assemblies and subassemblies of HU-1A helicopters.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter repair (2/74).

AR-1704-0057

Twin-Engine Helicopter Repair

Course Number: 55-R-F12.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (430 hours).

Exhibit Dates: 2/59–12/68.

Objectives: To train enlisted personnel in helicopter inspection techniques, and the adjustment, removal, and replacement of assemblies.

Instruction: Lectures and practical experience in engines, power trains, structures, rigging, electronics, rotor blades, hydraulics, and reciprocator servicing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter repair (2/74).

AR-1704-0058

1. Single-Engine Tandem-Rotor Helicopter Repair
2. Tandem-Rotor Helicopter Repair (Utility and Cargo Tandem Rotor Helicopter Repair)

Course Number: *All Versions:* 600-676.4; 55-R-676.4. *Version 2:* 55-R-674.2; 55-E-59.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13 weeks (465–466 hours). *Version 2:* 13–15 weeks (470–564 hours).

Exhibit Dates: *Version 1:* 12/63–12/68. *Version 2:* 7/56–11/63.

Objectives: To train personnel in field maintenance of single-engine, tandem-rotor helicopters.

Instruction: Lectures and practical exercises in fuel systems, structures, power plant theory and operation, lubrication, fuel carburetion hydraulics and plumbing, flight theory, records and publications, ground handling, weight and balance, instruments, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in helicopter repair (2/74). *Version 2:* In the vocational certificate category, 10 semester hours in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in helicopter repair (2/74).

AR-1704-0059

Reconnaissance Helicopter Repair

Course Number: *All Versions:* 55-R-672.2. *Version 3:* 55-E-57.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 15 weeks (533 hours). *Version 2:* 17 weeks (595 hours). *Version 3:* 13 weeks (455–466 hours).

Exhibit Dates: *Version 1:* 5/59–12/68. *Version 2:* 7/58–4/59. *Version 3:* 7/56–6/58.

Objectives: To train enlisted personnel in the repair of reconnaissance helicopters.

Instruction: Practical experience in inspection, adjustment, removal, repair, and replacement of reconnaissance helicopter engines, power trains, structure, hydraulic and electrical systems, and rotor blade assemblies, subassemblies, and components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in reconnaissance helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in reconnaissance helicopter repair (2/74). *Version 2:* In the vocational certificate category, 6 semester hours in reconnaissance helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in reconnaissance helicopter repair (2/74). *Version 3:* In the vocational certificate category, 4 semester hours in reconnaissance helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in reconnaissance helicopter repair (2/74).

AR-1704-0060

AH-1G (Hueycobra) Helicopter Repair Transition

Course Number: 600-67N30.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (102 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train helicopter repairmen to repair AH-1G high-performance helicopters.

Instruction: Lectures and practical exercises in AH-1G high-performance helicopter support and organizational maintenance, including weight and balance principles; tools and equipment operation; and rotor, electrical, and flight control systems operation and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter repair (2/74).

Related Occupation Codes: 67N; 67W.

AR-1704-0061

CH-54 Helicopter Repair Specialist Candidate
(CH-54 Helicopter Repair Skill Development Base)

Course Number: 600-67X20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (484–500 hours).

Exhibit Dates: 7/69–7/77.

Objectives: To train enlisted personnel to repair multiengine, single-rotor helicopters.

Instruction: Lectures and practical exercises in Army maintenance management, including quality control, maintenance planning and control, publications, and supply procedures; operation, maintenance, troubleshooting, and repair of multiengine, single-rotor helicopters.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance, credit in maintenance management on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in helicopter maintenance (2/74); in the upper-division baccalaureate category, 1 semester hour in maintenance management (2/74).

Related Occupation Codes: 67X.

AR-1704-0062

1. Aircraft Armament Maintenance Technician
2. Aircraft Armament Maintenance Technician
3. Aircraft Armament Maintenance Supervisor

Course Number: *Version 1:* 4D-SQIE. *Version 2:* 4D-SQIE. *Version 3:* 4D-F3.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA. *Version 2:* Transportation School, Ft. Eustis, VA. *Version 3:* Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 12–13 weeks (444 hours). *Version 2:* 12–13 weeks (442 hours). *Version 3:* 5 weeks (156–169 hours).

Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 10/80–12/83. *Version 3:* 4/72–9/80.

Objectives: To teach officers to supervise aircraft armament maintenance personnel in weapons systems and fire control systems repair.

Instruction: *Version 1:* Lectures and practical exercises in helicopter armament systems and subsystems, basic electricity and electronics, missile systems and subsystems. *Version 2:* Lectures and practical exrecises in utility and observation helicopter armament subsystems; attack helicopter armament subsystems; basic electricity and electronics; missile systems; and basic computer systems. *Version 3:* Conferences and practical exercises in utility and observation helicopter armament subsystems, attack helicopter armament subsystems, publications, maintenance, ammunition, and safety procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics theory (7/85). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity and electronics; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electrical and electonics theory (3/83). *Version 3:* Credit is not recommended because of the military-specific nature of the course (2/74).

Related Occupation Codes: 100B; 100E.

AR-1704-0063

OH-6 HELICOPTER REPAIR

Course Number: 600-67V20.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 7 weeks (220 hours). *Version 2:* 7–8 weeks (246–262 hours). *Version 3:* 4 weeks (133 hours).

Exhibit Dates: *Version 1:* 9/74–5/77. *Version 2:* 11/72–8/74. *Version 3:* 12/68–10/72.

Objectives: To train enlisted personnel in the maintenance and repair of single-rotor, turbine-powered helicopters.

Instruction: Lectures and practical exercises in Army aircraft maintenance, including hydraulics, fuel and lubrication systems, flight controls, instruments, and electrical and rotary-wing systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in helicopter maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance (6/75). *Version 2:* In the vocational certificate category, 5 semester hours in single-rotor, turbine-powered helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in single-rotor, turbine-powered helicopter maintenance (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in single-rotor, turbine-powered helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in single-rotor, turbine-powered helicopter maintenance (2/74).

Related Occupation Codes: 67V; 67W; 67Z.

AR-1704-0064

1. UH-1 HELICOPTER REPAIR SPECIALIST CANDIDATE
2. UH-1 HELICOPTER REPAIR SKILL DEVELOPMENT BASE

Course Number: 600-67N20-I.

Location: *All Versions:* Transportation School, Ft. Eustis, VA. *Version 2:* Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 12 weeks (467 hours). *Version 2:* 13 weeks (526 hours).

Exhibit Dates: *Version 1:* 11/70–4/72. *Version 2:* 10/68–10/70.

Objectives: To train enlisted personnel in the maintenance and repair of UH-1 helicopters.

Instruction: Lectures and practical exercises in leadership, maintenance management, maintenance and repair of UH-1 helicopter systems and components, and life support equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in UH-1 helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in UH-1 helicopter repair (2/74). *Version 2:* In the vocational certificate category, 2 semester hours in UH-1 helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in UH-1 helicopter repair (2/74).

Related Occupation Codes: 67N.

AR-1704-0065

H-37 HELICOPTER CREW TRAINING

Course Number: 1-H-F17.

Location: Aviation School, Ft. Rucker, AL.

Length: 6 weeks (215 hours).

Exhibit Dates: 4/58–12/68.

Objectives: To train officer aviators, and enlisted personnel and mechanics who have completed the transport helicopter mechanics course, in transition flight training and maintenance of H-37 helicopters.

Instruction: Lectures and practical exercises in helicopter flight training and maintenance, including general information and description; preflight inspection; airframe group; power plants and accessories; rotor head actuating mechanisms; hydraulic systems; utility and electrical systems; transition flight training; and practical line maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour (for aviators) or 3 semester hours (for enlisted men) in multiengine, single-rotor helicopter maintenance (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour (for aviators) or 2 semester hours (for enlisted men) in multiengine single-rotor helicopter maintenance (5/74).

Related Occupation Codes: 100C.

AR-1704-0066

OH-58 HELICOPTER REPAIRER

Course Number: *Version 1:* 600-67V10(OH-58); 600-67V10 (ST) (OH-58); 600-67V10. *Version 2:* 600-67V10; 600-67V2T. *Version 3:* 600-67V2T.

Location: Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 8–10 weeks (214–329 hours). *Version 2:* Self-paced 8–9 weeks (255–294 hours). *Version 3:* 5 weeks (181 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 10/72–12/79. *Version 3:* 7/69–9/72.

Objectives: To train enlisted personnel in organizational, direct, and general support maintenance of the OH-58 helicopter.

Instruction: *Version 1:* Lectures and practical exercises in maintenance of OH-58 helicopter including powerplant, rotor gear train (main and tail rotor), hydraulics, inspection procedures, electrical system inspection and troublehooting, fundamentals of alternating current and direct current. *Version 2:* Lectures and practical exercises in the maintenance of OH-58 helicopters, including power plants, plumbing and hydraulics, instruments, fuel and lubricants, rotor systems, and inspection and troubleshooting fundamentals. *Version 3:* Lectures and practical exercises in the maintenance of OH-58 helicopters, including power plants, plumbing and hydraulics, instruments, fuel and lubricants, rotor systems, and inspection and troubleshooting fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in helicopter repair (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter repair (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter repair (10/78). *Version 3:* In the vocational certificate category, 4 semester hours in helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter repair (2/74).

Related Occupation Codes: 67V; 67W; 00Z; 67Z.

AR-1704-0067

1. U-8/U-21 AIRPLANE REPAIR
2. U-8/U-21 AIRPLANE REPAIR
3. MULTI-ENGINE COMMAND AIRPLANE MAINTENANCE
4. MULTI-ENGINE COMMAND AIRPLANE MAINTENANCE

Course Number: *Version 1:* 600-67G20. *Version 2:* 600-67G20. *Version 3:* 600-67G20. *Version 4:* 1-R-672.1.

Location: *Version 1:* Transportation School, Ft. Eustis, VA. *Version 2:* Transportation School, Ft. Eustis, VA. *Version 3:* Aviation School, Ft. Rucker, AL. *Version 4:* Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 13 weeks (436–445 hours). *Version 2:* 14–15 weeks (480–525 hours). *Version 3:* 5 weeks (175 hours). *Version 4:* 3 weeks (108–110 hours).

Exhibit Dates: *Version 1:* 8/74–11/86. *Version 2:* 8/68–7/74. *Version 3:* 1/67–7/68. *Version 4:* 6/60–12/66.

Objectives: To train enlisted personnel in organizational maintenance of multi-engine, fixed-wing aircraft.

Instruction: Lectures and practical exercises in organizational maintenance functions, including inspection, service and repair, alignment, replacement, and maintenance operational checks on all systems and components of multi-engine light aircraft.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance management (6/75). *Version 2:* In the vocational certificate category, 12 semester hours in aircraft and engine repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft and engine repair (2/74). *Version 3:* In the vocational certificate category, 4 semester hours in aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, credit in aircraft maintenance on the basis of institutional evaluation (2/74). *Version 4:* In the vocational certificate category, 2 semester hours in aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, credit in aircraft maintenance on the basis of institutional evaluation (2/74).

Related Occupation Codes: 67A; 67F; 67G; 67Z.

AR-1704-0068

1. Aircraft Powerplant Repairer
2. Aircraft Powerplant Repairer
3. Aircraft Turbine Engine Repair

Course Number: 601-68B10; 601-68B20.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 15-16 weeks (576 hours). *Version 2:* 17-18 weeks (649 hours). *Version 3:* 8-12 weeks self-paced (292-406 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 2/85-9/89. *Version 3:* 4/68-1/85.

Objectives: To train enlisted personnel in entry level tasks in direct and general support maintenance of aircraft turbine engines and allied equipment.

Instruction: Lectures and practical experience in theory, operation, maintenance, troubleshooting, and repair of various turbine engines, including assemblies, subassemblies and component parts, test stand operations, and performance analysis.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in turbine engine maintenance (7/85). *Version 3:* In the vocational certificate category, 3 semester hours in aircraft turbine engine repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft turbine engine repair (3/74).

Related Occupation Codes: 68B; 67Z.

AR-1704-0069

Tandem-Rotor Light Transport Helicopter Maintenance

Course Number: 600-67S20; 1-R-676.1.

Location: Aviation School, Ft. Rucker, AL.

Length: 4-5 weeks (140-182 hours).

Exhibit Dates: 6/60-12/66.

Objectives: To train enlisted personnel in organizational maintenance of single-engine, tandem-rotor, light transport helicopters.

Instruction: Practical experience in ground handling and maintenance of engine run-in; landing gear; brake, flight control, ignition, fuel, oil, hydraulics and airframe systems; and aerodynamics and avionics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter maintenance (2/74).

Related Occupation Codes: 67A; 67S; 67W.

AR-1704-0070

1. Aircraft Maintenance Apprentice (Aircraft Maintenance (Entry))
2. Aircraft Maintenance (Entry)

Course Number: *Version 1:* 600-67A10; 600-670.0; 1-R-670.0. *Version 2:* 1-R-670.0; 1-E-18.

Location: *Version 1:* Transportation School, Ft. Eustis, VA. Aviation School, Ft. Rucker, AL.

Length: *Version 1:* 5-6 weeks (178-272 hours). *Version 2:* 8 weeks (288-308 hours).

Exhibit Dates: *Version 1:* 6/60-7/72. *Version 2:* 8/56-5/60.

Objectives: To train enlisted personnel in airfield servicing and maintenance of fixed- and rotary-wing aircraft.

Instruction: Lectures and practical experience in basic aircraft maintenance, systems maintenance, fundamentals of internal defense and development, safetying procedures, theory of flight, basic hydraulics, and airfield operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic aircraft maintenance (2/74). *Version 2:* In the vocational certificate category, 4 semester hours in basic aircraft maintenance (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic aircraft maintenance (3/74).

Related Occupation Codes: 67A; 67B; 67C; 67G; 67H; 67U; 67V; 67W; 67X; 67Y.

AR-1704-0071

CH-54 Helicopter Repair

Course Number: 600-67X20.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 14 weeks (485 hours). *Version 2:* 14 weeks (501 hours). *Version 3:* 11 weeks (395 hours).

Exhibit Dates: *Version 1:* 10/74-11/77. *Version 2:* 5/72-9/74. *Version 3:* 7/68-4/72.

Objectives: To train enlisted personnel in organizational, direct, and general support maintenance of multiengine, single-rotor helicopters.

Instruction: Lectures and practical experience in aviation maintenance, basic aerodynamics, hydraulics, safety techniques, publications, aircraft inspections, and in-flight maintenance duties.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft maintenance (6/75). *Version 2:* In the vocational certificate category, 11 semester hours in multiengine helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in multiengine helicopter repair (2/74). *Version 3:* In the vocational certificate category, 6 semester hours in multiengine helicopter repair (2/74); in the lower-division baccalaureate/associate degree category, credit in multiengine helicopter repair on the basis of institutional evaluation (2/74).

Related Occupation Codes: 67X.

AR-1704-0072

Aircraft Turbine Engine Repair Specialist Candidate
(Aircraft Turbine Engine Repair, Skill Development Base)

Course Number: 601-68B20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: 12-13 weeks (477-537 hours).

Exhibit Dates: 10/68-9/72.

Objectives: To train enlisted personnel to function as senior technicians in aircraft turbine engine repair.

Instruction: Lectures and practical exercises in leadership, maintenance management, and gas turbine engine inspection, testing, and removal.

Credit Recommendation: In the vocational certificate category, 5 semester hours in turbine maintenance management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine maintenance management (2/74).

Related Occupation Codes: 68B.

AR-1704-0073

Utility/Cargo Airplane
(Airplane Repair)

Course Number: 600-67G10.

Location: Transportation and Aviation Logestics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 13-14 weeks (481 hours). *Version 2:* 19-20 weeks (457 hours).

Exhibit Dates: *Version 1:* 1/85-10/86. *Version 2:* 7/77-6/83.

Objectives: To teach enlisted personnel in entry level tasks to service, maintain, and repair utility/cargo airplanes.

Instruction: *Version 1:* Lectures and practical experience in performing maintenance and repair on utility/cargo airplanes including scheduled inspections, safety procedures, use of ground support equipment, using and preparing forms and records, use and application of technical manuals and publications. *Version 2:* Lectures and practical exercises in servicing landing gears, rigging landing gears, rigging turbine governors, adjusting voltage regulators, and replacing propellers. Also includes electrical systems, ignition systems, fuel and oil system analysis, and oxygen system service. Student also performs required inspections.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft systems and components, 3 in aircraft inspection, and 3 in aircraft maintenance (7/85). *Version 2:* In the vocational certificate category, 12 semester hours in aircraft repair; in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft repair (3/83).

Related Occupation Codes: 67G.

AR-1704-0074

Multi-Engine Medium Transport Airplane Maintenance

Course Number: 600-672.3; 1-R-672.3.

Location: Aviation School, Ft. Rucker, AL.

Length: 4 weeks (140-144 hours).

Exhibit Dates: 3/62-12/68.

Objectives: To provide mechanics of single-engine aircraft with training in multiengine, fixed-wing, medium transport aircraft organizational maintenance.

Instruction: Lectures and practical exercises in multiengine, fixed-wing, medium transport aircraft organizational maintenance, including fuel, induction, ignition, oil, electrical, and hydraulic systems maintenance; instrument system, flight controls, and ground handling operations; and inspections, management procedures, and record keeping methods.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft maintenance and repair (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance and repair (3/74).

AR-1704-0075

1. AIRCRAFT ELECTRICIAN
2. AIRCRAFT ELECTRICIAN REPAIR
   (Aircraft Electrician)
3. AIRCRAFT ELECTRICIAN
4. AIRCRAFT ELECTRICIAN

Course Number: *Version 1:* 602-68F10. *Version 2:* 602-68F10. *Version 3:* 602-68F20; 55-R-685.1. *Version 4:* 55-R-655.1; 55-E-48.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 21–24 weeks (768 hours). *Version 2:* 13–15 weeks (505–648 hours). *Version 3:* 13–16 weeks (560–748 hours). *Version 4:* 16–19 weeks (704–836 hours).

Exhibit Dates: *Version 1:* 10/84–Present. *Version 2:* 11/64–9/84. *Version 3:* 2/60–10/64. *Version 4:* 7/56–1/60.

Objectives: To train enlisted personnel to perform direct and general support maintenance of aircraft electrical systems and components.

Instruction: *Version 1:* Lectures and practical exercises in basic electrical and electronic theory, soldering techniques, AC and DC circuits, semi-conductors, wiring diagrams, and test equipment. Reinforcement of these skills and knowledge by performing the operation, testing, troubleshooting, and repair of aircraft and helicopter electrical systems is included in this course. *Version 2:* Lectures and laboratories in aircraft electrical systems, including DC and AC electrical fundamentals, batteries, DC and AC generation systems, power distribution, ignition systems, AC and DC motors, and general aircraft maintenance. *Version 3:* Lectures and laboratories in aircraft electrical systems, including DC and AC electrical fundamentals, batteries, DC and AC generation systems, power distribution, ignition systems, AC and DC motors, and general aircraft maintenance. *Version 4:* Lectures and laboratories in aircraft electrical systems, including DC and AC electrical fundamentals, batteries, DC and AC generation systems, power distribution, ignition systems, AC and DC motors, and general aircraft maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of electricity,3 in basic electronics, 6 in electrical/electronics laboratory, 3 in aircraft electrical systems, and 3 in aircraft instrument repair (3/88). *Version 2:* In the vocational certificate category, 16 semester hours in electricity, 8 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electricity, 4 in electrical laboratory (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electricity, 4 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity, 4 in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74).

Related Occupation Codes: 68F.

AR-1704-0076

FLIGHT OPERATIONS COORDINATOR, SKILL DEVELOPMENT BASE

Course Number: 517-71P20-I.

Location: Aviation School, Ft. Rucker, AL.

Length: 13 weeks (496 hours).

Exhibit Dates: 1/69–11/86.

Objectives: To train flight operations coordinators to perform as supervisors and technicians.

Instruction: Lectures and practical exercises in the coordination of flight operations, including leadership; administration; Army functional files; individual flight record file; navigation and weather review; air traffic control; criteria for site selection; maintenance management; life support equipment; fire fighting and crash rescue subjects; and airmobile operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 71P.

AR-1704-0077

LIGHT TARGET MISSILE LAUNCHER OPERATION AND AIRFRAME AND ENGINE MAINTENANCE

(Radio Controlled Airplane Target (RCAT) Airframe Engine Maintenance Maintenance)

Course Number: 600-17J20; 44-R-105.1; 44-R-209.1; 44-E-24.

Location: Combat Surveillance School, Ft. Huachuca, AZ; Air Defense School, Ft. Bliss, TX.

Length: 7–9 weeks (180–320 hours).

Exhibit Dates: 3/57–12/68.

Objectives: To train enlisted personnel as drone and target aircraft crewmen.

Instruction: Lectures and practical exercises in launch and recovery of unmanned aircraft; organizational maintenance of launchers and associated ground support equipment; and organizational and direct support maintenance of aircraft airframes and engines.

Credit Recommendation: In the vocational certificate category, 3 semester hours in airframe and engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe and engine maintenance (6/74).

AR-1704-0078

HELICOPTER ARMAMENT SUBSYSTEM M22 AND SIMULATOR DX43 REPAIR

Course Number: 646-F2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 6 weeks (197 hours).

Exhibit Dates: 12/69–1/88.

Objectives: To train qualified aircraft armament repairmen in the repair of the helicopter armament subsystem M22 and simulator DX43.

Instruction: Lectures and practical exercises in direct and general support maintenance of helicopter anti-tank guided missile systems and simulator DX43.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 45J.

AR-1704-0079

SINGLE-ROTOR HELICOPTER MAINTENANCE

(Utility and Cargo, Single Rotor Helicopter Maintenance)

Course Number: 1-R-673.1.

Location: Aviation School, Ft. Rucker, AL.

Length: 5–6 weeks (184–223 hours).

Exhibit Dates: 2/57–12/68.

Objectives: To train qualified aircraft maintenance crewmen to perform as single-rotor helicopter mechanics.

Instruction: Lectures and practical exercises in organizational maintenance of single-rotor utility and transport helicopters, including H-34 introduction, airframe, weight and balance, power transmission, landing gear and brakes, fuel and oil systems, electrical system, hydraulic systems, main- and tail-rotor systems, tacking and vibrations, external loads, internal loads, engine run-up and organizational maintenance, inspections, and engine installation and controls.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft mechanics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft mechanics (6/74).

AR-1704-0080

H-37 HELICOPTER ORGANIZATIONAL MAINTENANCE

Course Number: 1-R-F25.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (175 hours).

Exhibit Dates: 2/59–12/68.

Objectives: To train experienced tandem- or single-rotor helicopter maintenance personnel in the organizational maintenance of H-37 helicopters.

Instruction: Lectures and practical exercises in organizational maintenance of H-37 helicopters, including general description, airframe group, power plants and accessories, transmission system, rotor head actuating system, instruments, electrical systems, inspections, winterization, ventilating and heating systems, in-flight familiarization, landing gear servicing, wheels and brake system, and gear boxes.

Credit Recommendation: In the vocational certificate category, 4 semester hours in rotary-wing aircraft maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in rotary-wing aircraft maintenance (6/74).

AR-1704-0081

HELICOPTER ARMAMENT SUBSYSTEM M22 AND DX43 MECHANIC

Course Number: 646-F1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/70–1/88.

Objectives: To train qualified aircraft armament subsystem mechanics as helicopter armament subsystem M22 and DX43 simulator mechanics.

Instruction: Lectures and practical exercises in organizational maintenance of the M22 subsystem and DX43 flight control simulator, including supply procedures, test equipment, internal defense and development, M22 antitank guided missile subsystem introduction, launcher and supporting equipment, guidance control unit, system functioning DX43 simulator introduction, operational check-out and repair, handling procedures, and review and maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in systems organizational maintenance (6/74).

Related Occupation Codes: 45M.

AR-1704-0082

ROTARY WING TECHNICAL INSPECTOR

Course Number: 55-R-679.5.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (185 hours).

Exhibit Dates: 5/63–5/65.

Objectives: To train enlisted personnel who have previous technical experience to perform as aircraft repair supervisors and inspectors.

Instruction: Lectures and practical exercises in technical inspection of rotary-wing aircraft, including inspection of reciprocating engines; controls; power trains, airframe structures; rotors and blades; instrument, electrical, and hydraulic systems; nondestructive inspections; gas turbine engine familiarization; aircraft publications; supply responsibilities; and maintenance concepts and quality control.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aviation maintenance management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (6/74); in the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (6/74).

AR-1704-0083

Aircraft Armament Subsystem Mechanic

Course Number: 646-45M20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 9–13 weeks (261–468 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train enlisted personnel in aircraft armament subsystems organizational maintenance.

Instruction: Lectures and practical exercises in aircraft armament maintenance fundamentals, including disassembly, assembly, installation, troubleshooting, and repair of M5 machine gun, rocket, and AH-1G armament subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic mechanics and mechanical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic mechanics and mechanical laboratory (6/75).

Related Occupation Codes: 45M; 45Z.

AR-1704-0084

Reconnaissance Helicopter Maintenance

Course Number: 1-R-672.1.

Location: Aviation School, Ft. Rucker, AL.

Length: 5–6 weeks (177–234 hours).

Exhibit Dates: 2/57–5/60.

Objectives: To train enlisted personnel as reconnaissance helicopter mechanics.

Instruction: Lectures and practical exercises in organizational maintenance of reconnaissance helicopters, including introduction to reconnaissance helicopters, helicopter aerodynamics, engine installation and controls, fuel and oil systems, power transmission system, main rotor head and blades, anti-torque system, vibrations and control forces, stabilizer bar and damper, electrical systems, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in helicopter maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (6/74).

AR-1704-0085

Nike-Hercules Missile Mechanical Materiel Maintenance Transition

Course Number: 44-R-F8.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3–5 weeks (99–140 hours).

Exhibit Dates: 11/57–12/68.

Objectives: To train enlisted Nike Ajax personnel to assemble, adjust, and maintain hydraulic missile control systems and related test equipment on the Nike Hercules missile.

Instruction: Lectures and practical exercises in Nike Hercules missile system assembly, adjustment, and maintenance, including missile mechanics, launcher area equipment operation, missile preparation and depreparation, propulsion system familiarization, and hydraulic power unit and control system operation and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in hydraulic laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in missile mechanics (3/74); in the upper-division baccalaureate category, credit in hydraulic laboratory on the basis of institutional examination (3/74).

AR-1704-0086

1. Nike Mechanical Repair
   (Nike Mechanical Systems Repair (Ajax/Hercules))
2. Surface-to-Air Missile (SAM) Mechanical Systems Repair

Course Number: *Version 1:* 9-S-433.1. *Version 2:* 9-E-67.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 8–9 weeks (280–334 hours). *Version 2:* 6 weeks (190–210 hours).

Exhibit Dates: *Version 1:* 5/57–12/68. *Version 2:* 12/55–4/57.

Objectives: To train enlisted and civilian personnel as mechanical repairmen (Nike).

Instruction: Lectures and practical exercises in inspection, testing, field maintenance, and repair of Nike Hercules/Ajax missile mechanical systems, airframes, ground-handling equipment and associated test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in missile systems maintenance shop (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in missile systems maintenance shop (6/74). *Version 2:* In the vocational certificate category, 2 semester hours in missile systems maintenance shop (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in missile systems maintenance shop (6/74).

AR-1704-0087

Ejection Seat Repairer
(Martin-Baker J-5 Ejection Seat Specialist)

Course Number: 600-ASIB7 (67H); 600-ASIB7; 600-F6.

Location: Aviation Logistics and Transportation School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: 3–4 weeks (108–128 hours).

Exhibit Dates: 7/67–1/88.

Objectives: To train personnel with previous technical experience to perform as J-5 ejection seat specialists.

Instruction: Lectures and practical exercises on the inspection, repair, and organizational and support maintenance of Martin-Baker J-5 ejection seats, aircraft survival seat kits, and 9E2A ejection seat simulators, including introduction to Martin-Baker ejection seats; ejection seat removal, disassembly, inspection, maintenance, and reassembly; personnel parachutes; OV-1 aircraft survival seat kits; SEEK-2 life vest, physiological effects; fitting and adjusting personal equipment, introduction to the 9E2A ejection seat simulators, and function of related systems.

Credit Recommendation: Credit is not recommended because of the technical nature of the course (12/68).

Related Occupation Codes: 67K.

AR-1704-0088

Hawk Mechanical Repair

Course Number: 632-435.1; 9-S-435.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 8 weeks (281–298 hours).

Exhibit Dates: 4/59–12/68.

Objectives: To train enlisted and civilian personnel to operate, repair, and troubleshoot Hawk missile systems.

Instruction: Lectures and practical exercises in repair and maintenance of Hawk Missile systems. Course includes blueprint interpretation, hydraulic and pneumatic principles, and troubleshooting of Hawk hydraulic and pneumatic systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical engineering laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical engineering laboratory (6/74).

AR-1704-0089

Ballistic Missiles Propulsion and Structures Repair

Course Number: 9-S-372.1; 9-R-372.1; 9-R-372.10.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 10–15 weeks (345–561 hours).

Exhibit Dates: 1/58–12/68.

Objectives: To train enlisted personnel to operate, inspect, test, maintain, and repair ballistic missile propulsion and structure systems and associated test equipment.

Instruction: Lectures and practical exercises in the operation, repair, and maintenance of ballistic missile propulsion and structure systems. Course includes propulsion systems, ordnance inspection procedures, missile handling and fuel equipment, electrical fundamentals, and mechanical fundamentals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective (7/74).

AR-1704-0090

Aircraft Turbine Multi-Engine Repair

Course Number: 601-68B30.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (161 hours).

Exhibit Dates: 6/74–11/77.

Objectives: To train enlisted personnel in support maintenance of turbine engines installed on multi-engine aircraft.

Instruction: Lectures and practical exercises in inspection techniques, limited allowable repairs, recognition of malfunctions, and diagnosis of remedial action.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine repair (6/75).

Related Occupation Codes: 68B.

AR-1704-0091

Organizational Maintenance Officer

Course Number: 1-A-F13.

Location: Aviation School, Ft. Rucker, AL.

Length: 10 weeks (367 hours).

Exhibit Dates: 11/56-12/68.

Objectives: To train officers to supervise all phases of aircraft maintenance.

Instruction: Conferences and practical exercises in aircraft forms and reports, technical orders, supply, fixed-wing and rotary-wing aerodynamics, instruments, special tools, ground handling, aircraft engines, propellors, organizational maintenance and repair, inspection, and aircraft accidents.

Credit Recommendation: In the vocational certificate category, 7 semester hours in organizational maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in organizational maintenance (2/74).

AR-1704-0092

Advanced Air Drop Equipment Maintenance

Course Number: 10-R-F16.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To provide enlisted personnel with a working knowledge of the maintenance of air drop equipment at the organizational, field, and depot levels.

Instruction: Lectures and practical exercises in pattern making and blueprint reading; maintenance of sewing machines; canopy darning, patching, and section replacement; suspension line replacement and repair; air drop equipment repair techniques; hardware, slide fasteners, and platform repair.

Credit Recommendation: In the vocational certificate category, 5 semester hours in air drop equipment repair (5/74).

AR-1704-0093

Observation/Scout Helicopter Repairer

Course Number: 600-67V10.

Location: Transportation School, Ft. Eustis, VA.

Length: 7 weeks (214 hours).

Exhibit Dates: 7/78-5/87.

Objectives: To train personnel to provide direct and general support maintenance for the scout helicopter.

Instruction: Lectures and practical exercises in general aircraft maintenance and repair procedures on helicopter equipment, auxiliary equipment, and power plant.

Credit Recommendation: In the vocational certificate category, 6 semester hours in helicopter repair; in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter repair (3/83).

Related Occupation Codes: 67V.

AR-1704-0094

Observation/Scout Helicopter Maintenance Supervisor/Technical Inspector Basic Technical

Course Number: 600-67V30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (258 hours).

Exhibit Dates: 7/80-9/84.

Objectives: To train enlisted personnel to supervise the maintenance and repair of the Scout helicopter.

Instruction: Lectures and practical exercises in aviation management procedures; aircraft inspection; quality control procedures; calibration requirements; and the preparation, inspection, and processing of records applicable to Army aircraft and related components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance and 2 in aviation maintenance management (3/83).

Related Occupation Codes: 67V.

AR-1704-0095

AH-1 Attack Helicopter Repairer
(Attack Helicopter Repairer)
(Attack Helicopter Repairman)

Course Number: 600-67Y10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 11-13 weeks (432-455 hours). *Version 2:* 12-13 weeks (436 hours).

Exhibit Dates: *Version 1:* 7/84-Present. *Version 2:* 6/77-6/84.

Objectives: To train enlisted personnel in the skills pertaining to entry-level mechanical tasks related to the repair of helicopters.

Instruction: Lectures, programmed instruction, and practical exercises in general aircraft maintenance procedures and helicopter equipment, auxiliary equipment, and power plant maintenance and inspection.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 2 in helicopter systems inspection and repair (10/89). *Version 2:* In the vocational certificate category, 8 semester hours in helicopter maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (3/83).

Related Occupation Codes: 67Y.

AR-1704-0096

Attack Helicopter Maintenance Supervisor/Technical Inspector

Course Number: 600-67Y30.

Location: Transportation School, Ft. Eustis, VA.

Length: 7-8 weeks (241 hours).

Exhibit Dates: 12/77-8/84.

Objectives: To train enlisted personnel in supervisory skills and inspection techniques related to the maintenance and repair of the AH-1 series helicopters.

Instruction: Lectures, programmed instruction, and practical exercises in quality control techniques related to maintenance and repair of helicopter equipment, auxiliary equipment, power plant, drivetrain, rotor systems, and flight control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in helicopter maintenance (3/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance and 2 in aviation maintenance management (3/83).

Related Occupation Codes: 67Y.

AR-1704-0097

Aircraft Power Plant Repair Supervisor/Technical Inspector

Course Number: 601-68B30.

Location: Transportation School, Ft. Eustis, VA.

Length: 8-9 weeks (272 hours).

Exhibit Dates: 12/77-9/84.

Objectives: To train enlisted personnel in the supervision of direct and general support maintenance of aircraft turbine engines and allied equipment.

Instruction: Lectures and practical experiences in quality control functions and turbine engine quality control programs; enlisted personnel management systems; precision tools and calibration requirements; and the inspection of turbine engines including propeller assembly inspection and accompanying procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 68B.

AR-1704-0098

Aircraft Powertrain System Maintenance Supervison/Technical Inspector Basic Technical

Course Number: 602-68D30.

Location: Transportation School, Ft. Eustis, VA.

Length: 7 weeks (220 hours).

Exhibit Dates: 12/77-8/84.

Objectives: To train enlisted personnel to supervise the maintenance and repair of aircraft powertrains, in nondestructive testing, and in allied equipment.

Instruction: Lectures and practical exercises in powertrain systems maintenance and repair including maintenance management and equipment records systems; enlisted personnel management systems; quality control functions; and various inspection techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft powertrain system maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 68D.

AR-1704-0099

Aircraft Electrician Maintenance Supervisor/Technical Inspector

Course Number: 602-68F30.

Location: Transportation School, Ft. Eustis, VA.

Length: 7-8 weeks (245 hours).

Exhibit Dates: 12/77-9/84.

Objectives: To train enlisted personnel in supervision and inspection of direct and general support maintenance of aircraft electrical systems and components.

Instruction: Lectures and discussions of quality control functions and inspection procedures; enlisted personnel management systems; precision tools and calibration requirements; AC/DC generators; instrument systems and components; electrical systems and components; and solid state repairs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft electrical systems maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 68F.

AR-1704-0100

Aircraft Structure Repair

Course Number: 603-68G10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 15 weeks (547 hours). *Version 2:* Self-paced 14-15 weeks (487 hours).

Exhibit Dates: *Version 1:* 7/84-Present. *Version 2:* 1/81-6/84.

Objectives: To train enlisted personnel in entry level tasks involving the support maintenance of aircraft structural members, sheetmetal surfaces, fiberglass, and rotor blade repair.

Instruction: *All Versions:* Course involves practical exercises including aircraft riveting; repair of aircraft skin, structural member, and rotor blade; maintenance and equipment record systems; forming of aircraft parts; and shop and flight line safety.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in airframe sheet metal shop, and 3 in airframe structural repairs (1/88). *Version 2:* In the vocational certificate category, 8 semester hours in airframe repair shop; in the lower-division baccalaureate/associate degree category, 3 semester hours in airframe repair shop (3/83).

Related Occupation Codes: 68G.

AR-1704-0101

Aircraft Structural Repair Supervisor/Technical Inspector Basic Technical

Course Number: 603-68G30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (198 hours).

Exhibit Dates: 12/77-9/84.

Objectives: To train enlisted personnel in supervision and quality control techniques related to the support maintenance of aircraft structural members, sheetmetal surfaces, fiberglass, and rotor blade inspection and repair.

Instruction: Lectures and practical exercises in quality control functions; enlisted personnel management systems; precision tools and calibration requirements; inspection procedures; and evaluation of nondestructive testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft structure maintenance and repair (3/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft structure maintenance and repair and 2 in aircraft mantenance management (3/83).

Related Occupation Codes: 68G.

AR-1704-0102

Helicopter Missile System Repair Supervisor/Technical Inspector

Course Number: 646-68J30.

Location: Transportation School, Ft. Eustis, VA.

Length: 7-8 weeks (266 hours).

Exhibit Dates: 12/77-9/87.

Objectives: To train enlisted personnel in supervision and quality control procedures related to the support maintenance and repair of helicopter missile systems.

Instruction: For information on this course after 9/87, see exhibit AR-1704-0147. Lectures and practical exercises in quality control functions; inspection procedures; files and publications; aircraft armament and shop management; and elecrical and hydraulic inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (3/83).

Related Occupation Codes: 68J.

AR-1704-0103

1. Aircraft Weapon Systems Repairer
2. Helicopter Weapons Systems Repairer

Course Number: 646-68M10.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 19 weeks (715 hours). *Version 2:* 15-16 weeks (420 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 4/77-9/85.

Objectives: To train enlisted personnel in the support maintenance and repair of helicopter weapons systems.

Instruction: *Version 1:* Lectures, demonstration, practical exercises including but not limited to maintenance management systems; electrical and electronic maintenance and repair of rocket launching systems, machine guns and grenade launching systems. This course includes the maintenance and troubleshooting procedures of sighting and fire control systems. *Version 2:* Lectures and practical exercises in electronics fundamentals; maintenance and repair of machine gun, grenade launcher and automatic gun; and electrical mechanical components and troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (5/86). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/83).

Related Occupation Codes: 68M.

AR-1704-0104

Helicopter Weapon System Repair Supervisor/Technical Inspector Basic Technical

Course Number: 646-68M30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (200 hours).

Exhibit Dates: 12/77-9/87.

Objectives: To train enlisted personnel in the supervision and inspection of the support maintenance of helicopter weapons systems.

Instruction: Lectures and practical exercises in quality control functions and inspection procedures; enlisted personnel management system; precision tools and calibration requirements; aircraft armament; shop management; and electrical and hydraulic inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/83).

Related Occupation Codes: 68M.

AR-1704-0105

UH-60A Helicopter Repairer Transition

Course Number: 600-67T30T.

Location: Transportation School, Ft. Eustis, VA.

Length: 9-10 weeks (334 hours).

Exhibit Dates: 5/78-3/85.

Objectives: To train enlisted personnel in inspection, maintenance, and repair techniques of the UH-60A helicopter series.

Instruction: Lectures, programmed instruction, and practical experiences including quality control techniques related to the maintenance and repair procedures of helicopter equipment, auxiliary equipment, power plant, drivetrain, rotor system, and flight control system including electrical and hydraulic systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in helicopter maintenance (3/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 67T.

AR-1704-0106

Aircraft Powerplant Repairer Basic Noncommissioned Officer (NCO)
(Aircraft Powerplant Repairer Basic Technical)

Course Number: 601-68B30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 8-9 weeks (221 hours). *Version 2:* 4-6 weeks (129-187 hours). *Version 3:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 10/85-9/89. *Version 3:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards. As of 10/87 course contains a common core of leadership subjects. See AR-1406-0090 for description.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 3 in principles of supervision (3/88). As of 10/87 course contains a common core of leadership subjects. See AR-1406-0090 for credit recommendation (3/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 68B.

AR-1704-0107

Aircraft Powertrain Repairer Basic Noncommissioned Officer (NCO)
(Aircraft Powertrain Repairer Basic Technical)

Course Number: 602-68D30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 3-5 weeks (117-175 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: *Version 1:* Lectures and practical experiences in the supervision of powertrain systems maintenance and repair of helicopters. As of 10/87 a common core of leadership subjects is part of the course. See AR-1406-0090 for description. *Version 2:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervision of aircraft powertrain system maintenance (7/85). In 10/87 a common core of leadership subjects was added. See AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 68D.

AR-1704-0108

Aircraft Electrician Repairer
Supervisor Basic
Noncommissioned Officer (NCO)
(Aircraft Electrician Repairer Basic Noncommissioned Officer NCO)
(Aircraft Electrician Repairer Basic Technical)

Course Number: 602-68F30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 13 weeks (399 hours). *Version 2:* 9-12 weeks (354-505 hours). *Version 3:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/85-3/90. *Version 3:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and practical exercises cover the materials required to conduct thorough inspections on aircraft including maintenance of electrical subsystems and components, and in applying the policies and procedures associated with approved aviation maintenance standards. As of 10/87 this course contains a common core of leadership subjects. See AR-1406-0090 for description. *Version 3:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics, 2 in aviation maintenance management (3/88). As of 10/87 this course contains a common core of leadership subjects. See AR-1406-0090 for credit recommendation (3/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 68F.

AR-1704-0109

1. Aircraft Structural Repairer
Supervisor Basic
Noncommissioned Officer (NCO)
2. Aircraft Structural Repairer
Basic Noncommissioned Officer
(NCO)
(Aircraft Structural Repairer Basic Technical)

Course Number: 603-68G30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9-10 weeks (274 hours). *Version 2:* 3-7 weeks (105-200 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/84-3/90.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards. As of 10/87 a common core is included. See AR-1406-0090 for description.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85). As of 10/87 a common core of leadership subjects is included. See AR-1406-0090 for credit recommendation (3/88).

Related Occupation Codes: 68G.

AR-1704-0110

Tactical Transport Helicopter
Repairer Basic Technical

Course Number: 600-67T30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 7 weeks (254 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For information on the course after 9/87 see AR-1704-0150. *Version 1:* The course consists of lectures, demonstrations, and practical exercises to develope the knowledge and skillls required to supervise the safety, maintenance, and standards of multi-engine helicopter repair. *Version 2:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in principles of supervision (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67T.

AR-1704-0111

Medium Helicopter Repairer Basic
Technical (CH-47)

Course Number: 600-67U30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 6-7 weeks (236 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For information on the course after 9/87 see AR-1704-0151. *Version 1:* Lectures and practical exercises including supervisory and quality control techniques related to maintenance and repair of helicopter equipment, auxiliary equipment, powerplant, drivetrain, rotor, flight control, electrical and hydraulic systems. *Version 2:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter maintenance, 2 in aviation maintenance management (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67U.

AR-1704-0112

Observation/Scout Repairer Basic
Technical

Course Number: 600-67V30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 4-5 weeks (153 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For information on the course after 9/87 see AR-1704-0152. The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance management, 3 in principles of supervision (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67V.

AR-1704-0113

Attack Helicopter Repairer Basic
Technical

Course Number: 600-67Y30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 6 weeks (223 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 10/84-9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For information on the course after 9/87 see AR-1704-0153. *Version 1:* Course includes programmed instruction and practical experiences including quality control techniques related to maintenance and repair procedures of helicopter equipment, auxiliary equipment, powerplant, drivetrain, rotor systems, and flight control systems. *Version 2:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 2 in aviation maintenance management (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67Y.

AR-1704-0114

Aircraft Pneudraulic Repairer
Supervisor Basic
Noncommissioned Officer (NCO)
(Aircraft Pneudraulics Repairer Basic Noncommissioned Officer (NCO))
(Aircraft Pneudraulics Repairer Basic Technical)

Course Number: *Version 1:* 603-68H30. *Version 2:* 603-68H30. *Version 3:* 602-68H30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 7-8 weeks (200 hours). *Version 2:* 5-6 weeks (76-204 hours). *Version 3:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 4/90–Present. *Version 2:* 10/85–3/90. *Version 3:* 10/84–9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: *Version 1:* Pending evaluation. *Version 2:* The course consists of lectures and practical expreiences in applying the policies and procedures associated with approved aviation maintenance standards to include aircraft pneudraulic systems. As of 10/87 course contains common core. See AR-1406-0090 for description. *Version 3:* The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (5/86). As of 10/87 course contains commoncore. See AR-1406-0090 for credit recommendation (3/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 68H.

AR-1704-0115

Utility/Cargo Airplane Repairer Basic Technical

Course Number: 600-67G30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 5–6 weeks (188 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85–Present. *Version 2:* 10/84–9/85.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance management, 3 in principles of supervision (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67G.

AR-1704-0116

Observation Airplane Repairer Basic Technical

Course Number: 600-67H30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 7 weeks (251 hours). *Version 2:* 3 weeks (105 hours).

Exhibit Dates: *Version 1:* 10/85–9/87. *Version 2:* 10/84–9/85

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For this course after 9/87 see AR-1704-0149. The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft system maintenance supervision, 3 in aviation maintenance management (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67H.

AR-1704-0117

Utility Helicopter Repairer Basic Technical

Course Number: 600-67N30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/84–9/87.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: For information after 9/87 see AR-1717-0089. The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67N.

AR-1704-0118

Heavy Lift Helicopter Repairer Basic Technical

Course Number: 600-67X30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/84–Present.

Objectives: To train selected enlisted personnel in aviation maintenance management principles and procedures.

Instruction: The course consists of lectures and practical experiences in applying the policies and procedures associated with approved aviation maintenance standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (7/85).

Related Occupation Codes: 67X.

AR-1704-0119

Aircraft Fire Control Repairer Basic Technical

Course Number: 600-68J30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 15 weeks (538 hours).

Exhibit Dates: 3/83–Present.

Objectives: To train enlisted personnel to perform and supervise the maintenance and repair of aircraft fire control systems and associated subsystems.

Instruction: Lecture and practical experience in supervising and repairing of aircraft fire control systems and subsystems to include weapons systems and armament electrical/electronic training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics, 2 in electrical laboratory, 3 in supervision and inspection (7/85).

Related Occupation Codes: 68J.

AR-1704-0120

Aircraft Armament Technical Inspector

Course Number: 600-66J30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9–10 weeks (356 hours). *Version 2:* 14–15 weeks (537 hours).

Exhibit Dates: *Version 1:* 10/85–9/87. *Version 2:* 10/84–9/85.

Objectives: To train enlisted personnel to perform technical inspections and to monitor quality control programs on an aircraft weapons system.

Instruction: For the course after 9/87, please see exhibit AR-1704-0146. Lecture and practical experience in performing technical inspections on aircraft armament system, subsystems, and components to include armament electrical/electronic training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical inspection, 3 in electrical laboratory (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics, 1 in electrical laboratory, 3 in technical inspection and supervision (7/85).

Related Occupation Codes: 66J.

AR-1704-0121

CH-47D Helicopter Technical Inspector

Course Number: 600-F8.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 2–3 weeks (104 hours). *Version 2:* 4 weeks (144 hours).

Exhibit Dates: *Version 1:* 2/85–10/88. *Version 2:* 1/85–1/86.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and trades personnel.

Instruction: *Version 1:* Lectures and practical exercises in inspections on helicopter systems, subsystems and components, before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, test equipment calibration, directives, technical manuals, work orders, unit standard operating *Version 2:* Lectures and practical exercises in inspections on helicopter systems, subsystems and components, before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, Army oil analysis, test equipment calibration, directives, technical manuals, work orders, unit standard operating procedures, and other policies and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft inspection (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft inspections, 1 in powerplant inspections (7/85).

AR-1704-0122

CH-47D Helicopter Repairer

Course Number: 600-F10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 4 weeks (144 hours).

Exhibit Dates: 1/85–10/88.

Objectives: To train enlisted personnel in entry level tasks to perform aviation unit, intermediate, and depot maintenance on helicopters.

Instruction: Lectures and practical exercises in aviation unit, intermediate, and depot maintenance to include: component removal and installation, requisitioning of parts, special tools, limited visual inspections, and proper use of oils, fuels, and lubricants on helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance, 1 in aviation maintenance laboratory (7/85).

AR-1704-0123

UH-1 Utility Helicopter Technical Inspector
(Utility Helicopter Technical Inspector)

Course Number: 600-66N20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 12–13 weeks (446–459 hours). *Version 2:* 15–16 weeks (557 hours).

Exhibit Dates: *Version 1:* 7/85–3/90. *Version 2:* 10/84–6/85.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and allied trades personnel.

Instruction: Lecture and practical exercises in inspections on helicopter systems, subsystems and components before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, Army oil analysis, test equipment calibration, directives, technical manuals, work orders, and SDP, and other policies and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspections, 3 in powerplant inspections (3/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours helicopter inspections, 3 in powerplant inspections (7/85).

Related Occupation Codes: 66N.

AR-1704-0124

Tactical Transport Helicopter Technical Inspector

Course Number: 600-66T20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 11–12 weeks (433 hours). *Version 2:* 14–15 weeks (543 hours).

Exhibit Dates: *Version 1:* 7/85–9/87. *Version 2:* 10/84–6/85.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and allied trades personnel.

Instruction: For more recent version of this course see AR-1704-0162. Lecture and practical exercises in inspections on helicopter systems, subsystems and components before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, army oil analysis, test equipment calibration, directives, technical manuals, work orders, unit SDP, and other policies and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspection, 3 semester hours in powerplant inspections (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspection, 3 semester hours in powerplant inspections (7/85).

Related Occupation Codes: 66T.

AR-1704-0125

Medium Helicopter Technical Inspector

Course Number: 600-66U20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 11–15 weeks (428–528 hours).

Exhibit Dates: 10/84–9/86.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and allied trades personnel.

Instruction: For later versions of this course see AR-1704-0143. Lecture and practical exercises in inspections on helicopter systems, subsystems and components before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, army oil analysis, test equipment calibration, directives, technicals manuals, work orders, unit SDP, and other policies and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspections, 3 semester hours in powerplant inspections (5/86).

Related Occupation Codes: 66V.

AR-1704-0126

Observation/Scout Helicopter Technical Inspector

Course Number: 600-66V20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 10–14 weeks (372–488 hours).

Exhibit Dates: 10/84–Present.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and allied trades personnel.

Instruction: Lecture and practical exercises in inspections on helicopter systems, subsystems and components before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, army oil analysis, test equipment calibration, directives, technical manuals, work orders, unit SDP, and other policies and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspections, 3 semester hours in powerplant inspections (3/88).

Related Occupation Codes: 66V.

AR-1704-0127

Attack Helicopter Technical Inspector

Course Number: 600-66Y20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 12–13 weeks (439–461 hours). *Version 2:* 16 weeks (580 hours).

Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 10/84–6/85.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by helicopter repairers and allied trades personnel.

Instruction: Lecture and practical exercises in inspections on helicopter systems, subsystems and components before, during, and after maintenance activities, to insure compliance with proper helicopter configuration control, army oil analysis, test equipment calibration, directives, technical manuals, work orders, unit SDP, and other policies and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspections, 3 semester hours in powerplant inspections (3/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter inspections, 3 semester hours in powerplant inspections (7/85).

Related Occupation Codes: 66Y.

AR-1704-0128

Utility/Cargo Airplane Technical Inspector

Course Number: 600-66G20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 10 weeks (376 hours). *Version 2:* 13–14 weeks (494 hours).

Exhibit Dates: *Version 1:* 7/85–10/86. *Version 2:* 3/83–6/85.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by airplane repairers and allied trades personnel.

Instruction: Course consists of lectures and practical exercises in inspections on aircraft systems, subsystems, and components before, during, and after maintenance activities, to insure compliance with proper aircraft configuration control, Army oil analysis, test equipment calibration, directives, technical manuals, work orders,unit standard operating procedures, and other policies and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in airframe inspections 3 in powerplant inspections (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in airframe inspections, 3 in powerplant inspections (7/85).

Related Occupation Codes: 66G.

AR-1704-0129

Observation Airplane Technical Inspector

Course Number: 600-66H20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 14–17 weeks (597 hours).

Exhibit Dates: 3/83–9/87.

Objectives: To train enlisted personnel to perform technical inspections on maintenance tasks performed by airplane repairers and allied trades personnel.

Instruction: For more recent versions of this course see AR-1704-0161. Course consists of lectures and practical exercises in inspections on aircraft systems, subsystems, and components before, during, and after maintenance activities. To insure compliance with proper aircraft configuration control, Army oil analysis, test equipment calibration, directives, technical manuals, work orders,unit standard operating procedures, and other policies and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in airframe inspections, 3 in powerplant inspections (5/86).

Related Occupation Codes: 66H.

AR-1704-0130

CH-54 Helicopter Repairer

Course Number: 600-67X10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13–14 weeks (481 hours).

Exhibit Dates: 10/84–Present.

Objectives: To train personnel in the skills and knowledge pertaining to selected entry-level mechanic tasks related to the repair of helicopters.

Instruction: Lectures, programmed instruction, and practical exercises in general aircraft maintenance procedures and helicopter equipment, power plant, and power train maintenance, repair, and inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 2 in helicopter system inspections and repair (7/85).

AR-1704-0131

UH-60A Blackhawk Avionic Mechanic

Course Number: 102-F44.

Location: Signal School, Ft. Gordon, GA.

Length: 3 weeks (128 hours).

Exhibit Dates: 10/81-6/86.

Objectives: To provide enlisted personnel with the training to perform automatic flight control system maintenance on the UH-60A Blackhawk aircraft.

Instruction: Course covers basic theory and hands-on troubleshooting experience on automatic flight control equipment installed on UH-60A Blackhawk aircraft.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/85).

AR-1704-0132

Aviation Logistics Officer

Course Number: 4D-71A.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 11-12 weeks (474 hours).

Exhibit Dates: 10/84-12/87.

Objectives: To train the commissioned aviation officer to manage material systems.

Instruction: This course offers lectures and practical exercises in maintenance management, logistics management, advanced aviation logistics, aviation life support equipment, aviation common technical systems, and propulsion sysyems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance management (7/85).

AR-1704-0133

Lighter Air-Cushion Vehicle Operator

Course Number: 062-ASIE6 (61B).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 9 weeks (324 hours).

Exhibit Dates: 7/86-Present.

Objectives: To train selected personnel in the operation of lighter air-cushion vehicles.

Instruction: Lectures and practical exercises in craft operation, use of emergency equipment and procedures, logistics procedures and operational safety.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/86).

AR-1704-0134

AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)

Course Number: 600-67R40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8 weeks (287 hours).

Exhibit Dates: 10/85-9/87.

Objectives: To provide select noncommissioned officers with the knowledge to supervise the maintenance on AH-64/OH-58D helicopters.

Instruction: For the course after 9/87, see AR-1704-0163. Lectures and practical exercises in maintenance supervision, aviation maintenance, supervisory techniques, Army evaluations and reports, and supply techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in techniques of supervision, 1 in aviation management (5/86), and , for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, for the Common Core, see AR-1404-0034 (3/85).

Related Occupation Codes: 67R.

AR-1704-0135

Aircraft Component Repair Advanced Noncommissioned Officer (NCO)

Course Number: 602-68K40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 9-10 weeks (342 hours).

Exhibit Dates: 10/85-9/87.

Objectives: To provide noncommissioned officers with advanced training in aircraft component maintenance management.

Instruction: For the course after 9/87 see AR-1704-0166. Lectures and practical exercises in military operations, military management including personnel, records, and logistics; leadership styles, communications, staff organization and functions; and aviation maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management, 2 in aircraft electrical systems (5/86) and, for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, for the Common Core, see AR-1404-0035 (3/85).

Related Occupation Codes: 68K.

AR-1704-0136

1. AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
2. Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO)

Course Number: 600-67Y40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9-10 weeks (146 hours). *Version 2:* 11-12 weeks (352-422 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 10/85-9/89.

Objectives: To provide enlisted personnel with a working knowledge of duties required to perform as aircraft maintenance supervisors for attack/observation/scout helicopters.

Instruction: Lectures and practical exercises in military management, including personnel, records, logistics; leadership styles, communications, staff organization and functions, aviation management, and OH-58 and AH-1 maintenance.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance management, 1 in aviation powerplant, 1 in aviation airframe (5/86) and, for the Common Core, see AR-1404-0035 (3/85), in the upper-division baccalaureate category, see AR-1404-0035 for the Common Core (3/85).

Related Occupation Codes: 67Y.

AR-1704-0137

Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO)

Course Number: 600-67T40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 12 weeks (443-449 hours).

Exhibit Dates: 10/85-3/88.

Objectives: To provide enlisted personnel with a working knowledge of those duties required to perform as aircraft maintenance supervisors for utility/tactical transport helicopters.

Instruction: For the course after 3/88 see AR-1704-0164. Lectures and practical exercises in military management including personnel, records, and logistics; leadership styles, communication skills, staff organization and functions, aviation management, and UH-1 and UH-60 helicopter maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in aviation maintenance management, 3 in aviation powerplant, 3 in aviation airframe (5/86) and, for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, for the Common Core, see AR-1404-0035 (3/85).

Related Occupation Codes: 67T.

AR-1704-0138

Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO)

Course Number: 600-67G40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 12 weeks (383-446 hours).

Exhibit Dates: 10/85-9/87.

Objectives: To provide enlisted personnel with a working knowledge of those duties required to perform as aircraft maintenance supervisors for utility/cargo and observation airplanes.

Instruction: For the course after 9/87 see AR-1704-0160. Lectures and practical exercises in military management, including personnel, records, and logistics; leadership styles, communication skills, staff organization and functions, aviation management, and U-21 and OV-1 maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in aviation maintenance management, 3 in aviation powerplants, 3 in aviation airframe (5/86) and, for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, see AR-1404-0035 for the Common Core (3/85).

Related Occupation Cod[illegible]7G.

AR-1704-0139

Medium/Heavy Lift Helicopter Advanced Noncommissioned Officer (NCO)

Course Number: 600-67U40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8 weeks (287 hours).

Exhibit Dates: 10/85-9/87.

Objectives: To provide noncommissioned officers with the knowledge required to effectively supervise maintenance operations on medium and heavy lift helicopters.

Instruction: For the course after 9/87 see AR-1704-0165. Lectures and practical exercises will provide individuals with knowledge in military operations; staff organization and functions; and aviation management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation management (5/86) and, for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, see AR-1704-0035 for the Common Core (3/85).

Related Occupation Codes: 67U.

AR-1704-0140

Aircraft Fire Control Repairer Advanced Noncommissioned Officer (NCO)

Course Number: 646-68J40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8 weeks (283 hours).

Exhibit Dates: 10/85–9/87.

Objectives: To provide noncommissioned officers with the knowledge required to supervise aircraft fire control maintenance.

Instruction: Lectures and practical exercises in aviation management, maintenance supervision, and fire control systems troubleshooting and repair.

Credit Recommendation: For the course after 9/87 see AR-1704-0167. In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation management (5/86) and, for the Common Core, see AR-1404-0035 (3/85); in the upper-division baccalaureate category, for the Common Core, see AR-1404-0035 (3/85,.

Related Occupation Codes: 68J.

AR-1704-0141

Armament/Fire Control Maintenance Supervisor Noncommissioned Officer (NCO) Advanced

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 45Z)

Course Number: 640-45Z40; 6-63-C42 (45Z).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 10–12 weeks (376–547 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in basic electricity. See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 45Z.

AR-1704-0142

M1 Abrams Tank Systems Mechanic

Course Number: 611-63E10.

Location: Armor Center, Ft. Knox, KY.

Length: 9–10 weeks (328–329).

Exhibit Dates: 6/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to test, troubleshoot, replace, repair, and adjust selected components and systems on various vehicles.

Instruction: Lectures, demonstrations, and practical exercises including the use of special testing equipment to troubleshoot and service electrical, suspension, drive lines, and braking systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in automotive electricity, 2 in heavy equipment repair (7/87).

Related Occupation Codes: 63E.

AR-1704-0143

CH-47 Medium Helicopter Technical Inspector

(Medium Helicopter Inspector)

Course Number: 600-66U20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13–14 weeks (492–520 hours).

Exhibit Dates: 10/86–9/89.

Learning Outcomes: Upon completion of the course the student will be able to perform nondestructive inspections, inspect powerplant hot section, cold section and accessory modules, operate and inspect pneudraulic systems including landing gear, understand the fundamentals and inspection techniques of helicopter structural repairs, perform troubleshooting and analyze electrical/electronic systems and compute weight and balance data.

Instruction: Lectures, demonstrations and practical exercises in inspection techniques, procedures, performance evaluation, and operational checks on the powerplant, structure, and systems of helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter structural and systems inspections, 3 in helicopter powerplant inspections and 1 in nondestructive testing (3/88).

Related Occupation Codes: 66U.

AR-1704-0144

Lighter Air-Cushion Vehicle Maintenance Technician

Course Number: 601-ASIE6 (68B).

Location: Transporation School, Ft. Storey, VA; Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3–4 weeks (123 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain the lighter air-cushion vehicle in safe and efficient operating condition. The student will be able to operate and maintain the many aircraft-related components of the vehicle including fans and propellers, gas turbine engine, auxiliary and ground power units and associated controls. The student will also be able to operate and maintain air conditioning and heating systems and conduct pre- and post-operative checks. The student will be able to repair and replace the skirts on the vehicle. The student will be able to observe and enforce flight line safety and hearing conservation.

Instruction: Lectures, practical exercises, and examinations on power plants and their operation and controls, air conditioning and heating, and skirt repair and replacement. The dangers of noise pollution and flight line safety are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine theory and operation (3/88).

Related Occupation Codes: 68B.

AR-1704-0145

Aviation Life Support Supervisor (ALSS)

Course Number: 2C-F51/4D-ASI1F/600-ASIQ2.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 4–5 weeks (152 hours).

Exhibit Dates: 10/87–2/88.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, test, maintain, and repair aviation life support equipment and materials including survival and first aid kits, anti-exposure suits, body armor, oxygen equipment, flight, clothing, and flotation equipment.

Instruction: Lectures, demonstrations, and practical exercises in the inspection, test, maintenance, and repair of aviation life support equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/88).

AR-1704-0146

Aircraft Armament Technical Inspector

Course Number: 600-66J30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 10–11 weeks (395 hours).

Exhibit Dates: 10/87–3/90.

Learning Outcomes: Upon completion of the course, the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communications, hardware and software, and use of ground support equipment. Student will be able to establish policies and procedures for hanger safety. The student will be able to supervise the inspection and repair of boresight assembly, ground support systems, turret and fire control systems, be able to read electrical wiring diagrams and compute and measure electrical values of DC and AC circuits using oscilloscopes and digital multimeters.

Instruction: Lectures and practical exercise in the above subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 2 in principles of supervision (3/88).

Related Occupation Codes: 66J.

AR-1704-0147

Aircraft/Armament/Missile Systems Supervisor Basic Noncommissioned Officer (NCO)

(Aircraft Fire Control Systems Supervisor Basic Noncommissioned Officer (NCO) Basic)

Course Number: 646-68J30.

Location: Transporation and Aviation Logistics School, Ft. Eustis, VA.

Length: 16–17 weeks (597 hours).

Exhibit Dates: 10/87–3/90.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication, hardware and software, use of ground support equipment and will establish policies and procedures for shop and hanger safety. The student will be able to supervise the inspection and repair of boresight assembly, ground support systems, turret and fire control systems, be able to read electrical wiring diagrams and compute and measure electrical values of DC and AC circuits using oscilloscopes and digital multimeters. The student will be able to supervise inspection and repair of transistor/amplifier, function generator/interface, relay, and integrated circuits.

Instruction: For this course before 10/87, see exhibit AR-1704-0102. Lectures, demonstrations, and practical exercises on the above subjects. A common core (AR-1406-0090) is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 3 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 68J.

AR-1704-0148

CH-54 Heavy Lift Helicopter
Repairer Reserve Component

Course Number: 600-67X10-RC.

Location: Transporation and Aviation Logistics School, Ft. Eustis, Va.

Length: 10-11 weeks (403 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform maintenance, excluding repair of system components, on the CH-54 heavy lift helicopter under direct supervision. The student will be able to identify, remove and replace subsystem and system components in electrical, hydraulic, auxiliary power plant, utility, power plant, and rotor and powertrain systems. The student will be able to identify, remove and replace subsystem components and assist in operational checks of the flight control, automated flight control, and fuel systems. The student will be able to identify and control types of corrosion and identify, remove and replace fuselage subsystem and system components and assist in maintenance and operational checks.

Instruction: Lectures, demonstrations, examinations and practical work. Subjects include aircraft familiarization and operations, maintenance publications and tools, foreign object damage and prevention, shop and flight line safety, corrosion control and prevention and aircraft systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in helicopter maintenance (3/88).

Related Occupation Codes: 67X.

AR-1704-0149

OV-1 Observation Airplane
Supervisor Basic
Noncommissioned Officer (NCO)
(OV-1 Observation Airplane Repairer
Basic Noncommissioned Officer
(NCO))

Course Number: 600-67H30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 15 weeks (471 hours). *Version 2:* 9-10 weeks (315 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/87-3/90.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories, and will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1704-0166. Course also contains common core of instruction, see exhibit AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 3 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67H.

AR-1704-0150

UH-60 Helicopter Repairer Supervisor
Basic Noncommissioned Officer
(NCO)
(UH-60 Tactical Transport Helicopter
Basic Noncommissioned Officer
(NCO))

Course Number: 600-67T30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 12-13 weeks (386 hours). *Version 2:* 8-9 weeks (277 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/87-3/90.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories, and will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1704-0110. Course also contains common core of instruction, see exhibit AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 3 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67T.

AR-1704-0151

CH-47 Helicopter Repairer Basic
Noncommissioned Officer (NCO)
(CH-47 Medium Helicopter Repairer
Basic Noncommissioned Officer
(NCO))

Course Number: 600-67U30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 12 weeks (355 hours). *Version 2:* 8-9 weeks (250 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 10/87-9/89.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1704-0151. Course also contains common core of instruction, see exhibit AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 2 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67U.

AR-1704-0152

OH-58 Observation/Scout Helicopter
Repairer Basic Noncommissioned
Officer (NCO)

Course Number: 600-67V30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 6 weeks (217 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1704-0112. Course also contains common core of instruction, see exhibit AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 1 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67V.

AR-1704-0153

AH-1 Attack Helicopter Repairer
Basic Noncommissioned Officer
(NCO)

Course Number: 600-67Y30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 7-8 weeks (210 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1704-0113. Course also contains common core of instruction; see exhibit AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 1 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67Y.

AR-1704-0154

MEDIUM HELICOPTER REPAIRER (CH-47)

Course Number: 600-67U10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 17-18 weeks (667 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the publications, forms, and records related to maintenance tasks, practice shop and flight line safety procedures, be able to use common hand tools, aircraft hardware, ground support equipment, and apply safety procedures. In addition, the student will be able to locate, identify, remove and replace parts and components in the airframe and landing gear systems, utility and hydraulic systems, fuel, electrical, powerplant, rotor and powertrain systems and also assist in performing maintenance operational checks and inspections.

Instruction: Lectures, demonstrations and practical exercises in the skills needed to perform maintenance tasks and to develop the knowledge to replace and check helicopter systems components. For information on the course before 10/86, see AR-1704-0019.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in helicopter maintenance (3/88).

Related Occupation Codes: 67U.

AR-1704-0155

OH-6-RC OBSERVATION/SCOUT HELICOPTER REPAIRER-RESERVE COMPONENT

Course Number: 600-67V10(OH-6).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 7-8 weeks (253 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the publications, forms, and records related to maintenance tasks, practice shop and flight line safety procedures, be able to use common hand tools, aircraft hardware, ground support equipment, and apply safety procedures. In addition, the student will be able to locate, identify, remove and replace parts and components in the airframe and landing gear systems, utility and hydraulic systems, fuel, electrical, powerplant, rotor and powertrain systems and also assist in performing maintenance operational checks and inspections.

Instruction: Lectures, demonstrations and practical exercises in the skills needed to perform maintenance tasks and to develop the knowledge to replace and check helicopter systems components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (3/88).

Related Occupation Codes: 67V.

AR-1704-0156

AH-64 ATTACK HELICOPTER REPAIRER

Course Number: 600-67R10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 15-18 weeks (753-662 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the publications, forms, and records related to maintenance tasks, practice shop and flight line safety procedures, be able to use common hand tools, aircraft hardware, ground support equipment, and apply safety procedures. In addition, the student will be able to locate, identify, remove and replace parts and components in the airframe and landing gear systems, utility and hydraulic systems, fuel, electrical, powerplant, rotor and powertrain systems and also assist in performing maintenance operational checks and inspections.

Instruction: Lectures, demonstrations and practical exercises in the skills needed to perform maintenance tasks and to develop the knowledge to replace and check helicopter systems components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in helicopter maintenance (10/89).

Related Occupation Codes: 67R.

AR-1704-0157

AIRBORNE LASER TRACKER (ALT) MAINTENANCE REPAIRER

Course Number: 4D-F4/600-F11.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2 weeks (63 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain airborne laser tracking systems and operate supporting test equipment.

Instruction: Lectures and practical exercises to understand the principles of operation, testing, and maintenance procedures on airborne laser tracking systems.

Credit Recommendation: Credit is not recommended because of the limited-specialized nature of the course (3/88).

AR-1704-0158

AH-64 ATTACK HELICOPTER REPAIRER TRANSITION

Course Number: 600-67R20/30-T.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8-9 weeks (310 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform AH-64 safety check procedures including weapons and external canopy jettison system safety, laser safety, and awareness of turning rotor blades, APU and engine exhaust. The student will be able to distinguish materials and methods of construction in assemblies and structures and identify major airframe sections. The student will be able to assemble the helicopter mounted maintenance crane and maintain and replace airframe components. The student will be able to perform aviation unit maintenance and intermediate maintenance including component removal, installation, adjustment, and requisitioning of repair parts. The student will be able to perform limited visual inspections, identify and maintain common and special tools, identify and select correct fuels and lubricants, and utilize proper shop and flight line safety procedures.

Instruction: Lectures, practical exercises, and examinations on tools and repair manuals, airframe, utility, landing gear, fuel, drive, flight control, rotor, hydraulic, electrical, instrument and avionic, and armament and fire control systems plus powerplant and auxiliary and ground power units.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in helicopter maintenance (3/88).

Related Occupation Codes: 67R.

AR-1704-0159

AIRCRAFT ARMAMENT MISSILE SYSTEMS REPAIRER

Course Number: 646-ASIX1(68J).

Location: Transporation and Aviation Logistics School, Ft. Eustis, Va.

Length: 11-12 weeks (387 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance tasks on the following AH-64 systems: target acquisition and designation, night vision sensor, integrated helmet and display sight, area weapon, aerial rocket control, point target weapons, boresight and chaff.

Instruction: Includes lectures, demonstrations and performance exercises in principles of operation, troubleshooting, testing, component replacement, operational checks, and specialized maintenance procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/88).

Related Occupation Codes: 68J.

AR-1704-0160

UTILITY/CARGO AND OBSERVATION AIRPLANE SUPERVISOR ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 600-67G40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8-9 weeks (229 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Cource contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: In the lower-division baccalaureate/associate degree category

gory, 4 semester hours in administrative mangagement (3/88). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67G.

AR-1704-0161

OV-1 Observation Airplane Technical Inspector

Course Number: 600-66H20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 14-15 weeks (547 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform nondestructive inspections, inspect powerplant hot section, cold section and accessory modules, operate and inspect pneudraulic systems including landing gear, understand the fundamentals and inspection techniques of structural repairs, perform troubleshooting and analyze electrical/electronic systems and compute weight and balance data.

Instruction: Lectures, demonstrations and practical exercises in inspection techniques, procedures, performance evaluation, and operational checks on the powerplant, structure, and systems of aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft structural and systems inspections, 3 in aircraft powerplant inspections and 1 in nondestructive testing (3/88).

Related Occupation Codes: 66H.

AR-1704-0162

Tactical Transport Helicopter Technical Inspector

Course Number: 600-66T20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13 weeks (475 hours).

Exhibit Dates: 10/87-3/90.

Learning Outcomes: Upon completion of the course the student will be able to perform nondestructive inspections, inspect powerplant hot section, cold section and accessory modules, operate and inspect pneudraulic systems including landing gear, understand the fundamentals and inspection techniques of helicopter structural repairs, perform troubleshooting and analyze electrical/electronic systems and compute weight and balance data.

Instruction: Lectures, demonstrations and practical exercises in inspection techniques, procedures, performance evaluation, and operational checks on the powerplant, structure, and systems of helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter structural and systems inspections, 3 in helicopter powerplant inspections and 1 in nondestructive testing (3/88).

Related Occupation Codes: 66T.

AR-1704-0163

AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)

Course Number: 600-67R40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9-10 weeks (173-174 hours). *Version 2:* 8-9 weeks (230 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/87-9/88.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Cource contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in administrative mangagement (3/88). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67R.

AR-1704-0164

UH-60 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)

(Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO))

Course Number: 600-67T40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9-10 weeks (146 hours). *Version 2:* 17-18 weeks (245 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 4/88-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Cource contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in administrative management (3/88). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67T.

AR-1704-0165

CH-47 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)

(CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO))

Course Number: 600-67U40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 8-10 weeks (146-16 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Cource contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in administrative mangagement (10/89). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67U.

AR-1704-0166

Aircraft Component Repairer Supervisor Advanced Noncommissioned Officer (NCO)

Course Number: 600-67K40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 12 weeks (249 hours). *Version 2:* 9-10 weeks (342 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/87-3/90.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Course contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in administrative management (3/88). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67K.

AR-1704-0167

Aircraft Armament/Missile Systems Repairer Supervisor Advanced Noncommissioned Officer (NCO)

(Aircraft Fire Control Systems Supervisor Advanced Noncommissioned Officer (NCO))

Course Number: 600-67J40.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 9-10 weeks (146 hours). *Version 2:* 7-8 weeks (267 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 10/87-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to apply policies and standards of aviation maintenance management, determine training requirements, counsel personnel, apply production and quality control procedures, introduce unit safety programs, conduct maintenance shop performance indicators and inspections, comply with aviation logistics and supply procedures, maintain and confirm the accuracy of aviation forms and records, prepare readiness reports, and be familiar with the operation of data communication hardware and software.

Instruction: Lectures and practical exercises in the administration of a maintenance management program. Cource contains a common core of instruction. See exhibit AR-1404-0035.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in administrative management (3/88). For credit for the common core, see exhibit AR-1404-0035.

Related Occupation Codes: 67J.

AR-1704-0169

ORGANIZATIONAL MAINTENANCE SUPERVISORS

Course Number: LOG 213 (OMS-33).

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (65 hours).

Exhibit Dates: 10/76–Present.

Learning Outcomes: Upon completion of the course, the student will be able to select and interpret the required regulations, manuals, pamphlets, and forms; determine the materials and requirements for establishing on-the-job training, driver training, safety, operations, and readiness programs; select test equipment and perform several common maintenance tests.

Instruction: Lectures and seminars in assembling data and completing various forms and reports necessary to properly supervise an organizational maintenance facility.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-1704-0170

M60-M113A1 SERIES UNIT MAINTENANCE TRAINING

Course Number: TVM 218.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use repair manuals to perform track vehicle maintenance in the areas of suspension systems, fuel systems, exhaust systems, air intake systems, band adjustment on the transmission, and removal and installation of diesel engines; perform troublshooting techniques in the starting, charging, and electrical systems.

Instruction: Lectures and laboratory exercises in troubleshooting the electrical systems with proper test equipment and performing track vehicle maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance procedures (10/88).

AR-1704-0171

WHEEL AND POWER GENERATION UNIT MAINTENANCE

Course Number: WPG-222.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (112 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to locate, operate, and troubleshoot using test equipment on light and heavy trucks to isolate and repair faults in the cooling, air, fuel, and electrical systems; able to locate, operate, and troubleshoot using test equipment on small to large portable power generators to isolate and repair/replace components in the mechanical and electrical systems.

Instruction: Conference and practical exercises. Topics include safety, basic electrical and mechanical fundamentals on automotive and power generating equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance procedures (10/88).

AR-1704-0172

AIR TRAFFIC CONTROL SYSTEMS, SUBSYSTEMS, AND EQUIPMENT REPAIRER SUPERVISOR ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 102-93D40.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 8-9 weeks (326-332 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as a noncommissioned officer in MOS 93D40.

Instruction: Topics include aviation subjects in general, field site training, and related skills, with an emphasis on maintenance supervision.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hour in maintenance management. For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 93D40.

AR-1704-0173

FLIGHT OPERATIONS BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 556-93P30.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide leadership in flight operations facility.

Instruction: Studies in leadership, military skills, professional skills, resource management, training management, airfield procedures, tactical operations, flight planning procedures, vehicle loading, marshalling procedures, field management training, supervision of dispatch and flight planning area and publications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in airfield/airport operations management (4/90). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 93P.

AR-1704-0174

FLIGHT OPERATIONS ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 556-93P40.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 8-9 weeks (324-333 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide supervision, management, and training in a flight operations facility.

Instruction: Topics include aviation safety, administrative procedures, flight programs, field training, tactical operations, and reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic management (4/90); in the upper-division baccalaureate category, 3 semester hours in advanced airfield/airport operations management (4/90). For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 93P.

AR-1704-0175

AIR TRAFFIC CONTROL OPERATOR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 222-93C30.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 4 weeks (153 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide basic leadership in an air traffic control facility.

Instruction: Training in leadership, professional skills, resource management, training management, air traffic control facility operations, administration, training programs, and supervisory tasks for fixed-base and tactical operations.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090.

Related Occupation Codes: 93C.

AR-1704-0176

AIR TRAFFIC CONTROL OPERATOR ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 222-93C40.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 9 weeks (326-345 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the site and field training for air traffic control facilities.

Instruction: Lectures and practical exercises in unit training and administration, supply, communications and security management, preventive medicine and survival, civil operations, air traffic control procedures, personnel management and training, facility management, advanced air traffic control procedures, site selection, and field training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic management (4/90); in the upper-division baccalaureate category, 3 semester hours for field experience in air traffic control (4/90). For credit for the common core, see AR-1404-0035.

Related Occupation Codes: 93C.

AR-1704-0177

AIR TRAFFIC CONTROL OPERATOR

Course Number: 222-93C10.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 12-15 weeks (457-541 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, enlisted personnel will be able to perform air traffic control duties at apprentice level knowledge of visual flight rules (VFR), instrument flight rules (IFR), air traffic control regulations, concepts, and procedure.

Instruction: Includes lectures and practical experience in basic air traffic control VFR and IFR, and control tower operations, including aviation weather, Federal Aviation Regulation and air traffic control procedures in radar and GCA and tactical ATC equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (4/90).

AR-1704-0178

FLIGHT OPERATIONS COORDINATOR

Course Number: 556-93P10.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 7 weeks (250 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to schedule and coordinate aircraft flight operations and perform related support functions.

Instruction: Lecture and practical exercises to include: land navigation, aeronautical charts, flight information publications, notices to airmen, airfield operations, administration and communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation flight operations (4/90).

AR-1704-0179

AVIONICS EQUIPMENT MAINTENANCE SUPERVISOR ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 102-35P40.

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 8–9 weeks (313–331 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to implement effective group communications, resource management, quality control, and leadership functions.

Instruction: Topics include leadership, communication skills, training management, supervision of aviation/avionics communications and electrical/electronic systems equipment.

Credit Recommendation: Credit for the common core only. See AR-1404-0035.

Related Occupation Codes: 35P.

AR-1704-0180

AH-64 AIRCRAFT POWERTRAIN REPAIRER

Course Number: 602-ASIX1 (68D).

Location: Army Aviation Center, Ft. Rucker, AL.

Length: 3-4 weeks (115 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform aviation maintenance on the AH-64 attack helicopter powertrain systems and allied equipment.

Instruction: Consists of lectures, demonstrations, and hands-on disassembly, repair, and assembly of all gear boxes and transmission of the AH-64 helicopter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in powertrain repair (aircrafts) (4/90).

AR-1706-0001

REPRODUCTION EQUIPMENT REPAIR

Course Number: 690-41K20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 14 weeks (514 hours).

Exhibit Dates: 4/66–5/72.

Objectives: To train enlisted personnel to repair major reproduction equipment, including copy camera, specific offset presses and bindery equipment.

Instruction: Lectures and practical exercises in the repair of reproduction equipment. Course includes parts orientation; introduction to electricity; introduction to copy camera (24 X 30); introduction to plate-making equipment; and introduction to offset press (ATF Chief 29 DP).

Credit Recommendation: In the vocational certificate category, 3 semester hours in graphic arts (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in graphic arts (7/74); in the upper-division baccalaureate category, 3 semester hours in graphic arts (7/74).

Related Occupation Codes: 41K.

AR-1706-0002

MECHANICAL MAINTENANCE (MM-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

Course Number: 6-MM-C40B.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10 weeks (335 hours).

Exhibit Dates: 3/72–6/85.

Objectives: To qualify enlisted personnel as noncommissioned officers, supervising the repair of office machines.

Instruction: Lectures and practical exercises in the repair of office machinery. Subject matter includes techniques of leadership, supply and maintenance procedures, and business machine repair techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in business machine repair technology (5/74).

Related Occupation Codes: 41J.

AR-1706-0003

OFFICE MACHINE REPAIR

Course Number: *Version 1:* 670-41J20. *Version 2:* 670-41J20; 670-465.1. *Version 3:* 670-465.1; 10-R-465.1; 10-R-463.2; 10-E-8.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 21 weeks (664–666 hours). *Version 2:* 26 weeks (791–906 hours). *Version 3:* 26 weeks (904–910 hours).

Exhibit Dates: *Version 1:* 5/73–1/88. *Version 2:* 5/65–4/73. *Version 3:* 3/56–4/65.

Objectives: To train enlisted personnel to repair and adjust typewriters, adding machines, calculators, and duplicating machines.

Instruction: Lectures and practical exercises in repair and adjustment of typewriters, adding machines, calculators, and duplicating machines, including parts analysis, maintenance and troubleshooting of specific types and makes of office equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in typewriter repair, and 5 in calculator repair (5/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in business machine technology (5/74). *Version 2:* In the vocational certificate category, 8 semester hours in typewriter repair, and 5 in calculator repair (5/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in business machine technology (5/74). *Version 3:* In the vocational certificate category, 11 semester hours in typewriter repair, 6 in calculator repair, and 1 in duplicator repair (5/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in business machine technology (5/74).

Related Occupation Codes: 41J.

AR-1706-0004

1. PUNCH CARD MACHINE REPAIR
2. TABULATING EQUIPMENT REPAIR (Electrical Accounting Machine Repair)

Course Number: *Version 1:* 150-34B10. *Version 2:* 150-34B20; 11-R-302.1.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 22–36 weeks (811–1352 hours).

Exhibit Dates: *Version 1:* 3/79–5/84. *Version 2:* 6/62–2/79.

Objectives: To train enlisted personnel as electrical accounting and tabulating machines and automatic data processing system auxiliary equipment repairmen.

Instruction: Lectures and practical exercises in electrical accounting machine repair, including supply procedures and catalogs; electrical fundamentals; functional units of EAM; key punching and verifying; specific transceiver system; interpreting; reproducing; specific accounting; card processor; PCM sorting; and collating equipment. Course currently emphasizes card punches and card verifiers, alphameric collator, card transmission terminal and card sorting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical-mechanical laboratory (11/81). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 4 in electrical laboratory, and 10 in accounting machines (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory, and 2 in basic electricity on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, 4 semester hours in electrical laboratory, and 2 in basic electricity on the basis of institutional evaluation (6/74).

Related Occupation Codes: 34B.

AR-1706-0006

OFFICE MACHINE REPAIRER

Course Number: 670-41J10.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 11-12 weeks (414 hours). *Version 2:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 5/83–Present. *Version 2:* 4/80–4/83.

Objectives: To train enlisted personnel in basic repair and adjustment of office machines.

Instruction: *Version 1:* Students will learn basic electricity through practical exercises, television, conferences, demonstrations, and examinations. Included are schematics and wiring diagrams and operation of electrical test equipment, and office repair. *Version 2:* This course trains individuals in the repair and adjustment of duplicating machines, electrical and nonelectrical adding machines. This is accomplished through practical exercises, programmed instruction, television, conferences and seminars, and examinations in office machine repair and in the use and care of tools.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester

hours in office machine repair, 1 in electricity (8/85); *Version 2:* In the vocational certificate category, 6 semester hours in office machine repair (8/85).

Related Occupation Codes: 41J

AR-1706-0007

OFFICE MACHINE REPAIRER BASIC TECHNICAL

Course Number: 670-41J30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2-8 weeks (92 hours).

Exhibit Dates: 1/84-Present.

Objectives: To train enlisted personnel as office machine repair shop supervisors.

Instruction: Practical exercises, inspections, lectures, and demonstrations in the repair of office machines and in the supervision of an office machine repair shop.

Credit Recommendation: In the vocational certificate category, 2 semester hours in office machine repair, 1 in basic supervision (8/85).

Related Occupation Codes: 41J.

AR-1708-0001

WATERCRAFT OPERATOR SPECIALIST CANDIDATE

Course Number: 062-61B30-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (500 hours).

Exhibit Dates: 11/70-10/72.

Objectives: To teach selected enlisted personnel already qualified as watercraft operators to perform as senior supervisors in watercraft operations.

Instruction: Consists of classes in leadership; personnel administration and duties; communications; ship handling; safety at sea; and care and maintenance of vessel.

Credit Recommendation: In the vocational certificate category, 6 semester hours in transportation and watercraft operations (2/74).

Related Occupation Codes: 61B.

AR-1708-0002

SEAMAN

Course Number: 062-61A10.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (106-111 hours).

Exhibit Dates: 6/71-8/74.

Objectives: To train enlisted personnel to perform as seamen.

Instruction: Lectures and practical exercises in the duties of a seaman, including marine terminology, rigging, emergency drills, water safety, watch standing, deck equipment, vessel deck operations, shipboard customs, U.S. Army vessels, hand and power tools, painting, fire fighting, operational maintenance, and fundamentals of internal defense and internal development training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in seamanship (6/74).

Related Occupation Codes: 61A; 61B; 61C.

AR-1708-0003

POLAR NAVIGATION

Course Number: 55-B-F9.

Location: Transportation School, Ft. Eustis, VA.

Length: 9 weeks (315-332 hours).

Exhibit Dates: 4/58-12/68.

Objectives: To train commissioned and warrant officers in the fundamentals of terrestrial and celestial polar navigation.

Instruction: Lectures and practical exercises in polar navigation, including capabilities and limitations of personnel, arctic survival, navigational instruments, celestial navigation, mathematics, charts, projections and maps, communication and signals, courses and bearings, weather principles, special subjects, surveying, survival tactics, and map and aerial photograph reading.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in navigation or general science (5/74); in the upper-division baccalaureate category, 6 semester hours in navigation (12/68).

AR-1708-0004

SEAMAN

Course Number: 813-5600; 55-R-560.0; 55-E-51.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-10 weeks (213-350 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To train enlisted personnel to assist in the operation, maintenance, and repair of all types of harbor craft, landing craft, and floating equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of all types of harbor craft, landing craft, and floating equipment, including piloting, marine engine theory, survival techniques, small boats, cargo operations, basic seamanship and crew duties, international Morse code, navigational aids and charts, and engine diagnosis and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AR-1709-0001

STILL PHOTOGRAPHY

Course Number: 400-84B20; 11-R-841.1; 11-E-7.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12-13 weeks (432-478 hours).

Exhibit Dates: 3/57-1/78.

Objectives: To provide enlisted personnel with a working knowledge of the techniques required to take existing-light and flash, and black and white and color photographs of ground and aerial subjects for technical, tactical, and information purposes; and to provide basic darkroom instruction to students with limited experience.

Instruction: Lectures and appropriate practical experiences in basic photography (camera, lens, exposure meter, film processing, contact printing and composition); flash photography (bulb and electronic); military news and information photography (35mm and press-type cameras); tactical air and ground photography; 35mm camera instruction (photo copying included); color slide instruction.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography on the basis of portfolio review (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68).

Related Occupation Codes: 84B.

AR-1709-0002

PHOTOGRAPHIC LABORATORY OPERATION

Course Number: 400-84G20; 11-R-843.1; 11-R-840.0; 11-E-20.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10-15 weeks (356-554 hours).

Exhibit Dates: 10/55-1/78.

Objectives: To train enlisted personnel in the principles and techniques of photographic processing as required to produce negatives and prints from film shot for technical, tactical, or public relations purposes.

Instruction: Laboratory experience in processing black and white negatives, in making contact and projection prints; experience in mounting and processing projection slides; aerial and ground reconnaissance strip processing; assembly processing motion picture film; physics and chemistry of processing; quality control of color printing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photographic laboratory (12/73); in the upper-division baccalaureate category, 5 semester hours in photographic laboratory (12/68).

Related Occupation Codes: 84G.

AR-1709-0003

PROCESS PHOTOGRAPHY

Course Number: 740-83D20; 740-833.1; 5-E-52.

Location: Engineer School, Ft. Belvoir, VA.

Length: 7-9 weeks (304-360 hours).

Exhibit Dates: 2/56-11/86.

Objectives: To provide selected enlisted personnel with a working knowledge of the basic skills of copy camera operation, with emphasis on line copying and halftone screening. Copy camera operaton; film processing;

Instruction: exposure determination; line copying techniques; photographic filters; continuous tone copying; halftone screening with the halftone-magenta contact screen.

Credit Recommendation: In the vocational certificate category, 3 semester hours in graphic arts (12/73).

Related Occupation Codes: 82D; 83Z.

AR-1709-0004

MOTION PICTURE PHOTOGRAPHY

Course Number: 400-84C20; 11-R-841.2; 11-E-3.

Location: Signal School, Ft. Monmouth, NJ.

Length: 14 weeks (616 hours).

Exhibit Dates: 11/55-1/78.

Objectives: To train enlisted personnel in motion picture photography, including camera operation, film exposure and processing, image composition, screen direction, film editing, and basic sound techniques.

Instruction: Basic studies in the principles of camera operation, shutter and lens settings, tripod and hand-held filming, use of wide angle and telephoto lenses, framing and composition, use of filters, and film processing; controlled and uncontrolled experiences with applications of interior lighting techniques, tactical air cinematography, color filming, single/double system sound, silent and sound film editing, and television applications; operation of the Arriflex, Magnasync recording system, quarter-inch tape systems; assignments in news filming and multimedia presentations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68).

Related Occupation Codes: 84C; 84B; 84G.

AR-1709-0005

Intelligence Photography

Course Number: 3A-F3; 244-F3.

Location: Intelligence School, Ft. Huachuca, AZ; Intelligence School, Ft. Holabird, MD.

Length: 8-9 weeks (244-271 hours).

Exhibit Dates: 9/66-1/79.

Objectives: To provide selected intelligence personnel with a working knowledge of the theory, techniques, and applications of photography in the intelligence field.

Instruction: Camera lens and shutter relationships; depth of field; exposure, filters, flash, polaroid photography; the rangefinder camera; single-lens-reflex cameras; subminiature photography; photo chemicals; sheet, miniature, and subminiature film development; contact and projection printing; photographic maintenance; infrared and ultraviolet photography; composition; theory of color; color chemicals; negative and positive color processing; color printing and slide duplication.

Credit Recommendation: in the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography (6/79); in the upper-division baccalaureate category, 3 semester hours in photography (6/79).

AR-1709-0006

1. Pictorial Unit Commander and Motion Picture and Television Director
2. Pictorial Unit Commander (Photographic Unit Commander)

Course Number: *Version 1:* 7F-8500; 7F-8511; 4C-8500; 4C-8511. *Version 2:* 11-A-8500; 11-O-39.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 9 weeks (356-360 hours). *Version 2:* 10 weeks (354-360 hours).

Exhibit Dates: *Version 1:* 2/67-1/78. *Version 2:* 8/55-1/67.

Objectives: To train commissioned officers to direct, administer, and supervise still and motion-picture photographic, audiovisual, and television activities.

Instruction: Lectures and practical exercises in supervision of still and motion-picture activities. Course includes still photography, and laboratory practices and supervision (camera operation, film development, contact and projection printing, photo laboratory operation, aerial photography, and color processing and printing); motion-picture photography, and laboratory practices and supervision (camera operation, exposure, editing, production techniques, operation of 16mm sound camera, evaluation); tape recorder operation; and television production techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in photography or audio-visual aids on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in photography or audio-visual aids on the basis of institutional evaluation (7/74), in the upper-division baccalaureate category, 12 semester hours in photography (12/68). *Version 2:* In the vocational certificate category, 2 semester hours in photography or audio-visual aids on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in photography or audio-visual aids on the basis of institutional evaluation (7/74).

AR-1709-0007

Photogrammetric Compilation

Course Number: 411-81D30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (370-378 hours).

Exhibit Dates: 3/67-5/71.

Objectives: To train enlisted personnel in the principles and techniques of photogrammetric map compiling.

Instruction: Lectures and practical exercises in the principles and techniques of photogrammetric map compiling. Course includes the principles, operation, and application of multiplex equipment, the high-precision stereoplotter, and photogrammetric problem solving.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photogrammetry on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in photogrammetry on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in photogrammetry (12/68).

Related Occupation Codes: 81D.

AR-1709-0008

Image Interpretation Officer
(Photointerpretation Officer)

Course Number: 30-A-8503.

Location: Intelligence School, Ft. Holabird, MD.

Length: 19-24 weeks (665-804 hours).

Exhibit Dates: 7/57-12/68.

Objectives: To train commissioned officers to perform tactical air photo interpretation.

Instruction: Lectures and practical exercises in the techniques and principles of air photo interpretation. Course includes relationships between intelligence and photo interpretation; specialized photo interpretation techniques and procedures, such as stereography, negative transparency interpretation, color photography, geometry of vertical photographic images, photo interpretation keys, identification of civilian and military objects and activities, small-scale photography, long-focal-length photography, and infrared and electronics interpretation; photogrammetry instruction includes basic mensuration techniques dealing with oblique images, scales, and dimensions; mechanics instruction includes flight planning, grids, stereocomparagraphs, restitution, rectification, plotting, and mosaics; terrain instruction includes recognition and analysis of ground conditions, including areas of military and civilian interest.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in photographic interpretation (12/68).

AR-1709-0009

Forensic Photographer
(Photographic Evidence Technician)

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 104 weeks (3528 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To qualify personnel as forensic photographers and as expert witnesses in forensic photography in judicial proceedings.

Instruction: Topics include history and principles of photography optics and the nature of light, cameras and related photographic equipment, sensitized photographic materials, exposure and lighting techniques, flash and strobe photography, filters, photographic processing and printing, densitometry and quality control systems, color photography, police photography and the forensic science laboratory, firearms, fingerprint, document and crime scene photography, ultraviolet and infrared photography, photomacrography, photomicrography, legal considerations involving photography, detection of retouching of negatives and prints, masking and internegative procedures, production and reproduction of transparencies, advanced camera techniques, darkroom planning and management.

Credit Recommendation: In the vocational certificate category, 30 semester hours in forensic photography (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic forensic science, 6 in basic photography, 6 in police photography, 3 in automated processing equipment, 3 in color photography, and 6 in criminal investigations, for a total of 30 semester hours (4/78); in the upper-division baccalaureate category, 3 semester hours in forensic science, 6 in photomacrography and photomicrography, and 0-3, for the research work based on the receiving institution's review of the student's project (4/78); in the graduate degree category, 0-9 semester hours based on the student's research project to be assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and the practical applied experience required (4/78).

Related Occupation Codes: 951A.

AR-1709-0010

1. Aerial Sensor Specialist (OV-1D)
2. Aerial Sensor Specialist Entry Level

Course Number: 221-96H10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 10 weeks (305-372 hours).

Exhibit Dates: *Version 1:* 5/80-Present. *Version 2:* 4/79-4/80.

Objectives: To train enlisted military personnel in operation and maintenance of an aerial sensing system.

Instruction: Lectures and practical application in the operation and maintenance of an aerial sensing system.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (5/82). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in aerial navigation, 3 in aerial photography (6/79).

Related Occupation Codes: 96H.

AR-1709-0011

Still Documentation Specialist Basic Noncommissioned Officer (NCO)

Course Number: G3AZR23172-002.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (216 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to manage a still photography team in performing visual information support services including darkroom development and printing. Student will plan, supervise, and direct the operation of the team and the maintenance of the photography equipment and portable facilities at a fixed installation or under combat conditions. The student will be able to plan mobile support operations for training, documentation and briefing requirements.

Instruction: Lectures and practical exercises reinforced by application in a field operational test where the unit must plan and execute a move to support a military operation requiring visual information. Course also contains a common core of leadership subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in the management of a photographic service (5/90). For credit for the common core, see AR-1406-0090.

AR-1710-0001

1. WATERCRAFT ENGINEER CERTIFICATION
   (Watercraft Engineer)
2. WATERCRAFT ENGINEER CERTIFICATION
   (Watercraft Engineer)
3. WATERCRAFT ENGINEER
   (Junior Marine Engineman)
4. MARINE ENGINEER
5. MARINE ENGINE OPERATION AND MAINTENANCE
6. MARINE ENGINE OPERATION AND MAINTENANCE

Course Number: *Version 1:* 652-88L10. *Version 2:* 652-61C10. *Version 3:* 652-61C10. *Version 4:* 652-61C20. *Version 5:* 652-61C20. *Version 6:* 55-R-565.1; 55-E-10.

Location: Transportation and Aviation Logestics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 10 weeks (360 hours). *Version 2:* 8-9 weeks (311 hours). *Version 3:* 9-10 weeks (298-301 hours). *Version 4:* 6-7 weeks (215-245 hours). *Version 5:* 5 weeks (184 hours). *Version 6:* 7-9 weeks (245-311 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/84-9/88. *Version 3:* 3/79-9/84. *Version 4:* 9/69-2/79. *Version 5:* 11/66-8/69. *Version 6:* 8/55-10/66.

Objectives: To train enlisted personnel to maintain diesel engines, fuel injection systems, and marine electrical systems.

Instruction: *All Versions:* Lectures and practical experience in the operation and maintenance of diesel engines, pumps, air compressors, governors, and lubricating,cooling, hydraulics,fuel injection, and electrical systems. *Version 1:* Pending evaluation. *Version 2:* Course included diesel engine systems, electical systems, damage control and marine safety and seamanship. *Version 3:* Includes operation and maintenance of diesel engines. *Version 4:* Instruction includes outboard motor maintenance.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine diesel engine systems (10/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 5 semester hours in diesel technology and 1 in industrial safety (3/83). *Version 4:* In the vocational certificate category, 5 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74). *Version 5:* In the vocational certificate category, 3 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74). *Version 6:* In the vocational certificate category, 4 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in marine technology, diesel technology, or heavy equipment repair (4/74).

Related Occupation Codes: 88L; 61A; 61C.

AR-1710-0002

SURFACING MACHINE OPERATION
(Surfacing Machine Operator)

Course Number: 5-E-55.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (359 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train enlisted personnel to operate and maintain various types of asphalt and concrete mixing and surfacing equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of various types of asphalt and concrete mixing and surfacing equipment, including principles of engines, air compressors and attachments, asphalt plant operation and attachments, preparation of bituminous surfaces, concrete construction, installation of steel permanent forms, concrete pavers, mixers, spreaders, and finishers, and supervisory duties pertaining to concrete and asphalt projects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in civil technology, 10 in heavy equipment operation (4/74).

AR-1710-0003

TURRET MAINTENANCE
(Armor Turret Maintenance)

Course Number: 643-424.1, 17-R-424.1; 17-R-131.1.

Location: Armor School, Ft. Knox, KY.

Length: 10 weeks (371-378 hours).

Exhibit Dates: 9/58-12/68.

Objectives: To train enlisted personnel to perform, direct, and maintain armament installations and the mechanical, electrical, and hydraulic components of armament systems.

Instruction: Lectures and practical exercises in armament components repair, including disassembly, inspection, assembly, maintenance, turret familiarization, fire control systems, technical manuals and maintenance forms, tools care and usage, basic electricity, electronics, and hydraulics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in mechanical or industrial technology (4/74).

Related Occupation Codes: 45G, 45Z.

AR-1710-0004

UTILITIES FOREMAN

Course Number: 5-E-20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11 weeks (417 hours).

Exhibit Dates: 10/54-12/68.

Objectives: To train noncommissioned officers to supervise the installation and repair of utilities systems in military barracks, sheds, warehouses, mess halls, hospitals, and laboratories.

Instruction: Lectures and practical exercises in utility maintenance at the advanced level. Course includes the construction and repair of water supply and sewage disposal systems; waste collection and disposal; insect and rodent control; sheet metal work; plumbing; fire prevention; construction materials; operation of gasoline and diesel engines; maintenance and repairs of electrical systems; refrigeration equipment; use of construction drawings; construction planning; and maintenance and repair of building and structures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in building construction and supervision (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in building construction and supervision (6/74); in the upper-division baccalaureate category, 3 semester hours in building construction and supervision (6/74).

AR-1710-0005

RAILWAY SECTION FOREMAN

Course Number: 55-E-33.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to supervise section gangs in the maintenance of railway tracks, roadbeds, switches, and appurtenant structures.

Instruction: Lectures and practical exercises in the supervision of railway track, roadbed, switch, and appurtenant structure maintenance, including supervisory responsibilities, railway signals, track structures, ballast, cross and switch tie maintenance, curves, turnout construction, and maintenance of way records and reports.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

AR-1710-0006

RAILWAY CAR REPAIR

Course Number: 55-E-5.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/55-3/62.

Objectives: To train enlisted personnel to repair and overhaul passenger and freight cars.

Instruction: Lectures and practical exercises in the repair and overhaul of passenger and freight cars, including arc welding, cutting, brazing, spray and brush painting, and repair of brake components, trucks, draft gears, and couplers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in welding, 7 as an elective in heavy equipment repair (4/74).

Related Occupation Codes: 65D.

AR-1710-0007

RAILWAY SHOP FOREMAN

Course Number: 55-E-34.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 1/56–12/68.

Objectives: To train enlisted personnel to supervise the repair, disassembly, inspection, and overhaul of railway equipment.

Instruction: Lectures and practical exercises in the supervision of railway equipment repair, disassembly, inspection, and overhaul, including shop operation procedures; mathematics; blueprint reading; steam locomotive running gear, boiler, and integral parts; special equipment; diesel and electric operation; and supervisory responsibilities.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

AR-1710-0008

Steam Locomotive Repairman

Course Number: 55-E-9.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/55–3/62.

Objectives: To train enlisted personnel to inspect, test, repair, and maintain steam-operated locomotives, tenders, tank cars, and material constructed of heavy steel plate, and to maintain railway and similar-type boilers and railway motive-power and allied equipment.

Instruction: Lectures and practical exercises in the inspection, testing, repair, and maintenance of steam-operated locomotives, tenders, tank cars, and material constructed of heavy steel plate, and the maintenance of railway and similar-type boilers and railway motive-power and allied equipment, including welding procedures, steam engine construction, and machine shop.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to machine shop; in the lower-division baccalaureate/associate degree category, 1 semester hour in arc and oxyacetylene welding, 1 in introduction to machine shop, and 5 as an elective in heavy equipment repair (4/74).

Related Occupation Codes: 65B.

AR-1710-0009

Mobile Electric Power Generation

Course Number: 662-52B20; 662-52B30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 7–10 weeks (269–351 hours).

Exhibit Dates: 5/71–4/79.

Objectives: To train enlisted personnel to install, operate, and maintain portable, gasoline and diesel engine generator sets, electric arc welders, and associated equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of portable, gasoline and diesel engine generator sets, electric arc welders, and associated equipment, including AC and DC power generation, basic electricity, maintenance management, various circuits, internal-combustion engine systems analysis, and mobile electric power generation systems and equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial electrical apprenticeship (9/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 1 in introduction to internal-combustion engines (9/79).

Related Occupation Codes: 52B; 52C; 52D.

AR-1710-0010

Mobile Electric Power Generation (Precise)

Course Number: 662-52B30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 2–3 weeks (86 hours).

Exhibit Dates: 1/72–7/75.

Objectives: To train power generation equipment operators and mechanics to install, operate, and maintain precise-power generators, motor generators, and associated equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of precise-power generators, motor generators, and associated equipment, including power performance requirements of various generators, emergency power transfer, and maintenance of facilities.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

Related Occupation Codes: 52B; 52C; 52D.

AR-1710-0011

Amphibious Truckmaster

Course Number: 55-R-641.6; 55-E-41.

Location: Transportation School, Ft. Eustis, VA.

Length: 15 weeks (525 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to supervise amphibious wheeled vehicle transport operations.

Instruction: Lectures and practical exercises in the supervision of amphibious wheeled vehicle transport operations, including function of an amphibious unit, field expedients, engine troubleshooting and maintenance, convoy organization, communications, nautical operations, vehicle recovery, cargo handling, and planning and control operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

AR-1710-0012

Mechanical Maintenance Warrant Officer Intermediate (421A)

Course Number: 4-9-C30-A.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 16 weeks (498 hours).

Exhibit Dates: 7/72–1/84.

Objectives: To train armament repair technicians to supervise general support and depot support maintenance.

Instruction: Lectures and practical exercises in the supervision of general support and depot support maintenance, including leadership and managerial studies, information systems, maintenance management studies, machine and welding operations, hydraulic principles and system components, review of electricity, various circuits, motors and generators, semiconductors and transistors, ignition systems, and armament specialty subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in mechanical or industrial technology, and 4 as an elective in business management (4/74); in the upper-division baccalaureate category, 2 semester hours as an elective in business management (4/74).

Related Occupation Codes: 421A; 441A; 630A; 631A; 632A.

AR-1710-0013

Mechanical Maintenance Warrant Officer Intermediate (441A)

Course Number: 4-9-C30-B.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 18 weeks (544 hours).

Exhibit Dates: 7/72–1/84.

Objectives: To train automotive maintenance technicians to maintain and test electrical and fuel systems in automotive and support vehicles and to supervise supply maintenance functions.

Instruction: Lectures and practical exercises in leadership and management; management information systems; maintenance management; machine shop, welding, metal body works, and automotive testing equipment review; and electricity and electronics review.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in business management, 4 in mechanical technology or industrial technology, and 2 in automotive or diesel mechanics (4/74); in the upper-division baccalaureate category, 2 semester hours as an elective in business management (4/74).

Related Occupation Codes: 441A.

AR-1710-0014

Mechanical Maintenance Warrant Officer Intermediate (631A)

Course Number: 4-9-C30-D.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 17 weeks (516 hours).

Exhibit Dates: 7/72–1/84.

Objectives: To train automotive maintenance technicians to maintain and test electrical and fuel systems in automotive and support vehicles and to supervise supply maintenance functions.

Instruction: Lectures and practical exercises in leadership and management; management information systems; maintenance management; machine shop, welding, metal body works, and automotive testing equipment review; and electricity and electronics review.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in business management, 4 in mechanical technology or industrial technology, and 2 as an elective in automotive technology (4/74); in the upper-division baccalaureate category, 2 semester hours as an elective in automotive technology (4/74).

Related Occupation Codes: 631A.

AR-1710-0015

Quartermaster Equipment Repair Supervision

Course Number: 10-E-31.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6 weeks (210 hours). *Version 2:* 10 weeks (347 hours).

Exhibit Dates: *Version 1:* 4/57–12/68. *Version 2:* 1/55-3/57.

Objectives: To train quartermaster equipment repairmen to supervise the repair of quartermaster mechanical equipment.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of the repair of quartermaster mechanical equipment, including electrical components, internal-combustion engines, materiel-handling equipment, laundry equipment, bath units, POL equipment, bakery units, burner equipment, and special-purpose vehicles. *Version 1:* Includes supervision, leadership, and speech training. *Version 2:* Emphasizes technical subject matter.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours as an elective in industrial technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supervision, and 3 semester hours as an elective in industrial technology (4/74). *Version 2:* In the vocational certificate category, 5 semester hours as an elective in industrial technology (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours as an elective in industrial technology (4/74).

AR-1710-0016

Engineer Equipment Repair

Course Number: 612-62B30; 612-622.2.
Location: Engineer School, Ft. Belvoir, VA.
Length: 9 weeks (281-342 hours).
Exhibit Dates: 7/65-1/88.

Objectives: To train engineer equipment mechanics to repair engineer construction, earth-moving, and support-type equipment and powered bridging equipment.

Instruction: Lectures and practical exercises in the repair of engineer construction, earth-moving, and support-type equipment and powered bridging equipment, including operation, construction, troubleshooting, and overhaul of 2- and 4-cycle diesel engines; repair of power trains, hydraulic systems, brakes, various parts of heavy construction equipment, operation of air compressors, hydraulic systems, and equipment components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel engine technology, 2 in heavy equipment technology, 1 in automotive power trains (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology, 2 in heavy equipment technology, 1 in automotive power trains (4/74).

Related Occupation Codes: 62B.

AR-1710-0017

Antiaircraft Artillery (AAA) Repair

Course Number: 9-R-423.1; 9-E-77.
Location: Ordnance School, Aberdeen Proving Ground, MD.
Length: 7 weeks (245-342 hours).
Exhibit Dates: 5/56-12/68.

Objectives: To train enlisted personnel to repair and rebuild antiaircraft artillery equipment.

Instruction: Lectures and practical exercises in the repair and rebuilding of light, medium, and heavy antiaircraft artillery weapons, including equipment maintenance and operation of specific machine gun mounts and artillery weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

AR-1710-0018

Tank Turret Repair
(Turret Artillery Repair)

Course Number: *Version 1:* 643-45K20. *Version 2:* 643-45K20. *Version 3:* 643-45K30; 643-45G30; 9-R-424.1; 9-E-31.
Location: Ordnance School, Aberdeen Proving Ground, MD.
Length: *Version 1:* 16 weeks (536 hours). *Version 2:* 15 weeks (489 hours). *Version 3:* 9-11 weeks (318-385 hours).
Exhibit Dates: *Version 1:* 7/76-1/87. *Version 2:* 4/74-6/76. *Version 3:* 5/56-3/74.

Objectives: To train enlisted personnel to evaluate and repair tank turret systems.

Instruction: *Version 1:* Lectures and practical experience in the evaluation and repair of mechanical, electrical, electronic and hydraulic systems on tank turrets and cupolas including the breech mechanism and firing components. *Version 2:* Lectures and practical exercises in the maintenance of the mechanical, electrical, electronic, and hydraulic components and systems of the armament installed in tank turrets, armored reconnaissance vehicles, and cupolas mounted on armored personnel carriers, including basic electricity and electronics, hydraulics, and disassembly, inspection, and assembly procedures for armament components. *Version 3:* Lectures and practical exercises in the maintenance of the mechanical, electrical, electronic, and hydraulic components and systems of the armament installed in tank turrets, armored reconnaissance vehicles, and cupolas mounted on armored personnel carriers, including basic electricity and electronics, hydraulics, and disassembly, inspection, and assembly procedures for armament components.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical, electrical/electronic systems (1/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in tools, measuring devices, and instrumentation (6/75). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in mechanical or industrial technology (4/74).

Related Occupation Codes: 45K, 09B.

AR-1710-0019

Quartermaster Equipment Repair

Course Number: 10-R-463.1; 10-E-32.
Location: Quartermaster School, Ft. Lee, VA.
Length: 14 weeks (490 hours).
Exhibit Dates: 3/56-12/68.

Objectives: To train enlisted personnel to install, adjust, and repair quartermaster equipment.

Instruction: Lectures and practical exercises in basic electricity, including parallel and series circuits, Ohm's law, control devices, test equipment, electrical motors, generators, and batteries; brazing, carpentry, and pipe fitting; fork lift operation and repair; laundry and bakery equipment; fuel storage and handling; and minor maintenance and troubleshooting of internal-combustion engines.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to internal-combustion engines (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to internal-combustion engines, and 7 as an elective in industrial or mechanical technology (4/74).

AR-1710-0020

Tank Turret Mechanic

Course Number: *Version 1:* 643-45N10. *Version 2:* 643-45N20.
Location: Armor School, Ft. Knox, KY.
Length: 8-9 weeks (286-288 hours).
Exhibit Dates: *Version 1:* 4/76-9/86. *Version 2:* 4/73-3/76.

Objectives: To train enlisted personnel to operate and maintain the mechanical, electrical, and hydraulic components of a tank turret system.

Instruction: *All Versions:* Lectures and practical exercises in tank turret system operation and maintenance, including armament component repair, disassembly, inspection, maintenance procedures, assembly, safety procedures, basic electricity and hydraulics, and maintenance of armament for tanks. *Version 1:* Greater emphasis is placed on electrical technology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electrical technology, 3 as an elective in mechanical or industrial technology (2/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in mechanical or industrial technology (4/74).

Related Occupation Codes: 45N; 09B.

AR-1710-0021

Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Basic
(Electrical Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic)
(Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic)
(Electric/Electronic Devices Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 6-634-C40; 7-521-C40; 1-352-C40; 6-MM-C40; 6-MM-C40C.
Location: Engineer School, Ft. Belvoir, VA.
Length: *Version 1:* 6-7 weeks (174-207 hours). *Version 2:* 12 weeks (379-384 hours).
Exhibit Dates: *Version 1:* 8/75-5/78. *Version 2:* 6/72-7/75.

Objectives: To train power generator equipment repairmen, engineer equipment repairmen, and engineer specialists to supervise the repair and maintenance of mechanical equipment.

Instruction: Lectures and practical exercises in the supervision of mechanical equipment repair and maintenance, including hydraulics, diagnostic techniques, repair of air compressors and electrical generators, management, electricity, gasoline and diesel engines, equipment systems and component repair, and options in missiles, power generation, or construction equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in mechanical maintenance supervision (12/78). *Version 2:* In the vocational certificate category, 7 semester hours as an elective in mechanical or industrial technology (4/74); in the lower-division baccalaureate/associate degree category, 7 semester hours as an elective in mechanical or industrial technology (4/74).

Related Occupation Codes: 52B; 52C; 52D; 52E; 62B; 62C; 35E.

AR-1710-0022

Quartermaster Heavy Equipment Repairman
(Quartermaster Heavy Equipment Repair)

Course Number: 690-63K20; 690-467.1; 10-R-467.1.
Location: *Version 1:* Ordnance School, Aberdeen Proving Ground, MD. *Version 2:* Ordnance School, Aberdeen Proving

Ground, MD; Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8 weeks (242 hours). *Version 2:* 10-13 weeks (350-476 hours).

Exhibit Dates: *Version 1:* 4/74-4/77. *Version 2:* 9/59-3/74.

Objectives: To train enlisted personnel to install, adjust, and repair quartermaster materials-handling equipment and special-purpose vehicles and equipment.

Instruction: Lectures and practical exercises in the installation, adjustment, and repair of quartermaster materials-handling equipment and special-purpose vehicles and equipment, including basic industrial electricity principles, circuit tracing, troubleshooting and maintenance of electrical equipment and motors, internal-combustion engine systems and components, and mobile equipment operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in heavy equipment maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment maintenance (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in electricity, 2 in automotive engines, and 1 as an elective in technical equipment (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, 2 in automotive engines, and 1 as an elective in technical equipment (4/74).

Related Occupation Codes: 62K.

AR-1710-0023

BOILERMAKER

Course Number: 55-E-2.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To train enlisted personnel to dismantle, repair and overhaul steam boilers, fireboxes, tenders, tank cars, and other containers constructed of heavy steel plate, and to maintain railway and similar-type boilers and allied equipment.

Instruction: Lectures and practical exercises in the maintenance, overhaul and repair of railway and similar-type boilers and allied equipment, including general basic technical subjects; army supply and cost consciousness; locomotive nomenclature; boiler construction, maintenance and repair; oxyacetylene and electric arc cutting and welding; tubes and flues; stay bolts and firebox; and boiler inspection.

Credit Recommendation: In the vocational certificate category, 6 semester hours in boilermaking, stationary engineer or power plant (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in boilermaking, stationary engineer or power plant (5/74); in the upper-division baccalaureate category, 2 semester hours in boilermaking, stationary engineer or power plant (5/74).

AR-1710-0024

CONSTRUCTION AND UTILITIES (CU-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

(General Engineering (51-CMF) Noncommissioned Officer (NCO) Basic)

(Special Assignment (00-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 7-51-C40; 7-000-C40.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 8-9 weeks (258-307 hours). *Version 2:* 12 weeks (378-394 hours).

Exhibit Dates: *Version 1:* 10/75-5/78. *Version 2:* 9/72-9/75.

Objectives: To train noncommissioned officers and enlisted personnel in basic engineering construction.

Instruction: Lectures and practical exercises in engineering construction, including communications, maintenance management, map reading, generator operation, building construction, construction management, soil mechanics, concrete, construction equipment, electrical distribution systems, air conditioning, construction surveying, and field problems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in construction foremanship (12/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in construction engineering and management (5/74); in the upper-division baccalaureate category, 6 semester hours in construction engineering and management (5/74).

Related Occupation Codes: 51B; 51C; 51D; 51E; 51F; 51J; 51K; 51L; 51N; 51R; 52E; 53B; 53C; 62D; 62E; 62F; 62G; 62H; 62J; 62K; 62L; 62M; 81B; 82B; 51G; 57D.

AR-1710-0025

CONSTRUCTION FOREMAN NONCOMMISSIONED OFFICER (NCO) CANDIDATE

Course Number: 710-51H40.

Location: Training Center, Ft. Leonard Wood, MO.

Length: 21 weeks (630 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To train noncommissioned officers to be construction foremen.

Instruction: Lectures and practical exercises in construction supervision, including map reading; methods of instruction; mathematics; carpentry, masonry, plumbing, and sheet metal work; electrical techniques; rigging; construction surveys, drawings, and management procedures; soils and geology; road and airfield construction; flexible pavements and concrete; fixed bridges and classifications; buildings and construction; engineering equipment utilization and maintenance; explosives and demolitions; and supply procedures.

Credit Recommendation: In the vocational certificate category, 10 semester hours in general construction (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in general construction (5/74); in the upper-division baccalaureate category, 6 semester hours in general construction (5/74).

Related Occupation Codes: 41H.

AR-1710-0026

CONSTRUCTION AND UTILITIES (CU-CMF) NCO ADVANCED

Course Number: 7-CU-C42.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (379 hours).

Exhibit Dates: 7/72-3/77.

Objectives: To provide noncommissioned officers with advanced training in construction and utilities.

Instruction: Lectures and practical exercises in construction and utilities, including military justice and discipline, mathematics, leadership and management, unit administration, maintenance management, field engineering, bivouac area, mine warfare, combat operations, combat support, electives, foundation and materials, flexible pavements, fixed bridges, engineering design, T/O structures, and construction management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in construction engineering (5/74); in the upper-division baccalaureate category, 3 semester hours in construction engineering (12/68).

Related Occupation Codes: 51E; 51F; 51H; 51M; 51N; 51P; 51R; 52E; 53B; 53C; 57D; 62D; 62G; 62H; 62J; 62N; 82B.

AR-1710-0027

WELDING

(Welder-Blacksmith)

Course Number: *Version 1:* 701-44C20. *Version 2:* 701-44C20. *Version 3:* 701-44C20; 9-R-442.1. *Version 4:* 9-R-442.1; 9-E-5.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 11 weeks (336 hours). *Version 2:* 12 weeks (380-432 hours). *Version 3:* 11 weeks (389-434 hours). *Version 4:* 8 weeks (280-304 hours).

Exhibit Dates: *Version 1:* 3/75-12/75. *Version 2:* 3/71-2/75. *Version 3:* 4/58-2/71. *Version 4:* 6/56-3/58.

Objectives: To train enlisted personnel to weld ferrous and nonferrous metals and to perform soldering, brazing, and cutting operations for repair and maintenance of military equipment.

Instruction: *All Versions:* Lectures and practical exercises in welding, soldering, brazing, and cutting operations in various positions using several metals, including oxyacetylene welding principles and operations, properties and identification of metals, electric arc welding procedures, and interpretation of drawings and use of tools. *Version 1:* Does not include Tungsten Inert Gas (TIG) welding. *Version 2:* Includes inert-gas welding. *Version 3:* Includes inert-gas welding and mathematics. *Version 4:* Includes blacksmithing principles, techniques, and applications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in welding technology (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding technology (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in welding technology (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in welding technology (5/74); in the upper-division baccalaureate category, 2 semester hours in welding technology (5/74). *Version 3:* In the vocational certificate category, 3 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (5/74). *Version 4:* In the vocational certificate category, 3 semester hours in welding or blacksmithing (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding or blacksmithing (5/74).

Related Occupation Codes: 44C; 44Z.

AR-1710-0028

ARTILLERY REPAIR

Course Number: 642-45L20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 8-11 weeks (252-356 hours). *Version 2:* 13 weeks (414-468 hours).

Exhibit Dates: *Version 1:* 2/75-3/77. *Version 2:* 4/71-1/75.

Objectives: To train enlisted personnel to maintain artillery.

Instruction: Lectures and practical exercises in self-propelled artillery, rocket launchers, and light air defense artillery and related materials maintenance, including assembly, disassembly, and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours as an elective in mechanical or electrical technology (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical or electrical technology (6/75). *Version 2:* In the vocational certificate category, 4 semester hours as an elective in heavy equipment repair (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in heavy equipment repair (7/74).

Related Occupation Codes: 45L.

AR-1710-0029

Engineer Equipment Maintenance

Course Number: 612-62B20; 612-622.1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10-11 weeks (367-432 hours).

Exhibit Dates: 12/65-1/88.

Objectives: To train enlisted personnel to perform as engineer equipment repairmen.

Instruction: Lectures and practical exercises in the maintenance of engineer construction, earth-moving and support-type equipment, and powered bridging equipment; equipment operation; electrical fundamentals; internal combustion engine systems maintenance; diesel engine maintenance; power trains, systems, and components; troubleshooting and component removal; air compressors; welding; hydraulic systems; boat and bridge erection; organizational maintenance; and equipment troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power trains laboratory, 2 in power plants laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in power trains laboratory, 2 in power plants laboratory (7/74).

Related Occupation Codes: 62B.

AR-1710-0030

Structures Specialist

Course Number: *Version 1:* 51C10-OSUT; 710-51C10; 51C10-OSUT(ST); 51C10-OST1. *Version 2:* 710-51C10.

Location: *Version 1:* Training Center Engineer, Ft. Leonard Wood, MO. *Version 2:* Training Center, Ft. Leonard Wood, MO.

Length: *Version 1:* 7-14 weeks (280-500 hours). *Version 2:* 7 weeks (229-231 hours).

Exhibit Dates: *Version 1:* 4/79-Present. *Version 2:* 3/78-3/79.

Objectives: To provide the student with the skills and knowledge required to assist in basic carpenty, electricity and plumbing installation, to erect a prefabricated metal building and to fabricate doors, windows; to fabricate steel metal components of heating, ventilating, and conditioning ducts; to perform duties to assist in the construction of a pipeline.

Instruction: *Version 1:* Conferences and practical exercises in basic carpentry, erection of prefabricated simple structures, preparation of sheet metal components, and pipeline construction and repair.Course may include basic training. *Version 2:* Conferences and practical exercises in the skills and knowledge needed to assist in the fabrication, assembly, erection, and repair of rigging devices, trusses, and other structural assemblies; installation of pipeline and sheet metal items.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in prefabricated structure erection, 1 in metal working, 1 in plumbing (12/83). *Version 2:* In the vocational certificate category, 1 semester hour in metal fabrication, 1 in introduction to welding (9/79).

AR-1710-0031

Medium Antiaircraft Artillery (AAA) Maintenance

(Medium and Heavy Antiaircraft Artillery (AAA) Maintenance)

Course Number: 44-R-162.2; 44-E-19.

Location: Air Defense School, Ft. Bliss, TX; Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX; Antiaircraft and Guided Missile School, Ft. Bliss, TX.

Length: 5-6 weeks (159-210 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train enlisted personnel to maintain small arms and medium and heavy antiaircraft artillery weapons.

Instruction: Lectures and practical exercises in the maintenance of small arms and medium and heavy antiaircraft artillery weapons, including machine guns, recoil systems, fuze setter and combination fuze setter-rammer, sighting and fire control equipment, generator set operation, machine gun mounts, ammunition, and maintenance, inspection, and lubrication procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-1710-0032

Sheridan Turret Mechanic

Course Number: 643-45P20.

Location: Armor School, Ft. Knox, KY.

Length: 9 weeks (304 hours).

Exhibit Dates: 4/73-12/86.

Objectives: To train enlisted personnel to maintain the Sheridan tank turret.

Instruction: Lectures and practical exercises in Sheridan tank turret maintenance, including electricity fundamentals, machine gun repair, turret support mechanisms, and fire control systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 45P.

AR-1710-0033

Engineer Equipment Officer

Course Number: 4L-0663; 5-O-13.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6-8 weeks (188-308 hours).

Exhibit Dates: 8/55-11/86.

Objectives: To train commissioned officers to plan, coordinate, and supervise the effective utilization and recovery of equipment.

Instruction: Lectures and practical exercises in the planning, coordination, and supervision of the effective utilization and recovery of equipment. Course includes field engineering, maintenance management, repair parts, generators, internal-combustion engines, power trains, troubleshooting and organizational maintenance, construction equipment, automotive and special subjects, welding, hand and machine tools, crane-shovels, tractors and scrappers, motorized graders, air compressors, concrete construction equipment, operation and maintenance of rock crushers, asphalt and related equipment, and earth moving.

Credit Recommendation: In the vocational certificate category, 4 semester hours in heavy equipment shop foremanship (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment shop foremanship (6/75).

AR-1710-0034

Engineer Equipment Repair Enlisted

Course Number: 5-E-14.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8 weeks (304 hours).

Exhibit Dates: 5/55-12/68.

Objectives: To train enlisted personnel to perform as engineer equipment repairmen.

Instruction: Lectures and practical exercises in the repair and maintenance of engineer construction equipment at the field and depot level, including crane-shovels, air compressors, tractors, motorized graders, internal-combustion engines, special subjects, miscellaneous equipment, and welding.

Credit Recommendation: In the vocational certificate category, 5 semester hours in heavy equipment repair technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment repair technology (7/74).

AR-1710-0035

Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 6-MM-C40A.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 9-12 weeks (424-480 hours).

Exhibit Dates: 2/73-1/84.

Objectives: To train enlisted personnel in mechanical maintenance.

Instruction: Lectures and practical exercises in mechanical maintenance, including general career management, common technical subjects, machine shop operations, oxyacetylene welding, electric arc welding, metal inert-gas welding, tungsten inert-gas welding, and metal body repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in auto body laboratory, 3 in welding laboratory, 3 in machine tool laboratory, 3 in diesel engine laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in auto body laboratory, 3 in welding laboratory, 3 in machine tool laboratory, 3 in diesel engine laboratory (7/74).

Related Occupation Codes: 41C; 44A; 44B; 44C; 44D; 44E; 45B; 45D; 45K; 45J; 45L; 45M; 57C; 63B; 63C; 63F; 63G; 63H; 63J; 63K.

AR-1710-0036

Engineer Equipment Maintenance

Course Number: 5-E-12.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8-9 weeks (310-320 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train enlisted personnel as engineer equipment mechanics.

Instruction: Lectures and practical exercises in organizational maintenance of engineer equipment and attachments, including fundamental subjects, gasoline engines, diesel engines, air compressors, tractors, motorized graders, crane-shovels, miscellaneous engineer equipment, welding, transporting engineer equipment, construction equipment operation, organizational maintenance, and facilities maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment maintenance (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment maintenance (7/74).

AR-1710-0037

Field Artillery Repair

Course Number: 642-422.1; 9-R-422.1; 9-E-76.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 7-8 weeks (270-304 hours).

Exhibit Dates: 5/56-12/68.

Objectives: To train enlisted personnel to repair and rebuild light, medium, and heavy field artillery, related materiel, and mounts.

Instruction: Lectures and practical exercises in field artillery repair, including introduction to field artillery maintenance; common tools; characteristics, description, removal, disassembly, assembly, maintenance, and installation of components; inspection of various cannons, guns, and rocket launchers; electrical systems and undercarriage, top carriage, and elevating and traversing mechanisms, description and removal; elevating A-frame, travelling lock, and traverse frame of specific rocket launcher; atomic warfare; bore evaluation; and gas pressure tests.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in mechanical or technical areas (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical or technical areas (7/74).

AR-1710-0038

Missile Tank Turret Mechanic

Course Number: 643-45R10; 643-45R20.

Location: Armor School, Ft. Knox, KY.

Length: 11-13 weeks (406-456 hours).

Exhibit Dates: 4/73-12/86.

Objectives: To train enlisted personnel to maintain tank turret systems for the M60A2 tank turret systems and the 20mm gun.

Instruction: Lectures and practical exercises in the maintenance of the M60A2 tank turret system. Course includes mechanical training for MT3, M85 and .50 machine guns; turret systems for M60A2 tank, including electrical systems, controls, hydraulic systems, laser range-finder system, and other turret system functions.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in technical/vocational programs (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in vocational/technical programs (7/74).

Related Occupation Codes: 45R; 09B.

AR-1710-0039

Materials Handling Equipment Mechanic

Course Number: 610-F2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To train enlisted personnel to maintain the 6,000-pound rough-terrain forklift and the 4,000-pound electric forklift.

Instruction: Lectures and practical exercises in the maintenance of a 6,000-pound rough-terrain forklift and a 4,000-pound electric forklift. Course includes operational training on the 4,000- and the 6,000-pound forklifts, battery maintenance, tire repair, and brakes and steering mechanisms.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in heavy equipment repair (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in heavy equipment repair (7/74).

AR-1710-0040

Engineer Equipment Maintenance Officer

Course Number: 5-O-5.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (369 hours).

Exhibit Dates: 9/54-12/68.

Objectives: To train engineer officers and warrant officers to inspect, maintain, and repair engineer equipment.

Instruction: Lectures and practical exercises in the inspection, maintenance, and repair of engineer equipment. Course includes power crane shovels, air compressors, tractors, motorized graders, gasoline and diesel engines, welding, maintenance administration subjects, engineer repair parts and supply, and electrical subjects.

Credit Recommendation: In the vocational certificate category, 4 semester hours in heavy equipment repair, 2 in shop management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment repair, 2 in shop management (7/74).

Related Occupation Codes: 621A.

AR-1710-0041

1. Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Basic
2. Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Basic
3. Combat Engineering Noncommissioned Officer (NCO) Basic

Course Number: *Version 1:* 0-12-C40. *Version 2:* 0-CE-C40. *Version 3:* 030-12B40-EC.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 8-9 weeks (264-299 hours). *Version 2:* 12 weeks (384-390 hours). *Version 3:* 15 weeks (541 hours).

Exhibit Dates: *Version 1:* 8/75-5/78. *Version 2:* 3/73-7/75. *Version 3:* 3/71-2/73.

Objectives: To train noncommissioned officers to supervise combat engineering operations.

Instruction: Lectures and practical exercises in basic mathematics, map reading, job management and construction operations, bridges and bridge construction, structures and utilities, equipment utilization, demolition, rigging, field water supply, masonry construction, earth-moving equipment, and grading.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in construction foremanship (12/78). *Version 2:* In the vocational certificate category, 4 semester hours in construction foremanship (7/74). *Version 3:* In the vocational certificate category, 6 semester hours in construction foremanship (7/74).

Related Occupation Codes: 12B; 12C; 12D; 12E; 12F.

AR-1710-0042

Quarry Machine Operation

Course Number: 5-E-57.

Location: Engineer School, Ft. Belvoir, VA.

Length: 3-5 weeks (92-183 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train enlisted personnel to operate and maintain quarry machines.

Instruction: Lectures and practical exercises in internal combustion engines theory and maintenance and quarry machine operation. Students learn to operate and perform operator maintenance on self-powered machines used in crushing, grading and cleaning rock and gravel. The course is three weeks in length, however, selected personnel complete an additional 2 weeks in the operation, operator's maintenance and adjustment of rock crushers, screens and washers.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in heavy equipment or civil technology (4/74); for those students completing the 5 week program, 3 semester hours as an elective in heavy equipment or civil technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in heavy equipment or civil technology (4/74).

AR-1710-0043

Electric Power Production (CMF-52) Noncommissioned Officer (NCO) Advanced

Course Number: 7-251-C42.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (337 hours).

Exhibit Dates: 4/76-11/86.

Objectives: To provide noncommissioned officers with advanced training in utilities and construction.

Instruction: Course emphasizes, conferences, seminars, practical exercises, demonstrations, and case studies relating to discipline, leadership and management, maintenance management, field engineering, bridging, T/O structures, utilities and engineering construction management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in construction management, 1 in bituminous materials, 1 in electricity (9/79).

AR-1710-0044

Mechanical Maintenance Warrant Officer Intermediate (621A)

Course Number: 4-9-C30-C.

Location: Ordnance School (Phase I), Aberdeen Proving Ground, MD; Engineer School (Phase II), Ft. Belvoir, VA.

Length: 17 weeks (562 hours).

Exhibit Dates: 9/72-1/84.

Objectives: To train warrant officer engineer equipment technicians to supervise general support and depot support maintenance.

Instruction: Lectures and practical exercises in the supervision of general support and depot support maintenance and military missions and functions; leadership and managerial studies; information systems; and malfunction diagnosis procedures for heavy construction equipment, electric test equipment, environmental equipment, gas turbine engines, and special electrical and electronic devices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in mechanical or industrial technology, 2 in automotive or diesel mechanics, and 4 as an elective in business management (4/74); in the upper-division baccalaureate category, 2 semester hours as an elective in business management (4/74).

Related Occupation Codes: 621A.

AR-1710-0045

Mechanical Maintenance Warrant Officer Intermediate (632A)

Course Number: 4-9-C30-E.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 19 weeks (583 hours).

Exhibit Dates: 7/72–1/84.

Objectives: To train automotive technicians to supervise automotive maintenance personnel at the general support and depot support maintenance levels.

Instruction: Lectures and practical exercises in leadership and management, management information systems, supply management and maintenance management; machine shop, welding, metal body work; hydraulics, electricity and electronics; and wheel and track automotive equipment complete overhaul and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive mechanics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business management, 4 in mechanical or industrial technology, 2 in automotive mechanics (4/74); in the upper-division baccalaureate category, 2 semester hours in business management (4/74).

Related Occupation Codes: 632A.

AR-1710-0046

Armament Maintenance (Entry)

Course Number: 9-R-420.0; 9-E-75.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280–304 hours).

Exhibit Dates: 5/56–12/68.

Objectives: To train enlisted personnel to assist in performance of organizational, field, and depot maintenance of small arms and artillery.

Instruction: Lectures and practical exercises in operation of automotive type wrecker (crane); introduction to shop operation; supply and maintenance procedures, including disassembly and assembly of various types of small arms.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical technology (7/74).

AR-1710-0047

Railway Maintenance and Operations Officer

Course Number: *Version 1:* 55-A-F2. *Version 2:* 55-O-14.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 12 weeks (428 hours). *Version 2:* 20 weeks (732–772 hours).

Exhibit Dates: *Version 1:* 8/58–12/68. *Version 2:* 4/54–7/58.

Objectives: To provide personnel with knowledge of maintenance of way and structures, maintenance and repair of equipment; and main line and terminal operations.

Instruction: Lectures and practical exercises to include introduction to the transportation military railroad system; maintenance of way and structure; maintenance and repair of locomotives and rolling stock; main line and terminal operation; and transportation planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in railway maintenance and operation (12/68); in the upper-division baccalaureate category, 6 semester hours in railroad maintenance and management (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in railway maintenance and operation (12/68); in the upper-division baccalaureate category, 10 semester hours in railroad maintenance and management (7/74).

AR-1710-0048

Ordnance Shop Technician

Course Number: 4L-441A.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 19 weeks (655 hours).

Exhibit Dates: *Version 1:* 1/78–1/84. *Version 2:* 3/72–12/77.

Objectives: To train personnel to perform the duties of general mechanical repair shop technicians or repair shop foremen.

Instruction: Conference and practical exercises to include command and staff subjects, management subjects, maintenance and supply management, individual- and crew-served weapons/tactical signal communications, common technical subjects, machine shop operations, canvas repair, recovery and evacuation, welder metal body repair, basic electricity, and hydraulics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in machinist, 4 in welding (1/78); in the upper-division baccalaureate category, 2 semester hours in management (1/78). *Version 2:* In the vocational certificate category, 3 semester hours in machine tools, 3 in industrial management and technology, 2 in basic electricity, 3 in welding (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine tools, 3 in industrial management and technology, 2 in basic electricity, 3 in welding (5/74).

Related Occupation Codes: 441A.

AR-1710-0049

Mechanical Maintenance Noncommissioned Officer (NCO)

Course Number: 510-F1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 14 weeks (504 hours).

Exhibit Dates: 7/70–1/84.

Objectives: To train personnel in the management of maintenance support operations at the company, battalion, and brigade levels.

Instruction: Conferences and practical exercises in military leadership, communication skills, military skills, management practices, organization for combat service support, supply management procedures, stock accounting procedures, maintenance management procedures, tank-automotive material, heavy and special support equipment, armament material, weapons calibration, and transportation management procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in equipment maintenance (5/74).

Related Occupation Codes: 44E; 44Z; 63B; 63C; 63F; 63G; 63H; 57C; 62B; 62C; 63J; 63K; 45B; 45J; 45M; 45K; 45L; 45Z; 41C; 35J; 34G.

AR-1710-0050

Ordnance Service Section Officer

Course Number: 9-B-4813; 9-O-15.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 6 weeks (216 hours).

Exhibit Dates: 11/56–12/68.

Objectives: To train officers in organization and management of an ordnance service section shop.

Instruction: Lectures and practical exercises in welding, machine tools, allied trades, shop organization, and vehicle recovery operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in manufacturing processes (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in manufacturing processes (5/74).

Related Occupation Codes: 441A.

AR-1710-0051

Carpentry and Masonry Specialist

Course Number: *Version 1:* 51B10-OSUT; 712-51B10; 51B10-OSUT (ST). *Version 2:* 712-51B10.

Location: *Version 1:* Training Center Engineer, Ft. Leonard Wood, MO. *Version 2:* Training Center, Ft. Leonard Wood, MO.

Length: *Version 1:* 7-15 weeks (589 hours). *Version 2:* 7 weeks (229 hours).

Exhibit Dates: *Version 1:* 10/81-Present. *Version 2:* 3/78–9/81.

Objectives: To train enlisted personnel to use and maintain hand and power tools, to layout a simple structure, and to fabricate basic component parts of frame and masonry structures.

Instruction: *Version 1:* Conferences and practical exercises on the identification, use, and maintenance of hand and power tools, simple building layout, and wood frame structures components to include the fabrication of floor, interior and exterior walls, and roof and rafters. Also includes the construction of masonary structures. Course may include basic training. *Version 2:* Conferences and practical exercises on the identification, use, and maintenance of hand and power tools, wood frame structures components fasteners roof trusses, and fabrication of structural elements. The mixing, placing, and finishing of concrete is covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in general building construction (or 2 semester hours in carpentry and 1 in masonry construction)(12/83). *Version 2:* In the vocational certificate category, 1 semester hour in introduction to carpentry (9/79).

Related Occupation Codes: 51B.

AR-1710-0052

Tank Turret Repair

Course Number: *Version 1:* 643-45K10; 643-2146. *Version 2:* 643-45K10.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9–13 weeks (327–452 hours). *Version 2:* 8 weeks (256 hours).

Exhibit Dates: *Version 1:* 3/83–8/85. *Version 2:* 7/76–2/83.

Objectives: To train enlisted personnel to maintain the mechanical, electrical, electronic and hydraulic components and systems of the armament installed in armored vehicles.

Instruction: *Version 1:* Instruction and practical exercises in testing, maintenance and repair of various mechanical, electrical, electronic, and hydraulic systems and components of the armament systems installed on specific armored vehicles. For the course after 9/85, see exhibit AR-1710-0114. *Version 2:* Lectures and practical exercises in the maintenance of the mechanical, electrical, electronic, and hydraulic components and systems of the armament installed in tank turrets, armored reconnaissance vehicles, and cupolas mounted on armored personnel carriers.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (2/84). *Version 2:* Credit is not recommended because of the military-specific nature of the training (2/84).

Related Occupation Codes: 45K.

AR-1710-0053

1. QUARTERMASTER/CHEMICAL EQUIPMENT REPAIRER
2. QUARTERMASTER/CHEMICAL EQUIPMENT REPAIRER
3. QUARTERMASTER EQUIPMENT REPAIR

Course Number: *Version 1:* 690-63J10 (CT). *Version 2:* 690-63J10. *Version 3:* 690-63J10.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 12-13 weeks (449 hours). *Version 2:* Self-paced 8-9 weeks average (288 hours average). *Version 3:* 10-13 weeks (353-405 hours).

Exhibit Dates: *Version 1:* 6/88-Present. *Version 2:* 5/83-5/88. *Version 3:* 11/76-4/83.

Objectives: To train enlisted personnel in the general maintenance and repair of various mechanical equipment.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures, demonstrations and practical exercises in the use of hand tools and measuring devices, installing, adjusting, overhaul and testing equipment, such as water pumps, oil burners, laundry units, air compressors, clothing repair equipment, and the repair and adjustment to small engines. Emphasis is placed on the use of maintenance publications. *Version 3:* Lectures and practical exercises in installation and maintenance of single-cylinder engines, electrical motors and control panels, generators, laundry and burner equipment, and clothing and textile equipment. Includes maintenance of electrical circuits, motors, generators and control panels. Emphasis is on applied troubleshooting.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance equipment (2/84). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 2 in electrical maintenance (1/78).

Related Occupation Codes: 63J.

AR-1710-0054

M48/M60A1 ARMOR CREWMAN (BAT)
(M48/M60A1 Armor Crewman)

Course Number: 19E10-OSUT; 010-19E10.

Location: Armor School, Ft. Knox, KY.

Length: 5-13 weeks (397-568 hours).

Exhibit Dates: 12/78-12/86.

Objectives: To train enlisted personnel to perform the various basic skills to become an armor crewman.

Instruction: Lectures and practical exercises in armor gunnery, support weapons and the performance of daily preventative maintenance checks and services for tanks. Those students completing the longer version of this course have included their basic training through One Station Unit Training (OSUT).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment repair (2/80).

Related Occupation Codes: 19E.

AR-1710-0055

TANK DRIVER BASIC ARMOR TRAINING (BAT)

Course Number: 19F10-OSUT.

Location: Armor School, Ft. Knox, KY.

Length: 6-13 weeks (524 hours).

Exhibit Dates: 12/78-12/86.

Objectives: To train enlisted personnel to operate and perform routine maintenance and service for tanks.

Instruction: Lectures and practical exercises in tank operations and driving skills, support weapons and the performance of daily preventative maintenance checks and service for tanks. Those students completing the longer version of this course have included their basic training through One Station Unit Training (OSUT).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment repair (2/80).

Related Occupation Codes: 19F.

AR-1710-0056

BASIC ARMOR TRAINING (BAT) M60A2

Course Number: CMF-19J.

Location: Armor School, Ft. Knox, KY.

Length: 14 weeks (504 hours).

Exhibit Dates: 4/78-12/86.

Objectives: To train enlisted personnel to perform the various basic skills to become an armor crewman.

Instruction: Lectures and practical experience in armor gunnery, fire controls, support weapons and the performance of daily preventative maintenance checks and services for tanks.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment repair (2/80).

Related Occupation Codes: 19J.

AR-1710-0057

ARMOR OFFICER BASIC—RESERVE COMPONENT

Course Number: 2-17-C25.

Location: Armor School, Ft. Knox, KY.

Length: 4 weeks (174 hours).

Exhibit Dates: 1/76-3/84.

Objectives: To qualify newly commissioned reserve officers in basic armor operations.

Instruction: Practical exercises in automotive and vehicle maintenance and operations, platoon tactics, electronic communications and tank weaponry. For the course after 1984, see exhibit AR-1710-0136.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (2/80).

AR-1710-0058

1. FIELD ARTILLERY WEAPONS MAINTENANCE
   (Field Artillery Weapons Mechanic (M198) Howitzer)
2. FIELD ARTILLERY WEAPONS MECHANIC

Course Number: 041-ASIU6.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 2 weeks (69-71 hours). *Version 2:* 5 weeks (177 hours).

Exhibit Dates: *Version 1:* 10/81-12/89. *Version 2:* 1/79-9/81.

Objectives: *Version 1:* To provide enlisted personnel with a working knowledge of the organizational maintenance of the M198 towed 155 mm howitzer and associated fire control equipment. *Version 2:* To qualify enlisted personnel, already qualified in MOS 13B, as field artillery mechanics, with principle emphasis on hydraulic and hydropneumatic systems.

Instruction: *Version 1:* Lectures and practical exercises in parts supply procedures and maintenance management, lubrication, and inspection records and procedures; adjusting and repairing hydraulic systems using common tools, torque wrenches, pressure gauges, and service manuals. For course after 12/89, see AR-1710-0156. *Version 2:* Lectures and practical exercises in parts supply procedures and maintenance management, lubrication and inspection records and procedures; inspecting, adjusting and repairing hydraulic and hydropneumatic systems using common tools, micrometers, pressure gauge and service manuals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in heavy equipment maintenance and management (10/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in hydraulic systems maintenance and 1 in maintenance management (1/80).

Related Occupation Codes: 13B.

AR-1710-0059

M90A1 (ITV) MISSILE TANK TURRET/TANK TURRET MECHANIC

Course Number: 643-ASIT7.

Location: Armor School, Ft. Knox, KY.

Length: 2 weeks (80-81 hours).

Exhibit Dates: 1/80-Present.

Objectives: To train for tank turret mechanic and missile tank turret mechanic at entry level.

Instruction: Course provides add-on training to Tank Turret Mechanic or Missile Tank Turret Mechanic.

Credit Recommendation: Pending evaluation.

AR-1710-0060

CARGO SPECIALIST PRIMARY TECHNICAL

Course Number: 822-57H20.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3 weeks.

Exhibit Dates: 10/84-3/87.

Objectives: To train enlisted personnel in cargo handling, ship rigging and crane operation.

Instruction: For the course after 3/87 see AR-1710-0150. Lectures and practical exercises in the handling and stowing of cargo, the lifting and rigging of ship gear, and the operation and preventative maintenance of a heavy life crane.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy lift crane operation (7/85).

Related Occupation Codes: 57H.

AR-1710-0061

BRADLEY INFANTRY FIGHTING VEHICLE MASTER GUNNER

Course Number: 010-ASIJ3.

Location: Infantry School, Ft. Benning, GA.

Length: *Version 1:* 14 weeks (620 hours). *Version 2:* 12 weeks (426-480 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 1/83-9/88.

Objectives: To train the soldier on the capabilities, characteristics, and components of the Bradley infantry fighting vehicle.

Instruction: Lectures and practical exercises in B.I.F.V. tactics operations, driving skills, vehicle safety, support weapons, and maintenance. Also includes organizing and conducting training.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment operation, 1 semester hour in public speaking (9/85).

AR-1710-0062

BRADLEY INFANTRY FIGHTING VEHICLE COMMANDER

Course Number: 2E-F58/010-F5; 2E-F58/010-F5/7-11M30/40.

Location: Infantry School, Ft. Bennings, GA.

Length: 6 weeks (242-285 hours).

Exhibit Dates: 7/82-Present.

Objectives: To Train the soldier on the capabilities, characteristics, and components of the Bradley infantry fighting vehicle.

Instruction: Lectures and practical exercises in B.I.F.V. tactics operations, driving skills, vehicle safety support weapons, and the performance of daily preventative maintenance and service.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment operations (10/85).

AR-1710-0063

BRADLEY INFANTRY FIGHTING VEHICLE GUNNER

Course Number: 010-11M20; 010-F6.

Location: Infantry School, Ft. Benning, GA.

Length: 4-5 weeks (141-195 hours).

Exhibit Dates: 11/82-Present.

Objectives: To train the soldier on the capabilities, characteristics, and components of the Bradley infantry fighting vehicle.

Instruction: Lectures and practical exercises in B.I.F.V. operations and driving skills, vehicle safety support weapons, and the performance of daily preventative maintenance and service.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment operations (9/85).

AR-1710-0065

SYSTEM MECHANIC M60 SERIES VEHICLE

Course Number: CNC20.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 4-5 weeks (165 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks and power generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63N.

AR-1710-0066

SYSTEM MECHANIC SELF-PROPELLED (SP) ARTILLERY M109/M110 SERIES VEHICLES

Course Number: CNC22.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 6-7 weeks (234 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and power generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63D.

AR-1710-0067

SYSTEM MECHANIC SELF-PROPELLED (SP) ARTILLERY M109/M110 SERIES VEHICLES

Course Number: CNC25.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 5-6 weeks (198 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63D.

AR-1710-0068

SYSTEM MECHANIC M60 SERIES VEHICLE

Course Number: CNC24.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 5-6 weeks (198 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63N.

AR-1710-0069

SYSTEM MECHANIC FOR M113 SERIES VEHICLES

Course Number: CNC26.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3-4 weeks (129 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63T.

AR-1710-0070

SYSTEM MECHANIC M113 SERIES VEHICLE

Course Number: CNC21.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 4-5 weeks (165 hours).

Exhibit Dates: 3/81-Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63T.

AR-1710-0071

M60A3 SERIES ORGANIZATIONAL TURRET MAINTENANCE COURSE

Course Number: TRT213.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (99-100 hours).

Exhibit Dates: 7/80-3/81.

Objectives: To train selected personnel in troubleshooting and repair of tank turrets.

Instruction: A group-paced course using lectures and hands-on equipment performance training techniques. Includes instruction on specific electrical circuitry, multimeters, troubleshooting hydraulic systems, and the replacement of faulty components. Emphasis is on electrical/electronic troubleshooting using special test equipment and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical/electronics laboratory or shopwork (1/82).

Related Occupation Codes: 45N.

AR-1710-0072

M60A1 SERIES ORGANIZATIONAL TURRET MAINTENANCE

Course Number: TRT211.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (99–100 hours).

Exhibit Dates: 2/78–3/81.

Objectives: To train selected personnel in troubleshooting and repair of tank turrets.

Instruction: A group-paced course using lectures and hands-on equipment performance training techniques. Includes instruction on specific electrical circuitry, multimeters, troubleshooting hydraulic systems, and the replacement of faulty components.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 45N.

AR-1710-0073

SYSTEM MECHANIC M60 SERIES VEHICLE

Course Number: CNC23.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 6–7 weeks (234 hours).

Exhibit Dates: 3/81–Present.

Objectives: To troubleshoot and maintain hydraulic, mechanical, and electrical systems in tanks, light trucks, and generating equipment up to 60kw.

Instruction: Lectures and practical exercises in tank turret systems, operation, and maintenance including vehicle recovery and evacuation, live engine maintenance, maintenance procedures, basic electricity, fuel systems, and power generation. Included are related safety procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory or electrical shop (1/82).

Related Occupation Codes: 63N.

AR-1710-0074

M60A1-M113A1 TROUBLESHOOTING FOR UNIT MECHANICS

Course Number: TVM13.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (103 hours).

Exhibit Dates: 6/80–3/81.

Objectives: To upgrade tracked vehicle mechanics on M60 Series Tanks and associated vehicles.

Instruction: Lectures and practical exercises with performance examinations on electrical and mechanical systems in the vehicle, with emphasis on troubleshooting and fault diagnosis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0075

M113 SERIES TROUBLESHOOTING FOR UNIT MECHANICS

Course Number: TVM14.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (72 hours).

Exhibit Dates: 6/80–3/81.

Objectives: To upgrade the skills of mechanics maintaining personnel carrier track vehicles.

Instruction: Lectures and practical exercises with performance examinations on electrical and mechanical systems on track vehicles, with emphasis on troubleshooting and fault diagnosis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0076

M113 SERIES TROUBLESHOOTING FOR UNIT MECHANICS

Course Number: TVM14B.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (62 hours).

Exhibit Dates: 3/78–5/80.

Objectives: To upgrade the skills of mechanics maintaining personnel carrier track vehicles.

Instruction: Lectures and practical exercises with performance examinations on electrical and mechanical systems on track vehicles, with emphasis on troubleshooting and fault diagnosis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0077

M110/M548 TROUBLESHOOTING FOR UNIT MECHANICS

Course Number: TVM16.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (103 hours).

Exhibit Dates: 6/80–3/81.

Objectives: To upgrade tracked vehicle mechanics on M60 tanks and associated vehicles.

Instruction: Lectures and practical exercises with performance examinations on electrical and mechanical systems in the track vehicles, with emphasis on troubleshooting and fault diagnosis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0078

M109A1/M548 TROUBLESHOOTING FOR UNIT MECHANICS

Course Number: TVM15.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (103 hours).

Exhibit Dates: 6/80–3/81.

Objectives: To upgrade the skills of mechanics maintaining self-propelled howitzer track vehicles and tracked ammunition carriers.

Instruction: Lectures and practical exercises with performance examinations on electrical and mechanical systems on track vehicles, with emphasis on troubleshooting and fault diagnosis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0079

M113 SERIES ORGANIZATIONAL MAINTENANCE TRAINING

Course Number: TVM219.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (72 hours).

Exhibit Dates: 11/81–8/87.

Objectives: To upgrade mechanical supervisors in maintenance and troubleshooting on M113 series tracked vehicles, electrical systems and maintenance of mechanical components.

Instruction: This course is designed to teach students to troubleshoot and maintain basic mechanical and electrical systems on M113 series tracked vehicles, and conduct fault diagnosis and mechanical inspections of vehicle systems. Course instruction is by lectures and demonstrations with emphasis on practical application and performance examinations to approved skill levels.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63T.

AR-1710-0080

M109-M110 ORGANIZATIONAL MAINTENANCE TRAINING

Course Number: TVM220.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (108 hours).

Exhibit Dates: 11/81–Present.

Objectives: To train selected supervisory personnel in troubleshooting and maintaining self-propelled howitzers.

Instruction: Lectures and practical exercises on troubleshooting and maintaining self-propelled howitzers with emphasis on electrical systems and suspension systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

Related Occupation Codes: 63D.

AR-1710-0081

1. WHEEL VEHICLE TROUBLESHOOTING TEST MEASURING DIAGNOSTIC EQUIPMENT (TMDE) FOR UNIT MECHANICS
2. WHEEL VEHICLE ORGANIZATIONAL MAINTENANCE

Course Number: *Version 1:* WTT25. *Version 2:* WVM25.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (82–102 hours).

Exhibit Dates: *Version 1:* 3/80–8/81. *Version 2:* 9/76–2/80.

Objectives: To train military and civilian personnel in the maintenance of wheeled tactical trucks.

Instruction: *All Versions:* Practical exercises in the use of test-measuring-diagnostic equipment, troubleshooting electrical systems chassis services and maintenance of power generators with emphasis on engine tune-up. *Version 2:* Does not include power generation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical and diagnostic techniques, 1 in chassis service (1/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical and diagnostic techniques, 1 in chassis service (1/82).

Related Occupation Codes: 63 Series.

AR-1710-0082

ORGANIZATIONAL MECHANIC CONVERSION

Course Number: CNC28.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 6 weeks (216-217 hours).
Exhibit Dates: 11/81-Present.
Objectives: To upgrade organizational mechanics in the field of heavy equipment including light and heavy vehicles, light track vehicles, and power generation equipment.

Instruction: This course consists of lectures and demonstrations with great emphasis on practical exercises including troubleshooting light and heavy vehicles and light tracked vehicles. Emphasis is placed on the use and interpretation of diagnostic test instruments relating to the course content. Material handling equipment also forms a significant point of the course, with performance examinations being the major criteria.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment ignition, starting, charging and electrical systems, 2 in heavy equipment brakes, suspension, steering systems laboratory, 1 in heavy equipment general maintenance (1/82).

Related Occupation Codes: 63B

AR-1710-0083

Plumbing Specialist

Course Number: 51K10-OSUT; 720-51K10; 51K10-OSUT (ST).
Location: Training Center Engineer, Ft Leonard Wood, MO.
Length: 8-15 weeks (263-598 hours).
Exhibit Dates: 10/81-Present.
Objectives: To train personnel in the installation of basic plumbing systems.

Instruction: Lectures and practical exercises in blueprint reading, cutting and joining steel, cast iron, copper and plastic pipes, installing and testing basic plumbing systems and fixtures, clearing plumbing stoppages, and repairing valves and fixture control devices. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic plumbing (12/83).

Related Occupation Codes: 51K

AR-1710-0084

Heavy Construction Equipment Operator

Course Number: 730-62E10; 62E10-OSUT; 62E10-OSUT(ST).
Location: Training Center Engineer, Ft Leonard Wood, MO.
Length: 8-16 weeks (224-639 hours).
Exhibit Dates: 5/78-Present.
Objectives: To train personnel as heavy construction equipment operators.

Instruction: Lectures and practical exercises in the operation of heavy equipment such as crawler tractor, front end loader, motor grader, and wheeled tractor. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy construction equipment operation (12/83).

Related Occupation Codes: 62E.

AR-1710-0085

Engineer Tracked Vehicle Crewman
(Combat Engineer Tracked Vehicle Crewman)

Course Number: 12F10-OSUT; 030-12F10; 12F10-OSUT(ST); 12F10-OST1.
Location: Training Center Engineer, Ft. Leonard Wood, MO.
Length: 8-14 weeks (273-643 hours).
Exhibit Dates: 10/79-Present.
Objectives: To train personnel to perform basic crew functions on military tracked vehicles.

Instruction: Lecture and practical experiences in operation and maintenance of specific tracked vehicles such as the combat engineer vehicle (CEV), armored vehicle launch bridge, and the armored personnel carried (APC). Training includes weapons and communications systems of specific military nature not common or available to civilian use. The course may include basic training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/83).

Related Occupation Codes: 12F.

AR-1710-0086

General Construction Equipment Operator

Course Number: 730-62J10; 62J10-OSUT; 62J10-OSUT(ST).
Location: Training Center Engineer, Ft Leonard Wood, MO.
Length: 8-15 weeks (248-598 hours).
Exhibit Dates: 5/78-Present.
Objectives: To train personnel in general construction equipment other than heavy construction equipment.

Instruction: Lectures and practical exercises in the operation of construction equipment such as sweepers, rollers, air compressors, rotary tiller, earth auger, ditching machine, and tractor.Course may include basic training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in operation and maintenance of light construction equipment (12/83).

Related Occupation Codes: 62J.

AR-1710-0087

Construction Equipment Repairer Primary Technical
(Construction Equipment Repair)

Course Number: 612-62B20.
Location: Training Center Engineer, Ft. Leonard Wood, MO.
Length: 6 weeks (190-216 hours).
Exhibit Dates: 11/79-Present.
Objectives: To provide advanced training in engineering construction equipment repair.

Instruction: Lectures and practical exercises in the repair and maintenance of engineering construction equipment to include cutting and welding, air induction systems, engine fuel systems, engine removal, disassembly, repair and assembly, power trains, and pneumatic equipment. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 5 semester hours in advanced maintenance and repair of engineer construction equipment (12/83).

Related Occupation Codes: 62B.

AR-1710-0088

Construction Equipment Repairer

Course Number: 62B10-OSUT; 612-62B10; 62B10-OSUT(ST).
Location: Training Center Engineer, Ft Leonard Wood, MO.
Length: 5-14 weeks (179-567 hours).
Exhibit Dates: 3/78-Present.
Objectives: To train personnel as engineer equipment repairmen.

Instruction: Lectures and practical exercises in principles and test procedures of gasoline and diesel engine systems to include operation and repair of construction equipment. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 4 semester hours in operation and maintenance of gasoline and diesel powered construction equipment (12/83).

Related Occupation Codes: 62B.

AR-1710-0089

Construction Equipment Operator

Course Number: 730-55131.
Location: Training Center Engineer, Ft. Leonard Wood, MO.
Length: 11 weeks (382 hours).
Exhibit Dates: 3/82-Present.
Objectives: To provide basic skills and knowledge required to operate and maintain common construction equipment.

Instruction: This course for Air Force personnel is presented through lectures and practical experiences in basic operational skills for common construction equipment including mechanical and hydraulic cranes, clamshell and draglines, forklifts, crawler tractors, front end loaders, street sweepers, steel wheeled and pneumatic tired rollers, and water distributors. Maintenance and safety procedures are also covered.

Credit Recommendation: In the vocational certificate category, 7 semester hours in basic construction equipment operation and maintenance (12/83).

AR-1710-0090

Construction Equipment Operator

Course Number: 730-1345.
Location: Training Center Engineer, Ft. Leonard Wood, MO.
Length: 9 weeks (317 hours).
Exhibit Dates: 9/81-Present.
Objectives: To provide Marine personnel with the basic skills and knowledge required to operate and maintain common construction equipment.

Instruction: Lectures and practical experiences in basic operational skills for common construction equipment including crawler tractors, front end loaders, motor graders, and forklifts. Maintenance safety procedures are also covered.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic construction equipment operation and maintenance (12/83).

AR-1710-0091

Concrete and Asphalt Equipment Operator

Course Number: 62H10-OSUT; 730-62H10; 62H10-OSUT (ST).
Location: Training Center Engineer, Ft. Leonard Wood, MO.
Length: 8-15 weeks (177-512 hours).
Exhibit Dates: 10/81-Present.
Objectives: To provide basic skills and knowledge required to operate and maintain concrete and asphalt equipment.

Instruction: Lectures and practical experiences in operation, maintenance, and safety procedures required for proper use of concrete and asphalt equipment including concrete mobile mixers, bituminous distributors, asphalt kettle, ISKW generator, oil heater, asphalt melter, dryer-mixer, and aggregate spreader. Maintenance of flexible pavement is included. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in operation and maintenance of basic concrete and asphalt equipment (12/83).

Related Occupation Codes: 62H.

AR-1710-0092

Lifting and Loading Equipment Operator

Course Number: 62F10-OSUT; 730-62F10; 62F10-OSUT(ST).

Location: Training Center Engineer, Ft. Leonard Wood, MO.

Length: 9-16 weeks (276-611 hours).

Exhibit Dates: 3/78-Present.

Objectives: To train personnel in the proper use and maintenance of lifting and loading equipment.

Instruction: Lectures and practical experiences to provide the skills needed to operate and maintain equipment such as forklifts, mechanical cranes, clamshell and dragline, and hydraulic cranes.

Credit Recommendation: In the vocational certificate category, 3 semester hours in operation and maintenance of lifting and loading equipment (12/83).

Related Occupation Codes: 62F.

AR-1710-0093

Quarrying Specialist

Course Number: 62G10-OSUT; 730-62G10; 62G10-OSUT(ST); 62G10-CELT.

Location: Training Center Engineer, Ft. Leonard Wood, MO.

Length: 6-17 weeks (247-618 hours).

Exhibit Dates: 5/78-Present.

Objectives: To train personnel in the operation of a quarry.

Instruction: Lectures and practical exercises in the operation of a quarry including equipment such as air compressor, crawler mounted rock drill, generator, jaw crusher, roll crusher, and conveyor. Drilling and blasting techniques are included in the course. Course may include basic training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in quarry operation (7/89).

Related Occupation Codes: 62G.

AR-1710-0094

Quartermaster and Chemical Equipment Repairer

Course Number: 690-63J20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 6-7 weeks (227 hours).

Exhibit Dates: 9/83-1/87.

Objectives: To train enlisted personnel in the general maintenance and repair of various mechanical equipment.

Instruction: Lecture and practical exercises in the use of hand tools, lubricants, fasteners, and measuring devices. Course also includes small engine repair and troubleshooting; testing and repair of water pumps, heaters, air compressors, laundry with clothing repair equipment. Shop management and leadership training are also stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in small engine repair, 3 in mechanical equipment (2/84).

AR-1710-0095

Quartermaster/Chemical Equipment Repairer Basic Technical
(Quartermaster/Chemical Equipment Repairer)

Course Number: 690-63J30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 7-8 weeks average (274-279 hours average).

Exhibit Dates: 5/82-9/90.

Objectives: To train enlisted personnel in management and supervision in the mechanical equipment maintenance field.

Instruction: Lectures and practical exercises in shop management and maintenance procedures, leadership and training skills, counseling and personnel evaluation; inspect, test, and supervise the maintenance and repair of various items of mechanical equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supervision, 3 in basic management techniques (11/86).

AR-1710-0096

Track Vehicle Repair Basic Technical

Course Number: 611-63H30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 11-12 weeks (402-410 hours).

Exhibit Dates: 5/82-5/85.

Objectives: To train enlisted personnel to supervise maintenance procedures and to perform direct and general support maintenance and technical inspection of automotive wheeled vehicles, material handling equipment, fuel and electrical systems, and tank-automotive tracked vehicles at an advanced skill level.

Instruction: Lectures, demonstration, and practical experience in supervision, training the maintenance noncommissioned officer in a tactical environment, general military and logistical training, inspection of wheeled and tracked vehicles, and recovery operations. Those in 63G, 63H obtain training in wheeled vehicle maintenance to include replace engine, transmission, clutch, front axle, and differential. Those in 63H, 63W obtain training in inspection and diagnosis of fuel and electrical components to include inspection of an hydraulic cylinder, diagnosis of fuel system malfunction, inspection of fuel injection pumps and nozzles, diagnosis of fuel injection pump tester, diagnosis of generating system malfunctions, inspection of generator-alternator assemblies, regulators, engine starter motors, and 500 amp test stand. Those in 63G, 63W obtain training in tracked vehicle maintenance to include replace tank engine, transmission control valve body, cam and drive shaft, cylinder head and transmission assembly. See AR-1710-0111 for later version.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supervision, 3 in heavy equipment repair for those in Track A (63G), Track B (63H), or Track C (63W) (2/84).

Related Occupation Codes: 63G; 63H; 63W.

AR-1710-0097

M1 Abrams Tank Vehicle Repairer

Course Number: 610-ASIL8 (63H); 610-ASIL8(63H).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 6 weeks (179 hours).

Exhibit Dates: 10/82-12/84.

Objectives: To train enlisted personnel to perform maintenance on automotive components of specific vehicle.

Instruction: Course includes turbine engine construction and operation; removal and replacement of engine, troubleshoot engine; also covers hydraulic systems, performance test and troubleshooting, track link repair and adjustment, transmissions removal and disassembly, inspection and repair and installation. See AR-1710-0113 for course after 1/85.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment transmission, 2 in industrial turbine engines, and 1 in mobile hydraulic systems (2/84).

Related Occupation Codes: 63H.

AR-1710-0098

Self-Propelled Field Artillery Systems Mechanic Basic Technical

Course Number: 611-63D30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 10-12 weeks (353-400 hours).

Exhibit Dates: 1/83-12/85.

Objectives: To train enlisted personnel to perform organizational maintenance on self-propelled field artillery cannon weapon systems and light and medium recovery vehicles.

Instruction: Instruction in leadership training, performance of a maintenance noncommissioned officer in a tactical environment, general military training subjects, logistical training, and recovery operations are covered. Those in MOS 63D will also learn armament maintenance. Those in 45D will have included instruction in replace, remove/install, inspect, test, and troubleshoot components/systems of tracked vehicles. For the course after 1/86, see exhibit AR-1710-0112.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those in Track B (MOS 45D), 2 semester hours in automotive and heavy equipment repair (2/84); in the upper-division baccalaureate category, for those in Track A (MOS 63D) or Track B (MOS 45D), 2 semester hours in supervision and management (2/84).

Related Occupation Codes: 63D.

AR-1710-0099

Bradley Fighting Vehicle System

Course Number: 611-63T30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 9-16 weeks (361-560 hours).

Exhibit Dates: 9/83-2/86.

Objectives: To teach supervision of enlisted personnel and to perform maintenance procedures on heavy equipment including tracked vehicles and trucks; also includes basic management.

Instruction: Lectures and practical exercises in maintenance management, inspection and testing of various systems and components of both Diesel and gasoline powered vehicles; includes troubleshooting, preventive maintenance checks, adjusting and servicing of both tracked vehicles and trucks. Emphasis is placed on the use of measuring and diagnostic test devices, the use of service manuals , and management and supervisory techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Track A, 63T, 2 semester hours in maintenance management and supervision, 3 in heavy equipment theory, and 1 in heavy equipment service; for Track B, 45T, 2 semester hours in maintenance management and supervision, 3 in heavy equipment theory (2/84).

Related Occupation Codes: 63T; 45T.

AR-1710-0100

M60A1/A3 Tank Systems Mechanic

Course Number: 611-63N30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 13-15 weeks (477-534 hours).

Exhibit Dates: 11/83-7/86.

Objectives: To train enlisted personnel in maintenance management, recovery operation, diagnostics supervision, inspection and testing of maintenance functions on engines, power trains, electrical, suspension and hydraulic systems of the hull turret, and management training, leadership, and theory of automotive materials.

Instruction: The course provides leadership training and logistic training to include supply management, accountability, inspection principles, safety organization, and maintenance operation. The automotive maintenance segment includes remove and replace power plant master cylinder, bleed hydraulic brake system, adjust brake controls and linkage, inspect, test, and troubleshoot power plant, fuel systems, electrical system, cooling system, steering system, lubrication system, suspension system, throttle controls and linkage, exhaust system; remove and replace all engine components; principles of automotive material to include principles of electricity, starting and charging system, internal combustion engines, fuel systems, diesel fuel systems, ignition system, power train and suspension, brake system, hydraulic system, and multimeter. After 1986, see exhibit AR-1710-0138.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those in Track A (63N), 2 semester hours in maintenance management, 3 in heavy equipment theory; for those in Track B (45N), 2 semester hours in maintenance management, 2 in heavy equipment theory, 5 in heavy equipment services of which 2 hours are specifically in truck maintenance (2/84).

Related Occupation Codes: 63N; 45N.

AR-1710-0101

M1 Abrams Tank Fire Control Systems Repairer

Course Number: 113-ASIL8(45G).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 3-4 weeks (126 hours)

Exhibit Dates: 10/82-9/90.

Objectives: To teach enlisted personnel to perform maintenance on fire control system and related test equipment of the M1 Abrams tank.

Instruction: This course will instruct and train maintenance personnel to test and repair gunner's primary sight, direct support electrical system test set, laser rangefinder, computer control panel, electronic units, line of sight electronic unit, thermal imagine system test set, thermal mock-up system, power control unit, image control unit, thermal receiver unit, service the laser range finder and image control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the training (2/84).

Related Occupation Codes: 45G; 63G.

AR-1710-0102

ITV/IFV/CFV Turret Mechanic Primary Technical

Course Number: 643-45T20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 8-9 weeks (289 hours).

Exhibit Dates: 3/83-1/87.

Objectives: To train enlisted personnel to perform organizational maintenance on vehicular-mounted turret 25mm gun and related systems of improved tow vehicles, infantry fighting vehicles.

Instruction: Course provides instruction in troubleshooting to the component level, isolation and identification of malfunctions, interpretation of schematic diagrams; inspection of electrical wiring and hydraulics lines, alignments, adjustment, testing and inspection of assemblies and components, supervisory skills, maintenance publications and forms and records.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/84).

Related Occupation Codes: 45T.

AR-1710-0103

M1 Abrams Tank Turret Mechanic Primary Technical

Course Number: 643-45E20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 5 weeks (184 hours).

Exhibit Dates: 6/83-1/87.

Objectives: To perform organizational maintenance on the vehicle-mounted armament and associated fire control and related systems on the M1 Abrams tank turret.

Instruction: The course instructs enlisted personnel in maintenance diagnosis, troubleshooting and inspection of vehicle-mounted armament, associated fire control, and related systems, including inspection of weapons turret electrical wiring and hydraulic lines.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the training (2/84).

Related Occupation Codes: 45E.

AR-1710-0104

M1 Abrams Tank Turret Repair

Course Number: 643-ASIL8(45K).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 5-7 weeks (180-210 hours).

Exhibit Dates: 10/82-9/90.

Objectives: To train enlisted personnel to perform general maintenance and repair on the armament installed on specific armored vehicles.

Instruction: Instruction and practical exercises in the testing, maintenance, and repair of the various mechanical and electrical systems and components on the armaments installed on specific armored vehicles.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/84).

Related Occupation Codes: 45K.

AR-1710-0105

M2/M3 Bradley Fighting Vehicle Turret Repair

Course Number: 643-ASIM5(45K).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 4 weeks (144-157 hours).

Exhibit Dates: 3/83-9/90.

Objectives: To train enlisted personnel to perform general maintenance and repair on the armament installed on specific armored vehicles.

Instruction: Instruction and practical exercises in the testing, maintenance, and repair of the various mechanical and electrical systems and components on the armament installed on specific armored vehicles.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

Related Occupation Codes: 45K.

AR-1710-0106

Tank Turret Repairer Basic Technical

Course Number: 643-45K30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 11-12 weeks (411 hours).

Exhibit Dates: 8/83-9/85.

Objectives: To train enlisted personnel to supervise and perform direct and general support maintenance of small arms and the mechanical, electrical, electronic, and hydraulic components and systems of the tank turret, self-propelled and towed artillery, light air defense artillery weapons, and guided missile launchers.

Instruction: Course instructs enlisted personnel in supervision of maintenance, inspection, and evaluation of small arms, tank turrets, ITV turrets, self-propelled howitzers, and towed howitzers. Also included is leadership training and management supervisory skills to include leadership customs, courtesies, standard of conduct, methods of instruction supervision and inspection, communications, counseling, evaluation reports, operating procedures, techniques of management, and taking charge. For the course after 1985, see exhibit AR-1710-0109.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supervision and management (2/84).

AR-1710-0107

Self-Propelled Field Artillery Turret Mechanic

Course Number: 643-45D10.

Location: Field Artillery School Ft. Sill, OK.

Length: 5-6 weeks (180-224 hours).

Exhibit Dates: 3/83-12/87.

Objectives: To train enlisted personnel to perform organizational maintenance on turret related systems of the self propelled cannon weapons including electrical, cable, armament, and fire control.

Instruction: Lecture, demonstration and practicum in lubrication, inspection, removal, installation, testing systems components and assemblies. For course after 12/87, see AR-1710-0157.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

Related Occupation Codes: 45D.

AR-1710-0108

Bradley Fighting Vehicle Systems TOW/Dragon Repairer

Course Number: 4F-F3/121-ASID3.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 4-6 weeks (134-215 hours)

Exhibit Dates: 9/85-Present.

Objectives: To provide active and reserve enlisted and warrant officer training to perform and supervise intermediate maintenance on TOW subsystems and the Bradley Fighting Vehicle.

Instruction: Personnel will be trained to troubleshoot, replace and align components and the interface of TOW subsystem with the Bradley Fighting Vehicle.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-1710-0109

Tank Turret Repairer Basic Noncommissioned Officer (NCO)

Course Number: 643-45K30.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 15–16 weeks (561–562 hours). *Version 2:* 11 weeks (398–399 hours).

Exhibit Dates: *Version 1:* 1/87–Present. *Version 2:* 10/85–12/86.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and perform intermediate support and general support on mechanical, electrical, and hydraulic components and systems of tank turrets of tracked vehicles.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Topics include supervision of intermediate inspection of tank turrets and tracked vehicles, training management, quality control inspection techniques, and contact team operations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic automotive electricity laboratory and 3 in maintenance management (3/87).

Related Occupation Codes: 45K.

AR-1710-0110

Bradley Fighting Vehicle System Mechanic Basic Noncommissioned Officer (NCO)

Course Number: 611-63T30.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 17–18 weeks (638–639 hours). *Version 2:* 12–13 weeks (462 hours) for Track A; 7–8 weeks (265 hours) for Track B.

Exhibit Dates: *Version 1:* 6/88–Present. *Version 2:* 3/86–5/88.

Learning Outcomes: Upon completion of the course the student is able to supervise enlisted personnel and to perform maintenance procedures on heavy equipment including tracked vehicles, and trucks; also includes basic management, leadership, and supervisory skills.

Instruction: Lectures and practical exercises in maintenance management, inspection and testing of various systems and components of both Diesel and gasoline powered vehicles; includes troubleshooting, preventive maintenance checks, adjusting and servicing of both tracked vehicles and trucks. Emphasis is placed on the use of measuring and diagnostic test devices, the use of service manuals, and management and supervisory techniques.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, for Track A, 63T, 2 semester hours in maintenance management and supervison, 3 in heavy equipment theory, and 1 in heavy equipment service; for Track B, 45T, 2 semester hours in maintenance management and supervision, 3 in heavy equipment theory (5/87).

Related Occupation Codes: 63T; 45K.

AR-1710-0111

Track Vehicle Repairer Basic Noncommissioned Officer (NCO)

Course Number: 611-63H30.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 18–19 weeks (648–649 hours). *Version 2:* 13–14 weeks (497–498 hours).

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 6/85–2/88.

Learning Outcomes: Upon completion of the course, the student will be able to supervise maintenance procedures and to perform general maintenance, repair, troubleshooting, and inspection on wheel and tracked vehicles.

Instruction: Lectures, demonstrations, and practical exercises in internal combustion engines, fuel and electrical systems, starters, regulators, alternators, brake system components, hydraulic principles, steering and suspension systems, engine tune-up and measuring tools; construction, operation, and diagnostic testing procedures are stressed.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment repair, 2 in diesel engine systems, and 3 in automotive electrical systems (3/87).

Related Occupation Codes: 63H.

AR-1710-0112

1. Self-Propelled Field Artillery System Basic Noncommissioned Officer (NCO)
2. Self-Propelled Field Artillery Systems Mechanic Basic Technical

Course Number: 611-63D30 (08T2), 611-63D30.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* Track A, 9 weeks (368 hours); Track B, 8–9 weeks (360 hours).

Exhibit Dates: *Version 1:* 5/88–Present. *Version 2:* 1/86–4/88.

Learning Outcomes: Upon completion of the course, the student will be able to train enlisted personnel to perform organizational maintenance and repair on self-propelled field artillery cannon weapon systems and light and medium recovery vehicles.

Instruction: Topics include training of a maintenance noncommissioned officer in a tactical environment, general military training subjects, logistical training, and recovery operations; those in MOS 63D will also learn armament maintenance; those in MOS 45D will have instruction in replacing, removing/installing, inspecting, testing, and troubleshooting components/systems of tracked vehicles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment maintenance/repair management, and 2 in automotive and heavy equipment repair (9/90); for credit for the common core, see AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment maintenance/repair management, and 2 in automotive and heavy equipment repair for tracks A or B (3/87).

Related Occupation Codes: 63D, 45D.

AR-1710-0113

M1 Abrams Tank Vehicle Repairer

Course Number: 610-ASIL8(63H).

Location: Ordnance School, Aberdeen Proving Ground, Md.

Length: 3–4 weeks (132 hours).

Exhibit Dates: 1/85–9/90.

Learning Outcomes: Upon completion of the course the student will be able to peform maintenance on light automotive components on specialized track vehicles.

Instruction: Includes turbine engine construction and operation; removal and replacement of engine; troubleshooting engine; hydraulic systems, performance testing and troubleshooting; track link repair and adjustment; transmission removal and disassembly, inspection, repair and installation. Prior to 1985, see exhibit AR-1710-0097.

Credit Recommendation: In the vocational certificate category, 1 semester hour in transmission mechanic for heavy track vehicle; in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine laboratory (3/87).

Related Occupation Codes: 63H.

AR-1710-0114

Tank Turret Repairer (USA/USA-ST) (Tank Turret Repairman (USMC))

Course Number: *Version 1:* 643-45K10 (CT), 643-2146 (45K). *Version 2:* 643-45K10, 643-2146.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 20 weeks (720 hours) for Army, 13 weeks (468 hours) for Marine Corps. *Version 2:* 17 weeks (610 hours) for Army, 13–14 weeks (589 hours) for Marine Corps.

Exhibit Dates: *Version 1:* 10/86–Present. *Version 2:* 9/85–9/86.

Learning Outcomes: Upon completion of the course the student will be able to maintain the mechanical, electrical, and hydraulic components on tank turrets.

Instruction: Instruction and practical exercises in testing, maintenance, and repair of various mechanical, electrical, electronic, and components of tank turrets. For the course prior to this time, see AR-1710-0052.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in automotive electrical systems for both the Army and for the Marine Corps (3/87).

Related Occupation Codes: 45K.

AR-1710-0115

Repair Shop Technician—Warrant Officer Technical Certification

Course Number: 4L-441A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 18–20 weeks (666–685 hours).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assume the duties and responsibilities of managing track vehicle repair facilities.

Instruction: Instruction includes welding (arc, MIG, TIG, gas) metal body repair machine shop operation (lathes, millers, band sew, grinding tools), layout professional development subjects, maintenance management, communication skills and automotive electricity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive body repair, 2 in communication skills, 2 in automotive electricity, 2 arc welding, 1 in gas welding, 1 in inert gas welding, 5 in basic machine shop (lathes), 5 in advanced machine shop (millers), and 3 in maintenance management (3/87).

AR-1710-0116

Warrant Officer Technical Certification
(Wheel Vehicle Maintenance Technician)

Course Number: 4L-630A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 12–15 weeks (457–546 hours). *Version 2:* 12–13 weeks (457 hours).

Exhibit Dates: *Version 1:* 11/86–Present. *Version 2:* 3/85–10/86.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to assume to duties and responsibilities of managing an automotive facility involving track vehicles. *Version 2:* Upon completion of the course the student will be able to assume to duties and responsibilities of managing an automotive facility.

Instruction: *Version 1.* Course includes professional development subjects, maintenance management, wheel vehicle maintenance, track vehicle maintenance, power generation, chemical equipment repair, electricity which includes generation and paralleling, and troubleshooting. *Version 2:* Course includes professional development subjects, maintenance management, wheel vehicle maintenance, power generation, chemical equipment repair, electricity which includes generation and paralleling, and troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in electrical laboratory (basic electricity - automotive) and 3 in communication skills (3/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in electrical laboratory (basic electricity - automotive) and 3 in communication skills (3/87).

AR-1710-0117

Heavy Wheel Vehicle Recovery Specialist

Course Number: 610-ASIH8 (63S).

Location: Training Center, Ft. Jackson, SC.

Length: 3 weeks (106 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: The student will be able to operate and use wheeled vehicle recovery vehicles (heavy-duty wrecker) and equipment to recover and transport wheeled vehicles.

Instruction: Includes operation, service, and use of recover vehicles (heavy duty wrecker) and equipment, procedures used in the recovery and transportation of heavy wheeled vehicles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in truck driving (3/87).

Related Occupation Codes: 63S.

AR-1710-0118

Wheel Vehicle Recovery Specialist

Course Number: 610-ASIH8 (63W).

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (80–81 hours).

Exhibit Dates: 6/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate wheeled recovery vehicles and associated equipment to recover and transport wheeled vehicles.

Instruction: Instruction includes operation, servicing, and use of recovery vehicles and equipment and procedures used in recovery and transport.

Credit Recommendation: In the vocational certificate category, 2 semester hours in truck driving (3/87).

Related Occupation Codes: 63W.

AR-1710-0119

Wheel Vehicle Repairer - Individual Ready Reserve Refresher

Course Number: 610-F3 IRR.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will understand the basic principles of the operaion on the different types of diesel fuel systems to include Cummins, Detroit Diesel, Stanadyne DB-2, and Bosch distributor pumps, engines, brake systems, and electrical systems. The student, with the use of diagnostic equipment, will be troubleshoot malfunctions in the fuel, engine, electrical, transmission, brake, engine retarder, power train, suspension, steering, and hydraulic systems of a heavy truck.

Instruction: Includes lectures on the basic principles of operation of the internal combustion engine, fuel system, electrical system, and associated maintenance. Hands-on instruction includes troubleshooting using diagnostic test equipment to troubleshoot malfunctions in the fuel, engine, electrical, transmission, brake, engine retarder, power train, suspension, steering, and hydraulic system of a heavy highway type truck tractor/truck.

Credit Recommendation: In the vocational certificate category, 2 semester hours in heavy truck mechanic (3/87).

Related Occupation Codes: 63W.

AR-1710-0120

Bradley Fighting Vehicle System Mechanic Primary Technical

Course Number: 611-63T20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 4–5 weeks (182 hours)

Exhibit Dates: 10/84–12/86.

Learning Outcomes: Upon completion of the course the student is able to perform organizational maintenance on wheeled equipment.

Instruction: Includes instruction in management and supervisory skill, interpretation of schematic diagrams, maintenance publications, forms and records, and identification and correction of malfunctions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in maintenance management, 1 in automotive engines, 1 in automotive electricity (3/87).

Related Occupation Codes: 63T.

AR-1710-0121

Light Wheel Vehicle Mechanic-Individual Ready Reserve Refresher

Course Number: 610-63B20-IRR.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (75 hours).

Exhibit Dates: 6/85–9/90.

Learning Outcomes: Upon completion of the course, the student will be able to use the skill and knowledge for the MOS in which he was trained.

Instruction: Instruction includes a refresher course in vehicle maintenance including such topics as maintenance management, principles of fuel systems, brake systems, electrical systems, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive maintenance management (3/87).

AR-1710-0122

Light Wheel Vehicle Mechanic Individual Ready Reserve Refresher

Course Number: 610-63B30-IRR.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 2 weeks (75 hours).

Exhibit Dates: 6/85–9/90.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and to perform preventive maintenance and troubleshooting on light and medium duty wheel, track vehicle, and power generation equipment.

Instruction: Lectures on management, preventive maintenance, and troubleshooting of gasoline engines, diesel engines, electrical systems, brakes, hydraulic systems and power generation equipment maintenance. Some hands-on experience is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in preventive maintenance supervision (3/87).

Related Occupation Codes: 63B.

AR-1710-0123

Armament Repair Technician Warrant Officer Advanced

Course Number: 4-9-C32-421A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 15 weeks (546–549).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage, maintain and repair armament equipment as needed. Also be able to keep maintenance records on armament equipment, repair and maintain the electrical and laser systems on armament equipment through a management position.

Instruction: Instruction includes lectures and hands-on with emphasis on management, maintenance management and communication skills. Considerable emphasis is placed on the electrical and lazer systems on armement equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 1 in management, 1 in heavy equipment maintenance management, 4 in basic electronics, and 2 in automotive electrical (3/87).

AR-1710-0124

Track Vehicle Recovery Specialist

Course Number: *Version 1:* 611-ASIH8 (63H) (63Y) (63D). *Version 2:* 611-ASIH8 (63H).

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 4–5 weeks (166–167 hours). *Version 2:* 4 weeks (161–162 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 6/84–9/88.

Learning Outcomes: Upon completion of the course, the student will be able to oper-

ate recovery vehicles and equipment to recover vehicles in various situations.

Instruction: Instruction includes lecture, operation and servicing of recovery vehicles and equipment. Procedures used in the recovery of disabled track vehicles, oxyacetylene cutting, selection of rigging equipment, and rigging are also covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in heavy equipment operation (3/88). *Version 2:* In the vocational certificate category, 4 semester hours in heavy equipment operation (3/87).

Related Occupation Codes: 63H; 63Y; 63D.

AR-1710-0125

Track Vehicle Recovery Mechanic Recovery Specialist

Course Number: 611-ASIH8 (63Y).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 3-4 weeks (130 hours).

Exhibit Dates: 10/84-9/88.

Learning Outcomes: Upon completion of the course the student will be able to operate and provide preventive maintenance on a heavy tracked vehicle used to tow and recover heavy disabled vehicles.

Instruction: Lectures, demonstrations, and practical exercises in driving a tracked vehicle on highways and cross-country, preventative maintenance procedures, operation of booms, winches, blades, rigging with blocks and tackles, towing disabled vehicles, checking fluid levels, and cutting metal with oxyacetylene equipment. Safety procedures are stressed.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment operation (3/87).

Related Occupation Codes: 63Y.

AR-1710-0126

Refresher Course, Track Vehicle Mechanic-Individual Ready Reserve

Course Number: 611-F5 (IRR).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (94-95 hours).

Exhibit Dates: 10/86-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to understand the basic principles of operation of the internal combustion engine, fuel system, electrical system (includes starting and charging), hydraulic system and tracked vehicle power train/brakes. The student will then with the use of diagnositc test equipment, references and basic knowledge be able to troubleshoot and record on forms malfunctions of track type vehicle engine, fuel, electrical hydraulic and track vehicle power train systems.

Instruction: Instruction includes lecture on the basic principles of operation of the internal combustion engine, fuel system, electrical system (including starting and charging), hydraulic system and track vehicle power train/brakes, care and use of test equipment, hands-on troubleshooting of induced malfunctions on engine, fuel system, electrical system, hydraulic systems and tracked vehicle power train/brakes, record diagnosis on correct forms.

Credit Recommendation: In the vocational certificate category, 3 semester hours in construction equipment mechanic (3/87).

AR-1710-0127

Track Vehicle Repairer Noncommissioned Officer (NCO) Advanced

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63H)

Course Number: 610-63H40; 6-63-C42 (63H).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 9-11 weeks (336-504 hours)

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63H.

AR-1710-0128

Construction Equipment Repairer Noncommissioned Officer (NCO) Advanced

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 62B)

Course Number: 612-62B40; 6-63-C42 (62B).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (280-459 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 62B.

AR-1710-0129

Bradley Fighting Vehicle System Mechanic Noncommissioned Officer (NCO)

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T)

Course Number: 611-63T40; 6-63-C42 (63B,D,E,N,T).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (295-445 hours)

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63B; 63D; 63E; 63N; 63T.

AR-1710-0130

Tank M60A1/A3 Tank System Mechanic Noncommissioned Officer (NCO) Advanced

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T)

Course Number: 611-63N40; 6-63-C42 (63B,D,E,N,T).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (295-445 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63B; 63D; 63E; 63N; 63T.

AR-1710-0131

M1 Abrams Tank System Mechanic Noncommissioned Officer (NCO) Advanced

(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T)

Course Number: 611-63E40; 6-63-C42 (63B,D,E,N,T).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (295-445 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63B; 63D; 63E; 63N; 63T.

AR-1710-0132

Light Wheel Vehicle Mechanic
Noncommissioned Officer (NCO)
Advanced
(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T)

Course Number: 610-63B40; 6-63-C42 (63B,D,E,N,T).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8–10 weeks (295–445 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63B, 63D, 63E; 63N; 63T.

AR-1710-0133

Special Purpose Equipment Repairer
Noncommissioned Officer (NCO)
Advanced

Course Number: 662-52X40.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 7 weeks (259 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 52X.

AR-1710-0134

Tank Turret Mechanic

Course Number: 643-45N10.

Location: U.S.Army Armor Center, Ft. Knox, KY.

Length: 10 weeks (367 hours).

Exhibit Dates: 8/83–9/86.

Learning Outcomes: Upon completion of the course the student will be able to operate, adjust and maintain the mechanical, electrical, and hydraulic components of a tank turret system.

Instruction: The course includes lectures and practical exercises along with performance examinations in tank turret system operation and maintenance, including armament component repair, disassembly, inspection, assembly, adjustment and safety procedures. Basic hydraulic and electrical systems are included in the course with major emphasis placed on electrical system repair and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive electricity (7/87).

AR-1710-0135

M1 Abrams Tank Recovery Specialist

Course Number: 611-ASIH8 (63E).

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 3–4 weeks (131 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance and to operate recovery vehicles and wreckers.

Instruction: Instruction includes lectures, practical exercises and hands on operation of recovery vehicles and wreckers including minor repairs, adjustments, boom and winch operation, on and off the road during skills and recovery of disabled vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment operation (7/87).

AR-1710-0136

Armor Officer Basic Reserve
Component

Course Number: 2-17-C25.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 8 weeks (540–580 hours).

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of an armor platoon leader.

Instruction: Instruction includes lecture and practical exercises in operation, maintenance, and tactical employment of the platoon weapons, equipment and vehicles, communication, tactical movement leadership, training of management, and navigation. Emphasis on practical field exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management skills, 2 in basic surveying, and 4 in military science (7/87).

AR-1710-0137

M551 (Sheridan) Basic
Noncommissioned Officer (NCO)

Course Number: 250-1-19D30.

Location: Armor School, Ft. Bragg, NC.

Length: 6 weeks (376–377 hours).

Exhibit Dates: 12/86–1/88.

Learning Outcomes: Upon completion of the course the student will be able to train and lead persons in the maintenance, operation, and employment of weapons and specialized equipment.

Instruction: Course includes lectures and training in leadership, maintenance, tactics, communications, land navigation, training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 4 in military science, 1 in basic surveying. For credit for the Advanced Noncommissioned Officer Common Core, see AR-1406-0090.

AR-1710-0138

M60A1/A3 Tank Systems Mechanic

Course Number: 611-63N30.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 8–10 weeks (299–338 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance management and recovery operations. And also be able to supervise diagnostic procedures, inspection and testing of maintenance functions on engines, power trains, electrical, suspension and hydraulic systems of the hull turret.

Instruction: Instruction includes lectures, demonstrations, shop and performance exercises on maintenance management, recovery, diagnostics, and supervision, inspection, and testing of maintenance functions on power trains and electrical systems and hydraulic systems of the automotive and turret systems. Training management and basic leadership skill are also emphasized.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, For track 1, 2 semester hours in maintenance management, 1 in automotive electricity, and 1 in automotive engines. For Track 2, 3 semester hours in maintenance management, 1 in automotive electricity, and 1 in automotive engines (7/87).

AR-1710-0139

Recovery Specialist-ASIH8/Track
Recovery Operations
(M88A1/M578)
(Recovery Operations (Track))

Course Number: RCY 221T; 221T.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to determine correct procedures to use in recovery of disabled vehicles; state basic principles of rigging, to include mechanical advantage and lift capabilities; properly select and use ropes, cables, mechanical anchor and blocks; operate boom, hoist, and winch from hand signals; use acetylene torch to cut through metal; recover disabled or overturned tracked vehicles through proper operations with associated equipment.

Instruction: Conference classes and practical exercises in determining correct procedures, use of equipment, and load computations to recover vehicles. Knows how to recover, hoist, and tow tracked vehicles, and operate and perform maintenance on recovery equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recovery equipment operation (10/88).

AR-1710-0140

Recovery Specialist/Recovery
Operations (M88A1/M578)
(Recovery Operations)

Course Number: RCY 221.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/86–11/87.

Learning Outcomes: Upon completion of the course, the student will be able to determine correct procedures to use in recovering disabled vehicles; state fundamental principles of rigging to include mechanical advantage; properly select and use ropes, cables, mechanical anchor and blocks; operate boom, hoist, and winch from hand signals; use acetylene torch to cut through metal; recover disabled or overturned vehicles through proper operations with associated equipment.

Instruction: Conferences and practical exercises in determining correct procedures, use of equipment, and load computations to recover vehicles. Knows how to recover, hoist and tow vehicles, and operate and maintain recovery equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recovery equipment operation (10/88).

AR-1710-0141

MOTOR SERGEANT/MOTOR OFFICER

Course Number: LOG 213/214.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (73 hours).

Exhibit Dates: 10/87–12/87.

Learning Outcomes: Upon completion of the course, the student will be able to use appropriate maintenance publications in the supervising of maintenance procedures, locate needed information in publications for recording data on maintenance records; prepare status reports of equipment; maintain records of equipment status; prepare document register for supply actions; verify completion of maintenance services; implement a quality assurance program; manage a vehicle workshop.

Instruction: Conferences and practical exercises in applying techniques taught in the classroom or solving problems that would occur on the job.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive maintenance systems and administration (10/88).

AR-1710-0142

MAINTENANCE SUPERVISOR

Course Number: LOG 215.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (74 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to use appropriate maintenance publications in the supervising of maintenance procedures; locate needed information for recording data on maintenance records; prepare status reports of equipment; maintain records of equipment status; prepare document register for supply actions; verify completion of maintenance services; evaluate a maintenance facility and implement a quality assurance program.

Instruction: Conferences, lectures, and practical exercises in which the student demonstrates knowledge of both the subject and the procedures, as well as the maintenance system records.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive maintenance systems and administration (10/88).

AR-1710-0143

M2/3 BRADLEY FIGHTING VEHICLE (BFV) UNIT TURRET MAINTENANCE

Course Number: TRT 316.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (74 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to locate components, operate, troubleshoot, and repair the mechanical systems of the 25mm automatic gun, using test equipment and repair standards; able to locate components, operate, troubleshoot, and repair the electrical, mechanical, and hydraulic systems of the M2/M3 Bradley fighting vehicle turret system.

Instruction: Lectures and conferences in electrical and mechanical system fundamentals and safety. Practical exercises in component location, operation, and troubleshooting, using test equipment, isolating and repairing/replacing components on both weapons systems and electrical and mechanical components on the turret systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance procedures and 1 in electrical systems troubleshooting (10/88).

AR-1710-0144

M1 UNIT TURRET MECHANIC

Course Number: TRT 317.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (74 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to locate components, operate and troubleshoot all systems, use test equipment, and repair/replace components of the M1 tank turret.

Instruction: Conferences in safety and electronic, electrical, and mechanical fundamentals. Practical exercises in locating and identifying components, operating and troubleshooting all systems of the turret, using test equipment, isolating faults, and repairing and replacing turret.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical systems troubleshooting and 1 in maintenance procedures (10/88).

AR-1710-0145

M60A3 UNIT TURRET MAINTENANCE

Course Number: TRT 318.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (109 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to locate, identify, and troubleshoot all components of the tank turret, to isolate faults, and to repair/replace components on the weapon, fire control, electrical, and hydraulic systems.

Instruction: Conferences in safety, basic electrical and hydraulic system fundamentals. Practical exercises in locating, identifying, operating, troubleshooting, using test equipment, isolating faults, and repairing and replacing components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electrical maintenance, 1 in hydraulics maintenance, and 1 in maintenance procedures (10/88).

AR-1710-0146

M113 SERIES UNIT MAINTENANCE TRAINING

Course Number: TVM 219.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (74 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to locate, identify, operate, and troubleshoot automotive and electrical systems, and use test equipment and wiring diagrams to isolate faults and repair/replace components.

Instruction: Conferences in safety, and basic mechanical and electrical fundamentals. Practical exercises in troubleshooting, using test equipment and wiring diagrams to isolate and repair/replace components on the diesel fuel, air, cooling, and electrical systems on the M113 personnel carrier; performing steering brake adjustment; removing and installing power plant.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance procedures (10/88).

AR-1710-0147

M2/3 BRADLEY FIGHTING VEHICLE (BFV) UNIT MAINTENANCE TRAINING

Course Number: TVM 216.

Location: Combined Arms Training Center, Vilseck, West Germany.

Length: 2–3 weeks (74–111 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic maintenance procedures on track vehicles using service manuals, test equipment, and special tools.

Instruction: Lectures and laboratory exercises in safety, repair parts manuals, electricity, test equipment, brake systems, special test equipment, transmission and steering linkage adjustments, electrical systems, and general maintenance procedures. Three-week course also includes cooling systems, lubricating systems, and fuel systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment procedures (10/88).

AR-1710-0148

M1 UNIT AUTOMOTIVE MAINTENANCE

Course Number: TVM 217.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: *Version 1:* 2 weeks (74 hours). *Version 2:* 3 weeks (102 hours).

Exhibit Dates: *Version 1:* 11/87–Present. *Version 2:* 10/86–10/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to troubleshoot and diagnose vehicle malfunctions on the M1 Abrams tank, using various test, measurement, and diagnostic equipment, and special tools; identify Ohm's law, terms and symbols, wiring schematics, and types of electrical circuits; troubleshoot charging system, fuel system, starting system, transmission, and power distribution systems. *Version 2:* Upon completion of the course, the student will be able to troubleshoot and diagnose vehicle malfunctions on the M1 Abrams tank using various test, measurement and diagnostic equipment, and special tools; able to perform general maintenance procedures.

Instruction: *Version 1:* Lecture and practical experience in basic electricity, special tools and test equipment, testing and diagnosing of components and circuits, and maintenance safety. *Version 2:* Lecture and laboratory in maintenance procedures, safety, special tools and equipment, electrical fundamentals, troubleshooting, and track suspension.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems troubleshooting (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems troubleshooting and 1 in maintenance procedures (10/88).

AR-1710-0149

M109-M110, M548 Unit Maintenance Training

Course Number: TVM 220.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to locate and identify components; troubleshoot; use test equipment to maintain critical automotive and electrical systems on the M109/M110/M548 track vehicles; use vehicle service manuals and wiring diagrams; isolate faults in the automotive systems (fuel, air, and cooling), and the electrical systems and perform subsequent repair/replacement.

Instruction: Conferences in safety and basic automotive and electrical fundamentals. Practical exercises in troubleshooting the automotive and electrical systems components; using test equipment; isolating faults; determining repair/replacement needs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance procedures (10/88).

AR-1710-0150

Cargo Specialist Basic Noncommissioned Officer (NCO)

Course Number: 822-88H20.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 4–5 weeks (138 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and control cargo and hatch operations, loading procedures and transhipment at air, rail, motor, inland barge and marine terminals.

Instruction: Lectures, demonstrations and performance exercises in leadership skills, cargo operations (rail), terminal and water transport, handling hazardous cargo, operation of Hagglund's crane, maintenance and property accountability, supervision and planning, and conducting and evaluating performance-oriented training. Course contains common core of instruction. See exhibit AR-1406-0090. For this course before 3/87, see AR-1710-0060.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision (3/88). For the common core, see AR-1406-0090.

Related Occupation Codes: 88H.

AR-1710-0151

Special Forces Engineer Sergeant

Course Number: 011-18C30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 23–24 weeks (1,423–1,497 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/87–9/89.

Learning Outcomes: Upon completion of the course the student will be able to determine, by use of aerial photographs and maps, locations, distances, desirable routes, and location of specific points; practice proper techniques for small boat operation; navigate to designated points; prepare military orders; practice survival techniques; plan drop-zone operations; read blueprints and similar illustrations; demonstrate proper construction procedures for building small bridges; have the skills to make use of explosive charges.

Instruction: Instruction includes lectures and exercises in the use of maps, survival techniques, air-ground operation, intelligence procedures, use of available tools and equipment for construction, considerable hands-on exercises in field operations, and the use of explosives. Course includes a common core of leadership subjects.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in construction practices and 1 in explosive techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in water safety and 1 in orienteering (12/88). For credit for the common core see AR-1406-0090.

AR-1710-0152

Special Operations Engineer Sergeant Reserve Component Phase 4

Course Number: 011-18C30-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (169 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe military and commercial explosives, their limitations and proper use; prepare plan for use of explosive; and demonstrate, through field exercise, an aerial approach and demolition of a specified target.

Instruction: Instruction includes lectures on foreign mine warfare, military and commerical explosives, care and destruction of unserviceable explosives, safety procedures, proper placement and type of explosives to obtain desired results, and extensive field exercises.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosive techniques (12/88).

AR-1710-0153

Recovery Specialist-ASIH8/Wheel Recovery Operations (M816/936/984E1)

(Recovery Operations (Wheel))

Course Number: RCY/221W, 221W.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to determine correct procedures to use in recovery of disabled vehicles; state basic principles of rigging to include mechanical advantage and lift capabilities; properly select cables, ropes, mechanical anchor and blocks; operate boom, hoist, and winch from hand signals; use acetylene torch to cut through metal; recover disabled and overturned wheeled vehicles through proper operations with associated equipment.

Instruction: Conference classes and practical exercises in determining correct procedures, use of equipment, and load computations to recover vehicles. Knows how to recover, hoist, and tow wheeled vehicles, operate recovery equipment, and perform maintenance on recovery equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recovery equipment operation (10/88).

AR-1710-0156

Field Artillery Weapons Maintenance

Course Number: 041-ASIU6.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (109 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic maintenance and perform basic tests for function on the M198 and M119 towed howitzer with primary emphasis on hydraulics and basic electrical systems.

Instruction: Lectures and performance exercises on the organizational maintenance procedures employed on the M198 and M119 towed howitzer; includes care and use of tools, shop safety, inspection, repair, and lubrication.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment maintenance and 1 in maintenance management (6/89).

AR-1710-0157

Self-Propelled Field Artillery Turret Mechanic

Course Number: 643-45D10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8 weeks (284 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform unit maintenance on the turret system of the M992 tracked vehicle; this includes electrical, cab, hydraulics, and fire control.

Instruction: Lectures and practical exercises on general service, lubrication, inspection, removal, installation, testing, and troubleshooting of the turret system; this includes publications tools, maintenance forms and safety.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic mechanics, 1 in basic hydraulics, and 1 in basic electricty (6/89).

Related Occupation Codes: 45D.

AR-1710-0158

Abrams/Bradley Supervisor Diagnostics Course

Course Number: SD-315.

Location: Seventh Army Combined Arms Training Center, Vilseck, West Germany.

Length: 3–4 weeks (144–160 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform system maintenance tasks and troubleshooting procedures to isolate malfunctions in the M1A1 Abrams tank and Bradley Fighting Vehicle turret and automotive systems.

Instruction: The course is divided into four tracks. In Track A (MOS's 45G, 45K, 45Z, and 913A , topics include: basic electrical fundamentals and components; repair of wiring harnesses; overview of hydraulic components and operation; turret electrical and hydraulic systems; diagnostic procedures; use of specialized test equipment and service manuals; and basic electrical troubleshooting procedures to isolate malfunctions. In Track B (MOS's 63G, 63H, 915B, 915D, and 915E), topics include: basic electrical components; repair of wiring harnesses and overview of hydraulic components and operation; turbine engines; operation and troubleshooting procedures to determine malfunctions in the hydraulic transmission system; system functions; electrical circuits and troubleshooting; powerplant functioning and fault isolation; and specialized test equipment. In Track C (MOS's 45E and 63E), topics include: basic electrical components; repair of wiring harnesses; overview of hydraulic components and operation; turret electrical and hydraulic systems; diagnostic procedures; specialized test equipment; turbine engines; and operation and troubleshooting procedures to determine malfunctions in the hydraulic transmission system. In Track D (MOS's 45T and 63T), topics include: basic electrical fundamentals and components; repair of wiring harnesses; overview of hydraulic components and operation; use of specialized test equipment and manuals; basic electrical circuits and troubleshooting; procedures to isolate malfunctions; systems function; and power plant functioning and fault isolation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 2 in electrical systems troubleshooting, and 1 in mechanical systems troubleshooting for those completing Track A; in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 1 in hydraulic systems troubleshooting, and 1 in mechanical systems troubleshooting for those completing Track B; in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 1 in electrical systems troubleshooting, 1 in mechanical systems troubleshooting, and 1 in hydraulic systems troubleshooting for those completing Track C; in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 1 in electrical systems troubleshooting, and 1 in mechanical systems troubleshooting for those completing Track D (10/89).

AR-1712-0001

Armor Intelligence Specialist

Course Number: 250-11D10.

Location: Armor School, Ft. Knox, KY.

Length: 8 weeks (310 hours).

Exhibit Dates: 3/71–12/86.

Objectives: To train enlisted personnel to drive and maintain armored vehicles and weapons.

Instruction: Lectures and practical exercises in the driving, maintenance and employment of armored vehicles and weapons, including field repair and maintenance of diesel engines and automatic weapons; marksmanship; combat and reconnaissance techniques; map reading; organization maintenance; and tactical and mechanical training.

Credit Recommendation: In the vocational certificate category, credit in engine mechanics on the basis of institutional evaluation (4/74).

Related Occupation Codes: 11D.

AR-1712-0002

1. Watercraft Engineer Primary Technical
2. Watercraft Engineer Primary Technical
3. Marine Engineer Skill Development Base

Course Number: *Version 1:* 652-61C20. *Version 2:* 652-61C20. *Version 3:* 652-61C20-I.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 11 weeks (408 hours). *Version 2:* 14–15 weeks (526 hours). *Version 3:* 5 weeks (589 hours).

Exhibit Dates: *Version 1:* 5/86–Present. *Version 2:* 3/80–4/86. *Version 3:* 10/68–2/80.

Objectives: To provide enlisted personnel technical training in diesel engine repair and maintenance to prepare for marine engineering certification.

Instruction: *Version 1:* Lectures and practical exercises in maintenance and repair of diesel engines and their associated systems (ie. hydraulic, electrical, drive train, pneumatic, etc.). Practical training includes generation and maintenance of refrigeration systems, fire fighting systems, and associated shipboard equipment. *Version 2:* Lectures and practical exercises in maintenance and repair of diesel engines and their associated systems (ie. hydraulic, electrical, drive train, pneumatic, etc.). Practical training includes generation and maintenance of refrigeration systems, fire fighting systems, and associated shipboard equipment. *Version 3:* Lectures and practical exercises in leadership principles, engine construction; internal-combustion engine principles; fuel injection, lubrication, cooling, hydraulic, diesel-cranking, and electrical systems operation and maintenance; electrical principles;refrigeration principles;hand and power tools operation; and onboard practical training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine operation and maintenance, 1 in electricity (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel engine technology, and 1 in basic electricity (3/83). *Version 3:* In the vocational certificate category, 3 semester hours in diesel engines, 3 in automotive electricity (4/74); in the lower-division baccalaureate/associate degree category, 3 in automotive electricity (4/74); in the upper-division baccalaureate category, 3 semester hours in diesel engines (4/74).

Related Occupation Codes: 61A; 61C.

AR-1712-0003

Powerman

Course Number: 622-351.1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 7 weeks (254 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train enlisted personnel to install, operate, and maintain gasoline and diesel engine portable generating equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of gasoline and diesel engine portable generating equipment, including fundamental subjects, internal-combustion engine systems, diesel engine maintenance, electrical fundamentals, and conventional generator sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 1 in diesel mechanics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 1 in diesel mechanics (7/74).

AR-1712-0004

Amphibian Engineer Mechanic

Course Number: 652-61E20.

Location: Transportation School, Ft. Eustis, VA.

Length: 5 weeks (161–168 hours).

Exhibit Dates: 1/67–8/76.

Objectives: To train enlisted personnel to maintain the LARC V, LARC XV, and the LARC LX amphibious craft.

Instruction: Lectures and practical exercises in the maintenance of the LARC V, LARC XV, and the LARC LX amphibious craft, including electrical subjects, high-speed diesel engines, amphibian power trains and steering systems, and maintenance and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel mechanics, 2 as an elective in vocational/technical programs (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in diesel mechanics, 2 as an elective in vocational/technical programs (7/74).

Related Occupation Codes: 61E.

AR-1712-0005

Amphibian Engineer Repairman

Course Number: 652-61E30.

Location: Transportation School, Ft. Eustis, VA.

Length: 7 weeks (246 hours).

Exhibit Dates: 4/67–5/76.

Objectives: To train enlisted personnel to maintain and repair the LARC V, the LARC XV, and the LARC LX amphibious craft.

Instruction: Lectures and practical exercises in the maintenance and repair of amphibious craft, including the LARC V, LARC XV, and the LARC LX. Course includes the operation, inspection, and troubleshooting of the electrical, fuel, hydraulic, pneumatic, steering, and power trains systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel mechanics, 2 as an elective in vocational/technical programs (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in diesel mechanics, 2 as an elective in vocational/technical programs (7/74).

Related Occupation Codes: 61E.

AR-1712-0006

Engineer Equipment Repair Technician

Course Number: 4L-621A; 612-F2.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11 weeks (376–427 hours).

Exhibit Dates: *Version 1:* 4/79–1/88. *Version 2:* 6/66–3/79.

Objectives: To train officers to be engineer equipment and repair technicians.

Instruction: *All Versions:* Conferences and practical exercises in maintenance management, repair parts supply, gasoline engines, diesel engines, equipment components, troubleshooting, organizational maintenance, power generator equipment, precise-power generator repair, gas turbine repair, air conditioning, air compressors and Nike elevators and power packs. *Version 1:* Course does not include Nike elevators and power packs or air conditioning.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in introduction to gasoline engines, 1 in introduction to diesel engines, 1 as an elective in mechanical or industrial programs (9/79); in the lower-division baccalaureate/associate degree category, 1 semester hours in introduction to gasoline engines, 1 in introduction to diesel engines, 1 as an elective in mechanical or industrial programs (9/79); in the upper-division baccalaureate category, 1 semester hour in maintenance management, 1 in supply management (9/79). *Version 2:* In the vocational certificate category, 1 semester hour in introduction to gasoline engines, 1 in introduction to diesel engines, 1 in air conditioning, and 1 as an elective in mechanical or industrial programs (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to gasoline engines, 1 in introduction to diesel engines, 1 in air conditioning, and 1 as an elective in mechanical or industrial programs (6/75); in the upper-division baccalaureate category, 1 semester hour in maintenance management and 1 in supply management (6/75).

Related Occupation Codes: 621A.

AR-1712-0007

HARBOR CRAFT ENGINEERING OFFICER
(Harbor Craft Engine Operation Advanced)

Course Number: 8C-0823; 4H-562D; 652-F1; 55-H-0823; 55-OE-23.

Location: Transportation School, Ft. Eustis, VA.

Length: 17–19 weeks (630–713 hours).

Exhibit Dates: 3/54–3/84.

Objectives: To train personnel to operate and maintain the engines and auxiliary machinery and equipment on vessels.

Instruction: Lectures and practical exercises in vessel engines and auxiliary machinery, and equipment operation and maintenance, including logistics, engineering, shipfitting and welding, pipefitting, marine electricity, diesel engines, boilers, and leadership training.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in diesel repair, 3 in diesel mechanics (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in diesel repair, 3 in diesel mechanics (7/74).

Related Occupation Codes: 61C; 500A; 561B; 561C; 561D; 561E.

AR-1712-0008

DIESEL ENGINE REPAIR

Course Number: 5-E-34.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11 weeks (382 hours).

Exhibit Dates: 2/56–12/68.

Objectives: To train enlisted personnel to repair diesel engines used as power units on heavy cranes, shovels, graders, air compressors, and generator sets.

Instruction: Lectures and practical exercises in the repair and safe operation of earth-moving and heavy equipment. Course includes diesel theory and repair, electrical devices, and units of instruction on specific engines.

Credit Recommendation: In the vocational certificate category, 8 semester hours as an elective in diesel engine laboratory or heavy equipment (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours as an elective in diesel engine laboratory or heavy equipment (7/74); in the upper-division baccalaureate category, 5 semester hours as an elective in diesel engine laboratory or heavy equipment (7/74).

AR-1712-0009

AMPHIBIAN ENGINEER, SKILL
DEVELOPMENT BASE

Course Number: 652-61E20-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 14 weeks (571 hours).

Exhibit Dates: 10/68–12/69.

Objectives: To train amphibian engineers to perform as technicians and supervisors.

Instruction: Lectures and practical exercises in amphibian engineering and supervisory techniques, including leadership, welding, general subjects, electrical subjects, fuel systems, high-speed diesel engines, hydraulic systems, amphibian power trains, and pneumatic systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding laboratory, 2 in diesel engine laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding laboratory, 2 in diesel engine laboratory (7/74).

Related Occupation Codes: 61E.

AR-1712-0010

MARINE ENGINEERING AND REPAIR
SUPERVISION

Course Number: 55-E-29.

Location: Transportation School, Ft. Eustis, VA.

Length: 12 weeks (433 hours).

Exhibit Dates: 8/55–12/68.

Objectives: To train enlisted personnel to supervise engineroom activities on harborcraft, and to maintain and repair marine engines and auxiliaries.

Instruction: Lectures and practical exercises in supervision of engineroom activities on harborcraft and in maintenance and repair of marine engines and auxiliaries, including basic equipment fundamentals, electricity, pipe design and theory, machine tool operation, refrigeration, fuel injection review, two- and four-stroke propulsion engines, two-stroke auxiliary engines, and diesel fundamentals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 2 in machine shop, 3 in introduction to diesel engines, and 1 in introduction to refrigeration (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 2 in machine shop, 2 in introduction to diesel engines, and 1 in introduction to refrigeration (7/74).

AR-1712-0011

DIESEL-ELECTRIC LOCOMOTIVE REPAIR

Course Number: 55-E-8.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (440 hours).

Exhibit Dates: 8/55–12/68.

Objectives: To train enlisted personnel as diesel-electric locomotive repairmen.

Instruction: Lectures and practical exercises in inspection, maintenance, overhaul, and repair of non-electric sections of diesel-electric locomotives and their component parts and assemblies, including general basic technical subjects; diesel engines assemblies; basic blueprint reading and machine sketching; diesel operating principles; hand and power tools; diesel-electric locomotive terms; diesel engine governors; and nomenclature and location of electrical equipment.

Credit Recommendation: In the vocational certificate category, 7 semester hours in diesel technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in diesel technology (7/74).

AR-1712-0012

MARINE ENGINEER REPAIR

Course Number: 652-61C30.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (355 hours).

Exhibit Dates: 3/71–7/72.

Objectives: To train marine engineers to operate, maintain, and repair propulsion systems, auxiliary equipment, machinery, and sustaining equipment on marine vessels.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of propulsion systems, auxiliary equipment, machinery, and sustaining equipment on marine vessels, including mathematics, diesels, gasoline engines, centrifuges and governors, measuring instruments, machine shop procedures and equipment, AC and DC motors and generators, electrical calculations and meters, electronics equipment, oxyacetylene welding and blacksmithing, refrigeration systems, fuel injection equipment, and installation, operation, maintenance, troubleshooting of diesel engines.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in power technology, 2 in diesel power (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in power technology, 2 in diesel power (7/74); in the upper-division baccalaureate category, 2 semester hours as an elective in power technology (7/74).

Related Occupation Codes: 61C.

AR-1712-0013

1. POWER GENERATION EQUIPMENT REPAIRER PRIMARY TECHNICAL
   (Power Generation Equipment Repairman)
2. GAS TURBINE GENERATOR REPAIR

Course Number: *All Versions:* 662-52D20. *Version 2:* 662-351-3.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 11–17 weeks (356–539 hours). *Version 2:* 12–13 weeks (442–480 hours).

Exhibit Dates: *Version 1:* 12/72–1/88. *Version 2:* 6/65–11/72.

Objectives: To train enlisted personnel to maintain and repair electric control circuitry, electric motors and generators, gas turbine engines, and gasoline and diesel engines.

Instruction: Lectures and practical exercises in the maintenance and repair of electric control circuitry, electric motors and generators, gas turbine engines, and gasoline and diesel engines. Course includes general support maintenance procedures for the following types of generator sets: gasoline engine, tactical precise diesel engine, tactical turbine engine, turbine driven multi-output units, and electrical forklift trucks.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical maintenance, 2 in diesel mechanics, 2 in auto mechanics (9/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical maintenance, 2 in diesel mechanics, 2 in auto mechanics (9/79). *Version 2:* In the vocational certificate category, 2 semester hours in electrical maintenance, 2 in auto mechanics, 2 in generator repair (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical maintenance, 2 in auto mechanics, 2 in generator repair (8/74).

Related Occupation Codes: 52B; 52D.

AR-1712-0014

M1 Abrams Tank System Mechanic Primary Technical

Course Number: 611-63E20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 7-8 weeks (267-268 hours).

Exhibit Dates: 10/83-1/87.

Objectives: To train enlisted personnel in troubleshooting, isolation and identification of malfunction, interpretation of schematic diagrams, inspection of electrical wiring and hydraulic lines, alignment of assemblies and components, supervisory skills, and maintenance of publications forms and records.

Instruction: The course instructs enlisted personnel in maintenance management; supply discipline; repair parts procedures; counseling of personnel on job performance, training of subordinate personnel, and fundamentals of maintenance supervision; course offers technical knowledge in principles of internal combustion engine, principles of fuel systems, principles of automotive electrical system, cooling system, brake system, transmission system, logical troubleshooting procedures, and minor repairs and replacement and adjustment of linkages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in diesel shop management, 3 in heavy equipment and diesel engine theory (2/84).

Related Occupation Codes: 63E.

AR-1712-0015

M1 Abrams Tank Systems Mechanic Basic Technical

Course Number: 611-63E30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 11-13 weeks.

Exhibit Dates: 8/83-9/86.

Objectives: To train enlisted personnel to supervise and perform tracked vehicle recovery operations and organizational maintenance on the M1 Abrams tank system, tracked medium recovery vehicles, M113 family vehicles and light tactical wheeled vehicles.

Instruction: The emphasis of instruction is on leadership, map reading, tactical communications, security and mission performance. Also, maintenance operations, supply management, theory of automotive materials, performance, supervision and instruction of organizational maintenance, troubleshooting and diagnosis of M1 Abrams tank and wheeled vehicles system and recovery techniques and operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supervision and management for either Track A (45E) or Track B (63E)(2/84).

Related Occupation Codes: 45E; 63E.

AR-1712-0016

M2/M3 Bradley Fighting Vehicle Repairer

Course Number: 611-ASIM5(63H).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 3 weeks (108 hours).

Exhibit Dates: 6/83-9/90.

Objectives: To train enlisted personnel in the general maintenance and servicing of diesel engines.

Instruction: Lectures, demonstrations, and practical exercises in troubleshooting, adjusting, testing, and repair of the various systems and components of the diesel engine. The course includes adjusting and repairing valve trains, troubleshooting procedures, replacing and servicing transmissions and gear boxes and adjusting fuel injectors.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in diesel engine technology (2/84).

Related Occupation Codes: 63H.

AR-1712-0017

Watercraft Engineer Basic Technical

Course Number: 652-61C30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 5 weeks (180 hours).

Exhibit Dates: 6/85-12/86.

Objectives: To provide qualified personnel with technical management and supervisory skills in watercraft engineering.

Instruction: Lectures and practical exercises in marine engineering duties, firefighting, safety procedures and damage control are included. The course also provided instruction in the supervisory skills and knowledge needed to operate, service, troubleshoot, and repair various watercraft systems. For information on this course after 12/86, see exhibit AR-1712-0018.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in marine engineering supervision, 2 in marine hydraulic systems, 2 in marine electrical, and 2 in marine air conditioning and refrigeration systems (5/86).

Related Occupation Codes: 61C.

AR-1712-0018

Watercraft Engineer Basic Noncommissioned Officer (NCO)

Course Number: 652-88L30.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 7 weeks (238 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and train enlisted personnel in firefighting, damage control, emergency and administrative duties, pollution control and shipboard sanitation. The student will be able to operate, service, troubleshoot and repair marine hydraulic systems, marine electrical systems, and marine air conditioning and refrigeration systems.

Instruction: Lectures and exercises with examinations in common marine technical tasks, marine hydraulics, electrical, air conditioning and refrigeration. For information on this course before 1/87, see AR-1712-0017. Course contains a common core on instruction, see AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in marine engineering supervision, 1 in marine hydraulics, 1 in marine electricity, and 1 in marine air conditioning and refrigeration (3/88). For credit for the common core portion, see AR-1406-0090.

Related Occupation Codes: 61C.

AR-1712-0019

Watercraft Engineer Advanced Noncommissioned Officer (NCO)

Course Number: 652-88L40.

Location: Transporation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 13-14 weeks (109-497 hours). *Version 2:* 13-14 weeks (459 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/87-9/88.

Learning Outcomes: Upon completion of the course, the student will be able to supervise the operation and maintenace of marine diesel engines, diesel fuel injector systems, electrical systems, marine refrigeration and air conditioning systems, air compressors and controls, pumps, gears and drive couplings, and line shafts, bearings and propellors. The student will be able to perform technical inspections of marine engine components and welds. The student will also assume shipboard duties as a marine engineer including management and administartive duties.

Instruction: Lectures, demonstrations, and practical exercises in marine engineering, administration and management. For the common core see AR-1404-0035.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine engineering supervision, 2 in marine diesel engines, 2 in marine electrical systems, 1 in marine air conditioning and refrigeration, and 1 in marine engineering operations (3/88). For the common core see AR-1404-0035.

Related Occupation Codes: 881.

AR-1712-0020

Marine Engineering Officer Warrant Officer Technical Certification

Course Number: *Version 1:* 4H-881A. *Version 2:* 4H-510A.

Location: Transporation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 39 weeks (1412 hours). *Version 2:* 29-30 weeks (1070 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/84-9/88.

Learning Outcomes: Upon completion of the course, the student will be able to direct the operation, maintenance, repair and overhaul of engineering machinery and equipment installed in or on Army watercraft. The student will be able to meet successfully the academic and vessel-specific requirements for the Army Marine License Annotated Chief Engineer of Class A-1 Motor Vessel and Assistant Engineer of Class A-2 Unlimited Motor Vessel. The student will be able to operate and maintain auxiliary shipboard systems including fresh and raw water pumps and systems, oil water separator, centrifuges, and low-pressure boiler and heating systems. The student will be able to operate, maintain, and repair as necessary and possible shipboard electrical apparatus and instruments including AC and DC motors, generators and switchboards, batteries, refrigeration systems and controls and windlass, winch and capstain. The student will be able to operate and maintain diesel engines and associated equipment. The student will be able to perform propellor, shaft, rudder and plastic repairs and inspect, test, repair and replace marine piping systems. Finally, the student will be able to maintain, inspect, and replace rudders, propellors, propellors shafts, bearing and stepping boxes.

Instruction: Lectures, examinations, and practical exercises on shipboard nomenclature, drills, emergencies, damage control, firefighting, drownproofing, survival, sanitation, plus customs, reports and courtesies. Topics also include marine electricity, refrigeration, diesel engine theory, operation and maintenance, and hull, propulsion and steering maintenance.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in diesel engineering, 2 in marine electricity, 2 in refrigeration; in the upper-division baccalaureate category, 3 in principles of management (3/88).

Related Occupation Codes: 510A.

AR-1712-0021

Marine Engineering Officer Warrant Officer Advanced

Course Number: 4-55-C32-510A2.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 14 weeks (509 hours).

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to pass the SQI2 Marine Certification Examination and to perform at an increased level of responsibility as a port engineer, marine inspector, project officer and instructor. The student will be able to inspect fuel, lube and oil piping systems, the bilge pumping system and shipboard sanitation to ensure compliance with federal law. The student will be able to supervise marine surveys, shipyard repairs, vessel storage, shipboard hull and equipment, deck machinery, destructive and nondestructive testing and fiberglass repairs to metal hulls. The student will be able to supervise and inspect the maintenance on the steering system, propellor shaft, rudder and hull assembly, and the ship's heating system, air compressors and pumps. Finally, the student will be able to troubleshoot, maintain and repair diesel engines and fuel system injectors and to perfrom tests and inspections on marine governors, air conditioning and refrigeration systems.

Instruction: Lectures, demonstrations and practical exercises on the duties and responsibilities of senior marine warrant officers serving as master, chief engineer, detachment commander or senior staff position. Covered also are pollution control, shipyard repair and maintenance, maintenance of steering, propulsion and auxiliary systems and marine electricity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hoursin marine electricity, 2 in marine diesel and 3 in principles of supervision (3/88).

Related Occupation Codes: 510A.

AR-1713-0001

Decca Charting and Reproduction

Course Number: 411-F1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 6 weeks (227 hours).

Exhibit Dates: 3/67-11/86.

Objectives: To provide enlisted personnel with basic training in Decca hyperbolic navigation charting.

Instruction: Lectures in Decca hyperbolic navigation theory and system, flight log chart production, and chart assembly and reproduction; and exercises in navigational charting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio navigation, 6 in cartography (2/74).

Related Occupation Codes: 81C, 81D.

AR-1713-0002

Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)

Course Number: 44-E-2.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 14 weeks (507 hours).

Exhibit Dates: 11/56-12/68.

Objectives: To train AAA operations and intelligence specialists to assist operations officers in the establishment of fire control orientation data.

Instruction: Lectures and practical exercises in AAA operations and intelligence, including mathematics, engineering drawing, survey and orientation, map and aerial photograph reading, gunnery, tactics, communications, instructor training, training management, astronomical computations, azimuth determination, AAA service practice recording and analysis, and plane surveying.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in plane surveying and engineering drawing (5/74).

AR-1713-0003

General Drafting

Course Number: 5-E-3.

Location: Engineer School, Ft. Belvoir, VA.

Length: 9 weeks (330-360 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train enlisted personnel to assist in cartographic model making and related art and drafting activities.

Instruction: Lectures and practical exercises in basic drafting, mathematics review, military drafting techniques, projected drawings, blueprint reading, and graphs and charts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drafting (5/74); in the upper-division baccalaureate category, 4 semester hours in engineering drawing (12/68).

AR-1713-0004

Map Compiling (for Army Personnel)

Course Number: 411-81D20; 5-R-812.1; 5-E-1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (366-400 hours).

Exhibit Dates: 7/53-9/70.

Objectives: To train enlisted personnel to compile and revise planimeter, topographic and photographics maps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in map compiling, including compilation base preparation, radial triangulation, aerial photography planning and mosaics, color separation, situation overlays, and terrain analysis maps.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in map compilation (5/74); in the upper-division baccalaureate category, 4 semester hours in mapping and drafting (12/68).

Related Occupation Codes: 81D.

AR-1713-0005

Map Compiling (for Air Force Personnel)

Course Number: 411-81D20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 11-13 weeks (402-492 hours).

Exhibit Dates: 12/67-9/70.

Objectives: To train enlisted personnel to compile and revise planimeter, topographic, and phtotographic maps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in map compilation, including compilation base preparation, radial triangulation, aerial photography planning and mosaics, color separation, situation overlays, and terrain analysis maps.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in map compilation (5/74); in the upper-division baccalaureate category, 4 semester hours in mapping and drafting (12/68).

AR-1713-0006

Cartographic Drafting

Course Number: 411-81C20; 411-813.1; 5-E-4.

Location: Engineer School, Ft. Belvoir, VA.

Length: 9-11 weeks (321-440 hours).

Exhibit Dates: 7/53-4/72.

Objectives: To train enlisted personnel to be cartographic drafters.

Instruction: Lectures and practical exercises in cartographic drafting, including color separation drafting techniques, map preparation with drafting equipment and scribing instruments, map revision, aerial photomosaic preparation, situation overlays, compilation base preparation, and radial triangulation.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in mapping and drafting (12/68).

Related Occupation Codes: 81C.

AR-1713-0007

Construction Drafting

Course Number: 413-81B20; 5-R-811.1; 5-E-50.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10-11 weeks (374-440 hours).

Exhibit Dates: 3/54-2/71.

Objectives: To train enlisted personnel to prepare working drawings for bridges, airfields, roads, railroads, and piers.

Instruction: Lectures and practical exercises in basic drafting; mathematics review; materials and methods of construction; construction drawings; estimates and bills of material; plumbing, heating, and wiring layouts; perspective drawings; and roads, railroads, and airfields drawing and calculations for survey notes.

Credit Recommendation: In the vocational certificate category, 10 semester hours in architectural drafting (7/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in architectural drafting (7/74); in the upper-division baccalaureate category, 4 semester hours in engineering drafting (12/68).

AR-1713-0008

Field Artillery Fire Support Specialist

Course Number: *Version 1:* 250-13F10. *Version 2:* 250-13F10; 13F10-OSUT. *Version 3:* 250-13F10.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 6 weeks (229 hours). *Version 2:* 6-15 weeks (239-644 hours). *Version 3:* 5-12 weeks (165-497 hours).

Exhibit Dates: *Version 1:* 2/89-Present. *Version 2:* 3/85-1/89. *Version 3:* 3/78-2/85.

Objectives: To qualify enlisted personnel to become a member of a fire support team.

Instruction: Lectures and practical exercises in map reading, land navigation, resection, polar plotting grid coordinates and use of metric measurement; installation, operation and maintenance of radio transmitters and receivers; requesting fires and the subsequent adjustment of artillery fires, either day or night, using maps, compass, formulas, and radio telephone. *Version 2:* NOTE: Long version of the course includes basic training. *Version 3:* NOTE: Longer course includes 8 weeks basic training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in radio operations, 2 in map reading (8/88). *Version 2:* In the vocational certificate category, 1 semester hour in radio operations, 2 in map reading (11/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (1/80).

Related Occupation Codes: 13F.

AR-1714-0001

Tactical Circuit Controller

Course Number: *Version 1:* 202-31N10. *Version 2:* 202-31N10; 202-31N10-CELT. *Version 3:* 202-31N20.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: *Version 1:* 10-15 weeks (373-610 hours). *Version 2:* 11 weeks (384-391 hours). *Version 3:* 5 weeks (180 hours).

Exhibit Dates: *Version 1:* 6/79-9/88. *Version 2:* 8/73-5/79. *Version 3:* 10/66-7/73.

Objectives: To train enlisted personnel to operate tactical patching panels.

Instruction: For this course after 9/88 see AR-1715-0849. *All Versions:* Practical exercises in installation, operation, and operator maintenance of communications patching panels. *Version 1:* All basic introductory electronic topics have been deleted from this version.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (10/86). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory, and additional credit on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory, and additional credit on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31N.

AR-1714-0002

Surface-to-Air (SAM) Missile Mechanical Materiel Maintenance Maintenance (Nike Ajax)

Course Number: 44-R-221.2.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (278 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train enlisted personnel to assemble, insfall, maintain, and adjust Nike Ajax mechanical and hydraulic on-missile guidance control systems and associated equipment.

Instruction: Lectures and practical exercises in assembly and maintenance of surface-to-air missiles, including basic electricity, missile mechanics, mechanical materiel of assembly and launching areas, and missile preparation and depreparation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

AR-1714-0003

Missile Monitor Operations Central and Terminal Equipment Repair

Course Number: 11-N-298.2.

Location: Signal Fire Distribution Systems Training Activity, Ft. Bliss, TX.

Length: 18 weeks (660 hours).

Exhibit Dates: 6/61-12/68.

Objectives: To train warrant officers and enlisted personnel with electronics backgrounds to perform field and organizational maintenance on missile monitor operations central and coder-decoder subsystems.

Instruction: Lectures and laboratories in coordinate data, digital fundamentals, power supplies, coder-decoder groups, detailed circuit analysis of operations central, ground-to-slant converters, and troubleshooting and repair techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1714-0004

Infantry Communication Supervision

Course Number: 7-R-311.7; 7-E-2.

Location: Infantry School, Ft. Benning, GA.

Length: 11-13 weeks (440-545 hours).

Exhibit Dates: 1/55-12/68.

Objectives: To train personnel to supervise the maintenance of signal communications equipment.

Instruction: Lectures and practical exercises in job-oriented communication fundamentals, including message center operation and cryptography, radio receiver operation, radio sets and allied equipment, wire communication, tactical application of communications, map and aerial photograph reading, and wire-laying techniques and pole climbing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1714-0005

Antiaircraft Artillery (AAA) Remote Control Repair

Course Number: 9-R-301.2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 9 weeks (315 hours).

Exhibit Dates: 1/57-12/68.

Objectives: To train antiaircraft artillery remote control repairmen to inspect, test, and maintain light and heavy nonintegrated antiaircraft remote control equipment.

Instruction: Lectures and practical exercises in the maintenance of light and heavy nonintegrated antiaircraft remote control equipment, including sighting devices, electrical-mechanical drive controllers, oil gears, indicator systems, power control, motor drives, testing, and field maintenance procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical repair (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74).

AR-1714-0006

Locomotive Electrician
(Diesel-Electric Locomotive Electrician)

Course Number: 55-R-653.1; 55-E-37.

Location: Transportation School, Ft. Eustis, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To train enlisted personnel to inspect, repair, and maintain electrical equipment and accessories of diesel-electric locomotives.

Instruction: Lectures and practical exercises in the inspection, repair, and maintenance of electrical equipment and accessories of diesel-electric locomotives, including elementary electricity and electrical equipment, tracing of electrical wiring diagrams, generators and traction motors, control equipment, auxiliary electrical equipment operation, batteries, and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

AR-1714-0007

Power Equipment Maintenance

Course Number: 11-E-8.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 10 weeks (356 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train enlisted personnel to install, operate, and maintain portable gasoline and diesel electrical power-generation equipment.

Instruction: Lectures and practical exercises in installation, operation, and maintenance of portable gasoline and diesel electrical power-generation equipment, including introduction to communications, electrical fundamentals, gasoline power units, diesel engine components and operation, generating components, and power unit installation procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical technology, 3 in automotive technology, and 2 in diesel technology (4/74);

in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical technology, 3 in automotive technology, and 2 in diesel technology (4/74).

AR-1714-0008

Marine Engineering Officer
Advanced

Course Number: 4H-562C.

Location: Transportation School, Ft. Eustis, VA.

Length: 14 weeks (477 hours).

Exhibit Dates: 1/72–8/76.

Objectives: To train engineering officers to perform as marine engineering officers for medium-sized vessels.

Instruction: Lectures and practical exercises in marine engineering for medium-sized vessels, including logistics, management, military correspondence, vessel design, hull repair, general engineering principles, diesel engine fundamentals, basic electricity, and refrigeration and air conditioning systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electricity, 1 in introduction to diesel engines, and credit in an industrial, mechanical, or marine technology elective on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 1 in introduction to diesel engines, and credit in an industrial, mechanical, or marine technology elective on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in basic electricity and an industrial, mechanical, or marine technology elective on the basis of institutional evaluation (4/74).

AR-1714-0009

Antennaman Noncommissioned Officer
(NCO) Basic

Course Number: 621-36D40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 15 weeks (332 hours).

Exhibit Dates: 5/71–12/86.

Objectives: To train noncommissioned officers as antennamen.

Instruction: Lectures and practical exercises in the duties and responsibilities of a noncommissioned officer antennaman, including command leadership subjects, maintenance, signal communications, personnel management, military leadership, civil affairs and disturbances, command tactics, CBR operations weapons, Army aviation, special warfare, active and passive air defense measures, and surveying and installation of antennas.

Credit Recommendation: In the vocational certificate category, 2 semester hours in civil technology (communications) (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in civil technology (communications) (5/74); in the upper-division baccalaureate category, 3 semester hours in civil technology (communications) (5/74).

Related Occupation Codes: 36D.

AR-1714-0010

Lineman Skill Development Base

Course Number: 621-36C40-1.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 12 weeks (479 hours).

Exhibit Dates: 12/68–12/86.

Objectives: To train enlisted personnel to qualify as linemen supervisors.

Instruction: Lectures and practical exercises in the responsibilities of a lineman, including leadership training, small-unit tactics, tactical field exercises, general military subjects, organization and employment of signal units, signal systems planning and control, team chief training, counterintelligence, security during movement, defense of signal installations, fundamentals of defensive combat, and communications control.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 36C.

AR-1714-0011

Lineman Noncommissioned Officer
(NCO) Basic

Course Number: 621-36C40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 13 weeks (500 hours).

Exhibit Dates: 5/71–12/86.

Objectives: To train personnel to supervise linemen.

Instruction: Lectures and practical exercises in the duties of a noncommissioned officer and lineman, including command leadership subjects, command tactics, procurement of outside-plant materials and equipment, military justice, unit readiness, field engineering, mine warfare, special warfare, selection of materials and equipment, construction team supervision, outside-plant inspection, emergency medical treatment, and signal communications.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 36C; 31Z.

AR-1714-0012

Field Wireman Noncommissioned
Officer (NCO) Basic

Course Number: 621-36K40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 13 weeks (500 hours).

Exhibit Dates: 5/71–12/86.

Objectives: To qualify enlisted personnel as noncommissioned officers in field wiring.

Instruction: Lectures and practical exercises in the basic duties of NCO field wiremen. Topics include command leadership, command tactics, emergency medical treatment, procurement of field wire and field cable, wire team supervision, field wire and cable system inspections, and other general military subject matter.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

Related Occupation Codes: 36K; 31G; 36C.

AR-1714-0013

Associate Surface-to-Surface Missile
(SSM) Battery Officer

Course Number: 44-O-2C.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 15 weeks (600 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To train officers in the responsibilities of battery-grade surface-to-surface artillery officers.

Instruction: Lectures and practical exercises in the duties and responsibilities of surface-to-surface artillery officers. Course includes basic electronics, motors and generators, communications, guidance, and firing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic electricity (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (12/68).

AR-1714-0014

1. Corporal Ground Handling
   Equipment Repair
2. Corporal Mechanical Systems
   Repair
   (Surface-to-Surface Missile Mechanical
   Repair)

Course Number: *Version 1:* 9-R-437.1; 9-R-F22. *Version 2:* 9-R-432.1; 9-E-66.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 9–10 weeks (319–364 hours). *Version 2:* 7–14 weeks (266-519 hours).

Exhibit Dates: *Version 1:* 7/59–12/68. *Version 2:* 5/55–6/59.

Objectives: To train enlisted personnel to perform as Corporal ground handling equipment repairmen or Corporal mechanical systems repairmen.

Instruction: *Version 1:* Lectures and practical exercises in inspection, testing, field maintenance, and repair of Corporal ground handling, launching, servicing and associated test equipment, including ground handling equipment basics, basic pneumatics and air servicing truck, firing station and air compressor, function and operation of servicing platform, basic electricity, erector power set, drive wheel assembly and controller, and erector AC motors, speed decreasers, and control components. *Version 2:* Lectures and practical exercises in inspection, testing, field repair and maintenance of Corporal missile mechanical and propulsion systems; procedures for fueling, defueling, and decontaminating the missile; and operation, field repair, and maintenance of ordnance items of Corporal ground handling equipment, including main air regulation system testing, propellant systems and components testing, propellant valve assembly, missile draining procedures, propellant trucks, and servicing platforms.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/74). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (6/74).

AR-1714-0015

1. Wire Systems Installer
   (Wire System Installer/Operator)
2. Telephone Installer and Lineman
3. Lineman

Course Number: *Version 1:* 621-36C10; 621-36C10-OSUT; 621-31L10. *Version 2:* 621-36C20. *Version 3:* 621-36C20; 11-R-321.1; 11-E-26.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 5–18 weeks (296-653 hours). *Version 2:* 9 weeks (315 hours). *Version 3:* 7–8 weeks (244–280 hours).

Exhibit Dates: *Version 1:* 10/78–Present. *Version 2:* 8/74–9/78. *Version 3:* 12/55–7/74.

Objectives: To train personnel in the knowledge ans skills necessary to install and maintain field wire and cable networks and telephones.

Instruction: *All Versions:* Lectures and practical exercises in construction, maintenance, and recovery of outside plants consisting of open wire, aerial cable, field wire, and field cable systems, and in installation of telephones, unattended repeaters, and field switchboards. Course includes fixed-cable construction; fixed-telephone installation; field cable transmission lines; and field training exercises. *Version 1:* Eliminates unattended repeaters from the curriculum.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in telephone lineman/installer (5/90). *Version 2:* In the vocational certificate category, 2 semester hours in electrical apprenticeship laboratory (6/75). *Version 3:* In the vocational certificate category, 4 semester hours as an elective in electrical and lineman techniques (8/74).

Related Occupation Codes: 36C.

AR-1714-0016

Cable Splicing

Course Number: 11-R-322.1; 11-E-1.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 14–15 weeks (508–546 hours).

Exhibit Dates: 12/55–12/68.

Objectives: To train enlisted personnel to splice, install, and maintain various types of communications cables used in the military.

Instruction: Lectures and practical exercises in cable splicing, including introduction to communications, basic cable splicing, cable installation, exchange and toll cable installation, and locating and clearing cable faults.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in electrical and cable techniques (8/74).

AR-1714-0017

Electrician

Course Number: 51R10-OSUT; 721-51R10.

Location: Training Center, Ft. Leonard Wood, MO.

Length: *Version 1:* 6–15 weeks (216–552 hours). *Version 2:* 8 weeks (278 hours).

Exhibit Dates: *Version 1:* 7/80–Present. *Version 2:* 3/78–6/80.

Objectives: To provide enlisted personnel with skills required for installing and testing basic low-voltage.

Instruction: *Version 1:* Lectures and practical exercises in reading construction drawings, testing electrical circuits, and installing electrical circuits including service entrance. Students are familiarized with basic carpentry and plumbing. Course may include basic training. *Version 2:* Lectures and practical experiences in reading construction drawings, basic carpentry and plumbing, simple single-phase, low-voltage, interior electrical wiring, and distribution pole climbing and maintenance. Personnel will install and test basic low-voltage electrical circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electrical installation (12/83). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity (9/79).

Related Occupation Codes: 51R.

AR-1714-0023

1. Aircraft Armament/Missile Systems Repairer
2. Aircraft Fire Control Repairer

Course Number: 646-68J10.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: *Version 1:* 22–23 weeks (814 hours). *Version 2:* 29–30 weeks (1039–1100 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/84–9/89.

Objectives: To train enlisted personnel in entry level tasks to maintain, test, troubleshoot and repair of the aircraft fire control system and components.

Instruction: Lecture and practical experience in repairing of aircraft fire control systems and subsystems to include wing stores/ejector racks, turret systems, boresighting and armament electrical/electronic training.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics, 1 in electrical laboratory (3/88).

Related Occupation Codes: 68J.

AR-1714-0024

M1 Abrams Fuel and Electrical Systems Repairer

Course Number: 610-ASIL8(63G).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 4–5 weeks (138 hours).

Exhibit Dates: 10/82–5/85.

Objectives: To train enlisted personnel to perform maintenance on hull (body) fuel-electrical systems components.

Instruction: Course includes troubleshooting procedures, repair or replace parts; test drivers alert panel and drivers master panel, power distribution box, electronic control box and wire harness; use of publications, tools and test equipment; soldering, wiring diagrams, operation of solid state circuits and safety precautions. For course after 6/85, see exhibit AR-1714-0029.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity, 2 in basic electronics (2/84).

Related Occupation Codes: 63G.

AR-1714-0025

Fire Control System Repairer
(Electro-Optical Equipment Technician)

Course Number: 113-45G10; 670-2172.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 13–14 weeks (485 hours) for Marine Corps personnel, 23–24 weeks (795 hours) for Army personnel.

Exhibit Dates: 4/83–9/85.

Objectives: To provide enlisted personnel with instruction and training in operation, maintenance, and repair of laser infrared observation sets.

Instruction: Includes maintenance forms and publications, safety procedures, basic AC and DC electronics to include concepts of electricity, safety, voltage, current and resistance, conversion units, Ohm's law, color codes, analyze and troubleshoot series circuits, parallel and series parallel. Covers also batteries, multimeters, introduction to oscilloscopes, magnetism, inductance, generation of AC, capacitance, resonance, transistor fundamentals (NPN-PNP), power suplies and rectifiers. Basic digital circuits are introduced, along with binary system, Boolean algebra, diode logic, soldering practices, maintenance repairs, troubleshoot and adjust lose infrared observation set, troubleshoot and adjust xenon search light-fire control system. Laser range finder, and ballistics computer. See AR-1714-0030 for later version.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electricity and electronics, 2 in basic computer (2/84).

Related Occupation Codes: 45G.

AR-1714-0026

Fire Control Instrument Repairer
(Optical Instrument Technician)

Course Number: 670-41C10; 670-2172.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 13–14 weeks (473 hours).

Exhibit Dates: 10/82–Present.

Objectives: To provide enlisted personnel with working knowledge of inspecting and repairing optical and non-optical precision instruments and related equipment.

Instruction: To teach principles of electricity, batteries, multimeter use, soldering, inspection and adjusting and repair of telescope mount, repair and adjustment and inspection of fire control quadrant (M15), maintenance of telescopes and periscopes, panoramic telescope, maintenance of computer; troubleshoot and repair and inspect ballistics computer fire control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of electricity and general electronics (2/84).

Related Occupation Codes: 41C.

AR-1714-0027

Switching Systems Operator
(Wire Systems Operator)

Course Number: 621-36M10.

Location: Signal School, Ft. Gordon, GA.

Length: 7–9 weeks (227–295 hours).

Exhibit Dates: 8/82–Present.

Objectives: To provide personnel with the knowledge to install, maintain, and operate a tactical manual and automatic switchboard.

Instruction: Student learns proper operation procedures for a manual switchboard. Extensive practical exercises on cable interconnections and equipment set-up in the field are provided. Preventive maintenance, equipment check-out and cable fault troubleshooting procedures are also covered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/88).

Related Occupation Codes: 36M.

AR-1714-0028

Switching Systems Operator Basic Noncommissioned Officer (NCO)
(Wire Systems Operator Primary Technical)

Course Number: 621-36M20.

Location: Signal School, Ft. Gordon, GA.

Length: 5–7 weeks (205–260 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide experienced personnel with the supervisory skills to install, maintain, and operate a tactical manual and automatic switchboard.

Instruction: Student learns specific supervisory skills to direct and inspect field installation of cables and equipment set-up. Preventive maintenance, equipment check-out and cable fault troubleshooting procedures are also covered.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (1/88).

Related Occupation Codes: 36M.

AR-1714-0029

M1 Abrams Fuel and Electrical Systems Repairer

Course Number: 610-ASIL8(63G).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 3 weeks (108 hours).

Exhibit Dates: 6/85–9/90.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot the electrical system using wiring diagrams and diagnostic equipment. Also will be able to remove and replace failed electrical components, wiring connectors, and repair wiring harnesses. The student will also be able to solder and unsolder circuit boards and electronic components. Also able to troubleshoot fuel pump and fuel transfer pump.

Instruction: Course includes troubleshooting procedures, replace or repair electrical suystem parts, test drivers alert panel or drivers master panel, power distribution box, electronic control box and wire harness; use of publications, tools and test equipment; soldering, wiring diagrams, operation of solid state circuits and safety precautions, and troubleshooting of fuel pump and fuel transfer pump.For earlier version see AR-1714-0024.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive electrical systems, 2 in basic electronics (3/87).

Related Occupation Codes: 63G.

AR-1714-0030

1. Fire Control System Repairer
   (Electro-Optical Ordance Repairer)
2. Fire Control System Repairer (USA)
   (Electro-Optical Equipment Technician (USMC))

Course Number: 113-45G10/670-2172.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 26 weeks (936 hours) for Army personnel, 25-26 weeks (910 hours) for Marine Corps personnel. *Version 2:* 26 weeks (936 hours) for Army, 17 weeks (623 hours) for Marine Corps.

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/85–9/88.

Learning Outcomes: Upon completion of the course the student is able to operate, maintain, and repair of laser infrared observation sets.

Instruction: Includes maintenance forms and publications, safety procedures, basic AC and DC electronics to include concepts of electricity, safety, voltage, current and resistance, conversion units, Ohm's law, color codes, analyze and troubleshoot series circuits, parallel and series parallel. Covers also batteries, multimeters, introduction to oscilloscopes, magnetism, inductance, generation of AC, capacitance, resonance, transistor fundamentals (NPN-PNP), power suplies and rectifiers. Basic digital circuits are introduced, along with binary system, Boolean algebra, diode logic, soldering practices, maintenance repairs, troubleshoot and adjust lose infrared observation set, troubleshoot and adjust xenon search light-fire control system. Laser range finder, and ballistics computer. For earlier version of the course, see AR-1714-0025.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electricity and electronics, 2 in basic computer (3/87).

Related Occupation Codes: 45G.

AR-1715-0001

Electronic Instrument Repair

Course Number: 198-35B20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Southeastern Signal School, Ft. Gordon, GA.

Length: 23–27 weeks (849–1005 hours).

Exhibit Dates: *Version 1:* 12/77-12/86. *Version 2:* 3/67-11/77.

Objectives: To train enlisted personnel to maintain and repair electronic test equipment.

Instruction: *Version 1:* Extended course covering the testing, maintenance and repair of specific models of test equipment including multimeters, signal generators, oscilloscopes and wattmeters. Includes analysis of actual circuits, alignment and calibration procedures, troubleshooting and repair, with extensive practical work. *Version 2:* Extended course covering the testing, maintenance, and repair of specific models of test equipment, including meters, test oscillators, oscilloscopes, frequency counters, heterodyne frequency meters, tube testers, radiac instruments and special-purpose test sets. Includes analysis of actual circuits, alignment and calibration procedures, troubleshooting and repair, with extensive practical work.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering and printed circuit board repair and 8 in instrumentation repair (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in instrumentation repair (8/79). *Version 2:* In the vocational certificate category, 6 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (11/73); in the upper-division baccalaureate category, credit in electronic instrument repair on the basis of demonstrated skills and/or institutional evaluations (12/68).

Related Occupation Codes: 35B.

AR-1715-0002

Air Defense Electronic Warfare (EW) (Nike Hercules)

Course Number: 2G-F3; 104-F6.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3 weeks (112 hours).

Exhibit Dates: 10/72-12/79.

Objectives: To provide commissioned and warrant officers and selected enlisted personnel with a general knowledge of electronic countermeasures (ECM), use of Nike Hercules Air Defense radars and ancillary equipment in an ECM environment, and electronic warfare training devices and techniques.

Instruction: Electronic warfare analysis; history of EW and EW targets; electronic warfare activities; ESM/ELSEC/COMSEC; Air Force operations in a hostile environment; frequency surveillance station orientation; electronic countermeasures (ECM); radar detection problem; electronic counter-countermeasures (ECCM) general; low power radar (Lopar) in EW; Operation Apache.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

Related Occupation Codes: 16C20; 16C; 24P; 24Q; 221B; 221C; 222B; 251B.

AR-1715-0003

1. Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
2. Electronic Warfare (EW) Analyst (Noncommunications ECM)
   (Electronic Warfare (EW) Analyst)

Course Number: 233-98J30.

Location: Security Agency School, Ft. Devens, MA.

Length: *Version 1:* 9 weeks (343 hours). *Version 2:* 13 weeks (448 hours).

Exhibit Dates: *Version 1:* 2/82–9/85. *Version 2:* 1/66–1/82.

Objectives: To provide selected enlisted personnel with a working knowledge of noncommunications equipment, U.S. and foreign noncommunications signal characteristics, plotting of electronic order of battle, and preparation and submission of required reports.

Instruction: *Version 1:* Introduction to communication and radar principles, supervisory techniques, and the preparation and quality control of reports. After 10.85, see AR-1715-0677. *Version 2:* Data processing; touch typing; mathematics; statistics; electronic equipment (amplifiers, oscillators, oscilloscopes, counters, filters, frequency analyzers); PRF determination; oscilloscope cameras; film processing; recording oscillographs and accessories; methods of scan measurement; beam width measurements; reporting; ECM employment, collection operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromagnetic signal analysis, 3 in office procedures (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in general supervision, 3 in introduction to communication systems (2/83). *Version 2:* In the vocational certificate category, 2 semester hours in electronics, 2 in mathematics, 1 in touch typing (11/73); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, 1 in mathematics (11/73).

Related Occupation Codes: 98J.

AR-1715-0004

Electronic Instrument Maintenance
(Electronic Instrument Repair)

Course Number: 198-35B30.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 17 weeks (621–632 hours).

Exhibit Dates: *Version 1:* 12/77–12/86. *Version 2:* 12/67–11/77.

Objectives: To train enlisted personnel to test, troubleshoot, maintain, repair, adjust, calibrate, and final test advanced types of electronic test equipment.

Instruction: *All Versions:* Analysis of the circuits and principles of operation of the following equipment: electronic voltmeters, signal generators, panoramic indicators, missile system test equipment, digital readout counter, radar test set, oscilloscopes, telegraph test set, and other electronic test equipment. Emphasis on alignment and calibration procedures, troubleshooting and repair, with extensive practical work. *Version 1:* Does not include panoramic indicators or missile system test equipment but does include digital voltmeters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in instrument repair (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in instrument repair (8/79). *Version 2:* In the vocational certificate category, 4 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (11/73); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (11/73).

Related Occupation Codes: 35B.

AR-1715-0005

Electronic Countermeasures
Operations

Course Number: 233-F2; 233-ASIK3.

Location: Security Agency School, Ft. Devens, MA.

Length: 3-5 weeks (108-184 hours).

Exhibit Dates: 7/68-2/85.

Objectives: To train personnel to operate electronic countermeasures (ECM) equipment.

Instruction: History of electronic warfare; electronic countermeasures; electronic warfare support measures; electronic counter-countermeasures; electronic warfare; review of basic radio receiver theory; review of basic radio transmitter theory; technical and tactical employment of ECM equipment; ECM techniques; power units for ECM equipment; countermeasures set; second countermeasures set; third countermeasures set; hostile target recognition, identification in tactical environments.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/83).

AR-1715-0006

Electronic Mixer HLC-1A/TSEC

Course Number: 160-F4.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 3 weeks (98-108 hours).

Exhibit Dates: 5/71-10/85.

Objectives: To provide enlisted personnel with a working knowledge of the techniques required to maintain and repair electronic mixer HLC-1A/TSEC.

Instruction: Equipment orientation; introduction and general description of AN/FGA-21; operational procedures; power supply; basic logic circuits; basic timing circuits; control circuits; character and group counters; data processing circuits; teletypewriter control circuits; installation procedures; troubleshooting procedures; equipment serviceability profile; preventive maintenance; TEMPEST; COMSEC emergency procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (11/73).

Related Occupation Codes: 31G; 31S; 31U.

AR-1715-0007

1. Electronic Warfare (EW)
   Equipment Repairman
2. Electronic Warfare (EW)
   Equipment Repair

Course Number: *Version 1:* 102-26K20. *Version 2:* 11-R-283.1.

Location: *Version 1:* Electronic Warfare School, Ft. Huachuca, AZ; Electronic Warfare School, Ft. Devens, MA. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 38 weeks (1698 hours). *Version 2:* 33 weeks (1180 hours).

Exhibit Dates: *Version 1:* 6/71-9/86. *Version 2:* 6/61-12/68.

Objectives: To train enlisted personnel having little or no prior electronics experience to inspect, test, and repair electronic warfare equipment.

Instruction: Electrical fundamentals; AC and DC circuits; electrical components; RLC circuits; vacuum tubes; special-purpose tubes; amplifiers and oscillators; semiconductor diodes and transistors; linear integrated circuits; single-sideband receivers and transmitters; digital circuits and systems: analog/digital conversion; microwave transmitters and receivers; electronic and mechanical components of radars, electronic warfare and countermeasures fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 36 semester hours in electronics or full semester-hour equivalent to complete certificate program in electronics (11/73); in the lower-division baccalaureate/associate degree category, 18 semester hours in electronics (11/73); in the upper-division baccalaureate category, 4 semester hours as an elective in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (11/73). *Version 2:* In the vocational certificate category, 36 semester hours in electronics or full semester-hour equivalent to complete certificate program in electronics (11/73); in the lower-division baccalaureate/associate degree category, 18 semester hours in electronics (11/73); in the upper-division baccalaureate category, 3 semester hours as an elective in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (11/73).

Related Occupation Codes: 26K.

AR-1715-0008

1. Tactical Electronic Maintenance
   Chief
   (Supervisory Field Communications
   Equipment Maintenance)
2. Supervisory Field Communications
   Equipment Maintenance

Course Number: *Version 1:* 101-31W40; 101-31E40; 101-31L40; 160-31J40. *Version 2:* 101-294.6; 101-296.6; 160-341.6.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 20 weeks (868 hours). *Version 2:* 26 weeks (1144 hours).

Exhibit Dates: *Version 1:* 4/67-12/86. *Version 2:* 11/65-3/67.

Objectives: To train enlisted personnel to apply advanced maintenance techniques and to supervise activities involved in the maintenance of field communications equipment.

Instruction: Advanced electronics; basic and advanced teletypewriter maintenance techniques; basic and advanced radio relay and carrier maintenance techniques; basic and advanced radio maintenance techniques; system trouble location; supervisory and training techniques; maintenance management; maintenance and supply procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in shop management (11/73). *Version 2:* In the vocational certificate category, 5 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in shop management, 2 in electronics, and credit in electrical laboratory on the basis of demonstrated skills and/or institutional evaluation (11/73).

Related Occupation Codes: 31W; 31E; 31L; 31J.

AR-1715-0009

Air Defense Electronic Warfare
(EW)

Course Number: 2G-F3.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3 weeks (104 hours).

Exhibit Dates: 8/66-9/72.

Objectives: To provide commissioned officers and warrant officers with a general knowledge of electronic countermeasures, use of air defense radars in an ECM environment, and electronic warfare training devices and techniques.

Instruction: Electronic warfare, intelligence, security, and countermeasures; radar detection; AN/MPQ-T1 simulator.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

Related Occupation Codes: 222B; 251B.

AR-1715-0010

Senior Special Electrical/Electronic
Device Repair

Course Number: 198-35E30.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 14 weeks (571 hours). *Version 2:* 10 weeks (319 hours). *Version 3:* 9 weeks (319 hours).

Exhibit Dates: *Version 1:* 3/78-1/88. *Version 2:* 1/74-2/78. *Version 3:* 2/66-12/73.

Objectives: To train enlisted personnel in organizational and general support maintenance on electronic distance-measuring and orientation equipment and in general support maintenance on night vision equipment.

Instruction: *Version 1:* Course includes operation, maintenance, and adjustment of night vision, mine detection, battlefield illumination, electronic distance measuring and azimuth orientation equipment. *Version 2:* Course includes operation, maintenance, and adjustment of night-vision, mine detection, battlefield illumination, electronic distance measuring and azimuth orientation equipment. *Version 3:* Operation, maintenance, and adjustment of night vision equipment; advanced electronic instrumentation; electronic distance-measuring equipment; electronic azimuth orientation equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics (9/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics (9/79); in the upper-division baccalaureate category, 1 semester hour in electronics (9/79). *Version 2:* In the vocational certificate category, 6 semester hours in electronics (9/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (9/79); in the upper-division baccalaureate category, 1 semester hour in electronics (9/79). *Version 3:* In the vocational certificate category, 6 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (11/73);

in the upper-division baccalaureate category, 1 semester hour in electronics (11/73).

Related Occupation Codes: 32E.

AR-1715-0011

Enlisted Air Defense Electronic Warfare (EW)

Course Number: 104-F6.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/68-9/72.

Objectives: To familiarize enlisted personnel with electronic countermeasures and the use of air defense radars.

Instruction: Jamming, target detection, and use of radars in electronic countermeasures; electronic warfare training devices and techniques.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/73).

Related Occupation Codes: 16C.

AR-1715-0012

Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic

(Tactical Communications Chief Noncommissioned Officer (NCO) Basic)

Course Number: 1-31-C40B; 1-EE-C40D; 101-31G40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 12-16 weeks (407-607 hours).

Exhibit Dates: 7/71-6/76.

Objectives: To provide selected personnel with a working knowledge of those duties required to perform as noncommissioned officers in grades E5, E6 and E7.

Instruction: Electronic warfare; radiotelephone procedures; leadership; psychological operations; techniques of instruction; map reading; rappelling and river crossing; mines and demolitions; field artillery subjects; communications systems; wire line construction; field telephones, switchboards; FM radio equipment; radio antenna principles; radio net operation; radio telephone procedures; teletypewriter procedures; on-line cipher machine; radio set AN/GRC-19; radioteletypes AN/GRC-46, AN/VRC-29, AN/VSC-1; transmitter; multimeters; troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (11/73).

Related Occupation Codes: 31B; 31D; 31E; 31G; 31K.

AR-1715-0013

Basic Electronics Maintenance

Course Number: 102-F10.

Location: Security Agency School, Ft. Devens, MA.

Length: 26 weeks (844 hours).

Exhibit Dates: 8/70-9/86.

Objectives: To train students to analyze basic electronic circuits, use basic test equipment, and maintain general intercept receivers, couplers and demodulators, and single and dual track analog recorders.

Instruction: Basic electronics; arithmetic; scientific notation; equations; AC/DC circuit analysis; introduction to electricity; resistors; Ohm's Law; testing and troubleshooting AC/DC circuits; meters; multimeters; vacuum tube voltmeters; magnetism and electromagnetism; audio signal generators; oscilloscope operation; capacitance; inductance; RLC circuits; testing of components; diodes; triodes; transistor fundamentals; electron tube test sets; power supply circuits; amplifier circuits; audio and IF transformers; RF generators; receiver circuits; wiring diagrams; superheterodyne receiver; solid state; printed circuits; waveforming circuits. Material heavily laboratory oriented.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (11/73).

Related Occupation Codes: 33C; 33D; 33F; 33G.

AR-1715-0015

Light Air Defense System Electronic Repair

Course Number: *Version 1:* 101-27F20. *Version 2:* 101-27F20. *Version 3:* 121-27F20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 29 weeks (1008 hours). *Version 2:* 27-30 weeks (1072 hours). *Version 3:* 25-30 weeks (897-1072 hours).

Exhibit Dates: *Version 1:* 9/74-7/79. *Version 2:* 11/72-8/74. *Version 3:* 8/68-10/72.

Objectives: To train enlisted personnel to perform direct and general support maintenance on the Vulcan air defense system, Chaparral missile system, and associated organizational and support maintenance test equipment.

Instruction: *All Versions:* Missile electronic subjects including: series, parallel, series-parallel, DC and AC resistor circuits; magnetism; inductance, capacitance and impedance; transformers; transients in RC and LR circuits; series and parallel resonance; missile soldering procedures; missile transistors; power supplies; test equipment; electro-mechanical control devices; introduction to digital computers; introduction to logic symbology. *Version 1:* Lecture and laboratory exercises including basic electricity concepts of work, energy, and power; DC and AC circuit theory-series, parallel, series-parallel, inductive, capacitive, and LCR circuits; series and parallel resonant circuits; transformers and power supplies; simplified explanation of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits including FET's; and Chaparral and Vulcan system and test equipment maintenance and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in basic electronics and troubleshooting (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and troubleshooting (3/75). *Version 2:* In the vocational certificate category, 36 semester hours in electronics or full semester-hour equivalent to complete certificate program in electronics (11/73); in the lower-division baccalaureate/associate degree category, 12 semester hours in electronics (11/73); in the upper-division baccalaureate category, 4 semester hours in electronics (11/73). *Version 3:* In the vocational certificate category, 36 semester hours in electronics or full semester-hour equivalent to complete certificate program in electronics (11/73); in the lower-division baccalaureate/associate degree category, 12 semester hours in electronics (11/73); in the upper-division baccalaureate category, 4 semester hours in electronic circuitry, and credit in electronic laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 27F.

AR-1715-0016

Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced

(Tactical Electronic Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: 1-EE-C42B.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 10-11 weeks (365-383 hours).

Exhibit Dates: 5/73-12/86.

Objectives: To prepare electronic equipment maintenance supervisors for top-level management positions.

Instruction: General military subjects; command and staff operations; combined arms; special weapons and CBR operations; applied communications; leadership; administration and management; combat service support operations; combat support service; logistics; satellite communications; communications security; fixed station radio communications; data processing and data communications; and dial exchange equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/75).

Related Occupation Codes: 26L; 31U; 35R.

AR-1715-0017

Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-EE-C40B.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 8-12 weeks (286-414 hours).

Exhibit Dates: 5/73-12/85.

Objectives: To train students with electronics backgrounds to perform supervisory duties in communications equipment maintenance.

Instruction: General military subjects, including military justice and race relations; maintenance and supply management; introduction to communications; communication circuit requirements; system management; communication facilities.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/75).

Related Occupation Codes: 26L; 31S; 31T.

AR-1715-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor

(Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic Technical/Advanced Individual Training

(Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept)

(Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst)

(Electronic Warfare (EW) Cryptologic

Noncommunications Interceptor-Analyst)
(Electronic Warfare (EW) Operator (Noncommunications ECM))

Course Number: 233-98J10; 233-98J20.

Location: Intelligence School, Ft. Devens, MA; Security Agency School, Ft. Devens, MA.

Length: 13-15 weeks (406-587 hours).

Exhibit Dates: *Version 1:* 10/81-12/84. *Version 2:* 3/53-9/81.

Objectives: To teach selected students to locate, record, and identify noncommunications electromagnetic emissions, to familiarize them with signal and operations characteristics of electronic equipment, and to provide them with an introduction to noncommunications jamming techniques.

Instruction: *Version 1:* Includes training in noncommunication radar intercept systems; includes operating, identifying, analyzing, reporting, and cooordinating signals of interest. For the course after 1/85, see exhibit AR-1715-0676. *Version 2:* Radiotelephone net operations; prefixes, scientific notation and logarithms; direct and alternating currents; modulation and transmitters; oscilloscopes; receivers; recorders; signal recognition; operations; search radar; fire control radar; navigational aids; preventive maintenance; missile ranges; launch configuration; telemetry; fundamentals of jamming; introduction to electronic warfare.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in introduction to radar (2/83). *Version 2:* In the vocational certificate category, 3 semester hours in electronics (11/73).

Related Occupation Codes: 98J.

AR-1715-0019

Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-EE-C40A.

Location: Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA.

Length: 8-12 weeks (286-475 hours).

Exhibit Dates: 2/73-12/86.

Objectives: To train enlisted personnel with a background in electronic equipment maintenance to perform duties at the supervisory level.

Instruction: Command tactics; career management training; field wire operations; antenna operations; lineman operations; cable splicer operation; switchboard operations; circuit controller operations; radio relay and carrier operations; communications center operations; data terminal operations; radio teletypewriter and field radio operations; maintenance; aircraft electronic equipment; installation of electronic equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telecommunications and 1 in telecommunications laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in telecommunications laboratory (5/75).

Related Occupation Codes: 31B; 31E; 31J; 31L; 31M; 31N; 35B; 35K; 35L; 35M; 36C; 36D; 36E; 36G; 36K.

AR-1715-0020

Instrument Calibration and Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
(Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 1-351-C40; 1-EE-C40C.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (250-408 hours).

Exhibit Dates: 6/73-1/84.

Objectives: To train students with a background in electronic equipment maintenance to perform those duties required of noncommissioned officers.

Instruction: Career management; communication skills; basic data; military symbols; combat surveillance; management; tactical signal communications; supply and maintenance; radio system operation and controls; radiotelephone procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

Related Occupation Codes: 35H; 35H; 35J.

AR-1715-0021

Communications Operations (CO-CMF) NCO Basic (USASCS)

Course Number: 5-CO-C40B.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (414 hours).

Exhibit Dates: 4/73-7/76.

Objectives: To train enlisted personnel as communications operators in signal units.

Instruction: Conferences and practical exercises in communications, communication circuit requirements, general military subjects, maintenance and supply management, field training exercises, and systems management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications (2/74).

Related Occupation Codes: 72G.

AR-1715-0022

Corporal Computer Repair
(Surface-to-Surface (SSM) Missile Computer Repair)

Course Number: 9-R-242.1; 9-E-59.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 12-13 weeks (420-455 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train electronic repair helpers to repair and maintain the Corporal computer system and associated equipment.

Instruction: Lectures and laboratories in fundamental computer circuits, Corporal computers, power supplies and accessory equipment, ordnance test equipment, and field maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electricity or electronics (3/74).

AR-1715-0023

Position Fixing Navigation Equipment Repair

Course Number: 102-F2.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 3 weeks (106 hours).

Exhibit Dates: 6/66-12/68.

Objectives: To train enlisted personnel in the maintenance and repair of navigational equipment.

Instruction: Lectures and practical experience in hyperbolic area coverage navigation, receiving equipment, flight log and system support, receiver circuit analysis, and installation and system analysis.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0024

Fire Distribution Integration Systems Repair (AN/GSG-5)
(Fire Distribution Integration Systems Repair (AN/GSG-5(V) and 6))
(Fire Distribution Integration Systems Repair (AN/GSG-5 and 6))

Course Number: 4B-F8; 150-25D20; 150-362.1; 11-R-F15.

Location: Air Defense School, Ft. Bliss, TX; Signal Fire Distribution Systems Training Activity, Ft. Bliss, TX.

Length: 22-27 weeks (836-962 hours).

Exhibit Dates: 11/61-12/74.

Objectives: To train warrant officers and enlisted personnel to perform organizational and support maintenance on fire distribution integration systems.

Instruction: Lectures and laboratories in fundamentals of digital logic; binary number systems; logic elements; functions and electronic logic units; coordinate data systems; modulation techniques; gates, multivibrators, and read amplifiers; trigger circuits, delay lines, and switches; magnetic memory storage elements; power supplies and troubleshooting; sweep circuits; video and tag presentation; computer control of fire distribution systems; BPL and SAGE subsystems; and comprehensive tie in of systems and subsystems.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics, digital logic, and switching, and 3 in electronics or logic laboratory (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours as a technical elective in electronics, digital logic, and switching, and 2 as a technical elective in electronics or logic laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics, digital logic, and switching, and 1 as a technical elective in electronics or logic laboratory (3/74).

Related Occupation Codes: 25D.

AR-1715-0025

Switchboard SB-3614/TT and Automatic Telephone Central Office AN/TTC-41(V)2 Operator

Course Number: 621-F1.

Location: Signal School, Ft. Gordon, GA.

Length: 1-2 weeks (52 hours).

Exhibit Dates: 10/79-12/83.

Objectives: To provide the ability to install, operate and perform operator preventive maintenance on switchboard SB-3614/TT and automatic telephone central office AN/TTC-41(V)2.

Instruction: Lectures, demonstration and discussion are provided to permit installation, operation, and operator troubleshooting of the switchboard SB-3614/TT and automatic telephone central office AN/TTC-41(V)2.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/81).

AR-1715-0026

Supervisory Fixed Station Communications Maintenance

Course Number: 101-32B40; 101-32C40; 101-32D40; 101-32E40.

Location: Signal School, Ft. Monmouth, NJ.

Length: 25 weeks (932 hours).

Exhibit Dates: 4/66-12/68.

Objectives: To train enlisted personnel to supervise, coordinate, and participate in the operation and maintenance of a fixed communication facility.

Instruction: Lectures and practical exercises in the maintenance of a fixed communication facility, with special emphasis on electronic fundamentals. Course includes vacuum-tube and semiconductor circuits, advanced work in modulation and demodulation, wave-shaping networks, pulse and switching circuits, propagation and antenna systems, fixed-station communication systems, repair and installation practices, and use of test equipment, including frequency synthesizers, spectrum analyzers, and distortion meters.

Credit Recommendation: In the vocational certificate category, 30 semester hours in communications (or 15 in electronics, with additional credit awarded on the basis of institutional evaluation), 3 in shop management or supply management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68), 3 in shop management or supply management (6/74); in the upper-division baccalaureate category, 3 semester hours in shop management, 3 in supply management (12/68), and, for non-electrical-engineering majors, 10 in electronics (6/74).

Related Occupation Codes: 32B; 32C; 32D; 32F; 32Z.

AR-1715-0027

Supervisory Microwave Radio Maintenance

Course Number: 101-26L40.

Location: Signal School, Ft. Monmouth, NJ.

Length: 25 weeks (932 hours).

Exhibit Dates: 4/66-12/68.

Objectives: To train enlisted personnel to supervise the repair, installation, and maintenance of microwave communication systems.

Instruction: Lectures and practical exercises in the supervision of microwave radio maintenance at the advanced level. General instruction includes electronics fundamentals, vacuum tube circuits, semiconductor devices and their application to pulse and high-frequency circuits. Advanced course work includes amplitude and frequency modulation, multiplexing, pulse code modulation, communication system requirements and practices, special microwave systems, satellite communication systems, waveguides, antennas, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 30 semester hours in communications, (or 15 in maintenance management or electronics) with additional credit awarded on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in communications, and additional credit on the basis of institutional evaluation (12/68); in the upper-division baccalaureate category, 3 semester hours in maintenance management, 2 in electronics, and credit in electrical laboratory on the basis of institutional evaluation, or 10 semester hours in electronics for non-electrical-engineering majors (3/74).

Related Occupation Codes: 26L.

AR-1715-0028

Tropospheric Scatter Communication Equipment Repair

Course Number: 11-R-F17.

Location: Signal School, Ft. Monmouth, NJ.

Length: 5 weeks (190 hours).

Exhibit Dates: 5/62-12/68.

Objectives: To train microwave radio repairmen to install, maintain, and repair Collins tropospheric scatter communications equipment.

Instruction: Lectures and laboratories in the circuit analysis and operation of UHF converter amplifiers, traveling-wire amplifiers, power amplifiers, IF assemblies, and power supplies; functional block-diagram circuit analysis for systematic care, servicing, and inspection of Collins equipment; and test equipment, including multimeters, oscilloscopes, and Collins frequency synthesizers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

AR-1715-0029

1. Tactical Solid State Telephone Equipment Repair
2. Manual Cordless Switchboard SB-3082(V)1/GT Repair

Course Number: 622-ASIZ96; 622-F16.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 5-6 weeks (202-209 hours). *Version 2:* 3 weeks (100 hours).

Exhibit Dates: *Version 1:* 11/74-9/85. *Version 2:* 7/73-10/74.

Objectives: To train telephone repairmen to install, operate, maintain, and repair the manual cordless switchboard.

Instruction: Lectures emphasizing practical experience in manual cordless switchboard installation, operation, and repair, including circuit cord assembly, removal, replacement, and voltage measurement; internal wiring continuity checking; troubleshooting internal faults; front panel parts removal and replacement; power supply subassembly, testing, and troubleshooting; and use of telephone set, variable transformer, battery tester, multimeter, and tool kit.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in telephone system maintenance (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (5/75). *Version 2:* In the vocational certificate category, 2 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

Related Occupation Codes: 36G; 36H.

AR-1715-0030

Tropospheric Scatter Terminal REL-2600 Repair

Course Number: 101-F9.

Location: Signal School, Ft. Monmouth, NJ.

Length: 7 weeks (266 hours).

Exhibit Dates: 10/67-12/68.

Objectives: To train microwave radio repairmen to install and maintain REL-2600 tropospheric scatter terminals.

Instruction: Lectures and practical exercises in theory of frequency division multiplexing; GH2 transmitters; receiver circuits; functional analysis, using block and level diagrams to trace signal paths; safety precautions; start-up procedures; alignment; tuning; troubleshooting; servicing; and equipment operation, including distortion analyzer, panel meters, special test fixtures, test oscillators, sweep generators, VTUMs, RF power meters, VSWR monitor, and dummy loads.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronics laboratory (3/74).

Related Occupation Codes: 26L.

AR-1715-0031

Basic Fixed Plant Carrier Equipment Repair

Course Number: 11-R-274.0.

Location: Signal School, Ft. Monmouth, NJ.

Length: 15 weeks (546 hours).

Exhibit Dates: 7/63-12/68.

Objectives: To train enlisted personnel to maintain and repair fixed-station teletypewriters, telephones, and telegraph carrier equipment.

Instruction: Lectures and practical exercises in basic electricity and electronics, telephone and telegraph carrier fundamentals, fixed-station integrated communication systems, and semiconductor fundamentals.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electronics, and credit in electricity on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics, and credit in electricity on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74).

AR-1715-0032

Air Traffic Control Communications Set AN/FSQ-75 Repair

Course Number: 102-F7.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 6 weeks (218 hours).

Exhibit Dates: 1/69-12/86.

Objectives: To train avionics equipment repairmen to repair and maintain AN/FSQ-75 air traffic control communications sets.

Instruction: Lectures and practical exercises in AN/FSQ-75 communications set maintenance, repair, test equipment use, operational checks, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in avionics laboratory, additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 35L; 35P.

AR-1715-0033

1. ELECTRONIC DEVICES REPAIR
2. ELECTRONIC DEVICES REPAIR
   (Electronic Instrument Repair)

Course Number: *Version 1:* 198-295.2; 11-R-295.2. *Version 2:* 11-E-34.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 16 weeks (584 hours). *Version 2:* 18-26 weeks (660-964 hours).

Exhibit Dates: *Version 1:* 12/59-12/68. *Version 2:* 2/55-11/59.

Objectives: To train personnel to inspect, test, adjust, and repair electrical equipment.

Instruction: Lectures and practical experience in AC and DC circuit analysis, electric tubes and amplifiers, oscillators, instrument calibration, and oscilloscope operation and calibration.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity and electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity and electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity and electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 3 semster hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity and electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

AR-1715-0034

FIRE CONTROL COMPUTER REPAIR
(Field Artillery Digital Automatic Computer System (FADAC) Radar Technician (Marine))

Course Number: 113-34G10; 113-34G20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* Self-paced 9-20 weeks (285-629 hours). *Version 2:* 27 weeks (877 hours). *Version 3:* 27 weeks (968 hours). *Version 4:* 25 weeks (946 hours).

Exhibit Dates: *Version 1:* 4/76-1/88. *Version 2:* 4/74-3/76. *Version 3:* 6/69-3/74. *Version 4:* 9/66-5/69.

Objectives: To train enlisted personnel to operate, maintain, and repair field artillery digital automatic computer systems.

Instruction: *All Versions:* Lectures and laboratories in DC and AC circuits, electronics, transistor devices and circuits, Boolean algebra, logic gates and circuits, machine language programming, and system maintenance and troubleshooting. *Version 1:* Training for Army personnel includes lectures, laboratories and practical experience in the fundamental concepts of electricity, soldering techniques semiconductors, digital computer functions, oscilloscopes, laser theory, laser range finders, viewer computers, optics and operation, testing, troubleshooting and repair of various types of automatic fire control equipment. Marine Corps personnel learn operation and servicing of signal data reproducer, computer logic unit, and gun direction computer. *Version 2:* Topics cover the technical fundamentals to isolate malfunctions and troubleshoot AC and DC circuits, amplifier circuits, RC and LR circuits, sinewave oscillators, and semiconductor circuits; basic logic circuit, arithmetic type programming, and computer diagnosis and troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 10 semester hours in basic electricity and electronics, 4 in computer technology repair, for a total of 14 hours for Army personnel, or a total of 3 in computer technology for Marine Corps personnel (1/78). *Version 2:* In the vocational certificate category, 6 semester hours in basic electricity and electronics and 6 in computer technology (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics (6/75). *Version 3:* In the vocational certificate category, 6 semester hours in computer technology, 6 in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, 2 in electricity and electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 2 semester hours in digital computers, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 6 semester hours in computer technology, 6 in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, 2 in electricity and electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 2 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 34G; 09B.

AR-1715-0035

WEAPONS MONITORING CENTER REPAIR

Course Number: 4B-F9; 150-25G20; 150-364.1; 11-N-364.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 32 weeks (1140-1208 hours).

Exhibit Dates: 12/63-3/81.

Objectives: To train enlisted personnel and warrant officers to maintain the data processing and display equipment in weapons monitoring centers.

Instruction: Lectures and laboratories in number systems, logic gates and circuits, electronic test equipment, and ancillary data handling and display equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology, 2 in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, and credit in computer or electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 1 semester hour in digital computers, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 25G.

AR-1715-0036

AUTOMATIC DATA PROCESSING (ADP) REPAIR, PHASE I—COMPUTER TECHNOLOGY

Course Number: 150-34D20 (Phase I).

Location: Signal School, Ft. Monmouth, NJ; Signal School, Ft. Gordon,GA.

Length: *Version 1:* 18 weeks (637-675 hours). *Version 2:* 19 weeks (706 hours).

Exhibit Dates: *Version 1:* 4/75-12/86. *Version 2:* 4/70-3/75.

Objectives: To train enlisted personnel to inspect, test, adjust, and repair automatic data processing equipment.

Instruction: Lectures and practical exercises in numbering systems, programming functions, logic gates, counters and registers, and electromechanical data processing equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in digital computer fundamentals and 2 in digital computer laboratory (5/75). *Version 2:* In the vocational certificate category, 2 semester hours in electricity, 4 in computer technology (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 34D.

AR-1715-0037

1. SATELLITE COMMUNICATIONS (SATCOM) GROUND STATION EQUIPMENT REPAIRMAN
2. SATELLITE COMMUNICATIONS (SATCOM) TERMINAL REPAIR
3. SATELLITE COMMUNICATIONS (SATCOM) TERMINAL REPAIR

Course Number: *All Versions:* 102-26Y20.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 26-36 weeks (963-1338 hours). *Version 2:* 36 weeks (1282-1352 hours). *Version 3:* 36 weeks (1352 hours).

Exhibit Dates: *Version 1:* 7/76-12/86. *Version 2:* 11/69-6/76. *Version 3:* 8/68-10/69.

Objectives: To train enlisted personnel to operate, inspect, test, and repair satellite communications terminal equipment.

Instruction: *All Versions:* Lectures and laboratories in electronic fundamentals, servo and data circuitry, telephone and telegraph terminal equipment, specialized test equipment, digital techniques and operations, radio communication subsystems and satellite communications terminals. *Version 1:* Course is divided into two phases: Phase I (10 weeks) includes instruction and practical exercises in troubleshooting and repair of power supplies, audio amplifiers, audio oscillators, pulse generators, transceivers and logic circuits. Phase II (26 weeks) consists of lectures and laboratories in servo and data circuitry, telephone and telegraph terminal equipment, specialized test equipment, digital techniques and operations, radio communications subsystems, and satellite communications terminals. Note: Students who have completed Modules 201, 202, 203, 4, 5/6, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (26 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (36 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in satellite communication systems repair for students completing 26 weeks, or 6 semester hours in basic electronics and troubleshooting and 9 semester hours in satellite communication systems repair for students completing 36 weeks (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems for students completing either 26 or 36 weeks (see note above) (4/77). *Version 2:* In the vocational certificate category, 12 semester hours in electricity and electronics, 8 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electricity and electronics, 8 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 26Y; 09B.

AR-1715-0038

Automatic Data Processing (ADP) Repair

(Automatic Data Processing System (ADPS) (Fieldata) Repair)

Course Number: 150-34D20; 11-R-303.1.

Location: Signal School, Ft. Monmouth, NJ.

Length: 36-37 weeks (1344-1391 hours).

Exhibit Dates: 5/59-7/69.

Objectives: To train enlisted personnel to inspect, test, and repair automatic data processing equipment.

Instruction: Lectures and practical exercises in numbering systems, logic circuits and gates, programming, fundamental computer circuits, electrical fundamentals, system troubleshooting, and electromechanical data processing peripheral equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in computer technology, 2 in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in digital computers, and credit in computer laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 34D.

AR-1715-0039

1. Automatic Data Processing (ADP) Auxiliary Equipment Repair
2. Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
3. Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair

Course Number: *Version 1:* 150-34C20. *Version 2:* 11-R-302.2. *Version 3:* 11-R-302.2.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 25 weeks (934 hours). *Version 2:* 25 weeks (926 hours). *Version 3:* 27 weeks (1002 hours).

Exhibit Dates: *Version 1:* 9/68-1/78. *Version 2:* 9/64-8/68. *Version 3:* 5/59-8/64.

Objectives: To train enlisted personnel to inspect, test, and repair stored-program computer auxiliary equipment.

Instruction: Lectures and laboratories in basic electricity and electronics theory, measurements on electronic circuits, switching circuits, and computer applications in specific auxiliary equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, 8 in computer systems (3/74), in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, 4 in computer systems (3/74); in the upper-division baccalaureate category, 2 semester hours in computer systems (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, 8 in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in computer systems, and additional credit in computer systems on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics, 8 in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in computer systems, and additional credit in computer systems on the basis of institutional evaluation (3/74).

Related Occupation Codes: 34C; 34D.

AR-1715-0040

Ballistic Missile Digital Computer Repair (Pershing)

Course Number: 150-379.1; 9-S-379.1; 9-S-F37.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 27-29 weeks (991-1065 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted and civilian personnel to inspect, test, and repair Pershing fire data computer systems.

Instruction: Lectures and laboratories in AC and DC circuits, vacuum tube and transistor devices and circuits, Boolean algebra, logic circuits, and machine language programing for the Pershing fire data control computer.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology, 6 in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in digital computers, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0041

Terminal Data Link Fire Unit Integration Facilities (FUIF) Repair

Course Number: 4B-F6; 150-25E20; 11-N-361.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 12-14 weeks (436-490 hours).

Exhibit Dates: 5/64-12/68.

Objectives: To train warrant officers and enlisted personnel who have experience in electronic engineering to maintain fire unit integration facilities.

Instruction: Lectures and practical exercises in fire unit integration facilities field maintenance, including FUIF introduction and power supplies, AN/TSQ-8 transmitter and receiver and ground slant computer, data converter, TYA-13 modification, and associated equipment and system analysis.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

AR-1715-0042

Automatic Tape Processing Equipment

Course Number: 160-F3.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 10 weeks (366 hours).

Exhibit Dates: 10/68-12/86.

Objectives: To train typewriter equipment repairmen in automatic multiple-address routing systems, tape recall systems, and data transfer systems maintenance.

Instruction: Lectures and practical exercises in automatic multiple-address routing system data transfer system, and tape recall system operation, mechanical adjustment, block diagrams, logic, power distribution, memory operation and adjustment, program loading, system timing, registers, counters, decoders, preventive maintenance, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 31J.

AR-1715-0043

Data Communications Terminal Specialist

(Digital Subscriber Terminal Equipment (DSTE) Operator)

Course Number: 580-72F20.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 3-9 weeks (107-400 hours).

Exhibit Dates: 1/69-12/74.

Objectives: To train enlisted personnel in data communications terminal operations and associated system configurations.

Instruction: Lectures and practical exercises in communications introduction, processing of outgoing and incoming messages, maintenance of communications center files, COMSEC material control, and operator maintenance of teletypewriter and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 72F.

AR-1715-0044

Automatic Data Processing (ADP) Repair, Phase II-Card Processors U-1005 and U-1004/DLT-6 Repair

(Card Processors U-1005 and U-1004/DLT-6 Repair)

Course Number: 150-34D20 (Phase II); 150-F3.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 18 weeks (678 hours).

Exhibit Dates: 10/68-12/86.

Objectives: To train enlisted personnel to inspect, test, adjust, and repair card processors.

Instruction: Lectures and practical exercises in familiarization with U-1004 and U-1005/DLT-6 processors, card processor input-output equipment, paper tape, equipment, and system maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in digital electronics and 2 in digital electronics laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics laboratory (5/75).

Related Occupation Codes: 34B; 34D.

AR-1715-0045

1. NCR-500 Computer Repair
2. Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair

(NCR-500 Computer Repair)

Course Number: *Version 1:* 150-34E20. *Version 2:* 150-34D20 (Phase III); 150-F4.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 33 weeks (1229 hours). *Version 2:* 18-19 weeks (676-678 hours).

Exhibit Dates: *Version 1:* 6/76-5/84. *Version 2:* 2/69-5/76.

Objectives: To train qualified ADPS repairmen to inspect, test, and repair the NCR-500 computer.

Instruction: Lectures and practical exercises in NCR-500 computer inspection, testing, and repair, including programming orientation; 517 processor, power supply, block diagram, cabling, timing, memory configuration, auxiliary register logic, loading, decoding, circuitry, malfunctions, testing, preventive maintenance, adjustment, and repair; 590 console operation, troubleshooting and maintenance of keyboard, binary switch, typewriter, leading frame, and carriage controls; 581/582 card reader and controller; 576 card punch and printer; and peripheral equipment operation, preventive maintenance, troubleshooting, and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in digital circuits; in the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuits laboratory and 3 in computer programming (4/77). *Version 2:* In the vocational certificate category, 6 semester hours in digital circuits and 2 in digital circuits laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits laboratory (5/75).

Related Occupation Codes: 34D; 34E; 34Z.

AR-1715-0046

Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair

Course Number: 150-34D20 (Phase VI).

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 11 weeks (388 hours).

Exhibit Dates: 3/73-12/86.

Objectives: To train qualified ADP repairmen to supervise the maintenance of automatic digital message switching centers.

Instruction: Lectures and practical exercises in automatic digital message switching center maintenance, including ADMS and ASC equipment operation, preventive maintenance, and troubleshooting procedures; and communication and technical control facility operating procedures, inspection, and testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital computer systems and 1 in digital computer laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital computer laboratory (5/75).

Related Occupation Codes: 34D.

AR-1715-0047

Satellite Communications (SATCOM) Terminal AN/TSC-54 Repair

Course Number: 102-F6.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 8-10 weeks (298-366 hours).

Exhibit Dates: 8/68-Present.

Objectives: To train enlisted personnel to inspect, test, and repair the AN/TSC-54 satellite communications terminal.

Instruction: Lectures and practical exercises in satellite communications terminal inspection, testing, and repair, including system familiarization, transmitter and receiver operation and repair, and antenna system inspection and repair, with emphasis on servicing techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/79).

Related Occupation Codes: 26Y.

AR-1715-0048

Airborne Radio Direction Finding

Course Number: 3B-F5.

Location: Security Agency School, Ft. Devens, MA.

Length: 4 weeks (146 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To provide instrument flight-rated officers with a general knowledge of airborne radio direction-finding systems.

Instruction: Lectures in airborne radio direction-finding equipment and techniques, and direction-finding plotting exercises and controlled practical exercises.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

AR-1715-0049

Field Radio Relay Equipment Repair, Skill Development Base

Course Number: 101-31L20-I.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 13 weeks (517 hours).

Exhibit Dates: 11/68-12/86.

Objectives: To train field radio equipment repairmen to perform as supervisors and technicians.

Instruction: Lectures and practical exercises in leadership and training, small-unit tactics, tactical field exercises, electronics, printed circuit test and repair, radio set AN/GEC-50, and maintenance management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics for non-electronics majors (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics for non-electronics majors (3/74).

Related Occupation Codes: 31L.

AR-1715-0050

Automatic Dial Central Office AN/FTC-31

Course Number: 622-F1.

Location: Signal School, Ft. Monmouth, NJ.

Length: 14 weeks (478 hours).

Exhibit Dates: 7/68-7/76.

Objectives: To train enlisted personnel to maintain automatic dial central office exchanges.

Instruction: Lectures and practical exercises in decimal, binary, and octal numbering systems; logic gating; semiconductor theory and integrated circuits; digital logic and ferrite core memory; use of test equipment; and system analysis and troubleshooting.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

Related Occupation Codes: 36H.

AR-1715-0051

Manual Central Office Repair, Skill Development Base

Course Number: 622-36G20-I.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 12 weeks (479 hours).

Exhibit Dates: 11/68-12/81.

Objectives: To provide telephone central office repairmen with knowledge and skills necessary to perform management and supervisory functions at mobile telephone central office facilities.

Instruction: Lectures and practical exercises in leadership and civil affairs orientation; maintenance supply and records procedures; generator sets operation; and central office group telephone, manual telephone, tactical switchboards, and telephone wire line-testing procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74).

Related Occupation Codes: 36G; 36H.

AR-1715-0052

Radio Set AN/FRC-109 Repair

Course Number: 101-F8.

Location: Signal School, Ft. Monmouth, NJ.

Length: 6 weeks (228 hours).

Exhibit Dates: 10/67-12/68.

Objectives: To train microwave radio repairmen to maintain AN/FRC-109 radio sets.

Instruction: Lectures and practical exercises in voice and teletype multiplexing; transmitter, receiver, order-wire, and alarm system maintenance; and integrated wide-band communication system familiarization.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics or electrical laboratory on the basis of institutional evaluation (3/74); in the upper-divison baccalaureate category, credit in electronics or electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 26L.

AR-1715-0053

Multichannel Communications Systems Operator Multichannel

Communications Equipment
Operator
(Radio Relay and and Carrier Attendant)
(Radio Relay and Carrier Operation)

Course Number: 202-31M10; 31M10-CELT; 202-31M20; 202-293.1; 11-R-293.1; 11-E-46.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: 8-16 weeks (280-714 hours).

Exhibit Dates: 4/57-Present.

Objectives: To train personnel to install, operate, and maintain field radio relay and carrier systems and associated equipment.

Instruction: Lectures and practical exercises in installation, operation, and maintenance of radio sets, telephone systems, telegraph systems, antennas and generators, FDM systems, and PMC sets; area communications systems equipment maintenance; electronic warfare; and field exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

Related Occupation Codes: 31M; 31L; 31N.

AR-1715-0054

OV-1D (Mohawk) Surveillance
Infrared Repair

Course Number: 104-F10.

Location: Intelligence School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: 5-11 weeks (153-385 hours).

Exhibit Dates: 6/72-1/89.

Objectives: To train enlisted personnel to maintain the OV-1D (Mohawk) infrared surveillance system on aircraft and ground stations.

Instruction: Lectures and practical exercises in OV-1D (Mohawk) infrared surveillance system maintenance and repair, including infrared detecting set introduction, system interface alignment and symptom collection, and film drive circuit, magazine, sensor optics, and display and synchronization circuits maintenance.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 26N; 26W.

AR-1715-0055

1. Fixed Station Receiver Repair
2. Fixed Station Receiver Repair
3. Fixed Station Radio Receiver
Repair
(Fixed Station Receiver Repair)

Course Number: *Version 1:* 101-32H20. *Version 2:* 101-32H20. *Version 3:* 11-R-271.1; 11-E-44.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 28 weeks (1048 hours). *Version 2:* 25 weeks (934 hours). *Version 3:* 20-22 weeks (736-880 hours).

Exhibit Dates: *Version 1:* 9/70-12/72. *Version 2:* 1/69-8/70. *Version 3:* 9/54-12/68.

Objectives: To train enlisted personnel to install, operate, and repair fixed-receiver station equipment.

Instruction: *All Versions:* Lectures and practical exercises in electrical fundamentals; resistor series, and parallel circuits, magnetics and electromagnetism, AC circuit reactance and series-parallel resonance; oscilloscope usage; signal generators and impedance bridge; basic amplifier theory; diodes, triodes, tetrodes, and pentodes; basic receiver theory, RF signal generators, oscillators, IF and RF stages, superheterodyning, and troubleshooting; antenna systems, propagation concepts, filters and mixers, BFOs, and AGC concepts; coupling methods; and single-sideband systems in transmitters and receivers. *Version 1:* Instruction includes transistor fundamentals, semiconductor physics and theory, PNP and NCN devices, amplifier configurations, biasing network, bistable and monostable multivibrators, FETs, and regulated power supplies. *Version 2:* Instruction includes transistor fundamentals, semiconductor physics and theory, PNP and NCN devices, amplifier configurations, biasing networks, bistable and monostable multivibrators, FETs, and regulated power supplies.

Credit Recommendation: *Version 1:* In the vocational certificate category, 18 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 9 semester hours as an elective in electricity or electronics for non-electrical engineering majors, 6 for majors (3/74). *Version 2:* In the vocational certificate category, 18 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 6 semester hours as an elective in electricity or electronics for non-electrical engineering majors, 4 for majors (3/74). *Version 3:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 32B.

AR-1715-0056

Fixed Station Radio Repairer
(Fixed Station Radio Repair)

Course Number: *Version 1:* 101-32H10. *Version 2:* 101-32H20.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 23-33 weeks (848-1223 hours). *Version 2:* 40 weeks (1426 hours).

Exhibit Dates: *Version 1:* 8/76-9/85. *Version 2:* 1/73-7/76.

Objectives: To train enlisted personnel to install, operate, and repair fixed-station radios and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in electrical and electronic fundamentals; pulse generator circuitry; logic circuitry; basic receiver electronics; generation of RF energy; transmitter circuitry; multiband receiver and converter circuitry; maintenance, troubleshooting, and repair of radio receiver set AN/FRR-79 and auxiliary equipment; and vacuum theory. *Version 1:* Course is divided into two phases: Phase I (10 weeks) includes laboratory and practical experience in the repair and maintenance of power supply, audio amplifiers, transceiver circuitry, and basic logic circuits. Phase II (23 weeks) covers generation of RF energy, transmitter circuitry multiband receiver and converter circuitry, maintenance, troubleshooting and repair of radio receiver sets R390A/URR, AN/FRR-41, transceiver AN/FRC-93, transmitter AN/FRT-93, and auxiliary equipment. Note: Students who have completed modules 1 through 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (23 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (33 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory for students completing 23 weeks or 3 semester hours in electricity or electronics and 6 semester hours in electricity or electronics laboratory for students completing 33 weeks (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics for students completing either 23 or 33 weeks (see note above) (4/77). *Version 2:* In the vocational certificate category, 16 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

Related Occupation Codes: 09B, 32H.

AR-1715-0057

1. Fixed Station Transmitter Repair
2. Fixed Station Transmitter Repair
3. Fixed Station Radio Transmitter
Repair
(Fixed Station Transmitter Repair)

Course Number: *Version 1:* 101-32C20. *Version 2:* 11-R-272.1. *Version 3:* 11-E-42.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 22 weeks (820 hours). *Version 2:* 21 weeks (774 hours). *Version 3:* 22-24 weeks (880-888 hours).

Exhibit Dates: *Version 1:* 4/69-12/72. *Version 2:* 3/59-3/69. *Version 3:* 9/54-2/59.

Objectives: To train enlisted personnel to install, operate, and repair fixed-station radio transmitters and associated equipment.

Instruction: Lectures and laboratories in electrical and electronic fundamentals (based on vacuum tubes); transmitter circuitry; introduction to antenna types and characteristics; fixed-station fundamentals; amplifier analysis; frequency-measuring and -keying equipment; high-power, single-channel radio transmitters; single-sideband transmitters; and fixed-station, integrated communications systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 10 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/69); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics (3/74), and credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 32C.

AR-1715-0058

1. AN/TSQ-38 and AN/MSQ-18 Coder-Decoder Group Maintenance
   (AN/MSQ-18 Coder-Decoder Group Maintenance)
2. AN/MSQ-18 Battery Terminal Equipment Maintenance
   (AN/MSQ-18 Coder-Decoder Group Maintenance)

Course Number: *All Versions:* 44-N-F19. *Version 1:* 4F-F1; 150-F1.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 13 weeks (490-520 hours). *Version 2:* 14 weeks (480-494 hours).

Exhibit Dates: *Version 1:* 11/63-3/81. *Version 2:* 2/59-10/63.

Objectives: To train qualified missile system repairmen to maintain and repair the AN/MSQ-18 coder-decoder.

Instruction: *All Versions:* Lectures and practical exercises in AN/MSQ-18 coder-decoder maintenance and repair, including block-diagram and circuit analysis; digital logic circuitry, including binary theory, negators, flip-flops, and flip-zero circuits; and troubleshooting procedures. *Version 1:* Instruction includes diodes, transistors, soldering techniques with semiconductors and printed or etched cards, hand tools usage, gates, switching circuits, basic mathematics, binary counters, shift registers, and logical algebra. *Version 2:* Instruction includes transistor theory, "and" and "or" gates, and core register.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, 1 in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 1 semester hour in electronics, 1 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, 1 in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0059

Communications-Electronics Maintenance Warrant Officer Intermediate

Course Number: 4-11-C30.

Location: Signal School, Ft. Monmouth, NJ.

Length: 23 weeks (713 hours).

Exhibit Dates: 9/70-1/78.

Objectives: To teach signal warrant officers to operate and maintain communications-electronics equipment.

Instruction: Lectures and practical exercises in operation and maintenance of communications equipment and associated electronic instruments, including FM radio sets, navigational equipment, radar, satellite communications systems, multiplex systems, transmitters, TV equipment and components, film and tape systems, dial telephone central office switching system, and automatic digital message switching center.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics for non-engineering majors (3/74).

Related Occupation Codes: 201A; 286A; 281A; 282A; 252A; 287A; 301A; 361A; 290A; 341A; 721A.

AR-1715-0060

Special Forces Base Communications Operator
(Special Forces Base Communications Systems)

Course Number: 101-F12.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 6 weeks (187-207 hours).

Exhibit Dates: 8/72-Present.

Objectives: To train enlisted pesonnel to install, operate, and perform preventive maintenance on Special Forces base communications systems.

Instruction: Lectures and practical exercises in the operations and components of communications systems, including radio teletypewriter and radio set components, tuning and cording, communications central equipment, and message center group components and operation. Technical training is limited to that necessary to perform preventive maintenance and to interconnect components for optimum performance. Operation and military considerations are emphasized throughout.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (12/88).

Related Occupation Codes: 31E; 31Z; 32A; 72B.

AR-1715-0061

Electronic Countermeasures/Direction-Finding Systems Repairman
(ECM/DF Systems Repairmen)

Course Number: 102-33G20.

Location: Security Agency School, Ft. Devens, MA.

Length: 16 weeks (522 hours).

Exhibit Dates: 6/69-9/86.

Objectives: To train intercept equipment repairmen to maintain and repair electronic countermeasure direction-finding equipment.

Instruction: Lectures and practical exercises in the installation, maintenance, and troubleshooting of electronic countermeasure direction-finding equipment, including various test sets, direction-finding principles, target transmitter operation, logic symbols and circuits, various tubes and antennas, generators, receivers, power systems, calibrators, and hydraulic systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory, and additonal credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 32B; 33G; 33Z.

AR-1715-0062

COMSEC Equipment MAIT

Course Number: 4C-F9; 160-F2.

Location: Signal School, Ft. Monmouth, NJ.

Length: 3 weeks (94 hours).

Exhibit Dates: 7/73-1/78.

Objectives: To train technicians to maintain communications security equipment.

Instruction: Lectures and laboratories in the operation and maintenance of communications security equipment and in military instruction techniques.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31S; 31T; 32F; 32G; 31U; 290A; 341A; 721A.

AR-1715-0063

1. Senior Field Systems COMSEC Repair
2. Field Systems COMSEC Repair
3. Field Systems COMSEC Repair

Course Number: 160-31T30.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 27-33 weeks (1007-1230 hours). *Version 2:* 27-33 weeks (998-1221 hours). *Version 3:* 33 weeks (1238 hours).

Exhibit Dates: *Version 1:* 2/77-12/77. *Version 2:* 1/75-1/77. *Version 3:* 1/72-12/74.

Objectives: To train enlisted personnel to install, operate, and repair field systems communications security (COMSEC) equipment.

Instruction: *Version 1:* Course is divided into two phases. Phase I (6 weeks) includes solid state circuitry for power supplies, audio amplifiers, oscillators, and logic trainers. Phase II (27 weeks) covers soldering techniques and security equipment and specific military equipment theory and nomenclature. Note: Students who have completed modules 201, 202, 203, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (33 weeks) of this course. *Version 2:* The 27-week course is concerned with the application of general troubleshooting techniques to specific military equipment. The 33-week course also contains general information concerning AC and DC circuit troubleshooting, with use of oscilloscope, UTVM, and pulse generators. Note: Students who have completed Modules 1, 2, 3 and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (27 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete Phases I and II (33 weeks). *Version 3:* Lectures and laboratories in electronic fundamentals (based on mathematics through trigonometry); DC and AC fundamentals, including resonance considerations, phase angles, and apparent power; rectification; power supplies; regulation transistors; FETs; Zener diodes; unijunction transistors; oscillators; amplifiers; pulse and switching circuits; and theory, maintenance, and repair of IFF radar systems and equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in precision soldering for students completing 27 weeks or 4 semester hours in basic electronics or troubleshooting and 2 semester hours in precision soldering for students completing 33 weeks (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic circuit analysis and troubleshooting for students completing either 27 or 33 weeks (see note above) (4/77). *Version 2:* In the vocational certificate category, 1 semester hour in basic electronics laboratory for those students completing 27 weeks or 1 semester hour in basic electronics laboratory and 3 in basic electricity or electronics for students attending 33 weeks of the course (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity or electronics for students attending 33 weeks of the course (see note above) (5/75). *Version 3:* In the vocational certificate category, 30 semester hours in electronics, and credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 20 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 10 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31T; 31U.

AR-1715-0064

RADIO RELAY AND CARRIER ATTENDANT, SKILL DEVELOPMENT BASE

Course Number: 202-31M40-1.

Location: Southeastern Signal School, Ft Gordon, GA.

Length: 13 weeks (517 hours).

Exhibit Dates: 12/68–12/71.

Objectives: To train radio relay and carrier attendants to perform and/or supervise the installation and operation of tactical radio relay stations.

Instruction: Lectures and practical exercises in installation, administrative supervision, and operation of tactical communications systems; small-unit tactics; tactical field exercises; and general military subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

Related Occupation Codes: 31M; 31Z.

AR-1715-0065

CRITICOMM OPERATOR

Course Number: 580-F2.

Location: Southeastern Signal School, Ft Gordon, GA.

Length: 2 weeks (79 hours).

Exhibit Dates: 2/72–7/73.

Objectives: To train communications center specialists to operate CRITICOMM terminal and relay stations and to read Baudot five-level teletypewriter code.

Instruction: Lectures and practical exercises in CRITICOMM, message preparation and tape reading, message-handling procedures, and terminal and relay operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 72B.

AR-1715-0066

TELEVISION EQUIPMENT REPAIR TRANSITION

Course Number: 11-R-285.1T.

Location: Signal School, Ft Monmouth, NJ.

Length: 3 weeks (92 hours).

Exhibit Dates: 3/65–12/68.

Objectives: To train television equipment repairmen to maintain and repair solid-state video tape recorders.

Instruction: Lectures and laboratories in transistors, including introduction to semiconductors and semiconductor diodes, PNP and NPN devices, transistor circuitry, troubleshooting and repair procedures for transistorized equipment, and special-purpose semiconductor devices; and video tape recorders, including video tape recording principles, maintenance of video tape recorders, maintenance of color and auxiliary racks of video tape recorders, and operation of complete television systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 1 in electronics laboratory, and, on the basis of institutional evaluation, additional credit in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 1 in electronics laboratory (3/74).

AR-1715-0067

FIELD GENERAL COMSEC MAINTENANCE

Course Number: 160-31S20.

Location: *Version 1:* Signal School, Ft Gordon, GA. *Version 2:* Signal School, Ft Monmouth, NJ.

Length: *Version 1:* 13–15 weeks (471–542 hours). *Version 2:* 15 weeks (554 hours).

Exhibit Dates: *Version 1:* 8/74–9/85. *Version 2:* 1/72–7/74.

Objectives: To train enlisted personnel to operate and maintain field general cryptographic equipment.

Instruction: *All Versions:* Lectures and laboratories in teletypewriter principles, communications security equipment, electronic tactical teletypewriter security equipment, speech security equipment, digital data regenerative repeaters, and maintenance procedures. *Version 1:* Note: Students who have completed Module 1 of Common Basic Electronics Training (COBET) at Ft Jackson, SC, will complete only Phase II (13 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (15 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electricity and electronics and 2 semester hours in basic electrical laboratory for those students completing 15 weeks; or 3 semester hours in basic electricity and electronics and 1 in basic electrical laboratory for those students completing 13 weeks (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory for those students completing 15 weeks; no credit for those students completing 13 weeks (see note above) (5/75). *Version 2:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31S.

AR-1715-0068

1. AUTOMATIC DIGITAL MESSAGE SWITCHING EQUIPMENT (ADMSE) REPAIRER
2. AUTOMATIC DIGITAL MESSAGE SWITCHING EQUIPMENT (ADMSE) REPAIRER
3. AUTOMATIC DIGITAL MESSAGE SWITCH EQUIPMENT (ADMSE) REPAIRER
4. AUTOMATIC DIGITAL MESSAGE SWITCH EQUIPMENT (ADMSE) REPAIR
5. AUTOMATIC DATA PROCESSING (ADP) REPAIR, PHASE V—(AUTOMATIC DIGITAL MESSAGE SWITCH (ADMS) EQUIPMENT REPAIR
6. AUTOMATIC DATA PROCESSING (ADP) REPAIR, PHASE V—(AUTOMATIC DIGITAL MESSAGE SWITCH (ADMS) EQUIPMENT REPAIR

Course Number: *Version 1:* 150-34H20. *Version 2:* 150-34H20. *Version 3:* 150-34H20. *Version 4:* 150-34H20. *Version 5:* 150-34D20 (Phase V). *Version 6:* 150-34D20 (Phase V); 622-F5.

Location: Signal School, Ft Gordon, GA.

Length: *Version 1:* 40 weeks (1576 hours). *Version 2:* 40–41 weeks (1560 hours). *Version 3:* 39 weeks (1457 hours). *Version 4:* 39 weeks (1457 hours). *Version 5:* 20 weeks (734 hours). *Version 6:* 19–20 weeks (716–734 hours).

Exhibit Dates: *Version 1:* 12/83–12/86. *Version 2:* 6/80–11/83. *Version 3:* 8/78–5/80. *Version 4:* 4/75–7/78. *Version 5:* 8/73–3/75. *Version 6:* 4/68–7/73.

Objectives: To train automatic digital programing repairmen to maintain the overseas Autodin, automatic digital message switch (ADMS).

Instruction: *Version 1:* Lectures and laboratory in DC circuits, digital circuits, computer fundamentals, multimeter and oscilloscope operation, power supply troubleshooting, number system conversion, digital circuit troubleshooting, computer organization, machine language programming, microprocessors, programming and troubleshooting of message switching equipment, programming and repair of PDP-11 computer and disk drive repair and adjustment. *Version 2:* Instruction in the basics of electronics plus a study of logic and digital circuits. Lectures and laboratories in ADMS programming, processor groups, peripheral equipment control units, memory and memory control, memory assemblies, configuration control and consoles, and maintenance and operations. Instruction deals specifically with the automatic digital message switching equipment with and emphasis on troubleshooting. *Version 3:* Instruction in the basics of electronics plus study of logic and digital circuits. Several pieces of Army equipment are studied with an emphasis on troubleshooting. The equipment studied is very similar to a digital computer. *Version 4:* Lectures and laboratories in ADMS programming, processor groups, peripheral equipment control units, memory and memory control, memory assemblies, configuration control and consoles, and maintenance and operations. Instruction deals specifically with the automatic digital message switching equipment. *Version 5:* Lectures and laboratories in ADMS programming, processor groups, peripheral equipment control units, memory and memory control, memory assemblies, configuration control and consoles, and maintenance and operations. *Version 6:* Lectures and laboratories in ADMS programming, processor groups, peripheral equipment control units, memory and memory control, memory assemblies, configuration control and consoles, and maintenance and operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics, 2 in microprocessors, 6 in computer system troubleshooting, 2 in assembly language programming, 3 in computer theory and 2 in basic electronics (7/85). *Version 2:* In the vocational certificate category, 3 semester hours introduction to electronics/electricity, 3 in computer fundamentals, 3 in computer repair (10/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in basic electricity/electronics, 6 in computer systems analysis, 2 in introduction to data processing, 3 in assembly language programming (10/81). *Version 3:* In the vocational certificate category, 10 semester hours in computer repair (8/79) in the lower-division baccalaureate/associate degree category, 4 semester hours in digital circuits, 6 in computer repair, and 3 in basic electronics (8/79). *Version 4:* In the vocational certificate category, 3 semester hours in digital circuitry (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital equipment laboratory and 3 in computer systems (4/77). *Version 5:* In the vocational certificate category, 6 semester hours in digital circuits and 2 in digital circuits laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits laboratory (5/75). *Version 6:* In the vocational certificate category, 12 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (3/74).-

Related Occupation Codes: 34D; 09B; 34H.

AR-1715-0069

Automatic Digital Message Switching Center (ADMSC) Maintenance Supervisory

Course Number: 4C-F11; 622-F7.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11-15 weeks (389-564 hours).

Exhibit Dates: 4/68-1/78.

Objectives: To train data processing equipment repair technicians to supervise the maintenance of overseas automatic digital message switching centers.

Instruction: Lectures and practical exercises in digital computer principles, switching units, logic functions, magnetic tape and drum principles, peripheral equipment, and systems procedures.

Credit Recommendation: In the vocational certificate category, 8 semester hours in digital computers, 4 in computer laboratory (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital computers, 2 in computer laboratory (3/74); in the upper-division baccalaureate category, 2 semester hours in digital computers (3/74).

Related Occupation Codes: 301A; 521A.

AR-1715-0070

1. Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
2. Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
3. Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair

Course Number: *Version 1:* 150-34L20. *Version 2:* 150-34D20 (Phase IV). *Version 3:* 622-F4.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK; Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 15-23 weeks (603-902 hours). *Version 2:* 9 weeks (295-304 hours). *Version 3:* 9 weeks (312 hours).

Exhibit Dates: *Version 1:* 6/76-1/88. *Version 2:* 8/69-5/76. *Version 3:* 4/68-7/69.

Objectives: To acquaint enlisted personnel with the techniques required to operate, inspect, test, and repair the specified switching system peripheral equipment.

Instruction: *Version 1:* Course is divided into two phases. Phase I (8 weeks) includes instruction in circuitry for operation and repair of solid state power supply, audio amplifier, audio oscillator, pulse generator, and logic trainer. Phase II (15 weeks) consists of lectures and practical exercises in switching system repair, including magnetic tape subsystem repair, digital circuit analysis, automatic digital switching system (ADMS) equipment maintenance and repair, and printer and memory operation and repair. Note: Students who have attended modules 201, 202, 203, 4, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II of this course. *Version 2:* Lectures and practical exercises in switching system repair, including magnetic tape subsystem repair, digital circuit analysis, automatic digital switching system (ADMS) equipment maintenance and repair, and printer and memory operation and repair. *Version 3:* Instruction also includes ADMS peripheral equipment operation, maintenance, and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronic circuits and troubleshooting for students completing 23 weeks (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems laboratory for students completing either 15 or 23 weeks (see note above) (4/77). *Version 2:* In the vocational certificate category, 3 semester hours in digital computer systems (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital computer systems laboratory (5/75). *Version 3:* In the vocational certificate category, 12 semester hours in computer technology or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in computer technology or electronics (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 34D; 09B; 34L.

AR-1715-0071

Radio Systems Officer

Course Number: *All Versions:* 4C-0505; 4C-0500. *Version 1:* 4C-25A-C. *Version 3:* 4C-0503.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 10 weeks (366 hours). *Version 2:* 10 weeks (356 hours). *Version 3:* 12-16 weeks (420-562 hours).

Exhibit Dates: *Version 1:* 1/79-12/85. *Version 2:* 6/74-12/78. *Version 3:* 1/68-5/74.

Objectives: To train commissioned officers to plan, direct, and supervise the installation, operation, and maintenance of tactical and fixed-station radio, microwave radio, and tropospheric scatter equipment and systems.

Instruction: *Version 1:* Lectures and practical exercises include cursory discussions of Ohm's Law, series and parallel circuits, AC circuits, amplifiers, receiver and transmitter fundamentals, and wave propagation. Specific topics include military pulse and FDM systems, field radio, satellite communications, and tropospheric scatter systems and technical control facilities and system management. *Version 2:* Lectures and practical exercises include cursory discussions of Ohm's Law, series and parallel circuits, AC circuits, amplifiers, receiver and transmitter fundamentals, and wave propagation. Specific topics include military pulse and FDM systems, field radio, satellite communications, and tropospheric scatter systems. *Version 3:* Lectures and laboratories in DC and AC fundamentals, tubes, transistors, amplifiers, oscillators, transmitters, radar fundamentals, TV, wave propagation and transmission lines, multiplexing, power generation, field radio, telephone equipment, satellite communications, electronic warfare, microwaves, and tropospheric scatter systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in communication network management (10/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications and 1 in electronics laboratory (5/75); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications (5/75). *Version 3:* In the vocational certificate category, 10 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics (3/74); in the upper-division baccalaureate category, 6 semester hours in electronics (3/74).

Related Occupation Codes: 25D; 26D.

AR-1715-0072

1. Radio Terminal Sets AN/TRC-90/129/132 Repair
2. Radio Terminal Set AN/TRC-90 (RF Portion)

Course Number: *Version 1:* 101-F6. *Version 2:* 11-R-F42.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 6 weeks (222 hours). *Version 2:* 5 weeks (190 hours).

Exhibit Dates: *Version 1:* 5/69-1/78. *Version 2:* 10/64-4/69.

Objectives: To train microwave repairmen to operate and maintain AN/TRC-90/129/132 tropospheric scatter communications sets.

Instruction: *All Versions:* Lectures and laboratories in tropospheric transmitters and receivers, and operation and repair of tropospheric scatter communications systems. *Version 1:* Includes voice and teletype multiplexing equipment, transportable tropospheric scatter radio terminal sets, and transportable scatter system operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 26L.

AR-1715-0073

Strategic Microwave Systems
Operation and Maintenance

Course Number: 101-26V10.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 11-17 weeks (394-617 hours). *Version 2:* 17 weeks (598-630 hours).

Exhibit Dates: *Version 1:* 5/76-9/78. *Version 2:* 8/68-4/76.

Objectives: To train enlisted personnel to install, operate, and maintain line-of-sight and tropospheric-scatter microwave radio equipment.

Instruction: *Version 1:* Course is divided into two phases. Phase I (6 weeks) includes lectures and practical experience in troubleshooting and repair of power supplies, audio amplifiers, audio oscillators, and pulse generators. Phase II (11 weeks) covers RF energy generation; solid state circuitry; wave shaping circuitry; frequency modulation; and frequency division multiplexing equipment, radio sets, multiplexer sets, and tropospheric scatter radio terminal equipment operation, installation, and maintenance. Note: Students who have attended modules 201, 202, 203, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II of this course. *Version 2:* Lectures and practical exercises in electrical and electronic fundamentals; RF energy generation; solid-state circuitry; wave-shaping circuitry; frequency modulation; and frequency division multiplexing equipment, radio sets, multiplexer set, and tropospheric scatter radio terminal equipment operation, installation, and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in basic electronics and troubleshooting for completion of 17 weeks (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication system troubleshooting for students completing either 11 or 17 weeks (see note above) (4/77). *Version 2:* In the vocational certificate category, 16 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

Related Occupation Codes: 09B; 26V.

AR-1715-0074

Satellite Communications (SATCOM)
Fundamentals
(Satellite Communications (SATCOM)
PRE NET Training)

Course Number: 11-R-F.

Location: Signal School, Ft. Monmouth, NJ.

Length: 8-10 weeks (304-380 hours).

Exhibit Dates: 9/64-12/68.

Objectives: To provide microwave equipment repairmen, radar repairmen, or fixed-plant carrier equipment repairmen with training in satellite communications.

Instruction: Lectures and laboratories in history of communications, ground terminal configurations, and future of satellite communications; principles and applications of semiconductor devices, rectifiers, transistors, varactors, bias circuits, amplifier configurations, oscillators, power supplies, regulators, and multivibrators; digital data processing, binary notation, gating circuits, flip-flops, registers, counters, coders, and decoders; satellite communications devices and techniques, klystrons, antennas, FM receivers, modems, parametric amplifiers, synchro and servo circuits, and tracking systems. After 8/65, the course includes an introduction to spread spectrum and measurement interpretation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0075

Ballistic Missile Propulsion and
Structures Repair (Pershing)

Course Number: 631-376.1; 9-S-376.1; 9-S-F38.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 12-14 weeks (417-501 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted personnel to test and maintain Pershing missile electromechanical systems and associated equipment.

Instruction: Lectures and practical exercises in Pershing ballistic missile electromechanical systems and associated equipment testing and maintenance, including basic electricity, motors and generators, control devices, AC circuit analysis, transformers, and ground handling equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, and 4 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 46M.

AR-1715-0076

Guided Missile Fire Control System
Maintenance, SSM

Course Number: 44-OE-31.

Location: Artillery School, Ft. Bliss, TX.

Length: 32 weeks (1278 hours).

Exhibit Dates: 1/55-12/68.

Objectives: To train warrant officers and enlisted personnel to operate and maintain a surface-to-surface guided missile fire control system.

Instruction: Lectures and practical exercises in the operation and maintenance of a surface-to-surface guided missile fire control system, including basic mathematics, electricity, radio and radar electronics, analog computer and Doppler radio principles and operation, and employment of the Corporal fire control system.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity/electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity/electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0077

1. Nike Launcher Control Repair
2. Nike Launcher Control Repair
3. Nike Launcher Control Systems
   Repair (Ajax/Hercules)
   (Surface-to-Air Missile (SAM)
   Launcher Control System Repair)

Course Number: *Version 1:* 121-22G20. *Version 2:* 9-S-251.1. *Version 3:* 9-R-251.1; 9-E-62.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 16-19 weeks (534-667 hours). *Version 2:* 10-14 weeks (360-502 hours). *Version 3:* 7-9 weeks (228-315 hours).

Exhibit Dates: *Version 1:* 10/66-5/74. *Version 2:* 8/59-9/66. *Version 3:* 7/55-7/59.

Objectives: To train enlisted and civilian personnel to inspect, test, and maintain Nike Hercules launcher control electrical, mechanical, and electronic components and associated test equipment.

Instruction: Lectures and practical exercises in Nike Hercules launcher control electrical, mechanical, and electronic components and associated test equipment inspection, testing, and maintenance, including electricity and electronics fundamentals; ordnance shop practices; launcher assembly and control area introduction; equipment operation; maintenance procedures; underground launchers; command test circuits; technical inspection; and system analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* Credit is not recommeded because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 22G.

AR-1715-0078

1. Surface-to-Surface Missile (SSM)
   System Maintenance (Pershing)
   Warrant Officer Intermediate
2. Ballistic Missile Maintenance
   Technician (Pershing)

Course Number: *Version 1:* 4-9-C30-I; 4F-241F-A. *Version 2:* 4F-241F; 122-F3; 9-N-F39; 9-N-241F.

Location: Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 29 weeks (1038 hours). *Version 2:* 31-35 weeks (1111-1245 hours).

Exhibit Dates: *Version 1:* 10/70-12/78. *Version 2:* 7/62-9/70.

Objectives: To provide field artillery missile system technicians, Pershing (214E), with development training in general military and missile-related subjects.

Instruction: Lectures and practical exercises in Army organization, military resource management, maintenance, and special operations; missile electronic and digital computer fundamentals; and Pershing digital equipment, guidance and control, and electrical mechanical systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electronic digital computers (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronic digital computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electronic digital computers (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electronic digital computers (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronic digital computers (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 241F; 214E.

AR-1715-0079

1. Pershing Electronics Repairer
2. Pershing Electronic Repairer
3. Pershing Electronic Repair
4. Pershing Electronic Repair
5. Pershing Electronic Repair
6. Ballistic Missile Guidance and Control Repair (Pershing)
7. Ballistic Missile Guidance and Control Repair (Pershing)

Course Number: *Version 1:* 121-21L10. *Version 2:* 121-21L10. *Version 3:* 121-21L10. *Version 4:* 121-21L20. *Version 5:* 121-21L20. *Version 6:* 121-21L20. *Version 7:* 121-21L20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 37-38 weeks (1336 hours). *Version 2:* 32 weeks (1224 hours). *Version 3:* 35 weeks (1112 hours). *Version 4:* 32-36 weeks (1100-1271 hours). *Version 5:* 36 weeks (1255-1271 hours). *Version 6:* 31 weeks (1098 hours). *Version 7:* 31 weeks (1091 hours).

Exhibit Dates: *Version 1:* 4/85-9/87. *Version 2:* 8/82-3/85. *Version 3:* 9/78-7/82. *Version 4:* 5/74-8/78. *Version 5:* 6/73-4/74. *Version 6:* 3/71-5/73. *Version 7:* 4/69-2/71.

Objectives: To train enlisted personnel to inspect, operate, test, and repair Pershing missile ground support equipment.

Instruction: For this course after 9/87 see AR-1715-0752. *Version 1:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; and electronic equipment maintenance, safety, control, portable test equipment and hand tool distribution, systems analysis, and shop operations. Course includes AC/DC, resonance, transformers, power supplies, synchro devices, soldering techniques, solid state devices and circuits, handtool use, and Pershing missile system test, evaluation, alignment, maintenance and repair. Includes precision soldering. *Version 2:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; and electronic equipment maintenance, safety, control, portable test equipment and hand tool distribution, systems analysis, and shop operations. Course includes AC/DC, resonance, transformers, power supplies, synchro devices, soldering techniques, solid state devices and circuits, handtool use, and Pershing missile system test, evaluation, alignment, maintenance and repair. *Version 3:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; and electronic equipment maintenance, safety, control, portable test equipment and hand tool distribution, systems analysis, and shop operations. Course includes AC,DC, resonance, transformers, power supplies, synchro devices, soldering techniques, solid state devices and circuits, handtool use, and Pershing missile system test, evaluation, alignment, maintenance and repair. *Version 4:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance and repair, and electronic maintenance, safety, quality control, portable test equipment and hand tools usage, power distribution, systems analysis and shop operations. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (31-32 weeks) in which is included amplifiers, oscillators, and introduction to logic circuits and digital computers. For COBET recommendation, see AR-1715-0389. Students who have not attended COBET will complete both Phases I (including AC and DC circuits, resonant circuits, and transistor fundamentals) and II for a total of 36 weeks. *Version 5:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; digital computers introduction, computer arithmetic, and logic symbols and circuits; and electronic equipment maintenance, safety, quality control, portable test equipment and hand tools usage, power distribution, systems analysis, and shop operations. *Version 6:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; digital computers introduction, computer arithmetic, and logic symbols and circuits; and electronic equipment maintenance, safety, quality control, portable test equipment and hand tools usage, power distribution, systems analysis, and shop operations. *Version 7:* Lectures and practical exercises in Pershing missile electronic assemblies operation, maintenance, and repair, including electronic fundamentals; missile electronics; digital computers introduction, computer arithmetic, and logic symbols and circuits; and electronic equipment maintenance, safety, quality control portable test equipment and hand tools usage, power distribution, systems analysis, and shop operations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in introduction to AC/DC circuits, 3 in solid state circuits, 2 in precision soldering techniques and 3 in electronic systems maintenance (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor devices and circuits, 5 in electronics equipment repair techniques, and 1 in electronic shop practices (11/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor devices and circuits and 5 in electronics equipment repair techniques (8/79). *Version 4:* In the vocational certificate category, 9 semester hours in basic electronics, 9 in computer fundamentals for students who complete 31-32 weeks of the course or, 15 semester hours in basic electronics, 9 in computer fundamentals for students who complete 36 weeks of the course (see note above) (8/77). *Version 5:* In the vocational certificate category, 8 semester hours in electronics and digital computers (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics and digital computers (3/74). *Version 6:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 7:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21L.

AR-1715-0080

Redstone Electronic Materiel Maintenance

Course Number: 6-N-1192B; 6-N-218.1; 6-N-224.3B.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 20-22 weeks (556-931 hours).

Exhibit Dates: 5/57-12/68.

Objectives: To train enlisted personnel and warrant officers to assemble, install, calibrate, adjust, and maintain on-missile electronic guidance control components, systems, and associated electronic test equipment for Redstone missiles.

Instruction: Lectures and laboratories in basic electricity and electronics, radio electronics, radar electronics, magnetism, oscilloscopes, and R-L and C circuits.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74).

AR-1715-0081

Short Range Air Defense (SHORAD) Systems Technician

(Chaparral/Vulcan System Technician)

Course Number: *All Versions:* 4F-224B. *Version 2:* 121-F21.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 19-20 weeks (622-729 hours). *Version 2:* 15-16 weeks (551-582 hours).

Exhibit Dates: *Version 1:* 4/74-2/85. *Version 2:* 11/69-3/74.

Objectives: To train warrant officers and enlisted personnel with fire control experience to operate and maintain air defense systems and associated equipment.

Instruction: Lectures and practical exercises in maintenance of the Chaparral/Vulcan air defense system, including digital fundamentals, armament and turret electronics, performance tests, weapons equipment, antennas, computer fundamentals, power supplies, and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic electronics, 2 in digital fundamentals (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in digital fundamentals (2/75); in the upper-division baccalaureate category, 2 semester hours in digital systems, and additional credit on the basis of institutional evaluation (2/75). *Version 2:* In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74).

Related Occupation Codes: 24Q; 24B; 24D; 24F; 24M; 24N; 24U; 224B; 24C; 24E; 24G.

AR-1715-0082

1. Ballistic Missile Helper
2. Ballistic Missile Helper
   (Ballistic Missile Helper (Entry))

Course Number: *Version 1:* 121-21A10. *Version 2:* 9-R-370.0.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 9 weeks (317 hours). *Version 2:* 8-9 weeks (285-342 hours).

Exhibit Dates: *Version 1:* 5/68-1/70. *Version 2:* 1/58-4/68.

Objectives: To provide enlisted personnel with knowledge of missile electronics and mechanics, and to train them to repair ballistic missile systems and associated ground handling and test equipment.

Instruction: Lectures and laboratories in missile electricity, including AC/DC circuit analysis, AC/DC motors, and amplifiers; missile electronics; missile electro-mechanics; and Army inertial ballistic missile maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21A; 21H; 21J; 21K; 21L; 21M; 21R; 21T; 21S.

AR-1715-0083

1. Corporal Missile Repair
2. Corporal Missile Repair
3. Corporal Internal Guidance
   Repair
4. Surface-to-Surface Missile (SSM)
   Internal Guidance System
   Repair

Course Number: *Version 1:* 9-S-249.1. *Version 2:* 9-R-F21. *Version 3:* 9-R-244.1. *Version 4:* 9-E-61.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 27 weeks (990 hours). *Version 2:* 17 weeks (621 hours). *Version 3:* 13 weeks (472 hours). *Version 4:* 11 weeks (484 hours).

Exhibit Dates: *Version 1:* 2/63-12/68. *Version 2:* 7/59-1/63. *Version 3:* 5/57-6/59. *Version 4:* 12/55-4/57.

Objectives: To train enlisted and civilian personnel to inspect, test, maintain, and repair internal electronic and mechanical components of Corporal missile systems and associated test equipment, including AN/MSM-12 van.

Instruction: Lectures and laboratories in electronic fundamentals, motors, generators, power supplies, semiconductor fundamentals, amplifiers, oscillators, digital logic, and missile shop practices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74). *Version 3:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74).

Related Occupation Codes: 24U

AR-1715-0084

Hercules Electronic Mechanic
(Nike Hercules Electronic Maintenance)
(Nike Universal Electronic Maintenance)
(Nike Universal Electronic Materiel Maintenance)

Course Number: *Version 1:* 121-24U10. *Version 2:* 121-24U10. *Version 3:* 121-24U10. *Version 4:* 4F-221B, 121-24U10; 121-24U20. *Version 5:* 4F-221B; 121-24U20. *Version 6:* 4F-221B; 121-24U20. *Version 7:* 4F-221B; 121-22F20. *Version 8:* 4F-221B; 121-22F20; 121-225.1; 44-N-221B; 44-N-225.1. *Version 9:* 44-N-1182B; 44-N-225.1; 44-N-1182; 44-N-F12.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 8-9 weeks (316 hours). *Version 2:* 19 weeks (672-732 hours). *Version 3:* 22-23 weeks (673 hours). *Version 4:* 22 weeks (783-794 hours). *Version 5:* 22 weeks (800 hours). *Version 6:* 22 weeks (804 hours). *Version 7:* 22 weeks (786-793 hours). *Version 8:* 25 weeks (870-914 hours). *Version 9:* 27 weeks (1008-1016 hours).

Exhibit Dates: *Version 1:* 12/85-Present. *Version 2:* 1/80-11/85. *Version 3:* 6/78-12/79. *Version 4:* 6/76-5/78. *Version 5:* 6/75-5/76. *Version 6:* 8/74-5/75. *Version 7:* 1/70-7/74. *Version 8:* 1/63-12/69. *Version 9:* 6/58-12/62.

Objectives: To train warrant officers and enlisted personnel to assemble, install, maintain, calibrate, and repair Nike Hercules guided missiles, associated testing and handling equipment, and launch equipment. Versions 1, 2 and 3 will provide knowledge of warhead operations, assembly, service and maintenance of guided missiles.

Instruction: *All Versions:* Lectures and laboratories in basic electricity; basic electronics; radio circuits; warhead familiarization, assembly, and servicing; and system malfunction analysis. *Version 1:* Course includes a study of the fundamentals of AC/DC circuits. Also includes a study of the Hercules guided missile system. *Version 2:* Includes lectures and laboratory in basic electricity, including 30 hours in DC fundamentals and 24 hours in AC fundamentals, approximately 40 hours of training in electromechanics troubleshooting and schematic reading at the block diagram level, missile assembly and service operations, electrical checkout, and warhead assembly and maintenance. *Version 5:* Course does not include general information concerning basic electricity, electronics or radio circuits. *Version 6:* Topics include system AC and DC power distribution, simulation circuits, gyro system, system electrical circuit troubleshooting, and corrective maintenance procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC circuits (11/86). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity, 6 in electromechanical troubleshooting/maintenance (12/84). *Version 3:* In the vocational certificate category, 3 semester hours in electronic maintenance, 6 in maintenance procedures (electro-mechanical) (4/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (4/81). *Version 4:* In the vocational certificate category, 3 semester hours in electrical circuits, 3 in electronics, 6 in electronics troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory (8/77). *Version 5:* In the vocational certificate category, 6 semester hours in electronics troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory (8/77). *Version 6:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/75); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/75). *Version 7:* In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 8:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 9:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 221B; 221C; 24U; 22F.

AR-1715-0085

1. Nike Ajax Missile Electronic Maintenance
   (Nike Ajax Missile Electronic Materiel Maintenance)
2. Surface-to-Air Missile (SAM) Electronic Materiel Maintenance, Nike
3. Guided Missile Electronic Materiel Maintenance

Course Number: *Version 1:* 44-N-1182A; 44-N-223.1; 44-N-223.2; 44-N-1182. *Version 2:* 44-N-223.2; 44-N-1182. *Version 3:* 44-OE-32.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 22 weeks (815-852 hours). *Version 2:* 28 weeks (1060 hours). *Version 3:* 27 weeks (1100 hours).

Exhibit Dates: *Version 1:* 6/58-12/68. *Version 2:* 3/57-5/58. *Version 3:* 6/55-2/57.

Objectives: To train warrant officer and enlisted personnel in Nike Ajax missile launching equipment.

Instruction: Lectures and practical exercises in basic electronics and communication, including AC and DC circuits, oscillators, and power supplies; Nike Ajax system equipment familiarization; launch area procedures; and testing procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 271A; 223B; 223D; 251D.

AR-1715-0086

Lacrosse Electromechanical System Maintenance

Course Number: 9-R-434.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 7 weeks (248-250 hours).

Exhibit Dates: 2/58-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain the Lacrosse electromechanical system.

Instruction: Lectures and practical exercises in maintenance of Lacrosse electromechanical system, including missile structures and repairs; fundamentals of electricity, motors, and generators; hydraulic systems; circuits; launcher and systems; system analysis; and atomic warfare instructions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

AR-1715-0087

Missile Master Fire Unit Integration Facility Maintenance
(Missile Master Battery Terminal Equipment Maintenance)

Course Number: 44-N-F14.

Location: Air Defense School, Ft. Bliss, TX.

Length: 9-10 weeks (318-336 hours).

Exhibit Dates: 4/58-12/68.

Objectives: To train warrant officers and enlisted personnel in fire unit integration facility equipment maintenance.

Instruction: Lectures and practical exercises in fire unit integration facility equipment maintenance, including binary arithmetic, transistors, encoder and decoder, transmitter data processing, power supply, receiver, modulator, receiver data processing, data converter, computers, digital techniques, and system analysis.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 214E; 214G; 222B; 223B; 224B; 241F; 251B; 223D; 251D.

AR-1715-0088

Sergeant Electrical-Mechanical Repair
(Ballistic Missile Rocket Motor and Structures Repair (Sergeant))

Course Number: 631-461.20; 631-374.1; 9-S-F27.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 13 weeks (436-476 hours).

Exhibit Dates: 3/61-12/73.

Objectives: To train enlisted personnel to inspect, test, and repair Sergeant missile electromechanical systems and associated equipment.

Instruction: Lectures and practical exercises in Sergeant missile electromechanical systems inspection, testing and repair, including electricity introduction, Ohm's law, series and parallel circuits, magnetism, AC and DC electricity; missile soldering procedures; transformers; impedance; hydraulic systems; schematic reading; and electromechanical repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

Related Occupation Codes: 46L.

AR-1715-0089

Ballistic Missile Test Station Repair (Pershing)

Course Number: 122-21J20; 122-378.1; 9-S-378.1; 9-S-F36.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 29-34 weeks (1038-1228 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted personnel to inspect, test, and repair the Pershing ballistic missile test stations and associated equipment.

Instruction: Lectures and practical exercises in Pershing ballistic missile test stations and associated equipment inspection, testing, and repair, including AC and DC circuit fundamentals, motors, and generators; semiconductor fundamentals; power supplies; voltage regulators; solid-state circuit analysis; amplifiers, oscillators, and multivibrators; logic circuitry; and servomechanism fundamentals.

Credit Recommendation: In the vocational certificate category, 20 semester hours in electricity, electronics, and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in electricity, electronics, and electrical laboratory (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21J.

AR-1715-0090

Guided Missile Electronic Materiel Maintenance, Surface-to-Surface Missile (SSM)

Course Number: 44-OE-33.

Location: Artillery School, Ft. Bliss, TX.

Length: 28 weeks (1140 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train warrant officers and enlisted personnel to assemble, install, test, and maintain missile electronic guidance control, systems, components, and associated test equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of missile electronic guidance control components, systems, and associated test equipment, including basic electricity and electronics, mathematics, radar electronics, servomechanisms, and circuit analysis; and Corporal missile components, test equipment, check-out and firing.

Credit Recommendation: In the vocational certificate category, 16 semester hours in electricity or electronics, and 8 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 223B; 223D; 251D.

AR-1715-0091

Unit Level Communications Maintainer
(Tactical Communications Systems Operator/Mechanic)

(Field Communications-Electronics Equipment Mechanic
(Field Communications-Electronics Equipment Repair)
(Field Radio Mechanic)

Course Number: *Version 1:* 101-31V10. *Version 2:* 101-31V10. *Version 3:* 101-31B20. *Version 4:* 101-31B20.
Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Field Artillery School, Ft. Sill, OK. *Version 3:* Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA; Armor School, Ft. Knox, KY; Field Artillery School, Ft. Sill, OK. Infantry School, Ft. Benning, GA. *Version 4:* Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA; Armor School, Ft. Knox, KY; Field Artillery School, Ft. Sill, OK. Infantry School, Ft. Benning, GA.
Length: *Version 1:* 13-14 weeks (490 hours). *Version 2:* Self-paced 10-11 weeks (370-427 hours). *Version 3:* 9-10 weeks (329-400 hours). *Version 4:* 9 weeks (329-375 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 8/78-9/88. *Version 3:* 9/72-7/78. *Version 4:* 8/68-8/72.
Objectives: To train enlisted personnel to install, operate, and maintain radio transmitters and receivers.
Instruction: *All Versions:* Lectures and practical exercises in radio transmitter, receiver, and antenna fundamentals; operations and maintenanc of AM, FM, and single-sideband radio sets; and radio equipment security procedures. *Version 1:* Instruction includes Ohm's law, multimeters to check circuit components and continuity, soldering skills, and considerable emphasis on hands-on training in troubleshooting techniques and maintenance procedures. *Version 2:* Instruction includes Ohm's law, multimeters to check circuit components and continuity, soldering skills, and considerable emphasis on hands-on training in troubleshooting techniques and maintenance procedures. *Version 3:* Instruction includes DC circuits introduction, metric system, Ohm's law, multimeters, and vacuum tubes usage. *Version 4:* Instruction includes AC and DC circuits operation, tube amplifiers, and oscillators.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radio repair (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory based on institutional evaluation (6/89). *Version 2:* In the vocational certificate category, 3 semester hours in radio repair (1/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory based on institutional evaluation (1/80). *Version 3:* In the vocational certificate category, 5 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 5 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity (3/74).
Related Occupation Codes: 31B; 31E; 31G.

AR-1715-0092

COMMUNICATIONS CHIEF

Course Number: *All Versions:* 101-F4. *Version 2:* 6-R-F31.
Location: Artillery and Missile School, Ft. Sill, OK.
Length: *Version 1:* 11 weeks (388 hours). *Version 2:* 12 weeks (435-456 hours).
Exhibit Dates: *Version 1:* 6/67-12/68. *Version 2:* 4/64-5/67.
Objectives: To train enlisted personnel to operate communications equipment and to supervise and coordinate a communications section.
Instruction: *All Versions:* Lectures and practical exercises in radiotelephone procedures and security, wire communications, FM fundamentals, AM equipment, supply procedures, radio teletypewriter procedures, message center procedures and cryptography, tactical communication centers, and automatic data processing equipment for weapons. *Version 1:* Instruction includes AC and DC fundamentals and radio fundamentals.
Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 5 semester hours in electricity or electronics (3/74).

AR-1715-0093

BASIC FIELD RADIO REPAIR

Course Number: 11-R-296.0.
Location: Southeastern Signal School, Ft. Gordon, GA.
Length: *Version 1:* 17 weeks (627 hours). *Version 2:* 18 weeks (673 hours).
Exhibit Dates: *Version 1:* 2/65-12/68. *Version 2:* 5/63-1/65.
Objectives: To train enlisted personnel to maintain field radio equipment.
Instruction: *All Versions:* Lectures and practical exercises in transmitter and receiver fundamentals, transmitter and receiver maintenance and repair, field radio teletypewriter equipment operation and maintenance, and support maintenance procedures. *Version 1:* Instruction includes installation, operation, adjustment, and repair of transistorized FM radio sets.
Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in electronics or radio repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electronics or radio repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

AR-1715-0094

1. SENIOR FIELD GENERAL COMSEC REPAIR
   (Field General COMSEC Repair)
2. FIELD GENERAL COMSEC REPAIR

Course Number: *All Versions:* 160-31S30.
Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.
Length: *Version 1:* 28-38 weeks (1039-1354 hours). *Version 2:* 38 weeks (1428 hours).
Exhibit Dates: *Version 1:* 1/74-12/77. *Version 2:* 1/67-12/73.
Objectives: To train enlisted personnel to install, inspect, test, and maintain tactical communications security and crypto ancillary equipment.
Instruction: *All Versions:* Lectures and practical exercises in maintenance of communications security and ancillary equipment, including electrical fundamentals, circuitry, solid-state circuitry and logic, wave shaping, multivibrators, time constants, regulators, principles of teletypewriter equipment, voice and electromechanical security equipment, and systems installation. *Version 1:* Note: Students who have attended 6 weeks of Common Basic Electronics Training (COBET) will complete only Phase II-VII (or only Phase II after 1/77) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete all phases of this course.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in precision soldering for students who complete only Phases II-VII (28 weeks) or Phase II (32 weeks after 1/77) or 4 semester hours in basic electronics and troubleshooting and 2 semester hours in precision soldering for students who complete the entire course (34 or 38 weeks) (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic circuit analysis and troubleshooting for students completing 28, 32, 34 or 38 weeks of the course (4/77). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics for non-electronics majors, and credit in electricity or electronics on the basis of institutional evaluation for electronics majors (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics for non-electronics majors (3/74).
Related Occupation Codes: 31S; 31U; 09B.

AR-1715-0095

RADIO OPERATOR

Course Number: *Version 1:* 201-05B10; 05B10-CELT. *Version 2:* 201-05B20.
Location: Signal School, Ft. Gordon, GA; Army Training Centers, Continental U.S.
Length: *Version 1:* 7-12 weeks (237-496 hours). *Version 2:* 9 weeks (315-319 hours).
Exhibit Dates: *Version 1:* 3/79-12/83. *Version 2:* 6/72-2/79.
Objectives: To train enlisted personnel to install, operate, and maintain field tactical radio sets and associated equipment.
Instruction: Lectures and practical exercises in the operation and maintenance of tactical radio sets, including communications exercises, driver training, international Morse code, communications procedure and operation of field radio equipment, and ancillary communications equipment operation.
Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (8/79). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (3/74).
Related Occupation Codes: 05B.

AR-1715-0096

FIXED CIPHONY REPAIR

Course Number: *Version 1:* 160-32F10. *Version 2:* 160-32F10. *Version 3:* 160-32F20. *Version 4:* 160-32F20.
Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.
Length: *Version 1:* 37 weeks (1320 hours). *Version 2:* 34-36 weeks (1278-1346 hours).

Version 3: 40 weeks (1426 hours). *Version 4:* 40 weeks (1504 hours).

Exhibit Dates: *Version 1:* 3/82-2/86. *Version 2:* 2/77-2/82. *Version 3:* 4/73-1/77. *Version 4:* 1/72-3/73.

Objectives: To train enlisted personnel to install, operate, and repair strategic microwave radio systems.

Instruction: *All Versions:* Lectures and practical experience in scope and VTVM basic testing techniques; duplex key generator operation; speech compression and digitalization equipment operation; wide-band, full-duplex speech security equipment operation; narrow-band subscriber terminal operation; and depot repair techniques. *Version 1:* Instruction includes lecture and laboratory experience in solid state power supply, audio amplifier, audio oscillator and logic trainer circuitry. Emphasis on testing and troubleshooting. Basic hands-on trouble shooting and testing of equipment also takes place. *Version 2:* Instruction includes lecture and laboratory experience in solid state power supply, audio amplifier, audio oscillator and logic trainer circuitry, Emphasis on testing and troubleshooting, Basic hands on trouble shooting and testing of equipment also takes place. *Version 3:* Instruction includes electronic communications equipment troubleshooting, binary number system introduction, and basic logic circuits. *Version 4:* Instruction includes electrical fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic laboratory techniques and 4 in troubleshooting and repair techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in digital circuits and 2 in electronic systems maintenance (7/85). *Version 2:* In the vocational certificate category, 2 semester hours in digital circuitry, 2 semester hours in soldering and printed circuit board repair and 12 in electronics laboratory/troubleshooting (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics (8/79). *Version 3:* In the vocational certificate category, 15 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74). *Version 4:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 32F.

AR-1715-0097

Field Systems COMSEC Maintenance

Course Number: 160-31T20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 8-10 weeks (281-351 hours). *Version 2:* 10 weeks (346-516 hours).

Exhibit Dates: *Version 1:* 8/74-1/88. *Version 2:* 1/72-7/74.

Objectives: To train enlisted personnel to maintain communications equipment.

Instruction: *All Versions:* Lectures and laboratories in communications equipment maintenance, including electricity introduction (battery characteristics, Ohm's law, basic electrical circuits, tube theory, relays, transformers, solid-state diodes, transistors, oscilloscope use, and binary number system); laboratory work, including meter reading, continuity testing, soldering, reading schematics, VTVM use, and simple equipment use; and installing, troubleshooting, identifying, inspecting, testing, and replacing defective electrical parts. *Version 1:* Note: Students who have completed Module 1 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (8 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (10 weeks) of this course.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory for those students completing 10 weeks; or 1 semester hour in basic electrical laboratory for those students completing 8 weeks (see note above) (5/75). *Version 2:* In the vocational certificate category, 2 semester hours in electrical test laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical test laboratory, and additional credit in electrical test laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31T

AR-1715-0098

Strategic Microwave Systems Repair

Course Number: 101-26V20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Monmouth, NJ. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 22-32 weeks (812-1187 hours). *Version 2:* 26-32 weeks (928-1139 hours). *Version 3:* 32 weeks (1200 hours). *Version 4:* 23 weeks (858 hours).

Exhibit Dates: *Version 1:* 7/76-9/78. *Version 2:* 5/74-6/76. *Version 3:* 8/70-4/74. *Version 4:* 10/68-7/70.

Objectives: To train enlisted personnel to install, operate, and repair strategic microwave radio systems.

Instruction: *Version 1:* Lectures and practical experience in troubleshooting and repair of power supplies, audio amplifiers, audio oscillators, pulse generators, transceivers and logic circuits; operation and troubleshooting of microwave communication equipment and principles of microwave techniques. Note: Students who have completed Modules 201, 202, 203, 4 5/6, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (22 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (32 weeks) of this course. *Version 2:* Lectures and practical exercises in operation and troubleshooting microwave communication equipment, electrical fundamentals, pulse generator circuitry, electronics applied to basic receivers and logic circuits, and principles of microwave techniques.Note: Students who have completed Modules 1, 2, 3 and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (26 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete Phases I and II (32 weeks) of this course. *Version 3:* Lectures and laboratories in AC and DC circuits and networks fundamentals; electronic amplifier fundamentals, including vacuum tubes; receiver fundamentals, including heterodyning, AGC, coupling, oscillators and mixers; semiconductor theory; basic emitter-collector configurations; wave-shaping circuits on DC and differential amplifiers; FM and microwave techniques; voice and teletype multiplexing equipment; and radio system installation, operation, and repair techniques. *Version 4:* Instruction is same as Version 3 and also includes generation of RF energy and time constants.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic electronics and troubleshooting for those students completing 32 weeks of the course (see note (1) above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication system troubleshooting for students completing either 22 or 32 weeks of the course (see note (1) above) (4/77). *Version 2:* In the vocational certificate category, 6 semester hours in communications electronics for those students completing 26 weeks or 10 semester hours in communications electronics for students attending 32 weeks of the course (see note (2) above) (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics for students completing 26 weeks or 3 semester hours as an elective in electronics and 2 in electronics laboratory for students attending 32 weeks of the course (see note (2) above) (6/75). *Version 3:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 09B; 26V.

AR-1715-0099

1. Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Intermediate
2. Air Defense Missile Maintenance Technician (Hawk)
3. Air Defense Missile Maintenance Technician (Hawk) (Hawk Maintenance Supervision)

Course Number: *Version 1:* 4-9-C30-F; 4F-251C-A. *Version 2:* 4F-251C; 122-F5. *Version 3:* 9-N-251C.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 17 weeks (612 hours). *Version 2:* 41 weeks (1466 hours). *Version 3:* 40-46 weeks (1458-1661 hours).

Exhibit Dates: *Version 1:* 10/71-8/80. *Version 2:* 9/69-9/71. *Version 3:* 5/59-8/69.

Objectives: To train warrant officers who have a background in missile technology to repair Hawk air defense missiles.

Instruction: *All Versions:* Lectures and practical exercises in Hawk missile system support maintenance. *Version 2:* Includes test equipment, radars, power supplies, launcher, fire command console, engagement simulator, AC and DC circuits, and system analysis and troubleshooting procedures. *Version 3:* Includes test equipment, radars, power supplies, servomechanisms, fire command console, launcher, engagement simulator, logistical support, and system analysis.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (3/74). *Version 3:* In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 223B; 223D; 251D; 251D.

AR-1715-0100

BALLISTIC MISSILE TEST STATION REPAIR (SERGEANT)

Course Number: 9-S-375.1; 9-S-F28.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 23-27 weeks (828-966 hours).

Exhibit Dates: 3/61-12/68.

Objectives: To train enlisted and civilian personnel to inspect, test, and repair Sergeant missile electronic systems and associated equipment.

Instruction: Lectures and laboratories in basic electricity, power supplies, transistor circuits, linear wave shaping, servomechanisms, and Sergeant test equipment.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0101

HAWK MISSILE AND LAUNCHER MAINTENANCE

Course Number: *Version 1:* 121-24D20. *Version 2:* 121-24D20. *Version 3:* 121-24D20. *Version 4:* 121-22J20; 44-R-227.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 14 weeks (514 hours). *Version 2:* 14 weeks (519-525 hours). *Version 3:* 14 weeks (507 hours). *Version 4:* 20-26 weeks (770-919 hours).

Exhibit Dates: *Version 1:* 3/75-11/76. *Version 2:* 5/73-2/75. *Version 3:* 9/70-4/73. *Version 4:* 5/59-8/70.

Objectives: To train enlisted personnel in Hawk system loaders, launchers, missiles, and associated test equipment operation, adjustment, maintenance, and troubleshooting.

Instruction: Lectures and practical exercises in the maintenance of the Hawk missile and launcher, including AC and DC circuits, linear circuit elements, transistors and vacuum tubes, oscilloscopes, multimeters, and oscillators.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics laboratory (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in basic electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics laboratory (6/74). *Version 3:* Credit is not recommended because of the limited technical specialized nature of the course (3/74). *Version 4:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 24D.

AR-1715-0102

SERGEANT MISSILE BATTERY OFFICER
(Sergeant Missile Battery)

Course Number: 4F-214F; 043-15B30; 121-15B30; 4F-F4; 121-161.2.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: 5-6 weeks (161-241 hours).

Exhibit Dates: 5/62-6/75.

Objectives: To train warrant officers and enlisted personnel to assemble, check out, maintain, and operate Sergeant missile and associated ground handling equipment.

Instruction: Lectures and laboratories in basic electronics and Sergeant guided missile system familiarization, operation, and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

Related Occupation Codes: 15B; 214E; 241F.

AR-1715-0103

BALLISTIC MISSILE INERTIAL GUIDANCE AND CONTROL REPAIR (PERSHING)

Course Number: 122-377.1; 9-S-377.1; 9-S-F35.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 28 weeks (957-1020 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted and civilian personnel to inspect, test, and maintain electronic guidance and control assemblies of Pershing missile and related ground support equipment.

Instruction: Lectures and laboratories in missile electronics, including basic electricity, power supplies, transistors, amplifiers, digital computer fundamentals, linear wave shaping, and servomechanisms, and maintenance procedures for Pershing missiles and ground support equipment.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21H.

AR-1715-0104

BALLISTIC MISSILE GUIDANCE AND CONTROL REPAIR

Course Number: *Version 1:* 9-S-371.1. *Version 2:* 9-R-371.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 20 weeks (754 hours). *Version 2:* 13 weeks (456 hours).

Exhibit Dates: *Version 1:* 1/61-12/68. *Version 2:* 5/58-12/60.

Objectives: To train enlisted and civilian personnel to operate, inspect, test, and maintain ballistic missile guidance and control systems and components.

Instruction: Lectures and laboratories in basic ordnance shop practices; electrical fundamentals; electronic fundamentals, including power supplies, oscilloscopes, and analog computers; common guidance and control of ballistic missiles; and Redstone ballistic missile guidance and control systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0105

AIR DEFENSE ARTILLERY SENIOR WARRANT OFFICER
(Air Defense Artillery (ADA) Warrant Officer Advanced)
(Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Advanced)
(Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Intermediate (221B, 222B, 223C))

Course Number: 2-44-C32; 2-44-C30.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 6-7 weeks (238 hours). *Version 2:* 6-7 weeks (248 hours). *Version 3:* 21 weeks (698-805 hours). *Version 4:* 21 weeks (747-759 hours). *Version 5:* 23 weeks (763-920 hours). *Version 6:* 24 weeks (658-882 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 9/86-4/89. *Version 3:* 1/82-8/86. *Version 4:* 2/79-12/81. *Version 5:* 8/76-1/79. *Version 6:* 1/73-7/76.

Objectives: To train warrant officers to perform as technical advisors or instructors on surface-to-air missile systems.

Instruction: *All Versions:* Lectures and practical exercises in surface-to-air missile systems, including high- and low-altitude air defense, missile electronics and control systems, digital computer fundamentals, data storage, semiconductor theory, automatic data processing, amplifiers, oscillators, multivibrators, RF transmitters and receivers, and logic circuits. *Version 1:* Pending evaluation. *Version 2:* Instruction includes communication arts, leadership, training management, military history and system capabilities. *Version 3:* Course does not include Boolean logic, DeMorgans theorem and other related concepts. *Version 4:* Course offers lectures and practical exercises in surface-to-air missile systems, includes basic electronics, digital fundamentals, and communicative arts, some portions of which are review or refresher material. *Version 5:* Includes probability and statistics.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military specific nature of the course (11/86). *Version 3:* In the vocational certificate category, 3 semester hours in test equipment (11/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in applied management, 1 in digital circuits laboratory, 1 in electronics circuits laboratory (11/84). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in digital fundamentals, evaluation, 3 in communications (report writing). *Version 5:* In the vocational certificate category, 3 semester hours in semiconductor electronics, 3 in electrical laboratory, 1 in computer programming (8/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory, 2 in statistics and operational analysis (8/77). *Version 6:* In the vocational certificate category, 12 semester hours in electronics or digital computers (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics or digital computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics or digital computers (3/74).

Related Occupation Codes: 221B; 221C; 222B; 251B.

AR-1715-0106

NIKE HERCULES MISSILE ELECTRONIC MAINTENANCE
(Nike Hercules Missile Electronic Materiel Maintenance Transition)

Course Number: *All Versions:* 44-N-225.1T; 44-N-F6.

Location: Air Defense School, Ft. Bliss, TX.

Length: 9–11 weeks (303–402 hours).

Exhibit Dates: 10/57–12/68.

Objectives: To train warrant officers and enlisted personnel to perform and supervise the maintenance of Nike Hercules missiles and associated equipment.

Instruction: Lectures and practical exercises in components, operation, and circuitry of missile and assembly area equipment; operation and maintenance of Nike Hercules high-explosive warheads; rocket motors, and equipment in the servicing and launching area; assembly and testing of Nike Hercules nuclear warheads; and safety procedures in handling nuclear material and equipment.

Credit Recommendation: In the upper-division baccalaureate category, credit in radio or electronics on the basis of institutional evaluation (3/74).

Related Occupation Codes: 221B, 221C.

AR-1715-0107

ARTILLERY COMMUNICATIONS SUPERVISORS
(Artillery Communication Supervision)
(Artillery Communication Enlisted)

Course Number: 6-R-313.6; 6-R-313.7; 6-E-1.

Location: Artillery and Missile School, Ft. Sill, OK; Artillery and Guided Missile School, Ft. Sill, OK.

Length: 13–16 weeks (495–679 hours).

Exhibit Dates: 10/55–12/68.

Objectives: To train enlisted personnel experienced in field wire, radio operation, or radio maintenance to supervise the operation of artillery communications units.

Instruction: Lectures and practical exercises in map reading, fundamentals of electricity, wire communication equipment, radio communication equipment, maintenance of communication equipment and signal supply procedures, message center procedures and cryptography, radioteletype procedures, and communication systems for artillery units.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0108

INFANTRY RADIO MAINTENANCE

Course Number: 101-311.1; 7-R-311.1; 7-E-3.

Location: Infantry School, Ft. Benning, GA.

Length: 12–15 weeks (476–615 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train enlisted personnel to perform organizational maintenance on field radios and associated electronic equipment.

Instruction: Lectures and laboratories in fundamentals of electricity, including AC and DC circuits, power supplies, vacuum tubes, transformers, amplifiers, oscillators, modulation, and receiving and transmitting circuits; and maintenance and repair of radio sets.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31B.

AR-1715-0109

ARMOR RADIO MAINTENANCE

Course Number: *Version 1:* 17-R-312.1; 17-E-2.

Location: Armor School, Ft. Knox, KY.

Length: *Version 1:* 12–13 weeks (451–505 hours). *Version 2:* 17 weeks (705 hours).

Exhibit Dates: *Version 1:* 7/55–12/68. *Version 2:* 7/54–6/55.

Objectives: To train enlisted personnel to operate and maintain communication equipment used in armor communication systems.

Instruction: *All Versions:* Lectures and laboratories in fundamentals of electricity, repair of AM and FM radio sets, and field maintenance. *Version 1:* Emphasizes AM and FM radio repair techniques. *Version 2:* Emphasizes fundamentals of electricity and radio repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in basic shop practice (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic shop practice, and additional credit in basic shop practice on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 10 semester hours in basic shop practice (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68).

AR-1715-0110

FIXED STATION RADIO EQUIPMENT OPERATION AND MAINTENANCE

Course Number: 101-32A10; 11-R-270.0; 11-E-45.

Location: Signal School, Ft. Monmouth, NJ.

Length: 14–15 weeks (508–600 hours).

Exhibit Dates: 9/54–1/78.

Objectives: To train enlisted personnel to operate and maintain ground radio equipment.

Instruction: Lectures and laboratories in electrical fundamentals, basic radio fundamentals, fixed-station layout, telegraph fundamentals, terminal equipment, transmitters, radio receivers, and fixed-station integrated communications systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or electronics laboratory (3/74).

Related Occupation Codes: 32A; 32B; 32C; 32D; 32E.

AR-1715-0111

1. MULTICHANNEL COMMUNICATIONS EQUIPMENT REPAIR
2. RADIO RELAY AND CARRIER REPAIR
3. RADIO RELAY AND CARRIER REPAIR
4. FIELD CARRIER EQUIPMENT REPAIR
   (Carrier Equipment Repair)
   (Repeater and Carrier Equipment Installation and Maintenance)

Course Number: *Version 1:* 101-31L20. *Version 2:* 101-31L20; 101-294.1. *Version 3:* 101-294.1. *Version 4:* 11-R-294.1; 11-E-9.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Southeastern Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA. *Version 4:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 17–23 weeks (639–855 hours). *Version 2:* 14–23 weeks (523–864 hours). *Version 3:* 28 weeks (1045 hours). *Version 4:* 20–25 weeks (800–931 hours).

Exhibit Dates: *Version 1:* 10/74–12/78. *Version 2:* 1/66–9/74. *Version 3:* 8/64–12/65. *Version 4:* 3/53–7/64.

Objectives: To train enlisted personnel to install and maintain radio relay, repeater, and carrier equipment.

Instruction: *Version 1:* Lectures and practical troubleshooting exercises in military communications systems, carrier equipment circuits and systems repair, telephone terminal testing, repair, and system analysis; and general shop practices and troubleshooting procedures. *Version 2:* Lectures and practical exercises in AC and DC circuit theory; electronics fundamentals; communications introduction; carrier equipment circuits and systems repair; telephone terminal testing, repair, and system analysis; and shop practices and troubleshooting procedures. *Version 3:* Instruction is similar to that cited in Version 2 but is more detailed and at a higher level. *Version 4:* Instruction is similar to that cited in Version 2 but is more detailed and at a higher level.

Credit Pecommendation: *Version 1:* In the vocational certificate category, 3 semester hours in communications electronics, 1 in communications electronics laboratory for those students completing the 17-week course or 3 semester hours in communications electronics, 2 in communications electronics laboratory for those students completing the 23-week course (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in communication electronics for those students who complete either the 17-week or 23-week course (5/75). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics or electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31L; 31M

AR-1715-0112

ARTILLERY RADIO MAINTENANCE

Course Number: 6-R-313.1; 6-E-3.

Location: Artillery and Missile School, Ft. Sill, OK; Artillery and Guided Missile School, Ft. Sill, OK.

Length: 12–14 weeks (519–597 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to install, operate, maintain, and repair artillery communications systems equipment.

Instruction: Lectures and practical exercises in electrical fundamentals, including AC and DC circuits and theory; electronics fundamentals, including vacuum tubes, diodes, triodes, pentodes, amplifiers, and oscillators; circuit analysis for specific receivers and transmitters; and radio systems installation, operation, maintenance, and repair procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22A; 22G; 22K; 22L; 22M; 23N; 23Q; 23S; 23T; 23U.

AR-1715-0113

GUIDED MISSILE REPAIR HELPER
(Ordnance Electronics (Entry))

Course Number: 121-22A10; 9-R-250.0; 9-E-51.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Ft. Monmouth, NJ; Signal School, Ft. Monmouth, NJ.

Length: 10–11 weeks (351–402 hours).

Exhibit Dates: 9/56–12/70.

Objectives: To train enlisted personnel to repair guided missile electronic equipment.

Instruction: Lectures and practical exercises in electrical and electronics fundamentals; communications electronics; pulse techniques; video systems; special-purpose circuits timing and soldering techniques; equipment record system familiarization, basic mathematics for AC and DC circuits; and operation and repair procedures for various missile transmitters, receivers, amplifiers, oscillators, voltage regulators, and servomechanisms.

Credit Recommendation: In the vocational certificate category, 8 semester hours in radio and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22A.

AR-1715-0114

1. NIKE MISSILE REPAIR
2. NIKE MISSILE REPAIR
   (Nike Missile Repairman)
   (Nike Internal Guidance Repair)
3. NIKE INTERNAL GUIDANCE REPAIR
   (Nike Internal Guidance System Repair)
4. SURFACE-TO-AIR MISSILE (SAM) INTERNAL GUIDANCE SYSTEM REPAIR

Course Number: *Version 1:* 121-22M20. *Version 2:* 121-22M20; 121-254.1; 9-S-254.1. *Version 3:* 9-S-254.1; 9-R-254.1. *Version 4:* 9-E-65.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL; *Version 2:* Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 4:* Ordnance Guided Missile school, Redstone Arsenal, AL.

Length: *Version 1:* 22 weeks (744 hours). *Version 2:* 23–28 weeks (879–1039 hours). *Version 3:* 12–13 weeks (420–483 hours). *Version 4:* 7 weeks (245 hours).

Exhibit Dates: *Version 1:* 10/72–5/74. *Version 2:* 2/63–9/72. *Version 3:* 5/57–1/63. *Version 4:* 12/55–4/57.

Objectives: To train SAM electronic repair helpers to inspect, test, and repair the Nike Hercules missile and associated test equipment.

Instruction: Lectures and practical exercises in basic electricity; AC and DC circuits; linear wave shaping; communication systems; vacuum tubes, amplifiers, and video systems; and missile system operation, maintenance, and test procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22M.

AR-1715-0115

COMBAT MISSILE SYSTEM REPAIR
(Combat Missile System Repair (Redeye-Shillelagh-Tow))

Course Number: 121-27C20; 121-F15.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 15–24 weeks (525–844 hours).

Exhibit Dates: 5/66–12/85.

Objectives: To train enlisted and civilian personnel to inspect, test, and maintain combat missile systems and associated test equipment.

Instruction: Lectures and practical exercises in combat missile systems and associated test equipment inspection, testing, and maintenance, including electricity and electronics fundamentals, transistors and transistor principles, logic circuits and digital computer operation, system components repair procedures, and safety and security procedures.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22C.

AR-1715-0116

BALLISTIC MISSILE GENERAL SUPPORT SHOP SET REPAIR (SERGEANT)

Course Number: 122-21F30; 122-375.2; 9-S-F44.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 18 weeks (648–681 hours).

Exhibit Dates: 1/64–12/68.

Objectives: To train enlisted and civilian personnel to inspect, test, and repair the general support shop set and Sergeant missile electronic systems and associated equipment through field maintenance level.

Instruction: Lectures and practical exercises in missile electronics subjects, including heterodyne receivers, AM and FM transmitters, radio waves, amplifiers, basic communications circuits, missile digital controller, testing and repair of general electronics equipment, and linear wave-shaping techniques.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74).

AR-1715-0117

PERSHING SYSTEM MAINTENANCE
(Pershing Specialist)

Course Number: *All Versions:* 4F-214E; 121-21G20. *Version 4:* 6-N-214E; 6-N-163.2.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Field Artillery School, Ft. Sill, OK. *Version 3:* Artillery and Missile School, Ft. Sill, OK. *Version 4:* Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 13-14 weeks (477-525 hours). *Version 2:* 12 weeks (462 hours). *Version 3:* 14 weeks (480 hours). *Version 4:* 17-20 weeks (634-757 hours).

Exhibit Dates: *Version 1:* 5/72-7/77. *Version 2:* 10/70-4/72. *Version 3:* 12/68-9/70. *Version 4:* 8/63-11/68.

Objectives: To train warrant officers and enlisted personnel in the assembly, operation, and maintenance of Pershing missile and associated support equipment.

Instruction: Lectures and practical exercises in basic electricity, test equipment usage, AC circuit fundamentals, AC and DC motors, switches, synchro mechanisms, mathematics review, digital computer fundamentals, solid-state fundamentals, Pershing missile theory and functioning, and missile equipment operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 4 semester hours in electricity or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21G; 214E; 241F.

AR-1715-0118

BALLISTIC MISSILE DIGITAL EQUIPMENT
REPAIR (PERSHING)

Course Number: 150-21M20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 25-26 weeks (874-911 hours).

Exhibit Dates: 2/69-12/79.

Objectives: To train enlisted and civilian personnel to inspect, test, and repair the Pershing digital and associated equipment through general support maintenance level.

Instruction: Lectures and practical exercises in operation of the Pershing digital equipment, including missile electronic subjects, basic electrical principles, and computer operation, testing, and components.

Credit Recommendation: In the vocational certificate category, 16 semester hours in electronics and digital equipment (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics and digital equipment (3/74).

Related Occupation Codes: 21M.

AR-1715-0119

PERSHING SYSTEM MAINTENANCE
(TRANSITION)

Course Number: 4F-F7; 121-F18.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9 weeks (305 hours).

Exhibit Dates: 1/69-10/71.

Objectives: To train warrant officers who qualify as Pershing missile systems technicians and enlisted fire control specialists to operate new Pershing equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of new Pershing equipment, including guided missile instruction, operation of the programmer test station, the Pershing erector-launcher, firing position procedures, digital computer hardware and logic, and basic solid-state electronics related to the new equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computers (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computers (3/74).

Related Occupation Codes: 21G; 214E; 241F.

AR-1715-0120

CHAPARRAL SYSTEM MECHANIC

Course Number: *Version 1:* 121-24N10. *Version 2:* 121-24N10. *Version 3:* 121-24N10. *Version 4:* 121-24N10. *Version 5:* 121-24N10. *Version 6:* 121-24N20.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 13-17 weeks (478-608 hours). *Version 2:* 25-26 weeks. *Version 3:* 10-12 weeks (404-411 hours). *Version 4:* 11-12 weeks (377-413 hours). *Version 5:* 19 weeks (688 hours). *Version 6:* 10 weeks (352 hours).

Exhibit Dates: *Version 1:* 5/85-Present. *Version 2:* 6/83-4/85. *Version 3:* 8/76-5/83. *Version 4:* 9/70-7/76. *Version 5:* 6/69-8/70. *Version 6:* 11/68-5/69.

Objectives: To train enlisted personnel to maintain Chaparral weapon systems and associated equipment.

Instruction: *Version 1:* Lectures and demonstrations in the organizational level maintenance of equipment assemblies and subassemblies of the Chaparral missile system. *Version 2:* Lectures and demonstration in the installation, operation, and organizational level maintenance of equipment assemblies and subassemblies of the Chaparral missile system. *Version 3:* Lectures and laboratories in vacuum tube and transistor electronics, synchro/servo relay systems, and familiarization with low-altitude Chaparral air defense systems. *Version 4:* Lectures and laboratories in vacuum tube and transistor electronics, synchro/servo relay systems, and familiarization with low-altitude Chaparral air defense systems. *Version 5:* Lectures and laboratories in vaccum tube and transistor electronics, synchro/servo relay systems, and familiarization with low-altitude Chaparral air defense systems. *Version 6:* Lectures and laboratories in vacuum tube and transistor electronics, synchro/servo relay systems, and familiarization with low-altitude Chaparral air defense systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in maintenance of electro-mechanical equipment (2/90). *Version 2:* In the vocational certificate category, 6 semester hours in maintenance of electro- mechanical devices (includes introductory DC, AC, and solid state theory), 3 in automotive engine theory and troubleshooting (12/84). *Version 3:* In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77). *Version 4:* Credit is not recommended because of the limited specialized nature of the course (3/74). *Version 5:* In the vocational certificate category, 8 semester hours in basic electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electronics (3/74). *Version 6:* Credit is not recommended because the limited specialized nature of the course (3/74).

Related Occupation Codes: 24N; 09B.

AR-1715-0121

BALLISTIC METEOROLOGY CREWMAN,
SPECIALIST CANDIDATE
(Ballistic Meteorology Crewman, Skill Development Base)

Course Number: 420-93F20-1.

Location: Field Artillery School, Ft. Sill, OK.

Length: 11-12 weeks (394-455 hours).

Exhibit Dates: 2/69-Present.

Objectives: To train ballistic meteorology crewmen as supervisors or technicians on ballistic meteorology crews.

Instruction: Lectures and practical exercises in meteorology, meteorological equipment, maintenance procedures and tactical employment of meteorology sections, and leadership subjects.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 93F.

AR-1715-0122

PERSHING ELECTRICAL-MECHANICAL
REPAIR
(Ballistic Missile Electrical Mechanical Repair (Pershing))

Course Number: *Version 1:* 631-46N10. *Version 2:* 631-46N20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 13-18 weeks (488-639 hours).

Exhibit Dates: *Version 1:* 9/78-9/90. *Version 2:* 3/69-8/78.

Objectives: To train enlisted personnel to inspect, test, and repair Pershing missile electrical, mechanical, and hydraulic systems and associated test and ground support equipment.

Instruction: Lectures and laboratory exercises including basic electricity concepts of work, energy, and power; DC and AC circuit theory-series, parallel, series-parallel, inductive, capacitive, and LCR circuits; soldering techniques and practices; basic manual skills and missile hydraulic systems and associated test and ground support equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronics repair techniques (10/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity/electronic fundamentals (10/87). *Version 2:* In the vocational certificate category, 5 semester hours in basic electronics and troubleshooting (3/75).

Related Occupation Codes: 46N.

AR-1715-0123

1. LACROSSE EXTERNAL GUIDANCE
REPAIR
2. LACROSSE EXTERNAL GUIDANCE
REPAIR
(Lacrosse External Guidance System Repair)

Course Number: *Version 1:* 9-S-248.1. *Version 2:* 9-R-248.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 29 weeks (1077 hours). *Version 2:* 17-19 weeks (608-704 hours).

Exhibit Dates: *Version 1:* 2/63-12/68. *Version 2:* 6/58-1/63.

Objectives: To train electronic repair helpers to inspect, test, and maintain Lacrosse external guidance systems and associated test equipment.

Instruction: Lectures and laboratories in ordnance shop practices; missile radar and missile radar circuits, including basic electricity, basic electronics, transistors, amplifiers, and communication circuit linear wave shaping; and field maintenance of Lacrosse missile guidance central.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0124

1. LACROSSE INTERNAL GUIDANCE REPAIR
2. LACROSSE INTERNAL GUIDANCE REPAIR
3. LACROSSE INTERNAL GUIDANCE SYSTEM REPAIR

Course Number: *Version 1:* 9-S-247.1. *Version 2:* 9-R-247.1. *Version 3:* 9-R-247.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 25 weeks (902 hours). *Version 2:* 14-15 weeks (504-554 hours). *Version 3:* 11 weeks (391 hours).

Exhibit Dates: *Version 1:* 2/63-12/68. *Version 2:* 8/59-1/63. *Version 3:* 6/58-7/59.

Objectives: To train enlisted and civilian personnel to inspect, test, and maintain Lacrosse internal guidance systems and associated equipment.

Instruction: Lectures and practical exercises in missile electronics, including basic electricity, solid-state devices, communication circuits, vacuum tube circuits, transistor circuits, and Lacrosse internal guidance system maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0125

FIXED PLANT CARRIER EQUIPMENT REPAIR

Course Number: *All Versions:* 101-32E20. *Version 2:* 11-R-274.1; 11-R-297.1.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 28-29 weeks (1030-1031 hours). *Version 2:* 23-33 weeks (850-1230 hours).

Exhibit Dates: *Version 1:* 5/73-9/78. *Version 2:* 1/58-4/73.

Objectives: To train enlisted personnel to install, operate, maintain, and repair fixed-plant carrier and fixed-station radio equipment.

Instruction: *All Versions:* Lectures and practical exercises in fixed-plant carrier and fixed-station radio equipment operation, installation, maintenance, and repair, including electrical fundamentals, AC and DC series and parallel circuits, inductance and capacitance, vacuum tubes, semiconductors, electronic circuits, amplifiers, oscillators, and clippers and clampers; and specialized equipment operation, including telephones and telephone terminals, and telegraphs and telegraph terminals. *Version 2:* Instruction covers basic electronics in greater detail.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 32E.

AR-1715-0126

NIKE TRACK RADAR REPAIR (IMPROVED HERCULES TRANSITION)
(Nike Track Radar Repair (Hercules Transition))

Course Number: 9-S-253.1 (T).

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 4-12 weeks (134-438 hours).

Exhibit Dates: 10/58-12/68.

Objectives: To train field maintenance personnel to maintain Nike Hercules tracking and ranging radar systems.

Instruction: Lectures and practical exercises in Nike Hercules tracking and ranging radar system functions, components operation, field maintenance test equipment, and detailed check-out and maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AR-1715-0127

HAWK MISSILE AND LAUNCHER REPAIR (TRANSITION INSTRUCTION)

Course Number: 121-22K20(TI).

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 25 weeks (880 hours).

Exhibit Dates: 2/67-12/68.

Objectives: To train enlisted personnel to inspect, test, maintain, and repair the Hawk missile and launcher electronic systems.

Instruction: Lectures and practical exercises in the maintenance of the Hawk missile and launcher electronic systems, including AC and DC fundamentals (RCL, series, parallel, and series-parallel circuits, reactance, impedance, time constants), vacuum tubes, semiconductors, electronic circuits, amplifiers, clippers, clampers, oscillators, and transformers. Mathematics is pre-calculus.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22K; 23V.

AR-1715-0128

1. SERGEANT TEST EQUIPMENT REPAIR
2. SERGEANT TEST EQUIPMENT REPAIRMAN

Course Number: 121-21T20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 27 weeks (938 hours). *Version 2:* 32 weeks (1157 hours).

Exhibit Dates: *Version 1:* 11/72-12/75. *Version 2:* 1/67-10/72.

Objectives: To train enlisted personnel who have had previous training in algebra and general science to test, inspect, and repair Sergeant field maintenance test station equipment.

Instruction: Lectures and practical experience in Sergeant field maintenance test station inspection, testing, maintenance, and repair, including AC and DC circuit fundamentals (RLC circuits, series and parallel circuits, reactance, impedance, resonance, transients, and time constants), vacuum tubes, semiconductors, electronic circuits (amplifiers, clippers, clampers, gates, power supplies, and transformers), and mathematics through calculus.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electtonics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 21T.

AR-1715-0129

SMALL MISSILE SYSTEMS REPAIR

Course Number: 632-426.1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 13 weeks (513 hours).

Exhibit Dates: 10/66-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain small missile systems, simulators and associated test equipment.

Instruction: Lectures and practical exercises in the maintenance of specific small missile systems; AC and DC fundamentals; vacuum tubes and semiconductors; basic electronic circuits; transformers; operation and components of specific equipment, simulators, and test equipment; and troubleshooting. Mathematics is pre-calculus.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

Related Occupation Codes: 45H.

AR-1715-0130

1. Land Combat Missile Systems Repair Technician Warrant Officer Technical Certifcation
2. Warrant Officer Entry (Land Combat Missile Systems Repair Technician Entry)
3. Land Combat Missile System Repair Technician (Land Combat Support Missile System Repair Technician)
4. Land Combat Missile System Repair Technician (Land Combat Support Missile System Repair Technician)
5. Land Combat Missile System Repair Technician (Land Combat Support Missile System Repair Technician)

Course Number: *All Versions:* 4F-271A. *Version 3:* 121-F16. *Version 4:* 121-F16. *Version 5:* 121-F16.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 32 weeks (1183-1213 hours). *Version 2:* 32 weeks (882-990 hours). *Version 3:* 30 weeks (1071 hours). *Version 4:* 41 weeks (1459 hours). *Version 5:* 34 weeks (1189 hours).

Exhibit Dates: *Version 1:* 12/83-9/88. *Version 2:* 9/81-11/83. *Version 3:* 4/79-8/81. *Version 4:* 1/71-3/79. *Version 5:* 9/67-12/70.

Objectives: To train warrant officers and enlisted personnel to inspect, test, maintain, and repair land combat support missile systems.

Instruction: *Version 1:* Lectures and practical experiences in land combat support missile systems testing, inspection, maintenance, and repair procedures, including coverage of electronic fundamentals; missile system logistical support; TOW/Dragon Missile system system, Shillelagh weapon system, and Lance missile system operation, inspection, maintenance, and repair. Instruction places considerable emphasis on basic electricity, electronic principles, and computer electronics. Also, course provides training in management, organization, and staff functions. Includes introduction to microprocessor and hardware troubleshooting using signature analysis techniques. *Version 2:* Lectures and practical experiences in land combat support missile systems testing, inspection, maintenance, and repair procedures, including coverage of electronic fundamentals; missile system logistical support; TOW/Dragon Missile system system, Shillelagh weapon system, and Lance missile system operation, inspection, maintenance, and repair. Instruction places considerable emphasis on basic electricity, electronic principles, and computer electronics. Also, course provides training in management, organization, and staff functions. *Version 3:* Lectures and practical exercises in land combat support missile systems testing, inspection, maintenance, and repair procedures, including limited coverage of electronic fundamentals; missile system logistical support; TOW/Dragon Missile system, Shillelagh weapon system, and Lance missile system operation, inspection, maintenance, and repair. Instruction places considerable emphasis on basic electricity, electronic principles and computer electronics. *Version 4:* Lectures and practical exercises in land combat support missile systems testing, inspection, maintenance, and repair procedures, including limited coverage of electronic fundamentals; missile system logistical support; Redeye weapon system, Shillelagh weapon system, and Chaparral/Vulcan weapon system operation, inspection, maintenance, and repair. Instruction places greater emphasis on pulse circuits in this version. *Version 5:* Lectures and practical exercises in land combat support missile systems testing, inspection, maintenance, and repair procedures, including limited coverage of electronic fundamentals; missile system logistical support; Redeye weapon system, Shillelagh weapon system, and Chaparral/Vulcan weapon system operation, inspection, maintenance, and repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to microprocessor/ computer hardware, 3 in introduction to AC/DC circuitry, 2 in introduction to electronics, 2 in introduction to digital electronics, 2 in personnel management and 2 in electronic systems maintenance (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics test equipment, 2 in personnel management, 3 in electronics (diodes/transistors), 2 in introduction to digital circuits, and 3 in electricity (AC/DC) (11/83). *Version 3:* In the vocational certificate category, 5 semester hours in laboratory techniques (8/79) in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in computer systems, 5 laboratory measurements, and for those students enrolled in an electrical engineering program, 1 semester hour in personnel management and 3 in maintenance management (8/79). *Version 4:* In the vocational certificate category, 5 semester hours in electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronic circuits on the basis of institutional evaluation (3/74). *Version 5:* In the vocational certificate category, 8 semester hours in electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronic circuits on the basis of institutional evaluation (3/74).

AR-1715-0131

Light Target Missile Flight Control System Maintenance

Course Number: 198-31R20.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Combat Surveillance School, Ft. Huachuca, AZ.

Length: *Version 1:* 12 weeks (429 hours). *Version 2:* 13 weeks (454 hours).

Exhibit Dates: *Version 1:* 5/68-3/81. *Version 2:* 7/66-4/68.

Objectives: To train enlisted personnel to operate and maintain the light target missile flight control system.

Instruction: Lectures and practical exercises in light target missile flight control system operation and maintenance, including AC and DC circuit theory, vacuum tube and semiconductor circuits, including clippers and clampers; operation of amplifiers, oscillators, and transformers; and MQM target control system block diagram, transmitter and receiver circuit analysis, alignment, installation, signal generator calibration, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in electronics, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 31R.

AR-1715-0132

Hawk Missile and Launcher Repair

Course Number: 121-22K20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 30 weeks (1032 hours). *Version 2:* 31-37 weeks (890-1316 hours). *Version 3:* 31-37 weeks (1143 hours).

Exhibit Dates: *Version 1:* 4/74-12/75. *Version 2:* 7/69-3/74. *Version 3:* 9/67-6/69.

Objectives: To train enlisted personnel to maintain and repair the Hawk missile launcher system.

Instruction: *All Versions:* Lectures and practical exercises in Hawk missile launcher system maintenance and repair, including AC and DC circuit theory; series, parallel, RCL and R,C,L circuits; RC and RL transients; series and parallel resonance; vacuum tubes, transistor circuits, single- and multistage amplifiers; power supplies; microwaves; and Hawk missile, launchers, and associated test equipment maintenance and repair. *Version 1:* Includes simplified explanation of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; basic microwave procedures related to radar systems; basic manual skills and missile hydraulic systems; missile, launchers, and associated test equipment and repair. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (26 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete Phases I and II (30 weeks).

Credit Recommendation: *Version 1:* In the vocational certificate category, 18 semester

hours in basic electronics and troubleshooting for those students completing 26 weeks or 21 semester hours in basic electricity, electronics and troubleshooting for students attending 30 weeks of the course (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity and electronics for students attending 30 weeks of the course (see note above) (3/75). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 22K.

AR-1715-0133

OV/RV-1D (MOHAWK) AVIATOR COMBAT SURVEILLANCE QUALIFICATION

(OV-1D (Mohawk) Aviator Combat Surveillance Qualification)

Course Number: 2B-F19.

Location: Intelligence School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 5 weeks (132 hours). *Version 2:* 2-5 weeks (98-186 hours).

Exhibit Dates: *Version 1:* 5/79–1/89. *Version 2:* 10/72–4/79.

Objectives: To train OV-1 aviators to utilize D-model combat surveillance systems.

Instruction: *Version 1:* Course includes photographic surveillance systems, inertial navigation systems, electronic warfare operation, employment of photographic systems, infrared missions, and radar systems. *Version 2:* Lectures and practical exercises on KS-113 photographic surveillance system, inertial navigation systems, infrared detection set, operation procedures and employment techniques, infrared surveillance missions, and radar warning receivers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aerial photo and photographic systems (6/79). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/74).

AR-1715-0134

HAWK CONTINUOUS WAVE (CW) RADAR MAINTENANCE

Course Number: *Version 1:* 104-24B20. *Version 2:* 104-24B20; 104-23R20; 44-R-221. *Version 3:* 44-R-221.1; 44-N-221.1; 44-N-F17.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 15 weeks (560-565 hours). *Version 2:* 23-29 weeks (852-1026 hours). *Version 3:* 23-28 weeks (772-997 hours).

Exhibit Dates: *Version 1:* 11/70–11/76. *Version 2:* 5/63–10/70. *Version 3:* 6/58–4/63.

Objectives: To train enlisted personnel to maintain the Hawk continuous-wave radar system.

Instruction: *All Versions:* Lectures and practical experience in Hawk continuous-wave radar system maintenance, including basic electricity and electronics, AC and DC circuits, vacuum tube electronics, transistors, radar circuits, descriptive treatment of radar system components, and maintenance techniques and supply procedures. *Version 1:* Instruction includes soldering techniques, electrical units and color codes, and maintenance publications. *Version 2:* Instruction includes assault fire control console operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics, 6 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 24B.

AR-1715-0135

1. STATION TECHNICAL CONTROLLER
2. STATION TECHNICAL CONTROLLER
3. FIXED STATION TECHNICAL CONTROLLER
4. FIXED STATION TECHNICAL CONTROLLER
5. FIXED STATION TECHNICAL CONTROLLER

(Fixed Station Facilities Controller)

Course Number: *Version 1:* 101-32D10. *Version 2:* 101-32D10. *Version 3:* 101-32D20. *Version 4:* 101-32D20. *Version 5:* 11-R-273.1.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Gordon, GA. *Version 4:* Signal School, Ft. Monmouth, NJ. *Version 5:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 19 weeks (684 hours). *Version 2:* 21 weeks (792 hours). *Version 3:* 18–24 weeks (659–882 hours). *Version 4:* 18–23 weeks (668–858 hours). *Version 5:* 10 weeks (361–362 hours).

Exhibit Dates: *Version 1:* 9/85–8/87. *Version 2:* 2/79–8/85. *Version 3:* 6/76–1/79. *Version 4:* 10/67–5/76. *Version 5:* 7/64–9/67.

Objectives: To train enlisted personnel as maintenance technicians for fixed-station facilities.

Instruction: For this course after 8/87, see AR-1715-0777. *Version 1:* Lectures and laboratory experiences in the fundamentals of basic electronics, digital and analog communication circuits, multiplexing techniques and digital communications transmission system control, testing and operation. *Version 2:* Lectures and laboratory experience in the fundamentals of basic electronics, digital circuits, multiplexing techniques and digital communications transmission system control and operation at the block diagram level. *Version 3:* Lectures and laboratory experience in electrical fundamentals, semiconductor electronic circuits, radio and communication circuits; the application and troubleshooting of communication circuits as applied to the maintenance of fixed station facilities. Note: Students who have completed modules 201, 202, 203, and 204 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (18 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (24 weeks) of this course. *Version 4:* Lectures and laboratories in DC and AC fundamentals, electronic fundamentals (tubes and semiconductors), electronic circuits, radio and communication circuits, and application to maintenance activities. *Version 5:* Lectures and laboratories in terminal equipment, transmitter and receiver equipment, and system control and coordination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in telecommunication systems (7/85). *Version 2:* In the vocational certificate category, 2 semester hours in digital circuitry, 1 in basic electronics communications (8/79) in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics (8/79). *Version 3:* In the vocational certificate category, 3 semester hours in electronics laboratory for students who complete 18 weeks of the course or 2 semester hours in electricity or electronics and 5 semester hours in electricity or electronics laboratory for students who complete 24 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics for students completing either 18 or 24 weeks of the course (see note above) (4/77). *Version 4:* In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in electrical or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, 3 in electrical or electronics laboratory (4/74). *Version 5:* In the vocational certificate category, 3 semester hours in electrical or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical or electronics laboratory (4/74).

Related Occupation Codes: 09B; 32D.

AR-1715-0136

INTERCEPT DEMULTIPLEX SYSTEMS REPAIRMAN

Course Number: 102-33F20.

Location: Security Agency School, Ft. Devens, MA.

Length: 17–18 weeks (600 hours).

Exhibit Dates: 3/68–9/86.

Objectives: To train general intercept equipment repairmen in the specific operational and maintenance procedures associated with intercept demultiplex systems.

Instruction: The course is highly equipment oriented, with specific training in expert-level repair and maintenance procedures. Fundamentals and topics requiring analytical or abstract skills are not covered.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 33B; 33F; 33Z.

AR-1715-0137

Telemetry Identification and Collection
(Telemetry Signal Analysis)

Course Number: 233-F3(J1); 233-ASIJ1; 233-F3.

Location: Security Agency School, Ft. Devens, MA.

Length: 7–10 weeks (238–300 hours).

Exhibit Dates: 6/71–1/87.

Objectives: To train enlisted personnel who have completed basic electronic intelligence courses to analyze telemetry signals.

Instruction: Lectures and practical exercises in recognition of telemetry signals; separation of desirable signals from noise; signal analysis; and report preparation. For the course after 1987, see AR-1715-0729.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

AR-1715-0138

1. Intercept Receiving Systems Repairman
2. Terminal Intercept Equipment Repair

Course Number: *Version 1:* 102-33C20. *Version 2:* 32-R-286.2.

Location: Security Agency School, Ft. Devens, MA.

Length: *Version 1:* 15 weeks (527 hours). *Version 2:* 20 weeks (663 hours).

Exhibit Dates: *Version 1:* 6/69–9/86. *Version 2:* 5/60–5/69.

Objectives: To train enlisted personnel to inspect, install, test, and maintain terminal intercept equipment.

Instruction: *All Versions:* Lectures and practical exercises in electricity and electronics fundamentals, including AC and DC circuits, vacuum tubes, amplifiers, oscillators, antennas, transmission lines, and microwave components and measurement; communications fundamentals; demultiplex systems theory and equipment installation and maintenance; networks; electrical mathematics; and basic shop practice. *Version 1:* Instruction in mathematics fundamentals is not detailed and course emphasis is on practical applications of theory to terminal intercept equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 33B; 33C; 33Z.

AR-1715-0139

Intercept Recording Systems Repairman

Course Number: 102-33D20.

Location: Security Agency School, Ft. Devens, MA.

Length: 17 weeks (768 hours).

Exhibit Dates: 4/69–9/86.

Objectives: To train enlisted personnel to perform preventive and corrective maintenance on intercept recording systems.

Instruction: Lectures and practical exercises in intercept recording systems functions and and descriptions, and components maintenance, alignment, adjustment, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 32B; 33D; 33Z.

AR-1715-0140

Improved Nike-Hercules Fire Control System Maintenance Transition

Course Number: 4B-F13; 121-F13; 44-H-F29.

Location: Air Defense School, Ft. Bliss, TX.

Length: 5–11 weeks (192–388 hours).

Exhibit Dates: 1/62–12/68.

Objectives: To train Nike-Hercules fire control mechanics to operate, adjust, and maintain improved Nike Hercules fire control systems.

Instruction: Lectures and practical exercises on the employment, operation, adjustment, and maintenance of the Nike Hercules fire control system, and the improved Nike Hercules fire control system, including improved Nike Hercules target-track radars, and improved Nike Hercules acquisition radar systems.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (4/74).

Related Occupation Codes: 222B; 251B.

AR-1715-0141

Heavy Fire Control Equipment Repair

Course Number: 9-R-232.1; 9-E-52.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 19 weeks (655–722 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train fire control repair helpers to inspect, test, and perform field and depot maintenance on heavy integrated electronic fire control equipment.

Instruction: Lectures and practical exercises in principles of M33 radar systems, basic M33 servo and computer systems, acquisition transmitting and receiving systems, track radar transmitting and receiving systems, maintenance and troubleshooting of acquisition and track radar systems, computing systems, maintenance and troubleshooting of complete computer systems, and integrated radar system performance.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

AR-1715-0142

Artillery Fire Control System Maintenance SCR-584 and Director M9 or M10

Course Number: 44-OE-27.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 16 weeks (600 hours).

Exhibit Dates: 6/55–12/68.

Objectives: To train warrant officer and enlisted personnel of the National Guard to employ, operate, adjust, and maintain artillery fire control systems and associated equipment.

Instruction: Lectures and practical exercises in introductory electronics, radar theory, and the use, maintenance, and repair of the SCR-584, the M12A1 remote control system, the Mark X IFF, and associated equipment.

Credit Recommendation: In the vocational certificate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74), in the upper-division baccalaureate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0143

1. Avionic Special Equipment Repair
2. Avionic Radar Equipment Repairman
3. Airborne Navigation Radar Repair
4. Airborne Navigation Radar Repair

Course Number: *All Versions:* 102-35R10; 102-35R20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 17–22 weeks (829 hours). *Version 2:* 17–27 weeks (621–996 hours). *Version 3:* 27 weeks (1010 hours). *Version 4:* 26 weeks (972 hours).

Exhibit Dates: *Version 1:* 1/81–2/85. *Version 2:* 10/76–12/80. *Version 3:* 2/70–9/76. *Version 4:* 11/68–1/70.

Objectives: To train enlisted personnel who have backgrounds in algebra and science to inspect, test, and repair airborne navigation radar systems.

Instruction: *Version 1:* After 2/85 see AR-1715-0660. Lectures and practical exercises in electrical fundamentals, amplifiers and receivers, signal generators and solid-state circuitry, airborne weather radar sets and radar navigation sets operation, semiconductor fundamentals, and supply procedures and catalogs. *Version 2:* Lectures and practical exercises in electrical fundamentals, amplifiers and receivers, signal generators and solid-state circuitry, logic circuits, airborne weather radar sets and radar navigation sets operation, semiconductor fundamentals, and supply procedures and catalogs. Note: Students who have completed Modules 201, 202, 203, 4, 5, 6, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (15–17 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (27 weeks) of this course. *Version 3:* Lectures and practical exercises in electrical fundamentals, amplifiers and receivers, signal generators and solid-state circuitry, logic circuits, airborne weather radar sets and radar navigation sets operation, semiconductor fundamentals, and supply procedures and catalogs. *Version 4:* Lectures and practical exercises in electrical fundamentals, amplifiers and receivers, signal generators and solid-state circuitry, logic circuits, airborne weather radar sets and radar navigation sets operation, semiconductor fundamentals, and supply procedures and catalogs. Instruction includes microwave transmitters, receivers, and measurement procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in circuit analysis, 3 in electronics troubleshooting, 3 in communications pulse circuits (10/81). *Version 2:* In the vocational certificate category, 3 semester hours in radar equipment operations laboratory for students who complete 17 weeks of the course or 6 semester hours in electronic circuits and troubleshooting and 3 semester hours in radar equipment operations laboratory for students who complete 27 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuitry laboratory for students who complete either 15-17 or 27 weeks of the course (see note above) (4/77). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics, 6 in electrical or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, 3 in electrical or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electrical or electronics laboratory on the basis of institutional examination (3/74). *Version 4:* In the vocational certificate category, 6 semester hours in electricity or electronics, 6 in electricity or electronics laboratory, 3 in microwaves (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, 3 in electricity or electronics laboratory, 3 in microwaves (3/74); in the upper-division baccalaureate category, credit in electronics or microwaves laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 35R; 35P; 09B.

AR-1715-0145

Signal Officer Advanced by Correspondence

Course Number: E25.

Location: Institute for Professsional Development, Ft. Eustis, VA.

Length: Maximum 208 weeks.

Exhibit Dates: 11/79-4/86.

Objectives: To orient the individual in basic electronics theory in order to understand the operation and use of various types of telecommunications equipment.

Instruction: This course gives instruction in AC, DC theory, vacuum tubes and solid-state devices, and various basic electronic circuits in order to understand the set-up and use of telephone switching systems, antennas, transmission lines, multichannel radio systems, RF radiation charts and TDM-PCM multichannel cable communication systems. A basic knowledge of the operation of general and special types of test equipment necessary to checkout telecommunication systems is also covered. Course includes comprehensive proctored end-of-couse examination. Credit recommendation is based on successful completion of the examination.The examination is offered as the optional final subcourse and documentation should be presented by student prior to credit being granted.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (5/79).

AR-1715-0146

Hawk Organizational Maintenance Supervisor

Course Number: *All Versions:* 4F-223C; 121-F9. *Version 2:* 44-N-223C; 44-N-1184; 44-N-F22.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 37-39 weeks (1255-1321 hours). *Version 2:* 32-40 weeks (1112-1413 hours).

Exhibit Dates: *Version 1:* 7/68-3/81. *Version 2:* 11/59-6/68.

Objectives: To train warrant officers and enlisted personnel to operate and maintain the Hawk missile systems and related equipment.

Instruction: Lectures and laboratories covering a detailed descriptive treatment of components, operation, and maintenance techniques of Hawk radar system and related equipment, including data converter AN/GSA-77 battery terminal equipment and self-propelled Hawk.

Credit Recommendation: *Version 1:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 24B; 24D; 24F; 24P; 24Q; 24U; 222B; 251B; 221B; 221C.

AR-1715-0147

1. Ground Surveillance Radar Repair
2. Combat Area Surveillance Radar Repairman
   (Ground Surveillance Radar Mechanic (AN/TPS-33 and AN/PPS-4))

Course Number: 104-26C20.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Combat Surveillance School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 18 weeks (586 hours). *Version 2:* 5-8 weeks (191-284 hours).

Exhibit Dates: *Version 1:* 1/75-1/89. *Version 2:* 9/66-12/74.

Objectives: To train enlisted personnel to maintain specific radar sets.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the AN/PPS-4A, AN/PPS-5, AN/TPS-25, and AN/TPS-33 surveillance radar sets. *Version 1:* Topics include basic circuits, electronic theory, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in communication electronics (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics and 2 in electronics laboratory (6/75). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 26C; 26W.

AR-1715-0148

Satellite Communications (SATCOM) Officer

Course Number: 4C-F12.

Location: Signal School, Ft. Monmouth, NJ.

Length: 4 weeks (139-140 hours).

Exhibit Dates: 9/68-1/78.

Objectives: To train commissioned officers and warrant officers to supervise the installation, operation, and maintenance of satellite communications equipment.

Instruction: Lectures and practical exercises in satellite communications, including electronics fundamentals, communications systems, and communications ground terminals, with instruction in modulation, transmitters, and receivers as related to satellite communication.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 286A; 281A; 282A.

AR-1715-0149

Electronic Switching Systems Repairer

Course Number: *Version 1:* 622-36L10. *Version 2:* 622-36L10. *Version 3:* 150-F7; 622-36L20. *Version 4:* 622-36L20; 150-F7.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 24-25 weeks (929 hours). *Version 2:* 24-25 weeks (904 hours). *Version 3:* 38 weeks (1409 hours). *Version 4:* 26 weeks (953 hours).

Exhibit Dates: *Version 1:* 1/83-9/85. *Version 2:* 8/81-12/82. *Version 3:* 8/77-7/81. *Version 4:* 8/76-7/77.

Objectives: To provide enlisted personnel with the knowledge to install and perform organizational, direct support, and general support maintenance on the automatic telephone central office AN/TCC-38(V) and the AN/TCC-25(V).

Instruction: *Version 1:* After 9/85 see AR-1715-0668. Lectures and laboratory exercises, using an actual automatic central office, in installation, power up/down, checkout, maintenance, and repair of all major subassemblies including magnetic tape transport, control and alarm panel, visual display unit/keyboard, teletypewriter, automatic data processor starter and control panel and other peripheral equipment. A comprehensive review of electricity, basic digital theory, and wiring skills are included at the beginning of the course. *Version 2:* Instruction includes computer circuitry diagnostic troubleshooting, solid state logic circuitry,soldering training and printed circuit board repair, and tracing signal flow and performing diagnostic procedures on data processing circuits. Student also performs maintenance and repair on switching equipment. *Version 3:* Instruction includes computer programming and diagnostic troubleshooting, solid state logic circuitry, soldering training and printed circuit board repair, and tracing signal flow and performing diagnostic procedures on data processing circuits. Student also performs maintenance and repair on switching equipment. *Version 4:* Conferences and practical exercises to include system installation, hookup and initial operation; operator's, network/terminal, common control, and power subsystems; maintenance of equipment; marker, switching matrix, processor, and interface units.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in installation and maintenance of central office telephone switching station and 6 in basic electricity (3/85); in the lower-division baccalaureate/associate degree category, 2 semester hours telecommunications laboratory (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in communication electronics, 3 in digital fundamentals, 3 in system maintenance (8/81). *Version 3:* In the vocational certificate category, 2 semester hours in solid state circuits, 2 in soldering and printed circuit board repair (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer electronics, 2 in computer operations laboratory, 3 in computer troubleshooting (8/79). *Version 4:* In the vocational certificate category, 3 semester hours in electronic maintenance, 1 in telecommunications laboratory (3/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer operation laboratory (3/77).

Related Occupation Codes: 36L.

AR-1715-0150

Armor Communication Chief
(Armor Communication Supervision)

Course Number: *All Versions:* 17-R-312.6. *Version 3:* 17-R-312.7; 17-E-1.

Location: Armor School, Ft. Knox, KY.

Length: *Version 1:* 9 weeks (331 hours). *Version 2:* 7-8 weeks (265-290 hours). *Version 3:* 5-6 weeks (179-220 hours).

Exhibit Dates: *Version 1:* 10/63-12/68. *Version 2:* 8/61-9/63. *Version 3:* 7/55-7/61.

Objectives: To train armor communications specialists to supervise the operation, installation, and maintenance of communications equipment.

Instruction: *All Versions:* Lectures and practical exercises in communications maintenance, communications equipment procedures, and tactical and field communications operations. *Version 1:* Instruction includes communications theory.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited specialized nature of the course (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics, 3 in electricity or electronics laboratory (3/74). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (3/74).

AR-1715-0151

Mode V Subscriber Terminal

Course Number: 622-F2.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 4-9 weeks (152-342 hours). *Version 2:* 11 weeks (389 hours). *Version 3:* 6 weeks (228 hours).

Exhibit Dates: *Version 1:* 7/76-9/84. *Version 2:* 1/73-6/76. *Version 3:* 7/68-12/72.

Objectives: To train teletypewriter repairmen to inspect, test, and repair Mode V subscriber terminal equipment.

Instruction: *All Versions:* Lectures and laboratories in electrical fundamentals, pulse generator circuitry, logic circuits, introduction to Mode V, teletypewriter control units, and low-level signaling units. *Version 1:* After 9/84 see AR-1715-0705. Note: Course is divided into 2 phases. Students may complete both Phases I and II (9 weeks) or Phase II only (4 weeks).

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in system maintenance and troubleshooting for completion of Phase I and 3 semester hours in system maintenance and troubleshooting for completion of Phase II (see note above) (4/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 31J; 32G.

AR-1715-0152

Microwave Radio Relay Operation

Course Number: 11-R-291.1; 11-E-53.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10 weeks (356 hours).

Exhibit Dates: 10/55-12/68.

Objectives: To train enlisted personnel to operate and maintain microwave radio relay equipment.

Instruction: Lectures and laboratories in operation and maintenance of fixed and transportable multichannel microwave radio relay equipment, including microwave multiplex units, transmitters, receivers, repeaters, antenna tower assemblies, and associated power units.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0153

1. Field Artillery Target
   Acquisition Specialist
2. Field Artillery Target
   Acquisition Specialist
3. Field Artillery Target
   Acquisition Specialist
4. Sound Ranging Crewman
   (Artillery Sound Ranging)
   (Artillery Sound Ranging Advanced)

Course Number: *Version 1:* 412-17C10. *Version 2:* 412-17C10; 412-17C10(ST). *Version 3:* 412-17C10. *Version 4:* 412-17C20; 6-R-155.2; 6-E-12; 412-155.2; 6-R-102.1.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK; *Version 2:* Field Artillery School, Ft. Sill, OK; *Version 3:* Artillery and Missile School, Ft. Sill, OK; *Version 4:* Artillery and Guided Missile School, Ft. Sill, OK.

Length: *Version 1:* 7 weeks (246 hours). *Version 2:* Self-paced average 7 weeks, maximum 11 weeks (240 hours). *Version 3:* 5-10 weeks (150-300 hours). *Version 4:* 7-8 weeks (260-343 hours).

Exhibit Dates: *Version 1:* 4/82-9/85. *Version 2:* 5/81-3/82. *Version 3:* 12/76-4/81. *Version 4:* 4/56-11/76.

Objectives: To train enlisted personnel to install, operate, and maintain field artillery sound-ranging systems.

Instruction: Lectures and practical exercises in communications; target acquisition and sound-ranging, including meteorology, sound-ranging techniques, procedures, and applications; and systems maintenance. Version 1 includes laser rangefinder systems and target computers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in radio operations, 1 in map reading (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in map reading and plotting on the basis of institutional evaluation (1/80). *Version 3:* In the lower-division baccalaureate/associate degree category, credit in map reading and plotting on the basis of institutional evaluation (1/80). *Version 4:* In the upper-division baccalaureate category, credit in plotting or surveying on the basis of institutional evaluation (12/68).

Related Occupation Codes: 17C.

AR-1715-0154

Fire Unit Integration Facilities
(FUIF) Repair

Course Number: 11-N-298.1.

Location: Signal Fire Distribution Systems Training Activity, Ft. Bliss, TX.

Length: 11 weeks (394 hours).

Exhibit Dates: 6/61-12/68.

Objectives: To train warrant officers and enlisted personnel who have a knowledge of electronics engineering and/or radio electronics to maintain the fire unit integration facilities (FUIF).

Instruction: Lectures and practical exercises in the maintenance of the fire unit integration facilities subsystem of the AN/FSG-1 missile master, including function and description of system and system components; coordinate data set receiver and transmitter, data conversion circuits, system analysis, battery presentation system, target designation data link, and other fire distribution systems; and troubleshooting and tests.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

AR-1715-0156

Weapons Support Radar Repair

Course Number: 104-26B30.

Location: Signal School, Ft. Monmouth, NJ.

Length: 30 weeks (1124 hours).

Exhibit Dates: 12/66-11/73.

Objectives: To train enlisted personnel to maintain and repair weapons support radar equipment.

Instruction: (Note: For course after 11/73, see AR-1715-0362.) Lectures and practical exercises in the maintenance and repair of weapons support radar equipment, including AC and DC fundamentals, electronic fundamentals, electronic circuits, microwave circuits and measurements, semiconductors, servo and data circuitry, timer indicator components, nonsinusoidal circuitry, and inspection and testing of specific radar equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in electricity or electronics laboratory, 3 in microwave measurements (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 26B, 26W.

AR-1715-0157

Marine Radar Observer

Course Number: 8C-F10/062-F3; 8C-F10; 062-F3; 8C-F1; 813-F1.

Location: Transportation School, Ft. Eustis, VA.

Length: 2 weeks (72-84 hours).

Exhibit Dates: 10/72-Present.

Objectives: To provide water craft operators with a working knowledge of the fundamentals in the operation, use, interpretation, and analysis of radar.

Instruction: Training includes principles of radar, radar navigation and plotting, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radar operation (3/88).

Related Occupation Codes: 61B

AR-1715-0158

Ordnance Fire Control Materiel Maintenance

Course Number: 9-B-4806.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 20 weeks (712 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train commissioned officers to supervise the maintenance and repair of fire control equipment.

Instruction: Lectures and practical exercises in basic AC and DC circuit theory and an extensive survey of electronic system components and instrumentation, with emphasis on vacuum tubes, radar electronics, mathematics, and antiaircraft fire control system maintenance and repair procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics for non-electrical-engineering majors (12/68).

AR-1715-0159

1. Hawk Pulse Radar Repair
2. Hawk Pulse Radar Repair
3. Hawk Pulse Radar Repair
4. Hawk Pulse Radar Repair
   (Hawk Pulse Acquisition Radar and Battery Control Repair)
5. Hawk Pulse Acquisition Radar and Battery Control Repair

Course Number: *Version 1:* 104-23S20. *Version 2:* 104-23S20. *Version 3:* 104-23S20. *Version 4:* 104-23S20; 104-255.1. *Version 5:* 9-S-255.1.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Missile and Munitions School, Redstone Arsenal, AL. *Version 4:* Missile and Munitions School, Redstone Arsenal, AL; *Version 4:* Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 5:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 21-25 weeks (726-868 hours). *Version 2:* 27 weeks (899 hours). *Version 3:* 32 weeks (1125 hours). *Version 4:* 31-46 weeks (1103-1697 hours). *Version 5:* 21-25 weeks (767-911 hours).

Exhibit Dates: *Version 1:* 4/74-12/75. *Version 2:* 11/72-3/74. *Version 3:* 6/71-10/72. *Version 4:* 2/63-1/70. *Version 5:* 1/59-1/63.

Objectives: To train personnel to maintain Hawk pulse radar systems.

Instruction: *All Versions:* Lectures and practical exercises in AC and DC circuits, transients, vacuum tubes, and basic electronic circuits; radar principles, pulse radars, and radar electronics; microwaves; and shop practice and test equipment operation and maintenance, including a descriptive treatment of Hawk radar system components and maintenance techniques. *Version 1:* Includes simplified explanation of RC and LC transients and sine-wave oscillators; soldering techniques and practices; empirical description of operation of vacuum-tube pulse circuits; basic microwave procedures related to radar systems; and shop practice and test equipment operation and maintenance to include a descriptive treatment of Hawk radar system components and maintenance techniques. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (21 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete Phases I and II (25 weeks).

Credit Recommendation: *Version 1:* In the vocational certificate category, 14 semester hours in basic electronics and troubleshooting for those students completing 21 weeks or 17 semester hours in basic electricity, electronics and troubleshooting for students attending 25 weeks of the course (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity or electronics for students attending 25 weeks of the course (see note above) (3/75). *Version 2:* In the vocational certificate category, 4 semester hours in electricity or electronics, 4 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, 2 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 4 semester hours in electricity or electronics, 6 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, 3 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 4 semester hours in electricity or electronics, 6 in radar technology, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23S.

AR-1715-0160

1. Special Electrical Device Repairer
2. Special Electrical/Electronic Device Repair
3. Special Electrical/Electronic Device Repair
4. Special Electrical/Electronic Device Repair
5. Special Electrical Device Repair

Course Number: *Version 1:* 198-35E10. *Version 2:* 198-35E20. *Version 3:* 198-35E20. *Version 4:* 198-35E20. *Version 5:* 5-E-19.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 17 weeks (520 hours). *Version 2:* 11 weeks (383 hours). *Version 3:* 11 weeks (369-383 hours). *Version 4:* 11 weeks (421 hours). *Version 5:* 10-14 weeks (368-560 hours).

Exhibit Dates: *Version 1:* 3/78-1/88. *Version 2:* 9/74-2/78. *Version 3:* 6/72-8/74. *Version 4:* 8/66-5/72. *Version 5:* 3/54-7/66.

Objectives: To train enlisted personnel to maintain electronic detection and night vision equipment.

Instruction: Lectures and practical exercises in electronic fundamentals, AC and DC circuits, electrical mathematics, battlefield illumination, night vision equipment operation and maintenance, mine detectors, and use and care of hand tools.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic electricity, 1 in electronics (9/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of electricity, 3 in basic electronics (9/79). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity (9/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of electricity (9/79) *Version 3:* In the vocational certificate category, 2 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity (3/74). *Version 4:* In the vocational certificate category, 2 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (12/68). *Version 5:* In the vocational certificate category, 4 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68).

Related Occupation Codes: 35E.

AR-1715-0161

Inertial Navigation Set AN/ASN-86 Repair

Course Number: 102-F13.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 10 weeks (353-362 hours).

Exhibit Dates: 7/73-5/87.

Objectives: To train avionic radar equipment repairmen to inspect, test, and maintain the AN/ASN-86 inertial navigation set.

Instruction: After 5/87 see AR-1715-0688. Lectures and practical exercises in the maintenance of the AN/ASN-86 inertial navigation set, including control indicator, navigation computer, computer interface A/D and D/A, gyro-stabilized platform and repair test, and special test instruments.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (3/74).

Related Occupation Codes: 35R; 32P.

AR-1715-0162

Vulcan Mechanic

Course Number: 121-24M20.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 10-12 weeks (373-420 hours). *Version 2:* 20 weeks (713 hours). *Version 3:* 11 weeks (415 hours).

Exhibit Dates: *Version 1:* 6/70-6/78. *Version 2:* 6/69-5/70. *Version 3:* 7/68-5/69.

Objectives: To train enlisted personnel to maintain Vulcan weapons systems, associated accessories, and range-only radar equipment.

Instruction: *All Versions:* Lectures and laboratories in armament and turret electronics and towed Vulcan systems, maintenance management, and equipment records systems. *Version 1:* Includes lectures and laboratories in basic electronics. *Version 2:* Includes lectures and laboratories in basic electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity (2/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (2/75); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electronics majors (2/75). *Version 2:* In the vocational certificate category, 6 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity (3/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electronics majors (3/74). *Version 3:* In the vocational certificate category, 1 semester hour in electricity (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity (3/74).

Related Occupation Codes: 24M.

AR-1715-0163

Overseas Automatic Switching Center (ASC) Communication Equipment Repair

(Automatic Digital Message Switch Center (ADMSC) Communication Equipment Repair)

Course Number: 622-F6.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 8-16 weeks (298-590 hours).

Exhibit Dates: 4/68-8/80.

Objectives: To train fixed-plant carrier equipment repairmen to install, operate, and repair overseas automatic digital message switching center equipment.

Instruction: After 8/80 see AR-1715-0664. Lectures and practical exercises in overseas communication equipment familiarization, coordination simulator, troubleshooting procedures, and communication facilities.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

Related Occupation Codes: 32E.

AR-1715-0164

1. Nike Track Radar Repair
2. Nike Track Radar Repair
   (Nike Track Radar Systems Repair (Ajax/Hercules))
   (Surface-to-Air Missile (SAM) Track Radar Systems Repair)

Course Number: *All Versions:* 9-S-253.1. *Version 2:* 9-R-253.1; 9-E-64.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 36 weeks (1353 hours). *Version 2:* 20-26 weeks (720-974 hours).

Exhibit Dates: *Version 1:* 2/63-12/68. *Version 2:* 12/55-1/63.

Objectives: To train enlisted and civilian personnel to inspect, test, and maintain Nike Hercules/Ajax missile-tracking and target-tracking radar systems.

Instruction: *All Versions:* Lectures and laboratories in tracking radars and field maintenance test equipment. *Version 1:* Includes missile electronics fundamentals. *Version 2:* Includes missile radar fundamentals and missile radar circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, 6 in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (4/74).

AR-1715-0165

AN/MPQ-T1 Radar Signal Simulator Maintenance

Course Number: 121-ASIG2; 121-24Q30; 4C-F6; 121-F11; 44-H-F43.

Location: Air Defense School, Ft. Bliss, TX.

Length: 10-12 weeks (353-456 hours).

Exhibit Dates: 10/64-3/85.

Objectives: To train warrant officers and enlisted personnel to operate, adjust, and maintain AN/MPQ-T1 radar signal simulators.

Instruction: Topics include information on system AC and DC power distribution, semiconductor applications, block diagram analysis, oscilloscope operation, troubleshooting and corrective maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory or electronics maintenance (11/86); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory or electronics maintenance on the basis of institutional evaluation (11/86).

Related Occupation Codes: 24Q.

AR-1715-0166

Air Defense Radar Repair

Course Number: *Version 1:* 104-26H10. *Version 2:* 104-26H10. *Version 3:* 104-26H20. *Version 4:* 104-26H20. *Version 5:* 104-26H20. *Version 6:* 104-26H20.

Location: Air Defense School, Ft. Bliss, TX; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 34-35 weeks (1183-1468 hours). *Version 2:* 35 weeks (1222 hours). *Version 3:* 35 weeks (1194 hours). *Version 4:* 35 weeks (1134-1161 hours). *Version 5:* 31 weeks (1100 hours). *Version 6:* 32 weeks (1200 hours).

Exhibit Dates: *Version 1:* 3/83-12/86. *Version 2:* 9/78-2/83. *Version 3:* 8/76-8/78. *Version 4:* 11/74-7/76. *Version 5:* 3/73-10/74. *Version 6:* 12/66-2/73.

Objectives: To train enlisted personnel to inspect, test, and repair defense radar equipment.

Instruction: *All Versions:* Lectures and laboratories in DC and AC circuits, vacuum tubes, solid-state electronics, electronic circuits, microwave electronics, servos and data circuitry, and radar set familiarization. *Version 2:* Lecture and laboratory instruction in basic electricity, electronics fundamentals (vacuum tube and solid state), digital fundamentals, basic radar, and troubleshooting maintenance and repair techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radar theory, operation, and repair, 6 in electronic troubleshooting procedures (11/84); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (11/84). *Version 2:* In the vocational certificate category, 3 semester hours in radar, theory, operation, and repair, 6 in electronic troubleshooting procedures (4/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in electronics fundamentals, 3 in digital fundamentals (3/81). *Version 3:* In the vocational certificate category, 9 semester hours in electronics circuits, 1 in digital logic, 10 in electronic circuit troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits applications, 2 in electronics circuits laboratory, both on the basis of institutional evaluation (8/77). *Version 4:* In the vocational certificate category, 6 semester hours in electronics laboratory, 6 in electronics maintenance (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronics maintenance or as an elective in electronic systems (2/75); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (2/75). *Version 5:* In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in electrical and electronics laboratory, 3 in microwave measurements (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in electrical and electronics laboratory, 3 in microwave measurement (4/74), in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 6:* In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in electrical and electronics laboratory, 3 in microwave measurements (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics (12/68).

Related Occupation Codes: 26H; 26W.

AR-1715-0167

Radar Repair

Course Number: 11-R-282.1; 11-E-21.

Location: Signal School, Ft. Monmouth, NJ.

Length: 33 weeks (1230 hours).

Exhibit Dates: 2/54-12/68.

Objectives: To train enlisted personnel to inspect, test, repair, and maintain ground radar equipment.

Instruction: Lectures and laboratories in DC and AC circuits, vacuum tubes, electronic circuits, solid-state electronics, microwave electronics, servos and data circuitry, troubleshooting techniques, and radar set familiarization.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in electrical and electronics laboratory, 3 in microwave measurement (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics (12/68).

AR-1715-0168

OV-1D (Mohawk) Airborne Radar Repair

Course Number: 104-F11.

Location: Intelligence School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 6 weeks (186-187 hours). *Version 2:* 6-13 weeks (186-459 hours).

Exhibit Dates: *Version 1:* 1/74-3/79. *Version 2:* 6/72-12/73.

Objectives: To provide personnel with knowledge necessary to maintain the airborne surveillance radar of the OV-ID (Mohawk) system.

Instruction: *All Versions:* Lectures and practical exercises in operation, maintenance, and troubleshooting procedures for OV-ID (Mohawk) airborne radar systems. *Version 1:* Student will perform organizational, direct and general support maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 9 semester hours in basic electronics theory and laboratory (6/79) *Version 2:* Credit is not recommended because of the limited specialized nature of the course (6/75).

Related Occupation Codes: 26M.

AR-1715-0169

FORWARD AREA ALERTING RADAR (FAAR) REPAIRER

(Forward Area Alerting Radar (FAAR) Repair)

Course Number: *Version 1:* 104-27N10. *Version 2:* 104-ASIN2. *Version 3:* 104-F12.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 25 weeks (933-951 hours). *Version 2:* 15 weeks (506 hours). *Version 3:* 11 weeks (373 hours).

Exhibit Dates: *Version 1:* 3/81-Present. *Version 2:* 7/79-2/81. *Version 3:* 10/72-6/79.

Objectives: To train enlisted personnel to perform direct and general support maintenance on specific radar systems and associated equipment.

Instruction: *Version 1:* Lectures and practical exercises in the maintenance procedures for the forward-area alert radar, including system logic; power distribution system; receiving, display, and data link systems; circuit analysis; various testing systems; the stimulus generator; and system troubleshooting. Topics also include DC/AC electricity, microware and digital circuit fundamentals. *Version 2:* Practical exercises in the maintenance, troubleshooting, and repair procedures for the Forward Area Alerting Radar, including power supplies; transmitters and receivers, antenna systems, and supporting test equipment. *Version 3:* Lectures and practical exercise in the maintenance procedures for the forward-area alerting radar, including system logic; power distribution system; receiving, display and data link systems; circuit analysis; various testing systems; the stimulus generator; and system troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance, 3 in basic electricity/electronics, 1 in microwave fundamentals, 2 in fundamentals of computer circuits (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic equipment maintenance (11/83). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 26C; 26W.

AR-1715-0170

LIGHT FIRE CONTROL EQUIPMENT REPAIR

Course Number: 9-R-231.1; 9-E-53.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 16 weeks (560-608 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train personnel to inspect, test, and maintain light, integrated electronic fire control systems.

Instruction: Lectures and practical exercises on light fire-control equipment, including system components, conversion, prediction, inversion, and ballistic units; malfunction and feedback systems; power control; auxiliary equipment; and specific instruction on M4 systems maintenance.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

AR-1715-0171

AN/MPQ-36 RADAR SIGNAL SIMULATOR MAINTENANCE

(15D2 Radar Signal Simulator Maintenance)

Course Number: *All Versions:* 44-R-F13.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7-10 weeks (250-381 hours).

Exhibit Dates: 3/58-12/68.

Objectives: To train enlisted missile or air defense fire control mechanics to operate and maintain AN/MPQ-36 or 15D2 radar simulators.

Instruction: Lectures and practical exercises in radar simulator operation and maintenance, including target simulator, jamming simulation, missile simulation, and monitor circuits. Instruction includes operator training and AN/MPQ-36 radar simulator familiarization. Instruction also covers basic electronics, manipulator training, and systems introduction.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (4/74).

AR-1715-0172

AN/MPS-23 RADAR REPAIR

Course Number: 4C-F2; 104-181.3; 11-N-282.3.

Location: Air Defense School, Ft. Bliss, TX.

Length: 16 weeks (565-586 hours).

Exhibit Dates: 10/63-12/68.

Objectives: To train warrant officers and enlisted personnel to operate and maintain AN/MPS-23 and AN/MPS-23A radar sets.

Instruction: Lectures and laboratories in radar set theory, programmer and transmitters, indicators and testing functions, system maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 211A.

AR-1715-0173

RADAR TRACKING STATION EQUIPMENT REPAIR

(Radar Tracking Station Repair)

Course Number: 11-N-362.2; 11-N-F24.

Location: Air Defense School, Ft. Bliss, TX.

Length: 18-27 weeks (660-929 hours).

Exhibit Dates: 4/62-12/68.

Objectives: To train experienced electronics technicians to maintain the OA-2952/GSQ radar tracking station.

Instruction: Lectures and practical exercises in radar tracking station equipment maintenance, including radar station fundamentals; comprehensive survey of logic circuitry and systems; computer and automatic data link operation and troubleshooting; radar integration unit operation and troubleshooting procedures; and system check-out, alignment, installation, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology (4/74); in the upper-division baccalaureate category, credit in computer technology laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 211A.

AR-1715-0174

IMPROVED ALTERNATE BATTERY ACQUISITION RADAR MAINTENANCE TRANSITION

Course Number: 4B-222B-T; 104-26J20-T; 104-229.1T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6-7 weeks (256-288 hours).

Exhibit Dates: 12/65-12/68.

Objectives: To train fire control and radar mechanics to operate, adjust, and maintain improved, alternate battery acquisition radars and associated ECCM consoles.

Instruction: Lectures and practical exercises in improved, alternate battery acquisition radar equipment operation, adjustment, and maintenance, including an introduction to ABAR and ECCM consoles; equipment record system familiarization; operation, adjustment, and troubleshooting of various transmitters, receivers, and transistors; test equipment usage; and functional operation, adjustment, alignment, and troubleshooting procedures for ECCM consoles.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 23G; 26J.

AR-1715-0175

METEOROLOGICAL EQUIPMENT MECHANIC

(Weather Equipment Maintenance)

Course Number: 198-205.1; 6-R-205.1; 6-N-201A; 6-N-8219; 6-N-205.1; 6-N-215.3; 6-OE-36.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 14-16 weeks (509-599 hours).

Exhibit Dates: 10/54-12/68.

Objectives: To train enlisted personnel to operate and maintain electrical meteorological equipment.

Instruction: Lectures and laboratory in electrical meteorological equipment operation and maintenance, including AC and DC circuits; circuit components; communications system vacuum tube circuits and components, and gas tubes; and transmitters/receivers operation and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of insitutional evaluation (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics for non-electrical-engineering majors (4/74).

Related Occupation Codes: 35D.

AR-1715-0176

1. WEAPONS SUPPORT RADAR MAINTENANCE
2. WEAPONS SUPPORT RADAR MAINTENANCE
   (Field Artillery Radar Maintenance)
3. FIELD ARTILLERY RADAR MAINTENANCE

Course Number: *Version 1:* 104-26B20; 4C-211A. *Version 2:* 4C-211A; 104-26B20; 6-N-211A; 6-N-211.3; 6-N-1121; 6-N-211.2. *Version 3:* 6-N-1121; 6-N-211.1; 6-N-211.2; 6-OE-37.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK. *Version 2:* Artillery and Missile School, Ft. Sill, OK. *Version 3:* Artillery and Missile School, Ft. Sill, OK; Artillery and Guided Missile School, Ft. Sill, OK.

Length: *Version 1:* 24–27 weeks (891–1001 hours). *Version 2:* 32–37 weeks (968–1223 hours). *Version 3:* 24–30 weeks (1010–1269 hours).

Exhibit Dates: *Version 1:* 8/68–11/73. *Version 2:* 5/61–7/68. *Version 3:* 3/56–4/61.

Objectives: To instruct enlisted students in electronics.

Instruction: (Note: For course after 11/73, see AR-1715-0362.) Lectures and laboratories in mathematics review, including algebra, trigonometry, and vector number work; fundamentals of electricity and electronics; radar fundamentals; and utilization of multimeters, oscilloscopes, AC circuit transformers, DC-AC machines, and electronic (vacuum tube) circuits and systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 1 in electrical laboratory for non-engineering majors (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 1 in electrical laboratory for non-engineering majors (4/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 1 in electrical laboratory for non-engineering majors (4/74).

Related Occupation Codes: 26B; 26W; 211A.

AR-1715-0177

FIELD ARTILLERY RADAR TECHNICIAN

Course Number: 4C-211A; 104-F8.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8 weeks (279 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train warrant officers and enlisted personnel who have backgrounds in electronics, general science, and radar operation and maintenance to operate and maintain weapons support radar equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of weapons support radar equipment, including fire direction, fire observation, operation of various radar sets, artillery transport, communications/electronics subjects related to radio and radar, tactics, and target acquisition.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 26B; 211A.

AR-1715-0178

1. GROUND SURVEILLANCE SYSTEMS OPERATOR (GROUND SURVEILLANCE RADAR CREWMAN)
2. GROUND SURVEILLANCE RADAR CREWMAN
3. GROUND SURVEILLANCE RADAR OPERATION
   (Ground Surveillance Radar Operator)

Course Number: *Version 1:* 221-17K10, 221-96R10. *Version 2:* 221-17K20. *Version 3:* 221-17K20.

Location: *Version 1:* Intelligence School, Ft Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ; Combat Surveillance School, Ft. Huachuca, AZ.

Length: *Version 1:* 5–7 weeks (168–278 hours). *Version 2:* 6 weeks (194 hours). *Version 3:* 4–7 weeks (132–252 hours).

Exhibit Dates: *Version 1:* 2/80–Present. *Version 2:* 1/75–1/80. *Version 3:* 7/69–12/74.

Objectives: To train enlisted personnel to operate ground surveillance radar equipment.

Instruction: Lectures, practical exercises, and demonstrations in AN/PPS-4A, AN/PPS-5A, AN/TPS-33A, and AN/TPS-25A ground surveillance radar equipment operation and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in logical troubleshooting techniques (6/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical maintenance and 1 in map interpretation (6/90). *Version 2:* In the vocational certificate category, 1 semester hour in logical troubleshooting techniques (6/75). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 17K.

AR-1715-0179

1. AIR DEFENSE ACQUISITION RADAR MAINTENANCE
2. AIR DEFENSE ACQUISITION RADAR MAINTENANCE
   (Defense Acquisition Radar Maintenance)
3. SURVEILLANCE RADAR MAINTENANCE
   (Artillery Surveillance Radar Maintenance)

Course Number: *Version 1:* 104-24P20. *Version 2:* 4B-222B-B; 44-R-229.1; 104-24P20; 44-R-212.2; 104-26J20. *Version 3:* 44-R-212.2; 44-E-35.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 38–40 weeks (1332–1404 hours). *Version 2:* 18–44 weeks (663–1526 hours). *Version 3:* 22–24 weeks (842–950 hours).

Exhibit Dates: *Version 1:* 6/70–3/83. *Version 2:* 6/58–5/70. *Version 3:* 2/55–5/58.

Objectives: To train enlisted personnel to operate, adjust, and maintain defense acquisition radars.

Instruction: *All Versions:* Lectures and practical exercises in electrical and electronic fundamentals; extensive briefing and maintenance practice on radar equipment; mathematics; and modulator, transmitter, receiver, MTI, DC control, indicator and repeater systems operation, adjustment, and maintenance. *Version 2:* Instruction includes more electrical and electronic fundamentals, vacuum tube-based electronics and extensive vacuum tube circuit measurement. *Version 3:* Instruction includes more electrical and electronic fundamentals, vacuum tube-based electronics and extensive vacuum tube circuit measurement.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity or electronics, 2 in electrical or electronics laboratory (2/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical or electronics labtoratory (2/75). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in electrical or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in electrical or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 24P.

AR-1715-0180

NIKE HIGH POWER (HIPAR) ACQUISITION RADAR AND RADAR SIMULATOR REPAIR

Course Number: *All Versions:* 104-23U20. *Version 1:* 104-23U10. *Version 4:* 104-F4; 9-S-F49.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 33–34 weeks (1209 hours). *Version 2:* 34–36 weeks (1129–1249 hours). *Version 3:* 28–34 weeks (987–1150 hours). *Version 4:* 34–44 weeks (1177–1605 hours).

Exhibit Dates: *Version 1:* 10/79–12/83. *Version 2:* 5/78–9/79. *Version 3:* 5/74–4/78. *Version 4:* 7/64–4/74.

Objectives: To train enlisted personnel who have backgrounds in general science and algebra to inspect, test, and maintain high-power acquisition radar equipment and radar signal simulator stations.

Instruction: *Version 1:* Lectures and laboratory exercises include basic AC, and DC circuits, a simplified coverage of RC and LC transients and sinewave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; basic microwave procedures related to radar systems; and high power acquisition radar hardware familiarization and techniques. *Version 2:* Lectures and laboratory exercises include basic AC, and DC circuits, a simplified coverage of RC and LC transients and sinewave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; basic microwave procedures related to radar systems; and high power acquisition radar hardware familiarization and techniques. *Version 3:* Lectures and laboratory exercises include a simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; basic microwave procedures related to radar systems; and high power acquisition radar hardware familiarization and techniques. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will attend only Phase II (30 weeks) of this course. COBET was revised in 6/75; students who have completed Modules 1, 2, 3, 4/5 and 6, at Ft. Jackson, SC will attend only Phase II (27-28 weeks). See AR-1715-0389 for credit recommendation for COBET. Students who do not attend COBET will complete both Phases I and II (33-34 weeks) of this course. *Version 4:* Lectures and practical exercises in basic electronics, including electrical and electronic circuit fundamentals, AC and DC circuits, series-parallel and combination circuits, inductance, capacitance, magnetism, transformers, impedance using vector mathematics, RL and RC transients, resonance, synchros, tubes and tube circuit applications, microwave sources and power measurements, microwave transmitters and receivers, modulation principles, pulse and timing circuits, CRT displays, power supplies, and regulators; multimeter, oscilloscope, and advanced test instruments operation; and high-power acquisition radar hardware familiarization and techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic shop practices, 3 in electronic equipment maintenance, 3 in basic electricity, 2 in transistor theory, 1 in microwave theory, and 3 in electronic laboratory(11/83). *Version 2:* In the vocational certificate category, 5 semester hours in electronic equipment repair techniques (8/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor theory, 2 in vacuum tube circuit theory, 1 in microwave theory, and 3 in circuits/electronics laboratory (8/79). *Version 3:* In the vocational certificate category, 23 semester hours in basic electricity, electronics, and troubleshooting for those students completing 33-34 weeks; or 20 semester hours in basic electronics and troubleshooting for those students completing 27-30 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity or electronics for those students completing 33-34 weeks; no credit for those students completing 27-30 weeks (see note above) (3/75). *Version 4:* In the vocational certificate category, 24 semester hours in electrical circuits or electronics (4/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electrical circuits or electronics (4/74); in the upper-division baccalaureate category, 6 semester hours in electrical circuits or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23U.

AR-1715-0181

RADIO-CONTROLLED AIRPLANE TARGET (RCAT) RADIO MAINTENANCE

Course Number: *Version 1:* 44-R-209.1; 44-R-209.2; 44-E-23.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 9 weeks (315-350 hours). *Version 2:* 7 weeks (229 hours).

Exhibit Dates: *Version 1:* 3/57-12/68. *Version 2:* 3/53-2/57.

Objectives: To train enlisted personnel to test, adjust, and maintain radio-controlled aircraft target radios, gyros, and autopilot equipment.

Instruction: Lectures and practical exercises in basic electricity, including AC and DC circuits; series, parallel, and RLC circuits; motors, generators, and vacuum tubes; C-2 flight control system testing, adjustment, and maintenance; and control systems preflight procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74). *Version 2:* Insufficient data for evaluation (3/74).

AR-1715-0182

1. RADIO WAVE PROPAGATION
2. RADIO PROPAGATION
3. RADIO WAVE PROPAGATION

Course Number: *Version 1:* 198-26P20. *Version 2:* 198-26P20. *Version 3:* 11-R-287.1.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 24-29 weeks (850-1086 hours). *Version 2:* 29 weeks (1086 hours). *Version 3:* 28 weeks (1078-1080 hours).

Exhibit Dates: *Version 1:* 12/69-1/78. *Version 2:* 12/66-11/69. *Version 3:* 12/56-11/66.

Objectives: To train enlisted personnel to install, operate, and maintain radio frequency hazards and interference-measuring equipment, and oblique-incidence-sounding equipment.

Instruction: Lectures and practical exercises in electrical fundamentals; electronics as applied to basic transmitters and receivers, nonsinusoidal circuitry, microwave transmitters, modulators, and receivers; ionosphere theory; ionogram analysis; vertical incidence equipment theory and maintenance; film records photographic processing; field station operation; and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 26P.

AR-1715-0183

RADIO SET LRC-3 REPAIR

Course Number: 101-F7.

Location: Signal School, Ft. Monmouth, NJ.

Length: 8 weeks (304 hours).

Exhibit Dates: 1/67-1/78.

Objectives: To train microwave systems repairmen to install and maintain the LRC-3 radio set.

Instruction: Lectures and practical exercises in LRC-3 radio set installation and maintenance, including principles of tropospheric scatter communication; LRC-3 system introduction; transmitter and receiver sections components operation and preventive maintenance procedures; auxiliary equipment, including teletype order wire and supervisory alarm system operation and preventive maintenance; multiplex equipment block-diagram analysis, troubleshooting, and preventive maintenance; and system alignment and adjustment procedures.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74).

Related Occupation Codes: 26V.

AR-1715-0184

BASIC RADIO RELAY AND CARRIER REPAIR

Course Number: 101-294.0; 11-R-294.0.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 19 weeks (703 hours).

Exhibit Dates: 2/65-12/68.

Objectives: To train enlisted personnel to install, operate, and maintain radio relay and carrier equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of radio relay and carrier equipment, including electronic fundamentals, DC and AC circuitry, motors, generators, reactance, vacuum tubes, modulation principles, amplifiers, magnetism, transformers, oscilloscopes, block-diagrams of specific radio equipment, telephone terminal system, telephone repeater, and test and repair procedures for system components.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68).

AR-1715-0185

DECCA TRANSMITTING EQUIPMENT REPAIR

Course Number: 102-F3.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 7-10 weeks (254-345 hours).

Exhibit Dates: 3/67-12/71.

Objectives: To train enlisted personnel to operate and maintain Decca Mark 5 navigational radio transmitters.

Instruction: Lectures and practical exercises in Decca Mark 5 navigational radio transmitter operation and maintenance, including hyperbolic navigational system introduction, time-shared transmissions, master station and slave station layout, oscilloscope operation, oscillators, pulse-forming circuits, switching and monitoring circuits, Mark 10 master and slave station operation and maintenance, and system circuit analysis and power supplies operation.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics (3/74).

Related Occupation Codes: 32C; 32Z.

AR-1715-0186

Radio Officer

Course Number: 4C-0500; 11-A-0500.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11-13 weeks (390-456 hours).

Exhibit Dates: 4/59-12/67.

Objectives: To train commissioned officers to supervise the operation and maintenance of field and fixed-station radio equipment.

Instruction: Lectures and practical exercises in electrical fundamentals, vacuum tubes and amplifiers, AM and FM receivers and transmitters, electronic components and radar, antennas, wave propagation, frequency allocation, small field radio sets and AN/GRC-26 radio set operation, radio telegraph operation, communications operations, and fixed-station, single- and multichannel transmitting and receiving stations.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electricity and electrical laboratory (4/74).

AR-1715-0187

Corporal Doppler Repair
(Surface-to Surface Missile (SSM) Doppler Repair)

Course Number: 9-R-241.1; 9-E-58.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 10-12 weeks (350-428 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train qualified electronic repair helpers to inspect, test, maintain, and repair the Corporal Doppler system.

Instruction: Lectures and practical exercises in Corporal Doppler system component analysis, block diagrams, test equipment operation, supply forms and publications, transmitter and receiving systems, audio frequency coder and control indicator, troubleshooting, and maintenance check sheets and operating procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (4/74).

AR-1715-0188

Tandem Switch Repair

Course Number: 622-F14.

Location: Signal School, Ft. Monmouth, NJ.

Length: 18 weeks (641 hours).

Exhibit Dates: 2/69-1/78.

Objectives: To train dial central office repairmen to repair tandem switches and associated equipment.

Instruction: Lectures and practical exercises in the repair of tandem switches and associated equipment, including circuit analysis, block diagrams, purposes, troubleshooting and testing of relay and trunk finder, register sender, translator, selector, trunk, transmission, switchboard, interface, and power equipment; system concepts and limitations; and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics laboratory (4/74).

Related Occupation Codes: 36H.

AR-1715-0189

General Intercept Equipment Repair

Course Number: 102-33B20; 32-R-286.1.

Location: Security Agency School, Ft. Devens, MA.

Length: 22 weeks (711 hours).

Exhibit Dates: 6/63-12/69.

Objectives: To train enlisted personnel to test, maintain, and repair intercept and associated equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of intercept and associated equipment, including basic mathematics, DC and AC electronic circuits, solid-state devices, transmitters and wave propagation, basic radio circuits, receiver and converter equipment, specific recording and reproducing equipment, signal and cryptographic security, and installation and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0190

1. Corporal Radar Repair
2. Surface-to-Surface (SSM) Radar System Repair

Course Number: *Version 1:* 9-R-243.1. *Version 2:* 9-E-60.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 18 weeks (670 hours). *Version 2:* 15 weeks (550 hours).

Exhibit Dates: *Version 1:* 5/57-12/68. *Version 2:* 12/55-4/57.

Objectives: To train qualified electronic repair helpers to maintain and repair the Corporal radar system and associated test equipment.

Instruction: *All Versions:* Lectures and practical exercises in Corporal radar equipment and associated test equipment maintenance and repair, including missile system history, safety procedures, tactics and logistics, radar test equipment operation and maintenance, block diagrams, communications circuits, radar systems analysis, and supply terms and publications. *Version 1:* Instruction includes basic technical mathematics and circuit analysis. *Version 2:* Instruction is geared to specific equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electrical laboratory (4/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronics (4/74).

AR-1715-0192

Signal Company Officer

Course Number: 11-A-C2; 11-O-1.

Location: Signal School, Ft. Monmouth, NJ.

Length: 27 weeks (969-1134 hours).

Exhibit Dates: 9/53-12/68.

Objectives: To train commissioned officers to be Signal Corps officers.

Instruction: Lectures and practical exercises in map and aerial photograph reading, weapons, command and staff procedures, modern warfare, tactics and techniques of ground forces, wire and radio communications equipment and systems, communications center operations, signal supply and maintenance, and organization and employment of signal communications.

Credit Recommendation: In the vocational certificate category, 6 semester hours in radio communications and electricity (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in radio communications and electricity (4/74); in the upper-division baccalaureate category, 6 semester hours in radio communications and electricity (12/68).

AR-1715-0193

Infantry Communications Officer

Course Number: 7-B-0200.

Location: Infantry School, Ft. Benning, GA.

Length: 11 weeks (423 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train officers and warrant officers to install, operate, and maintain infantry communications systems.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of infantry communications systems, including general communications subjects, message center operation and cryptography, radio operation, radio sets and associated equipment, wire communications, tactical application of communications, map and aerial photograph reading, atomic weapons effects and characteristics, and tactical subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity and radio operation and maintenance on the basis of institutional evaluation (12/68).

Related Occupation Codes: 290A; 341A; 721A; 286A; 281A; 282A; 252A.

AR-1715-0194

Medical Equipment Maintenance
(Supplementary and Refresher)

Course Number: 4B-F3; 198-F1.

Location: Fitzsimons General Hospital, Denver, CO.

Length: 6 weeks (210 hours).

Exhibit Dates: 4/65-7/80.

Objectives: To train qualified medical equipment repair technicians to install, inspect, maintain, and repair complex electronic medical equipment.

Instruction: Lectures and practical exercises in the installation, inspection, maintenance, and repair of complex electronic medical equipment, including review of electronics, use of electronic test equipment, special circuits, records, and electronics subjects applicable to medical equipment repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

Related Occupation Codes: 35G; 011A; 911A; 202A.

AR-1715-0195

1. Secure Voice Access System Repair
2. Secure Voice Access System Repair
3. Secure Voice Access Console Repair

Course Number: *Version 1:* 160-ASIK8. *Version 2:* 622-F15. *Version 3:* 622-F15.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 11-12 weeks (424 hours). *Version 2:* 19 weeks (684-722 hours). *Version 3:* 9 weeks (328 hours).

Exhibit Dates: *Version 1:* 9/84-Present. *Version 2:* 10/70-8/84. *Version 3:* 10/68-9/70.

Objectives: To train dial central office repairmen to maintain the automatic dial central office and the secure voice access console (SEVAC).

Instruction: *Version 1:* Lectures and practical exercises in automatic dial control office equipment operation, logic gating and correlation, simulator, controllers, maintenance panel operation, and troubleshooting procedures; and secure voice access console (SEVAC) basic circuits and logic functions, power distribution, maintenance, alignment, and troubleshooting procedures. *Version 2:* Lectures and practical exercises in automatic dial control office equipment operation, logic gating and correlation, logic functions, binary counters, register, simulator, controllers, maintenance panel operation, and troubleshooting procedures; and secure voice access console (SEVAC) basic circuits and logic functions, power distribution, maintenance, alignment, and troubleshooting procedures. *Version 3:* Lectures and practical exercises in automatic dial control office equipment operation, logic gating and correlation, logic functions, binary counters, register, simulator, controllers, maintenance panel operation, and troubleshooting procedures; and secure voice access console (SEVAC) basic circuits and logic functions, power distribution, maintenance, alignment, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting techniques (7/87). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74).

Related Occupation Codes: 36H.

AR-1715-0196

Circuit Conditioning

Course Number: *Version 1:* 101-ASIN3. *Version 2:* 101-F10.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 4-5 weeks (158-161 hours). *Version 2:* 5-7 weeks (167-260 hours).

Exhibit Dates: *Version 1:* 2/82-12/88. *Version 2:* 8/68-1/82.

Objectives: To train microwave system, fixed-plant carrier, fixed-ciphony, or dial central office repairmen to maintain signal-conditioning equipment.

Instruction: Lectures and practical exercises in signal-conditioning equipment maintenance, including circuit conditioning and testing; types of circuit-conditioning test equipment; envelope delay distortion principles and equalizers; communications systems interfacing; and troubleshooting, repair, and preventive maintenance procedures.

Credit Recommendation: *Version 1:* Credit is not recommended due to the limited, specialized nature of the course (7/85). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (4/74).

Related Occupation Codes: 26L; 26V; 32E; 32F; 36H.

AR-1715-0197

Communications Central AN/TSC-38B Repair

Course Number: 101-F11.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 12-15 weeks (450-548 hours).

Exhibit Dates: 6/70-1/88.

Objectives: To train receiver, transmitter, or carrier equipment repairmen to operate and maintain the AN/TSC-38B communication central.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/TSC-38B communication central, including monitoring and test facilities; power, VFTG, and audio subsystem analysis and troubleshooting procedures; radio equipment subsystem components; and exciter, radio receiver, primary and secondary transmitter, and antenna systems operation, alignment, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (4/74).

Related Occupation Codes: 32B; 32C; 32E; 32Z.

AR-1715-0198

Improved Hawk Fire Control Repairer

(Improved Hawk Fire Control Repair)

Course Number: *Version 1:* 104-24H10; 104-24H1T. *Version 2:* 104-24H10; 104-24H1T. *Version 3:* 104-24H20. *Version 4:* 104-24H20. *Version 5:* 104-24H20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 33-51 weeks (1838-1854 hours). *Version 2:* 38-45 weeks (1324-1548 hours). *Version 3:* 38-44 weeks (1259-1468 hours). *Version 4:* 42-46 weeks (1470-1612 hours). *Version 5:* 46 weeks (1634 hours).

Exhibit Dates: *Version 1:* 9/83-9/87. *Version 2:* 3/78-8/83. *Version 3:* 1/77-2/78. *Version 4:* 4/74-12/76. *Version 5:* 1/72-3/74.

Objectives: To train enlisted personnel to maintain the improved Hawk battery control central, information and coordination central, and target engagement simulator of the Hawk fire control system.

Instruction: For this course after 10/87 see AR-1715-0739. *Version 1:* Conferences, lectures and laboratory exercises include a simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; introduction to computer subsystems, registers, counters, logic operations, memories, I/O, control, and arithmetic units; functional organization and troubleshooting procedures of Hawk fire control systems; and maintenance and repair of fire control systems. Basic electronic training is included in this course.Includes precision soldering. *Version 2:* Conferences, lectures and laboratory exercises include a simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; introduction to computer subsystems, registers, counters, logic operations, memories, I/O, control, and arithmetic units; functional organization and troubleshooting procedures of Hawk fire control systems; and maintenance and repair of fire control systems. Basic electronic training is included in this course. *Version 3:* Conferences, lectures and laboratory exercises include a simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; introduction to computer subsystems, registers, counters, logic operations, memories, I/O, control, and arithmetic units; functional organization and troubleshooting procedures of Hawk fire control systems; and maintenance and repair of fire control systems. Note: Students who have completed Modules 1, 2, 3, and 4 of Basic Common Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (37-38 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (43-44 weeks) of this course. *Version 4:* Lectures and laboratory exercises include a simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; elementary theory of semiconductor devices and circuits; empirical description of operation of vacuum tube pulse circuits; introduction to computer subsystems, registers, counters, logic operations, memories, I/O, control, and arithmetic units; functional organization and troubleshooting procedures of Hawk computer fire control systems; and maintenance and repair of fire control systems. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (42 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (46 weeks) of this course. *Version 5:* Lectures and practical exercises in the maintenance of the improved Hawk battery control central, information and coordination central, and target engagement simulator of the Hawk fire control system, including AC and DC circuits, DC transients, electron tubes and functional circuits, electron tube pulse circuits, introduction to semiconductors, sinewave oscillators, magnetic amplifiers, power supplies, basic transistors, gating, analysis and operation of specific systems equipment, and mathematics and digital computer principles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuitry, 2 in introduction to digital circuitry, 2 in precision soldering techniques and 3 in electronic systems maintenance (4/86). *Version 2:* In the vocational certificate category, 3 semester hours in computer circuits, 3 in electronic circuits and systems, 5 in electronic repair techniques (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in computer fundamentals, 2 in solid state devices and circuits OR 1 semester hour in electrical engineering electronics laboratory, 3 in introduction to electrical engineering (8/79). *Version 3:* In the vocational certificate category, 12 semester hours in computer fundamentals, 12 in electronics laboratory for students who complete 37-38 weeks of the course or 12 semester hours in computer fundamentals, 18 in electronic laboratory for students completing 43-44 weeks of the course (see note above) (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals, 1 in electronics laboratory for all students (8/77). *Version 4:* In the vocational certificate category, 27 semester hours in basic electricity, electronics, and troubleshooting for those students completing 46 weeks; or 24 semester hours in basic electronics and troubleshooting for those students completing 42 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic computer subsystems and 1 in electricity or electronics for those students completing 46 weeks; or 3 semester hours in computer subsystems for those students completing 42 weeks (see note above) (3/75). *Version 5:* In the vocational certificate category, 4 semester hours in electronics, 3 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory, and 3 as an elective in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

Related Occupation Codes: 24H.

AR-1715-0199

1. GROUND CONTROL RADAR REPAIR
2. GROUND CONTROL RADAR REPAIR
3. GROUND CONTROL RADAR REPAIR
4. GROUND CONTROL RADAR REPAIR (Ground Control Approach Equipment Repair)

Course Number: *Version 1:* 104-26D10. *Version 2:* 104-26D20. *Version 3:* 104-26D30; 104-26D20; 11-R-282.2. *Version 4:* 104-26D20; 11-E-59.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Signal School, Ft. Gordon, GA. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 32 weeks (1200 hours). *Version 2:* 23-33 weeks (849-1224 hours). *Version 3:* 27-33 weeks (999-1222 hours). *Version 4:* 20-33 weeks (736-1174 hours).

Exhibit Dates: *Version 1:* 11/79-Present. *Version 2:* 12/76-10/79. *Version 3:* 3/75-11/76. *Version 4:* 11/56-2/75.

Objectives: To train enlisted personnel to maintain ground control approach radars and associated IFF equipment.

Instruction: *Version 1:* Includes lectures and practical experience in the general operation, malfunction analysis, and repair procedures of a ground control radar system. Course includes instruction on solid state power supplies, audio amplifiers, oscillators, pulse circuitry, standard digital logic, microwave transmitters, modulators, and receivers. This basic background knowledge is used to study, in particular, specific ground control radar sets, interrogators to identify specific aircraft, navigational beacons, and moving target circuitry. Instruction and practice in the repair of printed circuit boards is a part of this instruction. *Version 2:* Phase I (10 weeks) includes lectures and practical experience in troubleshooting pulse generators, power supplies, audio amplifiers, and audio generators. Phase II (23 weeks) includes lectures and practical experience in installation and maintenance of radar sets; nonsinusoidal circuitry; radar beacon systems; basic receivers, microwave transmitters, receivers, and modulators. Note: Students who have completed Modules 1 through 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (23 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (33 weeks) of this course. *Version 3:* Phase I (6 weeks) includes lectures and practical experience in troubleshooting pulse generators, power supplies, audio amplifiers, and audio generators. Phase II (27 weeks) includes lectures and practical experience in installation and maintenance of radar sets; nonsinusoidal circuitry; radar beacon systems; basic receivers, microwave transmitters, receivers, and modulators. Note: Students who have completed Modules 1, 2, 3, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (27 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (33 weeks) of this course. *Version 4:* Lectures and practical experience in electrical fundamentals; applied electronics; transmitter circuitry; semiconductor fundamentals; nonsinusoidal circuitry; timer-indicator components; microwave transmitters, receivers, and modulators; transmitter-receiver performance measurements; interrogator and radar set operation; and air traffic control radar beacon systems operation and field exercises.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and electricity, 4 in theory of microwave transmission, 6 in microwave system analysis (11/81). *Version 2:* In the vocational certificate category, 3 semester hours in basic electronics and troubleshooting for students who have completed 33 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in microwave systems for students who have completed either 23 or 33 weeks of the course (see note (1) above) (4/77). *Version 3:* In the vocational certificate category, 6 semester hours in microwave electronics for students completing 27 weeks of the course or 6 semester hours in microwave electronics and 4 in electronics and troubleshooting for students completing 33 weeks of the course (see note above) (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in microwave electronics for students completing 27 weeks of the course or 3 semester hours in microwave electronics and 2 in electronics and troubleshooting for students completing 33 weeks (see note above) (6/75). *Version 4:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 09B; 26D; 26W.

AR-1715-0200

HELICOPTER MISSILE SYSTEMS REPAIRER

Course Number: 645-68J10.

Location: Transportation School, Ft. Eustis, VA.

Length: 20-21 weeks (600-680 hours).

Exhibit Dates: 4/77-1/88.

Objectives: To train enlisted personnel in the support maintenance and repair of helicopter missile systems.

Instruction: Lectures and practical exercises in solid state circuitry including audio circuits, audio ocillators, and pulse generators; general helicopter missile system repairs involving publications; supply and safety procedures; and repair and inspection of electrical components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic fundamentals and 4 in electronic fundamentals laboratory (3/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fundamentals and 3 in electronic fundamentals laboratory (3/83).

Related Occupation Codes: 68J.

AR-1715-0201

CORPORAL HANDLING EQUIPMENT MAINTENANCE

Course Number: 6-H-F8.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4 weeks (140-168 hours).

Exhibit Dates: 10/57-12/68.

Objectives: To train officers and enlisted personnel to operate and maintain Corporal missile handling equipment.

Instruction: Lectures and practical exercises in basic electricity, including AC and DC motors, transformers, magnetism, and rectifiers; maintenance and troubleshooting of Erector M2 and its components; and operation and maintenance of Corporal servicing equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

AR-1715-0202

TELETYPEWRITER SET AN/FGC-140 MAINTENANCE

Course Number: 160-F19.

Location: Signal School, Ft. Gordon, GA.

Length: 4 weeks (150 hours).

Exhibit Dates: 1/74-9/84.

Objectives: To provide students with the knowledge to perform general support maintenance on a specific teletype set.

Instruction: Instruction in the general operation and repair of the AN/FGC-140 teletypewriter, including installation and replacement of subsystems, with minor emphasis on troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in general maintenance procedures (4/77).

AR-1715-0203

1. AIRBORNE SURVEILLANCE RADAR REPAIR
2. AIRBORNE SURVEILLANCE RADAR REPAIR
3. AIRBORNE RADAR REPAIR (AN/APS-94)

Course Number: 104-26M20.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ. *Version 3:* Signal School (Phase I)/Combat Surveillance School (Phase II), Ft. Monmouth, NJ (Phase I)/Ft. Huachuca, AZ (Phase II).

Length: *Version 1:* 21 weeks (676 hours). *Version 2:* 30 weeks (1051–1055 hours). *Version 3:* 34 weeks (1263 hours).

Exhibit Dates: *Version 1:* 6/74–11/81. *Version 2:* 9/69–5/74. *Version 3:* 12/66–8/69.

Objectives: To train enlisted personnel to inspect, test, and maintain airborne radar systems.

Instruction: *All Versions:* Lectures and laboratories in basic electricity; basic electronics, special circuitry, including nonlinear wave shaping; airborne surveillance radar; radar transmitting sets; radar data receiving sets; and data transfer system alignment. *Version 1:* Instruction emphasizes troubleshooting and maintenance of power supplies, signal comparators, signal monitors, transmitters, receivers, encoders and decoders for a specialized radar system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/75). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 26M.

AR-1715-0204

NUCLEAR WEAPONS SPECIALIST
(Nuclear Weapons Maintenance Specialist)
(Nuclear Weapons Maintenance)

Course Number: 644-55G10(ST); 644-55G10; 644-55G20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 6–13 weeks (204–512 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train enlisted personnel to assemble, disassemble, maintain, test, and inspect nuclear weapons and to cope with nuclear emergency situations.

Instruction: Lectures and practical exercises in the assembly, disassembly, maintenance, testing, and repair of nuclear weapons and techniques of coping with nuclear emergency situations, including nuclear fundamentals, principles and components of nuclear weapons, electrical systems, electrical test equipment, care and handling of nuclear weapons, common shop operations, various examining procedures, emergency team operations, effects of nuclear weapons, and emergency destruction.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/89).

Related Occupation Codes: 55G; 09B.

AR-1715-0205

CH-54 AUTOMATIC FLIGHT CONTROL
EQUIPMENT REPAIR

Course Number: 102-F5.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 3 weeks (106 hours).

Exhibit Dates: 12/67–12/86.

Objectives: To train avionic flight control equipment repairmen to perform direct and general support maintenance on CH-54 automatic flight control equipment.

Instruction: Lectures and practical exercises in automatic flight control familiarization, block-diagram analysis, power distribution and time sequencing, servo loop analysis, pitch channel circuit analysis, roll channel analysis, and altitude and yaw channel analysis; supervisory panel familiarization and block-diagram analysis; and troubleshooting and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 35N; 35P.

AR-1715-0206

TECHNICAL SURVEILLANCE
COUNTERMEASURES (TSCM)
(Defense Against Sound Equipment (DASE))

Course Number: 3C-F1; 244-F1.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ; Intelligence School, Ft. Holabird, MD; Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Intelligence School, Ft. Holabird, MD; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 19 weeks (691 hours). *Version 2:* 17 weeks (605 hours).

Exhibit Dates: *Version 1:* 12/67–6/77. *Version 2:* 6/67–11/67.

Objectives: To provide intelligence specialists with advanced training in specialized electronic equipment and the techniques used in the detection and location of listening devices, and to provide them with training in basic electricity, electronics, solid-state devices, and transistor circuits.

Instruction: *All Versions:* Lectures and practical exercises in AC and DC circuits, resistor combinations, transformer and coupled circuits, power supplies, regulators, series and parallel resonance, RC/RL circuits, and use of oscilloscopes, multimeters, spectrum analyzers, and signal generators. *Version 1:* Includes transistor amplifiers, transmitters, modulators, and receivers; AM and FM detectors and oscillator circuits, transmission lines; and microwave and wave-guide techniques. *Version 2:* Includes use and application of miniature transmitters and miniature receivers signal analysis techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-electrical-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-electrical-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0207

FIELD ARTILLERY DIGITAL AUTOMATIC
COMPUTER (FADAC) MECHANICS

Course Number: 101-ASIF7; 101-31B30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (73–95 hours).

Exhibit Dates: 9/72–1/88.

Objectives: To train field radio mechanics to maintain M18 gun direction computers and ancillary equipment.

Instruction: Lectures and practical exercises in operation,organizational maintenance, and troubleshooting of M18 gun direction computers, M36 radar chronograph, and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/74).

Related Occupation Codes: 31B; 31Z.

AR-1715-0208

DIGITAL CONVERTING PROGRAMMING
GROUP MAINTENANCE (AN/TCA-4)
(Digital Converting Programming Group (AN/TCA-4))

Course Number: *Version 1:* 102-ASIS6. *Version 2:* 102-F9.

Location: Intelligence School, Ft. Devens, MA; Security Agency School, Ft. Devens, MA.

Length: 8–9 weeks (149–288 hours).

Exhibit Dates: *Version 1:* 11/82–9/86. *Version 2:* 8/69–10/82.

Objectives: To train intercept system repairmen to maintain and repair the AN/TCA-4 digital converting programming group.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/TCA-4 digital converting programming group, including basic signal analysis, system operation, circuit cards, synchronizer, demultiplexing logic, translating logic, power supplies, programming, and troubleshooting and testing procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (5/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (5/87). *Version 2:* Credit is not recommended because of the military nature of the course (9/77).

Related Occupation Codes: 33F; 33Z.

AR-1715-0209

1. NIKE ACQUISITION RADAR AND
COMPUTER REPAIR
2. NIKE ACQUISITION RADAR AND
COMPUTER REPAIR
(Nike Acquisition Radar and Computer Systems Repair)
(Surface-to-Air Missile (SAM) Acquisition Radar and Computer Systems Repair)

Course Number: *All Versions:* 9-S-252.1. *Version 2:* 9-R-252.1; 9-E-63.

Location: Ordnance Guided Missile school, Redstone Arsenal, AL.

Length: *Version 1:* 34 weeks (1257 hours). *Version 2:* 17–24 weeks (613–924 hours).

Exhibit Dates: *Version 1:* 2/63–12/68. *Version 2:* 12/55–1/63.

Objectives: To train enlisted personnel to operate and maintain missile acquisition radar and computer systems.

Instruction: *All Versions:* Lectures and practical exercises in the description, operation, organization, maintenance, and repair of Nike missile acquisition radar and computer systems. *Version 1:* Instruction includes electrical and electronic fundamentals and basic circuit analysis and troubleshooting techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity or electronics, 6 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0210

Improved Nike Hercules High Power
(HIPAR) Acquisition Radar
Maintenance

Course Number: 4B-F14; 121-F14.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 7 weeks (282 hours). *Version 2:* 5 weeks (186–188 hours).

Exhibit Dates: *Version 1:* 2/70–3/81. *Version 2:* 10/65–1/70.

Objectives: To train warrant officers, commissioned officers, and enlisted personnel to operate and maintain the improved Nike Hercules acquisition radar.

Instruction: Lectures and practical exercises in improved Nike Hercules high-power acquisition radar system operation and maintenance, including acquisition, transmitting, stagger, receiving, and MTI systems organization, description, capabilities, characteristics, block-diagram analysis, and safety precautions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 24Q; 24P; 222B; 251B.

AR-1715-0211

1. Hawk Fire Control Maintenance
2. Hawk Fire Control Maintenance
   (Hawk Pulse Acquisition Radar and Battery Control Central Maintenance)
3. Hawk Pulse Acquisition Radar and Battery Control Central Maintenance
4. Hawk Pulse Acquisition Radar and Battery Control Center Maintenance

Course Number: *Version 1:* 121-24F20. *Version 2:* 121-24F20; 121-23P20; 121-228.1; 44-R-228.1. *Version 3:* 44-R-228.1. *Version 4:* 44-R-228.1; 44-N-F15.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 18 weeks (657–671 hours). *Version 2:* 34–35 weeks (1114–1218 hours). *Version 3:* 29 weeks (987 hours). *Version 4:* 32–33 weeks (1141–1251 hours).

Exhibit Dates: *Version 1:* 10/70–11/76. *Version 2:* 3/62–9/70. *Version 3:* 6/60–2/62. *Version 4:* 7/58–5/60.

Objectives: To train enlisted personnel to install, test, adjust, and maintain Hawk missile system pulse acquisition radar and battery control central systems.

Instruction: Lectures and practical exercises in basic electricity and electronics, Hawk pulse acquisition radar systems and missile battery fire control systems theory of operation, fault diagnosis and repair using standard and special test equipment, block-diagram analysis and signal tracing, and maintenance and adjustment procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (6/75); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics and 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68) and 2 in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electricity or electronics and 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68) and 2 in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 2 semester hours in electricity or electronics and 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68) and 2 in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 24F.

AR-1715-0212

Airborne Sensor Specialist Skill
Development Base

Course Number: 221-17L20-I.

Location: Combat Surveillance School, Ft. Huachuca, AZ.

Length: 16 weeks (570 hours).

Exhibit Dates: 7/69–1/89.

Objectives: To train airborne sensor specialists to perform or supervise the maintenance of airborne sensor systems.

Instruction: Lectures and practical exercises in the operation and maintenance of airborne sensor systems, including Doppler navigation, airborne photographic surveillance, radar reconnaissance, infrared surveillance systems.

Credit Recommendation: Credit is not recommended because of the military nature of the course (4/74).

Related Occupation Codes: 17L.

AR-1715-0213

1. M33 Fire Control System Maintenance
2. M33, SCR-584 Fire Control System Maintenance
   (Artillery Fire Control System Maintenance, M33)

Course Number: *Version 1:* 44-N-213.3. *Version 2:* 44-OE-28.

Location: Air Defense School, Ft. Bliss, TX. *Version 2:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 27 weeks (1058 hours). *Version 2:* 34–39 weeks (1292–1476 hours).

Exhibit Dates: *Version 1:* 8/58–12/68. *Version 2:* 2/55–7/58.

Objectives: To train warrant officers and enlisted personnel to employ, adjust, and maintain the M33 antiaircraft fire control system and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in M33 antiaircraft fire control system employment, adjustment, and maintenance, including vacuum tube fundamentals; Ohm's law applied to AC and DC circuits; AC and DC motors construction and operation; load-line analysis; RC coupled, cathode follower, RF, and power amplifiers operation; oscillators; superheterodyne receiver operation and alignment; wave-shaping circuits, klystrons, magnetrons, and transmission lines and high-frequency measurement techniques; and adjustment, maintenance, and repair procedures. *Version 2:* Instruction includes mathematics review through right triangles and vectors, with emphasis on the operation, troubleshooting, maintenance, and repair of equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-engineering majors (4/74). *Version 2:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-engineering majors (4/74).

AR-1715-0214

1. Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
2. Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer

Course Number: *Version 1:* 44-B-1120; 44-B-1121. *Version 2:* 44-O-7.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 30 weeks (1165 hours). *Version 2:* 31-34 weeks (1198-1295 hours).

Exhibit Dates: *Version 1:* 6/58-12/68. *Version 2:* 7/55-5/58.

Objectives: To train officers and warrant officers in the function, technical operation, characteristics, employment, maintenance, and inspection of antiaircraft fire control systems.

Instruction: *All Versions:* Lectures and practical exercises in basic AC and DC circuits, RL/RCL circuits and transformers, waveforms, and series/parallel elements; utilization of amplifiers, vacuum tubes, inverters, Colpitts/Hartley oscillators, oscilloscopes, multimeters, and signal generators; and troubleshooting, inspection, and repair procedures for radars and computers. *Version 2:* Emphasizes radar electronics, including bootstrap circuits, magnetrons, transmission lines, field concepts, and AC/DC motor drive characteristics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics for non-electrical-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0215

1. M-38 Fire Control System Maintenance
2. M-38 Fire Control System Maintenance
   (Artillery Fire Control System Maintenance, T-38)

Course Number: *Version 1:* 44-N-214.4. *Version 2:* 44-OE-29.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX; Antiaircraft and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 24 weeks (922 hours). *Version 2:* 30-31 weeks (1126-1238 hours).

Exhibit Dates: *Version 1:* 6/58-12/68. *Version 2:* 2/55-5/58.

Objectives: To train warrant officer and enlisted personnel to operate, adjust, and maintain the M-38 artillery fire control system and associated radar equipment.

Instruction: *All Versions:* Lectures and practical exercises in AC and DC circuits; motor and generator operation; circuits, including phase shift networks, superheterodyne receivers, oscillators, squaring circuits, H.V. power supplies, and strobing and timing circuits; use of oscilloscopes, signal generators, multimeters, and audio oscillators; and system troubleshooting and repair. *Version 2:* Instruction includes mathematics review.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 7 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0216

1. Nike Ajax Fire Control System Maintenance
2. Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax

Course Number: *All Versions:* 44-N-227.2; 44-N-1178. *Version 1:* 44-N-1178A; 44-N-224.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 37-38 weeks (1436-1477 hours). *Version 2:* 42 weeks (1632 hours).

Exhibit Dates: *Version 1:* 6/58-12/68. *Version 2:* 6/57-5/58.

Objectives: To train enlisted personnel to operate and maintain the Nike Ajax fire control system and associated IFF equipment.

Instruction: *All Versions:* Lectures and practical experience in radio principles; AC and DC circuits; vacuum tubes; amplifiers, oscillators, and CWANDAM transmitters; DC power supplies, regulators, and distribution; radar circuits, including detectors, receivers, nonsinusoidal generators, and shock-excited oscillators; IFF system introduction; acquisition and target-track radar functional operation; Nike Ajax computer functions; and system check-out and adjustment procedures. *Version 2:* Instruction includes review of algebra fundamentals and right-triangle solutions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 222B; 251B.

AR-1715-0217

1. Skysweeper Gun Section Fire Control Maintenance
   (T38 Gun Section Fire Control Maintenance)
2. Gun Section Fire Control Maintenance, T38

Course Number: *All Versions:* 44-E-36. *Version 1:* 44-R-214.3.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX; *Version 1:* Antiaircraft and Guided Missile School, Ft. Bliss, TX. *Version 2:* Antiaircraft and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 15 weeks (568-572 hours). *Version 2:* 18 weeks (720 hours).

Exhibit Dates: *Version 1:* 4/56-12/68. *Version 2:* 2/55-3/56.

Objectives: To train enlisted personnel to operate, employ, adjust, and troubleshoot artillery fire control systems.

Instruction: *Version 1:* Lectures and practical exercises in system operation (block-diagram level), including receivers, range servos, reference generators, computer, power controls, and field adjustment techniques. *Version 2:* Lectures and practical exercises in basic AC and DC circuits, vacuum tube characteristics, operation of synchroscopes, and voltmeters; explanation of system components; and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in electronics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0218

Field Artillery Data Computer (FADAC) Maintenance

Course Number: 6-D-F29.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/63-12/68.

Objectives: To train communications officers and enlisted personnel qualified as artillery communications specialists to maintain the field artillery data computer and ancillary equipment.

Instruction: Lectures and practical exercises in the maintenance of field artillery data computers and ancillary equipment, including computer operation, number systems, programming and memory, component replacement, power control circuits, signal data reproducer, logic test set, and troubleshooting of equipment.

Credit Recommendation: In the vocational certificate category, credit in electronics, digital logic, or computer science on the basis of institutional evaluation (4/74).

AR-1715-0219

1. Tactical Satellite Microwave System Operator
2. Tactical Satellite Microwave System Operator
3. Tactical Microwave Systems Operation and Maintenance
4. Tactical Microwave Systems Operation and Maintenance
5. Tactical Microwave Systems Operation and Maintenance
6. Basic Microwave Radio Equipment Repair
7. Basic Microwave Radio Equipment Repair

Course Number: *Version 1:* 201-26Q10. *Version 2:* 201-26Q10. *Version 3:* 101-26L10. *Version 4:* 101-26L10. *Version 5:* 101-26L10. *Version 6:* 101-281.0. *Version 7:* 11-R-281.0.

Location: *Version 1:* Signal School, Ft. Gordor, GA; *Version 2:* Signal School, Ft. Gordon, GA; *Version 3:* Signal School, Ft. Gordon, GA; *Version 4:* Signal School, Ft. Gordon, GA; *Version 5:* Signal School, Ft. Monmouth, NJ; *Version 6:* Signal School, Ft. Monmouth, NJ; *Version 7:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 17 weeks (341 hours). *Version 2:* 15 weeks (542 hours). *Version 3:* 11–15 weeks (395–542 hours). *Version 4:* 15 weeks (392–539 hours). *Version 5:* 15 weeks (526–554 hours). *Version 6:* 19 weeks (706 hours). *Version 7:* 15 weeks (548 hours).

Exhibit Dates: *Version 1:* 5/83–11/87. *Version 2:* 9/78–4/83. *Version 3:* 1/77–8/78. *Version 4:* 11/74–12/76. *Version 5:* 9/68–10/74. *Version 6:* 2/66–8/68. *Version 7:* 3/63–1/66.

Objectives: To train enlisted personnel to operate, adjust, install, and repair microwave radio equipment.

Instruction: *Version 1:* For this course after 11/87 see AR-1715-0782. Lectures and practical exercises in installing, operating and maintaining line-of-sight microwave communications equipment; installing, operating and maintaining generators up to 15 KW; installing, operating and maintaining satellite terminals. *Version 2:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. COBET equivalent is included in this version of the course. *Version 3:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. Note: Students who have completed Modules 201, 202, and 203 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (11 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (15 weeks) of this course. *Version 4:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (11 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (15 weeks) of this course. *Version 5:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. *Version 6:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. *Version 7:* Lectures and practical exercises in electrical and electronics fundamentals; circuit applications in radio, especially microwave; servicing procedures of radio sets and use of associated test equipment. Includes a much more thorough coverage of electrical and electronic fundamentals, with added sections in complex wave circuitry and solid-state devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in operating and maintaining electronic communications equipment (7/85). *Version 2:* In the vocational certificate category, 6 semester hours in troubleshooting techniques (8/79); in the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics communications (8/79). *Version 3:* In the vocational certificate category, 2 semester hours in basic electronics for students who complete 11 weeks of the course or 5 semester hours in basic electronics and troubleshooting for students who complete 15 weeks of the course (see note above) (4/77). *Version 4:* In the vocational certificate category, 3 semester hours in basic electricity and electronics and 2 in electronics laboratory for those students completing 15 weeks; or 2 semester hours in electronics laboratory for those students completing 11 weeks (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics for those students completing 15 weeks; no credit for those students completing 11 weeks (see note above) (5/75). *Version 5:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74). *Version 6:* In the vocational certificate category, 16 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74). *Version 7:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74).

Related Occupation Codes: 09B; 26L; 26Q.

AR-1715-0220

Basic Radar Repair

Course Number: 11-R-282.0.

Location: Signal School, Ft. Monmouth, NJ.

Length: 19 weeks (698 hours).

Exhibit Dates: 9/63–12/68.

Objectives: To train enlisted personnel to operate and maintain radar equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of radar equipment, including detailed circuit analysis of DC and AC circuits, transformers, semiconductors, vacuum tubes, electronic circuits, radio circuits, power supplies, radar circuits, nonsinusoidal circuits, special circuits, radar systems and specific radar sets; and troubleshooting and repair procedures.

Credit Recommendation: In the vocational certificate category, 16 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0221

1. Automatic Data Message Switching Center Technical Controller
2. Overseas Automatic Switching Center (ASC) Technical Controller
3. Automatic Digital Message Switching Center (ADMSC) Technical Controller
4. Automatic Digital Message Switching Center (ADMSC) Technical Controller
5. Automatic Digital Message Switching Center (ADMSC) Technical Controller

Course Number: *Version 1:* 622-ASIH4. *Version 2:* 622-F8. *Version 3:* 622-F8. *Version 4:* 622-F8. *Version 5:* 622-F8.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 7 weeks (250 hours) *Version 2:* 5 weeks (167–173 hours). *Version 3:* 6 weeks (222 hours). *Version 4:* 8 weeks (282 hours). *Version 5:* 6 weeks (206 hours).

Exhibit Dates: *Version 1:* 6/80–10/87. *Version 2:* 5/73–5/80 *Version 3:* 6/71–4/73. *Version 4:* 2/69–5/71. *Version 5:* 4/68–1/69.

Objectives: To train enlisted personnel as fixed station technical controllers to test and maintain the continuity and quality of the operational circuits of automatic digital message centers.

Instruction: *Version 1:* Lectures and practical exercises in the operation and maintenance of automatic digital message switching center equipment and technical control equipment, operation of consoles and use of test equipment. *Version 2:* Lectures and practical exercises in the operation of, and signal tracing through, automatic digital message switching center equipment and technical control equipment, operation of consoles, and use of test equipment. *Version 3:* Lectures and practical exercises in the operation of, and signal tracing through, automatic digital message switching center equipment and technical control equipment, operation of consoles, and use of test equipment. *Version 4:* Lectures and practical exercises in the operation of, and signal tracing through, automatic digital message switching center equipment and technical control equipment, operation of consoles, and use of test equipment. *Version 5:* Lectures and practical exercises in the operation of, and signal tracing through, automatic digital message switching center equipment and technical control equipment, operation of consoles, and use of test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in operation and maintenance of digital telephone switching equipment (7/85). *Version 2:* In the vocational certificate category, credit in electronics or instrumentation on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics or instrumentation on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electronics or instrumentation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics or instrumentation on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 2 semester hours in electronics or instrumentation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics or instrumentation on the basis of institutional evaluation (4/74).

Version 5: In the vocational certificate category, 2 semester hours in electronics or instrumentation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics or instrumentation on the basis of institutional evaluation (4/74).

Related Occupation Codes: 32D.

AR-1715-0222

IMPROVED HAWK PULSE ACQUISITION RADAR REPAIRER
(Improved Hawk Pulse Acquisition Radar Repair)
(Improved Hawk Pulse Radar Repair)

Course Number: *Version 1:* 104-24J1T, 104-24J1T. *Version 2:* 104-24J10. *Version 3:* 104-24J20. *Version 4:* 104-24J20. *Version 5:* 104-24J20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 38 weeks (1314-1399 hours). *Version 2:* 34 weeks (1157 hours). *Version 3:* 29-35 weeks (983-1196 hours). *Version 4:* 33-37 weeks (1115-1257 hours). *Version 5:* 41 weeks (1446 hours).

Exhibit Dates: *Version 1:* 10/79-10/87. *Version 2:* 3/78-9/79. *Version 3:* 2/77-2/78. *Version 4:* 5/74-1/77. *Version 5:* 4/72-4/74.

Objectives: To train enlisted personnel to inspect, test, repair, and maintain Hawk pulse radar systems, ground equipment test sets, and support maintenance equipment.

Instruction: For this course after 10/87 see AR-1715-0745. *All Versions:* Lectures and practical exercises in fundamentals of AC and DC circuits, transistors, vacuum tubes, electronic circuits, power supplies, and communications circuits and systems; and detailed theory. *Version 1:* Course includes digital circuits and systems.Emphasis is placed on practical experiences in troubleshooting and repairing radar sub-systems. *Version 2:* Instruction includes soldering techniques and basic electronics. COBET is not required as a prerequisite. Principles of operation of acquisition radar, range radar, and associated test equipment. *Version 3:* NOTE: Students who have completed Modules 1, 2, 3, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (29 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (35 weeks) of this course. *Version 4:* NOTE: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (33 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (37 weeks) of this course.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in introduction to digital circuits, 1 in electronic shop practices, 3 in electronic equipment troubleshooting and repair (11/83). *Version 2:* In the vocational certificate category, 1 semester hour in microwaves, 1 in computer circuits and 5 in electronic repair techniques (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in solid state and 2 in circuits and systems OR, for those students in an electrical engineering program 1 semester hour in electrical engineering electronics laboratory, 3 in introduction to electrical engineering (8/79). *Version 3:* In the vocational certificate category, 18 semester hours in basic electronics for students who complete 29 weeks of this course or 24 semester hours in basic electronics for students who complete 35 weeks of this course (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory for students who complete 35 weeks of the course (see note above) (8/77). *Version 4:* In the vocational certificate category, 25 semester hours in basic electricity, electronics, and troubleshooting for those students completing 37 weeks; or 22 semester hours in basic electronics and troubleshooting for those students completing 33 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics for those students completing 37 weeks; no credit for those students completing 33 weeks (see note above) (3/75). *Version 5:* In the vocational certificate category, 24 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics (4/74).

Related Occupation Codes: 24J.

AR-1715-0223

HAWK CONTINUOUS WAVE (CW) RADAR REPAIRER
(Improved Hawk Continuous Wave (CW) Radar Repairer)
(Improved Hawk Continuous Wave (CW) Radar Repair)

Course Number: *Version 1:* 104-24K10. *Version 2:* 104-24K10; 104-24K1T. *Version 3:* 104-24K20. *Version 4:* 104-24K20. *Version 5:* 104-24K20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 30-41 weeks (1085-1475 hours). *Version 2:* 29-30 weeks (1001-1003 hours). *Version 3:* 30-36 weeks (953-1164 hours). *Version 4:* 34-38 weeks (1174-1316 hours). *Version 5:* 43 weeks (1531 hours).

Exhibit Dates: *Version 1:* 10/83-9/87. *Version 2:* 3/78-9/83. *Version 3:* 1/77-2/78. *Version 4:* 3/74-12/76. *Version 5:* 4/72-2/74.

Objectives: To train enlisted personnel to operate and maintain Hawk continuous wave radar systems.

Instruction: For this course after 9/87 see AR-1715-0738. *Version 1:* Lectures and practical exercises in fundamentals of DC and AC circuits, transistors, vacuum tubes, electronic circuits, power supplies, communications circuits and systems, and fundamental digital circuits and subsystems, and detailed theory of operation of Hawk launchers, illuminator radar, acquisition radar, and associated test equipment.Includes precision soldering. *Version 2:* Lectures and practical exercises in fundamentals of DC and AC circuits, transistors, vacuum tubes, electronic circuits, power supplies, communications circuits and systems, and fundamental digital circuits and subsystems, and detailed theory of operation of Hawk launchers, illuminator radar, acquisition radar, and associated test equipment. *Version 3:* Lectures and practical exercises in fundamentals of DC and AC circuits, transistors, vacuum tubes, electronic circuits, power supplies, communications circuits and and systems, and digital computer circuits; and detailed theory of operation of Hawk launchers, illuminator radar, acquisition radar, and associated test equipment. Note: Students who have completed Modules 1, 2, 3, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (30 weeks) of the course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (36 weeks) of the course. *Version 4:* Lectures and practical exercises in fundamentals of DC and AC circuits, transistors, vacuum tubes, electronic circuits, power supplies, communications circuits and systems, and digital computer circuits; and detailed theory of operation of Hawk launchers, illuminator radar, acquisition radar, and associated test equipment. Note: Students who have competed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (34 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (38 weeks) of this course. *Version 5:* Lectures and practical exercises in fundamentals of DC and AC circuits, transistors, vacuum tubes, electronic circuits, power supplies, communications circuits and systems, and digital computer circuits; and detailed theory of operation of Hawk launchers, illuminator radar, acquisition radar, and associated test equipment.

Credit Recommendation: For this course after 9/87 see AR-1715-0738. *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits, 3 in solid state circuits, 3 in electronic systems maintenance, 2 in introduction to digital circuitry and 2 in precision soldering techniques (4/86). *Version 2:* In the vocational certificate category, 1 semester hour in microwaves, 1 in computer circuits and 5 in electronic repair techniques (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical engineering fundamentals, 3 in electrical engineering electronics laboratory OR, 3 semester hours in basic electronics, 3 in basic electricity, 2 in solid state circuits and systems, and 2 in circuits & systems (8/79). *Version 3:* In the vocational certificate category, 15 semester hours in basic electronics and 3 in computer fundamentals for students who complete 30 weeks of the course, or 21 semester hours in basic electronics and 3 in computer fundamentals for students completing 36 weeks of the course (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory for students completing 36 weeks of the course (8/77). *Version 4:* In the vocational certificate category, 25 semester hours in basic electricity, electronics, and troubleshooting for those students completing 38 weeks; or 22 semester hours in basic electronics and troubleshooting for those students completing 34 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics and 1 in basic computer subsystems for those students completing 38 weeks; or 1 semester hour in basic computer subsystems for those students completing 34 weeks (see note above) (3/75). *Version 5:* In the vocational certificate category, 24 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics (4/74).

Related Occupation Codes: 24K.

AR-1715-0224

UNATTENDED GROUND SENSOR
OPERATION

Course Number: 3A-F22; 221-F2.

Location: Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ; Combat Surveillance School, Ft. Huachuca, AZ.

Length: 3-5 weeks (136-196 hours).

Exhibit Dates: 8/69-1/88.

Objectives: To train enlisted personnel and officers to prepare, employ, and operate unattended ground sensors and monitors, to perform organizational maintenance on all sensors and related equipment, and to analyze and react to sensor-provided data.

Instruction: Lectures and practical exercises on unattended ground sensors, operation and maintenance of specific sensor equipment, and sensor employment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

Related Occupation Codes: 11B; 11C; 11D; 11E; 11F; 13E.

AR-1715-0225

1. NUCLEAR WEAPONS ELECTRONICS SPECIALIST
   (Nuclear Weapons Electronics Maintenance)
2. NUCLEAR WEAPONS ELECTRONIC MAINTENANCE
3. NUCLEAR WEAPONS ELECTRONIC MAINTENANCE
4. ARMY NUCLEAR WEAPONS ELECTRONICS SPECIALIST (PHASE I)

Course Number: *Version 1:* 140-35F10. *Version 2:* 140-35F20. *Version 3:* 140-35F20. *Version 4:* 140-35F20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 11-12 weeks (353-400 hours). *Version 2:* 17-21 weeks (588-734 hours). *Version 3:* 20-22 weeks (708-726 hours). *Version 4:* 11 weeks (391 hours).

Exhibit Dates: *Version 1:* 4/76-1/88. *Version 2:* 4/74-3/76. *Version 3:* 6/72-3/74. *Version 4:* 9/68-5/72.

Objectives: To train enlisted personnel to maintain electrical and electronic components and test equipment associated with nuclear weapons.

Instruction: *All Versions:* Lectures and practical exercises in basic electronic circuits, vacuum tube circuits, and maintenance techniques for specific devices. There is a discussion of transistors and vintage test equipment. *Version 1:* Lectures and laboratory exercises include simplified coverage of RC and LC transients and sinewave oscillators; elementary semiconductors and multistage amplifiers; three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of test equipment, specialized test equipment, and electronic systems associated with nuclear weapons. Note: Students have completed their basic electronics studies in this course, and not in COBET. *Version 2:* Lectures and laboratory exercises include simplified coverage of RC and LC transients and sinewave oscillators; elementary semiconductors and multistage amplifiers; three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of test equipment, specialized test equipment, and electronic systems associated with nuclear weapons. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (17 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (21 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electricity, 3 in test equipment repair and calibration (8/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic circuits, 2 in basic electronics. Credit is recommended on the basis of of institutional evaluation at the introductory Electrical Engineering level (8/79). *Version 2:* In the vocational certificate category, 9 semester hours in basic electricity, electronics, and troubleshooting for those students completing 21 weeks; or 6 semester hours in basic electronics and troubleshooting for those students completing 17 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics for those students completing 21 weeks; no credit for those students completing 17 weeks (see note above) (3/75). *Version 3:* In the vocational certificate category, 6 semester hours in electricity and electronics, 2 in electrical and electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 1 in electrical and electronics laboratory (4/74); in the upper-division baccalaureate category, 1 semester hour in electrical and electronics laboratory (4/74). *Version 4:* In the vocational certificate category, 6 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 35F.

AR-1715-0226

1. COMMUNICATIONS AND ELECTRONICS STAFF OFFICER
   (Communication/Electronic Staff Officer)
2. COMMUNICATIONS AND ELECTRONICS STAFF OFFICER
   (Communications Officer)

Course Number: *Version 1:* 4C-ASI6B; 4C-25A. *Version 2:* 4C-25A; 4C-0205; 4C-0200; 6-A-0200.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 9-10 weeks (281-364 hours). *Version 2:* 10-11 weeks (320-419 hours).

Exhibit Dates: *Version 1:* 12/79-Present. *Version 2:* 5/64-11/79.

Objectives: To train signal officers to supervise and coordinate the installation, operation, and maintenance of communications systems and selected electronic equipment.

Instruction: Lectures and practical exercises in the supervision of the installation, operation, and maintenance of communications systems and selected electronic equipment including instruction in AM and FM radio fundamentals and equipment, applied communications, radiotelephony, automatic data processing equipment, tactics, ground surveillance equipment, and management procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in communications system installation (6/89); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications equipment maintenance management, 1 in communications systems planning and 1 in technical writing (6/89). *Version 2:* In the vocational certificate category, 2 semester hours in communications equipment maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications equipment maintenance on the basis of institutional evaluation (6/75).

AR-1715-0227

1. SURVEILLANCE INFRARED REPAIR
2. SURVEILLANCE INFRARED REPAIR
3. SURVEILLANCE INFRARED REPAIR
4. SURVEILLANCE INFRARED REPAIR
5. AIRBORNE INFRARED REPAIR (UAS-4)

Course Number: *Version 1:* 104-26N20. *Version 2:* 104-26N20. *Version 3:* 104-26N20. *Version 4:* 104-26N20. *Version 5:* 221-26N20.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ. *Version 4:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ; *Version 4:* Combat Surveillance School, Ft. Huachuca, AZ. *Version 5:* Combat Surveillance School, Ft. Huachuca, AZ.

Length: *Version 1:* 18 weeks (532-876 hours). *Version 2:* 15 weeks (511 hours). *Version 3:* 24 weeks (853 hours). *Version 4:* 27-28 weeks (942-970 hours). *Version 5:* 24 weeks (862 hours).

Exhibit Dates: *Version 1:* 3/77-9/77. *Version 2:* 6/74-2/77. *Version 3:* 1/73-5/74. *Version 4:* 7/69-12/72. *Version 5:* 3/66-6/69.

Objectives: To train enlisted personnel to repair and maintain airborne infrared systems.

Instruction: *Version 1:* Course includes basic electronic theory and laboratory and emphasizes necessary theory and troubleshooting to train personnel to install, maintain, adjust, determine defective components and replace defective components in infrared surveillance equipment. Systems include optics, radio, servos, digital, cryogenic, and photo equipment. *Version 2:* Instruction emphasizes practical exercise in troubleshooting techniques on various types of infrared equipment. *Version 3:* Lectures and practical exercises in the repair and maintenance of the AN/UAS-4A or the AN/UAS-4 airborne infrared system, including basic DC and AC circuit fundamentals, basic electronics (tubes and transistor circuits), infrared system components, power supply, special circuitry and associated equipment maintenance. *Version 4:* Lectures and practical exercises in the repair and maintenance of the AN/UAS-4A or the AN/UAS-4 airborne infrared system, including basic DC and AC circuit fundamentals, basic electronics (tubes and transistor circuits), infrared system components, power supply, special circuitry and associated equipment maintenance. *Version 5:* Lectures and practical exercises in the repair and maintenance of the AN/UAS-4A or the AN/UAS-4 airborne infrared system, including basic DC and AC circuit fundamentals, basic electronics (tubes and transistor circuits), infrared system components, power supply, special circuitry and associated equipment maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in communication electronics, 2 in instrumentation, 2 in digital, 2 in troubleshooting, 1 in optics, and, for students completing the Basic Electronics Training phase, 3 in introduction to electronics, 1 in technical mathematics, 2 in AC/DC theory, 2 in solid state circuits, 2 in troubleshooting techniques, 2 in digital circuits, and, for National Guard or reserve personnel, 2 in vacuum tubes (6/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications electronics, 2 in instrumentation, 2 in troubleshooting, 1 in optics, 2 in digital and, for students completing the Basic Electronics training phase, 3 in introduction to electronics, 1 in technical mathematics, 2 in AC/DC theory, 2 in solid state circuits, 2 in troubleshooting techniques, 2 in digital circuits and, for National Guard or reserve personnel, 2 in vacuum tube circuits (6/79). *Version 2:* In the vocational certificate category, 2 semester hours in troubleshooting techniques (6/75). *Version 3:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in basic electronics, 10 in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 2 in basic electronics, 10 in electronic equipment maintenance (4/74); in the upper-division baccalaureate category, 2 semester hours in basic electricity, 2 in basic electronics, 1 in electronics laboratory, all on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in basic electronics, 12 in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in basic electronics, 10 in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 26N; 26W.

AR-1715-0228

INTEGRATED DATA LINK REPAIR

Course Number: 4B-F7; 150-361.2; 11-N-361.2.

Location: Air Defense School, Ft. Bliss, TX.

Length: 29 weeks (1030 hours).

Exhibit Dates: 5/64–12/68.

Objectives: To train enlisted personnel who have backgrounds in electronics to maintain AN/FSG-1 missile master Sage data-link equipment.

Instruction: Lectures and practical exercises in the maintenance of AN/FSG-1 missile master (Sage data-link) equipment, including system circuit analysis and principles of operation of the power subsystem, Sage receiving system, transmission subsystem, designation and broadcast function, battery data-link function, and adjustment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electrical equipment maintenance, 5 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in electrical equipment maintenance, 5 in electrical laboratory, all on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0229

1. GROUND SURVEILLANCE RADAR REPAIR
2. COMBAT AREA SURVEILLANCE RADAR REPAIR

(Ground Surveillance Radar Repair)

Course Number: *All Versions:* 104-26C30. *Version 2:* 11-R-282.1A.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 27 weeks (800 hours). *Version 2:* 24–29 weeks (896–1080 hours).

Exhibit Dates: *Version 1:* 9/72–1/89. *Version 2:* 6/63–8/72.

Objectives: To train enlisted personnel to inspect, test, and repair ground surveillance radar equipment and tracking and plotting radar equipment.

Instruction: Lectures and practical exercises in the inspection, testing, and repair of ground surveillance radar equipment and tracking and plotting radar equipment, including basic electricity and electronics, radar principles, semiconductors, RF energy, nonsinusoidal circuitry, microwave equipment, servo and data circuitry, and equipment components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electricity or electronics, 5 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in electricity, 5 in electrical laboratory, all on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 10 semester hours in electricity or electronics and 5 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 26C; 26W.

AR-1715-0230

HAWK FIRE CONTROL REPAIR

Course Number: 121-23Q20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 23–27 weeks (779–921 hours). *Version 2:* 28 weeks (932 hours). *Version 3:* 33 weeks (1188 hours).

Exhibit Dates: *Version 1:* 3/74–12/75. *Version 2:* 11/72–2/74. *Version 3:* 3/67–10/72.

Objectives: To train enlisted personnel to inspect, test, and repair Hawk battery control central, assault fire command console, platoon command post, and radar signal simulator electronic systems and associated test equipment.

Instruction: *All Versions:* Lectures and practical exercises in inspection, testing, and repair of Hawk battery control central, assault fire command console, platoon command post, and radar signal simulator electronic systems and associated test equipment, including basic electricity and electronics theory, AC and DC circuits, electronic devices, wave-shaping circuits, fire control fault diagnosis, systems operation, and analysis of various circuits and components for specific equipment. *Version 1:* Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (23 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (27 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity and electronics and 3 in electronics laboratory for those students completing 23 weeks; or 5 semester hours in electricity and electronics and 3 in electronics laboratory for those students completing 27 weeks (see above) (5/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics and 3 in electronics laboratory for those students completing 23 weeks; or 5 semester hours in electricity and electronics and 3 in electronics laboratory for those students completing 27 weeks (see above) (5/75). *Version 2:* In the vocational certificate category, 5 semester hours in electricity or electronics, and 3 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electricity or electronics, and 3 in electronics laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 5 semester hours in electricity or electronics, 3 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23Q.

AR-1715-0231

LAND COMBAT SUPPORT SYSTEM TEST SPECIALIST

Course Number: 121-27B20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 17–20 weeks (680–800 hours). *Version 2:* 25 weeks (872–875 hours). *Version 3:* 27 weeks (952 hours).

Exhibit Dates: *Version 1:* 11/76–2/80. *Version 2:* 5/73–10/76. *Version 3:* 2/69–4/73.

Objectives: To train enlisted personnel to operate, inspect, test, and repair the land combat support system and to isolate faults and verify tests on assemblies, modules, and components of supported missile systems.

Instruction: *All Versions:* Lectures and practical exercises in the operation, inspection, testing, and repair of land combat support systems and fault isolation and test verification of assemblies, modules, and components of supported missile systems, including missile electronics subjects (transistors, vacuum tubes, generators, and logic circuits), block-diagram analysis and circuitry of power supply, data processor and other components; pulse and signal generators, digital multimeter, waveforms, system analyses, optics, and ancillary equipment. *Version 1:* Does not include vacuum tubes. Note: Students who have completed Modules 201, 202, 203, 4 and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (17 weeks) of the course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (20 weeks) of the course. *Version 2:* Includes electricity fundamentals and instruction processing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in basic electronics for students who complete 17 weeks of the course or 18 semester hours in basic electronics for students who complete 20 weeks of the course (see Note above) (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics for all students (8/77). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 27B; 27Z.

AR-1715-0232

1. Fire Distribution Systems Electronics
2. Fire Distribution Systems Electronics
3. Fire Distribution System Maintenance

Course Number: *Version 1:* 121-F5. *Version 2:* 11-R-F12. *Version 3:* 11-R-F12.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 6-9 weeks (222-352 hours). *Version 2:* 9 weeks (320-352 hours). *Version 3:* 18 weeks (660 hours).

Exhibit Dates: *Version 1:* 4/68-3/81. *Version 2:* 5/63-3/68. *Version 3:* 5/61-4/63.

Objectives: To train enlisted personnel to maintain test equipment and circuits utilized in air defense fire distribution systems.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of test equipment and in electrical and electronics fundamentals, including AC and DC circuits, vacuum tubes, power supplies, synchros, servos, transistor theory and circuits, and mathematics review. *Version 1:* Includes fundamentals of counterinsurgency operations and civil affairs. *Version 3:* Includes pulse and indicator circuitry, theory and application of semiconductors, and analog and digital computer circuitry.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics laboratory (4/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 3:* In the vocational certificate category, 8 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 25D; 25G; 25H; 25J; 25K.

AR-1715-0233

1. Nike Acquisition Radar and Computer Repair (Improved Hercules Transition)
2. Nike Acquisition Radar and Computer Repair (Hercules Transition)

(Nike Acquisition Radar and Computer Repair (Improved Hercules Transition))

Course Number: *Version 1:* 9-S-252.1(TI). *Version 2:* 9-S-252.1(T).

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 11-13 weeks (402-475 hours). *Version 2:* 5 weeks (214 hours).

Exhibit Dates: *Version 1:* 4/61-12/68. *Version 2:* 10/58-3/61.

Objectives: To train enlisted personnel to inspect, test, and maintain the Nike Hercules acquisition radar and computer system.

Instruction: Lectures and practical exercises in operation and repair procedures for transmitters, receivers, indicators, and test equipment; field power system theory of operation and repair procedures; and special field maintenance equipment theory of operation and repair procedures. This is a highly specialized equipment course with very little mathematics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0234

Corporal Electronic Materiel Maintenance

Course Number: 6-N-1192A; 6-N-214.1; 224.3C.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 28-29 weeks (1042-1172 hours).

Exhibit Dates: 6/58-12/68.

Objectives: To train warrant officer and enlisted personnel to assemble, install, adjust, and maintain on-missile electronic guidance control systems and associated test equipment.

Instruction: Lectures and practical exercises in communications and electronics, algebra, trigonometry, vectors, terms and symbols, multimeters, series and parallel DC circuits, Ohm's law, magnetism, AC voltages and currents, oscilloscopes and audio oscillators; R, L, and C combination impedance in AC series and parallel circuits; time constants and resonant circuits; transformers; AC and DC motors and generators and three-phase power; electronic circuit elements, diodes, tubes, and rectifiers; voltage regulators; amplifiers and modulation methods; superheterodyne receivers; radar theory and components; a-f-c circuits and sweep generators; magnetic amplifiers, synchros and automatic control system elements; integrating and differentiating circuits; Corporal missile electronics; beacons, transponders, decoders, servomotors, signal converters, and check-out procedures.

Credit Recommendation: In the vocational certificate category, 24 semester hours in radio and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio and electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in elementary circuit theory (4/74).

AR-1715-0235

Electronic Warfare (EW) Officer

Course Number: 11-A-0144.

Location: Signal School, Ft. Monmouth, NJ.

Length: 7 weeks (254 hours).

Exhibit Dates: 12/62-12/68.

Objectives: To train commissioned officers with two years of college training or comparable field experience in electronics, communications, physics, electrical engineering, or related activities to plan and supervise electronic warfare combat operations and the location, installation, and employment of electronic countermeasures and counter-countermeasures equipment.

Instruction: Lectures and practical exercises in the planning and supervision of electronic warfare combat operations and the location, installation, and employment of electronic countermeasures and counter-countermeasures equipment, including ground and sky wave propagation, UHF and VHF characteristics, satellite communications and jamming techniques, infrared, electronics fundamentals, oscilloscopes, modulation, transmission lines and antennas, types and functions of radars, active and passive ECM systems, and multipurpose jamming equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (4/74).

AR-1715-0236

Hawk Continuous Wave (CW) Radar Repair

Course Number: *Version 1:* 104-23T20. *Version 2:* 104-23T20; 9-S-256.1; 104-256.1. *Version 3:* 9-S-256.1.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 24-28 weeks (813-955 hours). *Version 2:* 28-34 weeks (948-1245 hours). *Version 3:* 20-24 weeks (722-871 hours).

Exhibit Dates: *Version 1:* 3/74-12/75. *Version 2:* 2/63-2/74. *Version 3:* 1/59-1/63.

Objectives: To train enlisted personnel to inspect, test, and repair continuous-wave radar equipment and associated test instruments.

Instruction: *All Versions:* Lectures and practical exercises in continuous-wave radar equipment and associated test instruments inspection, testing, and repair, including system familiarization, troubleshooting and testing specific missile-related hardware items, and equipment and hand tools usage. *Version 1:* Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (24 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (28 weeks) of this course. *Version 2:* Instruction includes elementary mathematics; basic circuit laws; series and parallel DC circuits, batteries, and power supplies; AC circuits, magnetism, Lenz's law, R-L-C combinations with vectorial solutions; transformers and m-g sets; multimeters, oscilloscopes, and VTVMs; series and parallel resonance; transients in R-L and R-C circuits and integrating and differentiating circuits; diodes, filters, triodes, amplifiers, and coupling circuits; sine-wave oscillators, tube testers, and regulated power supplies; heterodyne receivers, r-f amplifiers, and r-f signal sources; mixers, IF stages, AM detectors, and alignment techniques; FM sources, modulation, transmitters, receivers, and discriminators; CRT circuits, pulse circuits, limiters, clampers, sawtooth generators, and multivibrators; semiconductor devices and applications; and CE-CB-CC transistor amplifiers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in basic electricity or electronics for those students completing 24 weeks; or 12 semester hours in basic electricity, electronics or troubleshooting for those students completing 28 weeks (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity or electronics for those students completing 24 weeks; or 3 semester hours in basic electricity or electronics for those students completing 28 weeks (see note above) (5/75). *Version 2:* In the vocational certificate category, 12 semester hours in electric circuits or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electric circuits or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electric circuits or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23T.

AR-1715-0237

1. OPERATIONS CENTRAL REPAIRER (Operations Central Repair)
2. OPERATIONS CENTRAL REPAIR
3. OPERATIONS CENTRAL AND CODER-DECODER GROUP REPAIR

Course Number: *All Versions:* 150-25J10; 150-25J20; 4B-F10. *Version 3:* 150-365.1; 11-N-365.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 22-25 weeks (765-873 hours). *Version 2:* 18-19 weeks (659-684 hours). *Version 3:* 20 weeks (683-725 hours).

Exhibit Dates: *Version 1:* 6/72-10/84. *Version 2:* 2/69-5/72. *Version 3:* 10/63-1/69.

Objectives: To train enlisted personnel to maintain and repair the AN/TSP-38 operations central coder-decoder.

Instruction: *All Versions:* Lectures and practical exercises in AN/TSQ-3C coder-decoder digital circuits, oscillators, multivibrators, blocking oscillators and circuit analysis, missile monitor subsystem specialized training, and instrumentation required for maintenance. *Version 3:* Emphasis is on hands-on equipment maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in basic electricity and electronics and digital fundamentals (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals and 3 in basic electronics laboratory (2/75); in the upper-division baccalaureate category, 3 semester hours as an elective in computer systems (2/75). *Version 2:* In the vocational certificate category, 6 semester hours in digital circuits (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuits (4/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 4 semester hours in digital circuits (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 25J.

AR-1715-0238

CORPORAL GROUND GUIDANCE REPAIR

Course Number: *Version 1:* 9-S-245.1. *Version 2:* 9-R-F19.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 33 weeks (1251 hours). *Version 2:* 23 weeks (847 hours).

Exhibit Dates: *Version 1:* 2/63-12/68. *Version 2:* 7/59-1/63.

Objectives: To train enlisted personnel to inspect, test, maintain, and repair the Corporal ground guidance system.

Instruction: *All Versions:* Lectures and practical exercises in AC and DC circuit fundamentals, vacuum tubes, transistors, electronic circuits, radio circuits, radar principles and test equipment, portable test equipment operation and repair procedures, power supplies, and guidance system subsystems. *Version 1:* Instruction includes electricity and electronics fundamentals. *Version 2:* Instruction is equipment oriented.

Credit Recommendation: *Version 1:* In the vocational certificate category, 16 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0239

NIKE TEST EQUIPMENT REPAIR

Course Number: *Version 1:* 121-22L10. *Version 2:* 121-22L10. *Version 3:* 121-22L20. *Version 4:* 104-22L20; 9-S-F48.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 33-34 weeks (1148-1255 hours). *Version 2:* 32 weeks (1073 hours). *Version 3:* 25-31 weeks (879-1065 hours). *Version 4:* 32-36 weeks (1076-1274 hours).

Exhibit Dates: *Version 1:* 10/79-12/83. *Version 2:* 5/78-9/79. *Version 3:* 5/74-4/78. *Version 4:* 8/64-4/74.

Objectives: To train enlisted personnel to operate, inspect, test, repair, and maintain Nike field maintenance test equipment and Nike air defense guided missile system assemblies.

Instruction: *Version 1:* Lectures and practical exercises in the Nike Air Defense guided missile system, basic AC and DC circuits, transients, vacuum tubes, transistors, power supplies, regulators, amplifiers, oscillators, wave-shaping circuits, receiver principles, micorwave principles, troubleshooting techniques, and standard electronics and special Nike test equipment usage. *Version 2:* Lectures and practical exercises in the Nike Air Defense guided missile system, basic AC and DC circuits, transients, vacuum tubes, transistors, power supplies, regulators, amplifiers, oscillators, wave-shaping circuits, receiver principles, microwave principles, troubleshooting techniques, and standard electronics and special Nike test equipment usage. *Version 3:* Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (25-27 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (31 weeks) of this course.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor theory, 1 in microwave theory, 3 in electronic equipment maintenance, 2 in digital computer fundamentals (2/84). *Version 2:* In the vocational certificate category, 5 semester hours in electronics equipment repair techniques (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor theory, 2 in vacuum tube circuits theory, 1 in microwave theory, and 3 in circuit electronics laboratory (8/79). *Version 3:* In the vocational certificate category, 21 semester hours in basic electricity, electronics and troubleshooting for those students completing 31 weeks; 18 semester hours in basic electronics for those students completing 25-27 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity and electronics for those students completing 31 weeks (see note above) (3/75). *Version 4:* In the vocational certificate category, 18 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 21L.

AR-1715-0240

Supervisory Radar Repair

Course Number: 104-26F40.

Location: Signal School, Ft. Monmouth, NJ.

Length: 25 weeks (932 hours).

Exhibit Dates: 4/66–12/68.

Objectives: To train radar mechanics and ground radar repairmen to supervise nonintegrated radar maintenance personnel.

Instruction: Lectures and practical experience in AC and DC circuit fundamentals, advanced electronic circuitry, microwave equipment operation and measurement procedures, digital computer systems and circuitry, supervisory and instructional techniques, and operation and maintenance procedures for various radars.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, 3 in microwaves, 3 in computer systems (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, 3 in maintenance management (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, 3 in maintenance management, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0241

Guided Missile Installation
Electrical Equipment Repair

Course Number: 5-E-63.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (445 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to operate and maintain guided missile electrical equipment and to troubleshoot and repair gasoline and diesel engines, air conditioning equipment, and specialized guided missile hydraulic equipment.

Instruction: Lectures and practical exercises in guided missile electrical equipment operation and maintenance, electrical fundamentals, circuit analysis, including meters, magnetism, AC generators, control circuits, frequency convertors and motors; and troubleshooting, repair, and overhaul of internal-combustion engines, air conditioning units, and hydraulic controls.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory, 3 in internal-combustion engines, 2 in air conditioning, 2 in introduction to hydraulics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, 2 in internal-combustion engines, 2 in air conditioning, 1 in introduction to hydraulics (4/74).

AR-1715-0242

Radar Data Processing Center Repair

Course Number: 4C-F5; 150-25H20; 11-N-364.2.

Location: Air Defense School, Ft. Bliss, TX.

Length: 28–31 weeks (968–1086 hours).

Exhibit Dates: 11/63–3/81.

Objectives: To train warrant officers and enlisted personnel to test, troubleshoot, and repair radar data processing center equipment.

Instruction: Lectures and practical exercises in binary numbers, basic logic elements and circuits, oscilloscopes, semiconductor circuits review, digital circuits and digital testers, processing center power supplies, memory drum and read-write circuitry, data conversion equipment, display equipment, tracking equipment, buffers, digital data transmitters and receivers, and system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer maintenance, and credit in electronics or electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer maintenance, and credit in electronics or electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 25G; 25H; 25Z; 211A.

AR-1715-0243

Corporal Mechanical Materiel
Maintenance
(Missile Mechanical Materiel Maintenance, Corporal)

Course Number: 6-R-164.3; 6-R-222.2A; 6-E-42.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 8 weeks (276–336 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train enlisted personnel to assemble, install, maintain, and adjust Corporal mechanical, on-missile, guidance control systems and associated test equipment, and to assemble missiles and check Corporal propulsion and mechanical systems.

Instruction: Lectures and practical exercises in the assembly, installation, maintenance, and adjustment of Corporal mechanical, on-missile, guidance control systems and associated test equipment, and the assembly of missiles and check-out of Corporal propulsion and mechanical systems, including basic electricity, various circuits, test equipment, motors and generators, tactics and combined arms, artillery transport, and specific equipment maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electricity (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity (4/74).

AR-1715-0244

Redstone Mechanical Materiel
Maintenance

Course Number: 6-R-169.1; 6-R-222.2B.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 8–10 weeks (261–418 hours).

Exhibit Dates: 7/57–12/68.

Objectives: To train enlisted personnel to assemble, install, and maintain Redstone mechanical guidance and control systems and associated test equipment; to perform checks on Redstone propulsion, pneumatic, and mechanical systems; and to operate and supervise maintenance of Redstone servicing equipment.

Instruction: Lectures and practical exercises in the assembly, installation, and maintenance of Redstone on-missile guidance and control systems and associated test equipment; propulsion, pneumatic, and mechanical systems; and operation and supervision of Redstone servicing equipment maintenance, including basic electricity (Ohm's law, AC and DC, motors and generators, series and parallel circuits) and operation of electrical test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electricity (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity (4/74).

AR-1715-0245

Specialized Teletypewriter
Equipment Repair

Course Number: *Version 1:* 160-ASIB3; 160-F1. *Version 2:* 160-F1. *Version 3:* 11-R-F22. *Version 4:* 11-R-F22.

Location: Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 10 weeks (380 hours). *Version 2:* 10–13 weeks (373–480 hours). *Version 3:* 7 weeks (256 hours). *Version 4:* 6 weeks (217–219 hours).

Exhibit Dates: *Version 1:* 6/78–1/88. *Version 2:* 11/68–5/78. *Version 3:* 9/67–10/68. *Version 4:* 7/62–8/67.

Objectives: To train enlisted security agency teletype equipment repairmen to install, maintain, and repair specialized teletypewriter equipment.

Instruction: *Version 1:* Lectures and practical exercises in the installation, maintenance, and repair of specialized teletypewriter equipment, including operation and troubleshooting of keyboards. Practical exercises in the repair of specialized teletypewriter equipment (KSR-37), including power supplies, drivers, logic distributor, speed shift and parity circuits. *Version 2:* Lectures and practical exercises in the installation, maintenance, and repair of specialized teletypewriter equipment, including operation and troubleshooting of keyboards, reperforators, typing units, wire distributors, time sequence generators, power and signal circuitry, control circuits, transmission and channel components, and logic modules (if present) and associated test equipment of specialized and modified teletypewriter equipment. *Version 3:* Lectures and practical exercises in the installation, maintenance, and repair of specialized teletypewriter equipment, including operation and troubleshooting of keyboards, reperforators, typing units, wire distributors, time sequence generators, power and signal circuitry, control circuits, transmission and channel components, and logic modules (if present) and associated test equipment of specialized and modified teletypewriter equipment. *Version 4:* Lectures and practical exercises in the installation, maintenance, and repair of specialized teletypewriter equipment, including operation and troubleshooting of keyboards, reperforators, typing units, wire distributors, time sequence generators, power and signal circuitry, control circuits, transmission and channel components, and logic modules (if present) and associated test equipment of specialized and modified teletypewriter equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in teletypewriter repairer (8/79). *Version 2:* In the vocational certificate category, 3 semester hours as an elective in electricity or electronics (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in electricity or electronics (5/74). *Version 3:* In the vocational certificate category, 2 semester hours as an elective in electricity or electronics (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electricity or electronics (5/74). *Version 4:* In the vocational certificate category, 1 semester hour as an elective in electricity or electronics (5/74).

Related Occupation Codes: 31J.

AR-1715-0246

1. Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Intermediate
2. Ballistic Missile Maintenance Technician (Sergeant)
3. Ballistic Missile Maintenance Technician (Sergeant)

Course Number: *Version 1:* 4-9-C30-H; 4F-241E-A. *Version 2:* 4F-241E; 122-F2; 2F-241E. *Version 3:* 9-N-241E; 9-N-F25.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 20 weeks (717 hours). *Version 2:* 39 weeks (1386-1414 hours). *Version 3:* 23-46 weeks (856-1705 hours).

Exhibit Dates: *Version 1:* 8/70-12/71. *Version 2:* 5/65-7/70. *Version 3:* 3/61-4/65.

Objectives: To train warrant officers who are field artillery missile system technicians, enlisted personnel who have taken an electronic field maintenance course, warrant officers who have training in basic electricity and electronics, or warrant officers who have taken a missile maintenance supervision course to test, inspect, and repair Sergeant missile systems and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in testing, inspection, and repair of Sergeant missile systems and associated equipment, including supply procedures, nuclear warfare, shop procedures, soldering techniques, electrical test equipment and Sergeant missile system components. *Version 1:* Includes maintenance management; map and aerial photography reading and intelligence; mine warfare; chemical, biological, and radiological warfare; weaponry; and signal communication. *Version 2:* Includes logistics; electronic subjects (transistors, semiconductors, DC amplifiers, oscillators and multivibrators, power supplies, gating circuits, digital controllers logic, programming, and maintenance); mechanical, hydraulic, and electrical components; and ballistic missile inertial guidance and control equipment repair. *Version 3:* Includes solid-state devices, transistors, power supplies, digital and analog computers, and amplifiers; firing set operation and computer; missile digital control; and mechanical, hydraulic, and electrical components of Sergeant missile systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

Related Occupation Codes: 241E; 214E.

AR-1715-0247

Radio Teletype Operator Skill Development Base

Course Number: 201-05C40-I.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 13 weeks (484 hours).

Exhibit Dates: 7/68-12/73.

Objectives: To train enlisted personnel to operate and supervise the operations of a radio teletype.

Instruction: Lectures and practical exercises in the operation of a radio teletype and the supervision of such activities. Course includes leadership training, small-unit tactics, tactical field exercises, general military subjects, organization and employment of signal units, signal systems planning and control, tactical radio communications supervision, and advanced communications operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

Related Occupation Codes: 05C.

AR-1715-0248

Teletype Interception

Course Number: 231-05K20.

Location: Security Agency School, Ft. Devens, MA.

Length: 11 weeks (432 hours).

Exhibit Dates: 1/66-9/86.

Objectives: To train enlisted personnel to inspect, maintain, interconnect, and operate all equipment associated with a radio teletypewriter terminal.

Instruction: Lectures and practical exercises in the operation of a radio teletypewriter terminal. Course includes teletypewriter familiarization and operation, and location and repair of system malfunctions. The course does not provide instruction in electrical and mechanical systems repair.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

Related Occupation Codes: 05K.

AR-1715-0249

Corporal Maintenance Supervision
(Guided Missile Systems Maintenance Supervision (Corporal))
(Guided Missile Systems Maintenance Supervisors, Corporal II)

Course Number: 9-N-4812; 9-OE-70.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 43 weeks (1582-1602 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train commissioned and warrant officers and enlisted personnel who have previous technical training to perform as Corporal II guided missile systems maintenance officers.

Instruction: Lectures and practical exercises on the supervision of the maintenance of the Corporal II guided missile systems and associated equipment, including ordnance service in the field, radar set AN/MPQ-25, computer group AN/MSA-6, radio set AN/MRQ-7 (Doppler), mechanical systems and ground handling equipment, Corporal propellants and internal guidance, ordnance guided missile maintenance in the field, ground guidance, missile and Corporal systems analysis.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity, electronics, or electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity, electronics, and electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 223B; 223D; 251D; 271A.

AR-1715-0250

Field Artillery Radar Crew Member
(Field Artillery Radar Operator
(Field Artillery Radar Crewman)
(Counterbattery/Countermortar Radar Crewman)
(Field Artillery Radar Operation)

Course Number: 221-17B10; 221-17B10 (ST); 221-17B20; 6-R-156.1; 6-R-211.1; 6-E-22.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* Group-paced 7-8 weeks (262 hours). *Version 2:* Self-paced 6-12 weeks (209-426 hours).

Exhibit Dates: *Version 1:* 10/84-Present. *Version 2:* 5/56-9/84.

Objectives: To train enlisted personnel to operate and perform preventive maintenance on field artillery radar.

Instruction: Lectures and practical exercises in field artillery radar operation and preventive maintenance, including radar site evaluation; equipment emplacement, adjustment, calibration, and orientation; radar gunnery exercises; maintenance procedures; and map reading and plotting routines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in map reading and 1 in radar operations (11/85). *Version 2:* Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 17B; 09B.

AR-1715-0251

Microwave Radio Officer

Course Number: 4C-0503; 11-O-32.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12-14 weeks (432-492 hours).

Exhibit Dates: 9/55-12/67.

Objectives: To train commissioned officers who have completed the signal officer orientation course or its equivalent to perform as microwave radio officers.

Instruction: Lectures and practical exercises on direction and supervision of installation, operation and organizational maintenance of microwave radio and tactical tropospheric scatter equipment, including microwave communications; transportable microwave equipment and systems; specific receivers and transmitters; antennas, radiowave propagation and frequency management; electronic countermeasures; satellite communications; and specific receiving multiplex, RF unit, transmitting multiplex, control units, and systems operation.

Credit Recommendation: In the vocational certificate category, credit in electricity, electronics and electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0252

FIELD ARTILLERY RADAR OFFICER
(Field Artillery Radar)

Course Number: 6-A-0140; 6-O-10.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 3-7 weeks (136-319 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train officers in field artillery radar operation, maintenance, and employment.

Instruction: Lectures and demonstrations in field artillery radar operation, maintenance, and employment, including target acquisition, fire direction, position fixing and vectoring of light Army aircraft, observation techniques, tactics, communications systems, and electronics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AR-1715-0253

1. DIGITAL SUBSCRIBER TERMINAL EQUIPMENT (DSTE) REPAIRER
2. DIGITAL SUBSCRIBER TERMINAL EQUIPMENT (DSTE) REPAIR
3. AUTOMATIC DATA PROCESSING (ADP) REPAIR, PHASE VII—DIGITAL SUBSCRIBER TERMINAL EQUIPMENT (DSTE) REPAIR
   (Digital Subscriber Terminal Equipment (DSTE) Repair)
4. DIGITAL SUBSCRIBER TERMINAL EQUIPMENT (DSTE) REPAIR

Course Number: *Version 1:* 150-29G10; 150-34F20. *Version 2:* 150-34F20. *Version 3:* 150-34D20 (Phase VII). *Version 4:* 150-34D20; 622-F11.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Communications Electronics School, Ft. Monmouth, NJ; Signal School, Ft. Gordon, GA. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 23-24 weeks (849-853 hours). *Version 2:* 20 weeks (1066-1115 hours). *Version 3:* 20 weeks (745 hours). *Version 4:* 16-19 weeks (602-716 hours).

Exhibit Dates: *Version 1:* 12/77-1/90. *Version 2:* 3/75-1/77. *Version 3:* 8/73-2/75. *Version 4:* 8/68-7/73.

Objectives: To train senior technicians to operate, maintain, and repair subscriber terminals of digital communications systems.

Instruction: *Version 1:* Practical exercises in the troubleshooting and repair of digital subscriber terminal equipment. *Version 2:* Lectures and practical exercises in subscriber terminal of digital communications systems operation, maintenance, and repair, including computer data processing and transmission, terminal systems, control keyboards, paper tape and card equipment, forward techniques, computer logic, and control techniques. Topics deal specifically with the digital subscriber terminal equipment. *Version 3:* Lectures and practical exercises in subscriber terminal of digital communications systems operation, maintenance, and repair, including computer data processing and transmission, terminal systems, control keyboards, paper tape and card equipment, forward techniques, computer logic, and control techniques. *Version 4:* Lectures and practical exercises in subscriber terminal of digital communications systems operation, maintenance, and repair, including computer data processing and transmission, terminal systems, control keyboards, paper tape and card equipment, forward techniques, computer logic and control techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in computer peripheral equipment repair (10/86). *Version 2:* In the vocational certificate category, 6 semester hours in digital circuits (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming and 3 semester hours in computer equipment laboratory (4/77). *Version 3:* In the vocational certificate category, 6 semester hours in digital circuits and 2 in digital circuits laboratory (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits laboratory (5/75). *Version 4:* In the vocational certificate category, 3 semester hours in digital communications, 3 in terminal equipment and 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications, 2 in electrical laboratory, and 3 in terminal equipment on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, 3 semester hours in digital communications, 2 in electrical laboratory (6/74).

Related Occupation Codes: 29G; 09B; 34F; 34D.

AR-1715-0254

COMMUNICATIONS-ELECTRONICS SYSTEMS ENGINEER

Course Number: 4C-7750.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 53 weeks (1767 hours). *Version 2:* 50 weeks (1690 hours).

Exhibit Dates: *Version 1:* 3/73-12/86. *Version 2:* 6/70-2/73.

Objectives: To train communications and electronics officers in communications and electronic systems planning and engineering.

Instruction: *All Versions:* Lectures and practical exercises in communications and electronic systems planning and engineering, including mathematics review, basic electronics review; radio electronics; transmission system fundamentals; and principles and operation of AM, FM, TV, data communications, and telephone communications systems. *Version 1:* Lectures and practical exercises in subscriber terminal of digital communications systems operation, maintenance, and repair, including computer data processing and transmission, terminal systems, control keyboards, paper tape and card equipment, forward techniques, computer logic, and control techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in technical mathematics (5/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic communication theory, 3 in electronics, and 2 in electronics laboratory (5/75); in the upper-division baccalaureate category, 3 semester hours in electronic communication theory (5/75). *Version 2:* In the vocational certificate category, 1 semester hour in college algebra, 2 in general electronics, 3 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in college algebra, 2 in general electronics, 3 in radio electronics, 3 in electronics laboratory, 9 in telecommunications system engineering, 3 in telecommunications laboratory (4/74); in the upper-division baccalaureate category, 1 semester hour in college algebra, 2 in general electronics, 3 in radio electronics, 3 in electronics laboratory, 9 in telecommunications system engineering, 3 in telecommunications laboratory (4/74).

AR-1715-0255

1. SURFACE-TO-AIR MISSILE (SAM) SYSTEM MAINTENANCE (NIKE) WARRANT OFFICER INTERMEDIATE
2. AIR DEFENSE MISSILE MAINTENANCE TECHNICIAN (NIKE)
   (Nike Air Defense Missile Repair)
   (Nike Maintenance Supervision)
   (Nike Maintenance Supervision (Ajax/Hercules))
   (Guided Missile Maintenance Supervision, Nike)

Course Number: *Version 1:* 4-9-C30-G; 4F-251B-A. *Version 2:* 4F-251B; 122-F4; 9-N-251B; 9-N-4811; 9-OE-69.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL; Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 20 weeks (726 hours). *Version 2:* 41-55 weeks (1516-2051 hours).

Exhibit Dates: *Version 1:* 11/71-12/75. *Version 2:* 1/56-10/71.

Objectives: To train warrant officers and enlisted personnel to supervise Nike guided missile systems and associated equipment maintenance.

Instruction: Lectures and practical exercises in Nike guided missile systems and associated test equipment maintenance, including AC and DC distribution; basic electronics, including power supplies, multimeter, counters, and oscilloscopes; preventive medicine; chemical, biological and radiological identification and decontamination; leadership training; and management practices and techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electrical shop (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical shop (12/68); in the upper-division baccalaureate category, 3 semester hours in electrical shop (3/74).

Related Occupation Codes: 251B; 222B.

AR-1715-0256

AIR DEFENSE ARTILLERY (ADA) AUTOMATIC WEAPONS REPAIR

Course Number: 121-16F30; 642-45F20-A.

Location: Air Defense School, Ft. Bliss, TX.

Length: 4-5 weeks (156-177 hours).

Exhibit Dates: 6/66-3/81.

Objectives: To train enlisted personnel as artillery mechanics.

Instruction: Lectures and practical exercises in organizational maintenance of unit small arms and air defense artillery automatic weapons, including small arms and general subjects; .50 caliber machine gun and M55 mount; power drive unit and variable response; troubleshooting; twin 40mm gun, self-propelled M42; field stripping; M38 computing sight; automatic weapons firing; organizational maintenance procedures; and maintenance, lubrication, inspection, and troubleshooting of specific guns and mounts.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 16F.

AR-1715-0257

Telephone and Teletypewriter
Equipment Repair

Course Number: 11-E-30.

Location: Signal School, Ft. Monmouth, NJ.

Length: 14-15 weeks (560-600 hours).

Exhibit Dates: 11/53-12/68.

Objectives: To qualify enlisted personnel as telephone and teletypewriter equipment mechanics.

Instruction: Lectures and practical exercises in the repair of telephone and teletypewriter equipment, including repair of telephone subsets, monocord switchboards, multicord switchboards, power equipment, PBX switchboards, non-multiple C.B. switchboards, and multiple C.B. switchboards; telephone and teletypewriter repair shop procedures; field training; and repair, testing, and troubleshooting of associated equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in telephone and teletype repair, and credit in electrical laboratory on the basis of institutional evaluation (6/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0258

Nuclear Weapons Maintenance
(Entry)
(Atomic Weapons Electronics (Entry))

Course Number: 9-R-260.0; 9-E-55.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (434-440 hours).

Exhibit Dates: 9/56-12/68.

Objectives: To train enlisted personnel as atomic weapons electrical assembly helpers.

Instruction: Lectures and practical exercises in electronics and in the repair of atomic weapons systems and equipment, including supply procedures and catalogs, electrical fundamentals, use of Ohm's law formulas and measurements using TS-352, induction, AC and DC motors and generators, electronics as applied to basic receivers, diode vacuum tubes, alignment of a superheterodyne receiver, electronics as applied to basic transmitters, nonsinusoidal circuitry, and radio set AN/VRC-19.

Credit Recommendation: In the vocational certificate category, 6 semester hours in radio and electronics, 3 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0259

Radar and Countermeasures
Equipment Repair Officer

Course Number: 11-0-19.

Location: Signal School, Ft. Monmouth, NJ.

Length: 18 weeks (632-660 hours).

Exhibit Dates: 9/56-12/68.

Objectives: To train commissioned and warrant officers to direct and supervise maintenance and repair of radar and electronic countermeasures equipment.

Instruction: Lectures and practical exercises in the supervision of radar and electronic countermeasures equipment repair. Topics include AC/DC networks, resonance and transients, vacuum tube electronics including amplifiers, cathode followers, sweep circuits, pulse and microwave circuits, and functional block-diagram analysis of radar systems. Instruments used include multimeters, oscilloscopes, audio oscillators, signal generators, frequency meters, and pulse generators.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-electrical engineering majors, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0260

1. Teletypewriter Repairer
2. Teletypewriter Repairman
3. Teletypewriter Equipment Repair
4. Teletypewriter Equipment Repair
(Teletypewriter Equipment
Maintenance)

Course Number: *Version 1:* 160-29J10; 160-31J10. *Version 2:* 160-31J20. *Version 3:* 160-31J20. *Version 4:* 11-R-341.1; 11-R-340.0; 11-E-11.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA. *Version 4:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 20-21 weeks (730-787 hours). *Version 2:* 15-21 weeks (543-766 hours). *Version 3:* 21-25 weeks (771-930 hours). *Version 4:* 18-20 weeks (703-736 hours).

Exhibit Dates: *Version 1:* 10/78-12/88. *Version 2:* 5/77-9/78. *Version 3:* 9/66-4/77. *Version 4:* 12/53-8/66.

Objectives: To train maintenance personnel to install, troubleshoot, and repair teletypewriter systems.

Instruction: For this course after 12/88 see AR-1715-0848. *Version 1:* Lectures and laboratory in installing, troubleshooting, and repairing six different teletypewriter systems. These systems include electrical and mechanical components. *Version 2:* Lectures and laboratory in communications introduction; teletypewriter fundamentals; installation of teletypewriter systems, field and depot shop maintenance. Note: Students who have completed Modules 202, 4 and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (15 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (21 weeks) of this course. *Version 3:* Lectures and laboratory in communications introduction; teletypewriter fundamentals; installation of teletypewriter systems; field and depot shop maintenance. Includes facsimile equipment. *Version 4:* Lectures and laboratory in communications introduction; teletypewriter fundamentals; installation of teletypewriter systems; field and depot shop maintenance. Includes introductory electricity.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in teletype repair (7/85). *Version 2:* In the vocational certificate category, 5 semester hours in teletype repair, 1 in facsimile repair, 2 in electrical laboratory for students who complete 15 or 21 weeks of the course (see Note above). *Version 3:* In the vocational certificate category, 5 semester hours in teletype repair, 1 in facsimile repair, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 4:* In the vocational certificate category, 1 semester hour in basic electricity, 5 in teletype repair, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 2 in electrical laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in basic electricity, 2 in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (6/74).

Related Occupation Codes: 29J, 31J, 09B.

AR-1715-0261

Signal Field Grade Officer Refresher

Course Number: 11-A-C8.

Location: Signal School, Ft. Monmouth, NJ.

Length: 4 weeks (140 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To qualify commissioned officers as signal field grade officers.

Instruction: Lectures and demonstrations in methods and system design of telephone and radio link communications. Topics include basic telephone circuits, automatic switching, cable layout and loading, repeater and microwave links, and communications center operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone and radio systems (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in telephone and radio systems on the basis of institutional evaluation (6/74).

AR-1715-0262

Field and Fixed Station Radio
Officer

Course Number: 11-A-0501; 11-A-0502; 11-O-26.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11 weeks (394-398 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train commissioned officers to direct and supervise the installation, operation, and organizational maintenance of field and fixed station radio equipment.

Instruction: Lectures and practical exercises in basic fundamentals of electricity and radio communications. Topics include AC and DC fundamentals, vacuum tubes and amplifiers, CW and AM transmitters, AM and FM receivers, antennas, field radio sets, radio relay, tactical radio net operations, fixed station operations and servicing procedures, electronic countermeasures, and radiotelegraph operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in

electricity, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity, 2 in electrical laboratory, all on the basis of institutional examination (6/74); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (12/68).

AR-1715-0263

Emergency Action Console Repair

Course Number: 622-ASIN4; 622-F13.

Location: Signal School, Ft. Monmouth, NJ; Signal School, Ft. Gordon, GA.

Length: 8-9 weeks (288-324 hours).

Exhibit Dates: 3/70-10/87.

Objectives: To train enlisted dial central office repairmen to operate and maintain the emergency action console.

Instruction: Lectures and practical exercises in emergency action console repair, including description and function of emergency action console; operator's console and recorder; console register line identification and access; equipment interface with EAC, systems analysis and strapping procedures; supervisory and power equipment; distribution system and fault analysis; systems training; strapping of a specific register and marker; and system review and common control troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/86).

Related Occupation Codes: 36H.

AR-1715-0264

Area Communications Systems Operations

Course Number: *All Versions:* 580-31Z40. *Version 2:* 11-R-727.7.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 15 weeks (547 hours). *Version 2:* 18-19 weeks (666-727 hours).

Exhibit Dates: *Version 1:* 5/74-12/86. *Version 2:* 8/60-4/74.

Objectives: To train enlisted personnel as area communications chiefs.

Instruction: Lectures and practical exercises in the supervision, installation, operation, and maintenance of an integrated area communications system, including concept and application of area communications systems; communications system for combat and support elements; forward-area communications; division command communications; airborne and airmobile division communications; division, corps, and army radio nets; corps and army communications; and theater communications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic telecommunications electricity or electronics (5/75). *Version 2:* In the vocational certificate category, 4 semester hours in business organization and management, 4 in wire and radio communications (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management, 4 in wire and radio communications (6/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, and credit in wire and radio communication on the basis of institutional evaluation (12/68).

Related Occupation Codes: 31Z.

AR-1715-0265

Regular Army Signal Officer Basic

Course Number: 4-11-C20RA.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 6 weeks (222 hours).

Exhibit Dates: 6/67-1/88.

Objectives: To qualify commissioned officers as signal officers.

Instruction: Lectures and practical exercises in the basics of radio and telephone communications systems. Topics include communications center operations, wire communications, radio communications, applied communications, and general military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radio and telephone communications systems (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio and telephone communications systems (6/74); in the upper-division baccalaureate category, 3 semester hours in military science (12/68).

AR-1715-0266

Telephone and Teletypewriter Officer

(Wire Communications Officer)

Course Number: 4C-0400; 11-A-0400.

Location: Signal School, Ft. Monmouth, NJ.

Length: 11-14 weeks (484-494 hours).

Exhibit Dates: 4/57-1/78.

Objectives: To train officers to perform as telephone and teletypewriter officers.

Instruction: Lectures and practical exercises in supervision, management, planning, installation, operation, and maintenance of telephone, teletypewriter and carrier facilities, equipment, and systems; including signal center operations; mathematics for communications-electronics; electrical fundamentals; telephone transmission principles; outside-plant principles and practices; telephone systems and equipment; fundamentals of facsimile systems; carrier transmission systems and equipment; radio communications; and ground mobile communications equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in telecommunications, and additional credit in telecommunications on the basis of institutional evaluation (6/74).

AR-1715-0267

Defense Special Security Communications System Operator

Course Number: 260-ASI B9(72E), 260-ASIB9/580-F2.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 2-3 weeks (66-118 hours).

Exhibit Dates: 8/73-10/87.

Objectives: To train enlisted personnel to operate the Defense Special Security Communications System (DSSCS).

Instruction: Lectures and practical exercises in the operation of a defense special security communications system (DSSCS) terminal. Topics include message preparation, log messages, Baudot five-level teletypewriter code (with emphasis on scanning for format), and operation of the message header generator. and operation of the message header generator.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/85).

Related Occupation Codes: 72B; 72F.

AR-1715-0268

Telephone-Digital Communications Officer

Course Number: 4C-25C; 4C-26C; 4C-0405.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 11-13 weeks (345-440 hours). *Version 2:* 11-13 weeks (452 hours).

Exhibit Dates: *Version 1:* 4/75-12/86. *Version 2:* 3/73-3/75.

Objectives: To train officers to supervise, manage, plan, install, operate, and maintain telephone, teletypewriter, and carrier equipment, facilities, and systems.

Instruction: Lectures and practical exercises in the operation and maintenance of telephone and digital communications. Course includes basic electronics and mathematics as applied to the repair of telephone equipment and systems; teletypewriter equipment and systems; carrier and ground mobile communications equipment and systems; communications security; communications-electronics systems engineering; and maintenance management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electronics and telecommunications (5/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and telecommunications and 1 in electronics laboratory (5/75). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity, 3 in electronics, 3 in telephone systems (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in electronics, and, on the basis of institutional evaluation, 3 in telephone systems (6/74); in the upper-division baccalaureate category, 3 semester hours in basic electricity, and 3 in electronics on the basis of institutional evaluations (6/74).

AR-1715-0269

Aircraft Fire Control Repair

Course Number: 112-35J20.

Location: Transportation School, Ft. Eustis, VA; Ordnance School, Aberdeen Proving Ground, MD.

Length: 16-20 weeks (496-697 hours).

Exhibit Dates: 9/70-7/76.

Objectives: To train enlisted personnel as aircraft fire control repairmen.

Instruction: Lectures and practical exercises in direct and general support maintenance of fire control systems, aircraft armament subsystems electronic components, and system-peculiar test equipment, including helicopter armament subsystem repair; M5 helicopter armament subsystem; LOH and UH-1 helicopter armament subsystems; AH-1G helicopter armament subsystems; fire control systems review and maintenance; solid-state circuitry; applied electronics; rocket control and display subsystem; and optics. Note: Students who have completed Modules 201, 202, 203 and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete Phases II and III (15 weeks). See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete Phases I, II, and III for 21 weeks.

Credit Recommendation: In the vocational certificate category, 4 semester hours in

electricity and electronics (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (6/75); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/75).

Related Occupation Codes: 35J.

AR-1715-0270

SIGNAL OFFICER FAMILIARIZATION

Course Number: 11-A-C21.

Location: Signal School, Ft. Monmouth, NJ.

Length: 6 weeks (212-220 hours).

Exhibit Dates: 3/60-12/68.

Objectives: To train officers in the organization, operational functions, duties and responsibilities of the Signal Corps.

Instruction: Lectures and practical exercises in the organization, operational functions, duties and responsibilities of the Signal Corps, including logistics, automatic data processing systems, organization and tactics, radio communications, telephone communications, communications center operations, signal plans and operations, electronic warfare, equipment use within the army signal battalions, and CONUS logistical support to a theater of operations.

Credit Recommendation: In the upper-division baccalaureate category, Credit in radio and wire communications on the basis of institutional evaluation (12/68).

AR-1715-0271

TECHNICAL EVALUATION PROGRAM (TEP) TRAINING

Course Number: 101-F13.

Location: Signal School, Ft. Gordon, GA.

Length: 10-11 weeks (357-381 hours).

Exhibit Dates: 10/75-1/88.

Objectives: To provide students with the techniques required to perform technical and operational measurements, analysis, and evaluation of communications equipment.

Instruction: Instruction covers testing procedures and microwave system operation and testing procedures, including some basic mathematics, noise and level measurements distortion, noise power, frequency response, gain, and other communications-system-related evaluation procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in microwave communications systems (4/77).

Related Occupation Codes: 26V; 26Y; 32D; 32E.

AR-1715-0272

1. TACTICAL MICROWAVE SYSTEMS REPAIR
2. TACTICAL MICROWAVE SYSTEMS REPAIR
3. TACTICAL MICROWAVE SYSTEMS REPAIR
4. MICROWAVE RADIO EQUIPMENT REPAIR
5. MICROWAVE RADIO EQUIPMENT REPAIR

Course Number: *Version 1:* 101-26L20. *Version 2:* 101-26L20. *Version 3:* 101-26L20. *Version 4:* 11-R-281.1; 11-E-24. *Version 5:* 11-E-24.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ. *Version 4:* Signal School, Ft. Monmouth, NJ. *Version 5:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 23-29 weeks (847-1070 hours). *Version 2:* 36 weeks (1352 hours). *Version 3:* 28 weeks (1048 hours). *Version 4:* 28-30 weeks (1040-1116 hours). *Version 5:* 26 weeks (1040 hours).

Exhibit Dates: *Version 1:* 9/74-12/78. *Version 2:* 11/71-8/74. *Version 3:* 11/68-10/71. *Version 4:* 11/55-10/68. *Version 5:* 1/54-10/55.

Objectives: To train enlisted personnel to operate, install, and repair tactical microwave radio systems.

Instruction: *All Versions:* Lectures and laboratory in tactical microwave radio systems installation, operation, and repair, including electrical fundamentals, audio amplifier basics, electronic devices and circuits, elements of electronic communications, microwave techniques, and electronic principles applied to specific equipment. *Version 1:* Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (23 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (29 weeks) of this course. *Version 2:* Instruction includes solid-state devices. *Version 3:* Instruction includes solid-state devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory for those students completing 23 weeks; or 3 semester hours in basic electronics for students completing 29 weeks (see above) (5/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 1 in electronics laboratory for those students completing 23 weeks; or 5 semester hours in basic electronics and 1 in electronics laboratory for those students completing 29 weeks (see above) (5/75). *Version 2:* In the vocational certificate category, 15 semester hours in electronic communications, 5 in electronic communications laboratory (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic communications, 3 as an elective in electronic communications, 3 in electronic communications laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications on the basis of institutional evaluation (6/74). *Version 3:* In the vocational certificate category, 15 semester hours in electronic communications, 5 in electronic communications laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications on the basis of institutional evaluation (6/74). *Version 4:* In the vocational certificate category, 12 semester hours in electronic communications, 4 in electronic communications laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications on the basis of institutional evaluation (6/74). *Version 5:* In the vocational certificate category, 12 semester hours in electronic communications, 4 in electronic communications laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity, 6 in radio (12/68); in the upper-division baccalaureate category, 3 semester hours as elective in electronic communications on the basis of institutional evaluation (6/74).

Related Occupation Codes: 26L.

AR-1715-0273

ARTILLERY COMMUNICATIONS OFFICER

Course Number: 6-A-0200; 6-B-0200; 6-O-6.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 12-15 weeks (457-640 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train officers in artillery communications.

Instruction: Lectures and practical exercises in the supervision and coordination of the installation, operation, and maintenance of artillery communication equipment and systems, including radiotelephone procedures and security, fundamentals of electricity and radio, wire communications, FM and AM equipment, signal supply operations and maintenance prodedures, radiotelegraph, radio teletypewriter procedures, message center procedures and cryptography, field artillery communication system, and maintenance of computers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity and radio operation and maintenance, 1 in electrical laboratory (6/74).

AR-1715-0274

CORPORAL OFFICER

Course Number: 6-A-1190A; 6-A-1190.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 10 weeks (344-412 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train commissioned officers in the capabilities, limitations, and operation of a specific missile and its equipment.

Instruction: Lectures and practical exercises in the operation of the Corporal missile. Topics include artillery transport, communications and electronics, gunnery, equipment and accessories, tactics and combined arms, and target acquisition. Course contains a limited coverage of electrical circuit fundamentals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (6/74).

AR-1715-0275

CORPORAL MAINTENANCE OFFICER

Course Number: 6-A-1191; 6-O-41.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 32-33 weeks (1366-1436 hours).

Exhibit Dates: 10/56-12/68.

Objectives: To train artillery officers in Corporal maintenance.

Instruction: Lectures and practical exercises in the function, technical operations, characteristics, maintenance, and inspection of Corporal fire control systems, launching and handling equipment, and on-missile material, including communications and electronics; mathematics; fundamentals of electricity; radio electronics; radar electronics; target acquisition; AN/MPQ-25 radar; Doppler; AN/MSA-6 computer; emplacement and loop checks; Corporal missile components, test equipment, and check-out and firing procedures; propulsion system, uncrating assembly, and service area check-out; and Corporal atomic warhead.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

AR-1715-0276

AN/TPQ-21 Hawk Guided Missile System Simulator Maintenance

Course Number: 121-24F30; 4F-F6; 121-F10; 44-R-F42.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8–9 weeks (305–348 hours).

Exhibit Dates: 7/64–11/76.

Objectives: To train enlisted personnel to operate, adjust, and maintain a guided missile system simulator.

Instruction: Lectures and practical exercises in guided missile system simulator operation, adjustment and maintenance, including AC and DC control circuits, control console, countermeasures console, system analysis, operating procedures, programming, transistors, safety and test equipment, power system, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (6/74).

Related Occupation Codes: 24F.

AR-1715-0277

Avionic Equipment Maintenance Supervisor

Course Number: 102-35P40.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 19 weeks (702 hours). *Version 2:* 22 weeks (826 hours).

Exhibit Dates: *Version 1:* 10/67–12/68. *Version 2:* 5/66–9/67.

Objectives: To train enlisted personnel as avionic equipment maintenance supervisors.

Instruction: Lectures and practical exercises in advanced maintenance techniques and maintenance supervision of avionic equipment, including advanced electronics; semiconductor principles, transistor types, transistor circuits, zener and tunnel diode operation; avionic communications and navigation equipment; automatic flight control equipment; and supervisory and training techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electrical laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic circuits (6/74). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic circuits (6/74).

Related Occupation Codes: 35K; 35L; 35M; 35N; 35P.

AR-1715-0278

Television Equipment Repair

Course Number: *Version 1:* 191-26T20. *Version 2:* 11-R-285.1. *Version 3:* 11-R-285.1; 11-E-35.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 33 weeks (1175 hours). *Version 2:* 33 weeks (1238 hours). *Version 3:* 25–27 weeks (926–1002 hours).

Exhibit Dates: *Version 1:* 5/73–1/78. *Version 2:* 8/68–4/73. *Version 3:* 2/56–7/68.

Objectives: To train enlisted personnel to install, operate, maintain, and repair television receivers, camera chains, studio equipment microwave links, video tape recorders and closed-circuit systems.

Instruction: *All Versions:* Lectures and practical exercises in electrical fundamentals, electronics as applied to basic amplifiers and receivers, generation of RF energy, monochrome television receivers, image orthicon cameras, vidicon television equipment, and color television. *Version 1:* Instruction includes video tape recorders and semiconductor fundamentals. *Version 2:* Instruction includes video tape recorders and semiconductor fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 24 semester hours in television systems, 8 in television systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in television systems, 2 in television systems laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in television systems, 1 in television systems laboratory (6/74). *Version 2:* In the vocational certificate category, 24 semester hours in television systems, 8 in television systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in television systems, 1 in television systems laboratory (6/74). *Version 3:* In the vocational certificate category, 18 semester hours in television systems, 6 in television systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in television systems, 1 in television systems laboratory (6/74).

Related Occupation Codes: 26T.

AR-1715-0279

Projector Equipment Repair
(Sound Projector Repair)

Course Number: 198-41F20; 11-R-401.2; 11-E-28.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10–11 weeks (386–402 hours).

Exhibit Dates: 7/54–1/78.

Objectives: To train enlisted personnel as projector repairmen.

Instruction: Lectures and practical exercises on the maintenance and repair of still and sound motion picture projectors and audio tape recorders, and related equipment, including electrical fundamentals, audio amplifiers, principles of photographic equipment repair, tape recorders, repair of specific projector sets, basic optics and shop practices, sound motion picture projectors, maintenance of screens, and supply and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanics, 2 in electromechanical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electromechanics, 1 in electromechanical laboratory (6/74).

Related Occupation Codes: 41F; 41H.

AR-1715-0280

Corporal Fire Control System Maintenance

Course Number: 6-N-1186; 6-N-228.2.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 32 weeks (1291 hours).

Exhibit Dates: 8/58–1/62.

Objectives: To train warrant officers and enlisted personnel to adjust, maintain, and operate Corporal fire control systems.

Instruction: Lectures and practical exercises in the operation and maintenance of Corporal fire control systems. Topics include communications, mathematics, fundamentals of electricity and electronics, and specific radar, Doppler, and computer systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 221B; 221C; 222B; 251B; 223B; 223D; 251D; 224B.

AR-1715-0281

Field Artillery Battery Officer
(Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer)

Course Number: 6-A-C2; 6-O-1.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 33–36 weeks (1133–1302 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train officers to be field artillery battery officers.

Instruction: Lectures and practical exercises in basic electricity, gunnery, material, motors, military tactics, associated ground handling equipment, communication equipment, field artillery radar, ground guidance systems, leadership, air-ground special operations, and special weapons employment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/74).

AR-1715-0282

Fixed Station Terminal Repair

Course Number: 11-E-43.

Location: Signal School, Ft. Monmouth, NJ.

Length: 24 weeks (960 hours).

Exhibit Dates: 9/54–12/68.

Objectives: To train enlisted personnel to perform as fixed-station terminal equipment repairmen.

Instruction: Lectures and practical exercises in the installation, operation, and repair of fixed-station terminal radio communications equipment, and the rebuilding and overhaul of fixed-station radio transmitters, receivers, and terminal equipment, including introduction to communications and electricity; basic electronic circuits; fixed-station fundamentals; antenna systems; telephone and telegraph fundamentals; fixed-station carrier fundamentals; four-channel, twelve-channel, and single-sideband carrier equipment; and fixed-station integrated communication systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0283

1. Armor Communication Officer
2. Armor Communication Officer
   (Armor Communication)

Course Number: *Version 1:* 17-A-0200. *Version 2:* 17-B-0200; 17-O-7.

Location: Armor School, Ft. Knox, KY.

Length: *Version 1:* 8 weeks (300 hours). *Version 2:* 10 weeks (355–375 hours).

Exhibit Dates: *Version 1:* 5/63–12/68. *Version 2:* 10/55–4/63.

Objectives: To train commissioned officers to supervise the installation, operation, and maintenance of field communications systems.

Instruction: *All Versions:* Lectures and practical exercises in field communication systems installation; message center procedures and codes; care and use of test equipment; field radio maintenance, troubleshooting, and repair; and some AM, FM, and CW theory. *Version 2:* Instruction includes AC and DC circuit theory, Ohm's law, and vacuum tube theory.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity or radio operation and maintenance on the basis of institutional examination (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or radio operation and maintenance on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in electronics or radio operation and maintenance on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or radio operation and maintenance on the basis of institutional evaluation (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or radio operation and maintenance on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in electricity or radio operation maintenance on the basis of institutional evaluation (12/68).

AR-1715-0284

1. Unattended Ground Sensor Mechanic
   (Remote Sensor Repair)
2. Unattended Ground Sensor Specialist/Maintenance Specialist

Course Number: *Version 1:* 221-ASIV3; 221-17M30. *Version 2:* 221-17M20.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: *Version 1:* 3–5 weeks (99–165 hours). *Version 2:* 10 weeks (323 hours).

Exhibit Dates: *Version 1:* 3/75–1/89. *Version 2:* 4/73–2/75.

Objectives: To train enlisted personnel in the operation and installation of unattended ground sensor equipment.

Instruction: *All Versions:* Lectures and practical exercises in the operation and installation of unattended ground sensor equipment, and the maintenance and repair of radio-link sensors, read-out equipment, relays, antennas and test equipment associated with unattended ground sensor systems, including physical security sensors, radio-link sensors, sensor read-out, relay and employment, non-type classified sensors, sensor assembly test and maintenance, portable monitoring equipment, antenna group AN/USA-32, and relay and automated read-out equipment. *Version 1:* Topics include testing and maintenance, by subassembly replacement, of radio link sensors, read-out and associated test equipment Includes anti-intrusion alarms, RF monitors, and signal data recorders and repeaters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronic equipment servicing laboratory (6/75). *Version 2:* In the vocational certificate category, 1 semester hour in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory on the basis of institutional evaluation (6/74).

Related Occupation Codes: 17M.

AR-1715-0285

Antiaircraft Artillery (AAA)
Remote Control Repair Basic

Course Number: 9-R-301.1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280 hours).

Exhibit Dates: 1/57–12/68.

Objectives: To train enlisted personnel to perform as antiaircraft artillery remote control repairmen.

Instruction: Lectures and practical exercises in antiaircraft artillery remote control repair, including general subjects; hydraulics and mechanics; purpose and operation of gear trains, differential assemblies, speed reducers, and cams; electrical fundamentals; meters and test equipment; electron tubes; synchros; series, parallel, and series-parallel DC circuits; cable repair; 90mm and 120mm AAFCS equipment; and light AAA control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity and electrical laboratory (6/74).

AR-1715-0286

1. Systems Engineering, Analysis and Management (Guided Missile)
2. Guided Missile Systems Officer
3. Guided Missile Systems Officer
4. Guided Missile Systems Officer
5. Guided Missile Staff Officer
6. Guided Missile Staff Officer

Course Number: *Version 1:* 4F-14F; 4F-1181. *Version 2:* 4F-1181. *Version 3:* 44-A-1181. *Version 4:* 44-A-1181. *Version 5:* 44-A-1181. *Version 6:* 44-O-5.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Air Defense School, Ft. Bliss, TX. *Version 4:* Air Defense School, Ft. Bliss, TX. *Version 5:* Air Defense School, Ft. Bliss, TX. *Version 6:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 35 weeks (1346 hours). *Version 2:* 30–33 weeks (1090–1136 hours). *Version 3:* 39 weeks (1302–1389 hours). *Version 4:* 38 weeks (1270–1306 hours). *Version 5:* 35 weeks (1216 hours). *Version 6:* 26 weeks (840 hours).

Exhibit Dates: *Version 1:* 9/75–6/79. *Version 2:* 3/68–8/75. *Version 3:* 7/61–2/68. *Version 4:* 7/58–6/61. *Version 5:* 6/57–6/58. *Version 6:* 2/57–5/57.

Objectives: To provide officers with knowledge relative to research, development and application of guided missile systems.

Instruction: *All Versions:* Lectures, discussion groups, and demonstrations in vector and differential calculus, electricity and electronics, basic physics, nuclear physics, electronics, systems analysis, radiation theory and radar, mechanics, aerodynamics, guidance and control, and propulsion. *Version 3:* Instruction includes air defense operations and tactics, nuclear weapons employment, and SSM systems. *Version 4:* Instruction includes Hawk system, Nike materiel, air defense tactics, missile response equations, and combined arms. *Version 5:* Instruction includes Corporal system, air atomic defense tactics, Nike materiel, and guided missile tactics. *Version 6:* Instruction includes range facilities and firing at WSPG, engineering machanics and thermodynamics, and advanced guidance systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in engineering mathematics, 3 in electronics, 3 in mechanics, 3 in system dynamics (8/77). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in engineering mathematics, 6 in electricity and electronics, 3 in mechanics, and 3 in systems analysis (6/74). *Version 3:* In the upper-division baccalaureate category, 15 semester hours in engineering electronics, mechanics, aeropropulsion, or aerodynamics, 3 in systems analysis, and credit in mathematics and physics on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, 15 semester hours in engineering electronics, mechanics, aeropropulsion, or aerodynamics, and credit in mathematics and physics on the basis of institutional evaluation (12/68). *Version 5:* In the upper-division baccalaureate category, 12 semester hours in engineering electronics, mechanics, aeropropulsion, or aerodynamics, and credit in mathematics and physics on the basis of institutional evaluation (12/68). *Version 6:* In the upper-division baccalaureate category, 10 semester hours in engineering electronics, mechanics, aeropropulsion, or aerodynamics and credit in mathematics and physics on the basis of institutional evaluation (12/68).

AR-1715-0287

Nike Ajax Missile Mechanical
Maintenance

Course Number: 44-R-172.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6–7 weeks (208–232 hours).

Exhibit Dates: 10/59–12/68.

Objectives: To train enlisted personnel as Nike Ajax missile mechanics.

Instruction: Lectures and practical exercises in Nike Ajax missile mechanical maintenance, including basic electricity, mechanical materiel of Nike Ajax assembly and launching areas, Nike Ajax missile preparation and depreparation, electrical units, propulsion system and warheads, launcher and launching area equipment and operations, and missile electrical check-out.

Credit Recommendation: In the vocational certificate category, 8 semester hours in missile maintenance technology, 2 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in missile maintenance technology, 1 in electronics laboratory (6/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (6/74).

AR-1715-0288

1. Associate Air Defense Missile Battery Officer
2. Associate Antiaircraft Artillery (AAA) Missile Battery Officer
3. Associate Surface-to-Air Missile (SAM) Battery Officer

Course Number: *Version 1:* 44-A-C3B. *Version 2:* 44-A-C3B. *Version 3:* 44-O-2B.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 16 weeks (585–591 hours). *Version 2:* 17 weeks (620 hours). *Version 3:* 16–17 weeks (600–660 hours).

Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 9/57–6/58. *Version 3:* 3/55–8/57.

Objectives: To train officers as air defense battery officers assigned to SAM units.

Instruction: Lectures and practical exercises in internal-combustion and diesel engines, basic electronics, basic radar, analog computers, communications, characteristics and operation of Nike Ajax Battery Control equipment and operations, nuclear weapons, special warheads, air defense tactics, and carbine marksmanship.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity and electrical laboratory (6/74). *Version 2:* In the vocational certificate category, 2 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 4 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

AR-1715-0289

1. Air Defense Missile Staff Officer (Hawk)
   (Surface-to-Air Missile (SAM) Staff Officer (Hawk))
2. Surface-to-Air Missile (SAM) Staff Officer (Hawk)
3. Surface-to-Air Missile (SAM) Staff Officer (Hawk)
4. Surface-to-Air Missile (SAM) Staff Officer (Hawk)
5. Surface-to-Air Missile (SAM) Staff Officer (Hawk)

Course Number: *Version 1:* 2G-1178. *Version 2:* 44-A-F21. *Version 3:* 44-A-F21. *Version 4:* 44-A-F21. *Version 5:* 44-A-F21.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 17–18 weeks (635–676 hours). *Version 2:* 19 weeks (722–734 hours). *Version 3:* 37 weeks (1271–1354 hours). *Version 4:* 35 weeks (1216 hours). *Version 5:* 35 weeks (1288 hours).

Exhibit Dates: *Version 1:* 1/68–3/81. *Version 2:* 9/64–12/67. *Version 3:* 7/61–8/64. *Version 4:* 4/60–6/61. *Version 5:* 4/59–3/60.

Objectives: To train commissioned officers to operate, maintain, inspect, and technically employ Hawk missile systems.

Instruction: Lectures and practical exercises in basic electronics, including AC and DC circuits, linear elements, vacuum tubes, and transistors; communication receivers; radar fundamentals; use of electronic test equipment; pulse acquisition radar and range only radar; and loader, launcher and missile components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74). *Version 4:* In the vocational certificate category, 6 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74). *Version 5:* In the vocational certificate category, 6 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74).

AR-1715-0290

Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Advanced

Course Number: 4-9-C32; 4-9-C32-A; 4F-251C-B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 19 weeks (689 hours).

Exhibit Dates: 2/72–10/76.

Objectives: To train warrant officers in logistical management and operation of Hawk surface-to-air missiles.

Instruction: Lectures and practical exercises in maintenance and operation of Hawk surface-to-air missiles. Topics include personnel management, data processing techniques, supply and administration, maintenance procedures, troubleshooting, and operation of Hawk missile systems.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours as a technical elective in business administration, or 2 semester hours in electronics laboratory for non-electrical-engineering majors (6/74).

AR-1715-0291

Lacrosse Fire Control Operation

Course Number: 6-R-167.6; 6-R-F9.

Location: Artillery Missile School, Ft. Sill, OK.

Length: 3–5 weeks (139–198 hours).

Exhibit Dates: 2/58–12/68.

Objectives: To train enlisted personnel as Lacrosse field artillery missile fire control crewmen.

Instruction: Lectures and practical exercises on adjustment, maintenance, and operation of Lacrosse missile guidance central and auxiliary equipment, including communications and electronics, basic electronics, communications, gunnery, firing data, material, Lacrosse missile, and guidance section, tactics and combined arms, launcher, target acquisition, map reading, organizational maintenance, and tactical deployment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

AR-1715-0292

Nike Maintenance Chief Noncommissioned Officer (NCO) Advanced

Course Number: 104-23W50-EC.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 19 weeks (684 hours).

Exhibit Dates: 9/71–3/73.

Objectives: To train enlisted personnel in operation, organizational check-out and functional analysis of Nike missile maintenance equipment.

Instruction: Lectures and practical exercises in the duties of Nike missile maintenance chiefs. Course includes training on electronic test equipment, communications equipment, power supplies, and basic computer fundamentals.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

Related Occupation Codes: 22G; 22L; 22M; 23N; 23U; 23W.

AR-1715-0293

Hawk Maintenance Chief Noncommissioned Officer (NCO) Advanced

Course Number: 121-23V50-EC.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 19 weeks (684 hours).

Exhibit Dates: 7/71–3/73.

Objectives: To train enlisted personnel to operate and organize check-out procedures and functional analysis of Hawk missile maintenance equipment.

Instruction: Lectures and practical exercises in the duties of Hawk missile maintenance chiefs. Course includes training on electronic test equipment and communications equipment, power supplies, and basic computer fundamentals.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

Related Occupation Codes: 22K; 23Q; 23S; 23T; 23V.

AR-1715-0294

Hawk Information Coordination Central Mechanic (PIP II)

(Improved Hawk Information Coordination Central Mechanic)
(Improved Hawk Information Coordination Central Maintenance)

Course Number: *Version 1:* 104-24G10. *Version 2:* 104-24G10. *Version 3:* 104-24G10. *Version 4:* 104-24G20. *Version 5:* 104-24G20.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 37–38 weeks (1353 hours). *Version 2:* 36 weeks (1291 hours). *Version 3:* 27–28 weeks (976 hours). *Version 4:* 25 weeks (895 hours). *Version 5:* 21 weeks (692 hours).

Exhibit Dates: *Version 1:* 9/85–3/88. *Version 2:* 10/82–8/85. *Version 3:* 6/78–9/82. *Version 4:* 5/76–5/78. *Version 5:* 1/73–4/76.

Objectives: To train enlisted personnel to maintain the improved continuous-wave acquisition radar and the information coordination central.

Instruction: For this course after 3/88 see AR-1715-0815. *All Versions:* Lectures and practical exercises in the maintenance of the Hawk information coordination central and the continuous-wave acquisition radar. Topics include missile electronics theory, DC and AC circuits, magnetism, reactive components, vacuum tubes and transistors, test equipment, radar fundamentals, power supplies, and digital computer fundamentals. *Version 1:* Lectures and practical exercises on the following topics: AC/DC circuits, solid state circuits, fundamentals of digital circuitry, fault isolation, and repair of Hawk missile system equipment. *Version 2:* Lectures and practical exercises in maintenance ofthe Improved Hawk Missile Information Coordination Central, the Improved Platoon Command Post, and Continuous Wave Acquisition Radar. Includes digital theory and circuits, AC and DC circuits, radio receivers, basic radar, and related topics. *Version 3:* Lectures and practical exercises in the maintenance of the Improved Hawk Information Coordination Central, the Improved Platoon Command Post, and Continuous Wave Acquisition Radar. Includes digital theory and circuits, AC and DC circuits, radio receivers, basic radar, and related topics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 2 in solid state circuits, 2 in digital electronics, and 3 in electronic systems troubleshooting and maintenance (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics, 1 in digital and logic fundamentals, 3 in electronic systems troubleshooting (12/84). *Version 3:* In the vocational certificate category, 3 semester hours in electronics maintenance, 3 in electronics troubleshooting (4/81); in the lower-division baccalaureate/associate degree category, 3 in digital electronics, 3 in basic electricity, 2 in electronics laboratory (4/81). *Version 4:* In the vocational certificate category, 2 semester hours in transistor electronics, 2 in digital systems, 8 in electronics laboratory (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics on the basis of institutional evaluation, 2 in electricity/electronic circuits laboratory (8/77). *Version 5:* In the vocational certificate category, 8 semester hours in electronics, 4 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 2 in electronics laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

Related Occupation Codes: 24G.

AR-1715-0295

Hawk Missile System Technician Warrant Officer Technical/Tactical Certification (PIP II)
(Hawk Missile System Technician (PIP II))
(Improved Hawk Organizational Maintenance Supervisor)

Course Number: *Version 1:* 4F-140D. *Version 2:* 4F-223B; 4F-140D. *Version 3:* 4F-223B. *Version 4:* 4F-223D. *Version 5:* 4F-223D.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 25–26 weeks (910 hours). *Version 2:* 44–45 weeks (1603 hours). *Version 3:* 47–48 weeks (1654–1870 hours). *Version 4:* 46 weeks (1581 hours). *Version 5:* 42 weeks (1432–1441 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 11/86–9/89. *Version 3:* 2/80–10/86. *Version 4:* 7/75–1/80. *Version 5:* 1/73–6/75.

Objectives: To provide warrant officers and enlisted personnel with the knowledge of the operation, organizational maintenance, and repair of the improved Hawk missile system.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the Hawk missile system. Course includes basic electronic circuits, radar electronics, fundamental digital computer electronics, and digital computer machine language programming. *Version 2:* Course includes AC/DC fundamentals, solid state circuits, digital electronics, and troubleshooting procedures on the Hawk missile system. *Version 3:* Lectures in the operation, maintenance,use and repair of the radar,launcher, test equipment and loader-transporter for the Improved Hawk missile system and included transistor fundamentals, power generator operation, test equipment usage, digital fundamentals, continuous wave and pulsed wave radar operations and maintenance management.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC circuits, 3 in digital electronics, 3 in electronic systems troubleshooting and maintenance and 2 in solid state circuitry (11/88). *Version 3:* In the vocational certificate category, 10 semester hours in electronic maintenance, 3 in electronic circuits (4/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in basic radar systems theory and maintenance, 2 in basic electronic circuits, 1 in electronics laboratory (4/81). *Version 4:* In the vocational certificate category, 3 semester hours in computer fundamentals, 1 in transistor electronics, 6 in electronic troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/77). *Version 5:* In the vocational certificate category, 6 semester hours in basic electronics and introductory digital computers (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and introductory digital computers (6/74); in the upper-division baccalaureate category, 1 semester hour in basic electronics and introductory digital computers (6/74).

Related Occupation Codes: 24B; 24C; 24D; 24E; 24F; 24G; 24P; 24Q; 24U; 223D; 223B; 221B; 221C; 222B; 251B.

AR-1715-0296

Signal Officer Advanced (Nonresident/Resident)

Course Number: 4-11-C23 (NR/R).

Location: Signal School, Ft. Gordon, GA.

Length: Resident 8 weeks (288 hours).

Exhibit Dates: 8/72–12/86.

Objectives: To prepare officers for branch command and staff duties at battalion through brigade levels.

Instruction: Phases IA, II, IV and VI, completed in residence, cover instruction in general communications electronics subjects, including DC and AC principles, tubes, transmitters, receivers, infrared equipment and radar; tactical communications equipment and signal communications. Phases I, III and V, completed by correspondence, cover instruction in military-related subjects, including leadership, tactics, and procedures and policies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and communications systems (4/77).

AR-1715-0297

Missile Systems Apprentice

Course Number: 121-27A10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 13 weeks (455 hours).

Exhibit Dates: 2/68–12/85.

Objectives: To train enlisted personnel to maintain and repair land combat missile systems and land combat support systems.

Instruction: Lectures and practical exercises in the maintenance and repair of land combat missile systems. Course includes basic electricity, linear and nonlinear devices, inverters, converters, use of electronic test equipment, and basic computer logic and fundamentals.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

Related Occupation Codes: 27A; 27B; 27C; 27D.

AR-1715-0298

1. Lance Missile System Repair
2. Lance Missile System Repair
3. Combat Support Missile System Repair

Course Number: *All Versions:* 121-27D20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 8–12 weeks (240–406 hours). *Version 2:* 12–13 weeks (406–433 hours). *Version 3:* 15 weeks (497 hours).

Exhibit Dates: *Version 1:* 4/75–12/79. *Version 2:* 6/74–3/75. *Version 3:* 5/73–5/74.

Objectives: To train enlisted personnel to maintain the Lance Missile System.

Instruction: *Version 1:* Lectures and laboratory exercises including basic electricity concepts, AC and DC circuit theory—series, parallel, series-parallel, inductive, capacitive, and LCR circuits; series and parallel resonant circuits; elementary theory of semiconductor devices and circuits including FETs; soldering techniques and practices; troubleshooting and maintenance of Lance test equipment and missile systems. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will take only Phase II (8 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (12 weeks). *Version 2:* Lectures and laboratory exercises including basic electricity concepts of power, work, and energy; DC and AC circuit theory—series, parallel, series-parallel, inductive, capacitive, and LCR circuits; series and parallel resonant circuits; transformers and power supplies; elementary theory of semiconductor devices and circuits including FETs; soldering techniques and practices; troubleshooting and maintenance of Lance test equipment and missile systems. *Version 3:* Lectures and practical exercises in the maintenance of the Lance missile system. Course includes basic AC and DC circuits, RLC circuits, transients, resonance, transistor circuits, nonlinear wave shaping, and soldering techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in basic electronics for students who complete 8 weeks of the course or 14 semester hours in basic electronics for students who complete 12 weeks of this course (see Note above) (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics for all students (8/77). *Version 2:* In the vocational certificate category, 4 semester hours in basic electronics and troubleshooting (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and troubleshooting (3/75). *Version 3:* In the vocational certificate category, 8 semester hours in basic electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electronics (6/74).

Related Occupation Codes: 27D.

AR-1715-0299

1. TOW/Dragon Repairer
2. TOW/Dragon Repairer
3. Wire Guided Missile System Repair.
4. Wire Guided Missile System Repair
5. Wire Guided Missile System Repair

Course Number: *Version 1:* 121-27E10/121-27E10 (ST). *Version 2:* 121-27E10. *Version 3:* 121-27E20. *Version 4:* 121-27E20. *Version 5:* 121-27E20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 18-20 weeks (672-714 hours). *Version 2:* 17 weeks (680-860 hours). *Version 3:* Self-paced 10-15 weeks (400-480 hours). *Version 4:* 13 weeks (431 hours). *Version 5:* 17 weeks (590 hours).

Exhibit Dates: *Version 1:* 9/83-Present. *Version 2:* 7/79-8/83. *Version 3:* 11/74-6/79. *Version 4:* 11/72-10/74. *Version 5:* 6/70-10/72.

Objectives: To train personnel as wire guided missile system repairmen.

Instruction: *Version 1:* Lectures and practical exercises in sinusoidal AC and DC circuits, multimeter operation, transients in RLC circuits, power supplies, basic transistors, transistor amplifiers, FETs and oscillators. Digital electronics includes number systems, arithmetic, gates and flip-flops. Includes a section on precision soldering. Maintenance, troubleshooting and repair of the TOW system are covered. *Version 2:* Lectures and practical exercises in direct and general support maintenance on TOW weapon system trainers, and associated equipment, including missile electronic subjects, TOW weapon system familiarization, multimeter care and use, test equipment, soldering, modulators and demodulators, introduction to logic symbology, threaded inserts, optical sight, traversing unit and launch tube, maintenance of the missile guidance set, shop operations, battery charger, and troubleshooting transistorized circuits. Course includes lectures and hands-on exercises in the maintenance and repair of a TOW missile system. Topics include an indepth study of AC,DC, and solid state theory; solder techniques and electric safety; use of data manuals and maintenance documentation manuals; and test equipemt applications. *Version 3:* Lectures and practical exercises in direct and general support maintenance on TOW weapon system trainers, and associated equipment, including missile electronic subjects, TOW weapon system familiarization, multimeter care and use, test equipment, soldering, modulators and demodulators, introduction to logic symbology, threaded inserts, optical sight, traversing unit and launch tube, maintenance of the missile guidance set, shop operations, battery charger, and troubleshooting transistorized circuits. Electronics subjects include basic electricity concepts of work, energy, and power; DC and AC circuit theory—series, parallel, series-parallel, inductive, capacitive, and LCR circuits; series and parallel resonant circuits; transformers and power supplies, RC and LC transients; soldering techniques and practices; and elementary semiconductor devices and circuits including FET. *Version 4:* Lectures and practical exercises in direct and general support maintenance on TOW weapon system trainers, and associated equipment, including missile electronic subjects, TOW weapon system familiarization, multimeter care and use, test equipment, soldering, modulators and demodulators, introduction to logic symbology, threaded inserts, optical sight, traversing unit and launch tube, maintenance of the missile guidance set, shop operations, battery charger, and troubleshooting transistorized circuits. *Version 5:* Lectures and practical exercises in direct and general support maintenance on TOW weapon system trainers, and associated equipment, including missile electronic subjects, TOW weapon system familiarization, multimeter care and use, test equipment, soldering, modulators and demodulators, introduction to logic symbology, threaded inserts, optical sight, traversing unit and launch tube, maintenance of the missile guidance set, shop operations, battery charger, and troubleshooting transistorized circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in precision soldering techniques, 3 in introduction to AC/DC circuits, 1 in introduction to digital circuitry, 3 in solid state circuitry and 3 in electronics systems maintenance (12/88. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in AC/DC theory, 4 in solid state theory, 1 in electronic shop practices, and 1 in electronic maintenance (11/83). *Version 3:* In the vocational certificate category, 7 semester hours in basic electronics and troubleshooting (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics (3/75). *Version 4:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74). *Version 5:* In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74); in the upper-division baccalaureate category, 3 semester hours in electronics laboratory (6/74).

Related Occupation Codes: 27E; 27Z.

AR-1715-0300

Radar Engagement Simulator AN/TPQ-29
(Improved Hawk Guided Missile Simulator Maintenance Maintenance)

Course Number: 121-ASIG6; 121-24E30.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 9 weeks (329 hours). *Version 2:* 9-10 weeks (280-392 hours). *Version 3:* 8 weeks (280-295 hours).

Exhibit Dates: *Version 1:* 2/83-Present. *Version 2:* 5/80-1/83. *Version 3:* 5/73-4/80.

Objectives: To train enlisted personnel to operate, adjust, and maintain the Hawk simulator system.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the Hawk simulator system. Topics include AC and DC control systems, electronic test equipment, basic computer logic, radar fundamentals, and circuit analysis. *Version 1:* Course includes theory of operation, operational checks, alignment, and organizational maintenance of the Hawk missile simulator system. *Version 2:* Course includes troubleshooting and consists of lectures and practical exercises in operational procedures for the AN/TPQ-29 simulator. Content includes testing, troubleshooting, repair, and organizational maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88). *Version 2:* In the vocational certificate category, 3 semester hours in electronics laboratory (3/81). *Version 3:* In the vocational certificate category, 6 semester hours in electronics, 4 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 2 in electronics laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

Related Occupation Codes: 24E.

AR-1715-0301

Redeye Weapon System Repair

Course Number: 121-27G20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 9-12 weeks (276-382 hours). *Version 2:* 12 weeks (419 hours).

Exhibit Dates: *Version 1:* 11/76-7/79. *Version 2:* 12/71-10/76.

Objectives: To provide enlisted and civilian personnel with the capability to inspect, test and perform support maintenance on the Redeye weapon system.

Instruction: *All Versions:* Lectures and practical exercises in electronic fabrication techniques (including soldering), AC/DC circuits, solid state electronics, power supplies, and introduction to digital techniques. *Version 1:* Includes resonant circuits. Note: Students who have completed Modules 201 and 202 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (9 weeks) of the course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (12 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in basic electronics for students who complete 9 weeks of the course or 12 semester hours in basic electronics for students who complete 12 weeks of the course (see Note above) (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics for all students (8/77). *Version 2:* In the vocational certificate category, 10 semester hours in basic electronics (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics (6/74).

Related Occupation Codes: 27G

AR-1715-0302

SERGEANT MISSILE GUIDANCE REPAIR

Course Number: *Version 1:* 121-21S20. *Version 2:* 122-21S20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 16 weeks (546 hours). *Version 2:* 19 weeks (673-679 hours).

Exhibit Dates: *Version 1:* 11/72-12/73. *Version 2:* 1/67-10/72.

Objectives: To train enlisted personnel to operate and maintain the Sergeant missile system.

Instruction: Lectures and practical exercises in Sergeant missile system operation and maintenance, including AC and DC circuits, multimeters, soldering techniques, RLC circuits, transistors, nonlinear wave shaping, differentiation and integration, series resonance, power supplies, control panel self-test, missile handling equipment, missile trainer maintenance, and field maintenance test station.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74). *Version 2:* In the vocational certificate category, 10 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

Related Occupation Codes: 21S.

AR-1715-0303

SHILLELAGH REPAIRER

(Shillelagh Missile System Repair)

Course Number: *Version 1:* 121-ASIL9. *Version 2:* 121-27H10. *Version 3:* 121-27H20. *Version 4:* 121-27H20. *Version 5:* 121-27H20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 6 weeks (216-217 hours). *Version 2:* 15-16 weeks (514 hours). *Version 3:* 12-16 weeks (403-495 hours). *Version 4:* 15-16 weeks (501-528 hours). *Version 5:* 15-16 weeks (557 hours).

Exhibit Dates: *Version 1:* 1/86-Present. *Version 2:* 8/79-12/85. *Version 3:* 11/76-7/79. *Version 4:* 5/73-10/76. *Version 5:* 11/71-4/73.

Objectives: To train enlisted personnel to inspect, test, and maintain Shillelagh missile systems and associated support equipment.

Instruction: *Version 1:* Lectures and practical exercises in Shillelagh fundamentals, control circuits, fault locator, range selector, transmitter and modulator troubleshooting and repair. *Version 2:* Lectures and practical exercises in basic electricity, linear and nonlinear devices, power supplies, basic computer fundamentals, control systems, instructor control unit maintenance, test and check-out panel maintenance, logic analysis, digital computers introduction, missile soldering procedures, launch vehicle maintenance, and human self-development. Course includes DC/AC circuits, transistor amplifiers, FET's, sinusoidal/non-sinusoidal oscillators. *Version 3:* Lectures and practical exercises in basic electricity, linear and nonlinear devices, power supplies, basic computer fundamentals, control systems, instructor control unit maintenance, test and check-out panel maintenance, logic analysis, digital computers introduction, missile soldering procedures, launch vehicle maintenance, and human self-development. Note: Students who have completed Modules 201 and 202 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (12 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (16 weeks) of this course. *Version 4:* Lectures and practical exercises in basic electricity, linear and nonlinear devices, power supplies, basic computer fundamentals, control systems, instructor control unit maintenance, test and check-out panel maintenance, logic analysis, digital computers introduction, missile soldering procedures, launch vehicle maintenance, and human self-development. *Version 5:* Lectures and practical exercises in basic electricity, linear and nonlinear devices, power supplies, basic computer fundamentals, control systems, instructor control unit maintenance, test and check-out panel maintenance, logic analysis, digital computers introduction, missile soldering procedures, launch vehicle maintenance, and human self-development.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electronic equipment maintenance, 1 in electronic shop practices (11/83). *Version 3:* In the vocational certificate category, 10 semester hours in basic electronics for students who complete 12 weeks of the course or 14 semester hours in basic electronics for students who complete 16 weeks of the course (8/77). *Version 4:* In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (6/74). *Version 5:* In the vocational certificate category, 12 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

Related Occupation Codes: 27H; 27Z.

AR-1715-0304

NIKE HERCULES FIRE CONTROL SYSTEM MAINTENANCE TRANSITION

Course Number: 44-N-226.1; 44-N-1178T; 44-OE-30(T); 44-N-226.1T; 44-N-F5.

Location: Air Defense School, Ft. Bliss, TX.

Length: 9-12 weeks (315-461 hours).

Exhibit Dates: 7/57-12/68.

Objectives: To train Nike Ajax fire control crewmen to operate, adjust, and maintain Nike Hercules fire control systems.

Instruction: Lectures and practical exercises in Nike Hercules fire control systems, including tracking radar circuits, analog computer control systems, inertial guidance sensing equipment, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and electrical laboratory (6/74); in the upper-division baccalaureate category, credit in electronics and electrical laboratory on the basis of institutional evaluation (6/74).

Related Occupation Codes: 222B; 251B.

AR-1715-0305

NIKE SYSTEM MAINTENANCE OFFICER TRANSITION

(Surface-to-Air Missile (SAM) Staff Officer Transition (Hercules))

Course Number: 44-A-F9.

Location: Air Defense School, Ft. Bliss, TX.

Length: 14-21 weeks (505-786 hours).

Exhibit Dates: 8/57-12/68.

Objectives: To train officers with technical backgrounds to operate and maintain Hercules missile systems.

Instruction: Lectures and practical exercises in Hercules missile systems operation and maintenance, including radar and missile systems special electronic circuits; block-diagram and system analysis; and missile systems test equipment, launcher area warhead, computer, and guidance set.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in applied electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0306

COMBAT MISSILE MAINTENANCE (27-CMF) NONCOMMISSIONED OFFICER (NCO) BASIC

(Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 1-272-C40; 1-FM-C40A.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 8-12 weeks (260-394 hours).

Exhibit Dates: 6/73-12/78.

Objectives: To qualify enlisted personnel as senior noncommissioned officers in field artillery missile maintenance.

Instruction: Lectures and practical exercises in the duties of senior noncommissioned officers and in the maintenance and operation of field artillery missiles. Course includes test equipment repair, computer fundamentals, power supplies, and specialized missile components and subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, 4 in electronic laboratory (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 2 in electronics laboratory (9/77); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (9/77).

Related Occupation Codes: 21L; 21R; 21S; 21T; 27B; 27D; 27E; 27F; 27G; 27H; 46L; 46N.

AR-1715-0307

Improved Hawk Firing Section Mechanic
(Improved Mechanic
(Improved Hawk Firing Section Maintenance)

Course Number: 121-24C10 (PIP II); 121-24C10; 121-24C20.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 28–29 weeks (1024 hours). *Version 2:* 19–21 weeks (672–822 hours). *Version 3:* 22–23 weeks (784–822 hours). *Version 4:* 22 weeks (764–773 hours).

Exhibit Dates: *Version 1:* 10/83–9/87. *Version 2:* 7/79–9/83. *Version 3:* 3/75–6/79. *Version 4:* 1/73–2/75.

Objectives: To train enlisted personnel to maintain improved Hawk missile systems at the organizational level.

Instruction: For this course after 9/87 see AR-1715-0814. *All Versions:* Lectures and practical exercises in maintenance of improved Hawk missile systems, with special emphasis on the high-power illuminator radar. Course includes instruction in basic electricity (DC & AC circuits), linear and nonlinear devices, test equipment, radar principles, troubleshooting, and circuit analysis. *Version 2:* Lectures and practical exercises in maintenance of Improved Hawk Missile System (Radar). Includes preventive and correctional maintenance of the Improved Launcher and Improved Launcher control box. *Version 3:* Topics include troubleshooting regulated power supplies, low frequency amplifiers, and fundamentals of high powered illuminator radar.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electricity and electronics (11/84); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, 3 in digital and computer circuits (11/84). *Version 2:* In the vocational certificate category, 3 semester hours in electronics/electromechanical laboratory evaluation. (4/81). *Version 3:* In the vocational certificate category, 6 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75). *Version 4:* In the vocational certificate category, 10 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74).

Related Occupation Codes: 24C; 09B.

AR-1715-0308

Nike Universal Officer
(Nike Universal Officer Qualification)
(Officer Qualification, Nike Ajax)

Course Number: 44-A-F4; 44-O-42.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8–10 weeks (368–440 hours).

Exhibit Dates: 3/57–8/63.

Objectives: To train artillery officers in Nike Hercules Universal system materiel and tactics.

Instruction: Lectures and practical exercises in Nike Hercules Universal system materiel and tactics, including basic electronics, missile track radars and radar command systems, guided missile system employment techniques, computer functioning, prelaunch, electronic countermeasures, tactical control system, operational readiness inspections, maintenance safety concepts, weapons handling air defense operations, warhead tests and corrective procedures, and air-space utilization.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0309

Redstone Officer

Course Number: 6-A-1190B.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 7–9 weeks (287–361 hours).

Exhibit Dates: 6/57–11/58.

Objectives: To train artillery officers as surface-to-surface missile unit commanders.

Instruction: Lectures and practical exercises on the characteristics, operating principles, capabilities, and limitations of the Redstone missile and associated equipment, including artillery transport, communications and electronics, basic electricity, missile electrical fundamentals, gunnery, materiel, Redstone introduction and warhead installation, target acquisition, and tactics and combined arms.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electrical laboratory (6/74); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (6/74).

AR-1715-0310

Nike Ajax Officer Qualification
(Reserve Component)

Course Number: 44-A-F24.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (263–277 hours).

Exhibit Dates: 2/60–12/68.

Objectives: To train officers in Nike Ajax missile system operation.

Instruction: Lectures and practical exercises in Nike Ajax missile system operation, including basic electricity, electronics, radar systems, block-diagram analysis, launching area equipment and assembly area operations, integrated battery operations, air defense operations and tactics, and battery control area equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical or electronics laboratory for non-electrical-engineering majors (6/74).

AR-1715-0311

Missile Master Systems Management Officers

Course Number: 11-A-F14; 11-B-F14.

Location: Air Defense School, Ft. Bliss, TX; Signal Fire Distribution Systems Training Activity, Ft. Bliss, TX.

Length: 12 weeks (421–434 hours).

Exhibit Dates: 6/61–12/68.

Objectives: To train commissioned officers to operate and maintain the AN/FSG-1 air defense system and to supervise maintenance personnel.

Instruction: Lectures and practical exercises in AN/FSG-1 air defense system operation and maintenance, including radar display equipment fundamentals, computer principles, circuit tracing, data link transmission and reception, power equipment, analog-to-digital converter, performance testing, test equipment, equipment adjustments and checks, SAGE integration equipment, and system management.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0312

Ballistic Missile Inertial Guidance and Control Repair (Sergeant)

Course Number: 9-S-373.1; 9-S-F26.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 23–29 weeks (854–1049 hours).

Exhibit Dates: 3/61–12/68.

Objectives: To train military and civilian personnel to inspect, test, and repair electronic assemblies of the Sergeant missile and firing set.

Instruction: Lectures and practical exercises in AC and DC circuits, motors, generators, linear and nonlinear devices, inertial guidance principles, stabilization systems, power systems, digital techniques, test equipment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity and electronics or electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

AR-1715-0313

Hawk Internal Guidance and Launcher Electronics Repair

Course Number: 9-S-257.1.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 25 weeks (917 hours). *Version 2:* 15 weeks (538–548 hours).

Exhibit Dates: *Version 1:* 2/63–12/68. *Version 2:* 4/59–1/63.

Objectives: To train enlisted personnel to inspect, test, maintain, and repair Hawk internal guidance and launcher electronics systems and associated test equipment.

Instruction: *All Versions:* Lectures and practical exercises in the inspection, testing, maintenance, and repair of Hawk internal guidance and launcher electronics systems and associated test equipment, including principles of Hawk guidance, basic electricity, test equipment, antenna control and autopilot systems, launcher system, hydraulics, various circuits, speedgate system, and power system and supplies. *Version 1:* Includes special electronic circuits, transmitter and receiver analysis, mathematics, counterinsurgency, amplifiers and oscillators, multivibrators, and motors and generators. *Version 2:* Includes nuclear warfare instruction and equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electronics, 6 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in electronics, 4 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 2 in electrical laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0314

LACROSSE FIRE CONTROL SYSTEM MAINTENANCE

Course Number: 6-N-217.1.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 24 weeks (847 hours). *Version 2:* 7 weeks (274 hours).

Exhibit Dates: *Version 1:* 11/60-12/68. *Version 2:* 10/59-10/60.

Objectives: To train warrant officers and enlisted personnel with previous technical experience to perform as Lacrosse field artillery missile fire control mechanics.

Instruction: *All Versions:* Lectures and practical exercises in adjustment and maintenance of Lacrosse ground guidance equipment, including target acquisition, power supplies, angular tracker and test set, calibration of missile tracking antenna, range indicator, interrogator set and precision test transponder, guidance computer, target ranging and measuring equipment, and guidance system. *Version 2:* Topics include fundamentals of electricity and electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (6/74). *Version 2:* In the vocational certificate category, 4 semester hours in electronics and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics and electrical laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics and electrical laboratory (6/74).

AR-1715-0315

1. AIR DEFENSE MISSILE STAFF OFFICER (NIKE HERCULES)
   (Surface-to-Air Missile (SAM) Staff Officer)
2. NIKE SYSTEM MAINTENANCE OFFICER
3. SURFACE-TO-AIR MISSILE (SAM) STAFF OFFICER (NIKE)
   (Surface-to-Air Missile (SAM) Maintenance)
4. SURFACE-TO-AIR (SAM) MAINTENANCE

Course Number: *Version 1:* 2G-1177; 44-A-1177. *Version 2:* 44-A-1177. *Version 3:* 44-A-1177. *Version 4:* 44-O-40.

Location: *Version 1:* Air Defense School, Ft. Bliss, TX. *Version 2:* Air Defense School, Ft. Bliss, TX. *Version 3:* Air Defense School, Ft. Bliss, TX. *Version 4:* Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 18-19 weeks (637-677 hours). *Version 2:* 42 weeks (1555-1578 hours). *Version 3:* 42-45 weeks (1566-1741 hours). *Version 4:* 49 weeks (1900 hours).

Exhibit Dates: *Version 1:* 5/63-12/80. *Version 2:* 9/60-4/63. *Version 3:* 6/58-8/60. *Version 4:* 1/57-5/58.

Objectives: To train officers to be maintenance/staff officers of Nike surface-to-air missile battalions.

Instruction: Lectures and practical exercises in basic electrical and electronic circuits, theory, and block-diagram analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electrical engineering majors (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-electrical engineering majors, or 2 in electronics laboratory for electrical engineering majors (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-electrical engineering majors, or 2 in electronics laboratory for electrical engineering majors (6/74). *Version 4:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-electrical engineering majors, or 2 in electronics laboratory for electrical engineering majors (6/74).

AR-1715-0316

1. BIOMEDICAL EQUIPMENT SPECIALIST BASIC
2. BIOMEDICAL EQUIPMENT SPECIALIST BASIC
   (Biomedical Equipment Maintenance)
3. BIOMEDICAL EQUIPMENT MAINTENANCE
4. MEDICAL EQUIPMENT MAINTENANCE BASIC

Course Number: *Version 1:* 4B-F2/198-35G10. *Version 2:* 198-35G10. *Version 3:* 198-35G20. *Version 4:* 198-35G20; 198-208.1.

Location: Medical Equipment and Optical School, Denver, CO; Medical Optical and Maintenance Agency, Denver, CO; Fitzsimmons General Hospital, Denver, CO.

Length: *Version 1:* 19 weeks (798 hours). *Version 2:* 15 weeks (526 hours). *Version 3:* 19 weeks (625-655 hours). *Version 4:* 10-13 weeks (359-455 hours).

Exhibit Dates: *Version 1:* 8/83-9/87. *Version 2:* 1/79-7/83. *Version 3:* 9/73-12/78. *Version 4:* 7/60-8/73.

Objectives: To train warrant officers and enlisted personnel to install, inspect, maintain, repair, calibrate and adjust mechanical and electromechanical medical equipment.

Instruction: For this course after 9/87 see AR-1715-0759. *Version 1:* Lectures and practical exercises in electrical circuit theory, linear electronics and the installation and maintenance of medical equipment such as dental chairs, defibrillators, and x-ray equipment. *Version 2:* Lectures and practical exercises in DC series, parallel and series-parallel circuits. AC waveform nomenclature and fundamental concepts of capacitance, inductance, magnetism relays, motors, diodes and transmitters are presented. Emphasis is given to the presentation of medical equipment theory of operation, maintenance and troubleshooting techniques for dental equipment (not x-ray equipment), sterilizers and pulmonary equipment. *Version 3:* Lectures and practical exercises in installation, inspection, maintenance, repair, calibration and adjustment of mechanical and electromechanical medical equipment (excepting electronic components), including basic electricity, maintenance management and special techniques, insurgency and counterinsurgency, character guidance, command information, medical terminology, anatomy and physiology, and human relations. *Version 4:* Lectures and practical exercises in installation, inspection maintenance, repair, calibration and adjustment of mechanical and electromechanical medical equipment (excepting electronic components), including base electricity, maintenance management and special techniques, insurgency and counterinsurgency, character guidance, command information, medical terminology, anatomy and physiology, and human relations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in technical math; in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC fundamentals, 3 in semiconductor devices/circuits and 5 in biomedical equipment maintenance (9/85). *Version 2:* In the vocational certificate category, 3 semester hours in AC and DC circuit fundamentals, 9 in medical equipment, theory of operation and troubleshooting (10/79) *Version 3:* In the vocational certificate category, 4 semester hours in DC and AC circuit fundamentals, 8 in medical equipment maintenance, 1 in anatomy and physiology (10/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in human relations (10/75). *Version 4:* In the vocational certificate category, 3 semester hours in electrical laboratory (7/74), in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (7/74).

Related Occupation Codes: 35G; 35S; 35T; 202A.

AR-1715-0317

1. BIOMEDICAL ELECTRONIC EQUIPMENT MAINTENANCE
2. BIOMEDICAL EQUIPMENT MAINTENANCE ADVANCED
3. MEDICAL EQUIPMENT MAINTENANCE

Advanced

Course Number: *Version 1:* 4B-202A; 198-35S20. *Version 2:* 4B-202A; 198-35G30. *Version 3:* 8-N-202A; 8-N-208.2.

Location: *Version 1:* Medical Equipment and Optical School, Denver, CO. *Version 2:* Medical Optical and Maintenance Agency, Denver, CO. *Version 3:* Fitzsimons General Hospital, Denver, CO.

Length: *Version 1:* 40 weeks (1249–1255 hours). *Version 2:* 35 weeks (1206 hours). *Version 3:* 30 weeks (991 hours).

Exhibit Dates: *Version 1:* 9/73–8/79. *Version 2:* 1/71–8/73. *Version 3:* 1/65–12/70.

Objectives: To train warrant officers to perform as medical equipment repair technicians and enlisted personnel to perform as medical equipment repairmen.

Instruction: *All Versions:* Lectures and practical exercises in installation, inspection, maintenance, repair, calibration, and adjustment of selected electrical and electronically controlled or operated medical equipment, including electricity and *Version 1:* Topics include fundamentals of DC and AC circuits, vacuum tubes, and solid-state electronics devices; principles of operation and maintenance of clinical laboratory and medical instrumentation, including related topics in physics; general- and biochemistry; and technical writing. *Version 2:* Topics include electron tubes and circuits, solid-state devices, biophysical measurements, biomedical electronic instrumentation and instruments, problem solving, and communication and technical report writing. *Version 3:* Topics include biomedical x-ray equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in DC and AC circuits, 2 in applied physics, 6 in electronics, 1 in technical writing, 1 in medical instrumentation, 3 in general and biochemistry, 4 in medical instrumentation maintenance, and 5 in clinical laboratory instrument maintenance (10/75). *Version 2:* In the vocational certificate category, 10 semester hours in electricity or electronics (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (7/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74).

Related Occupation Codes: 35G; 35S; 202A.

AR-1715-0318

Radioteletypewriter Repair

Course Number: 11-E-17.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 22 weeks (880 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train enlisted personnel as radioteletypewriter repairmen.

Instruction: Lectures and practical exercises in installation, repair, and depot maintenance of mobile or fixed single-channel radioteletypewriter transmitting and receiving equipment, including principles of electricity, tuned circuits, radio, electron tubes, power supplies and amplifiers, oscillators, transmitters and antennas, detectors and receivers, basic shop, amplitude modulation, fixed-station fundamentals, receiving equipment, field radioteletypewriter equipment, and integrated field training.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68).

AR-1715-0319

1. Signal Officer Advanced
2. Signal Officer Advanced (Cor[illegible] Phase)
3. Signal Officer Advanced
4. Signal Officer Advanced
5. Signal Officer Career
6. Signal Officer Career (Signal Officer Advanced)

Course Number: *Version 1:* 4-11-C22-25A. *Version 2:* 4-11-C22. *Version 3:* 4-11-C22. *Version 4:* 4-11-C22. *Version 5:* 4-11-C22; 11-A-C22. *Version 6:* 11-A-C22; 11-A-C4; 11-O-3.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA. *Version 4:* Signal School, Ft. Monmouth, NJ. *Version 5:* Signal School, Ft. Monmouth, NJ. *Version 6:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 20 weeks (722 hours). *Version 2:* 12 weeks (395 hours). *Version 3:* 39 weeks (1233 hours). *Version 4:* 39 weeks (1209 hours). *Version 5:* 30 weeks (950–966 hours). *Version 6:* 35–36 weeks (1103–1512 hours).

Exhibit Dates: *Version 1:* 3/85–9/86. *Version 2:* 12/76–12/81. *Version 3:* 7/73–11/76. *Version 4:* 4/70–6/73. *Version 5:* 9/64–3/70. *Version 6:* 10/53–8/64.

Objectives: To train Signal Corps officers for command and staff duties at battalion through brigade levels in divisional and nondivisional units.

Instruction: For this course after 9/86 see AR-1715-0770. *Version 1:* Lectures in combined arms subjects to include the air/land battle doctrine, communication systems planning, management and control, digital and analog engineering operations, communications interfaces. Military subjects include electronic warfare, NBC defense, leadership, personnel administration, property accounting, training management, force integration, military justice and C-E systems tactics and doctrine. *Version 2:* Lectures and practical exercises in the technical aspects of radio and telephone digital communications, communications arts, and general management. Students attend the 12 week core program, then branch off into specialized training, attending one of the following: Combat-Electronics Material Management Advanced (4B-0A72), Combat Communications Electronics Advanced (4C-0A25), or Fixed Telecommunications Systems Advanced (4C-0A26). See individual exhibits for credit recommendations. *Version 3:* Lectures and practical exercises in the technical aspects of radio and telephone digital communications, communications arts, and general management. Instruction includes introduction to computers. *Version 4:* Lectures and practical exercises in the technical aspects of radio and telephone digital communications, communications arts, and general management. Instruction includes introduction to computers. *Version 5:* Lectures and practical exercises in the technical aspects of radio and telephone digital communications, communications arts, and general management. *Version 6:* Lectures and practical exercises in the technical aspects of radio and telephone digital communications, communications arts, and general management. Instruction includes introduction to computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in systems management (7/85). *Version 2:* In the vocational certificate category, 3 semester hours in basic introduction to computers (4/77). *Version 3:* In the vocational certificate category, 12 semester hours in introduction to computers and general business (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as a nontechnical elective in computers, 5 as an elective in general business (7/74); in the upper-division baccalaureate category, 3 semester hours as a nontechnical elective in introduction to computers, 2 as a technical elective in general business, and additional credit in general business on the basis of institutional evaluation (7/74). *Version 4:* In the vocational certificate category, 12 semester hours in general business and introduction to computers (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as a nontechnical elective in introduction to computers, 5 as an elective in general business (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management and credit in electronics and communications engineering on the basis of institutional evaluation (12/68). *Version 5:* In the vocational certificate category, 7 semester hours in general business and introduction to computers (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as a nontechnical elective in introduction to computers, 3 as a technical elective in general business (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management and credit in communications engineering on the basis of institutional evaluation (12/68). *Version 6:* In the vocational certificate category, 2 semester hours in general business and introduction to computers and additional credit in general business and introduction to computers on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in general business and introduction to computers and additional credit in general business and introduction to computers on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management and credit in electronics and communications engineering on the basis of institutional evaluation (12/68).

AR-1715-0320

Aircraft Armament Repair

Course Number: 646-45J20.

Location: *Version 1:* Transportation School, Ft. Eustis, VA. *Version 2:* Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 11–17 weeks (358–559 hours). *Version 2:* 13–17 weeks (419–595 hours). *Version 3:* 17 weeks (657 hours).

Exhibit Dates: *Version 1:* 7/76–1/88. *Version 2:* 7/70–6/76. *Version 3:* 4/67–6/70.

Objectives: To train enlisted personnel in aircraft armament maintenance and repair.

Instruction: *All Versions:* Lectures and practical exercises in armament systems, electricity and electronics, hydraulic systems, and solid-state devices. *Version 1:* Note: Students who have completed Modules 201, 202, 203 and 204 of Common

Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phases II and III (11 weeks). See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete Phases I, II and III (17 weeks) of this course.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics laboratory (7/74). *Version 3:* In the vocational certificate category, 2 semester hours in electricity, electronics, or electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, electronics, or electrical laboratory (7/74).

Related Occupation Codes: 45J; 09B

AR-1715-0321

Electric Motor and Generator Repairman

(Electric Motor and Generator Repair)

Course Number: 5-E-11.

Location: Engineer School, Ft. Belvoir, VA.

Length: 10 weeks (368-400 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train enlisted personnel to maintain and repair electric motors, dynamotors, motor generators, generators, and allied control and starting equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of electric motors and generators. Topics include basic electricity, DC and AC generators, single- and multi-phase motors, and AC and DC motors.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (7/74).

AR-1715-0322

Fixed Cryptographic Equipment Repairer

(Fixed Cryptographic Equipment Repair)

Course Number: 160-32G10; 160-32G20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Monmouth, NJ. *Version 3:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 29-35 weeks (1080-1303 hours). *Version 2:* 37 weeks (1319 hours). *Version 3:* 24 weeks (896 hours).

Exhibit Dates: *Version 1:* 11/76-2/86. *Version 2:* 5/73-10/76. *Version 3:* 12/71-4/73.

Objectives: To train cryptographic equipment repairmen to install, operate, and repair fixed cryptographic equipment.

Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, and repair of fixed cryptographic equipment, including electrical and electronic fundamentals, and teletypewriter security equipment TSEC/KW-26. *Version 1:* Phase I (6 weeks) includes lectures and laboratory experience in electrical fundamentals and repair of semiconductor power supplies, oscillators, and basic logic circuits. Phase II (29 weeks) covers installation, operation and repair of fixed cryptographic equipment, and teletypewriter security equipment. Note: Students who have attended Modules 201, 202, 203, and 7 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (29 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (35 weeks) of this course. *Version 2:* Topics include pulse generator circuitry, logic circuits, security subjects, electronic tactical teletypewriter security equipment TSEC/KW-7, full-duplex electronic key generator TSEC/KG-13, and COMSEC support facility.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory for students completing 29 weeks of the course or 2 semester hours in electricity or electronics and 5 in electricity or electronics laboratory for students completing 35 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics for students completing either 29 or 35 weeks of the course (see note above) (4/77). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in electrical and electronic laboratory for non-electrical-engineering students, 2 as a technical elective for non-electrical-engineering students or 1 in electronic instrumentation laboratory for electrical engineering students (6/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical and electronic laboratory for non-electrical-engineering students, 2 as a technical elective for non-electrical-engineering students, or 1 in electronic instrumentation laboratory for electrical engineering students (6/74).

Related Occupation Codes: 32G; 09B

AR-1715-0323

Nike Internal Guidance Repair
(Hercules Transition)

Course Number: 9-S-254.1(T).

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 4-5 weeks (140-180 hours).

Exhibit Dates: 10/58-12/68.

Objectives: To provide Nike Ajax internal guidance repairmen with transition training on the Nike Hercules system.

Instruction: Lectures and practical exercises in the inspection, test, and field maintenance of the Nike Hercules internal guidance system, including introduction to Nike Hercules system, internal guidance set and control system, test set group, RF and pulse components, guidance set chassis field maintenance check-out laboratory, detonation control and transistors, automatic pilot control servo and missile harness, RF test set component analysis, and guidance set and complete missile check-out.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0324

Pershing Officer

(Pershing II Officer)

(Pershing Officer)

Course Number: *Version 1:* 2F-13C; 2F-1190P. *Version 2:* 2F-1190P; 2F-1190E; 6-A-1190E.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 5-8 weeks (206-297 hours). *Version 2:* 6-8 weeks (222-299 hours).

Exhibit Dates: *Version 1:* 2/72-Present. *Version 2:* 11/62-1/72.

Objectives: To train officers to supervise the maintenance and operation of the Pershing missile system.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of the maintenance and operation of the Pershing missile system, including communications equipment. *Version 1:* Topics include missile assembly and disassembly, and firing section operations. *Version 2:* Topics include inertial guidance and control, nuclear safety, gunnery and launcher familiarization, basic electronics, digital computer fundamentals, firing battery and data computer, ground handling equipment, and testing procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (2/88). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (6/74); in the lower division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/74).

AR-1715-0325

Surface-to-Surface Missile (SSM)
Officer Basic

Course Number: 44-O-C.

Location: Antiaircraft and Guided Missile School, Ft. Bliss, TX.

Length: 14-16 weeks (504-583 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train newly commissioned officers to perform as missile officers.

Instruction: Lectures and practical exercises in missile subjects, including motors and generators, basic electronics, communications, mathematics, map reading, guidance and firing procedures, propulsion systems, missile assembly and maintenance, ground handling equipment, gunnery, tactics, combined arms, and administrative procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electrical-engineering majors (6/74).

AR-1715-0326

Ordnance Guided Missile Officer, Air
Defense Missile

(Ordance Guided Missile Officer, AAGM)

Course Number: 9-A-4802; 9-A-F8; 9-O-68A.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 19-20 weeks (698-741 hours).

Exhibit Dates: 11/56-12/68.

Objectives: To train company grade officers to perform as ordnance guided missile officers.

Instruction: Lectures and practical exercises in the operation, maintenance, test, and check-out of air defense systems and associated equipment, including guided missile fundamentals; alternating current laws, circuitry, and test equipment; computers; principles of conventional missile warheads and nuclear weapons; Hercules acquisition radar; air defense missile systems; Hercules computer; ordnance guided missile and nuclear weapons logistics; GM and NW maintenance and shops; and logistical control procedures and logistical exercises.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical or mechanical systems laboratory, or 1 as an elective in management and administration (6/74).

AR-1715-0327

Surface-to-Surface Missile (SSM) Maintenance

Course Number: 44-O-41.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 31 weeks (1202 hours).

Exhibit Dates: 10/55-12/68.

Objectives: To train artillery officers in the function, operation, characteristics, maintenance, and inspection of guided-missile fire control systems, launching and handling equipment, and on-missile materiel.

Instruction: Lectures and practical exercises in the function, operation, characteristics, maintenance, and inspection of guided-missile fire control systems, launching and handling equipment, and on-missile materiel, including electricity; radar electronics; specific radar, computer and Doppler sets; operational employment of the Corporal fire control system; Corporal missile components and test equipment; missile check-out and firing; missile propulsion system, missile uncrating and assembly, and service area check-out; missile ground handling equipment; SSM gunnery; guided missile atomic warhead materiel orientation; and surface-to-surface missile tactics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics (6/74).

AR-1715-0328

Surface-to-Surface (SSM) Mechanical Materiel Maintenance

Course Number: 44-E-39.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 8 weeks (279 hours).

Exhibit Dates: 10/55-12/68.

Objectives: To train enlisted personnel to assemble, install, and maintain SSM mechanical on-missile guidance systems and associated test equipment.

Instruction: Lectures and practical exercises in SSM mechanical on-missile guidance systems and associated test equipment assembly, installation, and maintenance, including basic electricity, test equipment, Corporal missile orientation, missile servicing, and ground handling equipment operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/74).

AR-1715-0329

Ordnance Guided Missile Company Grade Officer

Course Number: 9-O-68.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 10 weeks (440 hours).

Exhibit Dates: 1/56-12/68.

Objectives: To train commissioned officers who have completed the ordnance officer basic course to perform as ordnance guided missile operations officers.

Instruction: Lectures and practical exercises in general supervision and direction of logistical support required for ordnance guided missile systems, including fundamental missile subjects, SAM systems, SSM systems, electrical and radar fundamentals, Corporal guidance system and computer, logistics, and new guided missile development.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0330

1. Missile Maintenance Officer
2. Missile Maintenance Officer
3. Ordnance Missile Systems Maintenance Officer
   (Ordnance Guided Missile Officer (FAM))
   (Ordnance Guided Missile Officer (FAGM))

Course Number: *Version 1:* 4F-4516. *Version 2:* 4E-4516. *Version 3:* 9-A-4801; 9-A-4802; 9-A-F9; 9-O-68B.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 14-22 weeks (478-774 hours). *Version 2:* 20-21 weeks (689-729 hours). *Version 3:* 19-20 weeks (700-746 hours).

Exhibit Dates: *Version 1:* 5/71-12/74. *Version 2:* 1/66-4/71. *Version 3:* 11/56-12/65.

Objectives: To train officers to be missile officers.

Instruction: Lectures and practical exercises in electronic circuit analysis, mechanical and hydraulic systems, block-diagram analysis of missile subsystems, and missile systems familiarization.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74). *Version 2:* In the vocational certificate category, 2 semester hours in business administration or management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68). *Version 3:* In the vocational certificate category, 4 semester hours in business administration or management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AR-1715-0331

Communication Center Operations

Course Number: 11-E-27.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 8 weeks (280 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train enlisted personnel to receive and process incoming and outgoing messages for transmission by signal communications.

Instruction: Lectures and practical exercises in communication center operations, including introduction to communications; messenger communication; elementary military cryptography; operation with specific converters; operation of specific equipment; message center operations; tape relay procedures; comcenter operations; message flow through a communications center and the duties of personnel; operation characteristics of semiautomatic equipment and the duties of tape relay personnel; and radio procedure headings.

Credit Recommendation: In the vocational certificate category, 2 semester hours in cryptography, and 2 as an elective in electronic communications (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in cryptography, and 2 as an elective in electronic communications (7/74).

AR-1715-0332

Telephone Installation and Repair

Course Number: 11-R-323.1; 11-E-5.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 8 weeks (280-320 hours).

Exhibit Dates: 11/53-12/68.

Objectives: To train enlisted personnel to install, replace, and maintain local and common battery telephones.

Instruction: Lectures and practical exercises in the installation, replacement, and maintenance of local and common battery telephones, including communications introduction, basic telephone principles, substation installation, field telephone installation, electrical test equipment, circuit analysis and basic electricity applicable to telephone equipment, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 2 in communications within electronics programs (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 2 in communications within electronics programs (7/74).

AR-1715-0333

Radio Fingerprinting

Course Number: 231-F3.

Location: Security Agency School, Ft. Devens, MA.

Length: 6 weeks (200 hours).

Exhibit Dates: 1/66-9/86.

Objectives: To train enlisted personnel in the theories and techniques of radio fingerprinting.

Instruction: Lectures and practical exercises in the theories and techniques of radio fingerprinting, including theory and equipment operation, processing and analysis, records and reports, transmitter characteristics of classification, and film processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or radio theory (7/74).

AR-1715-0334

Basic Avionics Maintenance Officer

Course Number: 4C-F7.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 4 weeks (152-155 hours).

Exhibit Dates: 2/67-12/86.

Objectives: To train commissioned and warrant officers in the maintenance procedures for aircraft electronic communication, navigation, stabilization, and identification systems, and associated ground tactical equipment.

Instruction: Lectures and practical exercises in basic avionics maintenance, including introduction to avionics; avionics equipment in light observation and light transport aircraft; avionics equipment in command, transport, and surveillance aircraft; ground communication, navigation, and radar equipment; administrative and supply procedures; and bench repair and airfield facilities operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-1715-0335

Aviation Electronic Equipment Repair

Course Number: 102-284.2; 11-R-284.2.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 28 weeks (1040-1045 hours).

Exhibit Dates: 5/62-5/66.

Objectives: To train enlisted personnel in aviation electronic equipment repair.

Instruction: Lectures and practical exercises in the performance of field and depot maintenance on electronic communication, navigation, stabilization, identification, and associated ground equipment, including introduction to communications and avionics, electronic fundamentals, VHF and UHF aircraft communications and command communications equipment, automatic flight communication equipment, field maintenance of avionics equipment, and specific avionics equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 3 in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory or 2 as an elective for non-engineering students (7/74).

AR-1715-0336

Avionic Communications Equipment Repair

Course Number: *Version 1:* 102-35L20. *Version 2:* 102-35L20. *Version 3:* 102-35L20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 14-22 weeks (507-806 hours). *Version 2:* 16-22 weeks (581-804 hours). *Version 3:* 19-22 weeks (702-815 hours).

Exhibit Dates: *Version 1:* 1/77-11/81. *Version 2:* 1/75-12/76. *Version 3:* 5/67-12/74.

Objectives: To train technicians to operate and maintain airborne communication equipment.

Instruction: *All Versions:* Lectures and practical exercises in basic electrical and electronic circuit theory, block-diagram analysis of communication systems, and troubleshooting techniques. *Version 1:* After 11/81 see AR-1715-0662. Note: Students who have completed Modules 201, 202, 203, 4, 5 and 6 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (14 weeks) of this course. Please see AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phase I and II (22 weeks) of this course. *Version 2:* Note: Students who have completed Modules 1, 2, 3, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (16 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (22 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in basic electronics and troubleshooting for students completing 22 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems for completion of 14 or 22 weeks of the course (See note above) (4/77). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory for those students completing 16 weeks; or 3 semester hours in basic electricity or electronics and 2 in electronics laboratory for those students completing 22 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity or electronics for those students completing 22 weeks; no credit for students completing 16 weeks (see Note above) (3/75). *Version 3:* In the vocational certificate category, 4 semester hours in electrical and electronic circuit theory, 3 in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical and electronic circuit theory, 2 in electrical laboratory (7/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74).

Related Occupation Codes: 09B; 35L; 35P.

AR-1715-0337

Avionic Flight Control Equipment Repair

Course Number: 102-35N20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 12-15 weeks (431-540 hours). *Version 2:* 12-15 weeks (429-538 hours). *Version 3:* 14-18 weeks (512-663 hours).

Exhibit Dates: *Version 1:* 6/76-3/78. *Version 2:* 9/74-5/76. *Version 3:* 4/67-8/74.

Objectives: To train technicians to maintain and repair aircraft control systems.

Instruction: *All Versions:* Lectures and practical exercises in aircraft control systems maintenance and repair, including electrical and electronic circuit theory, control system principles, block diagram analysis, and troubleshooting techniques. *Version 1:* Note: Students who have attended Modules 201 and 202 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will attend only Phase II (12 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (15 weeks) of this course. *Version 2:* Note: Students who have completed Modules 1 and 2 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (12 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (15 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in troubleshooting procedures for students completing 12 weeks of the course or 2 semester hours in basic electronics and troubleshooting and 2 semester hours in troubleshooting procedures for students completing 15 weeks of the course (see note above) (4/77). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity or electronics laboratory for those students completing 15 weeks; or 2 semester hours in electronics laboratory for those students completing 12 weeks (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity or electronics laboratory for those students completing 15 weeks; no credit for those students completing 12 weeks (see note above) (5/75). *Version 3:* In the vocational certificate category, 2 semester hours in electrical and electronic circuit theory and 3 in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical and electronic circuit theory and 2 in electronics laboratory (7/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (7/74).

Related Occupation Codes: 09B; 35N; 35P.

AR-1715-0338

Avionics Mechanic

Course Number: 102-35K20.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 14-18 weeks (505-664 hours).

Exhibit Dates: 3/67-12/86.

Objectives: To train enlisted personnel to maintain aircraft electronic communication, navigation, stabilization, identification, and associated ground tactical equipment.

Instruction: Lectures and practical exercises in the maintenance of aircraft electronic communication, navigation, stabilization, identification, and associated ground tactical equipment. Course includes block-diagram analysis and troubleshooting techniques for varied aircraft electronic equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics laboratory (7/74).

Related Occupation Codes: 35K; 35P.

AR-1715-0339

Lacrosse Ordnance Maintenance Supervision

Course Number: 9-N-4815.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 29 weeks (1061 hours).

Exhibit Dates: 2/58-12/68.

Objectives: To train warrant officers and enlisted personnel to supervise the maintenance of the Lacrosse guided missile system and associated test equipment.

Instruction: Lectures and practical exercises in the maintenance of the Lacrosse guided missile system and associated test equipment, including ordnance service in the field, electromechanical system and ground handling equipment, Lacrosse guidance system operation, missile-borne guidance system circuit analysis and shop set, test equipment maintenance and repair, system analysis, and ordnance guided missile maintenance in the field.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical shop, 1 in shop supervision (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory, 1 in shop supervision (7/74); in the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AR-1715-0340

Avionic Navigation Equipment Repair

Course Number: 102-35M20.

Location: *Version 1:* Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA. *Version 3:* Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 9-17 weeks (315-614 hours). *Version 2:* 11-17 weeks (391-614 hours). *Version 3:* 16-17 weeks (617-626 hours).

Exhibit Dates: *Version 1:* 6/76-3/78. *Version 2:* 9/74-5/76. *Version 3:* 5/66-8/74.

Objectives: To train technicians to operate and repair electronic navigation equipment.

Instruction: *All Versions:* Lectures and practical exercises in electrical and electronic circuit principles; circuit and block diagram analysis of transmitting and receiving navigation systems; and troubleshooting and maintenance procedures. *Version 1:* Note: Students who have attended Modules 201, 202, 203, 4, 5/6 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (9 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (17 weeks) of this course. *Version 2:* Note: Students who have completed Modules 1, 2, 3, and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (11 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who do not attend COBET will complete both Phases I and II (17 weeks) of this course.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in basic electronics and troubleshooting for students completing 17 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications laboratory for students completing 9 or 17 weeks of the course (see note above) (4/77). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity or electronics and 2 in electronics laboratory for those students completing 17 weeks; or 2 semester hours in electronics laboratory for those students completing 11 weeks (see note above) (5/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity or electronics for those students completing 17 weeks; no credit for those students completing 11 weeks (see note above) (5/75). *Version 3:* In the vocational certificate category, 5 semester hours in electrical circuit theory and 3 in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical circuit theory and 2 in electronics laboratory (7/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (7/74).

Related Occupation Codes: 09B; 35M; 35P.

AR-1715-0341

Conventional/Precise Power Generation

Course Number: 662-52B20; 662-52B30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 9 weeks (342 hours).

Exhibit Dates: 9/67-4/71.

Objectives: To train enlisted personnel in the installation, operation, and organizational maintenance of portable generating equipment, and in precise-power generation.

Instruction: Lectures and practical exercises in conventional- and precise-power generation, including fundamental maintenance, internal-combustion engine maintenance, diesel engine maintenance, electrical fundamentals, conventional generator sets, and precise-power generation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory and machine theory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in machines laboratory, and additional credit in machines laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in machines laboratory, and additional credit in machines laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 52B; 52C; 52D.

AR-1715-0342

Navy Broadcast Terminal Operator

Course Number: 102-F32.

Location: Signal School, Ft. Gordon, GA.

Length: 2 weeks (78 hours).

Exhibit Dates: 5/76-3/78.

Objectives: To train Navy personnel in the skills and techniques required to operate, inspect, test, and identify malfunctions to the operation level in specific satellite communications terminals.

Instruction: Instruction in satellite communications terminal operation and function, including RF systems, tracking equipment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in satellite communications equipment maintenance (4/77).

AR-1715-0343

Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair

Course Number: 622-F17.

Location: Signal School, Ft. Gordon, GA.

Length: 6 weeks (205-210 hours).

Exhibit Dates: *Version 1:* 8/78-9/86. *Version 2:* 9/76-7/78.

Objectives: To provide general support maintenance on the overseas automatic switching center (ASC) uninterrupted power system.

Instruction: *Version 1:* Instruction in aligning, preventative maintenance and troubleshooting the Bypass Power System including battery charger and inverter. Review of transistor fundamentals, logic, circuits and polyphase theory and oscilloscope operation. *Version 2:* Instruction in the maintenance and operation of a specific switchboard set, a telephone set, and signal converters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic electronics (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting (8/79). *Version 2:* In the vocational certificate category, 3 semester hours in telephone system maintenance (4/77).

Related Occupation Codes: 32F.

AR-1715-0344

Satellite Communications (SATCOM) Controller

Course Number: 102-F26.

Location: Signal School, Ft. Gordon, GA.

Length: 4 weeks (150 hours).

Exhibit Dates: 6/76-9/85.

Objectives: To provide students with a working knowledge of the operation of a satellite communications control system and the basic mathematical computations relating to system operation.

Instruction: After 9/85 see AR-1715-0694. Phase I instruction covers satellite system operations, control, subsystem operation and satellite control station management. Phase II covers instruction in basic mathematics, including exponential numbers and logarithms; aspects of satellite systems, including signal techniques, noise, spectrum analysis, transmission problems and related materials.

Credit Recommendation: In the vocational certificate category, 1 semester hour in satellite communications for Phase I and 2 semester hours in satellite communications system operation for Phase II (4/77).

Related Occupation Codes: 26Y; 32D.

AR-1715-0345

Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair

(Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training)

Course Number: 102-F42; 102-F31.

Location: Signal School, Ft. Gordon, GA.

Length: 7-8 weeks (272-295 hours).

Exhibit Dates: 5/76-11/86.

Objectives: To provide selected personnel with the knowledge, skills, and techniques required to operate, inspect, test, and perform maintenance calibrations and repairs on specified satellite communications terminals.

Instruction: After 11/86 see AR-1715-0702. Instruction in the operation and repair of satellite communications terminals, including RF circuitry, troubleshooting, block-diagram analysis, tracking equipment, and control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in satellite communications system maintenance (4/77).

Related Occupation Codes: 26Y.

AR-1715-0346

1. Surveillance Photographic Equipment Repair
2. Surveillance Photographic Equipment Repair
3. Surveillance Photographic Equipment Repair
   (Combat Surveillance Photographic Equipment Repair)
4. Combat Surveillance Photographic Equipment Repair

Course Number: *All Versions:* 198-41G20. *Version 4:* 198-401.3; 11-R-F9.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Signal School, Ft. Monmouth, NJ. *Version 4:* Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 19-29 weeks (632-952 hours). *Version 2:* 24-28 weeks (865-994 hours). *Version 3:* 28-29 weeks (995-1087 hours). *Version 4:* 23-24 weeks (850-896 hours).

Exhibit Dates: *Version 1:* 6/77-1/89. *Version 2:* 11/74-5/77. *Version 3:* 10/70-10/74. *Version 4:* 10/60-9/70.

Objectives: To train enlisted personnel to install, operate, and perform support and depot maintenance of combat surveillance photographic equipment.

Instruction: *All Versions:* Lectures and practical exercises in installation, operation, and support and depot maintenance of combat surveillance photographic equipment, including electrical fundamentals, photographic darkroom equipment, photographic surveillance equipment repair, automatic camera control systems, electrical test equipment and specific test sets, and troubleshooting of specific camera system. *Version 1:* Some students will complete Basic Electronics Training component which includes basic electronics theory and components, testing equipment, AC/DC circuits, solid state circuits, digital circuits, troubleshooting and technical mathematics, and, for National Guard and reservists, vacuum tube theory and circuits, components. *Version 2:* Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (24 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (28 weeks) of this course. *Version 3:* Includes flasher system troubleshooting and repair. *Version 4:* Includes electronic fundamentals, day aerial and day-night aerial cameras, semiconductor fundamentals, magnetic amplifiers, and repair of recorder-processor-viewers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in photographic repair, 2 in machine tool operations, and, for students completing Basic Electronics Training component, 3 semester hours in introduction to electronics, 1 in technical mathematics, 2 in AC/DC circuits, 2 in solid state circuits, 2 in troubleshooting techniques, 2 in digital techniques and, for National Guard and reservists, 2 in vacuum tubes (6/79); in the lower-division baccalaureate/associate degree category, 4 semester hours in troubleshooting electronic and industrial control circuits, 2 in optics, 2 in solid state, 3 in electro-mechanical and industrial control circuits, 2 in basic photography, 2 in electronic circuitry, and 2 in instrument repair and, for students completing the Basic Electronics Training component, 3 semester hours in introduction to electronics, 1 in technical mathematics, 2 in AC/DC theory, 2 in solid state circuits, 2 in troubleshooting techniques, 2 in digital circuits and, for National Guard Guard and reservists, 2 in vacuum tube circuits (6/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory for those students completing 28 weeks; no credit for those completing 24 weeks (see note above) (6/75). *Version 3:* In the vocational certificate category, 2 semester hours in photographic repair, 3 in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in photographic repair, 3 in electronics (6/74); in the upper-division baccalaureate category, 2 semester hours in photographic repair, 3 in electronics (6/74). *Version 4:* In the vocational certificate category, 2 semester hours in photographic repair, 3 in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in photographic repair, 3 in electronics (6/74).

Related Occupation Codes: 41G; 41H.

AR-1715-0347

1. Aviation Electronic Equipment Maintenance
2. Electronic Navigation Equipment Repair
3. Electronic Navigation Equipment Repair

Course Number: 11-R-284.1.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: *Version 1:* 19 weeks (698-703 hours). *Version 2:* 32 weeks (1184 hours). *Version 3:* 23 weeks (850 hours).

Exhibit Dates: *Version 1:* 8/62-5/66. *Version 2:* 3/60-7/62. *Version 3:* 3/57-2/60.

Objectives: To train technicians to operate, maintain, and repair airborne electronic equipment.

Instruction: Lectures and practical exercises in airborne electronic equipment operation, maintenance, and repair, including electronic circuit theory, block-diagram analysis, introduction to communications, electron tubes, amplifiers and oscillators, power supplies and transmitters, UHF and VHF aircraft communications equipment, and troubleshooting techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electricity or electronics, 4 in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics as a technical elective for non-technical students and 1 in electrical laboratory (7/74). *Version 2:* In the vocational certificate category, 7 semester hours in electricity, 4 in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics as a technical elective for non-technical students and 1 in electrical laboratory (7/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity or electronics, 4 in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics as a technical elective for non-technical students and 1 in electrical laboratory (7/74).

AR-1715-0348

1. Ballistic Missile Test Instrument Repair (Redstone)
2. Ballistic Missile Test Instrument Repair

Course Number: *All Versions:* 9-R-371.2.

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 13 weeks (483 hours). *Version 2:* 14 weeks (528 hours).

Exhibit Dates: *Version 1:* 12/62-12/68. *Version 2:* 5/58-11/62.

Objectives: To train guidance and control repairmen in the operation, trouble diagnosis, and maintenance of Redstone missile guidance and control test instruments.

Instruction: *All Versions:* Lectures and practical exercises in the operation, trouble diagnosis, and maintenance of ballistic missile guidance and control test instruments, including introduction to components test fixtures; components test instruments; guidance computer test fixture; actuator control computer and inverter test fixture, and relay box, program device, and specific test fixture. *Version 1:* Topics include digital controller and functional units; pulse generators; special amplifiers; performance tests; clippers, clampers, and limiters; and programming. *Version 2:* Topics include multivibrators; triodes and multielement tubes; vacuum tubes, rectifiers, and voltage multipliers; blocking and ringing oscillators; LC and RC oscillators; and RC coupled, audio power, RF, and DC amplifiers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/74). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68).

AR-1715-0349

Pershing Missile Battery

Course Number: *Version 1:* 121-15E20. *Version 2:* 121-15E20; 121-163.1. *Version 3:* 6-R-163.6; 6-R-F23.

Location: *Version 1:* Field Artillery School, Ft. Sill, OK. *Version 2:* Artillery and Missile School, Ft. Sill, OK. *Version 3:* Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 7 weeks (263 hours). *Version 2:* 7 weeks (244 hours). *Version 3:* 9 weeks (326-327 hours).

Exhibit Dates: *Version 1:* 2/69-1/88. *Version 2:* 3/65-1/69. *Version 3:* 10/62-2/65.

Objectives: To train enlisted personnel in the assembly, check-out, maintenance, and operation of the Pershing missile and associated ground support equipment.

Instruction: *All Versions:* Lectures and practical exercises on the Pershing missile battery, including power-producing equipment, erector-launcher, laying, and warhead section. *Version 1:* Topics include general subjects, firing-battery operations, and fundamentals of internal defense/development operations. *Version 2:* Topics include specific artillery transport, electrical safety and computers, programmer test station, azimuth laying, ground handling equipment, firing-platoon operations, and target acquisition. *Version 3:* Topics include specific artillery transport, communications systems and equipment, basic electricity, theory and functioning of missile, missile fire data computer, automatic guidance sequencing equipment, test and check-out, ground handling equipment, missile handling, battery area, firing-position procedures, azimuth laying, target acquisition, and tactics and combined arms.

Credit Recommendation: *Version 1:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (7/74). *Version 2:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (7/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (7/74).

Related Occupation Codes: 12E.

AR-1715-0350

Dial Central Office Repair
(Dial Central Office Maintenance)

Course Number: 622-36H20; 11-R-328.1; 11-R-332.1; 11-E-6.

Location: Signal School, Ft. Monmouth, NJ; Signal School, Ft. Gordon, GA.

Length: 19–32 weeks (706–1,200 hours).

Exhibit Dates: 10/54–12/78.

Objectives: To provide the working knowledge required to perform maintenance and repair and to assist in the installation of dial central office telephone exchange equipment.

Instruction: Instructional units include electrical fundamentals, pulse generator cicuitry, AE dial central office, AUTOVON interface equipment, XY dial central office, OCO installation practices, telephony, principles of electricity as applied to telephony, basic manual telephone circuitry, fundamentals of automatic telephony, telephone dials, Strowger two motors switch, central office installation practices, dial central office circuits, power training, and XY dial systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (7/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (7/74).

Related Occupation Codes: 36H.

AR-1715-0351

Manual Central Office Repair
(Manual Central Office Maintenance)

Course Number: 622-36G20; 622-327.1; 11-R-327.1; 11-R-331.1; 11-E-4.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 13–15 weeks (473–560 hours).

Exhibit Dates: 11/53–12/78.

Objectives: To train enlisted personnel to install and repair telephones and manual central office exchange equipment.

Instruction: Lectures and practical exercises in the installation and maintenance of telephones and manual central office exchange equipment, including tactical switchboards, mobile multiple-position central offices, outside-circuit testing and equipment maintenance, introduction to communications, principles of electricity, basic telephony, fixed central offices, outside-plant testing, and supply and telephone systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 4 in electronic communications (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 4 in electronic communications (7/74).

Related Occupation Codes: 36G.

AR-1715-0352

1. Hawk Firing Section Repairer
2. Hawk Launcher and Mechanical Systems Repairer
   (Improved Hawk Launcher and Mechanical Systems Repairer)
3. Improved Hawk Launcher and Mechanical Systems Repairer
4. Improved Hawk Launcher and Mechanical Systems Repair
5. Improved Hawk Mechanical Systems Repair
6. Improved Hawk Mechanical Systems Repair

Course Number: *Version 1:* 121-27H10. *Version 2:* 121-24L10. *Version 3:* 121-24L10. *Version 4:* 121-24L20. *Version 5:* 121-46D20. *Version 6:* 121-46D20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 28–29 weeks (1064 hours). *Version 2:* 27–32 weeks (1033–1109 hours). *Version 3:* 30–31 weeks (1039 hours). *Version 4:* 33 weeks (1023 hours). *Version 5:* 24 weeks (820 hours). *Version 6:* 25 weeks (880 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 2/83–9/89. *Version 3:* 3/78–1/83. *Version 4:* 3/77–2/78. *Version 5:* 6/74–2/77. *Version 6:* 12/72–5/74.

Objectives: To train enlisted personnel to inspect, test, and repair the electrical, electro-mechanical, mechanical, hydraulic, and hydro-pneumatic portions of the Improved Hawk Missile System.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and practical exercises geared to a thorough working knowledge of DC and AC circuits and parallel resistive circuits, characteristics of inductors and capacitors, principles of transformers, the RL,RC, and RLC circuits and vacuum tube and semiconductors devices and their applications. Emphasis is on electrical, mechanical, and hydraulic system maintenance, inspection, testing, and repair of the Improved Hawk and associated test equipment. *Version 3:* Conferences, demonstrations and practical exercises in electronics subjects including DC and AC circuits, resonant circuits, electronic amplifier circuits, advanced circuits and transistor fundamentals; soldering procedures; general missile mechanics; and extensive coverage of the Improved Hawk launcher electronics and electomechanical systems. *Version 4:* Conferences, demonstrations and practical exercises in electronic subjects including DC and AC circuits, resonant circuits, electronic amplifier circuits, advanced circuits and transistor fundamentals; soldering procedures; general missile mechanics; and extensive coverage of the Improved Hawk launcher electronics and electromechanical systems. *Version 5:* Lectures and practical exercises geared to a thorough working knowledge of DC and AC series and parallel resistive circuits, characteristics of inductors and capacitors, principles of transformers, the RL, RC and RLC circuits. Emphasis is on electrical, mechanical, and hydraulic system maintenance, inspection, testing, and repair of the Improved Hawk Missile System and associated test equipment. *Version 6:* Lectures and practical exercises geared to a thorough working knowledge of DC and AC series and parallel resistive circuits, characteristics of inductors and capacitors, principles of transformers, the RL, RC and RLC circuits. Emphasis is on electrical, mechanical, and hydraulic system maintenance, inspection, testing, and repair of the Improved Hawk Missile System and associated test equipment. Version includes transistor fundamentals.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 1 in electronic shop practices, 3 in basic electronics, 4 in electromechanical equipment maintenance (10/87). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in transistor theory, 2 in vacuum tube circuit theory, 4 in hydraulic systems and maintenance and 4 in mechanical systems (8/79). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in basic electronics, 6 in hydraulic systems and maintenance and 6 in mechanical systems (8/79). *Version 5:* In the vocational certificate category, 4 semester hours in basic electronics and troubleshooting (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and troubleshooting (3/75). *Version 6:* In the vocational certificate category, 4 semester hours in electronics, 3 in mechanics, 2 in electricity, and 4 in physics for technicians (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in mechanics, 3 in physics for technicians, and 3 as a technical elective for non majors (8/74).

Related Occupation Codes: 27H; 46D; 24L; 09B.

AR-1715-0353

1. Sergeant Firing Set Repair
2. Sergeant Firing Set Repair
   (Sergeant Firing Set Repairman)

Course Number: 121-21R20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 18 weeks (614 hours). *Version 2:* 22 weeks (770–777 hours).

Exhibit Dates: *Version 1:* 11/72–12/73. *Version 2:* 1/67–10/72.

Objectives: To provide the student with a working knowledge necessary to inspect, test, perform support maintenance, and to isolate and repair malfunctions of the assembly level of a Sergeant missile system.

Instruction: Emphasis is on a general knowledge of the function, operation, and maintenance of a Sergeant missile system. Additional topics include: DC and AC series and parallel resistive circuits; series RL, RC, RLC, and series and parallel resonance; use of the multimeter, impedance calculator, vector diagram, VTVM, and oscilloscope; the characteristics of vacuum tubes, power supplies, class A and AB amplifiers, coupling circuits, voltage regulators, magnetic amplifiers, oscillators, and syncros; and semiconductor devices, power supplies, amplifiers, pulse networks, and servo systems unique to a missile system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity or electronics (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (8/74). *Version 2:* In the vocational certificate category, 4 semester hours in electricity or electronics (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (12/68).

Related Occupation Codes: 21R.

AR-1715-0354

CALIBRATION TECHNICIAN AND SPECIALIST

Course Number: 4B-252A; 198-35H20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 40–41 weeks (1309–1519 hours). *Version 2:* 19 weeks (750 hours).

Exhibit Dates: *Version 1:* 12/69–1/78. *Version 2:* 4/66–11/69.

Objectives: To train enlisted personnel and warrant officers to calibrate standards and all test and measuring equipment, and to perform maintenance and repair on secondary reference and secondary transfer calibration standards.

Instruction: *All Versions:* Lectures and laboratories in fundamentals of algebra, trigonometry, DC and AC circuits; use of oscilloscopes and other test instruments; introduction to microwave and associated test equipment; physical standards; calibration operations; and maintenance of tools and equipment; and use of slide rules. *Version 1:* Includes vacuum tube and transistor theory, rectifiers, regulators, amplifiers, transmitters and receivers, wave-shaping pulse and gating circuits, power and attenuation measurements, secondary standards and meter calibrations, electronic instrument calibration and maintenance, bridge calibration, frequency measurement techniques, and reflectometry equipment and techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 30 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 21G; 21T; 22G; 22K; 23N; 23Q; 23S; 23T; 23U; 24B; 24F; 24Q; 24U; 25B; 25D; 25G; 25H; 25J; 26B; 26D; 26H; 26L; 26M; 26N; 26P; 26T; 27B; 27D; 31B; 31E; 31J; 31L; 32B; 32C; 32D; 32E; 32F; 32G; 35B; 35D; 35E; 35F; 35H; 35L; 35M; 35N.

AR-1715-0355

NIKE RADAR AND COMPUTER REPAIRER

(Nike Radar and Computer Repair Repair)

Course Number: *All Versions:* 104-23N20. *Version 1:* 104-23N10. *Version 5:* 104-F2; 9-S-F47.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Missile and Munitions School, Redstone Arsenal, AL. *Version 4:* Missile and Munitions School, Redstone Arsenal, AL. *Version 5:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: *Version 1:* 43 weeks (1477 hours). *Version 2:* 39 weeks (1286–1363 hours). *Version 3:* 35–39 weeks (1187–1329 hours). *Version 4:* 40 weeks (1374 hours). *Version 5:* 44 weeks (1586–1649 hours).

Exhibit Dates: *Version 1:* 10/79–12/83. *Version 2:* 5/78–9/79. *Version 3:* 5/74–4/78. *Version 4:* 10/72–4/74. *Version 5:* 8/64–9/72.

Objectives: To train enlisted personnel to inspect, test, and perform support maintenance on Nike Hercules Lopar, missile-tracking radar, target-ranging radar, computers, SAMCAP, and associated test equipment.

Instruction: *Version 1:* Lectures and laboratories in DC and AC circuits transient and pulse forming circuits, vacuum tube electronics, amplifiers, ascillators, mixer and detector circuits, and use of tools and NIKE system theory, troubleshooting and maintenance procedures. Includes vacuum tube amplifiers, oscillators, voltage regulators, multivibrators, gating circuits, limiters, clamps, phase splitters, and video amplifiers. Microwave theory presented in this course covers frequency and characteristics, antennas, transmission lines, waveguides, modulation klystrons, magnetions, travelling wave tubes and receiver transmitter analysis. NIKE specialist training consists of maintenance, repair and troubleshooting of the NIKE radar and computer systems. waveguides, modulation klystrons, magnetions, travelling wave tubes and receiver transmitter analysis. *Version 2:* Lectures and laboratories in DC and AC circuits, transient and pulse forming circuits, vacuum tube electronics, amplifiers, oscillators. mixer and detector circuits, and use of tools and Nike system theory, troubleshooting and maintenance procedures. Includes vacuum tube amplifiers, oscillators, voltage regulators, multivibrators, gating circuits, limiters, clamps, phase splitters, and video amplifiers. Microwave theory presented in this course covers frequency and characteristics, antennas, transmission lines, waveguides, modulation klystrons, magnetions, travelling wave tubes and receiver transmitter analysis. Nike specialist training consists of maintenance, repair and troubleshooting of the Nike radar and computer systems. *Version 3:* Lectures and laboratories in DC and AC circuits, transient and pulse-forming circuits, diode and vacuum tube electronics, amplifiers, oscillators, mixer and detector circuits, and use of tools and maintenance procedures. Phase I topics include basic electricity, concepts of work, energy, and power; DC and AC circuit theory—series, parallel, series-parallel, inductive, capacitive and LCR circuits; series and parallel resonant circuits; transformers and power supplies; triodes, biasing circuits, single- and multi-stage amplifiers, and voltage regulator circuits. Phase II topics include a simplified explanation of RC and LC transients and sine-wave oscillators; soldering techniques and practices; empirical description of the operation of vacuum tube pulse circuits; basic microwave procedures related to radar systems; and Nike radar and acquisition computer troubleshooting and repair. Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC, will complete only Phase II (35 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (39 weeks) of this course. *Version 4:* Lectures and laboratories in DC and AC circuits, transient and pulse-forming circuits, diode and vacuum tube electronics, amplifiers, oscillators, mixer and detector circuits, and use of tools and maintanance procedures. Emphasis on microwave circuits, transmission lines, and antennas; more detail on specific radar configurations; and Nike acquisition computer troubleshooting and repair. *Version 5:* Lectures and laboratories in DC and AC circuits, transient and pulse-forming circuits, diode and vacuum tube electronics, amplifiers, oscillators, mixer and detector circuits, and use of tools and maintenance procedures. Emphasis on heterodyne principles, servo systems, and Nike computer troubleshooting and repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic shop practices, 4 in electronic equipment maintenance, 3 in basic electricity/electronics, 2 in electronics laboratory, 3 in electronic devices, and 1 in microwave theory (11/83). *Version 2:* In the vocational certificate category, 24 semester hours in basic electricity, electronics, and troubleshooting for those students completing 39 weeks; 21 semester hours in basic electronics and troubleshooting for those students completing 35 weeks (see note above) (3/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity or electronics for those students completing 39 weeks; no credit for those students completing 35 weeks (see note above) (3/75). *Version 3:* In the vocational certificate category, 1 semester hour in microwave radar, 5 in electronic equipment repair techniques (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in vacuum tube circuits, 1 in microwave theory and 3 in circuits/electronics laboratory (8/79). *Version 4:* In the vocational certificate category, 10 semester hours in circuits or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in circuits or electronics (4/74); in the upper-division baccalaureate category, 4 semester hours in circuits or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, 10 semester hours in circuits or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23N; 252A; 09B.

AR-1715-0356

Nike Maintenance Supervision (Improved Hercules Transition)
(Nike Maintenance Supervision (Hercules Transition))

Course Number: 9-M-251B(TI); 9-N-251B(TI); 9-N-4811(TI); 9-N-4811(T).

Location: Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 14–16 weeks (516–601 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To train qualified Nike Ajax repairmen to supervise the maintenance of Nike Hercules guided missile systems and associated equipment.

Instruction: Lectures and practical exercises in block-diagram description of acquisition and tracking radar systems; introduction to operation of control circuits, receivers, PPI monitors, MTI circuits, and system analysis; evaluation of target presentation system; and location and identification of malfunctions, use of test equipment, and system maintenance on improved Nike Hercules missile systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical techniques (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical techniques, and additional credit in electrical techniques on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

AR-1715-0357

Improved Hawk Continuous Wave (CW) Radar Repair Transition

Course Number: 104-24K40-T; 104-24K20-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 16–17 weeks (510–584 hours). *Version 2:* 18 weeks (633 hours).

Exhibit Dates: *Version 1:* 4/74–12/79. *Version 2:* 2/72–3/74.

Objectives: To train Hawk continuous-wave radar repairmen to inspect, test, repair, and maintain the electronic systems of Improved Hawk launchers, continuous-acquisition radar, and continuous-wave, high-power illuminator radars.

Instruction: *Version 1:* Lectures and laboratory exercises including elementary semiconductor devices and circuits; soldering techniques and practices; introduction to computer subsystems, registers, counters, logic operations, memories, I/O, control, and arithmetic units; and troubleshooting and maintenance of electronic systems of Hawk launchers, continuous acquisition radar, continuous wave high power illuminator radar, and associated test equipment. *Version 2:* Lectures and laboratories in semiconductors, printed circuits, transistor electronics, pulse and gating circuits, power supplies, logic circuits and functions, computer control, and arithmetic circuits; binary and octal number systems; isolation and repair of major components of launcher and radar systems, including antennas, controls, servos, and power systems; inspection and testing of transmitter circuits, modulator oscillator assemblies, receivers, and counters; and functional block analysis of signal processors, sequencers, address counters, and logic control units.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic electronics (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/77). *Version 2:* In the vocational certificate category, 8 semester hours in electronic circuits (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits (4/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 23T; 24K.

AR-1715-0358

Improved Hawk Pulse Radar Repair Transition

Course Number: 104-24J20-T; 104-24J40-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 8–9 weeks (242–316 hours).

Exhibit Dates: 1/72–7/80.

Objectives: To train pulse radar repairmen to maintain and repair the electronic systems in the Improved Hawk pulse acquisition radar and associated equipment and test sets.

Instruction: Lectures and practical exercises in the maintenance and repair of the Improved Hawk pulse acquisition radar and associated equipment and test sets, including introduction to semiconductor diodes, transistors, amplifiers, power supplies, oscillators, nonsinusoidal oscillators, gating circuits, digital multimeter, dual-trace scope, electronic counter, function generator, microwave calibrator, high-frequency console operation, and various receiving systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/77).

Related Occupation Codes: 23S, 24J.

AR-1715-0359

Radar Display Equipment Repair

Course Number: 4C-F4; 150-363.1; 11-N-363.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 30 weeks (1040 hours).

Exhibit Dates: 4/64–12/68.

Objectives: To train warrant officers and enlisted personnel who have had previous training in fire distribution system electronics fundamentals, radio electronics, or electronic engineering to maintain missile master equipment within the AN/FSG-1 air defense system.

Instruction: Lectures and practical exercises in the maintenance of missile master (radar display) equipment within the AN/FSG-1 air defense system, including block diagrams of system elements and signal flow, position indicators, sweep generators, deflection and intensity circuits, gate circuits, and amplifiers; display, multiplex, and blanking circuit analysis; tag presentation and auxiliary target tracking; and height determination and tactical display equipment.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 223B; 251B.

AR-1715-0360

Field Radio Repairer Primary Technical
(Field Radio Repair)

Course Number: *Version 1:* 101-31E20. *Version 2:* 101-31E20. *Version 3:* 101-31E20; 11-R-296.1. *Version 4:* 11-E-12.

Location: Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 13–25 weeks (509–890 hours) *Version 2:* Phase I, 6 weeks; Phase II, 19 weeks (695–918 hours). *Version 3:* 15–23 weeks (547–850 hours). *Version 4:* 25 weeks (926–1000 hours).

Exhibit Dates: *Version 1:* 8/77–10/85. *Version 2:* 8/76–7/77. *Version 3:* 12/59–7/76. *Version 4:* 3/54–11/59.

Objectives: To train enlisted personnel to maintain field radio and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of field radio and associated equipment, including introductory communications, radio repair, field radio teletypewriter equipment, radio relay equipment, and general principles and components of AM and FM radio equipment. *Version 1.* NOTE: Students who have attended Modules 201, 202, and 203 of Common Basic Electronics Training (COBET) at Ft. Jackson,SC will attend only Phase II (21 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (25 weeks) of this course. *Version 2:* NOTE: Students who have attended Modules 1, 2, 3 and 4 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will attend only Phase II (19 weeks) of this course. See AR-1715-0389 for credit for COBET. Students who have not attended COBET will complete both Phases I and II (25 weeks) of this course.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in radio communication systems repair (7/85). *Version 2:* In the vocational certificate category, 4 semester hours in basic electronics and troubleshooting for students who complete 25 weeks of the course (see note above) (4/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems repair for students completing 19 or 25 weeks of the course (see note above) (4/77). *Version 3:* In the vocational certificate category, 3 semester hours in electricity or electronics and 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electricity or electronics (6/74). *Version 4:* In the vocational certificate category, 3 semester hours in electricity or electronics and 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68).

Related Occupation Codes: 09B; 31B; 31E.

AR-1715-0361

1. Improved Nike Hercules Fire Control System Maintenance
2. Improved Nike Hercules Fire Control System Maintenance

3. Improved Nike Hercules Fire Control System Maintenance
4. Improved Nike Hercules Fire Control System Maintenance
5. Improved Nike Hercules Fire Control System Maintenance
6. Improved Nike Hercules Fire Control System Maintenance
7. Nike Hercules Fire Control System Maintenance
   (Nike Universal Fire Control System Maintenance)
8. Nike Universal Fire Control System Maintenance

Course Number: *Version 1:* 121-24Q10. *Version 2:* 121-24Q20. *Version 3:* 121-24Q20. *Version 4:* 121-24Q20. *Version 5:* 121-23G20; 4B-222B, 121-226.1. *Version 6:* 44-N-222-B; 44-N-226.1. *Version 7:* 44-N-222-B; 44-N-226.1; 44-N-1178B. *Version 8:* 44-N-F10.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 52 weeks. *Version 2:* 38 weeks (1344-1347 hours). *Version 3:* 37-40 weeks (1352-1427 hours). *Version 4:* 40 weeks (1508 hours). *Version 5:* 40 weeks (1426-1431 hours). *Version 6:* 48 weeks (1727 hours). *Version 7:* 41-44 weeks (1571-1645 hours). *Version 8:* 46 weeks (1781 hours).

Exhibit Dates: *Version 1:* 10/81-10/84. *Version 2:* 1/77-10/81. *Version 3:* 4/70-12/76. *Version 4:* 5/68-3/70. *Version 5:* 1/66-4/68. *Version 6:* 9/64-12/65. *Version 7:* 5/59-8/64. *Version 8:* 11/57-4/59.

Objectives: To train enlisted personnel to maintain, troubleshoot, and align Improved Nike Hercules fire control systems equipment.

Instruction: *All Versions:* Lectures and practical experience in Nike Hercules fire control systems equipment operation, including schematic reading, circuit symbols identification, signal path tracing, components location, performing checks and adjustments, troubleshooting for faults, target ranging and tracking radars repair, missile tracking radar plotters repair, and missile prelaunch control and computer guidance circuits repair. *Version 1:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers, frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo system operation. *Version 2:* Course covers limited theoretical study of circuits with troubleshooting techniques being emphasized. *Version 3:* Instruction includes limited theoretical coverage of circuits.Emphasis is on troubleshooting techniques. *Version 4:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo systems operation. *Version 5:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo systems operation. *Version 6:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo systems operation. *Version 7:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo systems operation. *Version 8:* Instruction includes basic circuits and electronics, including Ohm's Law for series, parallel, AC and DC circuits; vacuum tube principles; rectifier circuits; amplifiers frequency response and impedance matching; oscillators; modulation systems introduction; and detectors, mixers, superheterodyne receivers, multivibrators, synchros, and servo systems operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 10 semester hours in basic electricity and electronics (12/84). *Version 2:* In the vocational certificate category, 6 semester hours in electronic circuits and systems (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/77). *Version 3:* In the vocational certificate category, 6 semester hours in electronic circuits and systems (2/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory and 3 in control systems (2/75). *Version 4:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity, electronics, or electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical engineering majors on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical engineering majors on the basis of institutional evaluation (4/74). *Version 6:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical engineering majors on the basis of institutional evaluation (4/74). *Version 7:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical engineering majors on the basis of institutional evaluation (4/74). *Version 8:* In the vocational certificate category, 10 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics for non-electrical engineering majors on the basis of institutional evaluation (4/74).

Related Occupation Codes: 24Q, 09B.

AR-1715-0362

1. Field Artillery Radar Maintenance
2. Weapons Support Radar Maintenance and Repair

Course Number: *Version 1:* 104-26B20/30-COBET. *Version 2:* 104-26B20; 104-26B30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* Phase I 8 weeks, Phase II(B20/B2T) 12-13 weeks, Phase III(B30/B3T) 5-9 weeks. *Version 2:* 22 weeks (770 hours).

Exhibit Dates: *Version 1:* 1/77-5/79. *Version 2:* 12/73-12/76.

Objectives: To provide enlisted personnel with a working knowledge of electricity and electronics fundamentals and the knowledge to operate, adjust, inspect, and maintain weapons support radar equipment.

Instruction: *All Versions:* Lectures and practical exercises in fundamentals of AC/DC circuits; electron theory; tube and transistor amplifiers and oscillators; antenna alignment; communication circuits; and oscillators, multivibrators, and associated test equipment including scopes and meters. *Version 1:* Phase II and III emphasize diagnostic testing and repair of field artillery radar units.

Credit Recommendation: *Version 1:* In the vocational certificate category, For those students completing Phase II (B20), 3 semester hours in electronics and laboratory; for those completing the add-on B2T, 4 semester hours in electronics and laboratory (1/80); in the lower-division baccalaureate/associate degree category, for those students completing phase II (B20) 2 semester hours in electronics and laboratory; for those completing B2T, 3 semester hours in electronics and laboratory and for those students completing Phase III, 3 semester hours in electronics and laboratory (2/80). NOTE: Refer to exhibit AR-1715-0389 for our credit recommendation for Phase I. *Version 2:* In the vocational certificate category, 10 semester hours in electronics and electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics and electronics laboratory (6/75); in the upper-division baccalaureate category, 3 semester hours in electronics and electronics laboratory on the basis of institutional evaluation (6/75).

AR-1715-0363

Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central Office Repair

Course Number: 150-34D20 (Phase VIII).

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (698 hours).

Exhibit Dates: 10/74-8/76.

Objectives: To train personnel to maintain the automatic telephone central office.

Instruction: Instruction in the operation and maintenance of automatic telephone central office equipment, including operational program loading, memory units, central processor, input and output assemblies, power supplies, and peripheral equipment maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic maintenance and 1 in telecommunications laboratory (5/75); in the lower-division baccalaureate/associate degree cat-

egory, 1 semester hour in computer operation laboratory (5/75).
Related Occupation Codes: 34D.

AR-1715-0364

Automatic Central Office Supervisor (AN/TTC-38(V) Automatic Central Office Supervisor)

Course Number: *All Versions:* 580-F3. *Version 1:* 260-F7; 31ZA7.
Location: Signal School, Ft. Gordon, GA.
Length: 4-5 weeks (163 hours).
Exhibit Dates: *Version 1:* 2/80-10/89. *Version 2:* 1/75-1/80.
Objectives: To train personnel to plan, supervise, coordinate, and assist in the installation, operation, and maintenance of a central office switching system.
Instruction: *Version 1:* Topics include equipment power requirements, preparation of operational plans, inspection of installations and operational procedures, and general system practices for tactical telephone switch system. *Version 2:* Topics include equipment power requirements, preparation of operational plans, inspection of installations and operational procedures, and general system practices.
Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in telephone traffic engineering procedures (10/87). *Version 2:* In the vocational certificate category, 1 semester hour in electronics laboratory (5/75).
Related Occupation Codes: 31Z.

AR-1715-0365

Automatic Central Office AN/TTC-25 Repair

Course Number: 150-F5.
Location: Signal School, Ft. Gordon, GA.
Length: 7 weeks (255 hours).
Exhibit Dates: 2/75-8/76.
Objectives: To provide personnel with the knowledge to install and maintain a specific automatic central office.
Instruction: Lectures on the basic operation of the specified equipment set.
Credit Recommendation: In the vocational certificate category, 1 semester hour in telecommunications laboratory (5/75).
Related Occupation Codes: 34D.

AR-1715-0366

Nuclear Weapons Technician (Phase I for Warrant Officers)

Course Number: 4E-260A.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 22-29 weeks (766-1005 hours).
Exhibit Dates: 7/74-8/81.
Objectives: To provide the technical skills necessary for a supervisory position in nuclear weapons system maintenance.
Instruction: Lectures and practical exercises in nuclear weapons subjects and safety practices; basic electricity; inductive, capacitive, and LCR circuits; transformers and power supplies; triodes, biasing circuits, single- and multi-stage amplifiers, and voltage regulator circuits; simplified coverage of RC and LC transients and sine-wave oscillators; elementary theory of semiconductor devices and circuits; three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of general and specialized test equipment and electronic systems associated with nuclear weapons.
Credit Recommendation: In the vocational certificate category, 9 semester hours in basic electronics and troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and troubleshooting (8/77).

AR-1715-0367

1. Nuclear Weapons Technician Certification
2. Nuclear Weapons Technician Entry USAMMCS
3. Nuclear Weapons Technician (Phase II for Enlisted Personnel Qualified in MOS 55G/261A)

Course Number: 4E-260A.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: *Version 1:* 23-24 weeks (854 hours). *Version 2:* 29 weeks (459-1120). *Version 3:* 16-26 weeks (555-943 hours).
Exhibit Dates: *Version 1:* 10/84-2/86. *Version 2:* 9/81-9/84. *Version 3:* 7/74-8/81.
Objectives: To provide the technical skills necessary for a supervisory position in nuclear weapons system maintenance.
Instruction: For this course after 3/86 see AR-1715-0750. *Version 1:* Lectures and practical exercises in nuclear weapons systems, nuclear weapons operations, supply management, accident/incident control, special test equipment, nuclear weapons systems, and organizational effectiveness. Additional topics covered are inductive and capacitive circuits, transformers and power supplies; triodes, biasing circuits, single- and multi-stage amplifiers, and voltage regulator circuits; sine-wave oscillators; elementary theory of semiconductor devices and circuits, three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of general and specialized test equipment and electronic systems associated with nuclear weapons. *Version 2:* Lectures and practical exercises in nuclear weapons systems, nuclear weapons operations, supply management, accident/incident control, special test equipment, nuclear weapons systems, and organizational effectiveness. Additional topics covered are inductive and capacitive circuits, transformers and power supplies; triodes, biasing circuits, single- and multi-stage amplifiers, and voltage regulator circuits; sine-wave oscillators; elementary theory of semiconductor devices and circuits, three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of general and specialized test equipment and electronic systems associated with nuclear weapons. *Version 3:* Lectures and practical exercises in nuclear weapons systems, inductive, capacitive, and LCR circuits; transformers and power supplies; triodes, biasing circuits, single- and multi-stage amplifiers, and voltage regulator circuits; simplified coverage of RC and LC transients and sine-wave oscillators; elementary theory of semiconductor devices and circuits; three-phase AC; schmitt triggers and control circuits; and troubleshooting and maintenance of general and specialized test equipment and electronic systems associated with nuclear weapons.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits, 2 in basic electronics and 3 in organizational management (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 2 in basic electronics, 3 in electronic test equipment, 3 in organizational management (11/83). *Version 3:* In the vocational certificate category, 9 semester hours in basic electronics and troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and troubleshooting (8/77).
Related Occupation Codes: 260A.

AR-1715-0368

Nuclear Weapons Technician (Phase III for Enlisted Personnel Qualified in MOS 35F/262A)

Course Number: 4E-260A.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 10-11 weeks (350-358 hours).
Exhibit Dates: 7/74-8/81.
Objectives: To provide the technical skills necessary for a supervisory position in nuclear weapons system maintenance.
Instruction: Instruction covers specialized mechanical projectile subjects.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

AR-1715-0369

Nike Missile-Launcher Repair Transition

Course Number: 121-22N20-T; 121-22N40-T.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 13 weeks (357-423 hours).
Exhibit Dates: 10/74-12/76.
Objectives: To train qualified personnel to inspect, test, and repair the Nike-Hercules missile and associated test equipment.
Instruction: Instruction includes simplified coverage of RC and LC transients and sine-wave oscillators; empirical description of vacuum-tube pulse circuits; troubleshooting and maintenance of Nike-Hercules missile electronic and hydraulic circuits and associated test equipment.
Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electronics and troubleshooting (3/75).
Related Occupation Codes: 22G; 22N; 23W.

AR-1715-0370

Nike Radar and Computer Repair

Course Number: 104-F13.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 4 weeks (115 hours).
Exhibit Dates: 10/73-12/75.
Objectives: To provide training in the function, operation, and maintenance of specific computer and radar equipment.
Instruction: Lectures and laboratories in systems maintenance for a specialized modification of the Nike-Hercules system.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/75).
Related Occupation Codes: 23N.

AR-1715-0371

Pershing Electronic Repair Transition

Course Number: 121-21L20-T; 121-21L40-T.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 10 weeks (343 hours).
Exhibit Dates: 12/73-12/76.
Objectives: To train personnel to troubleshoot and maintain guidance and control assemblies of Pershing missile and ground support equipment.

Instruction: Lectures and laboratory exercises in maintenance and repair of computer support equipment including I/O interfaces, guidance computer, and main control computer for Pershing ground control equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic computer maintenance (3/75).

Related Occupation Codes: 21L; 21M.

AR-1715-0372

IMPROVED HAWK INFORMATION COORDINATION CENTRAL MAINTENANCE (TRANSITION)

Course Number: 104-24G40-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 19 weeks (665-698 hours). *Version 2:* 16 weeks (558-567 hours).

Exhibit Dates: *Version 1:* 11/75-6/80. *Version 2:* 10/73-10/75.

Objectives: To provide enlisted personnel with a knowledge of organizational maintenance on the continuous-wave acquisition radar and missile launch control information processor system.

Instruction: Instruction includes transistor circuit fundamentals; digital system hardware and software fundamentals including general purpose computer usage; operation and troubleshooting of continuous-wave radar and missile launch control information processor system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in transistor electronics, 3 in introduction to digital systems, 3 in electronics laboratory (8/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics on the basis of institutional evaluation 1 in digital electronics laboratory (8/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronic systems maintenance, 3 in electronics laboratory, and 3 in introduction to digital systems (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in introduction to digital systems (2/75); in the upper-division baccalaureate category, 3 semester hours in electronics laboratory and 3 in introduction to digital systems, all on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24B; 24G.

AR-1715-0373

IMPROVED HAWK FIRE CONTROL MAINTENANCE SUPERVISOR

Course Number: 121-24E40.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7 weeks (207-210 hours).

Exhibit Dates: 8/74-3/81.

Objectives: To provide enlisted personnel with in-depth training in the performance of organizational maintenance on a pulse acquisition radar and a range-only radar.

Instruction: Instruction includes radar block diagram theory, basic theory of power distribution, transmitters, receivers, display systems, and synchro control systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in radar or communications (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications technology (2/75); in the upper-division baccalaureate category, 2 semester hours in communications or as an elective in electronic systems and additional credit on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24E; 24V.

AR-1715-0374

FORWARD AREA ALERTING RADAR (FAAR) SYSTEM MAINTENANCE

(Forward Area Alerting Radar (FAAR) System)

Course Number: 121-24M30; 121-24N30.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6 weeks (228 hours).

Exhibit Dates: 1/73-6/78.

Objectives: To provide enlisted personnel with a working knowledge of basic maintenance procedures on a radar system.

Instruction: Instruction includes radar emplacement and basic radar maintenance.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24M; 24N.

AR-1715-0375

IMPROVED HAWK FIRE CONTROL MAINTENANCE (TRANSITION)

Course Number: 121-24E30-T; 121-24E40-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6 weeks (160-197 hours).

Exhibit Dates: 9/73-3/81.

Objectives: To provide enlisted personnel with a working knowledge of organizational maintenance of an acquisitional radar system.

Instruction: Instruction includes use of basic test equipment, functional circuit analysis, and radar system fundamentals.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications systems (2/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems (2/75); in the upper-division baccalaureate category, 2 semester hours as an elective in communications systems and additional credit on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24E; 24F.

AR-1715-0376

IMPROVED HAWK FIRING SECTION MAINTENANCE (TRANSITION)

Course Number: 121-24C40-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 13 weeks (476 hours). *Version 2:* 8 weeks (303 hours).

Exhibit Dates: *Version 1:* 3/77-10/84. *Version 2:* 11/73-2/77.

Objectives: To provide enlisted personnel with a knowledge of organizational maintenance on a high-powered radar system and a missile launcher.

Instruction: *All Versions:* Instruction includes performance checks, fault isolation, and corrective maintenance on the high-powered radar system and its subsystems. *Version 1:* Provides a knowledge of electronic terminology and gives a working knowledge of missile launcher and loader maintenance and adjustment procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electronics, 3 in electric circuit troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electric circuits laboratory on the basis of institutional evaluation 3 in industrial education basic electronics (8/77). *Version 2:* In the vocational certificate category, 6 semester hours in radar or communications (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics laboratory (2/75); in the upper-division baccalaureate category, credit in radar or communications on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24D; 24C.

AR-1715-0377

SAFEGUARD MISSILE MAINTENANCE TECHNICIAN/SPECIALIST

Course Number: 4F-221C; 121-28M20.

Location: Air Defense School, Ft. Bliss, TX.

Length: 26 weeks (804-857 hours).

Exhibit Dates: 1/74-7/75.

Objectives: To train warrant officers and enlisted personnel in the assembly, installation, and maintenance of the Safeguard missile system.

Instruction: Instruction includes a review of electrical energy sources, Ohm's Law, multimeters, and digital logic terms.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics laboratory (2/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory (2/75).

Related Occupation Codes: 28M; 221C; 221B.

AR-1715-0378

IMPROVED HAWK ORGANIZATION MAINTENANCE SUPERVISOR TRANSITION

Course Number: 4F-223D-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 20 weeks (711-730 hours). *Version 2:* 18 weeks (659-668 hours).

Exhibit Dates: *Version 1:* 7/75-12/76. *Version 2:* 9/73-6/75.

Objectives: To provide warrant officers with a working knowledge of the Improved Hawk guided missile system and associated equipment and to prepare them to function as supervisors.

Instruction: Lectures and practical exercises in transistor circuit fundamentals; digital system hardware and software fundamentals, including general purpose computer usage; operation and troubleshooting of pulsed- and continuous-wave radars, missile fire control information processing system, and other support equipment for a battery of surface-to-air missile launchers; and management and supervisory techniques relevant to missile control systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in computer fundamentals, 6 in electronics laboratory (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory applications, and, on the basis of institutional evaluation 3 semester hours in computer fundamentals (8/77). *Version 2:* In the vocational certificate category, 6 semester hours in electronic systems maintenance, 3 in electronics laboratory, and 3 in introduction to digital systems (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in introduction to digital systems (2/75); in the upper-division baccalaureate category, 3 semester hours in electronics laboratory and 3 in introduction to digital systems, all on the basis of institutional evaluation (2/75).

Related Occupation Codes: 223D, 223C; 251D.

AR-1715-0379

Safeguard Ballistic Missile Defense Unit Commander

Course Number: 2F-1111.

Location: Air Defense School, Ft. Bliss, TX.

Length: 13 weeks (399 hours).

Exhibit Dates: 11/74–7/75.

Objectives: To provide commissioned officers with a knowledge of the capabilities, functions, operations, and characteristics of a digitally controlled missile system.

Instruction: Instruction in digital data processing systems, peripheral interface elements, radar input devices, and electro-mechanical output devices.

Credit Recommendation: In the vocational certificate category, 4 semester hours in computer technology (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital systems or computer technology (2/75); in the upper-division baccalaureate category, 2 semester hours as an elective in computer science (2/75).

AR-1715-0380

Safeguard Staff Officer

Course Number: 2G-1115.

Location: Air Defense School, Ft. Bliss, TX.

Length: 22–24 weeks (662–725 hours).

Exhibit Dates: 8/73–7/75.

Objectives: To provide commissioned officers with a general knowledge of the operation, maintenance, and performance capabilities of a digitally controlled missile system.

Instruction: Instruction in data processing systems, peripheral interface elements, and radar operation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology (2/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer technology (2/75); in the upper-division baccalaureate category, 3 semester hours as an elective in computer science (2/75).

AR-1715-0381

1. Air Traffic Control NAVAIDS Equipment Repair
2. Ground Air Traffic Control NAVAIDS Equipment Repair

Course Number: *Version 1:* 102-ASI B4. *Version 2:* 102-F27.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 13–18 weeks. *Version 2:* 8 weeks (286 hours).

Exhibit Dates: *Version 1:* 12/80–11/85. *Version 2:* 12/75–11/79.

Objectives: To train students to perform direct and general support maintenance on ground air traffic control and navigation aids equipment.

Instruction: *Version 1:* Instruction on the equipment and facilities used in a ground-based air traffic control network, including transmitters, meteorological equipment, tape recorders, communications systems, exciters, receivers and air traffic control centers. *Version 2:* Instruction on the equipment and facilities used in a ground-based air traffic control network, including transmitters, meteorological equipment, tape recorders, communications systems, exciters, and power amplifiers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in air traffic control systems maintenance and operation (7/85). *Version 2:* In the vocational certificate category, 6 semester hours in air traffic control systems maintenance and operation (4/77).

Related Occupation Codes: 26D; 35L.

AR-1715-0382

Hawk Officer
(Improved Hawk Officer)

Course Number: 2F-14F (PIP II); 2F-14D; 2F-1180C.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6–19 weeks (304–688 hours).

Exhibit Dates: 6/73–Present.

Objectives: To provide commissioned officers with a knowledge of the characteristics, capabilities, functions, and maintenance of a radar-controlled missile system.

Instruction: Instruction includes electronic warfare, missile system operation, and system components.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/90).

AR-1715-0383

Improved Hawk Information Coordination Central Maintenance Supervisor

Course Number: 104-24G40.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7 weeks (204–214 hours).

Exhibit Dates: *Version 1:* 7/75–3/81. *Version 2:* 8/74–6/75.

Objectives: To provide enlisted personnel with in-depth training in the performance of organizational maintenance.

Instruction: Instruction includes operational maintenance of microwave transmitters and receivers, servo positioning systems, and application of electronic circuit analysis to functional schematics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in communications technology (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/77). *Version 2:* In the vocational certificate category, 5 semester hours in communications technology (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications technology (2/75); in the upper-division baccalaureate category, credit in communications technology on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24G; 24V.

AR-1715-0384

Improved Hawk Firing Section Maintenance Supervisor

Course Number: 121-24C40.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7 weeks (210–221 hours).

Exhibit Dates: 8/74–3/81.

Objectives: To provide enlisted personnel with in-depth training in the performance of organizational maintenance on a high power illuminator radar system.

Instruction: Instruction includes power system circuit theory, transmitter modulation theory, radio frequency receiver theory, and control circuit analysis.

Credit Recommendation: In the vocational certificate category, 5 semester hours as an elective in communications technology (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in communications technology (2/75); in the upper-division baccalaureate category, 2 semester hours as an elective in electronic systems, and additional credit in electronic systems on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24C; 24V.

AR-1715-0385

Surface-to-Air Missile (SAM) Unit Commander
(Guided Missile Unit Commander (Surface-to-Air Missile (SAM))

Course Number: 44-0-17.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 15 weeks (600 hours).

Exhibit Dates: 8/55–12/55.

Objectives: To train commissioned officers in the duties and responsibilities of battery-grade officers in surface-to-air guided missiles units.

Instruction: Communications and staff procedures; combined arms; SAM tactics; motors and generators; Nike computer; Nike radars; missile electronics and launcher area equipment; mechanics; handling and battery operation; map reading and survey; basic electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

AR-1715-0386

Sound Ranging Crewman Noncommissioned Officer (NCO) Basic

Course Number: 412-17C40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 15 weeks (561 hours).

Exhibit Dates: 8/71–5/72.

Objectives: To provide personnel with knowledge sufficient to perform the duties of a sound-ranging crewman.

Instruction: Lectures and practical exercises in weapons, leadership, artillery transport, communications, tactics and combined arms, command and staff, nuclear weapons employment, survey, sound ranging, and determination of sound ranging weather data.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

Related Occupation Codes: 17C; 17Z.

AR-1715-0387

Audio Specialist

Course Number: *Version 1:* 191-84D20; 11-R-842.1. *Version 2:* 11-E-10.

Location: Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 13 weeks (455–478 hours). *Version 2:* 15 weeks (546 hours).

Exhibit Dates: *Version 1:* 7/57–1/78. *Version 2:* 11/55–6/57.

Objectives: To provide enlisted personnel with a working knowledge of operation and maintenance of audio-visual equipment.

Instruction: *All Versions:* Lectures and practical exercises in sound amplifiers and recording devices, magnetic tape recording, television audio equipment, and motion picture sound recording. *Version 2:* Includes more emphasis on television studio practices, cameras, and transmitters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in audio-visual equipment (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in audio-visual equipment (7/74); in the upper-division baccalaureate category, 2 semester hours in audio-visual equipment (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in audio-visual equipment (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in audio-visual equipment (7/74); in the upper-division baccalaureate category, 3 semester hours in audio-visual equipment (7/74).

Related Occupation Codes: 84D; 84F.

AR-1715-0388

Multichannel Ciphony System
TSEC/CY-104 Repair

Course Number: 160-ASIA6; 160-F5.

Location: Signal School, Ft. Gordon, GA.

Length: 4 weeks (137–152 hours).

Exhibit Dates: 3/74–10/89.

Objectives: To provide enlisted personnel with the technical knowledge to perform direct or general support maintenance on the specified multichannel ciphony system.

Instruction: Troubleshooting and theory of operation and maintenance are primary areas covered.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic troubleshooting(7/85).

Related Occupation Codes: 31T.

AR-1715-0389

1. Common Basic Electronics Training (COBET)—Modules 1, 201, 2, 202, 3, 303, 4, 5/6 and 7
2. Common Basic Electronics Training (COBET)—Modules I–IV

Course Number: None.

Location: Army Training School, Ft. Jackson, SC.

Length: *Version 1:* 2–10 weeks (64–346 hours). *Version 2:* 2–6 weeks (60–120 hours).

Exhibit Dates: *Version 1:* 6/75–1/88. *Version 2:* 1/74–5/75.

Objectives: To provide personnel who will enter electronics-related courses with basic electronics skills and to familiarize them with the basic test equipment which they will be using.

Instruction: *All Versions:* Lectures and laboratory exercises in the fundamental theory of operation of basic circuits such as power supplies and amplifiers; use of basic test equipment, including multimeters, oscilloscopes, and function generators; and concepts of circuit and system troubleshooting. The level of instruction is primarily descriptive and empirical, utilizing basic arithmetic skills. Students may attend one or more modules, depending upon training requirements for entry into follow-on training. *Version 2:* Also covers the basic concepts of electricity, including energy, power, voltage and current.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic electronics and troubleshooting for each module for a possible total of 6 semester hours (4/77). *Version 2:* In the vocational certificate category, 1 semester hour in basic electronics and troubleshooting for each module for a possible total of 4 semester hours (3/75).

AR-1715-0390

1. Nike Missile Launcher Repairer
2. Nike Missile-Launcher Repair
3. Nike Missile-Launcher Repair (Phases I and II)

Course Number: *Version 1:* 121-22N10. *Version 2:* 121-22N10. *Version 3:* 121-22N20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 32 weeks (1099–1100 hours). *Version 2:* 24 weeks (995 hours). *Version 3:* 26–30 weeks (875–1017 hours).

Exhibit Dates: *Version 1:* 10/79–12/82. *Version 2:* 5/78–9/79. *Version 3:* 6/74–4/78.

Objectives: To train personnel to inspect, test, and repair the Nike-Hercules missile and launcher.

Instruction: *All Versions:* Instruction includes simplified coverage of RC and LC transients and sine-wave oscillators; soldering techniques and practices; empirical description of the operation of vacuum-tube pulse circuits; basic manual skills and missile hydraulic systems; Nike missile, launcher, and associated test equipment maintenance and repair. Topics include basic electricity concepts of work, energy, and power; DC and AC circuit theory — series, parallel, series-parallel, inductive, capacitive, and LCR circuits; series and parallel resonant circuits; transformers and power supplies; triodes, biasing circuits, single and multi-stage amplifiers, and voltage regulator circuits. *Version 1:* Includes transistors and specialized circuits. *Version 3:* Note: Students who have completed Modules 1, 2, and 3 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II (26 weeks) of this course. See AR-1715-0389 for credit recommendation for COBET. Students who have not attended COBET will complete both Phases I and II (30 weeks) of this course.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 2 in electronics laboratory, and 1 in electronic shop practices (11/83). *Version 2:* In the vocational certificate category, 2 semester hours in hydraulic systems (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in vacuum tube circuits, 3 in electronic equipment repair techniques and 2 in electrical measurements laboratory (8/79). *Version 3:* In the vocational certificate category, 12 semester hours in basic electronics and troubleshooting, 2 in hydraulic systems (3/75) for students who complete 26 weeks of the course, or 15 semester hours in basic electricity, electronics and troubleshooting, 2 in hydraulic systems (3/75) for students who complete 30 weeks of the course (see Note above); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity and electronics for students who complete Phase I and II (30 weeks) of the course (3/75).

Related Occupation Codes: 22N.

AR-1715-0391

Data Processing Equipment
Maintenance (DM-CMF)
Noncommissioned Officer (NCO)
Advanced

Course Number: 1-742-C42; 1-DM-C42.

Location: Signal School, Ft. Gordon, GA; Signal School, Ft. Monmouth, NJ.

Length: 10–11 weeks (363–384 hours).

Exhibit Dates: 7/73–9/84.

Objectives: To train personnel as supervisors of data processing equipment maintenance functions.

Instruction: Lectures and practical exercises in general military subjects; combined arms; applied communications; administration and management; combat service support operations; communication security; data processing; and data communications.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

Related Occupation Codes: 34B; 34D.

AR-1715-0392

Hawk Fire Control Maintenance
(Improved Hawk Fire Control Maintenance)

Course Number: 121-24E10; 121-24E20.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 37 weeks (1334 hours). *Version 2:* 51 weeks. *Version 3:* 28 weeks (882 hours). *Version 4:* 26 weeks (860–920 hours). *Version 5:* 26 weeks (812–846 hours).

Exhibit Dates: *Version 1:* 9/85–1/88. *Version 2:* 10/82–8/85. *Version 3:* 1/80–9/82. *Version 4:* 3/75–12/79. *Version 5:* 7/73–2/75.

Objectives: To provide enlisted personnel with a working knowledge of organizational maintenance on a missile radar system.

Instruction: For this course after 1/88 see AR-1715-0821. *All Versions:* Lectures and practical exercises on electronic fundamentals, radar system fundamentals and repair, and the use of basic test equipment such as oscilloscopes and multimeters. *Version 3:* Includes topics on AC and DC circuits, solid state circuits and logic circuit fundamentals. *Version 5:* Includes topics on troubleshooting regulated power supplies, low frequency amplifiers, and fundamentals of pulse acquisition radar.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC circuits, 3 in solid state circuits, 2 in digital and logic fundamentals and 3 in electronic systems troubleshooting (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics, 1 in digital and logic fundamentals, 3 in electronic systems troubleshooting (12/84). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in fundamentals of digital circuits, 3 in fundamentals of radar theory and maintenance (3/81). *Version 4:* In the vocational certificate category, 6 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75). *Version 5:* In the vocational certificate category, 3 semester hours in electronic fundamentals, 3 in basic electronics (2/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems elective (2/75); in the upper-division baccalaureate category, elective credit in electronics on the basis of institutional evaluation (2/75).

Related Occupation Codes: 24E.

AR-1715-0393

1. Remote Sensor Specialist

2. Unattended Ground Sensor Specialist

Course Number: *Version 1:* 221-17M10; 221-17M20. *Version 2:* 221-17M20.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 4-6 weeks (131-185 hours). *Version 2:* 5 weeks (175 hours).

Exhibit Dates: *Version 1:* 4/80-1/89. *Version 2:* 3/75-3/80.

Objectives: To train enlisted personnel to install and operate unattended ground sensing devices.

Instruction: Lectures and practical exercises in ground sensing devices, detection devices, and associated hardware.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in map interpretation (11/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (6/75).

Related Occupation Codes: 17M.

AR-1715-0394

Biomedical X-Ray Equipment Maintenance

Course Number: 4B-202A; 198-35T20.

Location: Medical Equipment and Optical School, Denver, CO.

Length: 40 weeks (1291-1334 hours).

Exhibit Dates: 9/73-6/79.

Objectives: To train, beyond the basic level, personnel to install, inspect, calibrate, maintain, repair, and adjust medical X-ray and ancillary equipment.

Instruction: Lectures and practical exercises in fundamentals of DC and AC circuits, vacuum tubes, and solid-state electronic devices; specific pieces of commercially available X-ray equipment; technical writing; and applied physics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in DC and AC circuits, 1 in applied physics, 6 in electronics, 1 in technical writing, 8 in X-ray equipment maintenance (2/86).

Related Occupation Codes: 202A.

AR-1715-0395

Communications-Electronics Warrant Officer Advanced

Course Number: 4-11-C32.

Location: Signal School, Ft. Gordon, GA.

Length: 16-23 weeks (545-691 hours).

Exhibit Dates: 8/74-9/85.

Objectives: To provide qualified warrant officers with a working knowledge of supervisory and staff management responsibilities in communication-electronics maintenance.

Instruction: For this course after 9/85 see AR-1715-0707. Basic communication systems are covered in regard to management operational and maintenance procedures, including FM radio equipment, AM/SSB equipment, radio relays, telephone-digital communication equipment. War propagation, satellite communications, and various Army communication systems and procedures are also covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telecommunications, 1 in telecommunications laboratory (4/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in telecommunications laboratory (4/77).

Related Occupation Codes: 286A; 281A; 282A.

AR-1715-0396

Digital European Backbone (DEB) Communications Systems Repair

Course Number: 101-F16.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* Phase I, 3 weeks; Phase II, 7 weeks (Phase I, 114 hours; Phase II, 256 hours). *Version 2:* 7-10 weeks (256-384 hours).

Exhibit Dates: *Version 1:* 9/79-9/85. *Version 2:* 12/76-8/79.

Objectives: To provide a working knowledge of the techniques required to maintain specified communications systems.

Instruction: *Version 1:* After 9/85 see AR-1715-0666. Phase I includes limited maintenance on a multi- channel ciphony system. Phase II provides student with a working knowledge of the techniques required to maintain several radios. Both phases include instruction in systems operation,including maintenance procedures, subsystem operation and function, block-diagram analysis, test procedures, and signal tracing. Students may attend both Phase I and II or Phase II only. *Version 3:* Phase I (3 weeks) and Phase II (7 weeks) instruction in systems operation, including maintenance procedures, subsystem operation and function, block-diagram analysis, test procedures, and signal tracing. Note: Students may attend both Phases I and II or Phase II only.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in multiplex systems repair for completion of the entire program (10/81). *Version 2:* In the vocational certificate category, 1 semester hour in troubleshooting and maintenance procedures for Phase I and 3 semester hours in radio communications systems maintenance for Phase II (see note above) (4/77).

Related Occupation Codes: 26V; 26Y.

AR-1715-0397

Hawk Radar Signal Simulator Station Repairer

(Improved Hawk Radar Signal Simulator Station Repairer)

(Improved Hawk Radar Signal Simulator Station Repair)

Course Number: 104-ASIW2; 104-F15.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 9 weeks (221-356 hours). *Version 2:* 8-11 weeks (273-355 hours).

Exhibit Dates: *Version 1:* 4/84-9/90. *Version 2:* 11/76-3/84.

Objectives: To provide the student with the knowledge required for performing support maintenance functions on the electronic systems of the Hawk simulator station and associated test equipment.

Instruction: *Version 1:* Lectures and practical exercises in the inspection, testing, and repair of electronic circuits including power distribution circuits, target simulation circuits, oscillators, radar trigger and video synchronizers and pulse signal generation. *Version 2:* Course content is directed exclusively toward repair of the Hawk radar signal simulator station, including voltage regulators, PAR systems analysis, ROR, and CWIR systems analysis and ICWAR console and target effects system analysis.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment repair (2/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics repair techniques (8/79).

Related Occupation Codes: 24H.

AR-1715-0398

USMC Missile Systems Maintenance Fundamentals

Course Number: 121-5900.

Location: Air Defense School, Ft. Bliss, TX.

Length: 9 weeks (317 hours).

Exhibit Dates: 11/75-12/79.

Objectives: To provide U.S. Marine Corps enlisted personnel with basic knowledge of Missile electronics theory applicable to the Hawk missile system.

Instruction: Course includes information of general interest such as AC and DC circuit theory, resonance, vacuum tubes, transistors, and microwave techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics (11/86).

AR-1715-0399

Improved Hawk Firing Section Intermediate Maintenance

Course Number: 121-F23.

Location: Air Defense School, Ft. Bliss, TX.

Length: 13 weeks (445 hours).

Exhibit Dates: 5/75-3/81.

Objectives: To qualify enlisted personnel to perform organizational maintenance on the Improved Hawk High Powered Illuminator, Missile, Loader, and Launcher at the middle manager level.

Instruction: Topics include DC circuits, RL and RC circuits, vacuum tubes, transistors, and microwave techniques. The remainder of the course is directed specifically toward the Hawk firing section.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics, 3 in electronic troubleshooting (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (8/77).

Related Occupation Codes: 24C.

AR-1715-0400

Improved Hawk Fire Control Intermediate Maintenance

Course Number: 121-F24.

Location: Air Defense School, Ft. Bliss, TX.

Length: 13 weeks (445 hours).

Exhibit Dates: 5/75-3/81.

Objectives: The purpose of the course is to qualify enlisted personnel to perform organizational maintenance on the Improved Hawk Battery Control Center, Improved Acquisition Radar, and the Improved Range-Only Radar at the middle manager level.

Instruction: Significant coverage of general interest topics such as DC circuits, RL and RC circuits, resonance, vacuum tubes, and transistors is included. The remaining material covered applies to specific military systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 1 in electronics laboratory (8/77).

AR-1715-0401

AN/TSQ-73 System Operator/Repairman Senior-Level

Course Number: 4F-361A; 150-25L40.

Location: Air Defense School, Ft. Bliss, TX.

Length: 17 weeks (587-647 hours).

Exhibit Dates: *Version 1:* 12/77-10/84. *Version 2:* 7/76-11/77.

Objectives: This course provides warrant officers and senior enlisted personnel with knowledge of the operation, maintenance, tactics, and doctrine for the AN/TSQ-73 Missile Minder Command and Control System.

Instruction: *Version 1:* Course offers instruction in the guided missile air defense system, computer system operation and maintenance, and radar system display operations and maintenance. *Version 2:* The course content is oriented specifically to the AN/TSQ-73. There is a limited amount of basic computer concepts that is of general interest.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in computer maintenance (3/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (3/81). *Version 2:* In the vocational certificate category, 3 semester hours in computer troubleshooting (8/77).

Related Occupation Codes: 361A; 25K; 25J; 25D; 25G; 25H; 25L; 287A; 301A; 361A.

AR-1715-0402

AN/TSQ-73 System Operator/Repairman Senior-Level (Transition)

Course Number: 4F-361A-T; 150-25L40-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 17 weeks (647 hours).

Exhibit Dates: 5/77-10/84.

Objectives: Course provides warrant officers and senior enlisted personnel with knowledge of the operation, maintenance, tactics and doctrine for the AN/TSQ-73 Missile Minder Command and Control System.

Instruction: Topics include air defense tactics, system maintenance, weapons systems, and electronic warfare.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

Related Occupation Codes: 361A; 25K; 25J; 25D; 25G; 25H; 25L; 287A; 301A; 361A.

AR-1715-0403

AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer

(AN/TSQ-73 System Operator/Repairman Entry-Level)

Course Number: *All Versions:* 150-25L10. *Version 3:* 150-F6.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 26-27 weeks (954 hours). *Version 2:* 25-26 weeks (913-1120 hours). *Version 3:* 19 weeks (633-656 hours).

Exhibit Dates: *Version 1:* 8/86-9/87. *Version 2:* 3/83-7/86. *Version 3:* 3/76-2/83.

Objectives: To provide enlisted personnel with knowledge of the functions, operational procedures, and organizational maintenance procedures of Missile Command and Control System.

Instruction: For this course after 10/87, see AR-1715-0820. *Version 1:* Lectures and practical exercises in AC/DC circuits, solid state circuits, digital circuits, functional operation and field maintenance of the Missile Minder Command and Control system. *Version 2:* Lecture and laboratory exercises in functional theory and operational procedures, fault isolation procedures, and organizational maintenance using test equipment, digital logic, and logistical management. *Version 3:* Instruction provides student with radar nomenclature, functions and operation principles including related communications system. Some background in electrical circuit and digital system fundamentals is provided.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC circuits, 2 in solid state circuits, 3 in digital circuits and 2 in electronic systems troubleshooting and maintenance (11/86). *Version 2:* In the vocational certificate category, 3 semester hours in AC/DC circuits (12/84); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronics systems troubleshooting, 3 in digital theory (12/84). *Version 3:* In the vocational certificate category, 3 semester hours in electrical circuits, 3 in electrical circuits laboratory (8/77).

Related Occupation Codes: 25L.

AR-1715-0404

Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance

Course Number: 102-F36.

Location: Intelligence School, Ft. Devens, MA.

Length: 17 weeks (480 hours).

Exhibit Dates: 4/77-9/86.

Objectives: To train the student to maintain the various items of equipment which make up the EELPOT net control station.

Instruction: Topics include minicomputer systems maintenance, floppy-disk maintenance, and serial I/O maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer system maintenance (9/77).

AR-1715-0405

Hazeltine 2000B Maintenance

Course Number: 102-F37.

Location: Intelligence School, Ft. Devens, MA.

Length: 3 weeks (99 hours).

Exhibit Dates: 4/77-9/86.

Objectives: To train students to maintain the Hazeltine 2000B video-display terminal.

Instruction: Content is oriented specifically to the Hazeltine 2000B video-display terminal.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance (9/77).

AR-1715-0406

Fixed Countermeasures Receiving System Maintenance (AN/FLR-9)

Course Number: 102-F14.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/73-9/86.

Objectives: To train technicians in electronic maintenance of fixed-base countermeasures equipment.

Instruction: Electronic maintenance on elements of radio systems and digital logic.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic maintenance (9/77).

AR-1715-0407

Special Purpose Receiving Systems Maintenance

Course Number: 102-F15.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (90 hours).

Exhibit Dates: 6/69-9/86.

Objectives: To train technicians to maintain communications systems equipment.

Instruction: High-frequency (and above) radio receiving equipment, including electromechanical systems such as servomechanisms and hydraulic drives.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance (9/77).

AR-1715-0408

Complex Electronics Systems Analysis and Maintenance

Course Number: 102-F35.

Location: Intelligence School, Ft. Devens, MA.

Length: 39 weeks (1323 hours).

Exhibit Dates: 7/75-9/86.

Objectives: To train students to maintain or supervise the maintenance of electronic warfare intercept systems.

Instruction: Topics include trigonometry, differential and integral calculus, applications of mathematics to electronic circuits, fundamentals of circuit analysis, logic fundamentals computer architecture, computer programming, feedback theory, pulse circuits, and system testing and troubleshooting, analog and digital communications and and operational amplifiers and active filters.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in college algebra, 3 in calculus, 3 in electronics, 3 in logic fundamentals and computers, 6 in applied electronic circuits, and 3 in electrical communications (9/77).

AR-1715-0409

Automated High Frequency Direction Finding (HFDF) System Maintenance (EELPOT)

Course Number: 102-F33.

Location: Intelligence School, Ft. Devens, MA.

Length: 25 weeks (773 hours).

Exhibit Dates: 4/77-9/86.

Objectives: To train students to maintain the various items of equipment which make up the EELPOT out-station processor unit.

Instruction: Course contains specific maintenance information on a Honeywell computer, floppy disk, video display, multiplexer receiver, and microprocessor controller.

Credit Recommendation: In the vocational certificate category, 9 semester hours in computer system maintenance (9/77).

AR-1715-0410

Environmental Collection System Maintenance (AN/GSR-4)

Course Number: *Version 1:* 102-ASIQ4; 102-F25(Q4). *Version 2:* 102-F25.

Location: Intelligence School, Ft. Devens, MA.

Length: 8-9 weeks (234-335 hours).

Exhibit Dates: *Version 1:* 12/81-9/86. *Version 2:* 10/74-11/81.

Objectives: To train students to maintain radio equipment used in electronic intelligence collection systems.

Instruction: *Version 1:* Aligning, troubleshooting, and repair of the AN/GSR-4 system, system operation, schematic analysis, and proper use of specialized TMDE and equipment documentation. *Version 2:* Troubleshooting and repair of LF-UHF radio receivers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (2/83). *Version 2:* In the vocational certificate category, 3 semester hours in electronic maintenance (9/77).

AR-1715-0411

Electronic Warfare (EW) Intercept Systems Maintenance Analyst

Course Number: 102-F30.

Location: Intelligence School, Ft. Devens, MA.

Length: 5-7 weeks (140-165 hours).

Exhibit Dates: 6/75-9/86.

Objectives: To prepare personnel to supervise electronic maintenance activities.

Instruction: Training and practical exercises in maintenance property accounting, publications and files, training management, and U.S. Army organization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management and supervision (9/77).

AR-1715-0412

Remote Control System Maintenance (Tracechain)

(Remote Control System Maintenance (AN/URR-66))

Course Number: 102-F18.

Location: Intelligence School, Ft. Devens, MA.

Length: 11-12 weeks (334-339 hours).

Exhibit Dates: *Version 1:* 10/85-9/87. *Version 2:* 1/82-9/85. *Version 3:* 8/73-12/81.

Objectives: To train students to maintain AN/URR-66 remote-controlled receiver equipment.

Instruction: Technician training for maintenance (operation, alignment, troubleshooting, and repair) of URR-66 advanced solid-state receiver system, including advanced logic techniques and circuits, frequency spectrum analysis, binary coding, and solid-state amplifier theory.

Credit Recommendation: *Version 1:* Credit is not recommended due to the nature of the course (5/87). *Version 2:* In the vocational certificate category, 3 semester hours in digital electronic maintenance, 3 in basic digital circuits (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to logic circuits, 3 in digital electronic maintenance (2/83). *Version 3:* In the vocational certificate category, 3 semester hours in digital electronics maintenance (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics (9/77).

AR-1715-0413

Data Acquisition System Maintenance (AN/GSQ-76)

Course Number: 102-F19.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 8-9 weeks (246 hours). *Version 2:* 8 weeks (154 hours).

Exhibit Dates: *Version 1:* 1/82-9/86. *Version 2:* 7/72-12/81.

Objectives: To train enlisted personnel to maintain an AN/GSQ-76 data-acquisition system.

Instruction: Instruction and practical exercises in the repair and maintenance of magnetic tape units, digital assemblies, logic circuitry, memory units, and read-write controls.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in digital troubleshooting laboratory (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer hardware laboratory (2/83). *Version 2:* Credit is not recommended because of the military-specific nature of the course (9/77).

AR-1715-0414

Voice Intercept Position Maintenance

Course Number: 102-F24.

Location: Intelligence School, Ft. Devens, MA.

Length: 7-8 weeks (200-225 hours).

Exhibit Dates: 1/75-9/86.

Objectives: To train technicians in maintenance of voice-intercept signal analysis equipment.

Instruction: Topics such as receiver alignment, tape recorder alignment and maintenance, and spectrum analyzer alignment are included.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic maintenance (9/77).

AR-1715-0415

Advanced Identification Techniques Position Maintenance (RO361)

Course Number: 102-F16.

Location: Intelligence School, Ft. Devens, MA.

Length: 2-3 weeks (64 hours).

Exhibit Dates: 3/73-9/86.

Objectives: To train students to maintain advanced identification techniques equipment.

Instruction: Course content consists of topics directly related to the maintenance of specific military equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

AR-1715-0416

Tactical Countermeasures Receiving Systems Maintenance (AN/MLQ-24)

Course Number: *Version 1:* 102-F17(C7); 102-ASIC7. *Version 2:* 102-F17.

Location: Intelligence School, Ft. Devens, MA.

Length: 7-8 weeks (208-209 hours).

Exhibit Dates: *Version 1:* 12/81-Present. *Version 2:* 11/72-11/81.

Objectives: The course trains the student to maintain the AN/MLQ-24 countermeasures system.

Instruction: *Version 1:* Topics include modulation and high frequency propogation techniques; practical exercises in aligning, troubleshooting, and repair of direction finders, countermeasure receivers, pulse analyzers, and various diagnostic equipment. *Version 2:* Topics include high-frequency techniques, direction finding, block-diagram analysis, and practical exercises in alignment and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (2/83). *Version 2:* In the vocational certificate category, 3 semester hours in electronic maintenance (9/77).

AR-1715-0417

Electronic Warfare (EW) Intercept Systems Repairer

(Electronic Warfare (EW) Intercept Systems Repairman)

Course Number: 102-33S10; 102-33S10(ST).

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 38-39 weeks (1125-1504 hours). *Version 2:* 34-35 weeks (1020 hours).

Exhibit Dates: *Version 1:* 2/82-9/86. *Version 2:* 7/75-1/82.

Objectives: To train enlisted personnel to troubleshoot and repair electronic warfare/signal intelligence intercept equipment.

Instruction: *Version 1:* Theory and practical training in fundamentals of direct and alternating current components and circuitry, electron tube circuits, solid state analog and digital devices, power supplies, medium power amplifiers, meters, oscilloscopes, signal generators, fundamentals of electromagnetic propagation, antenna design, receiver design and troubleshooting, digital microprocessors, binary arithmetic, filters, multiplexers, and military science. *Version 2:* Training and practical exercises in basic AC and DC fundamentals, electronic tubes, solid-state devices, amplifiers, meters, digital logic devices, modulation, multiplexing, wave propagation, communications devices, and military science.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic maintenance, 3 in fundamentals of electricity (2/83); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic circuit fundamentals (2/83). *Version 2:* In the vocational certificate category, 6 semester hours in electronic maintenance (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electric circuit fundamentals, 3 in basic electronics (9/77).

Related Occupation Codes: 33S.

AR-1715-0418

Electronic Countermeasures Receiving System Maintenance (AN/TLQ-17)

Course Number: 102-F21; 102-ASIC6.

Location: Intelligence School, Ft. Devens, MA.

Length: 7 weeks (195-204 hours).

Exhibit Dates: *Version 1:* 12/81-9/86. *Version 2:* 2/74-11/81.

Objectives: To provide technician training in the servicing of electronic countermeasures communications equipment.

Instruction: *Version 1:* Systems-level theory of operation and troubleshooting of radio and electronic components, including receiving systems, transmitters, and power supplies. *Version 2:* Systems-level theory of operation and troubleshooting of radio and electronic components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems equipment; in the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment maintenance (2/84). *Version 2:* In the vocational certificate category, 3 semester hours in electronic maintenance (9/77).

AR-1715-0419

Improved Hawk Launcher and Mechanical Systems Repair Transition

Course Number: 121-24L20-T; 121-24L40-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 10-12 weeks (325-385 hours).

Exhibit Dates: 6/76-3/79.

Objectives: To provide students with the knowledge and techniques for inspecting, testing, and repair of Improved Hawk launcher and selected support equipment. Course has MOS 46D (Improved Hawk Mechanical Systems Repairman) and MOS 22K (Hawk Missile-Launcher Repairman) tracks.

Instruction: Instruction is in the operation of the Improved Hawk missile system. Instruction in the 10-week 46D track includes basic electronic subjects such as resonant circuits, amplifier circuits, soldering techniques and transistor fundamentals. Instruction in the 12-week 22K track includes launcher electronics, hydraulic systems, electro-mechanical systems and hydro-pneumatic systems used in the Hawk system.

Credit Recommendation: In the vocational certificate category, 9 semester hours in basic electronics for students completing the 46D track, and, for students completing the 22K track, 3 semester hours in basic electronics, 6 in mechanical systems (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics for students completing the 46D track and, for students completing the 22K track, 1 semester hour in mechanical systems (8/77).

Related Occupation Codes: 46D; 22K; 24L; 24V.

AR-1715-0420

Defense Against Sound Equipment (DASE), Phase I

Course Number: *Version 1:* 3C-ASI9L; 244-ASI9I; 3C-F13(J); 244-F7(G9). *Version 2:* 3C-ASI9L; 244-ASIG9; 3C-F13(J); 244-F7(G9).

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 16-17 weeks (474-489 hours). *Version 2:* 16-17 weeks (474-489 hours).

Exhibit Dates: *Version 1:* 1/82-12/85. *Version 2:* 6/77-12/81.

Objectives: To provide selected personnel with a working knowledge of specialized electronic equipment and techniques used in the detection and location of clandestine devices.

Instruction: *Version 1:* Instruction and practical exercises in basic electronic technology, mathematics, theory and analysis of electrical and electronics circuits, semi-conductors, integrated circuits, amplifiers, power supplies, feedback principles, oscilloscopes, modulation and demodulation techniques, single and multiple conversion multimode receivers, spectrum and timer domain, signal analysis digital logic principles, operation and use of test and diagnostic equipment. For course after 1/86, see exhibit AR-1715-0711. *Version 2:* Instruction and practical exercises in basic electricity and electronics including series and parallel circuits, meters, AC and DC properties, inductance, capacitance, resonance, solid-state devices, oscillators, digital logic, wave shaping, transmitters, and receivers. Phase II is at Ft. Huachuca, AZ, and at Ft. Devens, MA.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in fundamentals of electricity and electronics, 3 in digital logic circuits (2/83); in the lower-division baccalaureate/associate degree category, In an engineering technology program: 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic digital circuits; for non-electronics majors: 6 semester hours in basic electricity and electronics (2/83). *Version 2:* In the vocational certificate category, 3 semester hours in electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity and electronics (9/77).

AR-1715-0425

Communications Techniques Control Center Operator

Course Number: 202-F2.

Location: Signal School, Ft. Gordon, GA.

Length: 3 weeks (92 hours).

Exhibit Dates: 12/78-1/88.

Objectives: The course provides working knowledge of concepts, procedures, and equipment for the control and operation of a communications control center.

Instruction: Students learn to install, calibrate, and operate specialized military communications equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio communications (8/79).

Related Occupation Codes: 31N.

AR-1715-0426

1. AN/USC-26/CV-3034 AN/GSC-24(V) Maintenance
2. AN/USC-26/CV-3034 Repair

Course Number: 101-F18.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 4 weeks . *Version 2:* 3 weeks (102 hours).

Exhibit Dates: *Version 1:* 5/80-10/85. *Version 2:* 8/78-4/80.

Objectives: The course trains the student in the troubleshooting, repair, and operation of one specific piece of equipment, the analog-digital converter.

Instruction: Each portion of this equipment is studied in detail with emphasis on troubleshooting. Topics covered include an overview of digital communications subsystems, A/D conversion, and block-diagram analysis.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in troubleshooting digital subsystems (10/81). *Version 2:* In the vocational certificate category, 2 semester hours in troubleshooting techniques (8/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in troubleshooting techniques (8/79).

Related Occupation Codes: 26V.

AR-1715-0427

Radio Set AN/FRC-113 Operation and Maintenance

Course Number: 101-ASIE3.

Location: Signal School, Ft. Gordon, GA.

Length: Phase I, 2 weeks; Phase II, 3 weeks; for a total of 5 weeks (106 hours).

Exhibit Dates: 12/78-12/86.

Objectives: To provide students with knowledge and skills required to install, operate, align, and troubleshoot a specialized radio set, AN/FRC-113.

Instruction: Phase I includes an overview of radio set functions and characteristics and discussion of block diagrams. Student also performs alignments, traces signal paths, and troubleshoots and maintains circuits to operational standards. Phase II extends troubleshooting to the radio transmitter and isolates malfunctions to module and component levels.

Credit Recommendation: In the vocational certificate category, 1 semester hour in troubleshooting for Phase I, 2 semester hours in troubleshooting for Phase II, for a total of 3 semester hours for completion of the 5-week course (8/79).

AR-1715-0428

Nuclear Weapons Specialist Basic Noncommissioned Officer (NCO)

(Nuclear Weapons Specialist Basic Technical)

(Nuclear Weapons Maintenance Leader)

Course Number: *Version 1:* 644-55G30. *Version 2:* 644-55G30. *Version 3:* 644-55G30-T. *Version 4:* 644-55G30-T. *Version 5:* 644-55G30-T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 16 weeks (572-595 hours). *Version 2:* 14-15 weeks (535 hours). *Version 3:* 4-13 weeks (188-500 hours). *Version 4:* Phase I, 4 weeks, Phase II, 9 weeks (Phase I,140 hours, Phase II, 327 hours). *Version 5:* 12 weeks (370 hours).

Exhibit Dates: *Version 1:* 12/87-Present. *Version 2:* 4/85-11/87. *Version 3:* 11/83-3/85 *Version 4:* 8/81-10/83. *Version 5:* 11/78-7/81.

Objectives: To provide training necessary for supervision of maintenance, assembly, and calibration performed on nuclear weapons and associated electronics test equipment.

Instruction: *Version 1:* Personnel are trained as team leaders for assembly, maintenance, testing and inspection procedures applicable to electronic components, test equipment, and associated nuclear weapons. *Version 2:* Personnel are trained as team leaders for assembly, maintenance, testing and inspection procedures applicable to electronic components, test equipment and associated nuclear weapons. *Version 3:* Upon completion of this course the student will be able to understand schematic diagrams and the principles of Ohm's Law as applied to various circuit configurations and electrical excitations; use hand tools common to electronic technicians, use electronic test equipment including multimeters, oscilloscopes, function generators, and various oscillators in the analysis of electronic circuits; diagnose malfunctions of specialized electronic equipment and repair of equipment. Includes precision soldering techniques. *Version 4:* Upon completion of this course the student will be able to understand schematic diagrams and the principles of Ohm's Law as applied to various circuit configurations and electrical excitations; use hand tools common to electronic technicians, use electronic test equipment including multimeters, oscilloscopes, function generators, and various oscillators in the analysis of electronic circuits; diagnose malfunctions of specialized electronic equipment and repair of equipment. *Version 5:* Phase I includes maintenance records and report writing, inspection, storage, system performance testing, safety, and warhead disarming techniques. Phase II consists primarily of basic electronics training, through lectures and practical exercises, which includes Ohm's Law, power supplies, series and parallel circuits, AC circuits, amplifiers, oscillators, solid-state devices, special circuits, and soldering. Other subjects covered by Phase II training are use, maintenance, and calibration of commercial test equipment, including oscilloscopes, power supplies, and signal generators.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits (7/90); for Common Core, see AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits (4/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in test equipment maintenance, 3 in introduction to AC/DC circuits and 2 in precision soldering techniques (4/86). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and 3 in test equipment maintenance. Credit is not recommended for students taking only Phase I (11/83). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in test equipment maintenance for Phase II. Credit is not recommended for students taking only Phase I (8/79); in the upper-division baccalaureate category, credit is recommended on the basis of institutional evaluation (8/79).

Related Occupation Codes: 55G; 35F.

AR-1715-0429

Satellite Communications (SATCOM) Systems Fundamentals

Course Number: 102-F39.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (677 hours).

Exhibit Dates: 3/78–11/86.

Objectives: To train students to operate, troubleshoot, align and repair common analog and digital communications and spread spectrum subsystems.

Instruction: After 11/86 see Ar-1715-0679. Student analyzes block diagrams of system components, including amplifiers, exciters, FM modulators, discriminators, sweep circuits, detectors, and phase shift networks. Student aligns and troubleshoots klystron systems, transmitters demodulators, and other circuits; performs functional analyses, operational checks, and services on all equipment; and develops a knowledge of digital applications, including digital codes, base logic functions, clock circuits, A/D conversion, and error correcting codes. Student also traces signal flow on circuits diagrams, provides operational checks, isolates faults, and repairs receivers and transmitters.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications circuits, 3 in electronic troubleshooting, 1 in computer circuits (8/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in communications circuits laboratory, 1 in digital logic (8/79).

AR-1715-0430

Strategic Satellite/Microwave Systems Operator

Course Number: 201-26R10.

Location: Signal School, Ft. Gordon, GA.

Length: 20 weeks (754 hours).

Exhibit Dates: 10/78–1/89.

Objectives: To provide students with the knowledge and skills required to operate and perform minor maintenance on a satellite microwave system.

Instruction: Student is introduced to many of the ideas of basic electronics. Oscillators, power supplies, and amplifier circuits are studied and analyzed. Student learns troubleshooting and signal tracing techniques, using the VOM and oscilloscope. A variety of equipment is studied in detail.

Credit Recommendation: In the vocational certificate category, 6 semester hours in troubleshooting techniques, 3 in solid-state circuitry, 2 in DC circuit analysis (8/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting techniques, 1 in solid-state circuitry, 3 in introduction to electronics, 1 in DC circuit analysis (8/79).

Related Occupation Codes: 26R.

AR-1715-0431

Avionic Navigation and Flight Control Equipment Repair

Course Number: 102-35M10.

Location: Signal School, Ft. Gordon, GA.

Length: Phase I, 8 weeks; Phase II, 16 weeks; for a total of 24 weeks (880 hours).

Exhibit Dates: 4/78–9/88.

Objectives: To provide the working knowledge required to perform direct and general support maintenance on electronic navigation and automatic flight control equipment.

Instruction: Phase I consists of basic electronic theory, including basic circuits, rectifiers, meters, amplifiers, oscilloscopes, oscillators, and block-diagram analysis. Phase II includes repair, maintenance, and operation of specialized electronic equipment and components. Theory acquired in phase I is applied to activities in phase II.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electronics, 2 in basic electronic communications, for phase I; 2 semester hours in soldering and printed circuit board repair, 6 in troubleshooting techniques for phase II, for a total of 16 semester hours for completion of the 24-week course (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 2 in basic electronic communication for phase I, 2 semester hours in troubleshooting techniques for phase II, for a total of 10 semester hours for completion of the 24-week course (8/79).

Related Occupation Codes: 35M.

AR-1715-0432

Dial-Manual Central Office Repair

Course Number: 622-36H10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 19 weeks. *Version 2:* 38 weeks (1439 hours).

Exhibit Dates: *Version 1:* 12/84–9/85. *Version 2:* 1/79–11/84.

Objectives: Students are trained to perform maintenance, trouble shooting, repair and interconnection of dial/manual central office exchange equipment.

Instruction: *Version 1:* After 9/85 see AR-1715-0670. About 20% of this course is devoted to basic circuit analysis which includes Ohm's law for simple series and parallel resistive circuits, RL and RC circuits, principles of magnetism, inductance, capacitance, and transistors and use of a multimeter to test circuit continuity and component failure. Digital logic concepts are covered briefly. The course is primarily devoted to telephone system terminology, maintenance, troubleshooting, and repair equipment such as the A and G relays, trunk relays, signal converters, repeaters, central office equipment, PABX equipment, and switchboard installation and operation. Two and four wire central office trunks, E and M, and DX signal supervision are also covered. *Version 2:* The first part of this course concentrates on basic electronics; the second deals with the actual telephone equipment. Solid-state devices and circuits, including amplifiers, oscillators, pulse generators and power supplies, are studied. Analysis and troubleshooting of these circuits is emphasized. Familiarization with the basic ideas and language of electronics is accomplished, as well as troubleshooting of the specific equipment for telephone exchanges.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in central office telephone system maintenance and repair and 4 in introduction to telecommunications (7/85). *Version 2:* In the vocational certificate category, 6 semester hours in troubleshooting techniques, 10 in telephone systems maintenance (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 2 in troubleshooting techniques (8/79).

Related Occupation Codes: 36H.

AR-1715-0433

Combat and Strategic Communication and Electronic Officer

Course Number: 4-11-OA25.

Location: Signal School, Ft. Gordon, GA.

Length: 26 weeks (1055 hours).

Exhibit Dates: 7/78–12/86.

Objectives: To prepare commissioned officers in grade of first lieutenant or captain to serve as a staff officer at battalion level for the planning, installing, maintaining, and managing of tactical communications systems and facilities in support of combat operations.

Instruction: The course includes general military topics covering organizational effectiveness, systems planning and communications. Course covers tactical communications-electronics equipment and planning to include telephone and teletypewriter systems, tactical multichannel system planning, and systems view; analysis of training needs and plans, organizational maintenance operations, cable distribution systems, ADP software, microwave and troposcatter systems engineering and path planning and independent study and research.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in human relations management (8/79); in the graduate degree category, 6 semester hours in human relations management, Credit is to be granted in either the upper division or the graduate category (8/79).

AR-1715-0434

Combat Signaler
(Tactical Wire Operations Specialist)

Course Number: 621-31K10; 621-36K10-OSUT.

Location: Signal School, Ft. Gordon, GA.

Length: 8-12 weeks (254-496 hours).

Exhibit Dates: 9/78-Present.

Objectives: Provide enlisted personnel with a general working knowledge of installation and maintenance of field wave lines, tactical switchboards and radio systems.

Instruction: Course includes installation, maintenance and operation of field wire switchboards and telephones. Student installs and repairs line systems in the field. Some military personnel will complete basic training through One Station Unit Training (OSUT) and the credit cited herein is appropriate for them.

Credit Recommendation: In the vocational certificate category, 4 semester hours in lineman-installer, 2 in switchboard operator (1/89).

Related Occupation Codes: 36K; 31V.

AR-1715-0435

Satellite Communications (SATCOM)
Terminal AN/MSC-46 Repair

Course Number: 102-F38.

Location: Signal School, Ft. Gordon, GA.

Length: 10 weeks (355 hours).

Exhibit Dates: 11/77-12/86.

Objectives: To train military service personnel to operate, troubleshoot, align, and repair satellite communications earth terminal complex AN/MSC-46.

Instruction: Student learns to operate satellite earth terminal complex (ETC) equipment; analyze block diagrams; trace power distribution in the system; perform noise tests, perform operational checks and maintenance services on antenna, amplifier and frequency conversion circuitry; maintain test circuits; analyze subsystems; and trace block diagrams, including antenna feed, phase shifters, and low- and high-power amps, RF circuits, cooling units and heat exchangers. Student performs operational checks and services on above systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical system maintenance, 3 in electronics troubleshooting (8/79).

Related Occupation Codes: 26Y.

AR-1715-0436

Tactical Microwave Systems Repair

Course Number: 101-26L10.

Location: Signal School, Ft. Gordon, GA.

Length: Phase I, 36 weeks; Phase II, 6 weeks; for a total of 42 weeks (Phase I, 1040; Phase II, 227; for a total of 1267 hours).

Exhibit Dates: 1/79-6/85.

Objectives: To provide enlisted personnel with knowledge required to install, operate, troubleshoot and repair tactical microwave radio systems.

Instruction: After 6/85 see AR-1715-0671. The course has two phases. In phase I the student measures and compares voltages and resistances, isolates meter troubles, calibrates meters, uses oscilloscopes and multimeters, develops solder skills including printed circuit board repair, traces wire diagrams, reads schematic charts and traces signal and current paths. The course also includes troubleshooting of various low- and high-frequency electronic circuits, using logic trainer and check memory, counter, and decoder digital circuits as well as adjusting and aligning frequency shifting, RF meter, amplifier, multiplexer and RF receiver circuits. Student installs, adjusts, and aligns antennas and related drive circuits. ntennas and related drive circuits. Enlisted personnel will Enlisted personnel will take take this phase and not take phase II. Phase II is designed for the National Guard, the Reserves and foreign students. The student learns to troubleshoot, align, and maintain AN/TRC-24 radio set as well as telegraph terminal AN/TCC-4 and telephone terminal AN/TCC-7. Students taking Phase II may also take Phase I.

Credit Recommendation: In the vocational certificate category, 6 semester hours in system troubleshooting techniques, 2 in digital logic circuitry, 2 in soldering and printed circuit board repair for those taking Phase I; 3 semester hours in radio circuit troubleshooting for those taking Phase II, for a total of 13 semester hours for students completing both Phase I and II (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 2 in basic electronic communications, 2 in logic systems, 2 in troubleshooting for students completing Phase I. For those students completing Phase II credit is recommended on the basis of institutional evaluation (8/79).

Related Occupation Codes: 26L.

AR-1715-0437

Strategic Microwave Systems
Repairer

Course Number: 101-26V10.

Location: Signal School, Ft. Gordon, GA.

Length: 34-37 weeks (1260-1384 hours).

Exhibit Dates: 10/78-2/86.

Objectives: To provide training in the installation, operation and repair of strategic microwave radio systems.

Instruction: After 2/86 see AR-1715-0672. The course includes comprehensive coverage of basic electronics: solid-state circuitry of power supplies, audio amplifiers, pulse generators, AM/FM transceivers, and logic trainers. Approximately 50 percent of course time is devoted to practical operation and troubleshooting of military radio equipment, including 76 hours in precision soldering. Prerequisites include completion of a course in algebra and some background in science.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electronics, 6 in troubleshooting techniques, 2 in soldering of printed circuit board repair (8/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics basics, 2 in basic electronic communications, 2 in digital circuits, 2 in troubleshooting techniques (8/79); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory credit based on institutional evaluation (8/79).

Related Occupation Codes: 26V.

AR-1715-0438

1. Satellite Communications
   (SATCOM) Operator,Navy
2. Satellite Communications
   (SATCOM) Operator

Course Number: *Version 1:* 102-F43 (26Y). *Version 2:* 102-F43; 102-F22.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 5-8 weeks (185-298 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 9/76-12/84.

Objectives: Provides personnel with skills required to operate a satellite communications terminal and a digital communications subsystem.

Instruction: *Version 1:* Limited to principles of satellitecommunications including digital communications and terminal subsystems. *Version 2:* Course includes practical, hands-on experience in the operation of highly specialized military communications equipment. Student must possess a background in communications operations and also demonstrate a capability to adjust and align the system. Fewer systems are covered in the specific maintenance program after 4/78; some training is given in signal flow tracing and block-diagram analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in satellite communications operation (6/87). *Version 2:* In the vocational certificate category, 3 semester hours in satellite communications maintenance (8/79).

Related Occupation Codes: 26Y.

AR-1715-0439

Electronic Warfare (EW) Staff
Officer

Course Number: *All Versions:* 3B-ASI5M; 2G-F8.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2 weeks (76 hours).

Exhibit Dates: 5/79-2/86.

Objectives: To prepare staff officers for coordinating, planning, and integrating tactical electronic warfare to support combat operations.

Instruction: Course discusses the electronic warfare environment, defensive electronic warfare, and electronic warfare tasking and deployment, and provides warfare training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the training (6/79).

AR-1715-0486

Pershing II Missile Crewmember
(Pershing Missile Crewmember)
(Pershing Missile Crewman)

Course Number: 043-15E10; 15E10-OSUT.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 5-14 weeks (186-223 hours). *Version 2:* 4-9 weeks (298 hours). *Version 3:* 5-13 weeks (206 hours).

Exhibit Dates: *Version 1:* 3/84-Present. *Version 2:* 3/81-2/84. *Version 3:* 2/79-2/81.

Objectives: To provide the student with the skills, knowledge and experience required to perform the duties of a Pershing missile crewmember.

Instruction: The student is instructed in the procedures required to set up a Pershing missile system and perform daily maintenance procedures. These tasks include assembling the missile sections and mounting it to the launcher, operating the power generator and laying cables. NOTE: Versions 1 and 3 include 8 weeks of basic training.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (6/89). *Version 2:* In the vocational certificate category, 1 semester hour in the use and care of hand tools (10/83). *Version 3:* Credit is not recommended because of the military-specific nature of the course (1/80).

Related Occupation Codes: 15E.

AR-1715-0487

Pershing Operator Maintenance Assistance

Course Number: 4F-214E-A, 121-21G10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9 weeks (316 hours).

Exhibit Dates: 6/78–5/83.

Objectives: To train students with a working knowledge of the assembly procedure, maintenance and operation of the Pershing missile and associated ground support equipment.

Instruction: The student is introduced to the major items of equipment that comprise the basic Pershing missile, its principle of operation, diagnostic test procedures, repair and maintenance methods. The student learns the function and purpose of each electrical and hydraulic subsystem, standard troubleshooting and repair procedures including the interpretation of computer diagnostic techniques to determine computer malfunctions. The course also includes basic 5 ton truck maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour general technical elective (1/80); in the lower-division baccalaureate/associate degree category, 1 semester hour technical elective for students in a non-technical program (1/80).

Related Occupation Codes: 21G.

AR-1715-0488

Pershing System Maintenance

Course Number: 4F-214EB; 121-21G20.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7 weeks (255 hours).

Exhibit Dates: 8/77–Present.

Objectives: To train advanced students in the troubleshooting and effective repair techniques of both the manual and electrical components of the Pershing missile ground support equipment.

Instruction: Students are instructed in procedures for tracing AC and DC voltage levels and system signals to isolate faults and perform repair of electrical subsystems. Approximately 25% of the course is devoted to working knowledge of electronic devices and circuitry including DC waves and parallel circuits, AC and DC motor functional characteristics, solid state diode applications transistor biasing and functional operation and octal number conversions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electric and electronic circuits (1/80); in the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective for students in a non-technical program (1/80).

Related Occupation Codes: 21G.

AR-1715-0489

1. Tactical Communications Chief Noncommissioned Officers (NCO) Advanced
2. Tactical Electronic Equipment Maintenance Noncommissioned Officers (NCO) Advanced (USAFAS)

Course Number: *Version 1:* 101-31V40. *Version 2:* 1-31-C42B.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 7 weeks (246 hours). *Version 2:* 10 weeks (346 hours).

Exhibit Dates: *Version 1:* 3/79–Present. *Version 2:* 11/75–2/79.

Objectives: To prepare the NCO for the responsibility of organizing and supervising a complete field artillery communication system including wire, FM radio and cryptograph operations.

Instruction: *All Versions:* Through lecture, support and practical demonstrations the student is taught communication system principles, equipment maintenance procedures and repair of equipment. Course includes work with test equipment. *Version 1:* Stresses organization, supervision and preventative maintenance with less emphasis on troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronic troubleshooting and laboratory (1/80); in the lower-division baccalaureate/associate degree category, 2 semester hours in supervision and human services (1/80). *Version 2:* In the vocational certificate category, 2 semester hours in electronic troubleshooting and laboratory (1/80); In the lower-division baccalaureate/associate degree category, 2 semester hours in supervision and human relations (1/80).

Related Occupation Codes: 31V.

AR-1715-0490

Weapons Support Radar AN/TPS-58

Course Number: 104-26B1T.

Location: Field Artillery School, Ft. Sill, OK.

Length: Self-paced average 3 weeks, maximum 5 weeks.

Exhibit Dates: 8/78–Present.

Objectives: To train the radar operator to perform operational tests, isolate malfunctions, and repair minor malfunctions in the radar set, plotting board, power supply and digital display.

Instruction: Students learn diagnostic test procedures and proper use of test equipment to troubleshoot, align and repair the major components of the radar installation. The student is evaluated by demonstrating his troubleshooting skills prior to graduation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics system troubleshooting (1/80).

Related Occupation Codes: 26B.

AR-1715-0491

Weapons Support Radar Repairer

Course Number: 104-26B10.

Location: Field Artillery School, Ft. Sill, OK.

Length: Self-paced 20–31 weeks.

Exhibit Dates: 8/78–12/84.

Objectives: To provide enlisted students with knowledge to properly use test equipment in diagnostic testing to pinpoint malfunctions.

Instruction: Course includes self-paced instruction, laboratories, and performance testing using test equipment and training modules capable of accepting bugs. Instruction covers preventative maintenance procedures for a wide range of radar and associated equipment, solid state circuits and wave guide.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronic system troubleshooting and high frequency circuits (1/80); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system troubleshooting, high frequency circuits and electronics laboratory (1/80).

Related Occupation Codes: 26B.

AR-1715-0492

Tactical Communications Chief Basic Noncommissioned Officer (NCO)

(Tactical Communications Chief Basic Technical)

(Tactical Communications Chief)

Course Number: *Version 1:* 101-31V30; 103-31G30. *Version 2:* 1-31-C40B/31V30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 9–11 weeks (331–371 hours). *Version 2:* 9–11 weeks (308–331 hours).

Exhibit Dates: *Version 1:* 11/82–Present. *Version 2:* 4/78–10/82.

Objectives: To provide selected enlisted personnel with a working knowledge of those duties required to perform as tactical communication systems operator/mechanics.

Instruction: *All Versions:* Instruction includes subjects of wire communications, FM and AM radio systems, communications procedures, electronic warfare and very basic overview of radio fundamentals. Most instruction centers around planning of field exercises. *Version 2:* Emphasis is placed on the supervisory function.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electronics (5/88). For credit for the common core see AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management(10/81).

Related Occupation Codes: 31G, 31V.

AR-1715-0493

1. Field Artillery Moving Target Locating Radar/Sensor Operator
   (Field Artillery (AN/TPS-58B) Radar Operator)
2. Field Artillery Radar Crewmember (AN/TPS-58)
   (Field Artillery Radar Operator (AN/TPS-58B))
   (Field Artillery (AN/TPS-58B) Radar Operator)
   (Field Artillery Radar Crewmember (AN/TPS-58))
   (Field Artillery Radar Operator (AN/TPS-58B))

Course Number: *Version 1:* 221-ASIL3; 221-F6. *Version 2:* 221-ASIL3; 221-17B1T.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 2–4 weeks (80–133 hours). *Version 2:* Self-paced average 1 week, maximum 2 weeks (76 hours).

Exhibit Dates: *Version 1:* 1/85–Present. *Version 2:* 2/79–12/84.

Objectives: To train enlisted personnel to operate and maintain field artillery radar.

Instruction: Self-paced instruction and practical exercises in field artillery radar operation and preventative maintenance including radar site evaluation, equipment emplacement, adjustment, calibration and orientation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radar operations (6/89). *Version 2:* Credit is not recommended because of the military-specific nature of the course (1/80).

AR-1715-0494

Air Defense Artillery (ADA) Command and Control Officer

Course Number: 2F-14G.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 9–10 weeks (337 hours). *Version 2:* 10 weeks (341–347 hours).

Exhibit Dates: *Version 1:* 8/83–10/84. *Version 2:* 3/77–7/83.

Objectives: To provide commissioned officers with a knowledge of the characteristics, operations and functions of the AN/TSQ-73 missile minder command and control system.

Instruction: *Version 1:* This version does not cover fundamental of digital circuits. Course does emphasize the operational aspects of the AN/TSQ-73 missile minder command and control system. *Version 2:* Officers will be able to assume duty as an operations officer/tactical director in a Nike Hercules or Improved Hawk ADA battalion or group after studying digital fundamentals, system initialization, console operations and radar interface equipment and simulation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in computer operating (12/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer system operations (3/81).

AR-1715-0495

Vulcan/Forward Area Alerting
Radar (FAAR) Mechanic
(Forward Area Alerting Radar (FAAR)
System Mechanic–Phase II)

Course Number: 121-24M10.

Location: Air Defense School, Ft. Bliss, TX.

Length: Phase I 14 weeks; Phase II self-paced 6 weeks (Phase I 515 hours; Phase II self-paced 211 hours).

Exhibit Dates: 6/78–9/82.

Objectives: To provide knowledge to perform organizational maintenance on Vulcan weapons systems/forward area alerting radar.

Instruction: Phase I includes missile electronic fundamentals, digital fundamentals, organizational maintenance of the radar set. Phase II covers forward area alerting radar and is self-paced.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Phase I, 3 semester hours in digital electronics, 2 in basic electronics, 1 in electronic laboratory; for Phase II, 3 in basic radar theory and maintenance (3/81).

Related Occupation Codes: 24M.

AR-1715-0497

Improved Hawk Fire Control
Repairer Transition (PIP II)
(Improved Hawk Fire Control Repairer
Transition (PIP))

Course Number: 104-24H1T/2T/3T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 5–10 weeks (190–293 hours).

Exhibit Dates: 1/80–1/88.

Objectives: To provide the student with knowledge and techniques for inspecting, testing, and repairing the Improved Hawk IBCC, IPCP and ICC.

Instruction: Course covers fire control equipment including transmit and receive data processing, SDE receiver and transmit circuits, memory addressing and symbol generator and intensity gate generation circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment repair (4/86).

AR-1715-0498

OV/RV-1D (Mohawk) Systems
Qualification

Course Number: 2C-15C/2B-ASIF1; 3A-F42.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 7–8 weeks (216–268 hours).

Exhibit Dates: 10/84–Present.

Objectives: To familiarize selected commissioned officers and warrant officers with all special electronic mission aircraft and to train rated aviation officers in two specific military aircrat (OV/RV-1D).

Instruction: Instruction in the use of special airborne electronic equipment used in military intelligence, and flight operational procedures related to the aircraft. Instruction is provided in the classroom and in flight.

Credit Recommendation: Credit is not recommended because of the military- specific nature of the course (6/90).

AR-1715-0499

Improved Hawk Information and
Coordination Central
Maintenance Transition (PIP)

Course Number: 104-24G1T/2T/4T; 104-24G1T/2T/3T/4T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 4–5 weeks (149–159 hours).

Exhibit Dates: 10/79–Present.

Objectives: To provide personnel with knowledge of organizational maintenance for the Product Improvement Program (PIP) of the Improved Continuous Wave Acquisition Radar.

Instruction: Provides lecture and laboratory instruction in theory of operation of equipment, use of test equipment and procedures, troubleshooting at the block diagram level.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (11/88).

Related Occupation Codes: 24G.

AR-1715-0500

Aerial Electronic Warning/Defense
Equipment Repairer

Course Number: 4C-F18; 102-ASIW6 (35K).

Location: Signal School, Ft. Gordon, GA; Intelligence School, Ft. Huachuca, AZ.

Length: 3–5 weeks (133–144 hours).

Exhibit Dates: 7/82–Present.

Objectives: To train personnel and expand functional knowledge in the maintenance of aircraft survivability equipment for military aircraft at the organizational or aviation unit maintenance level.

Instruction: Teaches the necessary skills, knowledges, and maintenance procedures to maintain infrared jammers and radar warning receivers at the block diagram level.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AR-1715-0501

Operation of the Automated
Multimedia Exchance (AMME)
System

Course Number: 260-ASIU3.

Location: Communications Electronics Installation, Ft. Huachuca, AZ.

Length: 2–6 weeks (80–200 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide specialized operator training on the Automated Multimedia Exchange (AMME) system.

Instruction: This program includes lectures and practical exercises in the general operation of the Automatic Multimedia Exchange system. The course includes traffic flow, system configuration, equipment identification and operation, system initialization, message entry and traffic management.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

AR-1715-0502

Electronic Warfare (EW)/Intercept
Systems Repairer, Basic
Technical

Course Number: 102-33S30.

Location: Intelligence School, Ft. Devens, MA.

Length: 18–19 weeks (632 hours).

Exhibit Dates: 12/79–9/86.

Objectives: To train enlisted personnel in analog and digital communication techniques and signal analysis, computer language and maintenance techniques.

Instruction: Theory and practice of electromagnetic signal analysis, analog and digital communication systems, computer languages, computer troubleshooting techniques, operation and repair of specialized signal analyzers, pulse digital circuits and alignment of specialized analog and digital eqipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in waveform analysis, 3 in computer troubleshooting (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital techniques, 3 in fundamentals of computer design (2/83).

Related Occupation Codes: 33S.

AR-1715-0503

Aerial Electronic Warning/Defense
Equipment Repairer

Course Number: 4C-F17; 102-ASIW6 (35R).

Location: Signal School, Ft. Gordon, GA; Intelligence School, Ft. Huachuca, AZ.

Length: 8–11 weeks (325 hours).

Exhibit Dates: 7/82–1/89.

Objectives: To provide personnel with functional knowledge to maintain aircraft survivability equipment at the organizational and direct support level.

Instruction: Teaches the necessary skill, knowledge, and maintenance procedures to maintain infrared jammers, radar warning receivers and selected test sets.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AR-1715-0504

Communications Technical Control
Center

Course Number: ASIV4.

Location: Signal School, Ft. Gordon, GA.

Length: 5 weeks (177 hours).

Exhibit Dates: 4/79–12/85.

Objectives: Provides the knowledge to troubleshoot, repair, and maintain communications technical control cwenters (AN/TSQ-84).

Instruction: Lectures and practical exercises in communications control center maintenance including soldering, troubleshooting main distribution frames, monitor panels, voice frequency circuits, line amplifiers, power distribution circuits and amplifier interface test headsets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in telephone systems servicing (10/81).

AR-1715-0509

Technical Surveillance Countermeasures (TSCM), Phase II

(Defense Against Sound Equipment (DASE), Phase II)

Course Number: None.

Location: Intelligence and Security Command, Ft. Meade, MD.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/77–Present.

Objectives: To present a study of electronic communication techniques and systems emphasizing the generation, transmission, reception, detection and analysis of intelligence.

Instruction: This course covers the theory and applications of various modern electronic communications systems and basic theory and design of components of such systems. Theory and practice cover the physics of sound, detection of sound waveforms, transmission of intelligence by modern telephone systems, methods of detection of electromagnetic radiation throughout the spectrum, various modulation techniques for transmission of intelligence, multiplexing of various transmission modes, design and use of modern radio receivers, and a thorough study of the analysis of complex waveforms and modulation techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications techniques, 3 in electronic communications systems (2/81).

AR-1715-0510

Hercules Missile Crew Member

Course Number: 16B10-OSUT; 16B10-OSUT(Phase I); 043-16B10-OSUT; 043-16B10.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7–14 weeks (272–738 hours).

Exhibit Dates: 2/79–2/83.

Objectives: To qualify enlisted personnel as Hercules missile crew members.

Instruction: Lectures and practical exercises in the procedures, practices and preventive maintenance of the Hercules missile and its associated components.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/81).

Related Occupation Codes: 16B.

AR-1715-0511

Hawk Missile Crew Member

Course Number: 16D10-OSUT; 043-16D10; 16D10-OSUT(Phase I); 043-16D10-0SUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 5–8 weeks (207–276 hours). *Version 2:* 8–15 weeks (316–538 hours). *Version 3:* 14 weeks. *Version 4:* 8–14 weeks (280–758 hours).

Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 10/85–9/87. *Version 3:* 10/83–9/85. *Version 4:* 2/79–9/83.

Objectives: To train enlisted personnel as Hawk Missile crew members.

Instruction: Lectures and practical exercises in the procedures and practices used in operating specific Hawk missile systems and equipment. *Version 2:* May include basic training; does not include first aid.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military specific nature of the course (10/89). *Version 2:* Credit is not recommended because of the military specific nature of this course (9/87). *Version 3:* In the vocational certificate category, 1 semester hour in first aid (12/84). *Version 4:* Credit is not recommended because of the military-specific nature of the course (3/81).

Related Occupation Codes: 16D.

AR-1715-0512

Hawk Fire Control Crew Member

Course Number: 16E10-OSUT; 043-16E10; 043-16E10-OSUT; 16E10-OSUT(Phase I).

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 14 weeks. *Version 2:* 8–14 weeks (280–508 hours).

Exhibit Dates: *Version 1:* 10/82–10/88. *Version 2:* 2/79–9/82.

Objectives: To qualify enlisted personnel to become Hawk Fire Control crew members.

Instruction: For this course after 10/88 see AR-1715-0818. *Version 1:* Lectures and demonstration in the installation, operation, and preventive maintenance checks of equipment subassemblies and the overall Hawk fire control system. *Version 2:* Lectures and practical exercises in the procedures and practices used in the operation of a specific missile system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in first aid (12/84). *Version 2:* Credit is not recommended because of the military specific nature of the course (3/81).

Related Occupation Codes: 16E.

AR-1715-0513

1. Improved Hawk Master Mechanic
2. Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic

Course Number: *Version 1:* 121-24R40-A; 121-24R40B. *Version 2:* 121-24R40.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 14–15 weeks (518–547 hours). *Version 2:* 22 weeks (760 hours).

Exhibit Dates: *Version 1:* 3/83–4/88. *Version 2:* 6/80–2/83.

Objectives: To train enlisted personnel to perform operational and organizational checks, fault isolation and maintenance management for Improved Hawk fire control equipment.

Instruction: For this course after 4/88 see AR-1715-0799. *Version 1:* Course consists of conference and practical exercises in the fault analysis and maintenance of the Improved Hawk system. *Version 2:* Course includes digital and computer fundamentals, general block and functional operation theory, fault isolation and maintenance, and management functions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and maintenance procedures (11/86). *Version 2:* In the vocational certificate category, 6 semester hours in shop maintenance practices (3/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuits and 3 in troubleshooting and maintenance procedures (3/81).

Related Occupation Codes: 24R.

AR-1715-0514

Improved Hawk Master Mechanic

(Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic)

Course Number: 121-24R40-B.

Location: Air Defense School, Ft. Bliss, TX.

Length: 14–17 weeks (514–533 hours).

Exhibit Dates: 8/80–5/88.

Objectives: To train enlisted personnel to perform operational checks, organizational level fault isolation and maintenance management functions for the Improved Hawk Fire Control equipment.

Instruction: For this course after 5/88 see AR-1715-0802. Instruction includes general block and functional theory of operation, performance of operational checks, fault isolation and maintenance management functions.

Credit Recommendation: In the vocational certificate category, 6 semester hours in shop maintenance procedures (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and maintenance procedures (11/86).

Related Occupation Codes: 24R.

AR-1715-0515

Defense Acquisition Radar Operator

(Defense Acquisition Radar Crew Member)

Course Number: *Version 1:* 16J10-OSUT; 16J10-OSUT (Phase I); 16J10-OSUT (ST). *Version 2:* 16J10-OSUT; 221-16J10-OSUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 9–15 weeks (326-500 hours). *Version 2:* 8–14 weeks (280–542 hours).

Exhibit Dates: *Version 1:* 9/83–9/86. *Version 2:* 2/79–8/83.

Objectives: To train enlisted personnel to operate a Defense Acquisition radar set.

Instruction: *Version 1:* For this course after 9/86 see AR-1715-0808. Provides instruction in first aid, marksmanship, general introduction into the Army, tactical training, communications procedures, map reading, and air defense; includes 286 hours on preventive maintenance checks and services, and operation of defense acquisition radars. *Version 2:* Lectures and practical exercises in the use, operation and maintenance of an Air Defense radar set.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical device maintenance, 1 in first aid (12/84). *Version 2:* In the vocational certificate category, 1 semester hour in maintenance practices (3/81).

Related Occupation Codes: 16J.

AR-1715-0516

Air Defense Artillery (ADA)

Chaparral Crew Member

(Air Defense Artillery (ADA) Short Range Crewman)
(Air Defense Artillery (ADA) Short Range Missile Crewman)
(Chaparral Crew Member)

Course Number: *Version 1:* 16P10-OSUT; 16P10-OSUT(Phase I); 16P10-OSUT(ST)(Phase I and II); 043-16P10; 043-16P10-OSUT. *Version 2:* 16P10-OSUT; 16P10-OSUT(Phase I); 16P10-OSUT(ST)(Phase I and II); 043-16P10; 043-16P10-OSUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 14 weeks (634 hours). *Version 2:* 6-14 weeks (280-667 hours).

Exhibit Dates: *Version 1:* 9/83-5/87. *Version 2:* 2/79-8/83.

Objectives: To qualify enlisted personnel as chaparrel crew members.

Instruction: For this course after 5/87 see AR-1715-0812. Lectures and practical exercises in the practices and procedures used in operating and maintaining a Chaparrel system at the organizational level.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in first aid (11/84). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/81).

Related Occupation Codes: 16P.

AR-1715-0517

1. Air Defense Artillery (ADA) Short Range Crew Member
   (Air Defense Artillery (ADA) Range Gunnery Crewman)
   (Air Defense Artillery (ADA) Short Range Gunnery Crew Member)
2. Air Defense Artillery (ADA) Short Range Crew Member
   (Air Defense Artillery (ADA) Range Gunnery Crewman)
   (Air Defense Artillery (ADA) Short Range Gunnery Crew Member)
3. Air Defense Artillery (ADA) Short Range Crew Member
   (Air Defense Artillery (ADA) Range Gunnery Crewman)
   (Air Defense Artillery (ADA) Short Range Gunnery Crew Member)

Course Number: *Version 1:* 041-16R10. *All Versions:* 16R10-OSUT; 043-16R10; 16R10-OSUT(Phase I); 043-16R10-OSUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 8-14 weeks (286-509 hours). *Version 2:* 14 weeks (734 hours). *Version 3:* 7-14 weeks (280-730 hours).

Exhibit Dates: *Version 1:* 10/85-12/87. *Version 2:* 3/83-9/85. *Version 3:* 2/79-2/83.

Objectives: To qualify enlisted personnel as air defense artillery range gunnery crew members.

Instruction: For this course after 12/87 see AR-1715-0819. Lectures and practical exercises in the procedures and practices in the operation and maintenance of ADA weapons.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in first aid (12/84). *Version 2:* In the vocational certificate category, 1 semester hour in first aid (12/84). *Version 3:* Credit is not recommended because of the military specific nature of the course (3/81).

Related Occupation Codes: 16R.

AR-1715-0518

Hercules Fire Control Crew Member

Course Number: 16C10-OSUT; 16C10-OSUT(Phase I); 043-16C10-OSUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 14 weeks (740 hours). *Version 2:* 8-14 weeks (280-740 hours).

Exhibit Dates: *Version 1:* 10/81-10/84. *Version 2:* 2/79-9/81.

Objectives: To train enlisted personnel to become Hercules Fire Control crew members.

Instruction: Lectures and practical exercises in the procedures and practices used in the operation, adjustment and maintenance of a specific missile fire control center.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in first aid (12/84). *Version 2:* In the vocational certificate category, 1 semester hour in maintenance practices (3/81).

Related Occupation Codes: 16C.

AR-1715-0519

Improved Hawk Fire Control Maintenance Transition (PIP)

Course Number: 121-24EIT.

Location: Air Defense School, Ft. Bliss, TX.

Length: 5 weeks (178 hours).

Exhibit Dates: 11/79-7/83.

Objectives: To provide knowledge of digital logic and digital fundamentals necessary to maintain the Improved Hawk Fire Control systems.

Instruction: Lectures and practical exercises in digital and computer fundamentals, improvements in Hawk radar systems and circuitry improvements for the Hawk system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of digital circuits (11/86).

Related Occupation Codes: 24E.

AR-1715-0520

Hawk Organizational Maintenance Supervisor(PIP)

(Improved Hawk Organizational Maintenance Supervisor (PIP))

Course Number: 4F-223 BT.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6-8 weeks (216-218 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide warrant officers with a working knowledge of the Improved Hawk guided missile system and associated equipment.

Instruction: Lectures and practical exercises in the operation and troubleshooting of pulse acquisition and continuous wave radar, fault isolation and repair of a missile control processing system and associated support equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance practices (11/88).

AR-1715-0521

Improved Hawk Master Mechanic

Course Number: *Version 1:* 121-24R50-B. *Version 2:* 121-24R50-B.

Location: Air Defense School, Ft. Bliss, TX.

Length: *Version 1:* 30-31 weeks (1064-1084 hours). *Version 2:* 35 weeks (1,116 hours).

Exhibit Dates: *Version 1:* 5/83-Present. *Version 2:* 12/80-4/83.

Objectives: To train experienced enlisted personnel (NCO's) to perform operational and organizational checks, and maintenance for military equipment relating to the Improved Hawk Missile System.

Instruction: Lectures and practical exercises in digital logic and computer fundamentals including: logic gates, computer flow charts, computer maintenance, operational checks and fault isolation involving power distribution systems computer control systems, continuous wave radar sets, pulsed wave radar sets, range only radar sets and other equipment relating to the Hawk missile support system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronic equipment maintenance (11/84); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and maintenance, 3 in radar systems maintenance and operations (11/84). *Version 2:* In the vocational certificate category, 10 semester hours in shop maintenance practices (3/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in troubleshooting and maintenance procedures and 3 in radar systems maintenance and operations (3/81).

AR-1715-0522

Combat Area Surveillance Radar Repair

Course Number: 104-26C10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 25 weeks.

Exhibit Dates: 2/80-12/84.

Objectives: To train enlisted personnel to maintain and repair combat surveillance radar and associated equipment.

Instruction: This course includes a basic and comprehensive electronics fundamentals section (420 hours). Includes hands- on training in the skills required to maintain and repair military radar equipment at the component level.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar theory/maintenance/ repair (11/81); in the lower-division baccalaureate/associate degree category, 12 semester hours in basic electronics and laboratory credit on institutional basis (11/81).

AR-1715-0523

Aerial Radar Sensor Repairer

(Aerial Surveillance Sensor Repairer)

Course Number: 104-26E10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 29-30 weeks (968 hours). *Version 2:* 27-28 weeks (864-968 hours). *Version 3:* 47-48 weeks (1543 hours).

Exhibit Dates: *Version 1:* 6/82-1/89. *Version 2:* 10/81-5/82. *Version 3:* 5/79-9/81.

Objectives: To provide enlisted personnel with functional knowledge to inspect, test and repair aerial radar sensor equipment and to maintain and troubleshoot it at block diagram level.

Instruction: *Version 1:* Includes a comprehensive study of basic electricity/ electronics consisting of 454 hours of lecture and lab. Phase II (480 hours) consists of electronic analysis, maintenance and repair of electronic processing equipment and electronic systems including radar. *Version 2:* This course includes a basic and comprehensive electronics fundamentals section of 420 hours. Lecture and laboratory instruction in maintenance and repair of airborne radar, infrared and optics, photography, special purpose devices, testing equipment, controls and servos, mechanical systems, digital circuits, troubleshooting, machine tooling, and microwaves. *Version 3:* This course includes a basic and comprehensive electronics fundamentals section of 420 hours. Lecture and laboratory instruction in maintenance and repair of airborne radar, infrared and optics, photography, special purpose devices, testing equipment, controls and servos, mechanical systems, digital circuits, troubleshooting, machine tooling and microwaves.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity and electronics, 6 in laboratory (operation of basic and advanced test equipment, maintenance techniques, and troubleshooting, including radar equipment) (10/84). *Version 2:* In the vocational certificate category, 3 semester hours in radar theory, maintenance, and repair (11/81); in the lower-division baccalaureate/associate degree category, 12 semester hours in basic electronics; laboratory credit based on institutional evaluation (11/81). *Version 3:* In the vocational certificate category, 3 semester hours in radar principles/operation/ repair (11/81); in the lower-division baccalaureate/associate degree category, 12 semester hours in basic electronics with electronics laboratory credit based on institutional evaluation (11/81).

AR-1715-0524

C-E INSTALLER TRAINING
(Communications Electronics Installer Training)

Course Number: None.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6 weeks (159 hours).

Exhibit Dates: 2/80–1/89.

Objectives: To train personnel in standardized methods of installing communications equipment and supervisory management practices.

Instruction: Specific hands-on experience in hand and power tools, distribution frame wiring, cable duct and rack installation, soldering techniques, sewed cable, coaxial connectors and related topics covered in the national electric code.

Credit Recommendation: In the vocational certificate category, 6 semester hours in laboratory (electrician, electrical installer, or industrial electrical technician) (11/81).

AR-1715-0525

1. PERSHING II ELECTRONICS MATERIEL SPECIALIST
2. PERSHING ELECTRONICS MATERIEL SPECIALIST

Course Number: *Version 1:* 4F-214E; 121-21G10. *Version 2:* 4F-214E, 121-21G10.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 16 weeks (570 hours). *Version 2:* 22–23 weeks (864 hours).

Exhibit Dates: *Version 1:* 3/84–2/88. *Version 2:* 2/82–2/84.

Objectives: To provide selected warrant officers and enlisted personnel with a working knowledge of organizational maintenance of the Pershing missile.

Instruction: Lecture and laboratory instruction in basic electronics, solid state, and digital theory; maintenance and repair of the Pershing missile at the component level; use of flow charts and schematics. For course after 2/88, see AR-1715-0823.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in fundamentals of electricity and electronics, 1 in electromechanical systems troubleshooting (11/85). *Version 2:* In the vocational certificate category, 3 semester hours in electromechanical systems repair, 3 in computer repair, 3 in technical mathematics (10/83); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics/electricity, 3 in computer theory (10/83).

Related Occupation Codes: 21G.

AR-1715-0526

AUTOMATIC DATA TELECOMMUNICATIONS CENTER OPERATOR

Course Number: 260-72G10.

Location: Signal School, Ft. Gordon, GA.

Length: 12–13 weeks (453–492 hours).

Exhibit Dates: 4/81–12/89.

Objectives: To provide the student with the ability to type, transcribe and process messages in ACP-127 and JANAP 128 format. To provide the skills and knowledge necessary to operate a fixed telecommunications center.

Instruction: Utilizing lecture and demonstration prepare the student to operate a automatic data telecommunications center emphasizing the following areas: keyboard techniques, transcribing messages, message accountability and cipher machines. Operation of keypunch equipment, digital subscriber terminals, mode V equipment, data communication terminals, and standard remote terminals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in keypunch, 3 in record keeping, 3 in typing (1/83).

Related Occupation Codes: 72G.

AR-1715-0527

DECENTRALIZED AUTOMATED SERVICE SUPPORT SYSTEM (DAS3) COMPUTER REPAIRER

Course Number: 150-39D10; 150-34C20.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 24–27 weeks (914–1080 hours). *Version 2:* 19–20 weeks (753 hours).

Exhibit Dates: *Version 1:* 9/84–9/88. *Version 2:* 3/80–8/84.

Objectives: To provide enlisted personnel with the necessary knowledge to service a minicomputer controlled field type of automated data and message processing system.

Instruction: For this course after 9/88 see AR-1715-0883. *Version 1:* Instruction includes basic electricity, computer fundamentals, solid state circuits and digital logic practices. In addition, normal troubleshooting procedures necessary for the minicomputer system are studied. *Version 2:* Instruction includes basic electricity, computer fundamentals, and digital logic practices. In addition, normal troubleshooting procedures necessary for the minicomputer system are studied.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics, 3 in basic electronics and 1 in solid state circuits (3/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in digital fundamentals, 3 in microprocessors, 3 in computer systems repair (10/81).

Related Occupation Codes: 34C.

AR-1715-0528

DIGITAL COMMUNICATIONS SUBSYSTEMS REFRESHER

Course Number: 102-F40.

Location: Signal School, Ft. Gordon, GA.

Length: 7 weeks (252–259 hours).

Exhibit Dates: 3/78–1/85.

Objectives: To train personnel knowledgeable in electronics in the theory and repair procedures necessary to understand digital communications subsystems. Training is of an update nature.

Instruction: After 1/85 see AR-1715-0667. The student receives instruction in analog-to-digital signal converters, signal multiplexers, modems, encoders and decoders as used in digital communications subsystems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in digital systems analysis (10/81).

AR-1715-0529

CHAPARRAL REDEYE REPAIRER

Course Number: 121-27G10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 28 weeks (1024–1026 hours). *Version 2:* 23–24 weeks (795–888 hours).

Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 8/79–12/83.

Objectives: To provide enlisted personnel with the skills and knowledge required to perform DS/GS level maintenance of the Chaparral and Redeye Guided Missile Systems and ancillary test equipment.

Instruction: *Version 1:* Lectures and practical experiences in basic electricity, AC/DC circuits, transistors, linear and nonlinear devices, power supplies, amplifiers, sinisoidal and nonsinisoidal oscillators, logic circuits, and computer fundamentals. Practical experiences in the troubleshooting and repair of Chaparral and Redeye systems. Includes precision soldering. *Version 2:* Lectures and practical experiences in basic electricity, AC/DC circuits, transistors, linear and nonlinear devices, power supplies, amplifiers, sinisoidal and nonsinisoidal oscillators, logic circuits, and computer fundamentals. Practical experiences in the troubleshooting and repair of Chaparral and Redeye systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits, 2 in precision soldering, 1 in introduction to digital circuitry and 3 in solid state circuits (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electronic equipment maintenance, 1 in electronic shop practices (11/83).

AR-1715-0530

BALLISTIC/LAND COMBAT MISSILE AND LIGHT AIR DEFENSE WEAPONS SYSTEMS MAINTENANCE NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: *Version 1:* 1-27-C42A. *Version 2:* 1-27-C42.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 8–20 weeks (279–713 hours). *Version 2:* 14–20 weeks (422-462 hours).

Exhibit Dates: *Version 1:* 8/83–4/90. *Version 2:* 1/80–7/83.

Objectives: To provide enlisted personnel selected by DA with career development training in general military and specialty related subjects, and to enhance professional development through expanded training in logistics management.

Instruction: *All Versions:* Course includes common core military subjects and specific tracks in certified soldering, missile materiel management, Pershing electronics and ground support equipment,and general support and handling equipment for the LCSS Lance, TOW Dragon, Vulcan, Chaparral Redeye, Shillelagh and FAAR systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics systems maintenance (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic equipment maintenance ,1 in electronic shop practices (11/83).

AR-1715-0531

Land Combat Support System Test Specialist
(Land Combat Support System Test Specialist/Lance Repairer)

Course Number: 121-27B10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 30 weeks (1114 hours). *Version 2:* 29-32 weeks (1106-1208 hours).

Exhibit Dates: *Version 1:* 1/86-8/87. *Version 2:* 3/80-12/85.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to operate and perform the DS/GS levels of maintenance of the Land Combat Support System (LCSS), Lance Missile System and their ancillary test equipment.

Instruction: For this course after 8/87 see AR-1715-0748. *Version 1:* Lectures and practical exercises in DC/AC electricity, semiconductor devices and digital circuit fundamentals. Course includes exercises in Lance guided missile systems, AN/TSM-93 operation and operator maintenance and missile systems interface.Includes precision soldering. *Version 2:* Lectures and practical exercises in DC/AC electricity, semiconductor devices and digital circuit fundamentals. Course includes exercises in Lance guided missile systems, AN/TSM-93 operation and operator maintenance and missile systems interface.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuitry, 2 in introduction to digital circuitry, 2 in precision soldering techniques and 3 in electronic systems maintenance (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in fundamentals of electronic devices, 2 in digital computer fundamentals, 1 in electronic shop practices and 3 in electronic equipment maintenance (11/83).

Related Occupation Codes: 27B.

AR-1715-0532

Vulcan Repairer

Course Number: 121-27F10.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 27-28 weeks (1032-1053 hours).

Exhibit Dates: 8/79-9/87.

Objectives: To provide enlisted personnel with the skills required to perform DS/GS level maintenance on the Vulcan Range Only Radar(ROR), turret electronics and ancillary test equipment.

Instruction: For this course after 10/87 see AR-1715-0758. Lectures and practical experiences in basic electricity, DC/AC circuits, linear and nonlinear devices, transistors, FET's, sinusoidal and nonsinusoidal oscillators, amplifiers, power supplies, series/parallel resonance, transmission lines, antennas, waveguides, microwave techniques, and klystrons. Includes practical experiences in the testing, troubleshooting and repairing of electronic subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 1 in shop practice/maintenance skills (electronic laboratory), 1 in microwave theory and practice, 3 in electronic equipment maintenance, 2 in digital computer fundamentals (11/83).

Related Occupation Codes: 27F.

AR-1715-0533

Hawk Maintenance Technician/Chief
(Improved Hawk Maintenance Technician/Chief)

Course Number: 4F-F12; 121-F27.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 38-42 weeks (1385-1493 hours).

Exhibit Dates: 10/80-8/84.

Objectives: To train qualified personnel to supervise direct and general support maintenance of the specific air defense guided missile system.

Instruction: Lectures and practical exercises beginning with a review of digital computer fundamentals, and continuing to the maintenace and fault isolation of the system's equipment, which includes power distribution circuits, signal processors, transmitting and receiving systems, and data take-off circuits. Circuit analysis, diagnostic testing, and fault isolation is stressed throughout.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in electronic equipment maintenance, 2 in digital computer fundamentals (11/83).

AR-1715-0534

Dual Purpose Mission Training (05H)

Course Number: 231-F13.

Location: Intelligence School, Ft. Devens, MA.

Length: 2-3 weeks (54 hours).

Exhibit Dates: 12/81-12/85.

Objectives: To train selected personnel in search and identification techniques through limited copying of teleprinter signals using a dual mode collector position.

Instruction: Training in the theory and operation of dual mode teleprinter systems, type signal, polarity identification and servicing of page print traffic. See AR-1715-0682 for the course after 1/86.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/86).

AR-1715-0535

AN/TSQ-114 Operator Course II

Course Number: 231-F16.

Location: Intelligence School, Ft. Devens, MA.

Length: 2-3 weeks (76 hours).

Exhibit Dates: 4/82-9/86.

Objectives: To train selected personnel in MOS 98G, EW/SIGINT Voice Interceptor, in the technical skills required to operate the Master Control Station, AN/TSQ-114.

Instruction: Instruction in the setup, operation, and initialization of operations for the AN/TSQ-114 Master Control Station; includes antenna and data link installation and checkouts.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-1715-0536

Trailblazer Operator Course I

Course Number: 231-F15.

Location: Intelligence School, Ft. Devens, MA.

Length: 2-3 weeks (70 hours).

Exhibit Dates: 3/82-9/86.

Objectives: To train selected personnel in the technical skills required to install, operate, and dismantle the Trailblazer Remote Slave Set (RRS).

Instruction: Trains individuals to position and install the elements of the remote slave set, erect and lower DF and data link antennas, operate power generation equipment, communicate with the voice link tranceiver and operate with data link and flux gate failures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

AR-1715-0537

Quicklook II Operator
(Quicklook II Operator (Phase II)

Course Number: 233-F8.

Location: Intelligence School, Ft. Devens, MA.

Length: 4-5 weeks (135-136 hours).

Exhibit Dates: 10/79-1/83.

Objectives: To train enlisted personnel to operate the Quicklook II system and to maintain files and reports.

Instruction: Instruction in the programming of airborne computer files, initialization of system, processing of data tapes, editing of mission files, and post-mission reporting. Phase I (also 4-5 weeks) is held at Ft. Huachuca, AZ. Phase I includes AN/USM-393 operation and mission files. For the course as taught after 1/83, see exhibit AR-1715-0730.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1715-0538

AN/MSQ-103 Operator

Course Number: 233-F9.

Location: Intelligence School, Ft. Devens, MA.

Length: 2 weeks (57 hours).

Exhibit Dates: 6/81-9/86.

Objectives: To train noncommunications personnel in the use of the AN/MSQ-103 Special Purpose Receiving Set.

Instruction: Provides instruction in the initial installation of receiver and antenna, and in the proper operation of the receiving set.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course.

AR-1715-0540

Quicklook II Maintenance Training
(AN/ALQ-133)

Course Number: 102-F46.

Location: Intelligence School, Ft. Devens, MA.
Length: 14-15 weeks (418 hours).
Exhibit Dates: 11/79-9/86.
Objectives: To train selected personnel in the technical skills required to maintain the Quicklook II system and various subsystems.
Instruction: Trains individuals to test, troubleshoot, repair, and maintain the Quicklook II system, subsystems, and test equipment.
Credit Recommendation: In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and subsystems (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (2/83).

AR-1715-0541

AN/MSQ-103 Teampack Intermediate Maintenance Training (DS/GS)
(MSQ-103 Intermediate Maintenance Training (DS/GS))
Course Number: 102-F47.
Location: Intelligence School, Ft. Devens, MA.
Length: 13-14 weeks (377 hours).
Exhibit Dates: 11/81-9/86.
Objectives: To train selected personnel in the technical skills required to maintain the AN/MSQ-103 (Teampack) system.
Instruction: Training in the operation, testing, repair, and alignment of the AN/MSB-101,special purpose portion of the AN/MSQ-103 system; includes computer operation, diagnostic programs, and operation of all associated test equipment; utilizes vector voltmeters, pulse train analyzers, frequency meters and spectrum analyzers.
Credit Recommendation: In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (5/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (5/87).

AR-1715-0542

Teampack (AN/MSQ-103) Organizational Maintenance Training
Course Number: 102-F48.
Location: Intelligence School, Ft. Devens, MA.
Length: 2-3 weeks (48 hours).
Exhibit Dates: 3/82-9/86.
Objectives: To train electronic warfare equipment repairers in the technical skills required to maintain the Teampack (AN/MSQ-103) system.
Instruction: Practical hands-on instruction in setup, operation, checkout, and troubleshooting procedures for the TEAMPACK system; uses prescribed test sets, power meters, digital multiplexers, and paper tape readers.
Credit Recommendation: In the vocational certificate category, 1 semester hour in testing, troubleshooting, and repair of electronics systems and equipment (2/83).

AR-1715-0543

AN/TSQ-114 Organizational Maintenance Training
(AN/TSQ-114 Trailblazer Organizational Maintenance)
Course Number: 102-F49.
Location: Intelligence School, Ft. Devens, MA.
Length: 4 weeks (123 hours).
Exhibit Dates: 4/82-Present.
Objectives: To train qualified electronic technicians to test, operate, and service the AN/TSQ-114 system to the lowest replaceable unit level.
Instruction: Course includes instruction in the preoperational checkout procedure, identification of defective units, and signal tracing procedures for the AN/TSQ-114 system.
Credit Recommendation: In the vocational certificate category, 2 semester hour in troubleshooting procedures (5/87).

AR-1715-0544

Guardrail V Maintenance
(Guardrail Maintenance (DS/GS))
Course Number: 102-ASIN1; 102-F52(N1).
Location: Intelligence School, Ft. Devens, MA.
Length: 8 weeks (291 hours).
Exhibit Dates: 12/81-9/86.
Objectives: To train electronic warfare and intelligence systems repairers to test, troubleshoot, and repair the Guardrail V systemand subsystems.
Instruction: Classroom and practical instruction in testing, troubleshooting, and repair of Guardrail V systems and subsystems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (2/83).

AR-1715-0545

AN/TSQ-114 Intermediate (DS/GS) Maintenance
(AN/TSQ-114 Trailblazer Intermediate (DS/GS) Maintenance)
Course Number: 102-F50.
Location: Intelligence School, Ft. Devens, MA.
Length: 12 weeks (342 hours).
Exhibit Dates: 11/81-Present.
Objectives: To train selected electronic warfare intercept equipment repairers in the technical skills required to maintain the Trailblazer AN/TSQ-114 system.
Instruction: Trains students in the tasks required to test-operate, service, and fault-isolate the AN/TSQ-114 system line-replacement units; includes use of TMDE and special test equipment and interpretation of built-in test equipment results, block diagrams, wiring diagrams, signal analysis, and schematic analysis.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting, 4 in electronic measurement equipment (5/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance, 3 in electronic measurements (5/87).

AR-1715-0546

Automatic High Frequency Direction Finding (HF/DF) Outstation Processing Unit (Token Payment 1A)
(Automatic High Frequency Direction Finding (HFDF) Outstation Processing Unit AN/GRR-37)
Course Number: 102-F33(R4).
Location: Intelligence School, Ft. Devens, MA.
Length: 5-6 weeks (175 hours).
Exhibit Dates: 3/82-9/86.
Objectives: To train electronic warfare intercept equipment repairers to perform general support maintenance on the Token Payment 1A system (AN/GRR-37).
Instruction: Trains individuals to perform alignment, troubleshooting, and repair of the Token Payment 1A system. System operation, schematic analysis, and proper use of specialized TMDE and equipment documentation is incorporated into the training program.
Credit Recommendation: In the vocational certificate category, 3 semester hours in testing, troubleshooting, and repair of electronic systems and equipment (5/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (5/87).

AR-1715-0547

Time Signal Set Maintenance (AN/GSQ-53A)
Course Number: 102-F51.
Location: Intelligence School Ft. Devens, MA.
Length: 3 weeks (82 hours).
Exhibit Dates: 2/80-9/86.
Objectives: To provide selected personnel with the technical skills required to maintain the AN/GSQ-53A system.
Instruction: Trains students in the identification and function of the AN/GSQ-53A system and subsystems, and to isolate defective components.
Credit Recommendation: In the vocational certificate category, 2 semester hour in troubleshooting procedures (5/87).

AR-1715-0548

Low Capacity Multichannel Communication Systems
(Low Capacity Multichannel Communication Systems Team Chief)
Course Number: SIG 1.
Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.
Length: 2 weeks (74 hours).
Exhibit Dates: 12/79-5/85.
Objectives: To provide students with the skills and knowledge necessary to supervise operators of a specific army radio communications system.
Instruction: Instruction in installing, operating, aligning, and performing preventive maintenance on the components of the radio communications system, including radio receivers, radio transmitters, and antennas.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/85).
Related Occupation Codes: 31M; 31Z; 25A; 25D.

AR-1715-0549

Medium Capacity Multichannel Communication Systems
(Medium Capacity Multichannel Communication Systems Team Chief)
Course Number: SIG 2.
Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.
Length: 2 weeks (74 hours).
Exhibit Dates: 1/80-Present.
Objectives: To provide students with the skills and knowledge necessary to supervise operators of a specific army radio communications system.

Instruction: Instruction in installing, operating, aligning, and performing preventive maintenance on the components of radio communications systems, including radio receivers, radio transmitters, and antennas.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 31M; 31Z; 25A; 25D.

AR-1715-0550

FIELD RADIO MECHANIC SUPERVISOR
(Organizational Maintenance of Field Radio Equipment)

Course Number: SIG 9.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 5 weeks (188 hours).

Exhibit Dates: 3/81–9/85.

Objectives: To provide students with the skills and knowledge required to supervise and train maintenance personnel in organizational maintenance of tactical communications equipment.

Instruction: Lectures and practical exercises in troubleshooting and making voltage resistance checks of Army tactical communications equipment, including radio teletypewriter sets, FM radio sets, and associated components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in direct current circuits (10/82).

Related Occupation Codes: 31V.

AR-1715-0551

TRANSISTOR EQUIPMENT MAINTENANCE

Course Number: SIG 26.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 4 weeks (150 hours).

Exhibit Dates: 12/79–10/82.

Objectives: To provide electronic equipment repairmen with the skills to perform maintenance on solid-state electronics equipment.

Instruction: Topics include semiconductor fundamentals and applications, troubleshooting audio frequency and radio frequency circuits, theory and principles of solid state devices (including diodes, bipolar, field effect (FET) and unijunction transistors), theory and troubleshooting of circuits containing silicon controlled rectifiers (SCR), TRIACS, tunnel diodes, and other semiconductor devices.

Credit Recommendation: In the vocational certificate category, 4 semester hours in solid state electronics (10/82); in the lower-division baccalaureate/associate degree category, 4 semester hours in transistor circuit theory (10/82).

AR-1715-0552

TACTICAL COMMUNICATIONS OFFICER AND CHIEF

Course Number: SIG 29.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 5 weeks (189 hours).

Exhibit Dates: 8/80–11/87.

Objectives: To train officers and noncommissioned officers to supervise personnel operating field telephone systems.

Instruction: Topics include planning and supervision of the use, installation, operation, and preventive maintenance of a wire communications system consisting of telephones connected by wire, radio telephones, and switchboards; also includes message receiving and sending procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 31V.

AR-1715-0553

COMBAT TELECOMMUNICATIONS CENTER SUPERVISOR
(Tactical Telecommunications Center Supervisor)

Course Number: SIG 33.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 3 weeks (112–129 hours).

Exhibit Dates: 3/81–12/87.

Objectives: To provide the skills and knowledge required to perform as a combat telecommunications center supervisor.

Instruction: Training for supervision of subordinates who handle messages; includes the use of prosigns, operating signals and procedures, and communications terms, routing of messages, servicing messages, identifiers, and the elements of communications security.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 72E.

AR-1715-0554

FM RADIO ALIGNMENT
(Radio and Repair Alignment)

Course Number: SIG 35.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 2 weeks (67–73 hours).

Exhibit Dates: 11/81–Present.

Objectives: Provides radio repair personnel with the skills and knowledge required to align FM radio sets.

Instruction: Topics include the use of test equipment used to align FM radios, block diagrams of the radios, technical characteristics of the radios, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in FM radio alignment (10/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in communications equipment alignment (10/82).

Related Occupation Codes: 31E.

AR-1715-0555

AN/UGC-74 TELETYPEWRITER GENERAL SUPPORT MAINTENANCE

Course Number: UGC-1.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 2 weeks (119 hours).

Exhibit Dates: 11/81–Present.

Objectives: To provide teletypewriter maintenance personnel with the skills and knowledge necessary to troubleshoot and repair teletype communications terminal equimpment AN/UGC-74(V)3.

Instruction: Topics include installing, operating, and performing maintenance of UGC-2 teletypewriter systems; maintenance procedures include module replacement, dissassembly and reassembly, testing, and fault isolation, alignment procedures, and the sending and receiving of test messages between two AN/UGC-74(V)3 terminals.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 31J.

AR-1715-0556

AN/UGC-74 TELETYPEWRITER DIRECT SUPPORT MAINTENANCE

Course Number: UGC-2.

Location: Combined Arms Training Center, Flint Kaserne, Bad Toelz, Germany.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/81–Present.

Objectives: To provide teletypewriter maintenance personnel with the skills and knowledge necessary to troubleshoot and repair teletype communications terminal equipment AN/UGC-74(V)3.

Instruction: Topics include installing, operating, and performing maintenance of UGC-1 teletypewriter systems; maintenance procedures include module replacement, dissassembly and reassembly, testing and fault isolation, alignment procedures, and the sending and receiving of test messages between two AN/UGC-74(V)3 terminals.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/82).

Related Occupation Codes: 31J.

AR-1715-0557

AN/MYQ

Course Number: ADP-15.

Location: Combined Arms Training Center, Zweibruecken, Germany.

Length: 3 weeks.

Exhibit Dates: 10/82–Present.

Objectives: To train personnel to operate and perform routine operator maintenance on a minicomputer system.

Instruction: Lectures, videotapes, and hands-on experience in operation and routine operator maintenance of the AN/MYQ-4 computer system; topics include printers, tape drives, card readers, disk drives, video terminals, system power-up, operation control panel, peripheral equipment, error recovery, performance examination, and save and restore procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in minicomputer system operations (10/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in survey of computer hardware (10/82).

AR-1715-0558

TARGET ACQUISITION RADAR TECHNICIAN-WARRANT OFFICER TECHNICAL CERTIFICATION
(Target Acquisition Radar Technician)

Course Number: 4C-211A.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 27 weeks (1061 hours). *Version 2:* 17–18 weeks (658 hours).

Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 9/82–6/85.

Objectives: To provide radar warrant officers with tactical and technical skills to locate, function, and repair radar sets.

Instruction: Instruction includes theory of radar operations, weapons location, radar set operation, electronic circuits, radar maintenance and repair, and electronic systems diagnosis and repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity and electronics, 3 in electronic devices, 3 in digital circuit theory, 3 in digital computer fundamentals, 3 in radar theory, 3 in system maintenance and troubleshooting (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics theory, 6 in electronics laboratory, 3 in map reading (10/83).

Related Occupation Codes: 211A.

AR-1715-0559

Field Artillery Firefinder
Organizational Maintenance

Course Number: 221-ASIX5.
Location: Field Artillery School, Ft. Sill, OK.
Length: 14–15 weeks (545 hours).
Exhibit Dates: 11/79–9/85.
Objectives: To provide skills and knowledge to inspect, test, and perform maintenance at the block diagram level of field artillery firefinder radar sets.
Instruction: Classroom and laboratory instruction on the repair and maintenance of military radar equipment; approximately 80 hours is spent on number systems and logic circuits and 348 hours on troubleshooting and maintenance. For course after 9/85, see AR-1715-0838.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics, 3 in radar maintenance repair (10/83); In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics for non-majors (10/83).

AR-1715-0560

Field Artillery Firefinder Radar
Operator
(Field Artillery Firefinder Operator)

Course Number: 221-13R10; 221-13R10(ST).
Location: Field Artillery School, Ft. Sill, OK.
Length: *Version 1:* 8–9 weeks (318 hours). *Version 2:* 6–7 weeks (221–226 hours).
Exhibit Dates: *Version 1:* 6/84–9/88. *Version 2:* 11/79–5/84.
Objectives: To provide the skills and knowledge to select and evaluate a radar site, emplace, orient, check, adjust, operate, and perform preventive maintenance on military radar sets and auxiliary equipment.
Instruction: Lecture and laboratory training in the operation and maintenance of military-specific radar equipment; topics include basic map reading, survey requirements for field artillery radars, start/stop procedures and general maintenance. For course after 9/88, see AR-1715-0829.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in map reading, 3 in radar operations (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 2 in radar operation (10/83).
Related Occupation Codes: 13R.

AR-1715-0561

Aircraft Warning/Defense Equipment
Repair

Course Number: 104-26K10.
Location: Intelligence School, Ft. Huachuca, AZ.
Length: 29–30 weeks (948 hours).
Exhibit Dates: 10/78–1/89.
Objectives: To provide enlisted personnel with fundamental knowledge to test, diagnose, maintain, and repair aircraft survivability equipment.
Instruction: This course is taught in two phases. Phase 1 includes a comprehensive study of basic electricity/electronics consisting of 454 hours of lecture and laboratory. Phase II (470 hours) consists of electronic analysis, maintenance and repair of electronic process equipment, and electronic systems, including radar.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 6 in electrical/electronics laboratory (operation and repair of electronic equipment, processing equipment, and electronic systems (10/84).

AR-1715-0562

Lance System Repairer
(Lance Repairer)

Course Number: 121-27L70.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 16–18 weeks (622 hours).
Exhibit Dates: 9/82–Present.
Objectives: To train enlisted personnel to perform direct and general support maintenance on the Lance Missile Systems (less carrier and warhead) and on associated test equipment.
Instruction: Lectures and practical experience in basic electricity, DC/AC circuits, series/parallel circuits, linear and nonlinear devices, transistors, amplifiers, power supplies, use of test equipment including multimeters, oscilloscopes, and function generators. Included are practical experiences in testing, troubleshooting, and repairing of electronic subsystems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 1 in electronic shop practices, 3 in electronic equipment repair (10/88).
Related Occupation Codes: 27L.

AR-1715-0563

1. Improved Hawk Pulse Radar
Repairer Transition (PIP II)
2. Improved Hawk Pulse Radar
Repairer Transition (PIP)

Course Number: 104-24J1T/2T/3T.
Location: Missile and Munitions School, Redstone Arsesnal, AL.
Length: *Version 1:* 3–4 weeks (82–83 weeks). *Version 2:* 8–9 weeks (275–305 hours).
Exhibit Dates: *Version 1:* 3/84–10/87. *Version 2:* 8/80–2/84.
Objectives: To train qualified personnel in inspecting, testing, and repairing the Hawk tracking adjunct system maintenance kit at the general support level.
Instruction: For this course after 10/87 see **AR-1715-0744**. *Version 1:* Topics include identification of assemblies, analysis and familiarization with maintenance procedures. *Version 2:* Upon completing this course the student will understand basic digital circuits including arithmetic systems, logic gates, truth tables, flip-flops, counters and registers, the characteristics , definitions, and terms of central processing units including the fundamentals of diagnostic routines; inspect, troublsehoot, repair and test sub-systems associated with the Hawk pulse radar system.
Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (5/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital circuits, 3 in digital equipment troubleshooting and repair (11/83).
Related Occupation Codes: 24J.

AR-1715-0564

Multiple Launch Rocket System
(MLRS) Repairer

Course Number: 121-27M10.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 18–19 weeks (682–684 hours).
Exhibit Dates: 12/82–Present.
Objectives: To train enlisted personnel to perform direc and general support maintenance on the multiple launch rocket system.
Instruction: Lectures and practical exercises in basic electricity, circuits, devices, test equipment and maintenance practices, extensive training in analysis of circuit diagrams, schematics and electronics equipment using multimeters, oscilloscopes, and function generators. Topics include series resonance, parallel resonance, power supplies, transistor amplifiers, relays, and switches.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 1 in electronic shop practices, 3 semester in electronic equipment maintenance (2/88).
Related Occupation Codes: 27M.

AR-1715-0565

Equipment Operation/Maintenance,
Test Set Guided Missile Set
(TOW Ground)
(TOW Field Test Set Repairer)

Course Number: 121-ASIJ9; 121-F28.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: Self-paced 3–4 weeks (114–128 hours).
Exhibit Dates: 7/81–Present.
Objectives: To provide students with the skills and knowledge required to operate, troubleshoot, and repair the TOW field test set.
Instruction: A self-paced course in the theory and operation of the TOW field test set and ancillary equipment. Tools, test equipment and service manuals used in the repair of power supplys and controller are also incorporated in this course.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory, 2 in electronic equipment maintenance (11/83).
Related Occupation Codes: 27E.

AR-1715-0566

Field Artillery Computer Repairer
(FADAC Radar Technician)

Course Number: 041-34Y10 (Phase I); 104-2885.
Location: Ordnance School and Center, Aberdeen Proving Ground, MD.
Length: 9–18 weeks (330–623 hours).
Exhibit Dates: 1/84–Present.
Objectives: To train enlisted personnel to perform basic electronics maintenance and direct general support maintenance of field artillery digital automatic and related testequipment.
Instruction: The course provides instruction to enlisted Army personnel in basic electronics, AC/DC to include safety, fun-

damentals of electricity, color code, circuits series, parallel, series parallel, batteries, multimeters, introduction to pscilloscopes, magnetism, inductance, generation AC, capacitance, resonance, transistor fundamentals, transistors (NPN-PNP), power supplies and rectifiers; basic digital circuits to include binary system, Boolean algebra, diode logic, logic trainer; precision soldering practices to include wire stripping, soldering various types of connections, remove and replace defective circuit components. Army and Marine personnel are instructed in the maintenance of signal data reproducers to include: inspection, troubleshoot and repair replacement of frame mounted components/main power circuit breakers, align reader/close control test set, computer logic unit, to include test, troubleshoot, repair of computer gun direction, computer operational inspection, test and repair power circuits, replacement of memory unit, and reliability test.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for Army personnel, 5 semester hours in basic electricity, 3 in basic electronics, 2 in basic computers; for Marine Corps personnel, 2 semester hours in basic computers (2/84).

Related Occupation Codes: 34Y.

AR-1715-0567

Air Traffic Control/NAVAIDS Equipment Repair

Course Number: 102-ASI-B4.

Location: Signal Center, Ft. Gordon, GA.

Length: 17-18 weeks (657 hours).

Exhibit Dates: 6/82-10/85.

Objectives: To train active-duty and reserve enlisted personnel to perform critical on/off site maintenance and support to air traffic control/NAVAIDS equipment.

Instruction: Instruction in the maintenance and repair (to the component level) of tactical and nontactical air traffic control NAVAIDS equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronic laboratory procedures (2/84).

AR-1715-0568

RC-12D Improved Guardrail Systems Qualification (RC-12D (Improved Guardrail V) Systems Qualification)

Course Number: 2C-15C/2B-ASIF3; 3A-F45.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 4-9 weeks (200-321 hours).

Exhibit Dates: 10/84-Present.

Objectives: To familiarize selected commissioned and warrant officers with all special electronic mission aircraft and to train rated aviation officers in a specific military reconnaissance airplane (RC-12D).

Instruction: Instruction in the use of special airborne electronic equipment used in military intelligence, and flight operational procedures related to the aircraft. Instruction is provided in the classroom and in flight.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1715-0569

Guardrail V System Qualification (RU-21 (Guardrail V) (2R)) (RU-21 (Guardrail) Systems Qualification)

Course Number: 2C-15C/2B-ASIF2; 2B-ASI2K; 3A-F43.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5-7 weeks (200-243 hours).

Exhibit Dates: 10/84-Present.

Objectives: To familiarize selected commissioned and warrant officers with all special electronic mission aircraft and to train rated aviation officers in a specific reconnaissance airplane (RU-21H).

Instruction: Instruction in the use of special airborne electronic equipment used in military intelligence, and flight operational procedures related to the aircraft. Instruction is provided in the classroom and in flight.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1715-0570

EH-1H/1X (Quickfix) Systems Qualification

Course Number: 3A-F44.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5-6 weeks (207 hours).

Exhibit Dates: 10/84-1/89.

Objectives: To familiarize selected commissioned and warrant officers with all special electronic mission aircraft and to train rated aviation officers in a specific military helicopter (EH-1H/1X).

Instruction: Instruction in the use of special airborne electronic equipment used in military intelligence, and flight operational procedures related to the aircraft. Instruction is provided in the classroom and in flight.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/84).

AR-1715-0571

Improved Hawk Firing Section Mechanic (PIP II) Transition

Course Number: 121-24C1T/2T/3T/4T.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 7-9 weeks (276-304 hours). *Version 2:* 11 weeks.

Exhibit Dates: *Version 1:* 10/85-9/86. *Version 2:* 6/83-9/85.

Objectives: To provide Improved Hawk firing section mechanic personnel with a knowledge of organizational maintenance.

Instruction: For this course after 9/86, see AR-1715-0806. *Version 1:* Course includes study of operational checks, adjustments and troubleshooting of missile system equipment. Also includes a study of the fundamentals of digital electronics. *Version 2:* Course is designed to teach the student to perform operational checks, identify faulty circuits, repair signal processor, maintain radar, and perform needed repairs.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital electronics and 2 in electronics systems troubleshooting and maintenance (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in electronics laboratory (12/84).

Related Occupation Codes: 24C.

AR-1715-0573

Vulcan System Mechanic

Course Number: 121-24M10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 16-17 weeks (582 hours). *Version 2:* 14 weeks (508 hours).

Exhibit Dates: *Version 1:* 10/84-12/87. *Version 2:* 6/83-9/84.

Objectives: To train individuals in organizational maintenance and fault isolation necessary for entry level repairs and maintenance of the Vulcan system.

Instruction: For this course after 12/87 see AR-1715-0816. *Version 1:* Course includes a study of DC and AC circuits, solid state electronics and digital fundamentals. Also includes a study of the circuits, troubleshooting techniques and repair procedures for the circuits and modules of the Vulcan air defense system. *Version 2:* The course develops the skills and knowledge necessary to perform electrical and electronic analysis of circuitry and control devices of the Vulcan system. This includes preparatory maintenance, fault isolation, operational checks, and required repairs of digital and computer circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 2 in solid state electronics, 1 in digital electronics, 2 in electronic systems troubleshooting (11/86). *Version 2:* In the vocational certificate category, 2 semester hours in the use and care of hand tools and test equipment (12/84); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 2 in digital and logic fundamentals, and 3 in electrical systems troubleshooting (12/84).

Related Occupation Codes: 24M.

AR-1715-0574

Improved Hawk Organizational Maintenance Supervisor/Master Mechanic (PIP II) Transition

Course Number: *Version 1:* 4F-F15/121-24R50-T. *Version 2:* 4F-F15; 121-24R50-T.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 6-8 weeks (219-263 hours). *Version 2:* 12 weeks (418-419 hours).

Exhibit Dates: *Version 1:* 8/85-Present. *Version 2:* 9/83-7/85.

Objectives: To provide warrant officers and senior enlisted personnel with the knowledge of organizational maintenance procedures utilized in the product improvement program (PIP).

Instruction: *Version 1:* Course utilizes conferences and practical exercises to provide instruction in the maintenance of the HPI/RAM transmitters, receiver signal procesor, and maintenance of the TAS Improved Hawk Missile System at the management level. Training is superficial in the area of circuitry. *Version 2:* This program utilizes conferences and practical exercises to provide instruction in the testing of digital and analog circuits, maintenance of the HPI/RAM transmitters, receiver signal processor, and maintenance of the TAS Improved Hawk system.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military specific nature of the course (11/88). *Version 2:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance (12/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (12/84).

Related Occupation Codes: 24R.

AR-1715-0575

Radio Controlled Miniature Aerial Target (RMCAT) Operator

Course Number: 043-ASIE7.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (186 hours).

Exhibit Dates: 12/83–Present.

Objectives: To train enlisted personnel to operate, maintain, and repair the RCMAT to incorporate aerial targets in air defense unit training programs.

Instruction: The course includes lectures and practical exercises in the characteristics and use of the radio controlled miniature aerial target (RCMAT).

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/84).

AR-1715-0576

Stinger Gunner Operator (USMC)
(Redeye and Stinger Gunner/Operator)

Course Number: 121-7212.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6 weeks (188–189 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide training in the operation and employment of the Redeye and Stinger missile system in the Fleet Marine Forces.

Instruction: Instruction in the organization of Stinger/Redeye platoons, aircraft identification, principles of operation of missile systems, operating procedures, employment of the system, communications procedures, and mapping procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

AR-1715-0577

Man Portable Air Defense System (MANPADS) Crewman

Course Number: 16S10-OSUT; 043-16S10.

Location: Air Defense School, Ft. Bliss, TX.

Length: 5–13 weeks.

Exhibit Dates: 12/81–11/86.

Objectives: To provide enlisted personnel with the skills and knowledge required to prepare and fire the Man Portable Air Defense System (MANPADS).

Instruction: For this course after 11/86 see AR-1715-0817. Provides lecture and laboratory training in operation and maintenance of weapon systems components, transport vehicles, communications equipment, and communications procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in first aid (12/84).

Related Occupation Codes: 16S.

AR-1715-0578

Patriot Missile Crew Member

Course Number: 16T10-OSUT.

Location: Air Defense School, Ft. Bliss, TX.

Length: 18–20 weeks (732–890 hours).

Exhibit Dates: 8/83–Present.

Objectives: To train enlisted personnel to perform duties of a crew member on the Patriot missile system.

Instruction: Instruction in march order and emplacement of all Patriot missile system related equipment, survey functions, missile reload procedures, preventive maintenance procedures, launcher tests, logistic functions, communication procedures, and vehicle operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance procedures (11/85).

AR-1715-0579

Patriot Missile Crew Member
(Patriot Missile Crew Member Transition)

Course Number: 043-16T10; 043-16T1/2/3/4-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 11–13 weeks (470 hours).

Exhibit Dates: 8/83–Present.

Objectives: To train enlisted personnel to perform the duties of a crew member on the Patriot missile system.

Instruction: Instruction in march order and emplacement of all Patriot missile system related equipment, survey functions, missile reload procedures, preventive maintenance procedures, launcher tests, logistic functions, communications procedures, and vehicle operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance procedures (12/84).

AR-1715-0580

Patriot Missile Crew Member

Course Number: 16T10-OSUT (24T) Ph1; 16T10-OSUT Ph1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 14–15 weeks (548 hours).

Exhibit Dates: 8/83–Present.

Objectives: To train entry personnel to perform duties of a crew member on the Patriot missile system.

Instruction: Instruction in march order and emplacement of all Patriot missile system related equipment, survey functions, missile reload procedures, preventive maintenance procedures, communication procedures, and light and heavy vehicle operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance procedures (11/86).

AR-1715-0581

Patriot Missile Crew Member Transition

Course Number: 043-16T10 (24T) Ph1; 043-16T1/2/3/4-T(24T) Ph1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 7–8 weeks (286 hours).

Exhibit Dates: 8/83–Present.

Objectives: To train enlisted personnel to performthe duties of a crew member on the Patriot missile system.

Instruction: Instruction in march order and emplacement of all Patriot missile system related equipment, survey functions, missile reload procedures, preventive maintenance procedures, launcher tests, logistic functions, and communication procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance procedures (12/84).

AR-1715-0582

Patriot Operator and System Mechanic
(Patriot Operator and System Mechanic Transition)

Course Number: *Version 1:* 632-24T10. *Version 2:* 632-24T10; 632-24T1/2/3/4.

Location: Air Defense School, Ft. Bliss, TX.

Length: 37–38 weeks (1346–1353 hours).

Exhibit Dates: *Version 1:* 8/86–Present. *Version 2:* 10/83–7/86.

Objectives: To train enlisted personnel as controllers, Patriot system evaluators, and Patriot mechanics.

Instruction: Provides lecture and laboratory training in electrical fundamentals, electronic components, power supplies, solid state electronics, digital and computer fundamentals, computer operation and maintenance, radar operations, and organizational maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits, 2 in solid state circuits, 3 in electronic systems troubleshooting and 3 in digital circuits (2/88). *Version 2:* In the vocational certificate category, 3 semester hours in AC/DC circuits (12/84); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic troubleshooting, 3 in digital circuit devices (12/84).

Related Occupation Codes: 24T.

AR-1715-0583

Patriot Operator and System Mechanic (Transition)

Course Number: 632-24T1/2/3/4-T.

Location: Air Defense School, Ft. Bliss, TX.

Length: 37–38 weeks (1346 hours).

Exhibit Dates: 10/83–3/88.

Objectives: To train enlisted personnel as controllers, Patriot system evaluators, and Patriot mechanics.

Instruction: For this course after 3/88 see AR-1715-0798. Provides lecture and laboratory training in electrical fundamentals, electronic components, power supplies, solid state electronics, digital and computer fundamentals, computer operation and maintenance, radar operations, and organizational maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in AC/DC circuits (12/84); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic troubleshooting, 3 in digital circuit devices (12/84).

AR-1715-0584

Improved Hawk Master Mechanic

Course Number: 121-24R50-A.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 8–10 weeks (316–366 hours). *Version 2:* 19 weeks (672 hours).

Exhibit Dates: *Version 1:* 12/82–5/88. *Version 2:* 12/80–11/82.

Objectives: To train enlisted personnel in MOS 24R40 to perform operational checks, organizational level fault isolation, and maintenance management functions for the IHIPIR, launcher, loader, and missile.

Instruction: *All Versions:* This self-paced course included general and functional theory of operation, performance of operational checks, fault isolation, and maintenance management functions for the Improved Hawk system. *Version 1:* Course does not include any general theory of operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (11/84). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity (11/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (11/84).

Related Occupation Codes: 24R.

AR-1715-0585

FORWARD AREA ALERTING RADAR (FAAR) ORGANIZATIONAL MAINTENANCE

Course Number: 121-ASIX7.

Location: Air Defense and Artillery School, Ft. Bliss, TX.

Length: 5-7 weeks (193-226 hours).

Exhibit Dates: 10/82-Present.

Objectives: To provide personnel with the knowledge and skills needed to perform organizational maintenance on the radar and associated equipment.

Instruction: This course is presented through lecture and laboratory training; teaches the students to energize radar, to troubleshoot all radar components, and to repair radar components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems repairs and maintenance (9/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and repair (9/89).

AR-1715-0586

AN/MSM-105(V)1 INTERMEDIATE LEVEL MAINTENANCE

Course Number: 198-F4.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (686 hours).

Exhibit Dates: 7/83-3/86.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to perform maintenance and repair on automatic test system by removing and replacing major assemblies.

Instruction: Student practices measurements on DC circuits using a multimeter. Also studies number systems, logic circuits, adders, registers, counters, flip-flops, LED displays and random access memory. Student practices fault diagnosis, alignment and maintenance of all parts of the automatic test system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics and 3 in system maintenance (7/85).

AR-1715-0587

AUTODIN SWITCHING CENTER OPERATIONS

Course Number: 260-F8; 260-ASIQ3.

Location: Signal School, Ft. Gordon, GA.

Length: 8-9 weeks (320 hours).

Exhibit Dates: 2/83-10/89.

Objectives: To provide enlisted personnel with the skills and knowledge required to operate an automatic digital message switch.

Instruction: Student learns to prepare, transmit, and verify secure messages; studies number systems; learns to operate a computer system including disk drive, card reader, keyboard and programmer's console.

Credit Recommendation: In the vocational certificate category, 5 semester hours in computer systems operation (1/89).

Related Occupation Codes: 72G.

AR-1715-0588

AUTOMATIC TEST EQUIPMENT OPERATOR/MAINTAINER
(Automatic Test Equipment Repairer)

Course Number: 198-39B10; 198-35C10.

Location: Signal School, Ft. Gordon, GA.

Length: 19-21 weeks (688-764 hours).

Exhibit Dates: 3/83-12/88.

Objectives: To provide enlisted personnel with skills and knowledge necessary to repair printed circuit boards and to perform organizational maintenance on automatic test systems.

Instruction: For this course after 12/88 see AR-1715-0850. Lectures and practicum in basic electronic subjects, inspecting, testing and repairing printed circuit boards to the component level, wire connection techniques, use of multimeter, ultraviolet light microscopes, digital card tester, soldering and desoldering.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics (5/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in diagnostic procedures and 3 in systems maintenance (5/88).

Related Occupation Codes: 35C; 39B.

AR-1715-0589

AUTOMATIC TEST EQUIPMENT REPAIRER PRIMARY TECHNICAL

Course Number: 198-35C20.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (686 hours).

Exhibit Dates: 7/83-12/88.

Objectives: To provide enlisted personnel with the skills necessary to maintain a number of automatic test equipment devices.

Instruction: Student learns to measure and troubleshoot simple DC circuits, also studies number systems, logic circuits, adders, flip-flops, data registers, counters and LED displays. Also practices maintenance and troubleshooting on each of the automatic test equipment devices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics and 3 in systems maintenance (7/85).

Related Occupation Codes: 35C.

AR-1715-0591

AVIONICS MECHANIC

Course Number: 102-35K10.

Location: Signal School, Ft. Gordon, GA.

Length: 17-21 weeks (654-771 hours).

Exhibit Dates: 9/82-9/86.

Objectives: To provide enlisted personnel with training to maintain and repair avionics communications, navigation, stabilization and radar systems installed in Army aircraft.

Instruction: Through extensive laboratory exercises the student learns to troubleshoot all avionics systems and avionics wiring installed in all Army aircraft. The student test operates the equipment and identifies and replaces faulty units or components.After 9/86 see AR-1715-0658.

Credit Recommendation: In the vocational certificate category, 3 semester hours in troubleshooting and repairing communications equipment (7/85).

Related Occupation Codes: 35K.

AR-1715-0592

COMMUNICATIONS-ELECTRONICS ENGINEERING BASIC TRACK

Course Number: 4C-OB-27A.

Location: Signal School, Ft. Gordon, GA.

Length: 7-8 weeks (256 hours).

Exhibit Dates: 2/82-12/85.

Objectives: To train commissioned officers in the skills required to design, develop, apply and test communications electronics systems and equipment.

Instruction: This course includes an introduction to analog and digital communication theory. The theory necessary to accomplish systems design of radio and satellite communications systems is presented including the applications of computers to communications systems. The capstone of the course is a seminar covering the state-of-the-art in communications electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to analog and digital communications theory (7/85); in the upper-division baccalaureate category, 3 semester hours in telecommunications systems design, 1 in application of computers to communications systems and 2 in state-of-the-art communications electronics (7/85).

AR-1715-0593

COMSEC EQUIPMENT TSEC/KG-45 FULL MAINTENANCE

Course Number: 160-F24.

Location: Signal School, Ft. Gordon, GA.

Length: 5 weeks (190-193 hours).

Exhibit Dates: 8/84-10/89.

Objectives: To provide enlisted personnel with skills and knowledge to troubleshoot the TSEC/KG-45 (signal security) to the component level.

Instruction: Lectures and practicum on equipment orientation and operation of TSEC/KG-45 and TSEC/3T-27/57. Includes operational procedures, circuit analysis, fault isolation procedures, repair procedures and equipment serviceabilty profile.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic laboratory procedures (10/86)

Related Occupation Codes: 31T.

AR-1715-0594

COMSEC EQUIPMENT TSEC/KG-81 REPAIR

Course Number: 160-F20.

Location: Signal School, Ft. Gordon, GA.

Length: 6-8 weeks (246-280 hours).

Exhibit Dates: 6/81-Present.

Objectives: To provide enlisted personnel with the skills and knowledge to repair one specific piece of military electronics equipment.

Instruction: Student practices disasssembly, reassembly, testing and troubleshooting of a particular piece of communications security equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance (5/90).

AR-1715-0595

Dial Central Office Equipment Repair
(DCO Equipment Repair)

Course Number: 101-F19.
Location: Signal School, Ft. Gordon, GA.
Length: 21–22 weeks (803 hours).
Exhibit Dates: 12/84–3/86.
Objectives: To train enlisted personnel to maintain and repair dial/manual central office telephone exchange equipment.
Instruction: After 3/86 see AR-1715-0680. Lectures and laboratory exercises in operating, maintaining, testing, adjusting, troubleshooting and repairing equipment of two types of central office dial telephone exchanges. This equipment includes the attendant's cabinet, distribution frames, test desks, power supplies, and STOMGER switches.
Credit Recommendation: In the vocational certificate category, 6 semester hours in telephone central office equipment maintenance (7/85).

AR-1715-0596

DS/GS Test and Repair Station Maintenance (AH-64A)

Course Number: 198-ASIX1.
Location: Signal School, Ft. Gordon, GA.
Length: 6–8 weeks (216–288 hours).
Exhibit Dates: 1/85–2/90.
Objectives: To provide enlisted personnel with skills necessary to perform maintenance and repair on a specific piece of military electronic equipment.
Instruction: For this course after 2/90 see AR-1715-0878. Lectures and practicum in troubleshooting the AH-64A using the programmed diagnostic procedure for fault isolation and in making appropriate repairs on all components of the system, such as test console, interface, video, pneumatic, and power subsystems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in diagnostic procedures (6/89).

AR-1715-0597

Electronic Switching Systems Repairer (DS/GS)

Course Number: 622-F21 (ASI-S1).
Location: Signal School, Ft. Gordon, GA.
Length: 12 weeks (432 hours).
Exhibit Dates: 1/83–9/86.
Objectives: To train personnel to troubleshoot, repair, and maintain an automatic central office and automatic message switching central.
Instruction: The functional characteristics of an automatic telephone central office switching unit are presented. Course emphasizes testing, troubleshooting to the defective board, component, or cable following on line and off line fault isolation procedures and repair subsystems which include a video display unit, magnetic tape unit, card cage and tables, tape winder, space and time division switching group, modem strapping, battery charger, and regulators.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced telecommunications laboratory (7/83).

AR-1715-0598

Electronic Switching Systems Technical Manager

Course Number: 4C-F39; 4C-ASI3T; 4C-F20.
Location: Signal School, Ft. Gordon, GA.
Length: 7–9 weeks (275–324 hours).
Exhibit Dates: 1/83–Present.
Objectives: To familiarize supervisors with the procedures used to maintain an automatic telephone central office and automatic message switching control.
Instruction: A general familiarization of certain telephone central office equipment and technical documentation and procedures to maintain this equipment is presented to provide a supervisor with sufficient knowledge to prepare, initiate and direct support maintenance.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).
Related Occupation Codes: 290AO.

AR-1715-0599

Field General COMSEC Repairer

Course Number: 160-31S10.
Location: Signal School, Ft. Gordon, GA.
Length: 13 weeks (464 hours).
Exhibit Dates: 7/84–9/85.
Objectives: To provide enlisted personnel with basic electronic training and to substitute pluggable assemblies of COMSEC equipment at the limited maintenance level.
Instruction: Instruction consists of lecture and practical exercises in installing and restoring by substitution of pluggable assemblies subassemblies, elements, or printed wiring assemblies of tactical COMSEC equipment.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/85).
Related Occupation Codes: 31S.

AR-1715-0600

Field Radio Repairer

Course Number: 101-31E10.
Location: Signal School, Ft. Gordon, GA.
Length: 14–25 weeks (850 hours).
Exhibit Dates: 3/82–3/86.
Objectives: To provide enlisted personnel with the skill to maintain and repair AM, FM, and single-sideband radio receivers and transmitters.
Instruction: After 3/86 see AR-1715-0663. Lectures and practical execrises provideing skills necessary to perform direct and general support at the field and depot level. Equipment used includes multimeters, oscilloscopes etc. Instruction covers the troubleshooting of AC and DC circuits including repair and alignment of AM, FM, and single-sideband radio equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radio repair and alignment and 2 in basic electronics (7/85).
Related Occupation Codes: 31E.

AR-1715-0601

Field Systems COMSEC Repairer (Special Repair Activity)

Course Number: 160-ASIX8.
Location: Signal School, Ft. Gordon, GA.
Length: 28–29 weeks (1059 hours).
Exhibit Dates: 6/81–12/85.
Objectives: To provide enlisted personnel with the knowledge and skills to troubleshoot and repair COMSEC equipment to the component level.
Instruction: Student receives instruction in operation, troubleshooting procedures, and repair to the component level of five types of COMSEC equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance (7/85).

AR-1715-0602

Field Systems COMSEC Repairer

Course Number: 160-31T10.
Location: Signal School, Ft. Gordon, GA.
Length: 10–11 weeks (396 hours).
Exhibit Dates: 4/83–9/85.
Objectives: To train enlisted personnel to install and repair electronic equipment by the substitution of pluggable assemblies.
Instruction: Course covers use of multimeter and oscilloscope to measure voltage, current and resistance. Also covers the troubleshooting and repair of several types of military electronic equipment by the substitution of assemblies.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic laboratory techniques (7/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics (7/85).
Related Occupation Codes: 31T.

AR-1715-0603

Fixed Ciphony Repairer Supervisor Basic Technical

Course Number: 32F30.
Location: Signal School, Ft. Gordon, GA.
Length: 12 weeks (456 hours).
Exhibit Dates: 6/83–7/87.
Objectives: To prepare students for supervision of maintenance and repair of fixed COMSEC equipment.
Instruction: Instruction in Army stock room maintenance including equipment troubleshooting and maintenance, accounting methods, shop practices and systems concepts.
Credit Recommendation: In the vocational certificate category, 3 semester hours in troubleshooting (7/85).
Related Occupation Codes: 32F.

AR-1715-0604

General COMSEC Maintenance Special Repair Activity

Course Number: 160-ASIX9.
Location: Signal School, Ft. Gordon, GA.
Length: 27–28 weeks (1039 hours).
Exhibit Dates: 8/83–9/85.
Objectives: To provide enlisted personnel with training to troubleshoot and repair military equipment to the component level.
Instruction: After 9/85 see AR-1715-0604. Student practices defect isolation of power supplies, pulse generators and logic circuits. Student also learns to troubleshoot a number of pieces of military electronic equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in systems maintenance and 2 in diagnostic procedures (7/85).

AR-1715-0605

Joint Tactical Automated Switching Network Supervisor
(Joint Tactical Communications (TRI-TAC) Operations)

Course Number: 260-ASIK7.
Location: Signal School, Ft. Gordon, GA.
Length: 6–9 weeks (244–324 hours).
Exhibit Dates: 12/82–Present.
Objectives: To train enlisted personnel to plan and supervise the installation and oper-

ation of joint tactical communications equipment.

Instruction: Lectures and practical exercises in preparing the diagrams for the installation and initialization of joint tactical communications equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

AR-1715-0606

Multichannel Communications Systems Operator Basic Noncommissioned Officer (NCO)
(Multichannel Communications Equipment Operator Basic Noncommissioned Officer (NCO))
(Multichannel Communications Equipment Operator Primary Technical)

Course Number: 202-31M20.

Location: Signal School, Ft. Gordon, GA.

Length: 5-7 weeks (191-234 hours).

Exhibit Dates: 3/85-Present.

Objectives: To train students to supervise, direct operation, and check maintenance of multichannel communication equipment.

Instruction: After 10/86 course contains a common core; see AR-1406-0090. Training includes supervision of installation, operation, and operator's/organizational maintenance of low and medium capacity multichannel communications equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/89). For credit for the common core (part of course after 10/86), see AR-1406-0090 (5/88).

Related Occupation Codes: 31M.

AR-1715-0607

Satellite Communications (SATCOM) Terminal Operator/Maintainer
(Satellite Communications (SATCOM) Terminal AN/MSC-64 General Support Maintenance)

Course Number: 101-ASIV9 (29E); 101-ASIV9.

Location: Signal School, Ft. Gordon, GA.

Length: 2-7 weeks (101-244 hours).

Exhibit Dates: 3/82-Present.

Objectives: To train enlisted personnel to perform ground support maintenance on a satellite communications terminal and associated equipment.

Instruction: Lectures and practical exercises on maintenance procedures of the satellite communications terminal AN/MSC-64 and various receivers and digital modems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/89).

Related Occupation Codes: 29E.

AR-1715-0608

Satellite Communications (SATCOM) Terminal Operator/Maintainer

Course Number: 201-ASIV9 (31C); 201-ASIV9 (05C).

Location: Signal School, Ft. Gordon, GA.

Length: 4-11 weeks (160-394 hours).

Exhibit Dates: 7/82-Present.

Objectives: To train enlisted personnel to install, operate, and perform organizational maintenance on a satellite terminal.

Instruction: Lectures and practical exercises in the installation, operation and maintenance of a satellite communications terminal; installation of equipment as a system; and installation/deinstallation of components of the system to include the satellite tracking antenna.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/89).

Related Occupation Codes: 31C, 05C.

AR-1715-0609

Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39

Course Number: 102-ASIP1.

Location: Signal School, Ft. Gordon, GA.

Length: 15 weeks (570 hours).

Exhibit Dates: 11/83-1/87.

Objectives: To train personnel to operate and maintain satellite communications terminals.

Instruction: Course covers operation, alignment and repair of satellite communications terminals which includes digital communication subsystems, time division multiplexers, uplink downlink equipment, satellite tracking, servoelectronic and control equipment, control monitor and alarm equipment and the antenna system.

Credit Recommendation: For this course after 1/87, see AR-1715-0773. Credit is not recommended because of the limited, specialized nature of the course (7/85).

AR-1715-0610

Satellite Communications (SATCOM) AN/USC-28(V) Set
(Satellite Communications (SATCOM) AN/USC-28(V) Set Operations and Maintenance)

Course Number: 102-ASIE3.

Location: Signal School, Ft. Gordon, GA.

Length: 8 weeks (308 hours).

Exhibit Dates: 1/85-12/88.

Objectives: To train enlisted personnel to operate and maintain the SATCOM AN/USC-28(V) satellite communications set.

Instruction: For this course after 11/88 see AR-1715-0853. Lectures and laboratory exercises in the operation and maintenance of a satellite ground terminal.

Credit Recommendation: In the vocational certificate category, 3 semester hours in troubleshooting satellite terminal equipment (2/87).

Related Occupation Codes: 26Y.

AR-1715-0611

Satellite Communications (SATCOM) Equipment Repairer

Course Number: 102-29Y10; 102-26Y10.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (672 hours).

Exhibit Dates: 11/83-2/88.

Objectives: To train enlisted personnel to operate and maintain satellite communications ground terminals.

Instruction: For this course after 2/88 see AR-1715-0781. Course covers operation and preventive and unscheduled corrective maintenance of satellite communications equipment including DC and AC circuits, logic circuits, AM and FM amplifiers, oscillators, power supplies, synchro controls and basic test equipment including oscilloscopes. Prerequisites are algebra and some general science.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance of electronic equipment and 3 in maintenance of satellite communications equipment (7/85).

Related Occupation Codes: 26Y.

AR-1715-0612

Satellite Communication (SATCOM) Systems Maintenance AN/TSC-86
(Satellite Communication (SATCOM) Equipment System Maintenance AN/YSC-86)
(Satellite System Equipment Maintenance AN/TSC-86)

Course Number: 102-ASIL6 (26Y); 102-ASIL6.

Location: Signal School, Ft. Gordon, GA.

Length: 10 weeks (380-400 hours).

Exhibit Dates: 7/85-10/89.

Objectives: To train enlisted personnel to operate, troubleshoot, align and repair SATCOM terminal AN/TSC-86.

Instruction: Lectures and laboratory exercises in the operation and maintenance of digital communication subsystems, time division multiplexers, uplink/downlink equipment, satellite tracking servo-electronic and control equipment, control monitor and alarm equipment and antenna and ancillary equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (7/89).

Related Occupation Codes: 29Y.

AR-1715-0613

Special Electronic Devices Repairer

Course Number: 198-35E20.

Location: Signal School, Ft. Gordon, GA.

Length: 16-17 weeks (598 weeks).

Exhibit Dates: 10/84-12/86.

Objectives: To train enlisted personnel to supervise and repair special measuring devices.

Instruction: Lectures and practicum in troubleshooting techniques enabling the electronic device repairer to supervise and perform special electronic devices repair up to general support level on mine detectors, night vision devices, infrared viewers, battlefield illumination equipment, electronic distance measuring devices, azimuth orientation equipment, position and azimuth determination systems, and test measurement and diagnostic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in diagnostic procedures and 3 in systems maintenance (7/85).

Related Occupation Codes: 35E.

AR-1715-0614

Standardized COMSEC Custodian

Course Number: SIG 34; 4C-F22/160-F23.

Location: Army Training Center, Ft. Devens, MA; Army Training Center, Bad Tolz, Germany; Army Training Center, Yongsan, Japan; Army Training Center, Ft. Hood, TX; Army Training Center, Ft. Richardson, AK; Army Training Center, WESTCOM, HI; Army Training Center, Little Rock, AR; Army Training Centers, Europe; Signal School, Ft. Gordon, GA.

Length: 2 weeks (72-75 hours).

Exhibit Dates: 12/83-Present.

Objectives: To provide enlisted and commissioned personnel who are COMSEC custodians with the proper COMSEC accounting procedures.

Instruction: Instruction in security measures, handling COMSEC accounts, emergency and maintenance procedures and logistics for COMSEC.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/88).

AR-1715-0615

TACTICAL CIRCUIT CONTROLLER

Course Number: 202-31N20.
Location: Signal School, Ft. Gordon, GA.
Length: 3–4 weeks (118 hours).
Exhibit Dates: 6/83–12/86.

Objectives: To train enlisted personnel to operate and supervise tactical patching controls in signal centers of tactical communications.

Instruction: Practical exercises in the operation, maintenance and troubleshooting of a patching control panel in a tactical central telephone office to prepare the student to supervise others performing these same tasks.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/85).

Related Occupation Codes: 31N.

AR-1715-0616

TELETYPEWRITER REPAIRER PRIMARY TECHNICAL

Course Number: 160-31J20.
Location: Signal School, Ft. Gordon, GA.
Length: 7–11 weeks (269–418 hours).
Exhibit Dates: 5/83–4/86.

Objectives: To train enlisted personnel to assist subordinates in installing, troubleshooting, repairing and maintaining teletypewriter equipment.

Instruction: Lectures and practicum in workshop organizational procedures, providing technical assistance to subordinates in installation, troubleshooting, and maintaining teletypewriter equipment. Includes Ohm's law, power supply circuit elements, primary cells, DC and AC circuitry.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity (7/85).

Related Occupation Codes: 31J.

AR-1715-0617

TRI-TAC COMSEC EQUIPMENT LIMITED MAINTENANCE (DIRECT SUPPORT)

Course Number: 160-F21.
Location: Signal School, Ft. Gordon, GA.
Length: 7 weeks (254 hours).
Exhibit Dates: 1/84–Present.

Objectives: To train students to repair equipment by substitution of pluggable assemblies.

Instruction: Students receive practice in the troubleshooting of several pieces of military electronic equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/90).

AR-1715-0618

1. WIRE SYSTEMS INSTALLER BASIC NONCOMMISSIONED OFFICER (NCO) (Wire Systems Installer Primary Technical)
2. WIRE SYSTEMS INSTALLER TEAM CHIEF PRIMARY TECHNICAL

Course Number: 621-31L20; 621-36C20.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 4–7 weeks (149–221 hours). *Version 2:* 7–8 weeks (281 hours).
Exhibit Dates: *Version 1:* 5/85–Present. *Version 2:* 6/83–4/85.

Objectives: To provide personnel with the knowledge to lead a wire team in the installation, maintenance, and recovery of wire and cable systems.

Instruction: *All Versions:* Practical exercises in determining material needs, personnel requirements, and work schedules to install, replace, and recover telephone cable networks. Includes field exercises and inspection procedures to check proper installation. *Version 2:* Emphasizes field exercise.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in telephone line field installation supervision. As of 6/88 a common core of leadership subjects was added. For credit recommendation see AR-1406-0090 (6/88). *Version 2:* In the vocational certificate category, 3 semester hours in telephone line field installation supervision (7/85).

Related Occupation Codes: 36C.

AR-1715-0619

BIOMEDICAL EQUIPMENT MAINTENANCE ORIENTATION

Course Number: 4B-F20.
Location: Equipment and Optical School, Aurora, CO.
Length: 16 weeks (646 hours).
Exhibit Dates: 8/82–Present.

Objectives: To train commissioned officers in electronic theory skills and to provide orientation in practical skills essential for calibration, repair, and maintenance of biomedical equipment.

Instruction: A study of AC and DC circuits including series and parallel circuits, inductive and capacitive reactance, resonance, and time constants. Also includes transistor theory and circuitry. Additionally a study of digital electronics, computer theory and microprocessors, and a study of the circuitry of several types of biomedical equipment is provided.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuit theory, 3 in semiconductor devices and circuits, 3 in introduction to microprocessors, and 3 in biomedical equipment repair (9/85).

AR-1715-0620

MICROPROCESSORS

Course Number: 4B-F7/198-F7; 198-F7.
Location: Equipment and Optical School, Aurora, CO.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/80–Present.

Objectives: To provide warrant officers and enlisted personnel introductory training in microprocessor operation and control.

Instruction: Course coverage includes block diagram descriptions of the digital computer and 8080A microprocessors and its instruction set. Before 3/85 the course also includes machine language programming basics and system fault analysis. After 3/85 the course also includes interfacing, I/O techniques and flags and interrupts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to microprocessors (9/85).

AR-1715-0621

ADVANCED DIGITAL THEORY

Course Number: 4B-F4/198-F4; 198-F4.
Location: Equipment and Optical School, Aurora, Co.
Length: 1 week (40 hours).
Exhibit Dates: 8/80–Present.

Objectives: To provide warrant officers and enlisted personnel with a familiarization of digital circuit operations required for microprocessor-based medical equipment.

Instruction: This course familiarizes personnel with the subjects of binary numbers, logic gates, arithmetic circuits, flip-flops, registers and memories.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to digital concepts (9/85).

AR-1715-0622

CLOSED CIRCUIT TELEVISION

Course Number: 4B-F8/198-F8; 198-F8.
Location: Equipment and Optical School, Aurora, CO.
Length: 2 weeks (67–77 hours).
Exhibit Dates: 8/80–Present.

Objectives: To train warrant officers and enlisted personnel in the repair and calibration of specific closed circuit television equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of specific monitors and cameras.

Credit Recommendation: In the vocational certificate category, 2 semester hours in closed circuit television/camera/monitor repair (9/85).

AR-1715-0624

1. PERSHING ELECTRONIC MATERIAL SPECIALIST BASIC NONCOMMISSIONED OFFICER (NCO)
2. PERSHING ELECTRONIC MATERIEL SPECIALIST BASIC TECHNICAL

Course Number: *All Versions:* 121-21G30.
Location: Field Artillery School. Ft. Sill, OK.
Length: *Version 1:* 3–5 weeks (115–191 hours). *Version 2:* 4 weeks (140 hours).
Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 10/84–9/87.

Objectives: To train enlisted personnel to perform the tasks as required of a Pershing materiel supervisor.

Instruction: Topics include Pershing missile maintenance operation, countdown operations, system electronics, maintenance procedures, troubleshooting, system tactics and communications.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (5/88). Refer to AR-1404-0090 for credit for the Basic Noncommissioned Officer Common Core. *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/85).

Related Occupation Codes: 21G.

AR-1715-0625

MULTIPLE LAUNCH ROCKET SYSTEM (MLRS) CADRE

Course Number: 2F-F9/042-F1.
Location: Field Artillery School, Ft. Sill, OK.
Length: 6–7 weeks (226 hours).
Exhibit Dates: 11/82–9/86.

Objectives: To provide skills and knowledge for the assistant section chief, section chief, platoon sergeant, platoon leader and battery commander of a multiple launch rock system (MLRS) firing battery.

Instruction: Lecture and demonstration in communications, target acquisition, weapon systems, and maintenance of an MLRS firing battery. For course after 9/86, see AR-1715-0834.

Credit Recommendation: In the vocational certificate category, 1 semester credit in radio operations, 1 in map reading(11/85); in the lower-division baccalaureate/associate degree category, 1 semester credit in maintenance management. (11/85).

AR-1715-0626

LANCE MISSILE SYSTEM TECHNICIAN-WARRANT OFFICER TECHNICAL CERTIFICATION

Course Number: 4F-214G.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 7–8 weeks (278 hours). *Version 2:* 10 weeks (365 hours).

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 11/84–2/88.

Objectives: To provide the skills necessary to perform the duites of Lance missile warrant officer supervisor/technician.

Instruction: Lectures, demonstrations and practical exercises on the operation of ground support equipment and organizational maintenance the Lance of missile system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity-electronics, 3 in maintenance management (11/85).

Related Occupation Codes: 214G.

AR-1715-0627

FIELD ARTILLERY TACTICAL FIRE (TACFIRE) DIRECTION SYSTEM REPAIRER

(Field Artillery Computer Repairer)

Course Number: *Version 1:* 113-34Y10. *Version 2:* 113-34Y10; 113-39Y10. *Version 3:* 041-34Y10 (Ph 2).

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 12–21 weeks (487–787 hours). *Version 2:* 23–24 weeks (892 hours). *Version 3:* 19–20 weeks (673 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/84–9/89. *Version 3:* 1/82–9/84.

Objectives: To train enlisted personnel to perform maintenance on a computer controlled fire directions system, variable format entry devices, and related test equipment.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and practical experience to provide knowledge of basic electricity and electronics, basic digital circuits, advanced soldering, and related test equipment. *Version 3:* Lectures and practical experience designed to prepare the student to analyze computer performance, apply knowledge of computer theory, and isolate and correct system equipment malfunctions.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in soldering (11/85); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity and electronics, 3 in electronic devices, 3 in digital circuit theory, 3 in digital computer fundamentals, 1 in radio communications, 2 in computer troubleshooting and maintenance, 1 in computer operations (11/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer architecture, 3 in computer operations, 6 in computer troubleshooting (11/85).

Related Occupation Codes: 34Y.

AR-1715-0628

PERSHING MISSILE SYSTEM TECHNICIAN WARRANT WARRANT OFFICER CANDIDATE

Course Number: 4F-214E.

Location: Field Artillery School, Ft. Sill, OK.

Length: 36 weeks (1313 hours).

Exhibit Dates: 3/83–10/84.

Objectives: To train selected enlisted personnel (warrant officer candidates) in the technical background, knowledge and skills necessary to perform the duties of a warrant officer supervisor/technician.

Instruction: Demonstrations, lectures, and practical exercises providing warrant officer candidates with information concerning social and military customs, traditions and responsibilities of a warrant officer; also provides the technical background, knowledge, and training necessary to perform the duties of a Pershing missile system warrant officer. For course after 10/84, see AR-1715-0628.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 3 in computer diagnostics, 6 electricity and electronics, 3 in system troubleshooting (including computer interfacing to electromechanical actuators), 3 in digital computer fundamentals and circuitry (11/85); in the upper-division baccalaureate category, 3 semester hours in logistics management (11/85).

Related Occupation Codes: 214E.

AR-1715-0629

METEOROLOGICAL TECHNICIAN—WARRANT OFFICER TECHNICAL CERTIFICATION

Course Number: 5B-201A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 16–17 weeks (594 hours).

Exhibit Dates: 10/84–Present.

Objectives: To train meteorological warrant officer candidates in the technical aspects of meteorological instruments and equipment.

Instruction: Lecture and practical experience in the operation of a meteorological section, organizational maintenance of electronic, optical, and mechanical meteorological instruments and equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in troubleshooting and maintenance of electronic systems (11/85); in the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 2 in basic electricity and electronics (11/85).

Related Occupation Codes: 201A.

AR-1715-0630

FIREFINDER MAINTENANCE SUPERVISOR

Course Number: 4C-F24.

Location: Field Artillery School, Ft. Sill, OK.

Length: 19–20 weeks (744–774 hours).

Exhibit Dates: 11/84–Present.

Objectives: To provide technicians with the knowledge and skills required to supervise the maintenance and repair of the firefinder radar.

Instruction: Lectures and demonstrations in AC/DC circuits, solid state devices, integrated circuits, digital electronic logic circuits, and computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in fundamentals of electricity and electronics, 3 in digital circuit theory, 3 in microcomputer fundamentals, 3 in electronic devices, 3 in radar theory, 3 in radar/computer systems maintenance and troubleshooting (6/89).

AR-1715-0631

FIELD ARTILLERY DIGITAL SYSTEM REPAIRER

Course Number: 113-34L10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 16 weeks (583 hours).

Exhibit Dates: 11/84–Present.

Objectives: To train enlisted personnel in basic and digital electronics maintenance, mortar fire control systems, message devices, battery computer systems, and related test equipment.

Instruction: Lectures and practical exercises in AC/DC circuits, solid state devices, special solid state devices, integrated circuits, digital electronic logic circuits, maintaining and troubleshooting digital computers system, and performing basic reliable soldering.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity and electronics, 3 in digital circuit theory, 3 in electronic devices, 3 in digital computer theory (11/85).

Related Occupation Codes: 34L.

AR-1715-0632

TARGET ACQUISITION SURVEILLANCE RADAR REPAIRER

Course Number: 104-26C10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 23-24 weeks (845 hours).

Exhibit Dates: 1/85–9/88.

Objectives: To provide training in direct and general maintenance on several target acquisition/surveillance radars.

Instruction: Lectures and practice experiences in testing, troubleshooting repairing, aligning, and adjusting radar sets. For course after 9/88, see AR-1715-0839.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering, 1 in map reading (11/85); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity and electronics, 3 in digital theory, 3 in computer fundamentals, 3 in radar maintenance and repair (11/85).

Related Occupation Codes: 26C.

AR-1715-0633

FIELD ARTILLERY CANNON WEAPON SYSTEMS QUALIFICATION

Course Number: 2E-FOA-F77.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2–3 weeks (52–80 hours).

Exhibit Dates: 6/85–Present.

Objectives: To provide training to commissioned officers in the operation, maintenance, and employment of cannon systems.

Instruction: Lecture, demonstration, and field instruction in artillery ammunition, battery personnel operation.and maintenance systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/86).

AR-1715-0634

MULTIPLE LAUNCH ROCKET SYSTEM

(MLRS) Operations/Fire
Direction Specialist

Course Number: 250-15J-T.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-5 weeks (167 hours).

Exhibit Dates: 9/82-3/84.

Objectives: To provide selected personnel with a working knowledge of multiple launch rocket systems (MLRS) operations and fire direction duties.

Instruction: Instruction and training in the operation and maintenance of the MLRS fire direction system, platoon leader digital message device, and the use of MLRS fire direction format.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

Related Occupation Codes: 15J.

AR-1715-0635

Field Artillery Radar Basic
Technical

Course Number: 221-13R/17B30; 221-13R30/221-17B30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-6 weeks (201 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 10/84-9/86.

Objectives: To provide the technical knowledge and skills required to support field artillery firing units.

Instruction: Topics include operations and site selection for specific fire control radars, radar gunnery and survey, and preventive maintenance on the radars and support equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radar operations (2/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision for the Basic Noncommissioned Officer Common Core (12/86). *Version 2:* In the vocational certificate category, 3 semester hours in radar operations (11/85).

Related Occupation Codes: 13R; 17B.

AR-1715-0636

1. Pershing II Missile Crewmember
   Basic Noncommissioned Officer
   (NCO)
2. Pershing II Missile Crewmember
   Basic Technical

Course Number: *All Versions:* 042-15E30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 5 weeks (179 hours). *Version 2:* 3-4 weeks (128 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 9/85-9/86.

Objectives: To train selected enlisted personnel to perform tasks required of a Pershing missile crewmember.

Instruction: Lectures and practical experience in Pershing missile firing operations, missile mating, tactics, communications, maintenance, and special weapons.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (6/87). For the Basic Noncommissioned Officer Common Core, see AR-1406-0090. *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/85).

Related Occupation Codes: 15E.

AR-1715-0637

Fixed Cryptographic Equipment
Special Repair Activity (SRA)

Course Number: 160-ASIG8 (32F).

Location: Signal School, Ft. Gordon, GA.

Length: 7-8 weeks (281 hours).

Exhibit Dates: 3/86-10/87.

Learning Outcomes: Upon completion of the course, student will be able to troubleshoot and repair two specific pieces of fixed cryptographic equipment.

Instruction: Lectures and practical exercises with emphasis on troubleshooting of the equipment to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (3/87).

Related Occupation Codes: 32F.

AR-1715-0638

TACFIRE Operations Specialist Basic
Noncommissioned Officer (NCO)
(Tactical Fire (TACFIRE) Operations
Specialist Basic Technical)

Course Number: 250-13C30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7-9 weeks (249-336 hours).

Exhibit Dates: 1/82-Present.

Objectives: To provide TACFIRE operation specialists with additional training on the tactical fire (TACFIRE) direction center system.

Instruction: Lectures and practical experience necessary to tactically employ, operate and maintain the tactical fire direction computer system are provided.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/87).

Related Occupation Codes: 13C.

AR-1715-0639

Biomedical Equipment Specialist
Advanced

Course Number: *Version 1:* 4B-202A/198-35U20.

Location: *Version 1:* Medical Equipment and Optical School, Denver, CO. *Version 2:* Medical Equipment and Optical School, Denver, CO. *Version 3:* Medical Equipment and Optical School, Denver, CO.

Length: *Version 1:* 30 weeks (1212 hours). *Version 2:* 30 weeks (1152 hours). *Version 3:* 30 weeks (1036 hours).

Exhibit Dates: *Version 1:* 8/85-Present. *Version 2:* 8/82-7/85. *Version 3:* 7/79-7/82.

Objectives: To train warrant officers to perform as medical equipment repair technicians and enlisted personnel to perform as medical equipment repairmen.

Instruction: *All Versions:* Lectures and practical exercises in installation, inspection, maintenance, repair, calibration, and adjustment of selected electrical and electronically controlled or operated medical equipment, including electricity and electronics and maintenance management. *Version 1:* Topics include fundamentals of AC and DC circuits, solid state devices and circuits, digital devices and circuits, microprocessors and principles of operation. *Version 2:* Topics include fundamentals of AC and DC circuits, solid state devices and circuits, digital devices and circuits and principles of operation. *Version 3.* Topics include AC and DC circuit analysis, vacuum tube and solid state electronic circuits, and the installation and maintenance of biomedical equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC fundamentals, 3 in solid state devices and circuits, 3 in digital/microprocessor electronics and 6 in biomedical equipment maintenance (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC fundamentals, 3 in solid state devices and circuits, 3 in digital electronics, and 6 in biomedical equipment maintenance (9/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuit fundamentals, 3 in solid state circuits and devices and 6 in biomedical equipment maintenance (9/85).

Related Occupation Codes: 35U.

AR-1715-0640

Hawk High Powered Illuminator
Radar (HIPIR) (PIP II) Transition

Course Number: 104-24K1T/2T/3T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 5 weeks (167 hours).

Exhibit Dates: 1/84-1/88.

Objectives: To provide students with knowledge and skills necessary to check, inspect, test and repair a specific radar set.

Instruction: Instruction and practical exercises on digital number system, arithmetic, gates, flip-flops, counters, registers, encoders and decoders. Also includes study of and troubleshooting techniques for the circuits of the radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital electronics, 2 in electronic systems maintenance (4/86).

AR-1715-0641

Chaparral/Redeye Repairer Basic
Noncommissioned Officer (NCO)
(Chaparral/Redeye Repairer Basic Technical (BT))

Course Number: 121-27G30.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 7-8 weeks (243-278 hours).

Exhibit Dates: 6/85-Present.

Objectives: To provide Army personnel with skills and knowledge required to instruct, assist and supervise subordinates on maintenance problems on the Chaparral and Redeye Weapon Systems and ancillary equipment.

Instruction: Personnel will be trained in system knowledge and skills required for the training and supervising of an intermediate maintenance level missile maintenance unit. Includes training in software fundamentals and hardware basics such as address decoding, memories and peripherals and control circuits. Also includes troubleshooting on several electronic modules and test sets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semeter hours in introduction to microprocessor/computer hardware, 1 in electronic system maintenance (4/88).

Related Occupation Codes: 27G.

AR-1715-0642

Forward Area Alerting Radar
(FAAR) Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 104-27N30.

Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 10 weeks (359 hours).
Exhibit Dates: 1/86–Present.
Objectives: To provide Army personnel with skills and knowledge required to instruct, assist and supervise subordinates on maintenance of the Foward Area Alerting Radar and ancillary equipment.
Instruction: Personnel will be trained in systems knowledge and skills required for training and supervision of an intermediate maintenance level missile maintenance unit. Includes training in software fundamentals and hardware basics such as address decoding, memories and peripherals and control circuits. Also includes troubleshooting on several electronic modules and test sets.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to microprocessor/computer hardware, 2 in electronic systems maintenance (10/87).
Related Occupation Codes: 27N.

AR-1715-0643

Lance Repairer Basic Technical (BTC)

Course Number: 121-27L30.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 8–9 weeks (305 hours).
Exhibit Dates: 1/86–7/88.
Objectives: To provide Army personnel with skills and knowledge required to instruct, assist and supervise subordinates on maintenance of the Lance Weapon Systems.
Instruction: For this course after 8/88 see AR-1715-0747. Personnel will be trained in management, system knowledge and skills required for training and supervising on intermediate maintenance level, missile maintenance unit. Also includes instruction in basic digital circuitry, and software fundamentals and hardware basis–such as address decoding, memories and peripherals and control circuits.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to micropressor/computer hardware, 2 in introduction to digital logic circuits (4/86).
Related Occupation Codes: 27L.

AR-1715-0644

Pershing II Support Repair Technician (DG/GS)

Course Number: 4F-F21.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 12–13 weeks (468 hours).
Exhibit Dates: 5/85–9/90.
Objectives: To provide selected warrant officers with the technical training to qualify them on new maintenance techniques and additional equipment.
Instruction: Lectures and practical exercises in quality control, inventory control, portable test equipment, electronic troubleshooting and repair.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (4/86).

AR-1715-0645

Land Combat Missile System Repair Technician

Course Number: 4-9-C32-271A0.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 12–13 weeks (457 hours).
Exhibit Dates: 5/85–9/88.
Objectives: To train warrant officers to perform and supervise maintenance on additional equipment and to increase the level of technical proficiency.
Instruction: Lectures and practical exercises in leadership, fitness, electronic warfare, maintenance management, TOW nightsights and land combat support systems.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/86).
Related Occupation Codes: 271A0.

AR-1715-0646

1. Short Range Air Defense System (SHORADS) DS/GS Maintenance Repair Technician
2. Short Range Air Defense Systems (SHORADS) Support Repair Technician (DG/GS)

Course Number: *Version 1:* 4F-SQIV (SHORADS). *Version 2:* 4F-F23.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: *Version 1:* 19–20 weeks (721 hours). *Version 2:* 24–25 weeks (885 hours).
Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 5/85–9/89.
Objectives: To provide selected warrant officers with the skills and knowledge for a restructure to intermediate support maintenance responsibilites.
Instruction: Lectures and practical exercises in AC/DC circuits, transistor amplifiers, precision soldering, digital circuits, computers and microprocessors. Course includes soldering.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to AC/DC circuits, 3 in solid state circuits, 2 in soldering techniques, 2 in introduction to digital circuitry, and 2 in introduction to computer/microprocessor hardware (4/86).

AR-1715-0647

Hawk Missile Support Repair Technician (DS/GS)

Course Number: 4F-F22.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 9–10 weeks (347 hours).
Exhibit Dates: 4/85–Present.
Objectives: To train selected warrant officers to perform and to supervise intermediate maintenance on the HAWK missile system.
Instruction: Lectures and practical exercises in automated support, soldering, computer logic and logic circuits, computer and microprocessor fundamentals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital circuitry 3 in introduction to computer/microprocessor hardware (4/86).

AR-1715-0648

Pershing Electronics Repairer Basic Technical

Course Number: 121-21L30.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 10 weeks (357 hours).
Exhibit Dates: 9/85–5/87.
Objectives: To provide enlisted personnel with skills and knowledge required to instruct and supervise in the maintenance of Pershing missile system electronic equipment.
Instruction: For this course after 6/87 see exhibit AR-1715-0751. Study and practical exercises in digital electronics number systems, logic gates, flip-flops, counters, registers and decoders. Also includes computer microprocessor fundamentals and procedures for supervision of maintenance on the Pershing electronic equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to computer/microprocessor hardware, 2 in introduction to digital circuitry, and 3 in maintenance management (4/86).
Related Occupation Codes: 21L.

AR-1715-0649

Pershing Electrical-Mechanical Repairer Basic Noncommissioned Officer (NCO)

Course Number: 631-46N30.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 5 weeks (179 hours).
Exhibit Dates: 6/85–9/90.
Objectives: To train enlisted personnel to instruct, assist, and supervise subordinates in the maintenance of the Pershing missile system equipment.
Instruction: A study of shop operation and soldering. Also a study of the Pershing Missile System equipment.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/87).
Related Occupation Codes: 46N.

AR-1715-0650

Pershing Electronics Repairer

Course Number: 121-ASIY1.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 10–11 weeks (381 hours).
Exhibit Dates: 6/84–7/86.
Objectives: To provide the Pershing soldier the transition training necessary for inspecting, operating, testing and repairing the Pershing II missile system at direct and general support maintenance level.
Instruction: Lectures and practical exercises in test set operation, rear area power unit maintenance, measurement system calibration, launcher maintenance and automatic test equipment maintenance.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (4/86).

AR-1715-0651

Pershing Electrical-Mechanical Repairer 46N Transition

Course Number: 631-ASIY1.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 4–5 weeks (165 hours).
Exhibit Dates: 6/84–12/85.
Objectives: To provide enlisted personnel with the knowledge to inspect, operate, test and repair the Pershing missile electrical, mechanical, pneumatic and hydraulic systems and associated test and ground support level.
Instruction: Personnel will be trained to inspect, operate, test and adjust the Pershing missile system components.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/86).

AR-1715-0652

Land Combat Support System Test
Specialist Basic Noncommissioned
Officer (NCO)
(Land Combat Support System Test Specialist

Course Number: 121-27B30.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 13 weeks (474–475 hours).

Exhibit Dates: 3/85–Present.

Objectives: To provide Army personnel with the skills and knowledge required to instruct, assist and supervise subordinates in maintenance problems on the land combat support system and ancillary equipment.

Instruction: Personnel will be trained in management, system knowledge and skills required for the training and supervision of a missile maintenance unit. Includes training in microprocessor hardware.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to microprocessor hardware (4/86).

Related Occupation Codes: 27B.

AR-1715-0653

Patriot Missile System Technician—
Warrant Officer Technical
Certification (WOTC)

Course Number: 4F-222C.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 9–11 weeks (352–373 hours).

Exhibit Dates: 4/85–1/89.

Objectives: To train warrant officers and warrant officer candidates in the operation and maintenance of an air defense missile system.

Instruction: Course includes classroom study and practical exercises on all of the modules and circuits in a missile system. Major araes of study include computer diagnostic testing of system, radar antennas and radar transmitters. Emphasis is on fault isolation (11/86).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (11/86).

AR-1715-0654

Patriot Communications Crewmember

Course Number: 202-ASIX4; 202-F4.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 4–5 weeks (152 hours).

Exhibit Dates: 10/85–Present.

Objectives: To provide personnel with the knowledge and skills necessary to operate, emplace and perform organizational maintenance on missile system equipment.

Instruction: Course provides training on equipment, techniques of operation, traffic and data flow and organizational maintenance.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

AR-1715-0655

Air Defense Artillery (ADA) Officer
Advanced Reserve Component
(RC)

Course Number: None.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 4 weeks (151–161 hours).

Exhibit Dates: 6/85–Present.

Objectives: To prepare reserve officers for command assignments in air defense artillery.

Instruction: Instruction includes topics pertaining to air defense command and control, tactics, electronic warfare, weapons and combined arms.

Credit Recommendation: Credit is not recommended because of the miltary specific nature opf the course (11/86).

AR-1715-0656

Warrant Officer Technical
Certification (WOTC)
Chaparral/Vulcan Systems
Technician

Course Number: 4F-140B; 4F-224B.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 18–20 weeks (669–694 hours).

Exhibit Dates: 2/85–9/90.

Objectives: To train personnel in the operation and maintenance of a radar air defense system.

Instruction: Study includes principles of operation and maintenance of a number of subsystems: radar, fire control, hydraulic drive, power distribution, transmitting, receiving, display and antenna. A study of basic digital concepts is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital fundamentals and 3 in electronic systems troubleshooting and maintenance (11/88).

AR-1715-0657

Improved Hawk Firing Section
Mechanic Basic Technical

Course Number: 121-24C30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 6–8 weeks (216–271 hours).

Exhibit Dates: 6/85–9/87.

Objectives: To train enlisted personnel in the techniques necessary to isolate and repair faults on missile equipment and to provide skills to supervise and evaluate missile system maintenance.

Instruction: For this course after 10/86, see AR-1715-0804. Lectures and practical exercises on military leadership as well as maintenance of Hawk fire control and fire section equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and maintenance (11/86). See AR-1406-0090 for Common Core.

AR-1715-0658

Avionic Mechanic

Course Number: 102-35K10.

Location: Signal School, Ft. Gordon, GA.

Length: 23–24 weeks (883–930 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair avionic communication, navigation, stabilization, and radar systems. Given defective avionic equipment, the student will test, operate, identify and replace faulty unit or component.

Instruction: Training includes topics in DC/AC circuits, reading schematic and wiring diagrams, filters, transformers, synchros and servos. Also included are extensive theory and laboratory exercises in avionic systems, including navigation systems, radio receiving systems and absolute altimeter systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system troubleshooting and 2 in DC/AC circuits (6/90).

AR-1715-0659

Special Electronic Devices Repairer

Course Number: 198-39E10; 198-35E10.

Location: Signal School, Ft. Gordon, GA.

Length: 26–28 weeks (993–1008 hours).

Exhibit Dates: 1/86–1/87.

Learning Outcomes: Upon completion of the course, enlisted personnel will be able to repair special electronic devices through general support maintenance. The student will demonstrate skills in soldering, knowledge of DC/AC circuits, and basic electronics including solid state devices. The student will be able to use test instruments and troubleshoot.

Instruction: For this course after 1/87, see AR-1715-0779. Training includes topics in DC/AC circuits, basic electronics, precision soldering , and solid state technology. Laboratory experience with test equipment and troubleshooting techniques are covered. The course gives training in repairing night vision equipment, mine detection equipment, chemical agent automatic alarm and other specialized Army equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits, 3 in electronic systems troubleshooting and 2 in solid state devices (2/87).

Related Occupation Codes: 35E.

AR-1715-0660

1. Avionic Radar Repairer
   (Avionics Special Equipment Repair)
2. Avionics Special Equipment Repair
   (Avionic Special Equipment Repair)

Course Number: *Version 1:* 102-35R10; 102-68R10. *Version 2:* 102-35R10/102-35R10 (ST).

Location: *Version 1:* Aviation School, Ft. Rucker, AL; Signal School, Ft. Gordon, GA. *Version 2:* Signal School, Ft. Gordon, GA.

Length: *Version 1:* 24–27 weeks (928–1026 hours). *Version 2:* 22–23 weeks (860 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 3/85–9/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to identify series, parallel, and series/parallel circuits, and determine values of resistance, voltage, and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain concepts of series and parallel resonance and basics of transformer operation; explain basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; explain the operation of FETs, SCRs, and UJTs, and troubleshoot and explain the operations of sinewave oscillators, multivibrator circuits, and Schmitt trigger circuits; comprehend single sideband communication techniques including signal tracing and alignment of equipment; explain principles of communication using amplitude modulation techniques; trace signal path, troubleshoot, and align receivers and transmitters; comprehend frequency modulation communication techniques, including signal tracing and alignment of receiver and transmitter; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; explain the theory and operation of microprocessor-based computers including the concept of buses, memory, control signals, and addressing; solder and desolder wire to various types of electronic terminals. *Version 2:* Upon completion of the course, the student will be able to perform basic diagnostic tests on solid state power supplies, audio amplifiers, and oscillators. The student will be able to perform diagnostic tests and repair airborne navigational radars, weather radars, radar altimeters, navigational sets, and airborne transponders.

Instruction: *Version 1:* Includes electrical, electronic, digital, and communications non-calculus-based theory; hands-on evaluation and maintenance procdures of complex electronic systems with dedicated specialized test equipment. *Version 2:* Lectures and laboratories in basic solid state circuits that include power supplies, pulse generators. Soldering is also covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering (6/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in solid state electronics, 2 in electronic communications, 1 in digital fundamentals, 1 in microprocessors, 3 in electronic systems troubleshooting and maintenance, and 3 in radar systems (6/90). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in solid state circuits, 1 in airborne electronic nagivational equipment, and 3 in electronic systems troubleshooting (5/87).

Related Occupation Codes: 68R; 35R.

AR-1715-0661

Field Communications Security (COMSEC) Equipment Repair

Course Number: *Version 1:* 160-29S10. *Version 2:* 160-29S10. *Version 3:* 160-29S10/160-29S10 (ST).

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 18-21 weeks (675-756 hours). *Version 2:* 21-23 weeks (756-807 hours). *Version 3:* 16-17 weeks (620 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 3/88-9/88. *Version 3:* 10/85-2/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to perform simple circuit analysis of electronic and transistor circuits, be able to connect and test these circuits, and be able to perform limited maintenance on various types of communications security equipment. *Version 2:* Upon completion of the course the student will be able to perform simple circuit analysis of electronic and transistor circuits, be able to connect and test these circuits, and be able to perform limited maintenance on various types of communications security equipment. *Version 3:* Upon completion of the course, student will be able to perform simple circuit analysis of electric circuits (primarily DC), be able to connect and test these circuits, and be able to perform limited maintenance on various types of communications security equipment.

Instruction: *All Versions:* Lectures and performance exercises in operation and maintenance of COMSEC equipment. Strong emphasis is placed on limited maintenance of secure communications equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 1 in solid state electronics and 3 in electronic systems troubleshooting and maintenance (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, and 1 in solid state electronics (10/88). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits (2/87).

Related Occupation Codes: 29S.

AR-1715-0662

Avionic Communications Equipment Repair

Course Number: 102-35L10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 25-26 weeks (980 hours). *Version 2:* 22-24 weeks (806-906 hours).

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 12/81-9/88.

Objectives: Upon completion of the course the student will be able to troubleshoot to the component level given power supply, audio amplifier, oscillator or pulse generator. Student will be able to troubleshoot, align and adjust VHF, UHF, and FM radios.

Instruction: Course contains a strong emphasis on testing and troubleshooting circuits studied. Includes lectures and practical exercises on specific military radio sets. Soldering is also included.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in solid state circuits, 1 in radio communications circuitry, and 3 in electronic systems troubleshooting (2/87).

AR-1715-0663

1. Radio Repairer
2. Communications-Electronics Radio Repairer

Course Number: 101-29E10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 25-27 weeks (948-1023 hours). *Version 2:* 24-25 weeks (927 hours).

Exhibit Dates: *Version 1:* 3/88-Present. *Version 2:* 4/86-2/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel and series/parallel circuits, and to determine values of resistance, voltage, and current in the circuits; explain the basic operation of semiconductors, junction diodes, and bipolar transistors, and identify their use in rectifier circuits and voltage regulators; comprehend concepts of alternating current including frequency, phase, and reactance; explain concepts of series and parallel resonance and basics of transformer operation; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers and operational amplifiers; explain the operation of FETs, SCRs, and UJTs and troubleshoot and explain the operation of sine wave, oscillator, multivibrator circuits and Schmitt trigger circuits; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers and counters; explain principles of communication using amplitude modulation techniques; trace signal path, troubleshoot and align receivers and transmitters; comprehend frequency modulation communication techniques, including signal tracing and alignment of receiver and transmitter; comprehend single sideband communication techniques including signal tracing and alignment of equipment; solder and desolder electronic components to printed circuit boards; align, troubleshoot and repair radio receivers, transmitters and associated equipment. *Version 2:* Upon completion of the course the student will be able to use a basic knowledge of electrical and solid state electronics to perform diagnostic tests and repair military FM and AM receivers. The student will be able to test and repair military single-sideband transceivers and power amplifiers and test and align radio teletype modems.

Instruction: Lectures and practical exercises providing the necessary skills to perform general electronic repair of AM, FM, and single-sideband communication equipment. Instruction includes topics of basic electronic circuits, electron tubes, solid state devices, receiver and transmitter alignment, power supplies, digital logic circuits and radio teletype equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 1 in digital prinicples, 3 in solid state electronics, 3 in electronic communications, 2 in basic electronics laboratory, and 4 in electronic systems troubleshooting and maintenance (6/89). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 2 in electronic systems troubleshooting (2/87).

Related Occupation Codes: 29E.

AR-1715-0664

Overseas Automatic Switching Center (ASC) Equipment Repair

Course Number: 622-F6.

Location: Signal School, Ft. Gordon, GA.

Length: 10 weeks (358 hours).

Exhibit Dates: 9/80-9/86.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, troubleshoot, and repair automatic switching center equipment.

Instruction: Lectures and practical exercises with emphasis on troubleshooting the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/87).

AR-1715-0665

Digital Radio and Multiplexer Acquisition (DRAMA) Communications Systems Repair
(Digital Radio Multiplexer Acquisition (DRAMA))

Course Number: 101-F22.

Location: Signal School, Ft. Gordon, GA.

Length: 4 weeks (144 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair digital multiplexers and radios in the digital radio and multiplexer acquisition system.

Instruction: Includes lectures and performance exercises in the operation and maintenance of the communications system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/87).

AR-1715-0666

Digital European Backbone (DEB)
Communications System Repair

Course Number: 101-F16.

Location: Signal School, Ft. Gordon, GA.

Length: 7 weeks (252 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, test, troubleshoot, and repair digital multiplexers and radios used in a digital communications system.

Instruction: Includes lectures and performance exercises on operation and maintenance of digital communications systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting (3/88).

AR-1715-0667

Digital Communications Subsystems

Course Number: 102-F40/102-F40 (26Y).

Location: Signal School, Ft. Gordon, GA.

Length: 7–8 weeks (252–288 hours).

Exhibit Dates: 2/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain digital communications subsystems. The student will be able to configure and troubleshoot digital communications subsystems.

Instruction: Lectures and practical exercises provide the skills to operate and maintain digital communications subsytems. Topics covered include multiplexers, modems, encoders, decoders, and communication subsystems. Laboratory experience is given in configuration, alignment and troubleshooting of digital communication systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital communications (5/90).

Related Occupation Codes: 26Y.

AR-1715-0668

1. Transportable Automatic
   Switching Systems
   Operator/Maintainer
2. Transportable Automatic
   Switching Systems
   Operator/Maintainer
3. Transportable Electronic
   Switching System Repairer

Course Number: 622-36L10.

Location: Signal School, Ft. Gordon, GA.

Length: 26–28 weeks (951–1052 hours).

Exhibit Dates: *Version 1:* 9/89–Present. *Version 2:* 8/87–8/89. *Version 3:* 10/85–7/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to demonstrate a basic knowledge of DC/AC circuit theory, various solid state devices such as multiplexers, gates etc., digital numbering systems, organized troubleshooting techniques, and a detailed knowledge of the design, operation, and maintenance for automatic telephone central switching systems. *Version 2:* Upon completion of the course the student will be able to demonstrate a basic knowledge of soldering techniques, DC/AC circuit theory, various solid state devices such as multiplexers, gates etc., digital numbering systems, organized troubleshooting techniques, and a detailed knowledge of the design, operation, and maintenance for automatic telephone central switching systems. *Version 3:* Given various simple, series, and parallel electric circuits, the student will be able to analyze their operation and test and troubleshoot them. Given a circuit of basic digital components (gates, flip flops, registers, counters) and test equipment, the student will be able to analyze circuit and isolate fault to the defective conponent. Given a defective analog to digital conversion circuit and test equipment, the student will be able to isolate fault to the component part. Given circuits with transistors and diodes and test equipment, the student will be able to analyze circuit and isolate faults to the defective component. Given the AN/TTC-39 automatic telephone central office and the AN/TYC-39 automatic switching central, student will be able to install, operate, troubleshoot, and repair the equipment.

Instruction: *Version 1:* Training includes topics in DC/AC fundamentals, circuit theory, basic electronics including solid state technology, digital numbering systems, digital devices such as multiplexers, gates etc., and the design, operation and maintenance procedures for the automatic telephone switching system system. *Version 2:* Training includes topics in DC/AC fundamentals, circuit theory, basic electronics including solid state technology, digital numbering systems, digital devices such as multiplexers, gates etc., and the design, operation and maintenance procedures for the automatic telephone switching system system. *Version 3:* Lectures, practical exercises, and tests on troubleshooting the equipment studied. Soldering is also covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automatic telephone switching systems; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 2 in AC circuits, 2 in digital principles, 1 in solid state electronics and 3 in electronic systems troubleshooting and maintenance (6/90). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques and 3 in automatic telephone switching systems; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 2 in AC circuits, 2 in digital principles, 1 in solid state electronics and 3 in electronic systems troubleshooting and maintenance (6/88). *Version 3:* In the vocational certificate category, 2 semester hours in soldering techniques and 3 in automatic telephone systems; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits, 1 in solid state circuits, 2 in digital electronics, and 3 in electronic systems troubleshooting (2/87).

Related Occupation Codes: 36L.

AR-1715-0669

Fixed Communications Security
(COMSEC) Equipment Repair

Course Number: *Version 1:* 160-29F10. *Version 2:* 160-29F10. *Version 3:* 160-29F10/160-29F10 (ST).

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 13–16 weeks (491–562 hours). *Version 2:* 19–23 weeks (699–808 hours). *Version 3:* 23–24 weeks (903 hours).

Exhibit Dates: *Version 1:* 1/89–Present. *Version 2:* 10/87–12/88. *Version 3:* 10/85–9/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will identify series, parallel and series/parallel DC circuits and determine values of resistance, voltage, and current in the circuits; comprehend AC circuit concepts including frequency, phase and reactance; solder and desolder wire to various types of electronic terminals; and perform limited maintenance on communications security equipment. *Version 2:* Upon completion of the course the student will be able to perform simple circuit analysis of DC and transistor circuits and be able to connect and test these circuits; be able to perform limited maintenance on various types of COMSEC equipment; be able to troubleshoot secure communications terminals. *Version 3:* Upon completion of the course the student will be able to perform simple circuit analysis of electric circuits (primarily DC) and be able to connect and test these circuits; be able to perform limited maintenance on various types of COMSEC equipment; be able to troubleshoot secure communications terminals.

Instruction: *Version 1:* Classroom and practical exercises on topics in DC and AC circuits, soldering techniques, and on the specific equipment. *Version 2:* Lectures and performance exercises in DC/AC circuits and in operation and maintenance of COMSEC equipment. Strong emphasis is placed on limited maintenance of secure communications equipment. Soldering techniques are covered. *Version 3:* Lectures and performance exercises in DC/AC circuits and in operation and maintenance of COMSEC equipment. Strong emphasis is placed on limited maintenance of secure communications equipment. Soldering techniques are covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques (3/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 1 in basic electronics laboratory, and 1 in electronic systems troubleshooting and maintenance (3/90). *Version 2:* In the vocational certificate category, 1 semester hour in soldering techniques (6/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, and 1 in solid state electronics (6/88). *Version 3:* In the vocational certificate category, 2 semester hours in soldering techniques (2/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits (2/87).

Related Occupation Codes: 29F.

AR-1715-0670

1. Switching Central Repairer
   (Telephone Central Office Repairer)
2. Telephone Central Office
   Repairer
3. Telephone Central Office Repair

Course Number: 622-29N10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 18–19 weeks (700 hours). *Version 2:* 20–21 weeks (768 hours). *Version 3:* 19 weeks (732 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/88–9/89. *Version 3:* 10/85–9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel and series/parallel resistive circuits and determine values of resistance, voltage, and current in the circuits; recognize the meaning of frequency, period, sine wave, phase shift, inductance, capacitance, reactance, and impedence; calculate voltage and current in transformers; calculate quality, bandwidth, and cutoff frequencies of filters; calculate impedences, voltages and current in capacitive and inductive AC circuits, power supplies, and digital circuits; diagnose defective automatic telephone switchboards and perform repairs. *Version 2:* Upon completion of the course the student wil be able to perform diagnostic tests, circuit analysis and repairs on digital circuits, operational amplifiers, AC and DC circuits, power supplies, and solid state circuits. Student will also be able to diagnose defective automatic telephone switchboards, perform maintenance and make necessary repairs. *Version 3:* Upon completion of the course, the student will be able to perform diagnostic tests on basic AC and DC circuits; diagnose defective automatic telephone switchboard operation; perform proper repair to automatic switchboards.

Instruction: *Version 1:* Lectures and practical exercises on manual, semiautomatic and automatic telephone switching systems and associated equipment. *Version 2:* Lectures, demonstrations, and practical exercises on manual, semiautomatic and automatic telephone central office systems and associated equipment. *Version 3:* Basic nonalgebraic instruction in AC and DC circuits, power supplies, current-voltage relationships in components, soldering, transistor and operational amplifiers and solid state logic. Emphasis is placed on automatic telephone switchboard principles and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in telephone switching equipment repair; in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, 2 in AC circuits, 1 in digital principles, and 1 in electronic systems troubleshooting and maintenance (6/90). *Version 2:* In the vocational certificate category, 1 semester hour in soldering techniques and 2 in central office telephone repair; in the lower-division baccalaureate/associate degree category, 2 in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 2 in solid state electronics, 1 in electronic systems troubleshooting and maintenance, and 1 in digital principles (6/88). *Version 3:* In the vocational certificate category, 2 semester hours in central office automatic telephone systems and 2 in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC/AC circuits, 3 in electronic troubleshooting techniques (2/87).

Related Occupation Codes: 29N.

AR-1715-0671

TACTICAL SATELLITE/MICROWAVE REPAIRER

Course Number: 101-29M10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 28-30 weeks (1022-1140 hours). *Version 2:* 25-33 weeks (914-1250 hours). *Version 3:* 25-33 weeks (914-1250 hours).

Exhibit Dates: *Version 1:* 7/88-Present. *Version 2:* 6/87-6/88. *Version 3:* 7/85-5/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel, and series/parallel DC circuits and determine values of resistance, voltage, and current in the circuits; comprehend AC circuit concepts including frequency, phase, and reactance; solder and desolder wire to various types of electronic terminals; troubleshoot and explain operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; explain operation of FETs, SCRs, and UJTs; troubleshoot and explain the operation of sinewave oscillator, multivibrator circuits and Schmitt trigger circuits; comprehend FM communication systems, digital communication (including multiplexing) and satellite communications; trace signals and align receivers and transmitters; convert between and perfom arithmetic in decimal, binary, octal and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers and counters; perform limited maintenance on miltary-specific equipment. *Version 2:* Upon completion of the course the student will be able to perform circuit analysis of electrical circuits, electronic circuits, power supplies, and solid state circuits, be able to connect and test these circuits, and be able to test and troubleshoot electronic communications equipment, DC and AC circuits, amplifiers, oscillators, pulse-shaping and digital circuits to the component level. Student will be able to analyze, test, troubleshoot, and repair FM microwave radios, multiplexers, converters, timing circuits, decoders, antennas, satellite communications systems and terminals. *Version 3:* Upon completion of the course the student will be able to perform simple circuit analysis of electric circuits (primarily DC) and solid state circuits, be able to connect and test these circuits and be able to test and troubleshoot communications electronic equipment. Given a solid state amplifier, oscillator, pulse shaping or digital logic circuit, student will be able to troubleshoot the circuit to the component level. Student will be able to troubleshoot, test and repair the following equipment: analog to digital multiplexer, digital to digital multiplexer, FM radios and satellite communications terminals.

Instruction: *Version 1:* Classroom and practical exercises involving the lecture topics. *All Versions:* Lectures and practical exercises with a strong emphasis on troubleshooting of circuits and systems studied.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 3 in solid state electronics, 1 in digital principles, 3 in basic electronics laboratory, 3 in electronic systems troubleshooting and maintenance, and 2 in electronic communications (6/90). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 2 in digital principles, 2 in solid state electronics, 3 in electronic systems troubleshooting and maintenance and 1 in electronic communications (6/88). *Version 3:* In the vocational certificate category, 2 semester hours in soldering; in the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics, 1 in solid state circuits, 2 in DC/AC circuits and 3 in electronic systems troubleshooting (2/87).

AR-1715-0672

1. STRATEGIC MICROWAVE SYSTEMS REPAIRER
2. STRATEGIC MICROWAVE SYSTEMS REPAIRER (AIT)

Course Number: *Version 1:* 101-29V10. *Version 2:* 101-29V10; 101-26V10.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 30-31 weeks (1106 hours). *Version 2:* 29-30 weeks (1058 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 3/86-9/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel, and series/parallel resistive circuits and determine values of resistance, voltage and current; recognize the meaning of frequency, period, sine wave, phase shift, inductance, reactance, capacitive reactance, and impedance; calculate voltage and current in transformers; explain the basic operation of semiconductors, junction diodes, and transistors and identify their uses in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers and power amplifiers; identify operational amplifiers; explain the operation of FETs, SCRs and UJTs; troubleshoot and explain the operation of sine wave oscillators, multivibrator circuits, and Schmitt trigger circuits; comprehend frequency modulation communication techniques; trace signal paths; troubleshoot and align FM receivers and transmitters; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers and counters; explain the theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; explain how a microcomputer performs arithmetic and logic operations; use machine language instructions; solder and desolder wire to various types of electronic terminals; able to troubleshoot and repair microwave radio systems. *Version 2:* Upon completion of the course the student will be able to perform simple circuit analysis of electric circuits (primarily DC), solid state circuits and be able to connect and test these circuits, be able to test and troubleshoot communications electronic equipment, be able to test and repair analog multiplexers, be able to understand basic principles of microwave radio and to test and repair microwave radio sets, be able to operate various radio sets, multiplexer sets, and associated test sets and be able to perform common precision soldering of modules.

Instruction: *Version 1:* Lectures and practical exercises on electronics. *Version 2:* Lectures and performance exercises in DC/AC circuits, semiconductor devices, principle of microwave radios, principles of digital communications (with no digital fundamentals) and principles of analog multiplexers. Emphasis is placed on testing, aligning, troubleshooting and repairing current field sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in solid state electronics, 2 in microprocessors, 1 in DC circuits, 2 in electronic communications, 2 in AC circuits, and 3 in electronic systems troubleshooting and maintenance (6/90). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division

baccalaureate/associate degree category, 2 semester hours in DC/AC circuits and 3 in electronic systems troubleshooting (3/87).
Related Occupation Codes: 29V; 26V.

AR-1715-0673

USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal

Course Number: 101-F20.
Location: Signal School, Ft. Gordon, GA.
Length: 3-5 weeks (138-168 hours).
Exhibit Dates: 4/86-Present.
Learning Outcomes: Upon completion of the course student will be able to operate, test, troubleshoot, and repair a satellite communications terminal.
Instruction: Includes lectures and performance exercises on the operation and maintenance of a SATCOM terminal.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/88).

AR-1715-0674

Communications Security (COMSEC) Systems Maintenance Special Repair Activity (SRA) (ASIX9)

Course Number: 160-ASIG7-T (31S).
Location: Signal School, Ft. Gordon, GA.
Length: 6-7 weeks (238-240 hours).
Exhibit Dates: 3/86-10/89.
Learning Outcomes: Upon completion of the course, the student will be able to perform full maintenance procedures on three types of communication security equipment.
Instruction: Includes lectures and performance exercises on troubleshooting and repair of circuit boards.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting (2/87).

AR-1715-0675

General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA)
(General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA) (ASIX9))

Course Number: 160-ASIG7-T (31T).
Location: Signal School, Ft. Gordon, GA.
Length: 3-6 weeks (108-212 hours).
Exhibit Dates: 3/86-10/89.
Learning Outcomes: Upon completion of the course, the student will be able to perform full maintenance procedures on two types of communications security equipment.
Instruction: Includes lectures and performance exercises on troubleshooting two types of COMSEC equipment. Strong emphasis is placed on troubleshooting and repair of equipment to the component level.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting (6/89).

AR-1715-0676

Strategic Microwave Systems Repairer, Basic Technical

Course Number: 101-26V30.
Location: Signal School, Ft. Gordon, GA.
Length: 6 weeks (216 hours).
Exhibit Dates: 6/85-10/86.
Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates in the maintenance of strategic microwave systems.
Instruction: Review of fundamentals of digital communication techniques including transistor filter circuits, microwave propagation, digital techniques, emergency power sources, maintenance administration, communication security and site supervision.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of microwave communications (2/87).

AR-1715-0677

1. Field Communications Security (COMSEC) Equipment Full Maintenance
2. Communications Security (COMSEC) Equipment Full Maintenance (Field)

Course Number: 160-ASIG7.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 18-22 weeks (658-785 hours). *Version 2:* 18-20 weeks (664-728 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/85-9/88.
Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to explain the basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; explain the operation of FETs, SCRs, and UJTs and troubleshoot and explain the operation of sinewave oscillators, multivibrator circuits, and Schmitt trigger circuits; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; solder and desolder wire to various types of electronic terminals; solder and desolder electronic components to printed circuit boards; and troubleshoot, and repair a number of specific military communications systems. *Version 2:* Upon completion of the course, the student will be able to connect and test solid state amplifier and oscillator circuits; be able to connect and test simple logic circuits; and be able to perform full maintenance (to component level) on various types of communications security equipment.
Instruction: Includes lectures and performance exercises on solid state, electronic circuits, and digital circuits and on various types of COMSEC equipment. Strong emphasis is placed on troubleshooting and repair of circuit boards.
Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in soldering techniques (7/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in solid state electronics, 1 in digital principles, 1 in basic electronics laboratory, and 3 in in electronic systems troubleshooting and maintenance (7/89). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in solid state circuits, 1 in digital circuits and 3 in electronic systems troubleshooting (5/88).

AR-1715-0678

Strategic Microwave Systems Repairer Basic Noncommissioned Officer (NCO)

Course Number: 101-29V30.
Location: Signal School, Ft. Gordon, GA.
Length: 6-7 weeks (239 hours).
Exhibit Dates: 4/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to provide technical assistance and supervision to subordinates in the maintenance and operation of strategic microwave systems.
Instruction: Review of fundamentals of digital communications including transistor filters, microwave propagation, digital techniques, emergency power sources, maintenance administration, communication security and site supervision.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in microwave communication (2/87). For information on the common core, see AR-1406-0090.

AR-1715-0679

Satellite Communication (SATCOM) Fundamentals

Course Number: 102-F39.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 12 weeks (432 hours). *Version 2:* 11 weeks (396 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 12/86-9/88.
Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain digital communication subsystems. The student will perform functional analysis, operational checks, signal tracing, and troubleshooting of digital receivers and transmitters.
Instruction: Topics include fundamentals of defense satellite communications systems, digital electronics techniques, operation, maintenance and troubleshooting digital communication subsystems using readings, lectures, discussions, and evaluation by test and performance.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications and 3 in electronic systems troubleshooting and maintenance (7/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications and 1 in digital logic circuits (7/87).

AR-1715-0680

Dial Central Office Repairer

Course Number: 101-ASIV2.
Location: Signal School, Ft. Gordon, GA.
Length: 13 weeks (494 hours).
Exhibit Dates: 4/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform direct and general support as well as depot-level maintenance on dial central office telephone exchange equipment.
Instruction: Includes lectures, demonstrations, and performance exercises in the operation and maintenance of dial central office systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in dial central office equipment maintenance (2/87).

AR-1715-0681

Fixed Communications Security (COMSEC) Equipment Repairer (Transition 32G)

(Fixed Cryptographic Equipment Repair Transition 32F)
(Fixed Cryptographic Equipment Repair (Transition))

Course Number: 160-29F10/20/30-T (32F); 160-29F10/20/30-T.
Location: Signal School, Ft. Gordon, GA.
Length: 3-8 weeks (144-296 hours).
Exhibit Dates: 3/86-10/90.

Learning Outcomes: Upon completion of the course, the student will be able to restore fixed cryptographic equipment to operation by substitution of pluggable assemblies, subassemblies, elements, and printed wiring assemblies. The student will demonstrate ability to perform tasks such as limited preventive maintenance and troubleshooting of communication terminals.

Instruction: Topics in limited maintenance and troubleshooting of secure communications terminals are covered using readings, lectures, discussions, exercises and evaluation by tests and performance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems troubleshooting (7/89).

Related Occupation Codes: 29F.

AR-1715-0682

1. Tactical Satellite/Microwave Supervisor Basic Noncommissioned Officer (NCO)
2. Tactical Satellite/Microwave Repairer Basic Noncommissioned Officer (NCO)

Course Number: 101-29M30.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 7-8 weeks (280 hours). *Version 2:* 6-7 weeks (216-243 hours).
Exhibit Dates: *Version 1:* 3/89-Present. *Version 2:* 4/86-2/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to establish and maintain parts inventory; requisition parts; maintain records; explain concepts of digital multiplexing for voice and data transmission; explain the operation of modems and group multiplexing equipment; and troubleshoot data communications equipment. *Version 2:* Upon completion of the course the student will be able to supervise and provide technical assistance on alignment, troubleshooting, and repair of satellite/microwave equipment.

Instruction: *Version 1:* Classroom lectures and practical exercises are used to present topics on supply management and digital communications equipment. *Version 2:* Lectures and practical exercises on shop recordkeeping, troubleshooting, and shop procedures. Also included is a common core of military/professional skills.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management, 2 in data communications, and 1 in electronic systems troubleshooting and maintenance (6/90). For credit for the common core see AR-1406-0090. *Version 2:* Credit is recommended for the common core only. See AR-1406-0090 (2/88).

Related Occupation Codes: 29M.

AR-1715-0683

Station Technical Controller Basic Technical

Course Number: 101-32D30.
Location: Signal School, Ft. Gordon, GA.
Length: 8-9 weeks (310 hours).
Exhibit Dates: 10/86-1/89.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and operate technical and tactical control facilities.

Instruction: Lectures and practical exercises on tactical communications networks. Includes common core instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/88). For information on the common core, see AR-1406-0090.

Related Occupation Codes: 32D.

AR-1715-0684

Tactical Circuit Controller Basic Noncommissioned Officer (NCO)

Course Number: 101-31N30.
Location: Signal School, Ft. Gordon, GA.
Length: 8-9 weeks (310 hours).
Exhibit Dates: 10/86-1/89.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and operate technical and tactical control facilities.

Instruction: Lectures and practical exercises on tactical communications networks. Includes common core instruction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/88). For information on the common core, see AR-1406-0090.

Related Occupation Codes: 31N.

AR-1715-0685

Radio Repairer Basic Noncommissioned Officer
(Communication Electronics Radio Repairer Basic Noncommissioned Officer (NCO))

Course Number: 101-29E30.
Location: Signal School, Ft. Gordon, GA.
Length: 6-9 weeks (216-319 hours).
Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervision to subordinates in the maintenance of radio communications equipment.

Instruction: Review of general Army communication systems, maintenance management, supply procedures and inventory control. Includes common core of leadership instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (6/90). For information on the common core, see AR-1406-0090.

Related Occupation Codes: 29E.

AR-1715-0686

Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
(Automatic Data Telecommunications Center Operator Primary Technical)

Course Number: 260-72G20.
Location: Signal School, Ft. Gordon, GA.
Length: 6-7 weeks (237 hours).
Exhibit Dates: 10/85-12/89.

Learning Outcomes: Upon completion of the course, the student will be able to perform as a first line supervisor in an automatic data telecommunications center. The student will perform tasks associated with message processing, maintaining records and applying correct accounting procedures. Student will also operate and supervise operation of an automatic data telecommunications center.

Instruction: Course topics include the duties and responsibilities of an automatic data telecommunications center operator, maintaining logs, files, records, reports, and supervising system operation. Instruction is accomplished through readings, lectures, discussion and evaluation by tests and performance. As of 10/86 a common core of instruction is included.

Credit Recommendation: In the vocational certificate category, 2 semester hours in recordkeeping (5/89). For information on the common core, a part of this course from 10/86-Present, see AR-1406-0090.

Related Occupation Codes: 72G.

AR-1715-0687

Fixed Ciphony Repairer
(Fixed Ciphony Repairer (Transition) (32G))

Course Number: 160-29F10/20/30-T (32G).
Location: Signal School, Ft. Gordon, GA.
Length: 3-7 weeks (130-243 hours).
Exhibit Dates: 3/86-10/90.

Learning Outcomes: Upon completion of the course, the student will be able to restore fixed ciphony equipment to operation by substitution of pluggable assemblies, subassemblies, elements, and printed wiring assemblies. The student will perform limited maintenance, operational testing and troubleshooting of the equipment.

Instruction: Topics in limited maintenance, operational testing, and troubleshooting secure communication terminals are covered using readings, lectures, discussions, exercises, and evaluation by testing and performance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems troubleshooting (7/89).

Related Occupation Codes: 29F.

AR-1715-0688

Inertial Navigation Set AN/ASN-86 Repair

Course Number: 102-ASIR5.
Location: Signal School, Ft. Gordon, GA.
Length: 10 weeks (362 hours).
Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, test, and perform organizational, direct, and general support maintenance on the inertial navigation set AN/ASN-86.

Instruction: Includes lectures and peformance exercises on the operation and maintenance of the navigation set.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems troubleshooting (2/87).

AR-1715-0689

Teletypewriter Equipment Repairer Basic Noncommissioned Officer (NCO)

Course Number: 160-29J30.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 10-11 weeks (389 hours). *Version 2:* 9-10 weeks (333 hours).
Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 10/86-12/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; explain the theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; supervise repair facilities for teletype equipment. *Version 2:* Upon completion of the course, the student will be able to supervise repair facilities for teletype equipment.

Instruction: Lectures on supervisory practices for repair facilities, recordkeeping, supply procedures and quality control. A common core of instruction is also included.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in digital principles, 1 in microprocessors, and 3 in electronic systems troubleshooting and maintenance (7/89). For credit for the common core see AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hour in maintenance management (2/87). For information on the common core, see AR-1406-0090.

Related Occupation Codes: 29J.

AR-1715-0690

Communications Security (COMSEC) Equipment TSEC/KI-1A Repair

Course Number: 160-F30 (29S).
Location: Signal School, Ft. Gordon, GA.
Length: 7–8 weeks (274 hours).
Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair specific communications security equipment to the component level.

Instruction: Lectures and practical exercises with emphasis on troubleshooting. Student uses oscilloscope, multimeter, and hand tools to troubleshoot and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/87).

Related Occupation Codes: 29S.

AR-1715-0691

Defense Satellite Communications System (DSCS) Ground Mobile Forces (GMF) Controller

Course Number: *Version 1:* 102-ASIQ1. *Version 2:* 102-ASIQ1 (26Y).
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 14 weeks (504 hours). *Version 2:* 14 weeks (504 hours).
Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 10/86–9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to operate, troubleshoot, and repair the Defense Satellite Communications Ground Mobile Forces Control Equipment. *Version 2:* Upon completion of the course the student will be able to operate and repair the Defense Satellite Communications Ground Mobile Forces Control Equipment.

Instruction: *Version 1:* Includes lectures, demonstrations and performance exercises on the operation and maintenance of GMF equipment. *Version 2:* Includes lectures, demonstrations and performance exercises on the operation and maintenance of GMF equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics systems troubleshooting and maintenance (7/89). *Version 2:* Credit is not recommended because of the limited, specialized nature of the course (2/87).

Related Occupation Codes: 26Y.

AR-1715-0692

AN/TCC-39 and AN/TYC-39 Maintenance (USAF)

Course Number: 150-30554/150-30574.
Location: Signal School, Ft. Gordon, GA.
Length: 13–14 weeks (514 hours).
Exhibit Dates: 12/83–10/87.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, troubleshoot and repair automatic telephone central office and automatic message switching central equipment.

Instruction: Lectures and practical exercises with emphasis on troubleshooting and repair of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/87).

AR-1715-0693

AN/TYC-39(V) Operator (USAF)

Course Number: 260-F1 (72E).
Location: Signal School, Ft. Gordon, GA.
Length: 3–5 weeks (136–196 hours).
Exhibit Dates: 5/83–Present

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, and perform operator maintenance on a tactical automatic message switching central. The student will be able to load paper, prepare equipment for operation, interpret service messages, make log entries and enter commands.

Instruction: Topics in message processing, major components within the message processing shelter, power initialization/shut down procedures are covered using readings, lectures, discussions, exercises, evaluation by test and performance.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/88).

Related Occupation Codes: 72E.

AR-1715-0694

Satellite Communications (SATCOM) Controller

Course Number: 4C-F19/102-ASIY1; 4C-F19/102-ASIA1.
Location: Signal School, Ft. Gordon, GA.
Length: 10–15 weeks (360–540 hours).
Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate a satellite communications system.

Instruction: Lectures and practical exercises including the basics of satellite communications, signal flow in satellites and ground stations, satellite control, and system operation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/89).

Related Occupation Codes: 29Y.

AR-1715-0695

Ground Mobile Forces (GMF) Interface Subsystem
(Data Processing Group OL-230/MSC-66(V))

Course Number: 102-F55; 102-F55 (26Y).
Location: Signal School, Ft. Gordon, GA.
Length: 2–3 weeks (72–88 hours).
Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and perform operator maintenance on the data processing group OL-230/MSC-66(V).

Instruction: Includes lectures, demonstrations, and performance exercises on maintaining the equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

Related Occupation Codes: 26Y.

AR-1715-0696

AH-64A Avionic Mechanic

Course Number: 102-ASIX1 (35K); 102-ASIX1.
Location: Signal School, Ft. Gordon, GA.
Length: 3 weeks (104–120 hours).
Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to test, troubleshoot, and repair AH-64A avionic communication and navigation systems.

Instruction: Includes lectures and performance exercises on troubleshooting communication and navigation systems on a helicopter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting (3/88).

Related Occupation Codes: 35K.

AR-1715-0697

Field General Communications Security (COMSEC) Equipment Repair (Transition)
(Field General Communications Security (COMSEC) Equipment Repair (31T))

Course Number: 160-29S10/20-T.
Location: Signal School, Ft. Gordon, GA.
Length: 2–4 weeks (70–152 hours).
Exhibit Dates: 3/86–10/89.

Learning Outcomes: Upon completion of the course, the student will be able to perform limited diagnostic evaluations and return to operational status two types of communications security equipment.

Instruction: Demonstrations and hands-on experience in the use of specialized test sets for COMSEC equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/89).

Related Occupation Codes: 29S, 31T.

AR-1715-0698

Field Systems Communications Security (COMSEC) Equipment Repair

Course Number: 160-29S10/20/30-T (31S).
Location: Signal School, Ft. Gordon, GA.
Length: 2–8 weeks (94–287 hours).
Exhibit Dates: 3/86–10/89.

Learning Outcomes: Given proper test sets, the students will be able to repair specific COMSEC equipment through the substitution of pluggable assemblies.

Instruction: Demonstrations, lectures, and hands-on experience on test set analysis of specific COMSEC equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (1/89).

Related Occupation Codes: 31S, 29S.

AR-1715-0699

Tactical Satellite/Microwave Systems Operator Basic Noncommissioned Officer (NCO)
(Tactical Satellite/Microwave Systems Operator Primary Technical)

Course Number: 201-31Q20; 201-26Q20.
Location: Signal School, Ft. Gordon, GA.
Length: 6–7 weeks (216–252 hours).
Exhibit Dates: 4/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to act as team chief in the installation, operator maintenance and troubleshooting of satellite and microwave communication equipment.

Instruction: Lectures and practical exercises on directing installation and maintenance of power generator sets and a radio set. As of 10/86 a common core of leadership subjects was added. See exhibit AR-1406-0090.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course. For credit for the common core, see AR-1406-0090 (6/88).

Related Occupation Codes: 26Q.

AR-1715-0700

Tactical Signal Staff Officer
(Corps/Division Communications Operations Officer)

Course Number: 4C-FOA-F26.
Location: Signal School, Ft. Gordon, GA.
Length: 5-6 weeks (180-216 hours).
Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to function in a corps/division as a communications specialist.

Instruction: Lectures and practical exercises on subjects related to procedures and equipment used in division/corps communications.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

AR-1715-0701

Satellite Communications (SATCOM) Terminal AN/GSC-49

Course Number: *Version 1:* 102-ASIP4 (CT). *Version 2:* 102-ASIP4 (26Y).
Location: Signal School, Ft. Gordon, GA.
Length: 18 weeks (648 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 10/85-9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to operate and maintain a military-specific communication terminal. *Version 2:* Upon completion of the course, the student will be able to operate and perform limited maintenance on a satellite communications terminal.

Instruction: *Version 1:* Classroom and practical exercises involving the particular equipment. *Version 2:* Lectures, demonstrations, and practical exercises on the satellite communications terminal and a communications subsystem.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in satellite communications systems and 3 in electronic systems troubleshooting and maintenance (6/89). *Version 2:* In the vocational certificate category, 3 semester hours in satellite communications systems (2/87).

Related Occupation Codes: 29Y.

AR-1715-0702

Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39

Course Number: 102-F42.
Location: Signal School, Ft. Gordon, GA.
Length: 8 weeks (288 hours).
Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain two SATCOM terminals. The student will be able to operate and maintain up/down converters, communication, antenna positioning, frequency generating and control/monitor equipment.

Instruction: Topics include system overview, frequency conversion and synthesization, SATCOM subsystems, control and monitor equipment and troubleshooting to the lowest replacement unit, using readings, lectures, discussions, exercises and evaluation by test and performance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (6/90).

AR-1715-0703

1. Transportable Electronics Switching Systems Repairer
(Transportable Electronic Switching Systems AN/TTC-39() and AN/TYC-39() Repairer (Tri-Tac Transition Training))

Course Number: 622-F26.
Location: Signal School, Ft. Gordon, GA.
Length: 19 weeks (724 hours).
Exhibit Dates: *Version 1:* 10/88-4/89. *Version 2:* 6/86-9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to install and perform general support maintenance on the telephone central office equipment. *Version 2:* Upon completion of the course the student will be able to install, operate, troubleshoot, and repair the AN/TTC-39 automatic telephone central office and the AN/TYC-39 automatic switching central equipment.

Instruction: *Version 1:* Classroom and laboratory instruction necessary to install and maintain the above mentioned system. *Version 2:* Lectures, practical exercises and tests on the subject matter. Emphasis is placed on troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/88). *Version 2:* In the vocational certificate category, 3 semester hours in automatic telephone systems; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/87).

AR-1715-0704

Telecommunications Technician Warrant Officer Advanced

Course Number: 4-11-C32-250A; 4-11-C32-290A.
Location: Signal School, Ft. Gordon, GA.
Length: 14 weeks (527 hours).
Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a communications-electronics systems warrant officer. The student will have the necessary managerial and leadership abilities for supervisory and staff positions and have a thorough understanding of electronic warfare, NBC operations, air-land battle operational concepts, automatic data processing fundamentals, and logistics.

Instruction: Includes lectures, demonstrations, and performance exercises in all of the skill areas required of a communications electronics warrant officer including the technical aspects of managing a telecommunication system and the general aspects of personnel supervision and logistics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing and 1 in leadership (5/90).

Related Occupation Codes: 290A.

AR-1715-0705

Mode V Subscriber Terminal

Course Number: *Version 1:* 622-ASIM2 (29J). *Version 2:* 622-ASIM2 (31J).
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 9 weeks (348 hours). *Version 2:* Phase I, 5 weeks; phase II, 4 weeks.
Exhibit Dates: *Version 1:* 10/86-10/89. *Version 2:* 10/84-9/86.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to use common electronic test equipment to test and troubleshoot transistor circuits, power supplies, oscillators, and to analyze and test digital circuits. Student will also be able to troubleshoot and repair teletypewriter control unit. *Version 2:* Upon completion of the course the student will be able to trace DC and AC voltage levels through power supply circuits; trace signal levels through audio oscillator circuits; trace signals through logic circuits, analyze circuit problems and isolate defective components in power supply, oscillator, and logic circuits; test, align, and troubleshoot the teletypewriter control unit of the Mode V subscriber terminal.

Instruction: *Version 1:* Lectures and practical exercises with emphasis on circuit operation, testing and troubleshooting. *Version 2:* Includes lectures, demonstrations, and performance exercises in circuit testing and troubleshooting all teletypewriter control unit circuits. Strong emphasis is placed on installing, maintaining, and performing preventive maintenance on the equipment. Course is divided into phases. Students may complete both phase I and phase II (9 weeks) or phase II only (4 weeks).

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 2 in solid state electronics, 1 in digital principles, and 2 in electronic systems troubleshooting and maintenance (6/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits troubleshooting for phase I and 3 semester hours in electronic systems maintenance for phase II (2/87).

Related Occupation Codes: 31J.

AR-1715-0706

Communications-Electronics Operations Noncommissioned Officer (NCO) Advanced (Reserve Components)

Course Number: 4-31-C42 (RC).
Location: Signal School, Ft. Gordon, GA; Reserve Units, USA.
Length: 6 weeks (233 hours).
Exhibit Dates: 9/84-12/88.

Learning Outcomes: Upon completion of the course, the student will be able to plan, supervise, and direct installation and operation of a field communications center.

Instruction: Lectures and practical exercises on the equipment and procedures used to establish a field communications center including a telephone system and radio net.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone systems (5/88).

AR-1715-0707

Calibration and Repair Technician Warrant Officer Advanced

Course Number: 4-11-C32-252A.
Location: Signal School, Ft. Gordon, GA.

Length: 14 week (527 hours).
Exhibit Dates: 10/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a calibration and repair warrant officer. The student will have the necessary managerial and leadership abilities for supervisory and staff positions and have a thorough understanding of electronic warfare, NBC operations, air-land battle operational concepts, automatic data processing fundamentals, and logistics.
Instruction: Includes lectures, demonstrations, and performance exercises in all of the skill areas required of a calibration and repair warrant officer including the technical aspects of managing a maintenance system and the general aspects of personnel supervision and logistics.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing and 1 in leadership (2/87).
Related Occupation Codes: 252A.

AR-1715-0708

AN/TTC-39(V) Operator (USAF)

Course Number: 260-F2.
Location: Signal School, Ft. Gordon, GA.
Length: 5–6 weeks (200 hours).
Exhibit Dates: 5/83–Present.
Learning Outcomes: Upon completion of the course, the student will be able to install, operate, and perform operator maintenance on a specific piece of tactical automatic telephone central office equipment. Given preinstalled, energized, and operational equipment, the student will perform various tasks such as start-up, manually loading the display unit, handling messages, and identifying operator-level faults.
Instruction: The course includes topics in power initialization, automatic data processing start-up procedures, initiation of communication security equipment, message handling, operator fault identification and isolation using readings, lectures, discussion, exercises and evaluation by test and performance.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/87).

AR-1715-0709

Fixed Ciphony Repairer Special Repair Activity (SRA)

Course Number: 160-ASIG8 (32G).
Location: Signal School, Ft. Gordon, GA.
Length: 5–6 weeks (207 hours).
Exhibit Dates: 3/86–12/88.
Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair a specific piece of cryptographic equipment to the component level.
Instruction: Lectures, practical exercises, and tests specific to the equipment studied.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/87).
Related Occupation Codes: 32G.

AR-1715-0710

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor

Course Number: 233-98J10.
Location: Intelligence School, Ft. Devens, MA.
Length: 15 weeks (480 hours).
Exhibit Dates: 1/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to use technical references and equipment to search for selected classes of intercepted noncommunication electro-optic signals and to record and perform preliminary analysis and identification on these signals.
Instruction: Lectures, demonstrations, and performance exercises in map reading, data and signal analysis, basic electrical and communication theory, report writing, radio communication equipment operation and maintenance, Soviet and North Korean defense systems, and the identification, collection, and reporting of intercepted noncommunication signals. For the course prior to 1985 see exhibit AR-1715-0018.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to radar systems (5/87).
Related Occupation Codes: 98J.

AR-1715-0711

Defense Against Sound Equipment (DASE), Phase I

Course Number: 3C-ASI9L/244-ASIG9.
Location: Intelligence School, Ft. Devens, MA.
Length: 15–16 weeks (565 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course, the student will be able to be conversant in fundamentals of electronics, communications and digital circuits.
Instruction: Instruction and practical exercises in DC circuits, AC circuits, solid state circuit analysis, communications systems signal analysis, and introduction to digital principles. See AR-1715-0420 for earlier version.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits, 3 in AC circuits, 4 in solid state circuits, 3 in communications systems, and 2 in digital fundamentals (5/87).

AR-1715-0712

Dual Purpose Mission Training

Course Number: 231-F13.
Location: Intelligence School, Ft. Devens, MA.
Length: 2 weeks (54 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course, the student will be able to intercept and identify target signals in dual mode teleprinter operations.
Instruction: Training in the theory and operation of dual mode teleprinter systems, type signal, polarity identification and servicing of page print traffic.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/87).

AR-1715-0713

Electronic Warfare (EW) Intercept Aerial Sensor Repairer

Course Number: 102-33V10.
Location: Intelligence School, Ft. Devens, MA.
Length: 24 weeks (849 hours) (phase 1).
Exhibit Dates: 10/86–Present.
Learning Outcomes: Upon completion of the course, the student will be able to identify and correct problems in solid state, digital, and microprocessor-based communications sub-systems, including A/D-D/A converters, UHF/VHF radio receiver and video displays.
Instruction: Lecture, laboratory, demonstration, and performance exercises on electronic warfare/intercept aerial sensor systems.
Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory and 1 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (DC/AC), 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).
Related Occupation Codes: 33V.

AR-1715-0714

Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)

Course Number: 102-33R30.
Location: Intelligence School, Ft. Devens, MA.
Length: *Version 1:* 16–17 weeks (595–596). *Version 2:* 17 weeks (617 hours).
Exhibit Dates: *Version 1:* 3/89–Present. *Version 2:* 10/86–Present.
Learning Outcomes: Upon completion of the course, the student will be able to teach and supervise selected enlisted personnel state-of-the-art troubleshooting and alignment techniques associated with electronic warfare/intercept aviation systems.
Instruction: Topics include military safety, map reading, first aid practices, counseling, personnel supervision, operations management, report writing, electronic troubleshooting, communication systems, and practices of electronic maintenance. Course includes a 1–2 week common core component.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in map reading and 3 in advanced electronic maintenance (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in communication systems, 5 in electronic troubleshooting, and 2 in personnel supervision. See exhibit AR-1406-0090 for the recommendation for the common core (5/87).
Related Occupation Codes: 33R.

AR-1715-0715

Electronic Warfare (EW)/Intercept Aviation Systems Repairer

Course Number: 102-33R10.
Location: Intelligence School, Ft. Devens, MA.
Length: *Version 1:* 35–36 weeks (1273 hours). *Version 2:* 43–46 weeks (1483–1514 hours).
Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 10/84–9/87.
Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series-parallel circuits; analyze RL and RC circuits; analyze filters and resonant circuits; explain the operation of solid-state devices; analyze analog circuits including class A, B, and C power amplifiers, power supplies, and oscillators; explain operational amplifier operation and circuits; describe the operation of vacuum tubes and vacuum tube circuits; perform conversions between decimal, binary, octal, and hexadecimal numbers; add and subtract binary and twos-complement numbers; explain the operation of dig-

ital circuit elements to include logic gates, flip-flops, counters, registers, decoders, and encoders; explain microprocessor processor system architecture and register structure; write assembly and machine language microprocessor programs; explain electronic communications concepts and devices including wave propagation, transmitters, AM, FM, pulse code modulation, receivers, transmission lines, antennas, and microwaves; able to troubleshoot a wide variety of electronic circuits and systems; perform electronic soldering. *Version 2:* Upon completion of the course, the student will be able to identify and correct problems in solid state, analog, digital, and microprocessor-based airborne electronic systems, to perform maintenance on airborne, electronic surveillance sets, simulators, and signal analyzers.

Instruction: Lecture, laboratory, demonstration, and performance exercises on electronic warfare/intercept aviation systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques (12/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 3 in AC circuits, 4 in digital principles, 4 in solid state electronics, 3 in microprocessors, 4 in electronic systems troubleshooting and maintenance, and 4 in electronic communications (12/88). *Version 2:* In the vocational certificate category, 3 semester hours in maintenance techniques, 3 in computer maintenance and 1 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (DC/AC) theory, 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).

Related Occupation Codes: 33R.

AR-1715-0716

Electronic Warfare (EW)/Intercept
Strategic Signal
Processing/Storage Subsystem
Repairer

Course Number: 102-33Q10.

Location: Intelligence School, Ft. Devens, MA.

Length: 46-47 weeks (1715 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and correct problems in digital, analog, solid state, and microprocessor-based signal processing/storage subsystems, including modulators/demodulators, A/D-D/A converters, power supplies, demultiplexers and digital recorders.

Instruction: Lecture, laboratory, demonstration, and performance exercises on electronic warfare/intercept signal processing/storage subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory and 1 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrcity/electronics (AC/DC) theory, 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).

Related Occupation Codes: 33Q.

AR-1715-0717

Electronic Warfare (EW)/Intercept
Strategic Receiving Subsystem
Repairer Basic Noncommissioned
Officer (NCO)

Course Number: 102-33P30.

Location: Intelligence School, Ft. Devens, MA.

Length: 19 weeks (689 hours).

Exhibit Dates: *Version 1:* 6/89-Present. *Version 2:* 10/85-5/89.

Learning Outcomes: Upon completion of the course, the student will be able to teach and supervises selected enlisted personnel state-of-the-art troubleshooting and alignment techniques associated with electronic warfare/intercept systems.

Instruction: Topics include military safety, map reading, first aid practices, counseling, personnel supervision, operations management, report writing, electronic troubleshooting, communication systems and practices of electronic maintenance. Course includes a 1-2 week common core component.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in map reading and 3 in advanced electronic maintenance (2/88); in the lower-division baccalaureate/associate degree category, 4 semester hours in communication systems, 5 in electronic troubleshooting, and 2 in personnel supervision; see exhibit AR-1406-0090 for credit recommendation for the common core.

Related Occupation Codes: 33P.

AR-1715-0718

Electronic Warfare (EW)/Intercept
Strategic Signal
Processing/Storage Subsystem
Repairer

Course Number: 102-33Q10.

Location: Intelligence School, Ft. Devens, MA.

Length: 46-47 weeks (1715 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to to identify and correct problems in digital, analog, solid state and microcrocessor based signal processing/storage subsystems, including modulators/demodulators, A/D-D/A converters, power supplies, demultiplex and digital recorders.

Instruction: Classroom study and practical experience through the use of laboratory work.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory and 1 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (AC/DC) theory, 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).

Related Occupation Codes: 33Q.

AR-1715-0719

Electronic Warfare (EW)/Intercept
Strategic Signal Processing and
Storage Subsystem Repairer
Basic Noncommissioned Officer
(NCO)

Course Number: 102-33Q30.

Location: Intelligence School, Ft. Devens, MA.

Length: 18-19 weeks (672-678 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to teach and supervise selected enlisted personnel state-of-the-art troubleshooting and alignment techniques associated with electronic warfare intercept systems.

Instruction: Topics include military safety, map reading, first aid practices, counseling, personnel supervision, operations management, report writing, electronic troubleshooting, communication systems and practices of electronic maintenance. Course includes a 1-2 week common core component.

Credit Recommendation: In the vocational certificate category, 2 semester hours in map reading and 3 in advanced electronic maintenance (6/89); in the lower-division baccalaureate/associate degree category, 4 semester hours in communication systems, 5 in electronic troubleshooting, and 2 in personnel supervision (6/89); see exhibit AR-1406-0090 for the recommendation for the common core.

Related Occupation Codes: 33Q.

AR-1715-0720

Electronic Warfare (EW)/Intercept
Strategic Systems Analyst and
Command and Control
Subsystems Repairer ,

Course Number: 102-33M20.

Location: Intelligence School, Ft. Devens, MA.

Length: 34 weeks (1236 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance on high speed serial RS-232 interface buss, IEE-488 parallel interface buss, disk, and tape drive controllers, line, printers, and minicomputers, the student will be able to write and run diagnostic assembly language programs.

Instruction: Lecture, laboratory, demonstration, and performance exercises on electronic warfare command and control subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer architecture, 3 in computer programming, 4 in minicomputer programming, 3 in minicomputer hardware, and 6 in computer maintenance (5/87).

Related Occupation Codes: 33M.

AR-1715-0721

Electronic Warfare (EW)/Intercept
Strategic Systems Analyst and
Command and Control
Subsystems Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 102-33M30.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 18-19 weeks (663 hours). *Version 2:* 18 weeks (666 hours).

Exhibit Dates: *Version 1:* 7/89-Present. *Version 2:* 10/86-6/89.

Learning Outcomes: Upon completion of the course, the student will be able to teach and supervise selected enlisted personnel state-of-the-art troubleshooting and alignment techniques associated with electronic warfare intercept systems.

Instruction: *Version 1:* Pending evalation. *Version 2:* Topics include military safety, map reading, first aid practices, counseling, personnel supervision, operations management, report writing, electronic troubleshooting, communication systems, electronic maintenance practices, and remote systems diagnostic procedures. Course includes a 1-2 week common core component.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in map reading and 3 in advanced electronic maintenance (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in communication systems, 5 in electronic troubleshooting, and 2 in personnel supervision; see exhibit AR-1406-0090 for the credit recommendation for the common core (5/87).

Related Occupation Codes: 33M.

AR-1715-0722

Electronic Warfare (EW)/Intercept Tactical Systems Repairer

Course Number: 102-33T10.

Location: Intelligence School, Ft. Devens, MA.

Length: 39-40 weeks (1413-1424 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and correct problems in solid state, analog, digital, and microprocessor-based communications subsystems, including A/D-D/A converters, modulators-demodulators, UHF/VHF radio receivers and video displays.

Instruction: Lectures, laboratory, demonstration, and performance exercises on electronic warfare/intercept tactical systems repair.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory and 1 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (AC/DC theory), 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).

Related Occupation Codes: 33T.

AR-1715-0723

Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)

Course Number: 102-33T30.

Location: Intelligence School, Ft. Devens, MA.

Length: 17 weeks (617 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to teach and supervise selected enlisted personnel state-of-the-art troubleshooting and alignment techniques associated with electronic warfare intercept systems.

Instruction: Topics include military safety, map reading, first aid practices, counseling, personnel supervision, operations management, report writing, electronic troubleshooting, communication systems, and electronic maintenance practices. Course includes a 1-2 week common core component.

Credit Recommendation: In the vocational certificate category, 2 semester hours in map reading and 3 in advanced electronic maintenance (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in communication systems, 5 in electronic troubleshooting, and 2 in personnel supervision; see exhibit AR-1406-0090 for the credit recommendation for the common core (5/87).

Related Occupation Codes: 33T.

AR-1715-0724

Electronic Warfare (EW) Operations Phase I

Course Number: 231-ASIK3.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-7 weeks (289 hours).

Exhibit Dates: 3/84-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain electronic countermeasuring equipment and radio receiver sets for purposes of communications jamming, data collection, and data reporting.

Instruction: Lectures, demonstrations, and performance exercises in basic radio communication theory, the operation and maintenance of electronic countermeasuring equipment and radio receiver sets, and technical documentation and reporting procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-1715-0725

Electronic Warfare (EW) Operations Phase II

Course Number: 231-ASIK3.

Location: Intelligence School, Ft. Devens, MA.

Length: 8-9 weeks (353 hours).

Exhibit Dates: 10/84-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain electronic countermeasuring equipment and radio receiver sets for purposes of communications jamming, data collection, and data reporting.

Instruction: Lectures, demonstrations, and performance exercises in basic radio communication theory, the operation and maintenance of electronic countermeasuring equipment and radio receiver sets, and technical documentation and reporting procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-1715-0726

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)

Course Number: 233-98J30.

Location: Intelligence School, Ft. Devens, MA.

Length: 12 weeks (448 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and manage personnel in the interception of electro-optic signals including the preparation of reports, selection of operations sites, and the interpretation and analysis of technical data and reports, be familiar with basic radar operating principles, radio wave propagation and reception.

Instruction: Instruction includes lectures, demonstrations, and performance exercises in office practice, personnel supervision, report preparation, map reading, radar systems and theory and radar signal analysis. For course prior to 10/85, see AR-1715-0003.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management procedures and 2 in introduction to radar systems (5/87).

AR-1715-0727

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical

Course Number: 232-98G3LXX.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-7 weeks (251 hours).

Exhibit Dates: 11/82-3/86.

Learning Outcomes: Upon completion of the course, the student will be able to manage voice signal collection and processing activities, performs analysis of non-clear and non-voice signals, operate equipment to collect and record complex voice/radio transmissions, assume operations management and supervisory responsibilities in voice signal interceptions.

Instruction: Instruction includes lectures, AV presentations, case studies, seminars, and performance exercises in personnel management, office management procedures and supervisory techniques in the collection and analysis of signal intelligence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operations management, supervision of maintenance management personnel and 1 in office management procedures (5/87).

AR-1715-0728

Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)

Course Number: 232-98G3LXX.

Location: Intelligence School, Ft. Devens, MA.

Length: 13-14 weeks (490).

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to manage voice signal collection and processing activities, perform analysis of non-clear and non-voice signals in a specific foreign language, operate equipment to collect and record specific language radio transmission, assume operations management and supervisory responsibilities in voice signal interception.

Instruction: Lectures, audio-visual presentations, case studies, seminars and performance exercises in personnel management, office management procedures, supervision techniques in voice signal collection, and foreign language transcription capability.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in operations management, supervision of maintenance management personnel, and 1 in office management procedures (5/87).

Related Occupation Codes: 98G.

AR-1715-0729

Foreign Instrumentation Signals Externals Analysis

Course Number: 233-ASIJ1.

Location: Intelligence School, Ft. Devens, MA.

Length: 8-9 weeks (299-360 hours).

Exhibit Dates: 2/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify missile and earth satellite vehicle designs, components, functions, and capabilities by the analysis of telemetry signals, and use assorted reporting techniques.

Instruction: Lectures, audio-visual presentations, and performance exercises in missile identification, knowledge of earth satellite vehicle charactersitics, and reporting procedures involving signal analysis.For the course prior to 1987, see AR-1715-0137.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/88).

AR-1715-0730

Quicklook II Operator

Course Number: 233-F8.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (135–136 hours).

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate an automated data processing terminal to build files and generater reports, initialize the system, process and edit the data and prepare reports.

Instruction: Lectures, demonstration, and hands-on training in file preparation, file management, preparation of mission files and reports. For course prior to 1983, see AR-1715-0537.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer familiarization (3/88).

AR-1715-0731

Telemetry Internals Analysis

Course Number: 233-ASIZ7.

Location: Intelligence School, Ft. Devens, MA.

Length: 5–6 weeks (200–208 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify missile and earth satellite vehicle design, components, function and capabilities by the analysis of telemetry signals, and use assorted reporting techniques.

Instruction: Lectures, audio-visual presentations, and performance exercises in missile identification, earth satellite vehicles and reporting procedures involving signal analysis.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-1715-0732

Token Payment 1A/B (R-2174) Maintenance

Course Number: 102-F56.

Location: Intelligence School, Ft. Devens, MA.

Length: 2 weeks (64 hours).

Exhibit Dates: 2/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform general support maintenance on the R-2174 receiver and interface units associated with the token payment 1A/B system.

Instruction: Practical training in the alignment, troubleshooting, repair, and maintenance of the token payment 1A/B system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment repair (5/87).

AR-1715-0733

AN/TSQ-133 Special Purpose Receiving System (Tracechain) Maintenance

(Tracechain AN/FSQ-133 Special Purpose Receiving System Maintenance)

Course Number: 102-F61.

Location: Intelligence School, Ft. Devens, MA; Field Station, Camp Humphries, Korea.

Length: 18–19 weeks (712 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, test and troubleshoot the AN/FSQ-133 Special Purpose Receiving System (Tracechain) utilizing standard and specialized software routines to locate faults and identify lowest replaceable units.

Instruction: Instruction in the operation, maintenance, troubleshooting, and repair of the PDP11/73 with VCO receivers, spectrum controlled 64KB command link, Tracechain switch matrix using RTOSS with application/diagnostic software. For the course prior to 1987, see AR-1715-0412.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer systems troubleshooting and repair (12/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems maintenance (12/87).

AR-1715-0734

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)

Course Number: 232-98C30.

Location: Security School, Ft. Devens, MA.

Length: 10–14 weeks (379–0502 hours).

Exhibit Dates: 3/86–Present.

Learning Outcomes: The student will be able to read, construct, and use maps; prepare technical reports; recover encryption systems; perform critical mode analysis; perform quality control on product reports, and manage data bases.

Instruction: Instructions and exercises in map reading, technical report preparation, quality control on product reports, encryption system relocation and recovery, and data base management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in office management procedures, 1 in microbased applications (10/88).

Related Occupation Codes: 98C.

AR-1715-0735

Improved Hawk Fire Control Mechanic Basic Noncommissioned Officer (NCO)

(Improved Hawk Fire Control Mechanic Basic Technical)

Course Number: 121-24F30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5–8 weeks (216–271 hours).

Exhibit Dates: 6/85–2/89.

Objectives: To train enlisted personnel in the techniques necessary to isolate and repair faults on missile equipment and to provide skills to supervise and evaluate missile system maintenance.

Instruction: For the common core, see AR-1406-0090. Lectures and practical exercises on military leadership as well as maintenance of Hawk fire control and fire section equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic troubleshooting and maintenance (11/88). For the Common Core, see exhibit AR-1406-0090.

AR-1715-0736

Improved Hawk ICC Mechanic Basic Technical

Course Number: 104-24G30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 6-8 weeks (216–271 hours).

Exhibit Dates: 6/85–9/87.

Objectives: To train enlisted personnel in the techniques necessary to isolate and repair faults on missile equipment and to provide skills to supervise and evaluate missile system maintenance.

Instruction: For this course after 9/87 see AR-1715-0805. Lectures and practical exercises on military leadership as well as maintenance of Hawk fire control and fire section equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and maintenance (11/86). See AR-1406-0090 for Common Core.

AR-1715-0737

Equipment Operation/Maintenance Test Set, Guided Missile System (TOW-Ground)

Course Number: 121-ASIJ9(RC).

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 2 weeks (72 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair a guided missile test set.

Instruction: Lectures and practical exercises on the test set.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/88).

AR-1715-0738

Hawk Continuous Wave (CW) Radar Repairer

Course Number: 104-24K10.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 29–33 weeks (1152–1180 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to solve series/parallel resistive networks, and use test equipment to measure these quantities; apply the concepts of AC electricity to capacitors and resistors; understand and analyze the operation of transisitors, amplifiers, power supplies, oscillators, voltage regulators, and nonlinear transistor circuits; use binary, hexadecimal, and octal numbers; analyze circuits containing logic gates, counters, registers, adders, encoders, decoders, multiplexers, flip-flops, and analog/digital converters; understand and apply the principles of computer organization and microprocessors including register structure, memory, I/O, and addressing; write simple assembly language programs; use standard laboratory equipment to measure and test analog and digital circuits and systems; measure and operate basic microwave devices; troubleshoot and repair a complex military radar system.

Instruction: For this course before 10/87 see AR-1715-0223. Theory and practical exercises in the fundamentals of AC/DC circuits, transistor circuits, digital electronics, computers, microprocessors, and microwaves. Includes soldering techniques and detailed troubleshooting and repair of a complex military radar system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques (10/89); in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 5 in solid state circuits, 1 in vacuum tube electronics, 3 in digital principles, 3 in microprocessors, 3 in computer systems and organization, 1 in radar systems, and 1 in electronic systems troubleshooting and maintenance (10/89).

Related Occupation Codes: 24K.

AR-1715-0739

Hawk Fire Control Repairer

Course Number: 104-24H10.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 51 weeks (1854 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand principles of DC/AC circuits including Ohm's Law, series/parallel circuits, voltage dividers and resonance; understand basic behavior of solid state devices such as transistors and zener diodes, and circuits such as RC-coupled amplifiers, oscillators, multivibrators and power supplies; will be able to use typical test equipment in troubleshooting; understand basics of digital computers including binary, octal and hex arithmetic, AND/OR gates, flip-flops, counters, registers, arithmetic units, and A/D converter; explain I/O principles, and use of typical memory devices; understand principles of stored-program computer operations; explain operation of sweep generators, limiters, video amplifier and voltage regulator using both solid state devices and vacuum tubes; repair electronic equipment using approved soldering tools and techniques on chassis, printed circuit board, and cables; understand and operate microprocessor-based equipment using assembly language programming; understand principles of troubleshooting using logic probes and signature analyzer; troubleshoot and repair complex military equipment.

Instruction: For this course before 10/87 see AR-1715-0198. Lectures and laboratory exercises including computer-directed lessons and tests. Detailed studies involving maintenance of complex military radar equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 4 in solid state devices, 1 in vacuum tube principles, 3 in digital principles, 3 in computer systems and organization, 3 in electronic systems troubleshooting and maintenance, and 3 in microprocessors (4/88).

Related Occupation Codes: 24H.

AR-1715-0740

Hawk Launcher and Mechanical
Systems Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 121-24L30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: 17-18 weeks (630 hours).

Exhibit Dates: *Version 1:* 7/88-Present. *Version 2:* 4/86-6/88.

Learning Outcomes: Upon completion of the course the student will be able to use binary, octal and hexadecimal numbers; understand the function of boolean gates and flip-flops; analyze the operation of encoders, decoders, registers, counters, arithmetic units, and D/A, A/D converters; understand the operation of a digital computer to the ALU and register level; write and debug machine language programs; analyze and troubleshoot computer circuits and systems; troubleshoot and maintain a computer-based missile control system.

Instruction: Course contains a common core of leadership subjects. See AR-1406-0090. Lectures and practical experience covering digital logic, computer ALU and control circuits, and machine language programming, analysis, maintenance, and repair of computer-based missile control systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital principles, 5 in computer systems and organization and 3 in electronic systems troubleshooting and maintenance (4/88). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 24L.

AR-1715-0741

Hawk Fire Control Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 104-24H30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 12-13 weeks (463 hours). *Version 2:* 11-12 weeks (430-455 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 4/86-3/90.

Learning Outcomes: Upon completion of the course the student will be able to understand and apply the following computer concepts to microprocessor-based systems: microprocessors, address decoding, memory, instruction sets, software and troubleshooting. The student will be able to troubleshoot and repair a complex military fire control system.

Instruction: Course includes a common core. See AR-1406-0090. Theory and practical exercises in the fundamentals of microprocessors and microprocessor-based computer systems. Detailed study of a complex military missile control system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in microprocessors and 3 in electronic systems troubleshooting and maintenance (4/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 24H.

AR-1715-0742

1. Hawk Field Maintenance
   Equipment/Pulse Acquisition
   Radar Repairer Basic
   Noncommissioned Officer (NCO)
2. Hawk Pulse Radar Repairer Basic
   Noncommissioned Officer (NCO)

Course Number: 104-24J30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 17-18 weeks (670 hours). *Version 2:* 19 weeks (696-725 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 4/86-3/90.

Learning Outcomes: Upon completion of the course the student will be able to understand and apply the following computer concepts to microprocessor-based systems: microprocessors, address decoding, memory, instruction sets, software and troubleshooting. The student will be able to troubleshoot and repair a complex military radar system.

Instruction: Course includes a common core. See AR-1406-0090. Theory and practical exercises in the fundamentals of microprocessors and microprocessor-based computer systems. Detailed study of a complex military missile control system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in microprocessors and 3 in electronic systems troubleshooting and maintenance (9/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 24J.

AR-1715-0743

Hawk Continuous Wave (CW) Radar
Repairer Basic Noncommissioned
Officer (NCO)

Course Number: 104-24K30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 15-16 weeks (593 hours). *Version 2:* 15 weeks (551-580 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 2/86-3/90.

Learning Outcomes: Upon completion of the course the student will be able to understand and apply the following computer concepts to microprocessor-based systems: microprocessors, address decoding, memory, instruction sets, software and troubleshooting. The student will be able to troubleshoot and repair a complex military missile control system.

Instruction: Course includes a common core. See AR-1406-0090. Theory and practical exercises in the fundamentals of microprocessors and microprocessor-based computer systems. Detailed study of a complex military missile control system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in microprocessors and 3 in electronic systems troubleshooting and maintenance (9/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 24K.

AR-1715-0744

Hawk Pulse Radar Repairer
Transition

Course Number: 104-24J10/20/30(T).

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 8-9 weeks (308 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify components and major functional blocks by use of schematics and manuals; and perform service checks and repairs on complex military electronic equipment using specialized test equipment.

Instruction: Lectures and practical exercises involving specific military equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (4/88).

Related Occupation Codes: 24J.

AR-1715-0745

1. Hawk Field Maintenance
   Equipment/Pulse Acquisition
   Radar Repairer
2. Hawk Pulse Radar Repairer

Course Number: 104-24J10.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.
Length: *Version 1:* 46 weeks (1669 hours). *Version 2:* 46-47 weeks (1663 hours).
Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 11/87-12/88.
Learning Outcomes: Upon completion of the course the student will be able to understand principles of DC/AC circuits including Ohm's Law, series/parallel circuits, voltage dividers and resonance; understand basic behavior of solid state devices such as bipolar transistors, field-effect transistors, and zener diodes, and circuits such as RC-coupled amplifier, oscillators, multivibrators, and power supplies; will be able to use typical test equipment in troubleshooting; understand the basics of digital computers, including binary, octal, and hexadecimal arithmetic, AND/OR gates, flip-flops, counters, registers, arithmetic units, and analog/digital converters; explain I/O principles and use of typical memory devices; understand principles of stored-program computer operation; explain operation of sweep generators, limiters, video amplifiers, and voltage regulators, using both solid state devices and vacuum tubes; repair electronic equipment using approved soldering tools and techniques on chassis, printed circuit boards and cables; troubleshoot and repair complex military equipment. For this course before 11/87, see AR-1715-0222.
Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and laboratory exercises including computer directed lessons and tests. Includes detailed study of military radar equipment.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 4 in solid state devices, 1 in vacuum tube principles, 3 in digital principles, 2 in computer systems and organization and 3 in electronic systems troubleshooting and maintenance (4/88).
Related Occupation Codes: 24J.

AR-1715-0746

1. Patriot System Repairer Phases I and Phase 2
2. Intermediate Maintenance Patriot Missile System Phases I and II

Course Number: *Version 1:* 632-27X2/3/4. *Version 2:* 632-ASIT5.
Location: *Version 1:* Phase 1, Ordnance Missile and Munition School, Redstone Arsenal, AL. Phase 2, Missile and Munitions School, Ft. Bliss, TX. *Version 2:* Phase I, Ordnance, Missile, and Munitions School, Redstone Arsenal, AL. Phase II, Air Defense Artillery School, Ft. Bliss, TX.
Length: *Version 1:* Phase 1, 19-20 weeks (698 hours); Phase 2, 38-39 weeks (1378 hours). *Version 2:* Phase I, 19-20 weeks (694 hours); Phase II, 40 weeks (1440 hours).
Exhibit Dates: *Version 1:* 6/90-Present. @@ 1/87-5/90.
Learning Outcomes: Upon completion of the course, the student will be able to apply Ohm's law to solve series and parallel resistive circuits; use test equipment to measure DC circuit quantities; understand the concepts of AC electricity and apply these concepts to the circuit behavior of inductors, capacitors and combinations of resistors, inductors, and capacitors; use test equipment to generate and measure AC quantities; understand the behavior of BJT and FET transistor devices, and the operation of amplifiers, power supplies, oscillators, and nonlinear circuits containing these devices; apply standard soldering and wire-wrap repair techniques; understand the concepts of binary, octal, and hexadecimal numbers, boolean AND,OR, NOR, XOR operators, and flip-flops; analyze the operation of digital circuits including decoders, encoders, registers, counters, and D/A, A/D converters; understand the operation of digital computers to the ALU and control register level; understand the operation of microprocessor-based computers to the subsystem and component level; write and debug assembly language programs and apply standard diagnostic software and hardware techniques to find faults at the system and component level; understand the basic operation of microwave devices and systems; maintain, operate and troubleshoot a computer-based weapon system and associated radar systems.
Instruction: Lectures and laboratory exercises. Field exercises utilize simulated problems on complex military computer- and radar-based systems. Course is for enlisted personnel.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, for phase 1, 2 semester hours in solder and wirewrap techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 4 in solid state electronics, 3 in digital principles, 3 in computer systems and organization, and 4 in microprocessors. For phase II, in the lower-division baccalaureate/associate degree category, 9 semester hours in computer systems troubleshooting and maintenance and 2 in radar systems (4/88).

AR-1715-0747

Lance Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 121-27L30.
Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.
Length: 7-8 weeks (277 hours).
Exhibit Dates: 8/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to use binary, hexadecimal, and octal numbers; analyze circuits containing logic gates, counters, registers, adders, encoders, decoders, multiplexers, flip-flops and analog/digital converters; perform precision soldering; and operate a missile maintenance unit.
Instruction: For this course before 8/88 see AR-1715-0643. Course includes a common core of leadership subjects. See AR-1406-0090. Lectures and practical exercises in digital electronics, soldering, and operation of a missile maintenance unit.
Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance and 3 in digital principles (10/88). For credit for the common core see AR-1406-0090.
Related Occupation Codes: 27L.

AR-1715-0748

Land Combat Support System Test
Specialist

Course Number: 121-27B10.
Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.
Length: 31 weeks (1154 hours).
Exhibit Dates: 9/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to apply Ohm's Law to the solution of series and parallel resistive circuits; use test equipment to measure DC circuit quanitites; understand the concepts of AC electricity and apply these concepts to the circuit behavior of inductors, capacitors, and combinations of resistors, inductors, capacitors; use test equipment to generate and measure AC quanitites; understand the behavior of BJT and FET transistor devices, and the operation of amplifiers, power supplies, oscillators, and nonlinear circuits containing these devices; understand the concepts of binary, octal, and hexadecimal numbers, boolean AND, OR, NOR and XOR operators and flip-flops; understand the operation of counters, encoders, decoders, shift registers, A/D and D/A circuits; test, maintain, and repair electronic test sets, assemblies, and subassemblies which support various weapon systems.
Instruction: Lectures and practical exercises in DC/AC electricity, semiconductor devices and digital circuit fundamentals. Course includes exercises in Dragon, Lance, Shillelagh, and TOW missile systems. Includes soldering.
Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 3 in digital principles, 4 in solid state electronics, and 3 in electronic systems troubleshooting and maintenance (4/88).
Related Occupation Codes: 27B

AR-1715-0749

Multiple Launch Rocket System
(MLRS) Repairer Basic
Noncommissioned Officer (NCO)

Course Number: 121-27M30.
Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.
Length: 7-8 weeks (273-277 hours).
Exhibit Dates: 7/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to understand the concepts of binary, octal, and hexadecimal numbers, boolean functions, and the realization of these functions by gates and flip-flops; analyze the operation of encoders, decoders, registers, arithmetic units and A/D, D/A converters; apply standard soldering procedures.
Instruction: Lectures and practical exercises in digital logic devices and circuits. Practice on basic soldering techniques. Course contains a common core; see AR-1406-0090.
Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in digital principles (4/88). For credit for the common core see AR-1406-0090.
Related Occupation Codes: 27M.

AR-1715-0750

Nuclear Weapons Technician
Certification

Course Number: 4E-260A.
Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.
Length: *Version 1:* 16-17 weeks (603 hours). *Version 2:* 20-21 weeks (754 hours).
Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 3/86-9/88.

Learning Outcomes: Upon completion of the course the student will be able to understand basic characteristics of DC/AC circuits including Ohm's law, series/parallel circuits, resonance; comprehend behavior of transistors; understand three-phase transformers and three-phase power supplies; perform repairs on electronic equipment using approved soldering techniques.

Instruction: For this course before 3/86 see exhibit AR-1715-0367. Lectures and practical exercises on topics in AC/DC circuits, soldering, and military subjects.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits and 1 in AC circuits (4/88).

Related Occupation Codes: 260A.

AR-1715-0751

PERSHING ELECTRONICS REPAIRER BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 121-21L30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: 10 weeks (375 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the concepts of binary, octal, and hexidecimal numbers, boolean operators, and the realization of these functions in gates and flip-flops; analyze encoders, decoders, registers, A/D and D/A converters; understand the operation of digital computers to the ALU register level; write and debug machine language programs for computers and microprocessors; analyze malfunctions of computer circuits and systems. Course includes a common core of leadership subjects, see **AR**-1406-0090.

Instruction: Lectures demonstrations and practical exercises on the subject matter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in digital principles, 3 in computer systems and organization and 3 in microprocessors (4/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 21L.

AR-1715-0752

PERSHING ELECTRONICS REPAIRER

Course Number: 121-21L10.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 32–33 weeks (1185 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply Ohm's law to the solution of series and parallel resistive networks; use test equipment to measure DC circuit quantities; understand the concepts of AC electricity and apply these concepts to the circuit behavior of inductors, capacitors, and combinations of resistors, inductors, and capacitors; use test equipment to generate and measure AC quantities; understand the behavior of BJT and FET transistor devices, and the operation of amplifiers, power supplies, oscillators, and nonlinear circuits containing these devices; use binary, octal, and hexadecimal numbers to analyze circuits containing combinational gates and flip-flops including decoders, encoders, registers, counters, and A/D, D/A converters; test, maintain, and repair electronic test sets, assemblies, and subassemblies which support the Pershing missile system.

Instruction: Lectures and practical erercises in Pershing missile electronic assemblies operation, maintenance and repair, including electronic fundamentals, missile electronics, electronic equipment maintenance, safety, portable test equipment, systems analysis, and shop operation. Includes soldering.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 4 in solid state electronics, 3 in digital principles and 3 in electronic systems troubleshooting and maintenance (4/88).

Related Occupation Codes: 21L.

AR-1715-0753

PHASE I AND PHASE II PATRIOT SYSTEM INTERMEDIATE MAINTENANCE TECHNICIAN

Course Number: 4F-F17.

Location: Phase I, Ordnance, Missile and Munitions School, Redstone Arsenal, AL. Phase II, Air Defense Artillery School, Ft. Bliss, TX.

Length: Phase I, 13–14 weeks (496 hours). Phase II, 37–38 weeks (1357 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand digital principles including number systems, logic gates, registers, counters, and logic analysis; comprehend behavior of complex electronic devices and techniques such as digital signal processor, fiber optics, and time domain reflectometry; repair electronic equipment using approved soldering techniques and wirewrap procedures; understand computer system organization including flow charts, instruction sets, machine language and peripherals; troubleshoot and repair faults in complex digital computer system; operate complex test equipment such as logic analyzer, signature analyzer, and spectrum analyzer; operate, troubleshoot and repair microwave communication and radar equipment.

Instruction: Lectures, laboratory exercises and field exercise utilizing simulated problems on complex military computer equipment. Course is for warrant officers.

Credit Recommendation: In the vocational certificate category, for phase 1, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in digital principles, 3 in computer systems and organization and 4 in microprocessors; for phase II, in the lower-division baccalaureate/associate degree category, 9 semester hours in computer systems troubleshooting and maintenance and 2 in radar systems (4/88).

AR-1715-0754

TOW2 REPAIRER TRANSITION

Course Number: 4F-F14/121-F29.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 2–3 weeks (86–87 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to test, troubleshoot and repair a military weapon system.

Instruction: Classroom and practical exercises on a specific weapon system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/88).

AR-1715-0755

TOW/DRAGON REPAIRER

Course Number: 121-27E10 (RC).

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: Total 2 years, resident 5 weeks (total 380 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course the student will understand basic behavior of electricity and safety considerations; comprehend characteristics of components, including resistors, capacitors, inductances, diodes, and transformers; troubleshoot and repair military electronics equipment.

Instruction: Home study of electronics topics. Resident study of military-specific equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in fundamentals of electricity (4/88).

Related Occupation Codes: 27E.

AR-1715-0756

VULCAN REPAIRER BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 121-27F30.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 11 weeks (399–421 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand concepts of microprocessor software and hardware including number systems, address decoding, and use of memory and peripherals; perform troubleshooting and maintenance on complex military electronics equipment.

Learning Outcomes: After 6/87 the course contains a common core of leadership subjects. See AR-1406-0090. Lectures and practical exercises involving typical microprocessor equipment. Includes soldering.

Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in microprocessors and 3 in electronic systems troubleshooting and maintenance (4/88). For credit for the common core (offered after 6/87), see AR-1406-0090.

Related Occupation Codes: 27F.

AR-1715-0757

VULCAN REPAIRER TRANSITION

Course Number: 4F-F16/121-F30.

Location: Ordnance, Missile, and Munitions School, Redstone Arsenal, AL.

Length: 6 weeks (216 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain a military gun system.

Instruction: Lectures and practical exercises on operation and maintenance of a military gun system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/88).

AR-1715-0758

VULCAN REPAIRER

Course Number: 121-27F10.

Location: Ordnance, Missile and Munitions School, Redstone Arsenal, AL.

Length: 32–33 weeks (1233 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to solve series/parallel resistive circuits; apply the concepts of AC electricity to the circuit behavior of inductors, capacitors, and resistors; understand and analyze the operation of transistors, amplifiers, power supplies, oscillators, voltage regulators, and nonlinear transistor circuits; use binary, octal, and hexadecimal numbers; analyze circuits containing logic gates, counters, registers, adders, encoders, decoders, multiplexers, flip-flops, and analog/digital converters; measure and operate basic microwave devices; use standard laboratory equipment to measure and test analog and digital circuits and systems; troubleshoot and repair a complex military fire control and radar system.

Instruction: For this course before 10/87 see AR-1715-0532. Theory and practical exercises in the fundamentals of AC/DC circuits, transistor circuitry, and digital electronics. Includes soldering techniques and detailed troubleshooting and repair of complex military radar and fire control equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 1 in AC circuits, 4 in solid state electronics, 2 in digital principles, 1 in radar systems, and 3 in electronic systems troubleshooting and maintenance (4/88).

Related Occupation Codes: 27F.

AR-1715-0759

MEDICAL EQUIPMENT REPAIRER (UNIT LEVEL)

Course Number: 4B-F2/198-35G10.

Location: Medical Equipment and Optical School, Aurora, CO.

Length: 38 weeks (1524 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to solve resistive series/parallel DC circuits; analyze circuits containing capacitors and inductors; solve series and parallel resonance circuits; analyze diode and transistor circuits including power amplifiers, operational amplifiers, and oscillators; analyze digital circuits including gates, flip-flops, and counters; troubleshoot and maintain a number of specific pieces of biomedical equipment including special refrigerator, centrifuge, untrasonic cleaner, sterilizer, blood cell counter, analyzer, blood gas apparatus, coagulation analyzer, spectrophotometer, defribrillator, electrocardiograph, x-ray systems, respirator, and microscope. Student will also be able to identify major human anatomical features and physiological systems.

Instruction: For this course before 9/87 see AR-1715-0316. Theory and practical exercises on AC/DC circuits, solid state electronics, digital electronics, and a wide variety of pieces of biomedical equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 2 in AC circuits, 4 in solid state electronics, 1 in digital principles, 9 in biomedical equipment troubleshooting and maintenance and 1 in basic anatomy (4/88).

Related Occupation Codes: 35G.

AR-1715-0760

AUTOMATIC DATA TELECOMMUNICATIONS CENTER OPERATOR TRANSITION

Course Number: 260-72G10 (T).

Location: Signal School, Ft. Gordon, GA.

Length: 3–4 weeks (120 hours).

Exhibit Dates: 3/87–12/88.

Learning Outcomes: Upon completion of the course the student will be able to process narrative and data pattern messages, edit, transmit, receive messages using computer terminal equipment, maintain message center logs, operate keypunch equipment, standard remote terminals and supporting communications security equipment.

Instruction: Classroom and practical exercises centered on automatic data telecommunications and communications security equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/88).

Related Occupation Codes: 72G.

AR-1715-0761

INTERMEDIATE LEVEL MAINTENANCE OF AN/MSM-105(V)1

Course Number: 198-ASIW3.

Location: Signal School, Ft. Gordon, GA.

Length: 18 weeks (686 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot automatic test systems with the aid of manual fault isolation procedures if the internal self-diagnostic program fails. The student will repair automatic test equipment, printed circuit boards, wiring harnesses and cables.

Instruction: Classroom instruction on various number systems is included. Laboratory simulations are done using trainers for various computer systems. Training includes instruction in the procedures necessary to assure quality.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 3 in digital principles, 2 in computer systems and organization, 4 in computer troubleshooting and maintenance, and 1 in electronic systems troubleshooting and maintenance (6/88).

AR-1715-0762

RADIO TERMINAL/REPEATER SET OPERATIONS MAINTENANCE

Course Number: 201-ASIR6.

Location: Signal School, Ft. Gordon, GA.

Length: 4–5 weeks (168 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, operate, troubleshoot, and perform organizational maintenance on line-of-sight radio terminal, repeater, and the quick erect expandable mast.

Instruction: Classroom and practical exercises on radio terminal/repeater sets.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/88).

AR-1715-0763

COMMUNICATIONS SECURITY (COMSEC) TSEC/ST-58 REPAIR

Course Number: 160-F32.

Location: Signal School, Ft. Gordon, GA.

Length: 10–11 weeks (432 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze and troubleshoot digital and microprocessor based circuits as well as have the ability to troubleshoot a specific military computer.

Instruction: Classroom and practical exercises on topics in digital electronics, microprocessors, and the military computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 in digital principles, 2 in microprocessors, and 3 in computer systems troubleshooting and maintenance (6/88).

AR-1715-0764

FIXED COMMUNICATIONS SECURITY (COMSEC) EQUIPMENT FULL MAINTENANCE

Course Number: 160-ASIG8.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 6–7 weeks (231 hours). *Version 2:* 16–17 weeks (602 hours).

Exhibit Dates: *Version 1:* 1/89–Present. *Version 2:* 6/87–12/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be to explain the basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; solder and desolder electronic components to printed circuits boards; and maintain, troubleshoot and repair a specific military communications system. *Version 2:* Upon completion of the course the student will be able to troubleshoot, perform preventive maintenance, and repair fixed communications security equipment such as transmitters, receivers, power supplies, alarm circuits, and key generators. In addition, the student will be able to perform common precision soldering.

Instruction: Instruction is provided in classroom presentations, laboratory exercises, and by troubleshooting and testing communications security equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in solid state electronics, 1 in basic electronics laboratory, and 2 in electronic systems troubleshooting and maintenance (7/89). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics laboratory, 2 in digital principles, 2 in solid state electronics, and 2 in electronic systems troubleshooting and maintenance (6/88).

AR-1715-0765

MULTICHANNEL COMMUNICATIONS EQUIPMENT SUPERVISOR, INDIVIDUAL READY RESERVE

Course Number: 202-F5 (IRR).

Location: Signal School, Ft. Gordon, GA.

Length: 2 week (120 hours).

Exhibit Dates: 10/87–10/89.

Learning Outcomes: Upon completion of the course the student will be able to direct the installation, operation, troubleshooting, and operator maintenance of multichannel communications systems and associated equipment.

Instruction: Classroom and practical exercises centered on the communications system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/88).

AR-1715-0766

FORCE MODERIZATION-RESERVE COMPONENT

Course Number: 4C-F25.
Location: Signal School, Ft. Gordon, GA.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/87–12/88.

Learning Outcomes: Upon completion of the course the student will have an overall knowledge of possible communications systems of the future, doctrine, and Signal Corps training for possible air/land battle.

Instruction: Course covers a review of the current status of combat communication systems, need for and status of signal security, and a review of future Army communications systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course. (6/88).

AR-1715-0767

AN/TYC-39(V) I/O MAINTENANCE (USAF)

Course Number: 150-F14.
Location: Signal School, Ft. Gordon, GA.
Length: 8–9 weeks (320 hours).
Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a specific piece of telephone automatic message switching equipment; able to perform line installation procedures, patch procedures, and data entry; able to troubleshoot associated peripheral equipment.

Instruction: Classroom and practical exercises focused on equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/88).

AR-1715-0768

AN/TTC-39A O/I MAINTENANCE

Course Number: 150-F13.
Location: Signal School, Ft. Gordon, GA.
Length: 9–10 weeks (360 hours).
Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair a piece of automatic central offfice telephone equipment.

Instruction: Instruction is presented by classroom and by practical experience in troubleshooting, testing, and data base entries using the above equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/88).

AR-1715-0769

COMMUNICATIONS-ELECTRONICS ENGINEERING AND AUTOMATION OFFICER

Course Number: 4C-FOA-F29.
Location: Signal School, Ft. Gordon, GA.
Length: 3 weeks (110 hours).
Exhibit Dates: 11/86–12/88.

Learning Outcomes: Upon completion of the course the student will be prepared to enter the teleprocessing operations course or the communications engineering course at the Air Force Institute of Technology or the continuing education program (Master's degree).

Instruction: Instruction is provided in a common core (annex A) that covers digital logic, calculus and differential equations, probability, statistics and principles of computer systems. Annex B (computer track) covers small computer architecture, automation principles, and operating systems. Annex C (engineering track) covers complex variables, linear algebra, signal processing and principles of electronic communication. Either track B or C is taken.

Credit Recommendation: For annex A (common core), in the upper-division baccalaureate category, 2 semester hours in digital logic design. For annex B, in the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems architecture and organization. Additional credit is not recommended for annex C (6/88).

AR-1715-0770

SIGNAL OFFICER ADVANCED

Course Number: 4-11-C22-25C.
Location: Signal School, Ft. Gordon, GA.
Length: 20 weeks (715–724 hours).
Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will fill a staff position at a signal battalion, brigade, or company level command with emphasis on communications-electronics operations.

Instruction: For this course before 10/86 see AR-1715-0319. Lectures in combined arms subjects including air/land battle doctrine, communications systems planning, management and control, digital and analog engineering operations, communications interfaces. Military subjects include electronic warfare, NBC defense, leadership, personnel administration, property accounting, training management, force integration, military justice, and tactics and doctrine.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/89).

AR-1715-0771

FIXED COMMUNICATION SECURITY (COMSEC) SUPERVISOR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 160-29F30.
Location: Signal School, Ft. Gordon, GA.
Length: 8 weeks (288 hours)
Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to lead and supervise personnel engaged in the maintenance of communication security equipment.

Instruction: Classroom and practical exercise on topics including leadership, map reading, air-land battle, maintenance management, and shop practice. Course contains a common core. See AR-1406-0090.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (6/89).

Related Occupation Codes: 29F.

AR-1715-0772

FIELD COMMUNICATION SECURITY (COMSEC) MAINTENANCE SUPERVISOR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 160-29S30.
Location: Signal School, Ft. Gordon, GA.
Length: 8 weeks (288 hours)
Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to lead and supervise personnel engaged in the maintenance of communication security equipment.

Instruction: Classroom and practical exercise on topics including leadership, map reading, air-land battle, maintenance management, and shop practice. Course contains a common core. See AR-1406-0090.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (6/89).

Related Occupation Codes: 29S.

AR-1715-0773

SATELLITE COMMUNICATIONS (SATCOM) TERMINAL AN/FSC-78 AND AN/GSC-39.

Course Number: 102-ASIP1.
Location: Signal School, Ft. Gordon, GA.
Length: 15 weeks (540 hours).
Exhibit Dates: 2/87–12/88.

Learning Outcomes: Upon completion of the course the student will be able to operate and perform system operational checkouts, alignment, and limited maintenance on the satellite communications terminals listed above.

Instruction: Course includes operation, alignment, and repair of satellite communications terminals, digital communications subsystems, time division multiplexers, uplink/downlink equipment, satellite tracking, servoelectronic and control equipment, control monitor and alarm equipment and the antenna system. For this course before 2/87, see AR-1715-0609.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of satellite communications systems (6/88).

AR-1715-0774

SATELLITE COMMUNICATIONS (SATCOM) TERMINAL AN/GSC-52(V)

Course Number: 102-ASIQ7; 102-ASIQ7 (CT).
Location: Signal School, Ft. Gordon, GA.
Length: 7–8 weeks (273–281 hours).
Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will have an overall knowledge of the satellite communications terminal, its operational characteristics, and necessary preventive maintenance.

Instruction: Lectures and practical exercises cover the overall design, operation, and preventive maintenance of the SATCOM terminal.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of satellite communication systems (6/89).

Related Occupation Codes: 29Y.

AR-1715-0775

RADIO TERMINAL/REPEATER SET OPERATOR

Course Number: 202-ASIY1 (31M).
Location: Signal School, Ft. Gordon, GA.
Length: 4 weeks (144 hours).
Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, operate, troubleshoot, and perform unit-level maintenance on a radio set.

Instruction: Classroom and practical exercises centered around the specific radio equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (5/90).

AR-1715-0776

TACTICAL SATELLITE COMMUNICATIONS (SATCOM) SYSTEMS OPERATOR-TRANSITION

Course Number: 202-ASIY1 (31Q).
Location: Signal School, Ft. Gordon, GA.
Length: 2 weeks (76 hours).
Exhibit Dates: 1/88-10/89.
Learning Outcomes: Upon completion of the course the student will be able to install, operate, and perform operator maintenance on a particular piece of tactical satellite communications equipment.
Instruction: Classroom and practical exercises centered around the equipment.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/88).

AR-1715-0777

COMMUNICATIONS SYSTEM CIRCUIT CONTROLLER

Course Number: 101-32D10.
Location: Signal School, Ft. Gordon, GA.
Length: 19 weeks (684 hours).
Exhibit Dates: 9/87-1/89.
Learning Outcomes: Upon completion of the course the student will be able to determine in-service and out-of-service circuit and systems conditions through the use of patch panels, monitoring aids, signal generators, meters, oscilloscopes, counters, telephone sets, spectrum analyzers, measuring sets, and distortion analyzers.
Instruction: Classroom, laboratory experiences, demonstrations, and hand-on training on specific defense communications systems. For this course before 9/87, see AR-1715-0135.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 1 in digital principles, 1 in solid state electronics, and 4 in electronic systems troubleshooting and maintenance (6/88).
Related Occupation Codes: 32D.

AR-1715-0778

AUTOMATIC TELEPHONE CENTRAL AN/TCC-38(V) REPAIR
(Automatic Telephone Central AN/TCC-38 Repair)

Course Number: 622-F29; 622-F22 (36L); 622-ASIP2.
Location: Signal School, Ft. Gordon, GA.
Length: 12 weeks (437-459 hours).
Exhibit Dates: 8/83-Present.
Learning Outcomes: Upon completion of the course the student will be able to install and perform general support maintenance on the automatic telephone central office AN/TCC-38(V).
Instruction: Instruction includes classroom and laboratory experience necessary to service the equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (11/89).

AR-1715-0779

SPECIAL ELECTRONIC DEVICES REPAIR

Course Number: 198-39E10.
Location: Signal School, Ft. Gordon, GA.
Length: 25-28 weeks (933-1008 hours).
Exhibit Dates: 2/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to repair special electronic devices through general support maintenance. The student will have demonstrated skills in soldering, knowledge of basic DC and AC circuits and components, basic solid state electronics, digital logic and numbering systems, and knowledge of troubleshooting techniques for specialized equipment such as night vision equipment, mine detection, and thermal viewers.
Instruction: For this course before 2/87, see AR-1715-0659. Training includes topic in DC/AC circuits, basic electronics, precision soldering, solid state technology, use of binary, octal, and hexidecimal numbering systems. Laboratory experience with the equipment and troubleshooting techniques are covered.
Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 in basic electronic laboratory, 1 in DC circuits, 2 in AC circuits, 2 in digital principles, 3 in solid state electronics, and 3 in electronic systems troubleshooting and maintenance (6/90).
Related Occupation Codes: 39E.

AR-1715-0780

TACTICAL COMPUTER SYSTEMS REPAIRER

Course Number: 150-39T10.
Location: Signal School, Ft. Gordon, GA.
Length: *Version 1:* 28-29 weeks (1032 hours). *Version 2:* 20 weeks (720 hours).
Exhibit Dates: *Version 1:* 1/89-10/89. *Version 2:* 6/87-12/88.
Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel, and series/parallel circuits and determine values of resistance, voltage, and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain the basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers and counters; explain the theory and operation of microprocessor-based computers including concepts of buses, control signals and addressing; solder and desolder wire to various types of electronic terminals; troubleshoot specific computer systems. *Version 2:* Upon completion of the course the student will be able to solve series/parallel DC resistive circuits; use common electronic test equipment and follow schematics to troubleshoot equipment; analyze and troubleshoot solid state power supplies and basic digital logic circuits; troubleshoot and repair specific computer systems and their peripherals; solder electronic equipment.
Instruction: *Version 1:* Lectures and practical exercises related to the topics studied. *Version 2:* Lectures and practical exercises on electronics topics and on specific computer systems.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 1 in solid state electronics, 3 in basic electronics laboratory, 1 in digital principles, 1 in microprocessors, and 3 in computer systems troubleshooting and maintenance (7/89). *Version 2:* In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in solid state electronics, 1 in digital principles, 1 in computers systems and organization, and 3 in computer systems troubleshooting and maintenance (6/88).
Related Occupation Codes: 39T.

AR-1715-0781

SATELLITE COMMUNICATIONS (SATCOM) SYSTEMS REPAIRER
(Satellite Communications (SATCOM) Equipment Repairer)

Course Number: 102-29Y10.
Location: Signal School, Ft. Gordon, GA.
Length: 18-41 weeks (642-1481 hours).
Exhibit Dates: 3/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to solve DC series/parallel resistive circuits; calculate RLC AC circuits; calculate transients in RL and RC circuits; analyze transistor circuits including power supplies, voltage regulators, amplifiers, oscillators, and multivibrators; use binary, octal, and hexidecimal numbering systems; analyze digital circuits containing gates, flip-flops, counters and registers. Analyze the circuitry of FM tranmitters and receivers; troubleshoot and align FM transmitters and receivers; solder; use common test equipment and read schematics; troubleshoot and repair several pieces of military satellite communications equipment.
Instruction: For this course before 3/88 see AR-1715-0611. Classroom and laboratory exercises on topics in DC and AC circuits, solid state electronics, digital electronics, FM communications, satellite communications, soldering techniques, theory of operation and troubleshooting methods for satellite communications devices.
Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 2 in AC circuits, 2 in digital principles, 3 in solid state electronics, 1 in electronic communications, 3 in basic electronics laboratory, and 3 in electronic systems troubleshooting and maintenance (6/89).
Related Occupation Codes: 29Y.

AR-1715-0782

TACTICAL SATELLITE/MICROWAVE SYSTEMS OPERATOR

Course Number: 201-31Q10.
Location: Signal School, Ft. Gordon, GA.
Length: 15-17 weeks (580-646 hours).
Exhibit Dates: 12/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to install, line up, operate, troubleshoot, and perform first-level maintenance and preventive maintenance on tactical, line-of-sight, and tropospheric scatter systems.
Instruction: For this course before 12/87 see AR-1715-0219. Lectures, discussions, demonstrations are utilized. Evaluation is by test, operational procedure and maintenance procedure checks.
Credit Recommendation: In the vocational certificate category, 6 semester hours in operating and operator maintenance of electronic microwave satellite systems (6/90).
Related Occupation Codes: 31Q.

AR-1715-0783

OH-58D AVIM AVIONIC REPAIR

Course Number: 102-ASIW5 (35R).
Location: Signal School, Ft. Gordon, GA.

Length: 3–4 weeks (120 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and use test support system assemblies; do diagnostic testing, troubleshooting, and repair of OH-58D mast-mounted sight and control display systems.

Instruction: Instruction is accomplished by by classroom and laboratory experiences on the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (6/88).

AR-1715-0784

AHIP Avionic Mechanic (OH-58D)

Course Number: 102-ASIW5 (35K).

Location: Signal School, Ft. Gordon, GA.

Length: 3–4 weeks (128 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair avionic systems that include control/display subsystems, communication systems, doppler/gyro compass systems, radar altimeters, automatic target systems, altitude/heading systems, and mast-mounted sight systems.

Instruction: Instruction is accomplished through computer-aided instruction, unit-level maintenance tasks on avionics systems, and a limited amount of classroom experiences.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation electronics systems (6/88).

AR-1715-0786

Avionic Equipment Maintenance
Supervisor Basic
Noncommissioned Officer (NCO)

Course Number: 102-35P30.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (722 hours).

Exhibit Dates: 1/88–10/89.

Learning Outcomes: Upon completion of the course the student will be able to manage first line as well as intermediate-level maintenance of avionic systems as well as provide technical assistance to maintenance personnel.

Instruction: Course contains a common core, see AR-1406-0090. Classroom instruction with demonstrations are utilized along with laboratory experiences, using test equipment on avionics equipment.

Credit Recommendation: For the common core, see AR-1406-0090. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 3 in electronic systems troubleshooting and maintenance and one in electronic communications (6/88).

Related Occupation Codes: 35P.

AR-1715-0787

1. Tactical Air Traffic Control
Systems, Subsystems, and
Equipment Repairer
2. Air Traffic Control Systems,
Subsystems, and Equipment
Repairer

Course Number: 103-93D10; 102-F1.

Location: Signal School, Ft. Gordon, GA.

Length: *Version 1:* 27–28 weeks (1077 hours). *Version 2:* 19–23 weeks (722–861 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 1/88–9/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to identify series, parallel, and series/parallel circuits and to determine values of resistance, voltage, and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain concepts of series and parallel resonance and basics of transformer operation; explain the basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers and operational amplifiers; explain the operation of FETs, SCRs, and UJTs and troubleshoot and explain the operation of sine wave oscillator, multivibrator circuits and Schmitt trigger circuits; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers and counters; explain theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; explain how a microcomputer performs arithmetic and logic operations; use machine language instructions; solder and desolder wire to various types of electronic terminals; solder and desolder electronic components to printed circuit boards; align, adjust, troubleshoot, and repair specific air traffic control systems. *Version 2:* Upon completion of the course the student will be able to test, align, adjust, and troubleshoot a nontactical radar system including navigational aids, air traffic communications control systems, audio recorders, receivers/transmitters, and associated test equipment.

Instruction: Lectures and practical exercises on the air traffic control system and its repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 3 in solid state electronics, 3 in basic electronics laboratory, 1 in digital principles, 2 in microprocessors, and 3 in electronic systems troubleshooting and maintenance (6/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/88).

Related Occupation Codes: 93D.

AR-1715-0788

Watchmate Equipment Maintenance
Training

Course Number: 102-F59.

Location: Intelligence School, Ft. Devens, MA.

Length: 3–4 weeks (116 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot selected AN/GSQ-223 signal processing subsystem equipment to the line replacement unit level.

Instruction: Lectures and practical exercises in troubleshooting and maintenance of the watchmate system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (9/88).

AR-1715-0790

Electronic Processing and
Dissemination System
Operator/Analyst

Course Number: 3B-ASI9C/233-ASIT4; 233-F13/3B-ASI9C.

Location: Intelligence School, Ft. Devens, MA.

Length: 8–9 weeks (293–326 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the electronic processing and dissemination system (AN/TSQ-134(V) and perform operational analysis on the electronic order-of-battle resident data base.

Instruction: Lectures and practical exercises in the electronic processing and dissemination system, preventive maintenance, tactics, operations security, and message formats.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer literacy (10/90.)

AR-1715-0791

Organizational Communications-
Electronics (C-E)
Operator/Mechanics

Course Number: SIG 9.

Location: Combined Arms Training Center, Bad Toelz, W. Germany.

Length: 3–4 weeks (108–137 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to install and operate communications-electronics systems at the company-sized unit level; perform maintenance on systems; identify capabilities and characteristics of FM radio sets, teletype equipment, switchboards, and security equipment and transmissions; describe antenna types and their radiation patterns; operate radioteletype equipment; install wire lines and telephone equipment; install remoting (radio/telephone) devices; explain maintenance programs and repair part stockage; evaluate the operation of repaired equipment; troubleshoot faulty equipment using multimeter and test set, both for radios and teletypewriters.

Instruction: Conferences and practical exercises, with an emphasis on diagnosis and fault isolation. Major topics include radio fundamentals and equipment, cable/wire systems and equipment, operational techniques and procedures, and maintenance/diagnosis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics circuitry (10/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in radio and telephone communications systems (11/88).

Related Occupation Codes: 31V; 31G.

AR-1715-0792

Intermediate Level Maintenance of
the AN/GRC-106 and the MD-522

Course Number: SIG 35 AM.

Location: Combined Arms Training Center, Bad Toelz, West Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate test sets, multimeters and counters; set up, operate, troubleshoot and repair radios and modems; explain modes of operation of communication equipment (e.g., duplex vs. one-way reversible); adjust test equipment and radio and modem components.

Instruction: Lectures and practical exercises in analyzing, locating, troubleshooting, and correcting malfunctions in the radio set and the modem.

Credit Recommendation: In the vocational certificate category, 2 semester hour in FM radio alignment; in the lower-division baccalaureate/associate degree category, 1 semester hour in communications equipment alignment (10/88).

AR-1715-0793

Multichannel Communications Systems

Course Number: SIG 1.

Location: Combined Arms Training Center, Bad Toelz, W. Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to plot simple radiopath profiles; install and orient the antenna used with multichannel radio equipment; operate multichannel equipment in an electronic warfare environment; install and operate multichannel equipment configurations and components; install and operate specific equipment configurations in 12/24–channel radio, 12/24–channel cable, integrated cable and radio, all in secure mode, for a specific military radio system.

Instruction: Classroom and hands-on instruction in installing, operating, aligning, and performing preventive maintenance on radio communications systems, including receivers, transmitters, and antennas and their components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in multichannel communications systems (10/88).

AR-1715-0794

Tactical Telecommunications Center Supervisor

Course Number: SIG 33.

Location: Combined Arms Training Center, Bad Toelz, W. Germany.

Length: 3 weeks (102 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to set up and place teletype into operational state; establish, operate, and maintain radio/teletype communications; supervise the installation and operations of telecommunications center systems; supervise the processing and formatting of telecommunications messages; install encrypting device for message security; identify circuit capablilities for telegraph and teletype; troubleshoot and locate faults in circuits; plan the installation of telecommunications centers.

Instruction: Conference classes and practical exercises in the concepts and technology applied in telecommunications centers. Major subjects include communications center systems and communications center management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio and radiotelegraphy and security (10/88).

AR-1715-0795

Tactical Communications Officer and Chief

Course Number: SIG 29.

Location: Combined Arms Training Center, Bad Toelz, W. Germany.

Length: 3–4 weeks (106–160 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to plan and supervise the installation of communication systems, wire or radio, or a combined system; supervise the operation and maintenance of communication systems; identify the capability and characteristics of AM/FM radio sets and telephone sets used in tactical communications centers; supervise the establishment of integrated wire/radio nets including use of switchboards, remoting devices, and cryptographic devices; describe telegraphic principles, telegraphic equipment and operations; describe multichannel/multiplex systems and functioning; operate radioteletyping equipment; troubleshoot and debug communications systems; explain and describe wave propagation, wave forms, wave fields, and antenna considerations such as harmonic/nonharmonic, types of wave lengths, antenna lengths, and computation of required antenna length.

Instruction: Conference classes, practical exercises, and activities in wire communications, radio communications, multiplexing, integrated wire/radio systems, radiotelegraphing, and radioteletyping. Aspects of theory and technology are taught throughout.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio and telephone communications systems (10/88).

AR-1715-0796

Air Defense Artillery (ADA) Officer Advanced Patriot Follow-On

(Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Patriot Track)

Course Number: 2F-FOA-F15.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (177–178 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform as an officer in a Patriot missile system unit.

Instruction: Lectures and practical exercises covering topics on the Patriot missile system including preventive maintenance, deployment, emplacement, communications procedures, and battle tactics.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/90).

AR-1715-0797

Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II

Course Number: 4B-140E.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 10–32 weeks (377–1,152 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to (Phase I) demonstrate understanding of, perform operational checks and isolate faults in digital circuits; describe the functional operation and perform organizational maintenance on the Patriot missile system; for Phase II: describe the organization and operations of a weapons central computer; use diagnostic software to detect and isolate faults in the weapons system and associated radar system.

Instruction: Lectures, demonstrations and practical experience (Phase I) in basic digital circuits and the Patriot missile system. In Phase II the weapons control computer and radar system are covered.

Credit Recommendation: For Phase I in the lower-division baccalaureate/associate degree category, 4 semester hours in digital principles, 1 in computer systems troubleshooting and maintenance, 2 in radar systems and 1 in electronic systems troubleshooting and maintenance. For Phase II in the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance, 1 in computer systems and organization, 2 in radar systems, and 2 in electronic systems troubleshooting and maintenance (11/88). If both phases are taken, credit should be added.

Related Occupation Codes: 140E.

AR-1715-0798

Patriot Operator and System Mechanic

Course Number: 632-24T1/2/3/4-T.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 35–36 weeks (1,267 hours). *Version 2:* 35–36 weeks (1,283 hours).

Exhibit Dates: *Version 1:* 4/88–Present. *Version 2:* 10/86–3/88.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including amplifiers, voltage regulators, operational amplifiers, perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, and subtracters; follow systematic troubleshooting procedures. *Version 2:* Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including amplifiers, voltage regulators, operational amplifiers; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; follow systematic troubleshooting procedures.

Instruction: For this course before 10/86, see AR-1715-0583. *Version 1:* Lectures and practical exercises in the fundamentals of electrical measurements, solid state electronics, power supplies and power distribution, digital and computer fundamentals, operation and maintenance, and radar operation and maintenance. *Version 2:* Lectures and practical exercises in the fundamentals of electrical measurements, solid state electronics, power supplies and power distribution, digital and computer fundamentals, operation and maintenance, and radar operation and maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in solid state electronics, 3 in digital principles, 1 in basic electronics laboratory, 1 in industrial electronics, and 3 in electronic systems troubleshooting and maintenance (11/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in solid state electronics, 4 in digital principles, 1 in basic electronics laboratory, 1 in industrial electronics, and 3 in electronic systems troubleshooting and maintenance (11/88).

AR-1715-0799

HAWK MASTER MECHANIC

Course Number: 121-24R40-A.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 19-20 weeks (730 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform conversions between decimal, binary, octal, and hexadecimal numbers; describe the logic functions and circuit operation of logic gates, flip-flops, counters, registers, and adders; and troublehoot and repair two military radar systems.

Instruction: Lectures and practical exercises on topics in digital electronics and in the troubleshooting and repair of the radar system. For this course before 5/88 see AR-1715-0513.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital principles, 2 in radar systems, and 3 in electronic systems troubleshooting and maintenance (11/88).

Related Occupation Codes: 24R.

AR-1715-0800

MAN PORTABLE AIR DEFENSE
(MANPAD) CREWMEMBER
(STINGER) (RC)

Course Number: 043-16S10 (RC).

Location: Reserve Locations, USA.

Length: 4 weeks (164 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to visually identify projected aircraft images; maintain and operate weapon/training devices; program the IFF interrogator; track a radio-controlled aerial target; operate and maintain man portable air defense communications equipment; select a firing position and fire control, as well as destroy weapon to prevent enemy use.

Instruction: Lectures and practical experience on the Stinger weapon system, its maintenance, and communications systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

Related Occupation Codes: 16S.

AR-1715-0801

MAN PORTABLE AIR DEFENSE
(MANPAD) CREW MEMBER
(REDEYE) (RC)

Course Number: 043-16S10-RC.

Location: Reserve Locations, USA.

Length: 4 weeks (157 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to visually identify projected aircraft images; maintain and operate weapon/training devices; charge M-49 batteries; track a radio-controlled aerial target; operate and maintain man portable air defense communications equipment; select a firing position and fire, as well as destroy the weapon to prevent enemy use.

Instruction: Lectures and practical experience in the skills required to prepare and fire the Redeye weapons system and maintain the system at the operator level.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

Related Occupation Codes: 16S.

AR-1715-0802

HAWK MASTER MECHANIC

Course Number: 121-24R40-B.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 8-9 weeks (300 hours).

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair the loader-transporter, missile launcher, and radar system of the Hawk missile.

Instruction: Lectures and practical exercises focussed on troubleshooting and repairing the equipment. For this course before 6/88, see AR-1715-0514.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshoouing and maintenance (11/88).

Related Occupation Codes: 24R.

AR-1715-0803

AIR DEFENSE ARTILLERY (ADA) OFFICER
ADVANCED FOLLOW-ON TRAINING-
HAWK TRACK

Course Number: 2F-FOA-F14.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 4-5 weeks (156 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will demonstrate understanding of each item of equipment in the Hawk missile system along with its operation and deployment.

Instruction: Lectures and practical exercises on the Hawk missile system, its components, operation and deployment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

AR-1715-0804

HAWK FIRING SECTION MECHANIC BASIC
NONCOMMISSIONED OFFICER (NCO)

Course Number: 121-24C30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (224 hours).

Exhibit Dates: *Version 1:* 3/89-Present. *Version 2:* 10/87-2/89.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate common military leadership fundamentals, to isolate and repair faults, and to supervise maintenance of the Hawk missile system.

Instruction: For this course before 10/87, see AR-1715-0657. Lectures and practical exercises on military leadership as well as maintenance of the missile system equipment.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting and maintenance. For credit for the common core, see AR-1406-0090 (11/88).

Related Occupation Codes: 24C.

AR-1715-0805

HAWK INFORMATION COORDINATION
CENTRAL MECHANIC BASIC
NONCOMMISSIONED OFFICER (NCO)

Course Number: 104-24G30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (224 hours).

Exhibit Dates: *Version 1:* 3/89-Present. *Version 2:* 10/87-2/89.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate common military leadership fundamentals, to isolate and repair faults, and to supervise maintenance on the Hawk missile system.

Instruction: For this course before 10/87 see AR-1715-0736. Lectures and practical exercises on military leadership as well as maintenance of the Hawk missile system. For a description of the common core, see AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting and maintenance. For credit for the common core, see AR-1406-0090 (11/88).

Related Occupation Codes: 24G.

AR-1715-0806

IMPROVED HAWK FIRING SECTION
MECHANIC (PIP II) TRANSITION

Course Number: 121-24C1T/2T/3T/4T.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 7-8 weeks (276 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation of logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe the operation of digital-to-analog and analog-to-digital converters; describe the characteristics of memory systems; follow systematic troubleshooting procedures and maintenance procedures.

Instruction: For this course before 10/86 see AR-1715-0571. Lectures and practical exercises covering digital electronics theory as well as the study of operational checks, adjustments, and troubleshooting of missile system equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in digital principles and 3 in electronic systems troubleshooting and maintenance (11/88).

Related Occupation Codes: 24C.

AR-1715-0807

AIR DEFENSE ARTILLERY (ADA)
COMMAND AND CONTROL SYSTEMS
TECHNICIAN WARRANT OFFICER
TECHNICAL CERTIFICATION

Course Number: 4C-140A; 4C-225B.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 26-27 weeks (942 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain air defense weapons control systems and equipment; use common laboratory instruments and perform electronic laboratory work; describe the operation of vacuum tubes, motors, generators, relays, synchros systems and servo systems, describe the basic principles of radar; troubleshoot and repair radar equipment; troubleshoot and repair computer equipment.

Instruction: Lectures and practical exercises focussed on operation and maintenance of the command and control system which includes radar, communication, and data processing equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in electronic systems troubleshooting and maintenance, 2 in radar systems, 2 in computer systems troubleshooting and maintenance, and 1 in industrial electronics (11/88).

AR-1715-0808

Defense Acquisition Radar Operator

Course Number: 043-16J10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5-6 weeks (200 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to explain the general operation of a Forward Area Alerting Radar system, operate the system, and perform operational checks.

Instruction: For this course before 10/87 see AR-1715-0515. Lectures, demonstrations, and practical exercises, including field training, on the operation of the radar system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

Related Occupation Codes: 16J.

AR-1715-0809

Basic Noncommissioned Officer (NCO) - 24 N Track
(Chaparral System Mechanic Basic Noncommissioned Officer (NCO))

Course Number: 121-24N30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (172-220 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate common leadership skills, a working knowledge of maintenance management, and supervise in the maintenance of the diesel power unit of a Chaparral weapon system.

Instruction: Lectures and practical experience in leadership skills, maintenance and supply management, and maintenance of the diesel power unit of a Chaparral weapon system. Course contains a common core of leadership subjects. See AR-1406-0090.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (3/89).

Related Occupation Codes: 24N.

AR-1715-0810

Vulcan System Mechanic Basic Noncommissioned Officer (NCO)

Course Number: 121-24M30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (168-220 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will plan, implement, supervise, and evaluate Vulcan air defense system maintenance.

Instruction: Lectures and practical exercises focussed on military procedures and the specific equipment. Course contains a common core of leadership subjects. See AR-1406-0090.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (3/89).

Related Occupation Codes: 24M.

AR-1715-0811

AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)

Course Number: 150-25L30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 5 weeks (171-172 hours). *Version 2:* 8-9 weeks (342 hours).

Exhibit Dates: *Version 1:* 3/89-Present. *Version 2:* 10/87-2/89.

Learning Outcomes: Upon completion of the course the student will be able to operate, isolate and repair faults on a weapons control system and demonstrate basic military leadership skills.

Instruction: This course contains a common core of instruction. See AR-1406-0090. Lectures and practical exercises focussed on fault isolation and repair of the Air Defense Artillery Command and Control system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance. For credit for the common core, see AR-1406-0090 (11/88).

Related Occupation Codes: 25L.

AR-1715-0812

Air Defense Artillery (ADA) Crew Member

Course Number: 043-16P10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 8-9 weeks (296 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify aircraft, operate communications equipment, missile equipment, and a missile carrier.

Instruction: For this course before 6/87 see AR-1715-0516. Lectures and practical exercises on the above topics.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

Related Occupation Codes: 16P.

AR-1715-0813

Basic Noncommissioned Officer (NCO) - 24 T Track
(Patriot Operator and System Mechanic Basic Noncommissioned Officer (NCO))

Course Number: 632-24T30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5-7 weeks (185-278 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course the student will plan, implement, supervise, and evaluate tactical operations of the Patriot missile system. Student will also maintain system equipment.

Instruction: Lectures and practical exercises focussed on the operation and maintenance on the missile system. Course includes a common core of leadership subjects. See AR-1406-0090.

Credit Recommendation: Credit is recommended for the common core only. See AR-1406-0090 (3/89).

Related Occupation Codes: 24T.

AR-1715-0814

Hawk Firing Section Mechanic (PIP II)

Course Number: 121-24C10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 16 weeks (590 hours). *Version 2:* 26 weeks (934 hours).

Exhibit Dates: *Version 1:* 10/90-Present. *Version 2:* 10/87-9/90.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series/parallel circuits; analyze series and parallel RL and RC circuits; make time constant calculations; make transformer calculations; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including class A, B, and C amplifiers, voltage regulators, operational amplifiers, oscillators, power supplies, multivibrators, and CRT circuits; describe the operation of vacuum tubes; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; analyze superheterodyne receiver circuits; follow systematic troubleshooting procedures; and perform operational checks, fault isolation, and repair of Hawk missile equipment, including a radar system.

Instruction: For this course before 10/87, see AR-1715-0307. Lectures and practical exercises on topics in basic electronics and on maintenance of the missile system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hour in AC circuits, 1 in DC circuits, 4 in solid state electronics, 4 in digital principles, 1 in radar systems, 3 in basic electronics laboratory, and 3 in electronic systems troubleshooting and maintenance (11/88).

Related Occupation Codes: 24C.

AR-1715-0815

Hawk Information Coordination Central Mechanic (PIP II)

Course Number: 104-24G10 (PIP II).

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 48 weeks (1,618 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series/parallel circuits; analyze series and parallel RL and RC circuits; make time constant calculations; make transformer calculations; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including class A, B, and C amplifiers, voltage regulators, operational amplifiers, oscillators, power supplies, multivibrators, and CRT circuits; describe the operation of vacuum tubes and analyze various vacuum tube circuits; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; analyze superheterodyne receiver circuits; follow systematic troubleshooting procedures.

Instruction: For this course before 4/88, see AR-1715-0294. Lectures, demonstrations, and practical experiences in AC and DC circuits, solid-state electronics, digital circuits, automated data processing equipment, and radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in AC circuits, 1 in DC circuits, 3 in solid state electronics, 4 in digital principles, 2 in radar systems, 3 in basic electronics laboratory, 1 in vacuum tube electronics, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems troubleshooting and maintenance (11/88).

Related Occupation Codes: 24G.

AR-1715-0816

Vulcan System Mechanic

Course Number: 121-24M10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: *Version 1:* 18 weeks (656 hours). *Version 2:* 20-21 weeks (745 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 1/88-11/89.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series/parallel circuits; analyze series and parallel RL and RC circuits; make time constant calculations; make transformer calculations; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including class A, B, and C amplifiers, voltage regulators, operational amplifiers, oscillators, power supplies, multivibrator circuits; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; analyze superheterodyne receiver circuits; follow systematic troubleshooting procedures; perform operational checks, at the system level, on the Vulcan air defense system including armament components, control circuits, and the radar system.

Instruction: For this course before 1/88, see AR-1715-0573. Lectures, demonstrations, and practical work in AC and DC circuits, solid state electronics, digital circuits, and the various components of the air defense system.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 2 in solid state electronics, 3 in digital principles, 3 in basic electronics laboratory, 1 in industrial electronics, and 3 in electronic systems troubleshooting and maintenance (11/88).

AR-1715-0817

Man Portable Air Defense (MANPAD) Crew Member

Course Number: 043-16S10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 7-8 weeks (253-261 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to visually identify at least 30 aircraft types; operate and maintain Stinger and Redeye weapons systems and training devices; and operate and maintain associated transportation and communications equipment, such as 1/4 ton truck and trailer and communication radio.

Instruction: For this course before 12/86 see AR-1715-0577. Lectures and practical exercises in operation and maintenance of weapon system components.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (1/89).

Related Occupation Codes: 16S.

AR-1715-0818

Hawk Fire Control Crew Member

Course Number: 043-16E10 (PIP II).

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 7-9 weeks (279-313 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform checks and procedures on a 60KW generator, and a 2 1/2 ton truck; perform checks and procedures on radar; prepare for travel and emplacement of the command post; perform Hawk system orientation, alignment, and maintenance; and read, write, transmit, and receive coded tactical messages. For this course before 11/88 see AR-1715-0512.

Instruction: Lectures and demonstrations in the installation, operation, and preventive maintenance of equipment in the system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

Related Occupation Codes: 16E.

AR-1715-0819

Vulcan Crew Member

Course Number: 041-16R10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 9-10 weeks (345 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to visually recognize types of aircraft; perform maintenance on Vulcan systems, including radar, and prepare Vulcan systems to operate in a tactical environment.

Instruction: For this course before 1/88 see AR-1715-0517. Lectures and practical exercises in the procedures and practices of the operation and maintenance of air defense weapons systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

Related Occupation Codes: 16R.

AR-1715-0820

AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer

Course Number: 150-25L10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 31 weeks (1,112 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series/parallel circuits; analyze series and parallel RL and RC circuits; make time constant calculations; make transformer calculations; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including class A, B, and C amplifiers, voltage regulators, operational amplifiers, oscillators, power supplies, multivibrators, and CRT circuits; describe the operation of vacuum tubes and analyze various vacuum tube circuits; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; analyze superheterodyne receiver circuits; follow systematic troubleshooting procedures.

Instruction: For this course before 11/87, see AR-1715-0403. Lectures and practical exercises in basic electronics and on the maintenance of a radar system and an interrogation system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in solid state electronics, 4 in digital principles, 2 in radar systems, 3 in basic electronics laboratory and 3 in electronic systems troubleshooting and maintenance (11/88).

AR-1715-0821

Hawk Fire Control Maintenance

Course Number: 121-24E10.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 36-37 weeks (1,321 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and perform electronic laboratory work; analyze DC series, parallel, and series/parallel circuits; analyze series and parallel RL and RC circuits; make time constant calculations; make transformer calculations; explain the operation of solid-state devices to include bipolar and FET transistors, diodes, UJTs, amd SCRs; analyze solid-state circuits including class A, B, and C amplifiers, voltage regulators, operational amplifiers, oscillators, power supplies, multivibrators, and CRT circuits; describe the operation of vacuum tubes and analyze various vacuum tube circuits; perform conversions between decimal, binary, octal, and hexadecimal number systems; explain the operation and truth table for digital circuit elements including logic gates, flip-flops, counters, registers, adders, subtracters, multiplexers, demultiplexers; describe digital-to-analog and analog-to-digital converters; analyze superheterodyne receiver circuits; follow systematic troubleshooting procedures; perform operational checks, fault isolation, and repair of the Hawk missile fire control system including radar.

Instruction: For this course before 2/88, see AR-1715-0392. Lectures and practical exercises in basic electronics and maintenance of the missile system.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 2 semester hour in AC circuits, 1 in DC circuits, 4 in solid state electronics, 4 in digital principles, 1 in radar systems, 3 in basic electronics laboratory, 1 in vacuum tube electronics, and 3 in electronic systems troubleshooting and maintenance (11/88).

Related Occupation Codes: 24E.

AR-1715-0822

Electronic Warfare (EW) Operations
Phase I

Course Number: 231-ASIK3.

Location: Intelligence School, Ft. Devens, MA.

Length: 8-9 weeks (355 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain electronic countermeasuring equipment and radio receiver sets for purposes of communications jamming, data collection, and data reporting.

Instruction: Lectures, demonstrations, and performance exercises in basic radio communication theory, the operation and maintenance of electronic countermeasuring equipment and radio receiver sets, and technical documentation and reporting procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-1715-0823

1. Pershing II Electronics Materiel Specialist
2. Pershing Electronics Materiel Specialist

Course Number: 121-21G10.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 10 weeks (361 hours). *Version 2:* 13-14 weeks (479 hours).

Exhibit Dates: *Version 1:* 6/89–Present. *Version 2:* 3/88–5/89.

Learning Outcomes: Upon completion of the course, the student will be able to operate and perform supervised preventive and corrective maintenance on the Pershing missile systems.

Instruction: *All Versions:* Lectures and laboratory exercises covering basic electricity/electronics theory and troubleshooting, generator operation, basic hydraulic systems, inertial measurement systems, and general organizational level corrective maintenance. *Version 2:* Includes preventive and corrective maintenance on pneumatic equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electrical laboratory (6/89). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory and 3 in mechanical laboratory (6/89).

Related Occupation Codes: 21G.

AR-1715-0824

Special Forces Communications
Sergeant
(Special Operations Communications Sergeant)

Course Number: 011-18E30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 23-24 weeks (1,568–1,604 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/87–8/89.

Learning Outcomes: Upon completion of the course the student will be able to determine, by use of aerial photographs and military maps, proper locations, distances, elevations, and desirable routes; locate points on maps by use of azimuth distance and intersection techniques; care for and launch small boats; navigate to a selected landing site; prepare military orders for special forces operations; install antennas and operate specialized radio equipment to encrypt and decrypt messages; send and receive International Morse Code at a speed of 15 five-letter code groups per minute; and operate field communication systems under adverse conditions.

Instruction: Course includes a common core of leadership subjects. See exhibit AR-1406-0090. Instruction includes lectures and practical exercises in the use of maps, photographs, navigation, use of specialized radio sets, short and long range reconnaissance techniques, security systems, infiltration and exfiltration techniques, special survival techniques, airborne operations, cross-cultural communication, extensive unconventional warfare field experience, basic radio communication, antenna design and installation, International Morse Code, and field operations in extreme environmental conditions.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in Morse Code, and 3 in basic radio communications; in the lower-division baccalaureate/associate degree category, 1 semester hour in orienteering, 1 in survival/outdoor pursuits, 3 in electronic communications, and 1 in water safety (12/88). For credit for the common core see AR-1406-0090.

AR-1715-0825

Special Forces Burst Communications
System Maintenance

Course Number: 101-F23.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 8 weeks (279 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to plan, conduct, and support unit-level installation and maintenance of a burst communications system.

Instruction: Instruction includes lectures and hands-on training in general theory of burst communications systems, alignment and initialization procedures, high frequency transmitters and subsystems, receiver and communication security subsystems, field radio and power supplies for field communication systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications (12/88).

AR-1715-0826

Special Operations Communications
Sergeant Reserve Component
Phase 4

Course Number: 011-18E30-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (193 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to send and receive International Morse Code at a speed of ten five letter code groups per minute; serve as a special operations communications sergeant; construct antennas; install, tune, and operate special forces radio equipment.

Instruction: Instruction includes lectures in radio theory, differences in specialized radio sets, International Morse Code, cryptographic systems, and installation and operation of specialized radio equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications (12/88).

Related Occupation Codes: 18E.

AR-1715-0827

Electronic Warfare (EW)/Intercept
Strategic Receiving Subsystem
Repairer

Course Number: 102-33P10.

Location: Intelligence School, Ft.Devens, MA.

Length: 42–43 weeks (1562–1563 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and correct problems in solid state, analog, digital and microprocessor-based communication subsystems, including modulators/demodulators, UHF/VHF radio receivers, video displays, and servo mechanisms.

Instruction: Lectures, laboratory, demonstration, and performance exercises on electronic warfare/intercept strategic receiving subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory, and 2 in PACE solder laboratory (5/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity/electronics (AC/DC) theory, 4 in solid state circuit analysis, 4 in digital logic, and 3 in microprocessor fundamentals (5/87).

AR-1715-0829

Field Artillery Firefinder Radar
Operator

Course Number: 221-13R10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5–7 weeks (190–232 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a member of an artillery fire control team, select a site for an artillery sighting radar, emplace, orient, check, adjust, separate, and perform preventive maintenance on such radar systems.

Instruction: Lectures and practical exercises on the deployment, operator-type maintenance on radar sets that support the field artillery; the use of maps for fire control, analysis of target data to differentiate between friendly and hostile fire, emplantation, operation, and preventive maintenance of fire control radars.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar operations (6/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in map reading (6/89).

Related Occupation Codes: 13R.

AR-1715-0831

Field Artillery Digital Systems
Repairer

Course Number: 113-39L10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 16–17 weeks (601 hours).

Exhibit Dates: 12/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use basic test equipment, understand basic principles of AC/DC circuits, analog and digital systems, computers and radar systems; test, troubleshoot, and repair field artillery systems, and solder.

Instruction: Lecture and laboratory exercises in the fundamentals of AC/DC circuits, solid state devices, digital circuits and systems, troubleshooting and repair of field digital systems and battery computer units.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering (6/89); in the lower-division baccalaureate/associate degree category, 4 in AC/DC circuits, 3 in solid state electronics, 3 in digital principles, 3 in computer fundamentals, and 3 in electronic system troubleshooting and repair (6/89).

Related Occupation Codes: 39L.

AR-1715-0832

Tactical Fire (TACFIRE) Operations Specialist

Course Number: 250-13C10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5 weeks (181 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to tactically employ, operate, and maintain the Tactical Fire (TACFIRE) Direction System.

Instruction: Lectures and demonstrations in the employment, operation, and maintenance of TACFIRE equipment, operations of the Back-up Computer System (BUCS) and Variable Format Message Entry Device (VFMED), field artillery operations, and the duties, responsibilities, and missions of personnel working in a TACFIRE operations center.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radio operations and 1 in operational maintenance (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and 1 in computer operations (6/89).

Related Occupation Codes: 13C.

AR-1715-0834

Multiple Launch Rocket System Cadre (MLRS) Cadre

Course Number: 2F-13B/042-13M20/30/40 (T); 2F-F9/042-F1.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5–6 weeks (167–209 hours).

Exhibit Dates: *Version 1:* 8/89–Present. *Version 2:* 10/86–7/89.

Learning Outcomes: Upon completion of the course, the student will be able to direct and manage a Multiple Launch Rocket System (MLRS) firing or ammunition section, maintain the MLRS equipment, and position and employ firing sections.

Instruction: Lectures and practical exercises in communications, targeting, weapons, navigation, and systems maintenance.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in communication systems operation, and 1 in maintenance management (6/89).

AR-1715-0835

Meteorological Equipment Maintenance

Course Number: 420-ASIH1.

Location: Field Artillery School, Ft. Sill, OK.

Length: 19 weeks (693 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform complete maintenance on the GMD/1 Rawin and MDS upper air measurement systems.

Instruction: Instruction and practical exercises on the individual sections of the GMD/1 and MDS Rawin systems, troubleshooting procedures for all portions of system, calibration and performance evaluations, repair of mechanical systems, standard test instruments, and review of all technical manuals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to electricity (6/89); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic systems troubleshooting and maintenance (6/89).

AR-1715-0837

TACFIRE Direction Systems Repairer (Merger)

Course Number: 113-39Y30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 12 weeks (457 hours).

Exhibit Dates: 1/87–10/88.

Learning Outcomes: Upon completion of the course, the student will be able to perform and supervise direct and general support maintenance on the tactical fire direction system variable format message entry devices and system specific test equipment.

Instruction: Lectures and practical exercises in computer organization, use of computer diagnostic software and the troubleshooting and repair of the fire computer, magnetic tape unit, line printer, control console and control monitoring unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, and 6 in computer systems troubleshooting and maintenance (6/89).

Related Occupation Codes: 39Y.

AR-1715-0838

Field Artillery Firefinder Unit Maintenance

Course Number: 221-ASIX5.

Location: Field Artillery School, Ft. Sill, OK.

Length: 11–16 weeks (389–576 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes. Upon completion of the course, the student will be able to use the theory and specialized test equipment required for the calibration, alignment and corrective maintenance on the Field Artillery Firefinder Radar set.

Instruction: Lectures and laboratory exercises in basic electronics, digital circuits and number systems, solid state theory and radar theory; teaches the student how to use the oscilloscope and diagnostic test procedures to troubleshoot the radar computer, magnetic drive and lineprinter; teaches the student corrective maintenance procedures for the radar buffer, synchronizer and video processor. For course before 10/85, see AR-1715-0559.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics and 3 in radar laboratory (6/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

AR-1715-0839

Target Acquisition/Surveillance Radar Repairer

Course Number: 104-39C10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 23–26 weeks (889–932 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use basic test equipment, understand basic principles of AC/DC circuits, analog and digital systems, computers and radar systems, test, troubleshoot and repair Target Acquisition/Surveillance radars.

Instruction: Lecture and laboratory practice in DC/AC/solid state/digital circuits and radar systems, computer fundamentals and reliable soldering and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering (6/89); in the lower-division baccalaureate/associate degree category, 4 in AC/DC circuits, 3 in solid state electronics, 3 in digital principles, 3 in computer fundamentals, 2 in radar systems, and 2 in electronic troubleshooting and repair (6/89).

Related Occupation Codes: 39C.

AR-1715-0840

Target Acquisition Radar Technician Warrant Officer Technical Certification

Course Number: 4C-131A; 4C-211A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 29–30 weeks (1088 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and provide technical, operational, and corrective maintenance support for the Target Acquisition Radar System Technician.

Instruction: Lecture and extensive laboratory exercises in radar site selection, digital, solid state and basic electronics, radar operations and maintenance, antenna selection, test equipment, and system troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics/electricity, 3 in electronics laboratory, 6 in electronic systems troubleshooting and repair, 3 in digital principles, 2 in microprocessors, and 3 in radar systems operation (6/89); in the upper-division baccalaureate category, 3 semester hours in radar systems (6/89).

Related Occupation Codes: 131A; 211A.

AR-1715-0841

Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)

Course Number: 4C-131A-RC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 14–15 weeks (534 hours) for phases 2 and 4; Phases 1 and 3, nonresident.

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise and provide technical, operational, and corrective maintenance support for the Target Acquistion Radar System Technician.

Instruction: Lecture and extensive laboratory exercises in radar site selection, digital electronics, solid state and basic electronics, radar maintenance and operation, antenna selection, test equipment and system troubleshooting. Phases 1 and 3 are non-resident; phases 2 and 4 are resident.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics/electricity, 3 in electronics laboratory, 6 in electronic system troubleshooting and repair, 3 in digital principles, 2 in microprocessors, and 3 in radar systems operation (6/89); in the upper-division baccalaureate category, 3 semester hours in radar systems (6/89).

Related Occupation Codes: 131A.

AR-1715-0842

Pershing Missile Systems Technician Warrant Officer Technical Certification

Course Number: 4F-214E; 4F-130A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 18-25 weeks (668-901 hours).

Exhibit Dates: 11/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to secure nuclear weapons and deal with emergency operations concerning nuclear weapons.

Instruction: Lectures and practical exercises in AC/DC circuits, transistors and transistor circuits, logic circuits, microprocessors, Pershing missile systems, and message authentication.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and repair, 2 in DC circuits, 2 in AC circuits, 2 in solid state electronics, and 2 in microprocessors (6/89).

Related Occupation Codes: 214E; 130A.

AR-1715-0843

Lance Missile Sytem Technician-Warrant Officer Technical Certification

Course Number: 4F-130B.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7-8 weeks (266 hours).

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the correct procedures for missile inspections, handling and assembly; inspect, detect and connect unit level maintenance problems and update forms and records associated with the equipment.

Instruction: Lecture and laboratory on the organization and mission of Lance missile system; tactical employment and operation of the system; assembly, storage and inspection procedures; characteristics and nomenclature of missile components, and the preparation and submission of missile material readiness reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits (6/89).

Related Occupation Codes: 130B.

AR-1715-0844

Cannon Fire Direction Specialist

Course Number: 250-13E10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7 weeks (250 hours).

Exhibit Dates: 3/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to construct firing charts, plot reference points, target locations, make corrections for subsequent firing, input necessary meteorological data to the backup computer system, utilize various maps, and prepare and operate specialized radio sets.

Instruction: Topics include review of basic mathematics, lectures and practice in the construction and use of firing charts, utilization of meteorological data for input to the backup computer system and specialized radio systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radio communication (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations and 1 in map reading (6/89).

Related Occupation Codes: 13E.

AR-1715-0846

1. Fire Support Specialist
2. Field Artillery Fire Support Specialist

Course Number: 250-13F10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6 weeks (216-233 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 10/88-9/89.

Learning Outcomes: Upon completion of the course, the student will be able to to serve as a member of a fire support team, prepare digital messages and operate message devices, determine target locations by any of several methods, operate laser and thermal sighting devices, determine and convert map coordinates and utilize specialized radio systems.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Instruction includes lectures and practical exercises in map reading, land navigation, resection, polar plotting, installation and operation of certain radio systems, thermal and visual sighting devices, and transmission of artillery sighting information.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in radio operation (6/89); in the lower-division baccalaureate/associate degree category, 1 in map reading (6/89).

AR-1715-0847

Multiple Launch Rocket System (MLRS)/Lance Operations Fire Specialist

Course Number: 043-13P10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10 weeks (384 hours).

Exhibit Dates: 2/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to read and interpret maps; plot locations; compute distance, direction and altitude; use radio communication equipment; use digital message devices; operate a computer system; and install and operate telephones with security equipment.

Instruction: Lectures, group activities, and performance exercises on map interpretation, communications equipment and procedures, and computer equipment use; provides knowledge and skills necessary to perform functions associated with plotting on maps, computing, communicating and maintaining of equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radio operations (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading (6/89).

Related Occupation Codes: 13P.

AR-1715-0848

Teletypewriter Equipment Repairer

Course Number: 160-29J10.

Location: Signal School, Ft. Gordon, GA.

Length: 17-18 weeks (712 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify series, parallel and series/parallel circuits and determine value of resistance, voltage and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain the basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; explain the theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; and install, troubleshoot, and repair teletypewriters, facsimile equipment, bar code scanners, and console panels.

Instruction: Lectures, practical exercises, and exams on the subject matter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 1 in solid state electronics, 1 in digital principles, 1 in microprocessors, 3 in electronic systems troubleshooting and maintenance, and 3 in basic electronics laboratory (7/89).

Related Occupation Codes: 29J.

AR-1715-0849

Communications Systems/Circuit Controller

Course Number: 202-31N10.

Location: Signal School, Ft. Gordon, GA.

Length: 21-24 weeks (864-778 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify series, parallel, and series/parallel DC circuits and determine values of resistance, voltage, and current in the circuits; comprehend AC circuit concepts including frequency, phase, and reactance; explain basic operation of semiconductors, junction diodes, and bipolar transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; install, operate and maintain specific military communications equipment.

Instruction: Classroom and laboratory exercises involving DC and AC circuits and typical amplifier ciruits and the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 2 in basic electronics laboratory, 2 in solid state electronics, and 2 in electronic systems troubleshooting and maintenance (6/90).

AR-1715-0850

Automatic Test Equipment Operator/Maintainer

Course Number: 198-39B10.

Location: Signal School, Ft. Gordon, GA.

Length: 18–23 weeks (653–820 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform high reliability precision soldering; inspect, test and repair printed circuit boards at the component level; and operate, troubleshoot, and repair automatic test equipment.

Instruction: Lectures and practical experience in certified precision soldering, testing and inspecting printed circuit boards, and the use, operation, and maintenance of automatic test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in soldering techniques (5/90); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (5/90).

Related Occupation Codes: 39B.

AR-1715-0851

Communications-Electronics Maintenance Advanced Noncommissioned Officer (NCO)

Course Number: 1-29-C42 (29X).

Location: Signal School, Ft. Gordon, GA.

Length: 14–15 weeks (543 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to use microcomputers including using DOS, word processors, data bases, and spreadsheets; receive and send Army messages; prepare Army forms related to shop management; describe at the overview level a number of pieces of communications equipment.

Instruction: Lectures, practical exercises, and exams on the subject material. Course includes a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy (7/89). For credit for the common core see AR-1404-0035.

Related Occupation Codes: 29X.

AR-1715-0852

TRI-TAC Communications Security (COMSEC) Equipment Full Maintenance

Course Number: 160-F27.

Location: Signal School, Ft. Gordon, GA.

Length: 4–5 weeks (151 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair communications security equipment to the component level using automatic test equipment as well as conventional test instruments.

Instruction: Lectures and practical experience in fault isolation and maintenance of communications security equipment, including power supplies and analog subassemblies using the ST-34 automatic test equipment as well as conventional test sets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (7/89).

AR-1715-0853

Satellite Communications (SATCOM) AN/USC-28(V) Set

Course Number: 102-F60.

Location: Signal School, Ft. Gordon, GA.

Length: 8 week (288 hours).

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, and repair a satellite communications set.

Instruction: Lectures and laboratory exercises in the operation and maintenance of a satellite ground terminal. For this courese before 12/88 see AR-1715-0610.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hour in electronic systems troubleshooting and maintenance (7/89).

AR-1715-0854

Supervisor Special Electronic Devices Repairer Basic Noncommissioned Officer (NCO)

Course Number: 198-39E30.

Location: Signal School, Ft. Gordon, GA.

Length: 8–9 weeks (318 hours).

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to explain the theory and operation of a microprocessor controlled computer and to use these and other concepts to assist subordinates in the maintenance of electronic equipment including night vision devices and chemical agent detection systems.

Instruction: Includes lectures and practical exercises in microprocessors, diagnostic testing, application of device theory and schematic diagrams to troubleshooting and repair of night vision devices, and chemical agent detection devices. Course includes a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microprocessors and 1 in electronic systems troubleshooting and maintenancane (7/89). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 39E.

AR-1715-0855

Transportable Automatic Switching Systems Operator/Maintainer Basic Noncommissioned Officer (NCO)

Course Number: 622-36L30.

Location: Signal School, Ft. Gordon, GA.

Length: 9–10 weeks (351 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise personnel involved in switching network operations and maintenance and be able to troubleshoot and repair specific electronic equipment.

Instruction: Classroom and practical exercises involving military specific automatic message switching equipment. Course includes a common core of leadership instruction. See AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (7/89). For the common core see AR-1406-0090.

Related Occupation Codes: 36L.

AR-1715-0856

Calibration Specialist Basic Noncommissioned Officer (NCO) (35H30)

Course Number: G2ASR32470-218(35H30).

Location: Training Center, Lowry AFB, CO.

Length: 16–17 weeks (633–644 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, maintain, calibrate, troubleshoot, and repair selected calibration standards and supervise, train, and lead subordinates in theses duties.

Instruction: Classroom and laboratory exercises involving the calibration equipment. Course includes a common core of leadership subjects. See AR-1406-0090.

Credit Recommendation: In the vocational certificate category, 3 semester hours in test equipment maintenance and calibration (5/90); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 1 in digital principles and 1 in microprocessors (5/90). For credit for the common see AR-1406-0090.

Related Occupation Codes: 35H.

AR-1715-0857

CONUS High Frequency (HF) Radio Communications System Operator

Course Number: 201-F7.

Location: Signal School, Ft. Gordon, GA.

Length: 3–4 weeks (123 hours).

Exhibit Dates: 11/88–10/89.

Learning Outcomes: Upon completion of the course the student will be able to install, operate, troubleshoot and maintain a specific piece of military radio equipment.

Instruction: Classroom and field exercises involving the equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/89).

AR-1715-0858

Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4

Course Number: 4C-286A-RC; 4C-256A-RC.

Location: Signal School, Ft. Gordon, GA.

Length: Phase 2, 2 weeks (96 hours), Phase 4, 2 weeks (96 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course the student will perform in senior-level supervisory positions using managerial and leadership concepts and will be able to manage the maintenance of Army communications systems.

Instruction: Lectures, practical exercises, and tests on topics in logistics, record keeping, shop planning, and communications systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications (7/89).

Related Occupation Codes: 286A.

AR-1715-0859

Telecommunications Technician Warrant Officer Technical Certification—Reserve Component Phases 2 and 4

Course Number: 4C-250A-RC, Phases 2 and 4; 4C-290A-RC, Phases 2 and 4.

Location: Signal School, Ft. Gordon, GA.

Length: Phase 2, 2 weeks (96 hours); Phase 4, 2 weeks (96 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform in senior-level supervisory positions using managerial and leadership concepts and will be able to manage a telecommunications center.

Instruction: Lectures, practical exercises, and exams on topics in logistics, record keeping, planning and telecommunications systems.

Credit Recommendation: Credit is not recommended because of the miltary-specific nature of the course (7/89).

Related Occupation Codes: 290A.

AR-1715-0860

Communications-Electronics Repair Technician Senior Warrant Officer

Course Number: 4-11-C32-256A.

Location: Signal School, Ft. Gordon, GA.

Length: 14 weeks (527 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will perform in senior-level supervisory positions using managerial concepts and leadership concepts; will be able to use computer hardware and software; and be able to troubleshoot and repair several specific Army communications systems.

Instruction: Lectures, practical exercises, and exams on the subjects taught. A core of leadership subjects is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 3 in electronic systems troubleshooting and maintenance, and 1 in leadership. For those students who complete annex N, satellite communications equipment, 2 additional semester hours in satellite communications systems (7/89).

Related Occupation Codes: 256A.

AR-1715-0861

Tactical Army Combat Computer System (TACCS) and Tactical Computer Terminal (TCT) Computer Systems Repair

Course Number: 160-F35.

Location: Signal School, Ft. Gordon, GA.

Length: 11 weeks (396 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a military tactical computer and its peripherals.

Instruction: Classroom and practical exercises involving the equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance (7/89).

AR-1715-0864

Avionic Equipment Maintenance Supervisor Basic Noncommissioned Officer (NCO)

Course Number: 102-35P30.

Location: Signal School, Ft. Gordon, GA.

Length: 19 weeks (726 hours).

Exhibit Dates: 10/86–9/89.

Learning Outcomes: Upon completion of the course, the student will be able to analyze and interpret the operations of electrical, electronic, and communications devices, circuits, and systems with the integration of these fundamentals in aviation electronic equipment.

Instruction: Lectures and practical exercises in the review of electronic circuits, AM and FM transmitters and receivers, diagnostic checks on UHF communication systems, theory and troubleshooting practices of avionic navigation equipment, and military supervision practices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in solid state electronics, 1 in avionic communication equipment, 1 in avionic navigation equipment, 1 in avionic flight control equipment, and 2 in digital fundamentals (4/90).

Related Occupation Codes: 35P.

AR-1715-0867

Avionic Flight Systems Repairer (Avionic Navigation and Flight Control Equipment Repairer)

Course Number: 102-35M10; 102-68Q10.

Location: Signal School, Ft. Gordon, GA.

Length: 21–24 weeks (820–912 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify series, parallel and series/parallel circuits, and determine values of resistance, voltage, and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain concepts of series and parallel resonance and basics of transformer operation; explain the basic operation of semiconductors, junction diodes, and bipolar transistors, and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers, power amplifiers, and operational amplifiers; explain the operation of FETs, SCRs, and UJTs, and troubleshoot and explain the operation of sinewave oscillator, multivibrator circuits, and Schmitt trigger circuits; explain principles of communication using amplitude modulation techniques; trace signal path, troubleshoot, and align receivers and transmitters; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; and solder and desolder wire to various types of electronic terminals.

Instruction: Includes electrical, electronic, digital, and communications non-calculus-based theory; hands-on evaluation and maintenance procedures of complex electronic systems with dedicated specialized test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering (4/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in solid state electronics, 2 in electronic communications, 3 in electronic systems troubleshooting and maintenance, and 3 in aircraft control augmentation (6/90).

Related Occupation Codes: 35M; 68Q.

AR-1715-0868

Avionic Communications Equipment Repairer

Course Number: 102-68L10.

Location: Signal School, Ft. Gordon, GA.

Length: 23 weeks (875 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify series, parallel, and series/parallel circuits, determine values of resistance, voltage, and current in the circuits; comprehend concepts of alternating current including frequency, phase, and reactance; explain concepts of series and parallel resonance and basics of transformer operation; explain the basic operation of semiconductors, junction divides and bipolar transistors and identify their use in rectifier circuit and voltage regulators; troubleshoot and explain the operation of basic transistor amplifier, power amplifier and operational amplifier; explain the operation of FE7s, SCRs, and UJTs, and troubleshoot and explain the operations of sinewave oscillators, multivibrator circuits, and Schmitt trigger circuits; comprehend single sideband communication techniques, including signal tracing and alignment of receiver and transmitter; explain principles of communication amplitude modulation techniques; trace signal path, troubleshoot, and align receivers and transmitters; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; explain the theory and operation of microprocessor-based computers including the concepts of bases, memory, control signals, and addressing; and solder and desolder wire to various types of electronic terminals.

Instruction: Includes electrical, electronic, and communications non-calculus theory; hands-on evaluation and maintenance procedures of very high frequency and ultra-high frequency communication equipment, standard lightweight avionic installations, and frequency modulated communication equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering (4/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in solid state electronics, 3 in electronic communications, 1 in digital fundamentals, 1 in microprocessors, and 3 in electronic systems troubleshooting and maintenance (4/90).

Related Occupation Codes: 68L.

AR-1715-0869

Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2

Course Number: 102-33V10; 104-33V10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 19–22 weeks (608–687 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain, troubleshoot, and repair a radar surveillance set, a radar data receiving set, a data system and an infrared countermeasures set.

Instruction: Lectures and practical exercises with emphasis on troubleshooting and repair of the equipment listed above.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 33V.

AR-1715-0870

JStars Ground Station Module (GSM) Operator/Supervisor

Course Number: 242-F5.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 5-12 weeks (180 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific military suveillance radar.

Instruction: Lectures and practical exercises focused on the use and operation of the surveillance radar. The first seven weeks of this course is contractor-taught and was not evaluated.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1715-0871

Special Electronic Mission Aircraft (SEMA) Common Core

Course Number: 2C-15C/2B.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2 weeks (70-71 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course the student will perform as an aviator in special aircraft used in military intelligence.

Instruction: Lectures and practical exercises on topics in military intelligence, surveillance radar, and threats to aircraft.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1715-0872

Advanced Mobile Subscriber Equipment (MSE) Node Switch/Large Extension Node Switch Operator

Course Number: 160-ASIV4(CT).

Location: Signal School, Ft. Gordon, GA.

Length: 3 weeks (117 hours).

Exhibit Dates: 2/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to initialize, modify and troubleshoot links in the communications system.

Instruction: Lectures and practical exercises on the operating and troubleshooting of switch links.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

AR-1715-0873

Mobile Subscriber Equipment (MSE) Systems Maintainer

Course Number: 101-ASIV8 (29M)(CT).

Location: Signal School, Ft. Gordon, GA.

Length: 3-4 weeks (121 hours).

Exhibit Dates: 7/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, align, and repair radio and associated communications equipment.

Instruction: Lectures and practical exercises on the functional characteristics and maintenance of radio access unit, line-of-sight, and down-the-hill super high frequency electronic communications equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 29M.

AR-1715-0874

Automated Communications Computer Systems Repairer

Course Number: 150-39G10.

Location: Signal School, Ft. Gordon, GA.

Length: 28-29 weeks (1036 hours).

Exhibit Dates: 2/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify series, parallel and series/parallel resistive circuits and determine values of resistance, voltage, and current in the circuit; calculate values of voltage and current in reactive AC circuits; explain the basic operation of semiconductors, junction diodes, and transistors and identify their use in rectifier circuits and voltage regulators; troubleshoot and explain the operation of basic transistor amplifiers and power amplifiers; identify operational amplifiers; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems, analyze logic circuits, flip-flop circuits, registers and counters; explain the theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; explain how a microcomputer performs arithmetic and logic operations; use machine language instructions; solder and desolder electronic components to printed circuit boards; troubleshoot and repair video display terminals, printers, card punch readers, magnetic tape units, and hard disk drives.

Instruction: Lectures and practical exercises related to topics in basic electronics and to the troubleshooting and repair of a computer system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 2 in solid state electronics, 1 in digital fundamentals, 2 in microprocessors, 3 in basic electronics laboratory, and 3 in computer systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 39G.

AR-1715-0875

Mobile Subscriber Equipment (MSE) System Planner/System Control Center Operator

Course Number: 260-ASIY3 (CT).

Location: Signal School, Ft. Gordon, GA.

Length: 11-12 weeks (410 hours).

Exhibit Dates: 8/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and maintain the control center of an electronic communications system.

Instruction: Lectures and practical exercises related to the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems troubleshooting and maintenance (6/90).

AR-1715-0876

Mobile Subscriber Equipment (MSE) Central Office Repairer

Course Number: 622-ASIV8 (29)(CT).

Location: Signal School, Ft. Gordon, GA.

Length: 7 weeks (276 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to locate and repair faults in telephone central office switching equipment.

Instruction: Lectures and practical exercises on the functional operation, technical characteristics, and maintenance of network switch, controllers, timing equipment, power equipment, and processing equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

AR-1715-0877

Tactical Satellite/Microwave Repairer Transition

Course Number: 113-29M10(T)-HTRTS-M.

Location: High Tech Regional Training Site, Sacramento, CA; High Tech Regional Training Site, Tobyhanna, PA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a satellite/microwave system.

Instruction: Lectures and practical exercises on troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

AR-1715-0878

DS/GS Test and Repair Station Maintenance (AH-64)

Course Number: 198-ASIX1.

Location: Signal School, Ft. Gordon, GA.

Length: 13 weeks (468 hours).

Exhibit Dates: 3/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain specific electronic test equipment.

Instruction: Lectures and practical exercises on troubleshooting and repairing the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

AR-1715-0879

Communications Systems/Circuit Controller (RC)

Course Number: 113-31N10-RC.

Location: Various locations, U.S. and overseas.

Length: 2-3 weeks (72-91 hours).

Exhibit Dates: 10/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to install and test cabled communications systems using basic electronic test instruments to test and troubleshoot.

Instruction: Lectures and practical exercises on the specific communication system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory (6/90).

Related Occupation Codes: 31N.

AR-1715-0880

Master Operator Maneuver Control System

Course Number: 4C-F41/101-F29.

Location: Signal School, Ft. Gordon, GA.

Length: 3 weeks (108 hours).

Exhibit Dates: 4/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the installation, operation, and maintenance of the maneuver control system.

Instruction: Lectures and practical exercises on the maneuver control system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-1715-0881

Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)

Course Number: 260-72E20; 260-72G20.

Location: Signal School, Ft. Gordon, GA.

Length: 7–8 weeks (276 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the installation, operation, and maintenance of tactical telecommunications centers.

Instruction: Lectures and practical exercises focused on operating a tactical telecommunications system.

Credit Recommendation: Credit is recommended for the common core only (6/90). See exhibit AR-1406-0090.

Related Occupation Codes: 72E; 72G.

AR-1715-0882

Telecommunications Terminal Device Repairer Sustainment

Course Number: 113-29J10-HTRTS-M.

Location: High Tech Regional Training Site, Sacramento, CA; High Tech Regional Training Site, Tobyhanna, PA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, troubleshoot, and maintain the digital telecommunications system.

Instruction: Lectures and practical exercises on troubleshooting and maintaining digital terminal devices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 29J.

AR-1715-0883

DAS3 Computer Systems Repairer

Course Number: 150-39D10.

Location: Signal School, Ft. Gordon, GA.

Length: 22–26 weeks (819–914 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify series, parallel and series/parallel resistive circuits and determine values of resistance, voltage and current in the circuit; recognize the meaning of frequency, period, sine wave, phase shift, inductance, reactance, capacitive reactance, and impedance; calculate voltages and currents in transformers and in reactive circuits; convert between and perform arithmetic in the decimal, binary, octal, and hexadecimal number systems; analyze logic circuits, flip-flop circuits, registers, and counters; explain how a microcomputer performs arithmetic and logic operations; use machine language instructions; explain the theory and operation of microprocessor-based computers including the concepts of buses, memory, control signals, and addressing; able to use basic electronic laboratory equipment; able to troubleshoot, maintain, and repair computer peripherals including printers, card readers, magnetic tape units, and hard disks.

Instruction: Lectures and practical exercises in electronics and computer peripherals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 1 in digital principles, 2 in microprocessors, and 3 in electronic systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 39D.

AR-1715-0884

Mobile Subscriber Equipment (MSE) Transmission System Operator

Course Number: 260-31D10 (CT).

Location: Signal School, Ft. Gordon, GA.

Length: 9–10 weeks (348 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, operate, and maintain transmission equipment.

Instruction: Lectures and exercises on the operation and maintenance of transmission equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

Related Occupation Codes: 31D.

AR-1715-0885

Mobile Subscriber Equipment (MSE) Systems Maintainer

Course Number: 201-ASIV8 (29E) (CT).

Location: Signal School, Ft. Gordon, GA.

Length: 2–3 weeks (80 hours).

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to explain the theory of operation, maintain and repair single channel radios and associated electronic equipment.

Instruction: Lectures and practical exercises on the direct support maintenance and repair of the logic unit, radio control unit, radio subassemblies, and power unit of single channel radios.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in systems troubleshooting and maintenance (6/90).

Related Occupation Codes: 29E.

AR-1715-0886

Mobile Subscriber Equipment (MSE) Network Switching System Operator

Course Number: 260-31F10.

Location: Signal School, Ft. Gordon, GA.

Length: 10 weeks (375 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to install operate, and maintain the mobile subscriber equipment network switching system.

Instruction: Lectures and demonstrations on skills necessary to perform operator/organizational maintenance on MSE switching equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

Related Occupation Codes: 31F.

AR-1716-0001

Textile Repair

Course Number: 760-43J20, 760-461.1; 10-R-461.1; 10-E-15.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/56–4/76.

Objectives: To train personnel to alter and repair individual clothing, textile items, and raincoats.

Instruction: Lectures and practical exercises in textile repair, including Army maintenance system; inspecting, marking, classifying, resizing, and fitting of clothing; hand sewing; operator maintenance and adjustments of clothing and textile repair sewing machines; machine sewing; clothing and textile shop operation; mobile clothing trainer operations; and moral leadership and responsibility.

Credit Recommendation: In the vocational certificate category, 4 semester hours in power sewing machines (6/74).

Related Occupation Codes: 43A; 43J.

AR-1716-0002

Textile Repair, Skill Development Base

Course Number: 760-43J40-1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 13 weeks (461 hours).

Exhibit Dates: 10/68–6/85.

Objectives: To train textile repairmen to supervise textile, canvas, and shoe repair operations and maintenance.

Instruction: Lectures and practical exercises in nomenclature; identification and repair methods used on canvas, tentage, webbed equipage, and shoes; and practical experience in repair methods and equipment maintenance and operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power sewing machines, 3 in shoemaking, 1 in textile fabrication (6/74).

Related Occupation Codes: 43J; 43M.

AR-1716-0003

1. Fabric Repair Specialist Advanced Individual Training
   (Fabric Repair Specialist)
2. Fabric Repair
3. Canvas and Webbed Equipage Repair
   (Canvas and Leather Repair)

Course Number: *Version 1:* 760-43M10. *Version 2:* 760-43M10. *Version 3:* 760-43K20; 10-R-462.1; 10-E-11.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6–7 weeks (234–238 hours). *Version 2:* 6 weeks. *Version 3:* 7–8 weeks (245–282 hours).

Exhibit Dates: *Version 1:* 11/85–Present. *Version 2:* 4/76–10/85. *Version 3:* 3/56–3/76.

Objectives: To train enlisted personnel in the duties and skills required to inspect, mark, repair and store tentage, body armor, and canvas and webbed items.

Instruction: *Version 1:* Through lectures and practical exercises the student covers inspecting and classifying cutting measurements and scales, clothing and textile repair, sewing machines, mobile clothing tailor operations, sewing and machine operation for canvas and webbed equipment. The student will be able to alter and repair organizational clothing, textile and canvas and webbed items. *Version 2:* Lectures and practical exercises in maintenance systems, inspection and classification, machine and hand sewn textiles, canvas repair, and machine operations; also covered is tailoring. The students will be able to alter and repair individual clothing, textiles, and canvas and webbed items. *Version 3:* Lectures and practical exercises in canvas and webbed equipage repair. Topics include the use of sewing machines; the repair of canvas items, including body armor, seats of jeeps, and tents; mobile textile trailer operations; and the operation of a canvas and webbed repair shop.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in textile equipment and textile repairs (8/88). *Version 2:* In the vocational certificate category, 3 semester hours in fabric repair and fabric machine operations (8/85). *Version 3:* In the vocational certificate category, 2 semester hours in power sewing machines, 1 in upholstery, 2 in textile fabrication (6/74).

Related Occupation Codes: 43K.

AR-1716-0004

Laundry and Drycleaning Operations (Navy)

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 4 weeks (200 hours). *Version 2:* 6 weeks (264 hours).

Exhibit Dates: *Version 1:* 10/70–6/85. *Version 2:* 4/63–9/70.

Objectives: To train enlisted personnel to dryclean and launder and to operate drycleaning equipment.

Instruction: Lectures and practical exercises in laundry and drycleaning, and in drycleaning equipment operation, including marking, finishing, and assembly of clothing, use of various chemicals and equipment,preventive maintenance of drycleaning, equipment, and fiber and fabric identification, construction, and chemical treatment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in laundry and drycleaning (6/74). *Version 2:* In the vocational certificate category, 4 semester hours in laundry and drycleaning (6/74).

AR-1716-0005

Laundry and Bath Specialist
(Laundry, Bath, and Impregnation)
(Laundry and Impregnation)

Course Number: *All Versions:* 840-57E20. *Version 1:* 840-57E10. *Version 2:* 10-R-546.1; 10-E-9.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (167 hours). *Version 2:* 7–8 weeks (240–280 hours).

Exhibit Dates: *Version 1:* 5/74–6/85. *Version 2:* 3/56–4/74.

Objectives: To train enlisted personnel as laundry, bath, and impregnation specialists.

Instruction: *All Versions:* Lectures and practical exercises in laundry, bath and impregnation, including laundry and impregnating procedures; maintenance procedures; operation and operator maintenance of field bath and delousing equipment; and operation and maintenance of mobile laundry equipment. *Version 2:* Topics include operation and operator maintenance of drycleaning equipment and drycleaning procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in laundry operation (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in laundry operations, 1 in drycleaning (5/74).

Related Occupation Codes: 57E.

AR-1716-0006

Laundry and Fumigation Officer

Course Number: 10-O-19.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train selected quartermaster officers to supervise and direct the operation of mobile, semimobile, or fixed laundries; drycleaning plants; shower-bath units; or fumigation and delousing facilities.

Instruction: Lectures and practical exercises in the supervision of mobile, semimobile, or fixed laundries; drycleaning plants; shower-bath units; or fumigation and delousing facilities. Course includes laundry and drycleaning procedures; operation of a fixed drycleaning plant; mobile laundry equipment operation and maintenance; and fumigation and bath operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in laundry and drycleaning management (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in laundry and drycleaning management (8/74).

AR-1716-0008

Fabric Repair Specialist/Laundry and Bath Specialist
Fabric Repair Specialist Basic Techinical)
(Laundry and Bath Specialist Basic Technical)

Course Number: *Version 1:* 760-43M30/840-57E30. *Version 2:* 760-43M30; 840-57E30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (93 hours) *Version 2:* 6–11 weeks (216 hours).

Exhibit Dates: *Version 1:* 2/85–12/88. *Version 2:* 10/84–1/85.

Objectives: To provide students with the ability to supervise small and medium sized textile and repair facilities.

Instruction: Conferences, practical exercises, visual aids, and demonstrations are used to cover fabric repair, shop safety, preventive maintenance, workflow, supervision and quality control, shop operations, and records maintenance of a fabric repair/laundry and bathe operation. *Version 2:* Course includes a 5 week common core.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory management (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory management (8/85).

Related Occupation Codes: 43M; 57E.

AR-1716-0009

Laundry and Bath Specialist

Course Number: 840-57E10-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3–4 weeks, self-paced and programmed (133 hours).

Exhibit Dates: 1/81–Present

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain laundry, bath, and fumigation equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of field bath, heater, and delousing equipment and clothing; exchange procedures, operation and maintenance of field laundry equipment and laundry processing procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in laundry equipment maintenance (10/88).

AR-1716-0010

Laundry and Bath/Fabric Repair Specialist Basic Noncommissioned Officer (NCO)

Course Number: 840-57E/43M30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6–7 weeks (241 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise small and medium sized textile and repair facilities.

Instruction: Conferences, practical exercises, visual aids, and demonstrations are used to cover fabric repair, shop safety, preventive maintenance, workflow, supervision and quality control, shop operations, and records maintenance of a fabric repair/laundry and bathe operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory management (10/88). Credit for the common core is in AR-1406-0090.

Related Occupation Codes: 43M; 57E.

AR-1717-0001

Materiel Maintenance Management Intern Program

Course Number: None.

Location: DARCOM Intern Training Center, Red River Depot, Texarkana, TX.

Length: 48 weeks (1,920 hours).

Exhibit Dates: 7/68–6/84.

Objectives: To provide students with training which will enhance their ability to perform effectively in various Army maintenance management positions.

Instruction: Lectures, conferences, cases, practical exercises, guest speakers, field trips, on-the-job training, demonstrations, group discussions, and research covering plans, programs, and budgets as they relate to maintenance control systems, control techniques, management of maintenance operations, the relationship of maintenance to other activities, and the importance of the human element in management. Topics include general management, production planning and control, maintenance management, and introduction to blueprint reading, automotive mechanics, and basic electricity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to blueprint reading, automotive mechanics, and basic electricity (12/76); in the upper-division baccalaureate category, 6 semester hours in general management, 5 in production planning and control, 6 in maintenance management (12/76).

AR-1717-0002

Air Defense Missile Repair Noncommissioned Officer (NCO)

Advanced

(Air Defense Missile Maintenance Noncommissioned Officer (NCO) Advanced)

(Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Advanced)

(Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: 1-23-C42B; 1-AD-C42B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 8–20 weeks (279–704 hours). *Version 2:* 10–12 weeks (318–442 hours).

Exhibit Dates: *Version 1:* 12/77–1/86. *Version 2:* 4/73–11/77.

Objectives: To provide noncommissioned officers with advanced training in management techniques and air defense operations.

Instruction: *Version 1:* Lectures and practical exercises in management, materials and supply handling and control, data processing, Nike Hercules and Hawk Missile system analysis and air defense operations and intelligence. *Version 2:* Lectures and practical exercises in management, data processing, Nike Hercules and Hawk missile system analysis, and air defense operations and intelligence.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours maintenance management, 2 in materials/supply handling and control and 1 in oral communications (5/86). *Version 2:* Credit is not recommended because of the limited technical nature of the course (6/75).

Related Occupation Codes: 23V; 23W; 24V; 00Z; 22K; 22L; 22N; 23Q; 23N; 23S; 23T; 23U; 24H; 24J; 24K; 46D; 24L; 26H.

AR-1717-0003

Nuclear Weapons Maintenance Warrant Officer Advanced

Course Number: 4-9-C32; 4-9-C32E.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 9 weeks (320 hours).

Exhibit Dates: 1/72–10/76.

Objectives: To provide warrant officers with a working knowledge of nuclear weapons management.

Instruction: Conferences on nuclear weapons, management, special warfare operations, inspections, and quality assurance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in management (2/74); in the upper-division baccalaureate category, 2 semester hours in management (2/74).

AR-1717-0004

Airplane Technical Inspector

(Fixed Wing Technical Inspector)

Course Number: *All Versions:* 600-67F20. *Version 2:* 600-679.4; 55-R-679.4.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 11 weeks (372 hours). *Version 2:* 9 weeks (318–334 hours).

Exhibit Dates: *Version 1:* 8/74–6/77. *Version 2:* 6/65–7/74.

Objectives: To train enlisted personnel in the techniques and procedures of technical inspection of fixed-wing light aircraft.

Instruction: Lectures and practical exercises in maintenance management, maintenance shop operations, engine troubleshooting, and aircraft inspections on fixed-wing light aircraft.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance management (6/75). *Version 2:* In the vocational certificate category, 4 semester hours in aircraft inspections and maintenance management (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft inspections and maintenance management (3/74); in the upper-division baccalaureate category, 2 semester hours in aircraft inspections and maintenance management (3/74).

Related Occupation Codes: 67B; 67C; 67G; 67H; 67F; 67Z.

AR-1717-0005

Aircraft Component Repair Advanced Noncommissioned Officer (NCO)

(Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *Version 1:* 6-AV-C42. *Version 2:* 6-AV-C42.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 6–10 weeks (226–345 hours). *Version 2:* 12 weeks (363 hours).

Exhibit Dates: *Version 1:* 12/73–9/85. *Version 2:* 8/72–11/73.

Objectives: To provide noncommissioned officers with advanced training in aircraft maintenance management.

Instruction: *All Versions:* Lectures and practical exercises in military operations, military management, including personnel, records, and logistics; leadership syles; communications; staff organization and functions; and aviation management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in aircraft maintenance management (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance management (3/74).

Related Occupation Codes: 68K; 67B; 67C; 67F; 67G; 67H; 67M; 67N; 67P; 67U; 67V; 67W; 67X; 67Y; 67Z; 68B; 68D; 68E; 68F; 68G; 68H.

AR-1717-0006

Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 6-AV-C40.

Location: Transportation School, Ft. Eustis, VA.

Length: 9–12 weeks (321–403 hours).

Exhibit Dates: 7/72–6/76.

Objectives: To provide enlisted personnel with training in aviation maintenance management.

Instruction: Lectures and practical training in aviation systems maintenance, military operations, leadership training, maintenance management, airframe repair, turbine engines, and aircraft repair performance tests.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in aviation maintenance management, and 3 in aircraft systems maintenance (6/75).

Related Occupation Codes: 67B; 67N; 67C; 67G; 67H; 67P; 67T; 67U; 67X; 67Y; 67V; 67M; 68B; 68D; 68E; 68F; 68G; 68H.

AR-1717-0007

OV-1 Airplane Repair Specialist Candidate

(OV-1 Airplane Repair, Skill Development Base)

Course Number: 600-67H20-1.

Location: Transportation School, Ft. Eustis, VA.

Length: 12–13 weeks (480–534 hours).

Exhibit Dates: 10/68–7/72.

Objectives: To train aircraft repairmen to maintain and repair OV-1 aircraft.

Instruction: Lectures and practical exercises in leadership, maintenance management, and familiarization with the OV-1 aircraft.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aviation maintenance management (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (3/74); in the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (3/74).

Related Occupation Codes: 67H.

AR-1717-0008

OH-13/OH-23 Helicopter Repairman, Skill Development Base

Course Number: 600-67M20-1.

Location: Aviation School, Ft. Rucker, AL.

Length: 13 weeks (513 hours).

Exhibit Dates: 1/69–11/86.

Objectives: To train enlisted personnel in OH-13/OH-23 helicopter repair and maintenance management.

Instruction: Lectures and practical exercises in leadership; communication skills; aviation maintenance management; OH-13/OH-23 helicopter inspection, maintenance, and repair; and aircraft life support equipment inspection, maintenance, and repair procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aviation maintenance management (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management (3/74); in the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (3/74).

Related Occupation Codes: 67M; 67W.

AR-1717-0009

1. Aircraft Maintenance Supervisor
2. Aircraft Maintenance Supervisor
3. Army Aviation Maintenance Management

Course Number: *Version 1:* 600-67Z40. *Version 2:* 55-R-679.1. *Version 3:* 55-R-679.6; 55-R-671.7; 55-R-672.7; 55-R-673.7; 55-R-674.7.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8 weeks (273 hours). *Version 2:* 5 weeks (175–181 hours). *Version 3:* 8 weeks (282 hours).

Exhibit Dates: *Version 1:* 9/66–12/68. *Version 2:* 7/60–8/66. *Version 3:* 3/58–6/60.

Objectives: To provide selected enlisted personnel with advanced training in aviation maintenance management, production, and quality control.

Instruction: Lectures and practical exercises in management, general and technical inspection, maintenance procedures, aircraft components maintenance and repair, planning and controls, and shop management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in shop management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in shop management (2/74); in the upper-division baccalaureate category, 2 semester hours in shop management (2/74). *Version 2:* In the vocational certificate category, 3 semester hours in shop management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in shop management (2/74); in the upper-division baccalaureate category, 2 semester hours in shop management (2/74). *Version 3:* In the vocational certificate category, 4 semester hours in shop management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in shop management (2/74); in the upper-division baccalaureate category, 2 semester hours in shop management (2/74).

Related Occupation Codes: 67F; 67W; 67Z.

AR-1717-0010

1. Helicopter Technical Inspector (Rotary Wing Technical Inspector)
2. Rotary Wing Technical Inspector

Course Number: *Version 1:* 600-67W20. *Version 2:* 600-679.5.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 11 weeks (395-400 hours). *Version 2:* 9 weeks (322 hours).

Exhibit Dates: *Version 1:* 12/67-7/77. *Version 2:* 6/65-11/67.

Objectives: To provide helicopter repairmen with training in rotary-wing aircraft technical inspection procedures and techniques.

Instruction: Lectures and practical exercises in rotary-wing aircraft technical inspection procedures and techniques, including aviation maintenance management procedures, aircraft hydraulic and electrical systems inspection, precision measuring tools and technical drawings usage, aircraft structures, instrument systems inspection, engine troubleshooting procedures and equipment operation, engine diagnosis and testing, and functional testing of helicopters.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft maintenance management (6/75). *Version 2:* In the vocational certificate category, 6 semester hours in helicopter and engine maintenance management, shop management, or inspection procedures (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter and engine maintenance management, shop management, or inspection procedures (2/74).

Related Occupation Codes: 67N; 67Q; 67S; 67T; 67U; 67V; 67W; 67X; 67Y; 67Z.

AR-1717-0011

1. Electronics Maintenance Officer
2. Signal Equipment Maintenance and Repair Officer
3. Signal Equipment Maintenance and Repair Officer (Signal Material Maintenance Officer)

Course Number: *Version 1:* 4C-72A; 4C-4825; 4C-286A. *Version 2:* 4C-4415; 4C-286A. *Version 3:* 11-B-4415; 11-B-286A; 11-O-24.

Location: Signal School, Ft. Gordon, GA. Signal School, Ft. Monmouth, NJ.

Length: *Version 1:* 9-11 weeks (294-394 hours). *Version 2:* 10 weeks (334-364 hours). *Version 3:* 8 weeks (280-292 hours).

Exhibit Dates: *Version 1:* 4/71-12/86. *Version 2:* 4/65-3/71. *Version 3:* 7/55-3/65.

Objectives: To train commissioned officers and warrant officers to supervise direct or general support maintenance on electronic equipment.

Instruction: *All Versions:* Lectures and practical exercises in maintenance management, direct and general support maintenance, and signal maintenance. Much of the instruction is in nontechnical material. *Version 1:* Includes electrical and electronics fundamentals and communications and electronic equipment, including telephone, radio, teletype, radar, microwave and avionics equipment. *Version 2:* Includes electrical and electronics fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity, and additional credit in electricity on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (12/68); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 4 semester hours in maintenance management (12/68).

Related Occupation Codes: 286A; 286A; 281A; 282A.

AR-1717-0012

Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (76W)

Course Number: 8-PT-C40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (422 hours).

Exhibit Dates: 11/72-6/85.

Objectives: To train junior noncommissioned officers to perform as senior noncommissioned officers in basic petroleum products management.

Instruction: Lectures and practical exercises in petroleum products management, including leadership, logistical combat support, communicative techniques, class III supply point operations, terminal operations, military pipeline operations, general petroleum subjects and ground vehicles, laboratory management and maintenance of laboratory equipment, evaluation of laboratory test reports, and operation, maintenance, and troubleshooting of CFR test engines.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial management (6/74).

Related Occupation Codes: 76W.

AR-1717-0013

Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (92C)

Course Number: 8-PT-C40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (294 hours).

Exhibit Dates: 11/72-6/85.

Objectives: To train junior noncommissioned officers to perform as senior noncommissioned officers in basic petroleum products management.

Instruction: Lectures and practical exercises in petroleum products management, including leadership, logistical combat support, communicative techniques, class III supply point operations,terminal operations, military pipeline operations, generalpetroleum subjects and ground vehicles,laboratory management and maintenance of laboratory equipment, evaluation of laboratory test reports, and operation, maintenance, andtroubleshooting of CFR test engines.

Credit Recommendation: In the vocational certificate category, 6 semester hours as an elective in industrial management (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours as an elective in industrial management (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in industrial management (6/74).

Related Occupation Codes: 92C.

AR-1717-0014

Armament Maintenance and Repair Officer

Course Number: *All Versions:* 4E-4808. *Version 2:* 9-B-4808.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 10-14 weeks (352-441 hours). *Version 2:* 6-7 weeks (210-256 hours).

Exhibit Dates: *Version 1:* 10/70-1/84. *Version 2:* 10/56-9/70.

Objectives: To train commissioned and warrant officers to supervise repair and maintenance of small arms, artillery and artillery fire control materiel.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of the repair and maintenance of small arms, artillery and artillery fire control materiel, including maintenance management, shop operation, communication equipment, and aircraft armament subsystems, and in inspection, malfunction diagnosis, disassembly, reassembly and testing of rifles, machine guns, tank turrets, artillery, recoilless rifles, and air defense and fire direction equipment. *Version 1:* Includes maintenance operations. *Version 2:* Includes bore evaluation and range firing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial management (5/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial management (5/74).

AR-1717-0015

Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 1-CM-C42.

Location: Signal School, Ft. Monmouth, NJ; Signal School, Ft. Gordon, GA.

Length: 11 weeks (383 hours).

Exhibit Dates: 7/73-1/78.

Objectives: To train experienced personnel to maintain and repair fixed-plant communications equipment.

Instruction: Lectures and practical exercises in fixed-plant communications equipment maintenance, including general military subjects, command and staff operations, combined arms, special weapons and CBR operations, applied communications, leadership, administration and management, combat service support operations, logistics, satellite communications, communications security, fixed-station radio communications, data processing and data communications, and dial exchange equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in administrative management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in administrative management (6/74); in the upper-division baccalaureate category, 2 semester hours in administrative management (6/74).

Related Occupation Codes: 26V; 32D; 32E; 32F; 32G; 32H; 32Z.

AR-1717-0016

Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 5-CO-C40A.

Location: Signal School, Ft. Gordon, GA; Southeastern Signal School, Ft. Gordon, GA.

Length: 8–12 weeks (286–475 hours).

Exhibit Dates: 2/73–1/85.

Objectives: To qualify enlisted personnel as noncommissioned officers in communications operations.

Instruction: Lectures and practical exercises in communications operations, including leadership; career management and administrative technical training; radio relay and carrier, communications center, data terminal, radio teletypewriter, field radio, field wire, antenna, lineman, cable splicer, switchboard, and circuit controller operations; and functional and field training.

Credit Recommendation: In the vocational certificate category, 1 semester hour in leadership (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in leadership (6/74).

Related Occupation Codes: 05B; 05C; 05E; 05F.

AR-1717-0017

Combat Area Surveillance Radar Repair, Specialist Candidate
(Combat Area Surveillance Radar Repair, Skill Development Base)

Course Number: 104-26C30-I.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (584–624 hours).

Exhibit Dates: 10/68–1/78.

Objectives: To qualify enlisted personnel as supervisors or technicians in combat area surveillance radar repair.

Instruction: Lectures on the duties and responsibilities of supervisors and technicians in combat area surveillance radar repair. Course includes leadership principles, maintenance and supply management, shop organization and administration, installation requirements, direct and general support maintenance, and techniques of military instruction.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supervisory training or human relations (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supervisory training or human relations (6/74).

Related Occupation Codes: 26C; 26W.

AR-1717-0018

Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 2-SA-C40B.

Location: Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: 10–12 weeks (362–424 hours).

Exhibit Dates: 12/72–1/89.

Objectives: To train enlisted personnel as non-integrated radar maintenance noncommissioned officers.

Instruction: Lectures and practical exercises on non-integrated radar maintenance, including individual career development, individual and mass communications, company administration, company operations, army organization and operations, advanced map and navigation principles, communications, STANO, ground surveillance radar operation procedures, new equipment training, trends and developments, airborne photographic surveillance, specific surveillance systems, and specific aircraft and systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 17K; 17L; 17M.

AR-1717-0019

Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-RM-C40B

Location: Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ.

Length: 12 weeks (426 hours).

Exhibit Dates: 12/73–12/78.

Objectives: To train enlisted personnel as non-integrated radar maintenance noncommissioned officers.

Instruction: Lectures and practical exercises on non-integrated radar maintenance, including individual career development, individual and mass communications, company administration, company operations, army organization and operations, advanced map and navigation principles, communications, STANO, ground surveillance radar operations procedures, new equipment training, trends and developments, airborne photographic surveillance, specific surveillance systems, and specific aircraft and systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (6/74).

Related Occupation Codes: 26C; 26K; 26M; 26N.

AR-1717-0020

Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 1-RM-C42.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10–11 weeks (369–383 hours).

Exhibit Dates: 7/73–1/78.

Objectives: To qualify enlisted personnel as advanced noncommissioned officers in non-integrated radar maintenance.

Instruction: Lectures and practical exercises in non-integrated radar maintenance, including general military subjects, command and staff operations, combined arms, special weapons and CBR operations, applied communications, fixed-station communications, radar equipment communications security, satellite communications, logistics, combat service support operations, administration and management, and communicative arts or human relations and management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in administrative management (6/74).

Related Occupation Codes: 26H; 26K; 26M; 26P; 26W.

AR-1717-0021

Aircraft Maintenance Officer (Phases I, II and III)

Course Number: 4D-4823; 4D-671B; 4D-671C.

Location: Transportation School, Ft. Eustis, VA.

Length: 18 weeks (672 hours).

Exhibit Dates: 6/68–9/69.

Objectives: To train commissioned and warrant officers as aircraft maintenance officers.

Instruction: Lectures and practical exercises on organizational, direct, and general support aircraft maintenance and maintenance management procedures, including logistics, management training, aviation maintenance support, maintenance management, fixed-wing and rotary-wing aircraft, aircraft component repair, aircraft welding, specific technical subjects, basic aerodynamics, fuels, lubricants, dispensing equipment, safety procedures, and corrosion control.

Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management (6/74).

Related Occupation Codes: 160A; 103A.

AR-1717-0022

Aircraft Maintenance Officer

Course Number: *All Versions:* 55-O-16. *Version 1:* 55-B-4823; 55-B-671B; 55-B-671C.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 14–16 weeks (496–549 hours). *Version 2:* 12 weeks (433 hours).

Exhibit Dates: *Version 1:* 4/55–5/68. *Version 2:* 3/54–3/55.

Objectives: To train commissioned and warrant officers in aircraft maintenance and maintenance management procedures.

Instruction: *All Versions:* Lectures and practical exercises in aircraft maintenance and maintenance management procedures, including logistics, maintenance fundamentals, maintenance operations, fixed- and rotary-wing aircraft, and aircraft component repair. *Version 1:* Instruction includes personnel management, financial management and inventory accounting, programming and budget system, and management structure.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in industrial management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management (6/74). *Version 2:* Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 160A; 103A.

AR-1717-0023

Aircraft Maintenance Officer and Repair Technician - Phase I
(Aircraft Maintenance Officer - Phase II)

Course Number: 4D-4823; 4D-671B; 4D-671C; 4D-671D; 4D-671E.

Location: Transportation School, Ft. Eustis, VA.

Length: 13 weeks (451-472 hours).

Exhibit Dates: 8/70-9/74.

Objectives: To train commissioned and warrant officers as aircraft maintenance officers and repair technicians.

Instruction: Lectures and practical exercises in aircraft maintenance management procedures, including logistics, management training, aviation maintenance support, maintenance fundamentals, applied management, maintenance and shop operations, fixed-wing aircraft, multiengine helicopters, single-engine helicopters, aircraft armament and recovery, and field and mechanized stock-control procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management (6/74).

Related Occupation Codes: 160A; 103A; 100Q; 100R; 100B.

AR-1717-0024

Aircraft Maintenance Officer (Phase IV)

Course Number: 4D-4823; 4D-671B; 4D-671C; 4D-671D; 4D-671E.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (94 hours).

Exhibit Dates: 6/68-9/74.

Objectives: To qualify commissioned or warrant officer aviators with experience in aircraft maintenance as maintenance test pilots.

Instruction: Lectures and practical exercises in detection and diagnosis of, and prescription of appropriate corrective action for, problems encountered in preflight, ground run, maintenance and functional flight tests of OV-1 aircraft, including OV-1 design and standards, functional flight test, AC and DC electrical systems, hydraulic systems, propeller and rigging, flight control system, utility and environmental systems, Martin-Baker J-5 ejection seat, instruments, turbine engine analysis, and fuel control.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

Related Occupation Codes: 160A; 103A.

AR-1717-0025

Aircraft Maintenance Officer (Phase V)

Course Number: 4D-4823; 4D-671B; 4D-671C.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (108 hours).

Exhibit Dates: 6/68-9/74.

Objectives: To train commissioned and warrant officer aviators experienced in aircraft maintenance to perform as maintenance test pilots.

Instruction: Lectures and practical exercises in detection and diagnosis of, and prescription of appropriate corrective action for, problems encountered during a preflight, ground run, maintenance and functional flight test of OH-6 and OH-58 helicopters, including functional test flight, test flight troubleshooting, functional test flight vibrations, anti-torque system, electrical instrument and warning system, maintenance readiness inspection, and airframe and engine fuel system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

Related Occupation Codes: 160A; 103A.

AR-1717-0026

Aircraft Maintenance Officer (Phase III)

Course Number: 4D-4823; 4D-671B; 4D-671C; 4D-671E.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (106 hours).

Exhibit Dates: 6/68-9/74.

Objectives: To train aircraft maintenance officers to perform as maintenance test pilots.

Instruction: Lectures and practical exercises in detection and diagnosis of, and prescription of appropriate corrective action for, problems encountered in preflight and functional flight tests of CH-47 helicopters, including general information and preflight review, airframe and fuel systems, flight control neutral rig checks and hydraulic systems, AC-DC electrical system, blade tracking, hover and forward flight checks, SAS and speed trim introduction and troubleshooting, and T-55 turbine engine systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AR-1717-0027

Aircraft Maintenance Officer (Phase II)

Course Number: 4D-4823; 4D-671B; 4D-671C.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (116 hours).

Exhibit Dates: 6/68-9/74.

Objectives: To train commissioned officers or warrant officers to detect and diagnose problems related to helicopter flight clearance.

Instruction: Lectures and practical exercises in the duties of aircraft maintenance officers. Course includes technical topics relating to the design and functions of helicopters.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AR-1717-0028

Maintenance Supervisor
(Intercept Equipment Maintenance Supervisor)

Course Number: 102-F8; 102-33D40; 32-R-286.6.

Location: Security Agency, Ft. Devens, MA.

Length: 17-27 weeks (605 hours).

Exhibit Dates: 1/64-9/86.

Objectives: To train personnel to perform as maintenance supervisors.

Instruction: Lectures and practical exercises in the duties of USASA maintenance supervisors, including functions of NSA and organization, missions, and function of USASA; state-of-the-art electronics devices; intercept receiving systems; ECM/DF systems; intercept recording systems; intercept demultiplexing systems; automatic data processing systems; communications equipment; maintenance concepts; principles of management; resources management; administration; and signal supply and training management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (6/74); in the upper-division baccalaureate category, 3 semester hours in principles of management (6/74).

Related Occupation Codes: 33C; 33D; 33F; 33G.

AR-1717-0029

Pershing Guidance and Control Repairman 1(A) Noncommissioned Officer (NCO) Advanced

Course Number: 121-21L50-EC.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 13 weeks (477 hours).

Exhibit Dates: 11/70-3/73.

Objectives: To train enlisted personnel as senior noncommissioned administrators of Pershing missile guidance and control repair units.

Instruction: Lectures and practical exercises in repair of Pershing missile guidance and control systems. Course includes military organization and functions, and Pershing missile ancillary test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory, 6 in business management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory, 3 in business management (6/74).

Related Occupation Codes: 21L; 21M.

AR-1717-0030

Land Combat Support System (LCSS)—Missile Maintenance Noncommissioned Officer (NCO) Advanced

Course Number: 121-27Z50-EC.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 20 weeks (710 hours).

Exhibit Dates: 2/71-3/73.

Objectives: To train senior enlisted personnel to organize, manage, and maintain specific missile systems.

Instruction: Lectures and practical exercises in the duties of a missile maintenance chief. Course includes Chaparral missile, Vulcan air defense, Redeye weapon, Tow missile, and Shillelagh missile systems, and general combat support systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in business management, 4 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business management, 2 in electronics laboratory (6/74); in the upper-division baccalaureate category, 2 semester hours in business management, 1 in electronics laboratory (6/74).

Related Occupation Codes: 27B; 27D; 27E; 27F; 27G; 27H; 27Z; 16Z.

AR-1717-0031

SERGEANT MAINTENANCE CHIEF NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: 121-21U50-EC

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 19 weeks (689 hours).

Exhibit Dates: 11/70–3/73.

Objectives: To train noncommissioned officers in the maintenance and management of Sergeant missile systems.

Instruction: Lectures and practical exercises in the duties of Sergeant maintenance chiefs. Course includes management functions, data processing operations, human factors budget cycles, and a complete overview of the Sergeant missile systems, including block-diagram analysis, troubleshooting techniques and system operation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in industrial management, or as an elective in management (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in industrial management, or as an elective in management (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management, or as an elective in management (6/74).

Related Occupation Codes: 21R, 21S, 21T, 21U, 46L.

AR-1717-0032

SURFACE-TO-AIR MISSILE (SAM) SYSTEM MAINTENANCE (NIKE) WARRANT OFFICER ADVANCED

Course Number: 4-9-C32; 4-9-C32-B; 4F-251B-B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 17 weeks (616 hours).

Exhibit Dates: 2/72–10/76.

Objectives: To train warrant officers in Nike and Hawk missile management and logistics.

Instruction: Lectures and practical exercises at the advanced level in the maintenance of surface-to-air missile systems, including the Hawk and Nike missile system. Course includes personnel management, data processing, operations research, systems and analysis, motivation techniques, budget cycles, statistics, human factors, missile systems, AC and DC distribution systems, communication systems, radar, and digital systems.

Credit Recommendation: In the vocational certificate category, 12 semester hours in industrial management or management elective (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in industrial management or management elective (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management or management elective (6/74).

AR-1717-0033

ARMOR MAINTENANCE OFFICER

(Armor Maintenance and Motor Transport)

(Armor Motor Officer)

Course Number: 17-B-0606; 17-B-631A; 17-B-0600; 17-O-5.

Location: Armor School, Ft. Knox, KY.

Length: 14–15 weeks (549–591 hours).

Exhibit Dates: 11/55–12/68.

Objectives: To train officers to supervise armor maintenance units.

Instruction: Lectures and practical exercises in armor unit maintenance, including engine and fuel systems construction, disassembly, and assembly; engine, electrical air, fuel, cooling, and lubricating systems diagnosis and repair; wheeled-vehicle power trains maintenance and administrative operations; recovery vehicle maintenance; medium guntank maintenance; and armored infantry vehicle maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in business or industrial management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in business or industrial management (7/74); in the upper-division baccalaureate category, 3 semester hours as an elective in business or industrial management (7/74).

AR-1717-0034

SURFACE-TO-SURFACE MISSILE (SSM) SYSTEM MAINTENANCE (SERGEANT) WARRANT OFFICER ADVANCED

Course Number: 4-9-C32; 4-9-C32-C; 4F-241E-B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 11 weeks (402 hours).

Exhibit Dates: 3/72–10/76.

Objectives: To train warrant officers in Pershing and Sergeant missile system management and logistics.

Instruction: Lectures and practical exercises in Pershing and Sergeant missile system management and logistics, including missile system functions and operations, ground handling equipment, system component test station, programmer test station, emergency and safety procedures, and missile maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in military management and business administration (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in military management and business administration (6/74).

AR-1717-0035

ASSOCIATE SURFACE-TO-AIR (SAM) OFFICER ADVANCED

Course Number: 44-O-4B.

Location: Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 16 weeks (568 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train officers to be surface-to-air missile officers.

Instruction: Lectures and practical exercises in nuclear weapons and safety, Nike Ajax missile systems, command and staff procedures, communications, tactics, and leadership principles.

Credit Recommendation: In the vocational certificate category, 6 semester hours in business administration (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business administration (6/74); in the upper-division baccalaureate category, 3 semester hours in business administration (12/68).

AR-1717-0036

QUARTERMASTER MAINTENANCE SUPERVISION

Course Number: *All Versions:* 10-B-F7. *Version 1:* 10-A-F7.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 3 weeks (105 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 8/61–12/68. *Version 2:* 7/60–7/61.

Objectives: To train commissioned and warrant officers in the principles, methods, and techniques of supervising quartermaster maintenance operations.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of quartermaster maintenance operations. *Version 1:* Topics include administration and maintenance procedures, organization and operation of field maintenance shops, depot shop operations, and technical inspection of equipment. *Version 2:* Topics include supervision and management of personnel, Army command management system, repair parts supply, packaging, leadership, teaching principles and effective speaking, administrative and maintenance procedures, supervision of shop operations, and operation of TOE maintenance activities.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in shop management (7/74); in the upper-division baccalaureate category, 2 semester hours in shop management (12/68). *Version 2:* In the vocational certificate category, 3 semester hours in shop management (7/74); in the upper-division baccalaureate category, 3 semester hours in shop management (12/68).

AR-1717-0037

ELECTRONIC WARFARE (EW) SIGNAL INTELLIGENCE (SIGINT) MORSE INTERCEPTOR BASIC TECHNICAL (BTC)

(Electronic Warfare (EW) Cryptologic Interceptor—Morse Basic Technical)

Course Number: 231-05H30.

Location: Intelligence School, Ft. Devens, MA.

Length: 5–10 weeks (176–341 hours).

Exhibit Dates: 4/77–9/85.

Objectives: To train electronic-warfare/cryptologic-interceptor (Morse) technicians for supervisory and managerial positions.

Instruction: Instruction and practical exercises in map reading, maintenance management procedures,logistics and science, supervision of maintenance personnel, electronic warfare, intelligence and security operations, and military science. For the course after 10/85, see exhibit AR-1717-0079.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management and supervision (2/83).

Related Occupation Codes: 05H

AR-1717-0038

ARTILLERY VEHICLE MAINTENANCE SUPERVISOR

(Artillery Vehicle Maintenance Supervision)

Course Number: 6-R-631.7; 6-R-631.6; 6-R-632.7; 6-E-10; 6-R-632.6.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4–12 weeks (141–422 hours).

Exhibit Dates: 8/55–12/68.

Objectives: To train enlisted personnel to supervise turret maintenance, organizational maintenance, and recovery of artillery vehicles.

Instruction: Lectures and practical exercises in the supervision of turret maintenance, organizational maintenance, and recovery of artillery vehicles, including maintenance management, internal-combustion engines, starting and charging systems, hydraulic actuators and controls, transmissions and final drives, braking systems, fuel and other engine systems, welding, troubleshooting of specific engine equipment and systems, missile- and rocket-handling equipment, and engine electrical systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology and middle management (7/74); in the upper-division baccalaureate category, 2 semester hours in automotive technology and middle managememt (7/74).

AR-1717-0039

1. Armor Officer Basic Tank/Armor Officer Basic Cavalry
2. Armor Officer Basic (Armor Officer Orientation)
3. Armor Officer Basic

Course Number: *Version 1:* 2-17-C20-12A. *Version 2:* 2-17-C20; 17-A-C20B; 17-A-C20. *Version 3:* 17-A-C1; 17-O-A.

Location: Armor School, Ft. Knox, KY.

Length: *Version 1:* 15-16 weeks (785-831 hours). *Version 2:* 8-13 weeks (327-552 hours). *Version 3:* 10-16 weeks (391-628 hours).

Exhibit Dates: *Version 1:* 4/78-4/83. *Version 2:* 7/60-3/78. *Version 3:* 5/55-6/60.

Objectives: To train commissioned officers to perform as armor officers.

Instruction: *All Versions:* Lectures and practical exercises in the duties of an armor officer. Course includes automotive maintenance system, employment of armored vehicles, nuclear weapons, artillery and infantry operations, engineer operations, communication equipment and procedures, tactical and field communications, and weapon familiarization. After 1983, see AR-1717-0080 and AR-1717-0081. *Version 1:* This version also emphasizes leadership and command, supply management and nuclear, biological and chemical defense.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in military science or 1 semester hour in basic management/supervision (2/80). *Version 2:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (12/68). *Version 3:* In the vocational certificate category, 3 semester hours as an elective in management programs (7/74); in the upper-division baccalaureate category, credit in advanced military at institutions which normally offer such credit (12/68).

AR-1717-0040

1. Mechanical Maintenance Noncommissioned Officer (NCO) Advanced
2. Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced
3. Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced)
   (Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *All Versions:* 6-63-C42. *Version 2:* 6-MM-C42. *Version 3:* 6-MM-C42.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 7-11 weeks (259-400 hours). *Version 2:* 8 weeks (224-300 hours). *Version 3:* 10-12 weeks (340-388 hours).

Exhibit Dates: *Version 1:* 7/83-9/85. *Version 2:* 5/76-6/83. *Version 3:* 5/73-4/76.

Objectives: To train noncommissioned officers to supervise and manage mechanical maintenance activities.

Instruction: *All Versions:* Lectures and practical exercises in the supervision and management of mechanical maintenance activities. Course includes management practices, logistics management, maintenance and supply management, material maintenance operations, and general information on military leadership, relations, correspondence and communications. *Version 1:* In addition, 44E includes recovery operations; 45Z includes armament material; 62B includes tank/automotive engine electrical and hydraulic troubleshoting, support equipment; 63H includes tank/automotive engine electrical and hydraulic troubleshooting, support equipment, recovery operation; and the organizational track covers organizational logistics management, tank/auto engine electrical and hydraulic troubleshooting, support equipment and recovery operation. *Version 2:* Includes automotive and heavy equipment repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communications for all MOS's; in addition, 1 semester hour in automotive or heavy equipment service and troubleshooting for those in MOS 62B, 63H, and those in the organizational track (63B, 63D, 63E, 63N, 63T)(2/84); in the upper-division baccalaureate category, 2 semester hours in organization and management for all MOS's; 1 semester hour in training management and supervision for all MOS's (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive or heavy equipment service management (1/78); in the upper-division baccalaureate category, 2 semester hours in organization and management, 1 in supervision of training, and 1 in human relations (1/78). *Version 3:* In the vocational certificate category, 2 semester hours in organization and management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in organization and management (7/74); in the upper-division baccalaureate category, 2 semester hours in organization and management (7/74).

Related Occupation Codes: 35G; 35J; 41C; 41J; 44E; 44Z; 45B; 45D; 45J; 45K; 45L; 45M; 45Z; 57C; 62B; 62C; 63B; 63C; 63D; 63E; 63F; 63G; 63H; 63J; 63K; 63N; 63Y; 63Z.

AR-1717-0041

Maintenance Officer

Course Number: 4N-4803.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (301 hours).

Exhibit Dates: 10/65-12/68.

Objectives: To train commissioned officers and civilians to direct, supervise, and coordinate operations of composite maintenance activities.

Instruction: Lectures and practical exercises in the supervision and coordination of maintenance activities. Course includes principles of maintenance, management and operations, and selected military subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (7/74); in the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68).

AR-1717-0042

Ordnance Officer Candidate

Course Number: 4-9-F1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 23 weeks (962 hours).

Exhibit Dates: 3/67-1/84.

Objectives: To train selected personnel to perform as ordnance officers.

Instruction: Lectures and practical exercises in the duties of an ordnance officer and the duties of a platoon leader in a functional maintenance unit. Course includes a study of military leadership, tactical operations, logistics, provisions and supplies, and repair and maintenance of weapons, ammunition, tracked vehicles, and other automotive equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance and supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance and supply management (7/74); in the upper-division baccalaureate category, 4 semester hours in maintenance and supply management, and credit in advanced military at institutions which normally offer such credit (12/68).

AR-1717-0043

1. Petroleum Specialist Noncommissioned Officer (NCO) Advanced
2. Petroleum (PT-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: *Version 1:* 8-92-C42. *Version 2:* 8-PT-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 9-10 weeks (339 hours). *Version 2:* 11 weeks (371 hours).

Exhibit Dates: *Version 1:* 10/78-6/85. *Version 2:* 11/72-9/78.

Objectives: To train noncommissioned officers in advanced management and petroleum storage and supply operations.

Instruction: *Version 1:* Types of instruction include lectures, conferences, computer assisted instruction, case studies, equipment demonstrations, and practical exercises. Topics include the systems view of an organization, motivation, organizational effectiveness, human relations, supply and distribution point operations, waterfront and pipeline operations, aircraft refueling, and petroleum laboratory operations. *Version 2:* Lectures and practical exercises in the duties of advanced noncommissioned officers in petroleum operations, including logistical combat support, leadership, maintenance management, communicative techniques, general petroleum subjects, quality surveillance and laboratory tests, petroleum supply operations, terminal operations, and pipeline operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervisory management, and 3 in petroleum operations management (5/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in personnel management,industrial management, industrial psychology, and materials handling (7/74): in the upper-division baccalaureate category, 6 semester hours in personnel management, industrial psychology, and materials handling (7/74).

Related Occupation Codes: 76W; 92C.

AR-1717-0044

1. Mechanical Maintenance Officer
2. Mechanical Maintenance Officer (Field Maintenance Officer)

Course Number: *All Versions:* 4N-4815.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 10-11 weeks (348-370 hours). *Version 2:* 8 weeks (294 hours).

Exhibit Dates: *Version 1:* 11/69-1/84. *Version 2:* 7/65-10/69.

Objectives: To train commissioned officers to supervise the repair of mechanical devices.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of repair of mechanical devices, including maintenance management, supply procedures, principles of mechanical maintenance, specialized equipment maintenance, heavy-equipment recovery operations, electrical and communications equipment, and armament materiel. *Version 1:* Includes construction, materials-handling, and support equipment. *Version 2:* Includes electronic equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in mechanical and vehicle maintenance (7/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in mechanical and vehicle maintenance (7/74). *Version 2:* In the vocational certificate category, 9 semester hours in mechanical and vehicle maintenance (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in mechanical and vehicle maintenance (7/74); in the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68).

AR-1717-0045

Chemical Corps Orientation

Course Number: 3-O-18.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 6 weeks (198 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train officers and civilian personnel in the organization, operation, and management of the Chemical Corps.

Instruction: Lectures and practical exercises in the organization, operation, and management of the Chemical Corps, including organization, administration, intelligence, CBR operations, logistics, management, chemical and biological warfare, atomic and radiological warfare, and protection and materiel.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

AR-1717-0046

Fixed Plant Communications
Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-CM-C40.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (414 hours).

Exhibit Dates: 7/73-1/78.

Objectives: To train enlisted personnel to perform as noncommissioned officers in fixed-plant communications equipment maintenance.

Instruction: Lectures and practical exercises in fixed-plant communications equipment maintenance. Course includes leadership, general military subjects, such as military justice and map and photo reading; maintenance and supply elements; introduction to defense communications; and management of various communications systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in organization and management (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in organization and management (8/74); in the upper-division baccalaureate category, 1 semester hour in organization and management (8/74).

Related Occupation Codes: 26V; 26Y; 32A; 32D; 32E; 32F; 32G; 32H; 36H.

AR-1717-0047

Armament Maintenance Foreman
(Armament Maintenance Supervision)

Course Number: 9-R-425.6.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (304 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train enlisted personnel to organize armament maintenance facilities and supervise personnel.

Instruction: Lectures and practical exercises in leadership fundamentals, instructor training, small arms, field artillery, antiaircraft and turret artillery materiel, shop organization, supply procedures, and ordnance service management.

Credit Recommendation: In the vocational certificate category, 2 semester hours in shop management (7/74); in the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AR-1717-0048

Ammunition Officer and Ammunition Technician
(Ammunition Officer)
(Ordnance Ammunition Officer)

Course Number: 4E-4514; 4E-411A; 9-B-4514.

Location: Missile and Munitions School, Redstone Arsenal, AL; Ordnance School, Aberdeen Proving Ground, MD.

Length: 7-8 weeks (246-297 hours).

Exhibit Dates: 6/57-7/75.

Objectives: To provide commissioned and warrant officers with a knowledge of the organization, management, and operation of ammunition supply activities.

Instruction: Instruction includes conventional ammunition material and destruction; storage and transportation of ammunition; ammunition service and destruction.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

Related Occupation Codes: 411A.

AR-1717-0049

Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
(Electronic Warfare (EW) Cryptologic Interceptor—Non-Morse Basic Technical)

Course Number: 231-05K30.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-10 weeks (247-289 hours).

Exhibit Dates: 4/77-9/85.

Objectives: To train electronic warfare interceptor non-Morse technicians to become intercept operations supervisors.

Instruction: Instructions and practical exercises in map reading; maintenance management procedures; supervision of maintenance personnel; telecommunications procedures (tube-based until 2/82), including modulationand wave propagation; basic communication systems; multiplexing and test equipment; security operation, and military science. For course after 10/85, see AR-1717-0078.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management procedures and supervision of maintenance personnel (2/83).

Related Occupation Codes: 05K.

AR-1717-0050

Ballistic Missile Repair (21-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)

Course Number: 1-21-C42B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 10 weeks (334 hours).

Exhibit Dates: *Version 1:* 2/78-12/79. *Version 2:* 5/75-1/78.

Objectives: To provide enlisted personnel with knowledge of duties and supervisory skills required of senior noncommissioned officers in the Missile Career Management Field.

Instruction: *All Versions:* Lectures and practical exercises in military subjects and missile maintenance management. *Version 1:* This version includes specific training for qualification in certified soldering. *Version 2:* This version includes effective writing, effective speaking and administrative exercises in management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour toward certified soldering (8/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (8/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills (6/79).

Related Occupation Codes: 21G; 21L; 21R; 21S; 21T; 21U; 46L; 46N.

AR-1717-0051

1. Aircraft Maintenance Officer and Repair Technician (AMOC) Phase II
2. Aircraft Maintenance and Repair Technician Phases I and II
3. Aircraft Maintenance Officer and Repair Technician

Course Number: *Version 1:* 4D-71A/160A/100BG1E; 4D-71A/160A/100EG1M; 4D-71A/160A/100CG1G; 4D-71A/160A/100AG1N; 4D-71A/160A/100BG10. *Version 2:* 4D-71A; 4D-160A; 4D-100B; 4D-100C; 4D-100E. *Version 3:* 4D-4823; 4D-671B; 4D-671C; 4D-671D; 4D-671E.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 3-5 weeks (125 hours). *Version 2:* 11-16 weeks (360-510 hours). *Version 3:* 13-15 weeks (445-479 hours).

Exhibit Dates: *Version 1:* 8/83-9/85. *Version 2:* 5/80-7/83. *Version 3:* 10/74-4/80.

Objectives: To teach commissioned and warrant officers to manage aircraft maintenance resources, to inspect aircraft systems, and to perform operational checks on light aircraft.

Instruction: *All Versions:* Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine air worthiness of light aircraft.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in aviation management (5/86). *Version 2:* In the upper-division baccalaureate category, for Phase I: 2 semester hours in aviation maintenance management; for Phase II: 2 semester hours in aviation management. If both phases were taken, a total of 3 semester hours in aviation maintenance management (3/83). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (6/75).

Related Occupation Codes: 160A, 103A.

AR-1717-0052

1. Armament Repair Technician
2. Armament Repair Technician

Course Number: 4E-421A.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 17-19 weeks (536-658 hours).

Exhibit Dates: *Version 1:* 1/78-1/84. *Version 2:* 3/72-12/77.

Objectives: To train personnel to perform the duties of an armament repair technician or repair shop foreman.

Instruction: *Version 1:* Lectures and practical exercises in the areas of management procedures, basic electricity, inspection and repair of artillery, small arms and fire control materiel. *Version 2:* Includes maintenance and supply management; personnel management; care and use of hand, power, and machine tools. For the course after 1985, see AR-1717-0077.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and 3 in shop management (1/78); in the upper-division baccalaureate category, 2 semester hours in management (1/78). *Version 2:* In the vocational certificate category, 1 semester hour in personnel management, 4 in mechanical/industrial technology(5/74); in. the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management, 3 in mechanical/industrial technology (5/74).

Related Occupation Codes: 421A.

AR-1717-0053

Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Basic (USASCS)

Course Number: 4-IV-C40.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12 weeks (414 hours).

Exhibit Dates: 8/72-1/78.

Objectives: To train personnel to perform in managerial or supervisory roles in television and radio broadcasting and photographic repair and operations.

Instruction: Conferences and practical exercises to include leadership training; management principles and practices; and familiarity instruction in the areas of radio and television broadcasting, photographic repair, and photographic equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in audio-visual maintenance and management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in audio-visual maintenance and management (7/74); in the upper-division baccalaureate category, 2 semester hours in audio-visual maintenance and management (7/74).

Related Occupation Codes: 26T; 41E; 41F; 41G; 84B; 84C; 84D; 84E; 84F; 84G.

AR-1717-0054

Signal Security (SIGSEC) Specialist Basic Technical

Course Number: 231-05G30.

Location: Intelligence School, Ft. Devens, MA.

Length: 7-8 weeks (266-335 hours).

Exhibit Dates: 4/77-Present.

Objectives: To prepare personnel who have been trained as signal security specialists for supervision and management positions.

Instruction: Instructions and practical exercises in map reading, maintenance management procedures, supervision of maintenance personnel, communications/telecommunications operations, communication security, and military science.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management procedures and supervision of personnel (2/83).

Related Occupation Codes: 05G.

AR-1717-0055

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC

(Electronic Warfare (EW) Cryptologic Interceptor--Voice Basic Technical)

Course Number: 232-98G3LRU; 232-98G3LGM; 232-98G30; 232-98G3L; 231-98G3L.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-10 weeks (176-293 hours).

Exhibit Dates: 4/77-Present.

Objectives: To prepare electronic warfare cryptologic voice interceptors to supervise and manage voice intercept operations.

Instruction: Instruction and practical exercises in map reading, introduction to communication principles and concepts, maintenance management procedures, and supervision of maintenance personnel. Language options include German, Russian, and others.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management procedures and supervision of maintenance management personnel (2/83).

Related Occupation Codes: 98G.

AR-1717-0056

1. Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
2. Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical

(Electronic Warfare (EW) Cryptologic Traffic Analyst Basic Technical)

Course Number: 232-98C30.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 13-14 weeks. *Version 2:* 7-12 weeks (284-335 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 4/77-9/85.

Objectives: To prepare electronic warfare/cryptologic traffic analysts to supervise analytic operations.

Instruction: Instruction and practical exercises in map reading, maintenance management procedures, supervision of maintenance personnel, and traffic analysis techniques.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management procedures and supervision of maintenance personnel (2/84).

AR-1717-0057

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (252A)

Course Number: 4-9-C32; 4-9-C32F.

Location: Ordnance School, Aberdeen Proving Ground,MD.

Length: 14 weeks (427 hours).

Exhibit Dates: 11/76-1/88.

Objectives: To train warrant officers in the operation and management of a calibration company or facility.

Instruction: Phase I: Lectures and practical exercises in leadership and managerial studies, management systems concerned with supply and maintenance, and common technical subjects. Phase II: Lectures and practical exercises to provide technical and supervisory skills in control office operation, laboratory and supply operations pertinent to a calibration facility or company. Course provides a working knowledge to perform the duties of a radiological protection or control officer.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in management, 3 in personnel administration, 1 in supervision of training, 2 in human relations and 3 in radiological safety (1/78).

Related Occupation Codes: 252A.

AR-1717-0058

Air Defense (CMF-27) Noncommissioned Officer (NCO) Advanced

Course Number: 1-27-C42B.

Location: Air Defense School, Ft. Bliss, TX.

Length: 10 weeks (366 hours).

Exhibit Dates: 7/77-10/79.

Objectives: To prepare students to perform leadership duties in air defense areas.

Instruction: Subjects include tactics, communicative arts, leadership, management, air defense, artillery maintenance and operations and tactics, and systems orientation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills (11/77).

AR-1717-0059

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (441A)

Course Number: 4-9-C32B.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 15 weeks (452 hours).

Exhibit Dates: 11/76-1/88.

Objectives: To train warrant officers in operation and maintenance of a metal working shop.

Instruction: Phase I includes lectures and practical exercises in leadership and managerial studies; management system concerned with supply and maintenance; and common technical subjects. Phase II provides lectures and in metal body repair; knowledge of machine shop operation and recovery equipment techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in shop practices, 3 in shop management (1/78); in the upper-division baccalaureate category, 6 semester hours in management, 3 in personnel administration, 1 in supervision of training, 2 in human relations (1/78).

AR-1717-0060

MECHANICAL MAINTENANCE (MM-CMF) WARRANT OFFICER ADVANCED (632A)

Course Number: 4-9-C32E.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 17 weeks (516 hours).

Exhibit Dates: 11/76-1/80.

Objectives: To train warrant officers in operation and management procedures related to wheel and tracked automotive equipment.

Instruction: Phase I provides lectures and practical exercises in leadership and managerial studies; management systems concerned with supply and maintenance, and common technical subjects. Phase II covers lectures and practical exercises in troubleshooting, overhaul and repair of wheeled and tracked automotive equipment; recovery equipment and techniques, and armament and fire control materials.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive repair, 3 in automotive service management (1/78); in the upper-division baccalaureate category, 6 semester hours in management, 3 in personnel administration, 1 in supervision of training, 2 in human relations (1/78).

AR-1717-0061

MECHANICAL MAINTENANCE (MM-CMF) WARRANT OFFICER ADVANCED (631A)

Course Number: 4-9-C32D.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 15 weeks (462 hours).

Exhibit Dates: 11/76-1/80.

Objectives: To train warrant officers in operation and management procedures related to wheel and tracked automotive equipment.

Instruction: Phase I involves lectures and practical exercises in leadership and managerial studies; management systems concerned with supply and maintenance, and common technical subjects. Phase II includes lectures and practical exercises in troubleshooting, overhaul and repair of wheeled and tracked automotive equipment; recovery equipment and techniques, and armament and fire control materials.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive service management (1/78); in the upper-division baccalaureate category, 6 semester hours in management, 3 in personnel administration, 1 in supervision of training, 2 in human relations (1/78).

AR-1717-0062

ORDNANCE OFFICER ADVANCED (ARMAMENT MATERIAL MANAGEMENT)
(Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (421A))

Course Number: 4-9-C22-76A; 4-9-C32A.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 14 weeks (432 hours).

Exhibit Dates: 11/76-6/83.

Objectives: To train warrant officers in the operation and management of armament maintenance for weapons systems.

Instruction: Phase I includes lectures and practical exercises in leadership and managerial studies; management systems concerned with supply and maintenance, and common technical subjects. Phase II consists of lectures and practical exercises to provide a working knowledge of maintenance problems, probable causes, and procedures necessary to repair armament weapon systems.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in management, 3 in personnel administration, 1 in supervision of training, 2 in human relations (1/78).

AR-1717-0063

ORDNANCE OFFICER ADVANCED ARMAMENT

Course Number: 4-9-C22C.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 26 weeks (812-844 hours).

Exhibit Dates: 2/76-6/83.

Objectives: To train commissioned officers in advanced armament operations.

Instruction: Lectures and practical experiences in advanced armament operations including organization for logistics; administration and operations; tactics and staff procedures; management functions and techniques, logistics management and armament track including electrical materials.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive or heavy equipment repair (1/78); in the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in human relations (1/78).

AR-1717-0065

AIRPLANE MAINTENANCE SUPERVISOR/TECHNICAL INSPECTOR

Course Number: 600-67G30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (203 hours).

Exhibit Dates: 4/77-8/84.

Objectives: To train helicopter repairers to perform as technicians and supervisors.

Instruction: Course instructs students in inspection and supervision of military personnel in maintenance and inspection of aircraft and other organizational duties.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 67G.

AR-1717-0066

UTILITY HELICOPTER MAINTENANCE SUPERVISOR/TECHNICAL INSPECTOR BASIC TECHNICAL

Course Number: 600-67N30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (192 hours).

Exhibit Dates: 12/77-9/84.

Objectives: To provide personnel with the training necessary to perform as a utility helicopter maintenace supervisor and/or technical inspector.

Instruction: Lectures and practical exercises in helicopter transmission drive systems, power plant, tail rotor and synchronized elevator, fuel, aircraft inspection, maintenance concepts, quality control, publications, management procedures, workload plans, electrical systems, maintenance test flight, avionics, instruments, weight and balance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter maintenance and 3 in aviation maintenance management (3/83).

Related Occupation Codes: 67N.

AR-1717-0067

LANCE MISSILE MECHANIC

Course Number: 043-ASIZ3; 043-F4.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (72 hours).

Exhibit Dates: 8/82-Present.

Objectives: To train selected personnel to perform as Lance missile mechanics; must have completed Lance Missile Crewmember course 043-15D10.

Instruction: Instruction in assembly, maintenance, and transportation of the Lance missile.

Credit Recommendation: In the vocational certificate category, 1 semester hour in the use and care of hand tools (10/83).

AR-1717-0068

AIRCRAFT MAINTENANCE OFFICER AND REPAIR TECHNICIAN - PHASE I

Course Number: 4D-71A/160A/100A/B/C/E.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 11-12 weeks.

Exhibit Dates: 7/83-9/87.

Objectives: To provide commissioned officers and warrant officers with the skills and knowledge required to manage aircraft maintenance, materiel, and personnel resources.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine aircraft airworthiness are all covered in this course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in principles and practices in aviation maintenance management (5/86); in the upper-division baccalaureate category, 2 semester hours in aviation management (5/85).

AR-1717-0069

AVIATION MAINTENANCE OFFICER AND REPAIR TECHNICIAN (AMOC), PHASE II - UH-60

Course Number: 4D-15T/160A/100AGIN (UH-60).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3-4 weeks (152 hours).

Exhibit Dates: 10/85-9/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the UH-60 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the UH-60 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (5/86).

AR-1717-0070

Aircraft Maintenance Officer and Repair Technician Phase II - UH-1

Course Number: 4D-71A/160A/100BGIE (UH-1).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3-4 weeks (152 hours).

Exhibit Dates: 3/85-9/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the UH-1 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the UH-1 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (5/86).

AR-1717-0071

Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - AH-1

(Aircraft Maintenance Officer, Phase II - AH-1)

Course Number: 4D-15T/151A/152GG1M; 4D-71A/160A/100EG1M.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3-4 weeks (132 hours).

Exhibit Dates: 10/85-12/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the AH-1 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the AH-1 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (10/86).

AR-1717-0072

Aviation Maintenance Officer Phase II - AH-64

Course Number: 4D-71A/160A/100KGIL.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 5-6 weeks (212 hours).

Exhibit Dates: 11/85-9/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the AH-64 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the AH-64 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (5/86).

AR-1717-0073

Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - OH-58

Course Number: 4D-15T/153A/153CGIP (OH-58).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3 weeks (118 hours)

Exhibit Dates: 1/86-12/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the OH-58 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the OH-58 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (5/86).

AR-1717-0074

Aircraft Maintenance Officer and Repair Technician (AMOC) Phase II - CH 47A/B/C

(Aircraft Maintenance Officer Phase II - CH-47)

Course Number: 4D-15T/151A/154BGIG; 4D-71A/160A/100CGIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 3-4 weeks (124 hours).

Exhibit Dates: 10/85-12/87.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the CH-47 aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the CH-47 aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management, 1 in advanced helicopter flight techniques (10/86).

AR-1717-0075

Aviation Maintenance Officer and Repair Technician Phase II - CH-47D

(Aviation Maintenance Officer Phase II - CH-47D)

Course Number: 4D-15T/153A/154CG1G; 4D-71A/160A/100CGH (CH-47D).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2-4 weeks (75-135 hours).

Exhibit Dates: 10/85-Present.

Objectives: To provide the aviation commissioned officer and warrant officer with the skills and knowledge required to accomplish test flights and maintenance of the Ch-47D aircraft.

Instruction: Instruction in maintenance concepts, management of aircraft maintenance resources, inspection and diagnostic procedures, subsystems and support equipment, and operational checks to determine the airworthiness of the Ch-47D aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aviation maintenance management, 1 in advanced helicopter flight techniques (3/88).

AR-1717-0076

Aviation Logistics Officer

Course Number: 4D-71A.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 11-12 weeks (429 hours).

Exhibit Dates: 10/84-12/87.

Objectives: To provide commissioned officers with the skills and knowledge to manage materiel systems.

Instruction: Lectures and practical exercises including record keeping, parts procedures, logistics management, stock control procedures, aircraft maintenance safety, life cycle analysis, and aircraft systems maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (5/86); in the upper-division baccalaureate category, 3 semester hours in advanced logistics management (5/86).

AR-1717-0077

Warrant Officer Technical Certification

(Armament Repair Technician)

Course Number: 4E-421A.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 18 weeks (658 hours).

Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assume duties and responsibilities as an upgrade technician in armament repair.

Instruction: Topics include management practices and procedures, basic electricity and electronics, computers, inspection and repair of artillery, small arms, and fire control equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 2 in communications skills, 2 in basic electricity, 2 in basic electronics, and 1 in basic computer (3/87).

Related Occupation Codes: 421A.

AR-1717-0078

Electronic Warfare (EW) Signals

Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)

Course Number: 231-05K30.

Location: Intelligence School, Ft. Devens, MA.

Length: *Version 1:* 11-12 weeks (380-381 hours). *Version 2:* 13-14 weeks.

Exhibit Dates: *Version 1:* 4/88-Present. *Version 2:* 10/85-3/88.

Learning Outcomes: Upon completion of the course, the student will be able to read, construct and use maps; analyze antenna waveform, analyze quality control reports; determine training needs and select programs; use advanced test equipment.

Instruction: Instruction includes exercises in map reading, antenna waveform analysis and modulation, graphical analysis and interpretation, report analysis and quality control, computer reporting systems, training programs and needs, radio receiver theory, oscilloscope measurements, advanced test equipment. For course prior to 10/85, see AR-1717-0078.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 5 semester hours in communications theory (5/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in office management procedures (5/87).

AR-1717-0079

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)

Course Number: 231-05H30.

Location: Intelligence School, Ft. Devens, MA.

Length: 6-8 weeks (234-281 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage and supervise personnel in the analysis of data for target identification and location including work assignments, and recordkeeping.

Instruction: Instruction includes lectures, demonstrations and performance exercises in office practice personnel supervision, report preparation, map reading, interpreting signal intelligence directions and target identification and location.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office management procedures (7/88).

AR-1717-0080

Armor Officer Basic-Cavalry M60A3

Course Number: 2-17-C20-12A-M60A3-Cavalry.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 16 weeks (873 hours).

Exhibit Dates: 4/83-4/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform their first assignment with emphasis on specific leadership skills, basic administrative, executive skills and knowledge needed to advance to higher level of assignment.

Instruction: Instruction includes lecture and practical assignments as a leader, also to perform skills at various levels on specific equipment, management of personnel and equipment, and assignment of various tasks and orders.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management procedures, 1 in basic surveying, and 1 in communication skills (7/87); in the upper-division baccalaureate category, 3 semester hours in military science and 3 in personnel management (7/87).

AR-1717-0081

Armor Officer Basic-Tank M60A3

Course Number: 2-17-C20-12A-M60A3-Tank.

Location: U.S. Army Armor Center, Ft. Knox, KY.

Length: 15 weeks (785 hours).

Exhibit Dates: 4/83-4/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as an armor officer and as a platoon leader of tank units.

Instruction: Instruction includes lectures, demonstrations and practical exercises in the duties of an armor officer. Courses include tank operation and maintenance, military organization and leadership, artillery, aviation, and pioneering operations, tank weapons and fire control, land navigation and tactical communications, nuclear, biological and chemical defense and support weapons familiarization.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in military science (7/87).

AR-1717-0082

UH-1 Maintenance Manager/Test Pilot

Course Number: 4D-SI1E/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13-14 weeks (483 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0083

AH-1S Maintenance Manager/Test Pilot

Course Number: 4D-SI1M/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13-14 weeks (482 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0084

CH-47D Maintenance Manager/Test Pilot
(CH-47A/B/C Maintenance Manager/Test Pilot)

Course Number: 4D-SIC2/2C-SQIG; 4D-SI1B/2C-SQIG; 4D-SI1G/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13-14 weeks (485 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (9/90).

AR-1717-0085

OH-58A/C Maintenance Manager/Test Pilot

Course Number: 4D-SI1P/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13 weeks (475 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0086

OH-58D MAINTENANCE MANAGER/TEST PILOT

Course Number: 4D-SI1A/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13-14 weeks (485 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0087

UH-60 MAINTENANCE MANAGER/TEST PILOT

Course Number: 4D-SI1N/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 13-14 weeks (504 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0089

1. UH-1 UTILITY HELICOPTER REPAIRER SUPERVISOR BASIC NONCOMMISSIONED OFFICER (NCO)
2. UH-1 UTILITY HELICOPTER REPAIRER BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 600-67N30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 12 weeks (352 hours). *Version 2:* 7-8 weeks (231 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/87-3/90.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. For information on the course before 10/87 see AR-1717-0117. Course also contains common core of instruction, see exhibit AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 2 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67N.

AR-1717-0090

AH-64 ATTACK HELICOPTER REPAIRER SUPERVISOR BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 600-67R30.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: *Version 1:* 14 weeks (430 hours). *Version 2:* 7-8 weeks (272 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 10/87-3/90.

Learning Outcomes: Upon completion of the course the student will be able to plan maintenance procedures and aviation inventories. She will also be familiar with data communication hardware and software, oil analysis programs, use of ground support equipment and precision tools. Student will establish policies and procedures for shop and hanger safety and will be able to supervise maintenance on fuel systems, pneudraulic systems, electrical systems, utility systems, powerplants, rotor and drivetrain systems, aircraft structures, landing gear, aircraft weighting procedures, engine control and flight control systems.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures, demonstrations, and practical exercises in supervision, aircraft maintenance, and maintenance management. Course contains a common core of instruction see AR-1406-0090.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation maintenance management and 3 in principles of supervision (3/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 67R.

AR-1717-0092

PETROLEUM AND WATER SPECIALIST ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 8-77-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 12 weeks (161 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to train noncommissioned officers in advancement management, petroleum storage and supply operations, and water operations.

Instruction: Lectures and practical exercises in supply and distribution operations; waterfront and terminal operations; pipeline operations; aircraft refueling and defueling; operations; administration and planning; petroleum laboratory operations; and water treatment operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supervisory management, 3 in petroleum operations management, and 2 in water operations management (10/88). See AR-1404-0035 for credit for the common core.

AR-1717-0093

AH-64 MAINTENANCE MANAGER/TEST PILOT

Course Number: 4D-SI1L/2C-SQIG.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 15 weeks (568 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all the duties of a manager/maintenance test pilot including repair and supply procedures, use of publications and logistics performance indicators, development of estimates and reports, use of forms and records, inspection of fuels, lubricants, hydraulics, electrical, flight controls, powerplants and performance analysis, rotor and powertrain systems, maintenance test flight and evaluations.

Instruction: Includes lectures, demonstrations, and performance exercises in maintenance officer responsibilities, logistics, aviation maintenance management, aeronautical technology, maintenance test flight and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance management (3/88).

AR-1717-0094

MAINTENANCE MANAGEMENT

Course Number: 700.

Location: Reserve Readiness Training Center, Ft. McCoy, WI.

Length: 2 weeks (64 hours).

Exhibit Dates: 9/86-Present.

Objectives: Upon completion of the course the student will be able to supervise and manage personnel responsible for customer service, requisition, issue and turn in, property records and bulk petroleum accounts within proper authorization levels; supervise maintenance management systems including motor pool operation, material management, production/quality control and shop layout and design; manage and support personnel involved in records management, safety and security programs, physical safety of facilities, arms, ammunition and key controls; provide assistance in budget preparation, command maintenance policy directives and force integration actions and requirements.

Instruction: Lecture and discussion on rapport and cooperation with customers, requisition procedures, property records, authorization documents, petroleum accounting, maintenance management systems, motor pool operations, maintenance channels production/quality controls, records management procedures, time management and effective communications skills; practical exercises include the student identifing and correcting a report of survey and statement of charges, preparing a consolidated material condition status report, designing a shop layout involving the flow of materials, efficient movement of personnel, and safety, and developing input into the budget system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (7/89).

AR-1719-0002

LITHOGRAPHIC PLATEMAKING

Course Number: 740-83E20; 740-834.1; 5-E-51.

Location: Engineer School, Ft. Belvoir, VA.

Length: 7-8 weeks (254-290 hours).

Exhibit Dates: 2/56-10/73.

Objectives: To train enlisted personnel to prepare offset plates to be used in lithographic printing processes.

Instruction: Lectures and practical exercises in the preparation and processing of materials for offset lithographic plate production, including layout and stripping procedures, various plate types, lithographic platemaking procedures, mathematics review, and advanced map and aerial photograph reading.

Credit Recommendation: In the vocational certificate category, 3 semester hours in graphics or printing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in graphics or printing (5/74).

Related Occupation Codes: 83E; 83Z.

AR-1719-0003

OFFSET PRESS OPERATION

Course Number: 740-83F20; 740-835.1; 5-E-23.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8 weeks (282-294 hours).

Exhibit Dates: 2/56-10/73.

Objectives: To train enlisted personnel to operate offset presses in the reproduction of maps, charts, and other printed line work.

Instruction: Lectures and practical exercises in offset press operations, including printing-bindery and press fundamentals, photolithography, the use of a power paper cutter, maintenance of an offset press, controls, feeder and delivery assemblies, cylinder assembly, dampening assembly, inking assembly, identifying printing problems, printing a three-color and a five-color map, and bindery equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in graphic arts (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in graphic arts (5/74).

Related Occupation Codes: 83F.

AR-1719-0004

VISUAL INFORMATION/AUDIO DOCUMENTATION SYSTEMS SPECIALIST BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: G3AZR23270-001.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (216 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to manage a media system or a team involving film editing, writing, and other critical graphic arts, photographic and maintenance skills.

Instruction: Lectures and practical exercises in management of television production, motion picture production, and other audio visual operations. Course also includes a common core of leadership subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in audio visual management (5/90). For credit for the common core see AR-1406-0090.

AR-1719-0005

VISUAL INFORMATION ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: G3AAR23199-000.

Location: Technical Training Center, Lowry AFB, CO.

Length: 9-10 weeks (358 hours).

Exhibit Dates: 4/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to lead and train others in planning, supervising, and directing the operation of visual information facilities and organizations. This includes photographic, television, documentation, and graphic production operations.

Instruction: Lectures and practical exercises in the management of motion picture production, visual aids preparation, computer graphics, photographic procedures, still video camera systems, historical documentation procedures and maintenance facilities. Course also includes a common core of leadership subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hour in audio visual management (5/90). For credit for the common core see AR-1404-0035.

AR-1720-0001

MARINE CORPS NUCLEAR, BIOLOGICAL, CHEMICAL (NBC) DEFENSE

Course Number: 2G-5702; 494-5711.

Location: Chemical School, Ft. McClellan, AL.

Length: *Version 1:* Phase I, 5 weeks (180 hours); Phase II, 3 weeks (288 hours). *Version 2:* 5-6 weeks (198 hours).

Exhibit Dates: *Version 1:* 1/86-Present. *Version 2:* 12/81-12/85.

Objectives: To train selected US Marine Corps officers, warrant officers, noncommissioned officers, and enlisted personnel as nuclear, biological, and chemical defense personnel.

Instruction: *Version 1:* Phase I consists of conferences, demonstrations, practical exercises, and examinations in chemical/biological defense and operations, including nuclear warfare and radiological defense, and decontamination. Phase II consists of conferences, demonstrations, practical exercises, and examinations in nuclear warfare and radiological defense, chemical and biological defense and operations, decontamination, and nuclear and chemical target analysis. *Version 2:* Conferences, demonstrations and practical exercises in chemical/biological defense and operations, including nuclear warfare and radiological defense, and decontamination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to physical sciences for Phase I and 3 semester hours in introduction to physical sciences for Phase II (11/86). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/82).

AR-1720-0002

1. PRIME POWER PRODUCTION SPECIALIST (HEALTH PHYSICS AND PLANT CHEMISTRY SPECIALTY)
2. PRIME POWER PRODUCTION SPECIALIST (HEALTH PHYSICS AND PLANT CHEMISTRY SPECIALTY)
3. NUCLEAR POWER PLANT OPERATORS (HEALTH PHYSICS AND PLANT CHEMISTRY SPECIALTY) (Nuclear Power Plant Operators (Process Control Specialty))

Course Number: *All Versions:* None.

Location: Prime Power Production School, Ft. Belvoir, VA; Engineer Reactors Group, Ft. Belvoir, VA.

Length: *Version 1:* 41-43 weeks (1477 hours). *Version 2:* 43 weeks (1489 hours). *Version 3:* 40-50 weeks (1481-1723 hours).

Exhibit Dates: *Version 1:* 9/81-Present. *Version 2:* 10/77-8/81. *Version 3:* 1/58-9/77.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to operate and maintain nuclear/conventional power plants and to perform as specialists in all health/biological/chemical/radiological monitoring systems of nuclear/conventional power plants.

Instruction: *Version 1:* Students complete academic phase training which covers algebra, trigonometry and general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis and mechanical engineering (thermodynamics) prior to specialty training. Specialty concentration provides enlisted personnel with a working knowledge of water chemistry and health physics. Upon completion of program student will be able to perform tests in health monitoring, chemical analysis and water treatment and analysis. Lectures and practical experiences include fundamentals of electrical and mechanical systems. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 2:* Students complete academic phase training which covers algebra, trigonometry and general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis and mechanical engineering (thermodynamics) prior to specialty training. Specialty concentration provides enlisted personnel with a working knowledge of water chemistry and health physics. Upon completion of program student will be able to perform tests in health monitoring, chemical analysis and water treatment and anaylsis. Lectures and practical experiences include fundamentals of electrical and mechanical systems. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 3:* Lectures and practical exercises to cover math, physics, chemistry, radiology, health physics, and the electrical and mechanical systems of a nuclear power plant.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 6 in physics, 2 in chemistry, 3 in thermodynamics, 3 in mechanical engineering, 3 in DC circuits and analysis, 3 in AC circuits and analysis, 3 in motors and generators, 6 in general chemistry, 3 in water analysis and treatment, 0-6 in cooperative work experience (8/81); in the upper-division baccalaureate category, 6 semester hours in health physics (11/78). *Version 2:*

In the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics to include algebra and trigonometry, 3 in general physics, 3 in A/C circuits analysis, 3 in D/C circuits analysis, 6 in mechanical engineering to include 3 specifically in thermodynamics, 0-6 in cooperative work experience, 8 in general chemistry, 3 in water analysis and treatment (11/78); in the upper-division baccalaureate category, 6 semester hours in health physics (11/78). *Version 3:* In the vocational certificate category, 12 semester hours in general mathematics, 6 in nuclear technology, and 12 in health physics or chemistry (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in general mathematics, 3 in nuclear technology, and 6 in health physics or chemistry (6/74); in the upper-division baccalaureate category, 3 semester hours in chemistry/radiology or electrical laboratory for engineering majors, or 5 semester hours as a technical elective for non-engineering majors (6/74).

Related Occupation Codes: 52E; 52L; 52M.

AR-1720-0003

1. Prime Power Production Specialist (Electrical Specialty)
2. Prime Power Production Specialist (Electrical Specialty)
3. Prime Power Production Specialist (Electrical Specialty)
4. Nuclear Power Plant Operators (Electrical Specialty)

Course Number: *All Versions:* None.

Location: Prime Power Production School, Ft. Belvoir, VA; Engineer Reactors Group, Ft. Belvoir, VA.

Length: *Version 1:* 48-50 weeks (1729 hours). *Version 2:* 48-50 weeks (1729 hours). *Version 3:* 52 weeks (1826 hours). *Version 4:* 40-56 weeks (1355-1943 hours).

Exhibit Dates: *Version 1:* 9/81-Present. *Version 2:* 5/81-8/81. *Version 3:* 10/77-4/81. *Version 4:* 1/58-9/77.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to operate and maintain nuclear/conventional power plants and to perform as specialists in the maintenance of all electrical systems of nuclear/conventional power plants.

Instruction: *Version 1:* Students complete academic phase which covers algebra, trigonometry, general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering to include thermodynamics. Specialty phase includes analysis of power plant electrical systems including motors and generators, transformers, instrumentation, and protection apparatus. Includes control circuits, regulations and preventive maintenance procedures. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 2:* Students complete academic phase which covers algebra, trigonometry, general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering to include thermodynamics. Specialty phase includes analysis of power plant electrical systems including motors and generators, transformers, instrumentation, and protection apparatus. Includes control circuits, regulations and preventive maintenance procedures. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experiences. Course includes electrical systems, circuit analysis and introduction to solid state, instruments and measurements, control circuits, circuit breakers, maintenance and administration, and mechanical cross training, and voltage control. *Version 3:* Students complete academic phase which covers algebra, trigonometry, general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering to include thermodynamics. Specialty phase includes analysis of power plant electrical systems including motors and generators, transformers, instrumentation, and protection apparatus. Includes control circuits, regulations and preventive maintenance procedures. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experiences. Course includes electrical systems, circuit analysis, introduction to solid state, instruments and measurements, control circuits, current breakers, maintenance and administration, mechanical cross-training, and voltage control. *Version 4:* Lectures and practical exercises to cover math; physics; nuclear physics; analysis of power plant mechanical and electrical systems; the operation of a nuclear power plant; motor generation theory; transistor circuit theory; and electrical wiring.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in automatic controls, 3 in electrical wiring, 5 in power distribution, 2 in air conditioning (8/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial electronics, 1 in active devices, 2 in instrumentation, 6 in mathematics, 6 in physics, 2 in chemistry, 3 in DC circuits analysis, 3 in AC circuits analysis, 3 in thermodynamics, 3 in mechanical engineering, 3 in motors and generators, 0-6 in work experience or practicum (8/81). *Version 2:* In the vocational certificate category, 2 semester hours in automatic controls, 2 in air conditioning, 3 in electric wiring, 5 in power distribution (8/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial electronics, 1 in active devices, 2 in instrumentation, 6 semester hours in mathematics to include algebra and trigonometry, 3 in general physics, 3 in A/C circuits analysis, 3 in D/C circuits analysis, 6 in mechanical engineering including 3 in thermodynamics, 2 in chemistry, 0-6 in cooperative work experience (8/81). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics to include algebra and trigonometry, 3 in general physics, 3 in A/C circuits analysis, 3 in D/C circuits analysis, 6 in lecture and 2 in laboratory in AC/DC electrical machines and power, 6 in mechanical engineering including 3 in thermodynamics, 2 in chemistry, 0-6 in cooperative work experience (11/78). *Version 4:* In the vocational certificate category, 10 semester hours in general science and mathematics, 10 in nuclear technology, and 6 in electrical or instrumentation laboratory (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in general science and mathematics, 5 in nuclear technology, and 3 in electrical or instrumentation laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours in nuclear, electrical, or electronic instrumentation laboratory for engineering majors, or 5 semester hours as a technical elective for non-engineering majors (6/74).

Related Occupation Codes: 52E; 52J; 52M.

AR-1720-0004

1. Prime Power Production Specialist (Mechanical Specialty)
2. Prime Power Production Specialist (Mechanical Specialty)
3. Prime Power Production Specialist (Mechanical Specialty)
4. Nuclear Power Plant Operators (Mechanical Specialty)

Course Number: *All Versions:* None.

Location: Prime Power Production School, Ft. Belvoir, VA; Engineer Reactors Group, Ft. Belvoir, VA.

Length: *Version 1:* 49-52 weeks (1745 hours). *Version 2:* 48 weeks (1653 hours). *Version 3:* 51 weeks (1751 hours). *Version 4:* 40-52 weeks (1465-1741 hours).

Exhibit Dates: *Version 1:* 9/81-Present. *Version 2:* 3/80-8/81. *Version 3:* 10/77-2/80. *Version 4:* 1/58-9/77.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to operate and maintain nuclear/conventional power plants and to perform as specialists in all mechanical systems of nuclear/conventional power plants.

Instruction: *Version 1:* Students complete academic phase which covers algebra, trigonometry, and general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering. Course includes lectures and practical exercises to cover electrical and mechanical components of power plants, and the operation and maintenance of its auxiliary standby, and related equipment. Course includes electronic components, cable splicing, boilers, vibration analysis and steam engines. Operation phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 2:* Students complete academic phase which covers algebra, trigonometry, and general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering. Course includes lectures and practical exercises to cover electrical and mechanical components of power plants, and the operation and maintenance of its auxiliary standby, and related equipment. Operation phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 3:* Students complete academic phase which covers algebra, trigonometry, and general mathematics, general physics, chemistry, A/C circuits analysis, D/C circuits analysis, and mechanical engineering. Course includes lectures and practical exercises to cover electrical and mechanical components of power plants, and the operation and maintenance of its auxiliary standby, and related equipment. Operation phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 4:* Lectures and practical exercises to cover math; physics; electrical systems of a nuclear power plant; and the operation and maintenance of nuclear power plant mechanical systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in welding, 4 in basic machine shop, 6 in engines, 2 in industrial electronics, 4 in boilers and heat exchangers, 2 in air conditioning (8/81); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 6 in physics, 2 in chemistry, 3 in thermodynamics, 3 in mechanical engineering, 3 in DC circuit analysis, 3 in AC circuit analysis, 3 in motors and generators ,0–6 in work experience or practicum(8/81). *Version 2:* In the vocational certificate category, 2 semester hours in welding, 4 in basic machine shop, 6 in engines, 2 in industrial electronics, 4 in boilers and heat exchangers, 2 in air conditioning (8/8); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, to include algebra and trigonometry, 3 in general physics, 2 in chemistry, 3 in A/C circuits analysis, 3 in D/C circuits analysis, 6 in mechanical engineering to include 3 in thermodynamics, 0-6 in cooperative work experience (11/78). *Version 3:* In the vocational certificate category, 1 semester hour in welding and machine shop techniques, 1 in heat exchange and compression, 1 in circuit and wiring methods, 2 in internal engines and heating systems (11/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics to include algebra and trigonometry, 3 in general physics, 2 in chemistry, 3 in A/C circuits analysis, 3 in D/C circuits analysis, 6 in mechanical engineering to include 3 in thermodynamics, 0-6 in cooperative work experience (11/78). *Version 4:* In the vocational certificate category, 10 semester hours in general mathematics and science, 10 in nuclear technology, and 6 in mechanical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in general mathematics and science, 5 in nuclear technology, and 3 in mechanical laboratory (6/74); in the upper-division baccalaureate category, 3 semester hours in mechanical or instrumentation laboratory for engineering majors, or 5 semester hours as a technical elective for non-engineering majors (6/74).

Related Occupation Codes: 52E; 52H; 52M.

AR-1720-0005

1. Prime Power Production Specialist (Instrumentation Specialty)
2. Prime Power Production Specialty (Instrumentation Specialty)
3. Prime Power Production Specialty (Instrumentation Specialty)
4. Nuclear Power Plant Operators (Instrumentation Specialty)

Course Number: *All Versions:* None.

Location: Prime Power Production School, Ft. Belvoir, VA; Engineer Reactors Group, Ft. Belvoir, VA.

Length: *Version 1:* 48–50 weeks (1777 hours). *Version 2:* 47 weeks (1685 hours). *Version 3:* 52 weeks (1860 hours). *Version 4:* 40–64 weeks (1480–2207 hours).

Exhibit Dates: *Version 1:* 9/81–Present. *Version 2:* 4/81–8/81. *Version 3:* 10/77–3/81. *Version 4:* 1/58–9/77.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to operate and maintain nuclear/conventional power plants and to perform as specialists in all electrical and mechanical systems of nuclear/conventional power plants.

Instruction: *Version 1:* Academic phase covers algebra, trigonometry and general mathematics, general physics, chemistry, A/C circuit analysis, D/C circuit analysis and mechanical engineering including thermodynamics. Sensors and measurement technology, electronics for instrumentation, signal processing, elements of automatic control including controllers and their tuning. Course also includes amplifiers, digital systems, process instruments, active devices, automatic control and piping systems. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 2:* Academic phase covers algebra, trigonometry and general mathematics, general physics, chemistry, A/C circuit analysis, D/C circuit analysis and mechanical engineering including thermodynamics. Sensors and measurement technology, electronics for instrumentation, signal processing, elements of automatic control including controllers and their tuning. Course includes amplifiers, digital systems, process instruments, active devices, automatic control and piping systems. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 3:* Academic phase covers algebra, trigonometry and general mathematics, general physics, chemistry, A/C circuit analysis, D/C circuit analysis and mechanical engineering including thermodynamics. Sensors and measurement technology, electronics for instrumentation, signal processing, elements of automatic control including controllers and their tuning. Operator phase is equivalent to cooperative work experience in professional practice or real-life situations. This phase may be considered for credit dependent on policies of receiving institution with regard to cooperative work experience. *Version 4:* Lectures and practical exercises to cover math, physics, operation of nuclear power plants, electronics, and electrical and mechanical instrumentation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in air conditioning, 3 in pipe fitting (8/81); in the lower-division baccalaureate/associate degree category, 8 semester hours in active devices, 7 in mathematics, 3 in digital fundamentals, 1 in microprocessors, 5 in instrumentation/ process control, 3 in physics, 2 in chemistry, 3 in thermodynamics, 3 in mechanical engineering, 3 in DC circuits analysis, 3 in AC circuits analysis, 3 in motors and generators ,0-6 work experience or practicum(8/81). *Version 2:* In the vocational certificate category, 3 semester hours in air conditioning, 3 in pipe fitting (8/81); in the lower-division baccalaureate/associate degree category, 8 semester hours in active devices, 3 in digital fundamentals, 1 in microprocessors, 5 in instrumentation/process control, 7 in mathematics to include algebra and trigonometry, 3 in general physics, 2 in chemistry, 3 in A/C circuit analysis, 3 in D/C circuit analysis, 6 in mechanical engineering to include 3 in thermodynamics, 0-6 in cooperative work experience (8/81). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics to include algebra and trigonometry, 3 in general physics, 2 in chemistry, 3 in A/C circuit analysis, 3 in D/C circuit analysis, 6 in mechanical engineering to include 3 in thermodynamics, 0-6 in cooperative work experience (11/78); in the upper-division baccalaureate category, 3 semester hours in instrumentation for electrical engineering majors or 6 in electronics/instrumentation for non-engineering majors (11/78). *Version 4:* In the vocational certificate category, 12 semester hours in general mathematics and science, 18 in nuclear technology, and 6 in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in general mathematics and science, 9 in nuclear technology, and 3 in electronics (6/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronic circuits theory and instrumentation for non-engineering majors, or 3 semester hours in electronics and 1 in electronics laboratory for non-electrical engineering majors, or 1 semester hour in electrical laboratory for electrical engineering majors (6/74).

Related Occupation Codes: 52E; 52K; 52M.

AR-1720-0006

Nuclear, Biological, Chemical (NBC) Specialist (Transition)
(Chemical Operation Specialist (Transition))

Course Number: 494-54E10/20/30T.

Location: Chemical School, Ft. McClellan, AL.

Length: 8–9 weeks (326 hours).

Exhibit Dates: 4/81–2/85.

Objectives: To train enlisted personnel reclassified as specialists in chemical, biological and radiological safety.

Instruction: Lectures and practical exercises in technical aspects of chemical, biological, and radiological operations including defensive operations, material and weapons, basic science and mathematics, biological agents, biological detection and defense, meteorology, field behavior of chemical agents, radiac instrumentation, field impregnation, map reading and interpretation, communications, intelligence, and supply and maintenance management procedures.

Credit Recommendation: In the vocational certificate category, credit in defense or disaster control on the basis of institutional evaluation (3/82).

Related Occupation Codes: 54E.

AR-1720-0007

Nuclear, Biological, Chemical (NBC) Defense
(Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO))

Course Number: 2E-ASI3R/494-SQIC.

Location: Chemical School, Ft. McClellan, AL; Reserve Schools, Continental USA; National Guard Academies, Continental USA.

Length: Self-paced 1–3 weeks (50–80 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide active Army and reserve components of all MOS's with the skills necessary to perform those duties required of the NBC defense officers or NCOs at battalion and company level.

Instruction: Through the use of films and practical experiences such topics as survival in a chemical, biological and nuclear environment are taught. Other areas covered include chemical and nuclear equipment and maintenance, logistics, radiological monitoring and smoke operations and decontamination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1720-0008

ORDNANCE OFFICER ADVANCE NUCLEAR MATERIEL MANAGEMENT
(Ordnance Officer Advanced Nuclear Weapons Materiel Management)

Course Number: 4E-F0A-F9.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 2 weeks (72 hours).

Exhibit Dates: 10/84–Present.

Objectives: To prepare the company grade ordnance officer to function effectively while assigned to an ordnance nuclear weapons unit.

Instruction: Training includes logistics management, budget system overview and mission area analysis. Also includes ammunition industrial base management.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/88).

Related Occupation Codes: 91D.

AR-1721-0001

FIRE CONTROL INSTRUMENT REPAIR (BASIC)

Course Number: 9-R-403.1.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280 hours).

Exhibit Dates: 2/57–12/68.

Objectives: To train enlisted personnel to assist in the repair of optical and nonoptical precision instruments and related equipment.

Instruction: Lectures and practical exercises in hand tools use and maintenance; optics cleaning; precision and non-precision-measuring instruments repair; basic electricity; Ohm's law; quadrants, mounts, and instrument accessories operation and repair; optics, refraction, and reflection; and prisms, lenses, and optical instruments inspection, adjustment, and repair.

Credit Recommendation: Insufficient data for evaluation (3/74).

AR-1721-0002

FIRE CONTROL INSTRUMENT REPAIR
(Optical Instrument Repairman (USMC))

Course Number: *Version 1:* 670-41C10 (CT). *Version 2:* 670-41C10/670-2171. *Version 3:* 670-41C10. *Version 4:* 670-41C20. *Version 5:* 670-41C20. *Version 6:* 670-403.1; 670-403.2. *Version 7:* 9-R-403.2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 15–15 weeks (564–565 hours). *Version 2:* 15 weeks (522 hours) for Army, 16 weeks (593 hours) for Marine Corps. *Version 3:* 14–20 weeks (390–634 hours). *Version 4:* 29–31 weeks (947–995 hours). *Version 5:* 19 weeks (645 hours). *Version 6:* 12 weeks (443 hours). *Version 7:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 5/85–9/88. *Version 3:* 11/76–4/85. *Version 4:* 9/73–10/76. *Version 5:* 6/72–8/73. *Version 6:* 8/64–5/72. *Version 7:* 2/57–7/64.

Learning Outcomes: Upon completion of the course the student will be able to inspect, adjust, and repair optical, nonoptical, and electrical precision instruments and related equipment.

Instruction: *All Versions:* Lectures and practical exercises in optics fundamentals and repair techniques; care and use of common hand tools and measuring instruments; inspection and troubleshooting of binoculars, periscopes, telescopes, aiming circles, and tank fire control systems; and diagnosis and repair of electromechanical computers and gun aiming systems. *Version 1:* Training includes telescope mount, periscope (passive) and mount and panel assemblies. The course includes basic concepts of electricity including testing, inspection ,and troubleshooting of electrical circuits; inspection and repair of binoculars, periscopes, telescopes, aiming circles, mounts and artillery, and tank fire control mechanisms. *Version 2:* Training for Army includes telescope mount, periscope (passive) and mount and panel assemblies. The course includes basic concepts of electricity including testing, inspection ,and troubleshooting of electrical circuits; inspection and repair of binoculars, periscopes, telescopes, aiming circles, mounts and artillery, and tank fire control mechanisms. *Version 3:* Training for Army includes telescope mount, periscope (passive) and mount and panel assemblies. For students completing Phases I and II the course includes basic concepts of electricity including solid state testing, inspection ,and troubleshooting of electronic circuits; inspection and repair of binoculars, periscopes, telescopes, aiming circles, mounts and artillery, and tank fire control mechanisms. Note: Course is 17 weeks long for Marine enlisted personnel after 2/80; prior to that time it was 14 weeks long for Marine enlisted personnel.Army and Marine personnel who have completed Module 201 of Common Basic Electronics Training (COBET) at Ft. Jackson, SC will complete only Phase II of the course. See exhibit AR-1715-0389 for the credit recommendation for COBET. Students who have not attended COBET will complete Phases I and II of this course. After 12/80 the course reverted to one phase attended by all students. *Version 4:* Instruction includes principles and components of optical, electro-mechanical, electronic, and laser range finders, aimers, and computer systems. *Version 5:* Instruction includes basic measurement and repair tasks for electronic equipment. *Version 7:* Instruction includes mechanical instrument repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in optical instrument repair, 3 in basic automotive electricity, and 5 in basic electricity and electronics (9/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in optical instrument repair, 3 in basic automotive electricity, and 5 in basic electricity and electronics for Army personnel completing Phases I and II OR 4 semester hours in optical instrument repair and 3 in basic electricity and electronics for Marine Corps completing Phases I and II (3/87). *Version 3:* In the lower-division baccalaureate/associate degree category, 5 semester hours in optical instrument repair and 5 in basic electricity and electronics for Army personnel completing Phases I and II OR 4 semester hours in optical instrument repair and 3 in basic electricity and electronics for Marine Corps completing Phases I and II. For Army personnel completing COBET and Phase II of this course, 5 semester hours in optical instrument repair or for Marine Corps personnel completing COBET and Phase II of this and Phase II of this course, course, 4 semester hours in optical instrument repair (see note above for explanation of COBET) (1/78). *Version 4:* In the vocational certificate category, 5 semester hours in optical equipment principles and maintenance, 4 in basic electricity, 4 in basic electronics, 4 in electro-mechanical devices, 2 in basic laser principles, and 1 in basic infrared principles (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in optical instrumentation, 3 in introduction to electricity and electronics, 2 in electro-mechanical devices, and 2 in laser and infrared principles (6/75). *Version 5:* In the vocational certificate category, 4 semester hours in electronics, 2 in electrical laboratory, 4 in optical instrument repair, 3 in electromechanical technology (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical technology (3/74). *Version 6:* In the vocational certificate category, 4 semester hours in optical instrument repair, 3 in electromechanical technology (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical technology (3/74). *Version 7:* In the vocational certificate category, 3 semester hours in optical instrument repair, 2 in electromechanical technology (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical technology (3/74).

Related Occupation Codes: 41C; 09B.

AR-1721-0003

ELECTRICAL INSTRUMENT REPAIR

Course Number: 198-295.1; 11-R-295.1.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 12 weeks (432–440 hours).

Exhibit Dates: 3/57–12/68.

Objectives: To train enlisted personnel to inspect, test, and repair electrical indicating instruments, combination meters, multipurpose meters, and electromechanical meteorological instruments.

Instruction: Lectures and practical exercises in basic electrical principles; inspection, testing, adjustment, and repair of DC and AC voltmeters and ammeters, common multimeters, anemometers, barometers, barographs, thermographs, wind equipment, and theodolites.

Credit Recommendation: In the vocational certificate category, 6 semester hours in instrument repair, and additional credit in instrument repair on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in instrument repair, and additional credit in instrument repair on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in instrument repair on the basis of institutional evaluation (3/74).

AR-1721-0004

AIRCRAFT INSTRUMENT REPAIR

Course Number: *All Versions:* 602-68F30. *Version 2:* 602-688.1; 55-R-688.1; 55-E-56.

Location: Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 8 weeks (241 hours). *Version 2:* 10–18 weeks (343–640 hours).

Exhibit Dates: *Version 1:* 4/74–11/77. *Version 2:* 4/57–3/74.

Objectives: To train enlisted personnel to repair and maintain aircraft instruments and allied equipment.

Instruction: *All Versions:* Lectures and practical exercises in the repair and maintenance of aircraft instruments and allied equipment, including electrical fundamentals, aircraft instruments (gauges, indicators, gyroscopic principles, compasses, and test equipment), and mathematics and physical principles related to aircraft systems. *Version 1:* Topics include troubleshooting instrument systems. *Version 2:* Topics include flight theory and counterinsurgency operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft electrical repair or electrical laboratory (6/75). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

Related Occupation Codes: 68F.

AR-1721-0005

Topographic Instrument Repair

Course Number: 670-41B20.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (452 hours).

Exhibit Dates: 9/66–11/86.

Objectives: To train enlisted personnel to maintain and repair engineer surveying and mapping instruments and allied equipment.

Instruction: Lectures and practical exercises in surveying and mapping instruments maintenance and repair, including surveying rods, Abney hand level, Dumpy level, transit, telescopic alidade, Wild T-16 and Wild T-2 theodolites, Brunson 900 theodolite, multiplex, and survey tapes, and tools and equipment operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in topographic instrument repair, 1 in surveying instrument familiarization (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in surveying instrument familiarization (5/74).

Related Occupation Codes: 41B.

AR-1721-0006

Camera Equipment Repair

Course Number: 198-41E20; 11-R-401.1; 11-E-2.

Location: Signal School, Ft. Monmouth, NJ.

Length: 12–15 weeks (432–554 hours).

Exhibit Dates: 2/56–1/78.

Objectives: To train enlisted personnel to maintain and repair still and motion-picture cameras and related equipment.

Instruction: Lectures and ,practical exercises in still and motion-picture camera maintenance and repair, including electrical fundamentals, electronic flash unit, photographic equipment repair principles, motion-picture cameras, press cameras, between-the-lens cameras, focal-plane cameras, and supply and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electromechanical or camera repair (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electromechanical or camera repair (6/74).

Related Occupation Codes: 41E; 41H.

AR-1721-0007

Aircraft Instrument and Electrical Systems Repair

Course Number: None.

Location: Transportation School, Ft. Eustis, VA.

Length: 18 weeks (714 hours).

Exhibit Dates: 2/54–12/68.

Objectives: To train enlisted personnel as aircraft instrument and electrical systems repairmen.

Instruction: Lectures and practical exercises in repair, overhaul and rebuilding of aircraft instruments, electrical systems and their components, including common maintenance subjects, elementary physics and electricity, aircraft DC electrical power and actuator systems, aircraft AC electrical power and ignition systems, miscellaneous systems and troubleshooting, instrument repair fundamentals, gyroscopic instrument and magnetic compass, and mechanical systems.

Credit Recommendation: In the vocational certificate category, 12 semester hours in instrument maintenance (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in instrument maintenance (6/74).

AR-1721-0008

1. Meteorological Equipment Repairer
2. Meteorological Equipment Repairer
3. Meteorological Equipment Mechanic and Repairman
4. Meteorological Equipment Repairman

Course Number: *Version 1:* 420-ASIH1. *Version 2:* 420-ASIH1. *Version 3:* 198-35D20, 198-35D30. *Version 4:* 198-35D30.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 12 weeks (439 hours). *Version 2:* Self-paced, average 9, maximum allowed 14 weeks (270–420 hours). *Version 3:* 20 weeks (662 hours). *Version 4:* 20 weeks (753 hours).

Exhibit Dates: *Version 1:* 4/83–9/88. *Version 2:* 8/79–3/83. *Version 3:* 2/74–7/79. *Version 4:* 7/67–1/74.

Objectives: To train enlisted personnel to perform maintenance and repair of electrical and mechanical meteorological equipment.

Instruction: *Version 1:* Lectures and practical exercises in electrical and electronic fundamentals, radio equipment, and common ground meteorological equipment (wind measuring equipment, azimuth and elevation equipment, and related equipment). For course after 9/88, see AR-1715-0835. *Version 2:* Lectures and practical exercises in electrical and electronic fundamentals, radio equipment, and common ground meteorological equipment (wind measuring equipment, azimuth and elevation equipment, and related equipment). Course follows a self-paced format with individualized instruction and modulated learning packets, including extensive laboratories for diagnosis and repair of total equipment package. *Version 3:* Lectures and practical exercises in electrical and electronic fundamentals, radio equipment, and common ground meteorological equipment (wind measuring equipment, azimuth and elevation equipment, and related equipment). *Version 4:* Lectures and practical exercises in the maintenance and repair of electronic meteorological equipment used in artillery ballistic meteorology sections and research and development activities, including electrical fundamentals (DC and AC), electronic fundamentals (vacuum tube only), radio fundamentals (transmitters and receivers), special circuits, target acquisition, tactical subjects, and applications to maintenance procedures for specific equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical devices repair (10/83); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics and 1 in technical mathematics (10/83). *Version 2:* In the vocational certificate category, 3 semester hours in basic electronics (1/80); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics and 1 in communications laboratory (1/80). *Version 3:* In the vocational certificate category, 3 semester hours in basic electronics, 1 in communications laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in communications laboratory (6/75). *Version 4:* In the vocational certificate category, 6 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

Related Occupation Codes: 93F; 35D; 35F.

AR-1722-0001

Marine Deck Officer Advanced

Course Number: 8C-561C.

Location: Transportation School, Ft. Eustis, VA.

Length: 21 weeks (780 hours).

Exhibit Dates: 1/72–8/76.

Objectives: To train deck officers to be vessel commanders.

Instruction: Lectures and practical exercises in nautical rules and regulations; cargo stowage planning; advanced marlinspike seamanship; hazardous-cargo handling; ship's administration; ship's construction and repair; vessel stability; fire prevention and control; piloting and open water navigation, including charts, plotting, aids to navigation, dead reckoning, radar piloting, loran, meteorology, celestial navigation, midlatitude sailing, Mercator sailing, and great-circle sailing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in trigonometry or navigation, 12 in marine vessel operation (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in trigonometry or navigation, 6 in marine vessel operation (5/74); in the upper-division baccalaureate category, 3 semester hours in trigonometry or navigation (12/68).

AR-1722-0002

Watercraft Operator
(Watercraft Operation)
(Crewman)

Course Number: *Version 1:* 062-76B10. *Version 2:* 062-61B10. *Version 3:* 062-61B20. *Version 4:* 813-61B20.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA; *Version 2:* Transportation School, Ft. Eustis, VA; *Version 3:* Transportation School, Ft. Eustis, VA; *Version 4:* Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 6 weeks (230–234 hours). *Version 2:* 6–7 weeks (214 hours). *Version 3:* 6 weeks (200–224 hours). *Version 4:* 4 weeks (140 hours).

Exhibit Dates: *Version 1:* 4/85–Present. *Version 2:* 6/79–3/85. *Version 3:* 9/71–5/79. *Version 4:* 11/66–8/71.

Objectives: To provide enlisted personnel at the entry level with a working knowledge of the duties and responsibilities of a watercraft operator on U.S. Army watercraft and amphibians.

Instruction: *Version 1:* Lectures and practical exercises in ships radio communication and code flags; rigging; piloting, navigation, and charts; and watercraft operations. *Version 2:* Lectures and practical exercises in ships radio communication and code flags; rigging, piloting, navigation, and charts, and watercraft operations to include tugs and towing equipment, single and multiple screw craft, retrieving and towing disabled vessels, and cargo loading. Course includes emergency and lifesaving procedures, vessel sanitation, and marlinspike seamanship. *Version 3:* Lectures and practical exercises in ships radio communication and code flags; rigging, piloting, navigation, and charts; and watercraft operations to include tugs and towing equipment, single and multiple screw craft, retrieving and towing disabled vessels, and cargo loading. *Version 4:* Lectures and practical exercises in ships radio communication and code flags; rigging; piloting, navigation, and charts; and watercraft operations to include tugs and towing equipment, single and multiple screw craft, retrieving and towing disabled vessels, and cargo loading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (7/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in seamanship, 2 in piloting, and 1 in safety (3/83). *Version 3:* In the vocational certificate category, 4 semester hours in seamanship (7/74). *Version 4:* In the vocational certificate category, 3 semester hours in seamanship (7/74).

Related Occupation Codes: 61A; 61B.

AR-1722-0003

HARBOR CRAFT COMPANY OFFICER

Course Number: 8C-F7.

Location: Transportation School, Ft. Eustis, VA.

Length: 3 weeks (111-119 hours).

Exhibit Dates: 10/68-3/83.

Objectives: To provide officers with a general knowledge of the planning, directing, maintenance, administration, and supervision necessary in a U.S. Army harbor craft unit.

Instruction: Lectures and practical exercises in seamanship and boat handling skills, piloting; and engineering, including operation, maintenance, and support of Army floating equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in ship piloting and engineering (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in ship piloting and engineering (7/74).

AR-1722-0004

WATERCRAFT OPERATOR CERTIFICATION
(Watercraft Operator Primary Technical)

Course Number: 062-61B20.

Location: Transportation School, Ft. Eustis, VA.

Length: 5-6 weeks (178-190 hours).

Exhibit Dates: 1/82-Present.

Objectives: To train enlisted personnel to operate watercraft and serve in senior positions aboard vessels two with to four crewmen.

Instruction: Lectures and practical exercises in marlinspike seamanship, meteorology, vessel communications, piloting and coastwise navigation, and shipboard first aid.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 1 in safety, and and 1 in seamanship (10/86).

Related Occupation Codes: 61B.

AR-1722-0005

MARINE DECK OFFICER WARRANT
OFFICER ADVANCED

Course Number: 8-55-C32-500A2.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 21-22 weeks (842 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as detachment commander, master of unlimited motor vessels, harbormaster, project officer, and instructor. Student will be responsible for ship's business, shipboard damage control, maintenance and operation of lifesaving equipment, firefighting equipment, pollution control and abatement. Student will supervise cargo stowage and administration. Student will have advanced working knowledge of piloting, communications, electronic navigation, and celestial navigation. Student will have responsibility for docking and undocking large vessels and towing/convoy operations and for marine maintenance management.

Instruction: Lectures and exercises including general military subjects, maritime law, refresher/upgrade training in piloting including navigational rules, tide/current tables, fuel conservation, meteorology, navigation aids, charts and publications. Also included are visual and radio communication. Electronic navigation systems covered are LORAN, OMEGA, NAVSAT,RDF and marine radar. Course includes 80 hours of night training/examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in celestial navigation, 3 in piloting, 3 in basic mathematics, 3 in marine navigation, 3 in principles of supervision and 4 in practicum for open water ship operation (3/88).

Related Occupation Codes: 500A.

AR-1722-0006

MARINE DECK OFFICER WARRANT
OFFICER TECHNICAL CERTIFICATION

Course Number: 8C-880A.

Location: Transportation and Aviation Logistics Schools, Ft. Eustis, VA.

Length: 31-32 weeks (1216 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as a licensed master of class A-1 motor vessels, as a mate of A-2 motor vessels, or as a marine radar observer. She will be able to supervise deck and engine students in common marine subjects, ship firefighting, damage control, general deck seamanship, and cargo handling. She will have a working knowledge of visual and radio communications, navigation rules, radar vector analysis, charts, publications, tide tables and weather. The student will also be able to use the marine sextant and magnetic compass, marine radar, celestial and electronic navigation. The student will be issued the Coast Guard Marine Radar Observer's Certificate.

Instruction: Lectures, demonstrations, practical exercises, and hands on training to certified as a marine deck officer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in deck seamanship, 3 in radar navigation, 3 in celestial navigation, 3 in piloting, 3 in ship handling, and 6 in practicum in inland and open water ship operation (3/88).

Related Occupation Codes: 880A.

AR-1723-0001

MARINE HULL REPAIRER
(Marine Hull Repair)

Course Number: *Version 1:* 704-61F20. *Version 2:* 704-44K20. *Version 3:* 55-R-563.2; 55-E-6.

Location: *Version 1:* Transportation and Aviation Logistics School, Ft. Eustis, VA; *Version 2:* Transportation School, Ft. Eustis, VA. *Version 3:* Transportation School, Ft. Eustis, VA.

Length: *Version 1:* 3 weeks (101 hours). *Version 2:* 13-17 weeks (450-607 hours). *Version 3:* 9 weeks (315 hours).

Exhibit Dates: *Version 1:* 5/80-7/85. *Version 2:* 5/66-4/80. *Version 3:* 10/55-4/66.

Objectives: To train enlisted personnel to repair metal, fiberglass, and wood hulls and related structures.

Instruction: *Version 1:* Lectures and practical exercises in the inspection and repair of metal, fiberglass, and wood hulls and related structures, including sheet metal inspection, repairs and fabrications, and nondestructive testing of fuel tanks and hulls. *Version 2:* Lectures and practical exercises in the repair of metal, fiberglass, and wood hulls and related structures, including marine welding and pipefitting, sheet metal repair, and basic shipfitting. The course includes emergency repairs, aluminum hull repair, and plastic hull repair. *Version 3:* Lectures and practical exercises in the repair of metal, fiberglass, and wood hulls and related structures, including marine welding and pipefitting, sheet metal repair, and basic shipfitting. The course includes blacksmithing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in sheetmetal, 1 in non-destructive testing (7/85). *Version 2:* In the vocational certificate category, 8 semester hours in welding or metalworking (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in welding or metalworking (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in welding or metalworking, and 8 in cabinetmaking (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in welding or metalworking, and 4 in cabinetmaking (6/74).

Related Occupation Codes: 61F; 44K.

AR-1723-0002

MARINE HULL REPAIR SUPERVISION

Course Number: 55-R-563.6; 55-E-28.

Location: Transportation School, Ft. Eustis, VA.

Length: 11 weeks (388-391 hours).

Exhibit Dates: 9/55-1/65.

Objectives: To train enlisted personnel to supervise repair of wood and steel hulls, superstructures, and internal structural accessories of harbor craft and landing craft.

Instruction: Lectures and practical exercises in marine hull repair. Topics include shipfitting, marine pipefitting, and ship carpentry.

Credit Recommendation: In the vocational certificate category, 3 semester hours in welding and metal work (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding and metal work (6/74).

AR-1723-0003

Metal Working (Entry)

Course Number: 9-R-440.0; 9-E-74.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (280-304 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train personnel to perform as metal working helpers.

Instruction: Lectures and practical exercises on machining, welding, forging and metal body repair, including basic mathematics and drawing interpretation applied specifically to metal body fabrication and repair, the identification and use of hand cutting and measuring tools, the setup and operation of welding equipment and materials, basic operations on the metal hand saw, engine lathe and the drill press, and preventive maintenance, tool inventory and inspection.

Credit Recommendation: In the vocational certificate category, 3 semester hours in metal working or body repair (5/74).

AR-1723-0004

Machinist
(Apprentice Machinist)

Course Number: *Version 1:* 702-44E10; 702-42730; 702-2161. *Version 2:* 9-R-443.1; 702-44E10; 5ABA-53130 (USAF). *Version 3:* 9-R-443.1; 702-44E20; 5ABA53130 (USAF); 702-443.1. *Version 4:* 9-R-443.1; 9-E-2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 15-16 weeks (526-570 hours). *Version 2:* 8-15 weeks (256-488 hours). *Version 3:* 14-16 weeks (434-556 hours). *Version 4:* 10 weeks (350-380 hours).

Exhibit Dates: *Version 1:* 4/83-1/85. *Version 2:* 6/76-3/83. *Version 3:* 4/58-5/76. *Version 4:* 11/55-3/58.

Objectives: To train enlisted personnel in basic machine shop theory and practice.

Instruction: *All Versions:* Lectures and practical exercises in blueprint reading and sketching, applied shop mathematics, use of technical manuals; theory, set up, and operation of lathe, milling machine, shaper, contour machine, and precision grinding machine; use of hand tools for layout and assembly; use of measuring instruments for maintenance and fabrication of ordnance parts and equipment. *Version 2:* Instruction for Army personnel includes shop fundamentals; use of hand tools, technical manuals, use of measuring instruments maintenance and fabrication of parts and equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in lathe operation, 7 in machine trades or technology, 1 in milling machine for Army personnel; 3 semester hours in lathe operation, 7 in machine trades or technology, 1 in milling machine for Marine Corps personnel; 4 in lathe operation, 1 in precision grinding, 2 in milling machine, 5 in machine trades or technology for Air Force personnel (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in lathe operation for Army personnel, or 14 in machinist training for Marine Corps and Air Force personnel (1/78). *Version 3:* In the vocational certificate category, 8 semester hours in machine trades or machine technology (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in machine trades or machine technology (5/74); in the upper-division baccalaureate category, 2 semester hours in machine trades or machine technology (5/74). *Version 4:* In the vocational certificate category, 5 semester hours in machine trades or machine technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machine technology (5/74); in the upper-division baccalaureate category, 1 semester hour in machine trades or machine technology (5/74).

Related Occupation Codes: 44E.

AR-1723-0005

Machinist

Course Number: 702-44E20.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 8 weeks (256 hours).

Exhibit Dates: 7/76-1/87.

Objectives: To train enlisted personnel as machinists.

Instruction: Practical exercises and examinations in machine shop techniques, including shop mathematics, drawing and sketching, use of the vertical bandsaw, the milling machine, milling attachments, grinding, welding equipment, and heat treating for the maintenance and fabrication of ordnance parts and equipment.

Credit Recommendation: In the vocational certificate category, 8 semester hours in machine shop (1/78).

Related Occupation Codes: 44E.

AR-1723-0006

Machinist Basic Technical

Course Number: 702-44E30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 15-18 weeks (550-616 hours).

Exhibit Dates: 3/83-11/85.

Objectives: To train enlisted personnel with MOS 44E20 or 44B20 to supervise and perform the duties of metalworker and machinist at skill level 30.

Instruction: Lectures and practical exercises in leadership training, the noncommissioned officer in a tactical environment, general military as well as logistical training, advanced training in metal working and the machine trades. Those in MOS 44B will also receive basic training in the machine trades to include lecture and practical exercises in shop fundamentals, vertical bandsaw, lathe, milling machine, and lathe attachments (versa mil) Those in MOS 44E will receive lectures and practical exercises in shop fundamentals, oxyacetylene, electric arc, and inert gas welding, metal body, radiator, glassworking, and fuel tank repair as well as metal body painting. See exhibit AR-1723-0009 for later version of the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supervision/management, 3 in lathe, 3 in general machine trade or technology, 1 in advanced metalworking, 3 in advanced machine trade or technology for those in MOS 44B30, 2 semester hours in supervision/management, 1 in oxyacetylene welding, 1 in electric arc welding, 1 in inert gas welding, 2 in general auto body repair, 1 in advanced metalworking, 3 in advanced machine trade or technology for those in MOS 44E30 (2/84).

Related Occupation Codes: 44E, 44B.

AR-1723-0007

Marine Hull Repairer

Course Number: 704-61F20.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: 3 weeks (101 hours).

Exhibit Dates: 5/80-Present.

Objectives: To provide enlisted personnel with a working knowledge of the required inspections, fabrications, repairs and storage functions required of a marine hull repairer.

Instruction: Lectures and practical exercises to teach the individual to prepare for storage, maintain while in storage, and restore to operational status Army watercraft; overhaul an LCM 8 craft propulsion system, test and repair fuel tanks, use sheet metal tools and equipment to fabricate sheet metal components, inspect hull and deck plating, supporting members and stiffeners and compare to specification tolerances, perform non-destructive inspections using dye-penetrant and magnetic particle diagnostic testing procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in sheet matal fundamentals, 1 in non-destructive testing (2/84).

Related Occupation Codes: 61F.

AR-1723-0008

Machinist
(Apprentice Machinist)

Course Number: *Version 1:* 702-44E10, 702-42730, 702-2161. *Version 2:* 702-44E10/702-42730/702-2161.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 14-16 weeks (504-540 hours). *Version 2:* 15-16 weeks (544-550 hours).

Exhibit Dates: *Version 1:* 7/87-Present. *Version 2:* 2/85-6/87.

Learning Outcomes: Upon completion of the course, the student will be able to fabricate metal parts by using metal working tools and equipment such as lathes, milling machines, shapers, grinders, and heat treating techniques.

Instruction: Practical exercises in the use of the metal working tools and equipment is stressed. For the course prior to 1985, see AR-1723-0004.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, For Army and Marine Corps personnel 6 semester hours in lathe operation, 2 in milling machine operation, and 3 in machine trades or technology. For Air Force in the lower-division baccalaureate/associate degree category, 4 semester hours in machine trades or technology, 5 in lathe operation, 1 in shaper operation, 1 in precision grinding (3/87).

Related Occupation Codes: 44E.

AR-1723-0009

Machinist Basic Noncommissioned Officer (NCO)

Course Number: 702-44E30 (44B).

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: For Track 44B, 17-18 weeks (632 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 12/85-8/86.

Objectives: To train enlisted personnel with MOS 44E20 or 44B20 to supervise and perform the duties of metalworker and machinist at skill level 30.

Instruction: Lectures and practical exercises in leadership training, the noncommissioned officer in a tactical environment, general military as well as logistical training, advanced training in metal working and the machine trades. Those in MOS 44B will also receive basic training in the machine trades to include lecture and practical exercises in shop fundamentals, vertical bandsaw, lathe, milling machine, and lathe attachments (versa mil).

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, for those completing the 44B track, 1 semester hour in supervision/management, 4 in machine lathe operation, 1 in milling machine operation, 5 in advanced machine shop, and 2 in advanced metal work (3/87). AR-1406-0090 for credits recommended for the common core curriculum. *Version 2:* In the lower-division baccalaureate/associate degree category, for those completing the 44B track, 1 semester hour in supervision/management, 4 in machine lathe operation, 1 in milling machine operation, 5 in advanced machine shop, and 2 in advanced metal work (3/87).

Related Occupation Codes: 44E; 44B.

AR-1723-0010

Machinist Noncommissioned Officer (NCO) Advanced
(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 44E)

Course Number: 702-44E40; 6-63-C42 (44E).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 7-9 weeks (251-398 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

AR-1723-0011

Metalworker Basic Noncommissioned Officer (NCO)
(Machinist Basic Noncommissioned Officer (NCO))

Course Number: 702-44E30.

Location: Ordnance School and Center, Aberdeen Proving Ground, MD.

Length: For Track 44E, 14-15 weeks (537-538 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 12/85-8/86.

Objectives: To train enlisted personnel with MOS 44E20 or 44B20 to supervise and perform the duties of metalworker and machinist at skill level 30.

Instruction: Lectures and practical exercises in leadership training, the noncommissioned officer in a tactical environment, general military as well as logistical training, advanced training in metal working and the machine trades. Those in in MOS 44E will receive lectures and practical exercises in shop fundamentals, oxycetylene, electric arc, and inert gas welding, metal body, radiator, glassworking, and fuel tank repair as well as metal body painting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, for those completing the 44E track, 1 semester hours in supervision/management, 2 in oxyacetylene welding, 1 in electric arc welding, 1 in MIG and TIG welding, 1 in advanced welding, 3 in automotive body repair, and 2 in advanced metal work (3/87). See AR-1406-0090 for credits recommended for the common core curriculum. *Version 2:* In the lower-division baccalaureate/associate degree category, for those completing the 44E track, 1 semester hours in supervision/management, 2 in oxyacetylene welding, 1 in electric arc welding, 1 in MIG and TIG welding, 1 in advanced welding, 3 in automotive body repair, and 2 in advanced metal work (3/87).

Related Occupation Codes: 44E; 44B.

AR-1728-0001

Associate Military Police Officer Career

Course Number: 19-A-C23.

Location: Provost Marshal General's School, Ft. Gordon, GA; Military Police School, Ft. Gordon, GA.

Length: 14 weeks (507-529 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To qualify officers to perform as commanders, supervisors, or planners of police agency activities.

Instruction: Role of supervising police administrator within combat and peacetime Army operations; tactical employment of the combined arms; staff organization and procedures; mine warfare; supply economy; fundamentals of the Army Command Management System, including programming, budgeting, scheduling, and review and analysis; chemical, biological, and radiological warfare; civil affairs organization, operation, and functions; military leadership; motor vehicle maintenance inspection; military justice; nuclear weapons employment; duties and responsibilities of military police in civil disturbances; operation and supervision of confinement facilities; criminal investigation facilities; methods, procedures, and policies related to military police organizations and operations; prisoners of war; communications; traffic control; civil defense, industrial defense, and natural disaster relief; principles of physical security.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in criminal justice (12/68).

AR-1728-0002

Military Police Noncommissioned Officer (NCO) Refresher

Course Number: 19-E-13.

Location: Provost Marshal General's School, Ft. Gordon, GA.

Length: 3 weeks (118 hours).

Exhibit Dates: 11/56-12/68.

Objectives: To provide noncommissioned officers with refresher training in the basic duties and functions of the Military Police Corps.

Instruction: Familiarization with chemical, biological, and radiological agents; fundamentals of military law; weapons; civil disturbances; familiarization with the military police criminal investigation program; organization and functions of military police units; traffic control; military confinement facilities; and handling of prisoners of war.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 2 semester hours in criminal justice (12/68).

AR-1728-0003

Military Police Supervision (Enlisted)
(Military Police Supervision)

Course Number: 830-F2; 19-R-951.6; 19-E-4.

Location: Military Police School, Ft. Gordon, GA; Provost Marshal General's School, Ft. Gordon, GA.

Length: 6 weeks (264 hours).

Exhibit Dates: 8/55-3/72.

Objectives: To qualify students to serve as first-line supervisors for police, minor investigation, traffic, security, and corrections operations.

Instruction: Police organizations; police operations and administration; corrections facilities; provost marshal activities; supervision; apprehension; criminal investigation methods; fingerprinting; confessions; public relations; tactical and organizational concepts of military police units; physical security; military police operations at a post, camp, or a station, and in support of combat operations; communication procedures; traffic control; civil emergencies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in criminal justice (11/73), in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (11/73).

Related Occupation Codes: 95B; 95D.

AR-1728-0004

Corrections and Confinement Officer

Course Number: 19-O-6.

Location: Provost Marshal General's School, Ft. Gordon, GA.

Length: 4 weeks (156 hours).

Exhibit Dates: 11/54-12/68.

Objectives: To train officers in the administration and operation of installation corrections facilities.

Instruction: Military law; weapons; basic investigative methods; corrections facilities; military police techniques; police administration.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in criminal justice (11/73).

AR-1728-0005

Associate Military Police Company Officer

Course Number: 19-B-C3; 19-O-2.

Location: Provost Marshal General's School, Ft. Gordon, GA.

Length: 13 weeks (490-504 hours).

Exhibit Dates: 8/55-11/59.

Objectives: To provide branch training to officers in the duties and responsibilities appropriate to company-grade Military Police Corps officers.

Instruction: Tactical employment of weapons; fundamental command and staff procedures; marksmanship; introduction to chemical, biological, and radiological warfare; military transportation; military justice; nuclear warfare; civil disturbances; confinement facilities; criminal investigative activities; organization and operations of military police units; prisoners of war; traffic control.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in police methods (12/68).

AR-1728-0006

CORRECTIONAL SUPERVISOR
(Confinement Supervision (Enlisted))
(Confinement Supervision)

Course Number: 831-F3; 19-R-952.6; 19-E-10.

Location: Military Police School, Ft. Gordon, GA; Provost Marshal General's School, Ft. Gordon, GA.

Length: 4-6 weeks (151-218 hours).

Exhibit Dates: 9/55-2/73.

Objectives: To qualify selected noncommissioned officers in the supervision, administration, and operation of installation correction facilities, and as custodial personnel in correctional installations.

Instruction: Fundamentals of military law; weapons; principles of personal encounters; mission, organization, management, and operation of military confinement facilities; techniques of searching people; methods of controlling riots and disorders; basic investigative methods; correctional treatment of confined personnel.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in criminal justice (11/73).

Related Occupation Codes: 95C; 95B.

AR-1728-0007

CORRECTIONAL SPECIALIST
(Basic Corrections)
(Basic Correctional Specialist)

Course Number: 830-95C10; 95C10-OSUT; 831-95C10.

Location: Military Police School, Ft. McClellan, AL.

Length: *Version 1:* Self-paced 6-14 weeks (224-671 hours). *Version 2:* 11-13 weeks (340-408 hours).

Exhibit Dates: *Version 1:* 2/79-Present. *Version 2:* 4/77-1/79.

Objectives: To provide enlisted personnel with training necessary to perform duties as an entry-level correctional specialist.

Instruction: *All Versions:* Seminars and self-paced instruction on correctional security, custody, and control; basic marksmanship; and treatment of prisoners. *Version 1:* May include up to 8 weeks of basic training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional security (3/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (5/77).

Related Occupation Codes: 95C.

AR-1728-0008

POLYGRAPH EXAMINER TRAINING
(Lie Detection)
(Lie Detector Operation)

Course Number: *Version 1:* 7H-F11. *Version 2:* 7H-F11. *Version 3:* 7H-951B. *Version 4:* 19-N-F3; 19-OE-11; 19-H-F3.

Location: *Version 1:* Military Police School, Ft. McClellan, AL. *Version 2:* Military Police School, Ft. McClellan, AL. *Version 3:* Military Police School, Ft. Gordon, GA. *Version 4:* Military Police School, Ft. Gordon, GA; Provost Marshal General's School, Ft. Gordon, GA.

Length: *Version 1:* 12-14 weeks (446-532 hours). *Version 2:* 14 weeks (506-560 hours). *Version 3:* 12 weeks (440 hours). *Version 4:* 7-8 weeks (258-302 hours).

Exhibit Dates: *Version 1:* 11/82-Present. *Version 2:* 4/70-10/82. *Version 3:* 9/65-3/70. *Version 4:* 9/55-8/65.

Objectives: To qualify military and federal civilian investigative/intelligence personnel as polygraph examiners.

Instruction: Polygraph theory and maintenance management; mental and physical evaluation of examinee; polygraph instrumentation and examination; post-test procedures, practical exercises in zone comparison, peak of tension, and general question techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in interviews and interrogations, and 3 in applied psychology (11/86); in the graduate degree category, 6 semester hours in a forensic science or criminal justice elective, 1-3 in research (based upon institutional evaluation of individual research project) (11/86). *Version 2:* In the upper-division baccalaureate category, 12 semester hours in criminal justice (11/73); in the graduate degree category, 6 semester hours in criminal justice or forensic science elective (5/77). *Version 3:* In the upper-division baccalaureate category, 5 semester hours in intelligence or police methods (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in intelligence or police methods (12/68).

Related Occupation Codes: 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0010

CRIMINAL INVESTIGATION

Course Number: *All Versions:* 7H-951A; 19-OE 12. *Version 1:* 7H-951A/832-95D10; 832-95D10. *Version 2:* 832-95D20. *Version 3:* 19-N-9322; 19-N-953.1.

Location: *Version 1:* Military Police School, Ft. McClellan, AL. *Version 2:* Military Police School, Ft. McClellan, AL. *Version 3:* Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA; Provost Marshal General's School, Ft. Gordon, GA.

Length: *Version 1:* 15 weeks (559-582 hours). *Version 2:* 12 weeks (458-480 hours). *Version 3:* 8-9 weeks (352-396 hours).

Exhibit Dates: *Version 1:* 11/80-Present. *Version 2:* 8/75-10/80. *Version 3:* 6/54-7/75.

Objectives: To qualify enlisted personnel and warrant officers for criminal investigation duty in field units of the Army Criminal Investigation Command.

Instruction: *All Versions:* Operation and administration of criminal investigation units; methods and techniques of investigation; crime scene investigation; collection, evaluation and preservation of evidence; death investigation; investigation of crimes against people; investigation of crimes against property; capabilities and limitations of scientific analysis of evidence; investigative photography; fingerprinting and report writing and testifying in court. *Version 2:* Includes fraud and waste investigations and drugs.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal evidence/court procedures, 3 in introduction to criminalistics, and 3 in commercial security (11/86); in the upper-division baccalaureate category, 3 semester hours in controlled substances (drugs) (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 12 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 9 semester hours in criminal justice (11/73). *Version 3:* In the lower-division baccalaureate/associate degree category, 9 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 5 semester hours in protective services occupations (12/68).

Related Occupation Codes: 95D; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0011

CRIMINAL INVESTIGATION WARRANT OFFICER ADVANCED
(Criminal Investigation Warrant Officer Intermediate)

Course Number: *All Versions:* 7-19-C32. *Version 2:* 7-19-C30.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 7 weeks (262 hours). *Version 2:* 7-8 weeks (238-317 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 9/70-9/85.

Objectives: To train criminal investigators to conduct mid-level management of general investigations and to serve as operations officers in CI field offices.

Instruction: Investigative procedures; evidence identification, handling and examination; courtroom procedures, legal questions; management and supervision techniques, research and report writing; military justice; photography; personal security; authority and jurisdiction; crimes; psychology and human behavior; and fraud investigations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice supervision, 3 in a management elective (11/86). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in criminal justice (5/77).

Related Occupation Codes: 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0012

CRIME LABORATORY PHOTOGRAPHY

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 104 weeks (3390 hours).

Exhibit Dates: 8/66-2/72.

Objectives: To train personnel as crime photographers to qualify them as expert witnesses in crime photography before judicial proceedings.

Instruction: Principles of photography; history of photography; photography in law enforcement; optics of photography; light and its management; the camera and its management; theory of the photographic process; photographic sensitometry; photographic chemistry; the negative process; the positive process; color photography; infrared photography; ultraviolet photography; photomicroscopy and macrophotography; cinematography in laboratory work; surveillance support photography; questioned documents examination procedures; firearms support procedures; chemistry support procedures; legal photography; courtroom procedures; the expert witness; record forms and supply procedures required in the operation of the photographic section.

Credit Recommendation: In the vocational certificate category, 30 semester hours (certificate) in forensic photography (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic forensic science, 6 in basic photography, 6 in police photography, 3 in automated processing equipment, 3 in color photography, and 6 in criminal investigations (4/78); in the upper-division baccalaureate category, 3 semester hours in forensic science, 6 in photomacrography and photomicrography, and 0-3 for research work based on the receiving institution's review of the student's project (4/78).

Related Occupation Codes: 95D; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0013

1. Questioned Documents Examiner (Document Laboratory Technician)
2. Document Examinations

Course Number: *All Versions:* None.

Location: Military Police School, Ft. McClellan, AL; Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: *Version 1:* 104 weeks (3390-3520 hours). *Version 2:* 104 weeks (3520 hours).

Exhibit Dates: *Version 1:* 2/72-1/90. *Version 2:* 10/66-1/72.

Objectives: To train personnel as document examination technicians to qualify them as expert witnesses in questioned document examination before courts-martial and/or other judicial proceedings.

Instruction: *All Versions:* Handwriting identification; operational familiarization with mechanical aids; handwriting systems; general and special factors; analytical reasoning; typewriting identification; parts nomenclature and operational functions; collecting, indexing, and filing typewriting standards; classification of standards; comparison microscope; Nichols measuring plates; general and special factors; counterfeiting; recognition factors; methods of counterfeiting; Armed Forces documents; commercial printing methods; photographic procedures and camera techniques; paper examinations; ink examinations; firearms identification familiarization; fingerprint identification familiarization; courtroom procedures; research and compendium; ethics of the document examiner; the expert witness; records and forms used in the operation of the document section. *Version 1:* Includes legal aspects of courtroom testimony.

Credit Recommendation: *Version 1:* In the vocational certificate category, 30 semester hours (certificate) in questioned documents examination (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic forensic science, 6 in basic questioned documents, 3 in typewriting identification, 3 in ink examination, 3 in forensic photography, 3 in paper examination, and 6 in criminal investigation (4/78); in the upper-division baccalaureate category, 3 semester hours in forensic science, 6 in advanced questioned document examination, and 0-3 for research work based on the receiving institution's review of the student's work (4/78); in the graduate degree category, 0-9 semester hours based on the student's research project to be assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and the practical applied experience required (4/78). *Version 2:* In the vocational certificate category, 12 semester hours in criminal justice (11/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 3 semester hours in questioned documents, 3 in police photography, and, on the basis of institutional evaluations, 3 semester hours in criminalistics (12/68).

Related Occupation Codes: 95D; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0014

Fingerprint Examination

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 104 weeks (3390-3548 hours).

Exhibit Dates: 10/66-2/72.

Objectives: To train personnel to perform as fingerprint technicians and to qualify them as expert witnesses in fingerprint examinations before judicial proceedings.

Instruction: Introduction to fingerprint identification and Bertillon system; pattern interpretation; classification of fingerprints; preserving, marking, and packaging fingerprint evidence; development and comparison of latent fingerprints; casts and molds; report writing and preparation of courtroom charts; courtroom procedures; expert witness observation; chemistry familiarization; document and firearms familiarization; photographic procedures and camera techniques.

Credit Recommendation: In the vocational certificate category, 30 semester hours (certificate) in fingerprint examination (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic forensic science, 6 in basic fingerprinting, 3 in latent fingerprint techniques, 6 in basic criminal investigation, 3 in fingerprint records, and 6 in basic photography (4/78); in the upper-division baccalaureate category, 3 semester hours in forensic science, 6 in advanced fingerprinting, and 0-3 for the research work based on the receiving institution's review of the student's project (4/78).

Related Occupation Codes: 95D; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0015

Firearms and Tool Marks Examiner (Firearms Examination)

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA.

Length: 104 weeks (3188-3390 hours).

Exhibit Dates: *Version 1:* 1/69-1/88. *Version 2:* 10/66-12/68.

Objectives: To train personnel as firearms and tool marks examiners to qualify them as expert witnesses before judicial proceedings.

Instruction: Principles of firearms and ammunition identification; history of early firearms; cartridge development; modern firearms; weapons manufacture; interior and exterior ballistics; measuring instruments; history of identification, laboratory handling of evidence; test firing; instruments, bullet comparison; cartridge case comparison; toolmark comparison; serial numbers restoration; criminal investigation laboratory, including examinations made by the chemistry, photography, fingerprint, and document sections of the criminal investigation laboratory, to include administrative and reporting procedures; distance determinations; familiarization with firearms and powder facilities, and reconstruction of explosive devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 30 semester hours (certificate) in firearms and toolmarks examination (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in forensic science, 6 in basic firearms examination, 6 in basic toolmarks examination, 3 in explosive devices, 6 in criminal investigation, and 3 in forensic photography (4/78); in the upper-division baccalaureate category, 6 semester hours in advanced firearms and toolmarks, 3 in forensic science, and 0-3 for research work based on the receiving institution's review of the student's project (4/78); in the graduate degree category, 0-9 semester hours based on the student's research project to be assigned by the receiving institution. Credit is expressed as a range because of the highly individualized study and the practical applied experience required (4/78). *Version 2:* In the vocational certificate category, 12 semester hours in criminal justice (11/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 3 semester hours in forensic ballistics, 3 in police photography, and, on the basis of institutional evaluations, 3 semester hours each in introductory, intermediate, and advanced criminalistics (12/68).

Related Occupation Codes: 95D; 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0016

Correctional Specialist

Course Number: 831-95C20.

Location: Military Police School, Ft. Gordon, GA.

Length: 4 weeks (135-140 hours).

Exhibit Dates: 8/67-4/73.

Objectives: To train enlisted personnel in the basic requirements for the administration, operation, and management of stockades and the correctional treatment of confined personnel.

Instruction: Organizational structure of a post stockade; duties of custodial personnel; physical security; custody and control; disciplinary measures; recreation and welfare activities; emergency procedures; transfer and release procedures; correctional treatment at a disciplinary barracks; legal considerations of confinement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in criminal justice (11/73).

Related Occupation Codes: 95B; 95C.

AR-1728-0017

Law Enforcement (MP-CMF) Noncommissioned Officer (NCO) Basic

Course Number: *Version 1:* 8-95-C40. *Version 2:* 8-MP-C40.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 6-8 weeks (244-267 hours). *Version 2:* 9-11 weeks (299-369 hours).

Exhibit Dates: *Version 1:* 7/75-1/79. *Version 2:* 9/72-6/75.

Objectives: To train enlisted personnel to perform noncommissioned officer duties in general law enforcement areas of police operations, traffic control, security operations, corrections, and unit management.

Instruction: Common law enforcement activities and NCO officer development; B Track covers provost marshal operations including identification of crimes and offences; crime prevention programs and police-community relations; military police tactical operations; traffic regulations and accident investigation; and physical security; C Track covers prisoner custody and control operations; correctional treatment procedures; and correctional physical security measures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in criminal justice (5/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in criminal justice (6/75).

Related Occupation Codes: 95B.

AR-1728-0018

Correctional Administration

Course Number: 7H-F4.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: 2 weeks (70-73 hours).

Exhibit Dates: 5/72-6/76.

Objectives: To provide commissioned officers with a working knowledge of the correctional principles, theories, and practices which are required for administering, operating, and supervising Army corrections facilities at posts, camps, or stations.

Instruction: Management, operation and administration of installation confinement facilities; history of penal treatment; stockade organization; legal considerations of confinement; prisoner accountability; stockade logistics: confessions; report writing; disciplinary measures; prisoner counseling; problem prisoners; sentence computation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in corrections administration (11/73).

AR-1728-0019

Mine and Tunnel Detection Dog Handler

Course Number: 010-F4.

Location: Infantry School, Ft. Benning, GA.

Length: 7 weeks (353 hours).

Exhibit Dates: 8/71-12/71.

Objectives: To train enlisted personnel to handle, maintain, and employ mine and tunnel dogs in support of U.S. combat forces, to prevent or minimize friendly casualties caused by mines or booby traps, and to find ordnance cached in tunnels.

Instruction: Fundamentals of scout dog training; psychology of dogs; safety in and around kennels; first aid; mine and tunnel detection; obedience training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice or animal science (9/85).

Related Occupation Codes: 11B.

AR-1728-0020

Criminal Investigator Logistics Management Orientation (CILMOC)

Course Number: 8A-F-20; 832-F3.

Location: Logistics Management Center, Ft. Lee, VA.

Length: 4 weeks (153 hours).

Exhibit Dates: 2/72-9/79.

Objectives: To provide criminal investigators with a basic knowledge of the various logistical facilities, systems and activities of the Department of Defense.

Instruction: Lecture conferences; practical exercises; basic procurement procedures; methods and regulations to include legal controls; depot operation and managerial responsibilities within logistical facilities and activities; property disposal; petroleum distribution; port operations; introduction to ADP; commissary operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in criminal justice (11/73).

AR-1728-0021

Marijuana Detector Dog/Handler

Course Number: 830-F6.

Location: Military Police School, Ft. Gordon, GA.

Length: 13 weeks (467-474 hours).

Exhibit Dates: 5/71-11/73.

Objectives: To train marijuana detector dog teams to consistently detect the presence of hidden marijuana.

Instruction: Basic dog handling, including dog capabilities, principles of dog training and safety, care and diet of dogs; detection training, including scent discrimination, marijuana identification, and rules of evidence.

Credit Recommendation: In the vocational certificate category, 6 semester hours in criminal justice (11/73).

Related Occupation Codes: 95B.

AR-1728-0022

Tracker Dog/Handler

Course Number: 830-F5.

Location: Military Police School, Ft. Gordon, GA.

Length: 12 weeks (421 hours).

Exhibit Dates: 11/71-3/72.

Objectives: To provide training for tracker dogs and dog handlers in preparation for integration into a combat tracker team.

Instruction: Basic dog handling, including principles of dog training, safety, care and diet of dogs, and dog obedience and dog/handler relationship; tracking, including scent discrimination, tactics, and jungle survival.

Credit Recommendation: In the vocational certificate category, 6 semester hours in criminal justice (11/73).

Related Occupation Codes: 11B.

AR-1728-0023

Basic Military Police
(Law Enforcement)
(Military Policeman)

Course Number: *All Versions:* 830-95B10. *Version 1:* 95B10-OSUT; 830-95B10-OST; 830-95B10OST.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 7-16 weeks (342-483 hours). *Version 2:* 8 weeks (349 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 2/68-12/80.

Objectives: To train the soldier to become disciplined, highly motivated, and capable of performing the duties of an entry-level military policeman to include: law enforcement and nuclear physical security skills.

Instruction: *Version 1:* Includes only military law, civil disturbance; interpersonal communications, patrol incidents. May include up to 8 weeks of basic training. *Version 2:* Internal defense and internal development; unarmed defense; driver training; weapons; first aid; military law; vice control; MP communications; civil disturbances; police intelligence; traffic control; prisoners of war; physical security; apprehension and search; criminal investigations; public relations; observation, description and identification.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement technology (2/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (11/73); in the upper-division baccalaureate category, 3 semester hours in criminal justice (11/73).

Related Occupation Codes: 95B.

AR-1728-0024

Physical Security Supervision

Course Number: 19-I-F2.

Location: Provost Marshal General's School, Ft. Gordon, GA; Military Police School, Ft. Gordon, GA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train commissioned and warrant officers in physical security principles, methods, and techniques and to indoctrinate officers in physical security planning, training, and personnel management responsibilities.

Instruction: Principles of physical security, including techniques used to reduce or eliminate security hazards, recognition, and methods; security planning; legal jurisdiction; handling and protection of evidence; civil defense and disaster relief responsibilities; methods of handling personnel problems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in intelligence or police methods (12/68).

AR-1728-0025

Military Police Officer Familiarization

Course Number: 19-A-C21.

Location: Provost Marshal General's School, Ft. Gordon, GA.

Length: 6 weeks (219 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To provide supervisory level training in the organization, operational functions, duties, and responsibilities of the Military Police Corps.

Instruction: Supervision of police operations; military justice; responsibility in the management and operations of confinement facilities; supervision of criminal investigations; fundamentals of military police organizations, operations and provost marshal functions; signal communications; planning, coordination, and supervision of traffic control for administrative, logistical, and combat operations; civil defense and natural disaster relief; physical security.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in police methods (12/68).

AR-1728-0026

Military Police Officer Basic
(Military Police Officer Orientation)

Course Number: *Version 1:* 7-19-20-31. *Version 2:* 7-19-20-31A. *Version 3:* 7-19-C20; 19-A-C20; 19-A-C1; 19-O-A.

Location: Military Police School, Ft. McClellan, AL; Provost Marshal General's School, Ft. Gordon, GA.

Length: *Version 1:* 15-16 weeks (680-782 hours). *Version 2:* 8-13 weeks (289-554 hours). *Version 3:* 8-13 weeks (289-554 hours).

Exhibit Dates: *Version 1:* 1/84-Present. *Version 2:* 9/78-12/83. *Version 3:* 8/55-8/78.

Objectives: To prepare newly commissioned Military Police Corps officers to supervise police operations, traffic, investigations, and administrative units.

Instruction: *Version 1:* Course includes leadership, unit operations, law, supervision of tactical police platoon, and personnel management. *Version 2:* Leadership, management, and unit administration, police operations, investigations, traffic administration, tactical operations; police communications, weapons, rules of evidence, confessions, interrogations, and principles of investigation. *Version 3:* Leadership, management, and unit administration; military police operations, investigations, traffic administration; physical security; tactical operations; police communications; weapons; rules of evidence; confessions; interrogations; drug control; principles of investigation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel leadership and techniques of management, 3 in police operations (11/86); in the upper-division baccalaureate category, 3 semester hours in advanced military science (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervision and leadership in a criminal justice program, 3 in police operations (6/85); in the upper-division baccalaureate category, 3 semester hours in advanced military science (6/85). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in criminal justice and additional credit in advanced military science at schools which normally offer such credit (11/73).

AR-1728-0027

CID ORIENTATION
(Advanced Investigative Management)
(Criminal Investigation Supervision)

Course Number: *Version 1:* 7H-F22/830-F15. *Version 2:* 7H-F2. *Version 3:* 7H-F2. *Version 4:* 7H-F2. *Version 5:* 19-O-5.

Location: *Version 1:* Military Police School, Ft. McClellan, AL. *Version 2:* Military Police School, Ft. McClellan, AL. *Version 3:* Military Police School, Ft. Gordon, GA. *Version 4:* Military Police School, Ft. Gordon, GA. *Version 5:* Provost Marshal General's School, Ft. Gordon, GA.

Length: *Version 1:* 2 weeks (76 hours). *Version 2:* 2-3 weeks (76-92 hours). *Version 3:* 4 weeks (152-176 hours). *Version 4:* 4 weeks (176 hours). *Version 5:* 7 weeks (308 hours).

Exhibit Dates: *Version 1:* 8/85-Present. *Version 2:* 1/81-7/85. *Version 3:* 5/70-12/80. *Version 4:* 3/65-4/70. *Version 5:* 9/56-2/65.

Objectives: To provide officers, warrant officers, and senior NCOs with management skills needed for selected management level positions.

Instruction: *All Versions:* Operations and management; evidence; CID reports; administration; records and files; liaison; authority and jurisdiction; evidence; criminal intelligence; crime prevention; surveillance operations; raids; polygraph; protective service; release of information; search and apprehension; notes and sketches; quality control of photos; collection and preservation of evidence; evidence accountability; evidence depository; confessions and admissions; criminal investigations procedures, reports. *Version 1:* Emphasizes management techniques through CID case studies approach. *Version 2:* Emphasizes management techniques through CID case studies approach.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of management (11/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in principles of management (2/82). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in criminal justice management (5/77). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in protective service occupations (12/68). *Version 5:* In the upper-division baccalaureate category, 4 semester hours in protective service occupations (12/68).

Related Occupation Codes: 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0028

MILITARY POLICE INVESTIGATOR
(Military Police Investigation)

Course Number: 830-ASIV5; 830-F8.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 8 weeks (307 hours). *Version 2:* 8 weeks (300 hours). *Version 3:* 8 weeks (253-303 hours).

Exhibit Dates: *Version 1:* 9/85-Present. *Version 2:* 2/79-8/85. *Version 3:* 8/72-1/79.

Objectives: To qualify selected military policemen for duty as military police investigators.

Instruction: *Version 1:* Topics include crime scene processing; testimonial evidence; management of sources of information; investigative planning; evaluating evidence; investigating drug, arson, and child abuse offenses; examination of questioned documents; covert investigations. *Version 2:* Course includes handling complaints; physical evidence; testimonial evidence; evaluating evidence; investigating drug offenses; reporting; testifying in court; crime scene processing. *Version 3:* Course includes handling complaints; physical evidence; testimonial evidence; evaluating evidence; investigating drug offenses; reporting; testifying in court.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigative techniques, 3 in a criminal justice elective (6/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal evidence, and 3 in crime scene technology (2/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in criminal investigation (6/75).

Related Occupation Codes: 95B.

AR-1728-0029

LAW ENFORCEMENT

Course Number: 830-95B20; 831-95C20.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: 7-14 weeks (222-494 hours).

Exhibit Dates: 7/73-1/88.

Objectives: To provide enlisted personnel with entry-level training to perform those duties involving law enforcement, traffic control and regulation, security, convoy escort, patrolling, crime prevention, rear area protection, and POW operations.

Instruction: Common law enforcement activities and skill development; military police enforcement activities and tactical operations, Army correctional administration and operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (5/77).

Related Occupation Codes: 95B.

AR-1728-0030

MILITARY POLICE ADVANCED
NONCOMMISSIONED OFFICER (NCO)
(Law Enforcement Noncommissioned Officer (NCO) Advanced)
(Law Enforcement (MP-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *Version 1:* 8-95-C42. *Version 2:* 8-95-C42. *Version 3:* 8-95-C42. *Version 4:* 8-MP-C42.

Location: *Version 1:* Military Police School, Ft. McClellan, AL; *Version 2:* Military Police School, Ft. McClellan, AL; *Version 3:* Military Police School, Ft. McClellan, AL; *Version 4:* Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 11-12 weeks (485-519 hours). *Version 2:* 11-13 weeks (486-526 hours). *Version 3:* 11-13 weeks (399-468 hours). *Version 4:* 8-12 weeks (292-432 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 10/85-12/88. *Version 3:* 3/81-9/85. *Version 4:* 10/72-2/81.

Objectives: To provide senior noncommissioned officers with advanced training to perform senior supervisory level duties in the areas of law enforcement and physical security or investigative operations.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Common core instruction includes military leadership, communication skills, map reading, and personnel performance counseling. Contains separate tracks for MOS's 95B, 95C, and 95D. The 95B track include traffic enforcement, crisis intervention, and crime prevention; 95C track includes correctional supervision, physical security, and prisoner management; 95D track includes report writing, major case management, and Criminal Investigation Division (CID) combat role. *Version 3:* Common law enforcement and noncommissioned officer development followed by separate tracks covering 1) police operations; traffic operations, military police combat support operations; physical security operations and 2) correctional custody, control, and administration; correctional treatment operations. This course contains a common core and one track each for MOS 95B (Military Police), 95C (Correctional Specialist), and 95D (Special Agent). *Version 4:* Common law enforcement and noncommissioned officer development followed by separate tracks covering 1) police operations; traffic operations, military police combat support operations; physical security operations and 2) correctional custody, control, and administration; correctional treatment operations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading. For information on the common core, see exhibit AR-1404-0035 (11/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional supervision for MOS 95C ONLY; 3 semester hours in principles of administration for MOS 95D ONLY (2/82). *Version 4:* In the lower-division baccalaureate/associate degree category, 6 semester hours in criminal justice for completion of the common core and either track (5/77).

Related Occupation Codes: 95B; 95C; 95D.

AR-1728-0031

Associate Military Police Officer Advanced

Course Number: 19-A-C5; 19-O-4.

Location: Provost Marshal General's School, Ft. Gordon, GA.

Length: 14 weeks (509-535 hours).

Exhibit Dates: 8/55-12/60.

Objectives: To provide branch training in the duties and responsibilities of Military Police Corps officers.

Instruction: Tactical employment of the combined arms; staff organization and procedures; mine warfare; supply economy, fundamentals of the Army Command Management System, including programming, budgeting, scheduling, and review and analysis; chemical, biological, and radiological warfare, civil affairs organization, operation, and functions; military leadership; motor vehicle maintenance inspection; military justice; nuclear weapons employment; duties and responsibilities of military police in civil disturbances; operation and supervision of confinement facilities; criminal investigation facilities; methods, procedures, and policies related to military police organizations and operations; prisoners of war; communications; traffic control; civil defense, industrial defense, and natural disaster relief; principles of physical security.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in police methods and administration (12/68).

AR-1728-0032

Polygraph Examiner Advanced

Course Number: 7H-F10.

Location: Military Police School, Ft. McClellan, AL.

Length: 3 weeks (110-118 hours).

Exhibit Dates: 10/76-Present.

Objectives: To provide polygraph examiners with advanced training for certification or requalification.

Instruction: To provide an update on technique advancements; proper equipment utilization; question and test structure principles, question formulation and chart interpretation; pre-test and post-test procedures; and conduct of advanced practical exercises.

Credit Recommendation: Credit is not recommended because of the refresher nature of the course and because the new material is insufficient to justify additional credit beyond that recommended for Polygraph Examiner Training (11/86).

Related Occupation Codes: 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0033

Military Police Field Grade Officer Refresher

Course Number: 7-19-C8.

Location: Military Police School, Ft. Gordon, GA.

Length: 4 weeks (156 hours).

Exhibit Dates: 10/66-12/68.

Objectives: To provide refresher training in the duties and responsibilities appropriate to field-grade Military Police Corps officers.

Instruction: Fundamentals and principles of staff organization and procedures; application of military justice within units; employment of military police units in civil disturbances; physical security system; prisoner custody and control methods; traffic control; military police operations in a theater of operations.

Credit Recommendation: Credit is not recommended because of the refresher nature of the course (12/68).

AR-1728-0034

Military Police Officer Orientation

Course Number: 7-19-C21.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 6 weeks (210-213 hours). *Version 2:* 4 weeks (152-154 hours).

Exhibit Dates: *Version 1:* 12/73-5/76. *Version 2:* 5/67-11/73.

Objectives: To provide initial branch training and orientation for commissioned officers assigned to the Military Police Corps.

Instruction: Orientation to law enforcement; civil disturbances, criminal and accident investigation; traffic control; munitions; riot control; corrections; physical security; Geneva Conventions, prisoners of war; police communications; drug control.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in criminal investigation (6/75). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in criminal justice (11/73).

AR-1728-0035

Military Police Officer Advanced
(Military Police Officer Career)

Course Number: *All Versions:* 7-19-C22. *Version 5:* 19-A-C22; 19-A-C4; 19-O-3.

Location: Military Police School, Ft. McClellan, AL. *Version 4:* Provost Marshal General's School, Ft. Gordon, GA.

Length: *Version 1:* 20 weeks (712 hours). *Version 2:* 26 weeks (805 hours). *Version 3:* 26 weeks (857 hours). *Version 4:* 33-35 weeks (1065-1125 hours). *Version 5:* 33-35 weeks (875-1540 hours).

Exhibit Dates: *Version 1:* 1/85-Present. *Version 2:* 2/82-12/84. *Version 3:* 8/75-1/82. *Version 4:* 3/72-7/75. *Version 5:* 10/55-2/72.

Objectives: To prepare military police officers for command of mid-level Army units; to provide refresher training on basic officer skills for mangerial-level duty.

Instruction: *All Versions:* Military leadership; logistics; chemical and biological operations; administration at battalion level; oral and written communication; military organization, operations and provost marshal functions; planning and conducting military police operations during domestic emergencies; military law; criminal investigation activities, records, and procedures; management, operation, and supervision of confinement facilities; traffic planning and control; methods of handling prisoners of war; command and staff procedures; military police communications; command post and field exercises. *Version 1:* Includes the following topics: command and staff responsibilities, law enforcement operations, investigative supervision, computer literacy, and terrorism and security. *Version 2:* Includes the following topics: command and staff responsibilities, law enforcement operations, investigative supervision, correctional administration, security management, nuclear weapons employment, and methods and techniques used to reduce security hazards. *Version 3:* Includes direction of law enforcement and crime prevention programs; legal aspects of police utilization in an insurgency; nuclear weapons employment; methods and techniques used to reduce security hazards. *Version 4:* Includes nuclear weapons employment; methods and techniques used to reduce security hazards.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision/management, 3 in police operations, and 2 in computer literacy (11/86); in the upper-division baccalaureate category, 3 semester hours in human relations in management, 3 in administrative case study, and additional credit based on institutional evaluation of student case study reports (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision/management and 3 semester hours in police operations (2/82); in the upper-division baccalaureate category, 3 semester hours in industrial security (physical), 3 in human relations in management, 3 in administrative case study, additional credit on the basis of institutional evaluation of student case study report (2/82). *Version 3:* In the upper-division baccalaureate category, 15 semester hours in criminal justice or security administration (5/77). *Version 4:* In the upper-division baccalaureate category, 24 semester hours in criminal justice, 5 in business administration and management (12/73). *Version 5:* In the upper-division baccalaureate category, 6 semester hours in police methods and administration, 6 in business organization and management (12/68).

AR-1728-0036

1. Interrogation Officer
2. Prisoner of War Interrogation Officer

Course Number: *Version 1:* 3A-9316. *Version 2:* 30-A-9316; 30-0-13.

Location: Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 6 weeks (212 hours). *Version 2:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 10/66-6/71. *Version 2:* 11/57-9/66.

Objectives: To train commissioned officers to direct and participate in the collection of tactical and strategic intelligence through the interrogation of human sources and the exploitation of documents.

Instruction: Familiarization with counterintelligence activities, area intelligence, aerial surveillance and reconnaissance, and photo reading and interpretation; order of battle and organization and tactics of selected foreign armies; methods of interrogation and document exploitation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in police interrogation, police intelligence operations, or police administration (1/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in police interrogation, police intelligence operations, or police administration (1/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68). *Version 2:* In the vocational certificate category, 12 semester hours in police interrogation, police intelligence, or police administration (1/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in police interrogation, police intelligence, or police administration (1/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (12/68).

AR-1728-0037

1. INTERROGATOR
   (Interrogation)
2. INTERROGATOR
   (Interrogation)
3. INTERROGATION (ENLISTED)
   (Prisoner of War Interrogation Enlisted)
4. PRISONER OF WAR INTERROGATION ENLISTED

Course Number: *Version 1:* 241-96C10. *Version 2:* 241-96C20. *Version 3:* 241-96C2L; 241-966.1; 30-R-966.1. *Version 4:* 30-E-9.

Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Intelligence School, Ft. Holabird, MD. *Version 4:* Intelligence School, Ft. Holabird, MD.

Length: *Version 1:* 7-8 weeks (251-272 hours). *Version 2:* 7-9 weeks (231-305 hours). *Version 3:* 7-10 weeks (255-264 hours). *Version 4:* 13 weeks (455 hours).

Exhibit Dates: *Version 1:* 3/82-3/85. *Version 2:* 9/72-2/82. *Version 3:* 1/61-8/72. *Version 4:* 4/57-12/60.

Objectives: To train qualified interpreters in the conduct of intelligence interrogations, screening operations and foreign document analysis, and prisoner-of- war interrogations.

Instruction: For this course after 2/85 see AR-1728-0084. Map and photo reading; combat intelligence; evaluation, interpretation, and dissemination of information; area and counterintelligence; order of battle; military organization and tactics of selected foreign countries; interrogation methods; document exploitation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic map reading, 3 in interviewing and interrogation (criminal justice), 1 in applied psychology (interviews) (10/84). *Version 2:* In the vocational certificate category, 9 semester hours in interrogation, intelligence operations, or police administration (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in interrogation, intelligence operations, or police administration (6/75); in the upper-division baccalaureate category, 3 semester hours in interrogation, intelligence operations, or police administration (6/75). *Version 3:* In the vocational certificate category, 9 semester hours in interrogation, intelligence operations, or police administration (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in interrogation, intelligence operations, or police administration (2/74); in the upper-division baccalaureate category, 2 semester hours in intelligence methods (8/68). *Version 4:* In the vocational certificate category, 12 semester hours in interrogation, intelligence operations, or police administration (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in interrogation, intelligence operations, or police administration (2/74); in the upper-division baccalaureate category, 3 semester hours in intelligence methods (8/68).

Related Occupation Codes: 96C; 04B; 96B.

AR-1728-0038

CRYPTANALYTIC SPECIALIST
(Cryptanalysis)

Course Number: 232-98B20.

Location: Security Agency School, Ft. Devens, MA.

Length: 19 weeks (658 hours).

Exhibit Dates: 1/51-9/86.

Objectives: To provide selected enlisted personnel with a working knowledge of the analytic techniques involved in cryptanalysis.

Instruction: Organization, mission, and functions of the U.S. Army Security Agency; terminology and cryptography of basic systems; analytic techniques and procedures in elementary systems analysis; processes and procedures of operational systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in telecommunications or business communications (1/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in telecommunications or business communications (1/74); in the upper-division baccalaureate category, 6 semester hours in telecommunications or business communications (1/74).

Related Occupation Codes: 98B.

AR-1728-0039

INTERROGATOR, SKILL DEVELOPMENT BASE

Course Number: 241-96C2L-1.

Location: Intelligence School, Ft. Holabird, MD.

Length: 14 weeks (507 hours).

Exhibit Dates: 7/69-1/80.

Objectives: To prepare interrogators as supervisors and technicians.

Instruction: Strategic intelligence components relative to Southeast Asia; functions of imagery interpretation; order of battle; intelligence-gathering agencies; interrogation methodology; basic fundamentals of problem solving; interrogation psychology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in police administration (1/74); in the upper-division baccalaureate category, 3 semester hours in police administration (1/74).

Related Occupation Codes: 96C.

AR-1728-0040

INTERROGATION (ENLISTED NON-LINGUIST)

Course Number: 241-96C20.

Location: Intelligence School, Ft. Holabird, MD.

Length: 4 weeks (145 hours).

Exhibit Dates: 1/67-12/68.

Objectives: To train enlisted, nonlinguist personnel in the techniques required for the collection of tactical intelligence information through interrogations employing interpreters.

Instruction: Handling of prisoners of war; enemy documents for intelligence; screening operations; interrogation techniques and application of methods.

Credit Recommendation: In the vocational certificate category, 2 semester hours in criminal investigation/police administration (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in criminal investigation/police administration (1/74); in the upper-division baccalaureate category, credit in criminal investigation/police administration on the basis of institutional evaluation (12/68).

AR-1728-0042

UNITED STATES ARMY SECURITY AGENCY (USASA) OFFICER CAREER (U)

Course Number: 3-32-C22; 32-A-C22.

Location: Security Agency School, Ft. Devens, MA.

Length: 20 weeks (739 hours).

Exhibit Dates: 6/66-1/86.

Objectives: To prepare officers for the U.S. Army Command and General Staff College and for command, staff, and operational positions with the United States Army Security Agency.

Instruction: Lectures and practical exercises on the duties of Army Security Agency officers, including nuclear warfare, combined arms, special warfare, command and staff, unit readiness, USASA organization and functions, acoustical and electronic intelligence and countermeasures, communications security, communications, and international studies seminar.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in intelligence methods, and, on the basis of institutional evaluation, credit in political science (5/74).

AR-1728-0043

PHYSICAL SECURITY

Course Number: *All Versions:* 830-F3. *Version 2:* 7H-F3.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: *Version 1:* 3 weeks (114-132 hours). *Version 2:* 2 weeks (73 hours).

Exhibit Dates: *Version 1:* 5/73-1/88. *Version 2:* 1/72-4/73.

Objectives: To train first line supervisory police personnel in the principles and practicalities of physical security for installations.

Instruction: Lectures and practical exercises in various aspects of physical security, including the use of guards, dogs, fencing, lighting, alarms, locking devices, fund handling procedures, and the legalities of security principles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74); in the upper-division baccalaureate category, 3 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74); in the upper-division baccalaureate category, 2 semester hours in law enforcement, police administration, security administration, or criminal justice (7/74).

Related Occupation Codes: 95B.

AR-1728-0044

SECURITY MANAGEMENT

Course Number: 7H-F3.

Location: Military Police School, Ft. McClellan, AL; Military Police School, Ft. Gordon, GA.

Length: 3 weeks (93-115 hours).

Exhibit Dates: 12/73-11/80.

Objectives: To train security supervisors to plan and implement physical security measures.

Instruction: Lectures and practical exercises in security management, security hazards, lighting systems, physical security inspection, and preparation of physical security plans.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in security management (6/75).

Related Occupation Codes: 951A; 951C; 951D; 951E; 951F; 951G.

AR-1728-0045

JUDGE ADVOCATE OFFICER BASIC, PHASE I

Course Number: 5-27-C20.

Location: Military Police School, Ft. Gordon, GA; Quartermaster School, Ft. Lee, VA.

Length: 4 weeks (128 hours).

Exhibit Dates: 3/74–7/75.

Objectives: To prepare newly commissioned Judge Advocate General Officers for their first duty assignments.

Instruction: Lectures and practical exercises in military leadership and management, law enforcement, and tactical operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

AR-1728-0046

FIRE FIGHTER

Course Number: 780-51M20.

Location: Aviation School, Ft. Rucker, AL.

Length: 5 weeks (180 hours).

Exhibit Dates: 6/69–11/86.

Objectives: To provide personnel with sufficient knowledge to become fire fighters.

Instruction: Lectures and practical exercises in fire department organization and equipment; construction of typical military buildings; area and unit fire marshalls; classification of fires; breathing apparatus; driver training; map reading; forcible entry; hand signals; water supplies; ropes, knots, and hitches; and radio and telephone communications.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (7/74).

Related Occupation Codes: 51M.

AR-1728-0047

MILITARY POLICE OFFICER ADVANCED RESIDENT/NONRESIDENT

Course Number: 7-19-C23.

Location: Military Police School, Ft. McClellan, AL.

Length: 8 weeks (520 hours) total resident phases in a resident/nonresident program.

Exhibit Dates: 1/77–12/78.

Objectives: To provide advanced training and education in the duties and responsibilities of commissioned officer reservists in the Military Police Corps.

Instruction: Major areas of instruction cover security management; administration and operation of corrections facilities; civil disturbance control operations; and military police tactical operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/77).

AR-1728-0048

LATENT FINGERPRINT EXAMINER
(Fingerprint Technician)

Course Number: None.

Location: Criminal Investigation Laboratory, Ft. Gordon, GA; Military Police School, Ft. Gordon, GA.

Length: 104 weeks (3528-3548 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train personnel as latent-fingerprint examiners and to qualify them as expert witnesses in fingerprint, footwear, and tire and fabric impression identification before judicial proceedings.

Instruction: Course is designed to develop proficiency in developing latent finger, palm and sole prints on evidentiary items and comparing latent prints with recorded inked prints of subjects, victims, and witnesses; identifying footwear, tire and lip, ear, and fabric impressions; accomplishing post mortem identification of deceased personnel by means of finger or sole prints; classifying record fingerprints; testifying as an expert court witness. course provides selected students with the basic requirements of photography, its relationship and importance to identification, and the use and nomenclature of photographic equipment; the methodology employed in questioned document examination; the procedures of handling and marking physical evidence to preserve its evidentiary value and the methods used in packaging evidence; the various concepts in automated fingerprint systems, including computer identification of latent fingerprints, an orientation in firearms and toolmark identification; and an understanding of the physical, chemical, and electronic techniques of fingerprinting.

Credit Recommendation: In the vocational certificate category, 30 semester hours (certificate) in fingerprint examination (4/78); in the lower-division baccalaureate/associate degree category, 6 semester hours in forensic science, 6 in basic fingerprinting, 3 in latent-fingerprint techniques, 6 in basic criminal investigation, 3 in fingerprint records, and 6 in basic photography (4/78); in the upper-division baccalaureate category, 3 semester hours in forensic science, 6 in advanced fingerprinting, and 0-3 for the research work based on the receiving institution's review of the student's project (4/78); in the graduate degree category, 0-9 semester hours based on the student's research work to be assigned by the receiving institution; credit is expressed as a range because of the highly individualized study and the practical applied experience required (4/78).

Related Occupation Codes: 951E.

AR-1728-0056

DEPARTMENT OF DEFENSE STRATEGIC DEBRIEFING (DEPARTMENT OF DEFENSE STRATEGIC DEBRIEFING AND INTERROGATION TRAINING)

Course Number: 3A-SI3Q/3C-ASI9N/241-ASIN7; 3A-F37/241-F1.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 4-6 weeks (230-262 hours).

Exhibit Dates: 6/83–Present.

Objectives: To train personnel in strategic briefing and debriefing procedures and advanced interrogation techniques.

Instruction: Instruction in report writing, security procedures, strategic intelligence, and interrogation, including briefing and debriefing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal justice (interviews and interrogations) (6/90).

AR-1728-0060

TRAFFIC ACCIDENT INVESTIGATION

Course Number: MP-23-OE.

Location: 7th Army Combined Arms Training Center, Vilseck, Germany.

Length: 3 weeks (106 hours).

Exhibit Dates: 3/73–5/85.

Objectives: This is a course to prepare selected military police personnel for the specialized task of motor traffic accident investigation in a European country where U.S. forces are stationed under a status-of-forces agreement with the host sovereign state.

Instruction: The course includes reviews, examinations and critiques, and also physical training. There is a block of basic criminal law and procedure as it applies to motor traffic law; a block of accident investigation theory, embracing causes of accidents, controlling the scene, planning the investigation, statistics, reconstructing the accident and dealing with speeding violations; and a block each on the special problems of officer-violator relations, types of collisions, and hit-run accidents. The major portion of the course deals with motor traffic accident analysis, teaching traffic surveys, report writing, use of the template, a review of basic mathematics through square roots of numbers, how and when to use photography, collection and preservation of evidence, interviews and interrogation and diagramming and skidmark measurement. Course includes comprehensive practical work.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours elective credit in motor traffic accident investigation (8/80).

Related Occupation Codes: 95B.

AR-1728-0061

NAVY MASTER AT ARMS

Course Number: A-831-001; 8-95-C42 N; A-8-95C42-N.

Location: Military Police School, Ft. McClellan, AL.

Length: *Version 1:* 10 weeks (332 hours). *Version 2:* 8 weeks (260 hours).

Exhibit Dates: *Version 1:* 2/83–Present. *Version 2:* 5/78–1/83.

Objectives: To provide personnel assigned to master at arms rating with a working knowledge of duties and responsibilities of the position.

Instruction: Major areas of instruction include physical security, law enforcement activities, principles of confinement, law and evidence, crime prevention, drug control, information gathering, and maintainance of order.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal evidence, 3 in interviewing and interrogating, 3 in correctional procedures, and 2 in drug awareness (6/85); in the upper-division baccalaureate category, 3 semester hours in field experience/criminal justice internship (6/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to security, 3 in criminal evidence, 3 in report writing, 3 in field experience/ internship in criminal justice (2/82).

AR-1728-0062

NAVY CORRECTIONS SPECIALIST

Course Number: 95C10-NAVY; 95C10.

Location: Military Police School, Ft. McClellan, AL.

Length: Self-paced 4-5 weeks (173 hours).
Exhibit Dates: 4/78-Present.

Objectives: To provide selected petty officers with a working knowledge of the principles, theories, and practices which are required for administering, operating and supervising U.S. Naval brigs.

Instruction: Includes study of physical security, law, prisoner processing, report writing, control of prisoners and field internship in correctional setting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional psychology, 3 in correctional supervision (2/82).

Related Occupation Codes: 95C.

AR-1728-0063

ADVANCED FRAUD INVESTIGATION

Course Number: 7H-F21/832-ASIU7.

Location: Military Police School, Ft. McClellan, AL.

Length: 4 weeks (152 hours).

Exhibit Dates: 4/85-Present.

Objectives: To qualify accredited Army Criminal Investigation Command special agent warrant officers and enlisted personnel in the investigation of fraud within Army logistics systems.

Instruction: Lectures and practical exercises in interviews and interrogation, sources of information, economic crime investigation, covert operations, use of special investigation funds, evidence processing, investigative accounting, auditing, acquisitions fraud, computer-related crime, computers as investigative aids, presentation of cases to prosecutors, and testifying.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in special topics in criminal justice (11/86).

AR-1728-0064

ADVANCED SECURITY
(Nuclear Physical Security)

Course Number: 7H-F14/830-F10.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (74-77 hours).

Exhibit Dates: 11/81-Present.

Objectives: To provide training in planning and applying advanced security measures to protect special weapons storage facilities and firing batteries against theft, espionage, sabotage, and other hazards.

Instruction: Lectures and practical exercises in the application of physical security techniques to special weapons facilities and supervising access control, lock and key control, ID operators, utilization of military police dogs, employment of barriers and lighting, evaluation of vulnerabilities, leadership and problem solving, and civil disobedience operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1728-0065

CONVENTIONAL SECURITY/CRIME PREVENTION
(Conventional Physical Security)

Course Number: 7H-31D/830-ASIH3.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (72-74 hours).

Exhibit Dates: 6/82-Present.

Objectives: To provide enlisted, officer, warrant officer, and civilian personnel with a working knowledge of physical security measures to contol pilferage, espionage, sabotage, and other physical security hazards.

Instruction: Lectures and practical exercises in legal aspects of security, physical security planning, protective lighting, ID systems, key control, bomb threat procedures, and security services.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/90).

AR-1728-0066

CORRECTIONS NONCOMMISSIONED OFFICER (NCO)

Course Number: 830-95C20.

Location: Military Police School, Ft. McClellan, AL.

Length: 4 weeks (138 hours).

Exhibit Dates: 10/85-Present.

Objectives: To provide training as a correctional/confinement specialist in the custody, control, and administration of prisoner services.

Instruction: Lectures and practical exercises in law, interpersonal communication skills with offenders, records management, prisoner supervision, and contemporary issues.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional administration or a correctional elective (11/86).

AR-1728-0067

HOSTAGE NEGOTIATIONS

Course Number: 7H-F19/830-F14.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (76 hours).

Exhibit Dates: 12/86-Present.

Objectives: To provide training in the basic principles and tactics of hostage negotiations for assumption of the role of hostage negotiator.

Instruction: Lectures and practical exercises are presented in managing the hostage situation; topics include negotiations, lessons learned, bargaining techniques, communications, profiling the offender, and the collection of data to resolve such activities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in special patrol tactics or special topics in law enforcement (11/86).

AR-1728-0068

INSTALLATION PROVOST MARSHAL

Course Number: 7H-F16.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (72 hours).

Exhibit Dates: 8/85-Present.

Objectives: To provide newly-appointed installation provost marshals and deputy provost marshals with current doctrine pertaining to military police law enforcement operations, organizational concepts and policies.

Instruction: Lectures in current military police doctrine and procedures relating to management of military police operations, provost marshal responsibilities, traffic management, crime prevention, and budgeting.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in a criminal justice seminar (11/86).

AR-1728-0069

MILITARY POLICE BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: *Version 1:* 830-95B/C/D30. *Version 2:* 830-95B30.

Location: Military Police School, Ft. McClellan, AL.

Length: *Version 1:* 8 weeks (347-391 hours). *Version 2:* 6 weeks (219-290 hours).

Exhibit Dates: *Version 1:* 10/86-Present. *Version 2:* 12/85-9/86.

Objectives: To train enlisted personnel to perform tactical and peacetime missions with an emphasis on leadership development.

Instruction: Lectures and practical exercises in supervising combat support at the squad level, patrol supervision, traffic, supervision of crime scene security, preparation of desk blotters and serious incident reports, police/community relations, crisis intervention, crime prevention, military justice, and command post operations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in patrol supervision (11/86).

AR-1728-0070

MILITARY POLICE PRE-COMMAND

Course Number: 2G-F39.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (78 hours).

Exhibit Dates: 4/85-Present.

Objectives: To provide refresher training in training and logistics management, tactical operations, corrections, criminal investigations, and prisoner-of-war doctrine.

Instruction: Instruction in logistics, training management, law, and military police operations.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AR-1728-0071

PROTECTIVE SERVICES TRAINING

Course Number: 7H-F18/830-F13.

Location: Military Police School, Ft. McClellan, AL.

Length: 3 weeks (116 hours).

Exhibit Dates: 10/86-Present.

Objectives: To train personnel in the planning and execution of personnel (dignitary) protection.

Instruction: Includes instruction in methods of motorcade security, advance operations and threat assessment, building and vehicle searches, and emergency medical procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel security (11/86).

AR-1728-0072

SPECIAL REACTION TEAM TRAINING

Course Number: 7H-F17/830-F12.

Location: Military Police School, Ft. McClellan, AL.

Length: 2-3 weeks (99-139 hours).

Exhibit Dates: 10/84-Present.

Objectives: To provide training in high risk and specialized patrol operations to special reaction teams.

Instruction: Lectures and practical exercises in special reaction response to terrorism activities, hostage situations, and the barricaded offender; the use of special anti-terrorist equipment is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in special patrol operations (3/89).

AR-1728-0073

Military Police Additional Specialty Code 31

Course Number: 7H-31A.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/83-11/86.

Objectives: To provide overview training to prepare officers for assignment as military police officers.

Instruction: Includes and overview of military police duties, operations, investigations, law corrections, counterterrorism, and physical security.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-1728-0074

Corrections Administration

Course Number: 7H-F20.

Location: Military Police School, Ft. McClellan, AL.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/85-Present.

Objectives: To provide commissioned officers with a working knowledge of the correctional principles, theories, and practices which are required for administering, operating, and supervising Army corrections facilities at posts, camps, or stations.

Instruction: Management, operation, and administration of installation confinement facilities; history of penal treatment; stockade organization; legal considerations of confinement; prisoner accountability; stockade logistics; confessions; report writing, disciplinary measures; prisoner counseling; problem prisoners; sentence computation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AR-1728-0075

Advanced Noncommissioned Officer (NCO) MOS 00J

Course Number: 7-71-C42.

Location: Institute for Personnel and Resource Management, Ft. Benjamin Harrison, IN.

Length: 5-17 weeks (168-444 hours).

Exhibit Dates: 3/81-Present.

Objectives: To provide selected personnel with advanced leadership skills, military subjects, and communication skills for effective supervision of specific MOS tracks.

Instruction: Lectures and practical exercises in a basic core including written and oral communication, management principles, unit training, and combat survival. MOS options are as follows: recruitment and reenlistment, equal opportunity, club management, legal topics, chaplain assisting, and data processing.

Credit Recommendation: Credit is not recommended because of the limited content of the course (3/85). See AR-1404-0035 for credits for the Common Core.

Related Occupation Codes: 00J.

AR-1728-0076

Explosive Ordnance Disposal Specialist Basic Noncommissioned Officer (NCO)

Course Number: 431-55D30.

Location: Ordnance Missile and Munitions School, Redstone Arsenal, AL.

Length: 6-7 weeks (244 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify explosive materials and direct disposal activities, deactivate conventional and nonconventional explosive devices.

Instruction: Lectures and field exercises using typical military ordnance in simulated situations. Course contains a common core of leadership subjects. See AR-1406-0090.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in explosives handling (4/88). For credit for the common core see AR-1406-0090.

Related Occupation Codes: 55D.

AR-1728-0077

Installation Security

Course Number: MP 30.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 4/80-Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply the principles and characteristics of physical security measures to the protection of an installation, motor pool, vehicles, medical supplies, aircraft, weapons, arms and ammunition, unit mail rooms, automatic data processing equipment, supply storage areas and other locations of a sensitive nature; conduct physical security surveys and inspections; conduct internal and external vulnerability assessment; conduct physical security education and training, and assist in the drafting of a physical security plan for disaster incidents; determine the proper utilization of security devices consisting of perimeter barriers, intrusion detection system, protective lighting, locks and keys, guard force and dogs, and identification and pass control of individuals; identify the characteristics of terrorism, methods of countering terrorism and how to handle a bomb threat.

Instruction: Lectures covering military regulations and field training manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in physical security measures or 1 semester hour in crime prevention (10/88).

AR-1728-0078

Traffic Accident Investigation

Course Number: MP-23.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 3 weeks (104 hours).

Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to function as a traffic accident investigator with specific expertise in countries having a Status of Forces Agreement (SOFA) with the United States; prepare written reports reflecting the cause of traffic accidents, the military and civilian laws involved, specific evidence collected and processed; prepare traffic accident (crime scene) sketches and obtain photographs; effect legal detentions, apprehensions, search, seizures, inspections, frisks of suspected individuals; conduct interviews and interrogations of suspects and witnesses, and obtain written statements, confessions, admissions, dying declarations, and spontaneous exclamation; determine types of traffic enforcement techniques needed in a particular location; know the methods of determining speed violations and the proper procedures for the apprehension/detention of intoxicated drivers.

Instruction: Lectures covering military law, apprehension, search and seizure, confessions, admissions and statement, elements of proof, interview and interrogations, traffic accidents and their causes, planning traffic accident investigation, keeping the accident from getting worse, examination of the vehicle, collection and preservation of evidence, identification of tire skidmarks and scuffs, photographs in traffic accident investigation records and forms, traffic enforcement techniques, intoxicated drivers, and hit and run investigation. Also includes instruction and practical exercises in the use of mathematical formulas in traffic investigations, the use of a traffic accident template, and obtaining measurements at a traffic accident and preparing sketches and diagrams.

Credit Recommendation: In the vocational certificate category, 3 semester hours in traffic accident investigation (10/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in elective credit in motor traffic accident investigation (10/88).

AR-1728-0079

Military Police Investigator

Course Number: MP 94.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 4-5 weeks (137-194 hours).

Exhibit Dates: 4/78-3/89.

Learning Outcomes: Upon completion of the course, the student will be able to define authority, jurisdiction, and sources of military police authority; identify individuals subject to the Uniform Code of Military Justice, federal laws, and state laws; conduct apprehensions, searches, seizures, and inspections in accordance with current laws and court decisions; define and identify circumstances amounting to probable cause, and when to affect a custody, detention, or stop or frisk of an individual; identify sources and forms of general criminal law, elements of a crime, and defenses that can be legally used in criminal charges; define crime, intent, general intent, specific intent, motive, malice and culpable negligence; identify the element of proof for specific crimes, mitigating circumstances, and lesser included offenses; identify drugs of abuse, the schedules for specific drugs as listed in the Controlled Substances Act, the effect of drugs on abusers, likely places of concealment for drugs, and cultivation, distribution, and/or trafficking patterns for specific drugs; identify evidence at a crime scene, describe/sketch the scene, safeguard, collect, package, and transport evidence; conduct legal interviews and interrogations; conduct proper interviews or interrogations of females and juveniles, and obtain proper confessions, admissions, and written statements; testify in legal procedures and know the rules of evidence; properly handle informants, conduct juvenile investigations and VIP security; plan and conduct raids and surveillances, arson investigations, and identify methods of operating terrorist targets and methods to protect a community from terrorist attack.

Instruction: Lectures and practical exercises in the source of law and development of military law, laws pertaining to drug abuse, physical evidence, writing reports, conducting raids and surveillances and other special investigations; practical investigations consist of classroom demonstrations by the students in accomplishing a specific task; examples include conducting a crime scene examination, conducting an interview or interrogations, and filling out forms or papers correctly.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation and evidence and 3 in crime scene technology (10/88).

AR-1728-0080

COUNTERINTELLIGENCE AGENT TRANSITION

Course Number: 244-97B20-T.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 10-11 weeks (386-393 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform counterintelligence operations; conduct counterintelligence investigations including intelligence collection and surveillance planning and conduct; apply legal principles to counterintelligence operations; and conduct counterintelligence interviews.

Instruction: Lectures, simulated field environment exercises and classroom testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation (investigation and interviews) (6/90).

AR-1728-0081

COUNTERINTELLIGENCE AGENT BASIC NONCOMMISSIONED OFFICER (NCO)

Course Number: 244-97B30.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 8 weeks (271 hours).

Exhibit Dates: 1/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply legal principles to counterintelligence operations; conduct counterintelligence investigations of espionage and sabotage activities; and prepare an investigation.

Instruction: Lectures, classroom testing, and practical exercises. Course includes a common core of leadership subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in investigative techniques (6/90). For credit for the common core, see AR-1406-0090.

AR-1728-0082

COUNTERINTELLIGENCE AGENT

Course Number: 244-97B20.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 19-20 weeks (830 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform counterintelligence operations (conflict analysis); conduct counterintelligence investigations (terrorism, surveillance); conduct security inspections (interviews, planning); and apply legal principles to counterintelligence operations (constitutional law, U. S. codes).

Instruction: Lectures and simulation exercises in counterintelligence operations and investigations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in investigative principles, 1 in legal principles and 3 in investigative/security practicum (6/90).

AR-1728-0083

INTELLIGENCE ANALYST

Course Number: 243-96B10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 13-15 weeks (530-587 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able interpret topographical maps; understand threat forces in the world; introduce personnel security systems; process intelligence reports; and compile data to produce information systems.

Instruction: Lectures, classroom testing, and field evaluation exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in principles of information management, and 1 in security: information/ personnel (6/90).

AR-1728-0084

INTERROGATOR

Course Number: 241-96C10, 241-97E10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 9-14 weeks (337-561 hours).

Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to read maps; coordinate the phases of an interrogation; assess and control the interrogation during questioning; interrogate using an interpretor; and understand basic military terminology.

Instruction: Small class lectures, simulated interrogation in a classroom environment, and field training exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and 6 in criminal investigation (interrogation/interviewing) (6/90).

AR-1728-0085

MILITARY INTELLIGENCE OFFICER ADVANCED COUNTERINTELLIGENCE

Course Number: 3-30-C22-35E.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 10 weeks (354 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will conduct investigations and surveillances; interview subjects and suspects; and apply security measures to intelligence operations.

Instruction: Instruction includes lectures and practical exercises in theory and legal principles of investigation, physical security, sabotage and terrorism, surveillance planning and procedures, interviewing, interrogation, personnel security and the planning and conduct of human intelligence operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation and 2 in physical security (6/90).

AR-1728-0086

COUNTERINTELLIGENCE ASSISTANT

Course Number: 244-97B10.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 17 weeks (652 hours). *Version 2:* 10-11 weeks (377 hours).

Exhibit Dates: *Version 1:* 10/90-Present. *Version 2:* 1/88-8/90.

Learning Outcomes: Upon completion of the course the student will be able to perform personnel security; identify the objectives of a security program; perform a security manager's inspection; identify and describe automation sensitivity levels and security operating modes; and demonstrate the proper application of legal principles.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures, testing, and field training on the subject matter.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in security techniques and 1 in legal principles (6/90).

Related Occupation Codes: 97B.

AR-1728-0087

MILITARY INTELLIGENCE OFFICER TRANSITION

(Tactical All-Source Intelligence Officer Force Alignment Plan III)

Course Number: 3A-35D.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 8-9 weeks (282-310 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to implement physical security measures; perform information and personnel security procedures; analyze threat forces; define functions of battlefield preparation and tactical intelligence.

Instruction: Lectures and field exercises in tactical intelligence operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to security (personnel/information) (6/90).

AR-1729-0001

1. MESS STEWARDS
2. MESS MANAGEMENT

Course Number: *Version 1:* 800-F1, 10-R-F22. *Version 2:* 10-R-941.6.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 5 weeks (236 hours). *Version 2:* 6 weeks (264-284 hours).

Exhibit Dates: *Version 1:* 7/64-12/68. *Version 2:* 11/58-6/64.

Objectives: To provide enlisted personnel with a working knowledge of mess management.

Instruction: *All Versions:* An introduction to food service management, emphasizing food preparation, baking, and basic meat cutting, with introductory material on nutrition and menu planning. *Version 2:* Leadership and applied management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 2 semester hours in institutional management (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 2 semester hours in institutional management (12/68).

Related Occupation Codes: 94B.

AR-1729-0002

Meat Cutting

Course Number: 10-R-942.1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (352 hours).

Exhibit Dates: 11/57–12/68.

Objectives: To train enlisted personnel to cut meat in a central meat processing facility and to prepare processed meat, poultry, and fish for delivery to mess kitchens and other using agencies.

Instruction: Practical laboratory experience in meat cutting, including skill training, meat grading, meat cooking, and meat spoilage.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel, restaurant, and institutional management (12/73).

AR-1729-0003

Enlisted Aides

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (288 hours).

Exhibit Dates: 7/70–1/88.

Objectives: To provide formal training in the duties and responsibilities of enlisted personnel assigned to public quarters occupied by general officers.

Instruction: Basic food preparation and catering, including all phases of cooking and baking plus elements of purchasing and sanitation; strong emphasis on lecture, demonstration, laboratory work, and practical experience.

Credit Recommendation: In the vocational certificate category, 6 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 6 semester hours in hotel, restaurant, and institutional management (12/73).

Related Occupation Codes: 94B; 00H.

AR-1729-0004

1. Hospital Food Service Specialist
2. Hospital Food Service Specialist
3. Hospital Food Service Specialist

Course Number: *Version 1:* 800-94F10. *Version 2:* 800-94F10; 800-94F20. *Version 3:* 800-94F10; 800-94F20.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 5 weeks (203–225). *Version 2:* 10–12 weeks (400–453). *Version 3:* 10–12 weeks (400–452 hours).

Exhibit Dates: *Version 1:* 7/82–Present. *Version 2:* 5/78–6/82. *Version 3:* 6/75–4/78.

Objectives: To train personnel to perform food preparation and distribution activities and apply diet therapy principles to the preparation of modified food required in patient meal service.

Instruction: *Version 1:* Conferences, self-paced examinations and practical exercises in diet preparation, clinical dietetics operations and hospital food service operations. *Version 2:* Lectures and practical exercises in food service administration, nutrition, dietetics, quantity food preparations, and sanitation. *Version 3:* Lectures and practical exercises in food service administration, nutrition, dietetics, quantity food preparations, and sanitation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in hospital food service and 3 in modified diet preparation (7/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in nutritional care (7/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic nutrition, 3 in clinical dietetics, 6 in quantity food service and preparation, and 1 in food service administration (8/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in nutrition, 2 in clinical dietetics, 6 in quantity food preparation, 1 in food service administration and sanitation (6/77).

Related Occupation Codes: 94F.

AR-1729-0005

Hospital Mess Steward

Course Number: 800-94F40.

Location: Walter Reed Army Medical Center, Washington, DC.

Length: 7 weeks (308 hours).

Exhibit Dates: 9/71–1/88.

Objectives: To qualify enlisted personnel to perform administrative, direct nutritional care, financial management, and supply tasks in the operation of a hospital food service.

Instruction: Covers the areas of training, nutrition and diet therapy, equipment and supply management, food production, and service management in hospital food service management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in food service management (9/72).

Related Occupation Codes: 94F.

AR-1729-0006

Food Service Specialist Basic Technical

Course Number: 800-94B30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6 weeks (212 hours). *Version 2:* 8–13 weeks (344 hours).

Exhibit Dates: *Version 1:* 2/85–9/86. *Version 2:* 5/83–3/85.

Objectives: To train enlisted personnel to function as first cook, shift leader, chief meat cutter, chief bread/pastry baker, and food service sergeant.

Instruction: *All Versions:* Topics include meat processing, sanitation, food preparation, dining facility management, and field kitchen operations. *Version 1:* Course has less emphasis on the practice of food preparation than did the previous version.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation and dining room operations (8/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in food preparation and dining room operations (8/85).

Related Occupation Codes: 94B.

AR-1729-0007

Food Service (FS-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 8-FS-C40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8–12 weeks (320–480 hours).

Exhibit Dates: 3/72–1/88.

Objectives: To train enlisted personnel to perform as food service supervisors.

Instruction: Academic subjects of leadership, communications, and organization and management as applied to all phases of food services, including meat fabrication, the kitchen, bakery, dining room service, field kitchens, and short-order facilities.

Credit Recommendation: In the vocational certificate category, 3 semester hours in organization and management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in organization and management (12/73); in the upper-division baccalaureate category, 3 semester hours in organization and management (12/73).

Related Occupation Codes: 94B; 94D.

AR-1729-0008

1. Food Service Specialist Noncommissioned Officer (NCO) Advanced
2. Food Service (FS-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: *Version 1:* 94BNCOA. *Version 2:* 8-FS-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 7–15 weeks (237–406 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 8/78–9/86. *Version 2:* 8/72–7/78.

Objectives: To train noncommissioned officers to perform in upper-level food service management positions.

Instruction: *Version 1:* NOTE: This course may include up to 5 weeks of common core (military subjects). Academic subjects include food management, kitchen preparations, administration, and recordkeeping. Course content includes evaluation of prepared food items, menu planniung, sanitation, production planning, and equipment layout and operation. *Version 2:* Academic subjects of leadership, communications, and maintenance as applied to food service areas of nutrition and menu planning, sanitation, meat fabrication, food preparation, dining services, and field kitchens.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in food service management (5/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in food service management and for the common core 1 semester hour in organizational behavior (5/81). *Version 2:* In the vocational certificate category, 3 semester hours in organization and management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in organization and management (12/73); in the upper-division baccalaureate category, 3 semester hours in organization and management (12/73).

Related Occupation Codes: 94B; 94C; 94D.

AR-1729-0009

FOOD SERVICE SPECIALIST
(Cooking)

Course Number: 94B10-OSUT; 800-94B10; 800-94B20; 10-R-941.1; 10-E-18; 8E-43A.

Location: Army Training Center, Ft. Jackson, SC; Army Training Center, Ft. Dix, NJ; Army Training Center, Ft. Ord, CA; Army Training Center, Ft. Lee, VA; Quartermaster School, Ft. Lee, VA.

Length: 8-16 weeks (279-352 hours).

Exhibit Dates: 9/54-12/86.

Objectives: To train personnel in the terminology and basic techniques of food preparation, equipment operation and maintenance, recipes, and sanitation.

Instruction: Small- and large-quantity cooking, baking, and meat cutting; basic food theory; careand operation of large-sized equipment under field condition; duties and responsibilities of food service personnel.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in food preparation (12/73).

Related Occupation Codes: 94B.

AR-1729-0010

1. BAKING
2. BREAD BAKING

Course Number: *All Versions:* 800-94D20. *Version 2:* 10-R-943.1.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 9-10 weeks (320-350 hours). *Version 2:* 5-9 weeks (175-282 hours).

Exhibit Dates: *Version 1:* 5/66-6/87. *Version 2:* 8/57-4/66.

Objectives: To provide enlisted personnel with a working knowledge of small- and large-quantity baking, and to train them to produce bread, menu pastry items, and specialty pastry items in mobile field baking units and central pastry kitchens.

Instruction: Introduction to baking, including terminology, basic baking techniques, and recipes; operation of small- and large-quantity baking equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in food preparation (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (12/73); in the upper-division baccalaureate category, 6 semester hours in food preparation (12/73). *Version 2:* Credit is not recommended credit because of the limited technical nature of the course (12/73).

Related Occupation Codes: 94D.

AR-1729-0011

1. FOOD SERVICE SUPERVISOR
   (Food Service Supervision, Enlisted)
2. FOOD SERVICE SUPERVISION, ENLISTED
3. FOOD SERVICE SUPERVISION, ENLISTED

Course Number: *Version 1:* 800-F2; 10-R-F23. *Version 2:* 10-R-941.7. *Version 3:* 10-E-21.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8-9 weeks (293 hours). *Version 2:* 11 weeks (352-359 hours). *Version 3:* 16 weeks (576 hours).

Exhibit Dates: *Version 1:* 1/64-6/85. *Version 2:* 11/58-12/63. *Version 3:* 9/54-10/58.

Objectives: To train mid-management personnel to coordinate and operate food service activities.

Instruction: *All Versions:* Mess management; nutrition and menu planning; supervision of meat processing and baking facilities; analysis of food preparation; field messing operations; supervision of mess facilities. *Version 3:* Applied cookery; applied baking.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel-restaurant insitutions (12/73); in the upper-division baccalaureate category, 3 semester hours in food service management (12/68). *Version 2:* In the vocational certificate category, 3 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 4 semester hours in food service management (12/68). *Version 3:* In the vocational certificate category, 6 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 5 semester hours in food service management (12/68).

Related Occupation Codes: 94B.

AR-1729-0012

1. CLUB MANAGEMENT
2. CLUB MANAGEMENT
3. CLUB MANAGEMENT
4. CLUB MANAGEMENT
   (Open Mess Management)
   (Consolidated and Open Mess)

Course Number: *Version 1:* 8E-43A; 8E-021A0; 800-00J50. *Version 2:* 8E-43A; 8E-021A; 800-00J50; 83E-43; 8E-4112. *Version 3:* 8E-4112; 8E-021A; 800-00J50; 8E-43A. *Version 4:* 8E-F2; 10-B-4110; 801-F1; 10-D-F26; 10-E-4110; 10-E-20.

Location: Institute of Administration, Ft. Benjamin Harrison, IN; Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 9-10 weeks (365-445 hours). *Version 2:* 2-8 weeks (70-288 hours). *Version 3:* 1-7 weeks (49-240 hours). *Version 4:* 7-8 weeks (308-332 hours).

Exhibit Dates: *Version 1:* 1/81-12/86. *Version 2:* 11/77-12/80. *Version 3:* 12/74-10/77. *Version 4:* 8/55-11/74.

Objectives: To train personnel to operate and manage military clubs.

Instruction: *Version 1:* Lectures, practical exercises, and on-the-job training in the areas of food management, automated club operations, beverage management, business administration, marketing, financial mangement and labor management. *Version 2:* Note: This course includes three phases which the student may attend consecutively or individually in any order. Phase I- Management and Administration includes topics on the Army club system, management, personnel, operations and entertainment. Phase II- Financial Management includes topics on accounting and internal control. Phase III- Food and Beverage Operations includes topics on food and beverage operations. *Version 3:* Note: This course includes three phases which the student may attend consecutively or individually in any order. Phase I - Management and Administration includes topics on the Army club system, management, personnel, operations and entertainment. Phase II - Financial Management includes topics on accounting and internal control. Phase III - Food and Beverage Operations includes topics on food and beverage operations. *Version 4:* A comprehensive course in club management, covering food planning and control, general management, equipment and sanitation, accounting, and business law.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food and beverage management, 2 in introduction to business administration, and 2 in financial management (3/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of management for students completing Phase I (1/78); in the upper-division baccalaureate category, 2 semester hours in financial management for students completing Phase II, 2 semester hours in restaurant management for students completing Phase III (2/78). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in club management for those students completing Phase I, 1 semester hour in club financial control for those students completing Phase II, 1 semester hoar in club food and beverage control for those students completing Phase III (see note above) (6/75). *Version 4:* In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management, 2 in food and nutrition (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management, 2 in food and nutrition (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel, restaurant, and institutional management, 2 in food and nutrition (12/68).

Related Occupation Codes: 71L; 73D; 94B; 00J; 03B; 73D; 94B; 00J; 03B.

AR-1729-0013

UNIT MESS OFFICER
(Mess Administration)

Course Number: 8E-F1; 10-A-F2; 10-B-F2; 10-O-9.

Location: Quartermaster School, Ft. Lee, VA.

Length: 3-4 weeks (105-140 hours).

Exhibit Dates: 5/55-6/85.

Objectives: To train officers to operate and manage unit messes.

Instruction: Basic food production, including cooking, baking, and nutrition and menu planning.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in institutional/culinary management (12/68).

AR-1729-0014

1. FOOD SERVICE MANAGEMENT
   (Food Service Management/Advisor)
   (Food Service

Management/Technician)
(Food Service
Management/Supervisor)
2 Food Adviser/Food Service
Technician/Food Service
3 Food Adviser/Technician
4 Food Service Supervision
5 Food Service Supervision

Course Number: *Version 1:* 8E-82C/8E-041A/800-F8. *Version 2:* 82; 8E-941A, 800-F8; 82-C/941A. *Version 3:* 8E-4114; 8E-941A. *Version 4:* 10-B-4114. *Version 5:* 10-B-941A; 10-O-5.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 8–9 weeks (348 hours). *Version 2:* Phase 1, 2–3 weeks; Phase 2, 7–8 weeks (Phase 1, 103 hours; Phase 2, 245 hours). *Version 3:* 12 weeks (511 hours). *Version 4:* 12 weeks (420 hours). *Version 5:* 16 weeks (560 hours).

Exhibit Dates: *Version 1:* 5/83–12/86. *Version 2:* 7/76–4/83. *Version 3:* 7/68–6/76. *Version 4:* 7/63–6/68. *Version 5:* 6/55–6/63.

Objectives: To provide commissioned officers and warrant officers with a working knowledge of food preparation, cooking and serving, and the duties and functions of food advisers.

Instruction: *All Versions:* Theory and principles of cooking; operation of dining facilities and equipment; food preparation; menu planning; nutrition and food services; organization and management. *Version 1:* Topics include principles of management, communication skills, food purchasing, food service sanitation, and food service management. *Version 2:* Phase 1: Theory and principles of food preparation and baking. Laboratory experiences include meat, poultry, seafood, fruits, vegetables, sauces, and baked products. Phase 2: Principles and practices of the operation of food facilities, including the functions of the food advisor, management of food operations, recordkeeping, nutrition, and menu planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills, 3 in food service management, 2 in food sanitation for warrant officers in Food Service Management/Technician (8E-041A0) and enlisted personnel in Food Service Management/Supervisor (800-F8); 4 semester hours in food service management, 2 in sanitation for commissioned officers in Food Service Management/Advisor (8E-82C)(8/85); in the upper-division baccalaureate category, 2 semester hours in principles of management, 1 in personnel management for warrant officers and enlisted personnel in the Food Service Management/Technician and the Food Service Management/Supervisor courses; for commissioned officers in Food Service Management/Advisor, 1 semester hour in personnel management (8/85). *Version 2:* In the vocational certificate category, for Phase 1: 3 semester hours in principles of food preparation; in the lower-division baccalaureate/associate degree category, 2 semester hours in principles of food preparation (5/81); in the upper-division baccalaureate category, for Phase 2: 4 semester hours in advanced food service management (5/81). *Version 3:* In the vocational certificate category, 3 semester hours in organization and management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in organization and management (12/73); in the upper-division baccalaureate category, 3 semester hours in organization and management (12/73). *Version 4:* In the vocational certificate category, 4 semester hours in food preparation, 3 in organization and management (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in food preparation, 3 in organization and management (12/73); in the upper-division baccalaureate category, 3 semester hours in food preparation and nutrition, 3 in food service management (12/68). *Version 5:* In the vocational certificate category, 4 semester hours in food preparation, 3 in basic nutrition, 3 in organization and management (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in food preparation, 3 in basic nutrition, 3 in organization and management (12/73); in the upper-division baccalaureate category, 3 semester hours in food preparation, 3 in nutrition, 3 in food service management (12/68).

Related Occupation Codes: 041A, 941A.

AR-1729-0015

VETERINARY SERVICE IN THEATER OF OPERATIONS
(Subsistence Procurement Quality Assurance and Standardization)

Course Number: 6G-F2/321-F2; 321-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: *Version 1:* 3 weeks (128 hours). *Version 2:* 3 weeks (118–150 hours). *Version 3:* 2 weeks (75 hours).

Exhibit Dates: *Version 1:* 2/84–12/87. *Version 2:* 3/78–1/84. *Version 3:* 11/76–2/78.

Objectives: To provide officer and enlisted veterinary specialists with standardized training to supervise/train subordinate personnel in the performance of procurement quality assurance tasks.

Instruction: *All Versions:* Lectures and practical exercises in food technology, administration and food preparation. *Version 1:* Conferences, demonstrations and practical exercises in food inspection technology, food hygiene, safety and quality assurance and administration. *Version 2:* Course includes inspection and sanitation procedures. Personnel in 321-F3 receive additional instruction in anatomy and pathology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food technology and 1 in administration; in the upper-division baccalaureate category, 2 semester hours in anatomy and pathology (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food technology, 1 in food sanitation for 321-F3 (officers completing the course receive an additional 1 credit in administration) (8/79); in the upper-division baccalaureate category, 2 semester hours in anatomy and pathology for enlisted personnel completing the course (8/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in administration, 2 in food technology (6/77).

AR-1729-0016

HOSPITAL FOOD SERVICE SPECIALIST BASIC RESERVE COMPONENT (CORRESPONDENCE, RESIDENT, NONRESIDENT)

Course Number: 800-94F10(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: Phase II 2 weeks (80 hours).

Exhibit Dates: 9/78–2/83.

Objectives: To train students in basic clinical dietetics, food preparation, and food distribution.

Instruction: Phase II, the resident portion of the course, consists of conferences and practical exercises in clinical dietetics, including preparation of specialized diets and quantity food preparation, including food service in nonfixed facilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in clinical dietetics, 1 in quantity food production (8/79). NOTE: Phases I, III, and IV are non-resident in nature and receive no credit recommendation. Credit is based on Phase II only.

Related Occupation Codes: 94F, 94B.

AR-1729-0017

FOOD MANAGEMENT QUARTERMASTER OFFICER ADVANCED

Course Number: 8-10-C22-C.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10 weeks (348 hours).

Exhibit Dates: 10/75–6/85.

Objectives: To provide commissioned officers with working knowledge in the areas of food service management, commodity familiarity and record keeping.

Instruction: Introduction to the theories and principles of food service management. Emphasis is placed on the procurement, distribution, use, and accounting for a diverse food service organization. Instruction is complemented by visits to food processing facilities.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food purchasing and 6 semester hours in food service management (4/81).

AR-1729-0018

FOOD MANAGEMENT QUARTERMASTER OFFICER BASIC

Course Number: 8-10-0B-82A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9–10 weeks (340 hours).

Exhibit Dates: 1/79–6/85.

Objectives: To provide commissioned officers with working knowledge in the areas of food service management, commodity familiarity, and record keeping.

Instruction: Topics include introduction to the theories and principles of food service management with emphasis on the procurement, distribution, use,and accounting for a diverse food service organization. Classroom instruction is complemented by visits to food processing facilities.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food purchasing and 6 in food service management (4/81).

AR-1729-0019

SUBSISTENCE SUPPLY SPECIALIST NONCOMMISSIONED OFFICER (NCO) ADVANCED

Course Number: None.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6–14 weeks (217–478 hours).

Exhibit Dates: 1/78–12/86.

Objectives: To provide selected enlisted personnel with the comprehensive knowledge and skills to perform as a subsistence supply specialist in grade E-7.

Instruction: NOTE: This course may include up to five weeks of common core subjects including map reading and unit functions. Types of functions include lectures, conferences, demonstrations, case studies, practical exercises, and examinations. Topics include organizational effectiveness and leadership, food accounting, food storage and distribution operations, inventory procedures, display space and merchandising, sanitation, and commissary documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in organizational behavior and 2 semester hours in supermarket management. (4/81).

AR-1729-0020

Hospital Food Service Supervisor Refresher

Course Number: 800-F3.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (102-125 hours).

Exhibit Dates: *Version 1:* 5/83-7/88. *Version 2:* 6/72-4/83.

Objectives: To provide refresher training in clinical dietetics and administrative aspects of medical food service operations.

Instruction: *Version 1:* Conferences and practical exercises in clinical dietetics, food service management, and resource management. *Version 2:* Conference, lecture, demonstration, and practical exercises in food service administration, personnel administration, and basic dietetics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in nutritional care, 2 in food service management and 1 in personnel administration (9/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in nutrition, 2 in personnel administration, 2 in food service administration (5/82).

AR-1729-0021

Advanced Food Management

Course Number: 8-10-C22-82A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (280 hours).

Exhibit Dates: 5/85-Present.

Objectives: To train military and civilian personnel for a staff assignment requiring food service management skills.

Instruction: Topics include basic receiving and storeroom operations, food sanitation, food products and technology, and various aspects of food service management. Classroom instruction is complemented by visits to various food service operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in food service management (8/85).

AR-1729-0022

Bread Baking
(Field Bakery Operations)

Course Number: 800-ASID1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/82-6/87.

Objectives: To train enlisted personnel to manage and operate the mobile field bakery plant.

Instruction: Topics include principles of baking: sanitation, safety, conservation, function of ingredients, requisition of supplies, operation and maintenance of equipment, formula construction and dough scheduling. Also the course covers practical application of these principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of baking (8/85).

AR-1729-0023

Commissary Grocery Department Management

Course Number: 800-F9.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 2/82-4/85.

Objectives: To provide commissary grocery managers and potential managers with training in the performance of tasks critical to the successful performance of their jobs.

Instruction: Topics include personnel management: production records, rating personnel performance, supervisory skills, labor relations, scheduling and training, customer relations, and sanitation. Also covered are inventory management: inventory procedures, requisitioning, ordering, receiving and storage, merchandising layouts, pricing, and salvage; and physical plant maintenance to include sanitation, safety, security, and equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management, 2 in supermarket management (groceries)(8/85). Please note that the credit in personnel management duplicates credit recommended for 800-F11 and 800-F10.

AR-1729-0024

Commissary Meat Department Management

Course Number: 800-F11.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (70-75 hours).

Exhibit Dates: 3/82-5/86.

Objectives: To provide commissary meat department managers, and potential managers with training critical to the successful performance of their jobs.

Instruction: Topics include personnel management: developing job performance standards, supervisory skills for store managers, management and labor relations, customer relations, and sanitation of departments; also included is inventory management: inventory procedures, ordering, receiving, merchandising, cutting tests, fat tests, salvage, trial balance; and physical plant management to include sanitation, security, safety, and equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management, 2 in supermarket management (meat)(8/85).Please note that credit in personnel management duplicates credit cited for 800-F9 and 800-F10.

AR-1729-0025

Commissary Produce Department Management

Course Number: 800-F10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (67-75 hours).

Exhibit Dates: 2/82-5/86.

Objectives: To provide commissary produce managers and potential managers with training in the performance of tasks critical to the successful performance of their jobs.

Instruction: Topics include personnel management: developing job performance standards, supervisory skills for store managers, management and labor relations, customer relations, and sanitation of departments; also covered is inventory management: inventory procedures, ordering, receiving, and storing, merchandising, cutting tests and price determination, and trial balance. Course covers plant management topics such as sanitation, security, equipment maintenance and safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel management, 2 in supermarket managenent (produce) (8/85). Please note that the credit in personnel management duplicates that in 800-F9 and 800-F11.

AR-1729-0026

Food Service Technician Entry Warrant Officer

Course Number: 8E-041A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks.

Exhibit Dates: 4/85-12/87.

Objectives: To train potential warrant officers in the skills needed to perform as food service technicians.

Instruction: Topics include food service management, dining facility administration, food storage, menu planning, and sanitation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in food service management (8/85).

AR-1729-0028

Veterinary Service in Theater of Operations

Course Number: 6G-F2/321-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 3 weeks (126 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to identify problem areas relating to situations affecting food inspection, and make recommendations for resolution; supervise and train personnel in the various aspects of food inspection with emphasis on optimum performance standards and sanitary conditions.

Instruction: Review of anatomy, physiology, and pathological conditions related to various animals in their normal and/or abnormal status, emphasizing the significance of any deviation as pertains to the food inspection program. Discussion of content, with practical appplication for procurement, surveillance inspection of various dairy products, meats, fresh fruits, and vegetables.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in administration and 2 in food technology (11/89).

AR-1729-0029

Commissary Management

Course Number: 8G-82D/551-ASI U5.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (218 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage a retail supply and food market facility.

Instruction: Includes classroom and practical exercises in principles of supervision, recordkeeping, basic accounting, facility design and layout, merchandising and promotional techniques, security issues, food storage and display, sanitation, warehousing techniques, and inventory control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision, 2 in food sanitation, and 1 in retail management OR 2 semester hours in food sanitation and 3 in retail management of which 2 are specifically in principles of supervision (10/88).

AR-1729-0030

Field Bread Baking Operations

Course Number: 800-ASID1.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage and operate the mobile field baking plant.

Instruction: Includes lectures and performance exercises in principles and procedures applicable to mobile bread baking.

Credit Recommendation: In the vocational certificate category, 3 semester hours in bread baking (10/88).

Related Occupation Codes: 94B.

AR-1729-0031

Subsistence Officer

Course Number: 8E-F4.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (216 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to manage a food supply operation, exercise technical supervision over food service activities, and perform the contracting out of dining facility operations.

Instruction: Lectures, small group instruction, field trips, and practical exercises on food service supply management, food service operations, contracting out of dining facility operations, and commercial and government department food preparation and food procurement operations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in food service management (10/89).

Related Occupation Codes: 92G.

AR-1729-0032

Food Service Management

Course Number: 8E-92G/8E-922A/800-F8; 8E-82G/8E-041A/800-F8.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7-9 weeks (282-320 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, students will be able to apply the principles, procedures, safety awareness, and responsibilities related to food service management.

Instruction: Includes lectures, demonstrations, and performance exercises in basic management theory and principles; food service accounting, administration procedures, program operations, applied food service sanitation, and nutritional adequacy, preparation, and evaluation of foods.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic management theory and principles, 3 in food service management (10/88).

Related Occupation Codes: 041A0; 82C.

AR-1729-0033

Food Service Advanced
Noncommissioned Officer (NCO)

Course Number: 8-94-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 10-11 weeks (205-206 hours).

Exhibit Dates: 10/86-2/89.

Learning Outcomes: Upon completion of the course, the student will be able to apply sanitation practices in stationary and mobile (field) setting, understand and apply general management theory, human resource development, and solve logistical problems relative to food service/dining/field facilities.

Instruction: Course is presented through regular instructors and guest speakers. Course content includes sanitation principles, management principles and practices, training in the use of appropriate forms and procedures for maintaining and operating dining facilities. Includes field operational procedures and basic nutrition.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in sanitation, 1 in personnel management, and 2 in food cost control (10/88); see AR-1406-0090 for common core credit recommendation.

AR-1729-0034

Food Service Technician Warrant
Officer Technical/Tactical
Certification

Course Number: 8E-922A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks (330 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise food service operations, utilizing and applying a knowledge of sanitation and nutrition.

Instruction: Lecture, practical exercises, and demonstrations in the topics of management theory, effective writing, nutrition, sanitation, and supervision of food service operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management, 2 in principles of nutrition, 2 in food service supervision, and 1 in food service sanitation (10/88).

AR-1729-0035

Food Service Specialist Individual
Ready Reserve

Course Number: 800-F13.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (75 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic principles of food preparation, sanitation, nutrition, and service functions; and will perform simple small quantity cooking and baking; and will use and maintain permanent and mobile kitchen equipment.

Instruction: Includes lectures, laboratory, and practical exercises in sanitation, nutrition, food products, food preparation, and equipment operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in quantity food preparation (10/88).

AR-1729-0036

Food Service Technician Senior
Warrant Officer

Course Number: 8-10-C32-922A-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (84 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan and organize food service technical functions for field operations.

Instruction: Lectures, seminars, demonstration, and practical exercises in field food service operations, menu planning, and field bakery operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service management (10/88).

AR-1729-0037

Food Service Technician Warrant
Officer Technical/Tactical
Certification - Reserve
Component

Course Number: 8E-922A-RC.

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the organizational management functions of a food advisor and will have the ability to plan, coordinate, and direct sanitation and food service mobile operations.

Instruction: Includes lectures and performance exercises in sanitation and mobile operations of a food service function as well as management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food service management (10/88).

Related Occupation Codes: 922A.

AR-1729-0038

Food Service Specialist Individual
Ready Reserve

Course Number: 800-F14 (IRR).

Location: Quartermaster School, Ft. Lee, VA.

Length: 2 weeks (67 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide basic supervision over the food preparation, sanitation, nutrition, and service functions; and use and maintain permanent and mobile kitchen equipment.

Instruction: Instruction includes classroom and practical exercise in sanitation, nutrition, menu planning, and dining facility and mobile kitchen operations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in food service supervision (10/88).

AR-1729-0039

Food Service Specialist Basic
Noncommissioned Officer (NCO)

Course Number: 800-94B30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (297 hours).
Exhibit Dates: 10/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to use correct preparation and serving procedure in cafeteria/dining operations, utilize industry acceptable sanitation and hygiene practices, and supervise personnel in the food production and service areas.
Instruction: Topics include meat processing, sanitation, food preparation, dining facility management, and field kitchen operations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in sanitation, 2 in dining facility management. See AR-1406-0090 for credit recommendation for the common core (12/88).
Related Occupation Codes: 94B.

AR-1729-0040

FOOD SERVICE SPECIALIST ADVANCED NONCOMMISSIONED OFFICER (NCO)

Course Number: 800-94B40.
Location: Quartermaster School, Ft. Lee, VA.
Length: 10 weeks (362 hours).
Exhibit Dates: 3/89-Present.
Learning Outcomes: Upon completion of the course, the student will be able to apply sanitation practices in stationary and mobile (field) settings, understand and apply general management theory, human resource development, and solve logistical problems relative to food service/dining/field facilities. Student will be able to evaluate contract food service operations, and apply nutritional concepts in food preparation and service.
Instruction: Conference instruction and guest speakers present course content, which includes sanitation practices, management principles and procedures, dining facility accounting, dining security procedures, staffing, and strategic planning relative to dining facility equipment replacement.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in dining facility management, 2 in human resource management, 3 in basic nutrition, and credit for the common core as listed in AR-1404-0035 (10/88).
Related Occupation Codes: 94B.

AR-1729-0041

FOOD SERVICE SPECIALIST ADVANCED INDIVIDUAL TRAINING

Course Number: 800-94B10.
Location: Quartermaster School, Ft. Lee, VA; Training Center, Ft. Dix, NJ; Training Center, Ft. Jackson, SC.
Length: 9 weeks (324 hours).
Exhibit Dates: 1/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to use standard food service terminology, and prepare and serve food in dining, kitchen, and field settings. Students will also maintain sanitation standards and food preparation equipment.
Instruction: Instruction includes small-large quantity cooking and baking and meat cutting; basic food theory; care and operation of equipment under field conditions, duties and responsibilities of food service personnel.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in food preparation - small quantity, and 2 in institutional cooking - large quantity (10/88).
Related Occupation Codes: 94B.

AR-1729-0042

DINING FACILITY MANAGEMENT

Course Number: LOG 75.
Location: Combined Arms Training Center, Vilseck, W. Germany.
Length: 3 weeks (107 hours).
Exhibit Dates: 7/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to manage and operate a military dining facility; establish dining facility files; prepare and maintain dining facility forms, such as cash collection sheets, production schedules, subsistance forms, ration requests, master menus, and food preparation charts; supervise food sanitation policies; identify operational requirements, responsibilities, and procedures; recommend equipment replacement.
Instruction: Conference classes, practical exercises, and videotapes, designed to upgrade technical skills required for management of a dining facility. Topics include policies of sanitation, records and reports, establishment of files, managing personnel, menu development, and the receipt and storage of rations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in food service management (10/88).

AR-1729-0043

HOSPITAL FOOD SERVICE MANAGEMENT

Course Number: 800-F3.
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 3 weeks (103 hours).
Exhibit Dates: 8/88-Present.
Learning Outcomes: Upon completion of the course, the student will understand fundamentals of nutrition management in clinical dietetic nutrition care, understand principles of food service management, including kitchen layout, design and equipment, understand fundamentals of oral and written communication skills, and understand principles of motivation and ethical decision making.
Instruction: Conferences and practical exercises in clinical dietetic nutrition, food service management, and communications.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introducation to nutritional care/commercial dietetics, 2 in fundamentals of food service management/institutional management, and 1 in written and or oral communication (3/90).

AR-1729-0044

HOSPITAL FOOD SERVICE SPECIALIST (BASIC) RESERVE COMPONENT

Course Number: 800-94F10 (RC).
Location: Academy of Health Sciences, Ft. Sam Houston, TX.
Length: 2 weeks (141 hours).
Exhibit Dates: 7/88-Present.
Learning Outcomes: Upon completion of the course, the student will understand fundamentals of nutrition care, including taking a dietary history, patient menu evaluation and recommendations and also understand introduction to food service management practice.
Instruction: Phase II, the resident portion of the course, consists of conferences and practical exercises in clinical dietetics, including preparation of specialized diets and quantity food preparation, including food service in nonfixed facilities.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in clinical dietetics (Phase II), and 1 in practice of clinical dietetics (Phase III) (3/90).

AR-1730-0001

REFRIGERATION EQUIPMENT REPAIR

Course Number: 720-51L20; 5-E-13.
Location: Engineer School, Ft. Belvoir, VA.
Length: 11-13 weeks (387-474 hours).
Exhibit Dates: 4/56-4/79.
Objectives: To train enlisted personnel to install, assemble, operate, maintain, and repair refrigeration and air-conditioning units.
Instruction: Lectures and practical exercises in installation, assembly, operation, maintenance and repair of refrigeration and air-conditioning units, including refrigeration systems theory, system components, electrical theory, mechanical and electrical systems analysis, gasoline engines, accessories and controls of refrigeration equipment, specific equipment usage, and operation of ice plants, cold storage warehouses, and heaters.
Credit Recommendation: In the vocational certificate category, 15 semester hours in mechanical and electrical refrigeration service (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical and electrical refrigeration service on the basis of institutional evaluation (5/74).
Related Occupation Codes: 51L; 51P.

AR-1730-0002

ENGINEER MISSILE EQUIPMENT MAINTENANCE

Course Number: 633-62C20.
Location: Engineer School, Ft. Belvoir, VA.
Length: *Version 1:* 9 weeks (292 hours). *Version 2:* 11 weeks (369-386 hours). *Version 3:* 9-10 weeks (343-361 hours).
Exhibit Dates: *Version 1:* 9/74-11/86. *Version 2:* 8/71-8/74. *Version 3:* 5/66-7/71.
Objectives: To train enlisted personnel to install, operate, and maintain engineer equipment used in missile systems.
Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, and maintenance of engineer equipment used in missile systems, including basic electricity and electrical test equipment; air-conditioning systems; internal-combustion engine systems and repair; heater operation; air, fuel, and electrical systems; air compressors; and elevator assembly. *Version 1:* Topics on elevator assembly eliminated.
Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in refrigeration theory and basic electricity (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration theory and basic electricity (6/75). *Version 2:* In the vocational certificate category, 5 semester hours in refrigeration theory and basic electricity (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in refrigeration theory and basic electricity (5/74). *Version 3:* In the vocational certificate category, 3 semester hours in refrigeration theory and basic elec-

tricity (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in refrigeration theory and basic electricity (5/74).

Related Occupation Codes: 62C.

AR-1730-0003

Utility Element Maintenance—Medical Unit Self-Contained Transportable (MUST)

Course Number: 662-F3.

Location: Engineer School, Ft. Belvoir, VA.

Length: 4 weeks (148 hours).

Exhibit Dates: 5/69–11/86.

Objectives: To train enlisted personnel to repair the self-containing transportable air-conditioning units.

Instruction: Lectures and practical exercises in the maintenance of self-contained transportable air conditioning units. Course includes the fundamentals of refrigeration and gas turbine engines, and the diagnosis and repair of utility elements and output controls.

Credit Recommendation: In the vocational certificate category, 4 semester hours in refrigeration (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration (5/74).

Related Occupation Codes: 52C; 51L; 52D; 621A.

AR-1730-0004

Engineer Missile Equipment Repair

Course Number: 633-62C30.

Location: Engineer School, Ft. Belvoir, VA.

Length: 5-7 weeks (190–232 hours).

Exhibit Dates: 6/66–11/86.

Objectives: To train enlisted personnel to repair and maintain air conditioning units and high-pressure air compressors used in missile systems.

Instruction: Lectures and practical exercises in the repair and maintenance of air conditioning units and high-pressure air compressors used in missile systems, including operation of specific equipment, electrical system operation, hygrometer operation and repair, power station air systems, air conditioning fundamentals, and equipment assembly, dismantling, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in refrigeration equipment troubleshooting (5/74).

Related Occupation Codes: 62C.

AR-1732-0002

Water Supply

Course Number: 5-E-17.

Location: Engineer School, Ft. Belvoir, VA.

Length: 8 weeks (283–312 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train enlisted personnel in the analysis, treatment, and distribution of water, and the operation and operator maintenance of portable water purification or water supply equipment.

Instruction: Lectures and practical exercises in aspects of water supply, including introduction to water and water analysis; CBR and decontamination methods; principles, operation, and maintenance of pumps and engines, distillation equipment, and water purification equipment; and camouflage.

Credit Recommendation: In the vocational certificate category, 6 semester hours in theory of water purification (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in theory of water purification (5/74); in the upper-division baccalaureate category, 2 semester hours in theory of water purification (12/68).

AR-1732-0003

Power Generation Equipment Repairer

Course Number: 662-52D10.

Location: Engineering School, Ft. Belvoir, VA.

Length: 8 weeks (244 hours).

Exhibit Dates: 3/79–11/86.

Objectives: To provide enlisted personnel with skills required to maintain and repair electrical power generation equipment.

Instruction: Lectures and demonstrations in basic electricity, internal combustion engines, and associated auxilliary equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in internal combustion engine maintenance and repair (9/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical fundamentals, 1 in introduction to internal combustion engines (9/79).

AR-1732-0004

Power Pack Specialist Skill Development Base
(Power Pack Specialist Noncommissioned Officer (NCO) Candidate)

Course Number: 662-52C20-I.

Location: Engineer School, Ft. Belvoir, VA.

Length: 17 weeks (645–653 hours).

Exhibit Dates: 1/68–11/86.

Objectives: To train selected enlisted personnel to perform as power pack supervisors and technicians.

Instruction: Lectures and practical exercises in the duties of a power pack supervisor and technician. Course includes gas turbine operation, air conditioning and refrigeration, combat operations, supply techniques, and methods of instruction.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to power technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to power technology (7/74); in the upper-division baccalaureate category, 3 semester hours in introduction to power technology (7/74).

Related Occupation Codes: 52B; 52C.

AR-1732-0005

Precise Power Generation

Course Number: 5-R-351.2.

Location: Engineer School, Ft. Belvoir, VA.

Length: 4 weeks (148 hours).

Exhibit Dates: 4/65–12/68.

Objectives: To train enlisted personnel to install, operate, and maintain precise power-generating equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of precise power-generating equipment, including electrical fundamentals, motor generators, gas turbine generators, paralleling and emergency power transfer, and testing and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical programs (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical programs (7/74).

AR-1732-0006

Power Pack Specialist

Course Number: *All Versions:* 662-52C20. *Version 3:* 5-R-351.3.

Location: Engineer School, Ft. Belvoir, VA.

Length: *Version 1:* 7 weeks (233 hours). *Version 2:* 7 weeks (233 hours). *Version 3:* 4–5 weeks (150–187 hours).

Exhibit Dates: *Version 1:* 5/75–1/79. *Version 2:* 6/72–4/75. *Version 3:* 11/64–5/72.

Objectives: To train enlisted personnel to operate and maintain gas turbine engines and multi-output package equipment.

Instruction: Lectures and practical exercises in operation and maintenance of gas turbine engines and multi-output package equipment. Course includes gasoline turbine repair, air conditioning and refrigeration principles, and power station maintenance and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in power technology (power plant operation) (9/79); in the lower-division baccalaureate/associate degree category, 2 semester hours in power technology (9/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in power technology (7/74); in the upper-division baccalaureate category, 2 semester hours as an elective in power technology (7/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in power technology (7/74); in the upper-division baccalaureate category, 1 semester hour as an elective in power technology (7/74).

Related Occupation Codes: 52B; 52C; 62C.

AR-1732-0007

Water Treatment and Plumbing Systems Specialist

Course Number: 711-51N10; 720-51N10.

Location: Training Center Engineer, Ft. Leonard Wood, MO.

Length: 12 weeks (386 hours).

Exhibit Dates: 3/78–9/81.

Objectives: To provide personnel with the skills and knowledhe required to operate a water treatment plant, treat water, and install a plumbing system.

Instruction: This course is presented through lectures and practical exercises in the treatment of potable water, including water testing and treatment, water quality and analysis, and water sources. Also included is the installation and maintenance of water purification equipment. Course presents the operation of a water purification unit, including generator, valves, water treatment section, and water filter section; also included is installation of a plumbing system including drains, hot and cold water lines, sinks, lavatories, water closets, and urinals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water plant operation, 3 in basic plumbing (12/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in water quality analysis and laboratory (12/83).

Related Occupation Codes: 51N.

AR-1732-0008

Water Treatment Specialist
Advanced Individual Training
(Water Treatment Specialist)

Course Number: 720-77W10; 51N10-OSUT; 720-51N10; 51N10-OSUT (ST).

Location: *Version 1:* Quartermaster School, Ft. Lee, VA. *Version 2:* Training Center Engineer, Ft. Leonard Wood, MO.

Length: *Version 1:* 8 weeks (297 hours). *Version 2:* 7-15 weeks (212-605 hours).

Exhibit Dates: *Version 1:* 8/85-10/87. *Version 2:* 10/81-7/85.

Objectives: To train personnel as water treatment plant operators.

Instruction: *Version 1:* Lectures, demonstration, practical exercises, analysis tests, and examinations in water purification and treatment, generator and pump operations, storage facilities, and site and set-up operations are all covered in this course. *Version 2:* Lectures and practical exercises in the classroom, laboratory, and field relating to the operation of a water treatment plant. This includes water sources, water analysis and water treatment, generator and pump operation, purification equipment operation, and the installation of well equipment and storage tank. The course may include basic training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in water treatment plant operations (10/87). *Version 2:* In the vocational certificate category, 4 semester hours in water treatment plant operator (12/83).

Related Occupation Codes: 51N.

AR-1732-0009

Water Treatment Specialist Basic
Noncommissioned Officer (NCO)
(Water Treatment Specialist Basic Technical)

Course Number: 720-51N30.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 6 weeks (237 hours). *Version 2:* 5 weeks. *Version 3:* 10-11 weeks (170 hours).

Exhibit Dates: *Version 1:* 10/87-Present. *Version 2:* 4/85-9/87. *Version 3:* 6/83-3/85.

Objectives: To provide the student with an overview of general water treatment operations.

Instruction: *Version 1:* Through conferences, demonstrations, visual aids and hands-on experiences, the course covers analysis, inspection, and the nuclear, biological, and chemical functions of a water treatment specialist. *Version 2:* Through conferences, demonstrations, visual aids and hands-on experiences, the course covers analysis, inspection, and the nuclear, biological, and chemical functions of a water treatment specialist. *Version 3:* Through conferences, case studies, and visual aids, the course offers a survey of cartography, general military orientation, logistics, organizational behavior, and the analysis, report inspection, and supervisory functions of a water treatment specialist.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in water treatment specialist (5/88). For Common Core component, see AR-1406-0090. *Version 2:* In the vocational certificate category, 5 semester hours in water treatment specialist (8/85). *Version 3:* In the vocational certificate category, 5 semester hours in water treatment specialist (8/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management, 1 in human resource management (8/85); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (8/85).

Related Occupation Codes: 51N.

AR-1732-0010

Water Treatment Specialist

Course Number: 720-77W10.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (296-297 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, and maintain equipment used to provide potable water and to perform water quality analysis tests.

Instruction: Lectures, demonstration, and practical exercises in both laboratory and field water purification and treatment, water quality analysis, generator and pump operations, and with considerations of operating in a nuclear, biological, or chemically contaminated environment. Included is an end-of-course comprehensive written examination.

Credit Recommendation: In the vocational certificate category, 6 semester hours in water treatment plant operations (10/88).

Related Occupation Codes: 77W.

AR-1732-0011

Water Treatment Specialist Reserve
Component

Course Number: 720-77W10-RC.

Location: Quartermaster School, Ft. Lee, VA; Reserve Component Training Facilities, Continental United States.

Length: 100-120 hours.

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to handle the tasks of field water purification, storage, and distribution of potable and palatable water to field troops.

Instruction: Lectures, demonstrations, and practical exercises in both laboratory and field in water purification, water quality analysis, and related equipment. Included is the possibility of working with water contaminated with (NBC) nuclear, biological, and chemical materials.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water treatment plant operation (10/88)

Related Occupation Codes: 77W.

AR-1733-0001

Parachute Rigger (Parachute
Packing, Maintenance and
Airdrop)
(Parachute Packing, Maintenance and Airdrop)
(Parachute Packing, Maintenance and Air Delivery)
(Parachute Packing, Maintenance and Aerial Delivery)

Course Number: 4N-461A; 860-43E10; 860-43E20; 860-43E2P; 860-464.1; 10-H-4820; 10-H-461A; 10-H-464.1; 10-OE-30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 11-14 weeks (385-495 hours).

Exhibit Dates: 10/55-12/84.

Objectives: To train personnel to inspect, maintain, repair, and pack personnel and cargo parachutes and airdrop equipment; rig, load, and secure cargo in aircraft; prepare cargo for inflight ejection; and recover parachutes and airdrop equipment.

Instruction: Lectures and practical exercises in parachute packing subjects, parachute jumping, basic and advanced airdrop subjects, and maintenance subjects.

Credit Recommendation: In the vocational certificate category, 2 semester hours in parachute packing or packaging elective (8/74).

Related Occupation Codes: 43E.

AR-1733-0002

1. Aerial Delivery and Materiel
Officer
2. Parachute Maintenance and
Aerial Supply Officer

Course Number: *Version 1:* 8B-92D. *Version 2:* 8B-83C.

Location: Quartermaster School, Ft. Lee, VA.

Length: *Version 1:* 11-13 weeks (394-442 hours). *Version 2:* 11 weeks (386 hours).

Exhibit Dates: *Version 1:* 11/84-Present. *Version 2:* 2/78-9/84.

Objectives: To provide middle management personnel with the skills required of the aerial and materiel officer.

Instruction: *Version 1:* Course includes management and technical skills for the inspection, packing, delivery, rigging, recovery, storing, and maintenance of air drop equipment. *Version 2:* Conferences, demonstrations, and practical exercises in airdrop rigging, parachute packing, airdrop equipment repair and other special airdrop subjects.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in aerial delivery and materiel (8/88); in the upper-division baccalaureate category, 1 semester hour in air logistics (8/88). *Version 2:* In the vocational certificate category, 3 semster hours in airdrop equipment and repair (8/85).

AR-1733-0003

Airdrop Equipment Technician
Warrant Officer Entry

Course Number: 4N-401A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9 weeks.

Exhibit Dates: 1/85-9/88.

Objectives: To provide the student with the ability required of an airdrop equipment technician.

Instruction: Conferences, lectures, demonstrations, and practical exercises covering parachute packing, airdrop rigging, airdrop equipment repair, and other related airdrop subjects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in airdrop equipment and repair (8/85).

AR-1733-0004

Parachute Rigger Advanced
Noncommissioned Officer (NCO)
(Service Noncommissioned Officer (NCO) Advanced (Parachute Rigger))

Course Number: *Version 1:* 860-43E40. *Version 2:* 7-762-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (191 hours).

Exhibit Dates: *Version 1:* 4/86-Present. *Version 2:* 12/77-3/86.

Objectives: To provide the student with the ability to perform parachute rigging.

Instruction: Conferences, demonstrations, visual aids, and practical exercises covering airdrop rigging and equipment repair, personnel and small cargo parachutes.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in airdrop and parachute rigging and repair. For credit for the Common Core, see exhibit AR-1404-0035 (8/85). *Version 2:* In the vocational certificate category, 3 semester hours in airdrop and parachute rigging and repair (8/85).

Related Occupation Codes: 43E.

AR-1733-0005

Parachute Rigger

Course Number: 860-43E10.

Location: Quartermaster School, Ft.Lee, VA.

Length: 12-13 weeks.

Exhibit Dates: 2/85-5/87.

Objectives: To provide the student with the basic skills for, and knowledge of, parachute rigging.

Instruction: Demonstrations and practical exercises are used towards developing basic skills and knowledge required for inspecting, packing, rigging, storing, and maintaining airdrop equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic parachute rigging (8/85).

Related Occupation Codes: 43E.

AR-1733-0006

Parachute Rigger Basic Technical

Course Number: 860-43E30.

Location: Quartermaster School, Ft. Lee VA.

Length: 4-19 weeks (191 hours).

Exhibit Dates: 3/84-4/86.

Objectives: To provide the student with basic skills and knowledge required for parachute rigging.

Instruction: Conferences and practical exercises in parachute rigging in the context of airdrop packing, rigging, and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic parachute rigging (9/85).

Related Occupation Codes: 43E.

AR-1733-0007

Parachute Rigger Basic
Noncommissioned Officer (NCO)

Course Number: 860-43E30.

Location: Quartermaster School, Ft. Lee, VA.

Length: 5 weeks (208 hours).

Exhibit Dates: 5/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise the packing of personnel and small cargo parachutes, supervise the operation of an airdrop rigging activity, supervise the recovery of cargo parachutes and related airdrop equipment, and perform jumpmaster duties during an airdrop operation.

Instruction: Includes classroom deomnstration, lectures, and practical exercises in packing parachutes, rigging cargo for an airdrop, the planning and coordinating of airdrop operations, and jumpmaster duties and responsibilities during an airdrop.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced cargo rigging (10/88); for the common core, see AR-1406-0090.

Related Occupation Codes: 43E.

AR-1733-0008

Parachute Rigger Advanced
Individual Training
(Parachute Rigger)

Course Number: 860-43E10; 860-43E10 (ST).

Location: Quartermaster School, Ft. Lee, VA.

Length: 12-13 weeks (442-445 hours).

Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to pack parachutes, rig cargo for airdrop, and repair, store, and recover airdrop equipment.

Instruction: Includes some lectures, but is largely demonstration and practical exercise in parachute packing, cargo rigging, and recovering, storing, and maintaining airdrop equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in cargo rigging (10/88).

Related Occupation Codes: 43E.

AR-1733-0009

Fabrication of Aerial Delivery Loads

Course Number: 860-F3.

Location: Quartermaster School, Ft. Lee, VA.

Length: 4-5 weeks (161-162 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to pack parachutes, rig cargo, load and secure cargo, and recover equipment used in airdrops.

Instruction: Includes demonstrations and practical exercises in packing parachutes, rigging cargo, loading cargo, securing cargo, and recovering equipment in airdrops.

Credit Recommendation: In the vocational certificate category, 2 semester hours in cargo rigging (10/88).

AR-1733-0010

Airdrop Systems Technician
Warrant Officer
Technical/Tactical
Certification

Course Number: 4N-921A.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8-9 weeks (341 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan all the operational requirements of an airdrop operation to include logistical support, drop site layouts, staff needs, work flow, costs and recovery; and to manage the technical functions to include packing the parachutes, rigging the cargo, repairing airdrop equipment, maintaining records, enforcing safety regulatins, and inspecting equipment.

Instruction: Includes classroom lectures and practical exercises in supervising the packing of parachutes, rigging of cargo, equipment repair and operation, and developing the plans and identifying the operational needs of airdrop operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced cargo rigging (10/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in cargo transportation (10/88).

AR-1734-0001

Shoe Repair

Course Number: 760-43L20; 10-R-462.2; 10-E-5.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6 weeks (264 hours).

Exhibit Dates: 1/57-6/85.

Objectives: To train enlisted personnel to inspect and repair leather footwear, to fit orthopedic devices, and to maintain and operate shoe repair equipment.

Instruction: Lectures and practical exercises in shoe repair, including shoe repair machinery; shoe repair methods; orthopedic work; shoe repair shop operations; shoe repair trailer operations;' moral leadership and responsibilities; sole-stitching machine; maintenance and operation of the sole skiver; beveler; trimmer; welt roller and band saw; shoe-patching machine, shoe-finishing machine.

Credit Recommendation: In the vocational certificate category, 4 semester hours in leatherwork and shoemaking (6/74).

Related Occupation Codes: 43L.

AR-2101-0001

Heavy Expanded Mobility Tactical
Truck (HEMTT) Operator
Additional Skill Identifier (ASI)

Course Number: 811-F2.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/83-Present.

Objectives: To train personnel to perform as a driver of a heavy truck.

Instruction: Lecture and practical exercises in the operation of a heavy truck under varying field and road conditions.

Credit Recommendation: In the vocational certificate category, 1 semester hour in heavy truck driving (7/85).

AR-2101-0002

Rough Terrain Container Handler
Operator

Course Number: 822-ASIB1; 822-F24.

Location: Transportation School, Ft. Story, VA; Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 2-3 weeks (78 hours).

Exhibit Dates: 6/83-Present.

Objectives: To train qualified enlisted personnel in the operation of a heavy duty fork lift.

Instruction: Lectures and practical experiences in the familiarization, operation, lifting procedures, and preventive maintenance of heavy duty forklift vehicles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in forklift operation (7/85).

AR-2101-0003

Petroleum Vehicle Operator

Course Number: 811-F3.

Location: Training Center, Ft. Dix, NJ.

Length: 5 weeks (180 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate a light and heavy cargo truck and tractor and tanker vehicles under all road conditions. She will be able to perform operator maintenance checks on the vehicles.

Instruction: Lectures and practical exercises in the operation of quarter ton and five-ton cargo trucks and the five-ton and 5,000-gallon tanker.

Credit Recommendation: In the vocational certificate category, 2 semester hours in truck driving (3/88).

AR-2201-0001

Field Artillery Missiles (FM-CMF)
Noncommissioned Officer (NCO)
Advanced (USAMMCS)

Course Number: 1-FM-C42A.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 12 weeks (423 hours).

Exhibit Dates: 4/73–4/75.

Objectives: To train selected personnel to supervise the maintenance of various missile systems.

Instruction: Unit personnel management; communication arts; technical aspects and functioning of missiles; maintenance and care of equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in engineering (1/74).

Related Occupation Codes: 27B; 27D; 27E; 27F; 27G; 27H; 21L; 21M; 21R; 21S; 21T; 21U; 21V; 27Z; 46L; 46N.

AR-2201-0002

Combat Surveillance and Target
Acquisition (SA-CMF)
Noncommissioned Officer (NCO)
Basic

Course Number: 822-ASIB1; 2-17-C40; 2-SA-C40A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10–11 weeks (362–342 hours).

Exhibit Dates: 4/73–6/76.

Objectives: To train selected personnel in the basic principles and techniques of combat surveillance and target acquisition.

Instruction: Lectures and practical exercises in field artillery weapons as used in target acquisition; specialty study for countermortar/counterbattery; radar, sound, and flash ranging; field illumination; and artillery surveyor and meteorology observer crewmen.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/86).

Related Occupation Codes: 17A; 17B; 17C; 17D; 17E; 82C; 93E; 93F; 35D.

AR-2201-0003

Army Medical Department (AMEDD)
Officer Basic (Reserve
Component)

Course Number: 6-8-C20(RC).

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (76 hours).

Exhibit Dates: 6/76–1/88.

Objectives: To provide selected Medical Department commissioned officers of the reserve component with a general knowledge of basic skills which will enable them to adapt to and function within the military environment.

Instruction: Conferences, demonstrations, lectures, and practical exercises dealing with familiarization with the various aspects of the Army Medical Department, including the Health and Environment Division, Health Care Administration and the Military Science Division.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/86).

AR-2201-0004

Armor Noncommissioned Officer
(NCO) Candidate (11E)

Course Number: 020-11E40-I.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (593 hours).

Exhibit Dates: 4/68–12/75.

Objectives: To prepare enlisted personnel to be armor crewmen, tank drivers, tank gunners, and tank commanders and to be capable of performing supervisory duties.

Instruction: Lectures and practical exercises in automotive maintenance; communications; weapons; armor, cavalry, artillery, and engineering operations; military leadership; first aid; and map reading.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive shop or communications (2/74).

AR-2201-0006

Armor Noncommissioned Officer
(NCO) Candidate (11D)

Course Number: 250-11D40-I.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (590 hours).

Exhibit Dates: 4/68–12/75.

Objectives: To prepare armor intelligence specialists to be reconnaissance sergeants, reconnaissance vehicle commanders, liaison sergeants, scout squad leaders and section leaders.

Instruction: Lectures and practical exercises in automotive maintenance, communications, weapons, artillery operations, armored cavalry operations, and engineer operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive shop or communications (2/74).

Related Occupation Codes: 11D.

AR-2201-0007

Infantry Noncommissioned Officer
(NCO) Candidate
(Infantry Operations and Intelligence Specialist Skill Development Base)

Course Number: 250-11F40-I.

Location: Infantry School, Ft. Benning, GA.

Length: 12 weeks (455–477 hours).

Exhibit Dates: 11/67–12/73.

Objectives: To prepare enlisted men to perform as leaders/supervisors in infantry operations and intelligence.

Instruction: Lectures and practical exercises in combined arms tactics, staff subjects, communications, material readiness, and weapons.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military (4/71).

Related Occupation Codes: 11B; 11F.

AR-2201-0008

Special Ammunition
Maintenance/Nuclear Weapons
Electronic Technician Warrant
Officer Intermediate

Course Number: 4-9-C30-J; 4E-261A; 4E-262A-A.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 9 weeks (376 hours).

Exhibit Dates: 4/72–8/81.

Objectives: To provide warrant officers with the knowledge and skills necessary to supervise technical operations performed on nuclear weapons.

Instruction: Lectures in military resource management, military organization, nuclear weapons management, applied electronics, weapon systems, and management of maintenance personnel.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics engineering, 3 in management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics engineering, 3 in management (2/74).

Related Occupation Codes: 260A.

AR-2201-0009

Air Defense Missile Repair (23-CMF)
Noncommissioned Officer (NCO)
Basic
(Air Defense (AD-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 1-23-C40B, 1-AD-C40B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 8–9 weeks (260–274 hours).

Exhibit Dates: 3/73–12/77.

Objectives: To train enlisted personnel to perform as noncommissioned officers in air defense units.

Instruction: Lectures and practical experience in communication and human relations; personnel management; and maintenance and repair of Nike Hercules and Hawk missiles, launchers, test equipment, computers, and radars.

Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel management (8/77).

Related Occupation Codes: 22L; 23N; 23U; 22K; 23Q; 23S; 23T; 24H; 24J; 24K; 46D.

AR-2201-0010

Special Forces Qualification

Course Number: *Version 1:* 011-SQIS. *Version 2:* None.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 16–17 weeks (1048–1375 hours).

Exhibit Dates: *Version 1:* 1/78–11/82. *Version 2:* 11/72–12/77.

Objectives: To prepare officers and enlisted personnel for volunteer duty in the Special Forces.

Instruction: Lectures in leadership, methods of instruction, land navigation, and airborne operations, and intensive training in one of five student selected specializations: radio operation, including wave propagation, basic electronic theory, magnetism, electronic countermeasures, and cryptography; engineering, including construction of barriers and obstacles, rigging, form design, concrete contruction, bridging, construction materials, and explosives; weapons, including small arms, recoilless weapons, mortars, and handguns; armor unit supply, including principles of unit supply, vehicles and weapons maintenance, property accountability, and procedures for movement of military organizations; or medical, including surgery preparation procedures, anesthesiology, anatomy, microbiology, parasitology, urinalysis, reaction and phlebotomy, and hematology.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in orienteering (1/78); in the lower-division baccalaureate/associate degree category, 3 semester hours in military science for all students completing the course, 9 semester hours in communications or civil engineering for those students completing either one of these two specialties, and 12 semester hours in premedical curriculum for those students completing this specialty area (8/78). *Version 2:* In the vocational certificate category, 9 semester hours in premedical curriculum, communications, civil engineering, or electrical engineering (2/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in premedical curriculum, communications, or civil engineering (2/74); in the upper-division baccalaureate category, 3 semester hours in premedical curriculum, 3 in communications, 3 in civil engineering, or 2 in electrical engineering (2/74).

Related Occupation Codes: 05B; 11B; 12A; 76Y; 91B; 11C; 12B.

AR-2201-0011

Lance Cadre

Course Number: 2F-1190L; 043-15D40.
Location: Field Artillery School, Ft. Sill, OK.
Length: 6 weeks (262 hours).
Exhibit Dates: 10/73-5/74.
Objectives: To provide commissioned officers or enlisted personnel with a working knowledge of the operations, maintenance, and employment of the Lance missile.
Instruction: Lectures on Lance guided missile system, maintenance management, Lance nuclear warhead section and tactical employment, methods of instruction, and signal security.
Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance management or electrical shop (2/74).

AR-2201-0012

Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Basic
(Air Defense (AD-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 0-16-C40; 1-AD-C40A.
Location: Air Defense School, Ft. Bliss, TX.
Length: 8-12 weeks (294-480 hours).
Exhibit Dates: 9/72-7/76.
Objectives: To train enlisted personnel to perform as noncommissioned officers in an air defense missile unit.
Instruction: Lectures in leadership and management, air defense tactics and techniques; field exercises in air defense; and a choice of missile electronics control systems, Nike Hercules battery, Hawk missile system, or Chaparral/Vulcan air defense system.
Credit Recommendation: Credit is not recommended because of the specialized nature of the course (8/77).
Related Occupation Codes: 16B; 16C; 16D; 16E; 16F; 16H; 16J; 16K; 16P; 16R; 24B; 24D; 24E; 24F; 24G; 24M; 24N; 24P; 24Q; 24U; 25D; 25G; 25H; 25J; 25K; 31R; 00G.

AR-2201-0013

1. Maneuver Combat Arms—Infantry (11-CMF) Noncommissioned Officer (NCO) Basic
2. Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Basic

Course Number: *Version 1:* 0-111-C40. *Version 2:* 0-IA-C40A.
Location: Infantry School, Ft. Benning, GA.
Length: *Version 1:* 8 weeks (326-368 hours). *Version 2:* 10-12 weeks (404-609 hours).
Exhibit Dates: *Version 1:* 11/75-1/88. *Version 2:* 11/72-10/75.
Objectives: To provide enlisted personnel with the knowledge and skills necessary to perform as noncommissioned officers in infantry armor.
Instruction: Lectures and practical exercises in the fundamentals of infantry management, including personnel administration, human relations, effective writing and speaking, communications, maintenance management, physical conditioning, combat intelligence, and air and land military operations.
Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (11/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in physical education, 1 in sociology (2/74); in the upper-division baccalaureate category, 1 semester hour in physical education, 1 in sociology (2/74).
Related Occupation Codes: 11B; 11C; 11F; 11H.

AR-2201-0014

Military Assistance Advisor Sector/Unit

Course Number: None.
Location: Special Warfare School, Ft. Bragg, NC.
Length: *Version 1:* 5 weeks (172 hours). *Version 2:* 6 weeks (241 hours).
Exhibit Dates: *Version 1:* 9/67-12/68. *Version 2:* 2/66-8/67.
Objectives: To provide officers with the knowledge and skills necessary to serve as advisors in the Republic of Vietnam.
Instruction: Lectures in Vietnamese language; intelligence; psychological operations; advisory duties; tactics; and the political, social, and economic conditions in Vietnam.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in Vietnamese language on the basis of institutional evaluation (12/68). *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/68).

AR-2201-0015

Military Assistance Training Advisor Corps/Division

Course Number: None.
Location: Special Warfare School, Ft. Bragg, NC.
Length: 6 weeks (214-230 hours).
Exhibit Dates: 2/66-12/68.
Objectives: To provide officers with the knowledge and skills necessary to serve as advisors in the Republic of Vietnam.
Instruction: Lectures in the Vietnamese language; intelligence; psychological operations; advisory duties; tactics; and the political, social, and economic conditions in Vietnam.
Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese language on the basis of institutional evaluation (12/68).

AR-2201-0016

Military Assistance Training Advisor

Course Number: None.
Location: Special Warfare School, Ft. Bragg, NC.
Length: 6 weeks (188 hours).
Exhibit Dates: 6/64-12/68.
Objectives: To train officers and enlisted personnel to perform as military assistance training advisors in counterinsurgency operations.
Instruction: Lectures in the fundamentals of military assistance, including Vietnamese language and area study; counterinsurgency tactics and techniques; air ground operations; and technical weapons, demolitions, and communications.
Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese language on the basis of institutional evaluation (12/68).

AR-2201-0017

Nuclear Weapons Materiel Management Officer
(Special Ammunition Officer)

Course Number: 4E-75C; 4E-4517.
Location: Missile and Munitions School, Redstone Arsenal, AL.
Length: 6-8 weeks (217-288 hours).
Exhibit Dates: 6/72-1/88.
Objectives: To provide noncommissioned officers with the knowledge and skills necessary to perform as supervisors and administrators in nuclear weapons assembly and maintenance operations.
Instruction: Lectures and practical exercises in the basic principles of nuclear weapons operations, including nuclear weapons fundamentals, weapon systems inspection and maintenance techniques, logistics, and nuclear weapons safety and related subjects.
Credit Recommendation: In the vocational certificate category, 3 semester hours in nuclear materials handling (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in nuclear materials handling (2/74).

AR-2201-0018

Counterbattery/Countermortar Radar Crewmen Skill Development Base

Course Number: 221-17B40-1.
Location: Artillery and Missile School, Ft. Sill, OK.
Length: 13 weeks (517 hours).
Exhibit Dates: 12/68-1/88.
Objectives: To train enlisted personnel to perform as counterbattery/countermortar radar crewmen.
Instruction: Lectures and field exercises in the basic principles of countermortar and counterbattery radar crew operations, including electronic equipment installation and operation, basic electronics, communications, map reading, physical conditioning, and automotive equipment maintenance.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics engineering (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics engineering (2/74).
Related Occupation Codes: 17B.

AR-2201-0019

Ammunition Noncommissioned Officer (NCO) Advanced
(Ammunition (55-CMF) Noncommissioned Officer (NCO) Advanced)
(Ammunition (AM-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *Version 1:* 6-55-C42A. *Version 2:* 6-55-C42A; 6-55-C42A-CMF. *Version 3:* 6-55-C42. *Version 4:* 6-55-C42. *Version 5:* 6-55-C42; 6-AM-C42.
Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 10 weeks (521 hours). *Version 2:* 6-15 weeks (207-532 hours). *Version 3:* 9-10 weeks (297-332 hours). *Version 4:* 5-7 weeks (198-237 hours). *Version 5:* 10-11 weeks (334-389 hours).

Exhibit Dates: *Version 1:* 7/88-Present. *Version 2:* 8/83-6/88. *Version 3:* 2/80-7/83. *Version 4:* 6/78-1/80. *Version 5:* 3/73-5/78.

Objectives: To train enlisted personnel to perform as noncommissioned officers in the tactical explosives ammunition field.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures in military management and administration, the responsibilities of ammunition handling, control and transportation. Upon completion of this course the student will be able to perform in a management/leadership role with enlisted personnel of platoon size; communicate effectively by written and spoken word with superiors and subordinates; and coordinate logistics and storage of ammunition. *Version 3:* Lectures in military management and administration, the responsibilities of ammunition handling, control and transportation. Upon completion of this course the student will be able to perform in a management/keadership role with enlisted personnel of platoon size; communicate effectively by written and spoken word with superiors and subordinates; and coordinate logistics and storage of ammunition. *Version 4:* Lectures in military management and administration, the responsibilities of ammunition handling, control and transportation. *Version 5:* Lectures in military management and administration, the responsibilities of ammunition specialty noncommissioned officers, and a program of university courses or an individual research project in the management field.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in management techniques and 1 in oral communication (4/86). *Version 3:* In the vocational certificate category, 3 semester hours in explosives handling (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in management techniques and 1 in communications arts (11/83). *Version 4:* In the vocational certificate category, 3 semester hours in explosives handling (8/79); in the lower division baccalaureate/associate degree category, 3 semester hours in management techniques and 1 in communications arts (8/79). *Version 5:* In the vocational certificate category, 3 semester hours in explosives handling, 3 in personnel management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in explosives handling, 3 in personnel management (2/74); in the upper-division baccalaureate category, 3 semester hours in personnel management (2/74).

Related Occupation Codes: 55B; 55C; 55D; 55G; 55X; 35F.

AR-2201-0020

TACTICS AND TECHNIQUES, PHASE I

Course Number: 1000-1499.

Location: John F. Kennedy Center for Special Warfare, Ft. Bragg, NC.

Length: 4 weeks (156 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train enlisted personnel in military subjects related to the duties of the Special Forces.

Instruction: Lectures and practical exercises in teaching methods, map reading, land navigation, and the organization of reconnaissance and combat patrols.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0021

1. AMMUNITION MAINTENANCE
2. AMMUNITION RENOVATION

Course Number: *All Versions:* 645-55C20. *Version 2:* 9-R-412.1.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9 weeks (290-293 hours). *Version 2:* 7-10 weeks (245-359 hours).

Exhibit Dates: *Version 1:* 5/73-12/76. *Version 2:* 5/57-4/73.

Objectives: To train enlisted personnel in the maintenance, inspection, and classification of ammunition.

Instruction: Lectures and practical application of classification and identification techniques in small arms control; material handling; inspection, testing, planning, and operation of mortar, artillery, and rocket arms.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

Related Occupation Codes: 55B; 55C.

AR-2201-0022

1. AMMUNITION SPECIALIST
   (Ammunition Storage)
2. AMMUNITION STORAGE AND
   OPERATION
3. AMMUNITION STORAGE
4. AMMUNITION STORAGE

Course Number: *Version 1:* 645-55B10; 645-55B10(ST); 645-55B20. *Version 2:* 645-55B20. *Version 3:* 9-R-411.1. *Version 4:* 9-R-411.1; 9-E-36.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Missile and Munitions School, Redstone Arsenal, AL. *Version 3:* Ordnance School, Aberdeen Proving Ground, MD. *Version 4:* Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 4-8 weeks (145-260 hours). *Version 2:* 10-11 weeks (361-392 hours). *Version 3:* 10 weeks (359 hours). *Version 4:* 6 weeks (210-228 hours).

Exhibit Dates: *Version 1:* 2/74-1/88. *Version 2:* 3/66-1/74. *Version 3:* 4/58-2/66. *Version 4:* 4/56-3/58.

Objectives: To provide enlisted personnel with knowledge of the receipt, storage, shipment, issue, safety, and security of ammunition components, and military explosives. ammunition.

Instruction: *All Versions:* Conferences and practical exercises in ammunition material, service procedures, storage, handling, movement, inspection, maintenance, and destruction. Upon completion of the course students will be able to identify and handle various ammunition material; prepare, store, and issue ammunition; perform explosive decontamination; and perform emergency destruction of ammunition.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in explosives handling (10/90). *Version 2:* In the vocational certificate category, 7 semester hours in explosives handling (2/74). *Version 3:* In the vocational certificate category, 6 semester hours in explosives handling (2/74). *Version 4:* In the vocational certificate category, 3 semester hours in explosives handling (2/74).

Related Occupation Codes: 55A; 55B.

AR-2201-0023

CAMOUFLAGE OFFICER
(Officers Camouflage)

Course Number: 4-N-9511; 5-O-9.

Location: Engineer School, Ft. Belvoir, VA.

Length: 2 weeks (76-77 hours).

Exhibit Dates: 12/53-11/86.

Objectives: To train enlisted personnel in the techniques and methods of concealing personnel, materiel, and military installations.

Instruction: Lectures and practical experience in principles of camouflage; methods and materials; and concealment of individuals, weapons, and installations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

AR-2201-0024

HEAVY MORTAR AND DAVY CROCKETT
NONCOMMISSIONED OFFICER (NCO)

Course Number: 010-F1.

Location: Infantry School, Ft. Benning, GA.

Length: 6 weeks (255 hours).

Exhibit Dates: 8/65-2/69.

Objectives: To train enlisted personnel in the supervision and direction of heavy mortar firing in Davy Crockett units and infantry combat situations.

Instruction: Lectures and practical exercises in weaponry, tactics, operations, equipment, and communications.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0025

INFANTRY COUNTERFIRE SUPERVISION

Course Number: 7-OE-13.

Location: Infantry School, Ft. Benning, GA.

Length: 5 weeks (187 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel and commissioned officers to control and supervise the training and tactical employment of an infantry counterfire platoon.

Instruction: Practical exercises in weapons, artillery, communications, map and aerial photograph reading, and combat intelligence.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0026

ORDNANCE TECHNICAL INTELLIGENCE

Course Number: 9-H-F2.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 13 weeks (455 hours).

Exhibit Dates: 2/57-12/68.

Objectives: To train commissioned officers, warrant officers, and enlisted personnel to collect, identify, and evaluate foreign ordnance material or relevant documents and to disseminate pertinent information.

Instruction: Conferences and practical exercises in weapons, tanks and armored vehicles, technical intelligence training methods, map reading, and field problems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0027

Camouflage Enlisted

Course Number: 790-51E20; 5-R-514.1; 5-E-26.

Location: Engineer School, Ft. Belvoir, VA.

Length: 5 weeks (164–184 hours).

Exhibit Dates: 4/56–11/86.

Objectives: To train enlisted personnel in the methods and techniques of concealing personnel, equipment, and military installations during combat situations.

Instruction: Lectures and practical exercises in principles of camouflage, material methods, and concealment of individuals, weaponry, and installations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

AR-2201-0028

Visual Tracker Course

Course Number: 2E-F32; 011-F4.

Location: Military Police School, Ft. Gordon, GA.

Length: 7 weeks (397 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train officers in the techniques of tracking personnel through varied terrain.

Instruction: Practical experience in scouting, long-range reconnaissance, individual management, and signal communication.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 11B; 11F; 11D.

AR-2201-0029

Chemical Operations Specialist
(Chemical (54-CMF) Noncommissioned Officer (NCO) Advanced)
(Chemical (CL-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: *All Versions:* 4-54-C42; 4-CL-C42. *Version 2:* 54-C42.

Location: Chemical School, Ft. McClellan, AL; Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 12 weeks (435 hours). *Version 2:* 10 weeks (368 hours). *Version 3:* 10 weeks (336–349 hours). *Version 4:* 11 weeks (358 hours).

Exhibit Dates: *Version 1:* 10/86–Present. *Version 2:* 5/80–9/86. *Version 3:* 8/75–4/80. *Version 4:* 3/73–7/75.

Objectives: To provide enlisted personnel with a basic understanding of nuclear, chemical and biological defense, and to qualify them as master sergeants.

Instruction: *All Versions:* Lectures on Army management practices and concepts, including logistical and maintenance management; chemical, biological, and nuclear warfare; and radiological defense. *Version 2:* Includes nuclear instrumentation. *Version 3:* Includes human relations training, supervision methods and chemical and nuclear detection procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radiological safety, 3 in nuclear instrumentation, 3 in introduction to management (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in nuclear instrumentation and 3 in radiological safety (3/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radiological safety, 2 in human relations, and 1 in supervision of training (1/78). *Version 4:* Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 54B; 54C; 54D; 54E; 54F; 92D.

AR-2201-0030

Smoke and Flame Specialist
Noncommissioned Officer (NCO) Basic

Course Number: 030-54C40-EC.

Location: Chemical School, Ft. McClellan, AL.

Length: 10 weeks (357 hours).

Exhibit Dates: 6/71–12/72.

Objectives: To train selected enlisted personnel as smoke and flame specialists.

Instruction: Lectures and practical exercises in biological, chemical, nuclear, and radiological defense operations; detection and identification of agents; effects of nuclear weapons; fallout prediction; and flame and fuels firing of high explosive anti-tank weapons and grenades.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 54B.

AR-2201-0031

Chemical Basic Noncommissioned Officer (NCO)
(Decontamination Specialist Noncommissioned Officer (NCO) Basic)

Course Number: 4-CL-C40; 030-54B40-EC.

Location: Chemical School, Ft. McClellan, AL.

Length: 10-12 weeks (357–438 hours).

Exhibit Dates: 6/71–12/73.

Objectives: To train selected enlisted personnel to supervise chemical operations.

Instruction: Lectures and practical exercises in biological, chemical, nuclear and radiological defense; fallout prediction; contamination plotting; chemical munitions; material maintenance, including flame and flame-servicing equipment, and use of detection kits.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (1/74).

AR-2201-0032

Recruiting, WAC Enlisted

Course Number: 12-R-075.7C.

Location: Adjutant General's School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (112–121 hours).

Exhibit Dates: 2/57–12/68.

Objectives: To train enlisted personnel of the Women's Army Corps in the principles and techniques of recruiting for WAC members.

Instruction: Lectures and practical exercises in enlistment prerequisites, recruiting techniques, public speaking, interviewing techniques, and radio and television techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in public relations or communications (2/74).

AR-2201-0033

Davy Crockett Training

Course Number: None.

Location: Armor School, Ft. Knox, KY.

Length: 3 weeks (124 hours).

Exhibit Dates: 12/61–12/68.

Objectives: To train heavy-weapons infantrymen as section leaders for the Davy Crockett weapons system.

Instruction: Conferences and practical exercises in driving vehicles of the Davy Crockett system, operation and maintenance of radio equipment, map reading, basic concepts of nuclear weapon employment, mechanical training, and firing procedures of the system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in automotive shop (2/74).

AR-2201-0034

Infantry Senior Sergeant
Noncommissioned Officer (NCO) Advanced

Course Number: 010-11G50-EC.

Location: Infantry School, Ft. Benning, GA.

Length: 11 weeks (383 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train noncommissioned officers as infantry senior sergeants.

Instruction: Conferences and practical exercises in combined-arms tactics, staff subjects, communications and electronics, unit and material readiness, weapons, leadership, and management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management (2/74); in the upper-division baccalaureate category, 6 semester hours in advanced military (12/68).

Related Occupation Codes: 11B; 11C; 11F; 11G; 11H.

AR-2201-0035

Infantry Advanced Noncommissioned Officer (NCO)

Course Number: 7-E-19.

Location: Infantry School, Ft. Benning, GA.

Length: 16 weeks (607 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to control and supervise the training and tactical employment of a platoon of an infantry rifle or heavy-weapons company.

Instruction: Conferences and practical exercises in tactical weapons employment and firing, communications, general military subjects, and school brigade.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0036

Harbor Craft Operator
(Harbor Craft Boatswain)

Course Number: 062-61B30; 813-61B30; 813-562.2; 55-R-562.6; 55-E-26.

Location: Transportation School, Ft. Eustis, VA.

Length: 5-11 weeks (189–414 hours).

Exhibit Dates: 2/56–12/86.

Objectives: To train enlisted personnel in the operation of harbor craft.

Instruction: For the course after 1986 see AR-2201-0340. Lectures and practical experience in watercraft equipment and ship's rigging; communications; and watercraft operation, including navigation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in cargo handling and water transportation (2/74).

Related Occupation Codes: 61B.

AR-2201-0037

1. Electronic Warfare (EW)/Cryptologic Advanced Noncommissioned Officer (NCO)
   (Military Intelligence Advanced (98 CMF) Noncommissioned Officer (NCO))
   (Electronic Warfare (EW) Cryptologic Supervisor)
   (Advanced Electronic Warfare (EW) Cryptologic Supervisor)
   (USASA Senior Noncommissioned Officer (NCO))
2. Electronic Warfare (EW) Cryptologic Supervisor
   (Advanced Electronic Warfare (EW) Cryptologic Supervisor)
   (USASA Senior Noncommissioned Officer)

Course Number: 230-F1.

Location: Security Agency School, Ft. Devens, MA.

Length: *Version 1:* 7-9 weeks (231-294 hours). *Version 2:* 9 weeks (300 hours).

Exhibit Dates: *Version 1:* 5/77-Present. *Version 2:* 10/60-4/77.

Objectives: To train senior noncommissioned officers to manage electronic warfare/cryptologic operations of the U.S. Army Security Agency.

Instruction: *Version 1:* Training in management and supervision techniques pertaining to military systems, military science, and intelligence and security techniques. *Version 2:* Lectures and practical exercises in general military subjects, signal communications, electronics, security, management control, effective speaking and listening, and combined arms.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management procedures and supervision of maintenance personnel (2/83). *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/68).

AR-2201-0038

Pathfinder

Course Number: 2E-F3/011-SQIY; 2E-F3; 001-SQIY; 011-F3.

Location: Infantry School, Ft. Benning, GA.

Length: 3-5 weeks (129-247 hours).

Exhibit Dates: 1/66-Present.

Objectives: To train officer and enlisted parachutists to provide navigational assistance to drop-zone aircraft and deploying troops.

Instruction: Lectures and practical exercises in the organization, mission, and training of pathfinder platoons; electronics; communications; and map reading.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/87).

AR-2201-0039

Armor Noncommissioned Officer (NCO)
(Armor Advanced Noncommissioned Officer (NCO))

Course Number: 17-R-131.6; 17-E-13; 17-R-133.6.

Location: Armor School, Ft. Knox, KY.

Length: 9-16 weeks (351-563 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To train enlisted personnel to supervise sub-unit armored divisions.

Instruction: Practical exercises in auto mechanics, communications, personnel and equipment management, and weaponry.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0040

Airborne (Male and Female)
(Airborne Qualification)

Course Number: 2E-S15P/SQI7/011-SQIP; 2E-F1/011-F1; 2E-F1; 011-F1; 7-H-F7; 7-OE-6.

Location: Infantry School, Ft. Benning, GA.

Length: 3 weeks (103-120 hours).

Exhibit Dates: 2/55-Present.

Objectives: To train army personnel in the techniques of battlefield parachuting.

Instruction: Practical exercises in jump tower training, parachute landing falls, door exits, malfunctions, and physical training, including parachute jumps.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (9/88)

AR-2201-0041

Ranger

Course Number: 2E-F2/011-F2; 7-OE-15; 7-D-F4; 2E-F2; 011-F2.

Location: Infantry School, Ft. Benning, GA.

Length: 7-9 weeks (499-1052 hours).

Exhibit Dates: 7/54-Present.

Objectives: To develop leadership qualities in selected officers and enlisted men by providing training in self-discipline and obedience.

Instruction: Lectures and practical exercises in map reading and land navigation; tactical training in guerrilla operations; demolition; patrolling and leadership; intelligence, endurance, and confidence tests, and physical training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in physical education (9/85).

AR-2201-0042

Marine Artillery Operations Chief

Course Number: 250-848; 250-F5.

Location: Field Artillery School, Ft. Sill, OK.

Length: 13-14 weeks (472-502 hours).

Exhibit Dates: 8/73-Present.

Objectives: To train noncommissioned officers to supervise field artillery operations.

Instruction: Lectures and practical exercises in gunnery, target acquisition, tactics and combined arms, artillery meteorology, survey, fire support coordination, fire planning, and observed fire.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/86).

AR-2201-0043

Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 4-IV-C42.

Location: Signal School, Ft. Monmouth, NJ.

Length: 10 weeks (343 hours).

Exhibit Dates: 10/72-1/78.

Objectives: To provide enlisted personnel with advanced training in the principles, techniques, and methods of audio-visual communication.

Instruction: Lectures in general military subjects; administrative and management practices; combat service support operations; field training exercises; and television and pictorial policies, procedures, and equipments.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 26T; 41H; 84B; 84C; 84E; 84F; 84G.

AR-2201-0044

Field Illumination Crewman, Noncommissioned Officer (NCO) Candidate
(Field Illumination Crewman, Skill Development Base)

Course Number: 030-17E40-1.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9-12 weeks (378-463 hours).

Exhibit Dates: 2/69-1/88.

Objectives: To train enlisted personnel to perform as illumination crew supervisors.

Instruction: Lectures and practical exercises in weapons handling, tactics, target acquisition, communications, electronics, searchlight operations, gunnery techniques, and leadership training.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 13A; 17E.

AR-2201-0045

Light and Heavy Weapons Infantryman

Course Number: None.

Location: Special Warfare Center, Ft. Bragg, NC.

Length: 8 weeks (304 hours).

Exhibit Dates: 6/64-12/68.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to operate U.S. and foreign army light and heavy weapons.

Instruction: Lectures and practical exercises in the use of hand guns, rifles, carbines, shotguns, submachine and machine guns, anti-tank weapons, and mortars and grenades.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0046

Infantry Noncommissioned Officer (NCO) Basic

Course Number: None.

Location: Infantry School, Ft. Benning, GA.

Length: 10-12 weeks (407-612 hours).

Exhibit Dates: 6/72-12/72.

Objectives: To train enlisted personnel to perform as noncommissioned officers in infantry operations and intelligence.

Instruction: Lectures, demonstrations, and practical exercises in effective writing and speaking, map reading, radio communication procedures, marksmanship, small unit tactical operations, intelligence and logistical operations, and field fortifications and camouflage.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in basic military science (9/85).

Related Occupation Codes: 11B; 11C; 11F; 11H.

AR-2201-0047

Field Artillery Officer Advanced Preparatory

Course Number: 2G-F50.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (110 hours).

Exhibit Dates: 5/81–Present.

Objectives: To prepare selected officers for the field artillery officer advanced course.

Instruction: Fundamentals of fire procedures, target location, firing charts, fire direction control, and related artillery fundamentals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in technical mathematics (10/83).

AR-2201-0048

Field Artillery Mechanic

Course Number: 041-13B30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5 weeks (182–227 hours).

Exhibit Dates: 11/70–8/77.

Objectives: To train enlisted personnel to perform mechanical maintenance on artillery weapons.

Instruction: Lectures and practical exercises in equipment maintenance, supply procedures, maintenance management systems, basic electronics, and cannon artillery fundamentals.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 13A; 13B.

AR-2201-0049

Infantry Operations and Intelligence Specialist Noncommissioned Officer (NCO) Advanced

Course Number: 250-11F50-EC.

Location: Infantry School, Ft. Benning, GA.

Length: 13 weeks (426 hours).

Exhibit Dates: 4/72–10/72.

Objectives: To train noncommissioned officers as infantry operations and intelligence specialists.

Instruction: Lectures and practical exercises in basic infantry and intelligence operations, including combat supply and logistics; radio communications procedures; maintenance management; weapons training; chemical operations; fortifications; map reading; effective speaking; leadership training; and infantry, armor, mechanized artillery, and airborne tactical operations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in military science (9/85).

Related Occupation Codes: 11B; 11C; 11F; 11H.

AR-2201-0050

Chemical Officer

Course Number: 4K-7314.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 8 weeks (251 hours).

Exhibit Dates: 1/76–1/88.

Objectives: To provide the chemical officer with training in NBC operations.

Instruction: Lectures and practical exercise on the technical characteristics of chemical and biological agents; chemical and biological defense; chemical weapons employment, nuclear warfare and radiological defense, NBC material, and smoke and flame operations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in radiological safety (1/78).

AR-2201-0051

USARADCOM CBR Officer Course

Course Number: 2E-F7.

Location: Chemical School, Ft. McClellan, AL.

Length: 3 weeks (119 hours).

Exhibit Dates: 4/69–12/73.

Objectives: To provide commissioned officers and warrant officers with a working knowledge of the defensive aspects of chemical, biological, and radiological warfare operations.

Instruction: Conferences and practical exercises in chemical, biological, and radiological plans, training, and operations; technical aspects of chemical, biological, and radiological operations; nuclear warfare; and radiological defense.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

AR-2201-0052

Officer Candidate (Reserve Components)

(Infantry Officer Candidate (Reserve Component))

(Infantry Army Reserve Officer Candidate)

Course Number: 2-7-F2; 7-N-F2; 7-N-F13; 7-E-24.

Location: Infantry School, Ft. Benning, GA.

Length: 9 weeks (326–443 hours).

Exhibit Dates: 1/57–1/88.

Objectives: To train National Guard and Army Reserve junior officers as infantry platoon leaders.

Instruction: Lectures and practical exercises in arms tactics, including offensive and defensive operations; patrolling; military leadership; map and airphoto reading; physical training; drill and command; tactical communications; maintenance management; and individual, special purpose, and crew served weapons.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in military science (12/68).

AR-2201-0053

Special Forces Jumpmaster

Course Number: 2E-F37; 011-F7.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (89 hours).

Exhibit Dates: 3/73–9/75.

Objectives: To qualify experienced parachutists as jumpmasters.

Instruction: Lectures and practical demonstrations in the duties and responsibilities of parachute jumpmasters, including aircraft exit techniques and safety measures; jump commands and signals; use of various parachute and aerial delivery containers; and personnel, parachute, and aircraft inspection.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

AR-2201-0054

Special Assignment (SP-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 8-SP-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7 weeks (252 hours).

Exhibit Dates: 8/72–6/85.

Objectives: To provide senior noncommissioned officers with a basic understanding of general quartermaster subjects and supervisory procedures and skills.

Instruction: Lectures and practical exercises in logistical combat support; principles of leadership, maintenance management, communication techniques, and airdrop procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 43E.

AR-2201-0055

Ammunition (55-CMF) Noncommissioned Officer (NCO) Basic

(Ammunition (AM-CMF) Noncommissioned Officer (NCO) Basic)

Course Number: 6-55-C40; 6-AM-C40.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 7–10 weeks (260–328 hours).

Exhibit Dates: 2/72–1/88.

Objectives: To train enlisted personnel in the handling, maintenance, and disposal of ammunition and explosives.

Instruction: Conferences and practical exercises in management, special weapons operations, ammunition maintenance, explosives disposal.

Credit Recommendation: In the vocational certificate category, 3 semester hours in demolitions or explosives disposal (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills (6/75).

Related Occupation Codes: 35F; 55B; 55C; 55D; 55G; 55X.

AR-2201-0056

Ammunition Inspector

(Military Ammunition Inspector)

(Ammunition Inspector, Phase I)

Course Number: 645-55X30 (AC); 645-55X30; 645-55X40.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: *Version 1:* 7–8 weeks (277 hours). *Version 2:* 7–12 weeks (233–420 hours).

Exhibit Dates: *Version 1:* 10/90–Present. *Version 2:* 2/71–9/90.

Objectives: To train enlisted personnel to inspect ammunition.

Instruction: Conferences and practical exercises in ammunition material; rocket and guided missile inspection and maintenance; storage, handling, and transportation of ammunition; surveillance and maintenance of ammunition; and demilitarization and destruction of ammunition.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in explosives handling (10/86).

Related Occupation Codes: 55B; 55C; 55D; 55G; 55X; 55Z.

AR-2201-0057

Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Advanced

(Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced))

Course Number: 0-16-C42; 1-AD-C42A.

Location: Air Defense School, Ft. Bliss, TX.

Length: 10-12 weeks (361-425 hours).

Exhibit Dates: 2/73-10/79.

Objectives: To provide enlisted personnel with a working knowledge of the duties of senior noncommissioned officers in air defense management.

Instruction: Lectures on leadership and management; air defense tactics; weapons; military operations; communication skills.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/74).

Related Occupation Codes: 16B; 16C; 16D; 16E; 16F; 16H; 16J; 16K; 16P; 16R; 24C; 24D; 24E; 24F; 24G; 24M; 24N; 24P; 24Q; 24U; 25D; 25G; 25H; 25J; 25K; 00G.

AR-2201-0058

Army Medical Service Officer Orientation

(Army Medical Service Officer Basic)

Course Number: 8-A-C20A; 8-A-C1A; 8-O-31.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 5-7 weeks (144-240 hours).

Exhibit Dates: 6/55-12/68.

Objectives: To provide newly commissioned medical officers with training in the fundamentals of Medical Service Corps organization and administration.

Instruction: Lectures in the fundamentals of Medical Service Corps organization and administration, including supply administration, personnel management, martial law, dental service organization, field medical service organization, field medicine and surgery, nursing service, veterinary service, and neuropsychiatric casualties management.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

AR-2201-0059

Air Defense Command and Control Systems Operator

(Air Defense Command, Control, and Coordination Systems Operator)

(Air Defense Fire Distribution Systems Controller)

Course Number: 221-16K20; 221-17H20; 221-186.1; 44-R-186.1.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3-8 weeks (96-293 hours).

Exhibit Dates: 7/62-12/74.

Objectives: To train enlisted personnel to operate and maintain specialized missile control consoles, monitors, and coordination systems.

Instruction: Lectures and practical exercises in missile electronics and control, air defense operations, field command control and coordination system operation and maintenance, and CONUS command control and coordination systems operation and maintenance.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (8/74).

Related Occupation Codes: 16H; 16K.

AR-2201-0060

Special Forces Military Free Fall Jumpmaster

(Special Forces Military Free Fall Parachutist/Military Free Fall Jumpmaster)

Course Number: 2E-F56/011-F15; 2E-F56; 011-F11; 2E-F48.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 2-8 weeks (92-374 hours).

Exhibit Dates: 6/73-12/85.

Objectives: To qualify personnel as military free fall parachutists and military free fall jumpmasters.

Instruction: For this course after 12/85 see AR-2201-0344. Lectures and practical exercises in military free fall parachutist training and military free fall jumpmaster training.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (8/77).

Related Occupation Codes: 11B; 11C; 12B; 76Y; 91B; 05B.

AR-2201-0061

Field Artillery Operations and Intelligence Noncommissioned Officer (NCO)

(Field Artillery Operations and Intelligence Assistant)

Course Number: 250-F1; 6-R-F37; 6-R-152.6.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: 11-14 weeks (398-517 hours).

Exhibit Dates: 5/62-1/88.

Objectives: To train enlisted personnel to perform as field artillery intelligence and operations assistants.

Instruction: Lectures and practical exercises in the functions of field artillery intelligence and operations assisting, including Army maintenance systems, radio communications, gunnery and fire direction, tactics and combined arms, artillery survey, meteorology, and artillery transport.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

Related Occupation Codes: 13E; 13B; 13D; 13Z.

AR-2201-0062

Regular Army Armor Officer Basic

(Armor Officer Basic (RA))

Course Number: 2-17-C20(RA); 17-A-C20A.

Location: Armor School, Ft. Knox, KY.

Length: 6-9 weeks (245-349 hours).

Exhibit Dates: 10/63-3/78.

Objectives: To train newly commissioned armor officers in basic armor subjects and procedures.

Instruction: Lectures and practical exercises in basic armor subjects and procedures, including automotive maintenance, maintenance management, and recovery and vehicle operations; armor tactics; chemical, biological, and radiological operations; communications equipment, theory, and procedures; map and air-photo reading; special warfare; medical service; arms and gunnery; night training; and administrative and military leadership procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which regularly offer such credit (12/68).

AR-2201-0063

Chaparral/Vulcan Officer Qualification

(Chaparral/Vulcan Officer and Noncommissioned Officer (NCO) Qualification)

(Chaparrel/Vulcan Noncommissioned Officer (NCO) Qualification)

Course Number: 2E-14B; 2E-1174; 2F-F8; 121-F17.

Location: Air Defense School, Ft. Bliss, TX.

Length: 4-8 weeks (171-294 hours).

Exhibit Dates: 7/68-Present.

Objectives: To provide training in Chaparral/Vulcan air defense system characteristics, capabilities, limitations, and air defense tactics, with emphasis on battery or battalion operations.

Instruction: Lectures and practical exercises in the organization, maintenance, systems control, and test and firing procedures of the Vulcan and Chaparral air defense systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/88).

AR-2201-0064

Warrant Officer Orientation

Course Number: WO-F1.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: 2-3 weeks (69-114 hours).

Exhibit Dates: 7/67-6/75.

Objectives: To train warrant officers in social and military customs and in officer responsibilities.

Instruction: Lectures and practical exercises in leadership; problem solving; financial and personnel management; military law; social customs; writing; artillery transport; maintenance management; communications; and tactics.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

AR-2201-0065

Women's Army Corps Noncommissioned Officer (NCO) Leadership Course

Course Number: 510-F3.

Location: Women's Army Corps School, Ft. McClellan, AL.

Length: 4 weeks (139-151 hours).

Exhibit Dates: 8/67-12/73.

Objectives: To train enlisted personnel to be unit noncommissioned officers.

Instruction: Lectures in unit administration, intelligence and security, land navigation, supply, methods of instruction, leadership, and personnel management.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

AR-2201-0067

USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO)

(USARADCOM CBR NCO)

Course Number: 494-F2.

Location: Chemical School, Ft. McClellan, AL; Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 4 weeks (126-128 hours).

Exhibit Dates: 1/65-12/79.

Objectives: To provide enlisted personnel with training in chemical, biological, and radiological operations.

Instruction: Lectures and practical exercises in the CBR plans, training and operations, supply and maintenance management procedures, and technical aspects of chemical, biological, and radiological operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-2201-0068

1. Nuclear, Biological, Chemical (NBC) Specialist
   (Chemical Operation Specialist)
2. Chemical Staff Specialist

Course Number: 494-54E20; 3-R-534.1; 3-E-1.

Location: *Version 1:* Chemical School, Ft. McClellan, AL. *Version 2:* Ordnance School, Aberdeen Proving Ground, MD.

Length: *Version 1:* 6-7 weeks (226 hours). *Version 2:* 7-12 weeks (275-420 hours).

Exhibit Dates: *Version 1:* 1/81-2/85. *Version 2:* 4/54-12/80.

Objectives: To train enlisted personnel as specialists in chemical, biological and radiological safety.

Instruction: Lectures and practical exercises in technical aspects of chemical, biological, and radiological operations, including defensive operations, materiel and weapons, basic science and mathematics, biological agents, biological detection and defense, meteorology, field behavior of chemical agents, radiac instrumentation, field impregnation, map reading and interpretation, communications, intelligence, and supply and maintenance management procedures.

Credit Recommendation: *Version 1:* Credit in defense or disaster control on the basis of institutional evaluation (3/82). *Version 2:* Credit is not recommended because of the military specific nature of the course (5/74).

Related Occupation Codes: 54E.

AR-2201-0069

WAC Officer Orientation/Officer Candidate

Course Number: 7-35-C21; 7-35-F1.

Location: WAC School, Ft. McClellan, AL.

Length: 11 weeks (331-334 hours).

Exhibit Dates: 11/73-12/73.

Objectives: To give newly commissioned Women's Army Corps officers basic orientation training.

Instruction: Lectures and practical exercises on general military subjects, including drill and command, tactics, land navigation, officer indoctrination, DoD organization, intelligence and security, operations and training, unit operations, leadership development, supply management, Army administration, resource and personnel management, and command and staff functions.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

AR-2201-0070

Field Artillery Missile Noncommissioned Officer (NCO) Advanced
(Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Advanced)

Course Number: O-15-C42; 1-FM-C42B.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7-12 weeks (288-441 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To train missile and rocket crewmen, fire direction assistants, and electronics materiel specialists to supervise field artillery missile units.

Instruction: Lectures and practical exercises in the supervision of field artillery missile units, including leadership training, map reading, maintenance procedures, aerial navigation, combat operations, weapons and warfare, artillery fundamentals and organization, gunnery, rocket and missile equipment and operations, analysis of various components and systems, imagery interpretation, and fire planning and fire support coordination.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

Related Occupation Codes: 15B; 15D; 15E; 15F; 15J; 21G.

AR-2201-0071

Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 0-13-C40; 0-FA-C40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 12 weeks (404 hours).

Exhibit Dates: 3/73-6/76.

Objectives: To train noncommissioned officers to supervise field artillery operations.

Instruction: Lectures and practical exercises in the field artillery cannon duties of noncommissioned officers, including map reading and intelligence subjects; field artillery cannon operation and fire direction on 105-mm, 155-mm, 175-mm, and 8-inch weapons; ammunition; communications; and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive shop or maintenance management (2/74).

Related Occupation Codes: 13A; 13B; 13E.

AR-2201-0072

Engineer Equipment Repair Specialist Candidate

Course Number: 612-62B30-1.

Location: Engineer School, Ft. Belvoir, VA.

Length: 12 weeks (486 hours).

Exhibit Dates: 9/69-1/88.

Objectives: To train engineer equipment repairmen to perform as senior technicians.

Instruction: Lectures and practical exercises in engineer equipment repair, including map reading and land navigation, combat support, warfare tactics, leadership, and maintenance management and shop operation.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 62B.

AR-2201-0073

Service and Renovation (SR-CMF) Noncommissioned Officer (NCO) Advanced

Course Number: 7-SR-C42.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8-9 weeks (92-144 hours).

Exhibit Dates: 7/73-6/85.

Objectives: To qualify enlisted personnel as noncommissioned officers in advanced service and renovation.

Instruction: Lectures and practical exercises on advanced service and renovation, including logistical combat support, leadership, maintenance management, communication techniques, operation and maintenance of fixed and mobile laundry equipment, operation and maintenance of field bath and delousing equipment, Army mortuary affairs program, identification of the dead, battlefield collection and evacuation, cemetery operation, and company and battalion administrative procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 57E; 57F; 57G.

AR-2201-0074

Service and Renovation (SR-CMF) Noncommissioned (NCO) Basic

Course Number: 7-SR-C40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 9-12 weeks (311-421 hours).

Exhibit Dates: 4/73-6/85.

Objectives: To qualify enlisted personnel as noncommissioned officers in basic service and renovation.

Instruction: Lectures and practical exercises in basic service and renovation, including leadership, logistical combat support, machine sewing, communication techniques, shoe repair methods and supervision, supervision of mobile laundry operations, battlefield search and recovery operations, current death and concurrent return program, hand tools and material handling equipment, minor repair of buildings, roadways and grounds, and application of learned skills and knowledges.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 43J; 43K; 43L; 57E; 57F.

AR-2201-0075

Signal Officer Basic (Reserve Component)

Course Number: 4-11-C25.

Location: Signal School, Ft. Gordon, GA.

Length: 4 weeks (196 hours).

Exhibit Dates: 12/76-1/85.

Objectives: To provide newly commissioned officers with the knowledge and skills necessary to perform the duties of a platoon leader.

Instruction: After 1/85 see Ar-2201-0307. Lectures and demonstrations in tactical systems oriented to combat usefulness; utilizing knowledge gained in simulated situations pertaining to telecommunications.

Credit Recommendation: In the upper-division baccalaureate category, credit in radio, wire communications, and telegraph systems on the basis of institutional evaluation (4/77).

AR-2201-0076

Cable Splicer Noncommissioned Officer (NCO) Basic

Course Number: 621-36E40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 14 weeks (539 hours).

Exhibit Dates: 5/71-12/86.

Objectives: To train enlisted personnel to supervise cable-splicing operations.

Instruction: Lectures on cable splicing and command leadership. Topics include command tactics, personnel and records management, troubleshooting, record keeping, and general military subject matter.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 36E; 36C.

AR-2201-0077

Chemical Operations Apprentice
(Chemical (Entry))

Course Number: 030-54A10; 3-R-530.0.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 7-9 weeks (225-324 hours).

Exhibit Dates: 6/57-12/79.

Objectives: To train enlisted personnel to be chemical operations apprentices.

Instruction: Lectures and practical exercises in management and leadership, unit and staff operations, chemical and biological defense, nuclear warfare and radiological defense, and maintenance and materiel management.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

Related Occupation Codes: 54A; 54B; 54C; 54D.

AR-2201-0078

Tactical Communications Chief, Skill Development Base

Course Number: 101-31G40-1.

Location: Field Artillery School, Ft. Sill, OK.

Length: 14 weeks (505 hours).

Exhibit Dates: 8/69-11/78.

Objectives: To train field radio mechanics as tactical communications chiefs.

Instruction: Lectures and practical exercises on the duties of tactical communications chiefs, including wire communications; FM radio equipment and systems; radio telephone procedures and security; standard B-frequency-modulated radio equipment; amplitude-modulated radio equipment and radioteletypewriter procedures; message center procedures and cryptography; applied communications; tactical subjects and map reading; automatic data processing equipment; and countermortar and ground surveillance radar equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 31B; 31G.

AR-2201-0079

WAC Unit Commander

Course Number: 7A-F35.

Location: WAC School, Ft. McClellan, AL.

Length: 2 weeks (65 hours).

Exhibit Dates: 11/73-12/73.

Objectives: To train female officers to handle the administrative responsibilities of a unit.

Instruction: Lectures on the duties of unit commanders and administrators. Course includes military justice, military resource management, personnel management, leadership techniques, and guidance and performance counseling.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

AR-2201-0080

Associate Air Defense Artillery (ADA) Battery Officer

Course Number: 44-A-C3A; 44-O-2A.

Location: Air Defense School, Ft. Bliss, TX; Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.

Length: 14-17 weeks (520-616 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To train officers in air defense artillery battery operational procedures.

Instruction: Lectures and practical exercises in air defense artillery battery operational procedures, including leadership, basic electricity, communications techniques, specialized antiaircraft systems, nuclear weapons employment, air defense tactics, motors and generators, automatic weapons and gunnery, and staff procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-2201-0081

Army Air Defense Command Post Controller

Course Number: 44-D-F34.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3 weeks (133 hours).

Exhibit Dates: 8/61-12/68.

Objectives: To train enlisted personnel and commissioned officers in the capabilities, limitations and operation of a specific command post.

Instruction: Lectures and practical exercises in the operation of a specific command post. Course includes data flow, communications, message composition, binary-to-decimal conversion, use of grid systems, computing facilities, radar data processing equipment, weapons monitor control, countermeasures employment, and specialized component application.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-2201-0082

1. Air Defense Artillery (ADA) Officer Basic
2. Air Defense Artillery (ADA) Officer Basic
3. Air Defense Artillery (ADA) Officer Basic
   (Air Defense Officer Basic)
   (Air Defense Officer Orientation)
4. Air Defense Artillery (ADA) Officer Basic
   (Antiaircraft Artillery (AAA) Officer Basic)

Course Number: *Version 1:* 2-44-C20. *Version 2:* 2-44-C20. *Version 3:* 2-44-C20. *Version 4:* 44-A-C20; 44-A-C1A; 44-O-A.

Location: *All Versions:* Air Defense School, Ft. Bliss, TX. *Version 4:* Artillery and Guided Missile School, Ft. Bliss, TX.

Length: *Version 1:* 10 weeks (330-361 hours). *Version 2:* 10 weeks (330 hours). *Version 3:* 8-12 weeks (289-470 hours). *Version 4:* 16 weeks (572-579 hours).

Exhibit Dates: *Version 1:* 3/82-9/87. *Version 2:* 6/80-2/82. *Version 3:* 2/60-5/80. *Version 4:* 9/56-1/60.

Objectives: To teach commissioned officers to perform as air defense artillery officers.

Instruction: For this course after 9/87 see AR-2201-0342. *All Versions:* Lectures and practical exercises in the basics of air defense artillery. *Version 1:* Topics include map reading, leadership, logistics management, tactics, communications and military writing. *Version 2:* Topics include basics of air defense artillery, air defense systems, command and staff functions, familiarization of weapons systems, leadership preparation, map interpretation, and tactical communications. *Version 3:* Topics include air defense systems, command and staff functioning, weapons familiarization, and supervisory and leadership preparation. *Version 4:* Topics include motors and generators, electronics, map reading, communications, gunnery, skysweeper, air defense tactics, and rifle marksmanship. Technical subject matter is handled in a cursory manner.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military science (12/84). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in advanced military science (3/81). *Version 3:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (12/68). *Version 4:* In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/74); in the upper-division baccalaureate category, credit in advanced military at institutions which regularly offer such credit (12/68).

AR-2201-0083

Radio Operator Noncommissioned Officer (NCO) Basic

Course Number: 201-05B40-EC.

Location: Southeastern Signal School, Ft. Gordon, GA.

Length: 9 weeks (349 hours).

Exhibit Dates: 3/71-12/85.

Objectives: To train enlisted personnel to serve as noncommissioned officer radio operators.

Instruction: Lectures and practical exercises in radio operator duties. Topics include command leadership, command tactics, radio/wire integration systems, and supervisory communications and duties.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military at institutions which regularly offer such credit (12/68).

Related Occupation Codes: 05B; 31Z; 05C.

AR-2201-0084

Field Artillery Missile Officer Basic

Course Number: 6-O-B.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 15 weeks (560 hours).

Exhibit Dates: 8/56-12/60.

Objectives: To train newly commissioned officers to supervise field artillery operations, and to handle the duties of guidance-platoon leaders, firing-platoon leaders, and ammunition train commanders of specific missile units.

Instruction: Lectures and field exercises in the duties of field artillery missile officers. Topics include tactical arms, communication and electronics, gunnery, and motors. Course does not include information in electronic solid-state devices and materials.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (6/74); in the upper-division baccalaureate category, credit in advanced military at institutions which regularly offer such credit (12/68).

AR-2201-0085

Infantry Mortar Platoon

Course Number: 2E-ASI3Z/010-F1; 2E-11B/C; 2E-ASI32; 2E-1543; 010-F1.

Location: Infantry School, Ft. Benning, GA.

Length: 5-7 weeks (256-274 hours).

Exhibit Dates: 3/69-Present.

Objectives: To train officers and noncommissioned officers to command infantry heavy mortar units.

Instruction: Lectures and practical exercises in the supervision of a heavy mortar platoon in support of infantry combat operations, including tactical employment, methods of employment, tactical considerations, tactical training, communications, weapons, mechanical training and crew drill, forward observation procedures, fire direction center procedures, and heavy mortar platoon communications.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (9/85).

Related Occupation Codes: 11C.

AR-2201-0086

Army Aviation Medical Officer
Orientation

Course Number: 6A-F1, 1-A-F8.

Location: Aviation School, Ft. Rucker, AL.

Length: 3 weeks (90-105 hours).

Exhibit Dates: 5/64-1/88.

Objectives: To familiarize aviation medical officers with Army aviation, the Army aviation medical program, and aeromedical evacuation.

Instruction: Lectures and practical exercises on Army aviation and the Army aviation medical program, including aviation medicine; tactics; fixed-wing and rotary-wing training; Army board for aviation accident research; airfield operations; control tower operations; basic fundamentals of flight; short-field techniques; instrument training; types of helicopters and fundamentals of helicopter aerodynamics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

AR-2201-0087

Light Target Missile Controller
(Radio-Controlled Airplane Targets (RCAT) Operation)

Course Number: 4N-F2; 600-F4; 44-D-105.6; 44-D-0590; 44-D-209.7.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8-12 weeks (296-443 hours).

Exhibit Dates: 8/57-3/81.

Objectives: To train personnel in launching, flying, and recovering radio-controlled airplane targets and combined operational support functions.

Instruction: Lectures and practical exercises in radio-controlled target operations, including orientation and system familiarization, MOM-33A & B field operations, combined operational subjects, description of the RCAT airframe and engine characteristics, RCAT control and aerodynamics, RPS-1 and C-2 remote control system characteristics, and RCAT launch and recovery methods.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 00G.

AR-2201-0088

Hawk Officer
(Hawk Officer Qualification)

Course Number: 2F-F5; 44-A-F18.

Location: Air Defense School, Ft. Bliss, TX.

Length: 5-7 weeks (182-256 hours).

Exhibit Dates: 8/58-5/73.

Objectives: To train officers in Hawk missile system operations.

Instruction: Lectures in Hawk missile system operations, including battery organization, basic electronics, Doppler and ranging principles, launcher, missile handling and preparation, radar, integrated system checks, cabling and communications, maintenance publications, maintenance system, equipment records procedures, generator operations, electronic intelligence and security, inspection techniques, Vulcan and Chaparral familiarization, and emergency operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-2201-0089

Lacrosse Firing Battery

Course Number: 6-R-166.6; 6-R-F10.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4 weeks (163-203 hours).

Exhibit Dates: 1/58-12/68.

Objectives: To train enlisted personnel to supervise and instruct subordinates in assembling, testing, adjusting, operating, and maintaining Lacrosse missile launchers and associated equipment.

Instruction: Lectures and practical exercises in supervision and instruction of assembling, testing, adjusting, operating, and maintaining Lacrosse missile launchers and associated equipment. Topics include artillery transport, gunnery, tactical and combined arms, target acquisition, and equipment associated with Lacrosse missile launchers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

AR-2201-0090

Air Defense Artillery (ADA) Field
Grade Officer Refresher
(Air Defense Artillery (ADA) Field Grade Officer Refresher)
(Senior Air Defense Artillery (ADA) Officer)

Course Number: 2-44-C8; 44-A-F2.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3 weeks (97-123 hours).

Exhibit Dates: 5/61-10/84.

Objectives: To train field and general officers in the characteristics, capabilities, limitations, operations, and tactics of one or both of the major Army air defense missile systems, Nike Hercules, and Hawk.

Instruction: Lectures and practical exercises in the duties of air defense artillery officers, including Nike Hercules and Hawk defense systems familiarization, air defense operations and tactics, electronic warfare, Nike system computer, MCDR and record analysis, fire distribution systems, ARADCOM tactical operations, acquisition and tracking radars, battery control, and command maintenance management inspection.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

AR-2201-0091

Pershing Laying Specialist

Course Number: 043-15E30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (71-74 hours).

Exhibit Dates: 7/70-6/76.

Objectives: To train enlisted personnel as specialists in azimuth laying techniques required in Pershing missile firing batteries.

Instruction: Lectures and practical exercises in the duties of a specialist in azimuth laying techniques in Pershing missile firing batteries.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 15E.

AR-2201-0092

Air Defense Missile Maintenance
Technician and Maintenance
Chief System Transition (Hawk)
(Air Defense Missile Maintenance Technician (Hawk) System Transition)

Course Number: 121-F22; 4F-F8.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 19 weeks (677-688 hours).

Exhibit Dates: 6/70-12/74.

Objectives: To train warrant officers and enlisted personnel to maintain and provide logistical support of Hawk guided missile systems and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of Hawk missile systems and associated equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 223B; 223D; 251D.

AR-2201-0093

Sergeant Missile Crewman
Noncommissioned Officer (NCO)
Basic

Course Number: 043-15B40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 13 weeks (466 hours).

Exhibit Dates: 10/71-5/72.

Objectives: To train enlisted personnel to perform as sergeant missile crewmen.

Instruction: Lectures and practical exercises in the duties of sergeant missile crewmen. Course includes command and leadership techniques, missile azimuth orientation, launcher functions, warhead characteristics, and tactical subjects.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

Related Occupation Codes: 15B; 15Z.

AR-2201-0094

Signal Officer Advanced (Reserve
Component)

Course Number: 4-11-C26 (RC).

Location: Signal School, Ft. Gordon, GA.

Length: 12 weeks (407 hours).

Exhibit Dates: 1/77-5/86.

Objectives: To prepare signal officers to command, administer, and train signal units in direct support of combat operations, to be responsible for installing, maintaining, and managing tactical communications, and to keep the commander advised on the installation and operation of communications electronics systems.

Instruction: After 5/86 see AR-2201-0306. Laboratory and lecture exercises and practical experience in the field on the theory and use of specific communications electronics equipment under simulated combat situations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications principles on the basis of institutional evaluation (4/77).

AR-2201-0095

Nike Hercules Officer

Course Number: 2F-14C.

Location: Air Defense School, Ft. Bliss, TX.

Length: 4–8 weeks (151–288 hours).

Exhibit Dates: 9/63–Present.

Objectives: To train commissioned officers in the essential materiel and tactics pertaining to the Nike Hercules system.

Instruction: Lectures and practical exercises in the essential materiel and tactics pertaining to the Nike Hercules system. Course covers general description of the Nike Hercules system, block diagrams, operational procedures, general maintenance requirements, handling of nuclear weapons, and air defense tactics pertaining to the Nike Hercules system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (1/88).

AR-2201-0096

Small Arms Repair

Course Number: 641-45B10/641-2111; 641-45B20; 641-2111 (USMC); 9-E-11.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 5–12 weeks (210–543 hours).

Exhibit Dates: 5/56–1/88.

Objectives: To train enlisted personnel to maintain small arms and materiel.

Instruction: Lectures and practical exercises in small arms and materiel maintenance, including rifles, machine guns, submachine guns, mortars, rocket launchers, recoilless weapons, pistols, and grenade launchers.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 45B; 45Z.

AR-2201-0097

Amphibian Operator

Course Number: 062-61D20; 813-61D20.

Location: Transportation School, Ft. Eustis, VA.

Length: 6 weeks (219–232 hours).

Exhibit Dates: 8/66–6/74.

Objectives: To train enlisted personnel to perform as amphibian operators.

Instruction: Lectures and practical exercises in the operation of amphibious craft, including familiarization with amphibians, map reading, land driving, water operations, cargo handling, loads and loading, piloting and nautical subjects, water safety, ship-to-shore operation, and counterinsurgency.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in marine programs (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in marine programs (7/74).

Related Occupation Codes: 61D.

AR-2201-0098

Associate Armor Company Officer

Course Number: 17-A-C3; 17-O-2.

Location: Armor School, Ft. Knox, KY.

Length: 15–16 weeks (580–612 hours).

Exhibit Dates: 8/54–12/68.

Objectives: To train commissioned officers in advanced armor operations.

Instruction: Lectures and practical exercises in advanced armor training and in the duties of a field-grade armor officer. Course includes automotive maintenance management; employment and organization of tank and armored rifle and infantry battalions; nuclear weapons; intelligence; armor administration and logistics; artillery and infantry operations, and military leadership and management.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in management for business or industrial areas (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in management for business or industrial areas (7/74); in the upper-division baccalaureate category, 3 semester hours in management for business or industrial areas (7/74).

AR-2201-0099

Ordnance Staff Officer Guided Missile and Special Weapons Logistics

Course Number: 9-A-F10.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/57–12/68.

Objectives: To train officers in weapons systems.

Instruction: Lectures and practical exercises in weapons systems, including guided missiles, atomic warfare, and special weapons systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

AR-2201-0100

Nike Hercules Officer Transition

Course Number: 44-A-F7.

Location: Air Defense School, Ft. Bliss, TX.

Length: 3–6 weeks (99–189 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To provide artillery officers with transition training on the Nike Hercules system.

Instruction: Lectures and practical exercises in Nike Hercules transition training, including battery operations, tests, and inspections required to determine effectiveness of personnel and equipment; the Nike Hercules system; electronic warfare; air defense atomic tactics; air defense tactics; round and guidance functional system; reject procedures and depreparation; Nike Hercules CONUS; battery operation; residual radiation and target analysis ADT; AAA missile units in the field army; electronic countermeasures; and electronic counter-countermeasures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-2201-0101

Sergeant Officer

Course Number: 2F-1190S; 2F-1190D; 6-A-1190D.

Location: Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: 4–6 weeks (145–218 hours).

Exhibit Dates: 5/62–6/75.

Objectives: To train commissioned officers to perform as ballistic missile unit commanders.

Instruction: Lectures and practical exercises in the operation, maintenance, and employment of the Sergeant Missile System, including communication equipment and systems, electronic terminology and electrical safety, introduction to field artillery guided missiles, Lance and Sergeant introduction, Sergeant launcher and missile, organizational maintenance test station, nuclear warhead sections, gunnery subjects, tactical subjects, azimuth orientation system, firing set, operation of the Sergeant system, nuclear munitions, and Sergeant missile survey.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

AR-2201-0102

Ammunition and Missile Maintenance Officer (Transition)

Course Number: 4F-4515T.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 3 weeks (105 hours).

Exhibit Dates: 9/66–12/68.

Objectives: To train officers to be ammunition and missile maintenance officers.

Instruction: Lectures and practical exercises in munitions, data control, logistics, service support, missile systems maintenance and storage, inspection test and maintenance of rockets, mines and demolition devices, chemical and biological munitions, and maintenance management.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/74).

AR-2201-0103

Ordnance Field Grade Officer Refresher

Course Number: 9-O-14.

Location: Ordnance School, Aberdeen Proving Ground, MD.

Length: 4 weeks (146 hours).

Exhibit Dates: 1/57–12/68.

Objectives: To provide refresher training in the duties and responsibilities of field grade ordnance officers.

Instruction: Lectures and practical exercises in the duties of field grade ordnance officers, including military tactics, ordnance service fundamentals, leadership and management, management of organizational supply and maintenance logistics, management of field and depot supply and maintenance logistics, ordnance general supply, ordnance ammunition service, guided missile and special weapons logistics, and ordnance materiel.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-2201-0104

Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical

(Electronic Warfare (EW) Cryptologic Special Identification Techniques Basic Technical
(Special Identification Techniques Supervisor)

Course Number: *Version 1:* 231-05D30. *Version 2:* 231-05D30. *Version 3:* 231-05D40.

Location: Security Agency School, Ft. Devens, MA.

Length: *Version 1:* 12 weeks (453-456 hours). *Version 2:* 14 weeks (458 hours). *Version 3:* 10 weeks (319 hours).

Exhibit Dates: *Version 1:* 1/82-9/86. *Version 2:* 4/77-12/81. *Version 3:* 1/63-3/77.

Objectives: To provide personnel with training in radio direction finding (RDF) techniques.

Instruction: *Version 1:* Course trains individuals in the performance and supervision of waveform analysis operations, management and supervision of direction finding and advanced identification techniques equipment, and planning, supervision, and reporting for tactical operations deployment. *Version 2:* Instruction and practical exercises in map reading, maintenance management procedures, supervision of maintenance personnel, intelligence and security, operations pertaining to signal sources and military science principles. *Version 3:* Lectures and practical exercises in RDF techniques, including administrative and personnel management procedures supervisory tasks, utilization of personnel and equipment, evaluation of productivity, supervision and control of mission, training of personnel, installation and maintenance of equipment, and installation and alignment of antennas.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in general supervision (2/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management and supervision (9/77). *Version 3:* Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 05D; 98Z.

AR-2201-0105

DENTAL COMMAND AND STAFF

Course Number: 7M-F6.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 2 weeks (77-85 hours).

Exhibit Dates: 5/77-12/88.

Objectives: To prepare Dental Corps officers to perform as commanders, staff officers, and administrators of dental activities units.

Instruction: Lectures, discussions, and practical exercises covering basic staff organization and doctrine of the Army, policies and procedures of Army dental service, implementation and supervision of Army dental facilities in the United States and abroad.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/77).

AR-2201-0106

LIGHT AND MEDIUM TOWED FIELD ARTILLERY MECHANIC

Course Number: 642-45F20-B.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 4 weeks (156 hours).

Exhibit Dates: 9/67-12/68.

Objectives: To train qualified enlisted personnel as light and medium towed field artillery mechanics.

Instruction: Lectures and practical exercises on the Army maintenance system, associated supply procedures, maintenance publications, and organizational maintenance of light and medium towed field artillery weapons, including artillery transport subjects; Army equipment record procedures; supply procedures; care and use of tools; care and maintenance of pneumatic tires; gunnery subjects; fundamentals of cannon artillery; sight test and adjustments; barrel and breech; and lubrication and inspection of specific weapons.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 13A; 45F.

AR-2201-0107

FINANCE OFFICER ORIENTATION—MBA
(Finance Officer Orientation)

Course Number: 14-A-F6; 14-O-20.

Location: Finance School, Ft. Benjamin Harrison, IN.

Length: 5-6 weeks (181-250 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To provide USAR officers with orientation training in basic military subjects.

Instruction: Lectures and practical exercises in basic military subjects, including concealment and camouflage; hand-to-hand combat; military justice; map and photo reading; equipment, clothing and tent pitching; tactics; chemical, biological, and radiological warfare; anti-infiltration and anti-guerrilla training; carbine qualification; squad and platoon patrolling; marches and bivouac; hasty fortifications; guard duty; dismounted drill; and pistol qualification.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0108

WARRANT OFFICER ADVANCED (USAMMCS)

Course Number: *Version 1:* 4-9-C32; 4-9-C32-214EV; 4-9-C21-223BV; 4-9-C32-224BV; 4-9-C32-260AO; 4-9-C31-271AO; 4-9-C32-411AO. *Version 2:* 4-9-C32. *Version 3:* 4-9-C32K.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 8-19 weeks (237-757 hours).

Exhibit Dates: *Version 1:* 5/80-10/85. *Version 2:* 10/78-4/80. *Version 3:* 11/75-9/78.

Objectives: To enable selected warrant officers to update their military educations in essential and selected military subjects, staff functions, procedures, organization, mission of the Army, and, in some cases, training in new equipment and new techniques to increase their level of technical proficiency.

Instruction: *Version 1:* Subject matter covers munitions management (260AO,411AO), missile management (214EV,223BV,224BV,271AO), missile electronics (214EV,223BV,224BV,271AO), and selected missile systems and ammunition handling. Course content varies depending on the military occupational specialty. *Version 2:* Subject matter covers calibration management (252A0), munitions management (260A0), 411A0), missile management (214EV, 222BV, 223BV, 224BV, 271A0) missile electronics (214EV, 222BV, 223BV, 224BV, 271A0) and selected missile systems and ammunition handling. Course content and concentration varies depending upon MOS specialty. *Version 3:* Subject matter covers munitions management (26A, 411A), missile management (251B, 251D, 241F, 271A), conventional ammunition (411A), nuclear weapons (260A), missile electronics (251B, 251D, 241F, 271A), and selected missile systems. Course content and concentration varies depending on student's military occupational specialty (MOS) designation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in organizational management for 4-9-C32-214EV (14-15 weeks), 4-9-C32-223BV (15-16 weeks), 4-9-C32-224BV (25-26 weeks), and 4-9-C32-271AO (13-14 weeks); for 4-9-C32-260AO (7-8 weeks) ,and 4-9-C32-411AO (10-11 weeks), 3 semester hours in organizational management (11/83). *Version 2:* In the vocational certificate category, 3 semester hours in basic electronics for students completing missile electronics (214EV, 222BV, 223BV, 224BV, 270A0) 8/79; in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management for students completing calibration (252A0), munitions (260A0, 411A0), and missile management (214EV, 222BV, 223BV, 224BV, 271A0) (8/79). *Version 3:* In the vocational certificate category, 3 semester hours in basic electronics for students holding 241F, 251B, 251D, or 271A military occupational specialties (MOS) (9/77).

Related Occupation Codes: 214E; 214F; 241E; 241F; 251B; 251D; 260A; 271A; 411A; 251C; 214E; 241F; 241E; 214F; 251B; 222B; 251C; 251D; 223B; 260A; 271A; 411A.

AR-2201-0109

ASSOCIATE ARMOR OFFICER CAREER

Course Number: 17-A-C23.

Location: Armor School, Ft. Knox, KY.

Length: 19 weeks (702-722 hours).

Exhibit Dates: 4/60-12/68.

Objectives: To train commissioned officers as armor officers.

Instruction: Lectures and practical exercises in the duties of armor officers, including maintenance management, driving and driving principles, general automotive subjects, armor employment, air and amphibious operations, nuclear weapons, intelligence, armor logistics, artillery and infantry operations, engineer subjects, chemical-biological warfare, communications equipment and procedures, map and airphoto reading, emergency planning, weapons, and military subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-2201-0110

FIELD ARTILLERY OFFICER MOBILIZATION ADVANCED (PHASES II AND III)

Course Number: 2-6-C23.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 8 weeks (301 hours).

Exhibit Dates: 9/67-12/68.

Objectives: To provide artillery officers with advanced training in field artillery mobilization.

Instruction: Lectures and practical exercises in field artillery mobilization, including communications and electronics, gunnery, tactics and combined arms, target acquisition, artillery transport, and guided missile systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0111

Associate Air Defense Officer Career

Course Number: 2-44-C23; 44-A-C23.

Location: Air Defense School, Ft. Bliss, TX.

Length: 14-20 weeks (502-764 hours).

Exhibit Dates: 2/60-5/67.

Objectives: To train officers to be air defense artillery staff officers.

Instruction: Lectures and practical exercises in communications, nuclear weapons employment, air defense artillery maintenance management, Nike and Hawk missile systems, air defense operations and tactics, air defense organization, and combined arms team techniques and tactics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-2201-0112

Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases IA, II, IV and VI)

(Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases II and II))

Course Number: 2-44-C23.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (307 hours).

Exhibit Dates: 6/67-10/84.

Objectives: To train officers to be command staff officers.

Instruction: Lectures and practical exercises in general staff procedures, Nike Hercules system, Hawk missile system, combined arms, air defense operations and tactics, nuclear weapons employment, and maintenance management.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0113

Special Assignments (SP-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 8-SP-C40.

Location: Quartermaster School, Ft. Lee, VA.

Length: 8 weeks (284 hours).

Exhibit Dates: 7/73-6/85.

Objectives: To train selected enlisted personnel in the responsibilities of noncommissioned officers in certain special logistical assignments.

Instruction: Lectures and practical exercises in the duties of a noncommissioned officer in special logistical assignments. Course includes leadership and effective communication, logistic support of combat operations, maintenance of assigned equipment, parachute packaging, and airdrop procedures and techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership (6/75).

Related Occupation Codes: 43E.

AR-2201-0114

OV-1 Suppressive Fire

Course Number: 2B-F7.

Location: Aviation School, Ft. Rucker, AL.

Length: 3-4 weeks (95-140 hours).

Exhibit Dates: 6/65-12/68.

Objectives: To train OV-1 aviators in the techniques of air-to-ground machine gun and rocket firing.

Instruction: Lectures and practical exercises in the techniques of air-to-ground machine gun and rocket firing, including OV-1 suppressive fire training, gunnery safety, sight and armament equipment, theory of strafing and rockets, formation and flight team tactics, specific glide rocketry and strafing, specific glide live ordnance exercise, specific glide demonstration flight low-level delivery, formation flying, loading and fuzing, bore sighting, angle of attack, and patterns and techniques.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/68).

AR-2201-0115

M-22 Gunnery

(M-22 Gunnery Qualification)

Course Number: 2C-F9.

Location: Aviation School, Ft. Rucker, AL.

Length: 2-3 weeks (62-65 hours).

Exhibit Dates: 5/65-1/88.

Objectives: To train commissioned officers in UH-1 helicopter aerial gunnery.

Instruction: Lectures and practical exercises in UH-1 helicopter aerial gunnery. Course includes specific armament and tactical subjects.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

Related Occupation Codes: 100B; 100C; 100D; 100E.

AR-2201-0116

Airborne Sensor Specialist

Course Number: 221-17L20; 221-26E20.

Location: Intelligence Center and School, Ft. Huachuca, AZ; Combat Surveillance and Electronic Warfare School, Ft. Huachuca, AZ; Combat Surveillance School, Ft. Huachuca, AZ.

Length: *Version 1:* 8 weeks (272 hours). *Version 2:* 7-13 weeks (272-476 hours).

Exhibit Dates: *Version 1:* 11/72-1/89. *Version 2:* 1/67-10/72.

Objectives: To train enlisted personnel to operate and maintain an airborne sensing system.

Instruction: Lectures and practical exercises in the operation and maintenance of an airborne sensing system. Course includes visual reconnaissance techniques, infrared surveillance, radar surveillance, and photographic surveillance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in aerial photography (6/79). *Version 2:* Credit is not recommended because of the limited technical nature of the course (7/74).

Related Occupation Codes: 17L.

AR-2201-0117

Advanced Chemical Noncommissioned Officer (NCO)

(Advanced Chemical Noncommissioned Officer (NCO) (Staff Specialist))

(Chemical Staff Supervision)

457

Course Number: 494-54E40; 3-R-54E46; 3-E-1.

Location: Chemical School, Ft. McClellan, AL; Chemical Corps School, Ft. McClellan, AL.

Length: 8 weeks (291-314 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train senior Chemical Corps noncommissioned officers in the administration of chemical, biological, and radiological (CBR) operations.

Instruction: Lectures and practical exercises in CBR operations, systems, and activities, including logistics; management; CBR plans, training, and operations; CBR weapons employment; combat arms; technical aspects of biological and chemical operations; nuclear warfare and radiological defense; CBR defense and materiel; and medical training and support.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

AR-2201-0118

Chemical Field Grade Officer Refresher

Course Number: 3-A-C8; 3-O-14.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 4 weeks (140-153 hours).

Exhibit Dates: 8/56-12/68.

Objectives: To provide refresher training in the duties appropriate to field grade Chemical Corps officers.

Instruction: Lectures and practical exercises in the duties of field grade Chemical Corps officers, including administration and management; intelligence; operations, plans, and training; supply and maintenance; biological, chemical, and radiological warfare; protection and materiel; and combat arms.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

Related Occupation Codes: 54B; 54C; 54D; 54E; 55E; 92D.

AR-2201-0119

Guided Missile Propellants and Explosives

(Guided Missile Propellants—Explosives Specialist)

Course Number: 821-55F20; 9-R-414.1; 9-E-46.

Location: *Version 1:* Missile and Munitions School, Redstone Arsenal, AL. *Version 2:* Ordnance School, Aberdeen Proving Ground, MD. *Version 3:* Ordnance Guided Missile School, Redstone Arsenal, AL.

Length: 6-8 weeks (215-280 hours).

Exhibit Dates: 5/55-12/68.

Objectives: To train enlisted personnel to supervise and perform receipt, maintenance, surveillance, storage and issue of guided missile propellants and explosives, and inspection and maintenance of rocket missile Class V items, tools, test equipment, and safety.

Instruction: Lectures and practical exercises on guided missile propellants and explosives, including introduction to rockets and missiles materiel; guided missile propellants; storage, handling, disposal, transportation, and surveillance of liquid propellants; inspection and maintenance; surface-to-air and surface-to-surface missile propellants; propellant storage site operations; and destruction.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

Related Occupation Codes: 55F.

AR-2201-0120

Air Defense Missile Officer Basic
(Surface-to-Air Missile Officer (SAM) Basic)

Course Number: 44-A-C1B; 44-O-B.
Location: Air Defense School, Ft. Bliss, TX; Antiaircraft Artillery and Guided Missile School, Ft. Bliss, TX.
Length: 12–16 weeks (452–573 hours).
Exhibit Dates: 9/55–6/60.
Objectives: To train officers in guided missile systems.
Instruction: Lectures and practical exercises in guided missile systems, including introduction to electronics, radar, missile systems operation, safety procedures, and map reading.
Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military at institutuions which regularly offer such credit (12/68).

AR-2201-0121

Imagery Exploitation Officer
(Intelligence Officer Tactical Surveillance)
(Intelligence Officer Basic Tactical Surveillance)
(Aerial Surveillance Officer)

Course Number: *Version 1:* 3-30-0B-35C. *Version 2:* 3-30-35C. *Version 3:* 3-30-C20-35C. *Version 4:* 3A-9309. *Version 5:* 3A-9309. *Version 6:* 3A-9309.
Location: *Version 1:* Intelligence School, Ft. Huachuca, AZ. *Version 2:* Intelligence School, Ft. Huachuca, AZ. *Version 3:* Intelligence School, Ft. Huachuca, AZ. *Version 4:* Intelligence School, Ft. Huachuca, AZ. *Version 5:* Intelligence School, Ft. Huachuca, AZ. *Version 6:* Intelligence School, Ft. Holabird, MD.
Length: *Version 1:* 18–19 weeks (589–597 hours). *Version 2:* 18 weeks (589 hours). *Version 3:* 28 weeks (882 hours). *Version 4:* 18–19 weeks (550 hours). *Version 5:* 20 weeks (698 hours). *Version 6:* 18 weeks (620–630 hours).
Exhibit Dates: *Version 1:* 9/79–5/86. *Version 2:* 4/79–8/79. *Version 3:* 5/78–3/79. *Version 4:* 8/72–4/78. *Version 5:* 11/68–7/72. *Version 6:* 1/67–10/68.
Objectives: To provide selected officers with a working knowledge of tactical and aeriel surveillance and its use by intelligence agencies.
Instruction: For this course after 5/86 see AR-1606-0194. *All Versions:* Lectures and practical exercises in the duties of an aerial surveillance officer. Course includes map reading; aerial surveillance organization, operation, and planning; imagery interpretation of various structures and equipment; military and industrial studies of thermal and radar imagery; scale properties and metrics; and terrain analysis and mosaic preparations. *Version 3:* Course includes photo interpretation, photogrammetry, tactical surveillance, leadership, and management of technical services.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in college mathematics, 3 in maps and air photos (10/84); in the upper-division baccalaureate category, 4 semester hours in image and aerial photographic interpretation, 4 in photogrammetry (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in college mathematics, 3 in introduction to maps/air photos (6/79); in the upper-division baccalaureate category, 3 semester hours in photogrammetry, 3 in leadership/management, 3 in image interpretation/aerial photo (6/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in administration/management, 3 in college mathematics, 3 in introduction to maps/air photographs, and additional credit based on placement tests (6/79); in the upper-division baccalaureate category, 3 semester hours in photogrammetry, 3 in leadership/management 3 in aerial photography (6/79). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in college mathematics to include algebra and trigonometry, 3 in introduction to maps and air photographs (6/79); in the upper-division baccalaureate category, 3 semester hours in air photo and image interpretation, 3 in photogrammetry (6/79). *Version 5:* In the lower-division baccalaureate/associate degree category, 7 semester hours in intelligence methods of imagery interpretation (6/74); in the upper-division baccalaureate category, 6 semester hours in intelligence methods of imagery interpretation (12/68). *Version 6:* In the lower-division baccalaureate/associate degree category, 6 semester hours in intelligence methods of imagery interpretation (6/74); in the upper-division baccalaureate category, 6 semester hours in intelligence methods of imagery interpretation (12/68).

AR-2201-0122

Army Aviation Command and Staff Officer
(Aviation Staff Officer)

Course Number: 1-A-F30; 1-A-2518.
Location: Aviation School, Ft. Rucker, AL.
Length: 3–8 weeks (105–292 hours).
Exhibit Dates: 11/59–12/68.
Objectives: To qualify commissioned officer aviators for aviation command and staff positions.
Instruction: Lectures and practical exercises in duties of aviation command and staff officers, including aviation programs; organization and functions of various units; control of tactical operations; aviation materiel (including maintenance, avionics and automatic data processing systems); special weapons; types of warfare; employment of aviation tactics in various situations; and training and movement of aviation companies.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military science (7/74).

AR-2201-0123

1. Armor Officer Advanced
2. Armor Officer Advanced
3. Armor Officer Career
   (Armor Officer Advanced)
   (Armor/Infantry Officer Career)

Course Number: *All Versions:* 2-17-C22. *Version 3:* 17-A-C22; 17-A-C4; 17-O-3.
Location: Armor School, Ft. Knox, KY.
Length: *Version 1:* 26 weeks (846–987 hours). *Version 2:* 36–38 weeks (1158–1379 hours). *Version 3:* 35–37 weeks (1133–1325 hours).
Exhibit Dates: *Version 1:* 8/77–Present. *Version 2:* 11/66–7/77. *Version 3:* 9/54–10/66.
Objectives: To train officers to be armor officers at the command and staff levels.
Instruction: *All Versions:* Lectures and practical exercises in military forces, weapons, principle staff and support functions, leadership, effective communication, tactical and field communications, automotive preventive maintenance, maintenance management, armor logistics, artillery operations, amphibious operations, map and air photograph reading, psychological warfare, and congressional relations. *Version 1:* Instruction includes motivation and the systems approach to organization. *Version 2:* Instruction includes electives in history and geography, international relations, social sciences, and engineering.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and 2 in organizational behavior (2/81). *Version 2:* In the vocational certificate category, 3 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management and additional credit in business organization and management on the basis of institutional evaluation (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-2201-0124

1. Infantry Officer Advanced
2. Infantry Officer Advanced
3. Infantry Officer Advanced
4. Infantry Officer Advanced
5. Infantry Officer Advanced
6. Infantry/Armor Officer Career
   (Infantry Officer Career)
   (Infantry Officer Advanced)

Course Number: *All Versions:* 2-7-C22. *Version 5:* 7-A-C22; 7-O-3.
Location: Infantry School, Ft. Benning, GA.
Length: *Version 1:* 20 weeks (960 hours). *Version 2:* 20 weeks (748 hours). *Version 3:* 26 weeks (861 hours). *Version 4:* 26–36 weeks (858–1072 hours). *Version 5:* 36 weeks (1074–1243 hours). *Version 6:* 34–35 weeks (1122–1181 hours).
Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 1/85–2/88. *Version 3:* 8/83–12/84. *Version 4:* 8/72–7/83. *Version 5:* 7/60–7/72. *Version 6:* 6/54–6/60.
Objectives: To train commissioned officers for command and staff duties at battalion through brigade levels in both divisional and nondivisional units.
Instruction: *All Versions:* Lectures and practical exercises in command and staff duties of infantry officers, including tactics; offensive and defensive operations; retrograde operations; internal defense and internal development operations; armored/air cavalry operations; airborne/airmobile operations; artillery operations; engineer operations; Air Force operations; nuclear, biological, and chemical weapons employment; intelligence and logistics; training management; automatic data processing; staff exercises and CPX; personnel. *Version 1:* Pending evaluation. *Version 2:* Topics include tactical doctrine, military operations, NBC operations, personnel operations, intelligence, logistics, training management, command subjects (leadership, management and decision making), and communication skills. *Version 3:* Topics include tactical doctrine, military operations, NBC operations, personnel operations, intelligence, leadership, management, decision making, and effective speaking. *Version 4:* Topics include electives program until September 1975. *Version 5:*

Topics include communications/electronics, unit/materiel readiness, and weapons.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in application of management principles and 2 in advanced communication (9/85). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in application of management principles (9/85). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in business organization and management (7/74). *Version 5:* In the vocational certificate category, 4 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management, and additional credit for the electives program on the basis of institutional evaluation (12/68). *Version 6:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

AR-2201-0125

Artillery Repair
(Artillery Repairer)

Course Number: 641-2131; 642-45L10.

Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.

Length: 7–10 weeks (231–398 hours).

Exhibit Dates: 4/77–5/86.

Objectives: To train enlisted personnel to troubleshoot artillery.

Instruction: Lectures and practical exercises in self-propelled artillery, rocket launchers, and light air defense artillery and related materials maintenance. For the course after 6/86 see exhibits AR-2201-0308 and AR-2201-0309.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (1/78).

Related Occupation Codes: 451.

AR-2201-0126

Surface-to-Surface Missile (SSM)
System Maintenance (Pershing)
Warrant Officer Advanced

Course Number: 4-9-C32; 4-9-C32-D; 4F-241F-B.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 9 weeks (317 hours).

Exhibit Dates: 2/72–10/76.

Objectives: To train warrant officers to manage missile operations and logistics.

Instruction: Lectures and practical exercises in the management of missile operations and logistics. Course includes leadership, civil affairs, speaking, writing, personnel management, military justice, security, data processing, financial management, budgeting, and various military operations.

Credit Recommendation: Credit is not recommended because of the military special nature of the course (8/74).

AR-2201-0127

Regular Army Air Defense Artillery
(ADA) Officer Basic

Course Number: 2-44-C20(RA).

Location: Air Defense School, Ft. Bliss, TX.

Length: 6 weeks (239 hours).

Exhibit Dates: 5/67–12/68.

Objectives: To train newly commissioned officers to perform the duties of an air defense artillery officer.

Instruction: Lectures and practical exercises in the duties of an air defense artillery officer. Course includes general subjects and staff procedures; combined arms; nuclear weapons; communications; maintenance and supply procedures; air defense tactics; and the Nike Hercules system.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military at institutions which regularly offer such credit (12/68).

AR-2201-0128

Chemical Company Officer

Course Number: 3-A-C2; 3-O-1.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 13–25 weeks (483–905 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train commissioned officers in the duties of company grade Chemical Corps officers.

Instruction: Lectures and practical exercises in the duties of company grade Chemical Corps officers. Course includes personnel and administration procedures, logistics, management, military arts, military combat arms, biological warfare, chemical warfare, and radiological warfare.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military on the basis of institutional evaluation at institutions which regularly offer such credit (12/68).

AR-2201-0129

Artillery Officer Advanced

Course Number: 6-A-C4; 6-O-3.

Location: *Version 1:* Artillery and Guided Missile School, Ft. Sill, OK. *Version 2:* Air Defense School, Ft. Bliss, TX.

Length: 37–38 weeks (1271–1383 hours).

Exhibit Dates: 7/55–6/60.

Objectives: To train commissioned officers in the duties of field grade artillery officers.

Instruction: Lectures and practical exercises in the duties of field grade artillery officers. Course includes a study of tactics and combined arms, communications and electronics, gunnery, artillery observation, artillery equipment, and missile systems.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

AR-2201-0130

Associate Armor Officer Advanced

Course Number: 17-A-C5; 17-O-4.

Location: Armor School, Ft. Knox, KY.

Length: 15–19 weeks (578–714 hours).

Exhibit Dates: 7/54–6/60.

Objectives: To train experienced officers in the duties of field grade armor officers and nuclear weapons employment officers.

Instruction: Lectures and practical exercises in the duties of field grade armor officers and nuclear weapons employment officers, including automotive general, maintenance management, armor employment, air operations, amphibious operations, nuclear weapons, intelligence, armor administration and logistics, artillery, infantry and engineer operations, nuclear weapons employment, communications equipment and procedure, tactical communication, field communication, map and air photo reading, methods of instruction, nonresident instruction and training assistance, preventive maintenance, small arms, materiel, tank gunnery, civil emergencies and affairs, psychological warfare, congressional relations, mutual security, medical training and support, training management, Army management, character guidance, and the Army information program.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-2201-0131

Associate Infantry Officer Career

Course Number: 7-A-C23.

Location: Infantry School, Ft. Benning, GA.

Length: 19 weeks (721 hours).

Exhibit Dates: 7/60–12/68.

Objectives: To train infantry officers to perform as company and battalion commanders.

Instruction: Lectures and practical exercises in the duties of a company and battalion commander. Course includes command and leadership training, communications, logistics, and a variety of military subjects.

Credit Recommendation: In the vocational certificate category, 1 semester hour in business organization and management (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in business organization and management (8/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AR-2201-0132

Ammunition Operations
(Ammunition Storage and Operations)
(Ammunition Records)

Course Number: 645-55B30; 551-76M20.

Location: Missile and Munitions School, Redstone Arsenal, AL.

Length: 4–15 weeks (129–526 hours).

Exhibit Dates: 3/66–12/76.

Objectives: To train enlisted personnel to receive, store, ship, issue, and secure ammunition, rockets, guided missiles, ammunition components, military explosives and chemical ammunition.

Instruction: Lectures and practical exercises in the receipt, storage, shipment, and security of ammunition, rockets, guided missiles, ammunition components, military explosives, and chemical ammunition; and in dump layout, and types and missions of ammunition installations. Course includes numerous ammunition services and operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

Related Occupation Codes: 55B.

AR-2201-0133

Air Defense Missile (23-CMF)
Noncommissioned Officer (NCO)
Advanced

Course Number: 1-23-C42.

Location: Air Defense School, Ft. Bliss, TX.

Length: 10 weeks (361–374 hours).

Exhibit Dates: 7/75–10/79.

Objectives: Course provides selected enlisted personnel with knowledge of the duties required to perform in grade E7 in career management field 23.

Instruction: Conferences and practical exercises in tactics and general subjects in the Nike Hercules weapons system, the Improved Hawk weapons system, or on the Operations and Acquisition Radar specialty.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

Related Occupation Codes: 24B; 24C; 24D; 24E; 24F; 24G; 24Q; 24U; 25D; 25G; 25H; 25J; 25K; 28M.

AR-2201-0134

Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 0-IA-C40B.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (431–433 hours).

Exhibit Dates: 3/73–12/86.

Objectives: To train enlisted personnel in the duties of infantry armor NCOs (noncommissioned officers).

Instruction: Demonstrations and practical exercises in the duties of infantry armor NCO's, including mapping, nuclear, biological and chemical report preparation and submission, and technical aspects of tank command. Course includes automotive subjects, command and staff procedures, communications and electronics, leadership and educational concerns, and weaponry.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (8/74).

AR-2201-0135

Associate Field Artillery Battery Officer

(Associate Field Artillery Missile Battery Officer)

Course Number: 6-A-C3; 6-O-2B.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 17–18 weeks (610–642 hours).

Exhibit Dates: 9/56–6/60.

Objectives: To train officers in the duties and responsibilities of mortar, gun, and Howitzer battery commanders.

Instruction: Lectures and practical exercises in artillery transport maintenance; communication and electronic systems of field artillery battalions (wire and radio); gunnery and fire direction; ammunition and fuzes; tactical employment; and target organization.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0136

Parachute Maintenance and Airdrop Officer

(Parachute Maintenance and Aerial Supply Officer)

Course Number: 8B-4820; 10-A-4820.

Location: Quartermaster School, Ft. Lee, VA.

Length: 6–7 weeks (210–262 hours).

Exhibit Dates: 1/65–6/74.

Objectives: To train officers to supervise packing, maintenance, rigging and related duties in airdrop units.

Instruction: Lectures and practical exercises in airdrop packing, associated maintenance, rigging, and related duties, including parachute packing, student parachute jumps, packing and rigging dangerous materials for airdrop, methods of airdrop, cargo parachute packing and release assemblies, recovery and evacuation of airdrop equipment, maintenance of airdrop materials, maintenance administration, organizational supply problems, and planning airdrop support of airborne assault operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (8/74).

AR-2201-0137

National Guard Infantry Officer Candidate

Course Number: 7-N-F2.

Location: Infantry School, Ft. Benning, GA.

Length: 8 weeks (353 hours).

Exhibit Dates: 2/54–12/57.

Objectives: To train National Guard personnel in the duties and responsibilities appropriate to platoon leaders of infantry rifle and weapon platoons.

Instruction: Weapons; leadership; map and aerial photograph reading; signal communication; mobility department; command and staff department.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in military science (12/68).

AR-2201-0138

Field Artillery National Guard Officer Candidate

Course Number: 6-E-34; 6-N-F2.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 11 weeks (498 hours).

Exhibit Dates: 5/55–12/57.

Objectives: To train personnel to be second lieutenants capable of performing duties appropriate to their grade in field artillery units of the National Guard.

Instruction: Tactics and combined arms; communications; gunnery; materiel; motors; observation; OCS commander.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in military science (12/68).

AR-2201-0139

Associate Field Artillery Battery Officer

Course Number: 6-A-C3A; 6-O-2.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 16–17 weeks (581–618 hours).

Exhibit Dates: 3/56–12/68.

Objectives: To train junior grade officers to function as small unit commanders and officers.

Instruction: Lectures and practical exercises in mortar, gun, and Howitzer battery operations; gunnery; communications and electronics; target acquisition; equipment; command and staff procedures; tactics; and leadership principles.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0140

Senior Field Artillery Officer

Course Number: 6-A-F6; 6-O-8.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 3–5 weeks (101–163 hours).

Exhibit Dates: 3/57–12/68.

Objectives: To provide senior artillery officers with knowledge and understanding of field artillery organization, tactics, techniques, and equipment.

Instruction: Lectures and practical exercises in artillery transport; communication and electronics; artillery cannon, rocket missile, and ammunition materials; gunnery; and target acquisition.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0141

Military Government Advanced

Course Number: 19-0-17.

Location: Provost Marshal General School, Ft. Gordon, GA.

Length: 4 weeks (154 hours).

Exhibit Dates: 11/54–12/68.

Objectives: To provide a general knowledge and understanding of civil affairs and military government policy development and operations.

Instruction: Lectures and practical exercises in the sociological-political aspects of civil affairs/military government and the economics of military occupation aad its relationship to U.S. foreign policy.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military government (7/74).

AR-2201-0142

Field Artillery Field Grade Officer Refresher

Course Number: 6-O-14.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 4 weeks (150 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To provide refresher training for senior field artillery officers in field artillery general subjects.

Instruction: Lectures and practical exercises in tactics; command and staff functions; communications; atomic warfare; gunnery; target acquisition; and equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0143

Field Artillery Transition Officer

Course Number: 6-O-22.

Location: Artillery and Guided Missile School, Ft. Sill, OK.

Length: 11 weeks (402 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To provide a general familiarization with field artillery gunnery, communications, and equipment.

Instruction: Lectures and practical exercises in tactics, map reading, command and staff functions, communication, gunnery, target acquisition, and equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0144

Pershing Noncommissioned Officer (NCO)

Course Number: 043-15E40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6 weeks (221–232 hours).

Exhibit Dates: 11/70–1/88.

Objectives: To provide enlisted personnel with a knowledge of the Pershing missile system and the duties of Pershing crew supervisors.

Instruction: Lectures and practical exercises on the Pershing missile system; Pershing missile organization and employment, tactics, and operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

Related Occupation Codes: 15E; 15Z.

AR-2201-0145

Marine Artillery Scout Observer

Course Number: 250-0841; 250-0846.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4–5 weeks (152–162 hours).

Exhibit Dates: 3/75–Present.

Objectives: To qualify enlisted personnel in the technical aspects of planning, acquiring, and controlling artillery fire.

Instruction: Lectures and practical exercises in communications and electronics; gunnery; map and aerial photograph reading; and the development of artillery fire support plans.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (1/90).

AR-2201-0146

Drill Sergeant

(Drill Sergeant and the Initial Entry Training (IET) Cadre Course)

Course Number: *Version 1:* None. *Version 2:* None.

Location: Army Training Centers, Continental U.S.

Length: *Version 1:* Self-paced or group-paced 8–11 weeks (284–369 hours). *Version 2:* 6 weeks (206 hours).

Exhibit Dates: *Version 1:* 7/80–6/86. *Version 2:* 4/74–6/80.

Objectives: To train selected noncommissioned officers and specialists in the fundamentals of recruit handling and individual training and to develop basic soldiering skills.

Instruction: *All Versions:* Lectures and practical exercises in methods of training, leadership, physical fitness, drill, rifle marksmanship, and weapons and tactical techniques. The 8-week Drill Sergeant course may be preceded by a 3-week orientation course called Initial Entry Training (IET) Cadre course; see exhibit AR-2201-0255. *Version 1:* Instructional methods are varied. Course content includes stress management, leadership theories, communication skills, and counseling techniques. Emphasis is on the acquisition of knowledge and skills associated with the M161A rifle and M60 machine gun. Instruction concentrates on content rather than process. After 6/86 see AR-2201-0339.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in methods of instruction, 2 in human relations (9/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in methods of instructions, 2 in interpersonal relations (6/75).

Related Occupation Codes: 00F.

AR-2201-0147

Tow Trainer Special

(Tow Trainer)

Course Number: 2E-F61; 2E-F51; 012-F3.

Location: Infantry School, Ft. Benning, GA.

Length: 2–3 weeks (85–102 hours).

Exhibit Dates: 2/75–1/88.

Objectives: To provide officers and noncommissioned officers with the expertise to conduct training on and effectively employ Tow antiarmor weapon system.

Instruction: Lectures and practical exercises in operational training with Tow and the tactical application of Tow, including instructor training and development of training program.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

AR-2201-0148

Civil Affairs and Military Government Officer

Course Number: 41-I-F1; 41-O-7.

Location: Civil Affairs and Military Government School, Ft. Gordon, GA.

Length: 4 weeks (160–166 hours).

Exhibit Dates: 5/56–12/68.

Objectives: To provide selected officers with knowledge of the fundamentals of military government organization, policies, and operations.

Instruction: Conferences and practical exercises in history of military government, command and staff functions, field operations, and specialized military operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military government (7/74).

AR-2201-0149

Chemical Officer Familiarization

Course Number: 3-A-C21.

Location: Chemical Corps School, Ft. McClellan, AL.

Length: 6 weeks (234 hours).

Exhibit Dates: 3/60–12/68.

Objectives: To provide orientation to the organization, functions, duties, and responsibilities of officers transferring to chemical officer assignments.

Instruction: Conferences and practical exercises in nuclear warfare; radiation physics; weapons effects; RADIAC instruments; radiological safety; chemical/biological protection and materiels; and medical training and support.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0150

Nuclear and Chemical Target Analysis

Course Number: 2-E-F15.

Location: Infantry School, Ft. Benning, GA.

Length: 4 weeks (159 hours).

Exhibit Dates: 4/70–6/73.

Objectives: To qualify commissioned officers in nuclear and chemical target analysis.

Instruction: Lectures and practical exercises in effects of nuclear weapons to include thermal radiation and air blast, weapon employment to include damage probability and damage estimation; tactical applications; target analysis; chemical target analysis; and defense against biological attack.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (9/85).

AR-2201-0151

Nuclear and Chemical Target Analysis

Course Number: 2E-F39.

Location: Engineer School, Ft. Belvoir, VA.

Length: 4 weeks (122 hours).

Exhibit Dates: 4/70–11/86.

Objectives: To qualify commissioned officers in nuclear and chemical target analysis and procedures for employment of nuclear/chemical weapons.

Instruction: Lectures and practical exercises in effects of nuclear weapons including airblast, radiation effects, fallout prediction, employment, damage estimation, and target analysis, and chemical weapons topics, including weapons employment and target ground and air analysis.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0152

Field Artillery Officer Familiarization

Course Number: 6-A-C21.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 7–8 weeks (275–285 hours).

Exhibit Dates: 6/60–12/68.

Objectives: To provide field artillery officers familiarization in the organization, operational functions, duties and responsibilities of the field artillery.

Instruction: Lectures and practical exercises in artillery transport and maintenance; communication and electronics; gunnery of cannon and rocket; target acquisition and survey; and field artillery tactics.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0153

Nuclear Weapons Employment

Course Number: 2E-F17.

Location: Chemical School, Ft. McClellan, AL.

Length: 3 weeks (115 hours).

Exhibit Dates: 9/65–12/68.

Objectives: To qualify commissioned officers for duty as nuclear weapons employment officers.

Instruction: Lectures and practical exercises in the nuclear weapons family, blast effects, target response to blast, thermal radiation, initial nuclear radiation, comparison of effects, and nuclear weapons in air defense.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0154

Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis

Course Number: 2E-F34.

Location: Air Defense School, Ft. Bliss, TX.

Length: 4 weeks (155 hours).

Exhibit Dates: 12/69–3/81.

Objectives: To qualify commissioned officers in chemical and biological weapons employment.

Instruction: Lectures and practical exercises in weapons target analysis to include radiation, airblast, fallout prediction, and effects; chemical and biological agents; troop safety; probability of damage; and concepts for employment of nuclear weapons.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0155

1. Military Intelligence Advanced Noncommissioned Officer (NCO)
2. Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced
3. Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced (USAISC)

Course Number: 2-96-C42, 2-MI-C42.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: *Version 1:* 10-11 weeks (364 hours). *Version 2:* 11-12 weeks (366 hours). *Version 3:* 6-12 weeks (195-369 hours).

Exhibit Dates: *Version 1:* 7/83-12/86. *Version 2:* 2/81-6/83. *Version 3:* 3/73-1/81.

Objectives: To train selected noncommissioned officers in intelligence/administrative skills.

Instruction: For this course after 12/86 see AR-1406-0125, AR-1406-0126, and AR-1406-0127. *Version 1:* Topics include communications (oral and written), basic management techniques, Soviet intelligence, general military intelligence, security services, leadership and behavior principles. *Version 2:* Lectures and practical exercises in oral and written communication skills, supervisory duties, preventive medicine and field sanitation. *Version 3:* Lectures and practical exercises in intelligence operations, administration, and army procedures and communications directed to military intelligence operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic communications, 3 in techniques of applied leadership (10/84); in the upper-division baccalaureate category, 2 semester hours in political science (Soviet studies), 3 in principles of management (10/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in oral and written communication skills, 3 in principles of supervision (10/84). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of applied electronics, 3 in principles of administration, 3 in world areas studies (political science) (6/79).

Related Occupation Codes: 96B; 96C; 96D; 97B; 97C; 97D.

AR-2201-0156

Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Basic (USAFAS)

Course Number: 0-15-C40; 1-FM-C40B.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10-12 weeks (372-399 hours).

Exhibit Dates: 1/74-6/76.

Objectives: To provide enlisted personnel with a knowledge of the duties required to perform as noncommissioned officers in the field artillery missile Career Management Field.

Instruction: Lectures and practical exercises in common Army subjects and field artillery missiles.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

Related Occupation Codes: 15B; 15D; 15E; 15F; 15J; 21G.

AR-2201-0157

Heavy Mortar and Davy Crockett Officer

Course Number: 2E-1543.

Location: Infantry School, Ft. Benning, GA.

Length: 6 weeks (253 hours).

Exhibit Dates: 8/65-2/69.

Objectives: To train commissioned officers to serve as heavy mortar platoon leaders and Davy Crockett nuclear weapon section leaders.

Instruction: Lectures and practical exercises in nuclear weapons employment, offensive and defensive tactical operations; radio, telephone, and wire communications; crew served weapons gunnery, mechanical training and employment, and fire direction procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0158

Nuclear Weapons Employment

Course Number: 2E-F15.

Location: Infantry School, Ft. Benning, GA.

Length: 3 weeks (121 hours).

Exhibit Dates: 7/66-3/70.

Objectives: To qualify commissioned officers for duty as nuclear weapons employment officers.

Instruction: Lectures and practical exercises in nuclear weapons systems, effects of nuclear weapons, fundamentals of employment, tactical application of nuclear weapons, and biological and chemical weapons.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0159

Field Artillery Officer Vietnam Orientation

Course Number: 2E-F30.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 5 weeks (204-208 hours).

Exhibit Dates: 1/68-1/78.

Objectives: To provide training for field artillery officers assigned to duty in Vietnam.

Instruction: Lectures and practical exercises in maintenance management of artillery transport; gunnery; tactical operations; target acquisition and location; and radio communications.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0160

Signal Officer Candidate

Course Number: 4-11-F1.

Location: Southeastern Signal School, Ft Gordon, GA.

Length: 23 weeks (869 hours).

Exhibit Dates: 8/66-10/72.

Objectives: To train, develop, and commission highly selected enlisted personnel as second lieutenants in the Army Signal Corps.

Instruction: Lectures and practical exercises in radio communication systems to include FM/AM radio, VHF/UHF radio, radio relay equipment; wire communications to include wire and cable, teletypewriter and telegraph-telephone switching operations, telephone carrier systems circuit control, communication center operations, and communication security; and planning of larger unit communications system.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0161

Senior Officers Preventive Logistics

Course Number: 8A-F23.

Location: Armor School, Ft. Knox, KY.

Length: 2 weeks (73 hours).

Exhibit Dates: 8/75-6/85.

Objectives: To prepare senior officers and Department of Defense civilians to perform command functions associated with logistics.

Instruction: Lectures, demonstrations, seminars and practical exercises in logistics including army supply and maintenance systems material inspection. For the course after 1985, see exhibit AR-1408-0150.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military science (2/80).

AR-2201-0162

Special Forces Officer
(Special Forces Officer (Modified))

Course Number: 2E-F8, 33-G-F3.

Location: Institute for Military Assistance, Ft. Bragg, NC, Special Warfare School, Ft Bragg, NC.

Length: 12-13 weeks (574-873 hours).

Exhibit Dates: *Version 1:* 8/75-Present. *Version 2:* 5/64-7/75.

Objectives: To provide students with a general knowledge of the latest doctrine and techniques of Special Forces operations.

Instruction: Lectures and practical exercises in development and employment of resistance forces; infiltration and exfiltration; U.S. unconventional warfare organization and capabilities; stability and psychological operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in physical education (2/80); in the upper-division baccalaureate category, 3 semester hours in military science and tactics (2/80). *Version 2:* Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0163

Nuclear Weapons Employment

Course Number: 2E-F12; 6-A-F19.

Location: Artillery and Missile School, Ft. Sill, OK.

Length: 3 weeks (105-120 hours).

Exhibit Dates: 8/64-12/68.

Objectives: To qualify commissioned officers for duty as nuclear weapons employment officers.

Instruction: Lectures and practical exercises in the effects of nuclear weapons, the fundamentals of employment, and tactical application of nuclear weapons employment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0164

Nuclear Weapons Employment

Course Number: 2E-F16; 17-A-F19.

Location: Armor School, Ft. Knox, KY.

Length: 3 weeks (120-123 hours).

Exhibit Dates: 6/63-12/68.

Objectives: To qualify commissioned officers for duty as nuclear weapons employment officers.

Instruction: Lectures and practical exercises in the effects of nuclear weapons, the fundamentals of nuclear weapons employment and tactical applications, and the employment of chemical and biological weapons.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0165

Armor Officer Advanced—Reserve Component

Course Number: 2-17-C26.
Location: Armor School, Ft. Knox, KY.
Length: 12 weeks (414–469 hours).
Exhibit Dates: 9/76–7/85.

Objectives: To train reserve officers to be armor officer at the command and staff levels.

Instruction: Lectures and practical exercises in military forces, weapons, staff support functions, leadership, motivation, organizational behavior, effective communication, maintenance and logistics. For the course after 1985, see AR-2201-0321.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (2/80); in the upper-division baccalaureate category, 1 semester hour in organizational behavior (2/80).

AR-2201-0166

Field Artillery Officer Candidate

Course Number: 2-6-F1; 6-N-F1; 6-E-19.
Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK; Artillery and Guided Missile School, Ft. Sill, OK.
Length: 23 weeks (780–1085 hours).
Exhibit Dates: 7/56–1/88.

Objectives: To train selected personnel to perform duties in field artillery units and staffs.

Instruction: Lectures and practical exercises to include maintenance management, communications electronics, gunnery and tactics, command and staff, air-ground operations, target acquisition, drill and ceremonies, physical training, and leadership principles.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0167

1. Officer Candidate
2. Infantry Officer Candidate

Course Number: 2-7-F1; 7-N-F1; 7-E-14.
Location: Infantry School, Ft. Benning, GA.
Length: *Version 1:* 14 weeks (500–1056 hours). *Version 2:* 22–23 weeks (830–1035 hours).
Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 11/54–12/83.

Objectives: To prepare selected personnel to become officers in the reserve components of the U.S. Army.

Instruction: *Version 1:* Lectures, conferences, demonstrations and practical exercises in tactical doctrines, armed forces operations, training management, military leadership, land navigation, phsical fitness, and drill and command. *Version 2:* Lectures and practical exercises in combined arms tactics, offensive and defensive; airborne/airmobile operations; amphibious operations; artillery operations; engineer operations; chemical, biological, and radiological operations; patrolling; personnel management; intelligence, logistics and operations; military leadership; effective oral and written communication; map and air photo reading; military justice; medical subjects; physical training; drill and command; army information program; communications/electronics; maintenance management; and army weaponry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management, 3 in personnel management, 3 in physical education and 1 in map reading (10/88). *Version 2:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0168

Field Artillery Officer Basic (Reserve Component)
(Field Artillery Officer Candidate (Reserve Component))

Course Number: 2-6-C25; 2-6-F2; 2-N-F2.
Location: Artillery and Missile School, Ft. Sill, OK.
Length: 8–11 weeks (293–493 hours).
Exhibit Dates: 1/58–Present.

Objectives: To prepare personnel to qualify as second lieutenants in National Guard or Reserve field artilley units.

Instruction: Lectures and practical exercises in maintenance management, communication electronics, gunnery, tactics, map reading, military law, target acquisition, drill and ceremonies, physical training, and leadership.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in military science (11/85).

AR-2201-0169

Chemical (54 CMF) Noncommissioned Officer (NCO) Basic

Course Number: 4-54-C40.
Location: Ordnance and Chemical School, Aberdeen Proving Ground, MD.
Length: 7–8 weeks (238–284 hours).
Exhibit Dates: 9/75–6/76.

Objectives: To train selected enlisted personnel to supervise NBC operations and to train in selected unit management areas.

Instruction: Lectures and practical exercises in unit and career management and leadership; signal communications; decontamination operations; nuclear warfare; chemical and biological defense. Additional training in chemical laboratory procedures is provided for MOS 92D.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in management and, for personnel completing MOS 92D track, 3 semester hours in chemistry (1/78).

AR-2201-0170

Infantry Noncommissioned Officer (NCO) Candidate

Course Number: 010-11B40-1.
Location: Infantry School, Ft. Benning, GA.
Length: 12 weeks (580–656 hours).
Exhibit Dates: 7/67–3/72.

Objectives: To train and qualify enlisted personnel to serve as noncommissioned officer squad leaders in the Infantry.

Instruction: Lectures and practical exercises in small unit technical offensive and defensive operations; airborne, artillery, engineer, chemical, and Air Force operations; leadership; map reading; communications; maintenance of vehicles; individual and crew-served weapons firing and employment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military science (9/85).

Related Occupation Codes: 11B; 11C; 11H.

AR-2201-0171

Armor Officer Candidate

Course Number: 2-17-F1.
Location: Armor School, Ft. Knox, KY.
Length: 23 weeks (785–836 hours).
Exhibit Dates: 7/66–12/68.

Objectives: To train, qualify, and commission highly selected enlisted personnel or second lieutenants in the armor branch.

Instruction: Lectures, demonstrations, and practical exercises in armored cavalry tactical operations, artillery and engineer operations, tank and automotive maintenance, radio communication, map reading, methods of instruction, military justice, small arms, mortars, and anti-tank weapons.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0172

Air Defense Artillery (ADA) Automatic Weapons Officer

Course Number: 2E-F18.
Location: Air Defense School, Ft. Bliss, TX.
Length: 4–6 weeks (150–227 hours).
Exhibit Dates: 3/66–3/81.

Objectives: To provide officers with a working knowledge of air defense automatic weapons, tactics, techniques, and materiels.

Instruction: Lectures and practical exercises in characteristics and operation of the twin 40-mm gun and the self-propelled .50 machinegun; small arms maintenance and repair procedures, tactics, and operations.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0173

35R College Junior

Course Number: None.
Location: Women's Army Corps School, Ft. McClellan, AL.
Length: 4 weeks (117–133 hours).
Exhibit Dates: 1/69–12/74.

Objectives: To orient women college juniors participating in the Army student officer program to obtain a commission.

Instruction: Lectures and practical exercises in Army public relations, chemical and biological operations, first aid, field training, intelligence and security, land navigation, leadership, personnel management, and organization of the Department of Defense and the Department of the Army.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

AR-2201-0174

Field Artillery Noncommissioned Officer (NCO) Candidate

Course Number: 041-13B40-1.

Location: Artillery and Missile School, Ft. Sill, OK.
Length: 15 weeks (602 hours).
Exhibit Dates: 8/68–2/73.
Objectives: To train and qualify enlisted personnel to serve as noncommissioned officers in Field Artillery units.
Instruction: Lectures and practical exercises in artillery transport operation and maintenance, communication and electronics, gunnery, tactical operations, and map reading.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military science (7/74).
Related Occupation Codes: 13A; 13B; 13Z.

AR-2201-0175

Field Artillery Operations and
Intelligence Assistant, Skill
Development Base

Course Number: 250-13E40-I.
Location: Artillery and Missile School, Ft. Sill, OK.
Length: 13 weeks (517 hours).
Exhibit Dates: 10/68–4/77.
Objectives: To qualify enlisted personnel to serve in supervisory positions as artillery operations and intelligence assistants.
Instruction: Lectures and practical exercises in artillery transportation, radio communication and electronics, basic gunnery, basic tactical operations, target acquisition and location, automotive maintenance, gun direction computers, and combat intelligence and operations.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).
Related Occupation Codes: 13E; 13Z.

AR-2201-0176

Infantry Indirect Fire Crewman
Noncommissioned Officer (NCO)
Candidate

Course Number: 010-11C40-I.
Location: Infantry School, Ft. Benning, GA.
Length: 12 weeks (416 hours).
Exhibit Dates: 8/67–1/88.
Objectives: To qualify enlisted personnel to become mortar squad and section leaders in the Infantry.
Instruction: Lectures and practical exercises in offensive and defensive combat operations; internal defense and development operations; airborne/airmobile operations; artillery operations; engineer operations, and chemical, biological, and air forces operations.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).
Related Occupation Codes: 11C.

AR-2201-0177

Chemical Officer Basic
(Chemical Officer Orientation)

Course Number: *Version 1:* 4-3-C20-74A. *Version 2:* 4-3-C20-74A. *Version 3:* 5-3-C20; 3-A-C20; 3-A-C1; 3-O-A.
Location: *All Versions:* Chemical School, Ft. McClellan, AL. *Version 3:* Ordnance and Chemical School, Aberdeen Proving Ground, MD.
Length: *Version 1:* 18–20 weeks (732–846 hours). *Version 2:* 16–17 weeks (711 hours). *Version 3:* 8–12 weeks (328–456 hours).
Exhibit Dates: *Version 1:* 4/84–Present. *Version 2:* 6/80–3/84. *Version 3:* 7/55–5/80.
Objectives: To prepare newly commissioned chemical corps officers for first duty assignment.
Instruction: *All Versions:* Lectures and practical exercises in personnel and administrative procedures, special warfare training, intelligence, physical training, smoke operations, weapons, and leadership; Chemical, Biological, and Radiological (CBR) plans, training, and operations; logistics and supply management; biological operations; chemical operations; nuclear warfare and radiological defense; CBR defense and materiel; and medical training and support. *Version 1:* Includes radiation fundamentals, Nuclear, Biological, and Chemical (NBC) reconnaissance and decontamination, and radiological safety. *Version 2:* Includes radiological safety.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in radiological safety and 1 in management and supervision (10/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in radiological safety (3/82). *Version 3:* Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0178

Honest John Rocket Crewman
Noncommissioned Officer (NCO)
Basic

Course Number: 042-15F40-EC.
Location: Field Artillery School, Ft. Sill, OK.
Length: 12 weeks (487 hours).
Exhibit Dates: 9/71–5/72.
Objectives: To provide selected personnel with general knowledge of the duties of an Honest John Rocket team crewman.
Instruction: Lectures and practical exercises in artillery transport operation, communications/electronics, Honest John warhead and rocket, tactics and combined arms, command and staff, nuclear employment, and leadership principles.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).
Related Occupation Codes: 15F; 15Z.

AR-2201-0179

Chemical Equipment Repair
Supervison

Course Number: 3-R-533.7; 3-E-14.
Location: Chemical Corps School, Ft. McClellan, AL.
Length: 3 weeks (107–120 hours).
Exhibit Dates: 6/56–12/68.
Objectives: To train enlisted personnel to supervise the inspection, maintenance, and repair of chemical equipment.
Instruction: Lectures and practical exercises in maintenance and repair of smoke generators, gas masks, and flame throwers; personnel management; maintenance of decontamination equipment; basic shop management; and supply procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

AR-2201-0180

Powered Bridge Operator

Course Number: 250-12D20.
Location: Engineer School, Ft. Belvoir, VA.
Length: 4 weeks (153 hours).
Exhibit Dates: 1/70–11/86.
Objectives: To train personnel in the operation of the mobile assault bridge.
Instruction: Practical exercises and conferences to include units on powered bridge operations limited to specialized areas of maintenance and operation.
Credit Recommendation: In the vocational certificate category, 1 semester hour as a technical elective (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as a technical elective (7/74).
Related Occupation Codes: 12A; 12D.

AR-2201-0181

1. Maneuver Combat Arms Infantry
Noncommissioned Officer (NCO)
Advanced
2. Maneuver Combat Arms—Infantry
(11 CMF) Noncommissioned
Officer (NCO) Advanced
(Infantry Armor (IA-CMF)
Noncommissioned Officer (NCO)
Advanced)

Course Number: *Version 1:* O-111-C42. *Version 2:* O-111-C42; O-IA-C42A.
Location: Infantry School, Ft. Benning, GA.
Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 10–12 weeks (379–466 hours).
Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 11/72–6/85.
Objectives: To provide middle-grade enlisted personnel with sufficient knowledge to perform infantry armor military duties.
Instruction: *Version 1:* Lectures and practical exercises to include tactical doctrine, fundamentals of combat in built up areas, stability operations in insurgent areas, engineer operations, intelligence and logistics, personnel management, map and air photo reading, military leadership, physical training and combatives, communications/electronics, crew-served weapons and written and oral communications. *Version 2:* Lectures and practical exercises to include tactical doctrine; fundamentals of combat in built-up areas; stability operations in insurgent areas; engineer operations; intelligence and logistics; general management; map and airphoto reading; military leadership; physical training and combatives; communications/electronics; crew served weapons; and personnel.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and management and 3 in communications (9/85). *Version 2:* Credit is not recommended because of the military specific nature of the course (7/74).

AR-2201-0182

Branch Immaterial Officer Candidate

Course Number: 2-7-F1.
Location: Infantry School, Ft. Benning, GA.
Length: 14 weeks (510–518 hours).
Exhibit Dates: 5/73–11/81.
Objectives: To prepare selected personnel for branch officer basic course training.
Instruction: Lectures and practical exercises in combined arms tactics; general subjects, including personnel, intelligence, logistics, map and airphoto reading, physical training, and military leadership; communications/electronics; unit/materiel readiness; and weapons.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (9/85).

AR-2201-0183

Combat Surveillance and Target
Acquisition Noncommissioned
Officer (NCO) Advanced
(Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Advanced)
(Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Advanced)

Course Number: 2-17-C42; 2-SA-C42; 221-17Z50-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7-12 weeks (211-431 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To provide enlisted personnel with knowledge to perform in combat surveillance and target aquisition units.

Instruction: Lectures and practical exercises in field artillery subjects and general Army subjects, including military correspondence; map reading; military operations; nuclear weapons effects; unit tactics; leadership principles; military law; military security; and personnel management.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 17B; 17C; 17D; 17E; 17K; 17L; 17Z; 82C; 93F.

AR-2201-0184

Infantry Armor (IA-CMF)
Noncommissioned Officer (NCO)
Advanced

Course Number: 0-IA-C42B.

Location: Armor School, Ft. Knox, KY.

Length: 10-12 weeks (300-392 hours).

Exhibit Dates: *Version 1:* 1/80-12/86. *Version 2:* 5/73-12/79.

Objectives: To provide senior noncommissioned officers with a general working knowledge of infantry armor operations.

Instruction: *Version 1:* Lectures and practical exercises in tactical training, gunnery training methods and techniques, leadership skills to include communication both written and oral. *Version 2:* Lectures and practical exercises in automotive management; command and staff functions; tactical operations; internal defense and development; communications and electronics; and leadership and administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in military science/basic supervision at the associate degree level (technical) (2/80). *Version 2:* Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 11D; 11E; 11J.

AR-2201-0185

Field Artillery Missiles/Rockets
Noncommissioned Officer (NCO)
Basic

Course Number: 043-15B40-EC; 043-15E40-EC; 043-15F40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 9-12 weeks (375-400 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To train middle-level enlisted personnel to assume the duties of noncommissioned officer missilemen.

Instruction: Lectures and practical exercises in the weapons system, firing operations, controls, maintenance, loading, safety, and employment of the Honest John rocket, the Pershing missile, or the Sergeant missile.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 15B; 15E; 15F; 15Z.

AR-2201-0186

Combat Surveillance and Target
Acquisition Noncommissioned
Officer (NCO) Basic

Course Number: 412-17C40-EC; 412-82C40-EC.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10-12 weeks (322-378 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To train enlisted personnel to serve as noncommissioned supervisors in combat surveillance and target acquisition positions.

Instruction: Lectures and practical exercises in surveillance and location of targets leading to specialization as one of the following: counterbattery/countermortar radar crewman; sound ranging crewman; flash ranging crewman; field illumination crewman; artillery surveyor; meteorological observer; or ballistic meteorologist.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/74).

Related Occupation Codes: 17A; 17B; 17C; 17D; 17E; 17Z; 82C; 93E; 93F; 35D.

AR-2201-0187

Nuclear and Chemical Target
Analysis
(Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis)
(Nuclear, Biological, and Chemical (NBC) Weapons Employment)
(Nuclear Weapons Employment)

Course Number: *Version 1:* 2E-ASI5H-A. *Version 2:* 2E-ASI5H. *Version 3:* 2E-F13; 6-A-F26; 250-A-F1; 250-O-8.

Location: Field Artillery School, Ft. Sill, OK. Command and General Staff College, Ft. Leavenworth, KS.

Length: *Version 1:* 4-5 weeks, self paced (181 hours). *Version 2:* 3-5 weeks, self paced. *Version 3:* 3-5 weeks (115-175 hours).

Exhibit Dates: *Version 1:* 4/84-12/86. *Version 2:* 1/79-3/84. *Version 3:* 9/57-12/78.

Objectives: To provide officers with a knowledge of the considerations, techniques, and procedures required for the tactical employment of nuclear and chemical weapons.

Instruction: *All Versions:* Lectures and practical exercises in the fundamental effects of nuclear weapons; damage estimation and target analysis; chemical weapons employment and the tactical application of nuclear and chemical weapons; nuclear and chemical trends and developments; and foreign nuclear, biological, and chemical capabilities. *Version 2:* Includes math formulas, nomograms, semi logorithmic graphs, circular map scales, slide rule and probability statistics. For course after 12/86, see AR-0802-0025.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in general mathematics, 1 in nuclear explosion effects and damage estimation concepts (1/80); in the lower-division baccalaureate/associate degree category, 3 semester hours in nuclear technology (1/80); in the upper-division baccalaureate category, 2 semester hours in technical elective for non-engineering majors (1/80). *Version 3:* Credit is not recommended because of the military specific nature of the course (6/75).

AR-2201-0188

Associate Army Medical Service
Company Officer

Course Number: 8-B-C3; 8-O-2.

Location: Medical Field Service School, Ft. Sam Houston, TX.

Length: 15 weeks (526-527 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To provide command and staff training to company grade medical service officers.

Instruction: Instruction in company-level organization and administrative procedures including financial management; medical supply; hospital plant planning and maintenance; military law; records and legal aspects of civil emergencies; dental services; field medicine; preventive medicine; and veterinary science.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military science and 3 in business administration (6/75).

AR-2201-0189

Lance Officer

Course Number: 2F-13B; 2F-1190L.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-7 weeks (148-250 hours).

Exhibit Dates: 6/74-8/88.

Objectives: To provide selected officers with a working knowledge of the operation, maintenance, and employment of the Lance missile system.

Instruction: Lectures and practical experience in the capabilities and limitations of the missile system; basic physics of flight; basic components; fire direction procedures;nuclear warhead selection and tactical employment; missile assembly, handling, loading, and maintenance; and gunnery. For course after 8/88, see AR-2201-0371.

Credit Recommendation: In the vocational certificate category, 3 semester hours in shop management (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in shop management (6/75).

AR-2201-0190

Tactical Electronic Equipment
Maintenance (EE-CMF)
Noncommissioned Officer (NCO)
Advanced

Course Number: 1-EE-C42A.

Location: Southeastern Signal School, Ft. Gordon, GA; Signal School, Ft. Gordon, GA.

Length: 10-12 weeks (369-449 hours).

Exhibit Dates: 1/74-3/85.

Objectives: To provide selected enlisted personnel with a working knowledge of the duties required to perform as senior noncommissioned officers.

Instruction: Topics include advanced educational development, personnel management, military correspondence, unit administration, unit logistics, problem solving, and management of a maintenance facility.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

AR-2201-0191

Artillery Officer Basic

Course Number: 44-A-C1C, 6-A-C1C.

Location: Artillery and Missile School, Ft. Sill, OK; Air Defense School, Ft. Bliss, TX.

Length: 20 weeks (675–706 hours).

Exhibit Dates: 4/58–12/61.

Objectives: To provide newly commissioned regular Army officers with basic branch training in field artillery.

Instruction: Lectures and practical exercises in artillery transport, communications and electronics; missiles and missile materials; gunnery, cannons and rockets; tactics; and target acquisition.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0192

Infantry Officer Basic
(Basic Infantry Officer)

Course Number: 2-7-C20; 7-A-C1.

Location: Infantry School, Ft. Benning, GA.

Length: *Version 1:* 17 weeks (650 hours). *Version 2:* 9–15 weeks (383–906 hours).

Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 6/57–6/85.

Objectives: To train newly commissioned officers in the duties and responsibilities of infantry platoon leaders in rifle and weapons platoons.

Instruction: *Version 1:* Conference/lecture, computer-assisted instruction, and practical exercises in armed forces operation, NBC operations, military leadership, land navigation, communications, maintenance management, individual weapons, crew-serviced weapons and antiarmor weapons systems. *Version 2:* Lectures and practical exercises in mechanical training and employment of infantry weapons to include rifles, machine guns, grenades, pistols, mortars, and tank weapons; infantry small unit tactics; signal communication; map and aerial photograph reading; combat intelligence; and leadership.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading and 3 in principles of management (9/85); in the upper-division baccalaureate category, 3 semester hours in maintenance management (9/85). *Version 2:* Credit in advanced military science at institutions which normally offer such credit (7/74).

AR-2201-0193

Field Artillery Officer Basic
(Regular Army Field Artillery Officer Basic)
(Field Artillery Officer Orientation)

Course Number: 2-6-C20; 2-6-C20(RA); 6-A-C20; 6-A-C1; 6-O-A.

Location: Field Artillery School, Ft. Sill, OK; Artillery and Missile School, Ft. Sill, OK.

Length: *Version 1:* 18–19 weeks (716 hours). *Version 2:* 17–18 weeks (695 hours). *Version 3:* 10 weeks (331 hours). *Version 4:* 6–17 weeks (225–739 hours).

Exhibit Dates: *Version 1:* 10/85–Present. *Version 2:* 12/82–9/85. *Version 3:* 6/77–11/82. *Version 4:* 8/55–5/77.

Objectives: To prepare Field Artillery officers to function in their first duty assignments in the areas of training and maintenance management, leadership, fire direction techniques and coordination of artillery firing.

Instruction: *Version 1:* Instruction includes maintenance management, leadership, communications equipment; precision techniques in gunnery, both manual and FADAC computer, meteorological effects and computations, map and terrain association, survey procedures; artillery fire coordination and tactics. *Version 2:* Instruction includes maintenance management, leadership, communications equipment; precision techniques in gunnery, both manual and FADAC computer; meteorological effects and computations, map and terrain association, survey procedures; artillery fire coordination and tactics This course does not cover detailed specialties of cannon, missiles, or target acquisition. The student takes a follow-up course of 9 weeks duration in one of the 3 listed areas. *Version 3:* Instruction includes maintenance management, leadership, communications equipment; precision techniques in gunnery, both manual and FADAC computer; meteorological effects and computations, map and terrain association, survey procedures; artillery fire coordination and tactics. The course does not cover detailed specialties of cannon, missiles or target acquisition. The student takes a follow-up course of 9 weeks duration, in one of the 3 listed areas. *Version 4:* Instruction includes maintenance management, technical communications, and general military subjects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 in electronic communication systems, 2 in maintenance management (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in surveying, 2 in technical mathematics, 1 in electronic communications systems (10/83); in the upper-division baccalaureate category, 3 semester hours in supply/maintenance management (10/83). *Version 3:* In the vocational certificate category, 2 semester hours in applied mathematics (4/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in electronic communications systems (4/80); in the upper-division baccalaureate category, 2 semester hours in introduction to management and credit in advanced military science at institutions which normally offer such credit (4/80). *Version 4:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (6/75).

Related Occupation Codes: 11B; 11C; 13E.

AR-2201-0194

Non-Integrated Radar Maintenance (26-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-26-C40A.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (297 hours).

Exhibit Dates: 12/75–7/76.

Objectives: This course provides selected enlisted personnel with a knowledge of those duties required to perform as a noncommissioned officer in grade E-6.

Instruction: Instruction in air defense management, artillery operations and tactics, and field training exercises.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

Related Occupation Codes: 24P.

AR-2201-0195

Air Defense Missile Maintenance (23-CMF) Noncommissioned Officer (NCO) Basic

Course Number: 1-23-C40A.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (296–306 hours).

Exhibit Dates: 12/75–3/81.

Objectives: To provide selected personnel with leadership training and general support information on advanced missile systems.

Instruction: Course includes principles of communication, oral and written, leadership training; personnel management; and operations overview of Nike, Hercules, and Hawk missile systems.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

Related Occupation Codes: 28M; 25D; 25G; 25H; 25J; 25K; 24B; 26H; 24C; 24D; 24E; 24F; 24G; 24Q; 24U.

AR-2201-0196

Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
(Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS))

Course Number: None.

Location: Air Defense School, Ft. Bliss, TX.

Length: 10 weeks (366 hours).

Exhibit Dates: 10/76–10/79.

Objectives: Course provides selected personnel with knowledge of duties required to perform in grade E-7 within this career management field.

Instruction: Course includes military management, communicative skills, military leadership and physical readiness, and general air defense topics. Content is military in nature.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

Related Occupation Codes: 24M; 24N.

AR-2201-0197

Basic Military Training
(Recruit Training)

Course Number: None.

Location: Training Center, Ft. Benning, GA; Training Center, Ft. Gordon, GA; Training Center, Ft. McClellan, AL; Training Center, Ft. Jackson, SC; Training Center, Ft. Dix, NJ; Training Center, Ft. Knox, KY; Training Center, Ft. Leonard Wood, MO; Training Center, Ft. Sill, OK; Training Center, Ft. Bliss, TX.

Length: 8–11 weeks (245–315 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide training for all enlisted personnel who have had no previous military service.

Instruction: Course teaches discipline, spirit and basic combat skills and includes drills, ceremonies, alcohol and drug abuse, rape prevention, personal health, first aid, personal affairs, basic rifle marksmanship, NBC warfare defense, introduction to individual tactical techniques, U.S. weapons training, marches, bivouacs, tactical training, physical fitness training, reinforcement, and equal opportunity. Those students completing the longer version of this course have included their basic military training through One Station Unit Training (OSUT).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in outdoor skills practicum, 1 in marksmanship, 1 in personal health, and 1 in personal physical conditioning (9/79).

AR-2201-0198

VOICE OPERATOR MISSION TRAINING (GERMAN)

Course Number: 231-F14.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (118 hours).

Exhibit Dates: 5/76-2/85.

Objectives: To train voice operators to exploit and immediately report combat information.

Instruction: Topics include extracts of traffic analysis, artillery, rocket launchers, and voice signal identification.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

Related Occupation Codes: 98G.

AR-2201-0199

ARMY SECURITY AGENCY TACTICAL SUPPORT ELEMENT OPERATIONS)

Course Number: 2G-F17.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (152 hours).

Exhibit Dates: 4/75-9/86.

Objectives: To prepare officers to work in the Army Security Agency (ASA) Tactical Support Element.

Instruction: Topics include concepts of electronic warfare, intelligence processing, and electronic countermeasures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

AR-2201-0200

MISSION TRAINING ANALYSIS (AREA 1)

Course Number: 232-F2.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (118 hours).

Exhibit Dates: 1/76-1/80.

Objectives: To provide soldiers with training in the traffic analysis techniques and procedures required to process and report on Southeast Asian communications.

Instruction: Topics include signal intelligence reporting, Southeast Asian communications systems and operations, and an introduction to Southeast Asia.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

Related Occupation Codes: 98C.

AR-2201-0201

ARMY UNIQUE ANALYSIS TRAINING
(Mission Training Analysis (Area 2))

Course Number: 232-F3.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (121-148 hours).

Exhibit Dates: 2/76-9/86.

Objectives: To train personnel in the traffic analysis techniques and procedures required to process information needed to produce intelligence for field commanders in the European theater.

Instruction: Instruction and training in Soviet military communications, Soviet rocket operations, Soviet defense plans, operation and maintenance of Army unique radio, field, telephone, and generator equipment; interpretation of information to describe threat in terms of organization, mission strength capabilities, and communication equipment. See exhibit AR-2201-0313 for course after 9/86.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/83).

Related Occupation Codes: 98C.

AR-2201-0202

ARMY UNIQUE ANALYSIS TRAINING
(Mission Training Analysis (Area 3))

Course Number: 232-F4.

Location: Intelligence School, Ft. Devens, MA.

Length: 4 weeks (124-148 hours).

Exhibit Dates: 2/76-9/86.

Objectives: To train soldiers in the traffic analysis techniques and procedures required to process information needed to produce intelligence for field commanders in the Western command.

Instruction: Topics include signal intelligence reporting, Peoples Republic of China communications systems, an introduction to the Peoples Republic of China, operation and maintenance of Army unique radio, field, telephone, and generator equipment; interprets information to describe threat in terms of organization, mission strength capabilities, and communication equipment. See exhibit AR-2201-0313 for the course after 9/86.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/83).

Related Occupation Codes: 98C.

AR-2201-0203

SPACE COLLECTION OPERATIONS
(Space Collection (SPACOL) Operations)
(Telemetry Collection Operations)

Course Number: 233-ASIG4; 233-F7.

Location: Intelligence School, Ft. Devens, MA.

Length: 5-7 weeks (168-248 hours).

Exhibit Dates: 7/75-Present.

Learning Outcomes: Upon completion of the course the student will be able to intercept, recognize, and record electromagnetic emissions emanating from airborne equipment, missiles, and satellites.

Instruction: Lectures and practical experience in the maintenance and operation of space collector operations equipment including the types, parameters, and identification of space signals, intercept equipment, satellite plotting, and report format. Students will be trained to intercept, log, record, and identify noncommunications electronic emissions as emanating from missiles, earth satellite vehicles and associated equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/87).

AR-2201-0204

GENERAL ELECTRONIC WARFARE (EW) CRYPTOLOGIC OFFICER (RESERVE COMPONENT) NONRESIDENT/RESIDENT

Course Number: 3B-9600 (RC).

Location: Intelligence School, Ft. Devens, MA.

Length: In residence 2 weeks (66 hours).

Exhibit Dates: 11/75-9/86.

Objectives: To train reserve officers to perform electronic warfare cryptologic duties.

Instruction: Instruction in foreign communication systems, U.S. communications systems, and associated field communications systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

AR-2201-0205

GUARDRAIL IV SYSTEM MAINTENANCE

Course Number: 102-F34.

Location: Intelligence School, Ft. Devens, MA.

Length: 7 weeks (164 hours).

Exhibit Dates: 9/75-9/86.

Objectives: To train students to maintain selected assemblies of the Guardrail IV system.

Instruction: Course contains information on maintenance of a specific military system.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

AR-2201-0206

ADVANCED IDENTIFICATION TECHNIQUES (AIT) ANALYST
(Advanced Identification Techniques Operations)

Course Number: 231-F7.

Location: Intelligence School, Ft. Devens, MA.

Length: 3-5 weeks (121-146 hours).

Exhibit Dates: 5/74-3/86.

Objectives: To train personnel in advanced identification techniques.

Instruction: Course trains the operator in advanced identification techniques, equipment calibration and operation, transmitter characteristics, analysis techniques, and records and reports. For the course after 4/86, see exhibit AR-2201-0317.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/86).

AR-2201-0207

ELECTRONIC WARFARE (EW) SIGNAL INTELLIGENCE (SIGINT) VOICE INTERCEPTOR - RUSSIAN
(Army Unique Voice Interceptor Training (Russian))
(Voice Operator Mission Training Number 1 (Russian))

Course Number: 231-F12; 231-F12(RU).

Location: Intelligence School, Ft. Devens, MA.

Length: 5-6 weeks (183 hours).

Exhibit Dates: 1/76-2/85.

Objectives: To train the voice operator to exploit and immediately report combat information.

Instruction: Topics include military organization, artillery, rocket launchers, and identification of voice signals, map reading, reporting of intelligence information, and identification of significant communication facts.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/83).

Related Occupation Codes: 98G.

AR-2201-0208

Electronic Warfare (EW)
Countermeasures Receiving
Systems Operations
(Electronic Warfare (EW) Countermeasures Receiving System Operator)

Course Number: 233-F5.

Location: Intelligence School, Ft. Devens, MA.

Length: 5 weeks (141 hours).

Exhibit Dates: 4/73-9/86.

Objectives: To train students to intercept, log, record, and report communications signals.

Instruction: Topics include tactical reporting, equipment, and practical exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

AR-2201-0209

Electronic Warfare (EW)
Noncommunication Interceptor-
Analyst Basic Technical

Course Number: 232-98J30.

Location: Intelligence School, Ft. Devens, MA.

Length: 12 weeks (370-380 hours).

Exhibit Dates: 4/77-1/88.

Objectives: Course prepares electronic warfare signal intelligence noncommunications interceptor-analysts to supervise noncommunications collection and analysis operations.

Instruction: Topics include threat assessment, map reading, field operations, and components of electronic warfare.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management and supervision (9/77).

Related Occupation Codes: 98J.

AR-2201-0210

Dragon Trainer

Course Number: 2E-F59; 2E-F52; 012-F2.

Location: Infantry School, Ft. Benning, GA.

Length: 2-3 weeks (66-114 hours).

Exhibit Dates: 3/75-8/85.

Objectives: To provide selected officer and NCO leaders with the expertise to conduct training on and effectively employ the Dragon antiarmor weapons system.

Instruction: Lectures and practical exercises in operational training with Dragon and tactical application, including instructor training and development of a training program.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0211

Combat Missile Mechanic (271-CMF)
Noncommissioned Officer (NCO)
Basic

Course Number: C-271-C40.

Location: Air Defense School, Ft. Bliss, TX.

Length: 8 weeks (294-298 hours).

Exhibit Dates: 12/75-7/76.

Objectives: This course provides selected enlisted personnel with a knowledge of those duties required to perform as noncommissioned officers in grade E-6.

Instruction: Course includes military leadership, general military subjects, and air defense artillery topics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

Related Occupation Codes: 24M, 24N.

AR-2201-0212

Warrant Officer Candidate Military
Development

Course Number: 2C-F32.

Location: Aviation Center, Ft. Rucker, AL.

Length: 6 weeks (212-220 hours).

Exhibit Dates: 8/77-1/90.

Objectives: To train warrant officer candidates in leadership, physical conditioning and future potential in military setting.

Instruction: Military subjects covered include communicative arts, military personnel management, maintenance management, strategy, and warrant officer development subjects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AR-2201-0213

Field Artillery Cannon (FA-CMF)
Noncommissioned Officer (NCO)
Advanced

Course Number: 0-13-C42.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 8-11 weeks (277-402 hours). *Version 2:* 10-12 weeks (359-363 hours).

Exhibit Dates: *Version 1:* 8/78-Present. *Version 2:* 7/73-6/77.

Objectives: To train the noncommissioned officer to be an exporter of modern battlefield tactics, techniques and procedures to the gaming unit.

Instruction: *All Versions:* Subjects include target acquisition, communications electronics, tactics and combined arms, weapons, gunnery and field artillery. *Version 1:* Leadership training and supervision skills are emphasized for all students. Map reading and plotting to determine azimuth and elevation are emphasized for those students having MOS 13B and 13E.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, for all students completing the course, 2 semester hours in leadership fundamentals; for those students holding MOS 13B and 13E, 1 semester hour in map reading (10/83). *Version 2:* Credit is not recommended because of the military specific nature of the course (11/77).

Related Occupation Codes: 13B; 13E; 13Z.

AR-2201-0214

Master Gunner (M551)

Course Number: 020-F2.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (448 hours).

Exhibit Dates: 3/76-12/86.

Objectives: To prepare students to assist squadron and troop commanders in the planning and implementation of tank gunnery training programs.

Instruction: Subjects covered include weapons maintenance and gunnery, automotive subjects and leadership areas.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AR-2201-0215

Master Gunner (M60A2)

Course Number: 020-F3; 020-ASIC5.

Location: Armor School, Ft. Knox, KY.

Length: 14 weeks (522 hours).

Exhibit Dates: 5/77-12/86.

Objectives: To prepare highly selected noncommissioned officers to assist tank company/battalion commanders in the planning and implementation of tank gunnery training programs.

Instruction: Subjects include gunnery, maintenance, target acquisition, conduct of fire, tank tables, range management and organizational maintenance required on the M60A2 turret and weapon systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AR-2201-0216

Master Gunner (M60A1/A3)

Course Number: 020-F1; 020-ASIC5.

Location: Armor School, Ft. Knox, KY.

Length: 12 weeks (446-448 hours).

Exhibit Dates: 2/76-12/85.

Objectives: To prepare highly selected noncommissioned officers to assist tank company/battalion commanders in the planning and implementation of tank gunnery training programs.

Instruction: Subjects include gun elevating and turret traversing systems, use of firing tables, tank tables, conduct of fire (advanced) and stabilization systems. For course after 1985, see AR-2201-0334 and AR-2201-0335.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AR-2201-0217

Senior Commanders Orientation

Course Number: None.

Location: Armor School, Ft. Knox, KY.

Length: 2 weeks (83 hours).

Exhibit Dates: 5/75-7/85.

Objectives: To provide commanders an orientation to contemporary management and personnel problems found in the Army.

Instruction: Lectures, seminars and role-playing skits dealing with contemporary problems, developing leadership, and behavioral science with an emphasis on racial tensions, drug abuse and alcoholism.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in military science. NOTE: If student has completed 8A-F23 Senior Officer Preventative Logistics, additional credit for this course should not be granted (2/80).

AR-2201-0218

Special Career Level Artillery
Advanced Gunnery (USMC)

Course Number: 2E-F49.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-5 weeks (140-181 hours).

Exhibit Dates: 5/75-5/88.

Objectives: To provide commissioned officers with supervisory skills required of a battalion instructional officer or battery commander.

Instruction: A survey course covering all operations required for directing fire of cannon using both manual and computer assisted techniques.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (11/86).

AR-2201-0219

Field Artillery Cannon Battery Officer

Course Number: 2E-13A.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8 weeks (320 hours).

Exhibit Dates: 10/75–Present.

Objectives: To train officers in the techniques, processes and procedures and to provide the background knowledge necessary for functioning in a cannon-equipped unit.

Instruction: Lectures and practical exercises in communications equipment, weapons characteristics, and capabilities, tactics, nuclear projectiles and safety, survey concepts, and FADAC computer use in mathematical solutions. Major emphasis is in gunnery fire techniques including ballistic corrections, high angle trajectory and special employment techniques.

Credit Recommendation: Credit is recommended on the basis of institutional evaluation (1/80).

AR-2201-0220

Lance Missile Crew Member
(Lance Missile Crewman)

Course Number: 043-15D10; 15D10-OSUT.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5–14 weeks (171–230 hours).

Exhibit Dates: 2/79–12/86.

Objectives: To provide students with the knowledge and duties required to perform as a Lance Missile crewman.

Instruction: Training emphasizes hands-on experience in the assembly and transportation, aiming, operating and daily preventative maintenance of the Lance Missile system.Note: The 14 week course includes 8 weeks of basic training. For course after 12/86, see AR-2201-0375.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/80).

AR-2201-0221

Civil Military Operations

Course Number: 4N-2180; 500-F3.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/75–1/87.

Objectives: Prepares officers and noncommissioned officers for general staff assignments involving civil-military operations.

Instruction: For this course after 1/87 see AR-2201-0343. Lectures, conferences and practical exercises in military/civil operations in three broad areas—civil affairs including government functions to be assumed by military personnel such as safety, health and civil defense; psychological warfare including use of persuasive techniques in communicating policy to indigenous groups and civil/military operations including planning for and managing civilian populations to either support or tolerate military actions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science and tactics (2/80).

AR-2201-0222

Military Free Fall Parachutist
(Special Forces Military Free Fall Parachutist)

Course Number: 2E-F48/011-ASIW8; 011-F11; 011-ASIW8.

Location: Institute for Military Assistance, Ft. Bragg, NC.

Length: 4–6 weeks (172–257 hours).

Exhibit Dates: 12/76–5/88.

Objectives: To qualify male commissioned officers and enlisted men as military free-fall parachutists.

Instruction: For this course after 5/88 see AR-2201-0345. Practical exercises in executing free-fall parachute jumps commencing at 12,500 feet actual, progressing to 35,000 feet actual, to demonstrate competency. Includes practice in body stabilization and use of canopy control techniques after parachute deployment to assemble in the air and land with fellow parachutists in a tactical grouping.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/88).

Related Occupation Codes: 11B; 11C; 12B; 91B; 05B.

AR-2201-0252

Light Air Defense Artillery (ADA) Crew Member

Course Number: 16F10-OSUT; 043-16F10-OSUT; 043-16F10.

Location: Air Defense School, Ft. Bliss, TX.

Length: 6–13 weeks (239–508 hours).

Exhibit Dates: 2/79–Present.

Objectives: To train enlisted personnel to become light air defense artillery crew members.

Instruction: Training in basic military equipment, procedures and practices in use, operation and assembly of a specific artillery piece.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/88).

Related Occupation Codes: 16F.

AR-2201-0253

1. Primary Leadership Development
2. Primary Leadership Development
3. Primary Leadership

Course Number: *Version 1:* 612-01-PLDC; 680-02-PLDC; 698-03-PLDC; 862-04-PLDC; 685-05-PLDC; 662-06-PLDC; 645-07-PLDC; 635-08-PLDC; 690-09-PLDC; 640-10-PLDC; 620-11-PLDC; 672-12-PLDC; 675-13-PLDC; 696-14-PLDC; 692-15-PLDC; 694-16-PLDC; 693-17-PLDC; 695-18-PLDC; 605-19-PLDC; 665-20-PLDC; NGB-PLDC (AC); 687-21-PLDC. *Version 2:* 612-1-PLDC; 680-2-PLDC; 698-3-PLDC; 682-4-PLDC; 685-5-PLDC; 662-6-PLDC; 645-7-PLDC; 635-8-PLDC; 690-9-PLDC; 640-10-PLDC; 620-11-PLDC; 672-12-PLDC; 675-13-PLDC; 696-14-PLDC; 692-15-PLDC; 694-16-PLDC; 693-17-PLDC; 695-18-PLDC; 605-19-PLDC; 665-20-PLDC. *Version 3:* PLC-301.

Location: *Version 1:* Noncommissioned Officer Academy, Ft. Knox, KY; Noncommissioned Officer Academy, Fort Bragg, NC; Noncommissioned Officer Academy, Ft. Benning, GA; Noncommissioned Officer Academy, Ft. Stewart, GA; Noncommissioned Officer Academy, Ft. Campbell, KY; Noncommissioned Officer Academy, Ft. Polk, LA; Noncommissioned Officer Academy, Ft. Riley, KS; Noncommissioned Officer Academy, Ft. Sill, OK; Noncommissioned Officer Academy, Ft. Hood, TX; Noncommissioned Officer Academy, Ft. Carson, CO; Noncommissioned Officer Academy, Ft. Bliss, TX; Noncommissioned Officer Academy, Ft. Ord, CA; Noncommissioned Officer Adacemy, Ft. Lewis, WA; Noncommissioned Officer Academy, Ft. Richardson, AK; Noncommissioned Officer Academy, Schofield Barracks, HI; Noncommissioned Officer Academy, Ft. Sherman, Panama; Noncommissioned Officer Academy, EUSA, Korea; Noncommissioned Officer Academy, Europe; Noncommissioned Officer Academy, Ft. Dix, NJ; Noncommissioned Officer Academy, Ft. Leonard Wood, MO; National Guard Bureau Noncommissioned Officer Academy, Cp. Beauregard, LA; 10th Mountain Division (L), Ft. Drum, NY. *Version 2:* Noncommissioned Officer Academies, Continental United States; Noncommissioned Officer Academies, EUSA; Noncommissioned Officer Academies, Europe. *Version 3:* Noncommissioned Officer Academy, Ft. Richardson, AK; Noncommissioned Officer Academy, Ft. Sherman, Canal Zone; Noncommissioned Officer Academy, 8th Army, Korea; Noncommissioned Officer Academy, 25th Infantry Division, HI; Noncommissioned Officer Academy, 1st Armored Division, Germany; Noncommissioned Officer Academy, 3rd Armored Division, Germany; Noncommissioned Officer Academy, 3rd Infantry Division, Germany; Noncommissioned Officer Academy, 8th Infantry Division, Germany; Noncommissioned Officer Academy, 56th Artillery Brigade, Germany; Noncommissioned Officer Academy, 7th Signal Brigade, Germany; Noncommissioned Officer Academy, 32nd AAD Corps, Germany; Noncommissioned Officer Academy, 7th Army,Flint Kaserne, Germany; Noncommissioned Officer Academy, 7th Army,Bad Toelz, Germany.

Length: *Version 1:* 5–6 weeks (307 hours). *Version 2:* 4 weeks (213 hours). *Version 3:* 3–4 weeks (130–160 hours).

Exhibit Dates: *Version 1:* 3/89–Present. *Version 2:* 4/84–2/89. *Version 3:* 1/78–3/84.

Learning Outcomes: Upon completion of the course, the student will be able to perform all basic tasks relating to the noncommissioned officer leadership responsibility.

Instruction: *Version 1:* Lectures and practical exercises in leadership, communications, resource management, training management, and professional skills, including introduction to leadership, principles of leadership, human behavior, character of leaders, ethics, problem solving, leadership styles, principles of motivation, counseling, and responsibility of authority. *Version 2:* Lectures and practical exercises in leadership, communications, resource management, training management, and professional skills, including introduction to leadership, principles of leadership, human behavior, character of leaders, ethics, problem solving, leadership styles, principles of motivation, counseling, and responsibility of authority. *Version 3:* Course material includes motivational techniques, counseling, communication skills, presentations, evaluation of subordinates, awards and ceremonies, time planning, map reading, physical training drill techniques, and critiques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision, 2 in military science (4/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management (5/87). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership (10/80).

AR-2201-0254

Effective Military Writing

Course Number: 1-19-XP-100.

Location: Military Police School, Ft McClellan, AL.

Length: Self-paced 1–2 weeks (48 hours).

Exhibit Dates: 8/81–Present.

Objectives: To enhance professional written Army communications for selected enlisted, noncommissioned, and commissioned officers.

Instruction: This course includes instruction in organization, mechanics, punctuation, and sentence construction. Concentrates on Army written communications and the staff study.

Credit Recommendation: Credit is not recommended because of the the military-specific nature of the course (3/82).

AR-2201-0255

Initial Entry Training (IET) Cadre Course (Active Army)

Course Number: 1B-F8/012-F16; 1B-F3/012-F11; 1B-F5/012-F13; 1B-F4/012-F12; 1B-F7/012-F15; 1B-F9/012-F17; 1B-F6/012-F14; 1B-F10/012-F18.

Location: Army Training Centers, Continental US.

Length: Self-paced 2–3 weeks (80–120 hours).

Exhibit Dates: 7/80–Present.

Objectives: To provide training for selected initial entry training cadre in creating initial entry training environment for the drill sergeant and the trainee.

Instruction: Instruction is individually and group-paced and consists of classroom, outdoor, range and other field environments. Emphasis is on selecting techniques to manage initial entry training. Instruction includes skills such as how to discriminate levels of willingness and ability in soldiers. Counseling techniques and managing stress are included.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/87).

AR-2201-0256

Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)

Course Number: *Version 1:* 250-2-13F30; 250-5-13F30; 250-8-13F30; 250-9-13F30; 250-10-13F30; 250-13-13F30; 250-18-13F30. *Version 2:* None.

Location: *Version 1:* NCO Academy, Ft. Bragg, SC; NCO Academy, Ft. Campbell, KY; NCO Academy, St. Sill, OK; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Lewis, WA; NCO Academy, 7th Army CATC, Europe. *Version 2:* NCO Career Development Center, Ft. Sill, OK; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Carson, CO; NCO Academy, Schofield Barracks, HI; NCO Academy, Ft.Hood, TX; NCO Academy, Ft. Lewis, Wa; 7th Army Combined Arms Training Center, Germany.

Length: 5 weeks (193 hours).

Exhibit Dates: *Version 1:* 10/86–Present. *Version 2:* 8/83–9/86.

Objectives: To provide skills, knowledge, and practical experience for supervising and managing a fire support team in an artillery firing battery.

Instruction: Emphasizes map reading, leadership, counseling, charting and plotting, army supply system and training management system, and first aid.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in supply and maintenance systems, and additional credit on the basis of instutitional evaluation (10/83); for credit for the Common Core, see AR-1406-0090. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in supply and maintenance systems, and additional credit on the basis of institutional evaluation (10/83).

Related Occupation Codes: 13F.

AR-2201-0257

Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)

Course Number: *Version 1:* 250-2-13E30; 250-5-13E30; 250-8-13E30; 250-9-13E30; 250-10-13E30; 250-13-13E30; 250-18-13E30. *Version 2:* None.

Location: *Version 1:* NCO Academy, Ft. Bragg, SC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Sill, OK; NCO ACademy, Ft. Hood, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Lewis, WA, NCO Academy, 7th Army, Europe CATC. *Version 2:* NCO Career Development Center, Ft. Sill, OK; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Carson, CO; NCO Academy, Schofield Barracks, HI; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Lewis, WA; 7th Army Combined Arms Training Center, Germany.

Length: 5 weeks (257 hours).

Exhibit Dates: *Version 1:* 10/86–Present. *Version 2:* 10/83–9/86.

Objectives: To provide skills and knowledge required by a battery chief computer in a field artillery firing battery;provides practical experience in directing and managing a fire direction section.

Instruction: Provides instruction in nuclear, biological, and chemical warfare, laws of warfare, alcohol and drug abuse, communication equipment, battalion training management system, land navigation, and map reading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in supply and maintenance systems, and additional credit on the basis of institutional evaluation (10/83); see AR-1406-0090 for credit recommendation for the Common Core. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in supply and maintenance systems, and additional credit on the basis of institutional evaluation (10/83).

Related Occupation Codes: 13E.

AR-2201-0258

Field Artillery Cannon Basic Noncommissioned Officer (NCO)

Course Number: *Version 1:* 041-2-13B30; 041-5-13B30; 041-7-13B30; 041-8-13B30; 041-9-13B30; 041-10-13B30; 041-12-13B30; 041-13-13B30; 041-14-13B30; 041-15-13B30; 041-18-13B30. *Version 2:* 041-18-13B30; BNCOC 13B30.

Location: NCO Academy, Ft. Richardson, AK; NCOSI, Ft. Benning, GA; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Carson, CO; NCO Academy, Schofield Barracks, HI; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Lewis, WA; NCO Academy, Ft. Ord, CA; NCO Academy, Ft. Riley, KS; NCO Career Development Center, Ft. Sill, OK; 7th Army Combined Arms Training Center, Germany.

Length: *Version 1:* 4–5 weeks (178–190 hours). *Version 2:* 5 weeks (223 hours).

Exhibit Dates: *Version 1:* 10/85–Present. *Version 2:* 8/83–9/85.

Objectives: To provide practical experience in directing and managing a howitzer section, and in supervising maintenance on the howitzer.

Instruction: Training on howitzer firing, prefire checks, boresighting, directing personnel, and maintenance supervision.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in operation management (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in supply and maintenance systems, and additional credit in these areas on the basis of institutional evaluation (10/83).

Related Occupation Codes: 13B.

AR-2201-0259

Field Artillery Pre-Command

Course Number: 2G-F23.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2–3 weeks (90–120 hours).

Exhibit Dates: 8/83–Present.

Objectives: To provide an understanding of training and maintenance doctrines.

Instruction: Open forum on the organization and mission of the field artillery center; discussions on updating techniques, fire planning, coordination, doctrine changes, and general army maintenance procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/90).

AR-2201-0260

Nuclear Cannon Assembly (Atomic Cannon Eight Inch)

Course Number: 041-F5; 4F-F5; 041-ASIM5.

Location: Field Artillery School, Ft. Sill, OK.

Length: 1–2 weeks (55–70 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide a working knowledge of the inspection, set-up, and prefire operations of the M753 and M422 atomic projectiles.

Instruction: Instruction in prefire procedures, safety procedures, and the assembly, disassembly, storage, and security of the eight inch atomic projectile.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/83).

AR-2201-0261

Patriot Air Defense Officer

Course Number: 2F-14E.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 8–10 weeks (296–306 hours).

Exhibit Dates: 7/83–Present.

Objectives: To teach commissioned officers in the operational requirements, tactical employment, and operational procedures of the Patriot air defense system.

Instruction: Lectures and laboratory assignments are designed to provide the student with the basic knowledge of the Patriot air defense weapon, to include system operation, crew drill, maintenance, and command and control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/88).

AR-2201-0262

BASIC NONCOMMISSIONED OFFICER (NCO) (16R30)

Course Number: *Version 1:* 043-11-16R30. *Version 2:* 043-11-16R30; 043-10-16R30; 043-13-16R30; 043-02-16R30; 043-2-16R30; 043-05-16R30; 043-5-16R30; 043-09-16R30; 043-9-16R30; 043-18-16R30. *Version 3:* 043-11-16R30; 043-10-16R30; 043-13-16R30; 043-02-16R30; 043-2-16R30; 043-05-16R30; 043-5-16R30; 043-09-16R30; 043-9-16R30; 043-18-16R30.

Location: *Version 1:* NCO Academy, Ft.Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Lewis, WA; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, 7th Army, Germany. *Version 2:* NCO Academy, Ft. Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Lewis, WA; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Hood, TX; NCO Academy, 7th ATC Hohenfels, Germany. *Version 3:* NCO Academy, Ft. Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Lewis, WA; NCO Academy, Ft. Bragg, NC; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Hood, TX; NCO Academy, 7th ATC Hohenfels, Germany.

Length: 5 weeks (176-226 hours).

Exhibit Dates: *Version 1:* 9/88–Present. *Version 2:* 3/86–8/88l. *Version 3:* 9/82–2/86.

Objectives: To train qualified personnel to lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: This course includes conferences and practical exercises as well as workshops to train a Vulcan squad, and to instruct in the deployment and supervision of a Vulcan squad.

Credit Recommendation: *Version 1:* Credit is recommended for the only the common core; see exhibit AR-1406-0098 (3/89). *Version 2:* Credit is recommended for the common core only, see exhibit AR-1406-0090 (12/86). *Version 3:* Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 16R.

AR-2201-0263

BASIC NONCOMMISSIONED OFFICER (NCO) (16P30)

Course Number: *Version 1:* 043-11-16P30. *Version 2:* 043-11-16P30; 043-10-16P30; 043-13-16P30; 043-9-16P30; 043-15-16P30; 043-18-16P30; 043-17-16P30. *Version 3:* 043-11-16P30; 043-10-16P30; 043-13-16P30; 043-9-16P30; 043-09-16P30; 043-15-16P30; 043-18-16P30; 043-17-16P30.

Location: *Version 1:* NCO Academy, Ft. Bliss, TX; NCO Academy, 7th Army, Germany. *Version 2:* NCO Academy, Ft. Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Hood, TX; NCO Academy, Schofield Barracks, HI; NCO Academy, 7th ATC, Hohenfels, Germany; NCO Academy, Ft. Lewis, WA. *Version 3:* NCO Academy, Ft. Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Hood, TX; NCO Academy, Schofield Barracks, HI; NCO Academy, 7th ATC, Hohenfels, Germany; NCO Academy, Ft. Lewis, WA.

Length: 5 weeks (192-234 hours).

Exhibit Dates: *Version 1:* 9/88–Present. *Version 2:* 3/86–Present. *Version 3:* 8/83–2/86.

Objectives: To train air defense artillery short range missile squad leaders to lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: This course consists of conferences and practical exercises in training fundamentals, training a Chaparral squad, and deployment and supervision of a Chaparral squad.

Credit Recommendation: *Version 1:* Credit is recommended for only the common core. See AR-1406-0098 (3/89). *Version 2:* Credit is recommended for the common core only. See exhibit AR-1406-0090 (12/86). *Version 3:* Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 16P.

AR-2201-0264

BASIC NONCOMMISSIONED OFFICER (NCO) (16S30)

Course Number: 043-11-16S30; 043-10-16S30; 043-09-16S30; 043-9-16S30; 043-15-16S30; 043-13-16S30; 043-18-16S30; 043-2-16S30; 043-5-16S30.

Location: NCO Academy, Ft. Bliss, TX; NCO Academy, Ft. Carson, CO; NCO Academy, Ft. Hood, TX; NCO Academy, Ft. Lewis, WA; NCO Academy, 7th Army CATC, Germany; NCO Academy, Ft. Campbell, KY; NCO Academy, Ft. Bragg, NC; NCO Academy, HI.

Length: 4–5 weeks (176-236 hours).

Exhibit Dates: *Version 1:* 3/86–Present. *Version 2:* 3/82–2/86.

Objectives: To teach selected personnel to lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: Conferences, practical exercises, and workshops help teach the soldiers to prepare and conduct training, and to train, deploy, and supervise a Redeye/Stinger section.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (3/89); for Basic Noncomissioned Officer Common Core, see AR-1406-0090. *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/84).

Related Occupation Codes: 16S.

AR-2201-0265

AIR DEFENSE ARTILLERY (ADA) PRE-COMMAND

(Air Defense Pre-Command)

Course Number: 2G-F25.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 2–3 weeks (94–103 hours).

Exhibit Dates: 8/81–Present.

Objectives: To provide selected battalion, group, and brigade command designees with a refresher course on logistics and maintenance management, training management, tactics, command perceptions, and professional development electives.

Instruction: This course includes the latest available information on maintenance management and logistics, training management, tactics, and general theory of operation and evaluation of readiness of operational air defense weapon systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

AR-2201-0266

MAN PORTABLE AIR DEFENSE SYSTEM (MANPADS) FORSCOM CADRE NET

Course Number: 043-F5.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 3 weeks (118 hours).

Exhibit Dates: 1/83–Present.

Objectives: To provide continental United States Redeye supervisory personnel with the training to qualify them to operate and maintain the Stinger weapon system and to prepare them as instructors of the Stinger weapon system.

Instruction: Using conferences and practical exercises, the following topics are presented: introduction to the Stinger system, its operation and maintenance; moving target simulation; and live aircraft tracking.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/84).

Related Occupation Codes: 16S.

AR-2201-0267

BASIC NONCOMMISSIONED OFFICER (NCO) (16J30)

Course Number: 221-11-16J30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (185-227 hours).

Exhibit Dates: *Version 1:* 3/86–Present. *Version 2:* 3/84–2/86.

Objectives: To teach air defense artillery forward area alerting radar (FAAR) section chiefs to lead, train, and direct subordinates to maintain, operate, and deploy equipment.

Instruction: This course consists of practical exercises and lectures in the conduction of training, personnel supervision, and training and supervision of a FAAR equipped section.

Credit Recommendation: *Version 1:* Credit is recommended for the common core only. See exhibit AR-1406-0090 (3/89). *Version 2:* Credit is not recommended because of the military-specfic nature of the course (12/84).

Related Occupation Codes: 16J.

AR-2201-0268

BASIC NONCOMMISSIONED OFFICER (NCO) (16D30)

Course Number: 043-11-16D30.

Location: Air Defense Artillery School, Ft. Bliss, TX

Length: 5 weeks (180-227 hours).

Exhibit Dates: *Version 1:* 3/86–Present. *Version 2:* 5/84–2/86.

Objectives: To prepare Hawk Missile Firing Section Chiefs to lead, train, and direct subordinates, to maintain, operate and deploy/employ weapons and equipment.

Instruction: This course employs conferences, practical exercises and workshops to develop and conduct section training, train a Hawk section in common tasks, train a Hawk launcher section, and deploy and supervise a Hawk section.

Credit Recommendation: *Version 1:* Credit is recommended for the common core only. See exhibit AR-1406-0090 (3/89). *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 16D.

AR-2201-0269

Basic Noncommissioned Officers (NCO) (16E30)

Course Number: 043-11-16E30.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 5 weeks (197-248 hours).

Exhibit Dates: *Version 1:* 3/86-Present. *Version 2:* 5/84-2/86.

Objectives: To prepare Hawk Missile Fire Control Section to lead, train, and direct subordinates to maintain, operate, deploy/employ weapons and equipment.

Instruction: This course consists of conferences, workshops, and practical exercises to develop and conduct section training, to train a Hawk section in common tasks, and to train, deploy, and supervise a Hawk section.

Credit Recommendation: *Version 1:* Credit is recommended for the common core only. See exhibit AR-1406-0090 (3/89). *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/86).

Related Occupation Codes: 16E.

AR-2201-0270

Signal Precommand
(Battalion/Brigade Pre-Command)

Course Number: 2G-F40.

Location: Signal School, Ft. Gordon, GA.

Length: 2-3 weeks (81-114 hours).

Exhibit Dates: 4/84-Present.

Objectives: To prepare student for battalion and brigade level command.

Instruction: Course includes a review of policies and procedures inherent in signal organizations, including personnel and maintenance procedures and training reports.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

AR-2201-0271

Army Medical Department (AMEDD) Battalion/Brigade Pre-Command

Course Number: 7M-F2.

Location: Academy of Health Sciences, Ft. Sam Houston, TX.

Length: 2 weeks (77-79 hours).

Exhibit Dates: 8/81-Present.

Objectives: To prepare individuals for battalion and gryade level command. To insure and understanding of current US Army training, personnel, logistics and tactical doctrine.

Instruction: Areas of instruction include: military science as related to utilization of medical personnel, health care administration; preventive medicine countermeasures, and combat stress and battle fatigue preparedness.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/87).

AR-2201-0272

Infantry Precommand

Course Number: 2G-F26.

Location: Infantry School, Ft. Benning, GA.

Length: 3 weeks (167 hours).

Exhibit Dates: 6/85-Present.

Objectives: To train the student in the overall management of unit operations in preparation for the assumption of command responsibility.

Instruction: Lecture and demonstration techniques in offensive and defensive tactical doctrine, field artillery, and field engineering.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0273

Jumpmaster

Course Number: 2E-F3/011-F16; 2E-F60/011-F16.

Location: Infantry School, Ft. Benning, GA.

Length: 1-2 weeks (77-80 hours).

Exhibit Dates: 3/82-Present.

Objectives: To train students (qualified parachutists) and jumpmaster techniques.

Instruction: Lecture, demonstration, and practical exercises in parachuting techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in parachuting techniques (9/85).

AR-2201-0274

Primary Noncommissioned Officer (NCO) for Combat Arms

Course Number: None.

Location: Noncommissioned Officers Academy, Continental United States; Noncommissioned Officers Academy, EUSA; Noncommissioned Officers Academy, Europe.

Length: 4 weeks (212 hours).

Exhibit Dates: 11/80-Present.

Objectives: To develop leadership skills and techniques in a E4 combat arms soldier who has been selected as having potential to become an N.C.O.

Instruction: Lecture and practical exercises that provide a thorough understanding of the responsibilities of N.C.O.'s leadership techniques that apply to their positions, and training and managing their soldiers.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/85).

AR-2201-0275

Light Leader

Course Number: 2E-F68/010-F8.

Location: Infantry School, Ft. Benning, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/85-Present.

Objectives: To train company grade officers and enlisted personnel (AC & RC leaders) to enable them to command and fill leadership positions in light infantry divisions.

Instruction: Lecture and practical exercises in collective and individual combat skills including: land navigation, marksmanship, survival, and small unit tactics to develop a cohesive command structure.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/85).

AR-2201-0276

Bradley Fighting Vehicle Fighting Vehicle Infantryman

Course Number: 010-11M10.

Location: Infantry School, Ft. Bennings, GA.

Length: 3 weeks (125 hours).

Exhibit Dates: 4/84-Present.

Objectives: To train soldiers to serve as infantry squad members.

Instruction: Performance oriented hand-on training in Bradley F.V. operation, TOE missile, communications, and weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0277

Improved Toe Vehicle (ITV) Trainer

Course Number: 2E-F57/010-ASIE9.

Location: Infantry School, Ft. Benning, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/85-Present.

Objectives: To provide the student instruction on the tactical employment of the improved TOE Vehicle (ITV).

Instruction: Practical exercises, demonstration and conference/lectures, regarding all aspects of the improved Toe Vehicle ITV.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0278

Reserve Officer Training Course (ROTC) Ranger

Course Number: 011-F14.

Location: Infantry School, Ft. Benning, GA.

Length: 9 weeks (321 hours).

Exhibit Dates: 10/75-Present.

Objectives: To develop leadership skills in selected ROTC cadets.

Instruction: Lecture and practical exercises in parachuting, communication, reconnaissance, survival, weapons, first aid, simulated combat, physical conditioning, and marksmanship.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in physical education (9/85).

AR-2201-0279

Heavy Antiarmor Weapons Crewman
(Infantry One Station Unit Training (OSUT))

Course Number: 010-11H10; 11H10-OSUT; 010-11B/C/H.

Location: Infantry School, Ft. Benning, GA.

Length: 8-13 weeks (382-565 hours).

Exhibit Dates: 1/79-Present.

Objectives: To prepare personnel for infantry units.

Instruction: Lecture, demonstration, and practical exercises in discipline, motivation and physical fitness.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0280

Multiple Launch Rocket System (MLRS) Mechanic

Course Number: 042-ASIS8 (CT); 042-ASIS8.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (63-71 hours).

Exhibit Dates: 2/83-Present.

Objectives: To train selected personnel to perform organizational maintenance on the missile launch rocket system.

Instruction: Lectures and demonstrations on preventive maintenance, service, and system troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/88).

AR-2201-0281

Cannon Crewman

Course Number: 13B10-OSUT/041-13B10(AIT).

Location: Field Artillery School, Ft. Sill, OK.

Length: 5–13 weeks (552 hours).

Exhibit Dates: 8/83–6/88.

Objectives: To provide training to enlisted personnel on the duties of soldiers serving in a field artillery howitzer section.

Instruction: Lectures and field exercises in the identification and use or howitzers, techniques of handling ammunition, setting fuses, preparing charges, loading, firing, and maintaining howitzers.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

Related Occupation Codes: 13B.

AR-2201-0282

Multiple Launch Rocket System (MLRS) Crewman

Course Number: *All Versions:* 042-13M10. *Version 1:* 042-13M10-OSUT.

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 6 weeks (222–228 hours). *Version 2:* 6–14 weeks (209 hours). *Version 3:* 6–7 weeks (243 hours).

Exhibit Dates: *Version 1:* 10/87–Present. *Version 2:* 10/84–8/97. *Version 3:* 10/82–9/84.

Objectives: To train enlisted personnel to perform the duties of a multiple launch rocket system crewman.

Instruction: *Version 1:* Lectures and demonstrations in electronic communications, weapon systems, target acquisition, fire control system operations, supply procedures, and preventive maintenance checks and services. Fourteen week course includes basic training. *Version 2:* Lectures and demonstrations in electronic communications, weapon systems, target acquisition, fire control system operations, supply procedures, and preventive maintenance checks and services. Fourteen week course includes basic training. *Version 3:* Lectures and demonstrations in radio communications, maintenance, map reading, navigation, target acquisition, fire control system operations, supply procedures, and preventive maintenance checks and services.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in map reading (4/88). *Version 2:* In the vocational certificate category, 2 semester hours in map reading (11/85). *Version 3:* In the vocational certificate category, 1 semester hour in radio operations and 2 in map reading (11/85).

Related Occupation Codes: 13M.

AR-2201-0283

Tactical Fire (TACFIRE) Command and Staff

Course Number: 2G-F31/250-F7.

Location: Field Artillery School, Ft. Sill, OK.

Length: 1 week (37 hours).

Exhibit Dates: 5/85–Present.

Objectives: To provide training in the operational and organizational concepts of the Tactical Fire (TACFIRE) system.

Instruction: Lecture and demonstrations in data base applications, command and control functions, hardware, computer systems, intelligence software, and division fire support.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/85).

AR-2201-0284

Nuclear Warhead Detachment

Course Number: 2E-F96/041-F8; 2E-FOA-F76.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2–3 weeks (79–108 hours).

Exhibit Dates: 8/85–Present.

Objectives: To prepare selected commissioned officers to command nuclear warhead detachments.

Instruction: Lectures on the mission, duties, function, and responsibilities of nuclear warhead detachment personnel.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/90).

AR-2201-0285

Warrant Officer Entry

Course Number: 911-09W.

Location: *Version 1:* Aviation School, Ft. Rucker, AL; Reserve Readiness Center, Ft. McCoy, WI. *Version 2:* Field Artillery School, Ft. Sill, OK; Aviation Center, Ft. Rucker, AL; Ordnance Center, Aberdeen Proving Ground, MD.

Length: 4–7 weeks (217-223 hours).

Exhibit Dates: *Version 1:* 1/87–Present. *Version 2:* 10/84–12/86.

Objectives: To train warrant officer candidates in the common skills required for all warrant officers.

Instruction: Lectures, demonstrations, and practical exercises in leadership, ethics, professional development, communication skills, personnel management, military history, employment, and tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in leadership and supervision (4/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in leadership and supervision (4/87).

AR-2201-0286

Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced

Course Number: 250-13C40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10–11 weeks (375 hours).

Exhibit Dates: 7/85–10/87.

Objectives: To train selected personnel in modern battlefield tactics, techniques, and procedures.

Instruction: Practical application of automatic data processing, and the duties, responsibilities, and missions of personnel working in a computer controlled fire direction center.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in oral communications (11/85); in the upper-division baccalaureate category, 3 semester hours in principles of management and 1 in educational administration (11/85).

Related Occupation Codes: 13C.

AR-2201-0287

Field Artillery Fire Support (NCO) Noncommissioned Officer Advanced

Course Number: 250-13F40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 10–11 weeks (363 hours).

Exhibit Dates: 10/85–2/88.

Objectives: To train the fire support specialist to be an exporter of modern battlefield tactics, techniques and procedures.

Instruction: Instruction on the capability and organization of the fire support team including the duties, responsibilities, and missions of fire support team personnel; instruction on how to perform, lead, train and evaluate personnel.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications and 1 in oral communications (11/85); in the upper-division baccalaureate category, 3 semester hours in principles of management and 1 in educational administration (11/85).

Related Occupation Codes: 13F.

AR-2201-0288

Pershing II Missile Crewmember Advanced Noncommissioned Officer (NCO)

Course Number: 043-15E40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3–9 weeks (124–263 hours).

Exhibit Dates: 8/85–Present.

Objectives: To train noncommissioned officers to be exporters of modern field tactics.

Instruction: This course is taught in two parts. The first part, the common core, is the Sergeant Major Academy's advanced noncommissioned officers course, and includes leadership, ethics, personnel management, doctrine and tactics. The second part provides instruction in utilization of weapons systems, inspection, testing and security of the Pershing II missile system; how to lead, evaluate, train, and apply management training techniques.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

Related Occupation Codes: 15E.

AR-2201-0289

Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced (NCO) Noncommissioned Officer

Course Number: 250-15J40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8–9 weeks (297 hours).

Exhibit Dates: 8/85–Present.

Objectives: To train the noncommissioned officer to be an exporter of modern battlefield tactics and on the technical and supervisory skills necessary to support the MLRS/Lance fire direction systems.

Instruction: Lectures and practical experiences in leadership, ethics, military doctrine and tactics, training and evaluating fire direction center soldiers, and the application of training management techniques.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (11/85).

Related Occupation Codes: 15J.

AR-2201-0290

Multiple Launch Rocket System (MLRS)/Lance Advanced (NCO) Noncommissioned Officer

Course Number: 043-15D40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3-8 weeks (132-262 hours).

Exhibit Dates: 8/85–Present.

Objectives: To train noncommissioned officers to be exporters of modern battlefield tactics in technical supervisory skills for the Lance and MRLS missile system.

Instruction: Lectures and practical exercises in leadership, ethics, personnel management, military doctrine and tactics; emplacement, inspection, testing and security of the multiple launch rocket system; techniques necessary to lead, evaluate and train Lance and MLRS system soldiers.

Credit Recommendation: Credit is recommended for the common core only. See AR-1404-0035 (10/88).

Related Occupation Codes: 15D.

AR-2201-0291

Pershing Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO)
(Pershing II Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO))

Course Number: 121-21G40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-8 weeks (157-267 hours).

Exhibit Dates: 9/85–Present.

Objectives: To train missile section chiefs and noncommissioned officers in battlefield tactics, leadership, technical areas, and supervision.

Instruction: Lectures and demonstrations in leadership, ethics, personnel management, doctrine, tactics, inspections, maintenance, and testing of Pershing missile systems.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

Related Occupation Codes: 21G.

AR-2201-0292

Field Artillery Radar Crewmember Noncommissioned Officer (NCO) Advanced

Course Number: 221-17B/13R40; 221-13R/17B40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-7 weeks (186-248 hours).

Exhibit Dates: 10/85–Present.

Objectives: To train selected personnel in the technical and supervisory skills necessary to perform as a field artillery crewmember noncommissioned officer.

Instruction: Lectures and demonstrations in field artillery tactics, communications, electronics, weapons, and target acquisition.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

Related Occupation Codes: 17B; 13R.

AR-2201-0293

Field Artillery Surveyor Noncommissioned Officer (NCO) Advanced

Course Number: 411-82C40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 7 weeks (202-249 hours).

Exhibit Dates: 10/85–Present.

Objectives: To provide training to selected enlisted personnel in the technical and supervisory skills required to plan and supervise conventional survey operations.

Instruction: Lectures and practical exercise in training other soldiers in planning, field work, special survey techniques, organizational maintenance of survey equipment, vehicle maintenance, and supply procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/87).

Related Occupation Codes: 82C.

AR-2201-0294

Primary Leadership Development - Reserve Component

Course Number: None.

Location: National Guard Academies, United States; Army Reserve Schools, United States.

Length: 123 hours.

Exhibit Dates: 4/85–Present.

Objectives: To provide the graduate with the skills and knowledge for assuming first line supervisorial responsibilities including the fundamentals and techniques of leadership, group behavior, and resource management in a military organization.

Instruction: The course combines lecture, small group participatory seminars, and practical application in the areas of leadership, communication, resource and training management, and military studies and professional skills in drill and ceremony, map reading/land navigation and combat operations for small units.Course is conducted over 15 some days, or on 4 weekends with an 8 day resident component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and leadership (5/87).

AR-2201-0295

Advanced Course for Reserve Component Noncommissioned Officer (NCO)

Course Number: None.

Location: National Guard Academies, United States.

Length: 60 hours.

Exhibit Dates: 7/80–Present.

Objectives: To develop leadership and supervision skills and techniques to be implemented at the operational level.

Instruction: Lectures and practical exercises in the areas of personnel management, communication, supervision, leadership, logistics, material management, and topography. The course may be offered in 8 or 9 days or over several weekends.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those students completing the Primary Leadership Development Course - Reserve Component (AR-2201-0294), 1 semester hour in leadership supervision; for all other students, 2 in leadership and supervision(8/86).

AR-2201-0296

Senior Course for Reserve Component Noncommissioned Officer (NCO)

Course Number: None.

Location: National Guard Academies, United States.

Length: 50 hours.

Exhibit Dates: 7/82–Present.

Objectives: To develop leadership skills and techniques at the upper operational levels.

Instruction: Lectures and practical exercises in areas of small group study, training, effective writing, public speaking, counseling, and maintenance management. Course is conducted over 8 days or 4 weekends.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those students completing the Advanced Course for Reserve Noncommissioned Officer (NCO) (AR-2201-0295), 1 semester hours in group dynamics and training; for all other students, 2 semester hours in group dynamics and training (8/86).

AR-2201-0297

Primary Noncommissioned Officer (NCO) for Reserve (PNCOC/RC)

Course Number: None.

Location: National Guard Academies, United States; Army Reserve Schools, United States.

Length: 121 hours.

Exhibit Dates: 7/80–8/85.

Objectives: To prepare graduates of the course to plan and conduct performance oriented training for Army reserve combat units.

Instruction: Instruction consists of lecture, seminars, and practical exercises in leadership, behavior principles, supervision, counseling, topography and land navigation, installation and operation of tactical telephone and radio equipment and field operations for combat units in the reserve.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in performance based training (8/86).

AR-2201-0298

Basic Course for Reserve Component Noncommissioned Officer (NCO)

Course Number: None.

Location: National Guard Academies, United States.

Length: 75 hours.

Exhibit Dates: 7/80–8/85.

Objectives: To prepare the graduate to plan and conduct performance oriented training for Reserve combat support and combat service support units.

Instruction: Instructions includes seminar, lecture, and practical exercises in leadership, personnel administraion, military justice, field telephone and radio operation, land navigation and equipment maintenance, and supply economy for first line supervisors in combat support and combat service support units in the Reserve.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in performance based training (8/86).

AR-2201-0299

First Sergeant Course for Reserve Component

Course Number: None.

Location: National Guard Academies, United States.

Length: 80 hours.

Exhibit Dates: 9/84–Present.

Objectives: To teach students to understand and develop skills in administrative procedures and processes.

Instruction: Through lectures, practical exercises, seminars and problem solving the student will develop skills and knowledge in administering records, organizational processes and organizational procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester houts in administrative procedures and processes (8/86).

AR-2201-0300

National Guard Officer Candidate

Course Number: None.
Location: National Guard Academies, United States.
Length: 265–272 hours.
Exhibit Dates: 2/82–Present.

Objectives: Upon completion of the course the student will understand the role and develop the skills for leadership and management in widely varied situations including training, motivation, counseling, discipline, and appraising personnel, managing and maintaining systems, and planning, organizing and directing organization processes and procedures. The student will demonstrate an ability to read and interpret complex maps and to make accurate navigational calculations and to translate from two to three dimensions accurately.

Instruction: Topics in human resources management, leadership, writing, records, maintenance, training, direction, and motivation utilizing readings, lectures, discussions, exercises, and evaluation by tests and performance. There are two 15 day components plus twelve months of two day sessions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in leadership and management and 2 in geography/topography (8/86).

AR-2201-0301

Light Air Defense Artillery (ADA) Crewman

Course Number: 16F10-OSUT.
Location: Air Defense Artillery School, Ft. Bliss, TX.
Length: 14 weeks (186 hours).
Exhibit Dates: 1/83–Present.

Objectives: To provide National Guard enlisted personnel with the skills necessary to perform as light air defense artillery crewmen.

Instruction: Course includes training in basic soldier skills, 40 mm gun operation, tracked vehicle operation, and firing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in first aid (11/86).

AR-2201-0302

Warrant Officer Orientation

Course Number: 9E-F1.
Location: Aviation Center, Ft. Rucker, AL.
Length: 2 weeks (76 hours).
Exhibit Dates: 8/80–12/86.

Objectives: To provide newly-appointed warrant officers with information concerning social and military customs and traditions and responsibilities of warrant officers.

Instruction: Topics include techniques of management, effective listening, training management, military correspondence, organizational effectiveness, personnel management systems, counseling techniques, and the officer evaluation reporting system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 2 in personnel supervision (11/86).

AR-2201-0303

Cadet Military Secondary Training/ROTC

Course Number: 2C-F34.
Location: Aviation Center, Ft. Rucker, AL.
Length: 4 weeks (124 hours).
Exhibit Dates: 6/85–1/90.

Objectives: To introduce U.S. military academy/ROTC cadets to the operation and uses of rotary-wing aircraft in a military environment.

Instruction: Topics include TH-55 helicopter maintenance, aerodynamics, tactical subjects, aeromedical subjects, and flight training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic aerodynamics and theory of flight, 3 in basic helicopter flight and systems (11/86).

AR-2201-0304

Echelons Above Corps (EAC) Operations Officer

Course Number: 4C-FOA-F27.
Location: Signal School, Ft. Gordon, GA.
Length: 5 weeks (179 hours).
Exhibit Dates: 5/85–10/87.

Learning Outcomes: Upon completion of the course student will be able to perform all company-grade operations functions relative to installation systems commands, base communications, and special-purpose defense systems with primary emphasis on fixed-station communications functions.

Instruction: Includes lectures and demonstrations primarily in communications systems, post telephone operations, management of fixed telecommunications centers, preparation of command operating budget, information management systems, office automation, contracting, audio-visual management and logistics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AR-2201-0305

Echelons Above Corps (EAC) Operations Officer

Course Number: 4C-F28.
Location: Signal School, Ft. Gordon, GA.
Length: 3 weeks (109 hours).
Exhibit Dates: 11/85–10/89.

Learning Outcomes: Upon completion of the course student will be able to perform all company-grade operations functions relative to installation systems commands, base communications, and special-purpose defense systems with primary emphasis on fixed-station communications functions.

Instruction: Includes lectures and demonstrations primarily in communications systems, post telephone operations, management of fixed telecommunications centers, preparation of command operating budget, information management systems, office automation, contracting, audio-visual management and logistics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AR-2201-0306

Signal Officer Advanced-Reserve Component

Course Number: 4-11-C26 RC.
Location: Signal School, Ft. Gordon, GA.
Length: Resident phase, 12 weeks (432–442 hours).
Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will have the knowledge to be assigned a signal command position at company, battalion, brigade, or division/corps level.

Instruction: Includes instruction in combined arms, battle doctrine, communication planning, technical characteristics of various tactical radio and wire equipment, review of basic electricity, electromagnetic propagation, and procedures necessary for secure communication.

Credit Recommendation: Credit is not recommended because of the military, specific nature of the course (7/89).

AR-2201-0307

Signal Officer Basic-Reserve Components

Course Number: 4-11-C25-RC.
Location: Signal School, Ft. Gordon, GA.
Length: Resident phase 8 weeks (293 hours).
Exhibit Dates: 2/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate a basic knowledge of communications systems in use by tactical units of the signal corps. Student will have the knowledge to manage and command personnel and a tactical communication center.

Instruction: Lectures and hands-on experience with the various tactical wire and radio communications systems. Lectures on combat communications concepts, doctrine, and procedures used in tactical communications systems. The resident phase, only, was evaluated.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of communications systems (6/90).

AR-2201-0308

Artillery Repairer

Course Number: 642-45L10.
Location: Ordnance Center, Aberdeen Proving Ground, MD.
Length: 13–14 weeks (491 hours).
Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform general support maintenance on towed and self-propelled artillery.

Instruction: Instruction includes lectures, demonstration and practical exercises in the use and care of handtools and hardware, basic hydraulic principles, electrical fundamentals and the maintenance and troubleshooting of artillery weapons systems. For earlier version see AR-2201-0125.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity (10/88).

AR-2201-0309

Towed Artillery Repairman (USMC)
(Self-Propelled Artillery System Technician
(Artillery Repairer)

Course Number: 642-3121 (45L); 642-2143 (45L); 641-2131.
Location: Ordnance Center, Aberdeen Proving Ground, MD.
Length: 6–13 weeks (240–468 hours).
Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform general support maintenance on towed and self propelled artillery.

Instruction: Instruction includes lectures, demonstration and practical exercises in the use and care of handtools and hardware, basic hydraulic principles, electrical fundamentals and the maintenance and troubleshooting of artillery weapons systems. For earlier version see AR-2201-0125.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity (10/88).

AR-2201-0310

Light Weapons Infantryman
(Infantry One Station Unit Training (OSUT))

Course Number: 010-11B/C/H; 11B10-OSUT; 010-11B10.

Location: Infantry School, Ft. Benning, GA.

Length: 8-13 weeks (382-565 hours).

Exhibit Dates: 1/79-Present.

Objectives: To prepare personnel for infantry units.

Instruction: Lecture, demonstration, and practical exercises in discipline, motivation and physical fitness.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0311

Indirect Fire Crewman
Infantry One Station Unit Training (OSUT))

Course Number: 010-11B/C/H; 11C10-OSUT; 010-11C10.

Location: Infantry School, Ft. Benning, GA.

Length: 8-13 weeks (382-565 hours).

Exhibit Dates: 1/79-Present.

Objectives: To prepare personnel for infantry units.

Instruction: Lecture, demonstration, and practical exercises in discipline, motivation and physical fitness.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/85).

AR-2201-0312

Basic Noncommissioned Officer (NCO) - 16T Track

Course Number: 043-11-16T30.

Location: Noncommissioned Officer Academy, Ft. Bliss, TX.

Length: 5 weeks (200-209 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course students will be able to lead, train, and direct subordinates to maintain, operate, and employ weapons and equipment.

Instruction: Training is in leadership; maintenance; tactics; communications; land navigation; weapons; nuclear, biological, and chemical (NBC); and training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, see AR-1406-0090 for the recommendation for the Common Core (3/89).

Related Occupation Codes: 16T.

AR-2201-0313

Electronic Warfare (EW) Analyst

Course Number: 232-F8.

Location: Intelligence School, Ft. Devens, MA.

Length: 7-9 weeks (293-357 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to isolate, identify, and report tactical signal intelligence, develop data bases, utilize tactical communications equipment and vehicles in support of tactical operations and procedures, and operate a microfix computer.

Instruction: Lectures, demonstrations, and performance exercises in report writing, radio communications, data base development, operation and maintenance of tactical communication equipment and vehicles, and operation of the microfix computer.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0314

Electronic Order of Battle Analysis

Course Number: 3B-F7/233-F10.

Location: Intelligence School, Ft. Devens, MA.

Length: 5-6 weeks (204 hours).

Exhibit Dates: 10/83-12/86.

Learning Outcomes: Upon completion of the course, the student will be able to identify basic components of radar systems, and become familiar with the organization and tactics of potential enemy countries.

Instruction: Topics include map reading, review of basic radar theory, study of potential enemy organizations, and tactics.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-2201-0315

Pre-Command Phase III, Systems Proficiency

Course Number: 3B-F11.

Location: Intelligence School, Ft. Devens, MA.

Length: 1 week (45 hours).

Exhibit Dates: 4/85-Present.

Learning Outcomes: Upon completion of the course, the student will be proficient in EW/SIGINT collection and processing systems.

Instruction: Instruction includes orientation to basic electronic warfare topics and to missions and procedures of strategic sites of tactical commands.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-2201-0316

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)

Course Number: 231-05D30.

Location: Security School, Ft. Devens, MA.

Length: *Version 1:* 7-8 weeks (266-267 hours). *Version 2:* 13 weeks (469-470).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 10/86-12/88.

Learning Outcomes: The student will be able to read, construct, and use maps; explain electronic warfare and communications security; assign and implement tasks; identify common antenna types; interpret oscilloscopes; supervise installation and operation of RDF equipment.

Instruction: *Version 1:* Pending evaluation. *Version 2:* This course trains individuals in the performance and supervision of waveform analysis operations, management and supervision of direction finding and advanced identification techniques equipment, and planning, supervision, and reporting for tactical operations deployment.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hours in office management procedures (5/87).

Related Occupation Codes: 05D.

AR-2201-0317

Advanced Identification Techniques Analyst

Course Number: 231-F7.

Location: Intelligence School, Ft. Devens, MA.

Length: 3-4 weeks (119-120 hours).

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be proficient in advanced identification techniques, will be able to calibrate and operate specific equipment,and will be proficient in analysis techniques, records, and reports.

Instruction: Lectures, audio-visual presentations, demonstrations, and performance exercises in the calibration and operation of specific equipment, in analysis, recording, and reporting signals.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/87).

AR-2201-0318

Ordnance Pre-Command

Course Number: 2G-F44.

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/85-9/90.

Learning Outcomes: Upon completion of the course, the student will be able to assume battalion and brigade level commands.

Instruction: Instruction includes a series of lectures, demonstrations, and practical exercises of short term duration on appropriate military topics to aid the ordnance officer in preparation to assume command of a military unit.

Credit Recommendation: Credit is not recommended because of the military-specific nature of th course (3/87).

AR-2201-0320

Self-Propelled Field Artillery System Mechanic Noncommissioned Officer (NCO) Advanced
(Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T)

Course Number: 611-63D40; 6-63-C42 (63B,D,E,N,T).

Location: Ordnance Center, Aberdeen Proving Ground, MD.

Length: 8-10 weeks (295-445 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the skills and technical knowledge and serve as a supervisor in the selected military occupational specialty (MOS) for which trained.

Instruction: Lectures, demonstrations, and practical exercises in leadership, communication skills, fundamentals of instruction, logistics management, and refresher training in the appropriate military occupational specialty (MOS). Emphasis in on leadership and on verbal and written communication.

Credit Recommendation: See exhibit AR-1404-0035 for the credits for the Advanced Noncommissioned Officer (NCO) Common Core (1/88).

Related Occupation Codes: 63B; 63D; 63E; 63N; 63T.

AR-2201-0321

Armor Officer Advanced—Reserve Component

Course Number: 2-17-C26.

Location: Armor Center, Ft. Knox, KY.

Length: 12-13 weeks (493-504 hours).

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform management skills at the supervisory and management position levels.

Instruction: Instruction includes lectures and practical exercises in military science, organizational support and functions, leadership, communication skills, maintenance and inspection procedures and logistics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills (7/87); in the upper-division baccalaureate category, 2 semester hours in management systems, 3 in business management, and 2 in military science (7/87).

AR-2201-0322

Basic Noncommissioned Officer (NCO) 19D ITV

Course Number: *Version 1:* 250-1-19D30 (ITV); 250-4-19D30 (ITV); 250-7-19D30 (ITV); 250-9-19D30 (ITV); 250-10-19D30 (ITV); 250-18-19D30 (ITV). *Version 2:* 250-1-19D30; 250-4-19D30; 250-7-19D30; 250-9-19D30; 250-10-19D30; 250-11-19D30; 250-18-19D30.

Location: *Version 1:* Armor Center, Ft. Knox, KY; Armor Center, Ft. Stewart, GA; Armor Center, Ft. Riley, KS; Armor Center, Ft. Hood, TX; Armor Center, Ft. Carson, CO; Armor Center, USAREUR. *Version 2:* Armor Center, Ft. Knox, KY; Armor Center, Ft. Stewart, GA; Armor Center, Ft. Riley, KS; Armor Center, Ft. Hood, TX; Armor Center, Ft. Carson, CO; Armor Center, Ft. Bliss, TX; Armor Center, USAREUR.

Length: 6 weeks (307-317 hours).

Exhibit Dates: *Version 1:* 10/86-7/88. *Version 2:* 6/83-9/86.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to maintain, operate and employ weapons and equipment and will also be able to use maps and to navigate cross-country from one point on the ground to another point. *Version 2:* Upon completion of the course the student will be able to lead, train, and direct personnel to maintain, operate, and employ weapons and equipment. Students can also use maps and navigate cross-country from one point on the ground to another point. The student will be able to act as scout section leader in selected tactical field environments.

Instruction: *Version 1:* Instruction includes lectures and practical exercises in training and leading personnel on maintenance, tactics, communication, navigation, and weapons. *Version 2:* Instruction includes lectures and practical exercises on leadership, mine warfare, demolitions, maintenance, tactics, communications, navigation and weapons. Major ephasis is placed on situational training and leadership exercises.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 1 in basic surveying (7/87); in the upper-division baccalaureate category, 2 semester hours in teaching methods (7/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in military science, 3 in principles of supervision (7/87).

Related Occupation Codes: 19D.

AR-2201-0323

Basic Noncommissioned Officer (NCO) 19E

Course Number: 020-1-19E30; 020-4-19E30; 020-6-19E30; 020-7-19E30; 020-9-19E30; 020-10-19E30; 020-11-19E30; 020-18-19E30.

Location: Armor Center, Ft. Knox, KY; Armor Center, Ft. Stewart, GA; Armor Center, Ft. Polk, LA; Armor Center, Ft. Riley, KS; Armor Center, Ft. Hood, TX; Armor Center, Ft. Carson, CO; Armor Center, Ft. Bliss, TX; Armor Center, USAREUR.

Length: 6 weeks.

Exhibit Dates: 6/83-9/86.

Learning Outcomes: Upon completion of the course, the student will be able to train, direct and lead personnel in the maintenance, operation, and employment of weapons and equipment.

Instruction: This course includes lectures and training in leadership, maintenance, tactics, communication, land navigation, weapons and training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 4 in military science, 2 in basic surveying (7/87).

Related Occupation Codes: 19E.

AR-2201-0324

Basic Noncommissioned Officer (NCO) 19K M1 Abrams

Course Number: 020-1-19K30; 020-9-19K30; 020-18-19K30.

Location: Armor School, Ft. Knox, KY; Armor School, Ft. Hood, TX; Armor School, USAREUR.

Length: 6 weeks (344-345 hours).

Exhibit Dates: 6/83-9/86.

Learning Outcomes: Upon completion of this course the student will be able to train, direct, and lead personnel to maintain, operate, and employ weapons and specialized equipment.

Instruction: The course instruction includes lectures and training in leadership, maintenance, communications, land navigation, and training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management of personnel, 4 in military science, and 2 in basic surveying (7/87).

Related Occupation Codes: 19K.

AR-2201-0325

Basic Noncommissioned Officer (NCO) M6OA1/M6OA3 19K M1 Abrams

Course Number: 020-1-19E30/19K30; 020-1-19K30-M1; 020-1-19E30-A3; 020-4-19E30-A3; 020-6-19E30-A1; 020-7-19E30-A3; 020-9-19K30-M1; 020-9-19E30-A1; 020-10-19E30-A3; 020-18-19K30-M1; 020-18-19E30-A3.

Location: Armor School, Ft. Knox, KY; Armor School, Ft. Stewart, GA; Armor School, Ft. Polk, LA; Armor School, Ft. Riley, KS; Armor School, Ft. Hood, TX; Armor School, Ft. Carson, CO; Armor School, USAREUR.

Length: 6 weeks (312-314 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to train, direct, and lead personnel in the maintenance, operation, and employment of specialized equipment.

Instruction: Course includes lectures and training in leadership, maintenance, tactics, communications, land navigation, and training management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 4 in military science, and 2 in basic surveying (7/87).

Related Occupation Codes: 19E; 19K.

AR-2201-0326

Bradley Fighting Vehicle System Organizational Maintenance

Course Number: 611-ASID3 (63T).

Location: Army Armor Center, Ft. Knox, KY.

Length: 2-3 weeks (92 hours).

Exhibit Dates: 8/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform minor adjustments and repairs on the Bradley Fighting vehicle.

Instruction: Instruction includes lectures and practical exercises in repairs and adjustments of the engine, steering, braking, cooling, and lubrication systems of the Bradley Fighting vehicle.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/87).

AR-2201-0327

M1 Abrams Master Gunner

Course Number: 020-ASIA8.

Location: Army Armor Center, Ft. Knox, KY.

Length: 11 weeks (412 hours).

Exhibit Dates: 7/83-2/86.

Learning Outcomes: Upon completion of the course, the student will be able to assist commanders in planning and implementation of tank gunnery training programs.

Instruction: The instruction includes lectures and practical exercises in tank weapon systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

AR-2201-0328

M1/M1A1 Abrams Master Gunner

Course Number: 020-ASIA8.

Location: Army Armor Center, Ft. Knox, KY.

Length: 11 weeks (387 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist commanders in planning and implementation of tank gunnery training programs.

Instruction: The instruction includes lectures and practical exercises in tank weaponry systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-2201-0329

M1/M1A1 Master Gunner Transition

Course Number: 020-ASIA8-T.

Location: Army Armor Center, Ft. Knox, KY.

Length: 4-5 weeks.

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a M1/M1A1 tank master gunner.

Instruction: Instruction includes lectures and practical exercises in the differences between the M60A/A3 and the M1/M1A1 tank weapons systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-2201-0330

M1/M1A1 Abrams Armor Crewman

Course Number: 19K10-OSUT.

Location: U.S. Army Armor Center, Ft Knox, KY.

Length: 14-15 weeks (562-619 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties as an armor crewman.

Instruction: The instruction includes lectures and practical exercises in basic training courses and skills required of a tank crewman including such courses as weapons training land navigation, first aid, physical conditioning, tank field exercises, and basic military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in military science (2/89).

Related Occupation Codes: 19K.

AR-2201-0331

M3 Bradley/CFV Cavalry Scout

Course Number: 19D10-OSUT (M3).

Location: Army Armor Center, Ft. Knox, KY.

Length: 14-16 weeks (666-792 hours).

Exhibit Dates: 4/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties as an armored reconnaissance vehicle crewman.

Instruction: Instruction includes lectures and practical exercises in basic training courses and the skills required of an armored reconnaissance vehicle crewman including such course as weapons training, land navigation, first aid, physical conditioning, vehicle field exercises and basic military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in military science (11/88).

Related Occupation Codes: 19D.

AR-2201-0332

M113 Cavalry Scout

Course Number: 19D10-OSUT (M113).

Location: Army Armor Center, Ft. Knox, KY.

Length: 13-14 weeks (561-607 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties as an armored reconnaissance vehicle crewman.

Instruction: Instruction includes lectures and practical exercises in basic training courses and the skills required of an armored reconnaissance vehicle crewman including such courses as weapons training, land navigation, first aid, physical conditioning, vehicle field exercises and basic military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in military science (11/88).

Related Occupation Codes: 19D.

AR-2201-0333

M60A3 Armor Crewman

Course Number: 19E10-OSUT (M60A3).

Location: U.S. Army Armor Center, Ft Knox, KY.

Length: 14-15 weeks (588-690 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties as an armor crewmember.

Instruction: The instruction includes lectures and practical exercises in basic training courses and skills required of a tank crewman, including such courses as weapons training, land navigation, first aid, physical conditioning, tank field exercises and basic military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in military science (11/88).

Related Occupation Codes: 19E.

AR-2201-0334

Master Gunner M60A1

Course Number: 020-ASIC5 (M60A1).

Location: Army Armor Center, Ft. Knox, KY.

Length: 11 weeks.

Exhibit Dates: 1/86-1/90.

Learning Outcomes: Upon completion of the course, the student will be able to assist commanders in the planning and implementation of the gunnery training programs.

Instruction: Instruction includes lectures and practical exercises in tank weapon systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

AR-2201-0335

Master Gunner M60A3

Course Number: 020-ASID8 (M60A3).

Location: Army Armor Center, Ft. Knox, KY.

Length: 11 weeks (415 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist unit commanders in tank gunnery training programs.

Instruction: Instruction includes lectures and practical exercises in tank weapons systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-2201-0336

Master Gunner M60A3 Transition

Course Number: 020-ASID8.

Location: Army Armor Center, Ft. Knox, KY.

Length: 2 weeks (66-72 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as a M60A3 tank master gunner.

Instruction: Instruction includes lectures and practical exercises in the differences between the M60A1 and M60A3 tank weapons systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-2201-0337

Basic Noncommissioned Officer (NCO) Reserve Component Phase I Common Leader Training

Course Number: None.

Location: Army Training Centers, U.S.A.

Length: 6 days and 3 weekends.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to provide lower-level leadership to units of up to 35 personnel.

Instruction: Includes lectures, demonstrations, and performance exercises in supervision, training and counseling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership (9/87).

AR-2201-0338

Advanced Noncommissioned Officer (NCO) Reserve Component

Course Number: None.

Location: Training Centers, U.S.A.

Length: 2 weeks and 6 weekends.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to provide middle-level supervision and leadership in units up to 400 personnel.

Instruction: Includes lectures, demonstrations, and performance exercises in motivation, training, morale, supervision, effective writing, verbal communications, and listening skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership and 1 in fundamentals of communication (9/87).

AR-2201-0339

Drill Sergeant

Course Number: 012-F4.

Location: Army Training Center, Ft. Benning, GA; Army Training Center, Ft. Dix, NJ; Army Training Center, Ft. Jackson, SC; Army Training Center, Ft. Leonard Wood, MO; Army Training Center, Ft. McClellan, AL; Army Training Center, Ft. Sill, OK; Army Training Center, Ft. Knox, KY.

Length: 9 weeks (318-319 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise, train, motivate and evaluate basic trainees.

Instruction: Includes lectures, demonstrations and performance exercises in personal counseling, individual human behavior, interviewing, interpersonal communication, diet and nutrition, personal health and fitness, physical training techniques, weapon proficiency and safety, instructional techniques and training aids.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in counseling, 1 in physical fitness, 1 in marksmanship (9/87); in the upper-division baccalaureate category, 1 semester hour in principles of teaching (9/87).

AR-2201-0340

Watercraft Operator Basic Noncommissioned Officer (NCO)

Course Number: 062-88K30.

Location: Transportation School, Ft. Eustis, VA.

Length: 6-7 weeks (192 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to effectively supervise personnel in watercraft operation in such areas as navigation, ship rigging, cargo handling, damage control, shipboard firefighting, vessel operation and marlinspike seamanship. The student will be able to successfully complete the Marine Certification Examination.

Instruction: Includes lectures, demonstrations and practical exercises in leadership skills, marine deck operations, quartermaster and deck operations, navigation and marine regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship and 1 in harborcraft operation (3/88).

AR-2201-0341

Small Arms Maintenance for Unit Armorers

Course Number: SAM 31.

Location: Combined Arms Training Center, Vilseck, W. Germany.

Length: 2 weeks (68-74 hours).

Exhibit Dates: 4/78–Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish a small arms room which meets security requirements; identify those technical publications for regulations and procedures appropriate for security and maintenance of an arms room; determine proper inventory, accounting, and issue/turn-in procedures for weapons; initiate a preventive maintenance schedule; provide preventive maintenance for all weapons stored in the arms room.

Instruction: Conference, classes, and practical exercises relating to security regulations, small arms maintenance, and accountability of weapons located within the arms room. Special emphasis is given to the disassembly, cleaning, troubleshooting, and safety testing of all weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

AR-2201-0342

Air Defense Artillery (ADA) Officer Basic

Course Number: 2-44-C20.

Location: Air Defense Artillery School, Ft. Bliss, TX.

Length: 10 weeks (365 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform duties of an officer in the areas of leadership, management, logistics and personnel administration.

Instruction: Lectures and practical exercises in the basics of air defense artillery, map reading, leadership, logistics management, tactics, communications, and military writing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 2 in supply management (12/88).

AR-2201-0343

Civil Military Operations

Course Number: 4N-48F/500-F3.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 2 weeks (71 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will handle civil-military operations in the field, dealing with civil affairs and psychological operations; be aware of public health considerations; and implement procedures for dealing with refugees and dislocated civilians.

Instruction: For this course before 2/87 see AR-2201-0221. Lectures, seminars, and oral presentations on civil-military operations, psychological operations, several aspects of civil affairs, and cross-cultural communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in public administration (12/88).

AR-2201-0344

Military Free Fall Jumpmaster
(Special Forces Military Free Fall Jumpmaster)

Course Number: 2E-F56/011-F15.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (143 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to use altimeters, automatic ripcord release devices and canopy control; demonstrate emergency procedures; calculate wind drift; demonstrate proper spotting techniques; supervise packing and rigging; and plan procedures for day and night jumps.

Instruction: Basic principles in the execution of skills and techniques involved in free fall parachuting through lectures, discussions, and actual engagement in activity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in parachuting/skydiving (12/88).

AR-2201-0345

Military Free-Fall Parachutist
(Special Forces Military Free-Fall Parachutist)

Course Number: 2E-SI4X/ASI4X/011-ASIW8.

Location: Wright-Patterson AFB, OH; John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 5-6 weeks (257 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to complete free-fall parachute jumps from selected altitudes and under selected conditions.

Instruction: Each successful candidate completes at least 200 hours of laboratory-based, skill acquisition activity in free-fall parachuting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in parachuting/skydiving (12/88).

AR-2201-0346

Special Forces Detachment Officer

Course Number: 2E-18A.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 23-24 weeks (1,560-1,690 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/87–9/89.

Learning Outcomes: Upon completion of the course the student will be able to determine, by use of aerial photographs and maps, locations, elevations, desirable routes of travel and location of specific points; practice proper procedures for small boat operation; navigate to designated points; prepare military orders; practice survival techniques; practice proper climbing procedures; understand psychological warfare operations; practice proper cultural interaction with selected populated areas; conduct orienteering over large areas; use special photographic equipment; specify and use explosive devices for specific targets; understand mortars and small arms; plan estuarine and ocean landing procedures as well as inshore navigation.

Instruction: Lectures and exercises in the use of aerial photographs and maps, small boat handling, air-ground operations, intelligence gathering, climbing, cultural differences and practices, use of explosives, mortars and small arms, radio and written message procedures, and navigation and landing procedures.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in explosive techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in water safety and 1 in orienteering (12/88).

AR-2201-0347

Special Forces Detachment Officer Qualification Reserve Component Phase 4

Course Number: 2E-18A-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (184 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will demonstrate skills in the areas of weapons, engineering, communications, medicine, and training management.

Instruction: Lectures, demonstrations, written and performance exercises required for duty in operations detachments.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/88).

AR-2201-0348

Special Operations Weapons Sergeant Reserve Component Phase 4

Course Number: 011-18B30-RC.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 3 weeks (156 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, plot firing patterns, and operate mortars; and understand and operate small arms and antitank weapons.

Instruction: Instruction includes lectures and exercises in mortars, fire control, selected U.S. and foreign small arms and antitank weapons.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/88).

Related Occupation Codes: 18B.

AR-2201-0349

Special Operations Target Interdiction

Course Number: 2E-F67/011-F19.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 6 weeks (288 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate advanced rifle marksmanship, target selection, and stalking and interdiction techniques.

Instruction: Lectures, demonstrations, and field experience are used to develop marksmanship skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in marksmanship/riflery (12/88).

AR-2201-0350

Special Forces Weapons Sergeant
(Special Operations Weapons Sergeant)

Course Number: 011-18B30.

Location: John F. Kennedy Special Warfare School, Ft. Bragg, NC.

Length: 23-24 weeks (1,387-1,462 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/87–9/89.

Learning Outcomes: Upon completion of the course the student will be able to determine, by use of aerial photographs and maps, locations, distances, elevations, desirable routes, and location of specific points; practice proper techniques for small boat operation; navigate to designated points; prepare proper military orders; practice survival techniques; plan air drop-zone operations; practice proper procedures for acquisition of intelligence data; direct and fire selected field mortars, small arms, and antitank weapons; and select proper offensive weapons for Special Forces operations.

Instruction: Instruction includes lectures and exercises in the use of aerial photographs, military maps, and associated orienteering equipment; navigation and the use of small boats; survival techniques; air-ground operations; and weapon selection. Course includes a common core of leadership subjects.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in explosive techniques; in the lower-division baccalaureate/associate degree category, 1 semester hour in water safety and 1 in orienteering (12/88). For credit for the common core, see AR-1406-0090.

Related Occupation Codes: 18B.

AR-2201-0351

National Guard Enlistment Processing Station (MEPS) Guidance Counselor

Course Number: 501-F4.

Location: Soldier Support School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (77 hours).

Exhibit Dates: 7/84–9/87.

Learning Outcomes: Upon completion of the course the student will function as a guidance counselor in an enlistment processing station.

Instruction: Lectures and practical exercises in enlistment eligibility, interviewing and counseling skills, stress management, and other topics related to career and guidance counseling.

Credit Recommendation: Credit is not recommended due to the military specific nature of the course (12/88).

AR-2201-0352

Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG)

Course Number: 501-ASIV7 (ARNG).

Location: Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 1 week (46 hours).

Exhibit Dates: 10/87–Present.

Objectives: Upon completion of the course, the student will be able to function as a career guidance counselor for Army National Guard personnel.

Instruction: Lectures and classroom instruction on enlistment programs, eligibility requirements, and duties and responsibilities of a guidance counselor.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/88).

AR-2201-0353

National Guard Advanced Retention Noncommissioned Officer (NCO)

Course Number: 501-F12-ARNG.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (74 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will manage the retention function in an Army reserve unit; train subordinate noncommissioned officers in all aspects of the retention program; and evaluate some features of an established retention program.

Instruction: Includes classroom instruction and practical exercises in training and evaluation techniques related to an existing retention program.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/88).

AR-2201-0354

Reserve Retention Manager

Course Number: 7C-F20/501-F11-USAR.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (74 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the retention function in an Army Reserve unit with a good working knowledge of the Army's retention program.

Instruction: Includes classroom instruction, discussion and practical exercises in establishing and monitoring an effective retention program.

Credit Recommendation: Credit is not recommended as the topics are military-specific (12/88).

AR-2201-0355

National Guard Retention Noncommissioned Officer (NCO)

Course Number: 501-79D30-ARNG.

Location: Recruiting and Retention School, Ft. Benjamin Harrison, IN; Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (71-74 hours).

Exhibit Dates: 10/84–9/88.

Objectives: Upon completion of the course the student will be able to function as a retention noncommissioned officer in an Army National Guard unit and have a good working knowledge of the Army's retention program.

Instruction: Classroom instructions and practical exercise in retention techniques, publicity efforts, interviewing skills, career development counseling, and other topics related to retention programs for military personnel.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/88).

Related Occupation Codes: 79D.

AR-2201-0356

Reserve Retention Noncommissioned Officer (NCO) Advanced

Course Number: 501-F8.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (74 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the retention function in an Army reserve unit; train subordinate noncommissioned officers in all aspects of the Army reserve retention program; and evaluate some features of an established retention program.

Instruction: Presentation includes classroom instruction and practical exercises in training and evaluation techniques related to an existing retention program.

Credit Recommendation: Credit is not recommended as the topics included are military-specific and lack depth (12/88).

AR-2201-0357

Army Reserve Retention Noncommissioned Officer (NCO)

Course Number: 501-79D30-USAR.

Location: Recruiting and Retention School, Soldier Support Institute, Ft. Benjamin Harrison, IN.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as the retention noncommissioned officer in an Army Reserve unit with a good working knowledge of the Army's retention program.

Instruction: Includes classroom instruction and practical exercises in retention techniques, publicity efforts, interview skills, career development counseling and other topics related to retention programs for military personnel.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course content (12/88).

Related Occupation Codes: 79D.

AR-2201-0359

Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommissioned Officer (NCO)

Course Number: 043-13P40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-5 weeks (154 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to lead, evaluate and train Lance missile fire direction center soldiers. This includes gunnery techniques, fire direction, management, and control.

Instruction: Lecture and group discussion on leadership, ethics, personnel management, doctrine, and tactics.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

AR-2201-0360

Lance Crewmember Advanced
Noncommissioned Officer (NCO)

Course Number: 042-13N40; 042-15D40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-5 weeks (157 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform Skill Level Four tasks that are required of a firing platoon sergeant or an assembly and transport platoon sergeant in a Lance battalion.

Instruction: Lectures and practical exercises in leadership, ethics, personnel management, tactics, maintenance management, Lance technical training and maintenance of system specific forms and records.

Credit Recommendation: Credit is recommended for the common core only; see exhibit AR-1404-0035 (6/89).

AR-2201-0362

Field Artillery Cannon Basic
Noncommissioned Officer (NCO)

Course Number: 041-8-13B30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4-5 weeks (153-168 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a section chief in a field artillery unit; lead, train, and direct subordinate personnel to maintain, operate and employ weapons and equipment.

Instruction: Lectures and practical exercises in leadership, maintenance, tactics, communications, land navigation, weapons, and training management.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1406-0090 (6/89).

AR-2201-0363

Field Artillery Fire Support
Noncommissioned Officer (NCO)
Advanced

Course Number: 250-13F40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 8 weeks (295 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to be an exporter of modern battlefield tactics, techniques, and procedures to the unit.

Instruction: Instruction on the capability and organization of the fire support team including the duties, responsibilities, and missions of fire support team personnel; instruction on how to perform, lead, train, and evaluate personnel.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

AR-2201-0364

Lance Crewmember Basic
Noncommissioned Officer (NCO)

Course Number: 042-13N30; 042-13N30 (CT); 042-15D30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-6 weeks (178-197 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the tasks that are required of a firing section chief or an assembly and transport section chief on a Lance Missile firing battery.

Instruction: Lectures and practical exercises in Lance Missile firing operations, assembly and transport operations, system tactics, special weapons, operator and crew maintenance, organizational maintenance and maintenance of system specific forms and records.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1406-0090 (6/89).

Related Occupation Codes: 13N; 15D.

AR-2201-0365

Multiple Launch Rocket System
(MLRS)/Lance Operations Fire
Direction Specialist Basic
Noncommissioned Officer (NCO)

Course Number: 043-13P30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-6 weeks (209 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the tasks required of a liaison sergeant, fire direction operator, or assistant chief fire direction specialist.

Instruction: Lectures and practical exercises in common noncommissioned officer skills (leadership, tactics, etc.) and specific tasks required in Multiple Launch Rocket System (MLRS)/Lance operations and digital fire direction and communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management (6/89). For credit for the common core, see exhibit AR-1406-0090.

Related Occupation Codes: 13P.

AR-2201-0366

Multiple Launch Rocket System
(MLRS) Basic Noncommissioned
Officer (NCO)

Course Number: 042-13M30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the tasks that are required of a section chief in a Multiple Launch Rocket System (MLRS) firing and ammunition section.

Instruction: Lectures and practical exercises in map reading, air/land battle, leadership, military inspections, launcher destruction, safety procedures, and reload operations.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1406-0090 (6/89).

Related Occupation Codes: 13M.

AR-2201-0367

Multiple Launch Rocket System
Crewmember Advanced
Noncommissioned Officer (NCO)

Course Number: 042-13M40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4 weeks (132 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform tasks that are required of a firing platoon sergeant or an ammunition platoon sergeant in a Multiple Launch Rocket System (MLRS) firing battery.

Instruction: Lectures and practical exercises in message device operations, ammunition resupply, platoon defense, combat service support and preparation of messages, maps and charts.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1404-0035 (6/89).

Related Occupation Codes: 13M.

AR-2201-0368

Field Artillery Cannon Battery
Officer

Course Number: 2E-13E.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6-7 weeks (202-263 hours).

Exhibit Dates: *Version 1:* 1/90-Present. *Version 2:* 8/88-12/89.

Learning Outcomes: Upon completion of the course, the student will be able to serve as an executive officer, platoon leader, fire direction officer, and to supervise firing battery personnel, perform targeting procedures, ammunition safety, personnel training, vehicle maintenance, and overall operation of the field artillery section.

Instruction: Lectures and field exercises on battery command procedures, use of the M-2 aiming circle, ammunition storage and safety, organization preventive maintenance, and common problem areas in a field artillery section.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management (6/89).

AR-2201-0369

Tactical Fire (TACFIRE) Operation
Specialist Advanced
Noncommissioned Officer (NCO)
Advanced
(Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced)

Course Number: 250-13C40.

Location: Field Artillery School, Ft. Sill, OK.

Length: 4 weeks (143-152 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to train selected personnel in modern battlefield tactics, techniques, and procedures.

Instruction: Practical application of automatic data processing, and the duties, responsibilities, and missions of personnel working in a computer controlled fire direction center.

Credit Recommendation: Credit is recommended for the Common Core only. See AR-1404-0035 (6/89).

Related Occupation Codes: 13C.

AR-2201-0370

Pershing Missile Crewmember Basic
Noncommissioned Officer (NCO)

Course Number: 043-15E30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (104 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare missile sections for assembly, inspect and install initiators and detonators and direct countdown operations in the event of a countdown malfunction.

Instruction: Lectures and practical exercises in launcher operations, missile assembly/disassembly, handling countdown malfunctions and direct countdown operations.

Credit Recommendation: Credit is recommended for the common core only. See exhibit AR-1406-0090 (6/89).

Related Occupation Codes: 15E.

AR-2201-0371

Light Missile Field Artillery (Lance)

Course Number: 2F-13B.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-6 weeks (211 hours).

Exhibit Dates: 9/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, and employ the Lance missile system; includes component identification, system capabilities, preventive maintenance, safety, transport, targeting, and firing of the Lance missile.

Instruction: Lectures and field exercises in the capabilities of the missile system, system components, safety, transport, targeting, and firing.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

Related Occupation Codes: 13B.

AR-2201-0372

Cannon Crewman

Course Number: 041-13B10; 13B10-OSUT.

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-13 weeks (182 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic combat survival skills; load and fire howitzers; and perform preventive maintenance checks and other maintenance on artillery equipment.

Instruction: Lectures and field exercises in the maintenance and use of howitzers, including loading and firing.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

Related Occupation Codes: 13B.

AR-2201-0374

Marine Corps Battery Commander

Course Number: 2E-FOA-F90 (USMC).

Location: Field Artillery School, Ft. Sill, OK.

Length: *Version 1:* 2 weeks (76 hours). *Version 2:* 6 weeks (218 hours).

Exhibit Dates: *Version 1:* 1/87-Present. *Version 2:* 8/85-12/86.

Learning Outcomes: Upon completion of the course, the student will be able to conduct fire support planning and coordination for amphibious operations.

Instruction: *Version 1:* Refresher course with lectures, discussion, and exercises on target acquisition, surveys, communications, fire mission planning, and command responsibilities. *Version 2:* Refresher course with lectures and discussions on the duties of the battery commander, including computation of target coverage, probability of destruction, height of burst, damage radius, distance, and nuclear weapons damage effect, chemical and nuclear munitions, and general management techniques.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (6/89). *Version 2:* In the vocational certificate category, 1 semester hour in applied mathematics (6/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in nuclear technology and 2 in nuclear safety and damage estimation (6/89).

AR-2201-0375

Lance Crewmember
(Lance Missile Crewmember)

Course Number: 042-13N10; 042-15D10.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6-7 weeks (232-254 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance, position and set up equipment, perform firing operations, perform safety procedures, and operate the radio set on the Lance missile system.

Instruction: Lectures and performance exercises on the operation and maintenance of Lance missile system equipment. Includes experience in assembly, transportation, and daily preventive maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

Related Occupation Codes: 13N, 15D.

AR-2201-0376

Field Artillery Surveyor Basic Noncommissioned Officer (NCO)

Course Number: 412-82C30.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6-7 weeks (224-226 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as section chief in artillery and target acquisition battery survey sections.

Instruction: Lectures and practical exercises in astronomic observation, field artillery survey, solution of triangles, location of traverse errors, triangulation and resection, leadership, training management, resource management, and military skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in general surveying and 1 for basic field practice in surveying. For common core, see AR-1406-0090 (6/89).

Related Occupation Codes: 82C.

AR-2201-0377

OH-58D Field Artillery Instructor Pilot Fire Support

Course Number: 2E-F130.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (69-77 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve as an instructor pilot at division, field, and brigade artillery levels; provide instruction and perform evaluations of aerial fire support observers.

Instruction: Lectures and practical exercises on tactical missions, artillery fire planning, message procedures targeting, illumination, and ground-air coordination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

AR-2201-0378

Special Career Level Artillery Advanced Gunnery (USMC)

Course Number: 2E-F49; 2E-F49 (USMC).

Location: Field Artillery School, Ft. Sill, OK.

Length: 5-6 weeks (195 hours).

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the supervisory duties of a battalion fire direction officer or a battery commander.

Instruction: A refresher course on artillery fire planning, coordination, and control. Lectures and class discussion on the management of a field artillery unit, using manual and computer-assisted techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0379

Nuclear Cannon Assembly

Course Number: 4F-F5/041-ASIJ4.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2 weeks (68 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform inspection, unpackaging, and prefire procedures of the M454, M753, and M422 atomic projectiles.

Instruction: Lectures and practical exercises in the procedures for assembly, prefire, and disassembly of the projectile, weapon maintenance, safety, accident/incident response, and tiedown procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0380

Automated Fire Support Leader

Course Number: 2E-F145.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6 weeks (205 hours).

Exhibit Dates: 2/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise fire support sections in the use of automated equipment to enhance fire support coordination, planning, and execution.

Instruction: Lectures and practical exercises on meteorological data, message devices, the tactical fire (TACFIRE) system, fire support coordination, intelligence data, targeting, fire planning and overall fire support execution.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0381

Nuclear Warhead Detachment

Course Number: 2E-F96/041-F8; 2E-F96.

Location: Field Artillery School, Ft. Sill, OK.

Length: 3 weeks (108 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the fundamental operational procedures for Lance and Pershing missiles and related topics such as security, terrorist threats, warhead inspection, and safety considerations.

Instruction: Lectures and practical exercises in security, courier duties, publications, threats, Lance operations, Pershing operations, weapon storage, and handling and safety rules.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0382

Lance (NCO) Reclassification
(Transition)

Course Number: 042-13N30-T.

Location: Field Artillery School, Ft. Sill, OK.

Length: 6 weeks (245 hours).

Exhibit Dates: 2/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as a section chief, assistant section chief, or launcher specialist; this includes maintenance, service, transport, setup, and launch of the Lance missile system.

Instruction: Lectures and practical exercises on transport vehicles, operator and crew maintenance, system tactics, weapons, and overall operation of the Lance missile system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0383

Battery Computer System Cadre–
Reserve Component

Course Number: 2E-F71/250-F16.

Location: Field Artillery School, Ft. Sill, OK.

Length: 2-3 weeks (72-108 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to connect the various components of a mobile unit-based computer system, perform proper procedure to power-up and load the computer program, initialize and construct data base, perform all procedures necessary to process fire missions and transmit gun commands in an autonomous mode of operation.

Instruction: Primarily a hands-on course providing training in use and troubleshooting techniques for the battery computer system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

AR-2201-0384

Warrant Officer Technical/Tactical
Certification Phase 2 350B All
Source Intelligence Technician
(Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician)

Course Number: 3A-350B.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 2-3 weeks (92 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will be updated on new equipment and technology upgrades; identify intelligence indicators; prepare an order of battle briefing; and recognize various threat doctrines.

Instruction: Lectures and classroom testing on the subject matter.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

Related Occupation Codes: 350B.

AR-2201-0385

Battlefield Deception

Course Number: 3A-F56/230-ASID4.

Location: Intelligence School, Ft. Huachuca, AZ.

Length: 6-7 weeks (235-246 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform deception planning; identify electronic deception; identify and explain the need for sonic deception; perform and evaluate a deception operation; read maps.

Instruction: Lectures, classroom testing, and field tests on the above material.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-2201-0386

Battalion/Brigade Signal Officer

Course Number: 4C-SI6B.

Location: Signal School, Ft. Gordon, GA.

Length: 9 weeks (324 weeks).

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the installation, operation, and maintenance of communications sytems in nonsignal units.

Instruction: Lectures and practical exercises on communication procedures, AM and FM radio equipment, radio fundamentals, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

AR-2201-0387

Leadership Development

Course Number: PEC-T-O-LDC.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (76 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide information on direct and indirect level leadership based upon human relations and conceptual skills.

Instruction: Lecture, discussion, group exercise and practical experience are the methods of instruction. The topics covered include brain dominance, conflict management, counseling, delegating, communication, stress management, team building, time management, visioning, negotiating, and problem solving.

Credit Recommendation: Credit is not recommended because there is no provision for formal student evaluation (7/90).

AR-2201-0388

National Guard (ARNG) Rentention
Noncommissioned Officer (NCO)

Course Number: 501-79D30-ARNG.

Location: Professional Education Center, Cp. Joseph Robinson, North Little Rock, AR.

Length: 2 weeks (72 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to effectively use presentation, communication, conferencing, and interviewing skills to deliverand receive appropriate information dealing with employee's satisfaction levels, desires and opportunities.

Instruction: Performance-based instruction is used, with significant homework assignments, individual presentations, and the conduct of small group interviewing and conferencing. Evaluation is accomplished through exercises and examinations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel management (7/90).

AR-2205-0001

Warrant Officer Technical
Certification (WOTTC) Marine
Deck Officer
(Marine Warrant Officer Preappointment)

Course Number: 8C-500A.

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA.

Length: 29–30 weeks (1145 hours).

Exhibit Dates: 6/86–9/87.

Objectives: To train warrant officers to command, operate, and maintain Army watercraft in inland, coastal, and open waters for amphibious resupply, towing, and salvage operations.

Instruction: For this course after 9/87 see AR-2205-0001. Lectures and practical exercises in commanding, operating, and maintaining Army watercraft to include general marine subjects, rules of the road, piloting, shipboard electronics, operations, open water navigation for marine certification, and vessel-specific training for marine licensing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar and electronic navigation, 3 in celestial navigation, 6 in piloting and ship handling, 3 in seamanship, and 6 in practicum for open water training course (7/85).

AR-2205-0002

Lighter Air-Cushion Vehicle
Navigator

Course Number: 062-F4 (88K).

Location: Transportation and Aviation Logistics School, Ft. Eustis, VA; Transportation School, Ft. Story, VA.

Length: 5 weeks (180 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to carry out the duties and responsibilities of navigator of a lighter air-cushion vehicle with due regard for the operational limitations imposed by weight, speed, loading and trim angles, sea state, surf, turning circles and crab angles, and obstacle clearance. The student will be qualified to navigate and pilot a lighter air-cushion vehicle and understand the nautical rules of the road. The student will be proficient in the emergency procedures and corrective action to be taken in the event of fire, collision, plow in, towing, damage control, man overboard, and abandon ship. In addition, the student will be knowledgeable in the theory of radar and its application in maritime navigation and collision avoidance. Finally, the student will be qualified to supervise the vehicle in all phases of its water and overland operation.

Instruction: Lectures, demonstrations, and practical work in vehicle performance, operational safety, basic seamanship, radar, rules of the road, and navigators' duties and responsibilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship and navigation (3/88).

Related Occupation Codes: 88K.

Appendix A

The Evaluation Systems

The American Council on Education has developed and refined comprehensive procedures and criteria for the evaluation of military learning experiences. This appendix outlines the historical development of the *Guide;* defines which courses can be found in the *Guide;* provides background information on Army enlisted and warrant officer MOS's (military occupational specialties); describes the evaluation systems used to prepare the recommendations for military formal courses and MOS's; and includes definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

BACKGROUND

Early editions of the *Guide to the Evaluation of Educational Experiences in the Armed Services* were prepared in response to specific needs. Immediately after World War II, the consensus in the educational community was that the practice of granting blanket credit to World War I veterans as a reward for length of service was educationally unsound. Educators concluded that military learning experiences applicable to civilian curricula should be assessed by faculty for potential credit. Therefore, in December 1945, at the request of civilian educational institutions and the regional accrediting associations, the American Council on Education established the Commission on Accreditation of Service Experiences—renamed the Commission on Educational Credit and Credentials in 1979—to evaluate military educational programs and to assist institutions in granting credit for such experiences. Accordingly, the first edition of the *Guide* was published to assist educational institutions in evaluating service courses completed by returning veterans.

The extension of the World War II G.I. Bill to include veterans of the Korean conflict, and the subsequent enrollment of many veterans in colleges and universities, created a need for the second edition, published in 1954.

The 1968 edition was prepared in anticipation of the increased enrollment of veterans resulting from the educational assistance provided under the Veterans Readjustment Benefits Act of 1966, and with the expectation that many would apply for educational credit for their learning experiences in the armed services. In addition, technological advances had necessitated major changes in service training, with a resuting need for new or revised educational credit recommendations.

The 1974 edition was prepared primarily to respond to three emerging considerations. First, because of the growth in vocational and technical programs and the emergence of the concept of postsecondary education, there was a need to evaluate courses for possible credit in the vocational and technical categories in addition to the baccalaureate and graduate categories of previous editions. Second, active-duty service men and women were enrolling in increasing numbers in civilian educational programs and were seeking credit for military formal courses soon after completing their service school training. Third, credit recommendations were needed for the many courses initiated or revised by the military since 1968.

The 1974 edition marked the beginning of a new approach to reporting evaluations of formal military training. At its fall 1973 meeting, the Commission approved the concept of an ongoing *Guide* system. Elements of that system include the publication of biennial editions of the *Guide* through computerized composition, continual staff review of courses, and the computerized storage of course information for a more rapid updating of credit recommendations and for an improved ability to respond to inquiries related to course identification and credit recommendations.

Over the years the recommendations contained in the *Guide* have assisted education institutions in granting credit to hundreds of thousands of service men and women. Surveys conducted by The Center showed that most of the nation's colleges and universities use the formal course recommendations in awarding credit to veterans and active-duty service personnel. The recommendations have been widely accepted because military formal courses share certain key elements with traditional postsecondary programs: they are formally approved and administered, are designed for the express purpose of achieving learning outcomes, are conducted by qualified persons with specific subject-matter expertise, and are structured to provide for the reliable and valid assessment of student learning.

Until 1975, however, no mechanism existed for providing recognition for the learning a service man or woman attained through such learning experiences as self-instruction, on-the-job training, and work experience. As a first step in providing recognition for such learning experiences, the Commission in 1975 implemented a program for the evaluation of learning represented by demonstrated proficiency in Army enlisted military occupational

specialties (MOS's). The MOS evaluation procedures were developed, tested, and refined during a feasibility study conducted by the Council and sponsored by the U.S. Department of the Army. Evaluators made recommendations for educational credit and advanced standing in apprentice training programs Subsequently, the occupational assessment program of the Commission was expanded to include the Navy general rates, ratings, warrant officer and limited duty officer specialties, Army warrant officer MOS's, Coast Guard enlisted ratings and warrant officer specialties, and selected Marine Corps MOS's. A small number of Naval Enlisted Classifications (NECs) have also been evaluated.

The recommendations for advanced standing in apprentice training programs are the result of the cooperative efforts of the American Council on Education and labor and industry. Since the Army programs are now registered with the Bureau of Apprenticeship and Training, recommendations are no longer made for advanced standing in apprenticeship programs.

The recommendations reflect the Commission's belief that it is sound educational practice to give recognition for learning, no matter how or where that learning has been attained, provided that the learning is at the appropriate level, is in the appropriate area, and is applicable to an individual's postsecondary program of study or apprenticeship program.

THE COURSES

Courses listed in the *Guide* are normally service school courses conducted on a formal basis, i.e., approved by a central authority within each service and listed by the service in its catalog. These courses are conducted for a specified period of time with a prescribed course of instruction, in a structured learning situation, and with qualified instructors.

Most courses are given on a full-time basis. After 1981 The Center began evaluation of courses that are 45 academic hours in length. Prior to that time courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the course had to include a minimum of sixty contact hours of instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours.

Recommendations for formal courses offered between World War II and 1954 are available in the 1954 edition of the *Guide* or from The Center upon written request by education officials. In addition, military Subject Standardized Tests (SSTs) are evaluated by the American Council on Education and are included in the *Handbook to the Guide*.

THE COURSE EVALUATION SYSTEM

In the fall of 1973, the Commission on Educational Credit and Credentials of the American Council on Education approved the following procedures and guidelines for the evaluation of military formal courses.

The Evaluation Process

Courses are evaluated by teams of at least three subject-matter specialists (college and university professors, deans, and other academicians). Through discussion and the application of evaluation procedures and guidelines, team members reach a consensus on the amount and category of credit to be recommended.

Evaluation materials include the course syllabus, training materials, tests, textbooks, technical manuals, and examinations. Additional information is obtained from interviews with instructors and program administrators, classroom observations, and examination of instructional equipment and laboratory facilities.

Each team of evaluators has two major tasks for each course: the formulation of a credit recommendation and the preparation of the course's description. The credit recommendation consists of the category of credit, the number of semester hours recommended, and the appropriate subject area. Using the information provided in the military syllabus, evaluators phrase the course description (which appears in the *Guide* exhibits under the headings "Objectives" or "Learning Outcomes" and "Instruction") in terms meaningful to civilian educators. The course description supplements the credit recommendations by summarizing the nature of a given course.

Throughout the evaluation process, evaluators exercise professional judgment in applying the evaluative criteria and procedures. This position reflects the Commission's belief that sound educational evaluation is more dependent on professional judgment and expertise than on rigid application of criteria.

The Commission on Educational Credit and Credentials continually reviews its criteria and procedures. Evaluators are encouraged to provide feedback and recommendations for consideration by the Commission.

Selection of Evaluators

Nominations for course evaluators are requested from postsecondary institutions, professional and disciplinary societies, education associations, and regional accrediting associations.

The criteria for the selection of formal course evaluators are as follows:

1. Area of an evaluator's competence, as evidenced by formal training and experiences, will closely approximate area of student training to be evaluated.

2. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.

3. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

THE RECOMMENDATIONS

In order to interpret exhibits correctly, readers should become thoroughly familiar with the definitions and guidelines utilized by evaluators in formulating the recommendations. The following paragraphs include definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

Categories of Credit

Educational credit is a concept used by postsecondary institutions to quantify and record a student's successful completion of a unit of study. Postsecondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. ACE evaluators utilize the following categories of educational credit when formulating credit recommendations.

Vocational Certificate. This category describes course work of the type normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied science. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

Lower-Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degree, the traditional transfer associate degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper-Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed a baccalaureate program.

Semester Hours

Credit recommendations for courses are not derived by simple arithmetic conversion. Evaluators exercise professional judgement and consider only those portions of a course that can be equated with civilian postsecondary curricula. Intensive courses offered by the military do not necessarily require as much outside preparation as many regular college courses. Evaluators consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

The MOS recommendations are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in a given enlisted MOS skill level or in a given warrant officer MOS, without reference to how much time elapsed during the learning process. The semester hour is used as a standard to express how many semester hours of appropriate course work a student would normally complete to attain the same learning outcomes or attest to the same level of competency.

Credit recommendations are expressed in semester credit hours. In determining semester hour recommendations, evaluators will be guided by, but not restricted to, the following standard definitions:

1. One semester credit hour for the equivalent of 15 hours of classroom contact plus 30 hours of outside preparation; or

2. One semester credit hour for the equivalent of 30 hours of laboratory work plus necessary outside preparation, normally expected to be 15 hours; or

3. One semester credit hour for the equivalent of not less than 45 hours (contact hours) of shop instruction.

Other Recommendations

The Defense Activity for Non-Traditional Education Support (DANTES) maintains the educational records of the service men and women who have completed SSTs, CLEP examinations, and GED Tests.

The results of courses and tests that were taken under the auspices of USAFI (United States Armed Forces Institute, disestablished 1974 and replaced by DANTES) which carry academic credit and were submitted prior to May 31, 1974 are available from DANTES Contractor

Representative (transcripts), P.O. Box 2879, Princeton, New Jersey 08541. Servicemembers and veterans are required to pay a $10.00 fee for USAFI transcripts. Military education personnel can obtain them free of charge.

Results of Subject Standardized Tests and CLEP examinations taken under the auspices of DANTES after July 1, 1974, are available at a nominal charge from DANTES Contractor Representative (CLEP), Educational Testing Service, P.O. Box 2819, Princeton, New Jersey 08541.

Test reports for GED Tests taken after July 1, 1974, can be obtained from DANTES Contractor Representative (GED), GED Testing Service, American Council on Education, One Dupont Circle, Washington, D.C. 20036-1193.

In addition, credit recommendations for USAFI courses and tests and for DANTES Subject Standardized Tests are available from The Center and are published in the *Handbook to the Guide.*

Appendix B

Sample Records

- DD Form 295 (November 1986) Application for the Evaluation of Learning Experiences During Military Service, page B–2
- DD Form 214 (July 1979) Certificate of Release or Discharge from Active Duty, page B–6
- Sample Course Completion Certificate, pages B–7
- DA Form 5454–R (April 1989) Request for Army/American Council on Education Registry Transcript, page B–8
- Army/American Council on Education Registry Transcript, page B–9

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

____
(Date)

TO: (Name and address of educational institution, agency, or employer)

EVALUATION REQUEST FOR:

____
(Name of Applicant)

____
(Social Security Number)

ATTENTION:

Dear Official:

The applicant named above has requested that the attached summary of educational achievements, accomplished while in the Armed Forces of the United States, be forwarded to you for review and evaluation.

The American Council on Education publishes the *Guide to the Evaluation of Educational Experiences in the Armed Services* which includes postsecondary credit evaluations of military learning experiences. The 1954 edition of the *Guide* contains recommendations for formal courses offered by the Armed Services during the period 1941 to 1954. The current edition contains credit recommendations for (1) military training courses offered after 1954; (2) Army military occupational specialties (MOS's) for enlisted personnel and warrant officers; (3) ratings held by Navy and Coast Guard enlisted personnel; and (4) occupational designators held by Navy and Coast Guard warrant officers and Navy limited duty officers. In addition to recommendations for semester hour credits, some Army enlisted MOS's and Navy ratings also have recommendations for advanced standing in apprentice training programs.

The American Council on Education maintains an advisory service to provide credit recommendations for courses and tests, MOS's, ratings, and other occupations evaluated after the publication date of the current *Guide*. Credit recommendations are provided to officials of schools, state departments of education or other educational institutions, employers, apprenticeship training directors, labor union and trade association officials, military education officers and applicants. *Credit recommendations are not provided to officials at the applicant's request.* Authorized persons may write directly to the Military Evaluations Program Office, American Council on Education, One Dupont Circle, N.W., Washington, D.C. 20036-1193.

The evaluation of this applicant's learning experiences, as well as any guidance which you may provide, should be sent directly to the applicant at the address shown in block 6 on page 3. Your interest is genuinely appreciated.

Sincerely,

____
(Education Officer)

DD Form 295, NOV 86 *Previous editions are obsolete* Page 1 of 4 Pages
1207/330

Privacy Act Statement

AUTHORITY: 5 USC 301 and EO 9397, November 1943 (SSN).

PRINCIPAL PURPOSE: To permit authorized agencies to evaluate military experience for academic placement and/or employment.

ROUTINE USES: Used at the request of the individual for the evaluation of military training.

DISCLOSURE: Voluntary; however, failure to provide requested information impedes the evaluation process by educational institutions or potential employers.

INSTRUCTIONS TO APPLICANT

DD Form 295 is for your convenience in applying for evaluation of your educational experiences during military service. Give as much detailed information as possible. Include additional information on separate sheets, if necessary.

You are encouraged to write a preliminary letter to the school or agency concerned, explaining your interest in its evaluation of your records for the continuance of your education. Training, correspondence study, or special experiences not described on this form, which you believe would be of interest to those reviewing your case, should be included in this letter.

The applicant should:

a. Complete items 1 through 15.

b. If you have attended college or completed any college correspondence courses, ask that college to send a transcript to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY COLLEGE OR UNIVERSITY COURSES ON THIS FORM.

c. If you have completed any college-level standardized examinations for credit, such as USAFI or DANTES Subject Standardized Tests, or CLEP, ask the appropriate agency to send a score report to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY EXAMINATIONS ON THIS FORM.

d. After completion, submit this DD Form 295 to the Certifying Officer.

INSTRUCTIONS TO CERTIFYING OFFICER

(Custodian of Personnel Records)

DD Form 295 is intended to provide factual information that schools and other evaluating agencies require for evaluation of the applicant's educational achievement. CERTIFYING OFFICERS WILL NOT MAKE RECOMMENDATIONS REGARDING CREDIT TO BE AWARDED.

The certifying officer should:

a. Complete items 16 through 18.

b. Insure that the information provided in Section II is documented in the applicant's Service Record. Names of schools or courses should not be abbreviated.

c. Send this DD Form 295 to the Education Officer.

INSTRUCTIONS TO EDUCATION OFFICER

The education officer should:

a. Complete item 19.

b. Counsel the service member.

c. Complete page 1. The name and address of the evaluating agency should be the same as that listed at the top of page 3 of this form.

PAGE 1 IS IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THE LETTER TO BE WRITTEN TO THE EVALUATING AGENCY BY THE APPLICANT.

d. Mail DD Form 295 directly to the designated evaluating agency.

DD Form 295, NOV 86 Page 2 of 4 Pages

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

TO *(Name and address of educational institution, agency, or employer)*

SECTION I - TO BE COMPLETED BY APPLICANT

1. NAME *(Last, First, Middle Initial)*	2. GRADE/RANK OR RATING	3. SOCIAL SECURITY NO.	4. PREVIOUS SERVICE NUMBER(S)

5. PRESENT BRANCH OF SERVICE *(Includes National Guard and Reserve components)*
☐ a ARMY ☐ b NAVY ☐ c AIR FORCE ☐ d MARINE CORPS ☐ e COAST GUARD

6. APPLICANT'S MAILING ADDRESS FOR REPLY FROM EDUCATIONAL INSTITUTION

7. DATE OF BIRTH	8. PERMANENT HOME ADDRESS

CIVILIAN EDUCATION

9. HIGHEST GRADE OF SCHOOL COMPLETED *(X one)*
☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

10. HIGHEST YEAR OF COLLEGE COMPLETED *(X one)*
☐ a NONE ☐ b FRESHMAN ☐ c SOPHOMORE ☐ d JUNIOR ☐ e SENIOR

11. COLLEGE DEGREE EARNED *(X if applicable)*
☐ a ASSOCIATE ☐ b BACHELOR

12. EDUCATIONAL INSTITUTION LAST ATTENDED

a NAME	b MAILING ADDRESS

13. USAFI COURSES COMPLETED IN SERVICE (Prior to 1974)
(The applicant should request a transcript for all courses to be forwarded directly to the evaluating agency.)

a CATALOG NUMBER AND TITLE OF COURSE *(If no courses were taken, print NONE)*	b METHOD OF STUDY *(Correspondence, self-teaching, locally conducted classes, etc.)*	c LOCATION WHERE COMPLETED	d DATE COURSE COMPLETED
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			

14. MILITARY CORRESPONDENCE COURSE COMPLETED
(The applicant should attach a copy of the course completion letter or certificate.)

a COURSE NAME *(If no courses were taken, print NONE)*	b COURSE SPONSOR *(AIPD, MCI, ECI, CGI)*	c DATE COURSE COMPLETED
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		

15. APPLICANT CERTIFICATION: I have read the Privacy Act Statement on Page 2

a SIGNATURE	b DATE SIGNED

DD Form 295, NOV 86 Page 3 of 4 Pages

SECTION II - TO BE COMPLETED BY CERTIFYING OFFICER

(Read Instructions on Page 2 before completing this page)

16. FORMAL SERVICE SCHOOLS ATTENDED (If longer than one week) *(If none, print NONE)*

19. ACE GUIDE COURSE OR OCCUPATION IDENTIFICATION NO. *(To be filled out in Education Center)*

a COURSE TITLE	b MILITARY COURSE NUMBER	c NAME OF SCHOOL, CITY, STATE	d DATE ENTERED	e LENGTH[1] *(In weeks)*	f DATE COMPLETED	g FINAL MARK AND/OR CLASS STANDING[2]	19.
(1)							
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

17. MILITARY OCCUPATIONAL HISTORY

a MILITARY SPEC CODE *(MOS, AFSC, Rate, etc.)*[3]	b MILITARY OCCUPATIONAL TITLE *(Do Not Abbreviate)*	c DATES HELD		d MOS/SQT SCORE *(For Army Enlisted Personnel[4])*
		From *(Mo/yr)*	To *(Mo/yr)*	
(1)				
(2)				
(3)				

NOTES:

[1] Print **SP** if course length was self paced

[2] If information is available, give grade received. If class standing is shown, give number in class, e.g., 10 in 241

[3] List most recent skill levels or grade

[4] MOS/SQT Evaluation Score and Date of evaluation

THIS APPLICATION MUST BE SIGNED BY AN OFFICER OR A DULY AUTHORIZED NONCOMMISSIONED OFFICER.

I certify that the information contained herein has been compared with official records, and that this information is correct.

18. CERTIFYING OFFICER

a. NAME *(Print or Type)*	b. GRADE/RANK	c. MILITARY ADDRESS *(Include ZIP Code)*
d. SIGNATURE	e. DATE SIGNED	

DD Form 295, NOV 86

☆ U.S. Government Printing Office: 1988—201-424/70787

CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD
SAFEGUARD IT

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

DD FORM 214 1 JUL 79

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY

1. NAME (*Last, first, middle*)	2. DEPARTMENT, COMPONENT AND BRANCH NAVY - USN			3. SOCIAL SECURITY NO 189 | 32 | 1767
4a. GRADE, RATE OR RANK EWCM	4b. PAY GRADE E9	5. DATE OF BIRTH 14 AUG 42	6. PLACE OF ENTRY INTO ACTIVE DUTY San Diego, California	
7. LAST DUTY ASSIGNMENT AND MAJOR COMMAND USS ALBANY (CG-10)			8. STATION WHERE SEPARATED USS ALBANY (CG-10) at Gaeta, Italy	
9. COMMAND TO WHICH TRANSFERRED Not applicable			10. SGLI COVERAGE AMOUNT $ 20, 000 ☐ NONE	

11. PRIMARY SPECIALTY NUMBER, TITLE AND YEARS AND MONTHS IN SPECIALTY (*Additional specialty numbers and titles involving periods of one or more years*)

EW-1774 Electronics Warfare Systems Technician (SLQ-22/24)

12. RECORD OF SERVICE	YEAR(s)	MON(s)	DAY(s)
a. Date Entered AD This Period	74	01	04
b. Separation Date This Period	80	05	13
c. Net Active Service This Period	06	04	10
d. Total Prior Active Service	13	03	22
e. Total Prior Inactive Service	00	00	00
f. Foreign Service	00	00	00
g. Sea Service	03	01	07
h. Effective Date of Pay Grade	79	12	16
i. Reserve Oblig. Term. Date	NA	NA	NA

13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED (*All periods of service*)

Good Conduct Award (FIFTH)
Navy Expeditionary Medal
Armed Forces Expeditionary Medal
National Defense Service Medal
Republic of Viet-Nam Campaign Medal w/device
Viet-Nam Service Medal (7 awards)
Navy Unit Commendation Medal (2 awards)
Joint Service Commendation Medal

14. MILITARY EDUCATION (*Course Title, number weeks, and month and year completed*)

Instructor Basic - 4 weeks - Mar 74
OHS Advanced - 2 weeks - Apr 77
RD "B" School - 32 weeks - Apr 71
CET WLR-1 Series (7107) - 7 weeks - Jul 71
CET AN/ULQ-6 - 8 weeks - Sep 71
ASW Tactical Course - 1 week - Jan 63
Electronics Warfare Operator "C" - 6 weeks - May 71
RD "A" - 24 weeks - Jan 62

15. MEMBER CONTRIBUTED TO POST VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM ☐ YES ☒ NO

16. HIGH SCHOOL GRADUATE OR EQUIVALENT ☒ YES ☐ NO

17. DAYS ACCRUED LEAVE PAID "NONE"

18. REMARKS

Immediate reenlistment, 14 May 1980. This form was administratively issued 14 May 1980.
Block 13 continued: Combat Action Ribbon - Navy "E" Ribbon (2 awards).X X
X X X X X X X X X X
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19. MAILING ADDRESS AFTER SEPARATION
404 Twin Oaks Drive, Havertown, PA 19083

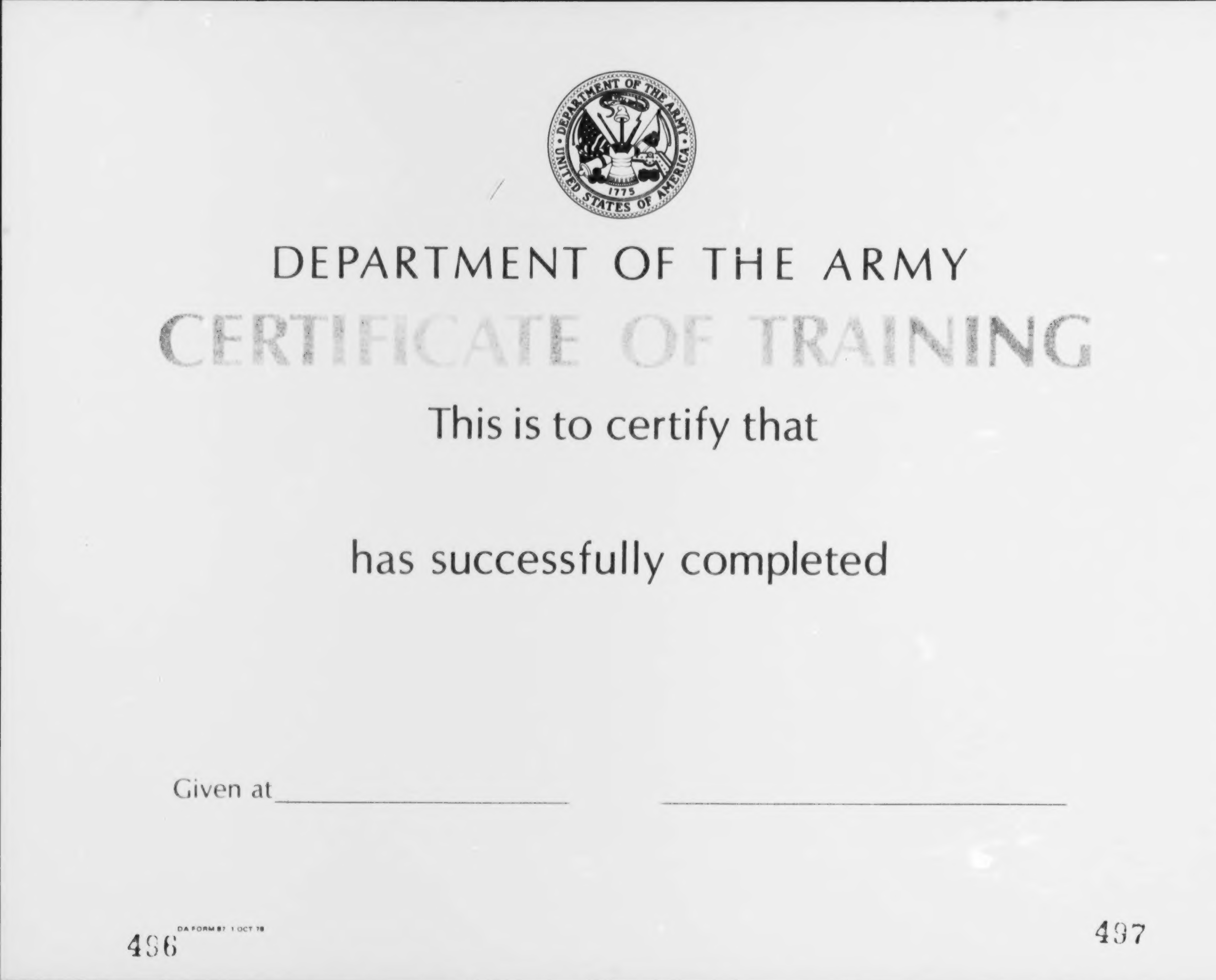
20. MEMBER REQUESTS COPY 6 BE SENT TO DIR. OF VET AFFAIRS ☐ YES ☒ NO

21. SIGNATURE OF MEMBER BEING SEPARATED

22. TYPED NAME, GRADE, TITLE AND SIGNATURE OF OFFICIAL AUTHORIZED TO SIGN
Assistant Personnel Officer

S/N 0102-LF-000-2140

MEMBER - 1



1775

DEPARTMENT OF THE ARMY

CERTIFICATE OF TRAINING

This is to certify that

has successfully completed

Given at ____________________ ______________________________

DA FORM 87, 1 OCT 78

Sample Course Completion Certificate

REQUEST FOR ARMY/AMERICAN COUNCIL ON EDUCATION REGISTRY TRANSCRIPT

For use of this form, see AR 621-5; the proponent agency is DCSPER

DATA REQUIRED BY THE PRIVACY ACT OF 1974

AUTHORITY	10 USC, Section 4302
PRINCIPAL PURPOSE(S)	To enable to Army/American Council on Education Registry Transcript System to access its computerized files, retrieve data, and produce a transcript for forwarding to individual/other addressee designated by the individual. Use of Social Security Number (SSN) is necessary to make positive identification of individual and records.
ROUTINE USES	Upon initiation of individual.
DISCLOSURE	Voluntary. Failure to provide required information will complicate, delay and/or prevent administrative actions needed to produce the transcript and forward it to desired addressee.

ELIGIBLES **Soldiers entering active duty on or after 1 October 1981.**

MAIL TO **AARTS Office, Ft. Leavenworth, KS 66027-5073**

SUBMIT SEPARATE REQUEST FOR EACH TRANSCRIPT ***(Type or print legibly)***

1 NAME *(Last, First, MI)* *(List other last names used in parenthesis)*

2 RANK

3. DATE OF BIRTH *(Year, Month, Day)*

4. SSN ☐☐☐-☐☐-☐☐☐☐

5 STATUS ☐ ACTIVE DUTY ☐ VETERAN

6 MONTH AND YEAR ENTERED ON ACTIVE DUTY *(Must Be On/After OCT 1981)*

7 **Send Transcript To**

A YOUR NAME OR ARMY EDUCATION CENTER OR ADMISSION/REGISTRAR'S OFFICE OR INDIVIDUAL, ETC

B UNIT ADDRESS OR OFFICE SYMBOL OR NAME OF COLLEGE/UNIVERSITY OR TITLE OF INDIVIDUAL, ETC

C STREET ADDRESS

D P O BOX NO

E APT NO

F CITY OR APO

G STATE

H ZIP CODE

8 **Write Your Current Mailing Address** ***(If in Block 7A Above Write "Same" Here)***

A MILITARY UNIT OR OFFICE SYMBOL OR LEAVE BLANK

B STREET ADDRESS

C P O BOX NO

D APT NO

E CITY OR APO

F STATE

G ZIP CODE

9 ETS DATE (Year, Mo., Day)

10 TRANSCRIPT WILL BE USED FOR

☐ COLLEGE CREDITS ☐ PERSONAL

☐ REFERENCE ☐ OTHER *(Specify)*

11 SIGNATURE

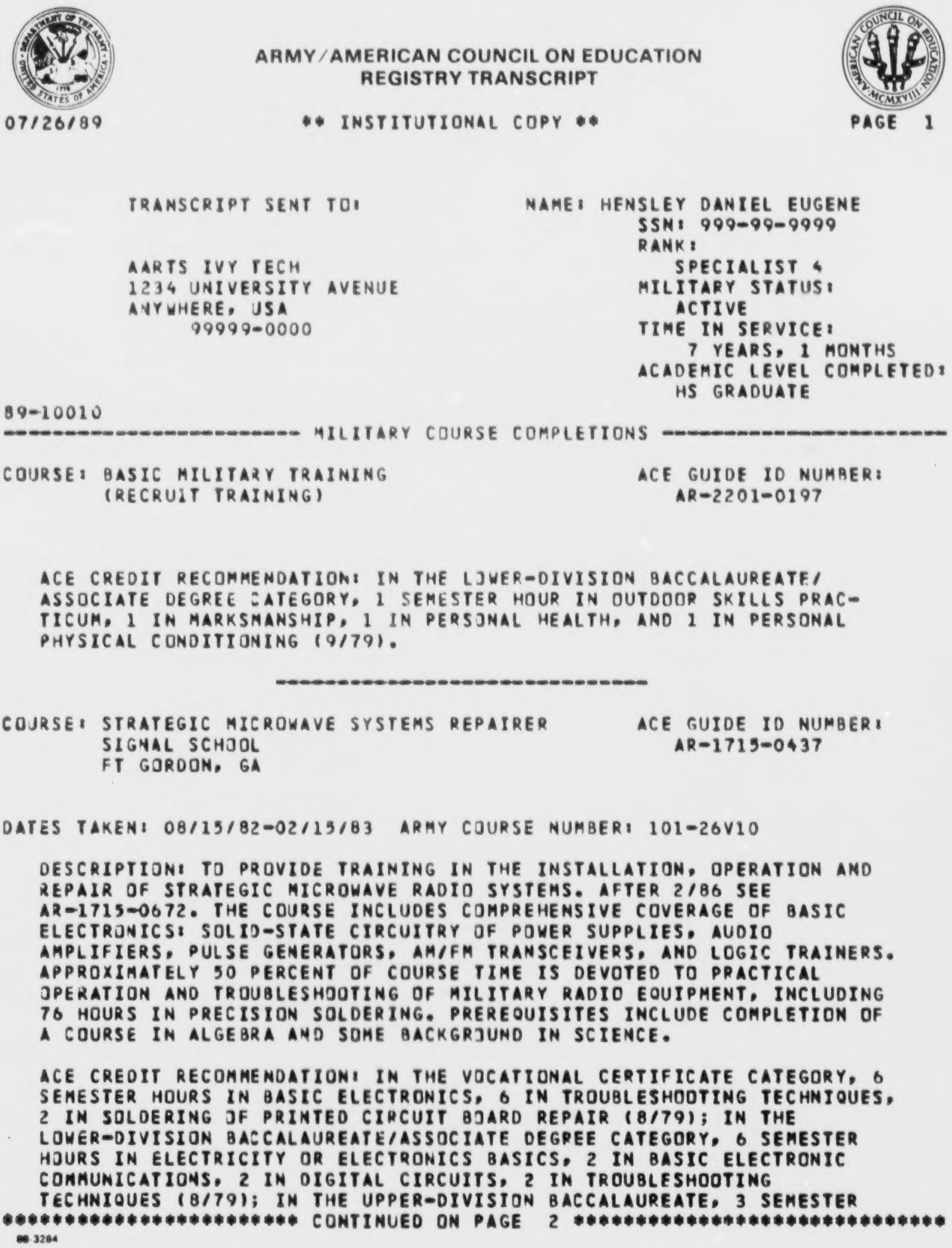
12 *FOR OFFICIAL USE ONLY*

A. DATE ENTERED

B. TRANSCRIBER

C. FICE CODE

D. TRANSCRIPT ID#



ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

```
07/26/89                    ** INSTITUTIONAL COPY **                    PAGE  1


        TRANSCRIPT SENT TO:              NAME: HENSLEY DANIEL EUGENE
                                                SSN: 999-99-9999
                                                RANK:
        AARTS IVY TECH                            SPECIALIST 4
        1234 UNIVERSITY AVENUE                  MILITARY STATUS:
        ANYWHERE, USA                             ACTIVE
             99999-0000                         TIME IN SERVICE:
                                                   7 YEARS, 1 MONTHS
                                                ACADEMIC LEVEL COMPLETED:
                                                  HS GRADUATE
89-10010
----------------------- MILITARY COURSE COMPLETIONS -----------------------

COURSE: BASIC MILITARY TRAINING                 ACE GUIDE ID NUMBER:
        (RECRUIT TRAINING)                        AR-2201-0197


   ACE CREDIT RECOMMENDATION: IN THE LOWER-DIVISION BACCALAUREATE/
   ASSOCIATE DEGREE CATEGORY, 1 SEMESTER HOUR IN OUTDOOR SKILLS PRAC-
   TICUM, 1 IN MARKSMANSHIP, 1 IN PERSONAL HEALTH, AND 1 IN PERSONAL
   PHYSICAL CONDITIONING (9/79).

                     ----------------------------

COURSE: STRATEGIC MICROWAVE SYSTEMS REPAIRER    ACE GUIDE ID NUMBER:
        SIGNAL SCHOOL                             AR-1715-0437
        FT GORDON, GA


DATES TAKEN: 08/15/82-02/15/83  ARMY COURSE NUMBER: 101-26V10

   DESCRIPTION: TO PROVIDE TRAINING IN THE INSTALLATION, OPERATION AND
   REPAIR OF STRATEGIC MICROWAVE RADIO SYSTEMS. AFTER 2/86 SEE
   AR-1715-0672. THE COURSE INCLUDES COMPREHENSIVE COVERAGE OF BASIC
   ELECTRONICS: SOLID-STATE CIRCUITRY OF POWER SUPPLIES, AUDIO
   AMPLIFIERS, PULSE GENERATORS, AM/FM TRANSCEIVERS, AND LOGIC TRAINERS.
   APPROXIMATELY 50 PERCENT OF COURSE TIME IS DEVOTED TO PRACTICAL
   OPERATION AND TROUBLESHOOTING OF MILITARY RADIO EQUIPMENT, INCLUDING
   76 HOURS IN PRECISION SOLDERING. PREREQUISITES INCLUDE COMPLETION OF
   A COURSE IN ALGEBRA AND SOME BACKGROUND IN SCIENCE.

   ACE CREDIT RECOMMENDATION: IN THE VOCATIONAL CERTIFICATE CATEGORY, 6
   SEMESTER HOURS IN BASIC ELECTRONICS, 6 IN TROUBLESHOOTING TECHNIQUES,
   2 IN SOLDERING OF PRINTED CIRCUIT BOARD REPAIR (8/79); IN THE
   LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 6 SEMESTER
   HOURS IN ELECTRICITY OR ELECTRONICS BASICS, 2 IN BASIC ELECTRONIC
   COMMUNICATIONS, 2 IN DIGITAL CIRCUITS, 2 IN TROUBLESHOOTING
   TECHNIQUES (8/79); IN THE UPPER-DIVISION BACCALAUREATE, 3 SEMESTER
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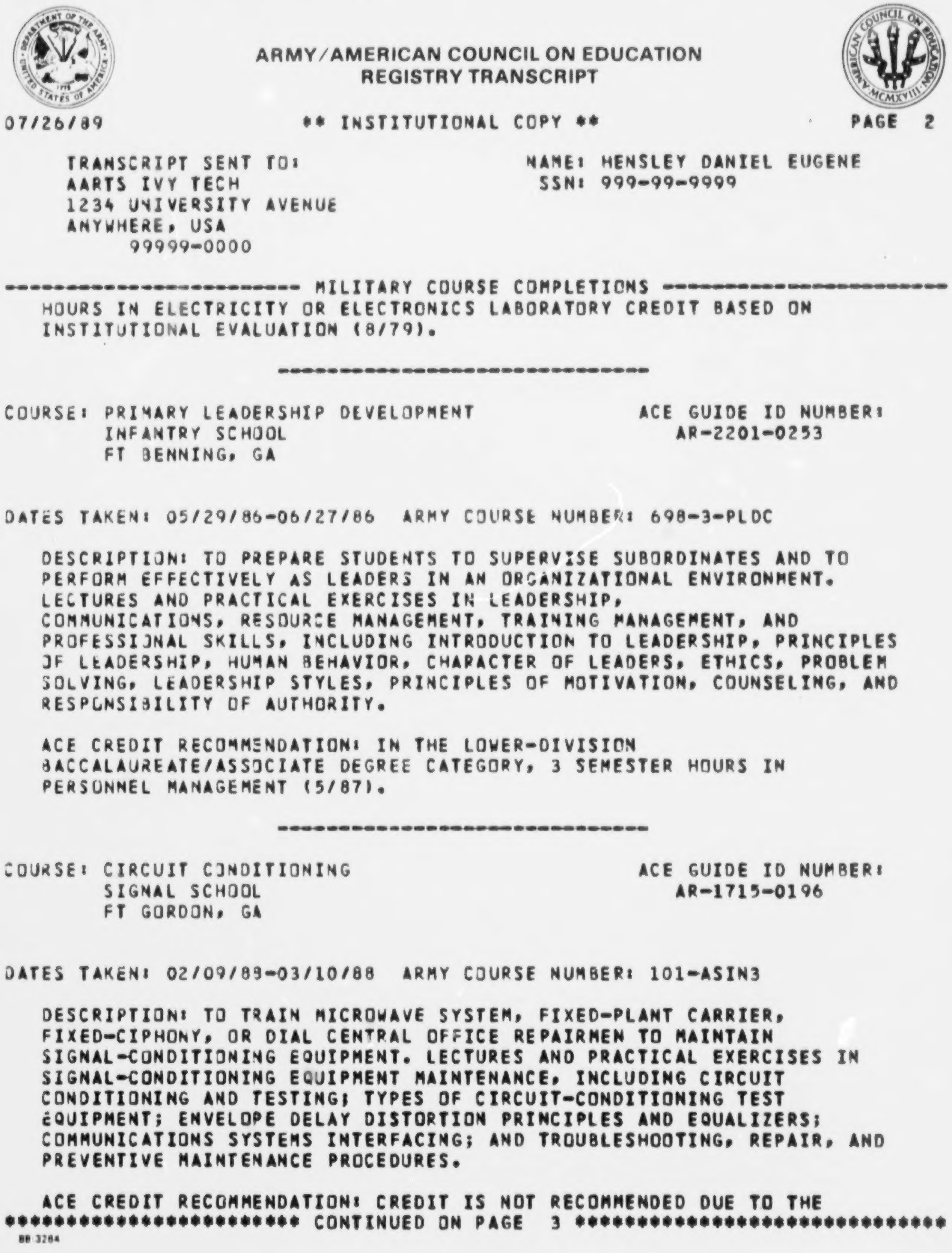
************************* CONTINUED ON PAGE 2 ********************************

88-3284



ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

07/26/89 ** INSTITUTIONAL COPY ** PAGE 2

TRANSCRIPT SENT TO:
AARTS IVY TECH
1234 UNIVERSITY AVENUE
ANYWHERE, USA
99999-0000

NAME: HENSLEY DANIEL EUGENE
SSN: 999-99-9999

------------------------ MILITARY COURSE COMPLETIONS ------------------------

HOURS IN ELECTRICITY OR ELECTRONICS LABORATORY CREDIT BASED ON INSTITUTIONAL EVALUATION (8/79).

COURSE: PRIMARY LEADERSHIP DEVELOPMENT
INFANTRY SCHOOL
FT BENNING, GA

ACE GUIDE ID NUMBER:
AR-2201-0253

DATES TAKEN: 05/29/86-06/27/86 ARMY COURSE NUMBER: 698-3-PLDC

DESCRIPTION: TO PREPARE STUDENTS TO SUPERVISE SUBORDINATES AND TO PERFORM EFFECTIVELY AS LEADERS IN AN ORGANIZATIONAL ENVIRONMENT. LECTURES AND PRACTICAL EXERCISES IN LEADERSHIP, COMMUNICATIONS, RESOURCE MANAGEMENT, TRAINING MANAGEMENT, AND PROFESSIONAL SKILLS, INCLUDING INTRODUCTION TO LEADERSHIP, PRINCIPLES OF LEADERSHIP, HUMAN BEHAVIOR, CHARACTER OF LEADERS, ETHICS, PROBLEM SOLVING, LEADERSHIP STYLES, PRINCIPLES OF MOTIVATION, COUNSELING, AND RESPONSIBILITY OF AUTHORITY.

ACE CREDIT RECOMMENDATION: IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 3 SEMESTER HOURS IN PERSONNEL MANAGEMENT (5/87).

COURSE: CIRCUIT CONDITIONING
SIGNAL SCHOOL
FT GORDON, GA

ACE GUIDE ID NUMBER:
AR-1715-0196

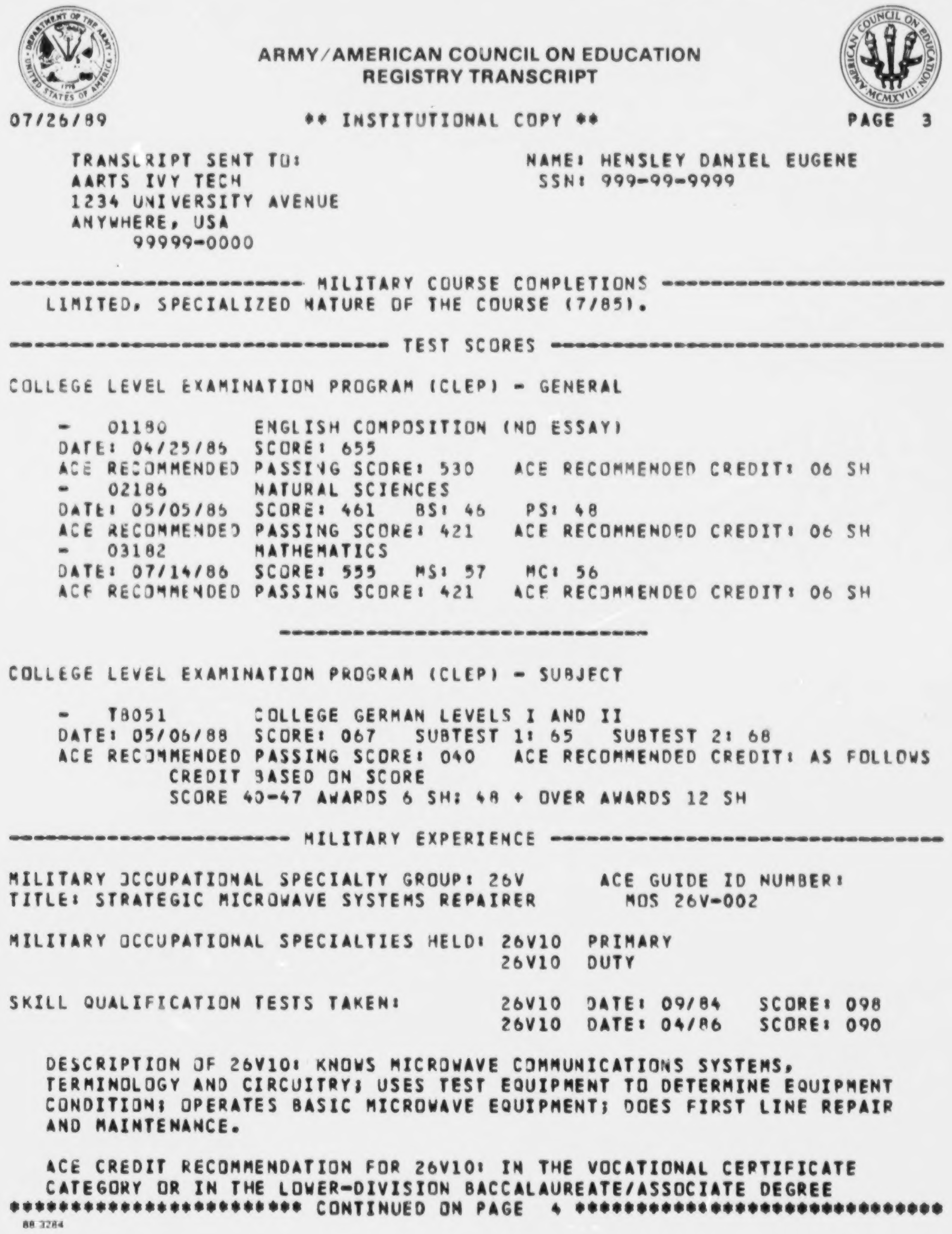
DATES TAKEN: 02/09/88-03/10/88 ARMY COURSE NUMBER: 101-ASIN3

DESCRIPTION: TO TRAIN MICROWAVE SYSTEM, FIXED-PLANT CARRIER, FIXED-CIPHONY, OR DIAL CENTRAL OFFICE REPAIRMEN TO MAINTAIN SIGNAL-CONDITIONING EQUIPMENT. LECTURES AND PRACTICAL EXERCISES IN SIGNAL-CONDITIONING EQUIPMENT MAINTENANCE, INCLUDING CIRCUIT CONDITIONING AND TESTING; TYPES OF CIRCUIT-CONDITIONING TEST EQUIPMENT; ENVELOPE DELAY DISTORTION PRINCIPLES AND EQUALIZERS; COMMUNICATIONS SYSTEMS INTERFACING; AND TROUBLESHOOTING, REPAIR, AND PREVENTIVE MAINTENANCE PROCEDURES.

ACE CREDIT RECOMMENDATION: CREDIT IS NOT RECOMMENDED DUE TO THE

************************ CONTINUED ON PAGE 3 ********************************

88-3284



ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

```
07/26/89                 ** INSTITUTIONAL COPY **                  PAGE  3

    TRANSCRIPT SENT TO:                    NAME: HENSLEY DANIEL EUGENE
    AARTS IVY TECH                          SSN: 999-99-9999
    1234 UNIVERSITY AVENUE
    ANYWHERE, USA
         99999-0000

----------------------- MILITARY COURSE COMPLETIONS ---------------------
   LIMITED, SPECIALIZED NATURE OF THE COURSE (7/85).

---------------------------- TEST SCORES -------------------------------

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - GENERAL

     -    01180       ENGLISH COMPOSITION (NO ESSAY)
     DATE: 04/25/86   SCORE: 655
     ACE RECOMMENDED  PASSING SCORE: 530   ACE RECOMMENDED CREDIT: 06 SH
     -    02186       NATURAL SCIENCES
     DATE: 05/05/86   SCORE: 461   BS: 46    PS: 48
     ACE RECOMMENDED  PASSING SCORE: 421   ACE RECOMMENDED CREDIT: 06 SH
     -    03182       MATHEMATICS
     DATE: 07/14/86   SCORE: 555   MS: 57    MC: 56
     ACE RECOMMENDED  PASSING SCORE: 421   ACE RECOMMENDED CREDIT: 06 SH

                     ---------------------------

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - SUBJECT

     -    T8051       COLLEGE GERMAN LEVELS I AND II
     DATE: 05/06/88   SCORE: 067   SUBTEST 1: 65   SUBTEST 2: 68
     ACE RECOMMENDED  PASSING SCORE: 040   ACE RECOMMENDED CREDIT: AS FOLLOWS
              CREDIT BASED ON SCORE
              SCORE 40-47 AWARDS 6 SH; 48 + OVER AWARDS 12 SH

--------------------- MILITARY EXPERIENCE ------------------------------

MILITARY OCCUPATIONAL SPECIALTY GROUP: 26V      ACE GUIDE ID NUMBER:
TITLE: STRATEGIC MICROWAVE SYSTEMS REPAIRER       MOS 26V-002

MILITARY OCCUPATIONAL SPECIALTIES HELD: 26V10  PRIMARY
                                        26V10  DUTY

SKILL QUALIFICATION TESTS TAKEN:        26V10  DATE: 09/84   SCORE: 098
                                        26V10  DATE: 04/86   SCORE: 090

   DESCRIPTION OF 26V10: KNOWS MICROWAVE COMMUNICATIONS SYSTEMS,
   TERMINOLOGY AND CIRCUITRY; USES TEST EQUIPMENT TO DETERMINE EQUIPMENT
   CONDITION; OPERATES BASIC MICROWAVE EQUIPMENT; DOES FIRST LINE REPAIR
   AND MAINTENANCE.

   ACE CREDIT RECOMMENDATION FOR 26V10: IN THE VOCATIONAL CERTIFICATE
   CATEGORY OR IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE
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*********************** CONTINUED ON PAGE 4 ******************************

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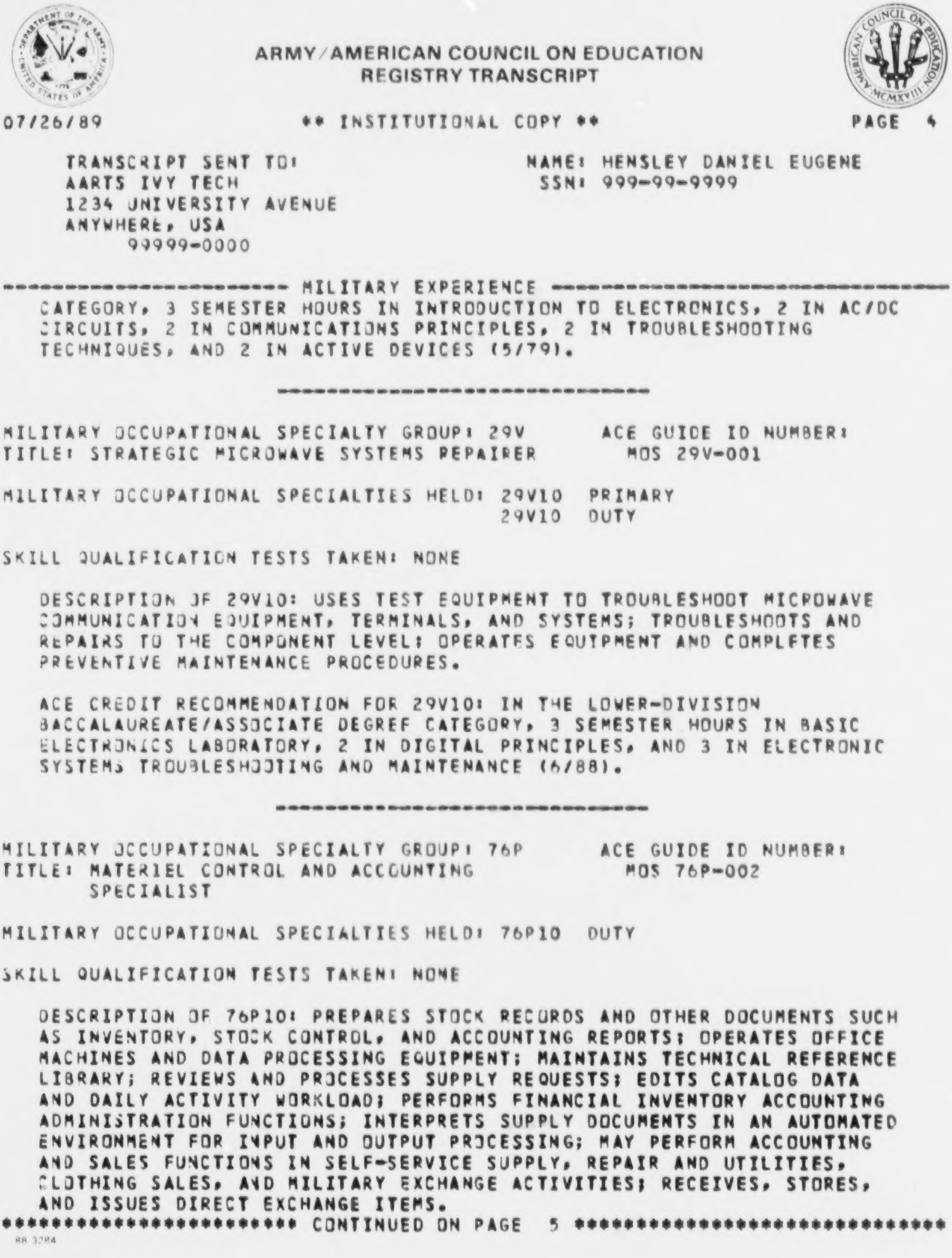

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

```
07/26/89                  ** INSTITUTIONAL COPY **                    PAGE  4

     TRANSCRIPT SENT TO:                        NAME: HENSLEY DANIEL EUGENE
     AARTS IVY TECH                              SSN: 999-99-9999
     1234 UNIVERSITY AVENUE
     ANYWHERE, USA
          99999-0000

---------------------- MILITARY EXPERIENCE ------------------------------
    CATEGORY, 3 SEMESTER HOURS IN INTRODUCTION TO ELECTRONICS, 2 IN AC/DC
    CIRCUITS, 2 IN COMMUNICATIONS PRINCIPLES, 2 IN TROUBLESHOOTING
    TECHNIQUES, AND 2 IN ACTIVE DEVICES (5/79).

                     -----------------------------

MILITARY OCCUPATIONAL SPECIALTY GROUP: 29V      ACE GUIDE ID NUMBER:
TITLE: STRATEGIC MICROWAVE SYSTEMS REPAIRER        MOS 29V-001

MILITARY OCCUPATIONAL SPECIALTIES HELD: 29V10  PRIMARY
                                        29V10  DUTY

SKILL QUALIFICATION TESTS TAKEN: NONE

    DESCRIPTION OF 29V10: USES TEST EQUIPMENT TO TROUBLESHOOT MICROWAVE
    COMMUNICATION EQUIPMENT, TERMINALS, AND SYSTEMS; TROUBLESHOOTS AND
    REPAIRS TO THE COMPONENT LEVEL; OPERATES EQUIPMENT AND COMPLETES
    PREVENTIVE MAINTENANCE PROCEDURES.

    ACE CREDIT RECOMMENDATION FOR 29V10: IN THE LOWER-DIVISION
    BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 3 SEMESTER HOURS IN BASIC
    ELECTRONICS LABORATORY, 2 IN DIGITAL PRINCIPLES, AND 3 IN ELECTRONIC
    SYSTEMS TROUBLESHOOTING AND MAINTENANCE (6/88).

                     -----------------------------

MILITARY OCCUPATIONAL SPECIALTY GROUP: 76P      ACE GUIDE ID NUMBER:
TITLE: MATERIEL CONTROL AND ACCOUNTING             MOS 76P-002
      SPECIALIST

MILITARY OCCUPATIONAL SPECIALTIES HELD: 76P10  DUTY

SKILL QUALIFICATION TESTS TAKEN: NONE

    DESCRIPTION OF 76P10: PREPARES STOCK RECORDS AND OTHER DOCUMENTS SUCH
    AS INVENTORY, STOCK CONTROL, AND ACCOUNTING REPORTS; OPERATES OFFICE
    MACHINES AND DATA PROCESSING EQUIPMENT; MAINTAINS TECHNICAL REFERENCE
    LIBRARY; REVIEWS AND PROCESSES SUPPLY REQUESTS; EDITS CATALOG DATA
    AND DAILY ACTIVITY WORKLOAD; PERFORMS FINANCIAL INVENTORY ACCOUNTING
    ADMINISTRATION FUNCTIONS; INTERPRETS SUPPLY DOCUMENTS IN AN AUTOMATED
    ENVIRONMENT FOR INPUT AND OUTPUT PROCESSING; MAY PERFORM ACCOUNTING
    AND SALES FUNCTIONS IN SELF-SERVICE SUPPLY, REPAIR AND UTILITIES,
    CLOTHING SALES, AND MILITARY EXCHANGE ACTIVITIES; RECEIVES, STORES,
    AND ISSUES DIRECT EXCHANGE ITEMS.
************************ CONTINUED ON PAGE  5 ****************************
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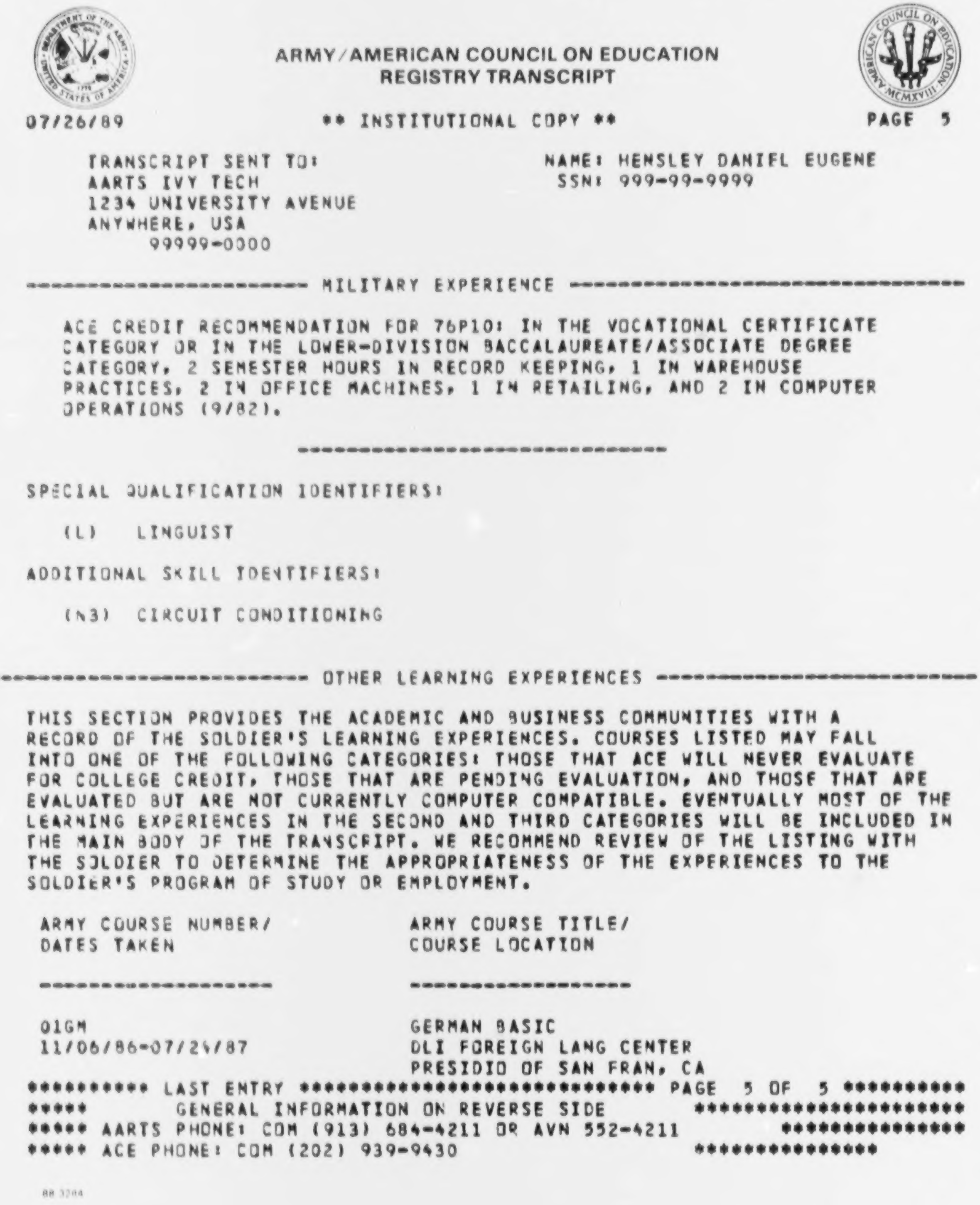

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

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07/26/89                ** INSTITUTIONAL COPY **                  PAGE  5

    TRANSCRIPT SENT TO:                  NAME: HENSLEY DANIEL EUGENE
    AARTS IVY TECH                        SSN: 999-99-9999
    1234 UNIVERSITY AVENUE
    ANYWHERE, USA
         99999-0000

---------------------- MILITARY EXPERIENCE ------------------------------

  ACE CREDIT RECOMMENDATION FOR 76P10: IN THE VOCATIONAL CERTIFICATE
  CATEGORY OR IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE
  CATEGORY, 2 SEMESTER HOURS IN RECORD KEEPING, 1 IN WAREHOUSE
  PRACTICES, 2 IN OFFICE MACHINES, 1 IN RETAILING, AND 2 IN COMPUTER
  OPERATIONS (9/82).

                 ----------------------------

SPECIAL QUALIFICATION IDENTIFIERS:

  (L)   LINGUIST

ADDITIONAL SKILL IDENTIFIERS:

  (N3)  CIRCUIT CONDITIONING

------------------------ OTHER LEARNING EXPERIENCES ------------------------

THIS SECTION PROVIDES THE ACADEMIC AND BUSINESS COMMUNITIES WITH A
RECORD OF THE SOLDIER'S LEARNING EXPERIENCES. COURSES LISTED MAY FALL
INTO ONE OF THE FOLLOWING CATEGORIES: THOSE THAT ACE WILL NEVER EVALUATE
FOR COLLEGE CREDIT, THOSE THAT ARE PENDING EVALUATION, AND THOSE THAT ARE
EVALUATED BUT ARE NOT CURRENTLY COMPUTER COMPATIBLE. EVENTUALLY MOST OF THE
LEARNING EXPERIENCES IN THE SECOND AND THIRD CATEGORIES WILL BE INCLUDED IN
THE MAIN BODY OF THE TRANSCRIPT. WE RECOMMEND REVIEW OF THE LISTING WITH
THE SOLDIER TO DETERMINE THE APPROPRIATENESS OF THE EXPERIENCES TO THE
SOLDIER'S PROGRAM OF STUDY OR EMPLOYMENT.

 ARMY COURSE NUMBER/          ARMY COURSE TITLE/
 DATES TAKEN                  COURSE LOCATION

 ------------------           -----------------

 01GM                         GERMAN BASIC
 11/06/86-07/24/87            DLI FOREIGN LANG CENTER
                              PRESIDIO OF SAN FRAN, CA
*********** LAST ENTRY ****************************** PAGE  5 OF  5 **********
*****        GENERAL INFORMATION ON REVERSE SIDE        **********************
***** AARTS PHONE: COM (913) 684-4211 OR AVN 552-4211         ***************
***** ACE PHONE: COM (202) 939-9430                      ***************
```

88 3204

Keyword Index

This index is designed to provide rapid access to the courses described in the course exhibit section. Titles of courses are arranged alphabetically under keywords which have been extracted verbatim from the titles. For example, the keyword *Data Processing* is followed by all titles containing the words *Data Processing.*

To locate a specific course, identify a word or group of words in the title which seems to be unique of descriptive. For example, the title *Data Processing Specialist, COBOL* can be found under the keywords *Data Processing* or *COBOL*. Similarly, the title *Russian Technician* can be found under the keyword *Russian.*

The ID number for each course is displayed to the right of the title. Refer to that number in the course exhibit section for a full description of the course.

Abrams
Abrams/Bradley Supervisor Diagnostics Course
AR-1710-0158
Basic Noncommissioned Officer (NCO) M6OA1/M6OA3 19K M1 Abrams
AR-2201-0325
Basic Noncommissioned Officer (NCO) 19K M1 Abrams
AR-2201-0324
M1 Abrams Fuel and Electrical Systems Repairer
AR-1714-0024
AR-1714-0029
M1 Abrams Master Gunner
AR-2201-0327
M1 Abrams Tank Fire Control Systems Repairer
AR-1710-0101
M1 Abrams Tank Recovery Specialist
AR-1710-0135
M1 Abrams Tank System Mechanic Basic Noncommissioned Officer (NCO)
AR-1703-0040
M1 Abrams Tank System Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0131
M1 Abrams Tank System Mechanic Primary Technical
AR-1712-0014
M1 Abrams Tank Systems Mechanic
AR-1704-0142
M1 Abrams Tank Systems Mechanic Basic Technical
AR-1712-0015
M1 Abrams Tank Turret Mechanic
AR-1703-0050
M1 Abrams Tank Turret Mechanic Primary Technical
AR-1710-0103
M1 Abrams Tank Turret Repair
AR-1710-0104
M1 Abrams Tank Vehicle Repairer
AR-1710-0097
AR-1710-0113
M1/M1A1 Abrams Armor Crewman
AR-2201-0330
M1/M1A1 Abrams Master Gunner
AR-2201-0328

Access
Secure Voice Access Console Repair
AR-1715-0195
Secure Voice Access System Repair
AR-1715-0195

Accident
Aviation Accident Prevention
AR-0802-0015
Aviation Accident Prevention Management
AR-0801-0004
Traffic Accident Investigation
AR-1728-0060
AR-1728-0078

Accounting
Accounting
AR-0301-0001
Accounting Advanced
AR-1401-0014
Accounting Basic
AR-1401-0012
Accounting Intermediate
AR-1401-0011
Accounting Specialist
AR-1401-0004
AR-1401-0041
Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1401-0039
Advanced Machine Accounting
AR-1402-0012
Ammunition Stock Control and Accounting Specialist
AR-1405-0124
AR-1405-0155
Ammunition Stock Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0086
Ammunition Stock Control and Accounting Specialist Basic Technical
AR-1402-0086
Appropriated Fund Accounting
AR-1408-0095
Central Accounting Officer
AR-1401-0028
AR-1401-0036
Command Stock Fund Accounting
AR-1401-0005
Cost Accounting
AR-1401-0015
Cost Accounting Standards Workshop
AR-1401-0021
Department of Defense (DOD) Cost Accounting Standards Workshop
AR-1401-0021
Electrical Accounting Machine Repair
AR-1706-0004
Financial Management—Integrated Accounting
AR-1401-0001
Financial Management—Inventory Accounting and Army Stock Fund Operations
AR-1405-0005
Financial Management—Machine Accounting
AR-1402-0034
Financial Management—Machine Accounting Systems
AR-1402-0034
Machine Accounting
AR-1402-0016
Machine Accounting Specialist
AR-1408-0005
Materiel Control and Accounting Specialist
AR-1401-0016
Materiel Control and Accounting Specialist Advanced Individual Training
AR-1401-0032
Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0109
AR-1405-0178
Materiel Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0161
Materiel Control and Accounting Specialist Basic Technical
AR-1405-0143
Military Accounting
AR-1401-0001
AR-1401-0034
Nonappropriated Fund Accounting
AR-1408-0094
Special Correspondence Course for Military Accounting Supervisors
AR-1401-0024
Stock Control and Accounting
AR-1401-0016
Stock Control and Accounting Specialist
AR-1401-0016
Stock Control and Accounting Specialist, Skill Development Base
AR-1402-0013
Supply Accounting Management

Information System
AR-1402-0136

Acquisition
Air Defense Acquisition Radar Maintenance
AR-1715-0179
Artillery Target Acquisition Officer
AR-1601-0027
Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Cost Estimating Techniques for Systems Acquisition
AR-1408-0025
Data Acquisition System Maintenance (AN/GSQ-76)
AR-1715-0413
Defense Acquisition Radar Crew Member
AR-1715-0515
Defense Acquisition Radar Maintenance
AR-1715-0179
Defense Acquisition Radar Operator
AR-1715-0515
AR-1715-0808
Digital Radio and Multiplexer Acquisition (DRAMA) Communications Systems Repair
AR-1715-0665
Digital Radio Multiplexer Acquisition (DRAMA)
AR-1715-0665
Field Artillery Target Acquisition Officer
AR-1601-0027
Field Artillery Target Acquisition Specialist
AR-1715-0153
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer
AR-1715-0745
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742
Hawk Pulse Acquisition Radar and Battery Control Center Maintenance
AR-1715-0211
Hawk Pulse Acquisition Radar and Battery Control Central Maintenance
AR-1715-0211
Improved Hawk Pulse Acquisition Radar Repair
AR-1715-0222
Improved Hawk Pulse Acquisition Radar Repairer
AR-1715-0222
Improved Nike Hercules High Power (HIPAR) Acquisition Radar Maintenance
AR-1715-0210
Integrated Logistics Support and Materiel Acquisition (ILS-R)
AR-0326-0018
Integrated Logistics Support Management Techniques in Materiel Acquisition (ILS-MGT)
AR-0326-0019
Logistics Support Analysis Techniques in Materiel Acquisition (LSAT)
AR-0326-0020
Management of Acquisition Contracts Advanced
AR-0326-0010
Management of Defense Acquisition Contracts
AR-0326-0009
Management of Defense Acquisition Contracts Course Advanced
AR-0326-0010
Management Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSDM-MGT)
AR-0326-0019
Materiel Acquisition and Integrated Logistics Support Design Management (LSDM)
AR-0326-0018
Materiel Acquisition Management
AR-1408-0122
Nike Acquisition Radar and Computer Repair
AR-1715-0209
Nike Acquisition Radar and Computer Repair (Hercules Transition)
AR-1715-0233
Nike Acquisition Radar and Computer Repair (Improved Hercules Transition)
AR-1715-0233
Nike Acquisition Radar and Computer Systems Repair
AR-1715-0209
Nike High Power (HIPAR) Acquisition Radar and Radar Simulator Repair
AR-1715-0180
Quantitative Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSD-Quant)
AR-0326-0020
Surface-to-Air Missile (SAM) Acquisition Radar and Computer Systems Repair
AR-1715-0209
Target Acquisition Radar Technician
AR-1715-0558
Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)
AR-1715-0841
Target Acquisition Radar Technician Warrant Officer Technical Certification
AR-1715-0840
Target Acquisition Radar Technician-Warrant Officer Advanced
AR-1402-0111
Target Acquisition Radar Technician-Warrant Officer Technical Certification
AR-1715-0558
Target Acquisition Surveillance Radar Repairer
AR-1715-0632
Target Acquisition/Surveillance Radar Repairer
AR-1715-0839
Target Acquisition/Surveillance Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1408-0170

Activities
Chapel Activities Specialist
AR-1402-0087
Chapel Activities Specialist Basic Noncommissioned Officer (NCO)
AR-1408-0139
Chapel Activities Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Commercial Activities Process
AR-1408-0121
Commercial Activities Review Process
AR-1408-0121

Adjutant
Adjutant General Officer Advanced
AR-1408-0029
AR-1408-0168
Adjutant General Officer Basic
AR-1408-0014
Adjutant General Officer Career
AR-1408-0029
Adjutant General Officer Career Advanced
AR-1408-0029
Adjutant General Officer Orientation
AR-1406-0010
AR-1408-0014
Adjutant/Adjutant General Officer Familiarization
AR-1408-0054
Associate Adjutant General Company Officer
AR-1408-0058
Associate Adjutant General Officer Advanced
AR-1406-0018
Associate Adjutant General Officer Career
AR-1402-0028

Administration
Adjutant General Noncommissioned Officer (NCO) Education System (Administration) by Correspondence
AR-1406-0047
Adjutant General Noncommissioned Officer (NCO) Education System (Administration) Advanced by Correspondence
AR-1406-0048
Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Administration) by Correspondence
AR-1406-0046
AR-1406-0049
Administration (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Administration (AG-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0016
AR-1408-0021
Administration Noncommissioned Officer (NCO) Advanced
AR-1406-0025
Advanced Army Administration
AR-1408-0008
Advanced Nursing Administration
AR-0799-0003
Army Safety Program Organization and Administration
AR-0802-0008
Basic Army Administration
AR-1409-0002
Commissary Administration Management
AR-0406-0004
Commissary Middle Management, Phase IV (Commissary Administration Management)
AR-0406-0004
Correctional Administration
AR-1728-0018

Corrections Administration
AR-1728-0074
Dental Administration
AR-0701-0004
AR-0701-0011
Mess Administration
AR-1729-0013
Patient Administration
AR-0709-0013
AR-0709-0036
Patient Administration Reserve Component (Nonresident/Resident)
AR-0709-0020
AR-0709-0043
Patient Administration Specialist
AR-1403-0001
AR-1403-0010
Patient Administration Specialist Reserve Component (Nonresident/Resident)
AR-0709-0021
Personnel and Administration (Reserve Components)
AR-1406-0016
Personnel and Administration Center
AR-1406-0099
Personnel Administration Basic Technical
AR-1406-0062
Personnel Administration Officer Advanced
AR-1408-0029
Personnel Administration Officer Advanced by Correspondence
AR-1406-0051
Personnel Administration Officer Basic
AR-1408-0014
Personnel Administration Officer Basic by Correspondence
AR-1406-0050
Personnel Administration Specialist
AR-1403-0004
AR-1406-0019
AR-1406-0105
Personnel Administration Specialist Basic Noncommissioned Officer (NCO)
AR-1406-0100
Personnel Administration Specialist-Transition
AR-1406-0106
Principles of Advanced Nursing Administration for Army Nursing Corps Officers
AR-0703-0022
Unit Administration
AR-1408-0171
Unit Records Administration
AR-1408-0173
Ward Administration and Supervision
AR-1408-0013

Administrative
Administrative (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0025
Administrative Officer
AR-1408-0182
Administrative Senior Warrant Officer Advanced
AR-1408-0167
Administrative Specialist
AR-1403-0007
Administrative Specialist Advanced Noncommissioned Officer (NCO)
AR-1408-0169
Administrative Specialist Basic Noncommissioned Officer (NCO) (71L30)
AR-1408-0164
Administrative Systems Analysis and Design
AR-0326-0024
AR-0326-0041
Administrative Warrant Officer Advanced
AR-1408-0110
AR-1408-0167
Executive Administrative Assistant
AR-1407-0001
AR-1407-0008

Adviser
Food Adviser/Food Service Technician/Food Service
AR-1729-0014
Food Adviser/Technician
AR-1729-0014

Advisor
Civil Affairs Advisor, Vietnam
AR-1513-0004
District and Civil Affairs Advisor (Vietnam)
AR-1513-0004
Military Assistance Advisor Sector/Unit
AR-2201-0014
Military Assistance Programmer/Advisor
AR-1606-0024
Military Assistance Training Advisor
AR-2201-0016
Military Assistance Training Advisor ARVN Officer
AR-0602-0006
Military Assistance Training Advisor Company Grade Officer
AR-0602-0005
Military Assistance Training Advisor Corps/Division
AR-2201-0015
Military Assistance Training Advisor CORDS Officer
AR-0602-0004
Military Assistance Training Advisor Field Grade Officer
AR-0602-0003
Military Assistance Training Advisor Psychological Operations Orientation
AR-1512-0005
Military Assistance Training Advisor Senior Noncommissioned Officer (NCO)
AR-0602-0002

Advocacy
Family Advocacy Staff Training
AR-1512-0011

Aerial
Aerial Delivery and Materiel Officer
AR-1733-0002
Aerial Electronic Warning/Defense Equipment Repairer
AR-1715-0500
AR-1715-0503
Aerial Intelligence Specialist
AR-1606-0208
Aerial Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1606-0203
Aerial Photoactive Sensor Repairer
AR-1606-0143
AR-1606-0206
Aerial Radar Sensor Repairer
AR-1715-0523
Aerial Sensor Specialist (OV-1D)
AR-1709-0010
Aerial Sensor Specialist Entry Level
AR-1709-0010
Aerial Surveillance Officer
AR-2201-0121
Aerial Surveillance Sensor Repairer
AR-1715-0523
Electronic Warfare (EW) Intercept Aerial Sensor Repairer
AR-1715-0713
Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2
AR-1715-0869
Fabrication of Aerial Delivery Loads
AR-1733-0009
OH-58 A/C Field Artillery Aerial Observer
AR-1606-0188
OH-58D Field Artillery Aerial Fire Support Observer
AR-1402-0112
OH-58D Field Artillery Aerial Observer
AR-1606-0169
Parachute Maintenance and Aerial Supply Officer
AR-1733-0002
AR-2201-0136
Parachute Packing, Maintenance and Aerial Delivery
AR-1733-0001
Radio Controlled Miniature Aerial Target (RMCAT) Operator
AR-1715-0575

Aeroscout
Aeroscout Observer
AR-1606-0044
AR-1606-0186
Aeroscout Observer Basic Noncommissioned Officer (NCO)
AR-1606-0187
OH-58 Aeroscout Instructor Pilot Methods of Instruction
AR-1606-0165

Aerospace
Aerospace Medicine Residency Flight Training
AR-1606-0163

Aides
Enlisted Aides
AR-1729-0003

Aidman
Flight Medical Aidman
AR-0709-0029
Medical Aidman Advanced
AR-0709-000
Medical Aidman Basic
AR-0703-0005
Special Forces Aidman (Airborne)
AR-0709-0006

Air
Advanced Air Drop Equipment Maintenance
AR-1704-0092
Air Base Construction
AR-1601-0026
Air Brake Repair
AR-1703-0008
Air Cavalry/Attack Helicopter Commander's Training
AR-1606-0054
Air Defense Artillery (ADA) Officer Advanced Reserve Component (RC)
AR-1715-0655
Air Observer
AR-1606-0088
Air Traffic Control Operator
AR-1704-0177

Air Transportability
AR-0419-0021
Air Transportability Planning
AR-0419-0031
Parachute Packing, Maintenance and Air Delivery
AR-1733-0001
Parachute Packing, Maintenance and Airdrop
AR-1733-0001
Parachute Rigger (Parachute Packing, Maintenance and Airdrop)
AR-1733-0001

Air Defense

Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced)
AR-2201-0057
Air Defense (AD-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0009
AR-2201-0012
Air Defense (CMF-27) Noncommissioned Officer (NCO) Advanced
AR-1717-0058
Air Defense (27-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
Air Defense Acquisition Radar Maintenance
AR-1715-0179
Air Defense Artillery (ADA) Range Gunnery Crewman
AR-1715-0517
Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
AR-2201-0057
Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0012
Air Defense Artillery (ADA) (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
AR-2201-0196
Air Defense Artillery (ADA) Advanced Noncommissioned Officer (NCO)
AR-1406-0035
Air Defense Artillery (ADA) Automatic Weapons Officer
AR-2201-0172
Air Defense Artillery (ADA) Automatic Weapons Repair
AR-1715-0256
Air Defense Artillery (ADA) Chaparral Crew Member
AR-1715-0516
Air Defense Artillery (ADA) Command and Control Officer
AR-1715-0494
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807
Air Defense Artillery (ADA) Crew Member
AR-1715-0812
Air Defense Artillery (ADA) Field Grade Officer Refresher
AR-2201-0090
Air Defense Artillery (ADA) Officer Advanced
AR-1408-0019
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Hawk Track
AR-1715-0803
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Patriot Track
AR-1715-0796
Air Defense Artillery (ADA) Officer Advanced Patriot Follow-On
AR-1715-0796
Air Defense Artillery (ADA) Officer Basic
AR-2201-0082
AR-2201-0342
Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases IA, II, IV and VI)
AR-2201-0112
Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases II and II)
AR-2201-0112
Air Defense Artillery (ADA) Operations and Intelligence Assistant
AR-1601-0068
Air Defense Artillery (ADA) Operations and Intelligence) Assistant
AR-1601-0068
Air Defense Artillery (ADA) Pre-Command
AR-2201-0265
Air Defense Artillery (ADA) Short Range Crew Member
AR-1715-0517
Air Defense Artillery (ADA) Short Range Crewman
AR-1715-0516
Air Defense Artillery (ADA) Short Range Gunnery Crew Member
AR-1715-0517
Air Defense Artillery (ADA) Short Range Missile Crewman
AR-1715-0516
Air Defense Artillery (ADA) Warrant Officer Advanced
AR-1715-0105
Air Defense Artillery Senior Warrant Officer
AR-1715-0105
Air Defense Command and Control Systems Operator
AR-2201-0059
Air Defense Command, Control, and Coordination Systems Operator
AR-2201-0059
Air Defense Electronic Warfare (EW)
AR-1715-0009
Air Defense Electronic Warfare (EW) (Nike Hercules)
AR-1715-0002
Air Defense Fire Distribution Systems Controller
AR-2201-0059
Air Defense Missile (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
AR-2201-0133
Air Defense Missile Maintenance (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0195
Air Defense Missile Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Maintenance Technician (Hawk)
AR-1715-0099
Air Defense Missile Maintenance Technician (Hawk) System Transition
AR-2201-0092
Air Defense Missile Maintenance Technician (Nike)
AR-1715-0255
Air Defense Missile Maintenance Technician and Maintenance Chief System Transition (Hawk)
AR-2201-0092
Air Defense Missile Officer Basic
AR-2201-0120
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0009
Air Defense Missile Repair Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Staff Officer (Hawk)
AR-1715-0289
Air Defense Missile Staff Officer (Nike Hercules)
AR-1715-0315
Air Defense Officer Basic
AR-2201-0082
Air Defense Officer Orientation
AR-2201-0082
Air Defense Pre-Command
AR-2201-0265
Air Defense Radar Repair
AR-1715-0166
Army Air Defense Battery Officer
AR-1601-0032
Army Air Defense Command Post Controller
AR-2201-0081
Associate Air Defense Artillery (ADA) Battery Officer
AR-2201-0080
Associate Air Defense Missile Battery Officer
AR-1715-0288
Associate Air Defense Officer Advanced
AR-1408-0030
Associate Air Defense Officer Career
AR-2201-0111
AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0811
AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer
AR-1715-0403
AN/TSQ-73 Air Defense Artllery

(ADA) Command and Control System Operator/Repairer
AR-1715-0820
Enlisted Air Defense Electronic Warfare (EW)
AR-1715-0011
Light Air Defense Artillery (ADA) Crew Member
AR-2201-0252
Light Air Defense Artillery (ADA) Crewman
AR-2201-0301
Light Air Defense System Electronic Repair
AR-1715-0015
Man Portable Air Defense (MANPAD) Crew Member
AR-1715-0817
Man Portable Air Defense (MANPAD) Crew Member (Redeye) (RC)
AR-1715-0801
Man Portable Air Defense (MANPAD) Crewmember (Stinger) (RC)
AR-1715-0800
Man Portable Air Defense System (MANPADS) Crewman
AR-1715-0577
Man Portable Air Defense System (MANPADS) FORSCOM Cadre Net
AR-2201-0266
Nike Air Defense Missile Repair
AR-1715-0255
Ordnance Guided Missile Officer, Air Defense Missile
AR-1715-0326
Patriot Air Defense Officer
AR-2201-0261
Regular Army Air Defense Artillery (ADA) Officer Basic
AR-2201-0127
Senior Air Defense Artillery (ADA) Officer
AR-2201-0090
Short Range Air Defense (SHORAD) Systems Technician
AR-1715-0081
Short Range Air Defense System (SHORADS) DS/GS Maintenance Repair Technician
AR-1715-0646
Short Range Air Defense Systems (SHORADS) Support Repair Technician (DG/GS)
AR-1715-0646

Air Traffic Control

Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Advanced
AR-1704-0005
Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Basic
AR-1704-0004
Air Traffic Control Approach Control Enroute Specialist
AR-1704-0002
Air Traffic Control Communications Set AN/FSQ-75 Repair
AR-1715-0032
Air Traffic Control Ground Control Approach Specialist
AR-1704-0003
Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381
Air Traffic Control Operator
AR-1704-0001
Air Traffic Control Operator Advanced Noncommissioned Officer (NCO)
AR-1704-0176
Air Traffic Control Operator Basic Noncommissioned Officer (NCO)
AR-1704-0175
Air Traffic Control Radar Controller
AR-1704-0003
Air Traffic Control Systems, Subsystems, and Equipment Repairer
AR-1715-0787
Air Traffic Control Systems, Subsystems, and Equipment Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1604-0172
AR-1704-0172
Air Traffic Control Tower Operator
AR-1704-0001
Air Traffic Control/NAVAIDS Equipment Repair
AR-1715-0567
Ground Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381
Officer/Warrant Officer Air Traffic Control Officer
AR-1704-0006
Tactical Air Traffic Control Systems, Subsystems, and Equipment Repairer
AR-1715-0787

Air-Cushion

Lighter Air-Cushion Vehicle Maintenance Technician
AR-1704-0144
Lighter Air-Cushion Vehicle Navigator
AR-2205-0002
Lighter Air-Cushion Vehicle Operator
AR-1704-0133

Airborne

Airborne (Male and Female)
AR-2201-0040
Airborne Infrared Repair (UAS-4)
AR-1715-0227
Airborne Laser Tracker (ALT) Maintenance Repairer
AR-1704-0157
Airborne Navigation Radar Repair
AR-1715-0143
Airborne Qualification
AR-2201-0040
Airborne Radar Repair (AN/APS-94)
AR-1715-0203
Airborne Radio Direction Finding
AR-1715-0048
Airborne Sensor Specialist
AR-2201-0116
Airborne Sensor Specialist Skill Development Base
AR-1715-0212
Airborne Surveillance Radar Repair
AR-1715-0203
Basic Airborne (Women)
AR-0803-0002
OV-1D (Mohawk) Airborne Radar Repair
AR-1715-0168
OV-1D (Mohawk) Airborne Sensor Specialist
AR-1704-0013
Special Forces Aidman (Airborne)
AR-0709-0006

Aircraft

Aircraft Armament Maintenance Supervisor
AR-1704-0062
Aircraft Armament Maintenance Technician
AR-1704-0062
Aircraft Armament Missile Systems Repairer
AR-1704-0159
Aircraft Armament Repair
AR-1715-0320
Aircraft Armament Subsystem Mechanic
AR-1704-0083
Aircraft Armament Technical Inspector
AR-1704-0120
AR-1704-0146
Aircraft Armament/Missile Systems Repairer
AR-1714-0023
Aircraft Armament/Missile Systems Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft Carburetor Repair
AR-1704-0014
Aircraft Component Repair (Entry)
AR-1704-0015
Aircraft Component Repair Advanced Noncommissioned Officer (NCO)
AR-1704-0135
Aircraft Component Repair Helper (Entry)
AR-1704-0015
Aircraft Component Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0166
Aircraft Electrician
AR-1704-0075
Aircraft Electrician Maintenance Supervisor/Technical Inspector
AR-1704-0099
Aircraft Electrician Repair
AR-1704-0075
Aircraft Electrician Repairer Basic Noncommissioned Officer NCO
AR-1704-0108
Aircraft Electrician Repairer Basic Technical
AR-1704-0108
Aircraft Electrician Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0108
Aircraft Engine Repair
AR-1704-0045
Aircraft Fire Control Repair
AR-1715-0269
Aircraft Fire Control Repairer
AR-1714-0023
Aircraft Fire Control Repairer Advanced Noncommissioned Officer (NCO)
AR-1704-0140
Aircraft Fire Control Repairer Basic Technical
AR-1704-0119
Aircraft Fire Control Systems Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft Fire Control Systems Supervisor Basic Noncommissioned Officer (NCO) Basic
AR-1704-0147
Aircraft Hydraulic Repair
AR-1704-0016
Aircraft Hydraulics Repair Specialist Candidate
AR-1704-0021

Aircraft Instrument and Electrical Systems Repair
AR-1721-0007

Aircraft Instrument Repair
AR-1721-0004

Aircraft Maintenance Officer and Repair Technician (AMOC) Phase II - CH 47A/B/C
AR-1717-0074

Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - AH-1
AR-1717-0071

Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - OH-58
AR-1717-0073

Aircraft Maintenance Officer and Repair Technician Phase II - UH-1
AR-1717-0070

Aircraft Maintenance Officer Phase II - CH-47
AR-1717-0074

Aircraft Maintenance Officer, Phase II - AH-1
AR-1717-0071

Aircraft Pneudraulic Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0114

Aircraft Pneudraulics Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0114

Aircraft Pneudraulics Repairer Basic Technical
AR-1704-0114

Aircraft Power Plant Repair Supervisor/Technical Inspector
AR-1704-0097

Aircraft Powerplant Repairer
AR-1704-0068

Aircraft Powerplant Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0106

Aircraft Powerplant Repairer Basic Technical
AR-1704-0106

Aircraft Powertrain Repair
AR-1704-0012

Aircraft Powertrain Repair Skill Development Base
AR-1704-0020

Aircraft Powertrain Repair Specialist Candidate
AR-1704-0020

Aircraft Powertrain Repairer
AR-1704-0012

Aircraft Powertrain Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0107

Aircraft Powertrain Repairer Basic Technical
AR-1704-0107

Aircraft Powertrain System Maintenance Supervison/Technical Inspector Basic Technical
AR-1704-0098

Aircraft Reciprocating Engine Repair
AR-1704-0026

Aircraft Repair Parts Specialist
AR-1405-0018

Aircraft Rotor and Propeller Repair
AR-1704-0054

Aircraft Rotor and Propeller Repair Skill Development Base
AR-1704-0023

Aircraft Structural Repair Supervisor/Technical Inspector Basic Technical
AR-1704-0101

Aircraft Structural Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0109

Aircraft Structural Repairer Basic Technical
AR-1704-0109

Aircraft Structural Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0109

Aircraft Structure Repair
AR-1704-0100

Aircraft Survivability Equipment Repair
AR-1704-0042

Aircraft Turbine Engine Repair
AR-1704-0068

Aircraft Turbine Engine Repair Specialist Candidate
AR-1704-0072

Aircraft Turbine Engine Repair, Skill Development Base
AR-1704-0072

Aircraft Turbine Engine Test Cell Operator
AR-1704-0024

Aircraft Turbine Multi-Engine Repair
AR-1704-0090

Aircraft Warning/Defense Equipment Repair
AR-1704-0042
AR-1715-0561

Aircraft Weapon Systems Repairer
AR-1704-0103

Aircraft/Armament/Missile Systems Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0147

AH-64 Aircraft Powertrain Repairer
AR-1704-0180

CH-47 Aircraft Repair Transition
AR-1704-0034

Special Electronic Mission Aircraft (SEMA) Common Core
AR-1715-0871

Aircraft Maintenance

Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0005

Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0006

Aircraft Maintenance (Entry)
AR-1704-0070

Aircraft Maintenance and Repair Technician Phases I and II
AR-1717-0051

Aircraft Maintenance Apprentice
AR-1704-0070

Aircraft Maintenance Officer
AR-1717-0022

Aircraft Maintenance Officer (Phase II)
AR-1717-0027

Aircraft Maintenance Officer (Phase III)
AR-1717-0026

Aircraft Maintenance Officer (Phase IV)
AR-1717-0024

Aircraft Maintenance Officer (Phase V)
AR-1717-0025

Aircraft Maintenance Officer (Phases I, II and III)
AR-1717-0021

Aircraft Maintenance Officer - Phase II
AR-1717-0023

Aircraft Maintenance Officer and Repair Technician
AR-1717-0051

Aircraft Maintenance Officer and Repair Technician (AMOC) Phase II
AR-1717-0051

Aircraft Maintenance Officer and Repair Technician - Phase I
AR-1717-0023
AR-1717-0068

Aircraft Maintenance Supervisor
AR-1717-0009

Airdrop

Airdrop Equipment Technician Warrant Officer Entry
AR-1733-0003

Airdrop Loadmaster
AR-0419-0026

Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156

Airdrop Systems Technician - Warrant Officer Technical/Tactical Certification
AR-1733-0010

Parachute Maintenance and Airdrop Officer
AR-2201-0136

Parachute Packing, Maintenance and Airdrop
AR-1733-0001

Parachute Rigger (Parachute Packing, Maintenance and Airdrop)
AR-1733-0001

Airframe

Airframe Repair
AR-1704-0047

Airframe Welding
AR-1704-0037

Light Target Missile Launcher Operation and Airframe and Engine Maintenance
AR-1704-0077

Radio Controlled Airplane Target (RCAT) Airframe Engine Maintenance Maintenance
AR-1704-0077

Airplane

Airplane Maintenance
AR-1704-0029

Airplane Maintenance Supervisor/Technical Inspector
AR-1717-0065

Airplane Repair
AR-1704-0010
AR-1704-0073

Airplane Technical Inspector
AR-1717-0004

Multi-Engine Airplane Repair
AR-1704-0043

Multi-Engine Command Airplane Maintenance
AR-1704-0067

Multi-Engine Medium Transport Airplane Maintenance
AR-1704-0074

Multi-Engine Observation Airplane Maintenance
AR-1704-0038

Multi-Engine Utility Airplane Repair
AR-1704-0027

O-1/U-6 Airplane Repair
AR-1704-0029

O-1/U-6 Airplane Repair, Skill Development Base
AR-1704-0011

Observation Airplane Repairer
AR-1704-0038

Observation Airplane Repairer Basic Technical
AR-1704-0116

Observation Airplane Technical Inspector
AR-1704-0129

OV-1 Airplane Repair
AR-1704-0038

OV-1 Airplane Repair Specialist Candidate
AR-1717-0007

OV-1 Airplane Repair, Skill Development Base
AR-1717-0007

OV-1 Observation Airplane Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0149

OV-1 Observation Airplane Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0149

OV-1 Observation Airplane Technical Inspector
AR-1704-0161

Radio Controlled Airplane Target (RCAT) Airframe Engine Maintenance Maintenance
AR-1704-0077

Radio-Controlled Airplane Target (RCAT) Radio Maintenance
AR-1715-0181

Radio-Controlled Airplane Targets (RCAT) Operation
AR-2201-0087

Single-Engine Airplane Repair
AR-1704-0025

Single-Engine Light Transport Airplane Maintenance
AR-1704-0030

Single-Engine Observation and Utility Airplane Maintenance
AR-1704-0029

U-1A Airplane Repair
AR-1704-0030

U-1A Airplane Repair, Skill Development Base
AR-1704-0041

U-8/U-21 Airplane Repair
AR-1704-0067

U-8/U-21 Airplane Repair, Skill Development Base
AR-1704-0022

Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO)
AR-1704-0138

Utility/Cargo and Observation Airplane Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0160

Utility/Cargo Airplane
AR-1704-0073

Utility/Cargo Airplane Repairer Basic Technical
AR-1704-0115

Utility/Cargo Airplane Technical Inspector
AR-1704-0128

Ajax

Nike Ajax Fire Control System Maintenance
AR-1715-0216

Nike Ajax Missile Electronic Maintenance
AR-1715-0085

Nike Ajax Missile Electronic Materiel Maintenance
AR-1715-0085

Nike Ajax Missile Mechanical Maintenance
AR-1715-0287

Nike Ajax Officer Qualification (Reserve Component)
AR-1715-0310

Nike Launcher Control Systems Repair (Ajax/Hercules)
AR-1715-0077

Nike Maintenance Supervision (Ajax/Hercules)
AR-1715-0255

Nike Mechanical Systems Repair (Ajax/Hercules)
AR-1704-0086

Nike Track Radar Systems Repair (Ajax/Hercules)
AR-1715-0164

Officer Qualification, Nike Ajax
AR-1715-0308

Surface-to-Air (SAM) Missile Mechanical Materiel Maintenance Maintenance (Nike Ajax)
AR-1714-0002

Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax
AR-1715-0216

Alcohol

Alcohol and Drug Abuse Prevention and Control Program Advanced Counseling Skills
AR-1512-0012

Alcohol and Drug Abuse Prevention and Control Program Alcohol and Drug Control Officer
AR-0801-0015

Alcohol and Drug Abuse Prevention and Control Program Clinical Director/Clinical Consultant
AR-0801-0014

Alcohol and Drug Abuse Prevention and Control Program Family Counseling
AR-1512-0013

Alcohol and Drug Abuse Prevention and Control Program Group Counseling Skills
AR-1512-0014

Alcohol and Drug Abuse Team
AR-0799-0010

Alcohol and Drug Prevention and Control Program Individual Counseling Skills
AR-1512-0015

Army Alcohol and Drug Abuse Prevention and Control Program Management
AR-0801-0005

Army Drug and Alcohol Rehabilitation
AR-0801-0006
AR-0801-0007

Army Drug and Alcohol Rehabilitation Training Advanced
AR-0801-0003

Army Drug and Alcohol Rehabilitation Training Group
AR-0801-0007

Drug and Alcohol Rehabilitation
AR-0799-0009

Drug and Alcohol Rehabilitation Training Individual
AR-0801-0003

Alerting

Forward Area Alerting Radar (FAAR) Organizational Maintenance
AR-1715-0585

Forward Area Alerting Radar (FAAR) Repair
AR-1715-0169

Forward Area Alerting Radar (FAAR) Repairer
AR-1715-0169

Forward Area Alerting Radar (FAAR) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0642

Forward Area Alerting Radar (FAAR) System
AR-1715-0374

Forward Area Alerting Radar (FAAR) System Maintenance
AR-1715-0374

Alignment

FM Radio Alignment
AR-1715-0554

Radio and Repair Alignment
AR-1715-0554

Tactical All-Source Intelligence Officer Force Alignment Plan III
AR-1728-0087

Allergy

Allergy-Clinical Immunology Specialist
AR-0709-0016

Allowances

Army Medical Department (TDA) Table of Distribution and Allowances Pre-command
AR-0709-0044

Ammunition

Ammunition (AM-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0019

Ammunition (AM-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0055

Ammunition (Entry)
AR-0419-0003

Ammunition (55-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0019

Ammunition (55-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0055

Ammunition and Missile Maintenance Officer
AR-1405-0068

Ammunition and Missile Maintenance Officer (Transition)
AR-2201-0102

Ammunition Helper
AR-0419-0003

Ammunition Inspector
AR-2201-0056

Ammunition Inspector Correspondence/Resident (Abbreviated Version)
AR-0802-0014

Ammunition Inspector, Phase I
AR-2201-0056

Ammunition Maintenance
AR-2201-0021

Ammunition Noncommissioned Officer (NCO) Advanced
AR-2201-0019

Ammunition Officer
AR-1717-0048

Ammunition Officer and Ammunition

Technician
AR-1717-0048
Ammunition Operations
AR-2201-0132
Ammunition Records
AR-2201-0132
Ammunition Renovation
AR-2201-0021
Ammunition Specialist
AR-2201-0022
Ammunition Stock Control and Accounting Specialist
AR-1405-0124
AR-1405-0155
Ammunition Stock Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0086
Ammunition Stock Control and Accounting Specialist Basic Technical
AR-1402-0086
Ammunition Storage
AR-2201-0022
Ammunition Storage and Operation
AR-2201-0022
Ammunition Storage and Operations
AR-2201-0132
Ammunition Technicial Entry
AR-1408-0106
Ammunition Technician
AR-0802-0012
Ammunition Technician Certification
AR-0802-0021
Ammunition Technician Entry
AR-0802-0017
Ammunition Technician Technical and Tactical Certification
AR-0802-0021
Ammunition Technician Warrant Officer Advanced
AR-0802-0022
Military Ammunition Inspector
AR-2201-0056
Ordnance Ammunition Officer
AR-1717-0048
Special Ammunition Maintenance/ Nuclear Weapons Electronic Technician Warrant Officer Intermediate
AR-2201-0008
Special Ammunition Officer
AR-2201-0017
Standard Army Ammunition System (SAAS) Manager Training
AR-1405-0160

Amphibian
Amphibian Engineer Mechanic
AR-1712-0004
Amphibian Engineer Repairman
AR-1712-0005
Amphibian Engineer, Skill Development Base
AR-1712-0009
Amphibian Operator
AR-2201-0097
Amphibian Operator, Skill Development Base
AR-0419-0011
Special Amphibian Transition
AR-1703-0009

Amphibious
Amphibious Truckmaster
AR-1710-0011

Analysis
Administrative Systems Analysis and Design
AR-0326-0024
AR-0326-0041
Advanced Automatic Data Processing (ADP) Systems Analysis
AR-1402-0001
Advanced Decision Risk Analysis
AR-0326-0014
Army Unique Analysis Training
AR-2201-0201
AR-2201-0202
Automatic Data Processing (ADP) Systems Analysis
AR-1402-0003
Automatic Data Processing (ADP) Systems Analysis and Design
AR-1402-0041
Automatic Data Processing (ADP) Systems Analysis Officer
AR-1402-0003
Basic Automatic Data Processing Systems (ADPS) Analysis
AR-1402-0005
Business Systems Analysis
AR-1402-0048
Communications Security Analysis
AR-1606-0079
Complex Electronics Systems Analysis and Maintenance
AR-1715-0408
Cost Analysis for Decision Making
AR-1408-0056
Decision Risk Analysis
AR-0326-0012
Decision Risk Analysis for Logisticians
AR-0326-0013
Defense Spectrometric Oil Analysis Operator/Evaluator
AR-1601-0002
Design and Analysis of Experiments
AR-1115-0001
Economic Analysis for Decision Making
AR-0326-0021
Electronic Order of Battle Analysis
AR-2201-0314
Emanations Analysis Technician Warrant Officer Texhnical/Tactical Certification
AR-1408-0136
Emanations Analysis Technician—Warrant Officer Technical Certification
AR-1408-0136
Foreign Instrumentation Signals Externals Analysis
AR-1715-0729
Job and Task Analysis (ISD Phase 1)
AR-1406-0057
Life Cycle Cost Analysis of Weapons Systems
AR-1401-0008
Maintenance Engineering Analysis for Integrated Logistics Support
AR-1601-0001
Management Review and Analysis
AR-1408-0011
Military Intelligence (Analysis) Enlisted
AR-1606-0078
Mission Training Analysis (Area 1)
AR-2201-0200
Mission Training Analysis (Area 2)
AR-2201-0201
Mission Training Analysis (Area 3)
AR-2201-0202
Nuclear and Chemical Target Analysis
AR-0802-0025
Operations Research and Systems Analysis
AR-0317-0003
Operations Research and Systems Analysis Familiarization
AR-0317-0003
Operations Research/Systems Analysis Military Applications Course I
AR-1402-0052
Petroleum Products Analysis
AR-1601-0030
Petroleum Products Analysis, Enlisted
AR-1601-0030
Petroleum Products Analysis, Officer
AR-1601-0031
Radio Teletypewriter Analysis
AR-1606-0016
Soils Analysis
AR-1601-0008
Special Correspondence Course for Management Review and Analysis Specialists
AR-0317-0004
Statistical Analysis and Designed Experiments
AR-1115-0006
Structured Systems Analysis and Design
AR-1402-0108
Systems Analysis
AR-1402-0001
Systems Analysis and Design
AR-1402-0060
Technical Control and Analysis Center Operator, AN/TSQ-130 (V)
AR-1402-0089
Techniques of Review and Analysis
AR-1408-0011
Telemetry Internals Analysis
AR-1715-0731
Telemetry Signal Analysis
AR-1715-0137
Traffic Analysis Technician Warrant Officer Technical/Tactical Certification
AR-1408-0137
Traffic Analysis Technician—Warrant Officer Technical Certification
AR-1408-0137

Analyst
Advanced Identification Techniques Analyst
AR-2201-0317
Assistant Systems Analyst
AR-1402-0001
Communications Security Analyst
AR-1606-0079
Electronic Processing and Dissemination System Operator/Analyst
AR-1402-0090
AR-1402-0091
Electronic Warfare (EW) Analyst
AR-1715-0003
AR-2201-0313
Electronic Warfare (EW) Analyst (Noncommunications ECM)
AR-1715-0003
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer
AR-1715-0720
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command

and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734

Imagery Analyst
AR-1606-0193

Imagery Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0191

Intelligence Analyst
AR-1606-0034
AR-1606-0134
AR-1728-0083

Intelligence Analyst Basic Level
AR-1606-0132

Intelligence Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0192

Intelligence Analyst Entry Level
AR-1606-0134

Intelligence Analyst Noncommissioned Officer (NCO) Basic
AR-1606-0001

Intelligence Analyst Primary Technical
AR-1606-0151

Intelligence Analyst, Specialist Candidate
AR-1606-0032

Non-Morse Communications Analyst
AR-1606-0011

Personnel Data Analyst Specialist
AR-1402-0024

Programmer Analyst
AR-1402-0054

Programmer/Analyst
AR-1402-0114

Programmer/Analyst Basic Noncommissioned Officer (NCO)
AR-1402-0120

Soils Analyst Noncommissioned Officer (NCO) Candidate
AR-1601-0009

Soils Analyst, Skill Development Base
AR-1601-0009

Special Identification Techniques Analyst
AR-1606-0029

Analytic

Modern Analytic Techniques for Executive Decision Making
AR-0326-0015

Anesthesiology

(Anesthesiology Nursing for Army Nurse Corps Officers)
AR-0703-0001

Anesthesiology for Army Nurse Corps Officers
AR-0703-0001

Animal

Advanced Animal Care Specialist
AR-0102-0005

Animal Care Specialist
AR-0102-0002
AR-0102-0007

Antennaman

Antennaman Noncommissioned Officer (NCO) Basic
AR-1714-0009

Antiaircraft

Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer
AR-1601-0032

Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
AR-1715-0214

Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer
AR-1715-0214

Antiaircraft Artillery (AAA) Officer Basic
AR-2201-0082

Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)
AR-1713-0002

Antiaircraft Artillery (AAA) Remote Control Repair
AR-1714-0005

Antiaircraft Artillery (AAA) Remote Control Repair Basic
AR-1715-0285

Antiaircraft Artillery (AAA) Repair
AR-1710-0017

Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced
AR-1408-0030

Associate Antiaircraft Artillery (AAA) Missile Battery Officer
AR-1715-0288

Light Antiaircraft Artillery (AAA) Maintenance
AR-1601-0039

Medium and Heavy Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031

Medium Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031

Antiarmor

Heavy Antiarmor Weapons Crewman
AR-2201-0279

Antiterrorism

Antiterrorism Instructor Qualification
AR-1406-0095

Apprenticeship

Proxy Apprenticeship Training
AR-1409-0004

Approach

Air Traffic Control Approach Control Enroute Specialist
AR-1704-0002

Air Traffic Control Ground Control Approach Specialist
AR-1704-0003

Ground Control Approach Equipment Repair
AR-1715-0199

Architecture

Expert Systems Architecture and Advanced Skills in Object-Oriented Programming
AR-1402-0098

Expert Systems Architecture and Object-Oriented Programming
AR-1402-0098

Area

Area Communications Systems Operations
AR-1715-0264

Area Intelligence Officer
AR-1606-0031

Area Intelligence Specialist
AR-1606-0031

Area Signal Center Officer
AR-1408-0050

Foreign Area Officer
AR-1511-0017

Foreign Area Officer Nonresident/Resident
AR-1511-0015

Foreign Area Officer Orientation
AR-1511-0017

Forward Area Alerting Radar (FAAR) Organizational Maintenance
AR-1715-0585

Forward Area Alerting Radar (FAAR) Repair
AR-1715-0169

Forward Area Alerting Radar (FAAR) Repairer
AR-1715-0169

Forward Area Alerting Radar (FAAR) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0642

Forward Area Alerting Radar (FAAR) System
AR-1715-0374

Forward Area Alerting Radar (FAAR) System Maintenance
AR-1715-0374

Armament

Aircraft Armament Maintenance Supervisor
AR-1704-0062

Aircraft Armament Maintenance Technician
AR-1704-0062

Aircraft Armament Missile Systems Repairer
AR-1704-0159

Aircraft Armament Repair
AR-1715-0320

Aircraft Armament Subsystem Mechanic
AR-1704-0083

Aircraft Armament Technical Inspector
AR-1704-0120
AR-1704-0146

Aircraft Armament/Missile Systems Repairer
AR-1714-0023

Aircraft Armament/Missile Systems Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167

Aircraft/Armament/Missile Systems Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0147

Armament Maintenance (Entry)
AR-1710-0046

Armament Maintenance and Repair Officer
AR-1717-0014

Armament Maintenance Foreman
AR-1717-0047

Armament Maintenance Supervision
AR-1717-0047

Armament Repair Technician
AR-1717-0052
AR-1717-0077

Armament Repair Technician Warrant Officer Advanced
AR-1710-0123

Armament/Fire Control Maintenance Supervisor Noncommissioned Officer

(NCO) Advanced AR-1704-0141
Helicopter Armament Subsystem M22 and DX43 Mechanic AR-1704-0081
Helicopter Armament Subsystem M22 and Simulator DX43 Repair AR-1704-0078
Ordnance Officer Advanced (Armament Material Management) AR-1717-0062
Ordnance Officer Advanced Armament AR-1717-0063
Ordnance Officer Basic Armament Materiel Management AR-1405-0092

Armor
Armor Advanced Noncommissioned Officer (NCO) AR-2201-0039
Armor Automotive Supervision AR-1703-0017
Armor Communication AR-1715-0283
Armor Communication Chief AR-1715-0150
Armor Communication Officer AR-1715-0283
Armor Communication Supervision AR-1715-0150
Armor Intelligence Specialist AR-1712-0001
Armor Maintenance and Motor Transport AR-1717-0033
Armor Maintenance Officer AR-1717-0033
Armor Motor Officer AR-1717-0033
Armor Noncommissioned Officer (NCO) AR-2201-0039
Armor Noncommissioned Officer (NCO) Candidate (11D) AR-2201-0006
Armor Noncommissioned Officer (NCO) Candidate (11E) AR-2201-0004
Armor Officer Advanced AR-1408-0146 AR-2201-0123
Armor Officer Advanced—Reserve Component AR-2201-0165 AR-2201-0321
Armor Officer Basic AR-1717-0039
Armor Officer Basic (RA) AR-2201-0062
Armor Officer Basic Reserve Component AR-1710-0136
Armor Officer Basic Tank/Armor Officer Basic Cavalry AR-1717-0039
Armor Officer Basic—Reserve Component AR-1710-0057
Armor Officer Basic-Cavalry M60A3 AR-1717-0080
Armor Officer Basic-Tank M60A3 AR-1717-0081
Armor Officer Candidate AR-2201-0171
Armor Officer Career AR-2201-0123
Armor Officer Orientation AR-1717-0039
Armor Pre-Command Branch Phase AR-1408-0147
Armor Radio Maintenance AR-1715-0109
Armor Track Vehicle Mechanic AR-1703-0001
Armor Turret Maintenance AR-1710-0003
Armor Vehicle Maintenance Supervision AR-1703-0017
Armor/Cavalry Maintenance Technician Warrant Officer Advanced AR-1703-0033
Armor/Infantry Officer Career AR-2201-0123
Associate Armor Company Officer AR-2201-0098
Associate Armor Officer Advanced AR-2201-0130
Associate Armor Officer Career AR-2201-0109
Basic Armor Training (BAT) M60A2 AR-1710-0056
Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0181 AR-2201-0184
Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Basic AR-2201-0013 AR-2201-0134
Infantry/Armor Officer Career AR-2201-0124
M1/M1A1 Abrams Armor Crewman AR-2201-0330
M48/M60A1 Armor Crewman AR-1710-0054
M48/M60A1 Armor Crewman (BAT) AR-1710-0054
M60A3 Armor Crewman AR-2201-0333
Regular Army Armor Officer Basic AR-2201-0062
Tank Driver Basic Armor Training (BAT) AR-1710-0055
19D Armor Noncommissioned Officer (NCO) Advanced AR-1408-0144
19E Armor Noncommissioned Officer (NCO) Advanced AR-1408-0145

Armorer
Unit and Organization Supply Specialist and Armorer AR-1405-0137

Arms
Navy Master at Arms AR-1728-0061
Small Arms Maintenance for Unit Armorers AR-2201-0341
Small Arms Repair AR-2201-0096

Army
Army Management AR-0326-0001

Artificial
Advanced Course in Artificial Intelligence Theory and Expert Systems Building AR-1402-0097

Artillery
Air Defense Artillery (ADA) Range Gunnery Crewman AR-1715-0517
Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Advanced AR-1406-0035
Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Basic AR-2201-0012
Air Defense Artillery (ADA) (23-CMF) Noncommissioned Officer (NCO) Advanced AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS) AR-2201-0196
Air Defense Artillery (ADA) Advanced Noncommissioned Officer (NCO) AR-1406-0035
Air Defense Artillery (ADA) Automatic Weapons Officer AR-2201-0172
Air Defense Artillery (ADA) Automatic Weapons Repair AR-1715-0256
Air Defense Artillery (ADA) Chaparral Crew Member AR-1715-0516
Air Defense Artillery (ADA) Command and Control Officer AR-1715-0494
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification AR-1715-0807
Air Defense Artillery (ADA) Crew Member AR-1715-0812
Air Defense Artillery (ADA) Field Grade Officer Refresher AR-2201-0090
Air Defense Artillery (ADA) Officer Advanced AR-1408-0019
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Hawk Track AR-1715-0803
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Patriot Track AR-1715-0796
Air Defense Artillery (ADA) Officer Advanced Patriot Follow-On AR-1715-0796
Air Defense Artillery (ADA) Officer Advanced Reserve Component (RC) AR-1715-0655
Air Defense Artillery (ADA) Officer Basic AR-2201-0082 AR-2201-0342
Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases IA, II, IV and VI) AR-2201-0112
Air Defense Artillery (ADA) Officer Mobilization Advanced (Phases II and II) AR-2201-0112
Air Defense Artillery (ADA) Operations

and Intelligence Assistant
AR-1601-0068
Air Defense Artillery (ADA) Operations and Intelligence) Assistant
AR-1601-0068
Air Defense Artillery (ADA) Short Range Crew Member
AR-1715-0517
Air Defense Artillery (ADA) Short Range Crewman
AR-1715-0516
Air Defense Artillery (ADA) Short Range Gunnery Crew Member
AR-1715-0517
Air Defense Artillery (ADA) Short Range Missile Crewman
AR-1715-0516
Air Defense Artillery (ADA) Warrant Officer Advanced
AR-1715-0105
Air Defense Artillery Senior Warrant Officer
AR-1715-0105
Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer
AR-1601-0032
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
AR-1715-0214
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer
AR-1715-0214
Antiaircraft Artillery (AAA) Officer Basic
AR-2201-0082
Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)
AR-1713-0002
Antiaircraft Artillery (AAA) Remote Control Repair
AR-1714-0005
Antiaircraft Artillery (AAA) Remote Control Repair Basic
AR-1715-0285
Antiaircraft Artillery (AAA) Repair
AR-1710-0017
Artillery Ballistic Meteorology
AR-1304-0002
Artillery Calibration
AR-1601-0037
Artillery Communication Enlisted
AR-1715-0107
Artillery Communication Supervision
AR-1715-0107
Artillery Communications Officer
AR-1715-0273
Artillery Communications Supervisors
AR-1715-0107
Artillery Fire Control System Maintenance SCR-584 and Director M9 or M10
AR-1715-0142
Artillery Fire Control System Maintenance, M33
AR-1715-0213
Artillery Fire Control System Maintenance, T-38
AR-1715-0215
Artillery Flash Ranging Advanced
AR-1601-0025
Artillery Motor Transport
AR-1703-0020
Artillery Observation
AR-1601-0027
Artillery Officer Advanced
AR-2201-0129
Artillery Officer Basic
AR-2201-0191
Artillery Officer Career
AR-1408-0028
Artillery Radio Maintenance
AR-1715-0112
Artillery Repair
AR-1710-0028
AR-2201-0125
Artillery Repairer
AR-2201-0125
AR-2201-0308
AR-2201-0309
Artillery Sound Ranging
AR-1715-0153
Artillery Sound Ranging Advanced
AR-1715-0153
Artillery Survey Advanced
AR-1601-0034
Artillery Survey Noncommissioned Officer (NCO)
AR-1601-0016
Artillery Survey Officer
AR-1601-0033
Artillery Survey Specialist
AR-1601-0034
Artillery Surveyor Noncommissioned Officer (NCO) Basic
AR-1601-0045
Artillery Target Acquisition Officer
AR-1601-0027
Artillery Track Vehicle Maintenance
AR-1703-0002
Artillery Vehicle Maintenance Supervision
AR-1717-0038
Artillery Vehicle Maintenance Supervisor
AR-1717-0038
Associate Air Defense Artillery (ADA) Battery Officer
AR-2201-0080
Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced
AR-1408-0030
Associate Antiaircraft Artillery (AAA) Missile Battery Officer
AR-1715-0288
Associate Field Artillery Battery Officer
AR-2201-0135
AR-2201-0139
Associate Field Artillery Missile Battery Officer
AR-2201-0135
Associate Field Artillery Officer Advanced
AR-1408-0042
Associate Field Artillery Officer Career
AR-1408-0042
AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0811
AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer
AR-1715-0403
Field Artillery (AN/TPS-58B) Radar Operator
AR-1715-0493
Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer
AR-1715-0281
Field Artillery Ballistic Missile Officer
AR-1402-0026
Field Artillery Battery Officer
AR-1715-0281
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0213
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0071
Field Artillery Cannon Basic Noncommissioned Officer (NCO)
AR-2201-0258
AR-2201-0362
Field Artillery Cannon Battery Officer
AR-2201-0219
AR-2201-0368
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0257
Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0256
Field Artillery Cannon Noncommissioned Officer (NCO) Advanced
AR-1601-0074
Field Artillery Cannon Operations/Fire Direction Assistant
AR-1304-0004
Field Artillery Cannon Weapon Systems Qualification
AR-1715-0633
Field Artillery Computer Repairer
AR-1715-0566
AR-1715-0627
Field Artillery Data Computer (FADAC) Maintenance
AR-1715-0218
Field Artillery Digital Automatic Computer (FADAC) Mechanics
AR-1715-0207
Field Artillery Digital Automatic Computer System (FADAC) Radar Technician (Marine)
AR-1715-0034
Field Artillery Digital System Repairer
AR-1715-0631
Field Artillery Digital Systems Repairer
AR-1715-0831
Field Artillery Field Grade Officer Refresher
AR-2201-0142
Field Artillery Fire Support (NCO) Noncommissioned Officer Advanced
AR-2201-0287
Field Artillery Fire Support Noncommissioned Officer (NCO) Advanced
AR-2201-0363
Field Artillery Fire Support Specialist
AR-1713-0008
AR-1715-0846
Field Artillery Firefinder Operator
AR-1715-0560
Field Artillery Firefinder Organizational Maintenance
AR-1715-0559
Field Artillery Firefinder Radar Operator
AR-1715-0560
AR-1715-0829
Field Artillery Firefinder Unit

Maintenance
AR-1715-0838
Field Artillery Mechanic
AR-2201-0048
Field Artillery Meteorological Crew Member
AR-1304-0002
Field Artillery Meteorological Crewman
AR-1304-0002
Field Artillery Meteorological Crewmember
AR-1304-0011
Field Artillery Meteorological Crewmember (NCO) Noncommissioned Officer Advanced
AR-1304-0008
Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)
AR-1304-0006
AR-1304-0010
Field Artillery Meteorological Crewmember Basic Technical
AR-1304-0006
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Field Artillery Missile Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missile Officer Basic
AR-2201-0084
Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-2201-0001
Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Basic (USAFAS)
AR-2201-0156
Field Artillery Missiles/Rockets Noncommissioned Officer (NCO) Basic
AR-2201-0185
Field Artillery Moving Target Locating Radar/Sensor Operator
AR-1715-0493
Field Artillery National Guard Officer Candidate
AR-2201-0138
Field Artillery Noncommissioned Officer (NCO) Candidate
AR-2201-0174
Field Artillery Officer Advanced
AR-1408-0028
Field Artillery Officer Advanced Preparatory
AR-2201-0047
Field Artillery Officer Advanced, Reserve Component
AR-1408-0174
Field Artillery Officer Basic
AR-2201-0193
Field Artillery Officer Basic (Reserve Component)
AR-2201-0168
Field Artillery Officer Candidate
AR-2201-0166
Field Artillery Officer Candidate (Reserve Component)
AR-2201-0168
Field Artillery Officer Familiarization
AR-2201-0152
Field Artillery Officer Mobilization Advanced (Phases II and III)
AR-2201-0110
Field Artillery Officer Orientation
AR-2201-0193
Field Artillery Officer Vietnam Orientation
AR-2201-0159
Field Artillery Operations and Intelligence Assistant
AR-2201-0061
Field Artillery Operations and Intelligence Assistant, Skill Development Base
AR-2201-0175
Field Artillery Operations and Intelligence Noncommissioned Officer (NCO)
AR-2201-0061
Field Artillery Pre-Command
AR-2201-0259
Field Artillery Radar
AR-1715-0252
Field Artillery Radar Basic Technical
AR-1715-0635
Field Artillery Radar Crew Member
AR-1715-0250
Field Artillery Radar Crewman
AR-1715-0250
Field Artillery Radar Crewmember (AN/TPS-58)
AR-1715-0493
Field Artillery Radar Crewmember Noncommissioned Officer (NCO) Advanced
AR-2201-0292
Field Artillery Radar Maintenance
AR-1715-0176
Field Artillery Radar Officer
AR-1715-0252
Field Artillery Radar Operation
AR-1715-0250
Field Artillery Radar Operator
AR-1715-0250
Field Artillery Radar Operator (AN/TPS-58B)
AR-1715-0493
Field Artillery Radar Technician
AR-1715-0177
Field Artillery Repair
AR-1710-0037
Field Artillery Surveyor
AR-1601-0034
AR-1601-0079
Field Artillery Surveyor Basic Noncommissioned Officer (NCO)
AR-2201-0376
Field Artillery Surveyor Noncommissioned Officer (NCO) Advanced
AR-2201-0293
Field Artillery Tactical Fire (TACFIRE) Direction System Repairer
AR-1715-0627
Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced
AR-2201-0286
AR-2201-0369
Field Artillery Target Acquisition and Field Artillery Survey Officer
AR-1601-0054
Field Artillery Target Acquisition Basic Technical
AR-1304-0005
Field Artillery Target Acquisition Officer
AR-1601-0027
Field Artillery Target Acquisition Specialist
AR-1715-0153
Field Artillery Transition Officer
AR-2201-0143
Field Artillery Vehicle Maintenance Technician Warrant Officer Advanced
AR-1703-0032
Field Artillery Weapons Maintenance
AR-1710-0058
AR-1710-0156
Field Artillery Weapons Mechanic
AR-1710-0058
Field Artillery Weapons Mechanic (M198) Howitzer
AR-1710-0058
Light and Medium Towed Field Artillery Mechanic
AR-2201-0106
Light Air Defense Artillery (ADA) Crew Member
AR-2201-0252
Light Air Defense Artillery (ADA) Crewman
AR-2201-0301
Light Antiaircraft Artillery (AAA) Maintenance
AR-1601-0039
Light Missile Field Artillery (Lance)
AR-2201-0371
Marine Artillery Operations Chief
AR-1304-0009
AR-2201-0042
Marine Artillery Scout Observer
AR-2201-0145
Marine Corps Field Artillery Fire Controlman
AR-1601-0055
Marine Field Artillery Fire Controlman
AR-1601-0055
Medium and Heavy Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031
Medium Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031
OH-58 A/C Field Artillery Aerial Observer
AR-1606-0188
OH-58D Field Artillery Aerial Fire Support Observer
AR-1402-0112
OH-58D Field Artillery Aerial Observer
AR-1606-0169
OH-58D Field Artillery Instructor Pilot
AR-1406-0078
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
Regular Army Air Defense Artillery (ADA) Officer Basic
AR-2201-0127
Regular Army Field Artillery Officer Basic
AR-2201-0193
Self-Propelled Artillery System Technician
AR-2201-0309
Self-Propelled Field Artillery System Basic Noncommissioned Officer (NCO)
AR-1710-0112
Self-Propelled Field Artillery System

Mechanic
AR-1703-0039
Self-Propelled Field Artillery System Mechanic Noncommissioned Officer (NCO) Advanced
AR-2201-0320
Self-Propelled Field Artillery Systems Mechanic Basic Technical
AR-1710-0098
AR-1710-0112
Self-Propelled Field Artillery Turret Mechanic
AR-1710-0107
AR-1710-0157
Senior Air Defense Artillery (ADA) Officer
AR-2201-0090
Senior Field Artillery Officer
AR-2201-0140
Special Career Level Artillery Advanced Gunnery (USMC)
AR-2201-0218
AR-2201-0378
System Mechanic Self-Propelled (SP) Artillery M109/M110 Series Vehicles
AR-1710-0066
AR-1710-0067
Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element
AR-1402-0084
Towed Artillery Repairman (USMC)
AR-2201-0309
Turret Artillery Repair
AR-1710-0018

Asphalt
Concrete and Asphalt Equipment Operator
AR-1710-0091

Assembler
Assembler Programming
AR-1402-0043
Basic Assembler Language Coding (ALC)
AR-1402-0043
S360 Assembler Language
AR-1402-0040

Assignment
Army Recruiter and Career Counselor Noncommissioned Officer (NCO) Advanced Assignment
AR-1408-0048
Collection Management Assignment Specific Module
AR-1408-0176
Collection Management/Tencaps Operations Assignment Specific Module
AR-1408-0176
Noncommissioned Officer (NCO) Special Assignment Advanced
AR-1408-0048
Special Assignment (SP-CMP) Noncommissioned Officer (NCO) Advanced
AR-1408-0048
Special Assignment (00-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024

Assistance
Military Assistance Advisor Sector/Unit
AR-2201-0014
Military Assistance Officer Command and Staff
AR-1511-0003
Military Assistance Programmer/Advisor
AR-1606-0024
Military Assistance Training Advisor
AR-2201-0016
Military Assistance Training Advisor ARVN Officer
AR-0602-0006
Military Assistance Training Advisor Company Grade Officer
AR-0602-0005
Military Assistance Training Advisor Corps/Division
AR-2201-0015
Military Assistance Training Advisor CORDS Officer
AR-0602-0004
Military Assistance Training Advisor Field Grade Officer
AR-0602-0003
Military Assistance Training Advisor Psychological Operations Orientation
AR-1512-0005
Military Assistance Training Advisor Senior Noncommissioned Officer (NCO)
AR-0602-0002
Pershing Operator Maintenance Assistance
AR-1715-0487
Professional Development Workshop for Logistics Assistance Personnel
AR-1405-0100
Security Assistance Management
AR-1606-0024
Security Assistance Management Orientation Seminar
AR-1606-0021

Associate
Army Associate Medical Service Officer Advanced
AR-1408-0018
Associate Adjutant General Company Officer
AR-1408-0058
Associate Adjutant General Officer Advanced
AR-1406-0018
Associate Adjutant General Officer Career
AR-1402-0028
Associate Air Defense Artillery (ADA) Battery Officer
AR-2201-0080
Associate Air Defense Officer Advanced
AR-1408-0030
Associate Air Defense Officer Career
AR-2201-0111
Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced
AR-1408-0030
Associate Armor Company Officer
AR-2201-0098
Associate Armor Officer Advanced
AR-2201-0130
Associate Armor Officer Career
AR-2201-0109
Associate Army Logistics Management
AR-0326-0003
Associate Army Medical Service Company Officer
AR-2201-0188
Associate Army Medical Service Officer Advanced
AR-1408-0018
Associate Chaplain Officer Career
AR-1513-0001
Associate Chemical Officer Advanced
AR-1408-0047
Associate Chemical Officer Career
AR-1408-0041
Associate Command and General Staff Officer
AR-1408-0059
Associate Engineer Officer Advanced
AR-1601-0036
Associate Field Artillery Battery Officer
AR-2201-0135
AR-2201-0139
Associate Field Artillery Missile Battery Officer
AR-2201-0135
Associate Field Artillery Officer Advanced
AR-1408-0042
Associate Field Artillery Officer Career
AR-1408-0042
Associate Finance Officer Career
AR-1401-0018
Associate Infantry Officer Career
AR-2201-0131
Associate Logistics Executive Development
AR-0326-0003
Associate Medical Service Corps Officer Career
AR-1408-0018
Associate Military Intelligence Officer Advanced
AR-1606-0077
Associate Military Police Company Officer
AR-1728-0005
Associate Military Police Officer Advanced
AR-1728-0031
Associate Ordnance Company Officer
AR-1405-0037
Associate Quartermaster Company Officer
AR-1408-0033
Associate Quartermaster Officer Advanced
AR-1405-0009
Associate Quartermaster Officer Career
AR-1405-0046
Associate Signal Officer Advanced
AR-1408-0023
Associate Signal Officer Career
AR-1408-0023
Associate Surface-to-Air (SAM) Officer Advanced
AR-1717-0035
Associate Surface-to-Surface Missile (SSM) Battery Officer
AR-1714-0013
Associate Transportation Officer Career
AR-0419-0018

Atomic
Atomic Cannon Eight Inch
AR-2201-0260
Atomic Defense
AR-0802-0004
Atomic Demolition Munitions
AR-0802-0009
Atomic Demolition Munitions (Enlisted)
AR-0802-0009
Atomic Demolition Munitions (Officer)
AR-0802-0010
Atomic Weapons Electronics (Entry)
AR-1715-0258

Attack
Air Cavalry/Attack Helicopter

Commander's Training
AR-1606-0054
Attack Helicopter Repairer Basic Technical
AR-1704-0113
Attack Helicopter Technical Inspector
AR-1704-0127
Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0136
AH-1 Attack Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0153
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
AR-1704-0136
AH-64 Attack Helicopter Repairer
AR-1704-0156
AH-64 Attack Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1717-0090
AH-64 Attack Helicopter Repairer Transition
AR-1704-0158
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134

Audio
Audio Specialist
AR-1715-0387
Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0043
Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Basic (USASCS)
AR-1717-0053
Visual Information/Audio Documentation Systems Specialist Basic Noncommissioned Officer (NCO)
AR-1719-0004

Audit
Basic Internal Audit
AR-1401-0030
Intermediate Internal Audit
AR-1401-0031
Management Audit Level I - Basic
AR-1401-0030
Management Audit Level II - Intermediate
AR-1401-0031
Quality Audit of Subsistence
AR-0104-0004
AR-0709-0042

Auditing
Auditing
AR-1401-0003
Auditing of Automatic Data Processing (ADP) Systems
AR-1402-0009

Auditors
Automatic Data Processing (ADP) for Auditors
AR-1402-0037
Logistics Management for Auditors
AR-1405-0114

Autocoder
1401 Basic Autocoder Programming
AR-1402-0062

Automated
Automated Commmunications Computer Systems Repairer
AR-1715-0874
Automated Communications Systems Staff Officer
AR-1402-0019
Automated Fire Support Leader
AR-2201-0380
Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance
AR-1715-0404
Automated High Frequency Direction Finding (HFDF) System Maintenance (EELPOT)
AR-1715-0409
Automated High Frequency Direction Finding (HFDF) System Operation (EELPOT)
AR-1402-0050
Automated Military Outpatient System (AMOSIST) Training
AR-0709-0018
Decentralized Automated Service Support System (DAS3)
AR-1402-0059
Decentralized Automated Service Support System (DAS3) and The Direct Support Unit Standard Supply System (DS4) Operator
AR-1402-0102
Decentralized Automated Service Support System (DAS3) Computer Repairer
AR-1715-0527
Decentralized Automated Service Support System (DAS3)/Direct Support Unit Standard Supply System (DS4)
AR-1402-0080
Joint Tactical Automated Switching Network Supervisor
AR-1715-0605
Operation of the Automated Multimedia Exchance (AMME) System
AR-1715-0501
Standard Port System-Enhanced/Decentralized Automated Service Support System (DASPE-E/DAS3)
AR-1402-0095
Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification
AR-1402-0130

Automatic
(Automatic Test Equipment Repairer)
AR-1715-0588
Air Defense Artillery (ADA) Automatic Weapons Officer
AR-2201-0172
Air Defense Artillery (ADA) Automatic Weapons Repair
AR-1715-0256
Automatic Central Office AN/TTC-25 Repair
AR-1715-0365
Automatic Central Office Supervisor
AR-1715-0364
Automatic Data Message Switching Center Technical Controller
AR-1715-0221
Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central Office Repair
AR-1715-0363
Automatic Data Telecommunications Center Operator
AR-1715-0526
Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0686
Automatic Data Telecommunications Center Operator Primary Technical
AR-1715-0686
Automatic Data Telecommunications Center Operator Transition
AR-1715-0760
Automatic Digital Message Switch Center (ADMSC) Communication Equipment Repair
AR-1715-0163
Automatic Digital Message Switching (ADMS) Programmer
AR-1402-0021
Automatic Digital Message Switching (ADMS) Traffic Service Supervisory
AR-1402-0011
Automatic Digital Message Switching Center (ADMSC) Operation Supervisory
AR-1402-0020
Automatic Digital Message Switching Center (ADMSC) Technical Controller
AR-1715-0221
Automatic High Frequency Direction Finding (HF/DF) Outstation Processing Unit (Token Payment 1A)
AR-1715-0546
Automatic High Frequency Direction Finding (HFDF) Outstation Processing Unit AN/GRR-37
AR-1715-0546
Automatic Message Switching Central (AN/TYC-39)
AR-1402-0078
Automatic Message Switching Central AN/TYC-39 Repairer
AR-1402-0079
Automatic Message Switching Central AN/TYC-39(V)
AR-1402-0078
Automatic Telephone Central AN/TCC-38 Repair
AR-1715-0778
Automatic Telephone Central AN/TCC-38(V) Repair
AR-1715-0778
Automatic Test Equipment Operator/Maintainer
AR-1715-0588
AR-1715-0850
Automatic Test Equipment Repairer Primary Technical
AR-1715-0589
Automatic Weapons Maintenance
AR-1601-0039
AN/TTC-38(V) Automatic Central Office Supervisor
AR-1715-0364
CH-54 Automatic Flight Control Equipment Repair
AR-1715-0205
Field Artillery Digital Automatic Computer (FADAC) Mechanics
AR-1715-0207
Overseas Automatic Switching Center (ASC) Communication Equipment Repair
AR-1715-0163
Overseas Automatic Switching Center (ASC) Technical Controller
AR-1715-0221

Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair
AR-1715-0343

Switchboard SB-3614/TT and Automatic Telephone Central Office AN/TTC-41(V)2 Operator
AR-1715-0025

Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0881

Tactical Telecommunications Center Operator Automatic Data Telecommunications Center Operator
AR-1406-0129

Transportable Automatic Switching Systems Operator/Maintainer Basic Noncommissioned Officer (NCO)
AR-1715-0855

Automatic Data Processing

Advanced Automatic Data Processing (ADP) Systems Analysis
AR-1402-0001

Auditing of Automatic Data Processing (ADP) Systems
AR-1402-0009

Automatic Data Processing (ADP) for Auditors
AR-1402-0037

Automatic Data Processing (ADP) Auxiliary Equipment Repair
AR-1715-0039

Automatic Data Processing (ADP) Intern Program
AR-1402-0039

Automatic Data Processing (ADP) Machine Operation Specialist
AR-1402-0030

Automatic Data Processing (ADP) Officer
AR-1402-0035

Automatic Data Processing (ADP) Repair
AR-1715-0038

Automatic Data Processing (ADP) Repair, Phase I—Computer Technology
AR-1715-0036

Automatic Data Processing (ADP) Repair, Phase II-Card Processors U-1005 and U-1004/DLT-6 Repair
AR-1715-0044

Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair
AR-1715-0045

Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070

Automatic Data Processing (ADP) Repair, Phase V—(Automatic Digital Message Switch (ADMS) Equipment Repair
AR-1715-0068

Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair
AR-1715-0046

Automatic Data Processing (ADP) Repair, Phase VII—Digital Subscriber Terminal Equipment (DSTE) Repair
AR-1715-0253

Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central Office Repair
AR-1715-0363

Automatic Data Processing (ADP) Systems Analysis
AR-1402-0003

Automatic Data Processing (ADP) Systems Analysis and Design
AR-1402-0041

Automatic Data Processing (ADP) Systems Analysis Officer
AR-1402-0003

Automatic Data Processing (ADP) Systems Programming
AR-1402-0010

Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
AR-1715-0039

Automatic Data Processing System (ADPS) (Fieldata) Console Operation
AR-1402-0036

Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer
AR-1402-0035

Automatic Data Processing System (ADPS) (Fieldata) Repair
AR-1715-0038

Automatic Data Processing System (ADPS) Console Operation
AR-1402-0036

Automatic Data Processing System (ADPS) Fieldata Programming Course
AR-1402-0017

Automatic Data Processing System (ADPS) Plans and Operationa Officer
AR-1402-0035

Automatic Data Processing System (ADPS) Plans and Operations Officer
AR-1402-0035

Automatic Data Processing Systems (ADPS) for Staff Officers
AR-1402-0031

Automatic Data Processing Systems (ADPS) Console Operator
AR-1402-0036

Automatic Data Processing Systems (ADPS) Programming Specialist
AR-1402-0017

Basic Automatic Data Processing Systems (ADPS) Analysis
AR-1402-0005

Computer Programmer Automatic Data Processing Systems (ADPS)
AR-1402-0017

PERSINSD Automatic Data Processing (ADP) Intern Program
AR-1402-0008

Security in Automatic Data Processing Systems (ADPS)
AR-1402-0051

Automation

Branch Automation Officer
AR-1402-0113

Communications-Electronics Engineering and Automation Officer
AR-1715-0769

Systems Automation
AR-1402-0035
AR-1402-0115

Telecommunication Automation Software Technician
AR-1402-0006

Automotive

Armor Automotive Supervision
AR-1703-0017

Automotive Maintenance and Repair
AR-1703-0014

Automotive Rebuild
AR-1703-0013

Automotive Repair
AR-1703-0011
AR-1703-0016

Automotive Repair Parts Specialist
AR-1405-0035

Automotive Repair Parts, Skill Development Base
AR-1405-0036

Infantry Automotive Supervision
AR-1703-0007

M1 Unit Automotive Maintenance
AR-1710-0148

Warrant Officer Automotive Repair
AR-1703-0018

Aviation

Army Aviation Command and Staff Officer
AR-2201-0122

Army Aviation Maintenance Management
AR-1717-0009

Army Aviation Medical Officer Orientation
AR-2201-0086

Army Aviation Medicine Basic
AR-0799-0005

Army Aviation Primary and Tactical Flight Training
AR-1606-0120

Army Aviation Tactics
AR-1606-0107

Army Aviation Tactics Refresher
AR-1606-0099

Aviation Accident Prevention
AR-0802-0015

Aviation Accident Prevention Management
AR-0801-0004

Aviation Command and Resource Management
AR-1408-0036

Aviation Commander's Readiness
AR-1408-0036

Aviation Electronic Equipment Maintenance
AR-1715-0347

Aviation Electronic Equipment Repair
AR-1715-0335

Aviation Life Support Equipment Technician
AR-1704-0008

Aviation Life Support Specialist
AR-1704-0008

Aviation Life Support Supervisor (ALSS)
AR-1704-0145

Aviation Logistics Officer
AR-1704-0132
AR-1717-0076

Aviation Maintenance Officer and Repair Technician (AMOC), Phase II - UH-60
AR-1717-0069

Aviation Maintenance Officer and Repair Technician Phase II - CH-47D
AR-1717-0075

Aviation Maintenance Officer Phase II -

AH-64
AR-1717-0072
Aviation Maintenance Officer Phase II - CH-47D
AR-1717-0075
Aviation Medicine Basic
AR-0799-0005
Aviation Mishap Prevention
AR-0802-0015
Aviation Mishap Prevention Management
AR-0801-0004
Aviation Officer Advanced
AR-1606-0110
AR-1606-0171
Aviation Officer Basic
AR-1606-0170
Aviation Pre-Command
AR-1606-0173
Aviation Safety Officer
AR-1606-0131
AR-1606-0174
Aviation Senior Warrant Officer Training
AR-1408-0063
Aviation Staff Officer
AR-2201-0122
Aviation Warrant Officer Advanced
AR-1408-0063
AR-1606-0121
Aviation Warrant Officer Intermediate
AR-1606-0121
Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0714
Electronic Warfare (EW)/Intercept Aviation Systems Repairer
AR-1715-0715

Aviator
Army (Aviator) Transport Pilot-Phases I, II and III (Rotary Wing)
AR-1606-0095
Army Aviator Basic Flight Training (Helicopter)
AR-1606-0112
Army Aviator Helicopter
AR-1606-0105
Army Medical Departmemt (AMEDD) Aviator Advanced
AR-0799-0021
AC-1 (Caribou) Aviator Transition
AR-1606-0116
AH-1G Aviator Qualification
AR-1606-0058
AH-1S (TOW) Cobra Aviator Qualification
AR-1606-0071
AH-1S Aviator Qualification
AR-1606-0058
AH-64 Aviator Qualification
AR-1606-0167
AR-1606-0179
AO-1 (Mohawk) Aviator Transition
AR-1606-0122
CH-37 (Mojave) Aviator Transition
AR-1606-0051
CH-47 Aviator Qualification
AR-1606-0064
CH-47B/C Aviator Qualification
AR-1606-0064
CH-47D Aviator Qualification
AR-1606-0164
AR-1606-0178
Initial Entry Rotary Wing Aviator
AR-1606-0074
Initial Entry Rotary-Wing Aviator (AH-1)
AR-1606-0185
Initial Entry Rotary-Wing Aviator (OH-58)
AR-1606-0184
Initial Entry Rotary-Wing Aviator (UH-1)
AR-1606-0183
Initial Entry Rotary-Wing Aviator (UH-60)
AR-1606-0182
Initial Entry Rotary-Wing Aviator Common Core
AR-1606-0181
Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
AR-1606-0066
Officer Fixed Wing Aviator—Instruments Phase
AR-1606-0067
Officer Fixed Wing Aviator—Primary Phase
AR-1606-0065
Officer/Warrant Officer Fixed Wing Aviator
AR-1606-0068
Officer/Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
AR-1606-0066
Officer/Warrant Officer Fixed Wing Aviator—Instruments Phase
AR-1606-0067
Officer/Warrant Officer Fixed Wing Aviator—Primary Phase
AR-1606-0065
Officer/Warrant Officer Rotary Wing Aviator
AR-1606-0074
OH-58 Aviator Qualification
AR-1606-0048
OH-58D Aviator Qualification
AR-1606-0161
OH-6 Aviator Qualification
AR-1606-0087
OV-1 (Mohawk) Aviator Combat Surveillance Qualification
AR-1606-0092
OV-1 (Mohawk) Aviator Transition
AR-1606-0122
OV-1 Aviator Qualification
AR-1606-0122
OV-1D (Mohawk) Aviator Combat Surveillance Qualification
AR-1715-0133
OV/RV-1D (Mohawk) Aviator Combat Surveillance Qualification
AR-1715-0133
Rotary Wing Aviator Europe-NATO
AR-1606-0074
Rotary Wing Aviator Refresher Training
AR-1606-0166
Tow Cobra Aviator Qualification
AR-1606-0071
U-21 Aviator Qualification
AR-1606-0091
U-8D (Seminole) Aviator Qualification
AR-1606-0104
U-8D Aviator Qualification
AR-1606-0104
UH-1 Aviator Qualification
AR-1606-0049
UH-1 Aviator Qualification (Navy)
AR-1606-0060
UH-60 (Blackhawk) Aviator Qualification
AR-1606-0133
UH-60 Aviator Qualification
AR-1606-0133
AR-1606-0162
Warrant Officer Candidate Rotary Wing Aviator
AR-1606-0074
AR-1606-0075
Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
AR-1606-0066
Warrant Officer Fixed Wing Aviator—Instruments Phase
AR-1606-0067
Warrant Officer Fixed Wing Aviator—Primary Phase
AR-1606-0065

Aviators
Essential Medical Training for Army Medical Department (AMEDD) Aviators
AR-0799-0018
Essential Medical Training for Army Medical Department (AMEDD) Aviators Associate
AR-0799-0007
Essential Medical Training for Army Medical Department (AMEDD) Aviators Nonresident/Resident
AR-0799-0007
Essential Medical Training for AMEDD (Army Medical Department) Aviators (MS/WO/RC)
AR-0801-0001
Essential Medical Training for AMEDS (Army Medical Service) Aviators
AR-0801-0001

Avionic
Avionic Communications Equipment Repair
AR-1715-0336
AR-1715-0662
Avionic Communications Equipment Repairer
AR-1715-0868
Avionic Equipment Maintenance Supervisor
AR-1715-0277
Avionic Equipment Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0786
AR-1715-0864
Avionic Flight Control Equipment Repair
AR-1715-0337
Avionic Flight Systems Repairer
AR-1715-0867
Avionic Mechanic
AR-1715-0658
Avionic Navigation and Flight Control Equipment Repair
AR-1715-0431
Avionic Navigation and Flight Control Equipment Repairer
AR-1715-0867
Avionic Navigation Equipment Repair
AR-1715-0340
Avionic Radar Equipment Repairman
AR-1715-0143
Avionic Radar Repairer
AR-1715-0660
Avionic Special Equipment Repair
AR-1715-0143
AR-1715-0660
Avionics Special Equipment Repair
AR-1715-0660

AH-64A Avionic Mechanic
AR-1715-0696
AHIP Avionic Mechanic (OH-58D)
AR-1715-0784
OH-58D AVIM Avionic Repair
AR-1715-0783
UH-60A Blackhawk Avionic Mechanic
AR-1704-0131

Avionics
Avionics Equipment Maintenance Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0179
Avionics Mechanic
AR-1715-0338
AR-1715-0591
Avionics Mechanic, Skill Development Base
AR-1704-0009
Avionics Special Equipment Repair
AR-1715-0660
Basic Avionics Maintenance Officer
AR-1715-0334

Awareness
Individual Terrorism Awareness
AR-1513-0009

AAA
Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer
AR-1601-0032
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
AR-1715-0214
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer
AR-1715-0214
Antiaircraft Artillery (AAA) Officer Basic
AR-2201-0082
Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)
AR-1713-0002
Antiaircraft Artillery (AAA) Remote Control Repair
AR-1714-0005
Antiaircraft Artillery (AAA) Remote Control Repair Basic
AR-1715-0285
Antiaircraft Artillery (AAA) Repair
AR-1710-0017
Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced
AR-1408-0030
Associate Antiaircraft Artillery (AAA) Missile Battery Officer
AR-1715-0288
Light Antiaircraft Artillery (AAA) Maintenance
AR-1601-0039
Medium and Heavy Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031
Medium Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031

AC-1
AC-1 (Caribou) Aviator Transition
AR-1606-0116

ADMS
Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070
Automatic Data Processing (ADP) Repair, Phase V—(Automatic Digital Message Switch (ADMS) Equipment Repair
AR-1715-0068
Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070
Automatic Digital Message Switch Equipment (ADMSE) Repair
AR-1715-0068
Automatic Digital Message Switch Equipment (ADMSE) Repairer
AR-1715-0068
Automatic Digital Message Switching (ADMS) Programmer
AR-1402-0021
Automatic Digital Message Switching (ADMS) Traffic Service Supervisory
AR-1402-0011
Automatic Digital Message Switching Equipment (ADMSE) Repairer
AR-1715-0068

ADMSC
Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair
AR-1715-0046
Automatic Digital Message Switch Center (ADMSC) Communication Equipment Repair
AR-1715-0163
Automatic Digital Message Switching Center (ADMSC) Maintenance Supervisory
AR-1715-0069
Automatic Digital Message Switching Center (ADMSC) Operation Supervisory
AR-1402-0020

ADMSE
Automatic Digital Message Switch Equipment (ADMSE) Repair
AR-1715-0068
Automatic Digital Message Switch Equipment (ADMSE) Repairer
AR-1715-0068
Automatic Digital Message Switching Equipment (ADMSE) Repairer
AR-1715-0068

ADP
Advanced Automatic Data Processing (ADP) Systems Analysis
AR-1402-0001
Auditing of Automatic Data Processing (ADP) Systems
AR-1402-0009
Automatic Data Processing (ADP) for Auditors
AR-1402-0037
Automatic Data Processing (ADP) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing (ADP) Intern Program
AR-1402-0039
Automatic Data Processing (ADP) Machine Operation Specialist
AR-1402-0030
Automatic Data Processing (ADP) Officer
AR-1402-0035
Automatic Data Processing (ADP) Repair
AR-1715-0038
Automatic Data Processing (ADP) Repair, Phase I—Computer Technology
AR-1715-0036
Automatic Data Processing (ADP) Repair, Phase II-Card Processors U-1005 and U-1004/DLT-6 Repair
AR-1715-0044
Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair
AR-1715-0045
Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070
Automatic Data Processing (ADP) Repair, Phase V—(Automatic Digital Message Switch (ADMS) Equipment Repair
AR-1715-0068
Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair
AR-1715-0046
Automatic Data Processing (ADP) Repair, Phase VII—Digital Subscriber Terminal Equipment (DSTE) Repair
AR-1715-0253
Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central Office Repair
AR-1715-0363
Automatic Data Processing (ADP) Systems Analysis
AR-1402-0003
Automatic Data Processing (ADP) Systems Analysis and Design
AR-1402-0041
Automatic Data Processing (ADP) Systems Analysis Officer
AR-1402-0003
Automatic Data Processing (ADP) Systems Programming
AR-1402-0010
Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing System (ADPS) (Fieldata) Repair
AR-1715-0038
Automatic Data Processing System (ADPS) Plans and Operationa Officer
AR-1402-0035
Automatic Data Processing System (ADPS) Plans and Operations Officer
AR-1402-0035
Basic Automatic Data Processing Systems (ADPS) Analysis
AR-1402-0005
Financial Management Systems—Automated Data Processing (ADP)
AR-1402-0033
Management Systems Support Agency (USAMSSA) ADP Intern Program
AR-1402-0056
PERSINSD Automatic Data Processing

(ADP) Intern Program
AR-1402-0008
Security in Automatic Data Processing Systems (ADPS)
AR-1402-0051

ADPS
Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing System (ADPS) (Fieldata) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing System (ADPS) (Fieldata) Repair
AR-1715-0038
Automatic Data Processing System (ADPS) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) Fieldata Programming Course
AR-1402-0017
Automatic Data Processing System (ADPS) Plans and Operationa Officer
AR-1402-0035
Automatic Data Processing System (ADPS) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing Systems (ADPS) for Staff Officers
AR-1402-0031
Automatic Data Processing Systems (ADPS) Console Operator
AR-1402-0036
Automatic Data Processing Systems (ADPS) Programming Specialist
AR-1402-0017
Computer Programmer Automatic Data Processing Systems (ADPS)
AR-1402-0017

AH-1
Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - AH-1
AR-1717-0071
Aircraft Maintenance Officer, Phase II - AH-1
AR-1717-0071
AH-1 Attack Helicopter Repairer
AR-1704-0095
AH-1 Attack Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0153
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
AR-1704-0136
AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle)
AR-1406-0114
Initial Entry Rotary-Wing Aviator (AH-1)
AR-1606-0185

AH-1G
AH-1G (Hueycobra) Helicopter Repair Transition
AR-1704-0060
AH-1G (Hueycobra) Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0057
AH-1G (Hueycobra) Pilot Transition/Gunnery
AR-1606-0059
AH-1G Aviator Qualification
AR-1606-0058
AH-1G Helicopter Repair
AR-1704-0051
AH-1G Instructor Pilot
AR-1606-0057

AH-1S
AH-1S Aviator Qualification
AR-1606-0058
AH-1S Instructor Pilot
AR-1406-0117
AR-1606-0057
AH-1S Maintenance Manager/Test Pilot
AR-1717-0083

AH-64
Aviation Maintenance Officer Phase II - AH-64
AR-1717-0072
AH-64 Aircraft Powertrain Repairer
AR-1704-0180
AH-64 Attack Helicopter Repairer
AR-1704-0156
AH-64 Attack Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1717-0090
AH-64 Attack Helicopter Repairer Transition
AR-1704-0158
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134
AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0163
AH-64 Aviator Qualification
AR-1606-0167
AR-1606-0179
AH-64 Instructor Pilot
AR-1606-0168
AH-64 Instructor Pilot Methods of Instruction
AR-1406-0121
AH-64 Maintenance Manager/Test Pilot
AR-1717-0093
DS/GS Test and Repair Station Maintenance (AH-64)
AR-1715-0878

AH-64A
AH-64A Avionic Mechanic
AR-1715-0696
DS/GS Test and Repair Station Maintenance (AH-64A)
AR-1715-0596

AHIP
AHIP Avionic Mechanic (OH-58D)
AR-1715-0784

AMEDD
Army Medical Departmemt (AMEDD) Aviator Advanced
AR-0799-0021
Army Medical Department (AMEDD) Battalion/Brigade Pre-Command
AR-2201-0271
Army Medical Department (AMEDD) Clinical Head Nurse
AR-0703-0003
Army Medical Department (AMEDD) Executive Management Program
AR-0799-0013
Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff.
AR-0799-0014
Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Advanced
AR-0799-0012
Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Basic
AR-1408-0068
Army Medical Department (AMEDD) Officer Advanced Nonresident/Resident
AR-0799-0008
Army Medical Department (AMEDD) Officer Basic
AR-0707-0010
Army Medical Department (AMEDD) Officer Basic (ANC/AMSC)
AR-1408-0103
Army Medical Department (AMEDD) Officer Basic (Reserve Component)
AR-2201-0003
Army Medical Department (AMEDD) Officer Basic Health Professions Scholarship Program
AR-0801-0008
Army Medical Department (AMEDD) Officer Orientation
AR-0709-0030
Army Medical Department (AMEDD) Officer Orientation (MSC)
AR-0799-0001
Army Medical Department (AMEDD) Officer Orientation (VC)
AR-0102-0001
Army Medical Department (AMEDD) Reserve Component General Staff
AR-0799-0004
Army Medical Department Officer (AMEDD) Advanced
AR-0326-0016
Army Medical Department Officer (AMEDD) Basic Uniformed Services University of Health Sciences
AR-1408-0104
Army Medical Department Officer Advanced (AMEDD)-Army Nurse Corps Officers
AR-0326-0016
Army Medical Service Officer (AMEDD) Advanced
AR-0326-0016
Essential Medical Training for Army Medical Department (AMEDD) Aviators
AR-0799-0018
Essential Medical Training for Army Medical Department (AMEDD) Aviators Associate
AR-0799-0007
Essential Medical Training for Army Medical Department (AMEDD) Aviators Nonresident/Resident
AR-0799-0007
Essential Medical Training for AMEDD (Army Medical Department) Aviators (MS/WO/RC)
AR-0801-0001
Orientation to Army Medical Department (AMEDD) Pharmacy Services
AR-0709-0022
AR-0709-0041

AMEDS
Army Medical Service (AMEDS)

Company Officer
AR-1408-0016
Army Medical Service (AMEDS) Noncommissioned Officer (NCO)
AR-0799-0002
Essential Medical Training for AMEDS (Army Medical Service) Aviators
AR-0801-0001

AMOSIST
Automated Military Outpatient System (AMOSIST) Training
AR-0709-0018

AN/ALQ-133
Quicklook II Maintenance Training (AN/ALQ-133)
AR-1715-0540

AN/APS-94
Airborne Radar Repair (AN/APS-94)
AR-1715-0203

AN/ASN-86
Inertial Navigation Set AN/ASN-86 Repair
AR-1715-0161
AR-1715-0688

AN/FGC-140
Teletypewriter Set AN/FGC-140 Maintenance
AR-1715-0202

AN/FLR-9
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AR-1715-0406

AN/FRC-109
Radio Set AN/FRC-109 Repair
AR-1715-0052

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AR-1715-0609
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AR-1715-0773
Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair
AR-1715-0345
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345

AN/FSC-78(V)
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345

AN/FSC-78/79
Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39
AR-1715-0702

AN/FSC-79
Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair
AR-1715-0345
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345

AN/FSQ-133
Tracechain AN/FSQ-133 Special Purpose Receiving System Maintenance
AR-1715-0733

AN/FSQ-75
Air Traffic Control Communications Set AN/FSQ-75 Repair
AR-1715-0032

AN/FTC-31
Automatic Dial Central Office AN/FTC-31
AR-1715-0050

AN/GGC-15
Morse Data Preparation Operator's Training (AN/GGC-15)
AR-1409-0007

AN/GRR-37
Automatic High Frequency Direction Finding (HFDF) Outstation Processing Unit AN/GRR-37
AR-1715-0546

AN/GSC-24(V)
AN/USC-26/CV-3034 AN/GSC-24(V) Maintenance
AR-1715-0426

AN/GSC-39
Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39
AR-1715-0609
Satellite Communications (SATCOM) Terminal AN/FSC-78 and AN/GSC-39.
AR-1715-0773
Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39
AR-1715-0702

AN/GSC-49
Satellite Communications (SATCOM) Terminal AN/GSC-49
AR-1715-0701

AN/GSC-52(V)
Satellite Communications (SATCOM) Terminal AN/GSC-52(V)
AR-1715-0774

AN/GSG-5
Fire Distribution Integration Systems Repair (AN/GSG-5 and 6)
AR-1715-0024
Fire Distribution Integration Systems Repair (AN/GSG-5(V) and 6)
AR-1715-0024
Fire Distribution Integration Systems Repair (AN/GSG-5)
AR-1715-0024

AN/GSQ-53A
Time Signal Set Maintenance (AN/GSQ-53A)
AR-1715-0547

AN/GSQ-76
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AR-1715-0413

AN/GSR-4
Environmental Collection System Maintenance (AN/GSR-4)
AR-1715-0410

AN/MLQ-24
Tactical Countermeasures Receiving Systems Maintenance (AN/MLQ-24)
AR-1715-0416

AN/MPQ-T1
AN/MPQ-T1 Radar Signal Simulator Maintenance
AR-1715-0165

AN/MPQ-36
AN/MPQ-36 Radar Signal Simulator Maintenance
AR-1715-0171

AN/MPS-23
AN/MPS-23 Radar Repair
AR-1715-0172

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AR-1715-0435

AN/MSC-64
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AR-1715-0607
USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal
AR-1715-0673

AN/MSM-105(V)1
AN/MSM-105(V)1 Intermediate Level Maintenance
AR-1715-0586
Intermediate Level Maintenance of AN/MSM-105(V)1
AR-1715-0761

AN/MSQ-103
AN/MSQ-103 Operator
AR-1715-0538
AN/MSQ-103 Teampack Intermediate Maintenance Training (DS/GS)
AR-1715-0541
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AR-1715-0542

AN/MSQ-18
AN/MSQ-18 Battery Terminal Equipment Maintenance
AR-1715-0058
AN/MSQ-18 Coder-Decoder Group Maintenance
AR-1715-0058
AN/TSQ-38 and AN/MSQ-18 Coder-Decoder Group Maintenance
AR-1715-0058

AN/PPS-4
Ground Surveillance Radar Mechanic (AN/TPS-33 and AN/PPS-4)
AR-1715-0147

AN/TCA-4
Digital Converting Programming Group (AN/TCA-4)
AR-1715-0208
Digital Converting Programming Group Maintenance (AN/TCA-4)
AR-1715-0208

AN/TLQ-17
Electronic Countermeasures Receiving System Maintenance (AN/TLQ-17)
AR-1715-0418

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AR-1715-0276

AN/TPQ-29
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AR-1715-0300

AN/TPS-33
Ground Surveillance Radar Mechanic (AN/TPS-33 and AN/PPS-4) AR-1715-0147

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Communications Central AN/TSC-38B Repair AR-1715-0197

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Satellite System Equipment Maintenance AN/TSC-86 AR-1715-0612

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AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer AR-1715-0403
AN/TSQ-73 Air Defense Artllery (ADA) Command and Control System Operator/Repairer AR-1715-0820
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Operator/Call Service Attendent AN/TTC-39(V) AR-1404-0036

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AN/TYC-39()
Transportable Electronic Switching Systems AN/TTC-39() and AN/TYC-39() Repairer (Tri-Tac Transition Training) AR-1715-0703

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AN/TYC-39(V) I/O Maintenance (USAF) AR-1715-0767
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AN/UGC-74 Operator AR-1404-0029
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AN/URR-66
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AN/USC-26/CV-3034 AN/GSC-24(V) Maintenance AR-1715-0426
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Satellite Communications (SATCOM) AN/USC-28(V) Set AR-1715-0610
Satellite Communications (SATCOM) AN/USC-28(V) Set Operations and Maintenance AR-1715-0610

AO-1
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APT
Computer-Aided Manufacturing Part Programming (APT) AR-1402-0042
Defense Numerical Control (APT) Part Programming AR-1402-0042

ARADCOM
Chemical, Biological, Radiological (CBR) Enlisted with ARADCOM Track AR-0802-0003
CBR Officer with ARADCOM Track AR-0802-0011
Guided Missile, Nuclear Weapons and ARADCOM Safety AR-0802-0005

ARVN
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ASC
Overseas Automatic Switching Center (ASC) Communication Equipment Repair AR-1715-0163
Overseas Automatic Switching Center (ASC) Technical Controller AR-1715-0221
Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair AR-1715-0343

AUTODIN
AUTODIN Switching Center Operations AR-1715-0587
AUTODIN Switching Center Specialist AR-1402-0011
AUTODIN Switching Center Traffic Operations AR-1404-0007
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OH-58D AVIM Avionic Repair AR-1715-0783

Backbone
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Field Bakery Operations
AR-1729-0022

Baking
Baking
AR-1729-0010
Bread Baking
AR-1729-0010
AR-1729-0022
Field Bread Baking Operations
AR-1729-0030

Ballistic
Artillery Ballistic Meteorology
AR-1304-0002
Ballistic Meteorology Crewman, Skill Development Base
AR-1715-0121
Ballistic Meteorology Crewman, Specialist Candidate
AR-1715-0121
Ballistic Missile Digital Computer Repair (Pershing)
AR-1715-0040
Ballistic Missile Digital Equipment Repair (Pershing)
AR-1715-0118
Ballistic Missile Electrical Mechanical Repair (Pershing)
AR-1715-0122
Ballistic Missile General Support Shop Set Repair (Sergeant)
AR-1715-0116
Ballistic Missile Guidance and Control Repair
AR-1715-0104
Ballistic Missile Guidance and Control Repair (Pershing)
AR-1715-0079
Ballistic Missile Helper
AR-1715-0082
Ballistic Missile Helper (Entry)
AR-1715-0082
Ballistic Missile Inertial Guidance and Control Repair (Pershing)
AR-1715-0103
Ballistic Missile Inertial Guidance and Control Repair (Sergeant)
AR-1715-0312
Ballistic Missile Maintenance Technician (Pershing)
AR-1715-0078
Ballistic Missile Maintenance Technician (Sergeant)
AR-1715-0246
Ballistic Missile Propulsion and Structures Repair (Pershing)
AR-1715-0075
Ballistic Missile Repair (21-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-1717-0050
Ballistic Missile Rocket Motor and Structures Repair (Sergeant)
AR-1715-0088
Ballistic Missile Test Instrument Repair
AR-1715-0348
Ballistic Missile Test Instrument Repair (Redstone)
AR-1715-0348
Ballistic Missile Test Station Repair (Pershing)
AR-1715-0089
Ballistic Missile Test Station Repair (Sergeant)
AR-1715-0100
Ballistic Missiles Propulsion and Structures Repair
AR-1704-0089
Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance Noncommissioned Officer (NCO) Advanced
AR-1715-0530
Field Artillery Ballistic Missile Officer
AR-1402-0026
Safeguard Ballistic Missile Defense Unit Commander
AR-1715-0379

Band
Army Band Advanced Noncommissioned Officer (NCO) (ANCOC)
AR-1205-0004
Band Instrumentalist (Army)
AR-1205-0005
Bandsman Basic (Army)
AR-1205-0005

Bandleaders
Enlisted Bandleaders
AR-1205-0003

Bandmaster
Bandmaster Preparatory
AR-1205-0001
Bandmaster/Warrant Officer Technical and Tactical Certification
AR-1205-0002
Warrant Officer Bandmaster
AR-1205-0002

Bandsman
Advanced Bandsman
AR-1205-0001
Bandsman Basic (Army)
AR-1205-0005

Basic
Basic Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0298
Basic Military Training
AR-2201-0197
Basic Training and Development
AR-1406-0039
WAC Officer Basic
AR-1404-0012
WAC Officer Basic/WAC Officer Candidate
AR-1404-0012

Bath
Fabric Repair Specialist/Laundry and Bath Specialist
AR-1716-0008
Laundry and Bath Specialist
AR-1716-0005
AR-1716-0009
Laundry and Bath Specialist Basic Technical
AR-1716-0008
Laundry and Bath/Fabric Repair Specialist Basic Noncommissioned Officer (NCO)
AR-1716-0010
Laundry, Bath, and Impregnation
AR-1716-0005

Battalion
Army Medical Department (AMEDD) Battalion/Brigade Pre-Command
AR-2201-0271
Battalion Supply
AR-1406-0137
Battalion Surgeon Assistant
AR-0709-0011
Battalion S1
AR-1406-0063
AR-1406-0104
Battalion S1/Adjutant Staff Officer
AR-1406-0104
Battalion Training Enlisted
AR-1406-0138
Battalion Training Officer
AR-1406-0133
Battalion/Brigade Pre-Command
AR-2201-0270
Battalion/Brigade Signal Officer
AR-2201-0386

Battery
Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer
AR-1601-0032
Army Air Defense Battery Officer
AR-1601-0032
Associate Air Defense Artillery (ADA) Battery Officer
AR-2201-0080
Associate Air Defense Missile Battery Officer
AR-1715-0288
Associate Antiaircraft Artillery (AAA) Missile Battery Officer
AR-1715-0288
Associate Field Artillery Battery Officer
AR-2201-0135
AR-2201-0139
Associate Field Artillery Missile Battery Officer
AR-2201-0135
Associate Surface-to-Air Missile (SAM) Battery Officer
AR-1715-0288
Associate Surface-to-Surface Missile (SSM) Battery Officer
AR-1714-0013
AN/MSQ-18 Battery Terminal Equipment Maintenance
AR-1715-0058
Battery Computer System Cadre-Reserve Component
AR-2201-0383
Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer
AR-1715-0281
Field Artillery Battery Officer
AR-1715-0281
Field Artillery Cannon Battery Officer
AR-2201-0219
AR-2201-0368
Hawk Pulse Acquisition Radar and Battery Control Center Maintenance
AR-1715-0211
Hawk Pulse Acquisition Radar and Battery Control Central Maintenance
AR-1715-0211
Hawk Pulse Acquisition Radar and Battery Control Repair
AR-1715-0159
Improved Alternate Battery Acquisition Radar Maintenance Transition
AR-1715-0174
Lacrosse Firing Battery
AR-2201-0089
Marine Corps Battery Commander
AR-2201-0374
Missile Master Battery Terminal Equipment Maintenance
AR-1715-0087

Sergeant Missile Battery
AR-1715-0102
Sergeant Missile Battery Officer
AR-1715-0102

Battle
Electronic Order of Battle Analysis
AR-2201-0314
Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician
AR-2201-0384

Battlefield
Battlefield Deception
AR-2201-0385
Battlefield Spectrum Management
AR-1115-0013

Behavior
Human Behavior in Organizations
AR-0326-0027

Behavioral
Behavioral Science Specialist
AR-1512-0006
AR-1512-0016

Biological
Chemical, Biological, Radiological (CBR) Enlisted
AR-0802-0003
Chemical, Biological, Radiological (CBR) Enlisted with ARADCOM Track
AR-0802-0003
Chemical, Biological, Radiological (CBR) Officer
AR-0802-0011
Marine Corps Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0001
Nuclear, Biological, and Chemical (NBC) Weapons Employment
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187
Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO)
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Enlisted
AR-0802-0003
Nuclear, Biological, Chemical (NBC) Specialist
AR-2201-0068
Nuclear, Biological, Chemical (NBC) Specialist (Transition)
AR-0801-0013
AR-1720-0006
Nuclear, Biological, Chemical (NBC) Specialist,
AR-0802-0016
Nuclear, Biological, Chemical (NBC) Specialist, Primary Technical
AR-1303-0003
USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO)
AR-2201-0067

Biomedical
Biomedical Electronic Equipment Maintenance
AR-1715-0317
Biomedical Equipment Maintenance
AR-1715-0316
Biomedical Equipment Maintenance Advanced
AR-1715-0317
Biomedical Equipment Maintenance Orientation
AR-1715-0619
Biomedical Equipment Specialist Advanced
AR-1715-0639
Biomedical Equipment Specialist Basic
AR-1715-0316
Biomedical X-Ray Equipment Maintenance
AR-1715-0394

Biometrics
Biometrics in Research and Epidemiology
AR-0102-0004

Blackhawk
UH-60 (Blackhawk) Aviator Qualification
AR-1606-0133
UH-60A Blackhawk Avionic Mechanic
AR-1704-0131

Blood
Blood Banking
AR-0702-0004
Blood Grouping, Collecting and Processing
AR-0702-0003

Boatswain
Harbor Craft Boatswain
AR-2201-0036

Body
Metal Body Repair
AR-1703-0012
Vehicle Body Mechanic
AR-1703-0012
AR-1703-0030
Vehicle Body Repairman
AR-1703-0012
AR-1703-0030

Boilermaker
Boilermaker
AR-1710-0023

Book
Standard Property Book System Functional
AR-1405-0141

Brace
Brace Specialist
AR-0704-0006

Bradley
Abrams/Bradley Supervisor Diagnostics Course
AR-1710-0158
Bradley Fighting Vehicle Fighting Vehicle Infantryman
AR-2201-0276
Bradley Fighting Vehicle System
AR-1710-0099
Bradley Fighting Vehicle System Mechanic Basic Noncommissioned Officer (NCO)
AR-1710-0110
Bradley Fighting Vehicle System Mechanic Noncommissioned Officer (NCO)
AR-1710-0129
Bradley Fighting Vehicle System Mechanic Primary Technical
AR-1710-0120
Bradley Fighting Vehicle System Organizational Maintenance
AR-2201-0326
Bradley Fighting Vehicle System Turret Mechanic
AR-1703-0045
Bradley Fighting Vehicle Systems TOW/Dragon Repairer
AR-1710-0108
Bradley Infantry Fighting Vehicle Commander
AR-1710-0062
Bradley Infantry Fighting Vehicle Gunner
AR-1710-0063
Bradley Infantry Fighting Vehicle Master Gunner
AR-1710-0061
M2/M3 Bradley Fighting Vehicle Repairer
AR-1712-0016
M2/M3 Bradley Fighting Vehicle Turret Repair
AR-1710-0105
M2/3 Bradley Fighting Vehicle (BFV) Unit Maintenance Training
AR-1710-0147
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143
M3 Bradley/CFV Cavalry Scout
AR-2201-0331

Brake
Air Brake Repair
AR-1703-0008

Branch
Branch Automation Officer
AR-1402-0113
Branch Immaterial Officer Candidate
AR-2201-0182

Bread
Bread Baking
AR-1729-0010
AR-1729-0022
Field Bread Baking Operations
AR-1729-0030

Bridge
Bridge Specialist
AR-1601-0069
Powered Bridge Operator
AR-2201-0180

Bridging
Combat Engineering, Bridging, and Construction Supervision
AR-1601-0018

Brigade
Battalion/Brigade Pre-Command
AR-2201-0270
Battalion/Brigade Signal Officer
AR-2201-0386

Broadcast
Navy Broadcast Terminal Operator
AR-1715-0342

Budget
Budget
AR-1401-0042
Resource Management Budget
AR-1401-0038

Budgeting
Planning, Programming and Budgeting Systems
AR-1408-0001
Planning, Programming, Budgeting and

Execution Systems
AR-1408-0165
Programming and Budgeting
AR-1402-0061
AR-1408-0001

Burst
Special Forces Burst Communications System Maintenance
AR-1715-0825

Business
Business Systems Analysis
AR-1402-0048

Bypass
Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair
AR-1715-0343

BRH
BRH Compliance Testing
AR-0705-0008

Cable
Cable Splicer Noncommissioned Officer (NCO) Basic
AR-2201-0076
Cable Splicing
AR-1714-0016

Cadet
Cadet Military Secondary Training/ ROTC
AR-2201-0303

Cadre
Battery Computer System Cadre-Reserve Component
AR-2201-0383
Initial Entry Training (IET) Cadre Course (Active Army)
AR-2201-0255
Lance Cadre
AR-2201-0011
Man Portable Air Defense System (MANPADS) FORSCOM Cadre Net
AR-2201-0266
Multiple Launch Rocket System Cadre (MLRS) Cadre
AR-1715-0834

Calibration
Artillery Calibration
AR-1601-0037
Calibration and Repair Technician Warrant Officer Advanced
AR-1715-0707
Calibration Specialist Basic Noncommissioned Officer (NCO) (35H30)
AR-1715-0856
Calibration Technician and Specialist
AR-1715-0354
Instrument Calibration and Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0020
Warrant Officer Technical Certification (WOTCC) Calibration and Repair Technician
AR-1405-0131

Calibrator
Radiac Calibrator Custodian
AR-0801-0011

Camera
Camera Equipment Repair
AR-1721-0006

Camouflage
Camouflage Enlisted
AR-2201-0027
Camouflage Officer
AR-2201-0023
Officers Camouflage
AR-2201-0023

Candidate
Branch Immaterial Officer Candidate
AR-2201-0182
Infantry Army Reserve Officer Candidate
AR-2201-0052
Infantry Officer Candidate
AR-2201-0167
Infantry Officer Candidate (Reserve Component)
AR-2201-0052
National Guard Officer Candidate
AR-2201-0300
Officer Candidate
AR-2201-0167
Officer Candidate (Reserve Components)
AR-2201-0052

Cannon
Atomic Cannon Eight Inch
AR-2201-0260
Cannon Crewman
AR-2201-0281
AR-2201-0372
Cannon Crewmember Advanced Noncommissioned Officer (NCO)
AR-1601-0078
Cannon Fire Direction Specialist
AR-1304-0004
AR-1715-0844
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0213
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0071
Field Artillery Cannon Basic Noncommissioned Officer (NCO)
AR-2201-0258
AR-2201-0362
Field Artillery Cannon Battery Officer
AR-2201-0219
AR-2201-0368
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0257
Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0256
Field Artillery Cannon Noncommissioned Officer (NCO) Advanced
AR-1601-0074
Field Artillery Cannon Operations/Fire Direction Assistant
AR-1304-0004
Field Artillery Cannon Weapon Systems Qualification
AR-1715-0633
Nuclear Cannon Assembly
AR-2201-0260
AR-2201-0379

Canvas
Canvas and Leather Repair
AR-1716-0003
Canvas and Webbed Equipage Repair
AR-1716-0003

Carburetor
Aircraft Carburetor Repair
AR-1704-0014

Card
Army Security Agency Card and Tape Writer
AR-1402-0038
Automatic Data Processing (ADP) Repair, Phase II-Card Processors U-1005 and U-1004/DLT-6 Repair
AR-1715-0044
Card Processors U-1005 and U-1004/ DLT-6 Repair
AR-1715-0044
Punch Card Machine Repair
AR-1706-0004
1005 Card Processor Programmer
AR-1402-0018

Cardiac
Cardiac Specialist
AR-0709-0023

Cardiovascular
Cardiovascular Technician
AR-0702-0012

Care
Animal Care Specialist
AR-0102-0002
Critical Care Nursing
AR-0703-0016
Patient Care Specialist
AR-0709-0024

Career
Army Career Counseling
AR-1406-0017
Army National Guard Career Counseling
AR-1406-0002
Army Recruiter and Career Counselor Noncommissioned Officer (NCO) Advanced Assignment
AR-1408-0048
Army Recruiting and Career Counseling
AR-1406-0020
Career Counselor
AR-1406-0028
Special Career Level Artillery Advanced Gunnery (USMC)
AR-2201-0218
AR-2201-0378
United States Army Security Agency (USASA) Officer Career (U)
AR-1728-0042

Cargo
Cargo Handler
AR-0419-0001
Cargo Handler (SU-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0010
Cargo Handler Supervisor
AR-0419-0004
Cargo Officer
AR-0419-0032
Cargo Specialist
AR-0419-0001
AR-0419-0046
Cargo Specialist Basic Noncommissioned Officer (NCO)
AR-1710-0150
Cargo Specialist Noncommissioned Officer (NCO) Advanced
AR-0419-0028
Cargo Specialist Primary Technical
AR-1710-0060
Utility and Cargo Single-Rotor Helicopter Repair
AR-1704-0053
Utility and Cargo, Single Rotor

Helicopter Maintenance
AR-1704-0079
Utility and Cargo, Tandem-Rotor Helicopter Maintenance
AR-1704-0052
Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO)
AR-1704-0138
Utility/Cargo and Observation Airplane Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0160
Utility/Cargo Airplane
AR-1704-0073
Utility/Cargo Airplane Repairer Basic Technical
AR-1704-0115
Utility/Cargo Airplane Technical Inspector
AR-1704-0128

Caribou
AC-1 (Caribou) Aviator Transition
AR-1606-0116
CV-2 (Caribou) Instructor Pilot Qualification
AR-1606-0096
CV-2 (Caribou) Pilot Transition
AR-1606-0116

Carpentry
Carpentry and Masonry Specialist
AR-1710-0051

Carrier
Basic Fixed Plant Carrier Equipment Repair
AR-1715-0031
Basic Radio Relay and Carrier Repair
AR-1715-0184
Fixed Plant Carrier Equipment Repair
AR-1715-0125
Radio Relay and Carrier Attendant, Skill Development Base
AR-1715-0064

Cartographic
Cartographic Drafting
AR-1713-0006

Cataloging
Army Cataloging
AR-1405-0082
AMC Cataloging
AR-1405-0082

Cavalry
Air Cavalry/Attack Helicopter Commander's Training
AR-1606-0054
Armor Officer Basic Tank/Armor Officer Basic Cavalry
AR-1717-0039
Armor Officer Basic-Cavalry M60A3
AR-1717-0080
Armor/Cavalry Maintenance Technician Warrant Officer Advanced
AR-1703-0033
M113 Cavalry Scout
AR-2201-0332

Center
Automatic Data Telecommunications Center Operator
AR-1715-0526
Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0686
Automatic Data Telecommunications Center Operator Primary Technical
AR-1715-0686

Central
Central Accounting Officer
AR-1401-0036
Central Office Supervision
AR-1408-0017
Central Office Switchboard Operator
AR-1404-0004
Central Office Telephone Switchboard Operation
AR-1404-0004
Dial Central Office Repairer
AR-1715-0680
Hawk Information Coordination Central Mechanic (PIP II)
AR-1715-0815
Manual Central Office Repair, Skill Development Base
AR-1715-0051
Switching Central Repairer
AR-1715-0670
Telephone Central Office Repair
AR-1715-0670
Telephone Central Office Repair Basic Noncommissioned Officer (NCO)
AR-1406-0093
Telephone Central Office Repairer
AR-1715-0670

Certification
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807
Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156
Airdrop Systems Technician - Warrant Officer Technical/Tactical Certification
AR-1733-0010
Ammunition Technician Certification
AR-0802-0021
Ammunition Technician Technical and Tactical Certification
AR-0802-0021
Bandmaster/Warrant Officer Technical and Tactical Certification
AR-1205-0002
Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification
AR-1402-0132
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4
AR-1715-0858
Electronic Warfare (EW)/Intercept Equipment Repair Technician-Warrant Officer Technical Certification
AR-1408-0132
Emanations Analysis Technician Warrant Officer Texhnical/Tactical Certification
AR-1408-0136
Emanations Analysis Technician—Warrant Officer Technical Certification
AR-1408-0136
Emitter Location/Identification Technician—Warrant Officer Technical Certification
AR-1408-0135
Food Service Technician Warrant Officer Technical/Tactical Certification
AR-1729-0034
General Supply Technician Warrant Officer Technical Certification
AR-1405-0170
Hawk Missile System Technician Warrant Officer Technical/Tactical Certification (PIP II)
AR-1715-0295
Lance Missile Sytem Technician-Warrant Officer Technical Certification
AR-1715-0843
Marine Deck Officer Warrant Officer Technical Certification
AR-1722-0006
Marine Engineering Officer-Warrant Officer Technical Certification
AR-1712-0020
Meteorological Technician—Warrant Officer Technical Certification
AR-1715-0629
Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0133
Non-Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0134
Nuclear Weapons Technician Certification
AR-1715-0750
Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II
AR-1715-0797
Patriot Missile System Technician—Warrant Officer Technical Certification (WOTC)
AR-1715-0653
Pershing Missile Systems Technician-Warrant Officer Technical Certification
AR-1715-0842
Property Book Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0185
Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186
Quickfix II Crew Certification
AR-1606-0205
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0188
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190
Repair Shop Technician—Warrant Officer Technical Certification
AR-1710-0115
Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification
AR-1402-0131
Special Operations Technician Warrant Officer Technical Certification
AR-1406-0096
Support Supply Technical Warrant Officer Technical Certification
AR-1405-0172
Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification
AR-1402-0130
Target Acquisition Radar Technician

Warrant Officer Technical Certification
AR-1715-0840
Telecommunications Technician Warrant Officer Technical Certification -Reserve Component Phases 2 and 4
AR-1715-0859
Traffic Analysis Technician Warrant Officer Technical/Tactical Certification
AR-1408-0137
Traffic Analysis Technician—Warrant Officer Technical Certification
AR-1408-0137
Voice Intercept Technician Warrant Officer Technical/Tactical Certification
AR-1408-0138
Voice Intercept Technician—Warrant Officer Technical Certification
AR-1408-0138
Warrant Officer Technical Certification
AR-1710-0116
AR-1717-0077
Warrant Officer Technical Certification (WOTC) Chaparral/Vulcan Systems Technician
AR-1715-0656
Warrant Officer Technical Certification (WOTCC) Calibration and Repair Technician
AR-1405-0131
Warrant Officer Technical Certification (WOTCC) Communications-Electronics Equipment Repair Technician
AR-1405-0129
Warrant Officer Technical Certification (WOTTC) Data Processing System Repair Technician
AR-1405-0130
Warrant Officer Technical Certification (WOTTC) Marine Deck Officer
AR-2205-0001
Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician
AR-1606-0201
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician
AR-1606-0199
Warrant Officer Technical/Tactical Certification Phase 2 350B All Source Intelligence Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Channel
Single Channel Radio Operator
AR-1404-0009
Single Channel Radio Operator Basic Noncommissioned Officer (NCO)
AR-1404-0037
Single Channel Radio Operator Primary Technical
AR-1404-0034

Chaparral
Air Defense Artillery (ADA) Chaparral Crew Member
AR-1715-0516
Chaparral Crew Member
AR-1715-0516
Chaparral Redeye Repairer
AR-1715-0529
Chaparral System Mechanic
AR-1715-0120
Chaparral System Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0809
Chaparral/Redeye Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0641
Chaparral/Redeye Repairer Basic Technical (BT)
AR-1715-0641
Chaparral/Vulcan Officer and Noncommissioned Officer (NCO) Qualification
AR-2201-0063
Chaparral/Vulcan Officer Qualification
AR-2201-0063
Chaparral/Vulcan System Technician
AR-1715-0081
Warrant Officer Technical Certification (WOTC) Chaparral/Vulcan Systems Technician
AR-1715-0656

Chapel
Chapel Activities Specialist
AR-1402-0087
Chapel Activities Specialist Basic Noncommissioned Officer (NCO)
AR-1408-0139
Chapel Activities Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127

Chaplain
Associate Chaplain Officer Career
AR-1513-0001
Chaplain Assistant
AR-1402-0087
Chaplain Assistant Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Chaplain Assistant Basic Noncommissioned Officer (NCO)
AR-1408-0139
Chaplain Assistant Basic Noncommissioned Officer (NCO) Reserve Component
AR-1406-0130
Chaplain Candidate
AR-1406-0082
Chaplain Enlisted Assistant Technical Training
AR-1408-0006
Chaplain Officer Advanced
AR-1408-0071
AR-1408-0140
Chaplain Officer Advanced Reserve Component
AR-1408-0180
Chaplain Officer Basic
AR-1408-0065
AR-1408-0141
Chaplain Officer Career
AR-1408-0071
Chaplain Officer Orientation
AR-1408-0065
Chaplain Reserve Component General Staff
AR-1408-0128
Chaplain Reserve Component General Staff College
AR-1408-0128
Chaplain Training Manager
AR-1408-0129
Chaplain's Assistant
AR-1402-0087
Chaplain's Assistant Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Division Chaplain
AR-1406-0083
Installation Chaplain
AR-1406-0084

Chaplain's
Chaplain's Assistant
AR-1402-0087
Chaplain's Assistant Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127

Chaplains'
Nonappropriated Chaplains' Fund Clerk
AR-1408-0130
Nonappropriated Chaplains' Fund Custodian
AR-1408-0131

Charting
Decca Charting and Reproduction
AR-1713-0001

Chemical
(Quartermaster/Chemical Equipment Repairer)
AR-1710-0095
Advanced Chemical Noncommissioned Officer (NCO)
AR-2201-0117
Advanced Chemical Noncommissioned Officer (NCO) (Staff Specialist)
AR-2201-0117
Associate Chemical Officer Advanced
AR-1408-0047
Associate Chemical Officer Career
AR-1408-0041
Chemical (CL-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0029
Chemical (Entry)
AR-2201-0077
Chemical (54-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0029
Chemical (54-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0169
Chemical Analyst
AR-1601-0004
Chemical Basic Noncommissioned Officer (NCO)
AR-2201-0031
Chemical Company Officer
AR-2201-0128
Chemical Corps Orientation
AR-1717-0045
Chemical Equipment Repair
AR-1601-0042
Chemical Equipment Repair Supervison
AR-2201-0179
Chemical Field Grade Officer Refresher
AR-2201-0118
Chemical Laboratory
AR-1303-0001
Chemical Laboratory Procedures
AR-1303-0001
Chemical Officer
AR-2201-0050
Chemical Officer Advanced
AR-1408-0046

Chemical Officer ADSPEC
AR-1408-0125
Chemical Officer Basic
AR-2201-0177
Chemical Officer Career
AR-1408-0046
Chemical Officer Familiarization
AR-2201-0149
Chemical Officer Orientation
AR-2201-0177
Chemical Operation Specialist
AR-2201-0068
Chemical Operation Specialist (Transition)
AR-1720-0006
Chemical Operations Apprentice
AR-2201-0077
Chemical Operations Specialist
AR-0801-0009
AR-0802-0016
AR-2201-0029
Chemical Operations Specialist (Basic Noncommissioned Officer (NCO))
AR-0801-0012
Chemical Operations Specialist Basic Noncommissioned Officer (NCO) Reclassification
AR-0801-0010
Chemical Staff Specialist
AR-2201-0068
Chemical Staff Supervision
AR-2201-0117
Chemical Supply
AR-1405-0030
Chemical Supply Supervision
AR-1405-0055
Chemical, Biological, Radiological (CBR) Enlisted
AR-0802-0003
Chemical, Biological, Radiological (CBR) Enlisted with ARADCOM Track
AR-0802-0003
Chemical, Biological, Radiological (CBR) Officer
AR-0802-0011
Marine Corps Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0001
Nuclear and Chemical Target Analysis
AR-0802-0025
AR-2201-0150
AR-2201-0151
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Employment
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187
Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO)
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Enlisted
AR-0802-0003
Nuclear, Biological, Chemical (NBC) Specialist
AR-2201-0068
Nuclear, Biological, Chemical (NBC) Specialist (Transition)
AR-0801-0013
AR-1720-0006
Nuclear, Biological, Chemical (NBC) Specialist,
AR-0802-0016
Nuclear, Biological, Chemical (NBC) Specialist, Primary Technical
AR-1303-0003
Ordnance and Chemical Officer Advanced
AR-1408-0066
Ordnance Officer Advanced Chemical
AR-1408-0066
Ordnance Officer Basic Chemical
AR-1405-0090
Quartermaster and Chemical Equipment Repairer
AR-1710-0094
Quartermaster/Chemical Equipment Repairer
AR-1710-0053
Quartermaster/Chemical Equipment Repairer Basic Technical
AR-1710-0095
USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO)
AR-2201-0067

Chemist
Forensic Chemist
AR-1601-0004
Forensic Drug Chemist
AR-1601-0048

Chemistry
Forensic Chemistry—Trace Evidence
AR-1601-0047
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty)
AR-1720-0002

Chief
Chief Nurses' Orientation
AR-0703-0002
Tactical Communications Officer and Chief
AR-1715-0795

Chinese
Army-Unique Voice Interceptor Training (Chinese—Mandarin)
AR-1606-0149
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149

Chinese—Mandarin
Army-Unique Voice Interceptor Training (Chinese—Mandarin)
AR-1606-0149
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149

Chinook
CH-47 (Chinook) Instructor Pilot Qualification
AR-1606-0043
CH-47 (Chinook) Pilot Transition
AR-1606-0064

Ciphony
Fixed Ciphony Repair
AR-1715-0096
Fixed Ciphony Repairer
AR-1715-0687
Fixed Ciphony Repairer (Transition) (32G)
AR-1715-0687
Fixed Ciphony Repairer Special Repair Activity (SRA)
AR-1715-0709
Fixed Ciphony Repairer Supervisor Basic Technical
AR-1715-0603
Multichannel Ciphony System TSEC/CY-104 Repair
AR-1715-0388

Circuit
Circuit Conditioning
AR-1715-0196
Closed Circuit Television
AR-1715-0622
Communications System Circuit Controller
AR-1715-0777
Communications Systems/Circuit Controller
AR-1715-0849
Communications Systems/Circuit Controller (RC)
AR-1715-0879
Tactical Circuit Controller
AR-1714-0001
AR-1715-0615
Tactical Circuit Controller Basic Noncommissioned Officer (NCO)
AR-1715-0684

Civic
Civic Action
AR-1513-0003

Civil
(Civil Affairs Officer Advanced (Nonresident/Resident))
AR-1511-0010
Civil Affairs
AR-1511-0002
AR-1511-0016
Civil Affairs and Military Government Officer
AR-2201-0148
Civil Affairs and Military Government Officer Advanced
AR-1408-0049
Civil Affairs in the Cold War
AR-1511-0008
Civil Affairs Advisor, Vietnam
AR-1513-0004
Civil Affairs Enlisted Course
AR-1511-0012
Civil Affairs Officer
AR-1511-0002
Civil Affairs Officer Advanced Nonresident/Resident - Reserve Component
AR-1511-0010
Civil Affairs Officer Advanced Nonresident/Resident Reserve Component
AR-1511-0014
Civil Military Operations
AR-2201-0221
AR-2201-0343
District and Civil Affairs Advisor (Vietnam)
AR-1513-0004

Clerical
- Clerical Procedures and Typing—WAC
  AR-1409-0001
- Typing and Clerical Procedures—WAC
  AR-1409-0001

Clerk
- Clerk Typist
  AR-1409-0001
- Clerk-Typist
  AR-1409-0001
- Legal Clerk
  AR-1403-0002
  AR-1403-0005
- Travel Clerk
  AR-0418-0001
- Unit Clerk
  AR-1403-0004
  AR-1403-0016

Clinical
- Allergy-Clinical Immunology Specialist
  AR-0709-0016
- Army Medical Department (AMEDD) Clinical Head Nurse
  AR-0703-0003
- Army Medical Department Officer Clinical Head Nurse
  AR-0703-0021
- Clinical Psychology Enlisted
  AR-1512-0004
- Clinical Psychology Procedures
  AR-1512-0004
- Clinical Specialist
  AR-0709-0009
- Clinical Specialist Primary Technical
  AR-0709-0019
- Clinical Technician
  AR-0799-0006
- Medical Department Officer Clinical Head Nurse
  AR-0703-0003

Closed
- Closed Circuit Television
  AR-1715-0622

Club
- Club Management
  AR-1729-0012

Cobra
- AH-1S (TOW) Cobra Aviator Qualification
  AR-1606-0071
- Tow Cobra Aviator Qualification
  AR-1606-0071

Coder
- AN/MSQ-18 Coder-Decoder Group Maintenance
  AR-1715-0058
- AN/TSQ-38 and AN/MSQ-18 Coder-Decoder Group Maintenance
  AR-1715-0058
- Operations Central and Coder-Decoder Group Repair
  AR-1715-0237

Coding
- Structured Coding Using COBOL
  AR-1402-0067
- Structured Coding Workshop
  AR-1402-0067

Cold
- Civil Affairs in the Cold War
  AR-1511-0008

Collection
- Collection Management Assignment Specific Module
  AR-1408-0176
- Collection Management/Tencaps Operations Assignment Specific Module
  AR-1408-0176
- Environmental Collection System Maintenance (AN/GSR-4)
  AR-1715-0410
- Space Collection (SPACOL) Operations
  AR-2201-0203
- Space Collection Operations
  AR-2201-0203
- Telemetry Collection Operations
  AR-2201-0203

College
- Army War College
  AR-1511-0021
- Army War College Corresponding (by Correspondence)
  AR-1511-0022
- 35R College Junior
  AR-2201-0173

Combat
- Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance Noncommissioned Officer (NCO) Advanced
  AR-1715-0530
- Combat and Strategic Communication and Electronic Officer
  AR-1715-0433
- Combat Area Surveillance Radar Repair
  AR-1715-0229
  AR-1715-0522
- Combat Area Surveillance Radar Repair, Skill Development Base
  AR-1717-0017
- Combat Area Surveillance Radar Repair, Specialist Candidate
  AR-1717-0017
- Combat Area Surveillance Radar Repairman
  AR-1715-0147
- Combat Communications-Electronics Advanced
  AR-1402-0049
- Combat Engineer
  AR-1601-0070
- Combat Engineer Tracked Vehicle Crewman
  AR-1710-0085
- Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Advanced
  AR-1601-0013
- Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Basic
  AR-1710-0041
- Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Advanced
  AR-1601-0013
- Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Basic
  AR-1710-0041
- Combat Engineering Noncommissioned Officer (NCO) Basic
  AR-1710-0041
- Combat Engineering, Bridging, and Construction Supervision
  AR-1601-0018
- Combat Intelligence
  AR-1606-0175
- Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
  AR-2201-0196
- Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USMMCS)
  AR-1405-0095
- Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Basic
  AR-1715-0306
- Combat Missile Mechanic (271-CMF) Noncommissioned Officer (NCO) Basic
  AR-2201-0211
- Combat Missile System Repair
  AR-1715-0115
- Combat Missile System Repair (Redeye-Shillelagh-Tow)
  AR-1715-0115
- Combat Services Support Pre-Command
  AR-1405-0140
- Combat Signaler
  AR-1715-0434
- Combat Support Missile System Repair
  AR-1715-0298
- Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Advanced
  AR-2201-0183
- Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Basic
  AR-1717-0018
  AR-2201-0002
- Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Advanced
  AR-2201-0183
- Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Basic
  AR-2201-0186
- Combat Surveillance Photographic Equipment Repair
  AR-1715-0346
- Combat Telecommunications Center Operator
  AR-1406-0065
- Combat Telecommunications Center Operator Primary Technical
  AR-1408-0111
- Combat Telecommunications Center Supervisor
  AR-1715-0553
- Land Combat Missile System Repair Technician
  AR-1715-0130
  AR-1715-0645
- Land Combat Missile Systems Repair Technician Entry
  AR-1715-0130
- Land Combat Missile Systems Repair Technician Warrant Officer Technical Certifcation
  AR-1715-0130
- Land Combat Support Missile System Repair Technician
  AR-1715-0130
- Land Combat Support System (LCSS)—Missile Maintenance Noncommissioned Officer (NCO) Advanced
  AR-1717-0030
- Land Combat Support System Test Specialist
  AR-1715-0231
  AR-1715-0531
  AR-1715-0652
  AR-1715-0748
- Land Combat Support System Test

Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0652

Land Combat Support System Test Specialist/Lance Repair Transition.
AR-1402-0058

Land Combat Support System Test Specialist/Lance Repairer
AR-1715-0531

Maneuver Combat Arms Infantry Noncommissioned Officer (NCO) Advanced
AR-2201-0181

Maneuver Combat Arms—Infantry (11 CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0181

OV-1 (Mohawk) Aviator Combat Surveillance Qualification
AR-1606-0092

Pre-Command Phase III Combat Service Support Missile and Munitions
AR-1408-0123

Primary Noncommissioned Officer (NCO) for Combat Arms
AR-2201-0274

Special Forces Combat Diver Qualification
AR-0803-0001
AR-0803-0006

Special Forces Combat Diving Supervisor
AR-1606-0177

SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator
AR-1402-0110

Tactical Army Combat Computer System (TACCS) and Tactical Computer Terminal (TCT) Computer Systems Repair
AR-1715-0861

Tactical Army Combat Computer System (TACCS) Software
AR-1402-0118

Tactical Army Combat Service Support Computer System (TACCS) Programming
AR-1402-0109

Tactical Army Combat Service Support Computer System/Standard Army Maintenance System (TACCS/SAMS)
AR-1402-0101

UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction
AR-1406-0080

UH-1 Combat Skills Methods of Instruction
AR-1406-0073

Command

Air Defense Artillery (ADA) Command and Control Officer
AR-1715-0494

Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807

Air Defense Command and Control Systems Operator
AR-2201-0059

Air Defense Command, Control, and Coordination Systems Operator
AR-2201-0059

Army Air Defense Command Post Controller
AR-2201-0081

Army Aviation Command and Staff Officer
AR-2201-0122

Army Materiel Command Installation Management
AR-0326-0017

Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff.
AR-0799-0014

Associate Command and General Staff Officer
AR-1408-0059

Aviation Command and Resource Management
AR-1408-0036

Aviation Commander's Readiness
AR-1408-0036

AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0811

AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer
AR-1715-0403

AN/TSQ-73 Air Defense Artllery (ADA) Command and Control System Operator/Repairer
AR-1715-0820

Command and General Staff Officer
AR-1511-0006

Command and General Staff Officer Regular
AR-1511-0006

Command and Staff Officer Cover and Deception
AR-1606-0023

Command Management
AR-0326-0001

Command Sergeants Major
AR-1408-0159

Command Stock Fund Accounting
AR-1401-0005

Commodity Command Standard System (CCSS) Army Stock Fund
AR-1405-0086

Commodity Command Standard System (CCSS) Functional
AR-1405-0118

Commodity Command Standard System (CCSS) Procurement and Production
AR-1405-0085

Commodity Command Standard System (CCSS) Stock Control
AR-1405-0084

Commodity Command Standard System (CCSS) Supply Management
AR-1405-0083

Commodity Command Standard Systems (CCSS) Physical Inventory Management
AR-1405-0088

Dental Command and Staff
AR-2201-0105

Development and Readiness Command Installation Management
AR-0326-0017

DARCOM Commodity Command Physical Inventory Management
AR-1405-0088

Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer
AR-1715-0720

Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721

Regular Command and General Staff Officer
AR-1511-0006

Tactical Fire (TACFIRE) Command and Staff
AR-2201-0283

Commander

Company Commander
AR-1408-0160

Company Commander and First Sergeant
AR-1408-0160

Marine Corps Battery Commander
AR-2201-0374

National Guard (ARNG) Recruiting and Rentention Detachment Commander
AR-1408-0183

Photographic Unit Commander
AR-1709-0006

Pictorial Unit Commander
AR-1709-0006

Pictorial Unit Commander and Motion Picture and Television Director
AR-1709-0006

Station Commander
AR-1406-0064

Commander's

Aviation Commander's Readiness
AR-1408-0036

Commanders

Senior Commanders Orientation
AR-2201-0217

Commercial

Commercial Activities Process
AR-1408-0121

Commercial Activities Review Process
AR-1408-0121

Commissary

Air Force Commissary Management
AR-0406-0002

Commissary Administration Management
AR-0406-0004

Commissary Grocery Department Management
AR-1729-0023

Commissary Management
AR-0406-0003
AR-1729-0029

Commissary Meat Department Management
AR-1729-0024

Commissary Meat Market Management
AR-0406-0005

Commissary Middle Management, Phase I (Commissary Store Management)
AR-0406-0006

Commissary Middle Management, Phase II (Commissary Meat Market Management)
AR-0406-0005

Commissary Middle Management, Phase III (Commissary Produce Management)
AR-0406-0001

Commissary Middle Management, Phase IV (Commissary Administration Management)
AR-0406-0004

Commissary Officer
AR-0406-0003

Commissary Operations
AR-0406-0003

Commissary Produce Department Management AR-1729-0025

Commissary Produce Management AR-0406-0001

Commissary Store Management AR-0406-0006

Commodity

Commodity Command Standard System (CCSS) Army Stock Fund AR-1405-0086

Commodity Command Standard System (CCSS) Functional AR-1405-0118

Commodity Command Standard System (CCSS) Procurement and Production AR-1405-0085

Commodity Command Standard System (CCSS) Stock Control AR-1405-0084

Commodity Command Standard System (CCSS) Supply Management AR-1405-0083

Commodity Command Standard Systems (CCSS) Physical Inventory Management AR-1405-0088

DARCOM Commodity Command Physical Inventory Management AR-1405-0088

Quartermaster Commodity AR-0326-0002

Common

Advanced Noncommissioned Officer (NCO) Common Core AR-1404-0035

Basic Noncommissioned Officer (NCO) Common Core AR-1406-0090

Common Basic Electronics Training (COBET)—Modules I-IV AR-1715-0389

Common Basic Electronics Training (COBET)—Modules 1, 201, 2, 202, 3, 303, 4, 5/6 and 7 AR-1715-0389

Military Intelligence Common Core Phase 1 AR-1402-0128

Military Intelligence Officer Advanced Common Core AR-1606-0196

Special Electronic Mission Aircraft (SEMA) Common Core AR-1715-0871

Communication

Armor Communication AR-1715-0283

Armor Communication Chief AR-1715-0150

Armor Communication Officer AR-1715-0283

Armor Communication Supervision AR-1715-0150

Automatic Digital Message Switch Center (ADMSC) Communication Equipment Repair AR-1715-0163

Communication Center Operations AR-1715-0331

Communication Center Specialist AR-1409-0006

Fixed Communications Security (COMSEC) Equipment Repairer (Transition 32G) AR-1715-0681

Infantry Communication Supervision AR-1714-0004

Low Capacity Multichannel Communication Systems AR-1715-0548

Low Capacity Multichannel Communication Systems Team Chief AR-1715-0548

Medium Capacity Multichannel Communication Systems AR-1715-0549

Medium Capacity Multichannel Communication Systems Team Chief AR-1715-0549

Organizational Communications-Electronics (C-E) Operator/Mechanics AR-1715-0791

Overseas Automatic Switching Center (ASC) Communication Equipment Repair AR-1715-0163

Satellite Communication (SATCOM) Equipment System Maintenance AN/YSC-86 AR-1715-0612

Satellite Communication (SATCOM) Systems Maintenance AN/TSC-86 AR-1715-0612

Tropospheric Scatter Communication Equipment Repair AR-1715-0028

Communications

Air Traffic Control Communications Set AN/FSQ-75 Repair AR-1715-0032

Area Communications Systems Operations AR-1715-0264

Artillery Communications Officer AR-1715-0273

Artillery Communications Supervisors AR-1715-0107

Automated Communications Systems Staff Officer AR-1402-0019

Avionic Communications Equipment Repair AR-1715-0336 AR-1715-0662

Avionic Communications Equipment Repairer AR-1715-0868

Combat Communications-Electronics Advanced AR-1402-0049

Communications and Electronics Staff Officer AR-1715-0226

Communications Center Operation AR-1404-0013

Communications Central AN/TSC-38B Repair AR-1715-0197

Communications Chief AR-1715-0092

Communications Electronics Installer Training AR-1715-0524

Communications Electronics Materiel Management Advanced AR-1408-0082

Communications Officer AR-1715-0226

Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Advanced AR-1408-0020 AR-1408-0045

Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Basic AR-1717-0016

Communications Operations (CO-CMF) NCO Basic (USASCS) AR-1715-0021

Communications Security (COMSEC) Equipment Full Maintenance (Field) AR-1715-0677

Communications Security (COMSEC) Equipment TSEC/KI-1A Repair AR-1715-0690

Communications Security (COMSEC) Systems Maintenance Special Repair Activity (SRA) (ASIX9) AR-1715-0674

Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification AR-1402-0132

Communications Security (COMSEC) TSEC/ST-58 Repair AR-1715-0763

Communications Security Analysis AR-1606-0079

Communications Security Analyst AR-1606-0079

Communications Security Monitor AR-1404-0005

Communications System Circuit Controller AR-1715-0777

Communications Systems/Circuit Controller (RC) AR-1715-0879

Communications Technical Control Center AR-1715-0504

Communications Techniques Control Center Operator AR-1715-0425

Communications-Electronic Materiel Management Advanced AR-1405-0134

Communications-Electronics Advanced AR-1402-0049

Communications-Electronics Engineering and Automation Officer AR-1715-0769

Communications-Electronics Engineering Basic Track AR-1715-0592

Communications-Electronics Maintenance Advanced Noncommissioned Officer (NCO) AR-1715-0851

Communications-Electronics Maintenance Warrant Officer Intermediate AR-1715-0059

Communications-Electronics Noncommissioned Officer (NCO) Advanced AR-1405-0127

Communications-Electronics Operations Noncommissioned Officer (NCO) Advanced (Reserve Components) AR-1715-0706

Communications-Electronics Radio Repairer AR-1715-0663

Communications-Electronics Repair Parts

Specialist AR-1405-0017
Communications-Electronics Repair Parts Specialist, Skill Development Base AR-1405-0019
Communications-Electronics Repair Technician Senior Warrant Officer AR-1715-0860
Communications-Electronics Systems Engineer AR-1715-0254
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4 AR-1715-0858
Communications-Electronics Warrant Officer Advanced AR-1715-0395
Communications-Electronics Warrant Officer Entry AR-1408-0109
Corps/Division Communications Operations Officer AR-1715-0700
CONUS High Frequency (HF) Radio Communications System Operator AR-1715-0857
Data Communications Switching Center Specialist AR-1404-0007
Data Communications Terminal Specialist AR-1715-0043
Defense Satellite Communications System (DSCS) Ground Mobile Forces (GMF) Controller AR-1715-0691
Defense Special Security Communications System Operator AR-1715-0267
Digital Communications Subsystems AR-1715-0667
Digital Communications Subsystems Refresher AR-1715-0528
Digital European Backbone (DEB) Communications System Repair AR-1715-0666
Digital European Backbone (DEB) Communications Systems Repair AR-1715-0396
Field Communications Security (COMSEC) Equipment Full Maintenance AR-1715-0677
Field Communications Security (COMSEC) Equipment Repair AR-1715-0661
Field Communications-Electronics Equipment Mechanic AR-1715-0091
Field Communications-Electronics Equipment Repair AR-1715-0091
Field General Communications Security (COMSEC) Equipment Repair (Transition) AR-1715-0697
Field General Communications Security (COMSEC) Equipment Repair (31T) AR-1715-0697
Field Systems Communications Security (COMSEC) Equipment Repair AR-1715-0698
Fixed Communications Security (COMSEC) Equipment Full Maintenance AR-1715-0764
Fixed Communications Security (COMSEC) Equipment Repair AR-1715-0669
Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Advanced AR-1717-0015
Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Basic AR-1717-0046
General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA) AR-1715-0675
General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA) (ASIX9) AR-1715-0675
Infantry Communications Officer AR-1715-0193
Interpersonal Communications AR-1512-0010
Joint Tactical Communications (TRI-TAC) Operations AR-1715-0605
Multichannel Communications Equipment Operator Basic Noncommissioned Officer (NCO) AR-1715-0606
Multichannel Communications Equipment Operator Primary Technical AR-1715-0606
Multichannel Communications Equipment Repair AR-1715-0111
Multichannel Communications Equipment Supervisor, Individual Ready Reserve AR-1715-0765
Multichannel Communications Systems AR-1715-0793
Multichannel Communications Systems Operator Basic Noncommissioned Officer (NCO) AR-1715-0606
Multichannel Communications Systems Operator Multichannel Communications Equipment Operator AR-1715-0053
Non-Morse Communications Analyst AR-1606-0011
Patriot Communications Crewmember AR-1715-0654
Satellite Communications (SATCOM) AN/USC-28(V) Set AR-1715-0610
AR-1715-0853
Satellite Communications (SATCOM) AN/USC-28(V) Set Operations and Maintenance AR-1715-0610
Satellite Communications (SATCOM) Controller AR-1715-0344
AR-1715-0694
Satellite Communications (SATCOM) Equipment Repairer AR-1715-0611
AR-1715-0781
Satellite Communications (SATCOM) Fundamentals AR-1715-0074
Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39 AR-1715-0609
Satellite Communications (SATCOM) Ground Station Equipment Repairman AR-1715-0037
Satellite Communications (SATCOM) Officer AR-1715-0148
Satellite Communications (SATCOM) Operator AR-1715-0438
Satellite Communications (SATCOM) Operator,Navy AR-1715-0438
Satellite Communications (SATCOM) PRE NET Training AR-1715-0074
Satellite Communications (SATCOM) Systems Fundamentals AR-1715-0429
Satellite Communications (SATCOM) Systems Repairer AR-1715-0781
Satellite Communications (SATCOM) Terminal AN/FSC-78 and AN/GSC-39. AR-1715-0773
Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39 AR-1715-0702
Satellite Communications (SATCOM) Terminal AN/GSC-39 AR-1715-0701
Satellite Communications (SATCOM) Terminal AN/GSC-52(V) AR-1715-0774
Satellite Communications (SATCOM) Terminal AN/MSC-46 Repair AR-1715-0435
Satellite Communications (SATCOM) Terminal AN/MSC-64 General Support Maintenance AR-1715-0607
Satellite Communications (SATCOM) Terminal AN/TSC-54 Repair AR-1715-0047
Satellite Communications (SATCOM) Terminal Operator/Maintainer AR-1715-0607
AR-1715-0608
Satellite Communications (SATCOM) Terminal Repair AR-1715-0037
Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair AR-1715-0345
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training AR-1715-0345
Special Forces Base Communications Operator AR-1715-0060
Special Forces Base Communications Systems AR-1715-0060
Special Forces Burst Communications System Maintenance AR-1715-0825
Special Forces Communications Sergeant AR-1715-0824
Special Operations Communications Sergeant AR-1715-0824

Special Operations Communications Sergeant Reserve Component Phase 4
AR-1715-0826
Supervisory Field Communications Equipment Maintenance
AR-1715-0008
Supervisory Fixed Station Communications Maintenance
AR-1715-0026
Tactical Communications Chief
AR-1715-0492
Tactical Communications Chief Basic Noncommissioned Officer (NCO)
AR-1715-0492
Tactical Communications Chief Basic Technical
AR-1715-0492
Tactical Communications Chief Noncommissioned Officer (NCO) Basic
AR-1715-0012
Tactical Communications Chief Noncommissioned Officers (NCO) Advanced
AR-1715-0489
Tactical Communications Chief, Skill Development Base
AR-2201-0078
Tactical Communications Officer and Chief
AR-1715-0552
AR-1715-0795
Tactical Communications Systems Operator/Mechanic
AR-1715-0091
Tactical Satellite Communications (SATCOM) Systems Operator Transition
AR-1715-0776
Telephone-Digital Communications Officer
AR-1715-0268
TRI-TAC Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0852
Unit Level Communications Maintainer
AR-1715-0091
USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal
AR-1715-0673
Warrant Officer Technical Certification (WOTCC) Communications-Electronics Equipment Repair Technician
AR-1405-0129

Community
Army Community Service
AR-1513-0007
Army Community Service Mangement
AR-1513-0008
Community and Environmental Health Program Management
AR-0707-0006
Community Health and Environmental Science
AR-0707-0003
Community Service
AR-1513-0005
Director of Personnel and Community Activities
AR-1513-0006
Director of Personnel and Community Activities (DPCA)
AR-1513-0010

Compilation
Photogrammetric Compilation
AR-1709-0007

Compiling
Map Compiling (for Air Force Personnel)
AR-1713-0005
Map Compiling (for Army Personnel)
AR-1713-0004

Component
Aircraft Component Repair (Entry)
AR-1704-0015
Aircraft Component Repair Helper (Entry)
AR-1704-0015

Comptroller
Comptroller Intern Financial Management
AR-1408-0070

Comptrollers
Special Correspondence Course for Military Comptrollers
AR-1401-0025

Comptrollership
Advanced Comptrollership
AR-1408-0101
Army Materiel Command Comptrollership
AR-1401-0017
Military Comptrollership
AR-1408-0061

Computation
Initial Materiel Support Computation
AR-1408-0084

Computer
Automated Commmunications Computer Systems Repairer
AR-1715-0874
Automatic Data Processing (ADP) Repair, Phase I—Computer Technology
AR-1715-0036
Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair
AR-1715-0045
Ballistic Missile Digital Computer Repair (Pershing)
AR-1715-0040
Battery Computer System Cadre-Reserve Component
AR-2201-0383
Computer Machine Operator
AR-1402-0030
Computer Programmer
AR-1402-0017
Computer Programmer Automatic Data Processing Systems (ADPS)
AR-1402-0017
Computer Programming
AR-1402-0015
Computer Systems Operator
AR-1402-0117
Computer Systems Operator Noncommissioned Officer (NCO)
AR-1402-0002
Computer-Aided Manufacturing Part Programming (APT)
AR-1402-0042
Computer/Machine Operator
AR-1402-0055
Computer/Machine Operator Basic Noncommissioned Officer (NCO)
AR-1402-0116
Corporal Computer Repair
AR-1715-0022
Decentralized Automated Service Support System (DAS3) Computer Repairer
AR-1715-0527
DAS3 Computer Systems Repairer
AR-1715-0883
Field Artillery Computer Repairer
AR-1715-0566
AR-1715-0627
Field Artillery Data Computer (FADAC) Maintenance
AR-1715-0218
Field Artillery Digital Automatic Computer (FADAC) Mechanics
AR-1715-0207
Field Artillery Digital Automatic Computer System (FADAC) Radar Technician (Marine)
AR-1715-0034
Fire Control Computer Repair
AR-1715-0034
Nike Acquisition Radar and Computer Repair
AR-1715-0209
Nike Acquisition Radar and Computer Repair (Hercules Transition)
AR-1715-0233
Nike Acquisition Radar and Computer Repair (Improved Hercules Transition)
AR-1715-0233
Nike Acquisition Radar and Computer Systems Repair
AR-1715-0209
Nike Radar and Computer Repair
AR-1715-0370
Nike Radar and Computer Repair Repair
AR-1715-0355
Nike Radar and Computer Repairer
AR-1715-0355
NCR-500 Computer Repair
AR-1715-0045
Surface-to-Air Missile (SAM) Acquisition Radar and Computer Systems Repair
AR-1715-0209
Surface-to-Surface (SSM) Missile Computer Repair
AR-1715-0022
SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator
AR-1402-0110
Tactical Army Combat Computer System (TACCS) and Tactical Computer Terminal (TCT) Computer Systems Repair
AR-1715-0861
Tactical Army Combat Computer System (TACCS) Software
AR-1402-0118
Tactical Army Combat Service Support Computer System (TACCS) Programming
AR-1402-0109
Tactical Army Combat Service Support Computer System/Standard Army Maintenance System (TACCS/SAMS)
AR-1402-0101
Tactical Computer Systems Repairer
AR-1715-0780

Computing
Introduction to Personal Computing
AR-1402-0135
Topographic Computing
AR-1601-0023

Concrete
Concrete and Asphalt Equipment

Operator
AR-1710-0091

Confinement
Confinement Supervision
AR-1728-0006
Confinement Supervision (Enlisted)
AR-1728-0006
Corrections and Confinement Officer
AR-1728-0004

Console
Automatic Data Processing System (ADPS) (Fieldata) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) Console Operation
AR-1402-0036
Automatic Data Processing Systems (ADPS) Console Operator
AR-1402-0036
Console Control Operations
AR-1402-0094
Emergency Action Console Repair
AR-1715-0263
Secure Voice Access Console Repair
AR-1715-0195

Construction
Air Base Construction
AR-1601-0026
Combat Engineering, Bridging, and Construction Supervision
AR-1601-0018
Construction and Utilities (CU-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Construction and Utilities (CU-CMF) NCO Advanced
AR-1710-0026
Construction Drafting
AR-1713-0007
Construction Equipment Operator
AR-1710-0089
AR-1710-0090
Construction Equipment Repair
AR-1710-0087
Construction Equipment Repairer
AR-1710-0088
Construction Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0128
Construction Equipment Repairer Primary Technical
AR-1710-0087
Construction Foreman Noncommissioned Officer (NCO) Candidate
AR-1710-0025
Construction Planning and Management
AR-1601-0028
Construction Planning and Operations
AR-1601-0028
Construction Surveying
AR-1601-0024
Construction Surveyor Noncommissioned Officer (NCO) Candidate
AR-1601-0010
Construction Surveyor Noncommissioned Officer (NCO)/Supervisor Candidate
AR-1601-0010
Construction Surveyor Skill Development Base
AR-1601-0010
Engineer Construction Contracting
AR-1408-0022
Engineer Construction Officer
AR-1601-0028
General Construction Equipment Operator
AR-1710-0086
Heavy Construction Equipment Operator
AR-1710-0084

Container
Rough Terrain Container Handler Operator
AR-2101-0002

Continuous
Hawk Continuous Wave (CW) Radar Maintenance
AR-1715-0134
Hawk Continuous Wave (CW) Radar Repair
AR-1715-0236
Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223
AR-1715-0738
Hawk Continuous Wave (CW) Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0743
Improved Hawk Continuous Wave (CW) Radar Repair
AR-1715-0223
Improved Hawk Continuous Wave (CW) Radar Repair Transition
AR-1715-0357
Improved Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223

Contracting
Contracting Officers' Representative (ALMC-CL)
AR-1408-0092
Defense Contracting for Information Resources
AR-1408-0120
Engineer Construction Contracting
AR-1408-0022

Contractor
Managing with Contractor Performance Measurement Data
AR-0326-0028

Contracts
Management of Acquisition Contracts Advanced
AR-0326-0010
Management of Defense Acquisition Contracts
AR-0326-0009
Management of Defense Acquisition Contracts Course Advanced
AR-0326-0010
Management of Installation Level Contracts
AR-1408-0119

Control
Air Defense Artillery (ADA) Command and Control Officer
AR-1715-0494
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807
Air Defense Command and Control Systems Operator
AR-2201-0059
Air Defense Command, Control, and Coordination Systems Operator
AR-2201-0059
Air Defense Fire Distribution Systems Controller
AR-2201-0059
Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Advanced
AR-1704-0005
Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Basic
AR-1704-0004
Air Traffic Control Approach Control Enroute Specialist
AR-1704-0002
Air Traffic Control Communications Set AN/FSQ-75 Repair
AR-1715-0032
Air Traffic Control Ground Control Approach Specialist
AR-1704-0003
Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381
Air Traffic Control Operator
AR-1704-0001
AR-1704-0177
Air Traffic Control Radar Controller
AR-1704-0003
Air Traffic Control Tower Operator
AR-1704-0001
Air Traffic Control/NAVAIDS Equipment Repair
AR-1715-0567
Ammunition Stock Control and Accounting Specialist
AR-1405-0124
AR-1405-0155
Avionic Navigation and Flight Control Equipment Repair
AR-1715-0431
AN/TSQ-73 Air Defense Artillery (ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0811
AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer
AR-1715-0403
AN/TSQ-73 Air Defense Artllery (ADA) Command and Control System Operator/Repairer
AR-1715-0820
Ballistic Missile Guidance and Control Repair
AR-1715-0104
Ballistic Missile Inertial Guidance and Control Repair (Pershing)
AR-1715-0103
Ballistic Missile Inertial Guidance and Control Repair (Sergeant)
AR-1715-0312
Communications Technical Control Center
AR-1715-0504
Communications Techniques Control Center Operator
AR-1715-0425
Console Control Operations
AR-1402-0094
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command

and Control Subsystems Repairer
AR-1715-0720
Fund Control
AR-1401-0023
Ground Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381
Ground Control Approach Equipment Repair
AR-1715-0199
Ground Control Radar Repair
AR-1715-0199
Master Operator Maneuver Control System
AR-1715-0880
Materiel Control and Accounting Specialist
AR-1401-0016
Materiel Control and Accounting Specialist Advanced Individual Training
AR-1401-0032
Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0109
AR-1405-0178
Materiel Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0161
Materiel Control and Accounting Specialist Basic Technical
AR-1405-0143
Mobile Subscriber Equipment (MSE) System Planner/System Control Center Operator
AR-1715-0875
Nike Launcher Control Repair
AR-1715-0077
Nike Launcher Control Systems Repair (Ajax/Hercules)
AR-1715-0077
Officer/Warrant Officer Air Traffic Control Officer
AR-1704-0006
Pershing Guidance and Control Repairman 1(A) Noncommissioned Officer (NCO) Advanced
AR-1717-0029
Project Planning and Control Techniques
AR-0326-0025
Stock Control and Accounting
AR-1401-0016
Stock Control and Accounting Specialist
AR-1401-0016
Stock Control and Accounting Specialist, Skill Development Base
AR-1402-0013
Stock Control Specialist
AR-1401-0016
Stock Control Specialist Noncommissioned Officer (NCO) Advanced
AR-1405-0109
Stock Control Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0109
Surface-to-Air Missile (SAM) Launcher Control System Repair
AR-1715-0077

Controller
Air Defense Fire Distribution Systems Controller
AR-2201-0059
Air Traffic Control Radar Controller
AR-1704-0003
Army Air Defense Command Post Controller
AR-2201-0081
Communications System Circuit Controller
AR-1715-0777
Communications Systems/Circuit Controller
AR-1715-0849
Communications Systems/Circuit Controller (RC)
AR-1715-0879
Fixed Station Facilities Controller
AR-1715-0135
Fixed Station Technical Controller
AR-1715-0135
Satellite Communications (SATCOM) Controller
AR-1715-0344
Station Technical Controller
AR-1715-0135
Station Technical Controller Basic Technical
AR-1715-0683
Tactical Circuit Controller Basic Noncommissioned Officer (NCO)
AR-1715-0684

Conventional
Conventional/Precise Power Generation
AR-1715-0341

Cooking
Cooking
AR-1729-0009

Coordination
Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic
AR-1715-0513
AR-1715-0514
Hawk Information Coordination Central Mechanic (PIP II)
AR-1715-0815
Hawk Information Coordination Central Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0805
Improved Hawk Information and Coordination Central Maintenance Transition (PIP)
AR-1715-0499

Corporal
Corporal Computer Repair
AR-1715-0022
Corporal Doppler Repair
AR-1715-0187
Corporal Electronic Materiel Maintenance
AR-1715-0234
Corporal Fire Control System Maintenance
AR-1715-0280
Corporal Ground Guidance Repair
AR-1715-0238
Corporal Ground Handling Equipment Repair
AR-1714-0014
Corporal Handling Equipment Maintenance
AR-1715-0201
Corporal Internal Guidance Repair
AR-1715-0083
Corporal Maintenance Officer
AR-1715-0275
Corporal Maintenance Supervision
AR-1715-0249
Corporal Mechanical Materiel Maintenance
AR-1715-0243
Corporal Mechanical Systems Repair
AR-1714-0014
Corporal Missile Repair
AR-1715-0083
Corporal Officer
AR-1715-0274
Corporal Radar Repair
AR-1715-0190
Guided Missile Systems Maintenance Supervision (Corporal)
AR-1715-0249
Guided Missile Systems Maintenance Supervisors, Corporal II
AR-1715-0249
Missile Mechanical Materiel Maintenance, Corporal
AR-1715-0243

Corporal II
Guided Missile Systems Maintenance Supervisors, Corporal II
AR-1715-0249

Correctional
Basic Correctional Specialist
AR-1728-0007
Correctional Administration
AR-1728-0018
Correctional Specialist
AR-1728-0007
AR-1728-0016
Correctional Supervisor
AR-1728-0006

Corrections
Basic Corrections
AR-1728-0007
Corrections and Confinement Officer
AR-1728-0004
Corrections Administration
AR-1728-0074
Corrections Noncommissioned Officer (NCO)
AR-1728-0066
Navy Corrections Specialist
AR-1728-0062

Correspondence
Adjutant General Noncommissioned Officer (NCO) Advanced (Data Processing) by Correspondence
AR-1402-0063
Adjutant General Noncommissioned Officer (NCO) Education System (Administration) Advanced by Correspondence
AR-1406-0048
Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Administration) by Correspondence
AR-1406-0046
AR-1406-0049
Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Recruitment and Retention) by Correspondence
AR-1406-0045
Ammunition Inspector Correspondence/Resident (Abbreviated Version)
AR-0802-0014
Army Depot Operations Management

Correspondence Course
AR-0326-0036
Army Maintenance Management Correspondence Course
AR-0326-0037
Army War College Corresponding (by Correspondence)
AR-1511-0022
Defense Advanced Disposal Management by Correspondence
AR-1405-0078
Defense Inventory Management Correspondence Course
AR-1405-0079
Defense Procurement Management by Correspondence
AR-0326-0038
Defense Property Disposal Operations Correspondence Course
AR-1405-0080
Defense Reutilization and Marketing Operations - Advanced by Correspondence
AR-1405-0078
Defense Strategy by Correspondence
AR-1511-0023
Finance Noncommissioned Officer (NCO) Advanced by Correspondence
AR-1408-0098
AR-1408-0099
Finance Officer Advanced by Correspondence
AR-1408-0096
Finance Officer Basic by Correspondence
AR-1408-0097
Hospital Food Service Specialist Basic Reserve Component (Correspondence, Resident, Nonresident)
AR-1729-0016
Logistics Executive Development by Correspondence
AR-1405-0081
Logistics Management Development by Correspondence
AR-0326-0040
Management Statistics by Correspondence
AR-1115-0003
Personnel Administration Officer Advanced by Correspondence
AR-1406-0051
Personnel Administration Officer Basic by Correspondence
AR-1406-0050
Sergeants Major Academy Correspondence Program
AR-1408-0064
Signal Officer Advanced by Correspondence
AR-1715-0145
Special Correspondence Course for Management Review and Analysis Specialists
AR-0317-0004
Special Correspondence Course for Military Accounting Supervisors
AR-1401-0024
Special Correspondence Course for Military Comptrollers
AR-1401-0025
Special Correspondence Course for Military Personnel Officers
AR-1408-0100
Special Correspondence Course in Information Systems Officer
AR-1402-0064
Special Correspondence Course on Records Management
AR-1405-0119

Cost
Cost Accounting
AR-1401-0015
Cost Accounting Standards Workshop
AR-1401-0021
Cost Analysis for Decision Making
AR-1408-0056
Cost Estimating for Engineers
AR-0301-0002
Cost Estimating Techniques for Systems Acquisition
AR-1408-0025
Department of Defense (DOD) Cost Accounting Standards Workshop
AR-1401-0021
Life Cycle Cost Analysis of Weapons Systems
AR-1401-0008

Counseling
Alcohol and Drug Abuse Prevention and Control Program Advanced Counseling Skills
AR-1512-0012
Alcohol and Drug Abuse Prevention and Control Program Family Counseling
AR-1512-0013
Alcohol and Drug Abuse Prevention and Control Program Group Counseling Skills
AR-1512-0014
Alcohol and Drug Prevention and Control Program Individual Counseling Skills
AR-1512-0015
Army Career Counseling
AR-1406-0017
Army National Guard Career Counseling
AR-1406-0002
Army Recruiting and Career Counseling
AR-1406-0020
Principles of Counseling
AR-1406-0052

Counselor
Army Recruiter and Career Counselor Noncommissioned Officer (NCO) Advanced Assignment
AR-1408-0048
Career Counselor
AR-1406-0028
Guidance Counselor
AR-1406-0064
AR-1408-0184
Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG)
AR-2201-0352
National Guard Enlistment Processing Station (MEPS) Guidance Counselor
AR-2201-0351

Counter-Signals
Counter-Signals Intelligence Sergeant Basic Noncommissioned Officer (NCO)
AR-1402-0126
Counter-Signals Intelligence Specialist
AR-1402-0127
Counter-Signals Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0126

Counteraction
Intelligence in Terrorism Counteraction
AR-1511-0024
AR-1606-0152

Counterbattery
Counterbattery/Countermortar Radar Crewman
AR-1715-0250
Counterbattery/Countermortar Radar Crewmen Skill Development Base
AR-2201-0018

Counterfire
Infantry Counterfire Supervision
AR-2201-0025

Counterinsurgency
Counterinsurgency and Special Warfare Staff Officer
AR-1511-0009
Counterinsurgency Operations
AR-1511-0007

Counterinsurgent
Counterinsurgent Operations
AR-1511-0007

Counterintelligence
Counterintelligence Agent
AR-1606-0004
AR-1606-0141
AR-1728-0082
Counterintelligence Agent Basic Noncommissioned Officer (NCO)
AR-1728-0081
Counterintelligence Agent Transition
AR-1728-0080
Counterintelligence Assistant
AR-1606-0145
AR-1728-0086
Counterintelligence Officer Transition
AR-1606-0080
Counterintelligence Officer/Technician
AR-1606-0039
Counterintelligence Officer/Technician/Agent
AR-1606-0140
Counterintelligence Special Agent
AR-1606-0141
Military Intelligence Officer Advanced Counterintelligence
AR-1728-0085
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician
AR-1606-0201

Countermeasures
Electronic Countermeasures Operations
AR-1715-0005
Electronic Countermeasures Receiving System Maintenance (AN/TLQ-17)
AR-1715-0418
Electronic Countermeasures/Direction-Finding Systems Repairman
AR-1715-0061
Electronic Warfare (EW) Countermeasures Receiving System Operator
AR-2201-0208
Electronic Warfare (EW) Countermeasures Receiving Systems Operations
AR-2201-0208
Fixed Countermeasures Receiving System Maintenance (AN/FLR-9)
AR-1715-0406
Radar and Countermeasures Equipment Repair Officer
AR-1715-0259
Tactical Countermeasures Receiving Systems Maintenance (AN/MLQ-24)
AR-1715-0416

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Countermortar
- Counterbattery/Countermortar Radar Crewman AR-1715-0250
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- Court Reporter Noncommissioned Officer (NCO) Advanced AR-1407-0006
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- Command and Staff Officer Cover and Deception AR-1606-0023

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- Harbor Craft Boatswain AR-2201-0036
- Harbor Craft Company Officer AR-1722-0003
- Harbor Craft Deck Officer AR-0419-0034
- Harbor Craft Deck Operations AR-0419-0034
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- Conventional Security/Crime Prevention AR-1728-0065
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- Criminal Investigation AR-1728-0010
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- Criminal Investigator Logistics Management Orientation (CILMOC) AR-1728-0020

Criterion
- Criterion-Referenced Instruction (CRI) Workshop AR-1406-0029

Critical
- Critical Care Nursing AR-0703-0014 AR-0703-0016

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- Cryptanalysis AR-1728-0038

Cryptanalytic
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Crypto
- Electronic Warfare (EW)/ Crypto Advanced Noncommissioned Officer (NCO) AR-1406-0126

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Cryptography
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- Cryptologic Electronic Warfare (EW) Officer Basic Specialist AR-1606-0017
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- Electronic Warfare (EW) Cryptologic Officer Specialist AR-1606-0015
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- General Electronic Warfare (EW) Cryptologic Officer (Reserve Component) Nonresident/Resident AR-2201-0204
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Cryptologist
- Senior Officer Electronic Warfare (EW) Cryptologist AR-1606-0014

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- Army-Unique Voice Interceptor Training (Czech) AR-1606-0146
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CBR
- Chemical, Biological, Radiological (CBR) Enlisted AR-0802-0003
- Chemical, Biological, Radiological (CBR) Enlisted with ARADCOM Track AR-0802-0003
- Chemical, Biological, Radiological (CBR) Officer AR-0802-0011
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- USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO) AR-2201-0067
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- Commodity Command Standard System (CCSS) Procurement and Production AR-1405-0085

Commodity Command Standard System (CCSS) Stock Control
AR-1405-0084
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AR-1405-0083
Commodity Command Standard Systems (CCSS) Physical Inventory Management
AR-1405-0088

CFR
Cooperative Fuels Research (CFR) Test Engine
AR-1703-0010

CFV
ITV/IFV/CFV Systems Mechanic
AR-1703-0048
ITV/IFV/CFV Systems Mechanic Recovery Specialist
AR-1703-0047
ITV/IFV/CFV Turret Mechanic Primary Technical
AR-1710-0102
M3 Bradley/CFV Cavalry Scout
AR-2201-0331

CH-21
CH-21 (Shawnee) Pilot Transition
AR-1606-0041

CH-34
CH-34 Helicopter Repair
AR-1704-0040
CH-34 Instructor Pilot Qualification
AR-1606-0063

CH-37
CH-37 (Mojave) Aviator Transition
AR-1606-0051
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase
AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Transition Phase
AR-1606-0056
CH-37 Helicopter Repair
AR-1704-0049
CH-37 Instructor Pilot Qualification
AR-1606-0042

CH-47
Aircraft Maintenance Officer Phase II - CH-47
AR-1717-0074
CH-47 (Chinook) Instructor Pilot Qualification
AR-1606-0043
CH-47 (Chinook) Pilot Transition
AR-1606-0064
CH-47 Aircraft Repair Transition
AR-1704-0034
CH-47 Aviator Qualification
AR-1606-0064
CH-47 Helicopter Repair
AR-1704-0019
AR-1704-0034
CH-47 Helicopter Repair Skill Development Base
AR-1704-0028
CH-47 Helicopter Repair Specialist Candidate
AR-1704-0028
CH-47 Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-47 Instructor Pilot
AR-1606-0043
CH-47 Medium Helicopter Repairer
AR-1704-0019
CH-47 Medium Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Medium Helicopter Technical Inspector
AR-1704-0143
CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-47B/C Aviator Qualification
AR-1606-0064
Medium Helicopter Repairer (CH-47)
AR-1704-0154

CH-47A/B/C
CH-47A/B/C Maintenance Manager/Test Pilot
AR-1717-0084

CH-47B/C
CH-47B/C Aviator Qualification
AR-1606-0064

CH-47D
CH-47D Aviator Qualification
AR-1606-0164
AR-1606-0178
CH-47D Flight Engineer Instructor
AR-1606-0189
CH-47D Helicopter Repairer
AR-1704-0122
CH-47D Helicopter Technical Inspector
AR-1704-0121
CH-47D Instructor Pilot
AR-1406-0074
AR-1406-0120
CH-47D Maintenance Manager/Test Pilot
AR-1717-0084

CH-54
CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-54 Automatic Flight Control Equipment Repair
AR-1715-0205
CH-54 Aviation Qualification
AR-1606-0045
CH-54 Heavy Lift Helicopter Repairer-Reserve Component
AR-1704-0148
CH-54 Helicopter Repair
AR-1704-0071
CH-54 Helicopter Repair Skill Development Base
AR-1704-0061
CH-54 Helicopter Repair Specialist Candidate
AR-1704-0061
CH-54 Helicopter Repairer
AR-1704-0130
CH-54 Instructor Pilot
AR-1606-0052
CH-54 Instructor Pilot Qualification
AR-1606-0052
CH-54 Pilot Transition
AR-1606-0046

CID
CID Orientation
AR-1728-0027

CILMOC
Criminal Investigator-Logistics Management Orientation (CILMOC)
AR-1728-0020

COBET
Common Basic Electronics Training (COBET)—Modules I-IV
AR-1715-0389
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AR-1715-0389

COBOL
Advanced COBOL Workshop
AR-1402-0046
Basic ANS COBOL
AR-1402-0047
COBOL Programming
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AR-1402-0047
AR-1402-0107
COBOL Programming Advanced
AR-1402-0046
DAS3 COBOL Specifics
AR-1402-0069
Introduction to ANS COBOL
AR-1402-0047
Structured Coding Using COBOL
AR-1402-0067

COMSEC
Communications Security (COMSEC) Equipment Full Maintenance (Field)
AR-1715-0677
Communications Security (COMSEC) Equipment TSEC/KI-1A Repair
AR-1715-0690
Communications Security (COMSEC) Systems Maintenance Special Repair Activity (SRA) (ASIX9)
AR-1715-0674
Communications Security (COMSEC) TSEC/ST-58 Repair
AR-1715-0763
COMSEC Equipment MAIT
AR-1715-0062
COMSEC Equipment TSEC/KG-45 Full Maintenance
AR-1715-0593
COMSEC Equipment TSEC/KG-81 Repair
AR-1715-0594
COMSEC Maintenance Chief Basic Technical
AR-1408-0112
Field Communication Security (COMSEC) Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0772
Field Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0677
Field Communications Security (COMSEC) Equipment Repair
AR-1715-0661
Field General Communications Security (COMSEC) Equipment Repair (Transition)
AR-1715-0697
Field General Communications Security (COMSEC) Equipment Repair (31T)
AR-1715-0697

Field General COMSEC Maintenance
AR-1715-0067
Field General COMSEC Repair
AR-1715-0094
Field General COMSEC Repairer
AR-1715-0599
Field Systems Communications Security (COMSEC) Equipment Repair
AR-1715-0698
Field Systems COMSEC Maintenance
AR-1715-0097
Field Systems COMSEC Repair
AR-1715-0063
Field Systems COMSEC Repairer
AR-1715-0602
Field Systems COMSEC Repairer (Special Repair Activity)
AR-1715-0601
Fixed Communication Security (COMSEC) Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0771
Fixed Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0764
Fixed Communications Security (COMSEC) Equipment Repair
AR-1715-0669
General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA)
AR-1715-0675
General Communications Security (COMSEC) Maintenance Special Repair Activity (SRA) (ASIX9)
AR-1715-0675
General COMSEC Maintenance Special Repair Activity
AR-1715-0604
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AR-1715-0094
Senior Field Systems COMSEC Repair
AR-1715-0063
Standardized COMSEC Custodian
AR-1715-0614
TRI-TAC Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0852
TRI-TAC COMSEC Equipment Limited Maintenance (Direct Support)
AR-1715-0617

CORDS
Military Assistance Training Advisor CORDS Officer
AR-0602-0004

COSCOM
Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command (COSCOM)
AR-1405-0096
SAILS Materiel Management COSCOM
AR-1405-0096

CRI
Criterion-Referenced Instruction (CRI) Workshop
AR-1406-0029

CRITICOMM
CRITICOMM Operator
AR-1715-0065

CV-2
CV-2 (Caribou) Instructor Pilot Qualification
AR-1606-0096
CV-2 (Caribou) Pilot Transition
AR-1606-0116

CV-3034
AN/USC-26/CV-3034 AN/GSC-24(V) Maintenance
AR-1715-0426
AN/USC-26/CV-3034 Repair
AR-1715-0426

CW
Hawk Continuous Wave (CW) Radar Maintenance
AR-1715-0134
Hawk Continuous Wave (CW) Radar Repair
AR-1715-0236
Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223
Improved Hawk Continuous Wave (CW) Radar Repair
AR-1715-0223
Improved Hawk Continuous Wave (CW) Radar Repair Transition
AR-1715-0357
Improved Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223

Data
Automatic Data Message Switching Center Technical Controller
AR-1715-0221
Automatic Data Telecommunications Center Operator
AR-1715-0526
Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0686
Automatic Data Telecommunications Center Operator Primary Technical
AR-1715-0686
Automatic Data Telecommunications Center Operator Transition
AR-1715-0760
Automatic Data Telecommunications Center Operators
AR-1404-0007
Data Acquisition System Maintenance (AN/GSQ-76)
AR-1715-0413
Data Communications Switching Center Specialist
AR-1404-0007
Data Communications Terminal Specialist
AR-1715-0043
Defense Work Measurement Standard Time Data (DWMSTD)
AR-0326-0032
Field Artillery Data Computer (FADAC) Maintenance
AR-1715-0218
Integrated Data Link Repair
AR-1715-0228
Introduction to Data Base Management Systems
AR-1402-0070
Morse Data Preparation Operator's Training (AN/GGC-15)
AR-1409-0007
Personnel Data Analyst Specialist
AR-1402-0024
Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0881
Tactical Telecommunications Center Operator Automatic Data Telecommunications Center Operator
AR-1406-0129
Technical Data Package Development/Preparation
AR-0326-0034
Terminal Data Link Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0041

Data Processing
Adjutant General Noncommissioned Officer (NCO) Advanced (Data Processing) by Correspondence
AR-1402-0063
Advanced Automatic Data Processing (ADP) Systems Analysis
AR-1402-0001
Advanced Noncommissioned Officer (NCO) Data Processing
AR-1402-0119
Auditing of Automatic Data Processing (ADP) Systems
AR-1402-0009
Automatic Data Processing (ADP) for Auditors
AR-1402-0037
Automatic Data Processing (ADP) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing (ADP) Intern Program
AR-1402-0039
Automatic Data Processing (ADP) Machine Operation Specialist
AR-1402-0030
Automatic Data Processing (ADP) Officer
AR-1402-0035
Automatic Data Processing (ADP) Repair
AR-1715-0038
Automatic Data Processing (ADP) Repair, Phase I—Computer Technology
AR-1715-0036
Automatic Data Processing (ADP) Repair, Phase II-Card Processors U-1005 and U-1004/DLT-6 Repair
AR-1715-0044
Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair
AR-1715-0045
Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070
Automatic Data Processing (ADP) Repair, Phase V—(Automatic Digital Message Switch (ADMS) Equipment Repair
AR-1715-0068
Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair
AR-1715-0046
Automatic Data Processing (ADP) Repair, Phase VII—Digital Subscriber Terminal Equipment (DSTE) Repair
AR-1715-0253

Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central Office Repair
AR-1715-0363
Automatic Data Processing (ADP) Systems Analysis
AR-1402-0003
Automatic Data Processing (ADP) Systems Analysis and Design
AR-1402-0041
Automatic Data Processing (ADP) Systems Analysis Officer
AR-1402-0003
Automatic Data Processing (ADP) Systems Programming
AR-1402-0010
Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing System (ADPS) (Fieldata) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing System (ADPS) (Fieldata) Repair
AR-1715-0038
Automatic Data Processing System (ADPS) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) Fieldata Programming Course
AR-1402-0017
Automatic Data Processing System (ADPS) Plans and Operationa Officer
AR-1402-0035
Automatic Data Processing System (ADPS) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing Systems (ADPS) for Staff Officers
AR-1402-0031
Automatic Data Processing Systems (ADPS) Console Operator
AR-1402-0036
Automatic Data Processing Systems (ADPS) Programming Specialist
AR-1402-0017
Basic Automatic Data Processing Systems (ADPS) Analysis
AR-1402-0005
Computer Programmer Automatic Data Processing Systems (ADPS)
AR-1402-0017
Data Processing (DP-CMF) Noncommissioned Officer (NCO) Advanced
AR-1402-0022
Data Processing (DP-CMF) Noncommissioned Officer (NCO) Basic
AR-1402-0014
Data Processing Advanced Noncommissioned Officer (NCO)
AR-1402-0119
Data Processing Equipment Maintenance (DM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0391
Data Processing Equipment Operator
AR-1402-0030
Data Processing Group OL-230/MSC-66(V)
AR-1715-0695
Data Processing Principles
AR-1402-0044
Data Processing Systems Repair Technician Warrant Officer Advanced
AR-1402-0100
Financial Management Systems—Automated Data Processing (ADP)
AR-1402-0033
PERSINSD Automatic Data Processing (ADP) Intern Program
AR-1402-0008
Radar Data Processing Center Repair
AR-1715-0242
Security in Automatic Data Processing Systems (ADPS)
AR-1402-0051
Warrant Officer Technical Certification (WOTTC) Data Processing System Repair Technician
AR-1405-0130

Davy Crockett
Davy Crockett Training
AR-2201-0033
Heavy Mortar and Davy Crockett Noncommissioned Officer (NCO)
AR-2201-0024
Heavy Mortar and Davy Crockett Officer
AR-2201-0157

Decca
Decca Charting and Reproduction
AR-1713-0001
Decca Transmitting Equipment Repair
AR-1715-0185

Decentralized
Decentralized Automated Service Support System (DAS3) and The Direct Support Unit Standard Supply System (DS4) Operator
AR-1402-0102
Decentralized Automated Service Support System (DAS3)/Direct Support Unit Standard Supply System (DS4)
AR-1402-0080
Standard Port System-Enhanced/Decentralized Automated Service Support System (DASPE-E/DAS3)
AR-1402-0095

Deception
Battlefield Deception
AR-2201-0385
Command and Staff Officer Cover and Deception
AR-1606-0023

Decision
Advanced Decision Risk Analysis
AR-0326-0014
Cost Analysis for Decision Making
AR-1408-0056
Decision Risk Analysis
AR-0326-0012
Decision Risk Analysis for Logisticians
AR-0326-0013
Economic Analysis for Decision Making
AR-0326-0021
Modern Analytic Techniques for Executive Decision Making
AR-0326-0015

Deck
Harbor Craft Deck Officer
AR-0419-0034
Harbor Craft Deck Operations
AR-0419-0034
Marine Deck Officer Advanced
AR-1722-0001
Marine Deck Officer Warrant Officer Technical Certification
AR-1722-0006
Marine Deck Officer-Warrant Officer Advanced
AR-1722-0005
Warrant Officer Technical Certification (WOTTC) Marine Deck Officer
AR-2205-0001

Decontamination
Decontamination Specialist Noncommissioned Officer (NCO) Basic
AR-2201-0031

Defense
Aerial Electronic Warning/Defense Equipment Repairer
AR-1715-0500
Air Defense Artillery (ADA) Officer Advanced Reserve Component (RC)
AR-1715-0655
Air Defense Command and Control Systems Operator
AR-2201-0059
Air Defense Command, Control, and Coordination Systems Operator
AR-2201-0059
Air Defense Fire Distribution Systems Controller
AR-2201-0059
Aircraft Warning/Defense Equipment Repair
AR-1704-0042
AR-1715-0561
Army Air Defense Command Post Controller
AR-2201-0081
Atomic Defense
AR-0802-0004
Defense Acquisition Radar Operator
AR-1715-0808
Defense Advanced Disposal Management
AR-1405-0065
Defense Advanced Disposal Management by Correspondence
AR-1405-0078
Defense Advanced Inventory Management
AR-0326-0006
Defense Advanced Traffic Management
AR-0419-0035
Defense Against Methods of Entry
AR-1606-0025
Defense Against Sound Equipment (DASE)
AR-1715-0206
Defense Against Sound Equipment (DASE), Phase I
AR-1715-0420
AR-1715-0711
Defense Against Sound Equipment (DASE), Phase II
AR-1715-0509
Defense Basic Procurement
AR-0326-0009
Defense Basic Traffic Management
AR-0419-0044
Defense Contracting for Information Resources
AR-1408-0120
Defense Depot Operations Management
AR-0326-0008
Defense Disposal Executive Workshop
AR-1405-0115
Defense In-Plant Quality Assurance
AR-0326-0023

Defense Integrated Disposal Management System Course (ALMC-IC)
AR-1405-0116
Defense International Logistics Management
AR-1405-0023
Defense Inventory Management
AR-1405-0076
Defense Inventory Management Correspondence Course
AR-1405-0079
Defense Numerical Control (APT) Part Programming
AR-1402-0042
Defense Procurement Management
AR-0326-0009
Defense Procurement Management by Correspondence
AR-0326-0038
Defense Property Disposal Operations
AR-1405-0014
Defense Property Disposal Operations Correspondence Course
AR-1405-0080
Defense Reutilization and Marketing Operations - Advanced
AR-1405-0065
Defense Reutilization and Marketing Operations - Advanced by Correspondence
AR-1405-0078
Defense Satellite Communications System (DSCS) Ground Mobile Forces (GMF) Controller
AR-1715-0691
Defense Special Security Communications System Operator
AR-1715-0267
Defense Specification Management
AR-1408-0035
Defense Strategy by Correspondence
AR-1511-0023
Defense Work Measurement Standard Time Data (DWMSTD)
AR-0326-0032
Department of Defense Strategic Debriefing (Department of Defense Strategic Debriefing and Interrogation Training)
AR-1728-0056
Management of Defense Acquisition Contracts
AR-0326-0009
Management of Defense Acquisition Contracts Course Advanced
AR-0326-0010
Marine Corps Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0001
Nuclear Weapons Employment and Radiological Defense
AR-0802-0004
Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO)
AR-1720-0007
NBC Defense
AR-0801-0023
NBC Defense Officer and Noncommissioned Officer (NCO)
AR 0801-0023
Safeguard Ballistic Missile Defense Unit Commander
AR-1715-0379

Delivery
Aerial Delivery and Materiel Officer
AR-1733-0002
Fabrication of Aerial Delivery Loads
AR-1733-0009

Demolition
Atomic Demolition Munitions
AR-0802-0009
Atomic Demolition Munitions (Enlisted)
AR-0802-0009
Atomic Demolition Munitions (Officer)
AR-0802-0010

Demultiplex
Intercept Demultiplex Systems Repairman
AR-1715-0136

Dental
Dental Administration
AR-0701-0004
AR-0701-0011
Dental Assistant Advanced
AR-0701-0002
Dental Assistant Basic
AR-0701-0007
Dental Command and Staff
AR-2201-0105
Dental Fixed Prosthetic Specialist
AR-0701-0005
Dental Hygiene
AR-0701-0002
Dental Hygienist
AR-0701-0002
Dental Laboratory
AR-0701-0001
Dental Laboratory Procedures Advanced
AR-0701-0006
Dental Laboratory Procedures Basic
AR-0701-0001
Dental Laboratory Specialist (Basic)
AR-0701-0014
Dental Laboratory Specialist (Senior)
AR-0701-0015
Dental Laboratory Specialist Advanced
AR-0701-0006
Dental Laboratory Specialist Basic
AR-0701-0001
Dental Laboratory Specialist Basic Reserve Component (Nonresident/Resident)
AR-0701-0010
Dental Laboratory Specialist Intermediate
AR-0701-0006
Dental Laboratory Specialist Senior
AR-0701-0003
Dental Removable Prosthetic Specialist
AR-0701-0006
Dental Specialist
AR-0701-0007
AR-0701-0013
Dental Specialist Basic
AR-0701-0007
Dental Specialist Reserve Component (Nonresident/Resident)
AR-0701-0009
Dental Specialist Reserve Component (Nonresident/Resident) Phase II
AR-0701-0012
Dental Therapy Assistant
AR-0701-0008

Depot
Army Depot Operations Management
AR-0326-0008
Army Depot Operations Management Correspondence Course
AR-0326-0036
Defense Depot Operations Management
AR-0326-0008
Depot Physical Inventory Management
AR-1405-0087
DARCOM Depot Physical Inventory Management
AR-1405-0087
Standard Depot System Physical Inventory Management
AR-1405-0087

Design
Administrative Systems Analysis and Design
AR-0326-0024
AR-0326-0041
Automatic Data Processing (ADP) Systems Analysis and Design
AR-1402-0041
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058
Design and Analysis of Experiments
AR-1115-0001
Health Aspects of Design Review
AR-0802-0018
Logistics Support Design Management
AR-0326-0007
Structured Systems Analysis and Design
AR-1402-0108

Designed
Statistical Analysis and Designed Experiments
AR-1115-0006

Detachment
Special Forces Detachment Officer
AR-2201-0346
Special Forces Detachment Officer Qualification Reserve Component Phase 4
AR-2201-0347

Detection
Mine and Tunnel Detection Dog Handler
AR-1728-0019

Develop
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058

Development
Army Medical Department Staff Development (Reserve Component) (Nonresident/Resident)
AR-0799-0017
Basic Training and Development
AR-1406-0039
Development and Readiness Command Installation Management
AR-0326-0017
Faculty Development
AR-1406-0001
AR-1406-0092
Instructional Systems Development
AR-1406-0036
Leadership Development
AR-2201-0387
Logistics Management Development
AR-0326-0004
Logistics Management Development by

Correspondence AR-0326-0040
Organization Development Facilitators AR-1405-0206
Organizational Development Consultants AR-0326-0046
Organizational Development Practitioners AR-1406-0207
Primary Leadership Development AR-2201-0253
Primary Leadership Development - Reserve Component AR-2201-0294
Professional Development Workshop for Logistics Assistance Personnel AR-1405-0100
Project Manager Development AR-1408-0079
Staff and Parish Development Consultant AR-1406-0085
Techniques and Procedures for Field Manual Development AR-1406-0055
Warrant Officer Candidate Military Development AR-2201-0212
Warrant Officer Professional Development AR-1406-0112

Devices
Electrical/Electronic Devices Maintenance (35-CMF) Noncommissioned (NCO) Basic AR-1405-0099
Hazardous Devices AR-0801-0002
Special Electronic Devices Repair AR-1715-0779
Special Electronic Devices Repairer AR-1715-0613 AR-1715-0659
Supervisor Special Electronic Devices Repairer Basic Noncommissioned Officer (NCO) AR-1715-0854

Diagnostic
Test, Measurement, and Diagnostic Equipment (TMDE) Advanced Noncommissioned Officer (NCO) AR-1406-0108
Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics AR-1710-0081

Dial
Automatic Dial Central Office AN/FTC-31 AR-1715-0050
Dial Central Office Equipment Repair AR-1715-0595
Dial Central Office Maintenance AR-1715-0350
Dial Central Office Repair AR-1715-0350
Dial Central Office Repairer AR-1715-0680
Dial-Manual Central Office Repair AR-1715-0432
Dial/Manual Central Office Repairer Basic Technical AR-1406-0066

Dialysis
Dialysis Technician AR-0702-0005
Renal Dialysis Nurse Education, Phase II and III AR-0703-0017
Renal Dialysis Technician AR-0702-0005

Diesel
Diesel Engine Repair AR-1712-0008
Diesel-Electric Locomotive Electrician AR-1714-0006
Diesel-Electric Locomotive Repair AR-1712-0011

Dietetic
Army Dietetic Internship AR-0709-0014

Digital
Advanced Digital Theory AR-1715-0621
Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair AR-1715-0070
Automatic Data Processing (ADP) Repair, Phase V—(Automatic Digital Message Switch (ADMS) Equipment Repair AR-1715-0068
Automatic Data Processing (ADP) Repair, Phase VI—Automatic Digital Message Switching Center (ADMSC) Repair AR-1715-0046
Automatic Data Processing (ADP) Repair, Phase VII—Digital Subscriber Terminal Equipment (DSTE) Repair AR-1715-0253
Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair AR-1715-0070
Automatic Digital Message Switch Center (ADMSC) Communication Equipment Repair AR-1715-0163
Automatic Digital Message Switch Equipment (ADMSE) Repair AR-1715-0068
Automatic Digital Message Switch Equipment (ADMSE) Repairer AR-1715-0068
Automatic Digital Message Switching (ADMS) Programmer AR-1402-0021
Automatic Digital Message Switching (ADMS) Traffic Service Supervisory AR-1402-0011
Automatic Digital Message Switching Center (ADMSC) Maintenance Supervisory AR-1715-0069
Automatic Digital Message Switching Center (ADMSC) Operation Supervisory AR-1402-0020
Automatic Digital Message Switching Center (ADMSC) Technical Controller AR-1715-0221
Automatic Digital Message Switching Equipment (ADMSE) Repairer AR-1715-0068
Ballistic Missile Digital Computer Repair (Pershing) AR-1715-0040
Ballistic Missile Digital Equipment Repair (Pershing) AR-1715-0118
Digital Communications Subsystems AR-1715-0667
Digital Communications Subsystems Refresher AR-1715-0528
Digital Converting Programming Group (AN/TCA-4) AR-1715-0208
Digital Converting Programming Group Maintenance (AN/TCA-4) AR-1715-0208
Digital European Backbone (DEB) Communications System Repair AR-1715-0666
Digital European Backbone (DEB) Communications Systems Repair AR-1715-0396
Digital European Backbone (DEB) Multiplex Equipment Repair AR-1402-0053
Digital Radio and Multiplexer Acquisition (DRAMA) Communications Systems Repair AR-1715-0665
Digital Radio Multiplexer Acquisition (DRAMA) AR-1715-0665
Digital Subscriber Terminal Equipment (DSTE) Operator AR-1715-0043
Digital Subscriber Terminal Equipment (DSTE) Repair AR-1715-0253
Digital Subscriber Terminal Equipment (DSTE) Repairer AR-1715-0253
Field Artillery Digital Automatic Computer (FADAC) Mechanics AR-1715-0207
Field Artillery Digital Automatic Computer System (FADAC) Radar Technician (Marine) AR-1715-0034
Field Artillery Digital System Repairer AR-1715-0631
Field Artillery Digital Systems Repairer AR-1715-0831
Telephone-Digital Communications Officer AR-1715-0268

Dining
Dining Facility Management AR-1729-0042

Direction
Airborne Radio Direction Finding AR-1715-0048
Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance AR-1715-0404
Automated High Frequency Direction Finding (HFDF) System Maintenance (EELPOT) AR-1715-0409
Automated High Frequency Direction Finding (HFDF) System Operation (EELPOT) AR-1402-0050
Cannon Fire Direction Specialist AR-1304-0004 AR-1715-0844
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO) AR-2201-0257

Field Artillery Cannon Operations/Fire Direction Assistant
AR-1304-0004
Field Artillery Tactical Fire (TACFIRE) Direction System Repairer
AR-1715-0627
Fire Direction Officer
AR-1402-0122
Lance Operations/Fire Direction Assistant
AR-1601-0056
Multiple Launch Rocket System (MLRS) Operations/Fire Direction Specialist
AR-1715-0634
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommissioned Officer (NCO)
AR-2201-0359
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0365
Tactical Fire (TACFIRE) Direction System Fire Support
AR-1402-0074
Tactical FIRE (TACFIRE) Battalion Fire Direction Officer
AR-1402-0083
TACFIRE Direction Systems Repairer (Merger)
AR-1715-0837
TACFIRE Fire Direction System Fire Support with Fire Support Element Module
AR-1402-0074

Director
Director of Personnel and Community Activities (DPCA)
AR-1513-0010
Pictorial Unit Commander and Motion Picture and Television Director
AR-1709-0006

Directorate
Directorate of Industrial Operations
AR-1408-0075
Directorate of Logistics
AR-1408-0075

Disbursing
Disbursing Operations
AR-1401-0037
Disbursing Specialist
AR-1401-0006
Pay/Disbursing Specialist
AR-1401-0002

Discussion
Part-Time Unit Discussion Leader
AR-0505-0001

Diseases
Human Immunodeficiency Virus (HIV)/Sexually Transmitted Diseases (STD) Intervention
AR-0707-0015

Disk
Disk Operating System (DOS) Executive Software
AR-1402-0066
Disk Operating Systems (DOS) Concepts and Job Control Language (JCL)
AR-1402-0065

Dispatching
Railway Dispatching
AR-0419-0014

Display
Radar Display Equipment Repair
AR-1715-0359

Disposal
Basic Property Disposal Operations
AR-1405-0014
Defense Advanced Disposal Management
AR-1405-0065
Defense Advanced Disposal Management by Correspondence
AR-1405-0078
Defense Disposal Executive Workshop
AR-1405-0115
Defense Integrated Disposal Management System Course (ALMC-IC)
AR-1405-0116
Defense Property Disposal Operations
AR-1405-0014
Defense Property Disposal Operations Correspondence Course
AR-1405-0080
Explosive Ordnance Disposal Specialist Basic Noncommissioned Officer (NCO)
AR-1728-0076
Explosive Ordnance Disposal Supervisor
AR-0802-0007
Explosive Ordnance Disposal, Phase I
AR-0802-0002
Property Disposal
AR-1405-0053
AR-1405-0058
Property Disposal Management
AR-1405-0058
Property Disposal Operations
AR-1405-0014
Property Disposal Specialist
AR-1405-0006

Dissemination
Electronic Processing and Dissemination System Operator/Analyst
AR-1402-0091
AR-1715-0790

Distribution
Army Medical Department (TDA) Table of Distribution and Allowances Pre-command
AR-0709-0044
Distribution Management
AR-1405-0042
Fire Distribution System Maintenance
AR-1715-0232
Fire Distribution Systems Electronics
AR-1715-0232
Petroleum Distribution Supervision
AR-1601-0003
AR-1606-0003
Storage and Distribution Management
AR-1405-0042

District
District and Civil Affairs Advisor (Vietnam)
AR-1513-0004

Diver
Diver Skill Development Base
AR-1606-0038
Special Forces Combat Diver Qualification
AR-0803-0006

Diving
Diving
AR-1606-0036
Special Forces Combat Diving Supervisor
AR-1606-0177
Special Forces Diving Medical Technician
AR-0709-0039
Special Forces Diving Supervisor
AR-1606-0144
Special Forces Medical Diving Technician
AR-0709-0025

Division
Division Chaplain
AR-1406-0083

Document
Document Examinations
AR-1728-0013
Document Laboratory Technician
AR-1728-0013
Questioned Documents Examiner
AR-1728-0013

Documentation
Graphics Documentation Specialist Basic Noncommissioned Officer (NCO)
AR-0202-0001
Still Documentation Specialist Basic Noncommissioned Officer (NCO)
AR-1709-0011
Visual Information/Audio Documentation Systems Specialist Basic Noncommissioned Officer (NCO)
AR-1719-0004

Documents
Questioned Documents Examiner
AR-1728-0013

Dog
Marijuana Detector Dog/Handler
AR-1728-0021
Mine and Tunnel Detection Dog Handler
AR-1728-0019
Tracker Dog/Handler
AR-1728-0022

Door
Helicopter Door Gunner Qualification
AR-1606-0090

Doppler
Corporal Doppler Repair
AR-1715-0187
Surface-to Surface Missile (SSM) Doppler Repair
AR-1715-0187

Drafting
Cartographic Drafting
AR-1713-0006
Construction Drafting
AR-1713-0007
General Drafting
AR-1713-0003

Dragon
Bradley Fighting Vehicle Systems TOW/Dragon Repairer
AR-1710-0108
Dragon Trainer
AR-2201-0210
TOW/Dragon Repairer
AR-1715-0755

Drill
Drill Sergeant
AR-2201-0146
AR-2201-0339
Drill Sergeant and the Initial Entry Training (IET) Cadre Course
AR-2201-0146

Drug
Alcohol and Drug Abuse Prevention and Control Program Advanced Counseling

Skills
AR-1512-0012
Alcohol and Drug Abuse Prevention and Control Program Alcohol and Drug Control Officer
AR-0801-0015
Alcohol and Drug Abuse Prevention and Control Program Clinical Director/ Clinical Consultant
AR-0801-0014
Alcohol and Drug Abuse Prevention and Control Program Family Counseling
AR-1512-0013
Alcohol and Drug Abuse Prevention and Control Program Group Counseling Skills
AR-1512-0014
Alcohol and Drug Abuse Team
AR-0799-0010
Alcohol and Drug Prevention and Control Program Individual Counseling Skills
AR-1512-0015
Army Alcohol and Drug Abuse Prevention and Control Program Management
AR-0801-0005
Army Drug and Alcohol Rehabilitation
AR-0801-0006
AR-0801-0007
Army Drug and Alcohol Rehabilitation Training Advanced
AR-0801-0003
Army Drug and Alcohol Rehabilitation Training Group
AR-0801-0007
Drug and Alcohol Rehabilitation
AR-0799-0009
Drug and Alcohol Rehabilitation Training Individual
AR-0801-0003
Forensic Drug Chemist
AR-1601-0048

Drycleaning
Laundry and Drycleaning Operations (Navy)
AR-1716-0004

Dual
Dual Purpose Mission Training
AR-1715-0712
Dual Purpose Mission Training (05H)
AR-1715-0534

DARCOM
DARCOM Commodity Command Physical Inventory Management
AR-1405-0088
DARCOM Depot Physical Inventory Management
AR-1405-0087
DARCOM Supply Management Career Intern Training
AR-1405-0015

DASE
Defense Against Sound Equipment (DASE)
AR-1715-0206
Defense Against Sound Equipment (DASE), Phase I
AR-1715-0420
AR-1715-0711
Defense Against Sound Equipment (DASE), Phase II
AR-1715-0509

DAS3
Decentralized Automated Service Support System (DAS3)
AR-1402-0059
Decentralized Automated Service Support System (DAS3) and The Direct Support Unit Standard Supply System (DS4) Operator
AR-1402-0102
Decentralized Automated Service Support System (DAS3) Computer Repairer
AR-1715-0527
Decentralized Automated Service Support System (DAS3)/Direct Support Unit Standard Supply System (DS4)
AR-1402-0080
DAS3 Computer Systems Repairer
AR-1715-0883
DAS3 COBOL Specifics
AR-1402-0069
DAS3 Executive Language and Editor
AR-1402-0068
DAS3/DS4 Operator
AR-1402-0080
Standard Port System-Enhanced/ Decentralized Automated Service Support System (DASPE-E/DAS3)
AR-1402-0095

DEB
Digital European Backbone (DEB) Communications Systems Repair
AR-1715-0396
Digital European Backbone (DEB) Multiplex Equipment Repair
AR-1402-0053

DIMES
DIMES Analyst Basic (Work Methods and Standards)
AR-0326-0022

DOS
Disk Operating System (DOS) Executive Software
AR-1402-0066
Disk Operating Systems (DOS) Concepts and Job Control Language (JCL)
AR-1402-0065

DS/GS
AN/MSQ-103 Teampack Intermediate Maintenance Training (DS/GS)
AR-1715-0541
AN/TSQ-114 Intermediate (DS/GS) Maintenance
AR-1715-0545
AN/TSQ-114 Trailblazer Intermediate (DS/GS) Maintenance
AR-1715-0545
DS/GS Test and Repair Station Maintenance (AH-64)
AR-1715-0878
DS/GS Test and Repair Station Maintenance (AH-64A)
AR-1715-0596
Electronic Switching Systems Repairer (DS/GS)
AR-1715-0597
Guardrail Maintenance (DS/GS)
AR-1715-0544
Hawk Missile Support Repair Technician (DS/GS)
AR-1715-0647
MSQ-103 Intermediate Maintenance Training (DS/GS)
AR-1715-0541
Short Range Air Defense System (SHORADS) DS/GS Maintenance Repair Technician
AR-1715-0646

DSTE
Automatic Data Processing (ADP) Repair, Phase VII—Digital Subscriber Terminal Equipment (DSTE) Repair
AR-1715-0253
Digital Subscriber Terminal Equipment (DSTE) Operator
AR-1715-0043
Digital Subscriber Terminal Equipment (DSTE) Repair
AR-1715-0253
Digital Subscriber Terminal Equipment (DSTE) Repairer
AR-1715-0253

DSU/GSU
DSU/GSU Mechanized Stock Control
AR-1405-0010

DS4
Decentralized Automated Service Support System (DAS3) and The Direct Support Unit Standard Supply System (DS4) Operator
AR-1402-0102
Direct Support Unit Standard Supply System (DS4)
AR-1405-0176

DX43
Helicopter Armament Subsystem M22 and DX43 Mechanic
AR-1704-0081
Helicopter Armament Subsystem M22 and Simulator DX43 Repair
AR-1704-0078

Ear
Ear, Nose, and Throat Specialist
AR-0709-0002
Eye, Ear, Nose, and Throat Specialist
AR-0709-0002

East European
U.S. Army Institute for Advanced Russian and East European Studies
AR-0602-0001

Echelons
Director of Information Management (DOIM)/Echelons Above Corps (EAC) Operations Officer
AR-1402-0096
Echelons Above Corps (EAC) Operations Officer
AR-2201-0304
AR-2201-0305

Economic
Economic Analysis for Decision Making
AR-0326-0021

Editor
DAS3 Executive Language and Editor
AR-1402-0068

Education
Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff.
AR-0799-0014

Effective
Effective Military Writing
AR-2201-0254

Effectiveness
Organizational Effectiveness Consultant
AR-0326-0039
Organizational Effectiveness Staff Officer
AR-0326-0039

Effects
Nuclear Weapons Effects Officer
AR-1303-0002

Ejection
(Martin-Baker J-5 Ejection Seat Specialist)
AR-1704-0087
Ejection Seat Repairer
AR-1704-0087

Electric
Electric Motor and Generator Repair
AR-1715-0321
Electric Motor and Generator Repairman
AR-1715-0321
Electric Power Production (CMF-52) Noncommissioned Officer (NCO) Advanced
AR-1710-0043
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0080
Electric/Electronic Devices Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electrical Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Mobile Electric Power Generation
AR-1710-0009
Mobile Electric Power Generation (Precise)
AR-1710-0010

Electrical
Aircraft Instrument and Electrical Systems Repair
AR-1721-0007
Ballistic Missile Electrical Mechanical Repair (Pershing)
AR-1715-0122
Electrical Accounting Machine Repair
AR-1706-0004
Electrical Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electrical Instrument Repair
AR-1721-0003
Electrical/Electronic Devices Maintenance (35-CMF) Noncommissioned (NCO) Basic
AR-1405-0099
Fuel and Electrical Systems Repair
AR-1703-0019
Fuel and Electrical Systems Repairer
AR-1703-0026
Guided Missile Installation Electrical Equipment Repair
AR-1715-0241
M1 Abrams Fuel and Electrical Systems Repairer
AR-1714-0024
AR-1714-0029
Nuclear Power Plant Operators (Electrical Specialty)
AR-1720-0003
Pershing Electrical-Mechanical Repair
AR-1715-0122
Pershing Electrical-Mechanical Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0649
Pershing Electrical-Mechanical Repairer 46N Transition
AR-1715-0651
Prime Power Production Specialist (Electrical Specialty)
AR-1720-0003
Senior Special Electrical/Electronic Device Repair
AR-1715-0010
Special Electrical Device Repair
AR-1715-0160
Special Electrical Device Repairer
AR-1715-0160
Special Electrical/Electronic Device Repair
AR-1715-0160

Electrician
Aircraft Electrician
AR-1704-0075
Aircraft Electrician Maintenance Supervisor/Technical Inspector
AR-1704-0099
Aircraft Electrician Repair
AR-1704-0075
Aircraft Electrician Repairer Basic Noncommissioned Officer NCO
AR-1704-0108
Aircraft Electrician Repairer Basic Technical
AR-1704-0108
Aircraft Electrician Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0108
Diesel-Electric Locomotive Electrician
AR-1714-0006
Electrician
AR-1714-0017
Locomotive Electrician
AR-1714-0006

Electro-Optical
Electro-Optical Equipment Technician
AR-1714-0025
Electro-Optical Equipment Technician (USMC)
AR-1714-0030
Electro-Optical Ordance Repairer
AR-1714-0030

Electroencephalographic
Electroencephalographic Procedures
AR-0709-0008
Electroencephalographic Specialist
AR-0709-0008

Electromechanical
Lacrosse Electromechanical System Maintenance
AR-1715-0086

Electronic
Aerial Electronic Warning/Defense Equipment Repairer
AR-1715-0500
AR-1715-0503
Army Nuclear Weapons Electronics Specialist (Phase I)
AR-1715-0225
Aviation Electronic Equipment Maintenance
AR-1715-0347
Aviation Electronic Equipment Repair
AR-1715-0335
Biomedical Electronic Equipment Maintenance
AR-1715-0317
Corporal Electronic Materiel Maintenance
AR-1715-0234
Electric/Electronic Devices Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electrical/Electronic Devices Maintenance (35-CMF) Noncommissioned (NCO) Basic
AR-1405-0099
Electronic Countermeasures Operations
AR-1715-0005
Electronic Countermeasures Receiving System Maintenance (AN/TLQ-17)
AR-1715-0418
Electronic Countermeasures/Direction-Finding Systems Repairman
AR-1715-0061
Electronic Devices Repair
AR-1715-0033
Electronic Instrument Maintenance
AR-1715-0004
Electronic Instrument Repair
AR-1715-0001
AR-1715-0004
AR-1715-0033
Electronic Maintenance Noncommissioned Officer (NCO) Advanced
AR-1406-0067
Electronic Mixer HLC-1A/TSEC
AR-1715-0006
Electronic Navigation Equipment Repair
AR-1715-0347
Electronic Order of Battle Analysis
AR-2201-0314
Electronic Processing and Dissemination System Operator/Analyst
AR-1402-0090
AR-1402-0091
AR-1715-0790
Electronic Switching Systems Repairer
AR-1715-0149
Electronic Switching Systems Repairer (DS/GS)
AR-1715-0597
Electronic Switching Systems Technical Manager
AR-1715-0598
Guided Missile Electronic Materiel Maintenance
AR-1715-0085
Guided Missile Electronic Materiel Maintenance, Surface-to-Surface Missile (SSM)
AR-1715-0090
Hercules Electronic Mechanic
AR-1715-0084
Light Air Defense System Electronic Repair
AR-1715-0015
Nike Ajax Missile Electronic Maintenance
AR-1715-0085
Nike Ajax Missile Electronic Materiel Maintenance
AR-1715-0085
Nike Hercules Electronic Maintenance
AR-1715-0084
Nike Hercules Missile Electronic Maintenance
AR-1715-0106
Nike Hercules Missile Electronic Materiel Maintenance Transition
AR-1715-0106
Nike Universal Electronic Maintenance
AR-1715-0084

Nike Universal Electronic Materiel Maintenance
AR-1715-0084
Nuclear Weapons Electronic Maintenance
AR-1715-0225
Nuclear Weapons Electronics Maintenance
AR-1715-0225
Nuclear Weapons Electronics Specialist
AR-1715-0225
Pershing Electronic Material Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0624
Pershing Electronic Materiel Specialist Basic Technical
AR-1715-0624
Pershing Electronic Repair
AR-1715-0079
Pershing Electronic Repair Transition
AR-1715-0371
Pershing Electronic Repairer
AR-1715-0079
Pershing Electronics Repairer
AR-1715-0079
Redstone Electronic Materiel Maintenance
AR-1715-0080
Senior Special Electrical/Electronic Device Repair
AR-1715-0010
Special Ammunition Maintenance/Nuclear Weapons Electronic Technician Warrant Officer Intermediate
AR-2201-0008
Special Electrical/Electronic Device Repair
AR-1715-0160
Special Electronic Devices Repair
AR-1715-0779
Special Electronic Devices Repairer
AR-1715-0613
AR-1715-0659
Special Electronic Mission Aircraft (SEMA) Common Core
AR-1715-0871
Supervisor Special Electronic Devices Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0854
Surface-to-Air Missile (SAM) Electronic Materiel Maintenance, Nike
AR-1715-0085
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
AR-2201-0190
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0012
AR-1715-0017
AR-1715-0019
AR-1715-0020
Tactical Electronic Equipment Maintenance Noncommissioned Officers (NCO) Advanced (USAFAS)
AR-1715-0489
Tactical Electronic Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
Tactical Electronic Maintenance Chief
AR-1715-0008
Transportable Electronic Switching System Repairer
AR-1715-0668
Transportable Electronic Switching Systems AN/TTC-39() and AN/TYC-39() Repairer (Tri-Tac Transition Training)
AR-1715-0703
Transportable Electronics Switching Systems Repairer
AR-1715-0703

Electronic Warfare

Advanced Electronic Warfare (EW) Cryptologic Supervisor
AR-2201-0037
Air Defense Electronic Warfare (EW)
AR-1715-0009
Air Defense Electronic Warfare (EW) (Nike Hercules)
AR-1715-0002
Cryptologic Electronic Warfare (EW) Officer Basic Specialist
AR-1606-0017
Electronic Warfare (EW) and Cryptologic Interceptor—Morse
AR-1409-0008
Electronic Warfare (EW) Analyst
AR-1715-0003
AR-2201-0313
Electronic Warfare (EW) Analyst (Noncommunications ECM)
AR-1715-0003
Electronic Warfare (EW) Countermeasures Receiving System Operator
AR-2201-0208
Electronic Warfare (EW) Countermeasures Receiving Systems Operations
AR-2201-0208
Electronic Warfare (EW) Cryptologic Interceptor—Morse Basic Technical
AR-1717-0037
Electronic Warfare (EW) Cryptologic Interceptor—Non-Morse Basic Technical
AR-1717-0049
Electronic Warfare (EW) Cryptologic Interceptor—Very High Frequency/Ultra High Frequency
AR-1404-0018
Electronic Warfare (EW) Cryptologic Interceptor—Voice Basic Technical
AR-1717-0055
Electronic Warfare (EW) Cryptologic Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW) Cryptologic Officer Specialist
AR-1606-0015
Electronic Warfare (EW) Cryptologic Special Identification Techniques Basic Technical
AR-2201-0104
Electronic Warfare (FW) Cryptologic Special Identification Techniques Operator
AR-1409-0009
Electronic Warfare (EW) Cryptologic Supervisor
AR-2201-0037
Electronic Warfare (EW) Cryptologic Tactical Operations Officer
AR-1606-0086
Electronic Warfare (EW) Cryptologic Traffic Analyst Basic Technical
AR-1717-0056
Electronic Warfare (EW) Equipment Repair
AR-1715-0007
Electronic Warfare (EW) Equipment Repairman
AR-1715-0007
Electronic Warfare (EW) Intercept Aerial Sensor Repairer
AR-1715-0713
Electronic Warfare (EW) Intercept Systems Maintenance Analyst
AR-1715-0411
Electronic Warfare (EW) Intercept Systems Repairer
AR-1715-0417
Electronic Warfare (EW) Intercept Systems Repairman
AR-1715-0417
Electronic Warfare (EW) Intercept Systems Repairman Basic Technical
AR-1405-0067
Electronic Warfare (EW) Noncommunication Interceptor-Analyst Basic Technical
AR-2201-0209
Electronic Warfare (EW) Officer
AR-1715-0235
Electronic Warfare (EW) Operations Phase I
AR-1715-0724
AR-1715-0822
Electronic Warfare (EW) Operations Phase II
AR-1715-0725
Electronic Warfare (EW) Operator (Noncommunications ECM)
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence SIGINT) Morse Collector
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0009
Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical
AR-2201-0104
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor, Morse
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037
Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic

Technical/Advanced Individual Training
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710
Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149
Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078
Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728
Electronic Warfare (EW) Staff Officer
AR-1715-0439
Electronic Warfare (EW)/ Crypto Advanced Noncommissioned Officer (NCO)
AR-1406-0126
Electronic Warfare (EW)/Cryptologic Advanced Noncommissioned Officer (NCO)
AR-2201-0037
Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2
AR-1715-0869
Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0714
Electronic Warfare (EW)/Intercept Aviation Systems Repairer
AR-1715-0715
Electronic Warfare (EW)/Intercept Equipment Repair Technician-Warrant Officer Technical Certification
AR-1408-0132
Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer
AR-1715-0827
Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0717
Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0719
Electronic Warfare (EW)/Intercept Strategic Signal Processing/Storage Subsystem Repairer
AR-1715-0716
AR-1715-0718
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer
AR-1715-0720
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721
Electronic Warfare (EW)/Intercept System Maintenance Analyst Advanced Noncommissioned Officer (NCO)
AR-1406-0127
Electronic Warfare (EW)/Intercept Systems Repairer, Basic Technical
AR-1715-0502
Electronic Warfare (EW)/Intercept Tactical Systems Repairer
AR-1715-0722
Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0723
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079
Enlisted Air Defense Electronic Warfare (EW)
AR-1715-0011
General Electronic Warfare (EW) Cryptologic Officer (Reserve Component) Nonresident/Resident
AR-2201-0204
Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW))
AR-1406-0128
Senior Officer Electronic Warfare (EW) Cryptologist
AR-1606-0014

Electronics

Atomic Weapons Electronics (Entry)
AR-1715-0258
Basic Electronics Maintenance
AR-1715-0013
Combat Communications-Electronics Advanced
AR-1402-0049
Common Basic Electronics Training (COBET)—Modules I-IV
AR-1715-0389
Common Basic Electronics Training (COBET)—Modules 1, 201, 2, 202, 3, 303, 4, 5/6 and 7
AR-1715-0389
Communication Electronics Radio Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0685
Communications and Electronics Staff Officer
AR-1715-0226
Communications Electronics Installer Training
AR-1715-0524
Communications Electronics Materiel Management Advanced
AR-1408-0082
Communications-Electronics Advanced
AR-1402-0049
Communications-Electronics Engineering and Automation Officer
AR-1715-0769
Communications-Electronics Engineering Basic Track
AR-1715-0592
Communications-Electronics Maintenance Advanced Noncommissioned Officer (NCC)
AR-1715-0851
Communications-Electronics Maintenance Warrant Officer Intermediate
AR-1715-0059
Communications-Electronics Noncommissioned Officer (NCO) Advanced
AR-1405-0127
Communications-Electronics Operations Noncommissioned Officer (NCO) Advanced (Reserve Components)
AR-1715-0706
Communications-Electronics Radio Repairer
AR-1715-0663
Communications-Electronics Repair Parts Specialist
AR-1405-0017
Communications-Electronics Repair Parts

Specialist, Skill Development Base
AR-1405-0019
Communications-Electronics Repair Technician Senior Warrant Officer
AR-1715-0860
Communications-Electronics Systems Engineer
AR-1715-0254
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4
AR-1715-0858
Communications-Electronics Warrant Officer Advanced
AR-1715-0395
Communications-Electronics Warrant Officer Entry
AR-1408-0109
Complex Electronics Systems Analysis and Maintenance
AR-1715-0408
Electronics Equipment Maintenance Advanced Noncommissioned Officer (NCO)
AR-1406-0107
Electronics Maintenance Officer
AR-1717-0011
Field Communications-Electronics Equipment Mechanic
AR-1715-0091
Field Communications-Electronics Equipment Repair
AR-1715-0091
Fire Distribution Systems Electronics
AR-1715-0232
Hawk Internal Guidance and Launcher Electronics Repair
AR-1715-0313
Ordnance Electronics (Entry)
AR-1715-0113
Organizational Communications-Electronics (C-E) Operator/Mechanics
AR-1715-0791
Pershing Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Pershing Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO)
AR-2201-0291
Pershing Electronics Repairer
AR-1715-0079
AR-1715-0650
AR-1715-0752
Pershing Electronics Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0751
Pershing Electronics Repairer Basic Technical
AR-1715-0648
Pershing II Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Pershing II Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO)
AR-2201-0291
Warrant Officer Technical Certification (WOTCC) Communications-Electronics Equipment Repair Technician
AR-1405-0129

Emergency
Emergency Action Console Repair
AR-1715-0263

Emitter
Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0009
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316
Emitter Location/Identification Technician—Warrant Officer Technical Certification
AR-1408-0135

Energy
Fuels and Energy Management
AR-1601-0065

Enforcement
Law Enforcement
AR-1728-0023

Engine
Aircraft Engine Repair
AR-1704-0045
Aircraft Reciprocating Engine Repair
AR-1704-0026
Aircraft Turbine Engine Repair
AR-1704-0068
Aircraft Turbine Engine Repair Specialist Candidate
AR-1704-0072
Aircraft Turbine Engine Repair, Skill Development Base
AR-1704-0072
Aircraft Turbine Engine Test Cell Operator
AR-1704-0024
Cooperative Fuels Research (CFR) Test Engine
AR-1703-0010
Diesel Engine Repair
AR-1712-0008
Harbor Craft Engine Operation Advanced
AR-1712-0007
Harbor Craft Engineering Officer
AR-1712-0007
Light Target Missile Launcher Operation and Airframe and Engine Maintenance
AR-1704-0077
Modular Engine Test Stand (METS) Operator
AR-1704-0024
Radio Controlled Airplane Target (RCAT) Airframe Engine Maintenance Maintenance
AR-1704-0077

Engineer
Amphibian Engineer Mechanic
AR-1712-0004
Amphibian Engineer Repairman
AR-1712-0005
Amphibian Engineer, Skill Development Base
AR-1712-0009
Associate Engineer Officer Advanced
AR-1601-0036
Combat Engineer
AR-1601-0070
Combat Engineer Tracked Vehicle Crewman
AR-1710-0085
Communications-Electronics Systems Engineer
AR-1715-0254
CH-47D Flight Engineer Instructor
AR-1606-0189
Engineer Construction Contracting
AR-1408-0022
Engineer Construction Officer
AR-1601-0028
Engineer Equipment Maintenance
AR-1710-0029
AR-1710-0036
Engineer Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic.
AR-1408-0081
Engineer Equipment Maintenance Officer
AR-1710-0040
Engineer Equipment Officer
AR-1710-0033
Engineer Equipment Repair
AR-1710-0016
Engineer Equipment Repair Enlisted
AR-1710-0034
Engineer Equipment Repair Specialist Candidate
AR-2201-0072
Engineer Equipment Repair Technician
AR-1712-0006
Engineer Equipment Repairman Noncommissioned Officer (NCO) Basic
AR-1703-0006
Engineer Graphics Warrant Officer Intermediate
AR-1601-0011
Engineer Missile Equipment Maintenance
AR-1730-0002
Engineer Missile Equipment Repair
AR-1730-0004
Engineer Noncommissioned Officer (NCO)
AR-1601-0014
Engineer Officer Advanced
AR-1601-0017
AR-1601-0035
Engineer Officer Advanced Reserve Component
AR-1601-0050
Engineer Officer Basic
AR-1601-0044
Engineer Officer Basic Reserve Component
AR-1601-0051
Engineer Officer Candidate
AR-1601-0029
Engineer Officer Career
AR-1601-0017
Engineer Supply
AR-1405-0059
Engineer Supply and Spare Parts Officer
AR-1405-0056
Engineer Tracked Vehicle Crewman
AR-1710-0085
Facilities Engineering Management
AR-1408-0053
Marine Engineer
AR-1710-0001
Marine Engineer Repair
AR-1712-0012
Marine Engineer Skill Development Base
AR-1712-0002
Post Engineer
AR-1408-0053
Post Engineer Management
AR-1408-0053

Regular Army Engineer Officer Basic
AR-1601-0044
Special Forces Engineer Sergeant
AR-1710-0151
Special Forces Engineer Training
AR-1601-0019
Special Operations Engineer Sergeant Reserve Component Phase 4
AR-1710-0152
Topographic Engineer Officer
AR-1601-0007
Watercraft Engineer
AR-1710-0001
Watercraft Engineer Advanced Noncommissioned Officer (NCO)
AR-1712-0019
Watercraft Engineer Basic Noncommissioned Officer (NCO)
AR-1712-0018
Watercraft Engineer Basic Technical
AR-1712-0017
Watercraft Engineer Certification
AR-1710-0001
Watercraft Engineer Primary Technical
AR-1712-0002

Engineered
Engineered Performance Standards (EPS) for Facilities Engineering Estimators
AR-0326-0026

Engineering
Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0013
Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0013
Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Engineering Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Engineering, Bridging, and Construction Supervision
AR-1601-0018
Communications-Electronics Engineering and Automation Officer
AR-1715-0769
Communications-Electronics Engineering Basic Track
AR-1715-0592
Facilities Engineering Management
AR-1408-0053
Facilities Engineering Supply System Management
AR-1405-0145
General Engineering (51-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0052
General Engineering (51-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Harbor Craft Engineering Officer
AR-1712-0007
Knowledge Engineering and Basic Expert Systems Building
AR-1402-0099
Maintainability Engineering
AR-1115-0009
Maintainability Engineering Intern Training Program
AR-1115-0009
Maintenance Engineering Analysis for Integrated Logistics Support
AR-1601-0001
Marine Engineering and Repair Supervision
AR-1712-0010
Marine Engineering Officer Advanced
AR-1714-0008
Marine Engineering Officer–Warrant Officer Advanced
AR-1712-0021
Marine Engineering Officer–Warrant Officer Technical Certification
AR-1712-0020
Principles and Applications of Value Engineering
AR-0326-0031
Product/Production Engineering Intern Program
AR-0326-0035
Reliability Engineering
AR-1115-0005
Safety Engineering Intern Training Program
AR-0802-0006
Systems Engineering
AR-0326-0033
Systems Engineering, Analysis and Management (Guided Missile)
AR-1715-0286

English
English 3200: Programmed Course in Grammar and Usage
AR-0602-0007

Enroute
Air Traffic Control Approach Control Enroute Specialist
AR-1704-0002

Entry
AN/TSQ-73 System Operator/ Repairman Entry-Level
AR-1715-0403
Defense Against Methods of Entry
AR-1606-0025
Initial Entry Rotary Wing Aviator
AR-1606-0074
Initial Entry Rotary-Wing Aviator (AH-1)
AR-1606-0185
Initial Entry Rotary-Wing Aviator (OH-58)
AR-1606-0184
Initial Entry Rotary-Wing Aviator (UH-1)
AR-1606-0183
Initial Entry Rotary-Wing Aviator (UH-60)
AR-1606-0182
Initial Entry Rotary-Wing Aviator Common Core
AR-1606-0181
Initial Entry Training (IET) Cadre Course (Active Army)
AR-2201-0255
Track Vehicle Mechanic Initial Entry Training
AR-1703-0043

Environmental
Basic Environmental Coordinator's
AR-0707-0011
Community and Environmental Health Program Management
AR-0707-0006
Community Health and Environmental Science
AR-0707-0003
Environmental Collection System Maintenance (AN/GSR-4)
AR-1715-0410
Environmental Health Specialist
AR-0707-0005
Environmental Health Specialist Reserve Component (Nonresident/Resident)
AR-0707-0007

Epidemiology
Biometrics in Research and Epidemiology
AR-0102-0004
Veterinary Officer Statistics and Epidemiology
AR-0102-0004

Equal
Equal Opportunity Representative
AR-0505-0001

Equipment
(Quartermaster/Chemical Equipment Repairer)
AR-1710-0095
Advanced Air Drop Equipment Maintenance
AR-1704-0092
Advanced Mobile Subscriber Equipment (MSE) Node Switch/Large Extension Node Switch Operator
AR-1715-0872
Air Traffic Control Systems, Subsystems, and Equipment Repairer
AR-1715-0787
Air Traffic Control Systems, Subsystems, and Equipment Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1604-0172
AR-1704-0172
Aircraft Survivability Equipment Repair
AR-1704-0042
Aircraft Warning/Defense Equipment Repair
AR-1704-0042
Airdrop Equipment Technician Warrant Officer Entry
AR-1733-0003
Automatic Test Equipment Operator/ Maintainer
AR-1715-0850
Avionic Equipment Maintenance Supervisor
AR-1715-0277
Avionic Equipment Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0864
Avionic Flight Control Equipment Repair
AR-1715-0337
Avionic Navigation Equipment Repair
AR-1715-0340
Avionic Special Equipment Repair
AR-1715-0660
Avionics Equipment Maintenance Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0179
Avionics Special Equipment Repair
AR-1715-0660
Biomedical Electronic Equipment

Maintenance
AR-1715-0317

Biomedical Equipment Maintenance
AR-1715-0316

Biomedical Equipment Maintenance Advanced
AR-1715-0317

Biomedical Equipment Maintenance Orientation
AR-1715-0619

Biomedical Equipment Specialist Advanced
AR-1715-0639

Biomedical Equipment Specialist Basic
AR-1715-0316

Chemical Equipment Repair
AR-1601-0042

Chemical Equipment Repair Supervison
AR-2201-0179

Communications Security (COMSEC) Equipment Full Maintenance (Field)
AR-1715-0677

Concrete and Asphalt Equipment Operator
AR-1710-0091

Construction Equipment Operator
AR-1710-0089
AR-1710-0090

Construction Equipment Repair
AR-1710-0087

Construction Equipment Repairer
AR-1710-0088

Construction Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0128

Construction Equipment Repairer Primary Technical
AR-1710-0087

Corporal Handling Equipment Maintenance
AR-1715-0201

COMSEC Equipment MAIT
AR-1715-0062

Data Processing Equipment Operator
AR-1402-0030

Defense Against Sound Equipment (DASE)
AR-1715-0206

Defense Against Sound Equipment (DASE), Phase I
AR-1715-0420
AR-1715-0711

Defense Against Sound Equipment (DASE), Phase II
AR-1715-0509

Electronic Warfare (EW) Equipment Repair
AR-1715-0007

Electronic Warfare (EW) Equipment Repairman
AR-1715-0007

Electronics Equipment Maintenance Advanced Noncommissioned Officer (NCO)
AR-1406-0107

Engineer Equipment Maintenance
AR-1710-0029
AR-1710-0036

Engineer Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0081

Engineer Equipment Maintenance Officer
AR-1710-0040

Engineer Equipment Officer
AR-1710-0033

Engineer Equipment Repair
AR-1710-0016

Engineer Equipment Repair Enlisted
AR-1710-0034

Engineer Equipment Repair Specialist Candidate
AR-2201-0072

Engineer Equipment Repair Technician
AR-1712-0006

Engineer Equipment Repairman Noncommissioned Officer (NCO) Basic
AR-1703-0006

Equipment Operation/Maintenance Test Set, Guided Missile System (TOW-Ground)
AR-1715-0737

Equipment Records and Parts Specialist Advanced Individual Training
AR-1405-0175

Equipment Storage Specialist
AR-1405-0028

Equipment Storage Specialist, Skill Development Base
AR-1408-0043

Field Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0677

Field Communications Security (COMSEC) Equipment Repair
AR-1715-0661

Fixed Communications Security (COMSEC) Equipment Repairer (Transition 32G)
AR-1715-0681

Fixed Cryptographic Equipment Repair (Transition)
AR-1715-0681

Fixed Cryptographic Equipment Repair Transition 32F
AR-1715-0681

Fixed Cryptographic Equipment Special Repair Activity (SRA)
AR-1715-0637

General Construction Equipment Operator
AR-1710-0086

Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742

Heavy Construction Equipment Operator
AR-1710-0084

Heavy Fire Control Equipment Repair
AR-1715-0141

Impregnation Equipment Operation
AR-1702-0001

Intercept Equipment Maintenance Supervisor
AR-1717-0028

Lifting and Loading Equipment Operator
AR-1710-0092

Materials Handling Equipment Mechanic
AR-1710-0039

Medical Equipment Maintenance (Supplementary and Refresher)
AR-1715-0194

Medical Equipment Maintenance Advanced
AR-1715-0317

Medical Equipment Maintenance Basic
AR-1715-0316

Medical Equipment Repairer (Unit Level)
AR-1715-0759

Meteorological Equipment Maintenance
AR-1715-0835

Meteorological Equipment Mechanic and Repairman
AR-1721-0008

Meteorological Equipment Repairer
AR-1721-0008

Meteorological Equipment Repairman
AR-1721-0008

Mobile Subscriber Equipment (MSE) Central Office Repairer
AR-1715-0876

Mobile Subscriber Equipment (MSE) Network Switching System Operator
AR-1715-0886

Mobile Subscriber Equipment (MSE) System Planner/System Control Center Operator
AR-1715-0875

Mobile Subscriber Equipment (MSE) Systems Maintainer
AR-1715-0873
AR-1715-0885

Mobile Subscriber Equipment (MSE) Transmission System Operator
AR-1715-0884

Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES)
AR-1405-0209

Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES) Tool and Parts Attendant
AR-1405-0210

Overseas Automatic Switching Center (ASC) Equipment Repair
AR-1715-0664

Power Equipment Maintenance
AR-1714-0007

Quartermaster and Chemical Equipment Repairer
AR-1710-0094

Quartermaster Equipment Repair
AR-1710-0019
AR-1710-0053

Quartermaster Equipment Repair Supervision
AR-1710-0015

Quartermaster Heavy Equipment Repair
AR-1710-0022

Quartermaster Heavy Equipment Repairman
AR-1710-0022

Quartermaster Light Equipment Repair
AR-1702-0002

Quartermaster/Chemical Equipment Repairer
AR-1710-0053

Quartermaster/Chemical Equipment Repairer Basic Technical
AR-1710-0095

Refrigeration Equipment Repair
AR-1730-0001

Reproduction Equipment Repair
AR-1706-0001

Special Purpose Equipment Repair Parts Specialist
AR-1401-0013

Special Purpose Equipment Repair Parts Specialist, Skill Development Base
AR-1402-0029

Special Purpose Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0133

Supervisory Field Communications Equipment Maintenance
AR-1715-0008
Tabulating Equipment Repair
AR-1706-0004
Tactical Air Traffic Control Systems, Subsystems, and Equipment Repairer
AR-1715-0787
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
AR-2201-0190
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0012
AR-1715-0017
AR-1715-0019
AR-1715-0020
Teletypewriter Equipment Repairer
AR-1715-0848
Television Equipment Repair Transition
AR-1715-0066
Utilities Equipment Repairer
AR-1701-0002
AR-1702-0003
Watchmate Equipment Maintenance Training
AR-1715-0788

Equipping
Force Modernization and Sustaining (Equipping the Force)
AR-1408-0118
Force Modernization Management (Equipping the Force)
AR-1408-0118

Escape
Survival, Evasion, Resistance, and Escape (SERE) High Risk
AR-0803-0007

Escort
Technical Escort
AR-0802-0001

Essential
Essential Medical Training for Army Medical Department (AMEDD) Aviators Associate
AR-0799-0007
Essential Medical Training for Army Medical Department (AMEDD) Aviators Nonresident/Resident
AR-0799-0007

Estimating
Cost Estimating for Engineers
AR-0301-0002
Cost Estimating Techniques for Systems Acquisition
AR-1408-0025

European
Digital European Backbone (DEB) Communications System Repair
AR-1715-0666
Digital European Backbone (DEB) Communications Systems Repair
AR-1715-0396
Digital European Backbone (DEB) Multiplex Equipment Repair
AR-1402-0053
U.S. Army Institute for Advanced Russian and East European Studies
AR-0602-0001

Evacuation
Recovery and Evacuation
AR-1703-0004

Evaluation
Technical Evaluation Program (TEP) Training
AR-1715-0271

Evasion
Survival, Evasion, Resistance, and Escape (SERE) High Risk
AR-0803-0007

Examiner
Firearms and Tool Marks Examiner
AR-1728-0015
Fixed Wing Instrument Flight Examiner
AR-1606-0125
Helicopter Instrument Flight Examiner
AR-1606-0124
Instrument Flight Examiner
AR-1606-0108
Latent Fingerprint Examiner
AR-1728-0048
Marijuana Examiner
AR-1601-0049
Polygraph Examiner Advanced
AR-1728-0032
Polygraph Examiner Training
AR-1728-0008
Questioned Documents Examiner
AR-1728-0013
Rotary Wing Instrument Flight Examiner
AR-1606-0124
AR-1606-0190

Exchange
Army Exchange Operations
AR-1408-0010
Army-Air Force Exchange Operations
AR-1408-0010
Army/Air Force Exchange Service Executive Development
AR-1408-0009

Executive
Army Medical Department (AMEDD) Executive Management Program
AR-0799-0013
Army/Air Force Exchange Service Executive Development
AR-1408-0009
Defense Disposal Executive Workshop
AR-1405-0115
Disk Operating System (DOS) Executive Software
AR-1402-0066
DAS3 Executive Language and Editor
AR-1402-0068
Executive Administrative Assistant
AR-1407-0008
Logistics Executive Development
AR-1405-0071
Logistics Executive Development by Correspondence
AR-1405-0081
Modern Analytic Techniques for Executive Decision Making
AR-0326-0015
Senior Executive Transition
AR-1406-0208

Executives
Personnel Management For Executives
AR-1408-0074

Experiments
Design and Analysis of Experiments
AR-1115-0001
Statistical Analysis and Designed Experiments
AR-1115-0006

Expert
Advanced Course in Artificial Intelligence Theory and Expert Systems Building
AR-1402-0097
Advanced Theory and Expert System Building
AR-1402-0097
Expert Systems Architecture and Advanced Skills in Object-Oriented Programming
AR-1402-0098
Expert Systems Architecture and Object-Oriented Programming
AR-1402-0098
Knowledge Engineering and Basic Expert Systems Building
AR-1402-0099

Exploitation
Imagery Exploitation Officer
AR-2201-0121
Military Intelligence Officer Advanced (Imagery Exploitation)
AR-1606-0194

Explosive
Explosive Ordnance Disposal Specialist Basic Noncommissioned Officer (NCO)
AR-1728-0076
Explosive Ordnance Disposal Supervisor
AR-0802-0007
Explosive Ordnance Disposal, Phase I
AR-0802-0002

Explosives
Guided Missile Propellants and Explosives
AR-2201-0119
Guided Missile Propellants—Explosives Specialist
AR-2201-0119

Eye
Eye Specialist
AR-0706-0001
AR-0706-0002
Eye, Ear, Nose, and Throat Specialist
AR-0709-0002

ECM
Electronic Warfare (EW) Analyst (Noncommunications ECM)
AR-1715-0003
Electronic Warfare (EW) Operator (Noncommunications ECM)
AR-1715-0018

ECM/DF
ECM/DF Systems Repairmen
AR-1715-0061

EELPOT
Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance
AR-1715-0404
Automated High Frequency Direction Finding (HFDF) System Maintenance (EELPOT)
AR-1715-0409
Automated High Frequency Direction Finding (HFDF) System Operation (EELPOT)
AR-1402-0050

EH-1H/1X
EH-1H/1X (Quickfix) Systems

Qualification
AR-1715-0570

EPS

Engineered Performance Standards (EPS) for Facilities Engineering Estimators
AR-0326-0026

EW

Advanced Electronic Warfare (EW) Cryptologic Supervisor
AR-2201-0037

Air Defense Electronic Warfare (EW)
AR-1715-0009

Air Defense Electronic Warfare (EW) (Nike Hercules)
AR-1715-0002

Cryptologic Electronic Warfare (EW) Officer Basic Specialist
AR-1606-0017

Electronic Warfare (EW) and Cryptologic Interceptor—Morse
AR-1409-0008

Electronic Warfare (EW) Analyst
AR-1715-0003
AR-2201-0313

Electronic Warfare (EW) Analyst (Noncommunications ECM)
AR-1715-0003

Electronic Warfare (EW) Countermeasures Receiving System Operator
AR-2201-0208

Electronic Warfare (EW) Countermeasures Receiving Systems Operations
AR-2201-0208

Electronic Warfare (EW) Cryptologic Interceptor—Morse Basic Technical
AR-1717-0037

Electronic Warfare (EW) Cryptologic Interceptor—Non-Morse Basic Technical
AR-1717-0049

Electronic Warfare (EW) Cryptologic Interceptor—Very High Frequency/Ultra High Frequency
AR-1404-0018

Electronic Warfare (EW) Cryptologic Interceptor—Voice Basic Technical
AR-1717-0055

Electronic Warfare (EW) Cryptologic Noncommunications Interceptor-Analyst
AR-1715-0018

Electronic Warfare (EW) Cryptologic Officer Specialist
AR-1606-0015

Electronic Warfare (EW) Cryptologic Special Identification Techniques Basic Technical
AR-2201-0104

Electronic Warfare (EW) Cryptologic Special Identification Techniques Operator
AR-1409-0009

Electronic Warfare (EW) Cryptologic Supervisor
AR-2201-0037

Electronic Warfare (EW) Cryptologic Tactical Operations Officer
AR-1606-0086

Electronic Warfare (EW) Cryptologic Traffic Analyst Basic Technical
AR-1717-0056

Electronic Warfare (EW) Equipment Repair
AR-1715-0007

Electronic Warfare (EW) Equipment Repairman
AR-1715-0007

Electronic Warfare (EW) Intercept Aerial Sensor Repairer
AR-1715-0713

Electronic Warfare (EW) Intercept Systems Maintenance Analyst
AR-1715-0411

Electronic Warfare (EW) Intercept Systems Repairer
AR-1715-0417

Electronic Warfare (EW) Intercept Systems Repairman
AR-1715-0417

Electronic Warfare (EW) Intercept Systems Repairman Basic Technical
AR-1405-0067

Electronic Warfare (EW) Noncommunication Interceptor-Analyst Basic Technical
AR-2201-0209

Electronic Warfare (EW) Officer
AR-1715-0235

Electronic Warfare (EW) Operations Phase I
AR-1715-0724
AR-1715-0822

Electronic Warfare (EW) Operations Phase II
AR-1715-0725

Electronic Warfare (EW) Operator (Noncommunications ECM)
AR-1715-0018

Electronic Warfare (EW) Signal Intelligence SIGINT) Morse Collector
AR-1409-0008

Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
AR-1717-0056

Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0009

Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical
AR-2201-0104

Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor, Morse
AR-1409-0008

Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0008

Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037

Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic Technical/Advanced Individual Training
AR-1715-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710

Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical
AR-1717-0056

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149

Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst
AR-1715-0018

Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078

Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728

Electronic Warfare (EW) Staff Officer
AR-1715-0439

Electronic Warfare (EW)/ Crypto Advanced Noncommissioned Officer (NCO)
AR-1406-0126

Electronic Warfare (EW)/Cryptologic Advanced Noncommissioned Officer (NCO)
AR-2201-0037

Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2
AR-1715-0869

Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0714

Electronic Warfare (EW)/Intercept

Aviation Systems Repairer
AR-1715-0715
Electronic Warfare (EW)/Intercept Equipment Repair Technician–Warrant Officer Technical Certification
AR-1408-0132
Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer
AR-1715-0827
Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0717
Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0719
Electronic Warfare (EW)/Intercept Strategic Signal Processing/Storage Subsystem Repairer
AR-1715-0716
AR-1715-0718
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer
AR-1715-0720
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721
Electronic Warfare (EW)/Intercept System Maintenance Analyst Advanced Noncommissioned Officer (NCO)
AR-1406-0127
Electronic Warfare (EW)/Intercept Systems Repairer, Basic Technical
AR-1715-0502
Electronic Warfare (EW)/Intercept Tactical Systems Repairer
AR-1715-0722
Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0723
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079
Enlisted Air Defense Electronic Warfare (EW)
AR-1715-0011
General Electronic Warfare (EW) Cryptologic Officer (Reserve Component) Nonresident/Resident
AR-2201-0204
Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW))
AR-1406-0128
Senior Officer Electronic Warfare (EW) Cryptologist
AR-1606-0014

Fabric
Fabric Repair Specialist
AR-1716-0003
Fabric Repair Specialist Basic Techinical)
AR-1716-0008
Fabric Repair
AR-1716-0003
Fabric Repair Specialist Advanced Individual Training
AR-1716-0003
Fabric Repair Specialist/Laundry and Bath Specialist
AR-1716-0008
Laundry and Bath/Fabric Repair Specialist Basic Noncommissioned Officer (NCO)
AR-1716-0010

Fabrication
Fabrication of Aerial Delivery Loads
AR-1733-0009

Facilities
Engineered Performance Standards (EPS) for Facilities Engineering Estimators
AR-0326-0026
Facilities Engineering Management
AR-1408-0053
Facilities Engineering Supply System Management
AR-1405-0145
Integrated Facilities System
AR-1402-0057

Faculty
Faculty Development
AR-1406-0001
AR-1406-0092

Family
Family Advocacy Staff Training
AR-1512-0011

Field
Associate Field Artillery Battery Officer
AR-2201-0135
AR-2201-0139
Associate Field Artillery Missile Battery Officer
AR-2201-0135
Associate Field Artillery Officer Advanced
AR-1408-0042
Associate Field Artillery Officer Career
AR-1408-0042
Basic Field Radio Repair
AR-1715-0093
Communications Security (COMSEC) Equipment Full Maintenance (Field)
AR-1715-0677
Field and Fixed Station Radio Officer
AR-1715-0262
Field Artillery (AN/TPS-58B) Radar Operator
AR-1715-0493
Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer
AR-1715-0281
Field Artillery Ballistic Missile Officer
AR-1402-0026
Field Artillery Battery Officer
AR-1715-0281
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0213
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0071
Field Artillery Cannon Basic Noncommissioned Officer (NCO)
AR-2201-0258
AR-2201-0362
Field Artillery Cannon Battery Officer
AR-2201-0219
AR-2201-0368
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0257
Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0256
Field Artillery Cannon Noncommissioned Officer (NCO) Advanced
AR-1601-0074
Field Artillery Cannon Operations/Fire Direction Assistant
AR-1304-0004
Field Artillery Cannon Weapon Systems Qualification
AR-1715-0633
Field Artillery Computer Repairer
AR-1715-0566
AR-1715-0627
Field Artillery Data Computer (FADAC) Maintenance
AR-1715-0218
Field Artillery Digital Automatic Computer (FADAC) Mechanics
AR-1715-0207
Field Artillery Digital System Repairer
AR-1715-0631
Field Artillery Digital Systems Repairer
AR-1715-0831
Field Artillery Field Grade Officer Refresher
AR-2201-0142
Field Artillery Fire Support (NCO) Noncommissioned Officer Advanced
AR-2201-0287
Field Artillery Fire Support Noncommissioned Officer (NCO) Advanced
AR-2201-0363
Field Artillery Fire Support Specialist
AR-1713-0008
AR-1715-0846
Field Artillery Firefinder Operator
AR-1715-0560
Field Artillery Firefinder Organizational Maintenance
AR-1715-0559
Field Artillery Firefinder Radar Operator
AR-1715-0560
AR-1715-0829
Field Artillery Firefinder Unit Maintenance
AR-1715-0838

Field Artillery Mechanic
AR-2201-0048
Field Artillery Meteorological Crew Member
AR-1304-0002
Field Artillery Meteorological Crewman
AR-1304-0002
Field Artillery Meteorological Crewmember
AR-1304-0011
Field Artillery Meteorological Crewmember (NCO) Noncommissioned Officer Advanced
AR-1304-0008
Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)
AR-1304-0006
AR-1304-0010
Field Artillery Meteorological Crewmember Basic Technical
AR-1304-0006
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Field Artillery Missile Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missile Officer Basic
AR-2201-0084
Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-2201-0001
Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Basic (USAFAS)
AR-2201-0156
Field Artillery Missiles/Rockets Noncommissioned Officer (NCO) Basic
AR-2201-0185
Field Artillery Moving Target Locating Radar/Sensor Operator
AR-1715-0493
Field Artillery National Guard Officer Candidate
AR-2201-0138
Field Artillery Noncommissioned Officer (NCO) Candidate
AR-2201-0174
Field Artillery Officer Advanced
AR-1408-0028
Field Artillery Officer Advanced Preparatory
AR-2201-0047
Field Artillery Officer Advanced, Reserve Component
AR-1408-0174
Field Artillery Officer Basic
AR-2201-0193
Field Artillery Officer Basic (Reserve Component)
AR-2201-0168
Field Artillery Officer Candidate
AR-2201-0166
Field Artillery Officer Candidate (Reserve Component)
AR-2201-0168
Field Artillery Officer Familiarization
AR-2201-0152
Field Artillery Officer Mobilization Advanced (Phases II and III)
AR-2201-0110
Field Artillery Officer Orientation
AR-2201-0193
Field Artillery Officer Vietnam Orientation
AR-2201-0159
Field Artillery Operations and Intelligence Assistant
AR-2201-0061
Field Artillery Operations and Intelligence Assistant, Skill Development Base
AR-2201-0175
Field Artillery Operations and Intelligence Noncommissioned Officer (NCO)
AR-2201-0061
Field Artillery Pre-Command
AR-2201-0259
Field Artillery Radar
AR-1715-0252
Field Artillery Radar Basic Technical
AR-1715-0635
Field Artillery Radar Crew Member
AR-1715-0250
Field Artillery Radar Crewman
AR-1715-0250
Field Artillery Radar Crewmember (AN/TPS-58)
AR-1715-0493
Field Artillery Radar Crewmember Noncommissioned Officer (NCO) Advanced
AR-2201-0292
Field Artillery Radar Maintenance
AR-1715-0176
Field Artillery Radar Officer
AR-1715-0252
Field Artillery Radar Operation
AR-1715-0250
Field Artillery Radar Operator
AR-1715-0250
Field Artillery Radar Operator (AN/TPS-58B)
AR-1715-0493
Field Artillery Radar Technician
AR-1715-0177
Field Artillery Repair
AR-1710-0037
Field Artillery Surveyor
AR-1601-0034
AR-1601-0079
Field Artillery Surveyor Basic Noncommissioned Officer (NCO)
AR-2201-0376
Field Artillery Surveyor Noncommissioned Officer (NCO) Advanced
AR-2201-0293
Field Artillery Tactical Fire (TACFIRE) Direction System Repairer
AR-1715-0627
Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced
AR-2201-0286
AR-2201-0369
Field Artillery Target Acquisition and Field Artillery Survey Officer
AR-1601-0054
Field Artillery Target Acquisition Basic Technical
AR-1304-0005
Field Artillery Target Acquisition Officer
AR-1601-0027
Field Artillery Target Acquisition Specialist
AR-1715-0153
Field Artillery Transition Officer
AR-2201-0143
Field Artillery Vehicle Maintenance Technician Warrant Officer Advanced
AR-1703-0032
Field Artillery Weapons Maintenance
AR-1710-0058
AR-1710-0156
Field Artillery Weapons Mechanic
AR-1710-0058
Field Artillery Weapons Mechanic (M198) Howitzer
AR-1710-0058
Field Communication Security (COMSEC) Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0772
Field Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0677
Field Communications Security (COMSEC) Equipment Repair
AR-1715-0661
Field Communications-Electronics Equipment Mechanic
AR-1715-0091
Field Communications-Electronics Equipment Repair
AR-1715-0091
Field General Communications Security (COMSEC) Equipment Repair (Transition)
AR-1715-0697
Field General Communications Security (COMSEC) Equipment Repair (31T)
AR-1715-0697
Field General COMSEC Maintenance
AR-1715-0067
Field General COMSEC Repair
AR-1715-0094
Field General COMSEC Repairer
AR-1715-0599
Field Illumination Crewman, Noncommissioned Officer (NCO) Candidate
AR-2201-0044
Field Illumination Crewman, Skill Development Base
AR-2201-0044
Field Maintenance Officer
AR-1717-0044
Field Radio Mechanic
AR-1715-0091
Field Radio Mechanic Supervisor
AR-1715-0550
Field Radio Relay Equipment Repair, Skill Development Base
AR-1715-0049
Field Radio Repair
AR-1715-0360
Field Radio Repairer
AR-1715-0600
Field Radio Repairer Primary Technical
AR-1715-0360
Field Systems Communications Security (COMSEC) Equipment Repair
AR-1715-0698
Field Systems COMSEC Maintenance
AR-1715-0097
Field Systems COMSEC Repair
AR-1715-0063

Field Systems COMSEC Repairer
AR-1715-0602
Field Systems COMSEC Repairer (Special Repair Activity)
AR-1715-0601
Field Wireman Noncommissioned Officer (NCO) Basic
AR-1714-0012
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742
Light and Medium Towed Field Artillery Mechanic
AR-2201-0106
Light Missile Field Artillery (Lance)
AR-2201-0371
Marine Corps Field Artillery Fire Controlman
AR-1601-0055
Marine Field Artillery Fire Controlman
AR-1601-0055
Ordnance Officer Advanced Field Maintenance Management
AR-1703-0034
Organizational Maintenance of Field Radio Equipment
AR-1715-0550
OH-58 A/C Field Artillery Aerial Observer
AR-1606-0188
OH-58D Field Artillery Aerial Fire Support Observer
AR-1402-0112
OH-58D Field Artillery Aerial Observer
AR-1606-0169
OH-58D Field Artillery Instructor Pilot
AR-1406-0078
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
Quartermaster Field Grade Refresher
AR-1405-0192
Regular Army Field Artillery Officer Basic
AR-2201-0193
Self-Propelled Field Artillery System Basic Noncommissioned Officer (NCO)
AR-1710-0112
Self-Propelled Field Artillery System Mechanic
AR-1703-0039
Self-Propelled Field Artillery System Mechanic Noncommissioned Officer (NCO) Advanced
AR-2201-0320
Self-Propelled Field Artillery Systems Mechanic Basic Technical
AR-1710-0098
AR-1710-0112
Self-Propelled Field Artillery Turret Mechanic
AR-1710-0107
AR-1710-0157
Senior Field Artillery Officer
AR-2201-0140
Senior Field General COMSEC Repair
AR-1715-0094
Senior Field Systems COMSEC Repair
AR-1715-0063
Supervisory Field Communications Equipment Maintenance
AR-1715-0008
Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element
AR-1402-0084
Techniques and Procedures for Field Manual Development
AR-1406-0055
TOW Field Test Set Repairer
AR-1715-0565

Fieldata
Automatic Data Processing System (ADPS) (Fieldata) Auxiliary Equipment Repair
AR-1715-0039
Automatic Data Processing System (ADPS) (Fieldata) Console Operation
AR-1402-0036
Automatic Data Processing System (ADPS) (Fieldata) Plans and Operations Officer
AR-1402-0035
Automatic Data Processing System (ADPS) (Fieldata) Repair
AR-1715-0038
Automatic Data Processing System (ADPS) Fieldata Programming Course
AR-1402-0017

Fighting
Bradley Fighting Vehicle System
AR-1710-0099
Bradley Fighting Vehicle System Mechanic Basic Noncommissioned Officer (NCO)
AR-1710-0110
Bradley Fighting Vehicle System Mechanic Noncommissioned Officer (NCO)
AR-1710-0129
Bradley Fighting Vehicle System Mechanic Primary Technical
AR-1710-0120
Bradley Fighting Vehicle System Organizational Maintenance
AR-2201-0326
Bradley Fighting Vehicle System Turret Mechanic
AR-1703-0045
Bradley Fighting Vehicle Systems TOW/Dragon Repairer
AR-1710-0108
M2/M3 Bradley Fighting Vehicle Repairer
AR-1712-0016
M2/M3 Bradley Fighting Vehicle Turret Repair
AR-1710-0105
M2/3 Bradley Fighting Vehicle (BFV) Unit Maintenance Training
AR-1710-0147
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143

Finance
Associate Finance Officer Career
AR-1401-0018
Finance (FI-CMF) Noncommissioned Officer (NCO) Advanced
AR-1408-0002
Finance (FI-CMF) Noncommissioned Officer (NCO) Basic
AR-1402-0004
Finance Noncommissioned Officer (NCO) Advanced by Correspondence
AR-1408-0098
AR-1408-0099
Finance Officer Advanced
AR-1401-0009
AR-1401-0027
Finance Officer Advanced (Nonresident/Resident)
AR-1408-0076
Finance Officer Advanced by Correspondence
AR-1408-0096
Finance Officer Advanced Nonresident/Resident - Reserve
AR-1408-0076
Finance Officer Basic
AR-1408-0052
AR-1408-0166
Finance Officer Basic by Correspondence
AR-1408-0097
Finance Officer Career
AR-1401-0009
Finance Officer Mobilization Basic, Phase II
AR-1408-0051
Finance Officer Orientation
AR-1408-0052
AR-2201-0107
Finance Officer Orientation—MBA
AR-2201-0107
Finance Operations Noncommissioned Officer (NCO)
AR-1408-0002
Finance Procedures
AR-1401-0007
Finance Specialist
AR-1401-0002
AR-1401-0033
Finance Specialist Advanced Noncommissioned Officer (NCO)
AR-1401-0040
Finance Specialist Basic Noncommissioned Officer (NCO)
AR-1401-0035

Financial
Comptroller Intern Financial Management
AR-1408-0070
Financial Management Officer Advanced
AR-1401-0027
Financial Management Systems Automated Applications
AR-1402-0033
Financial Management Systems—Automated Data Processing (ADP)
AR-1402-0033
Financial Management—Budget
AR-1408-0001
Financial Management—Integrated Accounting
AR-1401-0001
Financial Management—Inventory Accounting and Army Stock Fund Operations
AR-1405-0005
Financial Management—Machine Accounting
AR-1402-0034
Financial Management—Machine Accounting Systems
AR-1402-0034
Financial Management—Mobilization Designees
AR-1408-0034
Resource Intern Financial Management
AR-1408-0070

Fingerprint
Fingerprint Examination
AR-1728-0014
Fingerprint Technician
AR-1728-0048

Latent Fingerprint Examiner
AR-1728-0048

Fingerprinting
Radio Fingerprinting
AR-1715-0333

Fire
Air Defense Fire Distribution Systems Controller
AR-2201-0059
Automated Fire Support Leader
AR-2201-0380
Cannon Fire Direction Specialist
AR-1304-0004
AR-1715-0844
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0257
Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0256
Field Artillery Cannon Operations/Fire Direction Assistant
AR-1304-0004
Field Artillery Fire Support (NCO) Noncommissioned Officer Advanced
AR-2201-0287
Field Artillery Fire Support Noncommissioned Officer (NCO) Advanced
AR-2201-0363
Field Artillery Fire Support Specialist
AR-1713-0008
AR-1715-0846
Field Artillery Tactical Fire (TACFIRE) Direction System Repairer
AR-1715-0627
Fire Control Instrument Repairer
AR-1714-0026
Fire Direction Officer
AR-1402-0122
Fire Distribution Integration Systems Repair (AN/GSG-5 and 6)
AR-1715-0024
Fire Distribution Integration Systems Repair (AN/GSG-5(V) and 6)
AR-1715-0024
Fire Distribution Integration Systems Repair (AN/GSG-5)
AR-1715-0024
Fire Distribution System Maintenance
AR-1715-0232
Fire Distribution Systems Electronics
AR-1715-0232
Fire Fighter
AR-1728-0046
Fire Support Specialist
AR-1715-0846
Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0154
Indirect Fire Crewman
AR-2201-0311
Infantry Indirect Fire Crewman Noncommissioned Officer (NCO) Candidate
AR-2201-0176
Lance Operations/Fire Direction Assistant
AR-1601-0056
Marine Corps Field Artillery Fire Controlman
AR-1601-0055
Marine Field Artillery Fire Controlman
AR-1601-0055
Missile Master Fire Unit Integration Facility Maintenance
AR-1715-0087
Multiple Launch Rocket System (MLRS) Operations/Fire Direction Specialist
AR-1715-0634
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced (NCO) Noncommissioned Officer
AR-2201-0289
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommisioned Officer (NCO)
AR-2201-0359
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0365
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Specialist
AR-1715-0847
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
OV-1 Suppressive Fire
AR-2201-0114
Tactical Fire (TACFIRE) Command and Staff
AR-2201-0283
Tactical Fire (TACFIRE) Direction System Fire Support
AR-1402-0074
Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element
AR-1402-0084
Tactical Fire (TACFIRE) Fire Support Element
AR-1402-0124
Tactical Fire (TACFIRE) Operations Specialist
AR-1402-0082
AR-1402-0125
AR-1715-0832
Tactical Fire (TACFIRE) Operations Specialist Basic Technical
AR-1715-0638
Tactical Fire (TACFIRE) Support Element Liaison Officer
AR-1402-0071
Tactical Fire (TACFIRE) Tactical Operations Center
AR-1402-0072
AR-1402-0123
Tactical FIRE (TACFIRE) Battalion Fire Direction Officer
AR-1402-0083
Terminal Data Link Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0041
TACFIRE Fire Direction System Fire Support with Fire Support Element Module
AR-1402-0074

Fire Control
Aircraft Fire Control Repair
AR-1715-0269
Aircraft Fire Control Repairer
AR-1714-0023
Aircraft Fire Control Repairer Advanced Noncommissioned Officer (NCO)
AR-1704-0140
Aircraft Fire Control Repairer Basic Technical
AR-1704-0119
Aircraft Fire Control Systems Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft Fire Control Systems Supervisor Basic Noncommissioned Officer (NCO) Basic
AR-1704-0147
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
AR-1715-0214
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer
AR-1715-0214
Armament/Fire Control Maintenance Supervisor Noncommissioned Officer (NCO) Advanced
AR-1704-0141
Artillery Fire Control System Maintenance SCR-584 and Director M9 or M10
AR-1715-0142
Artillery Fire Control System Maintenance, M33
AR-1715-0213
Artillery Fire Control System Maintenance, T-38
AR-1715-0215
Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic
AR-1715-0513
AR-1715-0514
Corporal Fire Control System Maintenance
AR-1715-0280
Fire Control Computer Repair
AR-1715-0034
Fire Control Instrument Repair
AR-1721-0002
Fire Control Instrument Repair (Basic)
AR-1721-0001
Fire Control System Repairer
AR-1714-0025
AR-1714-0030
Fire Control System Repairer (USA)
AR-1714-0030
Guided Missile Fire Control System Maintenance, SSM
AR-1715-0076
Gun Section Fire Control Maintenance, T38
AR-1715-0217
Hawk Fire Control Crew Member
AR-1715-0512
AR-1715-0818
Hawk Fire Control Maintenance
AR-1715-0211
AR-1715-0392
AR-1715-0821
Hawk Fire Control Repair
AR-1715-0230
Hawk Fire Control Repairer
AR-1715-0739
Hawk Fire Control Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0741
Heavy Fire Control Equipment Repair
AR-1715-0141
Hercules Fire Control Crew Member
AR-1715-0518
Improved Hawk Fire Control

Intermediate Maintenance
AR-1715-0400
Improved Hawk Fire Control Maintenance
AR-1715-0392
Improved Hawk Fire Control Maintenance (Transition)
AR-1715-0375
Improved Hawk Fire Control Maintenance Supervisor
AR-1715-0373
Improved Hawk Fire Control Maintenance Transition (PIP)
AR-1715-0519
Improved Hawk Fire Control Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0735
Improved Hawk Fire Control Mechanic Basic Technical
AR-1715-0735
Improved Hawk Fire Control Repair
AR-1715-0198
Improved Hawk Fire Control Repair Transition
AR-1402-0023
Improved Hawk Fire Control Repairer
AR-1715-0198
Improved Hawk Fire Control Repairer Transition (PIP II)
AR-1715-0497
Improved Hawk Fire Control Repairer Transition (PIP)
AR-1715-0497
Improved Nike Hercules Fire Control System Maintenance
AR-1715-0361
Improved Nike-Hercules Fire Control System Maintenance Transition
AR-1715-0140
Lacrosse Fire Control Operation
AR-1715-0291
Lacrosse Fire Control System Maintenance
AR-1715-0314
Light Fire Control Equipment Repair
AR-1715-0170
M-38 Fire Control System Maintenance
AR-1715-0215
M1 Abrams Tank Fire Control Systems Repairer
AR-1710-0101
M33 Fire Control System Maintenance
AR-1715-0213
M33, SCR-584 Fire Control System Maintenance
AR-1715-0213
Nike Ajax Fire Control System Maintenance
AR-1715-0216
Nike Hercules Fire Control System Maintenance
AR-1715-0361
Nike Hercules Fire Control System Maintenance Transition
AR-1715-0304
Nike Universal Fire Control System Maintenance
AR-1715-0361
Ordnance Fire Control Materiel Maintenance
AR-1715-0158
Skysweeper Gun Section Fire Control Maintenance
AR-1715-0217
Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax
AR-1715-0216
Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element
AR-1402-0084
T38 Gun Section Fire Control Maintenance
AR-1715-0217

Fire Support Observer
OH-58D Field Artillery Aerial Fire Support Observer
AR-1402-0112

Firearms
Firearms and Tool Marks Examiner
AR-1728-0015
Firearms Examination
AR-1728-0015

Firefinder
Field Artillery Firefinder Operator
AR-1715-0560
Field Artillery Firefinder Organizational Maintenance
AR-1715-0559
Field Artillery Firefinder Radar Operator
AR-1715-0560
AR-1715-0829
Field Artillery Firefinder Unit Maintenance
AR-1715-0838
Firefinder Maintenance Supervisor
AR-1715-0630
Firefinder Radar Repairer
AR-1402-0075

Firing
Hawk Firing Section Mechanic (PIP II)
AR-1715-0814
Hawk Firing Section Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0804
Improved Hawk Firing Section Intermediate Maintenance
AR-1715-0399
Improved Hawk Firing Section Maintenance
AR-1715-0307
Improved Hawk Firing Section Maintenance (Transition)
AR-1715-0376
Improved Hawk Firing Section Maintenance Supervisor
AR-1715-0384
Improved Hawk Firing Section Mechanic
AR-1715-0307
Improved Hawk Firing Section Mechanic (PIP II) Transition
AR-1715-0571
AR-1715-0806
Improved Hawk Firing Section Mechanic Basic Technical
AR-1715-0657
Sergeant Firing Set Repair
AR-1715-0353
Sergeant Firing Set Repairman
AR-1715-0353

Fitness
Master Fitness Trainer
AR-0803-0004
AR-0803-0012
Master Fitness Trainer - Reserve Component
AR-0803-0011
Reserve Component Master Fitness Trainer
AR-0803-0011

Fixed
Basic Fixed Plant Carrier Equipment Repair
AR-1715-0031
Dental Fixed Prosthetic Specialist
AR-0701-0005
Field and Fixed Station Radio Officer
AR-1715-0262
Fixed Ciphony Repair
AR-1715-0096
Fixed Ciphony Repairer
AR-1715-0687
Fixed Ciphony Repairer (Transition) (32G)
AR-1715-0687
Fixed Ciphony Repairer Special Repair Activity (SRA)
AR-1715-0709
Fixed Ciphony Repairer Supervisor Basic Technical
AR-1715-0603
Fixed Communication Security (COMSEC) Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0771
Fixed Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0764
Fixed Communications Security (COMSEC) Equipment Repair
AR-1715-0669
Fixed Communications Security (COMSEC) Equipment Repairer (Transition 32G)
AR-1715-0681
Fixed Countermeasures Receiving System Maintenance (AN/FLR-9)
AR-1715-0406
Fixed Cryptographic Equipment Repair
AR-1715-0322
Fixed Cryptographic Equipment Repair (Transition)
AR-1715-0681
Fixed Cryptographic Equipment Repair Transition 32F
AR-1715-0681
Fixed Cryptographic Equipment Repairer
AR-1715-0322
Fixed Cryptographic Equipment Special Repair Activity (SRA)
AR-1715-0637
Fixed Plant Carrier Equipment Repair
AR-1715-0125
Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0015
Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0046
Fixed Station Facilities Controller
AR-1715-0135
Fixed Station Radio Equipment Operation and Maintenance
AR-1715-0110
Fixed Station Radio Receiver Repair
AR-1715-0055
Fixed Station Radio Repair
AR-1715-0056
Fixed Station Radio Repairer
AR-1715-0056

Fixed Station Radio Transmitter Repair AR-1715-0057
Fixed Station Receiver Repair AR-1715-0055
Fixed Station Technical Controller AR-1715-0135
Fixed Station Terminal Repair AR-1715-0282
Fixed Station Transmitter Repair AR-1715-0057
Fixed Telecommunications Systems Advanced AR-1404-0019
Fixed Wing Instrument AR-1606-0093
Fixed Wing Instrument Flight Examiner AR-1606-0125
Fixed Wing Instrument Qualification AR-1606-0093
Fixed Wing Multi-Engine Qualification AR-1606-0111
Fixed Wing Qualification AR-1606-0028
Fixed Wing Technical Inspector AR-1717-0004
General Officer Fixed Wing Flight Training AR-1606-0117
Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase AR-1606-0066
Officer Fixed Wing Aviator—Instruments Phase AR-1606-0067
Officer Fixed Wing Aviator—Primary Phase AR-1606-0065
Officer/Warrant Officer Fixed Wing Aviator AR-1606-0068
Officer/Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase AR-1606-0066
Officer/Warrant Officer Fixed Wing Aviator—Instruments Phase AR-1606-0067
Officer/Warrant Officer Fixed Wing Aviator—Primary Phase AR-1606-0065
Supervisory Fixed Station Communications Maintenance AR-1715-0026
Warrant Officer Candidate Preflight Indoctrination—Fixed Wing AR-1606-0098
Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase AR-1606-0066
Warrant Officer Fixed Wing Aviator—Instruments Phase AR-1606-0067
Warrant Officer Fixed Wing Aviator—Primary Phase AR-1606-0065
Warrant Officer Indoctrination Training—Preflight (Fixed Wing) AR-1606-0114

Flame
Mechanized Flame Thrower Surveillance AR-1601-0041
Smoke and Flame Specialist Noncommissioned Officer (NCO) Basic AR-2201-0030

Flash
Artillery Flash Ranging Advanced AR-1601-0025

Flight
Aerospace Medicine Residency Flight Training AR-1606-0163
Army Aviation Primary and Tactical Flight Training AR-1606-0120
Army Aviator Basic Flight Training (Helicopter) AR-1606-0112
Army Flight Surgeon AR-0799-0022
Army H-37 Helicopter Pilot's Transition Flight Training AR-1606-0101
Avionic Flight Systems Repairer AR-1715-0867
Avionic Navigation and Flight Control Equipment Repair AR-1715-0431
Avionic Navigation and Flight Control Equipment Repairer AR-1715-0867
CH-47D Flight Engineer Instructor AR-1606-0189
Flight Medical Aidman AR-0709-0029
AR-0709-0040
Flight Operations Advanced Noncommissioned Officer (NCO) AR-1704-0174
Flight Operations Basic Noncommissioned Officer (NCO) AR-1704-0173
Flight Operations Coordinator AR-1704-0007
AR-1704-0178
Flight Operations Coordinator, Skill Development Base AR-1704-0076
Flight Operations Specialist AR-1704-0007
Flight Simulator (UH1FS) Specialist AR-1606-0006
Flight Simulator (2B24) Specialist AR-1606-0006
Flight Simulator Operations and Maintenance AR-1606-0069
Flight Simulator Specialist AR-1606-0069
General Officer Fixed Wing Flight Training AR-1606-0117
General Officer Rotary Wing Flight Training AR-1606-0073
H-13/H-19 Transition Flight Training AR-1606-0103
H-13/H-34 Transition Flight Training AR-1606-0100
Helicopter Instrument Flight Examiner AR-1606-0124
Instrument Flight Examiner AR-1606-0108
Rotary Wing Instrument Flight Examiner AR-1606-0124
AR-1606-0190
Senior Army Officer Flight Training AR-1606-0113
U1-A Transition Flight Training AR-1606-0109

Flight Control
Avionic Flight Control Equipment Repair AR-1715-0337
Avionic Navigation and Flight Control Equipment Repairer AR-1715-0867
CH-54 Automatic Flight Control Equipment Repair AR-1715-0205
Light Target Missile Flight Control System Maintenance AR-1715-0131

Food
Advanced Food Management AR-1729-0021
Food Adviser/Food Service Technician/Food Service AR-1729-0014
Food Adviser/Technician AR-1729-0014
Food Inspection AR-0104-0002
Food Inspection Advanced AR-0104-0001
Food Inspection Procedures Advanced AR-0104-0001
Food Inspection Procedures Basic AR-0104-0002
Food Management Quartermaster Officer Advanced AR-1729-0017
Food Management Quartermaster Officer Basic AR-1729-0018
Food Service (FS-CMF) Noncommissioned Officer (NCO) Advanced AR-1729-0008
Food Service (FS-CMF) Noncommissioned Officer (NCO) Basic AR-1729-0007
Food Service Management AR-1729-0014
AR-1729-0032
Food Service Management/Advisor AR-1729-0014
Food Service Management/Supervisor AR-1729-0014
Food Service Management/Technician AR-1729-0014
Food Service Specialist AR-1729-0009
Food Service Specialist Advanced Individual Training AR-1729-0041
Food Service Specialist Advanced Noncommissioned Officer (NCO) AR-1729-0040
Food Service Specialist Basic Noncommissioned Officer (NCO) AR-1729-0039
Food Service Specialist Basic Technical AR-1729-0006
Food Service Specialist Individual Ready Reserve AR-1729-0035
AR-1729-0038
Food Service Specialist Noncommissioned Officer (NCO) Advanced AR-1729-0008
Food Service Supervision AR-1729-0014

Food Service Supervision, Enlisted
AR-1729-0011
Food Service Supervisor
AR-1729-0011
Food Service Technician Entry Warrant Officer
AR-1729-0026
Food Service Technician Senior Warrant Officer
AR-1729-0036
Food Service Technician Warrant Officer Technical/Tactical Certification
AR-1729-0034
Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1729-0037
Hospital Food Service Management
AR-1729-0043
Hospital Food Service Specialist
AR-1729-0004
Hospital Food Service Specialist (Basic) Reserve Component
AR-1729-0044
Hospital Food Service Specialist Advanced
AR-0104-0006
Hospital Food Service Specialist Basic Reserve Component (Correspondence, Resident, Nonresident)
AR-1729-0016
Hospital Food Service Supervisor Refresher
AR-1729-0020
Veterinary Food Inspection Specialist
AR-0104-0002
Veterinary Food Inspection Specialist (Basic) (Reserve Component) Phase II
AR-0104-0011
Veterinary Food Inspection Specialist Advanced
AR-0104-0001
Veterinary Preventive Medicine and Food Inspection
AR-0104-0005
Warrant Officer Food Inspection Technician Basic
AR-0104-0009

Force
Force Integration—Manning the Force
AR-1405-0126
Force Moderization-Reserve Component
AR-1715-0766
Force Modernization and Sustaining (Equipping the Force)
AR-1408-0118
Force Modernization Management (Equipping the Force)
AR-1408-0118
Tactical All-Source Intelligence Officer Force Alignment Plan III
AR-1728-0087

Forces
Ground Mobile Forces (GMF) Interface Subsystem
AR-1715-0695
Phase 2 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0020

Foreign
Foreign Area Officer
AR-1511-0003
AR-1511-0017
Foreign Area Officer Nonresident/ Resident
AR-1511-0015
Foreign Area Officer Orientation
AR-1511-0017
Foreign Area Officer Reserve Component
AR-1511-0001
Foreign Instrumentation Signals Externals Analysis
AR-1715-0729

Foreman
Armament Maintenance Foreman
AR-1717-0047
Construction Foreman Noncommissioned Officer (NCO) Candidate
AR-1710-0025
Railway Section Foreman
AR-1710-0005
Railway Shop Foreman
AR-1710-0007
Utilities Foreman
AR-1710-0004

Forensic
Forensic Chemist
AR-1601-0004
Forensic Chemistry—Trace Evidence
AR-1601-0047
Forensic Drug Chemist
AR-1601-0048
Forensic Photographer
AR-1709-0009
Forensic Serology
AR-1601-0053

Forward
Forward Area Alerting Radar (FAAR) Organizational Maintenance
AR-1715-0585
Forward Area Alerting Radar (FAAR) Repair
AR-1715-0169
Forward Area Alerting Radar (FAAR) Repairer
AR-1715-0169
Forward Area Alerting Radar (FAAR) System
AR-1715-0374
Forward Area Alerting Radar (FAAR) System Maintenance
AR-1715-0374
Forward Area Alerting Radar (FAAR) System Mechanic–Phase II
AR-1715-0495
Vulcan/Forward Area Alerting Radar (FAAR) Mechanic
AR-1715-0495

Fraud
Advanced Fraud Investigation
AR-1728-0063

Frequency
CONUS High Frequency (HF) Radio Communications System Operator
AR-1715-0857

Fuel
Fuel and Electrical Systems Repair
AR-1703-0019
Fuel and Electrical Systems Repairer
AR-1703-0026
M1 Abrams Fuel and Electrical Systems Repairer
AR-1714-0024
AR-1714-0029

Fuels
Cooperative Fuels Research (CFR) Test Engine
AR-1703-0010

Fumigation
Laundry and Fumigation Officer
AR-1716-0006

Functional
Commodity Command Standard System (CCSS) Functional
AR-1405-0118
General Functional Systems Requirement (GFSR) in Systems Development
AR-1408-0057
Structured Functional Systems Descriptions and Design (SFSDD)
AR-1408-0057

Fund
Appropriated Fund Accounting
AR-1408-0095
Command Stock Fund Accounting
AR-1401-0005
Fund Control
AR-1401-0023
Nonappropriated Chaplains' Fund Clerk
AR-1408-0130
Nonappropriated Chaplains' Fund Custodian
AR-1408-0131
Nonappropriated Fund Accounting
AR-1408-0094

Fundamentals
Satellite Communication (SATCOM) Fundamentals
AR-1715-0679
Satellite Communications (SATCOM) Systems Fundamentals
AR-1715-0429
USMC Missile Systems Maintenance Fundamentals
AR-1715-0398

FAAR
Forward Area Alerting Radar (FAAR) Organizational Maintenance
AR-1715-0585
Forward Area Alerting Radar (FAAR) Repair
AR-1715-0169
Forward Area Alerting Radar (FAAR) Repairer
AR-1715-0169
Forward Area Alerting Radar (FAAR) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0642
Forward Area Alerting Radar (FAAR) System
AR-1715-0374
Forward Area Alerting Radar (FAAR) System Maintenance
AR-1715-0374
Forward Area Alerting Radar (FAAR) System Mechanic–Phase II
AR-1715-0495
Vulcan/Forward Area Alerting Radar (FAAR) Mechanic
AR-1715-0495

FADAC
Field Artillery Data Computer (FADAC) Maintenance
AR-1715-0218
Field Artillery Digital Automatic Computer (FADAC) Mechanics
AR-1715-0207
Field Artillery Digital Automatic Computer System (FADAC) Radar Technician (Marine)
AR-1715-0034

FADAC Radar Technician
AR-1715-0566

FAGM
Ordnance Guided Missile Officer (FAGM)
AR-1715-0330

FAM
Ordnance Guided Missile Officer (FAM)
AR-1715-0330

FUIF
Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0154
Terminal Data Link Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0041

Gas
Gas Turbine Generator Repair
AR-1712-0013

General
Adjutant General Officer Advanced
AR-1408-0029
AR-1408-0168
Adjutant General Officer Career
AR-1408-0029
Adjutant General Officer Career Advanced
AR-1408-0029
Adjutant General Officer Orientation
AR-1406-0010
Adjutant/Adjutant General Officer Familiarization
AR-1408-0054
Associate Adjutant General Company Officer
AR-1408-0058
Associate Adjutant General Officer Advanced
AR-1406-0018
Associate Adjutant General Officer Career
AR-1402-0028
Chaplain Reserve Component General Staff
AR-1408-0128
Chaplain Reserve Component General Staff College
AR-1408-0128
General Intercept Equipment Repair
AR-1715-0189
General Supply Technician Warrant Officer Technical Certification
AR-1405-0170

Generation
(Light Wheel Vehicle/Power Generation Mechanic)
AR-1703-0021
Conventional/Precise Power Generation
AR-1715-0341
Light Wheel/ Power Generation Mechanic Basic Technical
AR-1703-0023
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
Power Generation Equipment Repairer
AR-1732-0003
Power Generation Equipment Repairer Primary Technical
AR-1712-0013
Power Generation Equipment Repairman
AR-1712-0013
Precise Power Generation
AR-1732-0005
Smoke Generation Supervision
AR-1601-0040
Wheel and Power Generation Unit Maintenance
AR-1704-0171

Generator
Electric Motor and Generator Repair
AR-1715-0321
Electric Motor and Generator Repairman
AR-1715-0321

Geodetic
Advanced Geodetic Surveyor
AR-1601-0006

German
Army-Unique Voice Interceptor Training (German)
AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150
Voice Operator Mission Training (German)
AR-2201-0198

Government
Civil Affairs and Military Government Officer
AR-2201-0148
Civil Affairs and Military Government Officer Advanced
AR-1408-0049
Military Government Advanced
AR-2201-0141

Graphics
Engineer Graphics Warrant Officer Intermediate
AR-1601-0011
Graphics Documentation Specialist Basic Noncommissioned Officer (NCO)
AR-0202-0001

Graves
Graves Registration Specialist
AR-0709-0038
Graves Registration Specialist Advanced Individual Training
AR-0709-0026
Graves Registration Specialist Advanced Noncommissioned Officer (NCO)
AR-0709-0037
Graves Registration Specialist Basic Technical
AR-0709-0027
Service Noncommissioned Officer (NCO) Advanced (Graves Registration Specialist Track)
AR-0709-0028

Grocery
Commissary Grocery Department Management
AR-1729-0023

Ground
Air Traffic Control Ground Control Approach Specialist
AR-1704-0003
Corporal Ground Guidance Repair
AR-1715-0238
Corporal Ground Handling Equipment Repair
AR-1714-0014
Defense Satellite Communications System (DSCS) Ground Mobile Forces (GMF) Controller
AR-1715-0691
Ground Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381
Ground Control Approach Equipment Repair
AR-1715-0199
Ground Control Radar Repair
AR-1715-0199
Ground Control Radar Repair, Skill Development Base
AR-1405-0022
Ground Control Radar Repair, Specialist Candidate
AR-1405-0022
Ground Mobile Forces (GMF) Interface Subsystem
AR-1715-0695
Ground Surveillance Radar Crewman
AR-1715-0178
Ground Surveillance Radar Mechanic (AN/TPS-33 and AN/PPS-4)
AR-1715-0147
Ground Surveillance Radar Operation
AR-1715-0178
Ground Surveillance Radar Operator
AR-1715-0178
Ground Surveillance Radar Repair
AR-1715-0147
AR-1715-0229
Ground Surveillance System Operator Basic Noncommissioned Officer (NCO)
AR-1606-0207
Ground Surveillance Systems Operator (Ground Surveillance Radar Crewman)
AR-1715-0178
JStars Ground Station Module (GSM) Operator/Supervisor
AR-1715-0870
Ordnance Officer Advanced Tank Ground Mobility
AR-1408-0078
Ordnance Officer Advanced Tank/ Ground Mobility Materiel Management
AR-1408-0078
Ordnance Officer Basic Tank and Ground Mobility Materiel Management
AR-1405-0093
Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39
AR-1715-0609
Satellite Communications (SATCOM) Ground Station Equipment Repairman
AR-1715-0037
Unattended Ground Sensor Mechanic
AR-1715-0284
Unattended Ground Sensor Operation
AR-1715-0224
Unattended Ground Sensor Specialist
AR-1715-0393
Unattended Ground Sensor Specialist/ Maintenance Specialist
AR-1715-0284

Guard
Army National Guard Recruiter, Basic
AR-1406-0098
Army National Guard Recruiting Supervisor
AR-1406-0098
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase
AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—

Transition Phase AR-1606-0056

Field Artillery National Guard Officer Candidate AR-2201-0138

Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG) AR-2201-0352

National Guard (ARNG) Advanced Recruiter and Sales AR-1406-0134

National Guard (ARNG) Recruiter and Sales AR-1406-0139

National Guard (ARNG) Recruiting and Rentention Detachment Commander AR-1408-0183

National Guard (ARNG) Recruiting Field Sales Manager AR-1408-0185

National Guard (ARNG) Rentention Noncommissioned Officer (NCO) AR-2201-0388

National Guard Advanced Retention Noncommissioned Officer (NCO) AR-2201-0353

National Guard Enlistment Processing Station (MEPS) Guidance Counselor AR-2201-0351

National Guard Infantry Officer Candidate AR-2201-0137

National Guard Officer Candidate AR-2201-0300

National Guard Recruiter AR-1406-0098

National Guard Recruiting and Retention Manager AR-1406-0097

National Guard Recruiting Advanced AR-1406-0101

National Guard Retention Noncommissioned Officer (NCO) AR-2201-0355

Guardrail

Guardrail IV System Maintenance AR-2201-0205

Guardrail Maintenance (DS/GS) AR-1715-0544

Guardrail V Maintenance AR-1715-0544

Guardrail V System Qualification (RU-21 (Guardrail V) (2R)) (RU-21 (Guardrail) Systems Qualification) AR-1715-0569

RC-12D Improved Guardrail Systems Qualification (RC-12D (Improved Guardrail V) Systems Qualification) AR-1715-0568

Guidance

Ballistic Missile Guidance and Control Repair AR-1715-0104

Ballistic Missile Guidance and Control Repair (Pershing) AR-1715-0079

Ballistic Missile Inertial Guidance and Control Repair (Pershing) AR-1715-0103

Ballistic Missile Inertial Guidance and Control Repair (Sergeant) AR-1715-0312

Corporal Ground Guidance Repair AR-1715-0238

Corporal Internal Guidance Repair AR-1715-0083

Guidance Counselor AR-1406-0064 AR-1408-0184

Hawk Internal Guidance and Launcher Electronics Repair AR-1715-0313

Lacrosse External Guidance Repair AR-1715-0123

Lacrosse External Guidance System Repair AR-1715-0123

Lacrosse Internal Guidance Repair AR-1715-0124

Lacrosse Internal Guidance System Repair AR-1715-0124

Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG) AR-2201-0352

National Guard Enlistment Processing Station (MEPS) Guidance Counselor AR-2201-0351

Nike Internal Guidance Repair AR-1715-0114

Nike Internal Guidance Repair (Hercules Transition) AR-1715-0323

Nike Internal Guidance System Repair AR-1715-0114

Pershing Guidance and Control Repairman I(A) Noncommissioned Officer (NCO) Advanced AR-1717-0029

Sergeant Missile Guidance Repair AR-1715-0302

Surface-to-Air Missile (SAM) Internal Guidance System Repair AR-1715-0114

Surface-to-Surface Missile (SSM) Internal Guidance System Repair AR-1715-0083

Guided Missile

AN/TPQ-21 Hawk Guided Missile System Simulator Maintenance AR-1715-0276

Equipment Operation/Maintenance Test Set Guided Missile Set (TOW Ground) AR-1715-0565

Equipment Operation/Maintenance Test Set, Guided Missile System (TOW-Ground) AR-1715-0737

Guided Missile and Special Weapons Staff Officer AR-1405-0068

Guided Missile Electronic Materiel Maintenance AR-1715-0085

Guided Missile Electronic Materiel Maintenance, Surface-to-Surface Missile (SSM) AR-1715-0090

Guided Missile Fire Control System Maintenance, SSM AR-1715-0076

Guided Missile Installation Electrical Equipment Repair AR-1715-0241

Guided Missile Maintenance Supervision, Nike AR-1715-0255

Guided Missile Propellants and Explosives AR-2201-0119

Guided Missile Propellants—Explosives Specialist AR-2201-0119

Guided Missile Repair Helper AR-1715-0113

Guided Missile Staff Officer AR-1715-0286

Guided Missile Systems Maintenance Supervision (Corporal) AR-1715-0249

Guided Missile Systems Maintenance Supervisors, Corporal II AR-1715-0249

Guided Missile Systems Officer AR-1715-0286

Guided Missile Unit Commander (Surface-to-Air Missile (SAM) AR-1715-0385

Guided Missile, Nuclear Weapons and ARADCOM Safety AR-0802-0005

Improved Hawk Guided Missile Simulator Maintenance Maintenance AR-1715-0300

Ordance Guided Missile Officer, AAGM AR-1715-0326

Ordnance Guided Missile Company Grade Officer AR-1715-0329

Ordnance Guided Missile Officer (FAGM) AR-1715-0330

Ordnance Guided Missile Officer (FAM) AR-1715-0330

Ordnance Guided Missile Officer, Air Defense Missile AR-1715-0326

Ordnance Staff Officer Guided Missile and Nuclear Weapons AR-1405-0068

Ordnance Staff Officer Guided Missile and Special Weapons AR-1405-0068

Ordnance Staff Officer Guided Missile and Special Weapons Logistics AR-2201-0099

Systems Engineering, Analysis and Management (Guided Missile) AR-1715-0286

Wire Guided Missile System Repair AR-1715-0299

Wire Guided Missile System Repair. AR-1715-0299

Gun

Gun Section Fire Control Maintenance, T38 AR-1715-0217

Skysweeper Gun Section Fire Control Maintenance AR-1715-0217

T38 Gun Section Fire Control Maintenance AR-1715-0217

Gunner

Bradley Infantry Fighting Vehicle Gunner AR-1710-0063

Bradley Infantry Fighting Vehicle Master Gunner AR-1710-0061

Helicopter Door Gunner Qualification AR-1606-0090

Master Gunner (M551)
AR-2201-0214
Master Gunner (M60A1/A3)
AR-2201-0216
Master Gunner (M60A2)
AR-2201-0215
Master Gunner M60A1
AR-2201-0334
Master Gunner M60A3
AR-2201-0335
Master Gunner M60A3 Transition
AR-2201-0336
M1 Abrams Master Gunner
AR-2201-0327
M1/M1A1 Abrams Master Gunner
AR-2201-0328
M1/M1A1 Master Gunner Transition
AR-2201-0329

Gunnery
Air Defense Artillery (ADA) Range Gunnery Crewman
AR-1715-0517
Air Defense Artillery (ADA) Short Range Gunnery Crew Member
AR-1715-0517
AH-1G (Hueycobra) Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0057
AH-1G (Hueycobra) Pilot Transition/Gunnery
AR-1606-0059
LOH Transition/Gunnery IP Qualification
AR-1606-0126
M-22 Gunnery
AR-2201-0115
M-22 Gunnery Qualification
AR-2201-0115
OH-58 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0047
OH-6 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0126
OH-6 Transition/Gunnery IP Qualification
AR-1606-0126
Special Career Level Artillery Advanced Gunnery (USMC)
AR-2201-0218
AR-2201-0378
UH-1 (Iroquois)Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0053

Gynecological
Obstetrical and Gynecological Nursing
AR-0703-0012
AR-0703-0023

Gynecology
Nurse Practitioner—Obstetrics and Gynecology
AR-0703-0012

GMF
Ground Mobile Forces (GMF) Interface Subsystem
AR-1715-0695

G4/S4
Supply Staff Officer, G4/S4
AR-1405-0060

H-13
H-13/H-19 Transition Flight Training
AR-1606-0103
H-13/H-34 Transition Flight Training
AR-1606-0100

H-19
Army Helicopter Transport Tactical (H-19)
AR-1606-0119
H-13/H-19 Transition Flight Training
AR-1606-0103

H-21
Army Helicopter Transport Tactical (H-21)
AR-1606-0119
Army Helicopter Transport Tactical (H-21)(H-34)
AR-1606-0119

H-34
Army Helicopter Transport Tactical (H-21)(H-34)
AR-1606-0119
Army Helicopter Transport Tactical (H-34)
AR-1606-0119
H-13/H-34 Transition Flight Training
AR-1606-0100

H-37
Army H-37 Helicopter Pilot's Transition Flight Training
AR-1606-0101
H-37 Helicopter Crew Training
AR-1704-0065
H-37 Helicopter Mechanic Training
AR-1704-0039
H-37 Helicopter Organizational Maintenance
AR-1704-0080
H-37 Helicopter Pilot Transition Training
AR-1606-0118

Handling
Materiel Storage and Handling Specialist
AR-1405-0117
Materiel Storage and Handling Specialist Advanced Individual Training
AR-1405-0179
Materiel Storage and Handling Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0163
Materiel Storage and Handling Specialist Basic Technical
AR-1405-0144
Supply Handling
AR-1405-0038

Harbor
Harbor Craft Boatswain
AR-2201-0036
Harbor Craft Company Officer
AR-1722-0003
Harbor Craft Deck Officer
AR-0419-0034
Harbor Craft Deck Operations
AR-0419-0034
Harbor Craft Engine Operation Advanced
AR-1712-0007
Harbor Craft Engineering Officer
AR-1712-0007
Harbor Craft Operator
AR-2201-0036

Hawk
(Improved Hawk Launcher and Mechanical Systems Repairer)
AR-1715-0352
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Hawk Track
AR-1715-0803
Air Defense Missile Maintenance Technician (Hawk)
AR-1715-0099
Air Defense Missile Maintenance Technician (Hawk) System Transition
AR-2201-0092
Air Defense Missile Maintenance Technician and Maintenance Chief System Transition (Hawk)
AR-2201-0092
Air Defense Missile Staff Officer (Hawk)
AR-1715-0289
AN/TPQ-21 Hawk Guided Missile System Simulator Maintenance
AR-1715-0276
Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic
AR-1715-0513
AR-1715-0514
Hawk Continuous Wave (CW) Radar Maintenance
AR-1715-0134
Hawk Continuous Wave (CW) Radar Repair
AR-1715-0236
Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223
AR-1715-0738
Hawk Continuous Wave (CW) Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0743
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer
AR-1715-0745
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742
Hawk Fire Control Crew Member
AR-1715-0512
AR-1715-0818
Hawk Fire Control Maintenance
AR-1715-0211
AR-1715-0392
AR-1715-0821
Hawk Fire Control Repair
AR-1715-0230
Hawk Fire Control Repairer
AR-1715-0739
Hawk Fire Control Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0741
Hawk Firing Section Mechanic (PIP II)
AR-1715-0814
Hawk Firing Section Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0804
Hawk Firing Section Repairer
AR-1715-0352
Hawk High Powered Illuminator Radar (HIPIR) (PIP II) Transition
AR-1715-0640
Hawk Information Coordination Central Mechanic (PIP II)
AR-1715-0294
AR-1715-0815
Hawk Information Coordination Central Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0805
Hawk Internal Guidance and Launcher

Electronics Repair
AR-1715-0313
Hawk Launcher and Mechanical Systems Repairer
AR-1715-0352
Hawk Launcher and Mechanical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0740
Hawk Maintenance Chief Noncommissioned Officer (NCO) Advanced
AR-1715-0293
Hawk Maintenance Supervision
AR-1715-0099
Hawk Maintenance Technician/Chief
AR-1715-0533
Hawk Master Mechanic
AR-1715-0799
AR-1715-0802
Hawk Mechanical Repair
AR-1704-0088
Hawk Missile and Launcher Maintenance
AR-1715-0101
Hawk Missile and Launcher Repair
AR-1715-0132
Hawk Missile and Launcher Repair (Transition Instruction)
AR-1715-0127
Hawk Missile Crew Member
AR-1715-0511
Hawk Missile Support Repair Technician (DS/GS)
AR-1715-0647
Hawk Missile System Technician (PIP II)
AR-1715-0295
Hawk Missile System Technician Warrant Officer Technical/Tactical Certification (PIP II)
AR-1715-0295
Hawk Officer
AR-1715-0382
AR-2201-0088
Hawk Officer Qualification
AR-2201-0088
Hawk Organizational Maintenance Supervisor
AR-1715-0146
Hawk Organizational Maintenance Supervisor(PIP)
AR-1715-0520
Hawk Pulse Acquisition Radar and Battery Control Center Maintenance
AR-1715-0211
Hawk Pulse Acquisition Radar and Battery Control Central Maintenance
AR-1715-0211
Hawk Pulse Acquisition Radar and Battery Control Repair
AR-1715-0159
Hawk Pulse Radar Repair
AR-1715-0159
Hawk Pulse Radar Repairer
AR-1715-0745
Hawk Pulse Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742
Hawk Pulse Radar Repairer Transition
AR-1715-0744
Hawk Radar Signal Simulator Station Repairer
AR-1715-0397
Improved Hawk Continuous Wave (CW) Radar Repair
AR-1715-0223
Improved Hawk Continuous Wave (CW) Radar Repair Transition
AR-1715-0357
Improved Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223
Improved Hawk Fire Control Intermediate Maintenance
AR-1715-0400
Improved Hawk Fire Control Maintenance
AR-1715-0392
Improved Hawk Fire Control Maintenance (Transition)
AR-1715-0375
Improved Hawk Fire Control Maintenance Supervisor
AR-1715-0373
Improved Hawk Fire Control Maintenance Transition (PIP)
AR-1715-0519
Improved Hawk Fire Control Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0735
Improved Hawk Fire Control Mechanic Basic Technical
AR-1715-0735
Improved Hawk Fire Control Repair
AR-1715-0198
Improved Hawk Fire Control Repair Transition
AR-1402-0023
Improved Hawk Fire Control Repairer
AR-1715-0198
Improved Hawk Fire Control Repairer Transition (PIP II)
AR-1715-0497
Improved Hawk Fire Control Repairer Transition (PIP)
AR-1715-0497
Improved Hawk Firing Section Intermediate Maintenance
AR-1715-0399
Improved Hawk Firing Section Maintenance
AR-1715-0307
Improved Hawk Firing Section Maintenance (Transition)
AR-1715-0376
Improved Hawk Firing Section Maintenance Supervisor
AR-1715-0384
Improved Hawk Firing Section Mechanic
AR-1715-0307
Improved Hawk Firing Section Mechanic (PIP II) Transition
AR-1715-0571
AR-1715-0806
Improved Hawk Firing Section Mechanic Basic Technical
AR-1715-0657
Improved Hawk Guided Missile Simulator Maintenance Maintenance
AR-1715-0300
Improved Hawk Information and Coordination Central Maintenance Transition (PIP)
AR-1715-0499
Improved Hawk Information Coordination Central Maintenance
AR-1715-0294
Improved Hawk Information Coordination Central Maintenance (Transition)
AR-1715-0372
Improved Hawk Information Coordination Central Maintenance Supervisor
AR-1715-0383
Improved Hawk Information Coordination Central Mechanic
AR-1715-0294
Improved Hawk ICC Mechanic Basic Technical
AR-1715-0736
Improved Hawk Launcher and Mechanical Systems Repair
AR-1715-0352
Improved Hawk Launcher and Mechanical Systems Repair Transition
AR-1715-0419
Improved Hawk Launcher and Mechanical Systems Repairer
AR-1715-0352
Improved Hawk Maintenance Technician/Chief
AR-1715-0533
Improved Hawk Maintenance Technician/Chief Transition
AR-1402-0027
Improved Hawk Master Mechanic
AR-1715-0513
AR-1715-0514
AR-1715-0521
AR-1715-0584
Improved Hawk Mechanical Systems Repair
AR-1715-0352
Improved Hawk Officer
AR-1715-0382
Improved Hawk Organization Maintenance Supervisor Transition
AR-1715-0378
Improved Hawk Organizational Maintenance Supervisor
AR-1715-0295
Improved Hawk Organizational Maintenance Supervisor (PIP)
AR-1715-0520
Improved Hawk Organizational Maintenance Supervisor/Master Mechanic (PIP II) Transition
AR-1715-0574
Improved Hawk Pulse Acquisition Radar Repair
AR-1715-0222
Improved Hawk Pulse Acquisition Radar Repairer
AR-1715-0222
Improved Hawk Pulse Radar Repair
AR-1715-0222
Improved Hawk Pulse Radar Repair Transition
AR-1715-0358
Improved Hawk Pulse Radar Repairer Transition (PIP II)
AR-1715-0563
Improved Hawk Pulse Radar Repairer Transition (PIP)
AR-1715-0563
Improved Hawk Radar Signal Simulator Station Repair
AR-1715-0397
Improved Hawk Radar Signal Simulator Station Repairer
AR-1715-0397
Night Hawk (Unaided)/Night Vision Goggle (NVG) Methods of Instruction
AR-1606-0138
Surface-to-Air Missile (SAM) Staff

Officer (Hawk)
AR-1715-0289
Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Advanced
AR-1715-0290
Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Intermediate
AR-1715-0099

Hazardous
Hazardous Devices
AR-0801-0002

Hazeltine 2000B
Hazeltine 2000B Maintenance
AR-1715-0405

Health
Army Medical Department (AMEDD) Officer Basic Health Professions Scholarship Program
AR-0801-0008
Community and Environmental Health Program Management
AR-0707-0006
Community Health and Environmental Science
AR-0707-0003
Environmental Health Specialist
AR-0707-0005
Environmental Health Specialist Reserve Component (Nonresident/Resident)
AR-0707-0007
Health Aspects of Design Review
AR-0802-0018
Health Nursing Orientation
AR-0703-0004
Health Physics Specialist
AR-0705-0006
AR-0705-0009
Health Services Maintenance Technician
AR-0799-0019
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Nurse Practitioner Adult Medical-Surgical Health Care
AR-0703-0020
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Psychiatric Mental Health Nurse
AR-0708-0003

Heating
Heating and Ventilating
AR-1701-0001

Heavy
CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-54 Heavy Lift Helicopter Repairer–Reserve Component
AR-1704-0148
Heavy Expanded Mobility Tactical Truck (HEMTT) Operator Additional Skill Identifier (ASI)
AR-2101-0001
Heavy Lift Helicopter Repairer Basic Technical
AR-1704-0118
Heavy Mortar and Davy Crockett Officer
AR-2201-0157
Heavy Wheel Vehicle Mechanic
AR-1703-0037
Heavy Wheel Vehicle Recovery Specialist
AR-1710-0117
Light and Heavy Weapons Infantryman
AR-2201-0045
Medium/Heavy Lift Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0139
Quartermaster Heavy Equipment Repair
AR-1710-0022
Quartermaster Heavy Equipment Repairman
AR-1710-0022
Refresher Course, Heavy Wheel Vehicle Mechanic Individual Ready Reserve
AR-1703-0036

Helicopter
Air Cavalry/Attack Helicopter Commander's Training
AR-1606-0054
Army Aviator Basic Flight Training (Helicopter)
AR-1606-0112
Army Aviator Helicopter
AR-1606-0105
Army H-37 Helicopter Pilot's Transition Flight Training
AR-1606-0101
Army Helicopter Transport Tactical
AR-1606-0106
Army Helicopter Transport Tactical (H-19)
AR-1606-0119
Army Helicopter Transport Tactical (H-21)
AR-1606-0119
Army Helicopter Transport Tactical (H-21)(H-34)
AR-1606-0119
Army Helicopter Transport Tactical (H-34)
AR-1606-0119
Army Transport Helicopter Pilot-Phase III
AR-1606-0102
Attack Helicopter Maintenance Supervisor/Technical Inspector
AR-1704-0096
Attack Helicopter Repairer
AR-1704-0095
Attack Helicopter Repairer Basic Technical
AR-1704-0113
Attack Helicopter Repairman
AR-1704-0095
Attack Helicopter Technical Inspector
AR-1704-0127
Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0136
AH-1 Attack Helicopter Repairer
AR-1704-0095
AH-1 Attack Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0153
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
AR-1704-0136
AH-1G (Hueycobra) Helicopter Repair Transition
AR-1704-0060
AH-1G Helicopter Repair
AR-1704-0051
AH-64 Attack Helicopter Repairer
AR-1704-0156
AH-64 Attack Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1717-0090
AH-64 Attack Helicopter Repairer Transition
AR-1704-0158
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134
AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0163
CH-34 Helicopter Repair
AR-1704-0040
CH-37 Helicopter Repair
AR-1704-0049
CH-47 Helicopter Repair
AR-1704-0019
AR-1704-0034
CH-47 Helicopter Repair Skill Development Base
AR-1704-0028
CH-47 Helicopter Repair Specialist Candidate
AR-1704-0028
CH-47 Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-47 Medium Helicopter Repairer
AR-1704-0019
CH-47 Medium Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Medium Helicopter Technical Inspector
AR-1704-0143
CH-47 Medium/CH-54 Heavy Lift Helicopter–Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-47D Helicopter Repairer
AR-1704-0122
CH-47D Helicopter Technical Inspector
AR-1704-0121
CH-54 Heavy Lift Helicopter Repairer-Reserve Component
AR-1704-0148
CH-54 Helicopter Repair
AR-1704-0071
CH-54 Helicopter Repair Skill Development Base
AR-1704-0061
CH-54 Helicopter Repair Specialist Candidate
AR-1704-0061
CH-54 Helicopter Repairer
AR-1704-0130
H-37 Helicopter Crew Training
AR-1704-0065
H-37 Helicopter Mechanic Training
AR-1704-0039
H-37 Helicopter Organizational

Maintenance AR-1704-0080

H-37 Helicopter Pilot Transition Training AR-1606-0118

Helicopter Armament Subsystem M22 and DX43 Mechanic AR-1704-0081

Helicopter Armament Subsystem M22 and Simulator DX43 Repair AR-1704-0078

Helicopter Door Gunner Qualification AR-1606-0090

Helicopter Instrument Flight Examiner AR-1606-0124

Helicopter Instrument Flying AR-1606-0123

Helicopter Missile System Repair Supervisor/Technical Inspector AR-1704-0102

Helicopter Missile Systems Repairer AR-1715-0200

Helicopter Technical Inspector AR-1717-0010

Helicopter Weapon System Repair Supervisor/Technical Inspector Basic Technical AR-1704-0104

Helicopter Weapons Systems Repairer AR-1704-0103

HU-1A Helicopter Repair AR-1704-0056

Medium Helicopter Inspector AR-1704-0143

Medium Helicopter Maintenance Supervisor/Technical Inspector Basic Technical AR-1704-0036

Medium Helicopter Repair AR-1704-0019

Medium Helicopter Repairer (CH-47) AR-1704-0154

Medium Helicopter Repairer Basic Technical (CH-47) AR-1704-0111

Medium Helicopter Technical Inspector AR-1704-0125

Medium Transport Helicopter Repair AR-1704-0035

Medium/Heavy Lift Helicopter Advanced Noncommissioned Officer (NCO) AR-1704-0139

Multi-Engine Medium Transport Helicopter Maintenance AR-1704-0049

Multi-Engine, Single-Rotor Helicopter Repair AR-1704-0035

Multi-Engine, Tandem-Rotor Helicopter Repair AR-1704-0034

Observation/Scout Helicopter Maintenance Supervisor/ Technical Inspector Basic Technical AR-1704-0094

Observation/Scout Helicopter Repairer AR-1704-0093

Observation/Scout Helicopter Technical Inspector AR-1704-0126

Observation, Utility and Transport Helicopter Repair AR-1704-0040

OH-13/OH-23 Helicopter Repair AR-1704-0055

OH-13/OH-23 Helicopter Repairman, Skill Development Base AR-1717-0008

OH-58 Helicopter Repairer AR-1704-0066

OH-58 Observation/Scout Helicopter Repairer Basic Noncommissioned Officer (NCO) AR-1704-0152

OH-6 Helicopter Repair AR-1704-0063

OH-6-RC Observation/Scout Helicopter Repairer–Reserve Component AR-1704-0155

OH-6A Helicopter Repair AR-1704-0032

Reconnaissance Helicopter Maintenance AR-1704-0084

Reconnaissance Helicopter Repair AR-1704-0059

Single-Engine Tandem-Rotor Helicopter Repair AR-1704-0058

Single-Engine, Single-Rotor Helicopter Repair AR-1704-0040

Single-Rotor Helicopter Maintenance AR-1704-0079

Single-Rotor Light Transport Helicopter Maintenance AR-1704-0050

Single-Rotor Observation Helicopter Maintenance AR-1704-0055

Single-Rotor Turbine Utility Helicopter Maintenance AR-1704-0048

Single-Rotor Turbine Utility Helicopter Repair AR-1704-0033

Single-Rotor Utility and Light Transport Helicopter Maintenance AR-1704-0050

Tactical Transport Helicopter Repairer AR-1704-0017

Tactical Transport Helicopter Repairer Basic Technical AR-1704-0110

Tactical Transport Helicopter Technical Inspector AR-1704-0124
AR-1704-0162

Tandem-Rotor Helicopter Maintenance AR-1704-0052

Tandem-Rotor Helicopter Repair AR-1704-0058

Tandem-Rotor Light Transport Helicopter Maintenance AR-1704-0069

Twin-Engine Helicopter Repair AR-1704-0057

Utility and Cargo Single-Rotor Helicopter Repair AR-1704-0053

Utility and Cargo Tandem Rotor Helicopter Repair AR-1704-0058

Utility and Cargo, Single Rotor Helicopter Maintenance AR-1704-0079

Utility and Cargo, Tandem-Rotor Helicopter Maintenance AR-1704-0052

Utility Helicopter Maintenance Supervisor/Technical Inspector Basic Technical AR-1717-0066

Utility Helicopter Repairer (UH-1) AR-1704-0033

Utility Helicopter Repairer Basic Technical AR-1704-0117

Utility Helicopter Technical Inspector AR-1704-0123

Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO) AR-1704-0137

Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0164

UH-1 Helicopter Repair AR-1704-0033

UH-1 Helicopter Repair Skill Development Base AR-1704-0064

UH-1 Helicopter Repair Specialist Candidate AR-1704-0064

UH-1 Helicopter Repairer AR-1704-0033

UH-1 Utility Helicopter Repairer Basic Noncommissioned Officer (NCO) AR-1717-0089

UH-1 Utility Helicopter Technical Inspector AR-1704-0123

UH-1 Utility Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO) AR-1717-0089

UH-60 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0164

UH-60 Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO) AR-1704-0150

UH-60 Helicopter Repairer Transition AR-1704-0018

UH-60 Tactical Transport Helicopter Basic Noncommissioned Officer (NCO) AR-1704-0150

UH-60 Tactical Transport Helicopter Repairer AR-1704-0017

UH-60A Helicopter Repairer Transition AR-1704-0105

Hercules

Air Defense Electronic Warfare (EW) (Nike Hercules) AR-1715-0002

Air Defense Missile Staff Officer (Nike Hercules) AR-1715-0315

Hercules Electronic Mechanic AR-1715-0084

Hercules Fire Control Crew Member AR-1715-0518

Hercules Missile Crew Member AR-1715-0510

Improved Nike Hercules Fire Control System Maintenance AR-1715-0361

Improved Nike Hercules High Power (HIPAR) Acquisition Radar Maintenance AR-1715-0210

Improved Nike-Hercules Fire Control System Maintenance Transition AR-1715-0140

Nike Acquisition Radar and Computer

Repair (Hercules Transition) AR-1715-0233

Nike Acquisition Radar and Computer Repair (Improved Hercules Transition) AR-1715-0233

Nike Hercules Electronic Maintenance AR-1715-0084

Nike Hercules Fire Control System Maintenance AR-1715-0361

Nike Hercules Fire Control System Maintenance Transition AR-1715-0304

Nike Hercules Missile Electronic Maintenance AR-1715-0106

Nike Hercules Missile Electronic Materiel Maintenance Transition AR-1715-0106

Nike Hercules Officer AR-2201-0095

Nike Hercules Officer Transition AR-2201-0100

Nike Internal Guidance Repair (Hercules Transition) AR-1715-0323

Nike Launcher Control Systems Repair (Ajax/Hercules) AR-1715-0077

Nike Maintenance Supervision (Ajax/Hercules) AR-1715-0255

Nike Maintenance Supervision (Hercules Transition) AR-1715-0356

Nike Maintenance Supervision (Improved Hercules Transition) AR-1715-0356

Nike Mechanical Systems Repair (Ajax/Hercules) AR-1704-0086

Nike Track Radar Repair (Hercules Transition) AR-1715-0126

Nike Track Radar Repair (Improved Hercules Transition) AR-1715-0126

Nike Track Radar Systems Repair (Ajax/Hercules) AR-1715-0164

Nike-Hercules Missile Mechanical Materiel Maintenance Transition AR-1704-0085

Surface-to-Air Missile (SAM) Staff Officer Transition (Hercules) AR-1715-0305

Highway

Highway Transport Operations AR-0419-0006

Highway Transportation Operation and Maintenance AR-0419-0006

Honest John

Honest John Rocket Crewman Noncommissioned Officer (NCO) Basic AR-2201-0178

Hospital

Hospital Food Service Management AR-1729-0043

Hospital Food Service Specialist AR-1729-0004

Hospital Food Service Specialist (Basic) Reserve Component AR-1729-0044

Hospital Food Service Specialist Advanced AR-0104-0006

Hospital Food Service Specialist Basic Reserve Component (Correspondence, Resident, Nonresident) AR-1729-0016

Hospital Food Service Supervisor Refresher AR-1729-0020

Hospital Mess Steward AR-1729-0005

Hostage

Hostage Negotiations AR-1728-0067

Housing

Army Housing Management AR-0417-0001

Hueycobra

AH-1G (Hueycobra) Helicopter Repair Transition AR-1704-0060

AH-1G (Hueycobra) Instructor Pilot (Transition/Gunnery) Qualification AR-1606-0057

AH-1G (Hueycobra) Pilot Transition/Gunnery AR-1606-0059

Hull

Marine Hull Repair AR-1723-0001

Marine Hull Repair Supervision AR-1723-0002

Marine Hull Repairer AR-1723-0001
AR-1723-0007

Human

Human Behavior in Organizations AR-0326-0027

Human Immunodeficiency Virus (HIV)/Sexually Transmitted Diseases (STD) Intervention AR-0707-0015

Hydraulic

Aircraft Hydraulic Repair AR-1704-0016

Hydraulics

Aircraft Hydraulics Repair Specialist Candidate AR-1704-0021

Hygiene

Basic Industrial Hygiene Technician AR-0707-0018

Basic Industrial Hygiene Techniques AR-0707-0008

Dental Hygiene AR-0701-0002

Hygienist

Dental Hygienist AR-0701-0002

HF

CONUS High Frequency (HF) Radio Communications System Operator AR-1715-0857

HF/DF

Automatic High Frequency Direction Finding (HF/DF) Outstation Processing Unit (Token Payment 1A) AR-1715-0546

HFDF

Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance AR-1715-0404

Automated High Frequency Direction Finding (HFDF) System Maintenance (EELPOT) AR-1715-0409

Automated High Frequency Direction Finding (HFDF) System Operation (EELPOT) AR-1402-0050

Automatic High Frequency Direction Finding (HFDF) Outstation Processing Unit AN/GRR-37 AR-1715-0546

HLC-1A/TSEC

Electronic Mixer HLC-1A/TSEC AR-1715-0006

HU-1

HU-1 Instructor Pilot Transition AR-1606-0062

HU-1A Instructor Pilot Transition AR-1606-0062

HU-1A

HU-1A Helicopter Repair AR-1704-0056

HU-1A Instructor Pilot Transition AR-1606-0062

Identification

Advanced Identification Techniques (AIT) Analyst AR-2201-0206

Advanced Identification Techniques Analyst AR-2201-0317

Advanced Identification Techniques Operations AR-2201-0206

Advanced Identification Techniques Position Maintenance (RO361) AR-1715-0415

Electronic Warfare (EW) Cryptologic Special Identification Techniques Basic Technical AR-2201-0104

Electronic Warfare (EW) Cryptologic Special Identification Techniques Operator AR-1409-0009

Emitter Location/Identification Technician—Warrant Officer Technical Certification AR-1408-0135

Special Identification Techniques Analyst AR-1606-0029

Special Identification Techniques Operator AR-1606-0030

Special Identification Techniques Supervisor AR-2201-0104

Illumination

Field Illumination Crewman, Noncommissioned Officer (NCO) Candidate AR-2201-0044

Field Illumination Crewman, Skill Development Base AR-2201-0044

Illuminator

Hawk High Powered Illuminator Radar (HIPIR) (PIP II) Transition AR-1715-0640

Image

Assistant Image Interpreter AR-1606-0115

Image Interpretation Enlisted
AR-1606-0084
Image Interpretation Officer
AR-1709-0008
Image Interpreter Enlisted
AR-1606-0115
Image Interpreter Noncommissioned Officer (NCO) Basic
AR-1606-0002
Image Interpreter Noncommissioned Officer (NCO) Candidate
AR-1606-0128
Image Interpreter, Skill Development Base
AR-1606-0128
Image Interpretor Enlisted
AR-1606-0084
Image Interpretor Primary Technical
AR-1606-0084
Imagery Interpreter (Enlisted)
AR-1606-0115

Imagery
Imagery Analyst
AR-1606-0193
Imagery Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0142
AR-1606-0191
Imagery Exploitation Officer
AR-2201-0121
Imagery Interpreter Basic Technical
AR-1606-0142
Military Intelligence Officer Advanced (Imagery Exploitation)
AR-1606-0194
Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Immaterial
Branch Immaterial Officer Candidate
AR-2201-0182

Immunodeficiency
Human Immunodeficiency Virus (HIV)/ Sexually Transmitted Diseases (STD) Intervention
AR-0707-0015

Immunology
Allergy-Clinical Immunology Specialist
AR-0709-0016

Impregnation
Impregnation Equipment Operation
AR-1702-0001
Laundry and Impregnation
AR-1716-0005
Laundry, Bath, and Impregnation
AR-1716-0005

Improved
(Improved Hawk Launcher and Mechanical Systems Repairer)
AR-1715-0352
Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic
AR-1715-0513
AR-1715-0514
Improved Alternate Battery Acquisition Radar Maintenance Transition
AR-1715-0174
Improved Hawk Continuous Wave (CW) Radar Repair
AR-1715-0223
Improved Hawk Continuous Wave (CW) Radar Repair Transition
AR-1715-0357
Improved Hawk Continuous Wave (CW) Radar Repairer
AR-1715-0223
Improved Hawk Fire Control Intermediate Maintenance
AR-1715-0400
Improved Hawk Fire Control Maintenance
AR-1715-0392
Improved Hawk Fire Control Maintenance (Transition)
AR-1715-0375
Improved Hawk Fire Control Maintenance Supervisor
AR-1715-0373
Improved Hawk Fire Control Maintenance Transition (PIP)
AR-1715-0519
Improved Hawk Fire Control Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0735
Improved Hawk Fire Control Mechanic Basic Technical
AR-1715-0735
Improved Hawk Fire Control Repair
AR-1715-0198
Improved Hawk Fire Control Repair Transition
AR-1402-0023
Improved Hawk Fire Control Repairer
AR-1715-0198
Improved Hawk Fire Control Repairer Transition (PIP II)
AR-1715-0497
Improved Hawk Fire Control Repairer Transition (PIP)
AR-1715-0497
Improved Hawk Firing Section Intermediate Maintenance
AR-1715-0399
Improved Hawk Firing Section Maintenance
AR-1715-0307
Improved Hawk Firing Section Maintenance (Transition)
AR-1715-0376
Improved Hawk Firing Section Maintenance Supervisor
AR-1715-0384
Improved Hawk Firing Section Mechanic
AR-1715-0307
Improved Hawk Firing Section Mechanic (PIP II) Transition
AR-1715-0571
AR-1715-0806
Improved Hawk Firing Section Mechanic Basic Technical
AR-1715-0657
Improved Hawk Guided Missile Simulator Maintenance Maintenance
AR-1715-0300
Improved Hawk Information and Coordination Central Maintenance Transition (PIP)
AR-1715-0499
Improved Hawk Information Coordination Central Maintenance
AR-1715-0294
Improved Hawk Information Coordination Central Maintenance (Transition)
AR-1715-0372
Improved Hawk Information Coordination Central Maintenance Supervisor
AR-1715-0383
Improved Hawk Information Coordination Central Mechanic
AR-1715-0294
Improved Hawk ICC Mechanic Basic Technical
AR-1715-0736
Improved Hawk Launcher and Mechanical Systems Repair
AR-1715-0352
Improved Hawk Launcher and Mechanical Systems Repair Transition
AR-1715-0419
Improved Hawk Launcher and Mechanical Systems Repairer
AR-1715-0352
Improved Hawk Maintenance Technician/Chief
AR-1715-0533
Improved Hawk Maintenance Technician/Chief Transition
AR-1402-0027
Improved Hawk Master Mechanic
AR-1715-0513
AR-1715-0514
AR-1715-0521
AR-1715-0584
Improved Hawk Mechanical Systems Repair
AR-1715-0352
Improved Hawk Officer
AR-1715-0382
Improved Hawk Organization Maintenance Supervisor Transition
AR-1715-0378
Improved Hawk Organizational Maintenance Supervisor
AR-1715-0295
Improved Hawk Organizational Maintenance Supervisor (PIP)
AR-1715-0520
Improved Hawk Organizational Maintenance Supervisor/Master Mechanic (PIP II) Transition
AR-1715-0574
Improved Hawk Pulse Acquisition Radar Repair
AR-1715-0222
Improved Hawk Pulse Acquisition Radar Repairer
AR-1715-0222
Improved Hawk Pulse Radar Repair
AR-1715-0222
Improved Hawk Pulse Radar Repair Transition
AR-1715-0358
Improved Hawk Pulse Radar Repairer Transition (PIP II)
AR-1715-0563
Improved Hawk Pulse Radar Repairer Transition (PIP)
AR-1715-0563
Improved Hawk Radar Signal Simulator Station Repair
AR-1715-0397
Improved Hawk Radar Signal Simulator Station Repairer
AR-1715-0397
Improved Mechanic
AR-1715-0307
Improved Nike Hercules Fire Control System Maintenance
AR-1715-0361
Improved Nike Hercules High Power

(HIPAR) Acquisition Radar Maintenance AR-1715-0210
Improved Nike-Hercules Fire Control System Maintenance Transition AR-1715-0140
Nike Acquisition Radar and Computer Repair (Improved Hercules Transition) AR-1715-0233
Nike Track Radar Repair (Improved Hercules Transition) AR-1715-0126

Improvement
Reading Improvement AR-0306-0001

In-Plant
Defense In-Plant Quality Assurance AR-0326-0023

Indirect
Indirect Fire Crewman AR-2201-0311
Infantry Indirect Fire Crewman Noncommissioned Officer (NCO) Candidate AR-2201-0176

Indoctrination
Warrant Officer Indoctrination Training—Preflight (Fixed Wing) AR-1606-0114

Induction
Recruiting, Reenlistment and Induction Officer AR-1406-0008

Industrial
Basic Industrial Hygiene Technician AR-0707-0018
Basic Industrial Hygiene Techniques AR-0707-0008
Basic Industrial Security AR-1606-0019
Directorate of Industrial Operations AR-1408-0075

Inertial
Ballistic Missile Inertial Guidance and Control Repair (Pershing) AR-1715-0103
Ballistic Missile Inertial Guidance and Control Repair (Sergeant) AR-1715-0312
Inertial Navigation Set AN/ASN-86 Repair AR-1715-0161 AR-1715-0688

Infantry
(Infantry One Station Unit Training (OSUT)) AR-2201-0279
Armor/Infantry Officer Career AR-2201-0123
Associate Infantry Officer Career AR-2201-0131
Basic Infantry Officer AR-2201-0192
Bradley Infantry Fighting Vehicle Commander AR-1710-0062
Bradley Infantry Fighting Vehicle Gunner AR-1710-0063
Bradley Infantry Fighting Vehicle Master Gunner AR-1710-0061
Infantry Advanced Noncommissioned Officer (NCO) AR-2201-0035
Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0181 AR-2201-0184
Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Basic AR-2201-0013 AR-2201-0134
Infantry Army Reserve Officer Candidate AR-2201-0052
Infantry Automotive Supervision AR-1703-0007
Infantry Communication Supervision AR-1714-0004
Infantry Communications Officer AR-1715-0193
Infantry Counterfire Supervision AR-2201-0025
Infantry Indirect Fire Crewman Noncommissioned Officer (NCO) Candidate AR-2201-0176
Infantry Intelligence and Operations Specialist AR-1606-0013
Infantry Mortar Platoon AR-2201-0085
Infantry Motor Transportation AR-1703-0015
Infantry Noncommissioned Officer (NCO) Basic AR-2201-0046
Infantry Noncommissioned Officer (NCO) Candidate AR-2201-0007 AR-2201-0170
Infantry Officer Advanced AR-2201-0124
Infantry Officer Basic AR-2201-0192
Infantry Officer Candidate AR-2201-0167
Infantry Officer Candidate (Reserve Component) AR-2201-0052
Infantry Officer Career AR-2201-0124
Infantry One Station Unit Training (OSUT) AR-2201-0310
Infantry One Station Unit Training (OSUT)) AR-2201-0311
Infantry Operations and Intelligence Specialist Noncommissioned Officer (NCO) Advanced AR-2201-0049
Infantry Operations and Intelligence Specialist Skill Development Base AR-2201-0007
Infantry Precommand AR-2201-0272
Infantry Radio Maintenance AR-1715-0108
Infantry Senior Sergeant Noncommissioned Officer (NCO) Advanced AR-2201-0034
Infantry/Armor Officer Career AR-2201-0124
Light Weapons Infantryman AR-2201-0310
Maneuver Combat Arms Infantry Noncommissioned Officer (NCO) Advanced AR-2201-0181
Maneuver Combat Arms—Infantry (11 CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0181
Maneuver Combat Arms—Infantry (11-CMF) Noncommissioned Officer (NCO) Basic AR-2201-0013
National Guard Infantry Officer Candidate AR-2201-0137

Infantryman
Bradley Fighting Vehicle Fighting Vehicle Infantryman AR-2201-0276
Light and Heavy Weapons Infantryman AR-2201-0045
Light Weapons Infantryman AR-2201-0310

Inference
Statistical Inference AR-1115-0007

Information
Chief Improved Hawk Fire Control and Information Coordination Central Section Mechanic AR-1715-0513 AR-1715-0514
Defense Contracting for Information Resources AR-1408-0120
Director of Information Management (DOIM)/Echelons Above Corps (EAC) Operations Officer AR-1402-0096
Hawk Information Coordination Central Mechanic (PIP II) AR-1715-0294 AR-1715-0815
Hawk Information Coordination Central Mechanic Basic Noncommissioned Officer (NCO) AR-1715-0805
Improved Hawk Information and Coordination Central Maintenance Transition (PIP) AR-1715-0499
Improved Hawk Information Coordination Central Maintenance AR-1715-0294
Improved Hawk Information Coordination Central Maintenance (Transition) AR-1715-0372
Improved Hawk Information Coordination Central Maintenance Supervisor AR-1715-0383
Improved Hawk Information Coordination Central Mechanic AR-1715-0294
Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0043
Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Basic (USASCS) AR-1717-0053
Information Systems Officer (ISO) AR-1402-0005
Personnel Information System

Management Specialist AR-1403-0008 AR-1403-0013
Personnel Information Systems Management Specialist Basic Noncommissioned Officer (NCO) AR-1405-0196
Special Correspondence Course in Information Systems Officer AR-1402-0064
Supply Accounting Management Information System AR-1402-0136
Visual Information Advanced Noncommissioned Officer (NCO) AR-1719-0005
Visual Information/Audio Documentation Systems Specialist Basic Noncommissioned Officer (NCO) AR-1719-0004

Infrared
Airborne Infrared Repair (UAS-4) AR-1715-0227
OV-1D (Mohawk) Surveillance Infrared Repair AR-1715-0054
Surveillance Infrared Repair AR-1715-0227

Initial
Initial Entry Rotary Wing Aviator AR-1606-0074
Initial Materiel Support Computation AR-1408-0084

Inspection
Food Inspection AR-0104-0002
Food Inspection Advanced AR-0104-0001
Food Inspection Procedures Advanced AR-0104-0001
Food Inspection Procedures Basic AR-0104-0002
Veterinary Food Inspection Specialist AR-0104-0002
Veterinary Food Inspection Specialist (Basic) (Reserve Component) Phase II AR-0104-0011
Veterinary Food Inspection Specialist Advanced AR-0104-0001
Veterinary Preventive Medicine and Food Inspection AR-0104-0005
Warrant Officer Food Inspection Technician Basic AR-0104-0009

Inspector
Aircraft Armament Technical Inspector AR-1704-0146
Aircraft Electrician Maintenance Supervisor/Technical Inspector AR-1704-0099
Aircraft Power Plant Repair Supervisor/Technical Inspector AR-1704-0097
Aircraft Powertrain System Maintenance Supervison/Technical Inspector Basic Technical AR-1704-0098
Aircraft Structural Repair Supervisor/Technical Inspector Basic Technical AR-1704-0101
Airplane Maintenance Supervisor/Technical Inspector AR-1717-0065
Airplane Technical Inspector AR-1717-0004
Ammunition Inspector AR-2201-0056
Ammunition Inspector Correspondence/Resident (Abbreviated Version) AR-0802-0014
Ammunition Inspector, Phase I AR-2201-0056
Attack Helicopter Maintenance Supervisor/Technical Inspector AR-1704-0096
CH-47 Medium Helicopter Technical Inspector AR-1704-0143
Fixed Wing Technical Inspector AR-1717-0004
Helicopter Missile System Repair Supervisor/Technical Inspector AR-1704-0102
Helicopter Technical Inspector AR-1717-0010
Helicopter Weapon System Repair Supervisor/Technical Inspector Basic Technical AR-1704-0104
Inspector General AR-1408-0126
Medium Helicopter Inspector AR-1704-0143
Medium Helicopter Maintenance Supervisor/Technical Inspector Basic Technical AR-1704-0036
Military Ammunition Inspector AR-2201-0056
Observation/Scout Helicopter Maintenance Supervisor/ Technical Inspector Basic Technical AR-1704-0094
OV-1 Observation Airplane Technical Inspector AR-1704-0161
Rotary Wing Technical Inspector AR-1704-0082 AR-1717-0010
Tactical Transport Helicopter Technical Inspector AR-1704-0162
Utility Helicopter Maintenance Supervisor/Technical Inspector Basic Technical AR-1717-0066

Installation
Army Installation Management AR-1408-0055
Army Materiel Command Installation Management AR-0326-0017
Development and Readiness Command Installation Management AR-0326-0017
Installation Chaplain AR-1406-0084
Installation Intelligence AR-1606-0007
Installation Logistics Management AR-1408-0116
Installation Provost Marshal AR-1728-0068
Installation Security AR-1728-0077
Installation Stock Control AR-1405-0073
Installation Supply Procedures AR-1405-0021
Installation Traffic Management AR-0419-0036
Installation Transportation AR-0419-0036
Installation Veterinary Activities AR-0102-0003
Installation Veterinary Services AR-0102-0003
Installation/Direct Support Supply Officer AR-1405-0007
Management of Installation Level Contracts AR-1408-0119
Telephone Installation and Repair AR-1715-0332

Installer
C-E Installer Training AR-1715-0524
Communications Electronics Installer Training AR-1715-0524
Wire Systems Installer Team Chief Primary Technical AR-1715-0618
Wire Systems Installer Basic Noncommissioned Officer (NCO) AR-1715-0618
Wire Systems Installer Primary Technical AR-1715-0618

Institute
U.S. Army Institute for Advanced Russian and East European Studies AR-0602-0001

Instruction
AH-64 Instructor Pilot Methods of Instruction AR-1406-0121
Criterion-Referenced Instruction (CRI) Workshop AR-1406-0029
OH-58 Aeroscout Instructor Pilot Methods of Instruction AR-1606-0165
OH-58D Instructor Pilot Methods of Instruction (MOI) AR-1406-0118
T-42 Instructor Pilot (IP) Methods of Instruction AR-1406-0072
TH-55 Instructor Pilot Methods of Instruction AR-1406-0075
UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction AR-1406-0080
UH-1 Combat Skills Methods of Instruction AR-1406-0073
UH-1 Contact Instructor Pilot Methods of Instruction AR-1406-0077
UH-1 Contact, Tactics, Night/Night Vision Goggle (N/NVG) Instructor Pilot Methods of Instruction AR-1406-0113
UH-60 Method of Instruction AR-1406-0115

Instructional
Instructional Systems Development AR-1406-0036

Instructor
Antiterrorism Instructor Qualification AR-1406-0095

AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle)
AR-1406-0114
AH-1S Instructor Pilot
AR-1406-0117
AH-64 Instructor Pilot
AR-1606-0168
AH-64 Instructor Pilot Methods of Instruction
AR-1406-0121
Basic Instructor Training Course
AR-1406-0054
CH-47D Flight Engineer Instructor
AR-1606-0189
CH-47D Instructor Pilot
AR-1406-0074
AR-1406-0120
Instructor
AR-1406-0111
Instructor Training
AR-0419-0042
AR-1406-0037
Instructor Training Course
AR-1406-0056
Instructor Training Workshop
AR-1406-0094
Management Practices in TOE/TDA Unit Instructor Training
AR-1408-0069
Night/Night Vision Goggle Instructor Pilot
AR-1606-0172
OH-13 Instructor Pilot Qualification
AR-1406-0009
OH-58 A/C Instructor Pilot
AR-1406-0122
OH-58 Aeroscout Instructor Pilot Methods of Instruction
AR-1606-0165
OH-58D Field Artillery Instructor Pilot
AR-1406-0078
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
OH-58D Instructor Pilot
AR-1406-0078
AR-1406-0119
OH-58D Instructor Pilot Methods of Instruction (MOI)
AR-1406-0118
T-42 Instructor Pilot (IP) Methods of Instruction
AR-1406-0072
TH-55 Instructor Pilot Methods of Instruction
AR-1406-0075
U-21 Instructor Pilot
AR-1406-0116
UH-1 Contact Instructor Pilot (Interim)
AR-1406-0076
UH-1 Contact Instructor Pilot Methods of Instruction
AR-1406-0077
UH-60 Instructor Pilot
AR-1406-0079

Instructor Pilot

AH-1G (Hueycobra) Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0057
AH-1G Instructor Pilot
AR-1606-0057
AH-1S Instructor Pilot
AR-1606-0057
CH-34 Instructor Pilot Qualification
AR-1606-0063
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase
AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Transition Phase
AR-1606-0056
CH-37 Instructor Pilot Qualification
AR-1606-0042
CH-47 (Chinook) Instructor Pilot Qualification
AR-1606-0043
CH-47 Instructor Pilot
AR-1606-0043
CH-54 Instructor Pilot
AR-1606-0052
CH-54 Instructor Pilot Qualification
AR-1606-0052
CV-2 (Caribou) Instructor Pilot Qualification
AR-1606-0096
HU-1 Instructor Pilot Transition
AR-1606-0062
HU-1A Instructor Pilot Transition
AR-1606-0062
O-1 Instructor Pilot Qualification
AR-1606-0040
OH-58 Instructor Pilot
AR-1606-0047
OH-58 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0047
OH-6 Instructor Pilot
AR-1606-0126
OH-6 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0126
OV-1 (Mohawk) Instructor Pilot Qualification
AR-1606-0050
OV-1 Instructor Pilot
AR-1606-0050
T-42 Instructor Pilot
AR-1606-0135
U-21 Instructor Pilot
AR-1606-0061
U-21 Standardization Instructor Pilot Qualification
AR-1606-0061
U-8 Instructor Pilot
AR-1606-0089
U-8 Instructor Pilot Qualification
AR-1606-0089
UH-1 (Iroquois)Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0053
UH-1 Contact Instructor Pilot
AR-1606-0053
UH-1 Instructor Pilot
AR-1606-0053

Instrument

Aircraft Instrument and Electrical Systems Repair
AR-17[illegible]-0007
Aircraft Instrument Repair
AR-1721-0004
Ballistic Missile Test Instrument Repair
AR-1715-0348
Ballistic Missile Test Instrument Repair (Redstone)
AR-1715-0348
Electrical Instrument Repair
AR-1721-0003
Electronic Instrument Maintenance
AR-1715-0004
Electronic Instrument Repair
AR-1715-0001
AR-1715-0004
AR-1715-0033
Fire Control Instrument Repair
AR-1721-0002
Fire Control Instrument Repair (Basic)
AR-1721-0001
Fire Control Instrument Repairer
AR-1714-0026
Fixed Wing Instrument
AR-1606-0093
Fixed Wing Instrument Flight Examiner
AR-1606-0125
Fixed Wing Instrument Qualification
AR-1606-0093
Helicopter Instrument Flight Examiner
AR-1606-0124
Helicopter Instrument Flying
AR-1606-0123
Instrument Calibration and Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0020
Instrument Flight Examiner
AR-1606-0108
Optical Instrument Repairman (USMC)
AR-1721-0002
Optical Instrument Technician
AR-1714-0026
Rotary Wing Instrument
AR-1606-0123
Rotary Wing Instrument Flight Examiner
AR-1606-0124
AR-1606-0190
Rotary Wing Instrument Qualification
AR-1606-0097
Topographic Instrument Repair
AR-1721-0005

Instrumentalist

Band Instrumentalist (Army)
AR-1205-0005

Instrumentation

Foreign Instrumentation Signals Externals Analysis
AR-1715-0729
Nuclear Power Plant Operators (Instrumentation Specialty)
AR-1720-0005
Prime Power Production Specialist (Instrumentation Specialty)
AR-1720-0005
Prime Power Production Specialty (Instrumentation Specialty)
AR-1720-0005

Integrated

Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance
AR-1715-0214
Antiaircraft Artillery (AAA) Integrated Fire Control Maintenance Officer
AR-1715-0214
Army Integrated Materiel Systems Management
AR-0326-0004
Defense Integrated Disposal Management System Course (ALMC-IC)
AR-1405-0116
Financial Management—Integrated Accounting
AR-1401-0001
Integrated Data Link Repair
AR-1715-0228

Integrated Facilities System
AR-1402-0057

Integration
Force Integration—Manning the Force
AR-1405-0126

Intelligence
Advanced Course in Artificial Intelligence Theory and Expert Systems Building
AR-1402-0097
Aerial Intelligence Specialist
AR-1606-0208
Aerial Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1606-0203
Air Defense Artillery (ADA) Operations and Intelligence Assistant
AR-1601-0068
Air Defense Artillery (ADA) Operations and Intelligence) Assistant
AR-1601-0068
Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)
AR-1713-0002
Area Intelligence Officer
AR-1606-0031
Area Intelligence Specialist
AR-1606-0031
Armor Intelligence Specialist
AR-1712-0001
Associate Military Intelligence Officer Advanced
AR-1606-0077
Combat Intelligence
AR-1606-0175
Combat Intelligence Staff Officer
AR-1606-0033
Counter-Signals Intelligence Sergeant Basic Noncommissioned Officer (NCO)
AR-1402-0126
Counter-Signals Intelligence Specialist
AR-1402-0127
Counter-Signals Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0126
Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical
AR-2201-0104
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037
Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic Technical/Advanced Individual Training
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710
Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149
Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078
Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079
Field Artillery Operations and Intelligence Assistant
AR-2201-0061
Field Artillery Operations and Intelligence Assistant, Skill Development Base
AR-2201-0175
Field Artillery Operations and Intelligence Noncommissioned Officer (NCO)
AR-2201-0061
Infantry Intelligence and Operations Specialist
AR-1606-0013
Infantry Operations and Intelligence Specialist Noncommissioned Officer (NCO) Advanced
AR-2201-0049
Infantry Operations and Intelligence Specialist Skill Development Base
AR-2201-0007
Installation Intelligence
AR-1606-0007
Intelligence in Combatting Terrorism
AR-1511-0024
Intelligence in Terrorism Counteraction
AR-1511-0024
AR-1606-0152
Intelligence Agent
AR-1606-0141
Intelligence Analyst
AR-1606-0034
AR-1606-0134
AR-1728-0083
Intelligence Analyst (Special Forces)
AR-1606-0027
Intelligence Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0192
Intelligence Analyst Entry Level
AR-1606-0134
Intelligence Analyst Noncommissioned Officer (NCO) Basic
AR-1606-0001
Intelligence Analyst Primary Technical
AR-1606-0151
Intelligence Analyst, Specialist Candidate
AR-1606-0032
Intelligence Enlisted
AR-1606-0010
Intelligence Officer Basic
AR-1606-0018
Intelligence Officer Basic CI/HUMINT
AR-1606-0140
Intelligence Officer Basic Tactical
AR-1606-0137
Intelligence Officer Basic Tactical Surveillance
AR-2201-0121
Intelligence Officer Tactical Surveillance
AR-2201-0121
Intelligence Photography
AR-1709-0005
Intelligence Research Officer
AR-1606-0039
Intelligence Research Officer Transition
AR-1606-0080

Intelligence Research Officer/Technician
AR-1606-0039

Intelligence Staff Officer
AR-1606-0085

Military Intelligence
AR-1606-0009

Military Intelligence (Analysis) Enlisted
AR-1606-0078

Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0155

Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced (USAISC)
AR-2201-0155

Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Basic
AR-1606-0129

Military Intelligence Advanced (98 CMF) Noncommissioned Officer (NCO)
AR-2201-0037

Military Intelligence Advanced Noncommissioned Officer (NCO)
AR-1406-0125
AR-2201-0155

Military Intelligence Common Core Phase 1
AR-1402-0128

Military Intelligence Coordinator
AR-1606-0035

Military Intelligence Officer Advanced
AR-1606-0076

Military Intelligence Officer Advanced (Imagery Exploitation)
AR-1606-0194

Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW))
AR-1406-0128

Military Intelligence Officer Advanced Common Core
AR-1606-0196

Military Intelligence Officer Advanced Counterintelligence
AR-1728-0085

Military Intelligence Officer Basic
AR-1408-0177
AR-1606-0018
AR-1606-0153

Military Intelligence Officer Orientation
AR-1606-0082

Military Intelligence Officer Transition
AR-1728-0087

Militar / Intelligence Precommand
AR-1606-0197

Military Intelligence Senior Warrant Officer
AR-1606-0202

Military Intelligence Specialist
AR-1606-0004

Military Intelligence Warrant Officer Advanced
AR-1606-0136

Military Intelligence Warrant Officer Entry (Phase I)
AR-1606-0154

Military Intelligence Warrant Officer Reserve Component
AR-1606-0195

National Senior Intelligence
AR-1606-0022

Operations and Intelligence Specialist
AR-1606-0013

Order of Battle Intelligence Enlisted
AR-1606-0008

Order of Battle Intelligence Officer
AR-1606-0081

Ordnance Technical Intelligence
AR-2201-0026

Phase 2 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0020

Phase 4 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0019

Senior Noncommissioned Officer (NCO) Operations and Intelligence
AR-1511-0013

Special Forces Intelligence
AR-1606-0027

Special Forces Officer Intelligence
AR-1606-0083

Special Forces Operations and Intelligence
AR-1606-0026
AR-1606-0176

Strategic Signal Intelligence (SIGINT) Officer
AR-1606-0094

Tactical All-Source Intelligence Officer Force Alignment Plan III
AR-1728-0087

Tactical Intelligence Officer
AR-1606-0137

Tactical Intelligence Staff Officer
AR-1606-0033

Technical Intelligence
AR-1606-0005

Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Intensive

Intensive Care Nursing
AR-0703-0014

Intercept

Electronic Warfare (EW) Cryptologic Interceptor—Very High Frequency/Ultra High Frequency
AR-1404-0018

Electronic Warfare (EW) Intercept Aerial Sensor Repairer
AR-1715-0713

Electronic Warfare (EW) Intercept Systems Maintenance Analyst
AR-1715-0411

Electronic Warfare (EW) Intercept Systems Repairer
AR-1715-0417

Electronic Warfare (EW) Intercept Systems Repairman
AR-1715-0417

Electronic Warfare (EW) Intercept Systems Repairman Basic Technical
AR-1405-0067

Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018

Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2
AR-1715-0869

Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0714

Electronic Warfare (EW)/Intercept Aviation Systems Repairer
AR-1715-0715

Electronic Warfare (EW)/Intercept Equipment Repair Technician-Warrant Officer Technical Certification
AR-1408-0132

Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer
AR-1715-0827

Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0717

Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0719

Electronic Warfare (EW)/Intercept Strategic Signal Processing/Storage Subsystem Repairer
AR-1715-0716
AR-1715-0718

Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer
AR-1715-0720

Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721

Electronic Warfare (EW)/Intercept System Maintenance Analyst Advanced Noncommissioned Officer (NCO)
AR-1406-0127

Electronic Warfare (EW)/Intercept Systems Repairer, Basic Technical
AR-1715-0502

Electronic Warfare (EW)/Intercept Tactical Systems Repairer
AR-1715-0722

Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0723

General Intercept Equipment Repair
AR-1715-0189

Intercept Demultiplex Systems Repairman
AR-1715-0136

Intercept Equipment Maintenance Supervisor
AR-1717-0028

Intercept Receiving Systems Repairman
AR-1715-0138

Intercept Recording Systems Repairman
AR-1715-0139

Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0133

Non-Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0134

Terminal Intercept Equipment Repair
AR-1715-0138

UHF/VHF Intercept Operations
AR-1404-0018

Voice Intercept Position Maintenance
AR-1715-0414

Voice Intercept Technician Warrant Officer Technical/Tactical Certification
AR-1408-0138

Voice Intercept Technician—Warrant Officer Technical Certification
AR-1408-0138

VHF/UHF Multichannel Intercept AR-1404-0018

Interception
Teletype Interception AR-1715-0248

Interceptor
Army-Unique Voice Interceptor Training (Russian) AR-2201-0207
Army-Unique Voice Interceptor (Latin American Spanish) AR-1606-0148
Army-Unique Voice Interceptor Training (Chinese—Mandarin) AR-1606-0149
Army-Unique Voice Interceptor Training (Czech) AR-1606-0146
Army-Unique Voice Interceptor Training (German) AR-1606-0150
Army-Unique Voice Interceptor Training (Korean) AR-1606-0147
Electronic Warfare (EW) and Cryptologic Interceptor—Morse AR-1409-0008
Electronic Warfare (EW) Cryptologic Interceptor—Morse Basic Technical AR-1717-0037
Electronic Warfare (EW) Cryptologic Interceptor—Non-Morse Basic Technical AR-1717-0049
Electronic Warfare (EW) Cryptologic Interceptor—Very High Frequency/Ultra High Frequency AR-1404-0018
Electronic Warfare (EW) Cryptologic Noncommunications Interceptor-Analyst AR-1715-0018
Electronic Warfare (EW) Noncommunication Interceptor-Analyst Basic Technical AR-2201-0209
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations AR-1404-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Morse AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC) AR-1717-0037
Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical AR-1717-0049
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor AR-1715-0018
AR-1715-0710
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech AR-1606-0146
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin AR-1606-0149
Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst AR-1715-0018
Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO) AR-1717-0078
Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO) AR-1715-0728
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO) AR-1715-0726
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical AR-1715-0727
Morse Interceptor AR-1404-0016

Interface
Ground Mobile Forces (GMF) Interface Subsystem AR-1715-0695

Intern
Automatic Data Processing (ADP) Intern Program AR-1402-0039
Comptroller Intern Financial Management AR-1408-0070
DARCOM Supply Management Career Intern Training AR-1405-0015
Maintainability Engineering Intern Training Program AR-1115-0009
Management Systems Support Agency (USAMSSA) ADP Intern Program AR-1402-0056
Materiel Maintenance Management Intern Program AR-1717-0001
Product/Production Engineering Intern Program AR-0326-0035
PERSINSD Automatic Data Processing (ADP) Intern Program AR-1402-0008
Resource Intern Financial Management AR-1408-0070
Safety Engineering Intern Training Program AR-0802-0006
Supply Management Career Intern Training Program AR-1405-0015

Internal
Basic Internal Audit AR-1401-0030
Hawk Internal Guidance and Launcher Electronics Repair AR-1715-0313
Intermediate Internal Audit AR-1401-0031
Internal Review AR-1401-0010
AR-1401-0022
Lacrosse Internal Guidance Repair AR-1715-0124
Lacrosse Internal Guidance System Repair AR-1715-0124
Nike Internal Guidance Repair AR-1715-0114
Nike Internal Guidance Repair (Hercules Transition) AR-1715-0323
Nike Internal Guidance System Repair AR-1715-0114
Surface-to-Air Missile (SAM) Internal Guidance System Repair AR-1715-0114

Internals
Telemetry Internals Analysis AR-1715-0731

International
Advanced International Morse Code (IMC) AR-1407-0005

Internship
Army Dietetic Internship AR-0709-0014

Interpersonal
Interpersonal Communications AR-1512-0010

Interpretation
Image Interpretation Enlisted AR-1606-0084
Image Interpretation Officer AR-1709-0008

Interpreter
Assistant Image Interpreter AR-1606-0115
Image Interpreter Enlisted AR-1606-0115
Image Interpreter Noncommissioned Officer (NCO) Basic AR-1606-0002
Image Interpreter Noncommissioned Officer (NCO) Candidate AR-1606-0128
Image Interpreter, Skill Development Base AR-1606-0128
Imagery Interpreter (Enlisted) AR-1606-0115
Imagery Interpreter Basic Technical AR-1606-0142

Interpretor
Image Interpretor Enlisted AR-1606-0084
Image Interpretor Primary Technical AR-1606-0084

Interrogation
Department of Defense Strategic Debriefing (Department of Defense

Strategic Debriefing and Interrogation Training)
AR-1728-0056
Interrogation
AR-1728-0037
Interrogation (Enlisted Non-Linguist)
AR-1728-0040
Interrogation (Enlisted)
AR-1728-0037
Interrogation Officer
AR-1728-0036
Prisoner of War Interrogation Enlisted
AR-1728-0037
Prisoner of War Interrogation Officer
AR-1728-0036
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician
AR-1606-0199

Interrogator
Interrogator
AR-1728-0084
Interrogator Basic Noncommissioned Officer (NCO)
AR-1606-0198
Interrogator, Skill Development Base
AR-1728-0039

Inventory
Automated Inventory Management
AR-1405-0123
Commodity Command Standard Systems (CCSS) Physical Inventory Management
AR-1405-0088
Defense Advanced Inventory Management
AR-0326-0006
Defense Inventory Management
AR-1405-0076
Defense Inventory Management Correspondence Course
AR-1405-0079
Depot Physical Inventory Management
AR-1405-0087
DARCOM Commodity Command Physical Inventory Management
AR-1405-0088
DARCOM Depot Physical Inventory Management
AR-1405-0087
Financial Management—Inventory Accounting and Army Stock Fund Operations
AR-1405-0005
Standard Depot System Physical Inventory Management
AR-1405-0087

Investigation
Advanced Fraud Investigation
AR-1728-0063
Criminal Investigation
AR-1728-0010
Criminal Investigation Supervision
AR-1728-0027
Criminal Investigation Warrant Officer Advanced
AR-1728-0011
Criminal Investigation Warrant Officer Intermediate
AR-1728-0011
Military Police Investigation
AR-1728-0028
Traffic Accident Investigation
AR-1728-0060
AR-1728-0078

Investigative
Advanced Investigative Management
AR-1728-0027

Investigator
Military Police Investigator
AR-1728-0028
AR-1728-0079

Iroquois
UH-1 (Iroquois)Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0053

Item
Army Secondary Item Management
AR-1408-0117

IFV
ITV/IFV/CFV Systems Mechanic
AR-1703-0048
ITV/IFV/CFV Systems Mechanic Recovery Specialist
AR-1703-0047
ITV/IFV/CFV Turret Mechanic Primary Technical
AR-1710-0102

ISD
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058
Job and Task Analysis (ISD Phase 1)
AR-1406-0057

ITV
Basic Noncommissioned Officer (NCO) 19D ITV
AR-2201-0322
Improved Toe Vehicle (ITV) Trainer
AR-2201-0277
ITV/IFV/CFV Systems Mechanic
AR-1703-0048
ITV/IFV/CFV Systems Mechanic Recovery Specialist
AR-1703-0047
ITV/IFV/CFV Turret Mechanic Primary Technical
AR-1710-0102

Job
Job and Task Analysis (ISD Phase 1)
AR-1406-0057

Judge
Judge Advocate Officer Basic, Phase I
AR-1728-0045

Jumpmaster
Jumpmaster
AR-2201-0273
Military Free Fall Jumpmaster
AR-2201-0344
Special Forces Jumpmaster
AR-2201-0053
Special Forces Military Free Fall Jumpmaster
AR-2201-0060
AR-2201-0344
Special Forces Military Free Fall Parachutist/Military Free Fall Jumpmaster
AR-2201-0060

Junior
Junior Officer Maintenance
AR-1703-0057
Junior Officers Maintenance
AR-1703-0005
35R College Junior
AR-2201-0173

JCL
Disk Operating Systems (DOS) Concepts and Job Control Language (JCL)
AR-1402-0065

JStars
JStars Ground Station Module (GSM) Operator/Supervisor
AR-1715-0870

Knowledge
Knowledge Engineering and Basic Expert Systems Building
AR-1402-0099

Korean
Army-Unique Voice Interceptor Training (Korean)
AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147

Laboratory
Chemical Laboratory
AR-1303-0001
Chemical Laboratory Procedures
AR-1303-0001
Dental Laboratory
AR-0701-0001
Dental Laboratory Procedures Advanced
AR-0701-0006
Dental Laboratory Procedures Basic
AR-0701-0001
Dental Laboratory Specialist (Basic)
AR-0701-0014
Dental Laboratory Specialist (Senior)
AR-0701-0015
Dental Laboratory Specialist Advanced
AR-0701-0006
Dental Laboratory Specialist Basic
AR-0701-0001
Dental Laboratory Specialist Basic Reserve Component (Nonresident/Resident)
AR-0701-0010
Dental Laboratory Specialist Intermediate
AR-0701-0006
Dental Laboratory Specialist Senior
AR-0701-0003
Document Laboratory Technician
AR-1728-0013
Medical Laboratory Procedures Advanced
AR-0702-0001
Medical Laboratory Procedures Basic
AR-0702-0002
Medical Laboratory Specialist
AR-0702-0002
Medical Laboratory Specialist (Basic)
AR-0702-0008
AR-0702-0013
Medical Laboratory Specialist Advanced
AR-0702-0001
AR-0702-0007
Optical Laboratory Specialist
AR-0709-0015
Orthopedic Laboratory Procedures
AR-0709-0004
Petroleum Laboratory Specialist Basic Noncommissioned Officer (NCO)
AR-1601-0071
Petroleum Laboratory Specialist Basic Technical
AR-1601-0071

Photographic Laboratory Operation
AR-1709-0002

Lacrosse

Lacrosse Electromechanical System Maintenance
AR-1715-0086

Lacrosse External Guidance Repair
AR-1715-0123

Lacrosse External Guidance System Repair
AR-1715-0123

Lacrosse Fire Control Operation
AR-1715-0291

Lacrosse Fire Control System Maintenance
AR-1715-0314

Lacrosse Firing Battery
AR-2201-0089

Lacrosse Internal Guidance Repair
AR-1715-0124

Lacrosse Internal Guidance System Repair
AR-1715-0124

Lacrosse Officer
AR-1112-0001

Lacrosse Ordnance Maintenance Supervision
AR-1715-0339

Lance

Lance (NCO) Reclassification (Transition)
AR-2201-0382

Lance Cadre
AR-2201-0011

Lance Crewmember
AR-2201-0375

Lance Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0360

Lance Crewmember Basic Noncommissioned Officer (NCO)
AR-2201-0364

Lance Missile Crew Member
AR-2201-0220

Lance Missile Crewman
AR-2201-0220

Lance Missile Crewmember
AR-2201-0375

Lance Missile Mechanic
AR-1717-0067

Lance Missile System Repair
AR-1715-0298

Lance Missile System Technician-Warrant Officer Technical Certification
AR-1715-0626

Lance Missile Sytem Technician-Warrant Officer Technical Certification
AR-1715-0843

Lance Officer
AR-2201-0189

Lance Operations/Fire Direction Assistant
AR-1601-0056

Lance Repairer
AR-1715-0562

Lance Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0747

Lance Repairer Basic Technical (BTC)
AR-1715-0643

Lance System Repairer
AR-1715-0562

Land Combat Support System Test Specialist/Lance Repair Transition.
AR-1402-0058

Land Combat Support System Test Specialist/Lance Repairer
AR-1715-0531

Light Missile Field Artillery (Lance)
AR-2201-0371

Multiple Launch Rocket System (MLRS)/Lance Advanced (NCO) Noncommissioned Officer
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AR-1405-0157

Ordnance Officer Advance Missile Materiel Management Field Operations
AR-1405-0147

Ordnance Officer Advance Nuclear Materiel Management
AR-1720-0008

Ordnance Officer Advanced Field Maintenance Management
AR-1703-0034

Ordnance Officer Advanced Maintenance Management
AR-1405-0150

Ordnance Officer Advanced Missile/Munitions Materiel Management
AR-1408-0124
AR-1408-0153

Ordnance Officer Advanced Munitions Materiel Management Field Operations
AR-1405-0146

Ordnance Officer Advanced Nuclear Weapons Materiel Management
AR-1720-0008

Ordnance Officer Advanced Tank/Ground Mobility Materiel Management
AR-1408-0078

Ordnance Officer Advanced Wholesale Maintenance Management
AR-1703-0035

Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management
AR-1405-0148

Ordnance Officer Basic Armament Materiel Management
AR-1405-0092

Ordnance Officer Basic Missile Materiel Management
AR-1405-0089

Ordnance Officer Basic Munitions Materiel Management
AR-1405-0091

Ordnance Officer Basic Ordnance Missile Material Management
AR-1405-0089

Ordnance Officer Basic Tank and Ground Mobility Materiel Management
AR-1405-0093

Personnel Information System Management Specialist
AR-1403-0008
AR-1403-0013

Personnel Information Systems Management Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0196

Personnel Management
AR-1406-0110

Personnel Management for Executives
AR-1406-0040

Personnel Management For Executives
AR-1408-0074

Personnel Management Officer
AR-1406-0004

Personnel Management Specialist
AR-1406-0023
AR-1408-0007

Personnel Resources Management
AR-1406-0004

Petroleum Management Quartermaster Officer Advanced
AR-1601-0067

Petroleum Management Quartermaster Officer Basic
AR-1601-0066

Planning and Conducting Management Audits and Studies
AR-0326-0011

Post Engineer Management
AR-1408-0053

Preventive Medicine Program Management
AR-0707-0006
AR-0707-0014

Procurement Management
AR-0326-0009

Property Disposal Management
AR-1405-0058

Quantitative Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSD-Quant)
AR-0326-0020

Radiology Noncommissioned Officer (NCO) Management
AR-0705-0004

Recruiting Management Officer
AR-1406-0014

Requirements Management
AR-1405-0057

Resource Intern Financial Management
AR-1408-0070

Resource Management Budget
AR-1401-0038

Resource Management Quantitative
AR-1115-0012

Security Assistance Management
AR-1606-0024

Security Assistance Management Orientation Seminar
AR-1606-0021

Security Management
AR-1728-0044

Senior Officer Logistics Management
AR-1408-0150

Special Correspondence Course for Management Review and Analysis Specialists
AR-0317-0004

Special Correspondence Course on Records Management
AR-1405-0119

Specification Management
AR-1408-0035

Standard Army Intermediate Level (SAILS) Supply System Materiel Management
AR-1405-0139

Standard Army Intermediate Level Supply Subsystem (SAILS) Management.
AR-1405-0098

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management
AR-1405-0097

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command (COSCOM)
AR-1405-0096

Standard Depot System Physical Inventory Management
AR-1405-0087

Storage and Distribution Management
AR-1405-0042

Supply and Service Management Officer
AR-1405-0070

Supply and Services Management Officer
AR-1405-0177

Supply Accounting Management Information System
AR-1402-0136

Supply Management Career Intern Training Program
AR-1405-0015

Supply Management Officer
AR-1405-0070

Supply Supply Activity (SSA) Management
AR-1405-0182

Supply Support Activity (SSA) Management
AR-1405-0194

SAILS Materiel Management COSCOM
AR-1405-0096

SIDPERS Management
AR-1406-0022

The Army Maintenance Management System and Prescribed Loading List
AR-1405-0195

Traffic Management Coordinator
AR-0419-0040

Traffic Management Coordinator Basic Noncommissioned Officer (NCO) Traffic Management Coordinator Basic Technical
AR-0419-0041

Traffic Management Coordinator Primary Technical
AR-0419-0005

Training Management
AR-1405-0199

Troop Subsistence Activity Management
AR-1405-0180

Manager

Army Project Manager
AR-1408-0012

AH-1S Maintenance Manager/Test Pilot
AR-1717-0083

AH-64 Maintenance Manager/Test Pilot
AR-1717-0093

Chaplain Training Manager
AR-1408-0129

CH-47A/B/C Maintenance Manager/Test Pilot
AR-1717-0084

CH-47D Maintenance Manager/Test Pilot
AR-1717-0084

Electronic Switching Systems Technical Manager
AR-1715-0598

National Guard (ARNG) Recruiting Field Sales Manager
AR-1408-0185

National Guard Recruiting and Retention Manager
AR-1406-0097

OH-58A/C Maintenance Manager/Test Pilot
AR-1717-0085

OH-58D Maintenance Manager/Test Pilot
AR-1717-0086

Project Manager Development
AR-1408-0079

Reserve Retention Manager
AR-2201-0354

Standard Army Ammunition System (SAAS) Manager Training
AR-1405-0160

Unit Manager
AR-1408-0172

UH-1 Maintenance Manager/Test Pilot
AR-1717-0082

UH-60 Maintenance Manager/Test Pilot
AR-1717-0087

Managers

Management of Managers
AR-0326-0029

Managing

Managing with Contractor Performance Measurement Data
AR-0326-0028

Maneuver

Maneuver Combat Arms Infantry Noncommissioned Officer (NCO) Advanced
AR-2201-0181

Maneuver Combat Arms—Infantry (11 CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0181

Master Operator Maneuver Control System
AR-1715-0880

Manpower

Manpower and Force Management (ALMC-MG)
AR-1405-0101

Manpower Control Officer
AR-1406-0021

Manpower Management
AR-1406-0033

Manpower Validation
AR-1408-0039

Manprint

Manprint Staff Officers
AR-0326-0045

Manual

Dial-Manual Central Office Repair
AR-1715-0432

Dial/Manual Central Office Repairer Basic Technical
AR-1406-0066

Manual Central Office Maintenance
AR-1715-0351

Manual Central Office Repair
AR-1715-0351

Manual Central Office Repair, Skill Development Base
AR-1715-0051

Manual Cordless Switchboard SB-3082(V)1/GT Repair
AR-1715-0029

Techniques and Procedures for Field Manual Development
AR-1406-0055

Map

Map Compiling (for Air Force Personnel)
AR-1713-0005

Map Compiling (for Army Personnel)
AR-1713-0004

Multiplex Map Compiling
AR-1601-0015

Marijuana

Marijuana Detector Dog/Handler
AR-1728-0021

Marijuana Examiner
AR-1601-0049

Marine
Junior Marine Engineman
AR-1710-0001
Marine (MR-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0012
Marine (MR-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0011
Marine Artillery Operations Chief
AR-1304-0009
AR-2201-0042
Marine Artillery Scout Observer
AR-2201-0145
Marine Corps Battery Commander
AR-2201-0374
Marine Corps Field Artillery Fire Controlman
AR-1601-0055
Marine Deck Officer Advanced
AR-1722-0001
Marine Deck Officer Warrant Officer Technical Certification
AR-1722-0006
Marine Deck Officer–Warrant Officer Advanced
AR-1722-0005
Marine Engine Operation and Maintenance
AR-1710-0001
Marine Engineer
AR-1710-0001
Marine Engineer Repair
AR-1712-0012
Marine Engineer Skill Development Base
AR-1712-0002
Marine Engineering and Repair Supervision
AR-1712-0010
Marine Engineering Officer Advanced
AR-1714-0008
Marine Engineering Officer–Warrant Officer Advanced
AR-1712-0021
Marine Engineering Officer–Warrant Officer Technical Certification
AR-1712-0020
Marine Field Artillery Fire Controlman
AR-1601-0055
Marine Hull Repair
AR-1723-0001
Marine Hull Repair Supervision
AR-1723-0002
Marine Hull Repairer
AR-1723-0001
AR-1723-0007
Marine Noncommissioned Officer (NCO) Advanced
AR 0419-0012
Marine Radar Observer
AR-1715-0157
Marine Warrant Officer Advanced
AR-0419-0039

Marketing
Defense Reutilization and Marketing Operations - Advanced
AR-1405-0065
Defense Reutilization and Marketing Operations - Advanced by Correspondence
AR-1405-0078

Marshal
Installation Provost Marshal
AR-1728-0068

Martin-Baker
(Martin-Baker J-5 Ejection Seat Specialist)
AR-1704-0087

Masonry
Carpentry and Masonry Specialist
AR-1710-0051

Master
Hawk Master Mechanic
AR-1715-0799
AR-1715-0802
Improved Hawk Organizational Maintenance Supervisor/Master Mechanic (PIP II) Transition
AR-1715-0574
Master Fitness Trainer
AR-0803-0012
Master Fitness Trainer - Reserve Component
AR-0803-0011
Master Gunner (M551)
AR-2201-0214
Master Gunner (M60A1/A3)
AR-2201-0216
Master Gunner (M60A2)
AR-2201-0215
Master Gunner M60A1
AR-2201-0334
Master Gunner M60A3
AR-2201-0335
Master Gunner M60A3 Transition
AR-2201-0336
Master Planner
AR-0326-0044
M1 Abrams Master Gunner
AR-2201-0327
M1/M1A1 Abrams Master Gunner
AR-2201-0328
M1/M1A1 Master Gunner Transition
AR-2201-0329
Navy Master at Arms
AR-1728-0061
Reserve Component Master Fitness Trainer
AR-0803-0011

Material
Ordnance Officer Advanced (Armament Material Management)
AR-1717-0062

Materials
Materials Handling Equipment Mechanic
AR-1710-0039

Materiel
Advanced Materiel Management
AR-1402-0081
Army Integrated Materiel Systems Management
AR-0326-0004
Army Materiel Command Comptrollership
AR-1401-0017
Army Materiel Command Installation Management
AR-0326-0017
Corporal Electronic Materiel Maintenance
AR-1715-0234
Corporal Mechanical Materiel Maintenance
AR-1715-0243
General Troop Support Materiel Management Quartermaster Officer Advanced
AR-1408-0091
General Troop Support Materiel Management Quartermaster Officer Basic
AR-1408-0090
Guided Missile Electronic Materiel Maintenance
AR-1715-0085
Guided Missile Electronic Materiel Maintenance, Surface-to-Surface Missile (SSM)
AR-1715-0090
Initial Materiel Support Computation
AR-1408-0084
Integrated Logistics Support and Materiel Acquisition (ILS-R)
AR-0326-0018
Integrated Logistics Support Management Techniques in Materiel Acquisition (ILS-MGT)
AR-0326-0019
Logistics Support Analysis Techniques in Materiel Acquisition (LSAT)
AR-0326-0020
Management Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSDM-MGT)
AR-0326-0019
Materiel Acquisition and Integrated Logistics Support Design Management (LSDM)
AR-0326-0018
Materiel Acquisition Management
AR-1408-0122
Materiel Control and Accounting Specialist Advanced Individual Training
AR-1401-0032
Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0109
AR-1405-0178
Materiel Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0161
Materiel Control and Accounting Specialist Basic Technical
AR-1405-0143
Materiel Maintenance Management Intern Program
AR-1717-0001
Materiel Storage and Handling Specialist
AR-1405-0117
Materiel Storage and Handling Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0163
Materiel Storage and Handling Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0164
Materiel Storage and Handling Specialist Basic Technical
AR-1405-0144
Materiel Supply Specialist
AR-1405-0111
Materiel Supply Specialist Noncommissioned Officer (NCO) Advanced
AR-1403-0108
Materiel Supplyman
AR-1405-0111
Materiel Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0108
Missile Mechanical Materiel

Maintenance, Corporal
AR-1715-0243
Nike Ajax Missile Electronic Materiel Maintenance
AR-1715-0085
Nike Hercules Missile Electronic Materiel Maintenance Transition
AR-1715-0106
Nike-Hercules Missile Mechanical Materiel Maintenance Transition
AR-1704-0085
Ordance Officer Advanced Missile Materiel Management, Phase II
AR-1405-0094
Ordnance Fire Control Materiel Maintenance
AR-1715-0158
Ordnance Missile Materiel Management Officer-Reserve
AR-1405-0156
Ordnance Munitions Materiel Management Officer Basic
AR-1405-0158
AR-1405-0159
Ordnance Munitions Materiel Management Officer-Reserve
AR-1405-0157
Ordnance Officer Advance Missile Materiel Management Field Operations
AR-1405-0147
Ordnance Officer Advance Nuclear Materiel Management
AR-1720-0008
Ordnance Officer Advanced Missile/Munitions Materiel Management
AR-1408-0124
AR-1408-0153
Ordnance Officer Advanced Munitions Materiel Management
AR-1408-0077
Ordnance Officer Advanced Munitions Materiel Management Field Operations
AR-1405-0146
Ordnance Officer Advanced Nuclear Weapons Materiel Management
AR-1720-0008
Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management
AR-1405-0148
Ordnance Officer Basic Armament Materiel Management
AR-1405-0092
Ordnance Officer Basic Missile Materiel Management
AR-1405-0089
Ordnance Officer Basic Munitions Materiel Management
AR-1405-0091
Ordnance Officer Basic Tank and Ground Mobility Materiel Management
AR-1405-0093
Pershing Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Pershing II Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Quantitative Techniques in Materiel Acquisition and Integrated Logistics Support Design Management (LSD-Quant)
AR-0326-0020
Redstone Electronic Materiel Maintenance
AR-1715-0080
Redstone Mechanical Materiel Maintenance
AR-1715-0244
Standard Army Intermediate Level (SAILS) Supply System Materiel Management
AR-1405-0139
Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management
AR-1405-0097
Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command (COSCOM)
AR-1405-0096
Surface-to-Air Missile (SAM) Electronic Materiel Maintenance, Nike
AR-1715-0085
Surface-to-Surface (SSM) Mechanical Materiel Maintenance
AR-1715-0328
SAILS Materiel Management COSCOM
AR-1405-0096

Mathematical
Mathematical Programming
AR-1108-0001

Measurement
Defense Work Measurement Standard Time Data (DWMSTD)
AR-0326-0032
Managing with Contractor Performance Measurement Data
AR-0326-0028
Methods-Time Measurement 1 (MTM1)
AR-1408-0073
Test, Measurement, and Diagnostic Equipment (TMDE) Advanced Noncommissioned Officer (NCO)
AR-1406-0108

Meat
Commissary Meat Department Management
AR-1729-0024
Commissary Meat Market Management
AR-0406-0005
Commissary Middle Management, Phase II (Commissary Meat Market Management)
AR-0406-0005
Meat Cutting
AR-1729-0002
Meat Plant Management
AR-0104-0003

Mechanic
(Light Wheel Vehicle/Power Generation Mechanic)
AR-1703-0021
Field Communications-Electronics Equipment Mechanic
AR-1715-0091
Field Radio Mechanic
AR-1715-0091
Field Radio Mechanic Supervisor
AR-1715-0550
Hawk Information Coordination Central Mechanic (PIP II)
AR-1715-0294
Improved Hawk Information Coordination Central Mechanic
AR-1715-0294
Light Wheel Vehicle Mechanic
AR-1703-0021
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
System Mechanic for M113 Series Vehicles
AR-1710-0069
System Mechanic M113 Series Vehicle
AR-1710-0070
System Mechanic M60 Series Vehicle
AR-1710-0065
AR-1710-0068
System Mechanic Self-Propelled (SP) Artillery M109/M110 Series Vehicles
AR-1710-0066
AR-1710-0067
Tactical Communications Systems Operator/Mechanic
AR-1715-0091
Wheeled Vehicle Mechanic
AR-1703-0021

Mechanical
(Improved Hawk Launcher and Mechanical Systems Repairer)
AR-1715-0352
Corporal Mechanical Systems Repair
AR-1714-0014
Hawk Launcher and Mechanical Systems Repairer
AR-1715-0352
Improved Hawk Launcher and Mechanical Systems Repair
AR-1715-0352
Improved Hawk Launcher and Mechanical Systems Repair Transition
AR-1715-0419
Improved Hawk Launcher and Mechanical Systems Repairer
AR-1715-0352
Improved Hawk Mechanical Systems Repair
AR-1715-0352
Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0040
Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Basic
AR-1706-0002
AR-1710-0021
AR-1710-0035
Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (252A)
AR-1717-0057
Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (421A)
AR-1717-0062
Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (441A)
AR-1717-0059
Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (631A)
AR-1717-0061
Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (632A)
AR-1717-0060
Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0040
Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced)
AR-1717-0040
Mechanical Maintenance Noncommissioned Officer (NCO)
AR-1710-0049

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0040

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 41J
AR-1406-0081

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 44E
AR-1723-0010

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 45Z
AR-1704-0141

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 62B
AR-1710-0128

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T
AR-1710-0129
AR-1710-0130
AR-1710-0131
AR-1710-0132
AR-2201-0320

Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63H
AR-1710-0127

Mechanical Maintenance Officer
AR-1717-0044

Mechanical Maintenance Warrant Officer Intermediate (421A)
AR-1710-0012

Mechanical Maintenance Warrant Officer Intermediate (441A)
AR-1710-0013

Mechanical Maintenance Warrant Officer Intermediate (621A)
AR-1710-0044

Mechanical Maintenance Warrant Officer Intermediate (631A)
AR-1710-0014

Mechanical Maintenance Warrant Officer Intermediate (632A)
AR-1710-0045

Nuclear Power Plant Operators (Mechanical Specialty)
AR-1720-0004

Prime Power Production Specialist (Mechanical Specialty)
AR-1720-0004

Surface-to-Surface Missile Mechanical Repair
AR-1714-0014

Mechanics

M109A1/M548 Troubleshooting for Unit Mechanics
AR-1710-0078

M110/M548 Troubleshooting for Unit Mechanics
AR-1710-0077

M113 Series Troubleshooting for Unit Mechanics
AR-1710-0075
AR-1710-0076

M60A1-M113A1 Troubleshooting for Unit Mechanics
AR-1710-0074

Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics
AR-1710-0081

Mechanized

Mechanized Flame Thrower Surveillance
AR-1601-0041

Medical

Advanced Medical Specialist
AR-0709-0009

Army Associate Medical Service Officer Advanced
AR-1408-0018

Army Aviation Medical Officer Orientation
AR-2201-0086

Army Medical Department (AMEDD) Aviator Advanced
AR-0799-0021

Army Medical Department (AMEDD) Battalion/Brigade Pre-Command
AR-2201-0271

Army Medical Department (AMEDD) Clinical Head Nurse
AR-0703-0003

Army Medical Department (AMEDD) Executive Management Program
AR-0799-0013

Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff
AR-0799-0014

Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Advanced
AR-0799-0012

Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Basic
AR-1408-0068

Army Medical Department (AMEDD) Officer Advanced Nonresident/Resident
AR-0799-0008

Army Medical Department (AMEDD) Officer Basic
AR-0707-0010

Army Medical Department (AMEDD) Officer Basic (ANC/AMSC)
AR-1408-0103

Army Medical Department (AMEDD) Officer Basic (Reserve Component)
AR-2201-0003

Army Medical Department (AMEDD) Officer Basic Health Professions Scholarship Program
AR-0801-0008

Army Medical Department (AMEDD) Officer Orientation
AR-0709-0030

Army Medical Department (AMEDD) Officer Orientation (MSC)
AR-0799-0001

Army Medical Department (AMEDD) Officer Orientation (VC)
AR-0102-0001

Army Medical Department (AMEDD) Reserve Component General Staff
AR-0799-0004

Army Medical Department (TDA) Table of Distribution and Allowances Pre-command
AR-0709-0044

Army Medical Department Officer (AMEDD) Advanced
AR-0326-0016

Army Medical Department Officer (AMEDD) Basic Uniformed Services University of Health Sciences
AR-1408-0104

Army Medical Department Officer Advanced
AR-0326-0042

Army Medical Department Officer Advanced (AMEDD)-Army Nurse Corps Officers
AR-0326-0016

Army Medical Department Officer Clinical Head Nurse
AR-0703-0021

Army Medical Department Staff Development (Reserve Component) (Nonresident/Resident)
AR-0799-0017

Army Medical Service (AMEDS) Company Officer
AR-1408-0016

Army Medical Service (AMEDS) Noncommissioned Officer (NCO)
AR-0799-0002

Army Medical Service Officer (AMEDD) Advanced
AR-0326-0016

Army Medical Service Officer Advanced
AR-0326-0016

Army Medical Service Officer Basic
AR-2201-0058

Army Medical Service Officer Career
AR-0326-0016

Army Medical Service Officer Orientation
AR-2201-0058

Associate Army Medical Service Company Officer
AR-2201-0188

Associate Army Medical Service Officer Advanced
AR-1408-0018

Associate Medical Service Corps Officer Career
AR-1408-0018

AMEDD Medical Department Officer Basic Orientation (VC)
AR-0102-0006

Basic Medical Specialist
AR-0703-0007

Essential Medical Training for Army Medical Department (AMEDD) Aviators
AR-0799-0018

Essential Medical Training for Army Medical Department (AMEDD) Aviators Associate
AR-0799-0007

Essential Medical Training for Army Medical Department (AMEDD) Aviators Nonresident/Resident
AR-0799-0007

Essential Medical Training for AMEDD (Army Medical Department) Aviators (MS/WO/RC)
AR-0801-0001

Essential Medical Training for AMEDS (Army Medical Service) Aviators
AR-0801-0001

Flight Medical Aidman
AR-0709-0029
AR-0709-0040

General Medical Orientation
AR-0801-0019

Medical Aidman Advanced
AR-0709-0007

Medical Aidman Basic
AR-0703-0005

Medical Department Officer Basic
AR-1408-0015

Medical Department Officer Clinical

Head Nurse
AR-0703-0003
Medical Department Officer Orientation (MSC)
AR-0799-0001
Medical Equipment Maintenance (Supplementary and Refresher)
AR-1715-0194
Medical Equipment Maintenance Advanced
AR-1715-0317
Medical Equipment Maintenance Basic
AR-1715-0316
Medical Equipment Repairer (Unit Level)
AR-1715-0759
Medical Laboratory Procedures Advanced
AR-0702-0001
Medical Laboratory Procedures Basic
AR-0702-0002
Medical Laboratory Specialist
AR-0702-0002
Medical Laboratory Specialist (Basic)
AR-0702-0008
AR-0702-0013
Medical Laboratory Specialist Advanced
AR-0702-0001
AR-0702-0007
Medical Logistics Management
AR-1408-0067
Medical Logistics Management Reserve Component
AR-1408-0154
Medical Logistics Noncommissioned Officer (NCO)
AR-1405-0203
Medical Material Procedures
AR-1405-0024
Medical Noncommissioned Officer (NCO)
AR-0709-0033
Medical Noncommissioned Officer (NCO) (Reserve Component)
AR-0709-0034
Medical Records
AR-1403-0003
Medical Records and Reports Basic
AR-1403-0001
Medical Records Clerk Advanced
AR-1403-0003
Medical Records Specialist
AR-1403-0001
Medical Service Corps Officer Basic
AR-1408-0015
Medical Service Corps Officer Orientation
AR-1408-0015
Medical Specialist
AR-0709-0003
AR-0709-0032
Medical Specialist Advanced
AR-0709-0009
Medical Specialist Basic
AR-0703-0007
Medical Supply and Services
AR-1405-0008
Medical Supply Officer
AR-1405-0008
Medical Supply Procedures
AR-1405-0024
Medical Supply Specialist
AR-1405-0024
Medical Supply Specialist (Basic) Reserve Component Phase 2
AR-1405-0202
Medical Supply Specialist Reserve Component (Nonresident/ Resident)
AR-1405-0051
Medical Technician
AR-0709-0003
Medical X-Ray Survey Techniques
AR-0705-0005
Nurse Practitioner Adult Medical-Surgical Health Care
AR-0703-0013
AR-0703-0020
Orientation to Army Medical Department (AMEDD) Pharmacy Services
AR-0709-0022
AR-0709-0041
Reserve Component Army Medical Department Officer Advanced, Phase II
AR-0799-0015
Reserve Component Army Medical Department Officer Advanced, Phase III
AR-0799-0016
Special Forces Diving Medical Technician
AR-0709-0039
Special Forces Medical Diving Technician
AR-0709-0025
Special Forces Medical Sergeant
AR-0702-0010
AR-0709-0031
Special Operations Medical Sergeant
AR-0709-0006
Special Operations Medical Sergeant Phase IIA
AR-0705-0010
Special Operations Medical Sergeant Phases I and III
AR-0709-0031
Utility Element Maintenance—Medical Unit Self-Contained Transportable (MUST)
AR-1730-0003

Medicine
Aerospace Medicine Residency Flight Training
AR-1606-0163
Army Aviation Medicine Basic
AR-0799-0005
Aviation Medicine Basic
AR-0799-0005
Preventive Medicine Advanced
AR-0707-0001
Preventive Medicine Enlisted
AR-0707-0002
Preventive Medicine Officer Orientation
AR-0707-0009
Preventive Medicine Orientation
AR-0707-0004
Preventive Medicine Procedures Advanced
AR-0707-0001
Preventive Medicine Procedures Basic
AR-0707-0002
Preventive Medicine Program Management
AR-0707-0014
Preventive Medicine Specialist
AR-0707-0002
AR-0707-0005
AR-0707-0016
Preventive Medicine Specialist Reserve Component (Nonresident/Resident) Phase II
AR-0707-0017
Principles of Military Preventive Medicine (CHN)
AR-0799-0020
Principles of Military Preventive Medicine (ENTO)
AR-0709-0045
Principles of Military Preventive Medicine (MC/VC/DC)
AR-0703-0024
Principles of Military Preventive Medicine (MS)
AR-0801-0024
Veterinary Preventive Medicine and Food Inspection
AR-0104-0005

Medium
CH-47 Medium Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Medium Helicopter Technical Inspector
AR-1704-0143
CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
Light and Medium Towed Field Artillery Mechanic
AR-2201-0106
Medium and Heavy Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031
Medium Antiaircraft Artillery (AAA) Maintenance
AR-1710-0031
Medium Helicopter Inspector
AR-1704-0143
Medium Helicopter Maintenance Supervisor/Technical Inspector Basic Technical
AR-1704-0036
Medium Helicopter Repairer (CH-47)
AR-1704-0154
Medium/Heavy Lift Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0139

Memorial
Memorial Activities
AR-0709-0012

Mess
Consolidated and Open Mess
AR-1729-0012
Hospital Mess Steward
AR-1729-0005
Mess Administration
AR-1729-0013
Mess Management
AR-1729-0001
Mess Stewards
AR-1729-0001
Open Mess Management
AR-1729-0012
Unit Mess Officer
AR-1729-0013

Metal
Metal Body Repair
AR-1703-0012
Metal Worker
AR-1703-0012
AR-1703-0030
Metal Working (Entry)
AR-1723-0003

Metalworker
AR-1703-0012

Metalworker
Metalworker
AR-1703-0012
Metalworker Basic Noncommissioned Officer (NCO)
AR-1723-0011
Metalworker Individual Ready Reserve (44B20)
AR-1703-0049

Meteorological
Field Artillery Meteorological Crew Member
AR-1304-0002
Field Artillery Meteorological Crewman
AR-1304-0002
Field Artillery Meteorological Crewmember
AR-1304-0011
Field Artillery Meteorological Crewmember (NCO) Noncommissioned Officer Advanced
AR-1304-0008
Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)
AR-1304-0006
AR-1304-0010
Field Artillery Meteorological Crewmember Basic Technical
AR-1304-0006
Meteorological Equipment Maintenance
AR-1715-0835
Meteorological Equipment Mechanic
AR-1715-0175
Meteorological Equipment Mechanic and Repairman
AR-1721-0008
Meteorological Equipment Repairer
AR-1721-0008
Meteorological Equipment Repairman
AR-1721-0008
Meteorological Observation
AR-1304-0001
Meteorological Observer Noncommissioned Officer (NCO) Advanced
AR-1304-0003
Meteorological Technician—Warrant Officer Technical Certification
AR-1715-0629

Meteorology
Artillery Ballistic Meteorology
AR-1304-0002
Ballistic Meteorology Crewman, Skill Development Base
AR-1715-0121
Ballistic Meteorology Crewman, Specialist Candidate
AR-1715-0121

Method
AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle)
AR-1406-0114
UH-60 Method of Instruction
AR-1406-0115

Methods
AH-64 Instructor Pilot Methods of Instruction
AR-1406-0121
Defense Against Methods of Entry
AR-1606-0025
Methods-Time Measurement 1 (MTM1)
AR-1408-0073
OH-58D Instructor Pilot Methods of Instruction (MOI)
AR-1406-0118

Microprocessors
Microprocessors
AR-1715-0620

Microwave
Basic Microwave Radio Equipment Repair
AR-1715-0219
Microwave Radio Equipment Repair
AR-1715-0272
Microwave Radio Officer
AR-1715-0251
Microwave Radio Relay Operation
AR-1715-0152
Strategic Microwave Systems Operation and Maintenance
AR-1715-0073
Strategic Microwave Systems Repair
AR-1715-0098
Strategic Microwave Systems Repairer
AR-1715-0437
AR-1715-0672
Strategic Microwave Systems Repairer (AIT)
AR-1715-0672
Strategic Microwave Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0678
Strategic Microwave Systems Repairer, Basic Technical
AR-1715-0676
Strategic Satellite/Microwave Systems Operator
AR-1715-0430
Supervisory Microwave Radio Maintenance
AR-1715-0027
Tactical Microwave Systems Operation and Maintenance
AR-1715-0219
Tactical Microwave Systems Repair
AR-1715-0272
AR-1715-0436
Tactical Satellite Microwave System Operator
AR-1715-0219
Tactical Satellite/Microwave Repairer
AR-1715-0671
Tactical Satellite/Microwave Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Repairer Transition
AR-1715-0877
Tactical Satellite/Microwave Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Systems Operator
AR-1715-0782
Tactical Satellite/Microwave Systems Operator Basic Noncommissioned Officer (NCO)
AR-1715-0699
Tactical Satellite/Microwave Systems Operator Primary Technical
AR-1715-0699

Military
Associate Military Police Company Officer
AR-1728-0005
Associate Military Police Officer Advanced
AR-1728-0031
Associate Military Police Officer Career
AR-1728-0001
Basic Military Police
AR-1728-0023
Cadet Military Secondary Training/ROTC
AR-2201-0303
Civil Affairs and Military Government Officer
AR-2201-0148
Civil Affairs and Military Government Officer Advanced
AR-1408-0049
Civil Military Operations
AR-2201-0343
Effective Military Writing
AR-2201-0254
Military Accounting
AR-1401-0001
AR-1401-0034
Military Ammunition Inspector
AR-2201-0056
Military Assistance Advisor Sector/Unit
AR-2201-0014
Military Assistance Officer Command and Staff
AR-1511-0003
Military Assistance Training Advisor
AR-2201-0016
Military Assistance Training Advisor ARVN Officer
AR-0602-0006
Military Assistance Training Advisor Company Grade Officer
AR-0602-0005
Military Assistance Training Advisor Corps/Division
AR-2201-0015
Military Assistance Training Advisor CORDS Officer
AR-0602-0004
Military Assistance Training Advisor Field Grade Officer
AR-0602-0003
Military Assistance Training Advisor Psychological Operations Orientation
AR-1512-0005
Military Assistance Training Advisor Senior Noncommissioned Officer (NCO)
AR-0602-0002
Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG)
AR-2201-0352
Military Free Fall Jumpmaster
AR-2201-0344
Military Free-Fall Parachutist
AR 2201-0345
Military Government Advanced
AR-2201-0141
Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0155
Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced (USAISC)
AR-2201-0155
Military Intelligence Advanced Noncommissioned Officer (NCO)
AR-1406-0125
AR-2201-0155

Military Intelligence Common Core Phase 1
AR-1402-0128
Military Intelligence Coordinator
AR-1606-0035
Military Intelligence Officer Advanced (Imagery Exploitation)
AR-1606-0194
Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW))
AR-1406-0128
Military Intelligence Officer Advanced Common Core
AR-1606-0196
Military Intelligence Officer Advanced Counterintelligence
AR-1728-0085
Military Intelligence Officer Basic
AR-1606-0153
Military Intelligence Officer Transition
AR-1728-0087
Military Intelligence Precommand
AR-1606-0197
Military Intelligence Senior Warrant Officer
AR-1606-0202
Military Intelligence Warrant Officer Entry (Phase I)
AR-1606-0154
Military Intelligence Warrant Officer-Reserve Component
AR-1606-0195
Military Nursing Advanced
AR-0703-0009
Military Police Additional Specialty Code 31
AR-1728-0073
Military Police Advanced Noncommissioned Officer (NCO)
AR-1728-0030
Military Police Basic Noncommissioned Officer (NCO)
AR-1728-0069
Military Police Field Grade Officer Refresher
AR-1728-0033
Military Police Investigation
AR-1728-0028
Military Police Investigator
AR-1728-0028
AR-1728-0079
Military Police Noncommissioned Officer (NCO) Refresher
AR-1728-0002
Military Police Officer Advanced
AR-1728-0035
Military Police Officer Advanced Resident/Nonresident
AR-1728-0047
Military Police Officer Basic
AR-1728-0026
Military Police Officer Career
AR-1728-0035
Military Police Officer Familiarization
AR-1728-0025
Military Police Officer Orientation
AR-1728-0026
AR-1728-0034
Military Police Pre-Command
AR-1728-0070
Military Police Supervision
AR-1728-0003
Military Police Supervision (Enlisted)
AR-1728-0003
Military Policeman
AR-1728-0023
Personnel Staff Noncommissioned OFficer (NCO) Military Personnel Technician
AR-1406-0132
Principles of Military Preventive Medicine (CHN)
AR-0799-0020
Principles of Military Preventive Medicine (ENTO)
AR-0709-0045
Principles of Military Preventive Medicine (MC/VC/DC)
AR-0703-0024
Principles of Military Preventive Medicine (MS)
AR-0801-0024
Special Forces Military Free Fall Jumpmaster
AR-2201-0344
Special Forces Military Free-Fall Parachutist
AR-2201-0345
Warrant Officer Candidate Military Development
AR-2201-0212

Mine
Mine and Tunnel Detection Dog Handler
AR-1728-0019

Mishap
Aviation Mishap Prevention
AR-0802-0015
Aviation Mishap Prevention Management
AR-0801-0004

Missile
Air Defense Artillery (ADA) Short Range Missile Crewman
AR-1715-0516
Air Defense Missile (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
AR-2201-0133
Air Defense Missile Maintenance (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0195
Air Defense Missile Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Maintenance Technician (Hawk)
AR-1715-0099
Air Defense Missile Maintenance Technician (Hawk) System Transition
AR-2201-0092
Air Defense Missile Maintenance Technician (Nike)
AR-1715-0255
Air Defense Missile Maintenance Technician and Maintenance Chief System Transition (Hawk)
AR-2201-0092
Air Defense Missile Officer Basic
AR-2201-0120
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0009
Air Defense Missile Repair Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Staff Officer (Hawk)
AR-1715-0289
Air Defense Missile Staff Officer (Nike Hercules)
AR-1715-0315
Aircraft Armament Missile Systems Repairer
AR-1704-0159
Aircraft Armament/Missile Systems Repairer
AR-1714-0023
Aircraft Armament/Missile Systems Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft/Armament/Missile Systems Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0147
Ammunition and Missile Maintenance Officer (Transition)
AR-2201-0102
Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer
AR-1601-0032
Associate Air Defense Missile Battery Officer
AR-1715-0288
Associate Antiaircraft Artillery (AAA) Missile Battery Officer
AR-1715-0288
Associate Field Artillery Missile Battery Officer
AR-2201-0135
Associate Surface-to-Air Missile (SAM) Battery Officer
AR-1715-0288
Associate Surface-to-Surface Missile (SSM) Battery Officer
AR-1714-0013
Ballistic Missile Digital Computer Repair (Pershing)
AR-1715-0040
Ballistic Missile Digital Equipment Repair (Pershing)
AR-1715-0118
Ballistic Missile Electrical Mechanical Repair (Pershing)
AR-1715-0122
Ballistic Missile General Support Shop Set Repair (Sergeant)
AR-1715-0116
Ballistic Missile Guidance and Control Repair
AR-1715-0104
Ballistic Missile Guidance and Control Repair (Pershing)
AR-1715-0079
Ballistic Missile Helper
AR-1715-0082
Ballistic Missile Helper (Entry)
AR-1715-0082
Ballistic Missile Inertial Guidance and Control Repair (Pershing)
AR-1715-0103
Ballistic Missile Inertial Guidance and Control Repair (Sergeant)
AR-1715-0312
Ballistic Missile Maintenance Technician (Pershing)
AR-1715-0078

Ballistic Missile Maintenance Technician (Sergeant)
AR-1715-0246
Ballistic Missile Propulsion and Structures Repair (Pershing)
AR-1715-0075
Ballistic Missile Repair (21-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-1717-0050
Ballistic Missile Rocket Motor and Structures Repair (Sergeant)
AR-1715-0088
Ballistic Missile Test Instrument Repair
AR-1715-0348
Ballistic Missile Test Instrument Repair (Redstone)
AR-1715-0348
Ballistic Missile Test Station Repair (Pershing)
AR-1715-0089
Ballistic Missile Test Station Repair (Sergeant)
AR-1715-0100
Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance Noncommissioned Officer (NCO) Advanced
AR-1715-0530
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
AR-2201-0196
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USMMCS)
AR-1405-0095
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Combat Missile Mechanic (271-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0211
Combat Missile System Repair
AR-1715-0115
Combat Missile System Repair (Redeye-Shillelagh-Tow)
AR-1715-0115
Combat Support Missile System Repair
AR-1715-0298
Corporal Missile Repair
AR-1715-0083
Engineer Missile Equipment Maintenance
AR-1730-0002
Engineer Missile Equipment Repair
AR-1730-0004
Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer
AR-1715-0281
Field Artillery Ballistic Missile Officer
AR-1402-0026
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Field Artillery Missile Officer Basic
AR-2201-0084
Guided Missile Electronic Materiel Maintenance
AR-1715-0085
Guided Missile Maintenance Supervision, Nike
AR-1715-0255
Guided Missile Unit Commander (Surface-to-Air Missile (SAM)
AR-1715-0385
Hawk Missile and Launcher Maintenance
AR-1715-0101
Hawk Missile and Launcher Repair
AR-1715-0132
Hawk Missile and Launcher Repair (Transition Instruction)
AR-1715-0127
Hawk Missile Crew Member
AR-1715-0511
Hawk Missile Support Repair Technician (DS/GS)
AR-1715-0647
Helicopter Missile System Repair Supervisor/Technical Inspector
AR-1704-0102
Helicopter Missile Systems Repairer
AR-1715-0200
Hercules Missile Crew Member
AR-1715-0510
Intermediate Maintenance Patriot Missile System Phases I and II
AR-1715-0746
Lance Missile Crew Member
AR-2201-0220
Lance Missile Crewman
AR-2201-0220
Lance Missile Crewmember
AR-2201-0375
Lance Missile Mechanic
AR-1717-0067
Lance Missile System Repair
AR-1715-0298
Lance Missile System Technician-Warrant Officer Technical Certification
AR-1715-0626
Lance Missile Sytem Technician-Warrant Officer Technical Certification
AR-1715-0843
Land Combat Missile System Repair Technician
AR-1715-0130
AR-1715-0645
Land Combat Missile Systems Repair Technician Entry
AR-1715-0130
Land Combat Missile Systems Repair Technician Warrant Officer Technical Certifcation
AR-1715-0130
Land Combat Support Missile System Repair Technician
AR-1715-0130
Land Combat Support System (LCSS)—Missile Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0030
Light Missile Field Artillery (Lance)
AR-2201-0371
Light Target Missile Controller
AR-2201-0087
Light Target Missile Flight Control System Maintenance
AR-1715-0131
Light Target Missile Launcher Operation and Airframe and Engine Maintenance
AR-1704-0077
Missile Maintenance Officer
AR-1715-0330
Missile Master Battery Terminal Equipment Maintenance
AR-1715-0087
Missile Master Fire Unit Integration Facility Maintenance
AR-1715-0087
Missile Master Systems Management Officers
AR-1715-0311
Missile Mechanical Materiel Maintenance, Corporal
AR-1715-0243
Missile Monitor Operations Central and Terminal Equipment Repair
AR-1714-0003
Missile Repair Parts Specialist
AR-1405-0034
Missile Repair Parts Specialist, Skill Development Base
AR-1405-0016
Missile Systems Apprentice
AR-1715-0297
Missile Tank Turret Mechanic
AR-1710-0038
Nike Air Defense Missile Repair
AR-1715-0255
Nike Ajax Missile Electronic Maintenance
AR-1715-0085
Nike Ajax Missile Electronic Materiel Maintenance
AR-1715-0085
Nike Ajax Missile Mechanical Maintenance
AR-1715-0287
Nike Hercules Missile Electronic Maintenance
AR-1715-0106
Nike Hercules Missile Electronic Materiel Maintenance Transition
AR-1715-0106
Nike Missile Launcher Repairer
AR-1715-0390
Nike Missile Repair
AR-1715-0114
Nike Missile Repairman
AR-1715-0114
Nike Missile-Launcher Repair
AR-1715-0390
Nike Missile-Launcher Repair (Phases I and II)
AR-1715-0390
Nike Missile-Launcher Repair Transition
AR-1715-0369
Nike-Hercules Missile Mechanical Materiel Maintenance Transition
AR-1704-0085
Ordance Guided Missile Officer, AAGM
AR-1715-0326
Ordance Officer Advanced Missile Materiel Management, Phase II
AR-1405-0094
Ordnance Guided Missile Officer (FAGM)
AR-1715-0330
Ordnance Guided Missile Officer (FAM)
AR-1715-0330
Ordnance Guided Missile Officer, Air Defense Missile
AR-1715-0326
Ordnance Missile Materiel Management Officer-Reserve
AR-1405-0156
Ordnance Missile Systems Maintenance Officer
AR-1715-0330
Ordnance Officer Advance Missile Materiel Management Field Operations
AR-1405-0147
Ordnance Officer Advanced Missile
AR-1408-0038
Ordnance Officer Advanced Missile/

Munitions Materiel Management
AR-1408-0124
AR-1408-0153
Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management
AR-1405-0148
Ordnance Officer Basic Missile Materiel Management
AR-1405-0089
Ordnance Officer Basic Ordnance Missile Material Management
AR-1405-0089
Ordnance Officer Missile/Munitions Additional Specialty (ADSPEC)
AR-1408-0152
Patriot Missile Crew Member
AR-1715-0578
AR-1715-0579
AR-1715-0580
Patriot Missile Crew Member Transition
AR-1715-0579
AR-1715-0581
Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II
AR-1715-0797
Patriot Missile System Technician—Warrant Officer Technical Certification (WOTC)
AR-1715-0653
Pershing II Missile Crewmember
AR-1715-0486
Pershing II Missile Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0288
Pershing II Missile Crewmember Basic Noncommissioned Officer (NCO)
AR-1715-0636
Pershing II Missile Crewmember Basic Technical
AR-1715-0636
Pershing Missile Battery
AR-1715-0349
Pershing Missile Crewman
AR-1715-0486
Pershing Missile Crewmember
AR-1715-0486
Pershing Missile Crewmember Basic Noncommissioned Officer (NCO)
AR-2201-0370
Pershing Missile System Technician Warrant Warrant Officer Candidate
AR-1715-0628
Pershing Missile Systems Technician-Warrant Officer Technical Certification
AR-1715-0842
Pre-Command Phase III Combat Service Support Missile and Munitions
AR-1408-0123
Safeguard Ballistic Missile Defense Unit Commander
AR-1715-0379
Safeguard Missile Maintenance Technician/Specialist
AR-1715-0377
Sergeant Missile Battery
AR-1715-0102
Sergeant Missile Battery Officer
AR-1715-0102
Sergeant Missile Crewman Noncommissioned Officer (NCO) Basic
AR-2201-0093
Sergeant Missile Guidance Repair
AR-1715-0302
Shillelagh Missile System Repair
AR-1715-0303
Small Missile Systems Repair
AR-1715-0129
Surface-to Surface Missile (SSM) Doppler Repair
AR-1715-0187
Surface-to-Air (SAM) Missile Mechanical Materiel Maintenance Maintenance (Nike Ajax)
AR-1714-0002
Surface-to-Air Missile (SAM) Acquisition Radar and Computer Systems Repair
AR-1715-0209
Surface-to-Air Missile (SAM) Electronic Materiel Maintenance, Nike
AR-1715-0085
Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax
AR-1715-0216
Surface-to-Air Missile (SAM) Internal Guidance System Repair
AR-1715-0114
Surface-to-Air Missile (SAM) Maintenance
AR-1715-0315
Surface-to-Air Missile (SAM) Mechanical Systems Repair
AR-1704-0086
Surface-to-Air Missile (SAM) Staff Officer
AR-1715-0315
Surface-to-Air Missile (SAM) Staff Officer (Hawk)
AR-1715-0289
Surface-to-Air Missile (SAM) Staff Officer (Nike)
AR-1715-0315
Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Advanced
AR-1715-0290
Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Intermediate
AR-1715-0099
Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Advanced
AR-1717-0032
Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Intermediate
AR-1715-0255
Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Advanced
AR-1715-0105
Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Intermediate (221B, 222B, 223C)
AR-1715-0105
Surface-to-Air Missile (SAM) Unit Commander
AR-1715-0385
Surface-to-Air Missile Officer (SAM) Basic
AR-2201-0120
Surface-to-Surface (SSM) Missile Computer Repair
AR-1715-0022
Surface-to-Surface Missile (SSM) Internal Guidance System Repair
AR-1715-0083
Surface-to-Surface Missile (SSM) Maintenance
AR-1715-0327
Surface-to-Surface Missile (SSM) Officer Basic
AR-1715-0325
Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Advanced
AR-2201-0126
Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Intermediate
AR-1715-0078
Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Advanced
AR-1717-0034
Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Intermediate
AR-1715-0246
USMC Missile Systems Maintenance Fundamentals
AR-1715-0398

Missiles
Ballistic Missiles Propulsion and Structures Repair
AR-1704-0089
Field Artillery Missiles (FM CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-2201-0001
Field Artillery Missiles/Rockets Noncommissioned Officer (NCO) Basic
AR-2201-0185

Mission
Dual Purpose Mission Training
AR-1715-0712
Dual Purpose Mission Training (05H)
AR-1715-0534
Mission Training Analysis (Area 1)
AR-2201-0200
Mission Training Analysis (Area 2)
AR-2201-0201
Mission Training Analysis (Area 3)
AR-2201-0202
Special Electronic Mission Aircraft (SEMA) Common Core
AR-1715-0871
Voice Operator Mission Training (German)
AR-2201-0198
Voice Operator Mission Training Number 1 (Russian)
AR-2201-0207

Mobile
Advanced Mobile Subscriber Equipment (MSE) Node Switch/Large Extension Node Switch Operator
AR-1715-0872
Ground Mobile Forces (GMF) Interface Subsystem
AR-1715-0695
Mobile Electric Power Generation
AR-1710-0009
Mobile Electric Power Generation (Precise)
AR-1710-0010
Mobile Subscriber Equipment (MSE) Central Office Repairer
AR-1715-0876
Mobile Subscriber Equipment (MSE) Network Switching System Operator
AR-1715-0886
Mobile Subscriber Equipment (MSE) System Planner/System Control Center

Operator
AR-1715-0875
Mobile Subscriber Equipment (MSE) Systems Maintainer
AR-1715-0873
AR-1715-0885
Mobile Subscriber Equipment (MSE) Transmission System Operator
AR-1715-0884

Mobility
Heavy Expanded Mobility Tactical Truck (HEMTT) Operator Additional Skill Identifier (ASI)
AR-2101-0001
Ordnance Officer Advanced Tank Ground Mobility
AR-1408-0078
Ordnance Officer Advanced Tank/Ground Mobility Materiel Management
AR-1408-0078
Strategic Mobility Planning
AR-0419-0027

Mobilization
Financial Management—Mobilization Designees
AR-1408-0034
Unit Mobilization Planners
AR-1405-0198

Mode V
Mode V Subscriber Terminal
AR-1715-0151

Module
Collection Management Assignment Specific Module
AR-1408-0176
Collection Management/Tencaps Operations Assignment Specific Module
AR-1408-0176

Mohawk
AO-1 (Mohawk) Aviator Transition
AR-1606-0122
OV-1 (Mohawk) Aviator Combat Surveillance Qualification
AR-1606-0092
OV-1 (Mohawk) Aviator Transition
AR-1606-0122
OV-1 (Mohawk) Instructor Pilot Qualification
AR-1606-0050
OV-1D (Mohawk) Airborne Radar Repair
AR-1715-0168
OV-1D (Mohawk) Airborne Sensor Specialist
AR-1704-0013
OV-1D (Mohawk) Aviator Combat Surveillance Qualification
AR-1715-0133
OV-1D (Mohawk) Surveillance Infrared Repair
AR-1715-0054
OV/RV-1D (Mohawk) Aviator Combat Surveillance Qualification
AR-1715-0133
OV/RV-1D (Mohawk) Systems Qualification
AR-1715-0498

Mojave
CH-37 (Mojave) Aviator Transition
AR-1606-0051
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase
AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Transition Phase
AR-1606-0056

Monitor
Missile Monitor Operations Central and Terminal Equipment Repair
AR-1714-0003

Morale
Morale Support Officer
AR-1408-0086

Morse
Advanced International Morse Code (IMC)
AR-1407-0005
Basic Morse Code
AR-1409-0003
Electronic Warfare (EW) and Cryptologic Interceptor—Morse
AR-1409-0008
Electronic Warfare (EW) Cryptologic Interceptor—Morse Basic Technical
AR-1717-0037
Electronic Warfare (EW) Signal Intelligence SIGINT) Morse Collector
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor, Morse
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079
International Morse Code
AR-1404-0011
Morse Data Preparation Operator's Training (AN/GGC-15)
AR-1409-0007
Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0133
Morse Interceptor
AR-1404-0016

Mortar
Heavy Mortar and Davy Crockett Noncommissioned Officer (NCO)
AR-2201-0024
Heavy Mortar and Davy Crockett Officer
AR-2201-0157
Infantry Mortar Platoon
AR-2201-0085

Motion
Motion Picture Photography
AR-1709-0004
Pictorial Unit Commander and Motion Picture and Television Director
AR-1709-0006

Motor
Armor Maintenance and Motor Transport
AR-1717-0033
Armor Motor Officer
AR-1717-0033
Artillery Motor Transport
AR-1703-0020
Electric Motor and Generator Repair
AR-1715-0321
Electric Motor and Generator Repairman
AR-1715-0321
Infantry Motor Transportation
AR-1703-0015
Motor Officer
AR-1405-0120
AR-1703-0005
Motor Sergeant
AR-1405-0121
Motor Sergeant/Motor Officer
AR-1710-0141
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0024
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0013
Motor Transport Noncommissioned Officer (NCO) Advanced
AR-0419-0024
Motor Transport Operation and Maintenance
AR-0419-0006
Motor Transport Operator
AR-1703-0022
AR-1703-0059

Movement
Movement officer
AR-1405-0201
Movements Specialist
AR-0419-0005
Transportation Movement Control
AR-0419-0005
Transportation Movement Specialist
AR-0419-0005
Transportation Movements
AR-0419-0005

Movements
Movements Specialist
AR-0419-0005
Movements Specialist (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Movements Specialist Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Movements Specialist Supervision
AR-0419-0002
Theater of Operations Movements Officer
AR-0419-0008
Transportation Movements
AR-0419-0005
Transportation Movements Control Supervision
AR-0419-0002

Multi-Engine
Aircraft Turbine Multi-Engine Repair
AR-1704-0090
Fixed Wing Multi-Engine Qualification
AR-1606-0111
Multi-Engine Airplane Repair
AR-1704-0043
Multi-Engine Command Airplane Maintenance
AR-1704-0067
Multi-Engine Medium Transport

Airplane Maintenance
AR-1704-0074
Multi-Engine Medium Transport Helicopter Maintenance
AR-1704-0049
Multi-Engine Observation Airplane Maintenance
AR-1704-0038
Multi-Engine Utility Airplane Repair
AR-1704-0027
Multi-Engine, Single-Rotor Helicopter Repair
AR-1704-0035
Multi-Engine, Tandem-Rotor Helicopter Repair
AR-1704-0034

Multichannel
Low Capacity Multichannel Communication Systems
AR-1715-0548
Low Capacity Multichannel Communication Systems Team Chief
AR-1715-0548
Medium Capacity Multichannel Communication Systems
AR-1715-0549
Medium Capacity Multichannel Communication Systems Team Chief
AR-1715-0549
Multichannel Ciphony System TSEC/CY-104 Repair
AR-1715-0388
Multichannel Communications Equipment Operator Basic Noncommissioned Officer (NCO)
AR-1715-0606
Multichannel Communications Equipment Operator Primary Technical
AR-1715-0606
Multichannel Communications Equipment Repair
AR-1715-0111
Multichannel Communications Equipment Supervisor, Individual Ready Reserve
AR-1715-0765
Multichannel Communications Systems
AR-1715-0793
Multichannel Communications Systems Operator Basic Noncommissioned Officer (NCO)
AR-1715-0606
Multichannel Communications Systems Operator Multichannel Communications Equipment Operator
AR-1715-0053
VHF/UHF Multichannel Intercept
AR-1404-0018

Multimedia
Operation of the Automated Multimedia Exchance (AMME) System
AR-1715-0501

Multiple
Multiple Launch Rocket System (MLRS) Basic Noncommissioned Officer (NCO)
AR-2201-0366
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommisioned Officer (NCO)
AR-2201-0359
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0365
Multiple Launch Rocket System Cadre (MLRS) Cadre
AR-1715-0834
Multiple Launch Rocket System Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0367
Multiple Virtual Storage (MVS) 3 Advanced Concepts
AR-1402-0105
Multiple Virtual Storage (MVS) 5 Concepts and Operations
AR-1402-0103

Multiplex
Digital European Backbone (DEB) Multiplex Equipment Repair
AR-1402-0053
Multiplex Map Compiling
AR-1601-0015

Multiplexer
Digital Radio and Multiplexer Acquisition (DRAMA) Communications Systems Repair
AR-1715-0665
Digital Radio Multiplexer Acquisition (DRAMA)
AR-1715-0665

Munitions
Atomic Demolition Munitions
AR-0802-0009
Atomic Demolition Munitions (Enlisted)
AR-0802-0009
Atomic Demolition Munitions (Officer)
AR-0802-0010
Missile and Munitions Officer
AR-1405-0068
Ordnance Munitions Materiel Management Officer Basic
AR-1405-0158
Ordnance Munitions Materiel Management Officer-Reserve
AR-1405-0157
Ordnance Officer Advanced Missile/Munitions Materiel Management
AR-1408-0124
AR-1408-0153
Ordnance Officer Advanced Munitions
AR-1408-0077
Ordnance Officer Advanced Munitions Materiel Management
AR-1408-0077
Ordnance Officer Advanced Munitions Materiel Management Field Operations
AR-1405-0146
Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management
AR-1405-0148
Ordnance Officer Basic Munitions Materiel Management
AR-1405-0091
Ordnance Officer Missile/Munitions Additional Specialty (ADSPEC)
AR-1408-0152
Pre-Command Phase III Combat Service Support Missile and Munitions
AR-1408-0123

Music
Music, Class A, Basic
AR-1205-0005
Naval School of Music, Class A, Basic
AR-1205-0005

MAIT
COMSEC Equipment MAIT
AR-1715-0062

MANPAD
Man Portable Air Defense (MANPAD) Crew Member
AR-1715-0817
Man Portable Air Defense (MANPAD) Crew Member (Redeye) (RC)
AR-1715-0801
Man Portable Air Defense (MANPAD) Crewmember (Stinger) (RC)
AR-1715-0800

MANPADS
Man Portable Air Defense System (MANPADS) Crewman
AR-1715-0577
Man Portable Air Defense System (MANPADS) FORSCOM Cadre Net
AR-2201-0266

METS
Modular Engine Test Stand (METS) Operator
AR-1704-0024

MLRS
Multiple Launch Rocket System (MLRS) Cadre
AR-1715-0625
Multiple Launch Rocket System (MLRS) Crewman
AR-2201-0282
Multiple Launch Rocket System (MLRS) Mechanic
AR-2201-0280
Multiple Launch Rocket System (MLRS) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0749
Multiple Launch Rocket System (MLRS)/Lance Advanced (NCO) Noncommissioned Officer
AR-2201-0290
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced (NCO) Noncommissioned Officer
AR-2201-0289
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Specialist
AR-1715-0847
Multiple Launch Rocket System Cadre (MLRS) Cadre
AR-1715-0834
Multiple Launch Rocket Systems (MLRS)/Lance Operations
AR-1601-0056

MSE
Advanced Mobile Subscriber Equipment (MSE) Node Switch/Large Extension Node Switch Operator
AR-1715-0872
Mobile Subscriber Equipment (MSE) Central Office Repairer
AR-1715-0876
Mobile Subscriber Equipment (MSE) Network Switching System Operator
AR-1715-0886
Mobile Subscriber Equipment (MSE) System Planner/System Control Center Operator
AR-1715-0875
Mobile Subscriber Equipment (MSE) Systems Maintainer
AR-1715-0873
AR-1715-0885
Mobile Subscriber Equipment (MSE)

Transmission System Operator
AR-1715-0884

MTM1
Methods-Time Measurement 1 (MTM1)
AR-1408-0073

MUST
Utility Element Maintenance—Medical Unit Self-Contained Transportable (MUST)
AR-1730-0003

M1
Basic Noncommissioned Officer (NCO) M6OA1/M6OA3 19K M1 Abrams
AR-2201-0325
Basic Noncommissioned Officer (NCO) 19K M1 Abrams
AR-2201-0324
M1 Abrams Fuel and Electrical Systems Repairer
AR-1714-0024
AR-1714-0029
M1 Abrams Master Gunner
AR-2201-0327
M1 Abrams Tank Fire Control Systems Repairer
AR-1710-0101
M1 Abrams Tank Recovery Specialist
AR-1710-0135
M1 Abrams Tank System Mechanic Basic Noncommissioned Officer (NCO)
AR-1703-0040
M1 Abrams Tank System Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0131
M1 Abrams Tank System Mechanic Primary Technical
AR-1712-0014
M1 Abrams Tank Systems Mechanic
AR-1704-0142
M1 Abrams Tank Systems Mechanic Basic Technical
AR-1712-0015
M1 Abrams Tank Turret Mechanic
AR-1703-0050
M1 Abrams Tank Turret Mechanic Primary Technical
AR-1710-0103
M1 Abrams Tank Turret Repair
AR-1710-0104
M1 Abrams Tank Vehicle Repairer
AR-1710-0097
AR-1710-0113
M1 Unit Automotive Maintenance
AR-1710-0148
M1 Unit Turret Mechanic
AR-1710-0144
M1/M1A1 Abrams Armor Crewman
AR-2201-0330
M1/M1A1 Abrams Master Gunner
AR-2201-0328
M1/M1A1 Master Gunner Transition
AR-2201-0329

M1A1
M1/M1A1 Abrams Armor Crewman
AR-2201-0330
M1/M1A1 Abrams Master Gunner
AR-2201-0328
M1/M1A1 Master Gunner Transition
AR-2201-0329

M109
M109-M110 Organizational Maintenance Training
AR-1710-0080
M109-M110, M548 Unit Maintenance Training
AR-1710-0149
System Mechanic Self-Propelled (SP) Artillery M109/M110 Series Vehicles
AR-1710-0066
AR-1710-0067

M109A1
M109A1/M548 Troubleshooting for Unit Mechanics
AR-1710-0078

M110
M109-M110 Organizational Maintenance Training
AR-1710-0080
M109-M110, M548 Unit Maintenance Training
AR-1710-0149
M110/M548 Troubleshooting for Unit Mechanics
AR-1710-0077
System Mechanic Self-Propelled (SP) Artillery M109/M110 Series Vehicles
AR-1710-0066
AR-1710-0067

M113
M113 Cavalry Scout
AR-2201-0332
M113 Series Organizational Maintenance Training
AR-1710-0079
M113 Series Troubleshooting for Unit Mechanics
AR-1710-0075
AR-1710-0076
M113 Series Unit Maintenance Training
AR-1710-0146
System Mechanic for M113 Series Vehicles
AR-1710-0069
System Mechanic M113 Series Vehicle
AR-1710-0070

M113A1
M60-M113A1 Series Unit Maintenance Training
AR-1704-0170

M2/M3
M2/M3 Bradley Fighting Vehicle Repairer
AR-1712-0016
M2/M3 Bradley Fighting Vehicle Turret Repair
AR-1710-0105

M2/3
M2/3 Bradley Fighting Vehicle (BFV) Unit Maintenance Training
AR-1710-0147
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143

M22
Helicopter Armament Subsystem M22 and DX43 Mechanic
AR-1704-0081
Helicopter Armament Subsystem M22 and Simulator DX43 Repair
AR-1704-0078

M3
M3 Bradley/CFV Cavalry Scout
AR-2201-0331

M33
Artillery Fire Control System Maintenance, M33
AR-1715-0213
M33 Fire Control System Maintenance
AR-1715-0213
M33, SCR-584 Fire Control System Maintenance
AR-1715-0213

M48/M60A1
M48/M60A1 Armor Crewman
AR-1710-0054
M48/M60A1 Armor Crewman (BAT)
AR-1710-0054

M548
M109-M110, M548 Unit Maintenance Training
AR-1710-0149

M551
Master Gunner (M551)
AR-2201-0214
M551 (Sheridan) Basic Noncommissioned Officer (NCO)
AR-1710-0137

M6OA1
Basic Noncommissioned Officer (NCO) M6OA1/M6OA3 19K M1 Abrams
AR-2201-0325

M6OA3
Basic Noncommissioned Officer (NCO) M6OA1/M6OA3 19K M1 Abrams
AR-2201-0325

M60
M60-M113A1 Series Unit Maintenance Training
AR-1704-0170
System Mechanic M60 Series Vehicle
AR-1710-0065
AR-1710-0068
AR-1710-0073

M60A
M60A3 Series Organizational Turret Maintenance Course
AR-1710-0071

M60A1
Master Gunner (M60A1/A3)
AR-2201-0216
Master Gunner M60A1
AR-2201-0334
M48/M60A1 Armor Crewman
AR-1710-0054
M48/M60A1 Armor Crewman (BAT)
AR-1710-0054
M60A1 Series Organizational Turret Maintenance
AR-1710-0072
M60A1-M113A1 Troubleshooting for Unit Mechanics
AR-1710-0074

M60A1/A3
M60A1/A3 Tank Recovery Specialist
AR-1703-0051
M60A1/A3 Tank Systems Mechanic
AR-1703-0042
AR-1710-0100
Tank M60A1/A3 Tank System Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0130

M60A2
Basic Armor Training (BAT) M60A2
AR-1710-0056
Master Gunner (M60A2)
AR-2201-0215

M60A3
Armor Officer Basic-Tank M60A3
AR-1717-0081

Master Gunner M60A3 AR-2201-0335
Master Gunner M60A3 Transition AR-2201-0336
M60A3 Armor Crewman AR-2201-0333
M60A3 Tank System Mechanic—Individual Ready Reserve Refresher AR-1703-0044
M60A3 Unit Turret Maintenance AR-1710-0145

M816/936/984E1
Recovery Specialist-ASIH8/Wheel Recovery Operations (M816/936/984E1) AR-1710-0153

M88A1/M578
Recovery Specialist-ASIH8/Track Recovery Operations (M88A1/M578) AR-1710-0139
Recovery Specialist/Recovery Operations (M88A1/M578) AR-1710-0140

National
Army National Guard Recruiter, Basic AR-1406-0098
Army National Guard Recruiting Supervisor AR-1406-0098
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Transition Phase AR-1606-0056
Field Artillery National Guard Officer Candidate AR-2201-0138
Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG) AR-2201-0352
National Guard (ARNG) Advanced Recruiter and Sales AR-1406-0134
National Guard (ARNG) Recruiter and Sales AR-1406-0139
National Guard (ARNG) Recruiting and Rentention Detachment Commander AR-1408-0183
National Guard (ARNG) Recruiting Field Sales Manager AR-1408-0185
National Guard (ARNG) Rentention Noncommissioned Officer (NCO) AR-2201-0388
National Guard Advanced Retention Noncommissioned Officer (NCO) AR-2201-0353
National Guard Enlistment Processing Station (MEPS) Guidance Counselor AR-2201-0351
National Guard Infantry Officer Candidate AR-2201-0137
National Guard Officer Candidate AR-2201-0300
National Guard Recruiter AR-1406-0098
National Guard Recruiting and Retention Manager AR-1406-0097
National Guard Recruiting Advanced AR-1406-0101
National Guard Retention Noncommissioned Officer (NCO) AR-2201-0355
National Senior Intelligence AR-1606-0022

Navigation
Airborne Navigation Radar Repair AR-1715-0143
Avionic Navigation and Flight Control Equipment Repair AR-1715-0431
Avionic Navigation and Flight Control Equipment Repairer AR-1715-0867
Avionic Navigation Equipment Repair AR-1715-0340
Electronic Navigation Equipment Repair AR-1715-0347
Inertial Navigation Set AN/ASN-86 Repair AR-1715-0161 AR-1715-0688
Polar Navigation AR-1708-0003
Position Fixing Navigation Equipment Repair AR-1715-0023

Navigator
Lighter Air Cushion Vehicle Navigator AR-2205-0002

Navy
Navy Broadcast Terminal Operator AR-1715-0342
Navy Corrections Specialist AR-1728-0062
UH-1 Aviator Qualification (Navy) AR-1606-0060
UH-1 Pilot Transition (Navy) AR-1606-0060

Negotiations
Hostage Negotiations AR-1728-0067

Net
Automated High Frequency Direction Finding (HFDF) Net Control Station (EELPOT) Maintenance AR-1715-0404

Network
Joint Tactical Automated Switching Network Supervisor AR-1715-0605

Neuropsychiatric
Neuropsychiatric Nursing AR-0703-0008
Neuropsychiatric Procedures Basic AR-0708-0001
Neuropsychiatric Specialist AR-0708-0001
Neuropsychiatric Techniques Advanced AR-0708-0002

Neuropsychiatry
Neuropsychiatry AR-0708-0001

Night
Night Vision Goggle (NVG) AN/PVS5 Methods of Instruction AR-1606-0139
Night/Night Vision Goggle Instructor Pilot AR-1606-0172
UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction AR-1406-0080

Nike
Air Defense Electronic Warfare (EW) (Nike Hercules) AR-1715-0002
Air Defense Missile Maintenance Technician (Nike) AR-1715-0255
Air Defense Missile Staff Officer (Nike Hercules) AR-1715-0315
Guided Missile Maintenance Supervision, Nike AR-1715-0255
Improved Nike Hercules Fire Control System Maintenance AR-1715-0361
Improved Nike Hercules High Power (HIPAR) Acquisition Radar Maintenance AR-1715-0210
Improved Nike Hercules Fire Control System Maintenance Transition AR-1715-0140
Nike Acquisition Radar and Computer Repair AR-1715-0209
Nike Acquisition Radar and Computer Repair (Hercules Transition) AR-1715-0233
Nike Acquisition Radar and Computer Repair (Improved Hercules Transition) AR-1715-0233
Nike Acquisition Radar and Computer Systems Repair AR-1715-0209
Nike Air Defense Missile Repair AR-1715-0255
Nike Ajax Fire Control System Maintenance AR-1715-0216
Nike Ajax Missile Electronic Maintenance AR-1715-0085
Nike Ajax Missile Electronic Materiel Maintenance AR-1715-0085
Nike Ajax Missile Mechanical Maintenance AR-1715-0287
Nike Ajax Officer Qualification (Reserve Component) AR-1715-0310
Nike Hercules Electronic Maintenance AR-1715-0084
Nike Hercules Fire Control System Maintenance AR-1715-0361
Nike Hercules Fire Control System Maintenance Transition AR-1715-0304
Nike Hercules Missile Electronic Maintenance AR-1715-0106
Nike Hercules Missile Electronic Materiel Maintenance Transition AR-1715-0106
Nike Hercules Officer AR-2201-0095
Nike Hercules Officer Transition AR-2201-0100
Nike High Power (HIPAR) Acquisition Radar and Radar Simulator Repair AR-1715-0180
Nike Internal Guidance Repair AR-1715-0114
Nike Internal Guidance Repair (Hercules

Transition)
AR-1715-0323
Nike Internal Guidance System Repair
AR-1715-0114
Nike Launcher Control Repair
AR-1715-0077
Nike Launcher Control Systems Repair (Ajax/Hercules)
AR-1715-0077
Nike Maintenance Chief Noncommissioned Officer (NCO) Advanced
AR-1715-0292
Nike Maintenance Supervision
AR-1715-0255
Nike Maintenance Supervision (Ajax/Hercules)
AR-1715-0255
Nike Maintenance Supervision (Hercules Transition)
AR-1715-0356
Nike Maintenance Supervision (Improved Hercules Transition)
AR-1715-0356
Nike Mechanical Repair
AR-1704-0086
Nike Mechanical Systems Repair (Ajax/Hercules)
AR-1704-0086
Nike Missile Launcher Repairer
AR-1715-0390
Nike Missile Repair
AR-1715-0114
Nike Missile Repairman
AR-1715-0114
Nike Missile-Launcher Repair
AR-1715-0390
Nike Missile-Launcher Repair (Phases I and II)
AR-1715-0390
Nike Missile-Launcher Repair Transition
AR-1715-0369
Nike Radar and Computer Repair
AR-1715-0370
Nike Radar and Computer Repair Repair
AR-1715-0355
Nike Radar and Computer Repairer
AR-1715-0355
Nike System Maintenance Officer
AR-1715-0315
Nike System Maintenance Officer Transition
AR-1715-0305
Nike Test Equipment Repair
AR-1715-0239
Nike Track Radar Repair
AR-1715-0164
Nike Track Radar Repair (Hercules Transition)
AR-1715-0126
Nike Track Radar Repair (Improved Hercules Transition)
AR-1715-0126
Nike Track Radar Systems Repair (Ajax/Hercules)
AR-1715-0164
Nike Universal Electronic Maintenance
AR-1715-0084
Nike Universal Electronic Materiel Maintenance
AR-1715-0084
Nike Universal Fire Control System Maintenance
AR-1715-0361
Nike Universal Officer
AR-1715-0308
Nike Universal Officer Qualification
AR-1715-0308
Nike-Hercules Missile Mechanical Materiel Maintenance Transition
AR-1704-0085
Officer Qualification, Nike Ajax
AR-1715-0308
Surface-to-Air (SAM) Missile Mechanical Materiel Maintenance Maintenance (Nike Ajax)
AR-1714-0002
Surface-to-Air Missile (SAM) Electronic Materiel Maintenance, Nike
AR-1715-0085
Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax
AR-1715-0216
Surface-to-Air Missile (SAM) Staff Officer (Nike)
AR-1715-0315
Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Advanced
AR-1717-0032
Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Intermediate
AR-1715-0255

Nike-Hercules
Improved Nike-Hercules Fire Control System Maintenance Transition
AR-1715-0140
Nike-Hercules Missile Mechanical Materiel Maintenance Transition
AR-1704-0085

Non-Integrated
Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0020
Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0026
AR-1717-0019
Non-Integrated Radar Maintenance (26-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0194

Non-Morse
Electronic Warfare (EW) Cryptologic Interceptor—Non-Morse Basic Technical
AR-1717-0049
Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049
Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078
Non-Morse Communications Analyst
AR-1606-0011
Non-Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0134
Non-Morse Search and Development
AR-1606-0011

Nonappropriated
Nonappropriated Chaplains' Fund Clerk
AR-1408-0130
Nonappropriated Chaplains' Fund Custodian
AR-1408-0131
Nonappropriated Fund Accounting
AR-1408-0094

Noncommunication
Electronic Warfare (EW) Noncommunication Interceptor-Analyst Basic Technical
AR-2201-0209

Noncommunications
Electronic Warfare (EW) Analyst (Noncommunications ECM)
AR-1715-0003
Electronic Warfare (EW) Cryptologic Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW) Operator (Noncommunications ECM)
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic Technical/Advanced Individual Training
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710
Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726

Nonresident
(Civil Affairs Officer Advanced (Nonresident/Resident))
AR-1511-0010
Army Medical Department (AMEDD) Officer Advanced Nonresident/Resident
AR-0799-0008
Army Medical Department Staff Development (Reserve Component) (Nonresident/Resident)
AR-0799-0017
Army War College Nonresident Program
AR-1511-0004
Civil Affairs Officer Advanced Nonresident/Resident - Reserve Component
AR-1511-0010
Civil Affairs Officer Advanced Nonresident/Resident Reserve Component
AR-1511-0014
Dental Laboratory Specialist Basic Reserve Component (Nonresident/Resident)
AR-0701-0010
Dental Specialist Reserve Component (Nonresident/Resident)
AR-0701-0009
Dental Specialist Reserve Component

(Nonresident/Resident) Phase II
AR-0701-0012
Environmental Health Specialist Reserve Component (Nonresident/Resident)
AR-0707-0007
Finance Officer Advanced (Nonresident/Resident)
AR-1408-0076
Finance Officer Advanced Nonresident/Resident - Reserve
AR-1408-0076
Foreign Area Officer Nonresident/Resident
AR-1511-0015
Hospital Food Service Specialist Basic Reserve Component (Correspondence, Resident, Nonresident)
AR-1729-0016
Medical Supply Specialist Reserve Component (Nonresident/ Resident)
AR-1405-0051
Patient Administration Reserve Component (Nonresident/Resident)
AR-0709-0020
AR-0709-0043
Patient Administration Specialist Reserve Component (Nonresident/Resident)
AR-0709-0021
Phase 2 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0020
Phase 4 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0019
Preventive Medicine Specialist Reserve Component (Nonresident/Resident) Phase II
AR-0707-0017
Reserve Component Psychological Operations (Nonresident/Resident)
AR-1512-0007
Sergeants Major Academy Nonresident Program
AR-1408-0064

Nose
Ear, Nose, and Throat Specialist
AR-0709-0002
Eye, Ear, Nose, and Throat Specialist
AR-0709-0002

Nuclear
Army Nuclear Weapons Electronics Specialist (Phase I)
AR-1715-0225
Guided Missile, Nuclear Weapons and ARADCOM Safety
AR-0802-0005
Marine Corps Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0001
Nuclear and Chemical Target Analysis
AR-0802-0025
AR-2201-0150
AR-2201-0151
AR-2201-0187
Nuclear Cannon Assembly
AR-2201-0379
Nuclear Physical Security
AR-1728-0064
Nuclear Power Plant Operators (Electrical Specialty)
AR-1720-0003
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Nuclear Power Plant Operators (Instrumentation Specialty)
AR-1720-0005
Nuclear Power Plant Operators (Mechanical Specialty)
AR-1720-0004
Nuclear Power Plant Operators (Process Control Specialty)
AR-1720-0002
Nuclear Warhead Detachment
AR-2201-0284
AR-2201-0381
Nuclear Weapons Effects Officer
AR-1303-0002
Nuclear Weapons Electronic Maintenance
AR-1715-0225
Nuclear Weapons Electronics Maintenance
AR-1715-0225
Nuclear Weapons Electronics Specialist
AR-1715-0225
Nuclear Weapons Employment
AR-2201-0153
AR-2201-0158
AR-2201-0163
AR-2201-0164
AR-2201-0187
Nuclear Weapons Employment and Radiological Defense
AR-0802-0004
Nuclear Weapons Employment and Radiological Warfare
AR-0802-0004
Nuclear Weapons Maintenance
AR-1715-0204
Nuclear Weapons Maintenance (Entry)
AR-1715-0258
Nuclear Weapons Maintenance Leader
AR-1715-0428
Nuclear Weapons Maintenance Specialist
AR-1715-0204
Nuclear Weapons Maintenance Warrant Officer Advanced
AR-1717-0003
Nuclear Weapons Materiel Management Officer
AR-2201-0017
Nuclear Weapons Specialist
AR-1715-0204
Nuclear Weapons Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0428
Nuclear Weapons Specialist Basic Technical
AR-1715-0428
Nuclear Weapons Technician
AR-0802-0019
Nuclear Weapons Technician (Phase I for Warrant Officers)
AR-1715-0366
Nuclear Weapons Technician (Phase II for Enlisted Personnel Qualified in MOS 55G/261A)
AR-1715-0367
Nuclear Weapons Technician (Phase III for Enlisted Personnel Qualified in MOS 35F/262A)
AR-1715-0368
Nuclear Weapons Technician Certification
AR-1715-0367
AR-1715-0750
Nuclear Weapons Technician Entry USAMMCS
AR-1715-0367
Nuclear, Biological, and Chemical (NBC) Weapons Employment
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187
Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Defense Officer--Noncommissioned Officer (NCO)
AR-1720-0007
Nuclear, Biological, Chemical (NBC) Enlisted
AR-0802-0003
Nuclear, Biological, Chemical (NBC) Specialist
AR-2201-0068
Nuclear, Biological, Chemical (NBC) Specialist (Transition)
AR-0801-0013
AR-1720-0006
Nuclear, Biological, Chemical (NBC) Specialist,
AR-0802-0016
Nuclear, Biological, Chemical (NBC) Specialist, Primary Technical
AR-1303-0003
Ordnance Officer Advance Nuclear Materiel Management
AR-1720-0008
Ordnance Officer Advanced Nuclear Weapons Materiel Management
AR-1720-0008
Ordnance Staff Officer Guided Missile and Nuclear Weapons
AR-1405-0068
Special Ammunition Maintenance/Nuclear Weapons Electronic Technician Warrant Officer Intermediate
AR-2201-0008

Numerical
Defense Numerical Control (APT) Part Programming
AR-1402-0042
Numerical Control Part Programming
AR-1402-0042

Nurse
(Anesthesiology Nursing for Army Nurse Corps Officers)
AR-0703-0001
Anesthesiology for Army Nurse Corps Officers
AR-0703-0001
Army Medical Department (AMEDD) Clinical Head Nurse
AR-0703-0003
Army Medical Department Officer Advanced (AMEDD)-Army Nurse Corps Officers
AR-0326-0016
Army Medical Department Officer Clinical Head Nurse
AR-0703-0021
Army Nurse Corps Officer Basic
AR-0703-0006
Army Nurse Corps Officer Orientation
AR-0703-0006
Chief Nurses' Orientation
AR-0703-0002
Medical Department Officer Clinical Head Nurse
AR-0703-0003
Nurse Practitioner Adult Medical-

Surgical Health Care
AR-0703-0013
AR-0703-0020

Nurse Practitioner—Obstetrics and Gynecology
AR-0703-0012

Nurse Practitioner—Pediatrics
AR-0703-0011

Practical Nurse
AR-0703-0015

Practical Nurse, Phase I and II
AR-0703-0015

Psychiatric Mental Health Nurse
AR-0708-0003

Renal Dialysis Nurse Education, Phase II and III
AR-0703-0017

Nursing

(Anesthesiology Nursing for Army Nurse Corps Officers)
AR-0703-0001

Advanced Nursing Administration
AR-0799-0003

Critical Care Nursing
AR-0703-0014
AR-0703-0016

Health Nursing Orientation
AR-0703-0004

Intensive Care Nursing
AR-0703-0014

Military Nursing Advanced
AR-0703-0009

Neuropsychiatric Nursing
AR-0703-0008

Obstetrical and Gynecological Nursing
AR-0703-0023

Operating Room Nursing
AR-0703-0010

Operating Room Nursing for ANC Officer (Reserve Component)
AR-0703-0019

Pediatric Nursing
AR-0703-0018

Principles of Advanced Nursing Administration for Army Nursing Corps Officers
AR-0703-0022

NAVAIDS

Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381

Air Traffic Control/NAVAIDS Equipment Repair
AR-1715-0567

Ground Air Traffic Control NAVAIDS Equipment Repair
AR-1715-0381

NBC

Marine Corps Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0001

Nuclear, Biological, and Chemical (NBC) Weapons Employment
AR-2201-0187

Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187

Nuclear, Biological, Chemical (NBC) Defense
AR-1720-0007

Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO)
AR-1720-0007

Nuclear, Biological, Chemical (NBC) Enlisted
AR-0802-0003

Nuclear, Biological, Chemical (NBC) Specialist (Transition)
AR-0801-0013
AR-1720-0006

Nuclear, Biological, Chemical (NBC) Specialist,
AR-0802-0016

Nuclear, Biological, Chemical (NBC) Specialist, Primary Technical
AR-1303-0003

NBC Defense
AR-0801-0023

NBC Defense Officer and Noncommissioned Officer (NCO)
AR-0801-0023

NCO

Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1401-0039

Adjutant General Noncommissioned Officer (NCO) Advanced (Data Processing) by Correspondence
AR-1402-0063

Adjutant General Noncommissioned Officer (NCO) Education System (Administration) by Correspondence
AR-1406-0047

Adjutant General Noncommissioned Officer (NCO) Education System (Administration) Advanced by Correspondence
AR-1406-0048

Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Administration) by Correspondence
AR-1406-0046
AR-1406-0049

Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Recruitment and Retention) by Correspondence
AR-1406-0045

Administration (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0017

Administration (AG-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0016
AR-1408-0021

Administration Noncommissioned Officer (NCO) Advanced
AR-1406-0025

Administrative (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0025

Administrative Specialist Advanced Noncommissioned Officer (NCO)
AR-1408-0169

Administrative Specialist Basic Noncommissioned Officer (NCO) (71L30)
AR-1408-0164

Advanced Chemical Noncommissioned Officer (NCO)
AR-2201-0117

Advanced Chemical Noncommissioned Officer (NCO) (Staff Specialist)
AR-2201-0117

Advanced Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0295

Advanced Noncommissioned Officer (NCO) Common Core
AR-1404-0035

Advanced Noncommissioned Officer (NCO) Data Processing
AR-1402-0119

Advanced Noncommissioned Officer (NCO) MOS 00E
AR-1406-0088

Advanced Noncommissioned Officer (NCO) MOS 00J
AR-1728-0075

Advanced Noncommissioned Officer (NCO) MOS 00U
AR-1406-0087

Advanced Noncommissioned Officer (NCO) MOS 71C
AR-1407-0004

Advanced Noncommissioned Officer (NCO) MOS 71D/E
AR-1407-0003

Advanced Noncommissioned Officer (NCO) MOS 71L
AR-1408-0142

Advanced Noncommissioned Officer (NCO) MOS 71M
AR-1408-0143

Advanced Noncommissioned Officer (NCO) MOS 73C/D
AR-1401-0029

Advanced Noncommissioned Officer (NCO) MOS 74D/F Basic
AR-1402-0092

Advanced Noncommissioned Officer (NCO) MOS 74F/F Advanced
AR-1402-0093

Advanced Noncommissioned Officer (NCO) MOS 75Z
AR-1406-0086

Advanced Noncommissioned Officer (NCO) MOS 79D
AR-1406-0089

Advanced Noncommissioned Officer (NCO) Reserve Component
AR-2201-0338

Aerial Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1606-0203

Aeroscout Observer Basic Noncommissioned Officer (NCO)
AR-1606-0187

Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0002

Air Defense (AD-CMF) Noncommissioned Officer (NCO) Advanced)
AR-2201-0057

Air Defense (AD-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0009
AR-2201-0012

Air Defense (CMF-27) Noncommissioned Officer (NCO) Advanced
AR-1717-0058

Air Defense (27-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035

Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO)

Advanced
AR-1406-0035
AR-2201-0057
Air Defense Artillery (ADA) (16-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0012
Air Defense Artillery (ADA) (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
Air Defense Artillery (ADA) (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
AR-2201-0196
Air Defense Artillery (ADA) Advanced Noncommissioned Officer (NCO)
AR-1406-0035
Air Defense Missile (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1406-0035
AR-2201-0133
Air Defense Missile Maintenance (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0195
Air Defense Missile Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Defense Missile Repair (23-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0009
Air Defense Missile Repair Noncommissioned Officer (NCO) Advanced
AR-1717-0002
Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Advanced
AR-1704-0005
Air Traffic Control (AC-CMF) Noncommissioned Officer (NCO) Basic
AR-1704-0004
Air Traffic Control Operator Advanced Noncommissioned Officer (NCO)
AR-1704-0176
Air Traffic Control Operator Basic Noncommissioned Officer (NCO)
AR-1704-0175
Air Traffic Control Systems, Subsystems, and Equipment Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1604-0172
AR-1704-0172
Aircraft Armament/Missile Systems Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft Component Repair Advanced Noncommissioned Officer (NCO)
AR-1704-0135
AR-1717-0005
Aircraft Component Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0166
Aircraft Electrician Repairer Basic Noncommissioned Officer NCO
AR-1704-0108
Aircraft Electrician Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0108
Aircraft Fire Control Repairer Advanced Noncommissioned Officer (NCO)
AR-1704-0140
Aircraft Fire Control Systems Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0167
Aircraft Fire Control Systems Supervisor Basic Noncommissioned Officer (NCO) Basic
AR-1704-0147
Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0005
Aircraft Maintenance (AV-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0006
Aircraft Pneudraulic Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0114
Aircraft Pneudraulics Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0114
Aircraft Powerplant Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0106
Aircraft Powertrain Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0107
Aircraft Structural Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0109
Aircraft Structural Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0109
Aircraft/Armament/Missile Systems Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0147
Ammunition (AM-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0019
Ammunition (AM-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0055
Ammunition (55-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0019
Ammunition (55-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0055
Ammunition Noncommissioned Officer (NCO) Advanced
AR-2201-0019
Ammunition Stock Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0086
Antennaman Noncommissioned Officer (NCO) Basic
AR-1714-0009
Antiaircraft Artillery (AAA) Operations and Intelligence Noncommissioned Officer (NCO)
AR-1713-0002
Armament/Fire Control Maintenance Supervisor Noncommissioned Officer (NCO) Advanced
AR-1704-0141
Armor Advanced Noncommissioned Officer (NCO)
AR-2201-0039
Armor Noncommissioned Officer (NCO)
AR-2201-0039
Armor Noncommissioned Officer (NCO) Candidate (11D)
AR-2201-0006
Armor Noncommissioned Officer (NCO) Candidate (11E)
AR-2201-0004
Army Band Advanced Noncommissioned Officer (NCO) (ANCOC)
AR-1205-0004
Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Advanced
AR-0799-0012
Army Medical Department (AMEDD) Noncommissioned Officer (NCO) Basic
AR-1408-0068
Army Medical Service (AMEDS) Noncommissioned Officer (NCO)
AR-0799-0002
Army Recruiter and Career Counselor Noncommissioned Officer (NCO) Advanced Assignment
AR-1408-0048
Army Reenlistment Noncommissioned Officer (NCO)
AR-1406-0020
Army Reserve Retention Noncommissioned Officer (NCO)
AR-2201-0357
Artillery Survey Noncommissioned Officer (NCO)
AR-1601-0016
Artillery Surveyor Noncommissioned Officer (NCO) Basic
AR-1601-0045
Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0136
Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0686
Avionic Equipment Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0786
AR-1715-0864
Avionics Equipment Maintenance Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0179
AH-1 Attack Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0153
AH-64 Attack Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1717-0090
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134
AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0163
AN/TSQ-73 Air Defense Artillery

(ADA) Command and Control System Operator/Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0811
Ballistic Missile Repair (21-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-1717-0050
Basic Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0298
Basic Noncommissioned Officer (NCO) (16D30)
AR-2201-0268
Basic Noncommissioned Officer (NCO) (16J30)
AR-2201-0267
Basic Noncommissioned Officer (NCO) (16P30)
AR-2201-0263
Basic Noncommissioned Officer (NCO) (16R30)
AR-2201-0262
Basic Noncommissioned Officer (NCO) (16S30)
AR-2201-0264
Basic Noncommissioned Officer (NCO) - 16T Track
AR-2201-0312
Basic Noncommissioned Officer (NCO) - 24 N Track
AR-1715-0809
Basic Noncommissioned Officer (NCO) - 24 T Track
AR-1715-0813
Basic Noncommissioned Officer (NCO) for 11 H Track.
AR-1406-0071
Basic Noncommissioned Officer (NCO) for 11B track
AR-1406-0068
Basic Noncommissioned Officer (NCO) for 11C Track
AR-1406-0069
Basic Noncommissioned Officer (NCO) for 11M Track
AR-1406-0070
Basic Noncommissioned Officer (NCO) Common Core
AR-1406-0090
Basic Noncommissioned Officer (NCO) M60A1/M60A3 19K M1 Abrams
AR-2201-0325
Basic Noncommissioned Officer (NCO) Reserve Component Phase I Common Leader Training
AR-2201-0337
Basic Noncommissioned Officer (NCO) 19D ITV
AR-2201-0322
Basic Noncommissioned Officer (NCO) 19E
AR-2201-0323
Basic Noncommissioned Officer (NCO) 19K M1 Abrams
AR-2201-0324
Basic Noncommissioned Officers (NCO) (16E30)
AR-2201-0269
Bradley Fighting Vehicle System Mechanic Basic Noncommissioned Officer (NCO)
AR-1710-0110
Bradley Fighting Vehicle System Mechanic Noncommissioned Officer (NCO)
AR-1710-0129
Cable Splicer Noncommissioned Officer (NCO) Basic
AR-2201-0076
Calibration Specialist Basic Noncommissioned Officer (NCO) (35H30)
AR-1715-0856
Cannon Crewmember Advanced Noncommissioned Officer (NCO)
AR-1601-0078
Cargo Handler (SU-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0010
Cargo Specialist Basic Noncommissioned Officer (NCO)
AR-1710-0150
Cargo Specialist Noncommissioned Officer (NCO) Advanced
AR-0419-0028
Chaparral System Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0809
Chaparral/Redeye Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0641
Chaparral/Vulcan Officer and Noncommissioned Officer (NCO) Qualification
AR-2201-0063
Chaparrel/Vulcan Noncommissioned Officer (NCO) Qualification
AR-2201-0063
Chapel Activities Specialist Basic Noncommissioned Officer (NCO)
AR-1408-0139
Chapel Activities Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Chaplain Assistant Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Chaplain Assistant Basic Noncommissioned Officer (NCO)
AR-1408-0139
Chaplain Assistant Basic Noncommissioned Officer (NCO) Reserve Component
AR-1406-0130
Chaplain's Assistant Supervisor Advanced Noncommissioned Officer (NCO)
AR-1408-0127
Chemical (CL-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0029
Chemical (54-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0029
Chemical (54-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0169
Chemical Basic Noncommissioned Officer (NCO)
AR-2201-0031
Chemical Operations Specialist (Basic Noncommissioned Officer (NCO))
AR-0801-0012
Chemical Operations Specialist Basic Noncommissioned Officer (NCO) Reclassification
AR-0801-0010
Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0013
Combat Engineering (CE-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0013
Combat Engineering (12-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Engineering Noncommissioned Officer (NCO) Basic
AR-1710-0041
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USAADS)
AR-2201-0196
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Advanced (USMMCS)
AR-1405-0095
Combat Missile Maintenance (27-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Combat Missile Mechanic (271-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0211
Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0018
AR-2201-0002
Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Basic
AR-2201-0186
Communication Electronics Radio Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0685
Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Advanced
AR-1408-0020
AR-1408-0045
Communications Operations (CO-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0016
Communications Operations (CO-CMF) NCO Basic (USASCS)
AR-1715-0021
Communications-Electronics Maintenance Advanced Noncommissioned Officer (NCO)
AR-1715-0851
Communications-Electronics Noncommissioned Officer (NCO) Advanced
AR-1405-0127
Communications-Electronics Operations Noncommissioned Officer (NCO) Advanced (Reserve Components)
AR-1715-0706
Computer Systems Operator

Noncommissioned Officer (NCO)
AR-1402-0002
Computer/Machine Operator Basic Noncommissioned Officer (NCO)
AR-1402-0116
Construction and Utilities (CU-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Construction and Utilities (CU-CMF) NCO Advanced
AR-1710-0026
Construction Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0128
Construction Foreman Noncommissioned Officer (NCO) Candidate
AR-1710-0025
Construction Surveyor Noncommissioned Officer (NCO) Candidate
AR-1601-0010
Construction Surveyor Noncommissioned Officer (NCO)/Supervisor Candidate
AR-1601-0010
Corrections Noncommissioned Officer (NCO)
AR-1728-0066
Counter-Signals Intelligence Sergeant Basic Noncommissioned Officer (NCO)
AR-1402-0126
Counter-Signals Intelligence Specialist Basic Noncommissioned Officer (NCO)
AR-1402-0126
Counterintelligence Agent Basic Noncommissioned Officer (NCO)
AR-1728-0081
Court Reporter Noncommissioned Officer (NCO) Advanced
AR-1407-0006
CH-47 Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
CH-47 Medium Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0151
CH-47 Medium/CH-54 Heavy Lift Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0165
Data Processing (DP-CMF) Noncommissioned Officer (NCO) Advanced
AR-1402-0022
Data Processing (DP-CMF) Noncommissioned Officer (NCO) Basic
AR-1402-0014
Data Processing Advanced Noncommissioned Officer (NCO)
AR-1402-0119
Data Processing Equipment Maintenance (DM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0391
Decontamination Specialist Noncommissioned Officer (NCO) Basic
AR-2201-0031
Electric Power Production (CMF-52) Noncommissioned Officer (NCO) Advanced
AR-1710-0043
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0080
Electric/Electronic Devices Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electrical Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0021
Electrical/Electronic Devices Maintenance (35-CMF) Noncommissioned (NCO) Basic
AR-1405-0099
Electronic Maintenance Noncommissioned Officer (NCO) Advanced
AR-1406-0067
Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078
Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728
Electronic Warfare (EW)/ Crypto Advanced Noncommissioned Officer (NCO)
AR-1406-0126
Electronic Warfare (EW)/Cryptologic Advanced Noncommissioned Officer (NCO)
AR-2201-0037
Electronic Warfare (EW)/Intercept Aviation Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0714
Electronic Warfare (EW)/Intercept Strategic Receiving Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0717
Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0719
Electronic Warfare (EW)/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0721
Electronic Warfare (EW)/Intercept System Maintenance Analyst Advanced Noncommissioned Officer (NCO)
AR-1406-0127
Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0723
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Noncommunications Interceptor Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0726
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079
Electronics Equipment Maintenance Advanced Noncommissioned Officer (NCO)
AR-1406-0107
Engineer Equipment Maintenance (63-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0081
Engineer Equipment Repairman Noncommissioned Officer (NCO) Basic
AR-1703-0006
Engineer Noncommissioned Officer (NCO)
AR-1601-0014
Explosive Ordnance Disposal Specialist Basic Noncommissioned Officer (NCO)
AR-1728-0076
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0213
Field Artillery Cannon (FA-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0071
Field Artillery Cannon Basic Noncommissioned Officer (NCO)
AR-2201-0258
AR-2201-0362
Field Artillery Cannon Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0257
Field Artillery Cannon Fire Support Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0256
Field Artillery Cannon Noncommissioned Officer (NCO) Advanced
AR-1601-0074
Field Artillery Fire Support (NCO) Noncommissioned Officer Advanced
AR-2201-0287
Field Artillery Fire Support Noncommissioned Officer (NCO) Advanced
AR-2201-0363
Field Artillery Meteorological Crewmember (NCO) Noncommissioned Officer Advanced
AR-1304-0008
Field Artillery Meteorological Crewmember Basic Noncommissioned Officer (NCO)
AR-1304-0006
AR-1304-0010
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missile (FM-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0306
Field Artillery Missile Noncommissioned Officer (NCO) Advanced
AR-2201-0070
Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Advanced (USAMMCS)
AR-2201-0001

Field Artillery Missiles (FM-CMF) Noncommissioned Officer (NCO) Basic (USAFAS)
AR-2201-0156

Field Artillery Missiles/Rockets Noncommissioned Officer (NCO) Basic
AR-2201-0185

Field Artillery Noncommissioned Officer (NCO) Candidate
AR-2201-0174

Field Artillery Operations and Intelligence Noncommissioned Officer (NCO)
AR-2201-0061

Field Artillery Radar Crewmember Noncommissioned Officer (NCO) Advanced
AR-2201-0292

Field Artillery Surveyor Basic Noncommissioned Officer (NCO)
AR-2201-0376

Field Artillery Surveyor Noncommissioned Officer (NCO) Advanced
AR-2201-0293

Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced
AR-2201-0286
AR-2201-0369

Field Communication Security (COMSEC) Maintenance Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0772

Field Illumination Crewman, Noncommissioned Officer (NCO) Candidate
AR-2201-0044

Field Wireman Noncommissioned Officer (NCO) Basic
AR-1714-0012

Finance (FI-CMF) Noncommissioned Officer (NCO) Advanced
AR-1408-0002

Finance (FI-CMF) Noncommissioned Officer (NCO) Basic
AR-1402-0004

Finance Noncommissioned Officer (NCO) Advanced by Correspondence
AR-1408-0098
AR-1408-0099

Finance Operations Noncommissioned Officer (NCO)
AR-1408-0002

Finance Specialist Advanced Noncommissioned Officer (NCO)
AR-1401-0040

Finance Specialist Basic Noncommissioned Officer (NCO)
AR-1401-0035

Fixed Communication Security (COMSEC) Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0771

Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0015

Fixed Plant Communications Equipment Maintenance (CM-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0046

Flight Operations Advanced Noncommissioned Officer (NCO)
AR-1704-0174

Flight Operations Basic Noncommissioned Officer (NCO)
AR-1704-0173

Food Service (FS-CMF) Noncommissioned Officer (NCO) Advanced
AR-1729-0008

Food Service (FS-CMF) Noncommissioned Officer (NCO) Basic
AR-1729-0007

Food Service Advanced Noncommissioned Officer (NCO)
AR-1729-0033

Food Service Specialist Advanced Noncommissioned Officer (NCO)
AR-1729-0040

Food Service Specialist Basic Noncommissioned Officer (NCO)
AR-1729-0039

Food Service Specialist Noncommissioned Officer (NCO) Advanced
AR-1729-0008

Forward Area Alerting Radar (FAAR) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0642

General Engineering (51-CMF) Noncommissioned Officer (NCO) Advanced
AR-1601-0052

General Engineering (51-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024

Graphics Documentation Specialist Basic Noncommissioned Officer (NCO)
AR-0202-0001

Graves Registration Specialist Advanced Noncommissioned Officer (NCO)
AR-0709-0037

Ground Surveillance System Operator Basic Noncommissioned Officer (NCO)
AR-1606-0207

Hawk Continuous Wave (CW) Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0743

Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742

Hawk Fire Control Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0741

Hawk Firing Section Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0804

Hawk Information Coordination Central Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0805

Hawk Launcher and Mechanical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0740

Hawk Maintenance Chief Noncommissioned Officer (NCO) Advanced
AR-1715-0293

Hawk Pulse Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742

Heavy Mortar and Davy Crockett Noncommissioned Officer (NCO)
AR-2201-0024

Honest John Rocket Crewman Noncommissioned Officer (NCO) Basic
AR-2201-0178

Image Interpreter Noncommissioned Officer (NCO) Basic
AR-1606-0002

Image Interpreter Noncommissioned Officer (NCO) Candidate
AR-1606-0128

Imagery Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0142
AR-1606-0191

Improved Hawk Fire Control Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0735

Infantry Advanced Noncommissioned Officer (NCO)
AR-2201-0035

Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0181
AR-2201-0184

Infantry Armor (IA-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0013
AR-2201-0134

Infantry Indirect Fire Crewman Noncommissioned Officer (NCO) Candidate
AR-2201-0176

Infantry Noncommissioned Officer (NCO) Basic
AR-2201-0046

Infantry Noncommissioned Officer (NCO) Candidate
AR-2201-0007
AR-2201-0170

Infantry Operations and Intelligence Specialist Noncommissioned Officer (NCO) Advanced
AR-2201-0049

Infantry Senior Sergeant Noncommissioned Officer (NCO) Advanced
AR-2201-0034

Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0043

Information and Audio Visual (IV-CMF) Noncommissioned Officer (NCO) Basic (USASCS)
AR-1717-0053

Instrument Calibration and Maintenance (35-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0020

Intelligence Analyst Basic Noncommissioned Officer (NCO)
AR-1606-0192

Intelligence Analyst Noncommissioned Officer (NCO) Basic
AR-1606-0001

Interrogator Basic Noncommissioned Officer (NCO)
AR-1606-0198

Lance (NCO) Reclassification (Transition)
AR-2201-0382

Lance Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0360

Lance Crewmember Basic

Noncommissioned Officer (NCO)
AR-2201-0364
Lance Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0747
Land Combat Support System (LCSS)—Missile Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0030
Land Combat Support System Test Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0652
Laundry and Bath/Fabric Repair Specialist Basic Noncommissioned Officer (NCO)
AR-1716-0010
Law Enforcement (MP-CMF) Noncommissioned Officer (NCO) Advanced
AR-1728-0030
Law Enforcement (MP-CMF) Noncommissioned Officer (NCO) Basic
AR-1728-0017
Law Enforcement Noncommissioned Officer (NCO) Advanced
AR-1728-0030
Legal Specialist Noncommissioned Officer (NCO) Advanced
AR-1407-0007
Legal Specialist/Court Reporter Basic Noncommissioned Officer (NCO)
AR-1407-0009
Light Wheel Vehicle Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0132
Lineman Noncommissioned Officer (NCO) Basic
AR-1714-0011
Machinist Basic Noncommissioned Officer (NCO)
AR-1723-0009
AR-1723-0011
Machinist Noncommissioned Officer (NCO) Advanced
AR-1723-0010
Maneuver Combat Arms Infantry Noncommissioned Officer (NCO) Advanced
AR-2201-0181
Maneuver Combat Arms—Infantry (11 CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0181
Maneuver Combat Arms—Infantry (11-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0013
Marine (MR-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0012
Marine (MR-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0011
Marine Noncommissioned Officer (NCO) Advanced
AR-0419-0012
Materiel Control and Accounting Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0109
AR-1405-0178
Materiel Control and Accounting Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0161
Materiel Storage and Handling Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0163
Materiel Storage and Handling Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0164
Materiel Supply Specialist Noncommissioned Officer (NCO) Advanced
AR-1405-0108
Materiel Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0108
Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0040
Mechanical Maintenance (MM-CMF) Noncommissioned Officer (NCO) Basic
AR-1706-0002
AR-1710-0021
AR-1710-0035
Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced
AR-1717-0040
Mechanical Maintenance (63-CMF) Noncommissioned Officer (NCO) Advanced)
AR-1717-0040
Mechanical Maintenance Noncommissioned Officer (NCO)
AR-1710-0049
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced
AR-1717-0040
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 41J
AR-1406-0081
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 44E
AR-1723-0010
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 45Z
AR-1704-0141
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 62B
AR-1710-0128
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63B,D,E,N,T
AR-1710-0129
AR-1710-0130
AR-1710-0131
AR-1710-0132
AR-2201-0320
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 63H
AR-1710-0127
Medical Logistics Noncommissioned Officer (NCO)
AR-1405-0203
Medical Noncommissioned Officer (NCO)
AR-0709-0033
Medical Noncommissioned Officer (NCO) (Reserve Component)
AR-0709-0034
Medium/Heavy Lift Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0139
Metalworker Basic Noncommissioned Officer (NCO)
AR-1723-0011
Meteorological Observer Noncommissioned Officer (NCO) Advanced
AR-1304-0003
Military Assistance Training Advisor Senior Noncommissioned Officer (NCO)
AR-0602-0002
Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0155
Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Advanced (USAISC)
AR-2201-0155
Military Intelligence (MI-CMF) Noncommissioned Officer (NCO) Basic
AR-1606-0129
Military Intelligence Advanced (98 CMF) Noncommissioned Officer (NCO)
AR-2201-0037
Military Intelligence Advanced Noncommissioned Officer (NCO)
AR-1406-0125
AR-2201-0155
Military Police Advanced Noncommissioned Officer (NCO)
AR-1728-0030
Military Police Basic Noncommissioned Officer (NCO)
AR-1728-0069
Military Police Noncommissioned Officer (NCO) Refresher
AR-1728-0002
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0024
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0013
Motor Transport Noncommissioned Officer (NCO) Advanced
AR-0419-0024
Movements Specialist (AG-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Movements Specialist Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Multiple Launch Rocket System (MLRS) Basic Noncommissioned Officer (NCO)
AR-2201-0366
Multiple Launch Rocket System (MLRS) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0749
Multiple Launch Rocket System (MLRS)/Lance Advanced (NCO) Noncommissioned Officer
AR-2201-0290
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommissioned

Officer (NCO) AR-2201-0359

Multiple Launch Rocket System (MLRS)/Lance Operations Fire Direction Specialist Basic Noncommissioned Officer (NCO) AR-2201-0365

Multiple Launch Rocket System Crewmember Advanced Noncommissioned Officer (NCO) AR-2201-0367

M1 Abrams Tank System Mechanic Basic Noncommissioned Officer (NCO) AR-1703-0040

M1 Abrams Tank System Mechanic Noncommissioned Officer (NCO) Advanced AR-1710-0131

M551 (Sheridan) Basic Noncommissioned Officer (NCO) AR-1710-0137

National Guard (ARNG) Rentention Noncommissioned Officer (NCO) AR-2201-0388

National Guard Advanced Retention Noncommissioned Officer (NCO) AR-2201-0353

National Guard Retention Noncommissioned Officer (NCO) AR-2201-0355

Nike Maintenance Chief Noncommissioned Officer (NCO) Advanced AR-1715-0292

Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Advanced AR-1717-0020

Non-Integrated Radar Maintenance (RM-CMF) Noncommissioned Officer (NCO) Basic AR-1408-0026 AR-1717-0019

Non-Integrated Radar Maintenance (26-CMF) Noncommissioned Officer (NCO) Basic AR-2201-0194

Noncommissioned Officer (NCO) in Charge AR-1406-0135

Noncommissioned Officer (NCO) Logistics Program AR-1405-0167

Noncommissioned Officer (NCO) Special Assignment Advanced AR-1408-0048

Noncommissioned Officers (NCO) Logistics Program AR-1405-0004

Nuclear Weapons Specialist Basic Noncommissioned Officer (NCO) AR-1715-0428

Nuclear, Biological, Chemical (NBC) Defense Officer—Noncommissioned Officer (NCO) AR-1720-0007

NBC Defense Officer and Noncommissioned Officer (NCO) AR-0801-0023

Office Machine Repairer Noncommissioned Officer (NCO) Advanced AR-1406-0081

OH-58 Observation/Scout Helicopter Repairer Basic Noncommissioned Officer (NCO) AR-1704-0152

OV-1 Observation Airplane Repairer Basic Noncommissioned Officer (NCO) AR-1704-0149

OV-1 Observation Airplane Supervisor Basic Noncommissioned Officer (NCO) AR-1704-0149

Parachute Rigger Advanced Noncommissioned Officer (NCO) AR-1733-0004

Parachute Rigger Basic Noncommissioned Officer (NCO) AR-1733-0007

Patriot Operator and System Mechanic Basic Noncommissioned Officer (NCO) AR-1715-0813

Pershing Electrical-Mechanical Repairer Basic Noncommissioned Officer (NCO) AR-1715-0649

Pershing Electronic Material Specialist Basic Noncommissioned Officer (NCO) AR-1715-0624

Pershing Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO) AR-2201-0291

Pershing Electronics Repairer Basic Noncommissioned Officer (NCO) AR-1715-0751

Pershing Guidance and Control Repairman 1(A) Noncommissioned Officer (NCO) Advanced AR-1717-0029

Pershing II Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO) AR-2201-0291

Pershing II Missile Crewmember Advanced Noncommissioned Officer (NCO) AR-2201-0288

Pershing II Missile Crewmember Basic Noncommissioned Officer (NCO) AR-1715-0636

Pershing II Noncommissioned Officer (NCO) Transition AR-1402-0073

Pershing Missile Crewmember Basic Noncommissioned Officer (NCO) AR-2201-0370

Pershing Noncommissioned Officer (NCO) AR-2201-0144

Pershing Noncommissioned Officer (NCO) Course AR-1402-0073

Personnel and Logistics Staff Noncommissioned Officer (NCO) AR-1406-0123

Personnel Administration Specialist Basic Noncommissioned Officer (NCO) AR-1406-0100

Personnel Information Systems Management Specialist Basic Noncommissioned Officer (NCO) AR-1405-0196

Personnel Sergeant Advanced Noncommissioned Officer (NCO) AR-1406-0102

Personnel Service Center Basic Noncommissioned Officer (NCO) AR-1403-0014

Personnel Staff Noncommissioned Officer (NCO) AR-1406-0005

Personnel Staff Noncommissioned OFficer (NCO) Military Personnel Technician AR-1406-0132

Petroleum (PT-CMF) Noncommissioned Officer (NCO) Advanced AR-1717-0043

Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (76W) AR-1717-0012

Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (92C) AR-1717-0013

Petroleum and Water Specialist Advanced Noncommissioned Officer (NCO) AR-1717-0092

Petroleum Laboratory Specialist Basic Noncommissioned Officer (NCO) AR-1601-0071

Petroleum Specialist Noncommissioned Officer (NCO) Advanced AR-1717-0043

Petroleum Supply Specialist Basic Noncommissioned Officer (NCO) AR-1601-0072

Power Pack Specialist Noncommissioned Officer (NCO) Candidate AR-1732-0004

Primary Noncommissioned Officer (NCO) for Combat Arms AR-2201-0274

Primary Noncommissioned Officer (NCO) for Reserve (PNCOC/RC) AR-2201-0297

Programmer/Analyst Basic Noncommissioned Officer (NCO) AR-1402-0120

Psychological Operations Basic Noncommissioned Officer (NCO) AR-1512-0020

Radio Operator Noncommissioned Officer (NCO) Basic AR-2201-0083

Radio Operator Noncommissioned Officer (NCO) Supervisor Candidate AR-1404-0008

Radio Teletype Operator Noncommissioned Officer (NCO) Basic AR-1408-0024

Radiology Noncommissioned Officer (NCO) Management AR-0705-0004

Recreation Services (SS-CMF) Noncommissioned Officer (NCO) Advanced AR-1408-0004

Recruitment and Retention Noncommissioned Officer (NCO) Advanced AR-1408-0048

Reserve Components Reenlistment Noncommissioned Officer (NCO) AR-1406-0002

Reserve Retention Noncommissioned Officer (NCO) Advanced AR-2201-0356

Retention Noncommissioned Officer (NCO) AR-1406-0020

Self-Propelled Field Artillery System Basic Noncommissioned Officer (NCO) AR-1710-0112

Self-Propelled Field Artillery System Mechanic Noncommissioned Officer

(NCO) Advanced
AR-2201-0320
Senior Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0296
Senior Noncommissioned Officer (NCO) Operations and Intelligence
AR-1511-0013
Sergeant Maintenance Chief Noncommissioned Officer (NCO) Advanced
AR-1717-0031
Sergeant Missile Crewman Noncommissioned Officer (NCO) Basic
AR-2201-0093
Service and Renovation (SR-CMF) Noncommissioned (NCO) Basic
AR-2201-0074
Service and Renovation (SR-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0073
Service Noncommissioned Officer (NCO) Advanced (Graves Registration Specialist Track)
AR-0709-0028
Service Noncommissioned Officer (NCO) Advanced (Parachute Rigger)
AR-1733-0004
Signal Operations Advanced Noncommissioned Officer (NCO)
AR-1406-0109
Single Channel Radio Operator Basic Noncommissioned Officer (NCO)
AR-1404-0037
Smoke and Flame Specialist Noncommissioned Officer (NCO) Basic
AR-2201-0030
Soils Analyst Noncommissioned Officer (NCO) Candidate
AR-1601-0009
Sound Ranging Crewman Noncommissioned Officer (NCO) Basic
AR-1715-0386
Special Assignment (SP-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0054
Special Assignment (SP-CMP) Noncommissioned Officer (NCO) Advanced
AR-1408-0048
Special Assignment (00-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Special Assignments (SP-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0113
Special Purpose Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0133
Special Services (SS-CMF) Noncommissioned Officer (NCO) Advanced
AR-1408-0004
Special Services (SS-CMF) Noncommissioned Officer (NCO) Basic
AR-0804-0001
Still Documentation Specialist Basic Noncommissioned Officer (NCO)
AR-1709-0011
Stock Control Specialist Noncommissioned Officer (NCO) Advanced
AR-1405-0109
Stock Control Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0109
Storage Specialist Noncommissioned Officer (NCO) Advanced
AR-1405-0110
Storage Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0110
Strategic Microwave Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0678
Subsistence Supply Specialist Basic Noncommissioned Officer (NCO)
AR-1405-0174
Subsistence Supply Specialist Noncommissioned Officer (NCO) Advanced
AR-1729-0019
Supervisor Special Electronic Devices Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0854
Supply (SU-CMF) Noncommissioned Officer (NCO) Advanced
AR-0419-0010
AR-1405-0077
Supply (SU-CMF) Noncommissioned Officer (NCO) Basic
AR-0419-0009
AR-1408-0044
Supply Noncommissioned Officer (NCO)
AR-1405-0204
Switching Systems Operator Basic Noncommissioned Officer (NCO)
AR-1714-0028
Tactical Circuit Controller Basic Noncommissioned Officer (NCO)
AR-1715-0684
Tactical Communications Chief Noncommissioned Officer (NCO) Basic
AR-1715-0012
Tactical Communications Chief Noncommissioned Officers (NCO) Advanced
AR-1715-0489
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
AR-2201-0190
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0012
AR-1715-0017
AR-1715-0019
AR-1715-0020
Tactical Electronic Equipment Maintenance Noncommissioned Officers (NCO) Advanced (USAFAS)
AR-1715-0489
Tactical Electronic Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
Tactical Fire (TACFIRE) Operation Specialist Advanced Noncommissioned Officer (NCO) Advanced
AR-2201-0369
Tactical Satellite/Microwave Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Systems Operator Basic Noncommissioned Officer (NCO)
AR-1715-0699
Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0881
Tactical Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1408-0111
Tank M60A1/A3 Tank System Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0130
Tank Turret Repairer Basic Noncommissioned Officer (NCO)
AR-1710-0109
Target Acquisition/Surveillance Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1408-0170
Telephone Central Office Repair Basic Noncommissioned Officer (NCO)
AR-1406-0093
Teletypewriter Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0689
Terminal Operations Coordinator Noncommissioned Officer (NCO) Advanced
AR-0419-0028
Terrain Analyst Noncommissioned Officer (NCO) Candidate
AR-1601-0012
Test, Measurement, and Diagnostic Equipment (TMDE) Advanced Noncommissioned Officer (NCO)
AR-1406-0108
Topographic Engineering and Map Reproduction (81-CMF) Noncommissioned Officer (NCO) Basic
AR-1601-0021
Topography and Printing (TP-CMF) Noncommissioned Officer (NCO) Basic
AR-1601-0021
Topography and Printing (TP-CMP) Noncommissioned Officer (NCO) Advanced
AR-1601-0020
Track Vehicle Repairer Basic Noncommissioned Officer (NCO)
AR-1710-0111
Track Vehicle Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0127
Traffic Management Coordinator Basic Noncommissioned Officer (NCO) Traffic Management Coordinator Basic Technical
AR-0419-0041
Traffic Management Coordinator Noncommissioned Officer (NCO) Advanced
AR-0419-0017
Training Noncommissioned Officer (NCO)
AR-1406-0136
Transportable Automatic Switching

Systems Operator/Maintainer Basic Noncommissioned Officer (NCO) AR-1715-0855
TACFIRE Operations Specialist Basic Noncommissioned Officer (NCO) AR-1715-0638
TMDE Maintenance Support Specialist Advanced Noncommissioned Officer (NCO) AR-1402-0133
Unit and Organization Supply Noncommissioned Officer (NCO) AR-1405-0029
Unit and Organization Supplyman Noncommissioned Officer (NCO) Advanced AR-1405-0106
Unit Supply Specialist Advanced Noncommissioned Officer (NCO) AR-1405-0106
AR-1405-0162
Unit Supply Specialist Noncommissioned Officer (NCO) Advanced AR-1405-0106
Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO) AR-1704-0138
Utility/Cargo and Observation Airplane Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0160
Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO) AR-1704-0137
Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0164
UH-1 Utility Helicopter Repairer Basic Noncommissioned Officer (NCO) AR-1717-0089
UH-1 Utility Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO) AR-1717-0089
UH-60 Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0164
UH-60 Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO) AR-1704-0150
UH-60 Tactical Transport Helicopter Basic Noncommissioned Officer (NCO) AR-1704-0150
USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO) AR-2201-0067
USARADCOM CBR NCO AR-2201-0067
USASA Senior Noncommissioned Officer (NCO) AR-2201-0037
Visual Information Advanced Noncommissioned Officer (NCO) AR-1719-0005
Visual Information/Audio Documentation Systems Specialist Basic Noncommissioned Officer (NCO) AR-1719-0004
Vulcan Repairer Basic Noncommissioned Officer (NCO) AR-1715-0756
Vulcan System Mechanic Basic Noncommissioned Officer (NCO) AR-1715-0810
Water Treatment Specialist Basic Noncommissioned Officer (NCO) AR-1732-0009
Watercraft Engineer Advanced Noncommissioned Officer (NCO) AR-1712-0019
Watercraft Engineer Basic Noncommissioned Officer (NCO) AR-1712-0018
Watercraft Operator Advanced Noncommissioned Officer (NCO) AR-0419-0045
Watercraft Operator Basic Noncommissioned Officer (NCO) AR-2201-0340
Wire Systems Installer Basic Noncommissioned Officer (NCO) AR-1715-0618
Women's Army Corps Noncommissioned Officer (NCO) Leadership Course AR-2201-0065
19D Armor Noncommissioned Officer (NCO) Advanced AR-1408-0144
19E Armor Noncommissioned Officer (NCO) Advanced AR-1408-0145

NCR-500
Automatic Data Processing (ADP) Repair, Phase III—NCR-500 Computer Repair AR-1715-0045
NCR-500 Computer Repair AR-1715-0045

O-1
O-1 Instructor Pilot Qualification AR-1606-0040
O-1/U-6 Airplane Repair, Skill Development Base AR-1704-0011

O-1/U-6
O-1/U-6 Airplane Repair AR-1704-0029

Observation
Artillery Observation AR-1601-0027
Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO) AR-1704-0136
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer AR-1704-0136
Meteorological Observation AR-1304-0001
Multi-Engine Observation Airplane Maintenance AR-1704-0038
Observation Airplane Repairer AR-1704-0038
Observation Airplane Repairer Basic Technical AR-1704-0116
Observation Airplane Technical Inspector AR-1704-0129
Observation/Scout Helicopter Maintenance Supervisor/ Technical Inspector Basic Technical AR-1704-0094
Observation/Scout Helicopter Repairer AR-1704-0093
Observation/Scout Helicopter Technical Inspector AR-1704-0126
Observation/Scout Repairer Basic Technical AR-1704-0112
Observation, Utility and Transport Helicopter Repair AR-1704-0040
OH-58 Observation/Scout Helicopter Repairer Basic Noncommissioned Officer (NCO) AR-1704-0152
OH-6-RC Observation/Scout Helicopter Repairer-Reserve Component AR-1704-0155
OV-1 Observation Airplane Repairer Basic Noncommissioned Officer (NCO) AR-1704-0149
OV-1 Observation Airplane Supervisor Basic Noncommissioned Officer (NCO) AR-1704-0149
OV-1 Observation Airplane Technical Inspector AR-1704-0161
Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO) AR-1704-0138
Utility/Cargo and Observation Airplane Supervisor Advanced Noncommissioned Officer (NCO) AR-1704-0160

Observer
Aeroscout Observer AR-1606-0044
Aeroscout Observer Basic Noncommissioned Officer (NCO) AR-1606-0187
Air Observer AR-1606-0088
Marine Artillery Scout Observer AR-2201-0145
Meteorological Observer Noncommissioned Officer (NCO) Advanced AR-1304-0003
OH-58 A/C Field Artillery Aerial Observer AR-1606-0188

Obstetrical
Obstetrical and Gynecological Nursing AR-0703-0012
AR-0703-0023

Obstetrics
Nurse Practitioner—Obstetrics and Gynecology AR-0703-0012

Occupational
Occupational Therapy Procedures AR-0704-0002
Occupational Therapy Specialist AR-0704-0004

Office
Automatic Central Office AN/TTC-25 Repair AR-1715-0365
Automatic Central Office Supervisor AR-1715-0364
Automatic Data Processing (ADP) Repair, Phase VIII—Automatic Central

Office Repair
AR-1715-0363
AN/TTC-38(V) Automatic Central Office Supervisor
AR-1715-0364
Central Office Supervision
AR-1408-0017
Dial Central Office Equipment Repair
AR-1715-0595
Dial Central Office Maintenance
AR-1715-0350
Dial Central Office Repair
AR-1715-0350
Dial Central Office Repairer
AR-1715-0680
Dial-Manual Central Office Repair
AR-1715-0432
Dial/Manual Central Office Repairer Basic Technical
AR-1406-0066
Manual Central Office Maintenance
AR-1715-0351
Manual Central Office Repair
AR-1715-0351
Mechanical Maintenance Noncommissioned Officer (NCO) Advanced, MOS 41J
AR-1406-0081
Office Machine Repair
AR-1706-0003
Office Machine Repairer
AR-1706-0006
Office Machine Repairer Basic Technical
AR-1706-0007
Office Machine Repairer Noncommissioned Officer (NCO) Advanced
AR-1406-0081
Telephone Central Office Repair
AR-1715-0670
Telephone Central Office Repairer
AR-1715-0670

Officer
Armor Officer Advanced
AR-1408-0146
Armor Officer Advanced—Reserve Component
AR-2201-0321
Armor Officer Basic Reserve Component
AR-1710-0136
Armor Officer Basic-Cavalry M60A3
AR-1717-0080
Armor Officer Basic-Tank M60A3
AR-1717-0081
Junior Officer Maintenance
AR-1703-0057

Offset
Offset Press Operation
AR-1719-0003

Oil
Defense Spectrometric Oil Analysis Operator/Evaluator
AR-1601-0002

Open
Consolidated and Open Mess
AR-1729-0012
Open Mess Management
AR-1729-0012

Operating
Operating Room Nursing
AR-0703-0010
Operating Room Nursing for ANC Officer (Reserve Component)
AR-0703-0019
Operating Room Procedures Basic
AR-0709-0001
Operating Room Specialist
AR-0709-0001
AR-0709-0035
Operating Room Technician
AR-0709-0001
Operating Systems
AR-1402-0045

Operations
Advanced Special Operations Techniques
AR-1408-0163
Civil Military Operations
AR-2201-0221
AR-2201-0343
Electronic Warfare (EW) Operations Phase I
AR-1715-0724
AR-1715-0822
Electronic Warfare (EW) Operations Phase II
AR-1715-0725
Flight Operations Advanced Noncommissioned Officer (NCO)
AR-1704-0174
Flight Operations Basic Noncommissioned Officer (NCO)
AR-1704-0173
Flight Operations Coordinator
AR-1704-0007
AR-1704-0178
Flight Operations Coordinator, Skill Development Base
AR-1704-0076
Flight Operations Specialist
AR-1704-0007
Infantry Intelligence and Operations Specialist
AR-1606-0013
Joint Operations Staff Planning
AR-1512-0023
Joint Psychological Operations Staff Planning
AR-1512-0023
Operations and Intelligence Specialist
AR-1606-0013
Operations Central and Coder-Decoder Group Repair
AR-1715-0237
Operations Central Repair
AR-1715-0237
Operations Central Repairer
AR-1715-0237
Operations Research Models and Techniques
AR-0317-0002
Operations Research/Systems Analysis Executive
AR-0317-0001
Operations Research/Systems Analysis Military Applications Course I
AR-1402-0052
Phase 2 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0020
Phase 4 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0019
Probabilistic Methods in Operations Research
AR-1115-0002
Psychological Operations Basic Noncommissioned Officer (NCO)
AR-1512-0020
Psychological Operations Officer
AR-1512-0018
Psychological Operations Specialist
AR-1512-0021
Railway Maintenance and Operations Officer
AR-1710-0047
Reserve Component Psychological Operations Officer
AR-1512-0017
Reserve Component Psychological Operations Specialist
AR-1512-0022
Special Forces Operations and Intelligence
AR-1606-0026
AR-1606-0176
Special Operations Communications Sergeant Reserve Component Phase 4
AR-1715-0826
Special Operations Engineer Sergeant Reserve Component Phase 4
AR-1710-0152
Special Operations Qualification Reserve Component Phase 2
AR-0803-0008
Special Operations Qualifications Reserve Component Phase 6
AR-0803-0009
Special Operations Reconnaissance
AR-1511-0018
Special Operations Staff Officer
AR-1512-0019
Special Operations Target Interdiction
AR-2201-0349
Special Operations Technician Senior Warrant Officer
AR-1408-0162
Special Operations Technician Warrant Officer Technical Certification
AR-1406-0096
Special Operations Weapons Sergeant Reserve Component Phase 4
AR-2201-0348
Tactical Wire Operations Specialist
AR-1715-0434
Teleprocessing Operations Officer
AR-1404-0030
Teleprocessing Operations Officer Course II
AR-1402-0076
Terminal Operations Coordinator
AR-0419-0001
Terminal Operations Coordinator Noncommissioned Officer (NCO) Advanced
AR-0419-0028
Terminal Operations Specialist
AR-0419-0001
Theater of Operations Movements Officer
AR-0419-0008
Veterinary Corps Plans and Operations
AR-1408-0102

Operator
Computer Machine Operator
AR-1402-0030
Data Processing Equipment Operator
AR-1402-0030
Electronic Processing and Dissemination System Operator/Analyst
AR-1402-0090
Navy Broadcast Terminal Operator
AR-1715-0342
Operator/Call Service Attendent AN/TTC-39(V)
AR-1404-0036

Redeye and Stinger Gunner/Operator
AR-1715-0576
Stinger Gunner Operator (USMC)
AR-1715-0576
Tactical Communications Systems Operator/Mechanic
AR-1715-0091
Voice Radio Operator
AR-1404-0017

Opportunity
Equal Opportunity Representative
AR-0505-0001

Optical
Optical Instrument Repairman (USMC)
AR-1721-0002
Optical Instrument Technician
AR-1714-0026
Optical Laboratory Specialist
AR-0709-0015

Order
Order of Battle Intelligence Enlisted
AR-1606-0008
Order of Battle Intelligence Officer
AR-1606-0081

Ordnance
Associate Ordnance Company Officer
AR-1405-0037
Explosive Ordnance Disposal Specialist Basic Noncommissioned Officer (NCO)
AR-1728-0076
Explosive Ordnance Disposal Supervisor
AR-0802-0007
Explosive Ordnance Disposal, Phase I
AR-0802-0002
Lacrosse Ordnance Maintenance Supervision
AR-1715-0339
Ordnance and Chemical Officer Advanced
AR-1408-0066
Ordnance Ammunition Officer
AR-1717-0048
Ordnance Electronics (Entry)
AR-1715-0113
Ordnance Field Grade Officer Refresher
AR-2201-0103
Ordnance Fire Control Materiel Maintenance
AR-1715-0158
Ordnance General Supply Officer
AR-1405-0031
Ordnance Guided Missile Company Grade Officer
AR-1715-0329
Ordnance Guided Missile Officer (FAGM)
AR-1715-0330
Ordnance Guided Missile Officer (FAM)
AR-1715-0330
Ordnance Guided Missile Officer, Air Defense Missile
AR-1715-0326
Ordnance Maintenance Management Officer Advanced
AR-1405-0151
Ordnance Maintenance Management Officer Basic
AR-1405-0074
Ordnance Missile Materiel Management Officer-Reserve
AR-1405-0156
Ordnance Missile Systems Maintenance Officer
AR-1715-0330
Ordnance Munitions Materiel Management Officer Basic
AR-1405-0158
AR-1405-0159
Ordnance Munitions Materiel Management Officer-Reserve
AR-1405-0157
Ordnance Officer Advance Missile Materiel Management Field Operations
AR-1405-0147
Ordnance Officer Advance Nuclear Materiel Management
AR-1720-0008
Ordnance Officer Advanced
AR-1408-0031
AR-1408-0108
Ordnance Officer Advanced (Armament Material Management)
AR-1717-0062
Ordnance Officer Advanced Armament
AR-1717-0063
Ordnance Officer Advanced Chemical
AR-1408-0066
Ordnance Officer Advanced Field Maintenance Management
AR-1703-0034
Ordnance Officer Advanced Maintenance Additional Specialty
AR-1405-0154
Ordnance Officer Advanced Maintenance Management
AR-1405-0150
Ordnance Officer Advanced Missile
AR-1408-0038
Ordnance Officer Advanced Missile/Munitions Materiel Management
AR-1408-0124
AR-1408-0153
Ordnance Officer Advanced Munitions
AR-1408-0077
Ordnance Officer Advanced Munitions Materiel Management
AR-1408-0077
Ordnance Officer Advanced Munitions Materiel Management Field Operations
AR-1405-0146
Ordnance Officer Advanced Nuclear Weapons Materiel Management
AR-1720-0008
Ordnance Officer Advanced Tank Ground Mobility
AR-1408-0078
Ordnance Officer Advanced Tank/Ground Mobility Materiel Management
AR-1408-0078
Ordnance Officer Advanced Wholesale Maintenance Management
AR-1703-0035
Ordnance Officer Advanced Wholesale Missile/Munitions Materiel Management
AR-1405-0148
Ordnance Officer Basic
AR-1405-0048
AR-1405-0074
Ordnance Officer Basic Armament Materiel Management
AR-1405-0092
Ordnance Officer Basic Chemical
AR-1405-0090
Ordnance Officer Basic Missile Materiel Management
AR-1405-0089
Ordnance Officer Basic Munitions Materiel Management
AR-1405-0091
Ordnance Officer Basic Ordnance Maintenance Management
AR-1405-0074
Ordnance Officer Basic Ordnance Missile Material Management
AR-1405-0089
Ordnance Officer Basic Tank and Ground Mobility Materiel Management
AR-1405-0093
Ordnance Officer Candidate
AR-1717-0042
Ordnance Officer Career
AR-1408-0031
Ordnance Officer Missile/Munitions Additional Specialty (ADSPEC)
AR-1408-0152
Ordnance Officer Orientation
AR-1405-0001
Ordnance Parts Supply
AR-1405-0013
Ordnance Pre-Command
AR-2201-0318
Ordnance Service Section Officer
AR-1710-0050
Ordnance Shop Technician
AR-1710-0048
Ordnance Staff Officer Guided Missile and Nuclear Weapons
AR-1405-0068
Ordnance Staff Officer Guided Missile and Special Weapons
AR-1405-0068
Ordnance Staff Officer Guided Missile and Special Weapons Logistics
AR-2201-0099
Ordnance Supply
AR-1405-0026
Ordnance Technical Intelligence
AR-2201-0026

Organization
Organization Development Facilitators
AR-1405-0206
Organization Planning
AR-0326-0030
Unit/Organization Supply Procedures
AR-1403-0011

Organizational
Bradley Fighting Vehicle System Organizational Maintenance
AR-2201-0326
Field Artillery Firefinder Organizational Maintenance
AR-1715-0559
M109-M110 Organizational Maintenance Training
AR-1710-0080
M113 Series Organizational Maintenance Training
AR-1710-0079
Organizational Communications-Electronics (C-E) Operator/Mechanics
AR-1715-0791
Organizational Development Consultants
AR-0326-0046
Organizational Development Practitioners
AR-1406-0207
Organizational Effectiveness Consultant
AR-0326-0039
Organizational Effectiveness Staff Officer
AR-0326-0039
Organizational Maintenance Officer
AR-1704-0091
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site

(UTES)
AR-1405-0209
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES) Tool and Parts Attendant
AR-1405-0210
Organizational Maintenance Supervisors
AR-1704-0169
Organizational Mechanic Conversion
AR-1710-0082
USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal
AR-1715-0673
Wheel Vehicle Organizational Maintenance
AR-1710-0081

Organizations
Human Behavior in Organizations
AR-0326-0027

Orientation
Foreign Area Officer Orientation
AR-1511-0017
Warrant Officer Orientation
AR-2201-0302

Orthopedic
Orthopedic Laboratory Procedures
AR-0709-0004
Orthopedic Specialist
AR-0704-0005
AR-0704-0009
AR-0709-0004

Orthotic
Orthotic Specialist
AR-0704-0006
AR-0704-0010

Outpatient
Automated Military Outpatient System (AMOSIST) Training
AR-0709-0018

Overseas
Overseas Automatic Switching Center (ASC) Communication Equipment Repair
AR-1715-0163
Overseas Automatic Switching Center (ASC) Equipment Repair
AR-1715-0664
Overseas Automatic Switching Center (ASC) Technical Controller
AR-1715-0221
Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair
AR-1715-0343
Overseas AUTODIN Switching Center Programmer
AR-1402-0077

OH-13
OH-13 Instructor Pilot Qualification
AR-1406-0009
OH-13/OH-23 Helicopter Repair
AR-1704-0055
OH-13/OH-23 Helicopter Repairman, Skill Development Base
AR-1717-0008

OH-23
OH-13/OH-23 Helicopter Repair
AR-1704-0055
OH-13/OH-23 Helicopter Repairman, Skill Development Base
AR-1717-0008

OH-58
Aircraft Maintenance Officer and Repair Technician (AMOC), Phase II - OH-58
AR-1717-0073
Initial Entry Rotary-Wing Aviator (OH-58)
AR-1606-0184
OH-58 Aeroscout Instructor Pilot Methods of Instruction
AR-1606-0165
OH-58 Aviator Qualification
AR-1606-0048
OH-58 Helicopter Repairer
AR-1704-0066
OH-58 Instructor Pilot
AR-1606-0047
OH-58 Observation/Scout Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0152
OH-58 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0047

OH-58 A/C
OH-58 A/C Instructor Pilot
AR-1406-0122

OH-58A/C
OH-58A/C Maintenance Manager/Test Pilot
AR-1717-0085

OH-58D
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134
AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0163
AHIP Avionic Mechanic (OH-58D)
AR-1715-0784
OH-58D Aviator Qualification
AR-1606-0161
OH-58D AVIM Avionic Repair
AR-1715-0783
OH-58D Field Artillery Aerial Fire Support Observer
AR-1402-0112
OH-58D Field Artillery Aerial Observer
AR-1606-0169
OH-58D Field Artillery Instructor Pilot
AR-1406-0078
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
OH-58D Instructor Pilot
AR-1406-0078
AR-1406-0119
OH-58D Instructor Pilot Methods of Instruction (MOI)
AR-1406-0118
OH-58D Maintenance Manager/Test Pilot
AR-1717-0086

OH-6
OH-6 Aviator Qualification
AR-1606-0087
OH-6 Helicopter Repair
AR-1704-0063
OH-6 Instructor Pilot
AR-1606-0126
OH-6 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0126
OH-6 Transition/Gunnery IP Qualification
AR-1606-0126

OH-6-RC
OH-6-RC Observation/Scout Helicopter Repairer-Reserve Component
AR-1704-0155

OH-6A
OH-6A Helicopter Repair
AR-1704-0032

OH58A/C
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
AR-1704-0136

OL-230/MSC-66(V)
Data Processing Group OL-230/MSC-66(V)
AR-1715-0695

ORWAC
ORWAC/WORWAC
AR-1606-0074

OV-1
OV-1 (Mohawk) Aviator Combat Surveillance Qualification
AR-1606-0092
OV-1 (Mohawk) Aviator Transition
AR-1606-0122
OV-1 (Mohawk) Instructor Pilot Qualification
AR-1606-0050
OV-1 Airplane Repair
AR-1704-0038
OV-1 Airplane Repair Specialist Candidate
AR-1717-0007
OV-1 Airplane Repair, Skill Development Base
AR-1717-0007
OV-1 Aviator Qualification
AR-1606-0122
OV-1 Instructor Pilot
AR-1606-0050
OV-1 Observation Airplane Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0149
OV-1 Observation Airplane Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0149
OV-1 Observation Airplane Technical Inspector
AR-1704-0161
OV-1 Suppressive Fire
AR-2201-0114

OV-1D
OV-1D (Mohawk) Airborne Radar Repair
AR-1715-0168
OV-1D (Mohawk) Airborne Sensor Specialist
AR-1704-0013
OV-1D (Mohawk) Aviator Combat Surveillance Qualification
AR-1715-0133
OV-1D (Mohawk) Surveillance Infrared Repair
AR-1715-0054

OV/RV-1D
OV/RV-1D (Mohawk) Systems Qualification
AR-1715-0498

Parachute
Parachute Maintenance and Aerial Supply Officer
AR-1733-0002
AR-2201-0136

Parachute Maintenance and Airdrop Officer
AR-2201-0136
Parachute Packing, Maintenance and Aerial Delivery
AR-1733-0001
Parachute Packing, Maintenance and Air Delivery
AR-1733-0001
Parachute Packing, Maintenance and Airdrop
AR-1733-0001
Parachute Rigger
AR-1733-0005
AR-1733-0008
Parachute Rigger (Parachute Packing, Maintenance and Airdrop)
AR-1733-0001
Parachute Rigger Advanced Individual Training
AR-1733-0008
Parachute Rigger Advanced Noncommissioned Officer (NCO)
AR-1733-0004
Parachute Rigger Basic Noncommissioned Officer (NCO)
AR-1733-0007
Parachute Rigger Basic Technical
AR-1733-0006
Service Noncommissioned Officer (NCO) Advanced (Parachute Rigger)
AR-1733-0004

Parachutist
Military Free-Fall Parachutist
AR-2201-0345
Special Forces Military Free Fall Parachutist/Military Free Fall Jumpmaster
AR-2201-0060
Special Forces Military Free-Fall Parachutist
AR-2201-0345

Parish
Staff and Parish Development Consultant
AR-1406-0085

Parts
Aircraft Repair Parts Specialist
AR-1405-0018
Automotive Repair Parts Specialist
AR-1405-0035
Automotive Repair Parts, Skill Development Base
AR-1405-0036
Communications-Electronics Repair Parts Specialist
AR-1405-0017
Communications-Electronics Repair Parts Specialist, Skill Development Base
AR-1405-0019
Engineer Supply and Spare Parts Officer
AR-1405-0056
Equipment Records and Parts Specialist
AR-1405-0113
Equipment Records and Parts Specialist Advanced Individual Training
AR-1405-0175
Equipment Records and Repair Parts Specialist
AR-1405-0113
Missile Repair Parts Specialist
AR-1405-0034
Missile Repair Parts Specialist, Skill Development Base
AR-1405-0016
Ordnance Parts Supply
AR-1405-0013
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES) Tool and Parts Attendant
AR-1405-0210
Quartermaster Parts Supply
AR-1405-0050
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0188
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190
Repair Parts Technician Senior Warrant Officer
AR-1408-0158
Repair Parts Technician Senior Warrant Officer - Reserve Components
AR-1405-0181
Signal Parts Supply
AR-1405-0012
Signal Supply and Parts Specialist
AR-1405-0011
Special Purpose Equipment Repair Parts Specialist
AR-1401-0013
Special Purpose Equipment Repair Parts Specialist, Skill Development Base
AR-1402-0029
Transportation Parts Specialist
AR-1405-0043
Transportation Parts Supply
AR-1405-0043
Transportation Supply and Parts Specialist
AR-1405-0033

Passenger
Passenger Travel Specialist
AR-0418-0004

Pastoral
Pastoral Coordinator
AR-1402-0088

Pathfinder
Pathfinder
AR-2201-0038

Patient
Patient Administration
AR-0709-0013
AR-0709-0036
Patient Administration Reserve Component (Nonresident/Resident)
AR-0709-0020
AR-0709-0043
Patient Administration Specialist
AR-1403-0001
AR-1403-0010
Patient Administration Specialist Reserve Component (Nonresident/Resident)
AR-0709-0021
Patient Care Specialist
AR-0709-0024

Patriot
Air Defense Artillery (ADA) Officer Advanced Follow-On Training-Patriot Track
AR-1715-0796
Air Defense Artillery (ADA) Officer Advanced Patriot Follow-On
AR-1715-0796
Intermediate Maintenance Patriot Missile System Phases I and II
AR-1715-0746
Patriot Air Defense Officer
AR-2201-0261
Patriot Communications Crewmember
AR-1715-0654
Patriot Missile Crew Member
AR-1715-0578
AR-1715-0579
AR-1715-0580
Patriot Missile Crew Member Transition
AR-1715-0579
AR-1715-0581
Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II
AR-1715-0797
Patriot Missile System Technician—Warrant Officer Technical Certification (WOTC)
AR-1715-0653
Patriot Operator and System Mechanic
AR-1715-0582
AR-1715-0798
Patriot Operator and System Mechanic (Transition)
AR-1715-0583
Patriot Operator and System Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0813
Patriot Operator and System Mechanic Transition
AR-1715-0582
Patriot System Repairer Phases 1 and Phase 2
AR-1715-0746
Phase I and Phase II Patriot System Intermediate Maintenance Technician
AR-1715-0753

Pay
Basic Position and Pay Management
AR-1406-0042
Pay Specialist
AR-1401-0019
Pay/Disbursing Specialist
AR-1401-0002

Payment
Token Payment 1A/B (R-2174) Maintenance
AR-1715-0732

Pediatric
Pediatric Nursing
AR-0703-0018

Pediatrics
Nurse Practitioner—Pediatrics
AR-0703-0011

Performance
Engineered Performance Standards (EPS) for Facilities Engineering Estimators
AR-0326-0026
Managing with Contractor Performance Measurement Data
AR-0326-0028

Peripheral
Automatic Data Processing (ADP) Repair, Phase IV—Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070
Automatic Digital Message Switch (ADMS) Peripheral Equipment Repair
AR-1715-0070

Pershing
Ballistic Missile Digital Computer Repair (Pershing)
AR-1715-0040

Ballistic Missile Digital Equipment Repair (Pershing)
AR-1715-0118
Ballistic Missile Electrical Mechanical Repair (Pershing)
AR-1715-0122
Ballistic Missile Guidance and Control Repair (Pershing)
AR-1715-0079
Ballistic Missile Inertial Guidance and Control Repair (Pershing)
AR-1715-0103
Ballistic Missile Maintenance Technician (Pershing)
AR-1715-0078
Ballistic Missile Propulsion and Structures Repair (Pershing)
AR-1715-0075
Ballistic Missile Test Station Repair (Pershing)
AR-1715-0089
Pershing Communication Specialist
AR-1404-0027
Pershing Electrical-Mechanical Repair
AR-1715-0122
Pershing Electrical-Mechanical Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0649
Pershing Electrical-Mechanical Repairer 46N Transition
AR-1715-0651
Pershing Electronic Material Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0624
Pershing Electronic Materiel Specialist Basic Technical
AR-1715-0624
Pershing Electronic Repair
AR-1715-0079
Pershing Electronic Repair Transition
AR-1715-0371
Pershing Electronic Repairer
AR-1715-0079
Pershing Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Pershing Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO)
AR-2201-0291
Pershing Electronics Repairer
AR-1715-0079
AR-1715-0650
AR-1715-0752
Pershing Electronics Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0751
Pershing Electronics Repairer Basic Technical
AR-1715-0648
Pershing Guidance and Control Repairman 1(A) Noncommissioned Officer (NCO) Advanced
AR-1717-0029
Pershing II Electronics Materiel Specialist
AR-1715-0525
AR-1715-0823
Pershing II Electronics Materiel Specialist Advanced Noncommissioned Officer (NCO)
AR-2201-0291
Pershing II Missile Crewmember
AR-1715-0486
Pershing II Missile Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0288
Pershing II Missile Crewmember Basic Noncommissioned Officer (NCO)
AR-1715-0636
Pershing II Missile Crewmember Basic Technical
AR-1715-0636
Pershing II Noncommissioned Officer (NCO) Transition
AR-1402-0073
Pershing II Officer
AR-1715-0324
Pershing II Support Repair Technician (DG/GS)
AR-1715-0644
Pershing Laying Specialist
AR-2201-0091
Pershing Missile Battery
AR-1715-0349
Pershing Missile Crewman
AR-1715-0486
Pershing Missile Crewmember
AR-1715-0486
Pershing Missile Crewmember Basic Noncommissioned Officer (NCO)
AR-2201-0370
Pershing Missile System Technician Warrant Warrant Officer Candidate
AR-1715-0628
Pershing Missile Systems Technician-Warrant Officer Technical Certification
AR-1715-0842
Pershing Noncommissioned Officer (NCO)
AR-2201-0144
Pershing Noncommissioned Officer (NCO) Course
AR-1402-0073
Pershing Officer
AR-1715-0324
Pershing Operator Maintenance Assistance
AR-1715-0487
Pershing Specialist
AR-1715-0117
Pershing System Maintenance
AR-1715-0117
AR-1715-0488
Pershing System Maintenance (Transition)
AR-1715-0119
Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Advanced
AR-2201-0126
Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Intermediate
AR-1715-0078

Personal
  Basic Joint Personal Property
  AR-0419-0037
  Introduction to Personal Computing
  AR-1402-0135
  Joint Personal Property
  AR-0419-0037

Personnel
  Advanced Personnel Management Enlisted
  AR-1406-0006
  Civilian Personnel Officer
  AR-1406-0041
  Director of Personnel and Community Activities
  AR-1513-0006
  Director of Personnel and Community Activities (DPCA)
  AR-1513-0010
  Military Personnel Officer
  AR-1406-0007
  Military Personnel Officer/Personnel Technician
  AR-1406-0007
  Military Personnel Officer/Unit Personnel Technician
  AR-1406-0007
  Military Personnel Recruiting WAC/ANC Officer
  AR-1406-0015
  Personnel and Administration (Reserve Components)
  AR-1406-0016
  Personnel and Administration Center
  AR-1406-0099
  Personnel Actions Specialist
  AR-1406-0026
  Personnel Administration Basic Technical
  AR-1406-0062
  Personnel Administration Officer Advanced
  AR-1408-0029
  Personnel Administration Officer Advanced by Correspondence
  AR-1406-0051
  Personnel Administration Officer Basic
  AR-1408-0014
  Personnel Administration Officer Basic by Correspondence
  AR-1406-0050
  Personnel Administration Specialist
  AR-1403-0004
  AR-1406-0019
  AR-1406-0105
  Personnel Administration Specialist Basic Noncommissioned Officer (NCO)
  AR-1406-0100
  Personnel Administration Specialist-Transition
  AR-1406-0106
  Personnel Data Analyst Specialist
  AR-1402-0024
  Personnel Information System Management Specialist
  AR-1403-0008
  AR-1403-0013
  Personnel Information Systems Management Specialist Basic Noncommissioned Officer (NCO)
  AR-1405-0196
  Personnel Management
  AR-1406-0110
  Personnel Management for Executives
  AR-1406-0040
  Personnel Management For Executives
  AR-1408-0074
  Personnel Management Officer
  AR-1406-0004
  Personnel Management Specialist
  AR-1406-0023
  AR-1408-0007
  Personnel Records Specialist
  AR-1406-0011
  Personnel Resources Management
  AR-1406-0004
  Personnel Senior Sergeant
  AR-1406-0024
  Personnel Sergeant Advanced Noncommissioned Officer (NCO)
  AR-1406-0102
  Personnel Service Center Basic

Noncommissioned Officer (NCO) AR-1403-0014
Personnel Specialist-WAC AR-1408-0040
Personnel Staff Noncommissioned Officer (NCO) AR-1406-0005
Personnel Staff Noncommissioned OFficer (NCO) Military Personnel Technician AR-1406-0132
Personnel Staff Officers AR-1406-0004
Special Correspondence Course for Military Personnel Officers AR-1408-0100

Pest
DOD Pest Management AR-0101-0001

Petroleum
Advanced Petroleum Management AR-1601-0065
Petroleum (PT-CMF) Noncommissioned Officer (NCO) Advanced AR-1717-0043
Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (76W) AR-1717-0012
Petroleum (PT-CMF) Noncommissioned Officer (NCO) Basic (92C) AR-1717-0013
Petroleum and Water Specialist Advanced Noncommissioned Officer (NCO) AR-1717-0092
Petroleum Distribution Supervision AR-1601-0003, AR-1606-0003
Petroleum Laboratory Specialist AR-1601-0030
Petroleum Laboratory Specialist Basic Noncommissioned Officer (NCO) AR-1601-0071
Petroleum Laboratory Specialist Basic Technical AR-1601-0071
Petroleum Management Quartermaster Officer Advanced AR-1601-0067
Petroleum Management Quartermaster Officer Basic AR-1601-0066
Petroleum Officer AR-1405-0040
Petroleum Products Analysis AR-1601-0030
Petroleum Products Analysis and Control Officer AR-1405-0040
Petroleum Products Analysis and Supply AR-1405-0040
Petroleum Products Analysis, Enlisted AR-1601-0030
Petroleum Products Analysis, Officer AR-1601-0031
Petroleum Products Supply AR-1405-0040
Petroleum Products Supply Officer AR-1405-0040
Petroleum Quality Assurance Representative AR-1601-0046
Petroleum Quality Representative AR-1601-0046
Petroleum Specialist Noncommissioned Officer (NCO) Advanced AR-1717-0043
Petroleum Storage Specialist AR-1601-0043
Petroleum Storage Specialist, Skill Development Base AR-1601-0005
Petroleum Supply Reserve Specialist - Reserve Component AR-1601-0076
Petroleum Supply Specialist AR-1601-0043, AR-1601-0075
Petroleum Supply Specialist Basic Noncommissioned Officer (NCO) AR-1601-0072
Petroleum Supply Specialist Basic Specialist AR-1601-0072
Petroleum Vehicle Operator AR-2101-0003

Pharmacy
Orientation to Army Medical Department (AMEDD) Pharmacy Services AR-0709-0022, AR-0709-0041
Pharmacy Specialist AR-0709-0005
Pharmacy Sterile Products AR-0709-0017

Photoactive
Aerial Photoactive Sensor Repairer AR-1606-0143

Photogrammetric
Photogrammetric Compilation AR-1709-0007

Photographer
Forensic Photographer AR-1709-0009

Photographic
Combat Surveillance Photographic Equipment Repair AR-1715-0346
Photographic Laboratory Operation AR-1709-0002
Photographic Unit Commander AR-1709-0006
Surveillance Photographic Equipment Repair AR-1715-0346

Photography
Crime Laboratory Photography AR-1728-0012
Intelligence Photography AR-1709-0005
Motion Picture Photography AR-1709-0004
Process Photography AR-1709-0003
Still Photography AR-1709-0001

Photointerpretation
Photointerpretation Enlisted AR-1606-0084
Photointerpretation Officer AR-1709-0008

Physical
Conventional Physical Security AR-1728-0065
Nuclear Physical Security AR-1728-0064
Physical Activities Specialist AR-0803-0005
Physical Activities Specialist Advanced Individual Training (AIT) AR-0803-0003
Physical Activities Specialist Functional AR-0803-0005
Physical Activities Specialist Transition AR-0803-0005
Physical Reconditioning Specialist AR-0704-0003
Physical Security AR-1728-0043
Physical Security Supervision AR-1728-0024
Physical Therapy Aide AR-0704-0001
Physical Therapy Enlisted AR-0704-0001
Physical Therapy Procedures AR-0704-0001
Physical Therapy Specialist AR-0704-0001

Physician
Physician Assistant AR-0709-0030

Physician's
Military Physician's Assistant AR-0709-0010
Physician's Assistant AR-0709-0010

Physics
Health Physics Specialist AR-0705-0006, AR-0705-0009
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty) AR-1720-0002
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty) AR-1720-0002

Pictorial
Pictorial Unit Commander AR-1709-0006
Pictorial Unit Commander and Motion Picture and Television Director AR-1709-0006

Pilot
Army (Aviator) Transport Pilot-Phases I, II and III (Rotary Wing) AR-1606-0095
Army H-37 Helicopter Pilot's Transition Flight Training AR-1606-0101
Army Transport Helicopter Pilot-Phase III AR-1606-0102
AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle) AR-1406-0114
AH-1G (Hueycobra) Instructor Pilot (Transition/Gunnery) Qualification AR-1606-0057
AH-1G (Hueycobra) Pilot Transition/Gunnery AR-1606-0059
AH-1G Instructor Pilot AR-1606-0057
AH-1S Instructor Pilot AR-1406-0117, AR-1606-0057
AH-1S Maintenance Manager/Test Pilot AR-1717-0083

AH-64 Instructor Pilot
AR-1606-0168
AH-64 Instructor Pilot Methods of Instruction
AR-1406-0121
AH-64 Maintenance Manager/Test Pilot
AR-1717-0093
CH-21 (Shawnee) Pilot Transition
AR-1606-0041
CH-34 Instructor Pilot Qualification
AR-1606-0063
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Instructor Pilot Phase
AR-1606-0055
CH-37 (Mojave) National Guard Transition and Instructor Pilot—Transition Phase
AR-1606-0056
CH-37 Instructor Pilot Qualification
AR-1606-0042
CH-47 (Chinook) Instructor Pilot Qualification
AR-1606-0043
CH-47 (Chinook) Pilot Transition
AR-1606-0064
CH-47 Instructor Pilot
AR-1606-0043
CH-47A/B/C Maintenance Manager/Test Pilot
AR-1717-0084
CH-47D Instructor Pilot
AR-1406-0074
AR-1406-0120
CH-47D Maintenance Manager/Test Pilot
AR-1717-0084
CH-54 Instructor Pilot
AR-1606-0052
CH-54 Instructor Pilot Qualification
AR-1606-0052
CH-54 Pilot Transition
AR-1606-0046
CV-2 (Caribou) Instructor Pilot Qualification
AR-1606-0096
CV-2 (Caribou) Pilot Transition
AR-1606-0116
H-37 Helicopter Pilot Transition Training
AR-1606-0118
HU-1 Instructor Pilot Transition
AR-1606-0062
HU-1A Instructor Pilot Transition
AR-1606-0062
Night/Night Vision Goggle Instructor Pilot
AR-1606-0172
O-1 Instructor Pilot Qualification
AR-1606-0040
OH-13 Instructor Pilot Qualification
AR-1406-0009
OH-58 A/C Instructor Pilot
AR-1406-0122
OH-58 Aeroscout Instructor Pilot Methods of Instruction
AR-1606-0165
OH-58 Instructor Pilot
AR-1606-0047
OH-58 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0047
OH-58A/C Maintenance Manager/Test Pilot
AR-1717-0085
OH-58D Field Artillery Instructor Pilot
AR-1406-0078
OH-58D Field Artillery Instructor Pilot Fire Support
AR-2201-0377
OH-58D Instructor Pilot
AR-1406-0078
AR-1406-0119
OH-58D Instructor Pilot Methods of Instruction (MOI)
AR-1406-0118
OH-58D Maintenance Manager/Test Pilot
AR-1717-0086
OH-6 Instructor Pilot
AR-1606-0126
OH-6 Transition/Gunnery Instructor Pilot (IP) Qualification
AR-1606-0126
OV-1 (Mohawk) Instructor Pilot Qualification
AR-1606-0050
OV-1 Instructor Pilot
AR-1606-0050
T-42 Instructor Pilot (IP) Methods of Instruction
AR-1406-0072
TH-55 Instructor Pilot Methods of Instruction
AR-1406-0075
U-21 Instructor Pilot
AR-1406-0116
AR-1606-0061
U-21 Standardization Instructor Pilot Qualification
AR-1606-0061
U-8 Instructor Pilot
AR-1606-0089
U-8 Instructor Pilot Qualification
AR-1606-0089
UH-1 (Iroquois)Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0053
UH-1 Contact Instructor Pilot
AR-1606-0053
UH-1 Contact Instructor Pilot (Interim)
AR-1406-0076
UH-1 Contact Instructor Pilot Methods of Instruction
AR-1406-0077
UH-1 Contact, Tactics, Night/Night Vision Goggle (N/NVG) Instructor Pilot Methods of Instruction
AR-1406-0113
UH-1 Instructor Pilot
AR-1606-0053
UH-1 Maintenance Manager/Test Pilot
AR-1717-0082
UH-1 Pilot Transition
AR-1606-0049
UH-1 Pilot Transition (Navy)
AR-1606-0060
UH-60 Instructor Pilot
AR-1406-0079
UH-60 Maintenance Manager/Test Pilot
AR-1717-0087

Planner
Master Planner
AR-0326-0044
Mobile Subscriber Equipment (MSE) System Planner/System Control Center Operator
AR-1715-0875

Planners
Unit Mobilization Planners
AR-1405-0198

Planning
Air Transportability Planning
AR-0419-0031
Joint Operations Staff Planning
AR-1512-0023
Joint Psychological Operations Staff Planning
AR-1512-0023
Organization Planning
AR-0326-0030
Planning and Conducting Management Audits and Studies
AR-0326-0011
Planning, Programming and Budgeting Systems
AR-1408-0001
Planning, Programming, Budgeting and Execution Systems
AR-1408-0165
Project Planning and Control Techniques
AR-0326-0025
Strategic Mobility Planning
AR-0419-0027
Work Planning and Control
AR-1408-0037

Plans
Veterinary Corps Plans and Operations
AR-1408-0102

Plant
Aircraft Power Plant Repair Supervisor/Technical Inspector
AR-1704-0097
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Nuclear Power Plant Operators (Instrumentation Specialty)
AR-1720-0005
Nuclear Power Plant Operators (Process Control Specialty)
AR-1720-0002
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty)
AR-1720-0002

Platemaking
Lithographic Platemaking
AR-1719-0002

Plumbing
Plumbing Specialist
AR-1710-0083
Water Treatment and Plumbing Systems Specialist
AR-1732-0007

Pneudraulics
Aircraft Pneudraulics Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0114
Aircraft Pneudraulics Repairer Basic Technical
AR-1704-0114

Polar
Polar Navigation
AR-1708-0003

Police
Associate Military Police Company Officer
AR-1728-0005
Associate Military Police Officer Advanced
AR-1728-0031
Associate Military Police Officer Career
AR-1728-0001

Military Police Additional Specialty Code 31
AR-1728-0073
Military Police Advanced Noncommissioned Officer (NCO)
AR-1728-0030
Military Police Basic Noncommissioned Officer (NCO)
AR-1728-0069
Military Police Field Grade Officer Refresher
AR-1728-0033
Military Police Investigation
AR-1728-0028
Military Police Investigator
AR-1728-0028
AR-1728-0079
Military Police Noncommissioned Officer (NCO) Refresher
AR-1728-0002
Military Police Officer Advanced
AR-1728-0035
Military Police Officer Advanced Resident/Nonresident
AR-1728-0047
Military Police Officer Basic
AR-1728-0026
Military Police Officer Career
AR-1728-0035
Military Police Officer Familiarization
AR-1728-0025
Military Police Officer Orientation
AR-1728-0026
AR-1728-0034
Military Police Pre-Command
AR-1728-0070
Military Police Supervision
AR-1728-0003
Military Police Supervision (Enlisted)
AR-1728-0003

Policeman
Military Policeman
AR-1728-0023

Polygraph
Polygraph Examiner Advanced
AR-1728-0032
Polygraph Examiner Training
AR-1728-0008

Polyphase
Polyphase X-Ray Systems
AR-0705-0007

Portable
Man Portable Air Defense (MANPAD) Crew Member
AR-1715-0817
Man Portable Air Defense (MANPAD) Crew Member (Redeye) (RC)
AR-1715-0801
Man Portable Air Defense (MANPAD) Crewmember (Stinger) (RC)
AR-1715-0800

Position
Advanced Identification Techniques Position Maintenance (RO361)
AR-1715-0415
Basic Position and Pay Management
AR-1406-0042
Position Fixing Navigation Equipment Repair
AR-1715-0023
Voice Intercept Position Maintenance
AR-1715-0414

Post
Post Engineer
AR-1408-0053
Post Engineer Management
AR-1408-0053

Postal
Postal Operations
AR-1404-0001
Postal Supervisor
AR-1404-0032

Power
(Light Wheel Vehicle/Power Generation Mechanic)
AR-1703-0021
Aircraft Power Plant Repair Supervisor/Technical Inspector
AR-1704-0097
Conventional/Precise Power Generation
AR-1715-0341
Electric Power Production (CMF-52) Noncommissioned Officer (NCO) Advanced
AR-1710-0043
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0080
Improved Nike Hercules High Power (HIPAR) Acquisition Radar Maintenance
AR-1715-0210
Light Wheel/ Power Generation Mechanic Basic Technical
AR-1703-0023
Mobile Electric Power Generation
AR-1710-0009
Mobile Electric Power Generation (Precise)
AR-1710-0010
Nike High Power (HIPAR) Acquisition Radar and Radar Simulator Repair
AR-1715-0180
Nuclear Power Plant Operators (Electrical Specialty)
AR-1720-0003
Nuclear Power Plant Operators (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Nuclear Power Plant Operators (Instrumentation Specialty)
AR-1720-0005
Nuclear Power Plant Operators (Mechanical Specialty)
AR-1720-0004
Nuclear Power Plant Operators (Process Control Specialty)
AR-1720-0002
Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair
AR-1715-0343
Power Equipment Maintenance
AR-1714-0007
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
Power Generation Equipment Repairer
AR-1732-0003
Power Generation Equipment Repairer Primary Technical
AR-1712-0013
Power Generation Equipment Repairman
AR-1712-0013
Power Pack Specialist
AR-1732-0006
Power Pack Specialist Noncommissioned Officer (NCO) Candidate
AR-1732-0004
Power Pack Specialist Skill Development Base
AR-1732-0004
Precise Power Generation
AR-1732-0005
Prime Power Production Specialist (Electrical Specialty)
AR-1720-0003
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty)
AR-1720-0002
Prime Power Production Specialist (Instrumentation Specialty)
AR-1720-0005
Prime Power Production Specialist (Mechanical Specialty)
AR-1720-0004
Prime Power Production Specialty (Instrumentation Specialty)
AR-1720-0005
Wheel and Power Generation Unit Maintenance
AR-1704-0171

Powered
Powered Bridge Operator
AR-2201-0180

Powerman
Powerman
AR-1712-0003

Powerplant
Aircraft Powerplant Repairer
AR-1704-0068
Aircraft Powerplant Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0106
Aircraft Powerplant Repairer Basic Technical
AR-1704-0106

Powertrain
Aircraft Powertrain Repair
AR-1704-0012
Aircraft Powertrain Repair Skill Development Base
AR-1704-0020
Aircraft Powertrain Repair Specialist Candidate
AR-1704-0020
Aircraft Powertrain Repairer
AR-1704-0012
Aircraft Powertrain Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0107
Aircraft Powertrain Repairer Basic Technical
AR-1704-0107
Aircraft Powertrain System Maintenance Supervison/Technical Inspector Basic Technical
AR-1704-0098
AH-64 Aircraft Powertrain Repairer
AR-1704-0180

Practical
Practical Nurse
AR-0703-0015
Practical Nurse, Phase I and II
AR-0703-0015

Practitioner
Nurse Practitioner Adult Medical-Surgical Health Care
AR-0703-0020

Pre-Command
Aviation Pre-Command
AR-1606-0173
Ordnance Pre-Command
AR-2201-0318

Pre-Command Phase III, Systems Proficiency AR-2201-0315

Precise
Precise Power Generation AR-1732-0005

Precommand
Military Intelligence Precommand AR-1606-0197

Preflight
Warrant Officer Candidate Preflight Indoctrination—Fixed Wing AR-1606-0098
Warrant Officer Indoctrination Training—Preflight (Fixed Wing) AR-1606-0114

Press
Offset Press Operation AR-1719-0003

Prevention
Alcohol and Drug Abuse Prevention and Control Program Advanced Counseling Skills AR-1512-0012
Alcohol and Drug Abuse Prevention and Control Program Alcohol and Drug Control Officer AR-0801-0015
Alcohol and Drug Abuse Prevention and Control Program Clinical Director/Clinical Consultant AR-0801-0014
Alcohol and Drug Abuse Prevention and Control Program Family Counseling AR-1512-0013
Alcohol and Drug Abuse Prevention and Control Program Group Counseling Skills AR-1512-0014
Alcohol and Drug Prevention and Control Program Individual Counseling Skills AR-1512-0015
Army Alcohol and Drug Abuse Prevention and Control Program Management AR-0801-0005
Aviation Accident Prevention AR-0802-0015
Aviation Accident Prevention Management AR-0801-0004
Aviation Mishap Prevention AR-0802-0015
Aviation Mishap Prevention Management AR-0801-0004
Conventional Security/Crime Prevention AR-1728-0065

Preventive
Preventive Medicine Advanced AR-0707-0001
Preventive Medicine Enlisted AR-0707-0002
Preventive Medicine Officer Orientation AR-0707-0009
Preventive Medicine Orientation AR-0707-0004
Preventive Medicine Procedures Advanced AR-0707-0001
Preventive Medicine Procedures Basic AR-0707-0002
Preventive Medicine Specialist AR-0707-0002
AR-0707-0005
Preventive Medicine Specialist Reserve Component (Nonresident/Resident) Phase II AR-0707-0017
Principles of Military Preventive Medicine (CHN) AR-0799-0020
Principles of Military Preventive Medicine (ENTO) AR-0709-0045
Principles of Military Preventive Medicine (MC/VC/DC) AR-0703-0024
Principles of Military Preventive Medicine (MS) AR-0801-0024
Senior Officer Preventive Logistics AR-1408-0150
Senior Officers Preventive Logistics AR-2201-0161

Primary
Army Aviation Primary and Tactical Flight Training AR-1606-0120
Primary Leadership Development - Reserve Component AR-2201-0294
Primary Noncommissioned Officer (NCO) for Reserve (PNCOC/RC) AR-2201-0297

Prime
Prime Power Production Specialist (Electrical Specialty) AR-1720-0003
Prime Power Production Specialist (Health Physics and Plant Chemistry Specialty) AR-1720-0002
Prime Power Production Specialist (Instrumentation Specialty) AR-1720-0005
Prime Power Production Specialist (Mechanical Specialty) AR-1720-0004
Prime Power Production Specialty (Instrumentation Specialty) AR-1720-0005

Printing
Topography and Printing (TP-CMF) Noncommissioned Officer (NCO) Basic AR-1601-0021
Topography and Printing (TP-CMP) Noncommissioned Officer (NCO) Advanced AR-1601-0020

Prisoner
Prisoner of War Interrogation Enlisted AR-1728-0037
Prisoner of War Interrogation Officer AR-1728-0036

Probabilistic
Probabilistic Methods in Operations Research AR-1115-0002

Process
Nuclear Power Plant Operators (Process Control Specialty) AR-1720-0002
Process Photography AR-1709-0003

Processing
Automatic High Frequency Direction Finding (HF/DF) Outstation Processing Unit (Token Payment 1A) AR-1715-0546
Automatic High Frequency Direction Finding (HFDF) Outstation Processing Unit AN/GRR-37 AR-1715-0546
Automatic Tape Processing Equipment AR-1715-0042
Electronic Processing and Dissemination System Operator/Analyst AR-1402-0090
AR-1402-0091
AR-1715-0790
Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO) AR-1715-0719
Electronic Warfare (EW)/Intercept Strategic Signal Processing/Storage Subsystem Repairer AR-1715-0716
AR-1715-0718
Military Enlistment Processing Station (MEPS) Guidance Counselor - National Guard (ARNG) AR-2201-0352
National Guard Enlistment Processing Station (MEPS) Guidance Counselor AR-2201-0351

Processor
1005 Card Processor Programmer AR-1402-0018

Procurement
(Subsistence Procurement Quality Assurance and Standardization) AR-1729-0015
Armed Services Procurement Management AR-0326-0009
Army Basic Procurement Operations AR-1408-0062
Army Procurement AR-1408-0062
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Defense Procurement Management AR-0326-0009
Defense Procurement Management by Correspondence AR-0326-0038
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Procurement Sergeant AR-1405-0032

Produce
Commissary Middle Management, Phase III (Commissary Produce Management) AR-0406-0001
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Commissary Produce Management AR-0406-0001

Product
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Production
Commodity Command Standard System

(CCSS) Procurement and Production
AR-1405-0085
Electric Power Production (CMF-52) Noncommissioned Officer (NCO) Advanced
AR-1710-0043
Electric Power Production (52-CMF) Noncommissioned Officer (NCO) Basic
AR-1408-0080

Professional
Warrant Officer Professional Development
AR-1406-0112

Programmed
English 3200: Programmed Course in Grammar and Usage
AR-0602-0007

Programmer
Automatic Digital Message Switching (ADMS) Programmer
AR-1402-0021
Computer Programmer
AR-1402-0017
Computer Programmer Automatic Data Processing Systems (ADPS)
AR-1402-0017
Military Assistance Programmer/Advisor
AR-1606-0024
Programmer Analyst
AR-1402-0054
Programmer/Analyst
AR-1402-0017
AR-1402-0114
Programmer/Analyst Basic Noncommissioned Officer (NCO)
AR-1402-0120
1005 Card Processor Programmer
AR-1402-0018

Programming
Assembler Programming
AR-1402-0043
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AR-1402-0010
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AR-1402-0017
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AR-1402-0017
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AR-1402-0015
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AR-1402-0042
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AR-1402-0032
AR-1402-0047
AR-1402-0107
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AR-1402-0046
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AR-1402-0042
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AR-1715-0208
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AR-1715-0208
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AR-1402-0098
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AR-1402-0098
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AR-1108-0001
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AR-1402-0042
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AR-1408-0001
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AR-1408-0165
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AR-1402-0061
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AR-1402-0109
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AR-1402-0062

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AR-1408-0012
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AR-1408-0079
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AR-0326-0025

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AR-1715-0279
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AR-1715-0279

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AR-1715-0182
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AR-1715-0182

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AR-2201-0119
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AR-2201-0119

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AR-1704-0054
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AR-1704-0023

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AR-0419-0037
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AR-1405-0014
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AR-1405-0014
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AR-1405-0080
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AR-0419-0037
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AR-1405-0185
Property Book Technician Senior Warrant Officer Training
AR-1405-0187
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AR-1405-0184
Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186
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AR-1405-0053
AR-1405-0058
Property Disposal Management
AR-1405-0058
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AR-1405-0014
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AR-1405-0006
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AR-1405-0166
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AR-1405-0141
AR-1405-0165

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AR-1715-0075
Ballistic Missiles Propulsion and Structures Repair
AR-1704-0089

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AR-0701-0005
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AR-0701-0006

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AR-1728-0071

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AR-1405-0075
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AR-1405-0075

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AR-0708-0003
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AR-0708-0001
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AR-1513-0002
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AR-0708-0001

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Joint Psychological Operations Staff Planning
AR-1512-0023
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AR-1512-0005
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AR-1512-0020
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AR-1512-0001
AR-1512-0018
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AR-1512-0021
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AR-1512-0003

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AR-1512-0001
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AR-1512-0001
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AR-1512-0007
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AR-1512-0017
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AR-1512-0022

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AR-1512-0004
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AR-1512-0004
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AR-1715-0745
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AR-1715-0742
Hawk Pulse Acquisition Radar and Battery Control Repair
AR-1715-0159
Hawk Pulse Radar Repair
AR-1715-0159
Hawk Pulse Radar Repairer
AR-1715-0745
Hawk Pulse Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0742
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AR-1715-0744
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AR-1715-0222
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AR-1715-0222
Improved Hawk Pulse Radar Repair
AR-1715-0222
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AR-1715-0358
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AR-1402-0008

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AR-1606-0179
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AR-2201-0063
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AR-2201-0063
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AR-2201-0063
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AR-1606-0178
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AR-1715-0570
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AR-1715-0569
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AR-1606-0161
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AR-1715-0498
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AR-1606-0204
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AR-1606-0180
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AR-1715-0568
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AR-1406-0091
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AR-1406-0053
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AR-0803-0006
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AR-2201-0347
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AR-1606-0162

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AR-0326-0023
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AR-1405-0102
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AR-1601-0046
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AR-1601-0046
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AR-0104-0004
AR-0709-0042
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AR-1115-0008
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AR-1115-0004

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AR-0326-0020
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AR-1115-0012

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AR-1710-0042

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AR-1710-0093

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AR-1408-0033
Associate Quartermaster Officer Advanced
AR-1405-0009
Associate Quartermaster Officer Career
AR-1405-0046
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AR-1729-0017
Food Management Quartermaster Officer Basic
AR-1729-0018
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AR-1408-0091
General Troop Support Materiel Management Quartermaster Officer Basic
AR-1408-0090
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AR-1601-0067
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AR-1601-0066
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AR-1405-0185
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AR-1710-0094
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AR-0326-0002
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AR-1405-0041
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AR-1710-0019
AR-1710-0053
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AR-1710-0015
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AR-1405-0192
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AR-1710-0022
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AR-1710-0022
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AR-1717-0036
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AR-1408-0032
AR-1408-0155
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AR-1408-0032
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AR-1405-0069
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AR-1405-0069
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AR-1408-0027

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AR-1405-0072
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AR-1405-0063
AR-1405-0069
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AR-1405-0050
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AR-1408-0157
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AR-1405-0073
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AR-1405-0027
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AR-1405-0027
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AR-1405-0002
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AR-1408-0113
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AR-1710-0053
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AR-1405-0188
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AR-1405-0190

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AR-1606-0204

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AR-1715-0537
AR-1715-0730
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AR-1715-0537

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AR-1715-0523
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AR-1715-0179
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AR-1715-0143
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AR-1715-0203
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AR-1715-0203
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AR-1715-0171
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AR-1715-0172
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AR-1715-0220
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AR-1715-0229
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AR-1717-0017
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AR-1717-0017
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AR-1715-0147
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AR-1715-0190
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AR-2201-0018
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AR-1715-0515
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AR-1715-0179
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AR-1715-0515
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AR-1715-0493
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AR-1715-0034
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AR-1715-0560
AR-1715-0829
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AR-1715-0493
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AR-1715-0252
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AR-1715-0635
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AR-1715-0250
Field Artillery Radar Crewman
AR-1715-0250
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AR-1715-0493
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AR-2201-0292
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AR-1715-0176
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AR-1715-0252
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AR-1715-0250
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AR-1715-0250
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AR-1715-0493
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AR-1715-0177
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AR-1402-0075
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AR-1715-0585
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AR-1715-0169
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AR-1715-0169
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AR-1715-0642
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AR-1715-0374
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AR-1715-0566
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AR-1715-0199
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AR-1405-0022
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AR-1405-0022
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AR-1715-0178
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AR-1715-0178
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AR-1715-0178
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AR-1715-0147
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AR-1715-0236
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AR-1715-0223
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- Equipment Records and Repair Parts Specialist AR-1405-0113
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- Medical Records Specialist AR-1403-0001
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AR-1406-0061
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AR-1406-0008
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AR-1406-0008
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AR-1406-0002

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AR-1730-0001

Registration
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AR-0709-0038
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AR-0709-0026
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AR-0709-0037
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AR-0709-0027

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AR-0801-0006
AR-0801-0007
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AR-0801-0003
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AR-0801-0007
Drug and Alcohol Rehabilitation
AR-0799-0009
Drug and Alcohol Rehabilitation Training Individual
AR-0801-0003

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Field Radio Relay Equipment Repair, Skill Development Base
AR-1715-0049
Radio Relay and and Carrier Attendant
AR-1715-0053
Radio Relay and Carrier Attendant, Skill Development Base
AR-1715-0064
Radio Relay and Carrier Operation
AR-1715-0053
Radio Relay and Carrier Repair
AR-1715-0111

Reliability
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AR-1115-0005

Remote
Antiaircraft Artillery (AAA) Remote Control Repair
AR-1714-0005
Antiaircraft Artillery (AAA) Remote Control Repair Basic
AR-1715-0285
Remote Control System Maintenance (AN/URR-66)
AR-1715-0412
Remote Control System Maintenance (Tracechain)
AR-1715-0412
Remote Sensor Specialist
AR-1715-0393

Renal
Renal Dialysis Nurse Education, Phase II and III
AR-0703-0017
Renal Dialysis Technician
AR-0702-0005

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AR-2201-0021
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AR-2201-0074
Service and Renovation (SR-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0073

Rentention
National Guard (ARNG) Rentention Noncommissioned Officer (NCO)
AR-2201-0388

Repair
Aviation Maintenance Officer and Repair Technician Phase II - CH-47D
AR-1717-0075

Repeater
Radio Terminal/Repeater Set Operations Maintenance
AR-1715-0762
Radio Terminal/Repeater Set Operator
AR-1715-0775
Repeater and Carrier Equipment Installation and Maintenance
AR-1715-0111

Reporter
Court Reporter Noncommissioned Officer (NCO) Advanced
AR-1407-0006
Legal Specialist/ Court Reporter Basic Noncommissioned Officer (NCO)
AR-1407-0009

Reproduction
Decca Charting and Reproduction
AR-1713-0001
Reproduction Equipment Repair
AR-1706-0001

Requirements
Requirements Management
AR-1405-0057

Research
Intelligence Research Officer Transition
AR-1606-0080
Operations Research and Systems Analysis
AR-0317-0003
Operations Research and Systems Analysis Familiarization
AR-0317-0003
Operations Research Models and Techniques
AR-0317-0002
Operations Research/Systems Analysis Executive
AR-0317-0001
Operations Research/Systems Analysis Military Applications Course I
AR-1402-0052
Probabilistic Methods in Operations Research
AR-1115-0002

Reserve
Advanced Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0295
Advanced Noncommissioned Officer (NCO) Reserve Component
AR-2201-0338
Armor Officer Advanced—Reserve Component
AR-2201-0165
AR-2201-0321
Armor Officer Basic Reserve Component
AR-1710-0136
Armor Officer Basic—Reserve Component
AR-1710-0057
Army Medical Department (AMEDD) Officer Basic (Reserve Component)
AR-2201-0003
Army Medical Department (AMEDD) Reserve Component General Staff
AR-0799-0004
Army Medical Department Staff Development (Reserve Component) (Nonresident/Resident)
AR-0799-0017
Army Reserve Retention Noncommissioned Officer (NCO)
AR-2201-0357
Basic Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0298
Basic Noncommissioned Officer (NCO) Reserve Component Phase I Common Leader Training
AR-2201-0337
Battery Computer System Cadre Reserve Component
AR-2201-0383
Chaplain Assistant Basic Noncommissioned Officer (NCO) Reserve Component
AR-1406-0130
Chaplain Officer Advanced Reserve Component
AR-1408-0180
Chaplain Reserve Component General Staff
AR-1408-0128
Chaplain Reserve Component General Staff College
AR-1408-0128
Civil Affairs Officer Advanced Nonresident/Resident Reserve Component
AR-1511-0014
Communications-Electronics Operations Noncommissioned Officer (NCO) Advanced (Reserve Components)
AR-1715-0706
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4
AR-1715-0858
CH-54 Heavy Lift Helicopter Repairer-Reserve Component
AR-1704-0148
Dental Laboratory Specialist Basic Reserve Component (Nonresident/Resident)
AR-0701-0010
Dental Specialist Reserve Component (Nonresident/Resident)
AR-0701-0009
Dental Specialist Reserve Component (Nonresident/Resident) Phase II
AR-0701-0012
Engineer Officer Advanced Reserve Component
AR-1601-0050

Engineer Officer Basic Reserve Component
AR-1601-0051

Environmental Health Specialist Reserve Component (Nonresident/Resident)
AR-0707-0007

Field Artillery Officer Advanced, Reserve Component
AR-1408-0174

Finance Officer Advanced Nonresident/ Resident - Reserve
AR-1408-0076

First Sergeant Course for Reserve Component
AR-2201-0299

Food Service Specialist Individual Ready Reserve
AR-1729-0035
AR-1729-0038

Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1729-0037

Force Moderization-Reserve Component
AR-1715-0766

Foreign Area Officer Reserve Component
AR-1511-0001

Hospital Food Service Specialist (Basic) Reserve Component
AR-1729-0044

Hospital Food Service Specialist Basic Reserve Component (Correspondence, Resident, Nonresident)
AR-1729-0016

Infantry Army Reserve Officer Candidate
AR-2201-0052

Infantry Officer Candidate (Reserve Component)
AR-2201-0052

Light Wheel Vehicle Mechanic Individual Ready Reserve Refresher
AR-1710-0122

Light Wheel Vehicle Mechanic-Individual Ready Reserve Refresher
AR-1710-0121

Master Fitness Trainer - Reserve Component
AR-0803-0011

Medical Logistics Management Reserve Component
AR-1408-0154

Medical Noncommissioned Officer (NCO) (Reserve Component)
AR-0709-0034

Medical Supply Specialist (Basic) Reserve Component Phase 2
AR-1405-0202

Medical Supply Specialist Reserve Component (Nonresident/ Resident)
AR-1405-0051

Metalworker Individual Ready Reserve (44B20)
AR-1703-0049

Military Intelligence Warrant Officer-Reserve Component
AR-1606-0195

Multichannel Communications Equipment Supervisor, Individual Ready Reserve
AR-1715-0765

M60A3 Tank System Mechanic-Individual Ready Reserve Refresher
AR-1703-0044

Officer Candidate (Reserve Components)
AR-2201-0052

Operating Room Nursing for ANC Officer (Reserve Component)
AR-0703-0019

Ordnance Missile Materiel Management Officer-Reserve
AR-1405-0156

Ordnance Munitions Materiel Management Officer-Reserve
AR-1405-0157

OH-6-RC Observation/Scout Helicopter Repairer-Reserve Component
AR-1704-0155

Patient Administration Reserve Component (Nonresident/Resident)
AR-0709-0020
AR-0709-0043

Patient Administration Specialist Reserve Component (Nonresident/Resident)
AR-0709-0021

Petroleum Supply Reserve Specialist - Reserve Component
AR-1601-0076

Preventive Medicine Specialist Reserve Component (Nonresident/Resident) Phase II
AR-0707-0017

Primary Leadership Development - Reserve Component
AR-2201-0294

Primary Noncommissioned Officer (NCO) for Reserve (PNCOC/RC)
AR-2201-0297

Property Book Technician Senior Warrant Officer Training - Reserve Component
AR-1405-0184

Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186

Refresher Course, Heavy Wheel Vehicle Mechanic Individual Ready Reserve
AR-1703-0036

Refresher Course, Track Vehicle Mechanic-Individual Ready Reserve
AR-1710-0126

Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190

Repair Parts Technician Senior Warrant Officer - Reserve Components
AR-1405-0181

Reserve Component Army Medical Department Officer Advanced, Phase II
AR-0799-0015

Reserve Component Army Medical Department Officer Advanced, Phase III
AR-0799-0016

Reserve Component Master Fitness Trainer
AR-0803-0011

Reserve Component Psychological Operations (Nonresident/Resident)
AR-1512-0007

Reserve Component Psychological Operations Officer
AR-1512-0017

Reserve Component Psychological Operations Specialist
AR-1512-0022

Reserve Officer Training Course (ROTC) Ranger
AR-2201-0278

Reserve Retention Manager
AR-2201-0354

Reserve Retention Noncommissioned Officer (NCO) Advanced
AR-2201-0356

Reserve Supply
AR-1405-0200

Senior Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0296

Signal Officer Advanced-Reserve Component
AR-2201-0306

Signal Officer Basic-Reserve Components
AR-2201-0307

Special Forces Detachment Officer Qualification Reserve Component Phase 4
AR-2201-0347

Special Operations Communications Sergeant Reserve Component Phase 4
AR-1715-0826

Special Operations Engineer Sergeant Reserve Component Phase 4
AR-1710-0152

Special Operations Qualification Reserve Component Phase 2
AR-0803-0008

Special Operations Qualifications Reserve Component Phase 6
AR-0803-0009

Special Operations Weapons Sergeant Reserve Component Phase 4
AR-2201-0348

Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)
AR-1715-0841

Telecommunications Technician Warrant Officer Technical Certification - Reserve Component Phases 2 and 4
AR-1715-0859

Track Vehicle Repairer Individual Ready Reserve (63H30)
AR-1703-0038

Track Vehicle Repairer Individual Ready Reserve Refresher
AR-1703-0053
AR-1703-0058

Transportation Officer Advanced - Reserve Phases II and IV
AR-0419-0047

Veterinary Food Inspection Specialist (Basic) (Reserve Component) Phase II
AR-0104-0011

Water Treatment Specialist Reserve Component
AR-1732-0011

Wheel Vehicle Repairer - Individual Ready Reserve Refresher
AR-1710-0119

Wheel Vehicle Repairer Individual Ready Reserve (IRR) Refresher (63W20)
AR-1703-0055

Resistance

Survival, Evasion, Resistance, and Escape (SERE) High Risk
AR-0803-0007

Resource

Aviation Command and Resource Management
AR-1408-0036

Resource Intern Financial Management
AR-1408-0070

Resource Management Budget
AR-1401-0038

Resource Management Quantitative
AR-1115-0012

Resources
Personnel Resources Management
AR-1406-0004

Respiratory
Respiratory Specialist
AR-0704-0007
AR-0704-0008

Retention
Adjutant General Noncommissioned Officer (NCO) Education System Advanced (Recruitment and Retention) by Correspondence
AR-1406-0045
Army Reserve Retention Noncommissioned Officer (NCO)
AR-2201-0357
National Guard Advanced Retention Noncommissioned Officer (NCO)
AR-2201-0353
National Guard Recruiting and Retention Manager
AR-1406-0097
National Guard Retention Noncommissioned Officer (NCO)
AR-2201-0355
Recruitment and Retention Noncommissioned Officer (NCO) Advanced
AR-1408-0048
Reserve Components Recruiting and Retention Training
AR-1406-0030
Reserve Retention Manager
AR-2201-0354
Reserve Retention Noncommissioned Officer (NCO) Advanced
AR-2201-0356
Retention Noncommissioned Officer (NCO)
AR-1406-0020
Retention Transition
AR-1406-0020

Review
Internal Review
AR-1401-0010
AR-1401-0022
Management Review and Analysis
AR-1408-0011
Techniques of Review and Analysis
AR-1408-0011

Rigger
Parachute Rigger
AR-1733-0005
AR-1733-0008
Parachute Rigger Advanced Individual Training
AR-1733-0008
Parachute Rigger Advanced Noncommissioned Officer (NCO)
AR-1733-0004
Parachute Rigger Basic Noncommissioned Officer (NCO)
AR-1733-0007
Parachute Rigger Basic Technical
AR-1733-0006
Service Noncommissioned Officer (NCO) Advanced (Parachute Rigger)
AR-1733-0004

Risk
Advanced Decision Risk Analysis
AR-0326-0014
Decision Risk Analysis
AR-0326-0012
Decision Risk Analysis for Logisticians
AR-0326-0013

Rocket
Ballistic Missile Rocket Motor and Structures Repair (Sergeant)
AR-1715-0088
Honest John Rocket Crewman Noncommissioned Officer (NCO) Basic
AR-2201-0178
Multiple Launch Rocket System (MLRS) Basic Noncommissioned Officer (NCO)
AR-2201-0366
Multiple Launch Rocket System (MLRS) Cadre
AR-1715-0625
Multiple Launch Rocket System (MLRS) Crewman
AR-2201-0282
Multiple Launch Rocket System (MLRS) Mechanic
AR-2201-0280
Multiple Launch Rocket System (MLRS) Operations/Fire Direction Specialist
AR-1715-0634
Multiple Launch Rocket System (MLRS) Repairer
AR-1715-0564
Multiple Launch Rocket System (MLRS) Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0749
Multiple Launch Rocket System (MLRS)/Lance Advanced (NCO) Noncommissioned Officer
AR-2201-0290
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced (NCO) Noncommissioned Officer
AR-2201-0289
Multiple Launch Rocket System (MLRS)/Lance Fire Direction Supervisor Advanced Noncommisioned Officer (NCO)
AR-2201-0359
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Direction Specialist Basic Noncommissioned Officer (NCO)
AR-2201-0365
Multiple Launch Rocket System (MLRS)/Lance Operations Fire Specialist
AR-1715-0847
Multiple Launch Rocket System Cadre (MLRS) Cadre
AR-1715-0834
Multiple Launch Rocket System Crewmember Advanced Noncommissioned Officer (NCO)
AR-2201-0367

Rockets
Field Artillery Missiles/Rockets Noncommissioned Officer (NCO) Basic
AR-2201-0185

Rotary
Army (Aviator) Transport Pilot-Phases I, II and III (Rotary Wing)
AR-1606-0095
General Officer Rotary Wing Flight Training
AR-1606-0073
General Officer Rotary Wing Qualification
AR-1606-0072
Initial Entry Rotary Wing Aviator
AR-1606-0074
Initial Entry Rotary-Wing Aviator (AH-1)
AR-1606-0185
Initial Entry Rotary-Wing Aviator (OH-58)
AR-1606-0184
Initial Entry Rotary-Wing Aviator (UH-1)
AR-1606-0183
Initial Entry Rotary-Wing Aviator (UH-60)
AR-1606-0182
Initial Entry Rotary-Wing Aviator Common Core
AR-1606-0181
Officer/Warrant Officer Rotary Wing Aviator
AR-1606-0074
Officer/Warrant Officer Rotary Wing Qualification
AR-1606-0070
Officer/Warrant Officer Rotary Wing Qualification (Active Army)
AR-1606-0127
Officer/Warrant Officer Rotary Wing Qualification (Reserve Component/Allied)
AR-1606-0070
Rotary Wing Aviator Europe-NATO
AR-1606-0074
Rotary Wing Aviator Refresher Training
AR-1606-0166
Rotary Wing Instrument
AR-1606-0123
Rotary Wing Instrument Flight Examiner
AR-1606-0124
AR-1606-0190
Rotary Wing Instrument Qualification
AR-1606-0097
Rotary Wing Qualification
AR-1606-0180
Rotary Wing Qualification (Army and Air Force)
AR-1606-0127
Rotary Wing Qualification (USAF)
AR-1606-0127
Rotary Wing Technical Inspector
AR-1704-0082
AR-1717-0010
Warrant Officer Candidate Rotary Wing Aviator
AR-1606-0074
AR-1606-0075

Rotor
Aircraft Rotor and Propeller Repair
AR-1704-0054
Aircraft Rotor and Propeller Repair Skill Development Base
AR-1704-0023

Russian
Army Unique Voice Interceptor Training (Russian)
AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207
U.S. Army Institute for Advanced Russian and East European Studies
AR-0602-0001
Voice Operator Mission Training Number 1 (Russian)
AR-2201-0207

RCAT
Radio Controlled Airplane Target (RCAT) Airframe Engine Maintenance Maintenance
AR-1704-0077
Radio-Controlled Airplane Target (RCAT) Radio Maintenance
AR-1715-0181
Radio-Controlled Airplane Targets (RCAT) Operation
AR-2201-0087

REL-2600
Tropospheric Scatter Terminal REL-2600 Repair
AR-1715-0030

ROTC
Cadet Military Secondary Training/ROTC
AR-2201-0303
Reserve Officer Training Course (ROTC) Ranger
AR-2201-0278

RU-21
Guardrail V System Qualification (RU-21 (Guardrail V) (2R)) (RU-21 (Guardrail) Systems Qualification)
AR-1715-0569

Safeguard
Safeguard Ballistic Missile Defense Unit Commander
AR-1715-0379
Safeguard Missile Maintenance Technician/Specialist
AR-1715-0377
Safeguard Staff Officer
AR-1715-0380

Safety
Army Safety Program Management
AR-0802-0008
Army Safety Program Organization and Administration
AR-0802-0008
Aviation Safety Officer
AR-1606-0131
AR-1606-0174
Radiation Safety Specialist
AR-0705-0009
Radiological Safety
AR-0705-0003
Safety Engineering Intern Training Program
AR-0802-0006

Sales
National Guard (ARNG) Advanced Recruiter and Sales
AR-1406-0134
National Guard (ARNG) Recruiter and Sales
AR-1406-0139
National Guard (ARNG) Recruiting Field Sales Manager
AR-1408-0185

Satellite
Defense Satellite Communications System (DSCS) Ground Mobile Forces (GMF) Controller
AR-1715-0691
Satellite Communication (SATCOM) Equipment System Maintenance AN/YSC-86
AR-1715-0612
Satellite Communication (SATCOM) Fundamentals
AR-1715-0679
Satellite Communication (SATCOM) Systems Maintenance AN/TSC-86
AR-1715-0612
Satellite Communications (SATCOM) AN/USC-28(V) Set
AR-1715-0610
AR-1715-0853
Satellite Communications (SATCOM) AN/USC-28(V) Set Operations and Maintenance
AR-1715-0610
Satellite Communications (SATCOM) Controller
AR-1715-0344
AR-1715-0694
Satellite Communications (SATCOM) Equipment Repairer
AR-1715-0611
AR-1715-0781
Satellite Communications (SATCOM) Fundamentals
AR-1715-0074
Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39
AR-1715-0609
Satellite Communications (SATCOM) Ground Station Equipment Repairman
AR-1715-0037
Satellite Communications (SATCOM) Officer
AR-1715-0148
Satellite Communications (SATCOM) Operator
AR-1715-0438
Satellite Communications (SATCOM) Operator,Navy
AR-1715-0438
Satellite Communications (SATCOM) PRE NET Training
AR-1715-0074
Satellite Communications (SATCOM) Systems Fundamentals
AR-1715-0429
Satellite Communications (SATCOM) Systems Repairer
AR-1715-0781
Satellite Communications (SATCOM) Terminal AN/FSC-78 and AN/GSC-39.
AR-1715-0773
Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39
AR-1715-0702
Satellite Communications (SATCOM) Terminal AN/GSC-49
AR-1715-0701
Satellite Communications (SATCOM) Terminal AN/GSC-52(V)
AR-1715-0774
Satellite Communications (SATCOM) Terminal AN/MSC-46 Repair
AR-1715-0435
Satellite Communications (SATCOM) Terminal AN/MSC-64 General Support Maintenance
AR-1715-0607
Satellite Communications (SATCOM) Terminal AN/TSC-54 Repair
AR-1715-0047
Satellite Communications (SATCOM) Terminal Operator/Maintainer
AR-1715-0607
AR-1715-0608
Satellite Communications (SATCOM) Terminal Repair
AR-1715-0037
Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair
AR-1715-0345
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345
Satellite System Equipment Maintenance AN/TSC-86
AR-1715-0612
Strategic Satellite/Microwave Systems Operator
AR-1715-0430
Tactical Satellite Communications (SATCOM) Systems Operator-Transition
AR-1715-0776
Tactical Satellite Microwave System Operator
AR-1715-0219
Tactical Satellite/Microwave Repairer
AR-1715-0671
Tactical Satellite/Microwave Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Repairer Transition
AR-1715-0877
Tactical Satellite/Microwave Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Systems Operator
AR-1715-0782
Tactical Satellite/Microwave Systems Operator Basic Noncommissioned Officer (NCO)
AR-1715-0699
Tactical Satellite/Microwave Systems Operator Primary Technical
AR-1715-0699
USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal
AR-1715-0673

Science
Behavioral Science Specialist
AR-1512-0016

Scout
Attack/Observation/Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0136
AH-1 Attack/OH58A/C Observation/Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer
AR-1704-0136
AH-64 Attack/OH-58D Scout Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0134
AH-64 Attack/OH-58D Scout Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0163
Marine Artillery Scout Observer
AR-2201-0145
M113 Cavalry Scout
AR-2201-0332
M3 Bradley/CFV Cavalry Scout
AR-2201-0331
Observation/Scout Helicopter Repairer
AR-1704-0093

Observation/Scout Helicopter Technical Inspector
AR-1704-0126
Observation/Scout Repairer Basic Technical
AR-1704-0112
OH-58 Observation/Scout Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1704-0152
OH-6-RC Observation/Scout Helicopter Repairer-Reserve Component
AR-1704-0155

Seaman
Seaman
AR-1708-0002
AR-1708-0004

Secretary
Secretary
AR-1407-0001

Secure
Secure Voice Access Console Repair
AR-1715-0195
Secure Voice Access System Repair
AR-1715-0195

Security
Advanced Security
AR-1728-0064
Army Security Agency Card and Tape Writer
AR-1402-0038
Army Security Agency Tactical Support Element Operations)
AR-2201-0199
Basic Industrial Security
AR-1606-0019
Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification
AR-1402-0132
Communications Security (COMSEC) TSEC/ST-58 Repair
AR-1715-0763
Communications Security Analysis
AR-1606-0079
Communications Security Analyst
AR-1606-0079
Communications Security Monitor
AR-1404-0005
Conventional Physical Security
AR-1728-0065
Conventional Security/Crime Prevention
AR-1728-0065
Defense Special Security Communications System Operator
AR-1715-0267
Fixed Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0764
Fixed Communications Security (COMSEC) Equipment Repairer (Transition 32G)
AR-1715-0681
Installation Security
AR-1728-0077
Nuclear Physical Security
AR-1728-0064
Physical Security
AR-1728-0043
Physical Security Supervision
AR-1728-0024
Security in Automated Systems (SAS)
AR-1402-0051
Security in Automatic Data Processing Systems (ADPS)
AR-1402-0051
Security Assistance Management
AR-1606-0024
Security Assistance Management Orientation Seminar
AR-1606-0021
Security Management
AR-1728-0044
Signal Security (SIGSEC) Officer
AR-1606-0130
Signal Security (SIGSEC) Specialist
AR-1404-0005
Signal Security (SIGSEC) Specialist Basic Technical
AR-1717-0054
TRI-TAC Communications Security (COMSEC) Equipment Full Maintenance
AR-1715-0852
United States Army Security Agency (USASA) Officer Career (U)
AR-1728-0042

Self-Propelled
Self-Propelled Artillery System Technician
AR-2201-0309
Self-Propelled Field Artillery System Basic Noncommissioned Officer (NCO)
AR-1710-0112
Self-Propelled Field Artillery System Mechanic Noncommissioned Officer (NCO) Advanced
AR-2201-0320
Self-Propelled Field Artillery Systems Mechanic Basic Technical
AR-1710-0112

Seminole
U-8D (Seminole) Aviator Qualification
AR-1606-0104

Senior
Air Defense Artillery Senior Warrant Officer
AR-1715-0105
Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156
Aviation Senior Warrant Officer Training
AR-1408-0063
AN/TSQ-73 System Operator/Repairman Senior-Level
AR-1715-0401
AN/TSQ-73 System Operator/Repairman Senior-Level (Transition)
AR-1715-0402
Communications-Electronics Repair Technician Senior Warrant Officer
AR-1715-0860
Dental Laboratory Specialist (Senior)
AR-0701-0015
Food Service Technician Senior Warrant Officer
AR-1729-0036
Infantry Senior Sergeant Noncommissioned Officer (NCO) Advanced
AR-2201-0034
Property Book Technician Senior Warrant Officer Training
AR-1405-0187
Property Book Technician Senior Warrant Officer Training - Reserve Component
AR-1405-0184
Quartermaster Senior Warrant Officer
AR-1408-0157
Repair Parts Technician Senior Warrant Officer
AR-1408-0158
Repair Parts Technician Senior Warrant Officer - Reserve Components
AR-1405-0181
Senior Army Officer Flight Training
AR-1606-0113
Senior Commanders Orientation
AR-2201-0217
Senior Course for Reserve Component Noncommissioned Officer (NCO)
AR-2201-0296
Senior Executive Transition
AR-1406-0208
Senior Field Artillery Officer
AR-2201-0140
Senior Field General COMSEC Repair
AR-1715-0094
Senior Field Systems COMSEC Repair
AR-1715-0063
Senior Level Logistics
AR-1405-0205
Senior Noncommissioned Officer (NCO) Operations and Intelligence
AR-1511-0013
Senior Officer Logistics Management
AR-1408-0150
Senior Officer Preventive Logistics
AR-1408-0150
Senior Officers Preventive Logistics
AR-2201-0161
Senior Special Electrical/Electronic Device Repair
AR-1715-0010
Senior Supply Sergeant
AR-1405-0138
Senior Supply/Services Sergeant
AR-1405-0173
Special Operations Technician Senior Warrant Officer
AR-1408-0162
Warrant Officer Senior
AR-1408-0072

Sensor
Aerial Photoactive Sensor Repairer
AR-1606-0143
AR-1606-0206
Aerial Sensor Specialist (OV-1D)
AR-1709-0010
Aerial Sensor Specialist Entry Level
AR-1709-0010
Airborne Sensor Specialist
AR-2201-0116
Airborne Sensor Specialist Skill Development Base
AR-1715-0212
Electronic Warfare (EW) Intercept Aerial Sensor Repairer
AR-1715-0713
Electronic Warfare (EW)/Intercept Aerial Sensor Repairer Phase 2
AR-1715-0869
OV-1D (Mohawk) Airborne Sensor Specialist
AR-1704-0013
Remote Sensor Repair
AR-1715-0284
Remote Sensor Specialist
AR-1715-0393
Unattended Ground Sensor Mechanic
AR-1715-0284
Unattended Ground Sensor Operation
AR-1715-0224
Unattended Ground Sensor Specialist
AR-1715-0393

Unattended Ground Sensor Specialist/Maintenance Specialist AR-1715-0284

Sergeant
Ballistic Missile General Support Shop Set Repair (Sergeant) AR-1715-0116
Ballistic Missile Inertial Guidance and Control Repair (Sergeant) AR-1715-0312
Ballistic Missile Maintenance Technician (Sergeant) AR-1715-0246
Ballistic Missile Rocket Motor and Structures Repair (Sergeant) AR-1715-008
Ballistic Missile Test Station Repair (Sergeant) AR-1715-0100
Company Commander and First Sergeant AR-1408-0160
Drill Sergeant AR-2201-0146, AR-2201-0339
Drill Sergeant and the Initial Entry Training (IET) Cadre Course AR-2201-0146
First Sergeant AR-0802-0020
First Sergeant Course for Reserve Component AR-2201-0299
Motor Sergeant AR-1405-0121
Motor Sergeant/Motor Officer AR-1710-0141
Personnel Senior Sergeant AR-1406-0024
Personnel Sergeant Advanced Noncommissioned Officer (NCO) AR-1406-0102
Procurement Sergeant AR-1405-0032
Senior Supply Sergeant AR-1405-0138
Senior Supply/Services Sergeant AR-1405-0173
Sergeant Electrical-Mechanical Repair AR-1715-0088
Sergeant Firing Set Repair AR-1715-0353
Sergeant Firing Set Repairman AR-1715-0353
Sergeant Maintenance Chief Noncommissioned Officer (NCO) Advanced AR-1717-0031
Sergeant Missile Battery AR-1715-0102
Sergeant Missile Battery Officer AR-1715-0102
Sergeant Missile Crewman Noncommissioned Officer (NCO) Basic AR-2201-0093
Sergeant Missile Guidance Repair AR-1715-0302
Sergeant Officer AR-2201-0101
Sergeant Test Equipment Repair AR-1715-0128
Sergeant Test Equipment Repairman AR-1715-0128
Special Forces Communications Sergeant AR-1715-0824
Special Forces Engineer Sergeant AR-1710-0151
Special Forces Medical Sergeant AR-0702-0010, AR-0709-0031
Special Forces Weapons Sergeant AR-2201-0350
Special Operations Communications Sergeant AR-1715-0824
Special Operations Communications Sergeant Reserve Component Phase 4 AR-1715-0826
Special Operations Engineer Sergeant Reserve Component Phase 4 AR-1710-0152
Special Operations Medical Sergeant AR-0709-0006
Special Operations Medical Sergeant Phases I and III AR-0709-0031
Special Operations Weapons Sergeant AR-2201-0350
Special Operations Weapons Sergeant Reserve Component Phase 4 AR-2201-0348
Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Advanced AR-1717-0034
Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Intermediate AR-1715-0246

Sergeants
Command Sergeants Major AR-1408-0159
Sergeants Major AR-1408-0148
Sergeants Major Academy AR-1408-0003
Sergeants Major Academy Correspondence Program AR-1408-0064
Sergeants Major Academy Nonresident Program AR-1408-0064
Sergeants Major Correspondence Studies)@ AR-1408-0149
Sergeants Major Corresponding Studies AR-1408-0149

Serology
Forensic Serology AR-1601-0053

Service
Food Service Advanced Noncommissioned Officer (NCO) AR-1729-0033
Food Service Management AR-1729-0032
Food Service Specialist Advanced Individual Training AR-1729-0041
Food Service Specialist Advanced Noncommissioned Officer (NCO) AR-1729-0040
Food Service Specialist Basic Noncommissioned Officer (NCO) AR-1729-0039
Food Service Specialist Individual Ready Reserve AR-1729-0035, AR-1729-0038
Food Service Technician Entry Warrant Officer AR-1729-0026
Food Service Technician Senior Warrant Officer AR-1729-0036
Food Service Technician Warrant Officer Technical/Tactical Certification AR-1729-0034
Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component AR-1729-0037
Operator/Call Service Attendant AN/TTC-39 AR-1404-0033
Operator/Call Service Attendent AN/TTC-39(V) AR-1404-0036
Ordnance Service Section Officer AR-1710-0050
Personnel Service Center Basic Noncommissioned Officer (NCO) AR-1403-0014
Service and Renovation (SR-CMF) Noncommissioned (NCO) Basic AR-2201-0074
Service and Renovation (SR-CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0073
Service Noncommissioned Officer (NCO) Advanced (Graves Registration Specialist Track) AR-0709-0028
Service Noncommissioned Officer (NCO) Advanced (Parachute Rigger) AR-1733-0004
Supply and Service Officer AR-1402-0025
Tactical Army Combat Service Support Computer System/Standard Army Maintenance System (TACCS/SAMS) AR-1402-0101

Services
Senior Supply/Services Sergeant AR-1405-0173
Special Services (SS-CMF) Noncommissioned Officer (NCO) Basic AR-0804-0001
Supply and Services Management Officer AR-1405-0177
Technical Services Officer (TSO) Leadership Workshop AR-1406-0038

Shawnee
CH-21 (Shawnee) Pilot Transition AR-1606-0041

Sheridan
M551 (Sheridan) Basic Noncommissioned Officer (NCO) AR-1710-0137
Sheridan Turret Mechanic AR-1710-0032

Shillelagh
Shillelagh Missile System Repair AR-1715-0303
Shillelagh Repairer AR-1715-0303

Shoe
Shoe Repair AR-1734-0001

Shop
Ordnance Shop Technician AR-1710-0048
Railway Shop Foreman AR-1710-0007

Repair Shop Technician Warrant Officer Advanced
AR-1405-0152
Repair Shop Technician—Warrant Officer Technical Certification
AR-1710-0115

Signal

Area Signal Center Officer
AR-1408-0050
Associate Signal Officer Advanced
AR-1408-0023
Associate Signal Officer Career
AR-1408-0023
AN/MPQ-T1 Radar Signal Simulator Maintenance
AR-1715-0165
AN/MPQ-36 Radar Signal Simulator Maintenance
AR-1715-0171
Battalion/Brigade Signal Officer
AR-2201-0386
Electronic Warfare (EW) Signal Intelligence SIGINT) Morse Collector
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical
AR-2201-0104
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor, Morse
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0008
Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037
Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Collector Basic Technical/Advanced Individual Training
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003
Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710
Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical
AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149
Electronic Warfare (EW) Signal Intelligence Noncommunications Interceptor-Analyst
AR-1715-0018
Electronic Warfare (EW)/Intercept Strategic Signal Processing and Storage Subsystem Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0719
Electronic Warfare (EW)/Intercept Strategic Signal Processing/Storage Subsystem Repairer
AR-1715-0716
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727
Regular Army Signal Officer Basic
AR-1715-0265
Signal Company Grade Officer Refresher
AR-1404-0014
Signal Company Officer
AR-1715-0192
Signal Corps Officers Basic
AR-1404-0006
Signal Equipment Maintenance and Repair Officer
AR-1717-0011
Signal Field Grade Officer Refresher
AR-1715-0261
Signal Material Maintenance Officer
AR-1717-0011
Signal Officer Advanced
AR-1715-0319
AR-1715-0770
Signal Officer Advanced (Core Phase)
AR-1715-0319
Signal Officer Advanced (Nonresident/Resident)
AR-1715-0296
Signal Officer Advanced (Reserve Component)
AR-2201-0094
Signal Officer Advanced by Correspondence
AR-1715-0145
Signal Officer Advanced-Reserve Component
AR-2201-0306
Signal Officer Basic
AR-1404-0006
Signal Officer Basic (Reserve Component)
AR-2201-0075
Signal Officer Basic-Reserve Components
AR-2201-0307
Signal Officer Candidate
AR-2201-0160
Signal Officer Career
AR-1715-0319
Signal Officer Familiarization
AR-1715-0270
Signal Officer Orientation
AR-1404-0006
Signal Operations Advanced Noncommissioned Officer (NCO)
AR-1406-0109
Signal Parts Supply
AR-1405-0012
Signal Precommand
AR-2201-0270
Signal Security (SIGSEC) Officer
AR-1606-0130
Signal Security (SIGSEC) Specialist
AR-1404-0005
Signal Security (SIGSEC) Specialist Basic Technical
AR-1717-0054
Signal Supply
AR-1405-0011
Signal Supply and Parts Specialist
AR-1405-0011
Signal Supply Advanced
AR-1405-0052
Signal Supply Basic
AR-1405-0020
Signal Supply Officer
AR-1405-0020
Signal Supply Officer Advanced
AR-1405-0052
Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification
AR-1402-0131
Strategic Signal Intelligence (SIGINT) Officer
AR-1606-0094
Tactical Signal Staff Officer
AR-1715-0700
Telemetry Signal Analysis
AR-1715-0137
Time Signal Set Maintenance (AN/GSQ-53A)
AR-1715-0547
15D2 Radar Signal Simulator Maintenance
AR-1715-0171

Signals

Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078
Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor

Basic Noncommissioned Officer (NCO) AR-1715-0728
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO) AR-1715-0734
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO) AR-2201-0316
Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO) AR-1717-0079
Foreign Instrumentation Signals Externals Analysis AR-1715-0729
Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW)) AR-1406-0128

Simulator
AN/MPQ-36 Radar Signal Simulator Maintenance AR-1715-0171
AN/TPQ-21 Hawk Guided Missile System Simulator Maintenance AR-1715-0276
Flight Simulator (UH1FS) Specialist AR-1606-0006
Flight Simulator (2B24) Specialist AR-1606-0006
Flight Simulator Operations and Maintenance AR-1606-0069
Flight Simulator Specialist AR-1606-0069
Hawk Radar Signal Simulator Station Repairer AR-1715-0397
Improved Hawk Guided Missile Simulator Maintenance Maintenance AR-1715-0300
Improved Hawk Radar Signal Simulator Station Repair AR-1715-0397
Improved Hawk Radar Signal Simulator Station Repairer AR-1715-0397
Radar Engagement Simulator AN/TPQ-29 AR-1715-0300
15D2 Radar Signal Simulator Maintenance AR-1715-0171

Single
Single Channel Radio Operator Basic Noncommissioned Officer (NCO) AR-1404-0037
Single Channel Radio Team Chief AR-1404-0038

Single-Engine
Single-Engine Airplane Repair AR-1704-0025
Single-Engine Light Transport Airplane Maintenance AR-1704-0030
Single-Engine Observation and Utility Airplane Maintenance AR-1704-0029
Single-Engine Tandem-Rotor Helicopter Repair AR-1704-0058
Single-Engine, Single-Rotor Helicopter Repair AR-1704-0040

Single-Rotor
Multi-Engine, Single-Rotor Helicopter Repair AR-1704-0035
Single-Engine, Single-Rotor Helicopter Repair AR-1704-0040
Single-Rotor Helicopter Maintenance AR-1704-0079
Single-Rotor Light Transport Helicopter Maintenance AR-1704-0050
Single-Rotor Observation Helicopter Maintenance AR-1704-0055
Single-Rotor Turbine Utility Helicopter Maintenance AR-1704-0048
Single-Rotor Turbine Utility Helicopter Repair AR-1704-0033
Single-Rotor Utility and Light Transport Helicopter Maintenance AR-1704-0050
Utility and Cargo Single-Rotor Helicopter Repair AR-1704-0053

Skysweeper
Skysweeper Gun Section Fire Control Maintenance AR-1715-0217
Skysweeper Maintenance AR-1601-0038

Small
Small Arms Maintenance for Unit Armorers AR-2201-0341
Small Arms Repair AR-2201-0096

Smoke
Smoke and Flame Specialist Noncommissioned Officer (NCO) Basic AR-2201-0030
Smoke Generation Supervision AR-1601-0040
Smoke Operation Specialist AR-1704-0044
Smoke Operations Specialist (Transition) AR-1704-0046

Social Work
Psychiatric Social Work Enlisted AR-1513-0002
Social Work Enlisted AR-1513-0002
Social Work Procedures AR-1513-0002
Social Work/Psychology Procedures AR-1512-0006

Software
Tactical Army Combat Computer System (TACCS) Software AR-1402-0118
Telecommunication Automation Software Technician AR-1402-0006

Soils
Soils Analysis AR-1601-0008
Soils Analyst Noncommissioned Officer (NCO) Candidate AR-1601-0009
Soils Analyst, Skill Development Base AR-1601-0009
Soils Technician AR-1601-0008

Solid State
Tactical Solid State Telephone Equipment Repair AR-1715-0029

Sound
Artillery Sound Ranging AR-1715-0153
Artillery Sound Ranging Advanced AR-1715-0153
Defense Against Sound Equipment (DASE) AR-1715-0206
Defense Against Sound Equipment (DASE), Phase I AR-1715-0420
AR-1715-0711
Defense Against Sound Equipment (DASE), Phase II AR-1715-0509
Sound Projector Repair AR-1715-0279
Sound Ranging Crewman AR-1715-0153
Sound Ranging Crewman Noncommissioned Officer (NCO) Basic AR-1715-0386

Space
Space Collection (SPACOL) Operations AR-2201-0203
Space Collection Operations AR-2201-0203

Spanish
Army-Unique Voice Interceptor (Latin American Spanish) AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish AR-1606-0148

Special
Advanced Special Operations Techniques AR-1408-0163
AN/TSQ-133 Special Purpose Receiving System (Tracechain) Maintenance AR-1715-0733
Counterinsurgency and Special Warfare Staff Officer AR-1511-0009
Field Systems COMSEC Repairer (Special Repair Activity) AR-1715-0601
General COMSEC Maintenance Special Repair Activity AR-1715-0604
Guided Missile and Special Weapons Staff Officer AR-1405-0068
Noncommissioned Officer (NCO) Special Assignment Advanced AR-1408-0048
Ordnance Staff Officer Guided Missile and Special Weapons AR-1405-0068
Phase 2 Special Forces Operations and Intelligence Resident/Nonresident AR-1511-0020
Special Ammunition Officer AR-2201-0017
Special Assignment (SP-CMF) Noncommissioned Officer (NCO) Advanced AR-2201-0054

Special Assignment (SP-CMP) Noncommissioned Officer (NCO) Advanced
AR-1408-0048
Special Assignment (00-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Special Assignments (SP-CMF) Noncommissioned Officer (NCO) Basic
AR-2201-0113
Special Electronic Devices Repair
AR-1715-0779
Special Electronic Devices Repairer
AR-1715-0613
Special Forces Medical Sergeant
AR-0709-0031
Special Operations Communications Sergeant Reserve Component Phase 4
AR-1715-0826
Special Operations Engineer Sergeant Reserve Component Phase 4
AR-1710-0152
Special Operations Medical Sergeant Phases I and III
AR-0709-0031
Special Operations Qualification Reserve Component Phase 2
AR-0803-0008
Special Operations Qualifications Reserve Component Phase 6
AR-0803-0009
Special Operations Reconnaissance
AR-1511-0018
Special Operations Staff Officer
AR-1512-0019
Special Operations Target Interdiction
AR-2201-0349
Special Operations Technician Senior Warrant Officer
AR-1408-0162
Special Operations Technician Warrant Officer Technical Certification
AR-1406-0096
Special Operations Weapons Sergeant Reserve Component Phase 4
AR-2201-0348
Special Purpose Equipment Repair Parts Specialist
AR-1401-0013
Special Purpose Equipment Repair Parts Specialist, Skill Development Base
AR-1402-0029
Special Purpose Equipment Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0133
Special Purpose Receiving Systems Maintenance
AR-1715-0407
Special Reaction Team Training
AR-1728-0072
Special Services (SS-CMF) Noncommissioned Officer (NCO) Advanced
AR-1408-0004
Special Services (SS-CMF) Noncommissioned Officer (NCO) Basic
AR-0804-0001
Special Services Officer
AR-0804-0002
Tracechain AN/FSQ-133 Special Purpose Receiving System Maintenance
AR-1715-0733

Special Forces

(Special Forces Underwater Operations)
AR-0803-0001
Intelligence Analyst (Special Forces)
AR-1606-0027
Phase 4 Special Forces Operations and Intelligence Resident/Nonresident
AR-1511-0019
Special Forces Aidman (Airborne)
AR-0709-0006
Special Forces Base Communications Operator
AR-1715-0060
Special Forces Base Communications Systems
AR-1715-0060
Special Forces Burst Communications System Maintenance
AR-1715-0825
Special Forces Combat Diver Qualification
AR-0803-0001
AR-0803-0006
Special Forces Combat Diving Supervisor
AR-1606-0177
Special Forces Communications Sergeant
AR-1715-0824
Special Forces Detachment Officer
AR-2201-0346
Special Forces Detachment Officer Qualification Reserve Component Phase 4
AR-2201-0347
Special Forces Diving Medical Technician
AR-0709-0039
Special Forces Diving Supervisor
AR-1606-0144
Special Forces Engineer Sergeant
AR-1710-0151
Special Forces Engineer Training
AR-1601-0019
Special Forces Intelligence
AR-1606-0027
Special Forces Jumpmaster
AR-2201-0053
Special Forces Medical Diving Technician
AR-0709-0025
Special Forces Medical Sergeant
AR-0702-0010
AR-0709-0031
Special Forces Military Free Fall Jumpmaster
AR-2201-0060
Special Forces Military Free Fall Parachutist
AR-2201-0222
Special Forces Military Free Fall Parachutist/Military Free Fall Jumpmaster
AR-2201-0060
Special Forces Officer
AR-2201-0162
Special Forces Officer (Modified)
AR-2201-0162
Special Forces Officer Intelligence
AR-1606-0083
Special Forces Operations and Intelligence
AR-1606-0026
AR-1606-0176
Special Forces Qualification
AR-2201-0010
Special Forces Weapons Sergeant
AR-2201-0350

Specification

Defense Specification Management
AR-1408-0035
Specification Management
AR-1408-0035

Spectrometric

Defense Spectrometric Oil Analysis Operator/Evaluator
AR-1601-0002

Splicer

Cable Splicer Noncommissioned Officer (NCO) Basic
AR-2201-0076

Splicing

Cable Splicing
AR-1714-0016

Staff

Army Medical Department (AMEDD) Graduate Medical Education (GME) Program Command and Staff
AR-0799-0014
Army Medical Department Staff Development (Reserve Component) (Nonresident/Resident)
AR-0799-0017
Associate Command and General Staff Officer
AR-1408-0059
Command and General Staff Officer
AR-1511-0006
Command and General Staff Officer Regular
AR-1511-0006
Joint Operations Staff Planning
AR-1512-0021
Joint Psychological Operations Staff Planning
AR-1512-0023
Manprint Staff Officers
AR-0326-0045
Regular Command and General Staff Officer
AR-1511-0006
Special Operations Staff Officer
AR-1512-0019
Staff and Parish Development Consultant
AR-1406-0085

Staffing

Basic Staffing
AR-1406-0043

Standard

Standard Army Ammunition System (SAAS) Manager Training
AR-1405-0160
Standard Army Intermediate Level (SAILS) Supply System Materiel Management
AR-1405-0139
Standard Army Intermediate Level Supply (SAILS) ABX
AR-1405-0169
Standard Army Intermediate Level Supply (SAILS) System Supervisor
AR-1405-0171
Standard Army Intermediate Level Supply Subsystem (SAILS) Management
AR-1405-0098
Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management
AR-1405-0097
Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command

(COSCOM)
AR-1405-0096
Standard Army Intermediate Level Supply Systems ABX
AR-1405-0112
Standard Port System-Enhanced/Decentralized Automated Service Support System (DASPE-E/DAS3)
AR-1402-0095
Standard Property Book System - Redesigned
AR-1405-0166
Standard Property Book System Functional
AR-1405-0141
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AR-1715-0135
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AR-1715-0056
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AR-1715-0057
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AR-1715-0135
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AR-1715-0397
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AR-1715-0397
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AR-1715-0397
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AR-2201-0352
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AR-1406-0064
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AR-1715-0683

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AR-1715-0576
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AR-1715-0576

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AR-1405-0124
AR-1405-0155
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AR-1402-0086
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AR-1402-0086
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AR-1401-0005
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AR-1405-0086
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AR-1405-0010
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AR-1405-0005
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AR-1405-0073
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AR-1405-0073
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AR-1401-0016
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AR-1401-0016
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AR-1402-0013
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AR-1401-0016
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AR-1405-0109
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AR-1405-0109

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AR-2201-0022
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AR-1715-0718
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AR-1405-0028
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AR-1405-0117
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AR-1601-0005
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AR-1405-0003
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AR-1405-0117
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AR-1405-0110
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AR-1405-0028
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AR-1405-0117
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AR-1405-0110
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AR-1405-0044
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AR-1405-0066

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AR-0406-0006

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AR-1715-0433
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AR-1728-0056
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AR-1715-0827
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AR-1715-0717
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AR-1715-0716
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AR-1704-0109
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AR-1704-0109

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AR-1704-0089
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AR-1710-0030

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AR-1715-0043
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AR-1715-0253
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AR-1715-0253
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AR-1715-0876
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AR-1715-0875
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AR-1715-0884
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AR-1715-0151
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AR-0104-0008
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AR-1405-0183
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AR-1405-0174
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AR-1405-0132
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AR-1729-0019
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AR-1405-0111
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AR-1405-0111
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AR-1405-0108
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AR-1601-0072
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AR-1405-0020
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AR-1405-0132
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AR-1405-0077
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Telephone Switchboard Operation AR-1404-0004

Switching

Automatic Data Message Switching Center Technical Controller AR-1715-0221

Automatic Digital Message Switching (ADMS) Programmer AR-1402-0021

Automatic Digital Message Switching (ADMS) Traffic Service Supervisory AR-1402-0011

Automatic Digital Message Switching Center (ADMSC) Maintenance Supervisory AR-1715-0069

Automatic Digital Message Switching Center (ADMSC) Operation Supervisory AR-1402-0020

Automatic Digital Message Switching Center (ADMSC) Technical Controller AR-1715-0221

Automatic Digital Message Switching Equipment (ADMSE) Repairer AR-1715-0068

Automatic Message Switching Central (AN/TYC-39) AR-1402-0078

Automatic Message Switching Central AN/TYC-39 Repairer AR-1402-0079

Automatic Message Switching Central AN/TYC-39(V) AR-1402-0078

AUTODIN Switching Center Operations AR-1715-0587

AUTODIN Switching Center Specialist AR-1402-0011

AUTODIN Switching Center Traffic Operations AR-1404-0007

Data Communications Switching Center Specialist AR-1404-0007

Electronic Switching Systems Repairer AR-1715-0149

Electronic Switching Systems Repairer (DS/GS) AR-1715-0597

Electronic Switching Systems Technical Manager AR-1715-0598

Mobile Subscriber Equipment (MSE) Network Switching System Operator AR-1715-0886

Overseas Automatic Switching Center (ASC) Communication Equipment Repair AR-1715-0163

Overseas Automatic Switching Center (ASC) Equipment Repair AR-1715-0664

Overseas Automatic Switching Center (ASC) Technical Controller AR-1715-0221

Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair AR-1715-0343

Overseas AUTODIN Switching Center Programmer AR-1402-0077

Switching Central Repairer AR-1715-0670

Switching Systems Operator AR-1714-0027

Switching Systems Operator Basic Noncommissioned Officer (NCO) AR-1714-0028

Transportable Automatic Switching Systems Operator/Maintainer AR-1715-0668

Transportable Automatic Switching Systems Operator/Maintainer Basic Noncommissioned Officer (NCO) AR-1715-0855

Transportable Electronic Switching System Repairer AR-1715-0668

Transportable Electronic Switching Systems AN/TTC-39() and AN/TYC-39() Repairer (Tri-Tac Transition Training) AR-1715-0703

Transportable Electronics Switching Systems Repairer AR-1715-0703

Systems

Administrative Systems Analysis and Design AR-0326-0024 AR-0326-0041

Advanced Automatic Data Processing (ADP) Systems Analysis AR-1402-0001

Advanced Course in Artificial Intelligence Theory and Expert Systems Building AR-1402-0097

Air Traffic Control Systems, Subsystems, and Equipment Repairer AR-1715-0787

Assistant Systems Analyst AR-1402-0001

Automatic Data Processing (ADP) Systems Analysis AR-1402-0003

Automatic Data Processing (ADP) Systems Analysis and Design AR-1402-0041

Automatic Data Processing (ADP) Systems Analysis Officer AR-1402-0003

Basic Automatic Data Processing Systems (ADPS) Analysis AR-1402-0005

Business Systems Analysis AR-1402-0048

Computer Systems Operator Noncommissioned Officer (NCO) AR-1402-0002

Cost Estimating Techniques for Systems Acquisition AR-1408-0025

Expert Systems Architecture and Advanced Skills in Object-Oriented Programming AR-1402-0098

Expert Systems Architecture and Object-Oriented Programming AR-1402-0098

General Functional Systems Requirement (GFSR) in Systems Development AR-1408-0057

Guided Missile Systems Officer AR-1715-0286

Information Systems Officer (ISO) AR-1402-0005

Knowledge Engineering and Basic Expert Systems Building AR-1402-0099

Operating Systems AR-1402-0045

Operations Research/Systems Analysis Executive AR-0317-0001

Short Range Air Defense (SHORAD) Systems Technician AR-1715-0081

Structured Functional Systems Descriptions and Design (SFSDD) AR-1408-0057

Structured Systems Analysis and Design AR-1402-0108

Systems Analysis AR-1402-0001

Systems Analysis and Design AR-1402-0060

Systems Automation AR-1402-0035 AR-1402-0115

Systems Engineering AR-0326-0033

Systems Engineering, Analysis and Management (Guided Missile) AR-1715-0286

Tactical Air Traffic Control Systems, Subsystems, and Equipment Repairer AR-1715-0787

SAILS

Standard Army Intermediate Level Supply (SAILS) ABX AR-1405-0169

Standard Army Intermediate Level Supply (SAILS) System Supervisor AR-1405-0171

Standard Army Intermediate Level Supply Subsystem (SAILS) Management AR-1405-0098

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management AR-1405-0097

Standard Army Intermediate Level Supply Subsystem (SAILS) Materiel Management Corps Support Command (COSCOM) AR-1405-0096

SAILS Materiel Management COSCOM AR-1405-0096

SAM

Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Battery Officer AR-1601-0032

Associate Antiaircraft Artillery (AAA) and Surface-to-Air Missile (SAM) Officer Advanced AR-1408-0030

Associate Surface-to-Air (SAM) Officer Advanced AR-1717-0035

Associate Surface-to-Air Missile (SAM) Battery Officer AR-1715-0288

Guided Missile Unit Commander (Surface-to-Air Missile (SAM) AR-1715-0385

Surface-to-Air (SAM) Maintenance AR-1715-0315

Surface-to-Air (SAM) Missile Mechanical Materiel Maintenance Maintenance (Nike Ajax) AR-1714-0002

Surface-to-Air Missile (SAM) Acquisition Radar and Computer Systems Repair AR-1715-0209

Surface-to-Air Missile (SAM) Electronic

Materiel Maintenance, Nike
AR-1715-0085

Surface-to-Air Missile (SAM) Fire Control System Maintenance, Nike Ajax
AR-1715-0216

Surface-to-Air Missile (SAM) Internal Guidance System Repair
AR-1715-0114

Surface-to-Air Missile (SAM) Launcher Control System Repair
AR-1715-0077

Surface-to-Air Missile (SAM) Maintenance
AR-1715-0315

Surface-to-Air Missile (SAM) Mechanical Systems Repair
AR-1704-0086

Surface-to-Air Missile (SAM) Staff Officer
AR-1715-0315

Surface-to-Air Missile (SAM) Staff Officer (Hawk)
AR-1715-0289

Surface-to-Air Missile (SAM) Staff Officer (Nike)
AR-1715-0315

Surface-to-Air Missile (SAM) Staff Officer Transition (Hercules)
AR-1715-0305

Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Advanced
AR-1715-0290

Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Intermediate
AR-1715-0099

Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Advanced
AR-1717-0032

Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Intermediate
AR-1715-0255

Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Advanced
AR-1715-0105

Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Intermediate (221B, 222B, 223C)
AR-1715-0105

Surface-to-Air Missile (SAM) Track Radar Systems Repair
AR-1715-0164

Surface-to-Air Missile (SAM) Unit Commander
AR-1715-0385

Surface-to-Air Missile Officer (SAM) Basic
AR-2201-0120

SATCOM

Satellite Communication (SATCOM) Equipment System Maintenance AN/YSC-86
AR-1715-0612

Satellite Communication (SATCOM) Fundamentals
AR-1715-0679

Satellite Communication (SATCOM) Systems Maintenance AN/TSC-86
AR-1715-0612

Satellite Communications (SATCOM) AN/USC-28(V) Set
AR-1715-0610
AR-1715-0853

Satellite Communications (SATCOM) AN/USC-28(V) Set Operations and Maintenance
AR-1715-0610

Satellite Communications (SATCOM) Controller
AR-1715-0344
AR-1715-0694

Satellite Communications (SATCOM) Equipment Repairer
AR-1715-0611
AR-1715-0781

Satellite Communications (SATCOM) Fundamentals
AR-1715-0074

Satellite Communications (SATCOM) Ground Station Equipment Maintenance AN/FSC-78 and AN/GSC-39
AR-1715-0609

Satellite Communications (SATCOM) Ground Station Equipment Repairman
AR-1715-0037

Satellite Communications (SATCOM) Officer
AR-1715-0148

Satellite Communications (SATCOM) Operator
AR-1715-0438

Satellite Communications (SATCOM) Operator,Navy
AR-1715-0438

Satellite Communications (SATCOM) PRE NET Training
AR-1715-0074

Satellite Communications (SATCOM) Systems Fundamentals
AR-1715-0429

Satellite Communications (SATCOM) Systems Repairer
AR-1715-0781

Satellite Communications (SATCOM) Terminal AN/FSC-78 and AN/GSC-39
AR-1715-0773

Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39
AR-1715-0702

Satellite Communications (SATCOM) Terminal AN/GSC-49
AR-1715-0701

Satellite Communications (SATCOM) Terminal AN/GSC-52(V)
AR-1715-0774

Satellite Communications (SATCOM) Terminal AN/MSC-46 Repair
AR-1715-0435

Satellite Communications (SATCOM) Terminal AN/MSC-64 General Support Maintenance
AR-1715-0607

Satellite Communications (SATCOM) Terminal AN/TSC-54 Repair
AR-1715-0047

Satellite Communications (SATCOM) Terminal Operator/Maintainer
AR-1715-0607
AR-1715-0608

Satellite Communications (SATCOM) Terminal Repair
AR-1715-0037

Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair
AR-1715-0345

Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345

Tactical Satellite Communications (SATCOM) Systems Operator-Transition
AR-1715-0776

USAF Organizational/Intermediate Maintenance of the AN/MSC-64 Satellite Communications (SATCOM) Terminal
AR-1715-0673

SB-3082(V)1/GT

Manual Cordless Switchboard SB-3082(V)1/GT Repair
AR-1715-0029

SCR-584

Artillery Fire Control System Maintenance SCR-584 and Director M9 or M10
AR-1715-0142

M33, SCR-584 Fire Control System Maintenance
AR-1715-0213

SERE

Survival, Evasion, Resistance, and Escape (SERE) High Risk
AR-0803-0007

SHORAD

Short Range Air Defense (SHORAD) Systems Technician
AR-1715-0081

SHORADS

Short Range Air Defense System (SHORADS) DS/GS Maintenance Repair Technician
AR-1715-0646

Short Range Air Defense Systems (SHORADS) Support Repair Technician (DG/GS)
AR-1715-0646

SIDPERS

SIDPERS Management
AR-1406-0022

SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator
AR-1402-0110

SIGINT

Electronic Warfare (EW) Signal Intelligence (SIGINT) Analyst Basic Noncommissioned Officer
AR-1717-0056

Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0009

Electronic Warfare (EW) Signal Intelligence (SIGINT) Emitter Locator/Identifier Analyst Basic Technical
AR-2201-0104

Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Morse Interceptor Basic Technical (BTC)
AR-1717-0037

Electronic Warfare (EW) Signal Intelligence (SIGINT) Non-Morse Interceptor Basic Technical
AR-1717-0049

Electronic Warfare (EW) Signal Intelligence (SIGINT)

Noncommunications Collector Basic Technical/Advanced Individual Training
AR-1715-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept
AR-1715-0018

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Intercept Analyst Basic Technical (BTC)
AR-1715-0003

Electronic Warfare (EW) Signal Intelligence (SIGINT) Noncommunications Interceptor
AR-1715-0018
AR-1715-0710

Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical
AR-1717-0056

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148

Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese - Mandarin
AR-1606-0149

Electronic Warfare (EW) Signals Intelligence (SIGINT) Non-Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0078

Electronic Warfare (EW) Signals Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Emitter Identifier/Locator
AR-1409-0011

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Morse Interceptor
AR-1409-0012

Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Analyst Basic Noncommissioned Officer (NCO)
AR-1715-0734

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Emitter Locator/Identifier Basic Noncommissioned Officer (NCO)
AR-2201-0316

Electronic Warfare (EW)/Signals Intelligence (SIGINT) Morse Interceptor Basic Noncommissioned Officer (NCO)
AR-1717-0079

Military Intelligence Officer Advanced (Signals Intelligence/Electronic Warfare (SIGINT/EW))
AR-1406-0128

Strategic Signal Intelligence (SIGINT) Officer
AR-1606-0094

SIGSEC
Signal Security (SIGSEC) Officer
AR-1606-0130

Signal Security (SIGSEC) Specialist
AR-1404-0005

Signal Security (SIGSEC) Specialist Basic Technical
AR-1717-0054

SQT
Skill Qualification Tests (SQT)
AR-1406-0053

SSM
Associate Surface-to-Surface Missile (SSM) Battery Officer
AR-1714-0013

Field Artillery and Surface-to-Surface Missile (SSM) Battery Officer
AR-1715-0281

Guided Missile Electronic Materiel Maintenance, Surface-to-Surface Missile (SSM)
AR-1715-0090

Guided Missile Fire Control System Maintenance, SSM
AR-1715-0076

Surface-to Surface Missile (SSM) Doppler Repair
AR-1715-0187

Surface-to-Surface (SSM) Mechanical Materiel Maintenance
AR-1715-0328

Surface-to-Surface (SSM) Missile Computer Repair
AR-1715-0022

Surface-to-Surface (SSM) Radar System Repair
AR-1715-0190

Surface-to-Surface Missile (SSM) Internal Guidance System Repair
AR-1715-0083

Surface-to-Surface Missile (SSM) Maintenance
AR-1715-0327

Surface-to-Surface Missile (SSM) Officer Basic
AR-1715-0325

Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Advanced
AR-2201-0126

Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Intermediate
AR-1715-0078

Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Advanced
AR-1717-0034

Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Intermediate
AR-1715-0246

S360
S360 Assembler Language
AR-1402-0040

T-38
Artillery Fire Control System Maintenance, T-38
AR-1715-0215

T-42
T-42 Instructor Pilot
AR-1606-0135

T-42 Instructor Pilot (IP) Methods of Instruction
AR-1406-0072

Tabulating
Tabulating Equipment Repair
AR-1706-0004

Tactical
Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156

Airdrop Systems Technician - Warrant Officer Technical/Tactical Certification
AR-1733-0010

Army Aviation Primary and Tactical Flight Training
AR-1606-0120

Army Helicopter Transport Tactical
AR-1606-0106

Army Security Agency Tactical Support Element Operations)
AR-2201-0199

Bandmaster/Warrant Officer Technical and Tactical Certification
AR-1205-0002

Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification
AR-1402-0132

Electronic Warfare (EW) Cryptologic Tactical Operations Officer
AR-1606-0086

Electronic Warfare (EW)/Intercept Tactical Systems Repairer
AR-1715-0722

Electronic Warfare (EW)/Intercept Tactical Systems Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0723

Field Artillery Tactical Fire (TACFIRE) Direction System Repairer
AR-1715-0627

Field Artillery Tactical Fire (TACFIRE) Noncommissioned Officer (NCO) Advanced
AR-2201-0369

Food Service Technician Warrant Officer Technical/Tactical Certification
AR-1729-0034

Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1729-0037

Hawk Missile System Technician Warrant Officer Technical/Tactical Certification (PIP II)
AR-1715-0295

Heavy Expanded Mobility Tactical Truck (HEMTT) Operator Additional Skill Identifier (ASI)
AR-2101-0001

Intelligence Officer Basic Tactical
AR-1606-0137

Intelligence Officer Basic Tactical

Surveillance
AR-2201-0121
Intelligence Officer Tactical Surveillance
AR-2201-0121
Joint Tactical Automated Switching Network Supervisor
AR-1715-0605
Joint Tactical Communications (TRI-TAC) Operations
AR-1715-0605
Property Book Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0185
Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0188
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190
Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification
AR-1402-0131
SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator
AR-1402-0110
Tactical All-Source Intelligence Officer Force Alignment Plan III
AR-1728-0087
Tactical Army Combat Computer System (TACCS) and Tactical Computer Terminal (TCT) Computer Systems Repair
AR-1715-0861
Tactical Army Combat Computer System (TACCS) Software
AR-1402-0118
Tactical Army Combat Service Support Computer System (TACCS) Programming
AR-1402-0109
Tactical Army Combat Service Support Computer System/Standard Army Maintenance System (TACCS/SAMS)
AR-1402-0101
Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification
AR-1402-0130
Tactical Circuit Controller
AR-1714-0001
AR-1715-0615
Tactical Circuit Controller Basic Noncommissioned Officer (NCO)
AR-1715-0684
Tactical Communications Chief
AR-1715-0492
Tactical Communications Chief Basic Noncommissioned Officer (NCO)
AR-1715-0492
Tactical Communications Chief Basic Technical
AR-1715-0492
Tactical Communications Chief Noncommissioned Officer (NCO) Basic
AR-1715-0012
Tactical Communications Chief Noncommissioned Officers (NCO) Advanced
AR-1715-0489
Tactical Communications Chief, Skill Development Base
AR-2201-0078
Tactical Communications Officer and Chief
AR-1715-0552
AR-1715-0795
Tactical Communications Systems Operator/Mechanic
AR-1715-0091
Tactical Computer Systems Repairer
AR-1715-0780
Tactical Countermeasures Receiving Systems Maintenance (AN/MLQ-24)
AR-1715-0416
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
AR-2201-0190
Tactical Electronic Equipment Maintenance (EE-CMF) Noncommissioned Officer (NCO) Basic
AR-1715-0012
AR-1715-0017
AR-1715-0019
AR-1715-0020
Tactical Electronic Equipment Maintenance Noncommissioned Officers (NCO) Advanced (USAFAS)
AR-1715-0489
Tactical Electronic Maintenance (EE-CMF) Noncommissioned Officer (NCO) Advanced
AR-1715-0016
Tactical Electronic Maintenance Chief
AR-1715-0008
Tactical Fire (TACFIRE) Command and Staff
AR-2201-0283
Tactical Fire (TACFIRE) Direction System Fire Support
AR-1402-0074
Tactical Fire (TACFIRE) Divarty, Field Artillery Brigade, and Corps Artillery Fire Control Element
AR-1402-0084
Tactical Fire (TACFIRE) Fire Support Element
AR-1402-0124
Tactical Fire (TACFIRE) Operation Specialist Advanced Noncommissioned Officer (NCO) Advanced
AR-2201-0369
Tactical Fire (TACFIRE) Operations Specialist
AR-1402-0082
AR-1402-0125
AR-1715-0832
Tactical Fire (TACFIRE) Operations Specialist Basic Technical
AR-1715-0638
Tactical Fire (TACFIRE) Support Element Liaison Officer
AR-1402-0071
Tactical Fire (TACFIRE) Tactical Operations Center
AR-1402-0072
AR-1402-0123
Tactical FIRE (TACFIRE) Battalion Fire Direction Officer
AR-1402-0083
Tactical Intelligence Officer
AR-1606-0137
Tactical Microwave Systems Operation and Maintenance
AR-1715-0219
Tactical Microwave Systems Repair
AR-1715-0272
AR-1715-0436
Tactical Satellite Communications (SATCOM) Systems Operator-Transition
AR-1715-0776
Tactical Satellite Microwave System Operator
AR-1715-0219
Tactical Satellite/Microwave Repairer
AR-1715-0671
Tactical Satellite/Microwave Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Repairer Transition
AR-1715-0877
Tactical Satellite/Microwave Supervisor Basic Noncommissioned Officer (NCO)
AR-1715-0682
Tactical Satellite/Microwave Systems Operator
AR-1715-0782
Tactical Satellite/Microwave Systems Operator Basic Noncommissioned Officer (NCO)
AR-1715-0699
Tactical Satellite/Microwave Systems Operator Primary Technical
AR-1715-0699
Tactical Signal Staff Officer
AR-1715-0700
Tactical Solid State Telephone Equipment Repair
AR-1715-0029
Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0881
Tactical Telecommunications Center Operator Automatic Data Telecommunications Center Operator
AR-1406-0129
Tactical Telecommunications Center Supervisor
AR-1715-0794
Tactical Transport Helicopter Repairer
AR-1704-0017
Tactical Transport Helicopter Repairer Basic Technical
AR-1704-0110
Tactical Transport Helicopter Technical Inspector
AR-1704-0124
AR-1704-0162
Tactical Wire Operations Specialist
AR-1715-0434
Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0137
Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0164
UH-60 Tactical Transport Helicopter Basic Noncommissioned Officer (NCO)
AR-1704-0150

UH-60 Tactical Transport Helicopter Repairer
AR-1704-0017
Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician
AR-1606-0201
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician
AR-1606-0199
Warrant Officer Technical/Tactical Certification Phase 2 350B All Source Intelligence Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Tactics
Army Aviation Tactics
AR-1606-0107
Army Aviation Tactics Refresher
AR-1606-0099
AH-1 Instructor Pilot Methods of Instruction (MOI) (Contact, Tactics, and Gunnery) (Night Vision Goggle)
AR-1406-0114
Tactics and Techniques, Phase I
AR-2201-0020
UH-1 Contact, Tactics, Night/Night Vision Goggle (N/NVG) Instructor Pilot Methods of Instruction
AR-1406-0113

Tandem
Tandem Switch Repair
AR-1715-0188

Tandem-Rotor
Multi-Engine, Tandem-Rotor Helicopter Repair
AR-1704-0034
Single-Engine Tandem-Rotor Helicopter Repair
AR-1704-0058
Tandem-Rotor Helicopter Maintenance
AR-1704-0052
Tandem-Rotor Helicopter Repair
AR-1704-0058
Tandem-Rotor Light Transport Helicopter Maintenance
AR-1704-0069
Utility and Cargo, Tandem-Rotor Helicopter Maintenance
AR-1704-0052

Tank
Armor Officer Basic Tank/Armor Officer Basic Cavalry
AR-1717-0039
Armor Officer Basic-Tank M60A3
AR-1717-0081
Missile Tank Turret Mechanic
AR-1710-0038
M1 Abrams Tank Fire Control Systems Repairer
AR-1710-0101
M1 Abrams Tank Recovery Specialist
AR-1710-0135
M1 Abrams Tank System Mechanic Basic Noncommissioned Officer (NCO)
AR-1703-0040
M1 Abrams Tank System Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0131
M1 Abrams Tank System Mechanic Primary Technical
AR-1712-0014
M1 Abrams Tank Systems Mechanic
AR-1704-0142
M1 Abrams Tank Systems Mechanic Basic Technical
AR-1712-0015
M1 Abrams Tank Turret Mechanic
AR-1703-0050
M1 Abrams Tank Turret Mechanic Primary Technical
AR-1710-0103
M1 Abrams Tank Turret Repair
AR-1710-0104
M1 Abrams Tank Vehicle Repairer
AR-1710-0097
AR-1710-0113
M60A1/A3 Tank Recovery Specialist
AR-1703-0051
M60A1/A3 Tank Systems Mechanic
AR-1703-0042
AR-1710-0100
M60A3 Tank System Mechanic-Individual Ready Reserve Refresher
AR-1703-0044
M90A1 (ITV) Missile Tank Turret/Tank Turret Mechanic
AR-1710-0059
Ordnance Officer Advanced Tank Ground Mobility
AR-1408-0078
Ordnance Officer Advanced Tank/Ground Mobility Materiel Management
AR-1408-0078
Ordnance Officer Basic Tank and Ground Mobility Materiel Management
AR-1405-0093
Tank Driver Basic Armor Training (BAT)
AR-1710-0055
Tank Turret Mechanic
AR-1710-0020
AR-1710-0134
Tank Turret Repair
AR-1710-0018
AR-1710-0052
Tank Turret Repairer (USA/USA-ST)
AR-1710-0114
Tank Turret Repairer Basic Noncommissioned Officer (NCO)
AR-1710-0109
Tank Turret Repairer Basic Technical
AR-1710-0106
Tank Turret Repairman (USMC)
AR-1710-0114

Tape
Army Security Agency Card and Tape Writer
AR-1402-0038
Automatic Tape Processing Equipment
AR-1715-0042

Target
Artillery Target Acquisition Officer
AR-1601-0027
Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Combat Surveillance and Target Acquisition (SA-CMF) Noncommissioned Officer (NCO) Basic
AR-1717-0018
AR-2201-0002
Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Advanced
AR-2201-0183
Combat Surveillance and Target Acquisition Noncommissioned Officer (NCO) Basic
AR-2201-0186
Field Artillery Target Acquisition and Field Artillery Survey Officer
AR-1601-0054
Field Artillery Target Acquisition Basic Technical
AR-1304-0005
Field Artillery Target Acquisition Officer
AR-1601-0027
Field Artillery Target Acquisition Specialist
AR-1715-0153
Light Target Missile Controller
AR-2201-0087
Light Target Missile Flight Control System Maintenance
AR-1715-0131
Nuclear and Chemical Target Analysis
AR-0802-0025
AR-2201-0150
AR-2201-0151
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187
Radio Controlled Miniature Aerial Target (RMCAT) Operator
AR-1715-0575
Radio-Controlled Airplane Targets (RCAT) Operation
AR-2201-0087
Special Operations Target Interdiction
AR-2201-0349
Target Acquisition Radar Technician
AR-1715-0558
Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)
AR-1715-0841
Target Acquisition Radar Technician Warrant Officer Technical Certification
AR-1715-0840
Target Acquisition Radar Technician-Warrant Officer Advanced
AR-1402-0111
Target Acquisition Radar Technician-Warrant Officer Technical Certification
AR-1715-0558
Target Acquisition Surveillance Radar Repairer
AR-1715-0632
Target Acquisition/Surveillance Radar Repairer
AR-1715-0839
Target Acquisition/Surveillance Radar Repairer Basic Noncommissioned Officer (NCO)
AR-1408-0170

Teampack
AN/MSQ-103 Teampack Intermediate Maintenance Training (DS/GS)
AR-1715-0541
Teampack (AN/MSQ-103)

Organizational Maintenance Training
AR-1715-0542

Technical
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807
Aircraft Armament Technical Inspector
AR-1704-0146
Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156
Airdrop Systems Technician - Warrant Officer Technical/Tactical Certification
AR-1733-0010•
Airplane Technical Inspector
AR-1717-0004
Bandmaster/Warrant Officer Technical and Tactical Certification
AR-1205-0002
Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification
AR-1402-0132
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4
AR-1715-0858
CH-47 Medium Helicopter Technical Inspector
AR-1704-0143
Electronic Warfare (EW)/Intercept Equipment Repair Technician-Warrant Officer Technical Certification
AR-1408-0132
Emanations Analysis Technician—Warrant Officer Technical Certification
AR-1408-0136
Emitter Location/Identification Technician—Warrant Officer Technical Certification
AR-1408-0135
Fixed Station Technical Controller
AR-1715-0135
Fixed Wing Technical Inspector
AR-1717-0004
Food Service Technician Warrant Officer Technical/Tactical Certification
AR-1729-0034
Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1729-0037
General Supply Technician Warrant Officer Technical Certification
AR-1405-0170
Hawk Missile System Technician Warrant Officer Technical/Tactical Certification (PIP II)
AR-1715-0295
Helicopter Technical Inspector
AR-1717-0010
Lance Missile Sytem Technician-Warrant Officer Technical Certification
AR-1715-0843
Marine Deck Officer Warrant Officer Technical Certification
AR-1722-0006
Marine Engineering Officer-Warrant Officer Technical Certification
AR-1712-0020
Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0133
Non-Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0134
OV-1 Observation Airplane Technical Inspector
AR-1704-0161
Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II
AR-1715-0797
Pershing Missile Systems Technician-Warrant Officer Technical Certification
AR-1715-0842
Property Book Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0185
Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0188
Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190
Rotary Wing Technical Inspector
AR-1704-0082
AR-1717-0010
Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification
AR-1402-0131
Special Operations Technician Warrant Officer Technical Certification
AR-1406-0096
Station Technical Controller
AR-1715-0135
Support Supply Technical Warrant Officer Technical Certification
AR-1405-0172
Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification
AR-1402-0130
Tactical Transport Helicopter Technical Inspector
AR-1704-0162
Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)
AR-1715-0841
Target Acquisition Radar Technician Warrant Officer Technical Certification
AR-1715-0840
Technical Control and Analysis Center Operator, AN/TSQ-130 (V)
AR-1402-0089
Technical Data Package Development/Preparation
AR-0326-0034
Technical Escort
AR-0802-0001
Technical Evaluation Program (TEP) Training
AR-1715-0271
Technical Intelligence
AR-1606-0005
Telecommunications Technician Warrant Officer Technical Certification -Reserve Component Phases 2 and 4
AR-1715-0859
Traffic Analysis Technician Warrant Officer Technical/Tactical Certification
AR-1408-0137
Traffic Analysis Technician—Warrant Officer Technical Certification
AR-1408-0137
Voice Intercept Technician Warrant Officer Technical/Tactical Certification
AR-1408-0138
Voice Intercept Technician—Warrant Officer Technical Certification
AR-1408-0138
Warrant Officer Technical Certification
AR-1717-0077
Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician
AR-1606-0201
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician
AR-1606-0199
Warrant Officer Technical/Tactical Certification Phase 2 350B All Source Intelligence Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Telecommunication
Telecommunication Automation Software Technician
AR-1402-0006

Telecommunications
Automatic Data Telecommunications Center Operator
AR-1715-0526
Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0686
Automatic Data Telecommunications Center Operator Primary Technical
AR-1715-0686
Automatic Data Telecommunications Center Operator Transition
AR-1715-0760
Automatic Data Telecommunications Center Operators
AR-1404-0007
Combat Telecommunications Center Operator
AR-1406-0065
Combat Telecommunications Center Operator Primary Technical
AR-1408-0111
Combat Telecommunications Center Supervisor
AR-1715-0553
Fixed Telecommunications Systems Advanced
AR-1404-0019
Tactical Telecommunciations Center Operator Basic Noncommissioned Officer (NCO) Automatic Data Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1715-0881
Tactical Telecommunications Center Operator Automatic Data

Telecommunications Center Operator
AR-1406-0129
Tactical Telecommunications Center Operator Basic Noncommissioned Officer (NCO)
AR-1408-0111
Tactical Telecommunications Center Supervisor
AR-1715-0553
AR-1715-0794
Telecommunications Center Operator
AR-1404-0015
Telecommunications Center Specialist
AR-1404-0015
Telecommunications Technician Warrant Officer Advanced
AR-1715-0704
Telecommunications Technician Warrant Officer Technical Certification - Reserve Component Phases 2 and 4
AR-1715-0859
Telecommunications Terminal Device Repairer Sustainment
AR-1715-0882
WOTCC Telecommunications Technician
AR-1405-0128

Telemetry
Telemetry Collection Operations
AR-2201-0203
Telemetry Identification and Collection
AR-1715-0137
Telemetry Internals Analysis
AR-1715-0731
Telemetry Signal Analysis
AR-1715-0137

Telephone
Automatic Telephone Central AN/TCC-38 Repair
AR-1715-0778
Automatic Telephone Central AN/TCC-38(V) Repair
AR-1715-0778
Central Office Telephone Switchboard Operation
AR-1404-0004
Switchboard SB-3614/TT and Automatic Telephone Central Office AN/TTC-41(V)2 Operator
AR-1715-0025
Tactical Solid State Telephone Equipment Repair
AR-1715-0029
Telephone and Teletypewriter Equipment Repair
AR-1715-0257
Telephone and Teletypewriter Officer
AR-1715-0266
Telephone Central Office Repair
AR-1715-0670
Telephone Central Office Repair Basic Noncommissioned Officer (NCO)
AR-1406-0093
Telephone Central Office Repairer
AR-1715-0670
Telephone Installation and Repair
AR-1715-0332
Telephone Installer and Lineman
AR-1714-0015
Telephone Switchboard Operation
AR-1404-0004
Telephone-Digital Communications Officer
AR-1715-0268

Teleprocessing
Teleprocessing Operations Officer
AR-1404-0030
Teleprocessing Operations Officer Course II
AR-1402-0076

Teletype
Radio Teletype Operation
AR-1404-0009
Radio Teletype Operator
AR-1404-0009
Radio Teletype Operator Noncommissioned Officer (NCO) Basic
AR-1408-0024
Radio Teletype Operator Skill Development Base
AR-1715-0247
Radio Teletypewriter Operator
AR-1404-0009
Teletype Interception
AR-1715-0248
Teletype Operation
AR-1409-0006
Teletypewriter Operation
AR-1409-0006

Teletypewriter
Amplitude Modulated Radio Teletypewriter Equipment Operation
AR-1404-0003
AN/UGC-74 Teletypewriter Direct Support Maintenance
AR-1715-0556
AN/UGC-74 Teletypewriter General Support Maintenance
AR-1715-0555
Radio Teletypewriter Analysis
AR-1606-0016
Radio Teletypewriter Operator
AR-1404-0009
AR-1404-0028
Radio Teletypewriter Operator (Non Morse)
AR-1409-0005
Radio Teletypewriter Team Chief
AR-1404-0028
Specialized Teletypewriter Equipment Repair
AR-1715-0245
Telephone and Teletypewriter Equipment Repair
AR-1715-0257
Telephone and Teletypewriter Officer
AR-1715-0266
Teletypewriter Equipment Maintenance
AR-1715-0260
Teletypewriter Equipment Repair
AR-1715-0260
Teletypewriter Equipment Repairer
AR-1715-0848
Teletypewriter Equipment Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0689
Teletypewriter Operation
AR-1409-0006
Teletypewriter Repairer
AR-1715-0260
Teletypewriter Repairer Primary Technical
AR-1715-0616
Teletypewriter Repairman
AR-1715-0260
Teletypewriter Set AN/FGC-140 Maintenance
AR-1715-0202

Television
Closed Circuit Television
AR-1715-0622
Pictorial Unit Commander and Motion Picture and Television Director
AR-1709-0006
Television Equipment Repair
AR-1715-0278
Television Equipment Repair Transition
AR-1715-0066

Tencap
Collection Management/Tencaps Operations Assignment Specific Module
AR-1408-0176

Terminal
AN/MSQ-18 Battery Terminal Equipment Maintenance
AR-1715-0058
Data Communications Terminal Specialist
AR-1715-0043
Digital Subscriber Terminal Equipment (DSTE) Operator
AR-1715-0043
Fixed Station Terminal Repair
AR-1715-0282
Missile Master Battery Terminal Equipment Maintenance
AR-1715-0087
Missile Monitor Operations Central and Terminal Equipment Repair
AR-1714-0003
Mode V Subscriber Terminal
AR-1715-0705
Navy Broadcast Terminal Operator
AR-1715-0342
Radio Terminal Set AN/TRC-90 (RF Portion)
AR-1715-0072
Radio Terminal Sets AN/TRC-90/129/132 Repair
AR-1715-0072
Radio Terminal/Repeater Set Operations & Maintenance
AR-1715-0762
Radio Terminal/Repeater Set Operator
AR-1715-0775
Satellite Communications (SATCOM) Terminal AN/FSC-78/79 and AN/GSC-39
AR-1715-0702
Satellite Communications (SATCOM) Terminal AN/MSC-46 Repair
AR-1715-0435
Satellite Communications (SATCOM) Terminal AN/TSC-54 Repair
AR-1715-0047
Telecommunications Terminal Device Repairer Sustainment
AR-1715-0882
Terminal Data Link Fire Unit Integration Facilities (FUIF) Repair
AR-1715-0041
Terminal Intercept Equipment Repair
AR-1715-0138
Terminal Operations Coordinator
AR-0419-0001
Terminal Operations Coordinator Noncommissioned Officer (NCO) Advanced
AR-0419-0028
Terminal Operations Specialist
AR-0419-0001

Terminals
Satellite Communications (SATCOM) Terminals AN/FSC-78 and AN/FSC-79 Repair
AR-1715-0345
Satellite Communications (SATCOM) Terminals AN/FSC-78(V) and AN/FSC-79 Operation and Maintenance Training
AR-1715-0345
Terrain
Rough Terrain Container Handler Operator
AR-2101-0002
Terrain Analyst Noncommissioned Officer (NCO) Candidate
AR-1601-0012
Terrain Analyst Skill Development Base
AR-1601-0012
Terrorism
Individual Terrorism Awareness
AR-1513-0009
Intelligence in Combatting Terrorism
AR-1511-0024
Intelligence in Terrorism Counteraction
AR-1511-0024
AR-1606-0152
Test
(Automatic Test Equipment Repairer)
AR-1715-0588
Aircraft Turbine Engine Test Cell Operator
AR-1704-0024
Automatic Test Equipment Operator/Maintainer
AR-1715-0588
AR-1715-0850
Automatic Test Equipment Repairer Primary Technical
AR-1715-0589
AH-1S Maintenance Manager/Test Pilot
AR-1717-0083
AH-64 Maintenance Manager/Test Pilot
AR-1717-0093
Ballistic Missile Test Instrument Repair
AR-1715-0348
Ballistic Missile Test Instrument Repair (Redstone)
AR-1715-0348
Ballistic Missile Test Station Repair (Pershing)
AR-1715-0089
Ballistic Missile Test Station Repair (Sergeant)
AR-1715-0100
CH-47A/B/C Maintenance Manager/Test Pilot
AR-1717-0084
CH-47D Maintenance Manager/Test Pilot
AR-1717-0084
DS/GS Test and Repair Station Maintenance (AH-64)
AR-1715-0878
DS/GS Test and Repair Station Maintenance (AH-64A)
AR-1715-0596
Equipment Operation/Maintenance Test Set Guided Missile Set (TOW Ground)
AR-1715-0565
Equipment Operation/Maintenance Test Set, Guided Missile System (TOW-Ground)
AR-1715-0737
Land Combat Support System Test Specialist
AR-1715-0531
AR-1715-0652
AR-1715-0748
Land Combat Support System Test Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0652
Land Combat Support System Test Specialist/Lance Repair Transition
AR-1402-0058
Land Combat Support System Test Specialist/Lance Repairer
AR-1715-0531
Modular Engine Test Stand (METS) Operator
AR-1704-0024
OH-58A/C Maintenance Manager/Test Pilot
AR-1717-0085
OH-58D Maintenance Manager/Test Pilot
AR-1717-0086
Skill Qualification Test (SQT) Developer's Workshop
AR-1406-0091
Test, Measurement, and Diagnostic Equipment (TMDE) Advanced Noncommissioned Officer (NCO)
AR-1406-0108
TOW Field Test Set Repairer
AR-1715-0565
UH-1 Maintenance Manager/Test Pilot
AR-1717-0082
UH-60 Maintenance Manager/Test Pilot
AR-1717-0087
Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics
AR-1710-0081
Test Equipment
Nike Test Equipment Repair
AR-1715-0239
Sergeant Test Equipment Repair
AR-1715-0128
Sergeant Test Equipment Repairman
AR-1715-0128
Testing
BRH Compliance Testing
AR-0705-0008
Tests
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058
Skill Qualification Tests (SQT)
AR-1406-0053
Textile
Textile Repair
AR-1716-0001
Textile Repair, Skill Development Base
AR-1716-0002
Theater
Theater of Operations Movements Officer
AR-0419-0008
Veterinary Service in Theater of Operations
AR-1729-0028
Theory
Advanced Course in Artificial Intelligence Theory and Expert Systems Building
AR-1402-0097
Advanced Theory and Expert System Building
AR-1402-0097
Therapy
Dental Therapy Assistant
AR-0701-0008
Occupational Therapy Procedures
AR-0704-0002
Occupational Therapy Specialist
AR-0704-0004
Physical Therapy Aide
AR-0704-0001
Physical Therapy Enlisted
AR-0704-0001
Physical Therapy Procedures
AR-0704-0001
Physical Therapy Specialist
AR-0704-0001
Throat
Ear, Nose, and Throat Specialist
AR-0709-0002
Eye, Ear, Nose, and Throat Specialist
AR-0709-0002
Time
Defense Work Measurement Standard Time Data (DWMSTD)
AR-0326-0032
Methods-Time Measurement 1 (MTM1)
AR-1408-0073
Tire
Tire Repair
AR-1703-0003
Toe
Improved Toe Vehicle (ITV) Trainer
AR-2201-0277
Tool
Firearms and Tool Marks Examiner
AR-1728-0015
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES) Tool and Parts Attendant
AR-1405-0210
Topographic
Topographic Computing
AR-1601-0023
Topographic Engineer Officer
AR-1601-0007
Topographic Instrument Repair
AR-1721-0005
Topographic Surveying
AR-1601-0022
Topography
Topography and Printing (TP-CMF) Noncommissioned Officer (NCO) Basic
AR-1601-0021
Topography and Printing (TP-CMP) Noncommissioned Officer (NCO) Advanced
AR-1601-0020
Tow
Tow Trainer
AR-2201-0147
Tow Trainer Special
AR-2201-0147
Towed
Light and Medium Towed Field Artillery Mechanic
AR-2201-0106
Towed Artillery Repairman (USMC)
AR-2201-0309
Tower
Air Traffic Control Tower Operator
AR-1704-0001

Trace
Forensic Chemistry—Trace Evidence AR-1601-0047

Tracechain
AN/TSQ-133 Special Purpose Receiving System (Tracechain) Maintenance AR-1715-0733
Remote Control System Maintenance (Tracechain) AR-1715-0412
Tracechain AN/FSQ-133 Special Purpose Receiving System Maintenance AR-1715-0733

Track
Armor Track Vehicle Mechanic AR-1703-0001
Artillery Track Vehicle Maintenance AR-1703-0002
Nike Track Radar Repair (Hercules Transition) AR-1715-0126
Nike Track Radar Repair (Improved Hercules Transition) AR-1715-0126
Recovery Operations (Track) AR-1710-0139
Recovery Specialist-ASIH8/Track Recovery Operations (M88A1/M578) AR-1710-0139
Refresher Course, Track Vehicle Mechanic-Individual Ready Reserve AR-1710-0126
Track Vehicle Mechanic AR-1703-0001
Track Vehicle Mechanic Initial Entry Training AR-1703-0043
Track Vehicle Recovery Mechanic Recovery Specialist AR-1710-0125
Track Vehicle Recovery Specialist AR-1710-0124
Track Vehicle Repair Basic Technical AR-1710-0096
Track Vehicle Repairer AR-1703-0016
AR-1703-0031
Track Vehicle Repairer Basic Noncommissioned Officer (NCO) AR-1710-0111
Track Vehicle Repairer Individual Ready Reserve (63H30) AR-1703-0038
Track Vehicle Repairer Individual Ready Reserve Refresher AR-1703-0053
AR-1703-0058
Track Vehicle Repairer Noncommissioned Officer (NCO) Advanced AR-1710-0127

Tracker
Airborne Laser Tracker (ALT) Maintenance Repairer AR-1704-0157
Tracker Dog/Handler AR-1728-0022
Visual Tracker Course AR-2201-0028

Tracking
Radar Tracking Station Equipment Repair AR-1715-0173
Radar Tracking Station Repair AR-1715-0173

Traffic
Advanced Traffic Management AR-0419-0035
Air Traffic Control Operator AR-1704-0177
Automatic Digital Message Switching (ADMS) Traffic Service Supervisory AR-1402-0011
AUTODIN Switching Center Traffic Operations AR-1404-0007
Defense Advanced Traffic Management AR-0419-0035
Defense Basic Traffic Management AR-0419-0044
Electronic Warfare (EW) Cryptologic Traffic Analyst Basic Technical AR-1717-0056
Electronic Warfare (EW) Signal Intelligence (SIGINT) Traffic Analyst Basic Technical AR-1717-0056
Installation Traffic Management AR-0419-0036
Radio Traffic Analyst AR-1606-0012
Traffic Accident Investigation AR-1728-0060
AR-1728-0078
Traffic Analysis AR-1606-0012
Traffic Analysis Technician Warrant Officer Technical/Tactical Certification AR-1408-0137
Traffic Analysis Technician—Warrant Officer Technical Certification AR-1408-0137
Traffic Management Coordinator AR-0419-0040
Traffic Management Coordinator Basic Noncommissioned Officer (NCO) Traffic Management Coordinator Basic Technical AR-0419-0041
Traffic Management Coordinator Noncommissioned Officer (NCO) Advanced AR-0419-0017
Traffic Management Coordinator Primary Technical AR-0419-0005

Trailblazer
AN/TSQ-114 Trailblazer Intermediate (DS/GS) Maintenance AR-1715-0545
AN/TSQ-114 Trailblazer Organizational Maintenance AR-1715-0543
Trailblazer Operator Course I AR-1715-0536

Training
A Systems Approach to Training AR-1406-0036
Battalion Training Enlisted AR-1406-0138
Battalion Training Officer AR-1406-0133
Dual Purpose Mission Training AR-1715-0712
Training Management AR-1405-0199

Trainman
Railway Trainman AR-0419-0029
Trainman AR-0419-0029

Transistor
Transistor Equipment Maintenance AR-1715-0551

Transmitter
Fixed Station Radio Transmitter Repair AR-1715-0057
Fixed Station Transmitter Repair AR-1715-0057

Transmitting
Decca Transmitting Equipment Repair AR-1715-0185

Transport
Armor Maintenance and Motor Transport AR-1717-0033
Army (Aviator) Transport Pilot-Phases I, II and III (Rotary Wing) AR-1606-0095
Army Helicopter Transport Tactical AR-1606-0106
Army Helicopter Transport Tactical (H-19) AR-1606-0119
Army Helicopter Transport Tactical (H-21) AR-1606-0119
Army Helicopter Transport Tactical (H-21)(H-34) AR-1606-0119
Army Helicopter Transport Tactical (H-34) AR-1606-0119
Army Transport Helicopter Pilot-Phase III AR-1606-0102
Artillery Motor Transport AR-1703-0020
Highway Transport Operations AR-0419-0006
Highway Transportation Operation and Maintenance AR-0419-0006
Medium Transport Helicopter Repair AR-1704-0035
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Advanced AR-0419-0024
Motor Transport (MT-CMF) Noncommissioned Officer (NCO) Basic AR-0419-0013
Motor Transport Noncommissioned Officer (NCO) Advanced AR-0419-0024
Motor Transport Operation and Maintenance AR-0419-0006
Motor Transport Operator AR-1703-0022
AR-1703-0059
Multi-Engine Medium Transport Airplane Maintenance AR-1704-0074
Multi-Engine Medium Transport Helicopter Maintenance AR-1704-0049
Observation, Utility and Transport Helicopter Repair AR-1704-0040
Single-Engine Light Transport Airplane Maintenance AR-1704-0030
Single-Rotor Light Transport Helicopter

Maintenance
AR-1704-0050
Single-Rotor Utility and Light Transport Helicopter Maintenance
AR-1704-0050
Tactical Transport Helicopter Repairer
AR-1704-0017
Tactical Transport Helicopter Technical Inspector
AR-1704-0124
AR-1704-0162
Tandem-Rotor Light Transport Helicopter Maintenance
AR-1704-0069
Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0137
Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0164
UH-60 Tactical Transport Helicopter Basic Noncommissioned Officer (NCO)
AR-1704-0150
UH-60 Tactical Transport Helicopter Repairer
AR-1704-0017

Transportability
Air Transportability
AR-0419-0021
Air Transportability Planning
AR-0419-0031

Transportable
Transportable Automatic Switching Systems Operator/Maintainer
AR-1715-0668
Transportable Automatic Switching Systems Operator/Maintainer Basic Noncommissioned Officer (NCO)
AR-1715-0855
Transportable Electronic Switching System Repairer
AR-1715-0668
Transportable Electronic Switching Systems AN/TTC-39() and AN/TYC-39() Repairer (Tri-Tac Transition Training)
AR-1715-0703
Transportable Electronics Switching Systems Repairer
AR-1715-0703

Transportation
Associate Transportation Officer Advanced
AR-0419-0022
Associate Transportation Officer Career
AR-0419-0018
Highway Transportation Operation and Maintenance
AR-0419-0006
Infantry Motor Transportation
AR-1703-0015
Installation Transportation
AR-0419-0036
Transportation Company Officer
AR-0419-0038
Transportation Field Grade Officer Refresher
AR-0419-0043
Transportation Movements Control Supervision
AR-0419-0002
Transportation Officer Advanced
AR-0419-0019
Transportation Officer Advanced - Reserve Phases II and IV
AR-0419-0047
Transportation Officer Basic
AR-0419-0033
Transportation Officer Candidate
AR-0419-0025
Transportation Officer Career
AR-0419-0019
Transportation Officer Familiarization
AR-0419-0020
Transportation Officer Orientation
AR-0419-0023
AR-0419-0033
Transportation Parts Specialist
AR-1405-0043
Transportation Parts Supply
AR-1405-0043
Transportation Supply
AR-1405-0033
Transportation Supply and Parts Specialist
AR-1405-0033
Transportation Supply Officer
AR-1405-0045
Transportation Supply Specialist
AR-1405-0033

Travel
Passenger Travel Specialist
AR-0418-0004
Travel Clerk
AR-0418-0001
Travel Supervisor
AR-0418-0002
AR-0418-0005

Troop
Troop Subsistence Activity Management
AR-1405-0180

Tropospheric
Tropospheric Scatter Communication Equipment Repair
AR-1715-0028
Tropospheric Scatter Terminal REL-2600 Repair
AR-1715-0030

Truck
Heavy Expanded Mobility Tactical Truck (HEMTT) Operator Additional Skill Identifier (ASI)
AR-2101-0001

Truckmaster
Amphibious Truckmaster
AR-1710-0011
Truckmaster
AR-0419-0015

Tunnel
Mine and Tunnel Detection Dog Handler
AR-1728-0019

Turbine
Aircraft Turbine Engine Repair
AR-1704-0068
Aircraft Turbine Engine Repair Specialist Candidate
AR-1704-0072
Aircraft Turbine Engine Repair, Skill Development Base
AR-1704-0072
Aircraft Turbine Engine Test Cell Operator
AR-1704-0024
Aircraft Turbine Multi-Engine Repair
AR-1704-0090
Gas Turbine Generator Repair
AR-1712-0013
Single-Rotor Turbine Utility Helicopter Maintenance
AR-1704-0048
Single-Rotor Turbine Utility Helicopter Repair
AR-1704-0033

Turret
Armor Turret Maintenance
AR-1710-0003
Bradley Fighting Vehicle System Turret Mechanic
AR-1703-0045
ITV/IFV/CFV Turret Mechanic Primary Technical
AR-1710-0102
Missile Tank Turret Mechanic
AR-1710-0038
M1 Abrams Tank Turret Mechanic
AR-1703-0050
M1 Abrams Tank Turret Mechanic Primary Technical
AR-1710-0103
M1 Abrams Tank Turret Repair
AR-1710-0104
M1 Unit Turret Mechanic
AR-1710-0144
M2/M3 Bradley Fighting Vehicle Turret Repair
AR-1710-0105
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143
M60A1 Series Organizational Turret Maintenance
AR-1710-0072
M60A3 Series Organizational Turret Maintenance Course
AR-1710-0071
M60A3 Unit Turret Maintenance
AR-1710-0145
M90A1 (ITV) Missile Tank Turret/Tank Turret Mechanic
AR-1710-0059
Self-Propelled Field Artillery Turret Mechanic
AR-1710-0107
AR-1710-0157
Sheridan Turret Mechanic
AR-1710-0032
Tank Turret Mechanic
AR-1710-0020
AR-1710-0134
Tank Turret Repair
AR-1710-0018
AR-1710-0052
Tank Turret Repairer (USA/USA-ST)
AR-1710-0114
Tank Turret Repairer Basic Noncommissioned Officer (NCO)
AR-1710-0109
Tank Turret Repairer Basic Technical
AR-1710-0106
Tank Turret Repairman (USMC)
AR-1710-0114
Turret Artillery Repair
AR-1710-0018
Turret Maintenance
AR-1710-0003

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Twin-Engine Helicopter Repair
AR-1704-0057

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Clerical Procedures and Typing—WAC
AR-1409-0001

Typing and Clerical Procedures—WAC AR-1409-0001

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SIDPERS Tactical Army Combat Services Support Computer System (TACCS) Operator AR-1402-0110
Tactical Army Combat Computer System (TACCS) and Tactical Computer Terminal (TCT) Computer Systems Repair AR-1715-0861
Tactical Army Combat Computer System (TACCS) Software AR-1402-0118
Tactical Army Combat Service Support Computer System (TACCS) Programming AR-1402-0109
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Tactical Fire (TACFIRE) Direction System Fire Support AR-1402-0074
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Tactical Fire (TACFIRE) Operation Specialist Advanced Noncommissioned Officer (NCO) Advanced AR-2201-0369
Tactical Fire (TACFIRE) Operations Specialist AR-1402-0082, AR-1402-0125, AR-1715-0832
Tactical Fire (TACFIRE) Operations Specialist Basic Technical AR-1715-0638
Tactical Fire (TACFIRE) Support Element Liaison Officer AR-1402-0071
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TH-55
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Multichannel Ciphony System TSEC/CY-104 Repair AR-1715-0388

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COMSEC Equipment TSEC/KG-45 Full Maintenance AR-1715-0593

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T38
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U-1A
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Card Processors U-1005 and U-1004/DLT-6 Repair AR-1715-0044

U-21
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U-21 Instructor Pilot AR-1406-0116, AR-1606-0061
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U-8/U-21 Airplane Repair, Skill Development Base AR-1704-0022

U-6
O-1/U-6 Airplane Repair, Skill Development Base AR-1704-0011

U-8
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U-8 Instructor Pilot Qualification AR-1606-0089
U-8/U-21 Airplane Repair AR-1704-0067
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U-8D
U-8D (Seminole) Aviator Qualification AR-1606-0104
U-8D Aviator Qualification AR-1606-0104

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Maintenance
AR-1715-0838
Management Practices in TOE/TDA Unit Instructor Training
AR-1408-0069
Medical Equipment Repairer (Unit Level)
AR-1715-0759
Military Personnel Officer/Unit Personnel Technician
AR-1406-0007
M1 Unit Automotive Maintenance
AR-1710-0148
M1 Unit Turret Mechanic
AR-1710-0144
M109/M110, M548 Unit Maintenance Training
AR-1710-0149
M109A1/M548 Troubleshooting for Unit Mechanics
AR-1710-0078
M110/M548 Troubleshooting for Unit Mechanics
AR-1710-0077
M113 Series Troubleshooting for Unit Mechanics
AR-1710-0075
AR-1710-0076
M113 Series Unit Maintenance Training
AR-1710-0146
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AR-1710-0147
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143
M60/M113A1 Series Unit Maintenance Training
AR-1704-0170
M60A1-M113A1 Troubleshooting for Unit Mechanics
AR-1710-0074
M60A3 Unit Turret Maintenance
AR-1710-0145
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES)
AR-1405-0209
Organizational Maintenance Shop (OMS)/Unit Training Equipment Site (UTES) Tool and Parts Attendant
AR-1405-0210
Part-Time Unit Discussion Leader
AR-0505-0001
Psychological Operations Unit Officer
AR-1512-0001
Psychological Operations Unit Officer (Modified)
AR-1512-0001
Small Arms Maintenance for Unit Armorers
AR-2201-0341
Unit and Organization Supply Specialist and Armorer
AR-1405-0137
Unit and Organization Supplyman Noncommissioned Officer (NCO) Advanced
AR-1405-0106
Unit and Organization Supplyman Primary Technical
AR-1405-0104
Unit Administration
AR-1408-0171
Unit Clerk
AR-1403-0004
AR-1403-0016
Unit Level Communications Maintainer
AR-1715-0091
Unit Manager
AR-1408-0172
Unit Mess Officer
AR-1729-0013
Unit Mobilization Planners
AR-1405-0198
Unit Records Administration
AR-1408-0173
Unit Supply
AR-1405-0047
Unit Supply Specialist
AR-1405-0061
Unit Supply Specialist Advanced Individual Training
AR-1405-0061
Unit Supply Specialist Advanced Noncommissioned Officer (NCO)
AR-1405-0106
AR-1405-0162
Unit Supply Specialist Basic Technical
AR-1405-0137
Unit Supply Specialist Noncommissioned Officer (NCO) Advanced
AR-1405-0106
Unit Supply Specialist Primary Technical
AR-1405-0104
Unit/Organization Supply Procedures
AR-1403-0011
Utility Element Maintenance—Medical Unit Self-Contained Transportable (MUST)
AR-1730-0003
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AR-1704-0171
Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics
AR-1710-0081
WAC Unit Commander
AR-2201-0079

Universal
Nike Universal Electronic Maintenance
AR-1715-0084
Nike Universal Electronic Materiel Maintenance
AR-1715-0084
Nike Universal Fire Control System Maintenance
AR-1715-0361
Nike Universal Officer
AR-1715-0308
Nike Universal Officer Qualification
AR-1715-0308

Urology
Urology Procedures
AR-0702-0006

Utilities
Construction and Utilities (CU-CMF) Noncommissioned Officer (NCO) Basic
AR-1710-0024
Construction and Utilities (CU-CMF) NCO Advanced
AR-1710-0026
Utilities Equipment Repairer
AR-1701-0002
AR-1702-0003
Utilities Foreman
AR-1710-0004

Utility
Multi-Engine Utility Airplane Repair
AR-1704-0027
Observation, Utility and Transport Helicopter Repair
AR-1704-0040
Single-Engine Observation and Utility Airplane Maintenance
AR-1704-0029
Single-Rotor Turbine Utility Helicopter Maintenance
AR-1704-0048
Single-Rotor Turbine Utility Helicopter Repair
AR-1704-0033
Utility and Cargo Single-Rotor Helicopter Repair
AR-1704-0053
Utility and Cargo, Single Rotor Helicopter Maintenance
AR-1704-0079
Utility and Cargo, Tandem-Rotor Helicopter Maintenance
AR-1704-0052
Utility Element Maintenance—Medical Unit Self-Contained Transportable (MUST)
AR-1730-0003
Utility Helicopter Maintenance Supervisor/Technical Inspector Basic Technical
AR-1717-0066
Utility Helicopter Repairer (UH-1)
AR-1704-0033
Utility Helicopter Repairer Basic Technical
AR-1704-0117
Utility Helicopter Technical Inspector
AR-1704-0123
Utility/Cargo and Observation Airplane Advanced Noncommissioned Officer (NCO)
AR-1704-0138
Utility/Cargo and Observation Airplane Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0160
Utility/Cargo Airplane
AR-1704-0073
Utility/Cargo Airplane Repairer Basic Technical
AR-1704-0115
Utility/Cargo Airplane Technical Inspector
AR-1704-0128
Utility/Tactical Transport Helicopter Advanced Noncommissioned Officer (NCO)
AR-1704-0137
Utility/Tactical Transport Helicopter Repairer Supervisor Advanced Noncommissioned Officer (NCO)
AR-1704-0164
UH-1 Utility Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1717-0089
UH-1 Utility Helicopter Technical Inspector
AR-1704-0123

UAS-4
Airborne Infrared Repair (UAS-4)
AR-1715-0227

UH-1
Initial Entry Rotary-Wing Aviator (UH-

1)
AR-1606-0183
Utility Helicopter Repairer (UH-1)
AR-1704-0033
UH-1 (Iroquois)Instructor Pilot (Transition/Gunnery) Qualification
AR-1606-0053
UH-1 Aviator Qualification
AR-1606-0049
UH-1 Aviator Qualification (Navy)
AR-1606-0060
UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction
AR-1406-0080
UH-1 Combat Skills Methods of Instruction
AR-1406-0073
UH-1 Contact Instructor Pilot
AR-1606-0053
UH-1 Contact Instructor Pilot (Interim)
AR-1406-0076
UH-1 Contact Instructor Pilot Methods of Instruction
AR-1406-0077
UH-1 Contact, Tactics, Night/Night Vision Goggle (N/NVG) Instructor Pilot Methods of Instruction
AR-1406-0113
UH-1 Helicopter Repair
AR-1704-0033
UH-1 Helicopter Repair Skill Development Base
AR-1704-0064
UH-1 Helicopter Repair Specialist Candidate
AR-1704-0064
UH-1 Helicopter Repairer
AR-1704-0033
UH-1 Instructor Pilot
AR-1606-0053
UH-1 Maintenance Manager/Test Pilot
AR-1717-0082
UH-1 Pilot Transition
AR-1606-0049
UH-1 Pilot Transition (Navy)
AR-1606-0060
UH-1 Utility Helicopter Repairer Basic Noncommissioned Officer (NCO)
AR-1717-0089
UH-1 Utility Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1717-0089

UH-60
Aviation Maintenance Officer and Repair Technician (AMOC), Phase II - UH-60
AR-1717-0069
Initial Entry Rotary-Wing Aviator (UH-60)
AR-1606-0182
UH-60 (Blackhawk) Aviator Qualification
AR-1606-0133
UH-60 Aviator Qualification
AR-1606-0133
AR-1606-0162
UH-60 Helicopter Repairer Supervisor Basic Noncommissioned Officer (NCO)
AR-1704-0150
UH-60 Helicopter Repairer Transition
AR-1704-0018
UH-60 Instructor Pilot
AR-1406-0079
UH-60 Maintenance Manager/Test Pilot
AR-1717-0087
UH-60 Method of Instruction
AR-1406-0115
UH-60 Tactical Transport Helicopter Basic Noncommissioned Officer (NCO)
AR-1704-0150

UH-60A
UH-60A Blackhawk Avionic Mechanic
AR-1704-0131
UH-60A Helicopter Repairer Transition
AR-1704-0105

UHF
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018
UHF/VHF Intercept Operations
AR-1404-0018
VHF/UHF Multichannel Intercept
AR-1404-0018

UH1FS
Flight Simulator (UH1FS) Specialist
AR-1606-0006

UPS
Overseas Automatic Switching Center (ASC) Uninterrupted Power System (UPS) Bypass Repair
AR-1715-0343

USARADCOM
USARADCOM Chemical, Biological, and Radiological (CBR) Noncommissioned Officer (NCO)
AR-2201-0067
USARADCOM CBR NCO
AR-2201-0067
USARADCOM CBR Officer Course
AR-2201-0051

USMC
Special Career Level Artillery Advanced Gunnery (USMC)
AR-2201-0218
AR-2201-0378
USMC Missile Systems Maintenance Fundamentals
AR-1715-0398

U1-A
U1-A Transition Flight Training
AR-1606-0109

Validation
Design (ISD Phase II); Develop (ISD Phase III); Control/Evaluation (ISD Phase V); Validation Procedures for Course Materials and Tests
AR-1406-0058

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Principles and Applications of Value Engineering
AR-0326-0031

Vehicle
(Light Wheel Vehicle/Power Generation Mechanic)
AR-1703-0021
Armor Track Vehicle Mechanic
AR-1703-0001
Armor Vehicle Maintenance Supervision
AR-1703-0017
Artillery Track Vehicle Maintenance
AR-1703-0002
Artillery Vehicle Maintenance Supervision
AR-1717-0038
Artillery Vehicle Maintenance Supervisor
AR-1717-0038
Bradley Fighting Vehicle Fighting Vehicle Infantryman
AR-2201-0276
Bradley Fighting Vehicle System
AR-1710-0099
Bradley Fighting Vehicle System Mechanic Basic Noncommissioned Officer (NCO)
AR-1710-0110
Bradley Fighting Vehicle System Mechanic Noncommissioned Officer (NCO)
AR-1710-0129
Bradley Fighting Vehicle System Mechanic Primary Technical
AR-1710-0120
Bradley Fighting Vehicle System Organizational Maintenance
AR-2201-0326
Bradley Fighting Vehicle System Turret Mechanic
AR-1703-0045
Bradley Fighting Vehicle Systems TOW/ Dragon Repairer
AR-1710-0108
Bradley Infantry Fighting Vehicle Commander
AR-1710-0062
Bradley Infantry Fighting Vehicle Gunner
AR-1710-0063
Bradley Infantry Fighting Vehicle Master Gunner
AR-1710-0061
Combat Engineer Tracked Vehicle Crewman
AR-1710-0085
Engineer Tracked Vehicle Crewman
AR-1710-0085
Field Artillery Vehicle Maintenance Technician Warrant Officer Advanced
AR-1703-0032
Heavy Wheel Vehicle Mechanic
AR-1703-0037
Heavy Wheel Vehicle Recovery Specialist
AR-1710-0117
Improved Toe Vehicle (ITV) Trainer
AR-2201-0277
Light Wheel Vehicle Mechanic
AR-1703-0021
AR-1703-0028
Light Wheel Vehicle Mechanic (Recovery Specialist)
AR-1703-0052
Light Wheel Vehicle Mechanic Basic Technical
AR-1703-0029
Light Wheel Vehicle Mechanic Individual Ready Reserve Refresher
AR-1710-0122
Light Wheel Vehicle Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0132
Light Wheel Vehicle Mechanic Primary Technical
AR-1703-0025
Light Wheel Vehicle Mechanic-Individual Ready Reserve Refresher
AR-1710-0121
Lighter Air-Cushion Vehicle Maintenance Technician
AR-1704-0144
Lighter Air-Cushion Vehicle Navigator
AR-2205-0002
Lighter Air-Cushion Vehicle Operator
AR-1704-0133

M1 Abrams Tank Vehicle Repairer
AR-1710-0097
AR-1710-0113
M2/M3 Bradley Fighting Vehicle Repairer
AR-1712-0016
M2/M3 Bradley Fighting Vehicle Turret Repair
AR-1710-0105
M2/3 Bradley Fighting Vehicle (BFV) Unit Maintenance Training
AR-1710-0147
M2/3 Bradley Fighting Vehicle (BFV) Unit Turret Maintenance
AR-1710-0143
Petroleum Vehicle Operator
AR-2101-0003
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
Refresher Course, Track Vehicle Mechanic-Individual Ready Reserve
AR-1710-0126
System Mechanic M113 Series Vehicle
AR-1710-0070
System Mechanic M60 Series Vehicle
AR-1710-0065
AR-1710-0068
AR-1710-0073
Track Vehicle Mechanic
AR-1703-0001
Track Vehicle Mechanic Initial Entry Training
AR-1703-0043
Track Vehicle Recovery Mechanic Recovery Specialist
AR-1710-0125
Track Vehicle Recovery Specialist
AR-1710-0124
Track Vehicle Repair Basic Technical
AR-1710-0096
Track Vehicle Repairer
AR-1703-0016
AR-1703-0031
Track Vehicle Repairer Basic Noncommissioned Officer (NCO)
AR-1710-0111
Track Vehicle Repairer Individual Ready Reserve (63H30)
AR-1703-0038
Track Vehicle Repairer Individual Ready Reserve Refresher
AR-1703-0053
AR-1703-0058
Track Vehicle Repairer Noncommissioned Officer (NCO) Advanced
AR-1710-0127
Vehicle Body Mechanic
AR-1703-0012
AR-1703-0030
Vehicle Body Repairman
AR-1703-0012
AR-1703-0030
Wheel Vehicle Maintenance Technician
AR-1710-0116
Wheel Vehicle Organizational Maintenance
AR-1710-0081
Wheel Vehicle Recovery Specialist
AR-1710-0118
Wheel Vehicle Repairer
AR-1703-0024
AR-1703-0027
Wheel Vehicle Repairer - Individual Ready Reserve Refresher
AR-1710-0119
Wheel Vehicle Repairer Individual Ready Reserve (IRR) Refresher (63W20)
AR-1703-0055
Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics
AR-1710-0081
Wheeled Vehicle Mechanic
AR-1703-0021

Vehicles
System Mechanic for M113 Series Vehicles
AR-1710-0069
System Mechanic Self-Propelled (SP) Artillery M109/M110 Series Vehicles
AR-1710-0066
AR-1710-0067

Ventilating
Heating and Ventilating
AR-1701-0001

Veterinary
Installation Veterinary Activities
AR-0102-0003
Installation Veterinary Services
AR-0102-0003
Veterinary Corps Plans and Operations
AR-1408-0102
Veterinary Food Inspection Specialist
AR-0104-0002
Veterinary Food Inspection Specialist (Basic) (Reserve Component) Phase II
AR-0104-0011
Veterinary Food Inspection Specialist Advanced
AR-0104-0001
Veterinary Officer Statistics and Epidemiology
AR-0102-0004
Veterinary Preventive Medicine and Food Inspection
AR-0104-0005
Veterinary Service in Theater of Operations
AR-1729-0015
AR-1729-0028
Veterinary Services Technician (Basic)
AR-0104-0010
Veterinary Specialist
AR-0102-0002
AR-0104-0001
Veterinary Specialist Basic
AR-0104-0002

Vietnam
Civil Affairs Advisor, Vietnam
AR-1513-0004
District and Civil Affairs Advisor (Vietnam)
AR-1513-0004
Field Artillery Officer Vietnam Orientation
AR-2201-0159

Virtual
Multiple Virtual Storage (MVS) 3 Advanced Concepts
AR-1402-0105
Multiple Virtual Storage (MVS) 5 Concepts and Operations
AR-1402-0103

Virus
Human Immunodeficiency Virus (HIV)/Sexually Transmitted Diseases (STD) Intervention
AR-0707-0015

Vision
Night Hawk (Unaided)/Night Vision Goggle (NVG) Methods of Instruction
AR-1606-0138
Night Vision Goggle (NVG) AN/PVS5 Methods of Instruction
AR-1606-0139
Night/Night Vision Goggle Instructor Pilot
AR-1606-0172
UH-1 Combat Skills Day/Night/Night Vision Goggles Methods of Instruction
AR-1406-0080

Visual
Visual Information Advanced Noncommissioned Officer (NCO)
AR-1719-0005
Visual Information/Audio Documentation Systems Specialist Basic Noncommissioned Officer (NCO)
AR-1719-0004
Visual Tracker Course
AR-2201-0028

Voice
Army Unique Voice Interceptor Training (Russian)
AR-2201-0207
Army-Unique Voice Interceptor (Latin American Spanish)
AR-1606-0148
Army-Unique Voice Interceptor Training (Chinese—Mandarin)
AR-1606-0149
Army-Unique Voice Interceptor Training (Czech)
AR-1606-0146
Army-Unique Voice Interceptor Training (German)
AR-1606-0150
Army-Unique Voice Interceptor Training (Korean)
AR-1606-0147
Electronic Warfare (EW) Cryptologic Interceptor—Voice Basic Technical
AR-1717-0055
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Czech
AR-1606-0146
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - German
AR-1606-0150
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Korean
AR-1606-0147
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian
AR-2201-0207
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Russian BTC
AR-1717-0055
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor - Spanish
AR-1606-0148
Electronic Warfare (EW) Signal Intelligence (SIGINT) Voice Interceptor Chinese—Mandarin
AR-1606-0149
Electronic Warfare (EW) Signals

Intelligence (SIGINT) Voice Interceptor Basic Noncommissioned Officer (NCO)
AR-1715-0728
Electronic Warfare (EW)/Signal Intelligence (SIGINT) Voice Interceptor Basic Technical
AR-1715-0727
Secure Voice Access Console Repair
AR-1715-0195
Secure Voice Access System Repair
AR-1715-0195
Voice Intercept Position Maintenance
AR-1715-0414
Voice Intercept Technician Warrant Officer Technical/Tactical Certification
AR-1408-0138
Voice Intercept Technician—Warrant Officer Technical Certification
AR-1408-0138
Voice Operator Mission Training (German)
AR-2201-0198
Voice Operator Mission Training Number 1 (Russian)
AR-2201-0207
Voice Radio Operator
AR-1404-0017

Vulcan
Chaparral/Vulcan Officer and Noncommissioned Officer (NCO) Qualification
AR-2201-0063
Chaparral/Vulcan Officer Qualification
AR-2201-0063
Chaparral/Vulcan System Technician
AR-1715-0081
Chaparrel/Vulcan Noncommissioned Officer (NCO) Qualification
AR-2201-0063
Vulcan Crew Member
AR-1715-0819
Vulcan Mechanic
AR-1715-0162
Vulcan Repairer
AR-1715-0532
AR-1715-0758
Vulcan Repairer Basic Noncommissioned Officer (NCO)
AR-1715-0756
Vulcan Repairer Transition
AR-1715-0757
Vulcan System Mechanic
AR-1715-0573
AR-1715-0816
Vulcan System Mechanic Basic Noncommissioned Officer (NCO)
AR-1715-0810
Vulcan/Forward Area Alerting Radar (FAAR) Mechanic
AR-1715-0495
Warrant Officer Technical Certification (WOTC) Chaparral/Vulcan Systems Technician
AR-1715-0656

VHF
Electronic Warfare (EW) Signal Intelligence (SIGINT) Interceptor Very High Frequency (VHF)/Ultra High Frequency (UHF) Operations
AR-1404-0018
UHF/VHF Intercept Operations
AR-1404-0018
VHF/UHF Multichannel Intercept
AR-1404-0018

War
Army War College
AR-1511-0021
Army War College Corresponding (by Correspondence)
AR-1511-0022
Army War College Nonresident Program
AR-1511-0004
Civil Affairs in the Cold War
AR-1511-0008
Prisoner of War Interrogation Officer
AR-1728-0036
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AR-1511-0005

Ward
Ward Administration and Supervision
AR-1408-0013

Warehousing
General Warehousing
AR-1405-0025

Warfare
Counterinsurgency and Special Warfare Staff Officer
AR-1511-0009
Nuclear Weapons Employment and Radiological Warfare
AR-0802-0004

Warhead
Nuclear Warhead Detachment
AR-2201-0284
AR-2201-0381

Warning
Aerial Electronic Warning/Defense Equipment Repairer
AR-1715-0500
AR-1715-0503
Aircraft Warning/Defense Equipment Repair
AR-1715-0561

Warrant
Administrative Senior Warrant Officer Advanced
AR-1408-0167
Administrative Warrant Officer Advanced
AR-1408-0110
AR-1408-0167
Air Defense Artillery (ADA) Command and Control Systems Technician Warrant Officer Technical Certification
AR-1715-0807
Air Defense Artillery (ADA) Warrant Officer Advanced
AR-1715-0105
Air Defense Artillery Senior Warrant Officer
AR-1715-0105
Airdrop Equipment Technician Warrant Officer Entry
AR-1733-0003
Airdrop Systems Technician - Senior Warrant Officer Training (Technical/Tactical Certification)
AR-1408-0156
Airdrop Systems Technician - Warrant Officer Technical/Tactical Certification
AR-1733-0010
Ammunition Technician Warrant Officer Advanced
AR-0802-0022
Armament Repair Technician Warrant Officer Advanced
AR-1710-0123
Armor/Cavalry Maintenance Technician Warrant Officer Advanced
AR-1703-0033
Aviation Senior Warrant Officer Training
AR-1408-0063
Aviation Warrant Officer Advanced
AR-1408-0063
AR-1606-0121
Aviation Warrant Officer Intermediate
AR-1606-0121
Bandmaster/Warrant Officer Technical and Tactical Certification
AR-1205-0002
Calibration and Repair Technician Warrant Officer Advanced
AR-1715-0707
Communications Security (COMSEC) Technician Warrant Officer Technical and Tactical Certification
AR-1402-0132
Communications-Electronics Maintenance Warrant Officer Intermediate
AR-1715-0059
Communications-Electronics Repair Technician Senior Warrant Officer
AR-1715-0860
Communications-Electronics Technician Warrant Officer Technical Certification-Reserve Component Phases 2 and 4
AR-1715-0858
Communications-Electronics Warrant Officer Advanced
AR-1715-0395
Communications-Electronics Warrant Officer Entry
AR-1408-0109
Data Processing Systems Repair Technician Warrant Officer Advanced
AR-1402-0100
Electronic Warfare (EW)/Intercept Equipment Repair Technician-Warrant Officer Technical Certification
AR-1408-0132
Emanations Analysis Technician Warrant Officer Texhnical/Tactical Certification
AR-1408-0136
Emanations Analysis Technician—Warrant Officer Technical Certification
AR-1408-0136
Emitter Location/Identification Technician—Warrant Officer Technical Certification
AR-1408-0135
Engineer Graphics Warrant Officer Intermediate
AR-1601-0011
Field Artillery Vehicle Maintenance Technician Warrant Officer Advanced
AR-1703-0032
Food Service Technician Entry Warrant Officer
AR-1729-0026
Food Service Technician Senior Warrant Officer
AR-1729-0036
Food Service Technician Warrant Officer Technical/Tactical Certification
AR-1729-0034
Food Service Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1729-0037
General Supply Technician Warrant Officer Entry
AR-1405-0135
General Supply Technician Warrant

Officer Technical Certification
AR-1405-0135
AR-1405-0170

Lance Missile System Technician-Warrant Officer Technical Certification
AR-1715-0626

Lance Missile Sytem Technician-Warrant Officer Technical Certification
AR-1715-0843

Land Combat Missile Systems Repair Technician Warrant Officer Technical Certifcation
AR-1715-0130

Light Systems Maintenance Technician Warrant Officer Advanced
AR-1405-0153

Marine Deck Officer Warrant Officer Technical Certification
AR-1722-0006

Marine Deck Officer Warrant Officer Advanced
AR-1722-0005

Marine Engineering Officer-Warrant Officer Advanced
AR-1712-0021

Marine Engineering Officer-Warrant Officer Technical Certification
AR-1712-0020

Marine Warrant Officer Advanced
AR-0419-0039

Marine Warrant Officer Preappointment
AR-2205-0001

Master Warrant Officer
AR-1408-0072

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (252A)
AR-1717-0057

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (421A)
AR-1717-0062

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (631A)
AR-1717-0061

Mechanical Maintenance (MM-CMF) Warrant Officer Advanced (632A)
AR-1717-0060

Mechanical Maintenance Warrant Officer Intermediate (421A)
AR-1710-0012

Mechanical Maintenance Warrant Officer Intermediate (441A)
AR-1710-0013

Mechanical Maintenance Warrant Officer Intermediate (621A)
AR-1710-0044

Mechanical Maintenance Warrant Officer Intermediate (631A)
AR-1710-0014

Mechanical Maintenance Warrant Officer Intermediate (632A)
AR-1710-0045

Meteorological Technician—Warrant Officer Technical Certification
AR-1715-0629

Military Intelligence Senior Warrant Officer
AR-1606-0202

Military Intelligence Warrant Officer Advanced
AR-1606-0136

Military Intelligence Warrant Officer Entry (Phase I)
AR-1606-0154

Military Intelligence Warrant Officer-Reserve Component
AR-1606-0195

Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0133

Non-Morse Intercept Technician—Warrant Officer Technical Certification
AR-1408-0134

Nuclear Weapons Maintenance Warrant Officer Advanced
AR-1717-0003

Officer/Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
AR-1606-0066

Officer/Warrant Officer Fixed Wing Aviator—Instruments Phase
AR-1606-0067

Officer/Warrant Officer Fixed Wing Aviator—Primary Phase
AR-1606-0065

Officer/Warrant Officer Rotary Wing Aviator
AR-1606-0074

Officer/Warrant Officer Rotary Wing Qualification
AR-1606-0070

Officer/Warrant Officer Rotary Wing Qualification (Active Army)
AR-1606-0127

Officer/Warrant Officer Rotary Wing Qualification (Reserve Component/Allied)
AR-1606-0070

Patriot Missile System Technician Warrant Officer Technical Certification (WOTC) Phases I and II
AR-1715-0797

Patriot Missile System Technician—Warrant Officer Technical Certification (WOTC)
AR-1715-0653

Pershing Missile System Technician Warrant Warrant Officer Candidate
AR-1715-0628

Pershing Missile Systems Technician-Warrant Officer Technical Certification
AR-1715-0842

Property Book Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0185

Property Book Technician Senior Warrant Officer Training
AR-1405-0187

Property Book Technician Senior Warrant Officer Training - Reserve Component
AR-1405-0184

Property Book Technician Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0186

Quartermaster Senior Warrant Officer
AR-1408-0157

Quartermaster Warrant Officer Advanced
AR-1408-0113

Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification
AR-1405-0188

Repair Parts Technician Quartermaster Warrant Officer Technical/Tactical Certification - Reserve Component
AR-1405-0190

Repair Parts Technician Senior Warrant Officer
AR-1408-0158

Repair Parts Technician Senior Warrant Officer - Reserve Components
AR-1405-0181

Repair Shop Technician Warrant Officer Advanced
AR-1405-0152

Repair Shop Technician—Warrant Officer Technical Certification
AR-1710-0115

Signal Systems Maintenance Technician Warrant Officer Technical and Tactical Certification
AR-1402-0131

Special Ammunition Maintenance/Nuclear Weapons Electronic Technician Warrant Officer Intermediate
AR-2201-0008

Special Operations Technician Senior Warrant Officer
AR-1408-0162

Special Operations Technician Warrant Officer Technical Certification
AR-1406-0096

Support Supply Technical Warrant Officer Technical Certification
AR-1405-0172

Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Advanced
AR-1715-0290

Surface-to-Air Missile (SAM) System Maintenance (Hawk) Warrant Officer Intermediate
AR-1715-0099

Surface-to-Air Missile (SAM) System Maintenance (Nike) Warrant Officer Advanced
AR-1717-0032

Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Advanced
AR-1715-0105

Surface-to-Air Missile (SAM) Systems Maintenance Warrant Officer Intermediate (221B, 222B, 223C)
AR-1715-0105

Surface-to-Surface Missile (SSM) System Maintenance (Pershing) Warrant Officer Advanced
AR-2201-0126

Surface-to-Surface Missile (SSM) System Maintenance (Sergeant) Warrant Officer Advanced
AR-1717-0034

Tactical Automated Network Technician Warrant Officer Technical and Tactical Certification
AR-1402-0130

Target Acquisition Radar Technician - Warrant Officer Technical Certification (Reserve Component)
AR-1715-0841

Target Acquisition Radar Technician Warrant Officer Technical Certification
AR-1715-0840

Target Acquisition Radar Technician-Warrant Officer Advanced
AR-1402-0111

Telecommunications Technician Warrant Officer Advanced
AR-1715-0704

Telecommunications Technician Warrant Officer Technical Certification -Reserve Component Phases 2 and 4
AR-1715-0859

Traffic Analysis Technician Warrant

Officer Technical/Tactical Certification
AR-1408-0137
Traffic Analysis Technician—Warrant Officer Technical Certification
AR-1408-0137
Voice Intercept Technician Warrant Officer Technical/Tactical Certification
AR-1408-0138
Voice Intercept Technician—Warrant Officer Technical Certification
AR-1408-0138
Warrant Officer Advanced (USAMMCS)
AR-2201-0108
Warrant Officer Bandmaster
AR-1205-0002
Warrant Officer Candidate Military Development
AR-2201-0212
Warrant Officer Candidate Rotary Wing Aviator
AR-1606-0074
AR-1606-0075
Warrant Officer Entry
AR-1408-0106
AR-1715-0130
AR-2201-0285
Warrant Officer Fixed Wing Aviator—Advanced Contact and Tactics Phase
AR-1606-0066
Warrant Officer Fixed Wing Aviator—Instruments Phase
AR-1606-0067
Warrant Officer Fixed Wing Aviator—Primary Phase
AR-1606-0065
Warrant Officer Food Inspection Technician Basic
AR-0104-0009
Warrant Officer Orientation
AR-2201-0064
AR-2201-0302
Warrant Officer Professional Development
AR-1406-0112
Warrant Officer Senior
AR-1408-0072
Warrant Officer Technical Certification
AR-1710-0116
AR-1717-0077
Warrant Officer Technical Certification (WOTC) Chaparral/Vulcan Systems Technician
AR-1715-0656
Warrant Officer Technical Certification (WOTCC) Calibration and Repair Technician
AR-1405-0131
Warrant Officer Technical Certification (WOTCC) Communications-Electronics Equipment Repair Technician
AR-1405-0129
Warrant Officer Technical Certification (WOTTC) Data Processing System Repair Technician
AR-1405-0130
Warrant Officer Technical Certification (WOTTC) Marine Deck Officer
AR-2205-0001
Warrant Officer Technical/Tactical Certification Phase 2 MOS 350B Order of Battle Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351B Counterintelligence Technician
AR-1606-0201
Warrant Officer Technical/Tactical Certification Phase 2 MOS 351E Interrogation Technician
AR-1606-0199
Warrant Officer Technical/Tactical Certification Phase 2 350B All Source Intelligence Technician
AR-2201-0384
Warrant Officer Technical/Tactical Certification Phase 2 350D Imagery Intelligence Technician
AR-1606-0200

Watchmate
Watchmate Equipment Maintenance Training
AR-1715-0788

Water
Petroleum and Water Specialist Advanced Noncommissioned Officer (NCO)
AR-1717-0092
Water Supply
AR-1732-0002
Water Treatment and Plumbing Systems Specialist
AR-1732-0007
Water Treatment Specialist
AR-1732-0008
AR-1732-0010
Water Treatment Specialist Advanced Individual Training
AR-1732-0008
Water Treatment Specialist Basic Noncommissioned Officer (NCO)
AR-1732-0009
Water Treatment Specialist Basic Technical
AR-1732-0009
Water Treatment Specialist Reserve Component
AR-1732-0011

Watercraft
Watercraft Engineer
AR-1710-0001
Watercraft Engineer Advanced Noncommissioned Officer (NCO)
AR-1712-0019
Watercraft Engineer Basic Noncommissioned Officer (NCO)
AR-1712-0018
Watercraft Engineer Basic Technical
AR-1712-0017
Watercraft Engineer Certification
AR-1710-0001
Watercraft Engineer Primary Technical
AR-1712-0002
Watercraft Operation
AR-1722-0002
Watercraft Operator
AR-1722-0002
Watercraft Operator Advanced Noncommissioned Officer (NCO)
AR-0419-0045
Watercraft Operator Basic Noncommissioned Officer (NCO)
AR-2201-0340
Watercraft Operator Certification
AR-1722-0004
Watercraft Operator Primary Technical
AR-1722-0004
Watercraft Operator Specialist Candidate
AR-1708-0001

Weapon
Aircraft Weapon Systems Repairer
AR-1704-0103
Field Artillery Cannon Weapon Systems Qualification
AR-1715-0633
Helicopter Weapon System Repair Supervisor/Technical Inspector Basic Technical
AR-1704-0104
Helicopter Weapons Systems Repairer
AR-1704-0103
Redeye Weapon System Repair
AR-1715-0301

Weapons
Air Defense Artillery (ADA) Automatic Weapons Officer
AR-2201-0172
Air Defense Artillery (ADA) Automatic Weapons Repair
AR-1715-0256
Army Nuclear Weapons Electronics Specialist (Phase I)
AR-1715-0225
Atomic Weapons Electronics (Entry)
AR-1715-0258
Automatic Weapons Maintenance
AR-1601-0039
Field Artillery Weapons Maintenance
AR-1710-0058
AR-1710-0156
Field Artillery Weapons Mechanic
AR-1710-0058
Field Artillery Weapons Mechanic (M198) Howitzer
AR-1710-0058
Guided Missile and Special Weapons Staff Officer
AR-1405-0068
Guided Missile, Nuclear Weapons and ARADCOM Safety
AR-0802-0005
Heavy Antiarmor Weapons Crewman
AR-2201-0279
Helicopter Weapons Systems Repairer
AR-1704-0103
Life Cycle Cost Analysis of Weapons Systems
AR-1401-0008
Light and Heavy Weapons Infantryman
AR-2201-0045
Light Weapons Infantryman
AR-2201-0310
Nuclear Weapons Effects Officer
AR-1303-0002
Nuclear Weapons Electronic Maintenance
AR-1715-0225
Nuclear Weapons Electronics Maintenance
AR-1715-0225
Nuclear Weapons Electronics Specialist
AR-1715-0225
Nuclear Weapons Employment
AR-2201-0153
AR-2201-0158
AR-2201-0163
AR-2201-0164
AR-2201-0187
Nuclear Weapons Employment and Radiological Defense
AR-0802-0004
Nuclear Weapons Employment and Radiological Warfare
AR-0802-0004
Nuclear Weapons Maintenance
AR-1715-0204

Nuclear Weapons Maintenance (Entry)
AR-1715-0258
Nuclear Weapons Maintenance Leader
AR-1715-0428
Nuclear Weapons Maintenance Specialist
AR-1715-0204
Nuclear Weapons Maintenance Warrant Officer Advanced
AR-1717-0003
Nuclear Weapons Materiel Management Officer
AR-2201-0017
Nuclear Weapons Specialist
AR-1715-0204
Nuclear Weapons Specialist Basic Noncommissioned Officer (NCO)
AR-1715-0428
Nuclear Weapons Specialist Basic Technical
AR-1715-0428
Nuclear Weapons Technician
AR-0802-0019
Nuclear Weapons Technician (Phase I for Warrant Officers)
AR-1715-0366
Nuclear Weapons Technician (Phase II for Enlisted Personnel Qualified in MOS 55G/261A)
AR-1715-0367
Nuclear Weapons Technician (Phase III for Enlisted Personnel Qualified in MOS 35F/262A)
AR-1715-0368
Nuclear Weapons Technician Certification
AR-1715-0367
AR-1715-0750
Nuclear Weapons Technician Entry USAMMCS
AR-1715-0367
Nuclear, Biological, and Chemical (NBC) Weapons Employment
AR-2201-0187
Nuclear, Biological, and Chemical (NBC) Weapons Target Analysis
AR-2201-0154
AR-2201-0187
Ordnance Officer Advanced Nuclear Weapons Materiel Management
AR-1720-0008
Ordnance Staff Officer Guided Missile and Nuclear Weapons
AR-1405-0068
Ordnance Staff Officer Guided Missile and Special Weapons
AR-1405-0068
Special Ammunition Maintenance/ Nuclear Weapons Electronic Technician Warrant Officer Intermediate
AR-2201-0008
Special Forces Weapons Sergeant
AR-2201-0350
Special Operations Weapons Sergeant
AR-2201-0350
Special Operations Weapons Sergeant Reserve Component Phase 4
AR-2201-0348
Weapons Monitoring Center Repair
AR-1715-0035
Weapons Support Radar AN/TPS-58
AR-1715-0490
Weapons Support Radar Maintenance
AR-1715-0176
Weapons Support Radar Maintenance and Repair
AR-1715-0362
Weapons Support Radar Repair
AR-1715-0156
Weapons Support Radar Repairer
AR-1715-0491

Weather
Weather Equipment Maintenance
AR-1715-0175

Webbed
Canvas and Webbed Equipage Repair
AR-1716-0003

Welder
Welder-Blacksmith
AR-1710-0027

Welding
Airframe Welding
AR-1704-0037
Welding
AR-1710-0027

Wheel
(Light Wheel Vehicle/Power Generation Mechanic)
AR-1703-0021
Heavy Wheel Vehicle Mechanic
AR-1703-0037
Heavy Wheel Vehicle Recovery Specialist
AR-1710-0117
Light Wheel Vehicle Mechanic
AR-1703-0021
AR-1703-0028
Light Wheel Vehicle Mechanic (Recovery Specialist)
AR-1703-0052
Light Wheel Vehicle Mechanic Basic Technical
AR-1703-0029
Light Wheel Vehicle Mechanic Individual Ready Reserve Refresher
AR-1710-0122
Light Wheel Vehicle Mechanic Noncommissioned Officer (NCO) Advanced
AR-1710-0132
Light Wheel Vehicle Mechanic Primary Technical
AR-1703-0025
Light Wheel Vehicle Mechanic-Individual Ready Reserve Refresher
AR-1710-0121
Light Wheel/ Power Generation Mechanic Basic Technical
AR-1703-0023
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
Recovery Operations (Wheel)
AR-1710-0153
Recovery Specialist-ASIH8/Wheel Recovery Operations (M816/936/984E1)
AR-1710-0153
Refresher Course, Heavy Wheel Vehicle Mechanic Individual Ready Reserve
AR-1703-0036
Wheel and Power Generation Unit Maintenance
AR-1704-0171
Wheel Vehicle Maintenance Technician
AR-1710-0116
Wheel Vehicle Organizational Maintenance
AR-1710-0081
Wheel Vehicle Recovery Specialist
AR-1710-0118
Wheel Vehicle Repairer
AR-1703-0024
AR-1703-0027
Wheel Vehicle Repairer - Individual Ready Reserve Refresher
AR-1710-0119
Wheel Vehicle Repairer Individual Ready Reserve (IRR) Refresher (63W20)
AR-1703-0055
Wheel Vehicle Troubleshooting Test Measuring Diagnostic Equipment (TMDE) for Unit Mechanics
AR-1710-0081
Wheeled Vehicle Mechanic
AR-1703-0021

Wheeled
Power Generation and Wheeled Vehicle Mechanic
AR-1703-0021
Wheeled Vehicle Mechanic
AR-1703-0021

Wholesale
Ordnance Officer Advanced Wholesale Maintenance Management
AR-1703-0035

Wing
Rotary Wing Aviator Refresher Training
AR-1606-0166
Rotary Wing Instrument Flight Examiner
AR-1606-0190
Rotary Wing Qualification
AR-1606-0180

Wire
Tactical Wire Operations Specialist
AR-1715-0434
Wire Guided Missile System Repair
AR-1715-0299
Wire Guided Missile System Repair.
AR-1715-0299
Wire Systems Installer Team Chief Primary Technical
AR-1715-0618
Wire Systems Installer Basic Noncommissioned Officer (NCO)
AR-1715-0618
Wire Systems Installer Primary Technical
AR-1715-0618
Wire Systems Operator
AR-1714-0027
Wire Systems Operator Primary Technical
AR-1714-0028

Wireman
Field Wireman Noncommissioned Officer (NCO) Basic
AR-1714-0012

Women
Basic Airborne (Women)
AR-0803-0002

Women's
Women's Army Corps Noncommissioned Officer (NCO) Leadership Course
AR-2201-0065

Work
Defense Work Measurement Standard Time Data (DWMSTD)
AR-0326-0032
DIMES Analyst Basic (Work Methods and Standards)
AR-0326-0022
Work Planning and Control
AR-1408-0037

Workshop
Instructor Training Workshop
AR-1406-0094
Skill Qualification Test (SQT) Developer's Workshop
AR-1406-0091

Writer
Army Security Agency Card and Tape Writer
AR-1402-0038

Writing
Effective Military Writing
AR-2201-0254

WAC
Military Personnel Recruiting WAC/ANC Officer
AR-1406-0015
Personnel Specialist-WAC
AR-1408-0040
Recruiting Indoctrination—WAC Officer
AR-1406-0012
Recruiting, WAC Enlisted
AR-2201-0032
WAC Officer Advanced
AR-1408-0060
WAC Officer Basic
AR-1404-0012
WAC Officer Basic/WAC Officer Candidate
AR-1404-0012
WAC Officer Career
AR-1408-0060
WAC Officer Orientation/Officer Candidate
AR-2201-0069
WAC Unit Commander
AR-2201-0079

WORWAC
ORWAC/WORWAC
AR-1606-0074

X-Ray
Biomedical X-Ray Equipment Maintenance
AR-1715-0394
Medical X-Ray Survey Techniques
AR-0705-0005
Polyphase X-Ray Systems
AR-0705-0007
X-Ray Procedures Basic
AR-0705-0001
X-Ray Specialist
AR-0705-0001
X-Ray Techniques Advanced
AR-0705-0002

1005
1005 Card Processor Programmer
AR-1402-0018

15D2
15D2 Radar Signal Simulator Maintenance
AR-1715-0171

2B24
Flight Simulator (2B24) Specialist
AR-1606-0006

35R
35R College Junior
AR-2201-0173

Course Number Index

The following columns cross-reference military course numbers to ID numbers for the courses listed in the course exhibit section. Readers who desire to trace courses for which they only have military course numbers as references may find the applicable courses by referring to the cross-reference list.

Each ID number begins with prefix initials which identify a specific branch of the Armed Services. The following prefixes are used:

AF—Air Force
AR—Army
CG—Coast Guard
DD—Department of Defense
MC—Marine Corps
NV—Navy

#-90 OMS/UTES	AR-1405-0210
#-90 OMS/UTE6	AR-1405-0209
A-450-0010	AR-1205-0005
A-515-0018 (USN)	AR-1404-0001
A-8-95C42-N	AR-1728-0061
A-831-001	AR-1728-0061
ADP 27	AR-1402-0107
ADP 30	AR-1402-0109
ADP 50	AR-1402-0108
ADP-15	AR-1715-0557
ADP-30	AR-1402-0065
ADP-31	AR-1402-0066
ADP-4-OEC	AR-1402-0062
ADP-8	AR-1402-0060
ALM-31-0319	AR-1408-0079
ALM-31-0323	AR-1408-0084
ALM-34-0254	AR-1405-0102
ALM-35-0284	AR-0326-0018
ALM-35-0285	AR-0326-0020
ALM-35-0294	AR-0326-0019
ALM-36-0217	AR-1401-0021
ALM-37-0336	AR-1408-0092
ALM-41-0251	AR-1405-0114
ALM-41-0339	AR-1405-0103
ALM-42-0228	AR-0326-0008
ALM-43-0239	AR-1405-0075
ALM-43-0323	AR-1408-0084
ALM-44-0227	AR-1405-0115
ALM-44-0282	AR-1405-0116
ALM-51-0297	AR-1402-0051
ALM-51-0338	AR-1408-0057
ALM-54E099	AR-1405-0083
ALM-54429	AR-1405-0084
ALM-55-H210	AR-1405-0086
ALM-55110	AR-1405-0085
ALM-56-M115	AR-1405-0118
ALM-58R700	AR-1405-0087
ALM-58R800	AR-1405-0088
ALM-58R900	AR-1405-0082
ALM-59U210	AR-1402-0057
ALM-59U260	AR-1402-0057
ALM-59U310	AR-1402-0057
ALM-61-0235	AR-1408-0075
ALM-61-0298	AR-0417-0001
ALM-61-0444	AR-1405-0101
ALM-62-0317	AR-1405-0098
ALM-62W100	AR-1405-0097
ALM-62W200	AR-1405-0096
ALM-63-0449	AR-1115-0010
ALM-64-0258	AR-0317-0003
ALM-66-0210	AR-0326-0004
ALM-66-0299	AR-1405-0100
ALMC-BE	AR-0707-0011
ALMC-CF	AR-1401-0021
ALMC-CL	AR-1408-0092
ALMC-CM	AR-1408-0121
ALMC-DA	AR-0326-0012
ALMC-DT	AR-1408-0075
ALMC-DX	AR-1402-0051
ALMC-FG	AR-1408-0118
ALMC-IB	AR-1408-0119
ALMC-IC	AR-1405-0116
ALMC-IN	AR-1408-0116
ALMC-LR	AR-0326-0020
ALMC-MG	AR-1405-0101
ALMC-ML	AR-1408-0122
ALMC-PD	AR-1408-0114
ALMC-SC	AR-1405-0145
ALMC-SD	AR-1408-0057
ALMC-SJ	AR-1408-0117
ALMC-SK	AR-1402-0085
ALMC-ZX	AR-1408-0120
ALMC-3I	AR-1405-0118
ALMC-5D	AR-1402-0057
AMETA-11	AR-0326-0026
AMETA-13	AR-0326-0034
AMETA-14	AR-0326-0028
AMETA-15	AR-0326-0033
AMETA-17	AR-1402-0042
AMETA-22	AR-1402-0039
AMETA-28	AR-1402-0040
ANC/AMSC	AR-1408-0103
ASIV4	AR-1715-0504
BNCOC 13B30	AR-2201-0258
BSC#-90	AR-1406-0137
C-271-C40	AR-2201-0211
C-30-C22-35	AR-1606-0196
CC/FS25	AR-1408-0160
CC205	AR-1408-0160
CC205/FS202	AR-1408-0160
CMF-19J	AR-1710-0056
CNC20	AR-1710-0065
CNC21	AR-1710-007[illegible]
CNC22	AR-1710-0066
CNC23	AR-1710-0073
CNC24	AR-1710-0068
CNC25	AR-1710-0067
CNC26	AR-1710-0069
CNC28	AR-1710-0082
CSM 206	AR-1408-0159
C22-74A	AR-1408-0046
DA 482	AR-1512-0015
DA 484	AR-1512-0012
DA 486	AR-1512-0013
DA-483	AR-1512-0014
DL 471	AR-0505-0001
EH 456	AR-0326-0044
E06	AR-1408-0097
E07	AR-1406-0050
E25	AR-1715-0145
E30	AR-1408-0096
E32	AR-1406-0051
FC-F21-ARNG	AR-1408-0183
FE-F0A-F19	AR-1405-0147
FE-F2	AR-1402-0031
G2ASR32470-017	AR-1402-0133
G2ASR32470-218(35H30)	AR-1715-0856
G3AAR23199-000	AR-1719-0005
G3AZR23171-000	AR-0202-0001
G3AZR23172-002	AR-1709-0011
G3AZR23270-001	AR-1719-0004
INT 3	AR-1606-0175
INT 3-OE	AR-1606-0175
IT24	AR-1406-0094
I20	AR-0317-0004
I41	AR-1408-0100
I43	AR-1401-0025
J02	AR-1401-0024
J04	AR-1405-0119
J05	AR-1402-0064
LC100	AR-1403-0005
LC102	AR-1403-0006
LOG 213 (OMS-33)	AR-1704-0169
LOG 213/214	AR-1710-0141
LOG 215	AR-1710-0142
LOG 71	AR-1405-0194

LOG 73 AR-1403-0011
LOG 73-OEC AR-1403-0011
LOG 74 AR-1405-0195
LOG 75 AR-1729-0042
LOG213 AR-1405-0121
LOG214 AR-1405-0120

MP 30 AR-1728-0077
MP 94 AR-1728-0079

MP-23 AR-1728-0078
MP-23-OE AR-1728-0060

MVS 3 AR-1402-0105
MVS 5 AR-1402-0103

NBC 54 AR-0801-0023

NGB-PLDC (AC) AR-2201-0253

O-CE-C42 AR-1601-0013

O-IA-C42A AR-2201-0181

O-111-C42 AR-2201-0181
O-12-C42 AR-1601-0013
O-15-C42 AR-2201-0070
O-16-C42 AR-1406-0035
O-19-C42 AR-1408-0144

ODCC 1-90 AR-0326-0046

PEC-C-IPC AR-1402-0135
PEC-O ODF AR-1405-0206
PEC-O-ODP AR-1406-0207
PEC-P-A03 AR-1408-0182
PEC-P-PS2 AR-1406-0132
PEC-P-UC1 AR-1403-0016
PEC-T-BTE-X-XX AR-1406-0138
PEC-T-BTO-X-XX AR-1406-0133
PEC-T-NCOIC-X-XX AR-1406-0135
PEC-T-O-LDC AR-2201-0387
PEC-T-O-SET AR-1406-0208
PEC-T-O-SET91 AR-1406-0208
PEC-T-TNCO-X-XX AR-1406-0136

PLC-301 AR-2201-0253

RCY 221 AR-1710-0140
RCY 221T AR-1710-0139
RCY/221W AR-1710-0153

RM 404 AR-1115-0011

RM-409 AR-0326-0041

RM403 AR-1402-0061
RM407 AR-1406-0033
RM412 AR-1401-0023
RM413 AR-1408-0095
RM415 AR-1401-0022
RM417 AR-1408-0094

SAM 31 AR-2201-0341
SAMIS #-90 AR-1402-0136

SD-315 AR-1710-0158

SIG 1 AR-1715-0548
AR-1715-0793
SIG 2 AR-1715-0549
SIG 26 AR-1715-0551
SIG 29 AR-1715-0552
AR-1715-0795
SIG 33 AR-1715-0553
AR-1715-0794
SIG 34 AR-1715-0614
SIG 35 AR-1715-0554
SIG 35 AM AR-1715-0792
SIG 7 AR-1404-0028
AR-1404-0038
SIG 9 AR-1715-0550
AR-1715-0791

SLL #-90 AR-1405-0205

SNCO #-90 AR-1405-0204

S01 AR-1408-0098

S12 AR-1406-0049

S14 AR-1406-0045

S16 AR-1402-0063

S17 AR-1408-0099

S18 AR-1406-0047

S19 AR-1406-0048

S20 AR-1406-0046

TDI-101 AR-1406-0029

TRT 316 AR-1710-0143
TRT 317 AR-1710-0144
TRT 318 AR-1710-0145
TRT211 AR-1710-0072
TRT213 AR-1710-0071

TS111A AR-1402-0125
TS111B AR-1402-0122
TS112 AR-1402-0123
TS113 AR-1402-0124

TVM 216 AR-1710-0147
TVM 217 AR-1710-0148
TVM 218 AR-1704-0170
TVM 219 AR-1710-0146
TVM 220 AR-1710-0149
TVM13 AR-1710-0074
TVM14 AR-1710-0075
TVM14B AR-1710-0076
TVM15 AR-1710-0078
TVM16 AR-1710-0077
TVM219 AR-1710-0079
TVM220 AR-1710-0080

UGC-1 AR-1715-0555
UGC-2 AR-1715-0556
UGC-3 AR-1404-0029

WHO2 AR-1402-0094

WO-F1 AR-2201-0064

WPG-222 AR-1704-0171

WTT25 AR-1710-0081

WVM25 AR-1710-0081

XX91 AR-1408-0107

0-CE-C40 AR-1710-0041

0-FA-C40 AR-2201-0071

0-IA-C40A AR-2201-0013
0-IA-C40B AR-2201-0134
0-IA-C42B AR-2201-0184

0-MR-C40 AR-0419-0011
0-MR-C42 AR-0419-0012

0-111-C40 AR-2201-0013
0-12-C40 AR-1710-0041
0-13-C40 AR-2201-0071
0-13-C42 AR-2201-0213
0-15-C40 AR-2201-0156
0-16-C40 AR-2201-0012
0-16-C42 AR-2201-0057
0-19-C42 AR-1408-0145

0-642-C42 AR-0419-0012

000-SI5K/SQIC (AH-1) AR-1406-0114

001-SQIY AR-2201-0038

010-ASIJ3 AR-1710-0061
010-F1 AR-2201-0024
AR-2201-0085
010-F4 AR-1728-0019

010-F6 AR-1710-0063
010-1-11B30 AR-1406-0068
010-1-11C30 AR-1406-0069
010-1-11H30 AR-1406-0071
010-1-11M30 AR-1406-0070
010-10-11B30 AR-1406-0068
010-10-11C30 AR-1406-0069
010-10-11H30 AR-1406-0071
010-10-11M30 AR-1406-0070
010-11B/C/H AR-2201-0279
AR-2201-0310
AR-2201-0311
010-11B10 AR-2201-0310
010-11B40-I AR-2201-0170
010-11C10 AR-2201-0311
010-11C40-I AR-2201-0176
010-11G50-EC AR-2201-0034
010-11H10 AR-2201-0279
010-11M10 AR-2201-0276
010-11M20 AR-1710-0063
010-12-11B30 AR-1406-0068
010-12-11C30 AR-1406-0069
010-12-11H30 AR-1406-0071
010-12-11M30 AR-1406-0070
010-13-11B30 AR-1406-0068
010-13-11C30 AR-1406-0069
010-13-11H30 AR-1406-0071
010-13-11M30 AR-1406-0070
010-14-11B30 AR-1406-0068
010-14-11C30 AR-1406-0069
010-14-11H30 AR-1406-0071
010-14-11M30 AR-1406-0070
010-15-11B30 AR-1406-0068
010-15-11C30 AR-1406-0069
010-15-11H30 AR-1406-0071
010-15-11M30 AR-1406-0070
010-16-11B30 AR-1406-0068
010-16-11C30 AR-1406-0069
010-16-11H30 AR-1406-0071
010-16-11M30 AR-1406-0070
010-18-11B30 AR-1406-0068
010-18-11C30 AR-1406-0069
010-18-11H30 AR-1406-0071
010-18-11M30 AR-1406-0070
010-19E10 AR-1710-0054
010-2-11B30 AR-1406-0068
010-2-11C30 AR-1406-0069
010-2-11H30 AR-1406-0071
010-2-11M30 AR-1406-0070
010-3-11B30 AR-1406-0068
010-3-11C30 AR-1406-0069
010-3-11H30 AR-1406-0071
010-3-11M30 AR-1406-0070
010-4-11B30 AR-1406-0068
010-4-11C30 AR-1406-0069
010-4-11H30 AR-1406-0071
010-4-11M30 AR-1406-0070
010-5-11B30 AR-1406-0068
010-5-11C30 AR-1406-0069
010-5-11H30 AR-1406-0071
010-5-11M30 AR-1406-0070
010-6-11B30 AR-1406-0068
010-6-11C30 AR-1406-0069
010-6-11H30 AR-1406-0071
010-6-11M30 AR-1406-0070
010-7-11B30 AR-1406-0068
010-7-11C30 AR-1406-0069
010-7-11H30 AR-1406-0071
010-7-11M30 AR-1406-0070
010-9-11B30 AR-1406-0068
010-9-11C30 AR-1406-0069
010-9-11H30 AR-1406-0071
010-9-11M30 AR-1406-0070

011-ASIA4 (CMF 18) AR-1407-0005
011-ASIW8 AR-2201-0222
011-F1 AR-2201-0040
011-F1B AR-0803-0002
011-F11 AR-2201-0060
AR-2201-0222
011-F14 AR-2201-0278
011-F2 AR-2201-0041
011-F22 AR-0709-0039
011-F3 AR-2201-0038

011-F4	AR-2201-0028
011-F7	AR-2201-0053
011-F8	AR-0803-0001
011-SQIS	AR-2201-0010
011-18B30	AR-2201-0350
011-18B30-RC	AR-2201-0348
011-18B30/18C30/18E30/2E-18A	AR-0803-0008
011-18B30/18E30/2E-18A	AR-0803-0009
011-18C30	AR-1710-0151
011-18C30-RC	AR-1710-0152
011-18D30	AR-0702-0010 AR-0705-0010 AR-0709-0031
011-18E30	AR-1715-0824
011-18E30-RC	AR-1715-0826
012-F1	AR-1606-0024
012-F2	AR-2201-0210
012-F3	AR-2201-0147
012-F4	AR-2201-0339
020-ASIA8	AR-2201-0327 AR-2201-0328
020-ASIA8-T	AR-2201-0329
020-ASIC5	AR-2201-0215 AR-2201-0216
020-ASIC5 (M60A1)	AR-2201-0334
020-ASID8	AR-2201-0336
020-ASID8 (M60A3)	AR-2201-0335
020-F1	AR-2201-0216
020-F2	AR-2201-0214
020-F3	AR-2201-0215
020-1-19E30	AR-2201-0323
020-1-19E30-A3	AR-2201-0325
020-1-19E30/19K30	AR-2201-0325
020-1-19K30	AR-2201-0324
020-1-19K30-M1	AR-2201-0325
020-10-19E30	AR-2201-0323
020-10-19E30-A3	AR-2201-0325
020-11-19E30	AR-2201-0323
020-11E40-I	AR-2201-0004
020-18-19E30	AR-2201-0323
020-18-19E30-A3	AR-2201-0325
020-18-19K30	AR-2201-0324
020-18-19K30-M1	AR-2201-0325
020-4-19E30	AR-2201-0323
020-4-19E30-A3	AR-2201-0325
020-6-19E30	AR-2201-0323
020-6-19E30-A1	AR-2201-0325
020-7-19E30	AR-2201-0323
020-7-19E30-A3	AR-2201-0325
020-9-19E30	AR-2201-0323
020-9-19E30-A1	AR-2201-0325
020-9-19K30	AR-2201-0324
020-9-19K30-M1	AR-2201-0325
030-F1	AR-1601-0019
030-12B10	AR-1601-0070
030-12B40-EC	AR-1710-0041
030-12C10	AR-1601-0069
030-12F10	AR-1710-0085
030-17E40-I	AR-2201-0044
030-54A10	AR-2201-0077
030-54B40-EC	AR-2201-0031
030-54C40-EC	AR-2201-0030
041-ASIM5	AR-2201-0260
041-ASIU6	AR-1710-0058 AR-1710-0156
041-F5	AR-2201-0260
041-0844	AR-1601-0055
041-10-13B30	AR-2201-0258
041-12-13B30	AR-2201-0258
041-13-13B30	AR-2201-0258
041-13B10	AR-2201-0372
041-13B30	AR-2201-0048
041-13B40	AR-1601-0074 AR-1601-0078
041-13B40-I	AR-2201-0174
041-14-13B30	AR-2201-0258
041-15-13B30	AR-2201-0258
041-16R10	AR-1715-0517 AR-1715-0819
041-18-13B30	AR-2201-0258

041-2-13B30	AR-2201-0258
041-34Y10 (Ph 2)	AR-1715-0627
041-34Y10 (Phase I)	AR-1715-0566
041-5-13B30	AR-2201-0258
041-7-13B30	AR-2201-0258
041-8-13B30	AR-2201-0258 AR-2201-0362
041-9-13B30	AR-2201-0258
042-ASIS8	AR-2201-0280
042-ASIS8 (CT)	AR-2201-0280
042-13M10	AR-2201-0282
042-13M10-OSUT	AR-2201-0282
042-13M30	AR-2201-0366
042-13M40	AR-2201-0367
042-13N10	AR-2201-0375
042-13N30	AR-2201-0364
042-13N30 (CT)	AR-2201-0364
042-13N30-T	AR-2201-0382
042-13N40	AR-2201-0360
042-15D10	AR-2201-0375
042-15D30	AR-2201-0364
042-15D40	AR-2201-0360
042-15E30	AR-1715-0636
042-15F40-EC	AR-2201-0178
043-ASIE7	AR-1715-0575
043-ASIZ3	AR-1717-0067
043-F4	AR-1717-0067
043-F5	AR-2201-0266
043-02-16R30	AR-2201-0262
043-05-16R30	AR-2201-0262
043-09-16P30	AR-2201-0263
043-09-16R30	AR-2201-0262
043-09-16S30	AR-2201-0264
043-10-16P30	AR-2201-0263
043-10-16R30	AR-2201-0262
043-10-16S30	AR-2201-0264
043-11-16D30	AR-2201-0268
043-11-16E30	AR-2201-0269
043-11-16P30	AR-2201-0263
043-11-16R30	AR-2201-0262
043-11-16S30	AR-2201-0264
043-11-16T30	AR-2201-0312
043-13-16P30	AR-2201-0263
043-13-16R30	AR-2201-0262
043-13-16S30	AR-2201-0264
043-13P10	AR-1715-0847
043-13P30	AR-2201-0365
043-13P40	AR-2201-0359
043-15-16P30	AR-2201-0263
043-15-16S30	AR-2201-0264
043-15B30	AR-1715-0102
043-15B40-EC	AR-2201-0093 AR-2201-0185
043-15D10	AR-2201-0220
043-15D40	AR-2201-0011 AR-2201-0290
043-15E10	AR-1715-0486
043-15E20/15E30	AR-1402-0073
043-15E20/30-T	AR-1402-0073
043-15E30	AR-2201-0091 AR-2201-0370
043-15E40	AR-2201-0144 AR-2201-0288
043-15E40-EC	AR-2201-0185
043-15F40-EC	AR-2201-0185
043-16B10	AR-1715-0510
043-16B10-OSUT	AR-1715-0510
043-16C10-OSUT	AR-1715-0518
043-16D10	AR-1715-0511
043-16D10-0SUT	AR-1715-0511
043-16E10	AR-1715-0512
043-16E10 (PIP II)	AR-1715-0818
043-16E10-OSUT	AR-1715-0512
043-16F10	AR-2201-0252
043-16F10-OSUT	AR-2201-0252
043-16J10	AR-1715-0808
043-16P10	AR-1715-0516 AR-1715-0812
043-16P10-OSUT	AR-1715-0516
043-16R10	AR-1715-0517
043-16R10-OSUT	AR-1715-0517
043-16S10	AR-1715-0577 AR-1715-0817

043-16S10 (RC)	AR-1715-0800
043-16S10-RC	AR-1715-0801
043-16T1/2/3/4-T	AR-1715-0579
043-16T1/2/3/4-T(24T) Ph1	AR-1715-0581
043-16T10	AR-1715-0579
043-16T10 (24T) Ph1	AR-1715-0581
043-17-16P30	AR-2201-0263
043-18-16P30	AR-2201-0263
043-18-16R30	AR-2201-0262
043-18-16S30	AR-2201-0264
043-2-16R30	AR-2201-0262
043-2-16S30	AR-2201-0264
043-5-16R30	AR-2201-0262
043-5-16S30	AR-2201-0264
043-9-16P30	AR-2201-0263
043-9-16R30	AR-2201-0262
043-9-16S30	AR-2201-0264
05B10-CELT	AR-1715-0095
062-ASIE6 (61B)	AR-1704-0133
062-F1	AR-0419-0034
062-F3	AR-1715-0157
062-F4 (88K)	AR-2205-0002
062-61A10	AR-1708-0002
062-61B10	AR-1722-0002
062-61B20	AR-1722-0002 AR-1722-0004
062-61B30	AR-2201-0036
062-61B30-1	AR-1708-0001
062-61D20	AR-2201-0097
062-76B10	AR-1722-0002
062-88K30	AR-2201-0340
062-88K40	AR-0419-0045
1-A-F12	AR-1606-0106
1-A-F13	AR-1704-0091
1-A-F2	AR-1606-0110
1-A-F30	AR-2201-0122
1-A-F4	AR-1606-0099
1-A-F7	AR-1606-0088
1-A-F8	AR-2201-0086
1-A-F9	AR-1606-0109
1-A-1980	AR-1606-0107
1-A-1980A	AR-1606-0065 AR-1606-0066 AR-1606-0067
1-A-1980G	AR-1606-0117
1-A-1981A	AR-1606-0105
1-A-1981B	AR-1606-0074
1-A-1981G	AR-1606-0073
1-A-2518	AR-2201-0122
1-A-2519	AR-1606-0108
1-A-3160	AR-0799-0005
1-AD-C40A	AR-2201-0012
1-AD-C40B	AR-2201-0009
1-AD-C42A	AR-2201-0057
1-AD-C42B	AR-1717-0002
1-B-F11	AR-1606-0118
1-B-F12	AR-1606-0119
1-B-F18	AR-1606-0123
1-B-F22	AR-1606-0062
1-B-F29	AR-1606-0116
1-B-F36	AR-1606-0041
1-B-F37	AR-1606-0064
1-B-F40	AR-1606-0093
1-B-061C	AR-1606-0116
1-B-1981B	AR-1606-0074
1-B-1984	AR-1606-0125
1-B-1985	AR-1606-0124
1-CM-C40	AR-1717-0046
1-CM-C42	AR-1717-0015
1-DM-C42	AR-1715-0391
1-E-18	AR-1704-0070
1-EE-C40A	AR-1715-0019
1-EE-C40B	AR-1715-0017
1-EE-C40C	AR-1715-0020
1-EE-C40D	AR-1715-0012
1-EE-C42A	AR-2201-0190
1-EE-C42B	AR-1715-0016

1-FM-C40A	AR-1715-0306
1-FM-C40B	AR-2201-0156
1-FM-C42A	AR-2201-0001
1-FM-C42B	AR-2201-0070
1-H-F17	AR-1704-0065
1-H-061B-B	AR-1606-0065 AR-1606-0066 AR-1606-0067
1-H-062B	AR-1606-0074
1-H-062C	AR-1606-0074
1-H-1980A	AR-1606-0065 AR-1606-0066 AR-1606-0067
1-H-1981B	AR-1606-0074 AR-1606-0102
1-N-1981C	AR-1606-0074
1-O-ZZ	AR-1606-0120
1-O-14	AR-1606-0113
1-OE-6	AR-1606-0112
1-R-F10	AR-1606-0095
1-R-F25	AR-1704-0080
1-R-F35	AR-1606-0114
1-R-061B-B	AR-1606-0065 AR-1606-0066 AR-1606-0067
1-R-062B-C	AR-1606-0074
1-R-062C-C	AR-1606-0074
1-R-1981C	AR-1606-0074
1-R-670.0	AR-1704-0070
1-R-671.1	AR-1704-0029
1-R-671.2	AR-1704-0030
1-R-672.1	AR-1704-0067 AR-1704-0084
1-R-672.2	AR-1704-0038
1-R-672.3	AR-1704-0074
1-R-673.1	AR-1704-0079
1-R-674.1	AR-1704-0052
1-R-675.1	AR-1704-0055
1-R-675.2	AR-1704-0048
1-R-675.3	AR-1704-0050
1-R-676.1	AR-1704-0069
1-R-677.1	AR-1704-0049
1-R-902.1	AR-1606-0069
1-R-907.1	AR-1704-0007
1-RM-C40A	AR-1408-0026
1-RM-C40B	AR-1717-0019
1-RM-C42	AR-1717-0020
1-0-23	AR-1606-0103
1-0-25	AR-1606-0100
1-19-XB-100	AR-1406-0054
1-19-XB-135	AR-1512-0010
1-19-XD-100	AR-1406-0058
1-19-XE-100	AR-1406-0058
1-19-XG-100	AR-1406-0058
1-19-XL-100	AR-1406-0052
1-19-XM-100	AR-1406-0058
1-19-XP-100	AR-2201-0254
1-19-XQ-100	AR-0306-0001
1-19-XR-100	AR-0602-0007
1-19-XT-100	AR-1406-0055
1-19-X5-100	AR-1406-0053
1-19XC-100	AR-1406-0057
1-21-C42B	AR-1717-0050
1-23-C40A	AR-2201-0195
1-23-C40B	AR-2201-0009
1-23-C42	AR-1406-0035 AR-2201-0133
1-23-C42B	AR-1717-0002
1-250-C2	AR-1511-0006
1-250-C3	AR-1408-0059
1-250-C5	AR-1408-0003 AR-1408-0148
1-250-C5 (ACCP)	AR-1408-0149
1-250-C7	AR-1408-0072
1-250-C8	AR-1408-0072
1-26-C40A	AR-2201-0194
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1-29-C42 (35H)	AR-1406-0108
1-29-C42 (39X)	AR-1406-0107
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1-31-C42	AR-1405-0127 AR-1406-0109
1-31-C42B	AR-1715-0489
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1-352-C40	AR-1405-0099 AR-1710-0021
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1B-F3/012-F11	AR-2201-0255
1B-F4/012-F12	AR-2201-0255
1B-F5/012-F13	AR-2201-0255
1B-F6/012-F14	AR-2201-0255
1B-F7/012-F15	AR-2201-0255
1B-F8/012-F16	AR-2201-0255
1B-F9/012-F17	AR-2201-0255
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10-A-C22	AR-1408-0032
10-A-C23	AR-1405-0046
10-A-C3	AR-1408-0033
10-A-C4	AR-1408-0032
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10-E-31	AR-1710-0015
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10-R-768.2	AR-1405-0047
10-R-768.6	AR-1405-0029
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101-32E20 AR-1715-0125
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102-F55 (26Y) AR-1715-0695
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104-24J1T/2T/3T AR-1715-0563
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11-R-294.1 AR-1715-0111
11-R-295.1 AR-1721-0003
11-R-295.2 AR-1715-0033
11-R-296.0 AR-1715-0093
11-R-296.1 AR-1715-0360
11-R-297.1 AR-1715-0125
11-R-302.1 AR-1706-0004
11-R-302.2 AR-1715-0039
11-R-303.1 AR-1715-0038
11-R-321.1 AR-1714-0015
11-R-322.1 AR-1714-0016
11-R-323.1 AR-1715-0332
11-R-327.1 AR-1715-0351
11-R-328.1 AR-1715-0350
11-R-331.1 AR-1715-0351
11-R-332.1 AR-1715-0350
11-R-333.6 AR-1408-0017
11-R-340.0 AR-1715-0260
11-R-341.1 AR-1715-0260
11-R-401.1 AR-1721-0006
11-R-401.2 AR-1715-0279
11-R-722.1 AR-1404-0002
11-R-723.1 AR-1409-0006
11-R-724.1 AR-1404-0004
11-R-727.7 AR-1715-0264
11-R-744.1 AR-1402-0036
11-R-745.1 AR-1402-0017
11-R-765.1 AR-1405-0011
11-R-840.0 AR-1709-0002
11-R-841.1 AR-1709-0001
11-R-841.2 AR-1709-0004
11-R-842.1 AR-1715-0387
11-R-843.1 AR-1709-0002
11-R-905.1 AR-1304-0001
11-0-19 AR-1715-0259
11-0-4 AR-1408-0023

11B10-OSUT AR-2201-0310

11C10-OSUT AR-2201-0311

11H10-OSUT AR-2201-0279

112-35J20 AR-1715-0269

113-ASIL8(45G) AR-1710-0101
113-29J10-HTRTS-M AR-1715-0882
113-29M10(T)-HTRTS-M AR-1715-0877
113-31N10-RC AR-1715-0879
113-34G10 AR-1715-0034
113-34G20 AR-1715-0034
113-34L10 AR-1715-0631
113-34Y10 AR-1715-0627
113-39L10 AR-1715-0831
113-39Y10 AR-1715-0627
113-39Y30 AR-1715-0837
113-45G10 AR-1714-0025
113-45G10/670-2172 AR-1714-0030

12-A-C1 AR-1408-0014
12-A-C20 AR-1408-0014
12-A-C21 AR-1408-0054
12-A-C23 AR-1402-0028
12-A-C4 AR-1408-0029
12-A-C5 AR-1406-0018
12-A-2310A AR-1406-0014
12-A-2310B AR-1406-0012
12-A-2310D AR-1406-0008
12-A-5000 AR-0804-0002
12-B-C3 AR-1408-0058
12-B-F1 AR-1406-0004
12-B-F8 AR-1406-0007
12-B-2200 AR-1406-0007
12-B-711A AR-1406-0007
12-D-075.7B AR-1406-0017
12-D-2310C AR-1406-0017
12-E-13 AR-1402-0012
12-E-14 AR-1404-0001
12-E-2 AR-1406-0006
12-E-3 AR-1402-0016
12-E-5 AR-140[illegible]-0008
12-E-7 AR-1406-0013
12-E-8 AR-1407-0001
12-G-F1 AR-1406-0004
12-G-F4 AR-1402-0003
12-G-2265 AR-1406-0021
12-I-F4 AR-1402-0003
12-N-5241 AR-1205-0001
12-O-A AR-1408-0014
12-O-17 AR-1406-0012
12-O-2 AR-1408-0058
12-O-3 AR-1408-0029
12-O-4 AR-1406-0018
12-O-6 AR-1406-0014
12-O-7 AR-1406-0004
12-O-8 AR-1406-0021
12-OE-25 AR-1205-0001
12-OE-26 AR-1406-0017
12-Q-2404 AR-1402-0010
12-Q-745.1 AR-1402-0010
12-R-075.6 AR-1406-0020
12-R-075.7A AR-1406-0013
12-R-075.7C AR-2201-0032
12-R-712.1 AR-1407-0001
12-R-714.1 AR-1404-0001
12-R-716.1 AR-1406-0019

12-R-716.2 AR-1401-0019
AR-1408-0007
12-R-716.3 AR-1408-0007
12-R-740.0 AR-1402-0030
12-R-753.1 AR-1402-0016

12B10-OSUT AR-1601-0070
12B10-OSUT (ST) AR-1601-0070

12C10-OSUT AR-1601-0069
12C10-OSUT (ST) AR-1601-0069

12F10-OST1 AR-1710-0085
12F10-OSUT AR-1710-0085
12F10-OSUT(ST) AR-1710-0085

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121-ASIG2 AR-1715-0165
121-ASIG6 AR-1715-0300
121-ASIJ9 AR-1715-0565
121-ASIJ9(RC) AR-1715-0737
121-ASIL9 AR-1715-0303
121-ASIX7 AR-1715-0585
121-ASIY1 AR-1715-0650
121-F10 AR-1715-0276
121-F11 AR-1715-0165
121-F13 AR-1715-0140
121-F14 AR-1715-0210
121-F15 AR-1715-0115
121-F16 AR-1715-0130
121-F17 AR-2201-0063
121-F18 AR-1715-0119
121-F21 AR-1715-0081
121-F22 AR-2201-0092
121-F23 AR-1715-0399
121-F24 AR-1715-0400
121-F27 AR-1715-0533
121-F28 AR-1715-0565
121-F5 AR-1715-0232
121-F9 AR-1715-0146
121-15B30 AR-1715-0102
121-15E20 AR-1715-0349
121-16F30 AR-1715-0256
121-161.2 AR-1715-0102
121-163.1 AR-1715-0349
121-21A10 AR-1715-0082
121-21G10 AR-1715-0487
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AR-1715-0823
121-21G20 AR-1715-0117
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121-21G30 AR-1715-0624
121-21G40 AR-2201-0291
121-21L10 AR-1715-0079
AR-1715-0752
121-21L20 AR-1715-0079
121-21L20-T AR-1715-0371
121-21L30 AR-1715-0648
AR-1715-0751
121-21L40-T AR-1715-0371
121-21L50-EC AR-1717-0029
121-21R20 AR-1715-0353
121-21S20 AR-1715-0302
121-21T20 AR-1715-0128
121-21U50-EC AR-1717-0031
121-22A10 AR-1715-0113
121-22F20 AR-1715-0084
121-22G20 AR-1715-0077
121-22J20 AR-1715-0101
121-22K20 AR-1715-0132
121-22K20(TI) AR-1715-0127
121-22L10 AR-1715-0239
121-22L20 AR-1715-0239
121-22M20 AR-1715-0114
121-22N10 AR-1715-0390
121-22N20 AR-1715-0390
121-22N20-T AR-1715-0369
121-22N40-T AR-1715-0369
121-225.1 AR-1715-0084
121-226.1 AR-1715-0361
121-228.1 AR-1715-0211
121-23G20 AR-1715-0361
121-23P20 AR-1715-0211
121-23Q20 AR-1715-0230
121-23V50-EC AR-1715-0293

121-24C1T/2T/3T/4T AR-1715-0571
AR-1715-0806
121-24C10 AR-1715-0307
AR-1715-0814
121-24C10 (PIP II) AR-1715-0307
121-24C20 AR-1715-0307
121-24C30 AR-1715-0657
AR-1715-0804
121-24C40 AR-1715-0384
121-24C40-T AR-1715-0376
121-24D20 AR-1715-0101
121-24EIT AR-1715-0519
121-24E10 AR-1715-0392
AR-1715-0821
121-24E20 AR-1715-0392
121-24E30 AR-1715-0300
AR-1715-0735
121-24E30-T AR-1715-0375
121-24E40 AR-1715-0373
121-24E40-T AR-1715-0375
121-24F20 AR-1715-0211
121-24F30 AR-1715-0276
121-24L10 AR-1715-0352
121-24L20 AR-1715-0352
121-24L20-T AR-1715-0419
121-24L30 AR-1715-0740
121-24L40-T AR-1715-0419
121-24M10 AR-1715-0495
AR-1715-0573
AR-1715-0816
121-24M20 AR-1715-0162
121-24M30 AR-1715-0374
AR-1715-0810
121-24N10 AR-1715-0120
121-24N20 AR-1715-0120
121-24N30 AR-1715-0374
AR-1715-0809
121-24Q10 AR-1715-0361
121-24Q20 AR-1715-0361
121-24Q30 AR-1715-0165
121-24R40 AR-1715-0513
121-24R40-A AR-1715-0513
AR-1715-0799
121-24R40-B AR-1715-0514
AR-1715-0802
121-24R40B AR-1715-0513
121-24R50-A AR-1715-0584
121-24R50-B AR-1715-0521
121-24R50-T AR-1715-0574
121-24U10 AR-1715-0084
121-24U20 AR-1715-0084
121-24V50-T AR-1402-0027
121-254.1 AR-1715-0114
121-27A10 AR-1715-0297
121-27B10 AR-1715-0531
AR-1715-0748
121-27B20 AR-1715-0231
121-27B20-T AR-1402-0058
121-27B30 AR-1715-0652
121-27C20 AR-1715-0115
121-27D20 AR-1715-0298
121-27E10 AR-1715-0299
121-27E10 (RC) AR-1715-0755
121-27E10/121-27E10 (ST) AR-1715-0299
121-27E20 AR-1715-0299
121-27E30 AR-1408-0105
121-27F10 AR-1715-0532
AR-1715-0758
121-27F20 AR-1715-0015
121-27F30 AR-1715-0756
121-27G10 AR-1715-0529
121-27G20 AR-1715-0301
121-27G30 AR-1715-0641
121-27H10 AR-1715-0303
AR-1715-0352
121-27H20 AR-1715-0303
121-27L10 AR-1715-0562
121-27L30 AR-1715-0643
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121-27M10 AR-1715-0564
121-27M30 AR-1715-0749
121-27Z50-EC AR-1717-0030
121-28M20 AR-1715-0377
121-46D20 AR-1715-0352

121-5900 AR-1715-0398
121-7212 AR-1715-0576

122-F2 AR-1715-0246
122-F3 AR-1715-0078
122-F4 AR-1715-0255
122-F5 AR-1715-0099
122-21F30 AR-1715-0116
122-21J20 AR-1715-0089
122-21S20 AR-1715-0302
122-375.2 AR-1715-0116
122-377.1 AR-1715-0103
122-378.1 AR-1715-0089

13B10-OSUT AR-2201-0372
13B10-0SUT/041-13B10(AIT) AR-2201-0281

13E10-OSUT AR-1304-0004

13F10-OSUT AR-1713-0008

14-A-C1 AR-1408-0052
14-A-C20 AR-1408-0052
14-A-C22 AR-1401-0009
14-A-C23 AR-1401-0018
14-A-C4 AR-1401-0009
14-A-F6 AR-2201-0107
14-E-2 AR-1401-0007
14-G-F10 AR-1401-0015
14-G-F13 AR-1408-0061
14-G-F7 AR-1401-0012
14-G-F8 AR-1401-0011
14-G-F9 AR-1401-0014
14-G-2800 AR-1408-0061
14-G-6000 AR-1408-0061
14-I-F1 AR-1408-0011
14-I-F15 AR-1401-0010
14-I-F21 AR-1402-0009
14-I-F3 AR-1408-0001
14-I-F4 AR-1405-0005
14-K-F1 AR-1408-0011
14-K-F14 AR-1402-0034
14-K-F15 AR-1401-0010
14-K-F20 AR-1402-0033
14-K-F3 AR-1408-0001
14-K-733.1 AR-1401-0001
14-L-F14 AR-1402-0034
14-L-F15 AR-1401-0010
14-L-733.1 AR-1401-0001
14-O-A AR-1408-0052
14-O-10 AR-1408-0001
14-O-16 AR-1408-0061
14-O-19 AR-1405-0005
14-O-20 AR-2201-0107
14-O-21 AR-0301-0001
14-O-3 AR-1401-0009
14-O-7 AR-1408-0011
14-OE-4 AR-1401-0003
14-OE-9 AR-1401-0001
14-R-730.0 AR-1401-0007
14-S-732.1 AR-1401-0006

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140-35F20 AR-1715-0225

15D10-OSUT AR-2201-0220

15E10-OSUT AR-1715-0486

150-F1 AR-1715-0058
150-F13 AR-1715-0768
150-F14 AR-1715-0767
150-F2 AR-1402-0007
150-F3 AR-1715-0044
150-F4 AR-1715-0045
150-F5 AR-1715-0365
150-F6 AR-1715-0403
150-F7 AR-1715-0149
150-21M20 AR-1715-0118
150-25D20 AR-1715-0024
150-25E20 AR-1715-0041
150-25G20 AR-1715-0035
150-25H20 AR-1715-0242
150-25J10 AR-1715-0237
150-25J20 AR-1715-0237
150-25K20 AR-1402-0007

150-25L10	AR-1715-0403 AR-1715-0820
150-25L30	AR-1715-0811
150-25L40	AR-1715-0401
150-25L40-T	AR-1715-0402
150-29G10	AR-1715-0253
150-30554/150-30574	AR-1715-0692
150-34B10	AR-1706-0004
150-34B20	AR-1706-0004
150-34C20	AR-1715-0039 AR-1715-0527
150-34D20	AR-1715-0038 AR-1715-0253
150-34D20 (Phase I)	AR-1715-0036
150-34D20 (Phase II)	AR-1715-0044
150-34D20 (Phase III)	AR-1715-0045
150-34D20 (Phase IV)	AR-1715-0070
150-34D20 (Phase V)	AR-1715-0068
150-34D20 (Phase VI)	AR-1715-0046
150-34D20 (Phase VII)	AR-1715-0253
150-34D20 (Phase VIII)	AR-1715-0363
150-34E20	AR-1715-0045
150-34F20	AR-1715-0253
150-34H20	AR-1715-0068
150-34L20	AR-1715-0070
150-361.2	AR-1715-0228
150-362.1	AR-1715-0024
150-363.1	AR-1715-0359
150-364.1	AR-1715-0035
150-365.1	AR-1715-0237
150-379.1	AR-1715-0040
150-39D10	AR-1715-0527 AR-1715-0883
150-39G10	AR-1715-0874
150-39T10	AR-1715-0780
16-A-C20	AR-1408-0065
16-A-C22	AR-1408-0071
16-A-C2	AR-1513-0001
16B10-OSUT	AR-1715-0510
16B10-OSUT(Phase I)	AR-1715-0510
16C10-OSUT	AR-1715-0518
16C10-OSUT(Phase I)	AR-1715-0518
16D10-OSUT	AR-1715-0511
16D10-OSUT(Phase I)	AR-1715-0511
16E10-OSUT	AR-1715-0512
16E10-OSUT(Phase I)	AR-1715-0512
16F10-OSUT	AR-2201-0252 AR-2201-0301
16H10-OSUT	AR-1601-0068
16H10-OSUT (Phase I)	AR-1601-0068
16H10-OSUT(ST) (Phase I and II)	AR-1601-0068
16J10-OSUT	AR-1715-0515
16J10-OSUT (Phase I)	AR-1715-0515
16J10-OSUT (ST)	AR-1715-0515
16P10-OSUT	AR-1715-0516
16P10-OSUT(Phase I)	AR-1715-0516
16P10-OSUT(ST)(Phase I and II)	AR-1715-0516
16R10-OSUT	AR-1715-0517
16R10-OSUT(Phase I)	AR-1715-0517
16S10-OSUT	AR-1715-0577
16T10-OSUT	AR-1715-0578
16T10-OSUT (24T) Ph1	AR-1715-0580
16T10-OSUT Ph1	AR-1715-0580
160-ASIA6	AR-1715-0388
160-ASIB3	AR-1715-0245
160-ASIG7	AR-1715-0677
160-ASIG7-T (31S)	AR-1715-0674
160-ASIG7-T (31T)	AR-1715-0675
160-ASIG8	AR-1715-0764
160-ASIG8 (32F)	AR-1715-0637
160-ASIG8 (32G)	AR-1715-0709
160-ASIK8	AR-1715-0195
160-ASIV4(CT)	AR-1715-0872
160-ASIX8	AR-1715-0601
160-ASIX9	AR-1715-0604
160-F1	AR-1715-0245
160-F19	AR-1715-0202
160-F2	AR-1715-0062
160-F20	AR-1715-0594
160-F21	AR-1715-0617
160-F24	AR-1715-0593
160-F27	AR-1715-0852
160-F3	AR-1715-0042
160-F30 (29S)	AR-1715-0690
160-F32	AR-1715-0763
160-F35	AR-1715-0861
160-F4	AR-1715-0006
160-F5	AR-1715-0388
160-29F10	AR-1715-0669
160-29F10/160-29F10 (ST)	AR-1715-0669
160-29F10/20/30-T	AR-1715-0681
160-29F10/20/30-T (32F)	AR-1715-0681
160-29F10/20/30-T (32G)	AR-1715-0687
160-29F30	AR-1715-0771
160-29J10	AR-1715-0260 AR-1715-0848
160-29J30	AR-1715-0689
160-29S10	AR-1715-0661
160-29S10/160-29S10 (ST)	AR-1715-0661
160-29S10/20-T	AR-1715-0697
160-29S10/20/30-T (31S)	AR-1715-0698
160-29S30	AR-1715-0772
160-31J10	AR-1715-0260
160-31J20	AR-1715-0260 AR-1715-0616
160-31J40	AR-1715-0008
160-31S10	AR-1715-0599
160-31S20	AR-1715-0067
160-31S30	AR-1408-0112 AR-1715-0094
160-31T10	AR-1715-0602
160-31T20	AR-1715-0097
160-31T30	AR-1715-0063
160-32F10	AR-1715-0096
160-32F20	AR-1715-0096
160-32G10	AR-1715-0322
160-32G20	AR-1715-0322
160-341.6	AR-1715-0008
161-71M20(RC)	AR-1406-0130
17-A-C1	AR-1717-0039
17-A-C20	AR-1717-0039
17-A-C20A	AR-2201-0062
17-A-C20B	AR-1717-0039
17-A-C22	AR-2201-0123
17-A-C23	AR-2201-0109
17-A-C3	AR-2201-0098
17-A-C4	AR-2201-0123
17-A-C5	AR-2201-0130
17-A-F19	AR-2201-0164
17-A-0200	AR-1715-0283
17-B-0200	AR-1715-0283
17-B-0600	AR-1717-0033
17-B-0606	AR-1717-0033
17-B-631A	AR-1717-0033
17-E-1	AR-1715-0150
17-E-13	AR-2201-0039
17-E-2	AR-1715-0109
17-E-7	AR-1703-0017
17-O-A	AR-1717-0039
17-O-2	AR-2201-0098
17-O-3	AR-2201-0123
17-O-4	AR-2201-0130
17-O-5	AR-1717-0033
17-O-7	AR-1715-0283
17-R-131.1	AR-1710-0003
17-R-131.6	AR-2201-0039
17-R-133.6	AR-2201-0039
17-R-312.1	AR-1715-0109
17-R-312.6	AR-1715-0150
17-R-312.7	AR-1715-0150
17-R-424.1	AR-1710-0003
17-R-632.1	AR-1703-0001
17-R-632.2	AR-1703-0001
17-R-632.6	AR-1703-0017
17-R-632.7	AR-1703-0017
19-A-C1	AR-1728-0026
19-A-C20	AR-1728-0026
19-A-C21	AR-1728-0025
19-A-C22	AR-1728-0035
19-A-C23	AR-1728-0001
19-A-C4	AR-1728-0035
19-A-C5	AR-1728-0031
19-B-C3	AR-1728-0005
19-E-10	AR-1728-0006
19-E-13	AR-1728-0002
19-E-4	AR-1728-0003
19-H-F3	AR-1728-0008
19-I-F2	AR-1728-0024
19-N-F3	AR-1728-0008
19-N-9322	AR-1728-0010
19-N-953.1	AR-1728-0010
19-O-A	AR-1728-0026
19-O-2	AR-1728-0005
19-O-3	AR-1728-0035
19-O-4	AR-1728-0031
19-O-5	AR-1728-0027
19-O-6	AR-1728-0004
19-OE-11	AR-1728-0008
19-OE-12	AR-1728-0010
19-R-951.6	AR-1728-0003
19-R-952.6	AR-1728-0006
19-0-17	AR-2201-0141
19-82	AR-0419-0042
19D10-OSUT (M113)	AR-2201-0332
19D10-OSUT (M3)	AR-2201-0331
19E10-OSUT	AR-1710-0054
19E10-OSUT (M60A3)	AR-2201-0333
19F10-OSUT	AR-1710-0055
19H-BIT	AR-1406-0054
19K10-OSUT	AR-2201-0330
191-ASI F8	AR-1606-0006
191-F1	AR-1606-0006
191-26T20	AR-1715-0278
191-84D20	AR-1715-0387
191-93D20	AR-1606-0069
198-ASIW1	AR-1606-0206
198-ASIW3	AR-1715-0761
198-ASIX1	AR-1715-0596 AR-1715-0878
198-F1	AR-1715-0194
198-F4	AR-1715-0586 AR-1715-0621
198-F7	AR-1715-0620
198-F8	AR-1715-0622
198-205.1	AR-1715-0175
198-208.1	AR-1715-0316
198-26P20	AR-1715-0182
198-295.1	AR-1721-0003
198-295.2	AR-1715-0033
198-31R20	AR-1715-0131
198-35B20	AR-1715-0001
198-35B30	AR-1715-0004
198-35C10	AR-1715-0588
198-35C20	AR-1715-0589
198-35D20	AR-1721-0008
198-35D30	AR-1721-0008
198-35E10	AR-1715-0160 AR-1715-0659
198-35E20	AR-1715-0160 AR-1715-0613
198-35E30	AR-1715-0010
198-35G10	AR-1715-0316
198-35G20	AR-1715-0316
198-35G30	AR-1715-0317
198-35H20	AR-1715-0354
198-35S20	AR-1715-0317
198-35T20	AR-1715-0394
198-39B10	AR-1715-0588 AR-1715-0850
198-39E10	AR-1715-0659 AR-1715-0779
198-39E30	AR-1715-0854
198-401.3	AR-1715-0346
198-41E20	AR-1721-0006

198-41F20 AR-1715-0279
198-41G20 AR-1715-0346

2-AC-C40 AR-1704-0004
2-AC-C42 AR-1704-0005

2-C-F7 AR-0801-0001

2-E-F15 AR-2201-0150

2-MI-C40 AR-1606-0129
2-MI-C42 AR-2201-0155

2-N-F2 AR-2201-0168

2-SA-C40A AR-2201-0002
2-SA-C40B AR-1717-0018
2-SA-C42 AR-2201-0183

2-1-C20 AR-1606-0170
2-1-C22 AR-1606-0171
2-1-C30 AR-1606-0121
2-1-C32 AR-1408-0063, AR-1606-0121
2-17-C20 AR-1717-0039
2-17-C20(RA) AR-2201-0062
2-17-C20-12A AR-1717-0039
2-17-C20-12A-M60A3-Cavalry. AR-1717-0080
2-17-C20-12A-M60A3-Tank AR-1717-0081
2-17-C22 AR-1408-0146, AR-2201-0123
2-17-C25 AR-1710-0057, AR-1710-0136
2-17-C26 AR-2201-0165, AR-2201-0321
2-17-C40 AR-2201-0002
2-17-C42 AR-2201-0183
2-17-F1 AR-2201-0171

2-33-C32 AR-1408-0162
2-33-C42 AR-1406-0127

2-44-C20 AR-2201-0082, AR-2201-0342
2-44-C20(RA) AR-2201-0127
2-44-C22 AR-1408-0019
2-44-C23 AR-2201-0111, AR-2201-0112
2-44-C30 AR-1715-0105
2-44-C32 AR-1715-0105
2-44-C8 AR-2201-0090

2-6-C20 AR-2201-0193
2-6-C20(RA) AR-2201-0193
2-6-C22 AR-1408-0028
2-6-C23 AR-2201-0110
2-6-C25 AR-2201-0168
2-6-C26 AR-1408-0174
2-6-C32-131A AR-1402-0111
2-6-F1 AR-2201-0166
2-6-F2 AR-2201-0168
2-644-C42 AR-1704-0005

2-7-C20 AR-2201-0192
2-7-C22 AR-2201-0124
2-7-F1 AR-2201-0167, AR-2201-0182
2-7-F2 AR-2201-0052

2-96-C42 AR-1406-0125, AR-2201-0155
2-98-C42 AR-1406-0126

2B-ASI2K AR-1606-0122, AR-1715-0569
2B-F10 AR-1606-0091
2B-F11 AR-1606-0061
2B-F13 AR-1606-0040
2B-F14 AR-1606-0089
2B-F15 AR-1606-0104
2B-F16 AR-1606-0104
2B-F17 AR-1606-0091
2B-F19 AR-1715-0133
2B-F2 AR-1606-0122
2B-F3 AR-1606-0093
2B-F5 AR-1606-0050
2B-F6 AR-1606-0096
2B-F7 AR-2201-0114
2B-F8 AR-1606-0098
2B-SI5K/2B-SQIC (U-21) AR-1406-0116
2B-061B-A AR-1606-0028
2B-061B-B AR-1606-0068
2B-061C AR-1606-0116, AR-1606-0125
2B-061C-B AR-1606-0068
2B-061C-C AR-1606-0104
2B-061C-D AR-1606-0122
2B-061C-F AR-1606-0028
2B-100R AR-1606-0122
2B-101B-A AR-1606-0068
2B-101B-B AR-1606-0028, AR-1606-0068
2B-101C-A AR-1606-0068
2B-101C-B AR-1606-0028, AR-1606-0068
2B-101C-C AR-1606-0125
2B-101C-D AR-1606-0104
2B-101C-E AR-1606-0093
2B-101C-H AR-1606-0111
2B-101D AR-1606-0122
2B-15A AR-1606-0111
2B-1980 AR-1606-0111
2B-1980-A AR-1606-0068
2B-1980-B AR-1606-0028
2B-1984 AR-1606-0125

2C SI 1A/2C-152D AR-1606-0161

2C-ASI IN AR-1606-0133
2C-ASI 1G-B AR-1606-0064
2C-ASI 1G-B/2C-100C-B AR-1606-0064
2C-ASI 1G-D AR-1606-0064
2C-ASI 1G-D/2C-100C-D AR-1606-0064
2C-ASI 1G/2C-100C (CH-47D). AR-1606-0164
2C-ASI 1V/2C-SQIF AR-1606-0124
2C-ASI-1G/2C-100C-B AR-1606-0064
2C-ASI-5K/2C-SQIC(OH-58D). AR-1406-0078
2C-ASI1A/2C-152D AR-1606-0161
2C-ASI1L/2C-100K AR-1606-0167
2C-ASI1M/2C-100E AR-1606-0058
2C-ASI1N AR-1606-0162
2C-ASI1Q/2C-100B-D AR-1606-0180
2C-ASI5K/2C SQIC AR-1606-0053
2C-ASI5K/2C-SQIC(CH-47D). AR-1406-0074
2C-ASI7Q AR-1606-0127
2C-F10 AR-1606-0043
2C-F11 AR-1606-0055, AR-1606-0056
2C-F12 AR-1606-0097
2C-F13 AR-1606-0126
2C-F14 AR-1606-0057
2C-F15 AR-1606-0059
2C-F16 AR-1606-0046
2C-F17 AR-1406-0009
2C-F18 AR-1606-0049
2C-F19 AR-1606-0060
2C-F2 AR-1606-0123
2C-F20 AR-1606-0063
2C-F22 AR-1606-0052
2C-F23 AR-1606-0047
2C-F24 AR-1606-0042
2C-F25 AR-1606-0048
2C-F26 AR-1606-0087
2C-F27 AR-1606-0124
2C-F29 AR-1606-0071
2C-F3 AR-1606-0053
2C-F31 AR-1606-0166
2C-F32 AR-2201-0212
2C-F33 AR-1406-0079
2C-F34 AR-2201-0303
2C-F35 AR-1606-0057
2C-F36 AR-1606-0168
2C-F37 AR-1606-0172
2C-F51/4D-ASI1F/600-ASIQ2. AR-1704-0008, AR-1704-0145
2C-F7 (MS/WO/RC) AR-0799-0018
2C-F7(R) AR-0799-0007
2C-F7(RC) AR-0799-0007
2C-F8 AR-0799-0021
2C-F9 AR-2201-0115
2C-OH-58/UH-1/AH-1/UH-60. AR-1606-0181
2C-SI 1B/2C-154C AR-1606-0178
2C-SI 1D/2C-152B (OH-58) AR-1606-0184
2C-SI 1E/2C-153B (UH-1) AR-1606-0183
2C-SI 1M/2C-152G AR-1606-0058
2C-SI 1M/2C-152G (AH-1) AR-1606-0185
2C-SI 1N/2C-153D (UH-60) AR-1606-0182
2C-SI 5K/2C-SQIC (OH-58D). AR-1406-0119
2C-SI1G/2C-154B AR-1606-0064
2C-SI1L/2C-152F AR-1606-0179
2C-SI1L/2C-152F(T) AR-1606-0167
2C-SI1V/2C-SQIF AR-1606-0190
2C-SI5K/SQIC (AH-64) AR-1406-0121
2C-SI5K/SQIC (UH-1) AR-1406-0113
2C-SI5K/SQIC (UH-60) AR-1406-0115
2C-SI5K/2C-SQIC AR-1406-0117, AR-1406-0122
2C-SI5K/2C-SQIC (CH-47D) AR-1406-0120
2C-SI5K/2C-SQIC (OH-58D) AR-1406-0078
2C-062B-A AR-1606-0070
2C-062B-B AR-1606-0074
2C-062B-C AR-1606-0075
2C-062B-D AR-1606-0127
2C-062D-A AR-1606-0051
2C-062D-B AR-1606-0064
2C-100-B AR-1606-0074
2C-100B-A AR-1606-0070
2C-100B-B AR-1606-0074
2C-100B-C AR-1606-0064, AR-1606-0074, AR-1606-0075
2C-100B-D AR-1606-0127
2C-100C-B AR-1506-0064
2C-100C-D AR-1606-0064
2C-100D AR-1606-0045
2C-100E AR-1606-0058
2C-100G AR-1606-0074
2C-15A AR-1606-0074
2C-15A-AF AR-1606-0127
2C-15ABX AR-1606-0074
2C-15AD-AF AR-1606-0127
2C-15AD-X AR-1606-0127
2C-15B AR-1606-0074
2C-15B/2C-100B-B AR-1606-0074
2C-15C/2B AR-1715-0871
2C-15C/2B-ASIB5 AR-1606-0204
2C-15C/2B-ASIF1 AR-1715-0498
2C-15C/2B-ASIF2 AR-1715-0569
2C-15C/2B-ASIF3 AR-1715-0568
2C-1981-A AR-1606-0070
2C-1981-B AR-1606-0074
2C-1981-D AR-1606-0127
2C-1985 AR-1606-0124

2C/SI5K/SQIC (OH-58D) AR-1406-0118

2E-ASI3R/494-SQIC AR-1720-0007
2E-ASI3Z/010-F1 AR-2201-0085
2E-ASI32 AR-2201-0085
2E-ASI4F/250-ASIY1 AR-1402-0084
2E-ASI5H AR-2201-0187
2E-ASI5H-A AR-0802-0025, AR-2201-0187
2E-ASI5J/494-ASIJ5 AR-0802-0001
2E-FOA-F76 AR-2201-0284
2E-FOA-F77 AR-1715-0633
2E-FOA-F90 (USMC) AR-2201-0374
2E-F1 AR-2201-0040
2E-F1/011-F1 AR-2201-0040
2E-F108 AR-1606-0188
2E-F109 AR-1606-0169
2E-F112 AR-1512-0019
2E-F12 AR-2201-0163
2E-F13 AR-2201-0187
2E-F130 AR-2201-0377
2E-F141/011-F27 AR-1408-0163
2E-F145 AR-2201-0380
2E-F15 AR-2201-0158
2E-F16 AR-2201-0164
2E-F17 AR-2201-0153
2E-F18 AR-2201-0172

2E-F2	AR-2201-0041
2E-F2/011-F2	AR-2201-0041
2E-F21	AR-0802-0001
2E-F3	AR-2201-0038
2E-F3/011-F16	AR-2201-0273
2E-F3/011-SQIY	AR-2201-0038
2E-F30	AR-2201-0159
2E-F32	AR-2201-0028
2E-F34	AR-2201-0154
2E-F37	AR-2201-0053
2E-F38/011-ASIW7/W9	AR-0803-0001
2E-F39	AR-2201-0151
2E-F45	AR-1606-0054
2E-F48	AR-2201-0060
2E-F48/011-ASIW8	AR-2201-0222
2E-F49	AR-2201-0218 AR-2201-0378
2E-F49 (USMC)	AR-2201-0378
2E-F5	AR-0802-0011
2E-F51	AR-2201-0147
2E-F52	AR-2201-0210
2E-F56	AR-2201-0060
2E-F56/011-F15	AR-2201-0060 AR-2201-0344
2E-F57/010-ASIE9	AR-2201-0277
2E-F58/010-F5	AR-1710-0062
2E-F58/010-F5/7-11M30/40	AR-1710-0062
2E-F59	AR-2201-0210
2E-F60/011-F16	AR-2201-0273
2E-F61	AR-2201-0147
2E-F65/011-F23	AR-1606-0177
2E-F66/011-F25	AR-1511-0018
2E-F67/011-F19	AR-2201-0349
2E-F68/010-F8	AR-2201-0275
2E-F7	AR-2201-0051
2E-F71/250-F16	AR-2201-0383
2E-F8	AR-2201-0162
2E-F9	AR-1511-0007
2E-F96	AR-2201-0381
2E-F96/041-F8	AR-2201-0284 AR-2201-0381
2E-SI4W/4Y/011-ASIW7/W9.	AR-0803-0006
2E-SI4X/ASI4X/011-ASIW8	AR-2201-0345
2E-SI5J/494-ASIJ5	AR-0802-0001
2E-SI5J/494J5	AR-0802-0001
2E-SI5P/SQI7/011-SQIP	AR-2201-0040
2E-100B/D31	AR-1606-0127
2E-11B/C	AR-2201-0085
2E-1154	AR-1601-0027
2E-1154/2G-1183	AR-1601-0054
2E-1174	AR-2201-0063
2E-1190	AR-1402-0026
2E-13A	AR-2201-0219
2E-13D	AR-1601-0027 AR-1601-0054
2E-13E	AR-2201-0368
2E-14B	AR-2201-0063
2E-1543	AR-2201-0085 AR-2201-0157
2E-18A	AR-2201-0346
2E-18A-RC	AR-2201-0347
2E-180A	AR-1406-0096
2F-FOA-F14	AR-1715-0803
2F-FOA-F15	AR-1715-0796
2F-F5	AR-2201-0088
2F-F8	AR-2201-0063
2F-F9/042-F1	AR-1715-0625 AR-1715-0834
2F-1111	AR-1715-0379
2F-1180C	AR-1715-0382
2F-1190D	AR-2201-0101
2F-1190E	AR-1715-0324
2F-1190L	AR-2201-0011 AR-2201-0189
2F-1190P	AR-1715-0324
2F-1190S	AR-2201-0101
2F-13B	AR-2201-0189 AR-2201-0371
2F-13B/042-13M20/30/40 (T)	AR-1715-0834
2F-13C	AR-1715-0324
2F-14C	AR-2201-0095
2F-14D	AR-1715-0382
2F-14E	AR-2201-0261
2F-14F (PIP II)	AR-1715-0382
2F-14G	AR-1715-0494
2F-241E	AR-1715-0246
2G-ASI4D/250-ASIX3	AR-1402-0071
2G-ASI4D/250-F14	AR-1402-0072
2G-F10	AR-1606-0014
2G-F11	AR-1606-0015
2G-F12	AR-1606-0017
2G-F13	AR-1704-0006
2G-F14	AR-1606-0023
2G-F15	AR-1408-0036
2G-F17	AR-2201-0199
2G-F23	AR-2201-0259
2G-F24	AR-1408-0147
2G-F25	AR-2201-0265
2G-F26	AR-2201-0272
2G-F3	AR-1715-0002 AR-1715-0009
2G-F31/250-F7	AR-2201-0283
2G-F35	AR-1704-0006
2G-F39	AR-1728-0070
2G-F40	AR-2201-0270
2G-F41	AR-1606-0197
2G-F42	AR-1606-0173
2G-F44	AR-2201-0318
2G-F46	AR-1405-0140
2G-F50	AR-2201-0047
2G-F52	AR-1402-0071
2G-F53	AR-1402-0072
2G-F57	AR-1402-0083
2G-F8	AR-1715-0439
2G-1115	AR-1715-0380
2G-1177	AR-1715-0315
2G-1178	AR-1715-0289
2G-1183	AR-1601-0033
2G-5702	AR-1720-0001
2GF30	AR-1402-0074
2000	AR-1405-0198
201-ASIR6	AR-1715-0762
201-ASIV8 (29E) (CT)	AR-1715-0885
201-ASIV9 (05C)	AR-1715-0608
201-ASIV9 (31C)	AR-1715-0608
201-F1	AR-1404-0003
201-F7	AR-1715-0857
201-05B10	AR-1715-0095
201-05B20	AR-1715-0095
201-05B40-EC	AR-2201-0083
201-05B42-I	AR-1404-0008
201-05C10	AR-1404-0009
201-05C10-CELT	AR-1404-0009
201-05C20	AR-1404-0009
201-05C40-EC	AR-1408-0024
201-05C40-I	AR-1715-0247
201-05E20	AR-1404-0017
201-05F20	AR-1409-0005
201-26Q10	AR-1715-0219
201-26Q20	AR-1715-0699
201-26R10	AR-1715-0430
201-31C10	AR-1404-0009
201-31C20	AR-1404-0034 AR-1404-0037
201-31Q10	AR-1715-0782
201-31Q20	AR-1715-0699
202-ASIX4	AR-1715-0654
202-ASIY1 (31M)	AR-1715-0775
202-ASIY1 (31Q)	AR-1715-0776
202-F2	AR-1715-0425
202-F4	AR-1715-0654
202-F5 (IRR)	AR-1715-0765
202-293.1	AR-1715-0053
202-31M10	AR-1715-0053
202-31M20	AR-1715-0053 AR-1715-0606
202-31M40-I	AR-1715-0064
202-31N10	AR-1714-0001 AR-1715-0849
202-31N10-CELT	AR-1714-0001
202-31N20	AR-1714-0001 AR-1715-0615
221-ASIL3	AR-1715-0493
221-ASIV3	AR-1715-0284
221-ASIX5	AR-1715-0559 AR-1715-0838
221-F2	AR-1715-0224
221-F4	AR-1704-0013
221-F6	AR-1715-0493
221-11-16J30	AR-2201-0267
221-13R/17B30	AR-1715-0635
221-13R/17B40	AR-2201-0292
221-13R10	AR-1715-0560 AR-1715-0829
221-13R10(ST)	AR-1715-0560
221-13R30/221-17B30	AR-1715-0635
221-16J10-OSUT	AR-1715-0515
221-16K20	AR-2201-0059
221-17B/13R40	AR-2201-0292
221-17B1T	AR-1715-0493
221-17B10	AR-1715-0250
221-17B10 (ST)	AR-1715-0250
221-17B20	AR-1715-0250
221-17B40-I	AR-2201-0018
221-17H20	AR-2201-0059
221-17K10	AR-1715-0178
221-17K20	AR-1715-0178
221-17L20	AR-2201-0116
221-17L20-I	AR-1715-0212
221-17M10	AR-1715-0393
221-17M20	AR-1715-0284 AR-1715-0393
221-17M30	AR-1715-0284
221-17Z50-EC	AR-2201-0183
221-186.1	AR-2201-0059
221-26E20	AR-2201-0116
221-26N20	AR-1715-0227
221-96H10	AR-1709-0010
221-96R10	AR-1715-0178
221T	AR-1710-0139
221W	AR-1710-0153
222-93C10	AR-1704-0177
222-93C30	AR-1704-0175
222-93C40	AR-1704-0176
222-93H10	AR-1704-0001
222-93H20	AR-1704-0001
222-93J10	AR-1704-0003
222-93J20	AR-1704-0003
222-93K20	AR-1704-0002
224.3C	AR-1715-0234
225ABA47331 (USAF)	AR-1703-0012
230-F1	AR-2201-0037
230-F3	AR-1606-0020
2300	AR-1401-0043
231-ASIA4	AR-1404-0011
231-ASIK3	AR-1715-0724 AR-1715-0725 AR-1715-0822
231-ASIK9	AR-1404-0018
231-F-KP	AR-1606-0147
231-F1	AR-1606-0011
231-F10	AR-1404-0018
231-F10(K9)	AR-1404-0018
231-F11	AR-1402-0050
231-F12	AR-2201-0207
231-F12(RU)	AR-2201-0207
231-F13	AR-1715-0534 AR-1715-0712
231-F14	AR-1606-0150 AR-2201-0198
231-F14(GM)	AR-1606-0150
231-F15	AR-1715-0536
231-F16	AR-1715-0535
231-F17	AR-1606-0149
231-F17(CM)	AR-1606-0149
231-F18	AR-1606-0147
231-F18(KP)	AR-1606-0147
231-F19	AR-1606-0148
231-F19(LA)	AR-1606-0148
231-F2	AR-1409-0003
231-F22	AR-1606-0146
231-F22(CX)	AR-1606-0146

231-F3 AR-1715-0333
231-F4 AR-1409-0004
231-F5 AR-1409-0007
231-F7 AR-2201-0206
AR-2201-0317
231-05D10 AR-1409-0009
AR-1409-0011
231-05D20 AR-1606-0030
231-05D30 AR-1606-0029
AR-2201-0104
AR-2201-0316
231-05D40 AR-2201-0104
231-05G10 AR-1404-0005
231-05G20 AR-1404-0005
231-05G30 AR-1606-0079
AR-1717-0054
231-05H10 AR-1409-0008
AR-1409-0012
231-05H20 AR-1404-0016
231-05H30 AR-1717-0037
AR-1717-0079
231-05K20 AR-1715-0248
231-05K30 AR-1717-0049
AR-1717-0078
231-96R30 AR-1606-0207
231-97G10 AR-1402-0127
AR-1404-0005
231-97G30 AR-1402-0126
231-98G3L AR-1717-0055

232-F1 AR-1606-0016
232-F2 AR-2201-0200
232-F3 AR-2201-0201
232-F4 AR-2201-0202
232-F5 AR-1402-0089
232-F8 AR-2201-0313
232-98B20 AR-1728-0038
232-98C20 AR-1606-0012
232-98C30 AR-1715-0734
AR-1717-0056
232-98D20 AR-1606-0079
232-98G3L AR-1717-0055
232-98G3LGM AR-1717-0055
232-98G3LRU AR-1717-0055
232-98G3LXX AR-1715-0727
AR-1715-0728
232-98G30 AR-1717-0055
232-98J30 AR-2201-0209

233-ASIG4 AR-2201-0203
233-ASIJ1 AR-1715-0137
AR-1715-0729
233-ASIK3 AR-1715-0005
233-ASIZ7 AR-1715-0731
233-F13/3B-ASI9C AR-1715-0790
233-F15 AR-1606-0205
233-F2 AR-1715-0005
233-F3 AR-1715-0137
233-F3(J1) AR-1715-0137
233-F5 AR-2201-0208
233-F7 AR-2201-0203
233-F8 AR-1715-0537
AR-1715-0730
233-F9 AR-1715-0538
233-96H10 AR-1606-0208
233-96H30 AR-1606-0203
233-98J10 AR-1715-0018
AR-1715-0710
233-98J20 AR-1715-0018
233-98J30 AR-1715-0003
AR-1715-0726

241-17C30 AR-1304-0005
241-96C10 AR-1728-0037
AR-1728-0084
241-96C2L AR-1728-0037
241-96C2L-I AR-1728-0039
241-96C20 AR-1728-0037
AR-1728-0040
241-966.1 AR-1728-0037
241-97E10 AR-1728-0084
241-97E30 AR-1606-0198

242-F5 AR-1715-0870
242-96D10 AR-1606-0115
AR-1606-0193
242-96D20 AR-1606-0084
242-96D20-I AR-1606-0128
242-96D30 AR-1606-0142
AR-1606-0191
242-96D40-EC AR-1606-0002
242-96D40-I AR-1606-0128

243-F1 AR-1606-0007
243-F10/232-F7 AR-1402-0091
243-F11 AR-1511-0013
243-F4 AR-1606-0005
243-96B10 AR-1606-0134
AR-1728-0083
243-96B10 (ST) AR-1606-0134
243-96B20 AR-1606-0151
243-96B20-I AR-1606-0032
243-96B20A AR-1606-0034
243-96B30 AR-1606-0132
AR-1606-0192
243-96B40-EC AR-1606-0001
243-96F10 AR-1512-0021
243-96F10-RC IDT/ADT AR-1512-0022
243-96F30 AR-1512-0020

244-ASIF1 AR-1606-0026
AR-1606-0176
244-ASIF1-RC AR-1511-0019
AR-1511-0020
244-ASIG9 AR-1715-0420
244-ASI9I AR-1715-0420
244-F1 AR-1715-0206
244-F2 AR-1606-0025
244-F3 AR-1709-0005
244-F5 AR-1606-0026
AR-1606-0027
244-F6 AR-1512-0002
244-F7(G9) AR-1715-0420
244-97B10 AR-1606-0145
AR-1728-0086
244-97B20 AR-1606-0141
AR-1728-0082
244-97B20-T AR-1728-0080
244-97B30 AR-1728-0081
244-97B40 AR-1606-0004
AR-1606-0140
244-97C40 AR-1606-0031
244-97D20 AR-1606-0035

250-A-C2 AR-1511-0006
250-A-C3 AR-1408-0059
250-A-F1 AR-2201-0187
250-F1 AR-2201-0061
250-F14 AR-1402-0072
250-F32 AR-1402-0112
250-F5 AR-2201-0042
250-F6 AR-1402-0074
250-O-3 AR-1408-0059
250-O-8 AR-2201-0187
250-0-1 AR-1511-0006
250-0841 AR-2201-0145
250-0844 AR-1601-0055
250-0846 AR-2201-0145
250-0848 AR-1304-0009
250-1-19D30 AR-1710-0137
AR-2201-0322
250-1-19D30 (ITV) AR-2201-0322
250-10-13E30 AR-2201-0257
250-10-13F30 AR-2201-0256
250-10-19D30 AR-2201-0322
250-10-19D30 (ITV) AR-2201-0322
250-11-19D30 AR-2201-0322
250-11D10 AR-1712-0001
250-11D2F AR-1606-0044
250-11D40-I AR-2201-0006
250-11F40-I AR-2201-0007
250-11F50-EC AR-2201-0049
250-12D20 AR-2201-0180
250-13-13E30 AR-2201-0257
250-13-13F30 AR-2201-0256
250-13C10 AR-1402-0082
AR-1715-0832
250-13C30 AR-1715-0638
250-13C40 AR-2201-0286
AR-2201-0369
250-13E10 AR-1304-0004
AR-1715-0844
250-13E40-I AR-2201-0175
250-13F10 AR-1713-0008
AR-1715-0846
250-13F40 AR-2201-0287
AR-2201-0363
250-15J-T AR-1715-0634
250-15J10 AR-1601-0056
250-15J40 AR-2201-0289
250-16H10 AR-1601-0068
250-16H10-AIT AR-1601-0068
250-16H10-OSUT AR-1601-0068
250-18-13E30 AR-2201-0257
250-18-13F30 AR-2201-0256
250-18-19D30 AR-2201-0322
250-18-19D30 (ITV) AR-2201-0322
250-2-13E30 AR-2201-0257
250-2-13F30 AR-2201-0256
250-4-19D30 AR-2201-0322
250-4-19D30 (ITV) AR-2201-0322
250-5-13E30 AR-2201-0257
250-5-13F30 AR-2201-0256
250-7-19D30 AR-2201-0322
250-7-19D30 (ITV) AR-2201-0322
250-8-13E30 AR-2201-0257
250-8-13F30 AR-2201-0256
250-848 AR-2201-0042
250-9-13E30 AR-2201-0257
250-9-13F30 AR-2201-0256
250-9-19D30 AR-2201-0322
250-9-19D30 (ITV) AR-2201-0322

260-ASI B9(72E) AR-1715-0267
260-ASIB9/580-F2 AR-1715-0267
260-ASIK7 AR-1715-0605
260-ASIQ3 AR-1715-0587
260-ASIU3 AR-1715-0501
260-ASIY3 (CT) AR-1715-0875
260-ASIZ2 AR-1402-0078
260-F1 (72E) AR-1715-0693
260-F2 AR-1715-0708
260-F7 AR-1715-0364
260-F8 AR-1715-0587
260-31D10 (CT) AR-1715-0884
260-31F10 AR-1715-0886
260-72E10 AR-1406-0065
260-72E10/260-72G10 AR-1406-0129
260-72E20 AR-1408-0111
AR-1715-0881
260-72G10 AR-1404-0007
AR-1715-0526
260-72G10 (T) AR-1715-0760
260-72G20 AR-1715-0686
AR-1715-0881
2600 AR-1406-0112

3-A-C1 AR-2201-0177
3-A-C2 AR-2201-0128
3-A-C20 AR-2201-0177
3-A-C21 AR-2201-0149
3-A-C22 AR-1408-0046
3-A-C23 AR-1408-0041
3-A-C4 AR-1408-0046
3-A-C5 AR-1408-0047
3-A-C8 AR-2201-0118
3-A-F1 AR-0802-0011
3-A-7330 AR-1303-0002

3-E-1 AR-2201-0068
AR-2201-0117
3-E-14 AR-2201-0179
3-E-15 AR-1405-0055
3-E-5 AR-1303-0001
3-E-6 AR-1405-0030
3-E-8 AR-1702-0001

3-G-F3 AR-0802-0004

3-I-F3 AR-0802-0004

3-O-A AR-2201-0177
3-O-1 AR-2201-0128
3-O-14 AR-2201-0118
3-O-18 AR-1717-0045
3-O-3 AR-1408-0046

3-O-4 AR-1408-0047
3-O-5 AR-0802-0011
3-O-6 AR-0802-0004

3-R-F2 AR-0802-0003
3-R-530.0 AR-2201-0077
3-R-532.7 AR-1601-0040
3-R-533.1 AR-1601-0042
3-R-533.7 AR-2201-0179
3-R-534.1 AR-2201-0068
3-R-534.6 AR-2201-0117
3-R-761.6 AR-1405-0055
3-R-904.1 AR-1303-0001

3-30-C20 AR-1606-0018
3-30-C20-35A AR-1606-0137
AR-1606-0153
3-30-C20-35C AR-2201-0121
3-30-C20-35D AR-1408-0177
3-30-C20-36A AR-1606-0140
3-30-C21 AR-1606-0082
3-30-C22 AR-1606-0076
3-30-C22-35C AR-1606-0194
3-30-C22-35E AR-1728-0085
3-30-C22-35G AR-1406-0128
3-30-C32 AR-1606-0136
AR-1606-0202
3-30-C32-RC AR-1606-0195
3-30-OB-35A AR-1606-0137
3-30-OB-36A AR-1606-0140
3-30-0B-35A AR-1606-0137
3-30-0B-35C AR-2201-0121
3-30-0B-36A AR-1606-0140
3-30-35C AR-2201-0121
3-30-37A AR-1606-0086
3-30-37B AR-1606-0094
3-30-37C AR-1606-0130
3-32-C22 AR-1728-0042

3A-F1 AR-1606-0082
3A-F14 AR-1606-0092
3A-F18 AR-1606-0005
3A-F22 AR-1715-0224
3A-F28 AR-1512-0003
3A-F3 AR-1709-0005
3A-F37/241-F1 AR-1728-0056
3A-F38/012-F27 AR-0803-0007
3A-F40/011-F21 AR-1513-0009
3A-F42 AR-1715-0498
3A-F43 AR-1715-0569
3A-F44 AR-1715-0570
3A-F45 AR-1715-0568
3A-F53/243-F12 AR-1512-0023
3A-F55/233-F16 AR-1408-0176
3A-F56/230-ASID4 AR-2201-0385
3A-SI3Q/3C-ASI9N/241-ASIN7 AR-1728-0056
3A-SI5E AR-1512-0018
3A-SI5E-RC AR-1512-0017
3A-S13E/ASI9C/243-ASIT4 AR-1408-0176
3A-WOTTC-CC AR-1402-0128
3A-35D AR-1728-0087
3A-350B AR-2201-0384
3A-350D AR-1606-0200
3A-351E AR-1606-0199
3A-48B AR-1512-0001
3A-48BB AR-1512-0007
3A-9301 AR-1606-0033
3A-9305 AR-1512-0001
3A-9305-A AR-1512-0001
3A-9305-B AR-1512-0003
3A-9309 AR-2201-0121
3A-9316 AR-1728-0036
3A-961A AR-1606-0154
3A-962A AR-1606-0154
3A-964A AR-1606-0154
3A-9668 AR-1606-0031
3A-972A AR-1606-0031
AR-1606-0154
3A-973A AR-1606-0154

3B-ASI5M AR-1715-0439
3B-ASI9C/233-ASIT4 AR-1715-0790
3B-F11 AR-2201-0315
3B-F5 AR-1715-0048
3B-F7/233-F10 AR-2201-0314
3B-F9/233-F11 AR-1402-0090
3B-352C, Phase 2 AR-1408-0137
3B-352D AR-1408-0135
3B-352G, Phase 2 AR-1408-0138
3B-352J, Phase 2 AR-1408-0136
3B-938A AR-1408-0136
3B-9600 (RC) AR-2201-0204
3B-982A AR-1408-0137
AR-1606-0154
3B-983A AR-1606-0154
3B-984A AR-1408-0133
AR-1606-0154
3B-985A AR-1408-0134
AR-1606-0154
3B-986A AR-1408-0135
AR-1606-0154
3B-988A AR-1408-0138
AR-1606-0154

3C-ASI9L AR-1715-0420
3C-ASI9L/244-ASIG9 AR-1715-0711
3C-F1 AR-1715-0206
3C-F11 AR-1606-0083
3C-F13(J) AR-1715-0420
3C-F14/244-F8 AR-1511-0024
AR-1606-0152
3C-F2 AR-1606-0025
3C-F4 AR-1606-0007
3C-F7 AR-1606-0019
3C-351B AR-1606-0201
3C-9666 AR-1606-0039
AR-1606-0140
3C-9666-B AR-1606-0080
3C-971A AR-1606-0039
AR-1606-0140
AR-1606-0154

3R-OPMS-45B AR-1408-0001

30-A-C4 AR-1606-0076
30-A-C5 AR-1606-0077
30-A-8503 AR-1709-0008
30-A-9301 AR-1606-0085
30-A-9316 AR-1728-0036
30-A-9318 AR-1606-0081
30-B-9666 AR-1606-0039
30-E-3 AR-1606-0010
30-E-6 AR-1606-0008
30-E-9 AR-1728-0037
30-R-962.2 AR-1606-0010
30-R-966.1 AR-1728-0037
30-R-969.1 AR-1606-0084
30-R-971.1 AR-1606-0009
30-R-971.7 AR-1606-0078
30-0-13 AR-1728-0036

300 AR-1406-0110
300-F1 AR-0709-0006
300-F10 AR-0801-0019
300-F12 AR-0702-0006
300-F2 AR-0702-0005
300-F3 AR-0709-0018
300-F4 AR-0709-0016
300-F6 AR-0709-0029
AR-0709-0040
300-Y6 AR-0702-0012
300-0-7 AR-1408-0074
300-91A10 AR-0709-0032
300-91B10 AR-0703-0007
300-91B20 AR-0709-0033
300-91B30(RC) AR-0709-0034
300-91C10 AR-0709-0009
AR-0709-0024
300-91C20 AR-0703-0015
AR-0709-0009
AR-0709-0019
300-91C30 AR-0709-0009
300-91N10 AR-0709-0023
300-91U10 AR-0709-0002
300-91U20 AR-0709-0002
300-91V10 AR-0704-0007
AR-0704-0008
300-91Y10 AR-0706-0001
AR-0706-0002
300-91Y20 AR-0706-0001

301-91D10 AR-0709-0001
AR-0709-0035
301-91D20 AR-0709-0001

302-F1 AR-0799-0010
302-F2 AR-0799-0010
302-F4/5H-F4 AR-0801-0003
302-91F10 AR-0708-0001
302-91F20 AR-0708-0001
302-91G10 AR-1512-0006
AR-1512-0016
302-91G20 AR-1512-0004
AR-1512-0006

303-91J10 AR-0704-0001
303-91J20 AR-0704-0001
303-91L10 AR-0704-0004
303-91L20 AR-0704-0004

304-42C10 AR-0704-0006
AR-0704-0010
304-42C20 AR-0704-0006
304-91H10 AR-0704-0005
AR-0704-0009
304-91H20 AR-0704-0005

31M10-CELT AR-1715-0053

31ZA7 AR-1715-0364

311-F1 AR-0702-0003
311-42E10 AR-0709-0015
311-42E20 AR-0709-0015
311-91X20 AR-0705-0006
AR-0705-0009
311-92B10 AR-0702-0002
AR-0702-0008
AR-0702-0013
311-92B20 AR-0702-0002
311-92B30 AR-0702-0001
AR-0702-0007
311-92E20 AR-0702-0011

312-91Q10 AR-0709-0005

313-F1 AR-0705-0004
313-91P10 AR-0705-0001
313-91P20 AR-0705-0001

32-A-C22 AR-1728-0042
32-R-286.1 AR-1715-0189
32-R-286.2 AR-1715-0138
32-R-286.6 AR-1717-0028
32-5-74D20 AR-1408-0005

32F30 AR-1408-0112
AR-1715-0603

321-F3 AR-0102-0003
AR-1729-0015
321-91R10 AR-0104-0002
321-91R10 (RC) AR-0104-0011
321-91R20 AR-0104-0001
321-91T10 AR-0102-0002
AR-0102-0007
321-91T20 AR-0102-0002
321-91T30 AR-0102-0005

322-91S10 AR-0707-0002
AR-0707-0005
322-91S10(RC) AR-0707-0007
322-91S20 AR-0707-0001
AR-0707-0005
322-91510 AR-0707-0016
322-91510 (RC) AR-0707-0017
322-933.1 AR-0707-0002

323-F11 AR-0707-0008
323-F16 AR-0802-0018

33-G-F3 AR-2201-0162
33-G-F6 AR-1511-0007
33-G-F7 AR-1511-0009
33-R-F11 AR-1512-0002

330-F1 AR-0701-0004
AR-0701-0011
330-F2 AR-0701-0008
330-F3 AR-0701-0002
330-X2 AR-0701-0002
330-91E10 AR-0701-0007
AR-0701-0013
330-91E10(RC) AR-0701-0009
AR-0701-0012
330-91E20 AR-0701-0002
AR-0701-0007
330-91E30 AR-0701-0002
AR-0701-0008

331-42D10 AR-0701-0001
AR-0701-0014
331-42D10(RC) AR-0701-0010
331-42D20 AR-0701-0006
331-42D30 AR-0701-0003
AR-0701-0015
331-42F20 AR-0701-0005

3400 AR-1405-0201

35-A-C22 AR-1408-0060
35-E-3 AR-1409-0001
35-E-4 AR-1407-0002
35-O-[illegible] AR-1404-0012
35-O-3 AR-1408-0060

4-CL-C40 AR-2201-0031
4-CL-C42 AR-2201-0029

4-IV-C40 AR-1717-0053
4-IV-C42 AR-2201-0043

4-N-9511 AR-2201-0023

4-TP-C40 AR-1601-0021
4-TP-C42 AR-1601-0020

4-11-C20 AR-1404-0006
4-11-C20RA AR-1715-0265
4-11-C22 AR-1715-0319
4-11-C22-25A AR-1402-0049
AR-1715-0319
4-11-C22-25C AR-1715-0770
4-11-C22-72A AR-1408-0082
4-11-C23 (NR/R) AR-1715-0296
4-11-C25 AR-2201-0075
4-11-C25-RC AR-2201-0307
4-11-C26 (RC) AR-2201-0094
4-11-C26 RC AR-2201-0306
4-11-C30 AR-1715-0059
4-11-C32 AR-1715-0395
4-11-C32-250A AR-1715-0704
4-11-C32-252A AR-1715-0707
4-11-C32-256A AR-1715-0860
4-11-C32-290A AR-1715-0704
4-11-C32-387A AR-1402-0100
4-11-F1 AR-2201-0160
4-11-OA25 AR-1715-0433

4-3-C-22-74A AR-1408-0046
4-3-C20-74A AR-2201-0177
4-3-74A-C22 AR-1408-0046
4-31-C42 (RC) AR-1715-0706

4-5-C20 AR-1601-0044
4-5-C20 (RA) AR-1601-0044
4-5-C22 AR-1601-0017
4-5-C25 AR-1601-0051
4-5-C26 AR-1601-0050
4-5-C30 AR-1601-0011
4-5-F1 AR-1601-0029
4-54-C40 AR-2201-0169
4-54-C42 AR-2201-0029
4-55-C32-510A2 AR-1712-0021

4-81-C40 AR-1601-0021

4-9-C20 AR-1405-0048
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4-9-C20-73A AR-1405-0089
4-9-C20-74A AR-1405-0090
4-9-C20-75A AR-1405-0091
4-9-C20-75B AR-1405-0091
4-9-C20-76A AR-1405-0092
4-9-C20-77A AR-1405-0093
4-9-C20-77B AR-1405-0093
4-9-C20-77C AR-1405-0093
4-9-C20-77D AR-1405-0093
4-9-C20-91A AR-1405-0074
4-9-C20-91B AR-1405-0074
4-9-C20-91C AR-1405-0159
4-9-C20-91D AR-1405-0158
4-9-C21 AR-1405-0001
4-9-C21-223BV AR-2201-0108
4-9-C22 AR-1408-0031
AR-1408-0108
4-9-C22-E AR-1405-0094
4-9-C22-73A/75A AR-1408-0124
4-9-C22-74A AR-1408-0066
4-9-C22-75A AR-1408-0077
4-9-C22-76A AR-1717-0062
4-9-C22-77A AR-1408-0078
4-9-C22-91A AR-1405-0150
4-9-C22-91A RC AR-1405-0151
4-9-C22-91C/D AR-1408-0153
4-9-C22-91C/DD AR-1408-0153
4-9-C22A AR-1408-0066
4-9-C22B AR-1408-0078
4-9-C22C AR-1717-0063
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4-9-C22E AR-1408-0038
4-9-C30-A AR-1710-0012
4-9-C30-B AR-1710-0013
4-9-C30-C AR-1710-0044
4-9-C30-D AR-1710-0014
4-9-C30-E AR-1710-0045
4-9-C30-F AR-1715-0099
4-9-C30-G AR-1715-0255
4-9-C30-H AR-1715-0246
4-9-C30-I AR-1715-0078
4-9-C30-J AR-2201-0008
4-9-C31-271AO AR-2201-0108
4-9-C32 AR-1715-0290
AR-1717-0003
AR-1717-0032
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AR-2201-0108
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4-9-C32-A AR-1715-0290
4-9-C32-B AR-1717-0032
4-9-C32-C AR-1717-0034
4-9-C32-D AR-2201-0126
4-9-C32-214EV AR-2201-0108
4-9-C32-224BV AR-2201-0108
4-9-C32-260AO AR-2201-0108
4-9-C32-260A0 AR-0802-0019
4-9-C32-271A0 AR-1715-0645
4-9-C32-411AO AR-0802-0022
AR-2201-0108
4-9-C32-421A AR-1710-0123
4-9-C32-441A AR-1405-0152
4-9-C32-630B AR-1405-0153
4-9-C32-630C AR-1703-0032
4-9-C32-630D AR-1703-0033
4-9-C32A AR-1717-0062
4-9-C32B AR-1717-0059
4-9-C32D AR-1717-0061
4-9-C32E AR-1717-0003
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4-9-C32F AR-1717-0057
4-9-C32K AR-2201-0108
4-9-F1 AR-1717-0042
4-9-OB-73A AR-1405-0089
4-9-OB-91A AR-1405-0074

4A-F1 AR-1601-0028
4A-F2 AR-1408-0053
4A-F4 AR-1408-0022
4A-21C AR-1408-0053
4A-7130 AR-1408-0053

4B-F10 AR-1715-0237
4B-F13 AR-1715-0140
4B-F14 AR-1715-0210
4B-F2/198-35G10 AR-1715-0316
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4B-F20 AR-1715-0619
4B-F3 AR-1715-0194
4B-F4/198-F4 AR-1715-0621
4B-F5/198-F5 AR-0705-0007
4B-F6 AR-1715-0041
4B-F6/198-F6 AR-0705-0008
4B-F7 AR-1715-0228
4B-F7/198-F7 AR-1715-0620
4B-F8 AR-1715-0024
4B-F8/198-F8 AR-1715-0622
4B-F9 AR-1715-0035
4B-OA72 AR-1405-0134
4B-140E AR-1715-0797
4B-202A AR-1715-0317
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4B-202A/198-35U20 AR-1715-0639
4B-222B AR-1715-0[illegible]51
4B-222B-B AR-1715-0179
4B-222B-T AR-1715-0174
4B-252A AR-1405-0131
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4B-287A AR-1405-0130
4B-361A AR-1402-0007
4B-670A/198-670A AR-0799-0019

4C-ASI3T AR-1715-0598
4C-ASI6B AR-1715-0226
4C-FOA-F26 AR-1715-0700
4C-FOA-F27 AR-2201-0304
4C-FOA-F29 AR-1715-0769
4C-F10 AR-1402-0020
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4C-F12 AR-1715-0148
4C-F14 AR-1402-0019
4C-F15 AR-1402-0021
AR-1402-0017
4C-F16 AR-1408-0109
4C-F17 AR-1715-0503
4C-F18 AR-1715-0500
4C-F19/102-ASIA1 AR-1715-0694
4C-F19/102-ASIY1 AR-1715-0694
4C-F2 AR-1715-0172
4C-F20 AR-1715-0508
4C-F22/160-F23 AR-1715-0614
4C-F24 AR-1715-0630
4C-F25 AR-1715-0766
4C-F28 AR-2201-0305
4C-F39 AR-1715-0598
4C-F4 AR-1715-0359
4C-F41/101-F29 AR-1715-0880
4C-F5 AR-1715-0242
4C-F6 AR-1715-0165
4C-F7 AR-1715-0334
4C-F9 AR-1715-0062
4C-OA25 AR-1402-0049
4C-OA26 AR-1404-0019
4C-OB-25B AR-1404-0030
4C-OB-27A AR-1715-0592
4C-SI5D/260-ASID9 AR-1115-0013
4C-SI6B AR-2201-0386
4C-0200 AR-1715-0226
4C-0205 AR-1715-0226
4C-022-0 AR-1408-0050
4C-0221 AR-1404-0013
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4C-0405 AR-1715-0268
4C-0500 AR-1715-0071
AR-1715-0186
4C-0503 AR-1715-0071
AR-1715-0251
4C-0505 AR-1715-0071
4C-131A AR-1715-0840
4C-131A-RC AR-1715-0841
4C-140A AR-1715-0807
4C-209A AR-1404-0013
4C-211A AR-1715-0176
AR-1715-0177
AR-1715-0558
AR-1715-0840
4C-225B AR-1715-0807
4C-25A AR-1715-0226
4C-25A-C AR-1715-0071
4C-25B AR-1404-0013
4C-25C AR-1715-0268
4C-250A AR-1402-0132

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4C-250A-RC, Phases 2 and 4 AR-1715-0859
4C-250B AR-1402-0130
4C-256A AR-1402-0131
AR-1405-0129
4C-256A-RC AR-1715-0858
4C-26B AR-1404-0013
4C-26C AR-1715-0268
4C-285A AR-1408-0132
AR-1606-0154
4C-286A AR-1405-0129
AR-1717-0011
4C-286A-RC AR-1715-0858
4C-290A AR-1405-0128
4C-290A-RC, Phases 2 and 4 AR-1715-0859
4C-4415 AR-1717-0011
4C-4825 AR-1717-0011
4C-72A AR-1717-0011
4C-721A AR-1404-0013
4C-741E AR-1402-0006
4C-7750 AR-1715-0254
4C-8500 AR-1709-0006
4C-8511 AR-1709-0006

4D-F1 AR-1704-0034
4D-F3 AR-1704-0062
4D-F4/600-F11 AR-1704-0157
4D-SIC2/2C-SQIG AR-1717-0084
4D-SI1A/2C-SQIG AR-1717-0086
4D-SI1B/2C-SQIG AR-1717-0084
4D-SI1E/2C-SQIG AR-1717-0082
4D-SI1G/2C-SQIG AR-1717-0084
4D-SI1L/2C-SQIG AR-1717-0093
4D-SI1M/2C-SQIG AR-1717-0083
4D-SI1N/2C-SQIG AR-1717-0087
4D-SI1P/2C-SQIG AR-1717-0085
4D-SQIE AR-1704-0062
4D-100B AR-1717-0051
4D-100C AR-1717-0051
4D-100E AR-1717-0051
4D-15T/151A/152GG1M AR-1717-0071
4D-15T/151A/154BGIG AR-1717-0074
4D-15T/153A/153CGIP (OH-58) AR-1717-0073
4D-15T/153A/154CG1G AR-1717-0075
4D-15T/160A/100AGIN (UH-60) AR-1717-0069
4D-160A AR-1717-0051
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4D-671E AR-1717-0023
AR-1717-0024
AR-1717-0026
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4D-71A AR-1704-0132
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AR-1717-0076
4D-71A/160A/100 EG1M AR-1717-0071
4D-71A/160A/100A/B/C/E AR-1717-0068
4D-71A/160A/100AG1N AR-1717-0051
4D-71A/160A/100BGIE (UH-1) AR-1717-0070
4D-71A/160A/100BG1E AR-1717-0051
4D-71A/160A/100BG10 AR-1717-0051
4D-71A/160A/100CGH (CH-47D) AR-1717-0075
4D-71A/160A/100CGIG AR-1717-0074
4D-71A/160A/100CG1G AR-1717-0051
4D-71A/160A/100EG1M AR-1717-0051
4D-71A/160A/100KGIL AR-1717-0072
4D-91C/D AR-1408-0152

4E-F0A-F10 AR-1405-0146
4E-F0A-F11 AR-1405-0148
4E-F0A-F9 AR-1720-0008
4E-F1 AR-0802-0010
4E-F3 AR-0802-0002
4E-F3/431-55D20 AR-0802-0002
4E-260A AR-1715-0366
AR-1715-0367
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AR-1715-0750
4E-261A AR-2201-0008
4E-262A-A AR-2201-0008
4E-411A AR-0802-0012
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4E-4514 AR-1717-0048
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4E-4517 AR-2201-0017
4E-4808 AR-1717-0014
4E-73A/4F-75A AR-1408-0124
4E-75C AR-2201-0017
4E-910A AR-0802-0021

4F-F0A-F20 AR-1405-0148
4F-F1 AR-1715-0058
4F-F12 AR-1715-0533
4F-F14/121-F29 AR-1715-0754
4F-F15 AR-1715-0574
4F-F15/121-24R50-T AR-1715-0574
4F-F16/121-F30 AR-1715-0757
4F-F17 AR-1715-0753
4F-F21 AR-1715-0644
4F-F22 AR-1715-0647
4F-F23 AR-1715-0646
4F-F3/121-ASID3 AR-1710-0108
4F-F4 AR-1715-0102
4F-F5 AR-2201-0260
4F-F5/041-ASIJ4 AR-2201-0379
4F-F6 AR-1715-0276
4F-F7 AR-1715-0119
4F-F8 AR-2201-0092
4F-SQIV (SHORADS) AR-1715-0646
4F-1181 AR-1715-0286
4F-130A AR-1715-0842
4F-130B AR-1715-0843
4F-14F AR-1715-0286
4F-140B AR-1715-0656
4F-140D AR-1715-0295
4F-214E AR-1715-0117
AR-1715-0525
AR-1715-0628
AR-1715-0842
4F-214E-A AR-1715-0487
4F-214EB AR-1715-0488
4F-214F AR-1715-0102
4F-214G AR-1715-0626
4F-221B AR-1715-0084
4F-221C AR-1715-0377
4F-222C AR-1715-0653
4F-223 BT AR-1715-0520
4F-223B AR-1715-0[illegible]95
4F-223C AR-1715-0146
4F-223D AR-1715-0295
4F-223D-T AR-1715-0378
4F-224B AR-1715-0081
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4F-241E AR-1715-0246
4F-241E-A AR-1715-0246
4F-241E-B AR-1717-0034
4F-241F AR-1715-0078
4F-241F-A AR-1715-0078
4F-241F-B AR-2201-0126
4F-251B AR-1715-0255
4F-251B-A AR-1715-0255
4F-251B-B AR-1717-0032
4F-251C AR-1715-0099
4F-251C-A AR-1715-0099
4F-251C-B AR-1715-0290
4F-251D-T AR-1402-0027
4F-271A AR-1715-0130
4F-361A AR-1402-0007
AR-1715-0401
4F-361A-T AR-1715-0402
4F-4515 AR-1405-0068
4F-4515T AR-2201-0102
4F-4516 AR-1715-0330

4H-510A AR-1712-0020
4H-562C AR-0419-0039
AR-1714-0008
4H-562D AR-1712-0007
4H-881A AR-1712-0020

4J-F1/493-F3 AR-0801-0011

4K-7314 AR-2201-0050
4K-74A AR-1408-0125

4L-0663 AR-1710-0033
4L-441A AR-1710-0048
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4L-621A AR-1712-0006
4L-630A AR-1710-0116
4L-631A AR-1703-0018
4L-632A AR-1703-0018

4M-F1 AR-1601-0006
4M-7915 AR-1601-0007

4N-FOA-F6 AR-1703-0034
4N-FOA-F7 AR-1703-0035
4N-F2 AR-2201-0087
4N-2180 AR-2201-0221
4N-401A AR-1733-0003
4N-461A AR-1733-0001
4N-48F/500-F3 AR-2201-0343
4N-4803 AR-1717-0041
4N-4815 AR-1717-0044
4N-7242 AR-1606-0036
4N-91A AR-1405-0154
4N-921A AR-1733-0010

400 AR-1408-0172
400-G-F1 AR-1405-0071
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400-G-F7 AR-1408-0035
400-I-F2 AR-1405-0057
400-I-F3 AR-1405-0042
400-I-F4 AR-0326-0005
400-I-4600 AR-1405-0058
400-O-1 AR-1405-0039
400-O-2 AR-0326-0001
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400-84C20 AR-1709-0004
400-84G20 AR-1709-0002

41-A-F6 AR-1511-0008
41-G-F5 AR-1511-0002
41-I-F1 AR-2201-0148
41-I-F2 AR-1408-0049
41-I-F7 AR-1513-0003
41-O-7 AR-2201-0148

411-F1 AR-1713-0001
411-81C20 AR-1713-0006
411-81D20 AR-1713-0004
AR-1713-0005
411-81D30 AR-1709-0007
411-813.1 AR-1713-0006
411-82C40 AR-2201-0293

412-F1 AR-1601-0016
412-F2 AR-1601-0006
412-153.1 AR-1601-0034
412-155.2 AR-1715-0153
412-17C10 AR-1715-0153
412-17C10(ST) AR-1715-0153
412-17C20 AR-1715-0153

412-17C40-EC AR-1715-0386
AR-2201-0186
412-82B20 AR-1601-0024
412-82B40-I AR-1601-0010
412-82C10 AR-1601-0034
AR-1601-0079
412-82C10/412-82C10(ST) AR-1601-0079
412-82C20 AR-1601-0034
412-82C30 AR-2201-0376
412-82C40-EC AR-1601-0045
AR-2201-0186
412-82D20 AR-1601-0022
412-82E20 AR-1601-0023

413-81B20 AR-1713-0007

420-ASIH1 AR-1715-0835
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420-905.1 AR-1304-0001
420-93E20 AR-1304-0001
420-93E50-FC AR-1304-0003
420-93F1T(ST) AR-1304-0002
420-93F10 AR-1304-0002
AR-1304-0011
420-93F20 AR-1304-0002
420-93F20-I AR-1715-0121
420-93F30 AR-1304-0006
AR-1304-0010
420-93F40 AR-1304-0008

431-12E20 AR-0802-0009
431-413.1 AR-0802-0002
431-55D10 AR-0802-0002
431-55D20 AR-0802-0002
431-55D30 AR-1728-0076

433-00B10 AR-1606-0036
433-00B20 AR-1606-0036
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44-A-C1A AR-2201-0082
44-A-C1B AR-2201-0120
44-A-C1C AR-2201-0191
44-A-C2 AR-1601-0032
44-A-C20 AR-2201-0082
44-A-C23 AR-2201-0111
44-A-C3A AR-2201-0080
44-A-C3B AR-1715-0288
44-A-C5 AR-1408-0030
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44-A-F2 AR-2201-0090
44-A-F21 AR-1715-0289
44-A-F24 AR-1715-0310
44-A-F4 AR-1715-0308
44-A-F7 AR-2201-0100
44-A-F9 AR-1715-0305
44-A-1177 AR-1715-0315
44-A-1181 AR-1715-0286
44-B-1120 AR-1715-0214
44-B-1121 AR-1715-0214
44-D-F34 AR-2201-0081
44-D-0590 AR-2201-0087
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44-D-209.7 AR-2201-0087
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44-E-2 AR-1713-0002
44-E-23 AR-1715-0181
44-E-24 AR-1704-0077
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44-E-39 AR-1715-0328
44-H-F29 AR-1715-0140
44-H-F43 AR-1715-0165
44-N-F10 AR-1715-0361
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44-N-1178T AR-1715-0304
44-N-1182 AR-1715-0084
AR-1715-0085
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44-N-1182B AR-1715-0084
44-N-1184 AR-1715-0146
44-N-213.3 AR-1715-0213
44-N-214.4 AR-1715-0215
44-N-221.1 AR-1715-0134
44-N-221B AR-1715-0084
44-N-222-B AR-1715-0361
44-N-223.1 AR-1715-0085
44-N-223.2 AR-1715-0085
44-N-223C AR-1715-0146
44-N-224.1 AR-1715-0216
44-N-225.1 AR-1715-0084
44-N-225.1T AR-1715-0106
44-N-226.1 AR-1715-0304
AR-1715-0361
44-N-226.1T AR-1715-0304
44-N-227.2 AR-1715-0216
44-O-A AR-2201-0082
44-O-B AR-2201-0120
44-O-C AR-1715-0325
44-O-1 AR-1601-0032
44-O-2A AR-2201-0080
44-O-2B AR-1715-0288
44-O-2C AR-1714-0013
44-O-4B AR-1717-0035
44-O-40 AR-1715-0315
44-O-41 AR-1715-0327
44-O-42 AR-1715-0308
44-O-5 AR-1715-0286
44-O-7 AR-1715-0214
44-OE-27 AR-1715-0142
44-OE-28 AR-1715-0213
44-OE-29 AR-1715-0215
44-OE-30(T) AR-1715-0304
44-OE-31 AR-1715-0076
44-OE-32 AR-1715-0085
44-OE-33 AR-1715-0090
44-R-F13 AR-1715-0171
44-R-F42 AR-1715-0276
44-R-F8 AR-1704-0085
44-R-105.1 AR-1704-0077
44-R-162.2 AR-1710-0031
44-R-172.1 AR-1715-0287
44-R-186.1 AR-2201-0059
44-R-209.1 AR-1704-0077
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44-R-209.2 AR-1715-0181
44-R-212.2 AR-1715-0179
44-R-214.3 AR-1715-0217
44-R-221 AR-1715-0134
44-R-221.1 AR-1715-0134
44-R-221.2 AR-1714-0002
44-R-227.1 AR-1715-0101
44-R-228.1 AR-1715-0211
44-R-229.1 AR-1715-0179
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450-F1 AR-1205-0005
450-97-C42 AR-1205-0004

491-F1 AR-1703-0010
491-F2 AR-1601-0002
491-51G20 AR-1601-0008
491-51G20-I AR-1601-0009
491-51Q20-I AR-1601-0012
491-77L10 AR-1601-0030
491-91C30 AR-1703-0010
491-92C10 AR-1601-0030
491-92C20 AR-1601-0030
491-92C30 AR-1601-0071
491-92D20 AR-1303-0001

492-57F10 AR-0709-0026
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492-57F20 AR-0709-0012
492-57F30 AR-0709-0027
492-57F40 AR-0709-0037
494-F1 AR-0802-0003
494-F2 AR-2201-0067
494-F3 AR-0802-0001
494-54B AR-0801-0012
494-54B(R) AR-0801-0010
494-54B10 AR-0801-0009
494-54B10(ST) AR-0801-0009
494-54B20(T) AR-0801-0010
494-54C10 AR-1704-0044
494-54C20T AR-1704-0046
494-54E10 AR-0802-0016
494-54E10/20/30T AR-1720-0006
494-54E20 AR-1303-0003
AR-2201-0068
494-54E20-T AR-0801-0013
494-54E40 AR-2201-0117
494-5711 AR-1720-0001

5-A-C1 AR-1601-0044
5-A-C22 AR-1601-0017
5-A-C4 AR-1601-0017
AR-1601-0035
5-A-7915 AR-1601-0007
5-AG-C40A AR-1408-0021
5-AG-C40B AR-0419-0016
5-AG-C42A AR-1406-0025
5-AG-C42B AR-0419-0017

5-CO-C40A AR-1717-0016
5-CO-C40B AR-1715-0021
5-CO-C42A AR-1408-0020
5-CO-C42B AR-1408-0045

5-DP-C40 AR-1402-0014
5-DP-C42 AR-1402-0022

5-E-1 AR-1713-0004
5-E-10 AR-1601-0023
5-E-11 AR-1715-0321
5-E-12 AR-1710-0036
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5-E-14 AR-1710-0034
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5-E-20 AR-1710-0004
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5-E-34 AR-1712-0008
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5-E-49 AR-1701-0001
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5-E-51 AR-1719-0002
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5-E-65 AR-1601-0018
5-E-8 AR-1601-0024
5-E-9 AR-1601-0022

5-FI-C40 AR-1402-0004
5-FI-C42 AR-1408-0002

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5-O-11 AR-1601-0026
5-O-13 AR-1710-0033
5-O-20 AR-1405-0056
5-O-3 AR-1601-0017
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5-O-4 AR-1601-0036
5-O-5 AR-1710-0040
5-O-6 AR-1408-0053
5-O-9 AR-2201-0023

5-R-351.2 AR-1732-0005
5-R-351.3 AR-1732-0006
5-R-514.1 AR-2201-0027
5-R-517.1 AR-1601-0008
5-R-811.1 AR-1713-0007
5-R-812.1 AR-1713-0004

5-SP-C42 AR-1408-0048
5-SS-C40 AR-0804-0001
5-SS-C42 AR-1408-0004
5-SU-C40A AR-1408-0044
5-SU-C40B AR-0419-0009
5-SU-C42A AR-1405-0077
5-SU-C42B AR-0419-0010

5-16-C20 AR-1408-0065
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5-16-C20-56A AR-1408-0141
5-16-C22 AR-1408-0140
5-16-C23 AR-1408-0180
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5-16-22 AR-1408-0071

5-27-C20 AR-1728-0045

5-3-C20 AR-2201-0177
5-3-C22 AR-1408-0046
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5-41-C23 AR-1511-0010
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5-641-C42 AR-0419-0017
5-641-C42A AR-0419-0028
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5-71-C42 AR-1408-0127
5-713-C42 AR-1408-0002
5-741-C42 AR-1402-0022
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5-761-C42 AR-1405-0106
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5-79-C42 AR-1408-0048

5-88-C42A AR-0419-0028

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5A-F2 AR-1115-0005
5A-F4 AR-0317-0001

5ABA-53130 (USAF) AR-1723-0004
5ABA53130 (USAF) AR-1723-0004

5B-F1 AR-1304-0002
5B-201A AR-1715-0629

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5D-F6/500-F4 AR-1511-0016
5D-2920 AR-1511-0002
5D-48D AR-1511-0010
5D-8105 AR-1511-0002

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5G-ASI7F AR-1408-0129
5G-ASI7F AR-1402-0088
5G-F2 AR-1408-0128
5G-F3 AR-1406-0084
5G-F4 AR-1406-0083
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5G-F6/561-F1 AR-1408-0131

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5H-F1/F62-F3 AR-1513-0005
5H-F2 AR-0799-0010
5H-F2/302-F2 AR-0799-0010
5H-F20/302-F20 AR-1512-0011
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5H-F4/302-F4 AR-0801-0003
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5H-F5/302-F5 AR-0801-0007
5H-F6/302-F6 AR-0801-0005
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5K-F3/520-F3 AR-1406-0001
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5K-F5/012-F30 AR-1406-0095

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5L-F1 AR-0326-0025

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500-F1 AR-1406-0005
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500-F3 AR-2201-0221
500-F4 AR-1511-0010
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500-75B20 AR-1403-0004
500-75B30 AR-1406-0062
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500-75C/D/E30 AR-1403-0014
500-75C10 AR-1406-0023
500-75C10 (ST) AR-1406-0023
500-75C20 AR-1406-0023
500-75D10 AR-1406-0011
500-75D20 AR-1406-0011
500-75E10 AR-1406-0026
500-75E10 (ST) AR-1406-0026
500-75E20 AR-1406-0026
500-75F10 AR-1403-0008
500-75F10/75F10 ST AR-1403-0013
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501-F16-ARNG AR-1406-0134
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501-F4 AR-2201-0351
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501-00E20 AR-1406-0027
501-00E20-ARNG AR-1406-0098
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501-00E40 AR-1406-0020
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501-00E40-A AR-1406-0028
501-00E40B AR-1406-0030
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501-075.6 AR-1406-0020
501-79D30 AR-1406-0020
501-79D30-A AR-1406-0002
501-79D30-ARNG AR-2201-0355
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51B10-OSUT (ST) AR-1710-0051

51C10-OST1 AR-1710-0030
51C10-OSUT AR-1710-0030
51C10-OSUT(ST) AR-1710-0030

51K10-OSUT AR-1710-0083
51K10-OSUT (ST) AR-1710-0083

51N10-OSUT AR-1732-0008
51N10-OSUT (ST) AR-1732-0008

51R10-OSUT AR-1714-0017

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510-71B20B AR-1409-0001
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510-71L10 AR-1403-0007
510-71L30 AR-1408-0164
510-71L40 AR-1408-0169

511-71C10 AR-1407-0001
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511-71C10A AR-1407-0001
511-71C20A AR-1407-0001
511-71C20B AR-1407-0002

512-71D/E30 AR-1407-0009
512-71D10 AR-1403-0002
512-71D10 (ST) AR-1403-0002
512-71D20 AR-1403-0002
512-71D40 AR-1407-0007
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513-F1 AR-0799-0002
513-71G10 AR-1403-0001
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513-71G20 AR-1403-0001

514-F1 AR-0419-0002
514-F2 AR-0419-0037
514-71N10 AR-0419-0040
514-71N20 AR-0419-0005
514-71N30 AR-0419-0041
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515-71F20 AR-1404-0001
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517-71P10 (ST) AR-1704-0007
517-71P20 AR-1704-0007
517-71P20-I AR-1704-0076
517-907.1 AR-1704-0007

520-F1 AR-1406-0016

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531-F4 AR-1402-0033
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531-74D10/531-74D10(ST) AR-1402-0117
531-74D20 AR-1402-0030
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531-74F20 AR-1402-0002
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531-74G20 AR-1402-0001
531-740.0 AR-1402-0030
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532-74F20 AR-1402-0017
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541-F2 AR-1408-0001
541-F3 AR-1401-0010
541-F4 AR-1401-0001
541-73D10 AR-1401-0004
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541-73D20 AR-1401-0004
541-73D40 AR-1401-0039
541-733.1 AR-1401-0001

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542-F4 AR-0418-0001
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542-73C10	AR-1401-0002
542-73C10 (ST)	AR-1401-0002
542-73C20	AR-1401-0002
542-73C30	AR-1401-0035
542-73C42	AR-1401-0040
542-730.0	AR-1401-0007
542-732.1	AR-1401-0006
543-73C10	AR-1401-0033
543-73C10 (ST)	AR-1401-0033
55-A-C1	AR-0419-0033
55-A-C2	AR-0419-0038
55-A-C20	AR-0419-0033
55-A-C21	AR-0419-0020
55-A-C22	AR-0419-0019
55-A-C23	AR-0419-0018
55-A-C4	AR-0419-0019
55-A-F2	AR-1710-0047
55-A-0804	AR-0419-0032
55-B-F9	AR-1708-0003
55-B-0600	AR-0419-0006
55-B-0605	AR-0419-0006
55-B-0660	AR-0419-0006
55-B-4474	AR-1405-0045
55-B-4823	AR-1717-0022
55-B-631A	AR-0419-0006
55-B-671B	AR-1717-0022
55-B-671C	AR-1717-0022
55-D-564.2	AR-1606-0036
55-D-7242	AR-1606-0036
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55-E-15	AR-0419-0014
55-E-2	AR-1710-0023
55-E-26	AR-2201-0036
55-E-28	AR-1723-0002
55-E-29	AR-1712-0010
55-E-3	AR-0419-0029
55-E-31	AR-0419-0004
55-E-32	AR-0419-0001
55-E-33	AR-1710-0005
55-E-34	AR-1710-0007
55-E-35	AR-1703-0008
55-E-36	AR-0419-0007
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55-E-39	AR-0419-0005
55-E-41	AR-1710-0011
55-E-42	AR-1704-0047
55-E-45	AR-1405-0043
55-E-46	AR-1704-0010
55-E-48	AR-1704-0075
55-E-49	AR-1704-0045
55-E-5	AR-1710-0006
55-E-50	AR-1704-0054
55-E-51	AR-1708-0004
55-E-52	AR-1704-0012
55-E-53	AR-1704-0016
55-E-54	AR-1704-0015
55-E-55	AR-1704-0014
55-E-56	AR-1721-0004
55-E-57	AR-1704-0059
55-E-58	AR-1704-0053
55-E-59	AR-1704-0058
55-E-6	AR-1723-0001
55-E-60	AR-1405-0033
55-E-7	AR-0419-0030
55-E-8	AR-1712-0011
55-E-9	AR-1710-0008
55-G-F1	AR-0419-0036
55-G-F3	AR-0419-0035
55-H-0820	AR-0419-0034
55-H-0823	AR-1712-0007
55-L-F21	AR-1704-0034
55-O-A	AR-0419-0033
55-O-1	AR-0419-0038
55-O-14	AR-1710-0047
55-O-15	AR-0419-0035
55-O-16	AR-1717-0022
55-O-3	AR-0419-0019
55-O-4	AR-0419-0022
55-O-8	AR-0419-0036
55-OE-13	AR-1606-0036
55-OE-23	AR-1712-0007
55-OE-24	AR-0419-0034
55-R-F12	AR-1704-0057
55-R-F14	AR-1704-0056
55-R-555.7	AR-0419-0004
55-R-560.0	AR-1708-0004
55-R-562.6	AR-2201-0036
55-R-563.2	AR-1723-0001
55-R-563.6	AR-1723-0002
55-R-565.1	AR-1710-0001
55-R-641.6	AR-1710-0011
55-R-643.6	AR-0419-0015
55-R-653.1	AR-1714-0006
55-R-655.1	AR-1703-0008 AR-1704-0075
55-R-661.2	AR-0419-0030
55-R-662.1	AR-0419-0029
55-R-663.1	AR-0419-0007
55-R-664.2	AR-0419-0014
55-R-671.2	AR-1704-0010
55-R-671.4	AR-1704-0025
55-R-671.7	AR-1717-0009
55-R-672.2	AR-1704-0059
55-R-672.4	AR-1704-0043
55-R-672.7	AR-1717-0009
55-R-673.2	AR-1704-0053
55-R-673.7	AR-1717-0009
55-R-674.2	AR-1704-0058
55-R-674.7	AR-1717-0009
55-R-675.4	AR-1704-0040
55-R-676.4	AR-1704-0058
55-R-677.4	AR-1704-0035
55-R-678.1	AR-1704-0034
55-R-678.4	AR-1704-0034
55-R-679.1	AR-1717-0009
55-R-679.4	AR-1717-0004
55-R-679.5	AR-1704-0082
55-R-679.6	AR-1717-0009
55-R-680.0	AR-1704-0015
55-R-681.1	AR-1704-0045
55-R-682.1	AR-1704-0014
55-R-683.1	AR-1704-0012
55-R-684.1	AR-1704-0054
55-R-685.1	AR-1704-0075
55-R-686.1	AR-1704-0047
55-R-687.1	AR-1704-0016
55-R-688.1	AR•1721-0004
55-R-719.1	AR-0419-0005
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55-0-6	AR-0419-0006
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551-ASIF3	AR-1405-0112 AR-1405-0169
551-ASIU8	AR-1402-0059
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551-55R30	AR-1402-0086
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551-76D10	AR-1405-0111
551-76H20	AR-1405-0033
551-76J10	AR-1405-0024
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551-76J20	AR-1405-0024
551-76M20	AR-2201-0132
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551-76N40	AR-1405-0032
551-76P10	AR-1401-0016 AR-1401-0032
551-76P20	AR-1401-0016
551-76P20-I	AR-1402-0013
551-76P30	AR-1405-0143 AR-1405-0161
551-76Q20	AR-1401-0013
551-76Q20-I	AR-1402-0029
551-76R20	AR-1405-0034
551-76R20-I	AR-1405-0016
551-76S20	AR-1405-0035
551-76S20-I	AR-1405-0036
551-76T20	AR-1405-0018
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551-76V10	AR-1405-0117 AR-1405-0179
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551-767.1	AR-1405-0024
551-774.1	AR-1405-0050
552-F1	AR-1405-0029
552-76Y10	AR-1405-0061
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556-71P10 (ST)	AR-1704-0007
556-93P10	AR-1704-0007 AR-1704-0178
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561-71M10	AR-1402-0087
561-71M20	AR-1408-0006
562-03C10	AR-0803-0003
580-F2	AR-1715-0065
580-F3	AR-1715-0364
580-31Z40	AR-1715-0264
580-72B10	AR-1409-0006
580-72B20	AR-1409-0006
580-72C20	AR-1404-0004
580-72E10	AR-1404-0015
580-72E10-CELT	AR-1404-0015
580-72E20	AR-1404-0015
580-72F20	AR-1715-0043
580-72G10	AR-1404-0007
580-72G30	AR-1402-0011
580-72G40	AR-1402-0020
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6-A-C20	AR-2201-0193
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6-A-1191	AR-1715-0275
6-AM-C40	AR-2201-0055
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6-AV-C40	AR-1717-0006
6-AV-C42	AR-1717-0005
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6-B-0606 AR-1703-0020
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6-G-3221 AR-0104-0005

6-H-F8 AR-1715-0201
6-H-103.1 AR-1304-0002

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6-N-1186 AR-1715-0280
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6-N-163.2 AR-1715-0117
6-N-201A AR-1715-0175
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6-N-211.1 AR-1715-0176
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6-N-215.2 AR-1304-0002
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6-N-217.1 AR-1715-0314
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601-68B10	AR-1704-0068
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611-63T10	AR-1703-0048
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612-1-PLDC	AR-2201-0253
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612-62B20	AR-1710-0029 AR-1710-0087
612-62B30	AR-1710-0016
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612-62B40	AR-1710-0128
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612-622.2	AR-1710-0016
62B10-OSUT	AR-1710-0088
62B10-OSUT(ST)	AR-1710-0088
62E10-OSUT	AR-1710-0084
62E10-OSUT(ST)	AR-1710-0084
62F10-OSUT	AR-1710-0092
62F10-OSUT(ST)	AR-1710-0092
62G10-CELT	AR-1710-0093
62G10-OSUT	AR-1710-0093
62G10-OSUT(ST)	AR-1710-0093
62H10-OSUT	AR-1710-0091
62H10-OSUT (ST)	AR-1710-0091
62J10-OSUT	AR-1710-0086
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621-36M10	AR-1714-0027
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622-ASIH4	AR-1715-0221
622-ASIM2 (29J)	AR-1715-0705
622-ASIM2 (31J)	AR-1715-0705
622-ASIN4	AR-1715-0263
622-ASIP2	AR-1715-0778
622-ASIP3	AR-1402-0079
622-ASIV8 (29)(CT)	AR-1715-0676
622-ASIZ06	AR-1715-0029
622-F1	AR-1715-0050
622-F10	AR-1402-0011
622-F11	AR-1715-0253
622-F13	AR-1715-0263
622-F14	AR-1715-0188
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622-F6 AR-1715-0163
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7-H-F7 AR-2201-0040

7-N-F1 AR-2201-0167
7-N-F13 AR-2201-0052
7-N-F2 AR-2201-0052
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7-OE-13 AR-2201-0025
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7-R-311.1 AR-1715-0108
7-R-311.7 AR-1714-0004

7-R-632.1 ..... AR-1703-0001
7-R-632.2 ..... AR-1703-0001

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7-14-C20 ..... AR-1408-0052
7-14-C20-44A AR-1408-0166
7-14-C20-44B/C AR-1408-0052
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7-14-C23 ..... AR-1408-0076
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7-19-C30 ..... AR-1728-0011
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7-19-C8 ..... AR-1728-0033
7-19-20-31 ..... AR-1728-0026
7-19-20-31A AR-1728-0026

7-251-C42 ..... AR-1710-0043

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7A-42B/515-ASIF5 ..... AR-1404-0001
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7B-F6 ..... AR-1511-0001
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7B-F7/562-F2 ..... AR-0803-0004
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7B-F9/562-F4-RC AR-0803-0011

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7C-F11/501-00E20-ARNG AR-1406-0098
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7D-45B AR-1408-0001
7D-45B/541-F2 ..... AR-1408-0001
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7E-F5 ..... AR-1402-0009
7E-SI4H AR-1402-0113
7E-2402 ..... AR-1402-0035
7E-53A AR-1402-0035
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7E-53A/B/7E-741A(CT) AR-1402-0115
7E-53C AR-1402-0035
7E-741A AR-1402-0035
7E-741C AR-1402-0035
7E55A/B/7E-741A (CT) AR-1402-0035

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7F-8500 ..... AR-1709-0006
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7H-F11 ..... AR-1728-0008
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7H-F16 ..... AR-1728-0068
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7H-F3 ..... AR-1728-0043
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7H-951A/832-95D10 ..... AR-1728-0010
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7K-F-12 ..... AR-1606-0174
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704-44B20 ..... AR-1703-0012
704-44K20 ..... AR-1723-0001
704-441.1 ..... AR-1703-0012
704-47233 ..... AR-1703-0012
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710-51C10 ..... AR-1710-0030
710-51H40 ..... AR-1710-0025

711-51N10 AR-1732-0007

712-51B10 AR-1710-0051

720-51K10 AR-1710-0083
720-51L20 AR-1730-0001
720-51N10 AR-1732-0007
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720-51N30 AR-1732-0009
720-77W10 AR-1732-0008
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720-77W10-RC AR-1732-0011

721-51R10 AR-1714-0017

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730-55131 AR-1710-0089
730-62E10 AR-1710-0084
730-62F10 AR-1710-0092
730-62G10 AR-1710-0093
730-62H10 AR-1710-0091
730-62J10 AR-1710-0086

740-83D20 AR-1709-0003
740-83E20 AR-1719-0002
740-83F20 AR-1719-0003
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760-43J20 AR-1716-0001
760-43J40-I AR-1716-0002
760-43K20 AR-1716-0003
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760-43M10 AR-1716-0003
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760-461.1 AR-1716-0001

771-F1 AR-0419-0034

780-51M20 AR-1728-0046

790-51E20 AR-2201-0027

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8-A-C1B AR-1408-0015
8-A-C1C AR-0703-0006
8-A-C2 AR-1408-0016
8-A-C20A AR-2201-0058
8-A-C20B AR-1408-0015
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8-A-C4 AR-0326-0016
8-A-C4C AR-0703-0009
8-A-C5 AR-1408-0018
8-A-F11 AR-0707-0004
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8-A-3430 AR-0799-0003

8-B-C3 AR-2201-0188

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8-E-10 AR-0709-0001
8-E-12 AR-0704-0003
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8-E-15 AR-1513-0002
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8-E-24 AR-0703-0005
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8-E-33 AR-0709-0004
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8-E-36 AR-0707-0001
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8-E-4 AR-0705-0001
8-E-44 AR-1405-0024
8-E-6 AR-0709-0003
8-E-8 AR-0702-0002

8-FS-C40 AR-1729-0007
8-FS-C42 AR-1729-0008

8-MP-C40 AR-1728-0017
8-MP-C42 AR-1728-0030
8-MT-C40 AR-0419-0013
8-MT-C42 AR-0419-0024

8-N-202A AR-1715-0317
8-N-208.2 AR-1715-0317

8-O-1 AR-1408-0016
8-O-2 AR-2201-0188
8-O-27 AR-0799-0003
8-O-31 AR-2201-0058
8-O-33 AR-1408-0015
8-O-36 AR-0707-0004
8-O-4 AR-1408-0018
8-O-41 AR-1408-0013
8-O-44 AR-1405-0008
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8-PT-C40 AR-1717-0012
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8-PT-C42 AR-1717-0043

8-R-F10 AR-0799-0002
8-R-451.1 AR-0709-0004
8-R-452.1 AR-0701-0001
8-R-452.2 AR-0701-0006
8-R-715.1 AR-1403-0001
8-R-911.3 AR-0709-0009
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8-R-914.3 AR-0709-0008
8-R-915.1 AR-1512-0004
8-R-916.1 AR-1513-0002
8-R-917.1 AR-0701-0007
8-R-917.2 AR-0701-0002
8-R-921.1 AR-0704-0001
8-R-931.1 AR-0702-0002
8-R-931.2 AR-0702-0001
8-R-932.2 AR-0709-0005
8-R-933.1 AR-0707-0002
8-R-933.2 AR-0707-0001
8-R-934.1 AR-0104-0002
8-R-934.2 AR-0104-0001
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8-SP-C40 AR-2201-0113
8-SP-C42 AR-2201-0054

8-10-C20 AR-1405-0069
8-10-C20-81A/82A/92A AR-1405-0069
8-10-C21 AR-1405-0063
8-10-C22 AR-1408-0032
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8-10-C22-A AR-1408-0032
8-10-C22-C AR-1729-0017
8-10-C22-82A AR-1729-0021
8-10-C22/81A AR-1601-0067
8-10-C22/83B AR-1408-0091
8-10-C22A AR-1408-0032
8-10-C23 AR-1405-0046
8-10-C32 AR-1408-0113
8-10-C32-920A AR-1405-0187
8-10-C32-920A-RC AR-1405-0184
8-10-C32-920B AR-1408-0158
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8-10-C32-921A AR-1408-0156
8-10-C32-922A AR-1408-0157
8-10-C32-922A-RC AR-1729-0036
8-10-F1 AR-1408-0027
8-10-OA-81A AR-1601-0065
8-10-0A-92A AR-1402-0081
8-10-0B-81A AR-1601-0066
8-10-0B-82A AR-1729-0018
8-10-0B-83A AR-1408-0090

8-55-C20 AR-0419-0033
8-55-C20-88A/C/D AR-0419-0033
8-55-C20-95A/C/D AR-0419-0033
8-55-C21 AR-0419-0023
8-55-C22 AR-0419-0019
8-55-C22-RC AR-0419-0047
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8-55-C22B AR-0419-0019
8-55-C22C AR-0419-0019
8-55-C22D AR-0419-0019
8-55-C32 AR-0419-0039
8-55-C32-500A2 AR-1722-0005
8-55-F1 AR-0419-0025

8-641-C42 AR-0419-0024

8-77-C42 AR-1717-0092

8-92-C42 AR-1717-0043
8-94-C42 AR-1729-0033
8-95-C40 AR-1728-0017
8-95-C42 AR-1728-0030
8-95-C42 N AR-1728-0061

8A-F-20 AR-1728-0020
8A-F-34-RC AR-1405-0192
8A-F1 AR-1405-0071
8A-F12 AR-1405-0023
8A-F16 AR-0326-0004
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8A-F17 AR-1405-0071
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8A-F19 AR-0326-0003
8A-F2 AR-1408-0012
8A-F21 AR-0326-0018
8A-F23 AR-1408-0150
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8A-F3 AR-0326-0005
8A-F32/552-F2 AR-1405-0141
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8A-F33 AR-1405-0142
8A-F37 AR-1405-0191
8A-F5 AR-0326-0003
8A-4010 AR-1405-0060
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8AF-F3 AR-0326-0037

8B-F10 AR-0326-0008
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8B-F10A AR-0326-0008
8B-F11 AR-1405-0076
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8B-F12 AR-0326-0006
8B-F17 AR-1405-0065
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8B-F20 AR-1408-0067
8B-F20(RC) AR-1408-0154
8B-F22 AR-1405-0123
8B-F22/551-F22 AR-1405-0123
8B-F28 AR-1601-0002
8B-F29/551-ASIF4/F9 AR-1405-0105
8B-F33/821-F2 AR-1601-0046
8B-F37/551-ASIT8 AR-1405-0107
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8B-4201 AR-1405-0070
8B-4445 AR-1405-0003
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8B-4960 AR-1405-0040
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8B-762A AR-1405-0070
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8B-83C AR-1733-0002
8B-92A AR-1405-0070
8B-92A/B/8B-761A/762A AR-1405-0070
8B-92A/B/8B-920A/920B AR-1405-0177
8B-92A/B8B-761A/762A AR-1405-0177
8B-92D AR-1733-0002

8B-920A AR-1405-0185
8B-920A-RC AR-1405-0186
8B-920B AR-1405-0188
8B-920B-RC AR-1405-0190
8B-921A AR-1405-0070

8C-ASI3S/822-F10 AR-0419-0027
8C-F1 AR-1715-0157
8C-F10 AR-1715-0157
8C-F10/062-F3 AR-1715-0157
8C-F11/542-F6 AR-0418-0004
8C-F12/553-F1 AR-0419-0044
8C-F13 AR-0419-0043
8C-F2 AR-0419-0027
8C-F2/822-F10 AR-0419-0031
8C-F3 AR-0419-0035
8C-F4 AR-0419-0036
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8C-F5/514-F2 AR-0419-0037
8C-F7 AR-1722-0003
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8C-SI3V/553-ASIH2 AR-0419-0037
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8C-0820 AR-0419-0034
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8C-500A AR-2205-0001
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8C-77D AR-1703-0005
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8C-880A AR-1722-0006

8D-F1 AR-1408-0035
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8D-F23A AR-1115-0004
8D-F27 AR-0326-0031
8D-F32 AR-1115-0007
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8D-F34 AR-0326-0023
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8E-F2 AR-1729-0012
8E-F3/551-F15 AR-1405-0180
8E-F4 AR-1729-0031
8E-021A AR-1729-0012
8E-021A0 AR-1729-0012
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8E-82G/8E-041A/800-F8 AR-1729-0032
8E-92G/8E-922A/800-F8 AR-1729-0032
8E-922A AR-1729-0034
8E-922A-RC AR-1729-0037
8E-941A AR-1729-0014

8F-F1 AR-1408-0009
8F-4210 AR-1408-0010

8G-F1 AR-1405-0014
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8G-4223 AR-0406-0003
8G-82D AR-0406-0003
8G-82D/551 ASIU5 AR-0406-0003
8G-82D/551-ASI U5 AR-1729-0029
8G-82D/551-F2-ASI U5 AR-0406-0003

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800-ASID1 AR-1729-0022
AR-1729-0030
800-F1 AR-1729-0001
800-F10 AR-1729-0025
800-F11 AR-1729-0024
800-F13 AR-1729-0035
800-F14 (IRR) AR-1729-0038
800-F2 AR-1729-0011
800-F3 AR-0406-0004
AR-1729-0020
AR-1729-0043
800-F4 AR-0406-0005
800-F5 AR-0406-0001
800-F6 AR-0406-0006
800-F7 AR-0406-0001
AR-0406-0004
AR-0406-0005
AR-0406-0006
800-F8 AR-1729-0014
800-F9 AR-1729-0023
800-00J50 AR-1729-0012
800-94B10 AR-1729-0009
AR-1729-0041
800-94B20 AR-1729-0009
800-94B30 AR-1729-0006
AR-1729-0039
800-94B40 AR-1729-0040
800-94D20 AR-1729-0010
800-94F10 AR-1729-0004
800-94F10 (RC) AR-1729-0044
800-94F10(RC) AR-1729-0016
800-94F20 AR-1729-0004
800-94F30 AR-0104-0006
800-94F40 AR-1729-0005

801-F1 AR-1729-0012

811-F2 AR-2101-0001
811-F3 AR-2101-0003
811-64C10 AR-1703-0022
AR-1703-0059
811-88M10 AR-1703-0059

813-F1 AR-1715-0157
813-5600 AR-1708-0004
813-562.2 AR-2201-0036
813-61B20 AR-1722-0002
813-61B30 AR-2201-0036
813-61D20 AR-2201-0097
813-61D40-I AR-0419-0011

82 AR-1729-0014

82-C/941A AR-1729-0014

82C10-OSUT AR-1601-0034

821-F1 AR-1601-0003
AR-1606-0003
821-55F20 AR-2201-0119
821-56C2 AR-1601-0043
821-76W10 AR-1601-0043
821-76W20 AR-1601-0043
821-76W20-I AR-1601-0005
821-76W30 AR-1601-0072
821-77F10 AR-1601-0075
821-77F10-RC AR-1601-0076

822-ASIB1 AR-2101-0002
AR-2201-0002
822-F10 AR-0419-0021
AR-0419-0027
822-F12 AR-1405-0006
822-F24 AR-2101-0002
822-F9 AR-1405-0014
822-56D2 AR-1405-0044
822-56E20 AR-0419-0001
822-56E40 AR-0419-0004
822-57H10 AR-0419-0001
822-57H20 AR-0419-0001
AR-1710-0060
822-57H40 AR-0419-0004
822-76X10 AR-1405-0044
AR-1405-0183
822-76X40-I AR-1405-0066
822-88H10 AR-0419-0046
822-88H20 AR-1710-0150
823-F1 AR-1408-0010

83E-43 AR-1729-0012

830-ASIV5 AR-1728-0028
830-F2 AR-1728-0003
830-F3 AR-1728-0043
830-F5 AR-1728-0022
830-F6 AR-1728-0021
830-F8 AR-1728-0028
830-95B/C/D30 AR-1728-0069
830-95B10 AR-1728-0023
830-95B10-OST AR-1728-0023
830-95B10OST AR-1728-0023
830-95B20 AR-1728-0029
830-95B30 AR-1728-0069
830-95C10 AR-1728-0007
830-95C20 AR-1728-0066

831-F3 AR-1728-0006
831-95C10 AR-1728-0007
831-95C20 AR-1728-0016
AR-1728-0029

832-F3 AR-1728-0020
832-95D10 AR-1728-0010
832-95D20 AR-1728-0010

840-57E/43M30 AR-1716-0010
840-57E10 AR-1716-0005
840-57E10-RC AR-1716-0009
840-57E20 AR-1716-0005
840-57E30 AR-1716-0008

8500 AR-1406-0112

860-ASIQ2 AR-1704-0008
860-F3 AR-1733-0009
860-43E10 AR-1733-0001
AR-1733-0005
AR-1733-0008
860-43E10 (ST) AR-1733-0008
860-43E2P AR-1733-0001
860-43E20 AR-1733-0001
860-43E30 AR-1733-0006
AR-1733-0007
860-43E40 AR-1733-0004
860-464.1 AR-1733-0001

862-04-PLDC AR-2201-0253

9-A-C1 AR-1405-0048
9-A-C22 AR-1408-0031
9-A-C3 AR-1405-0037
9-A-C4 AR-1408-0031
9-A-F10 AR-2201-0099
9-A-F8 AR-1715-0326
9-A-F9 AR-1715-0330
9-A-4513 AR-1405-0068
9-A-4801 AR-1715-0330
9-A-4802 AR-1715-0326
AR-1715-0330

9-B-4514 AR-1717-0048
9-B-4530 AR-1405-0031
9-B-4805 AR-1703-0014
9-B-4806 AR-1715-0158
9-B-4808 AR-1717-0014
9-B-4813 AR-1710-0050

9-E-11 AR-2201-0096
9-E-2 AR-1723-0004
9-E-3 AR-1703-0012
9-E-30 AR-1703-0019
9-E-31 AR-1710-0018
9-E-32 AR-0419-0003
9-E-36 AR-2201-0022
9-E-4 AR-1703-0003
9-E-46 AR-2201-0119
9-E-5 AR-1710-0027
9-E-51 AR-1715-0113
9-E-52 AR-1715-0141
9-E-53 AR-1715-0170
9-E-55 AR-1715-0258
9-E-58 AR-1715-0187
9-E-59 AR-1715-0022
9-E-60 AR-1715-0190

9-E-61	AR-1715-0083
9-E-62	AR-1715-0077
9-E-63	AR-1715-0209
9-E-64	AR-1715-0164
9-E-65	AR-1715-0114
9-E-66	AR-1714-0014
9-E-67	AR-1704-0086
9-E-7	AR-1405-0026
9-E-74	AR-1723-0003
9-E-75	AR-1710-0046
9-E-76	AR-1710-0037
9-E-77	AR-1710-0017
9-E-80	AR-1703-0004
9-E-81	AR-1703-0011
9-E-83	AR-1703-0013
9-H-F2	AR-2201-0026
9-L-F30	AR-0802-0005
9-M-251B(TI)	AR-1715-0356
9-N-F25	AR-1715-0246
9-N-F39	AR-1715-0078
9-N-241E	AR-1715-0246
9-N-241F	AR-1715-0078
9-N-251B	AR-1715-0255
9-N-251B(TI)	AR-1715-0356
9-N-251C	AR-1715-0099
9-N-4811	AR-1715-0255
9-N-4811(T)	AR-1715-0356
9-N-4811(TI)	AR-1715-0356
9-N-4812	AR-1715-0249
9-N-4815	AR-1715-0339
9-O-14	AR-2201-0103
9-O-15	AR-1710-0050
9-O-2	AR-1405-0037
9-O-68	AR-1715-0329
9-O-68A	AR-1715-0326
9-O-68B	AR-1715-0330
9-OE-69	AR-1715-0255
9-OE-70	AR-1715-0249
9-OE-90	AR-0802-0007
9-R-F19	AR-1715-0238
9-R-F21	AR-1715-0083
9-R-F22	AR-1714-0014
9-R-231.1	AR-1715-0170
9-R-232.1	AR-1715-0141
9-R-241.1	AR-1715-0187
9-R-242.1	AR-1715-0022
9-R-243.1	AR-1715-0190
9-R-244.1	AR-1715-0083
9-R-247.1	AR-1715-0124
9-R-248.1	AR-1715-0123
9-R-250.0	AR-1715-0113
9-R-251.1	AR-1715-0077
9-R-252.1	AR-1715-0209
9-R-253.1	AR-1715-0164
9-R-254.1	AR-1715-0114
9-R-260.0	AR-1715-0258
9-R-301.1	AR-1715-0285
9-R-301.2	AR-1714-0005
9-R-370.0	AR-1715-0082
9-R-371.1	AR-1715-0104
9-R-371.2	AR-1715-0348
9-R-372.1	AR-1704-0089
9-R-372.10	AR-1704-0089
9-R-403.1	AR-1721-0001
9-R-403.2	AR-1721-0002
9-R-410.0	AR-0419-0003
9-R-411.1	AR-2201-0022
9-R-412.1	AR-2201-0021
9-R-414.1	AR-2201-0119
9-R-420.0	AR-1710-0046
9-R-422.1	AR-1710-0037
9-R-422.2	AR-1601-0037
9-R-423.1	AR-1710-0017
9-R-424.1	AR-1710-0018
9-R-425.6	AR-1717-0047
9-R-432.1	AR-1714-0014
9-R-434.1	AR-1715-0086
9-R-437.1	AR-1714-0014
9-R-440.0	AR-1723-0003
9-R-441.1	AR-1703-0012
9-R-442.1	AR-1710-0027
9-R-443.1	AR-1723-0004
9-R-543.1	AR-1703-0003
9-R-633.1	AR-1703-0004
9-R-634.1	AR-1703-0019
9-R-635.1	AR-1703-0011
9-R-763.1	AR-1405-0026
9-R-773.1	AR-1405-0013
9-S-F26	AR-1715-0312
9-S-F27	AR-1715-0088
9-S-F28	AR-1715-0100
9-S-F35	AR-1715-0103
9-S-F36	AR-1715-0089
9-S-F37	AR-1715-0040
9-S-F38	AR-1715-0075
9-S-F44	AR-1715-0116
9-S-F47	AR-1715-0355
9-S-F48	AR-1715-0239
9-S-F49	AR-1715-0180
9-S-245.1	AR-1715-0238
9-S-247.1	AR-1715-0124
9-S-248.1	AR-1715-0123
9-S-249.1	AR-1715-0083
9-S-251.1	AR-1715-0077
9-S-252.1	AR-1715-0209
9-S-252.1(T)	AR-1715-0233
9-S-252.1(TI)	AR-1715-0233
9-S-253.1	AR-1715-0164
9-S-253.1 (T)	AR-1715-0126
9-S-254.1	AR-1715-0114
9-S-254.1(T)	AR-1715-0323
9-S-255.1	AR-1715-0159
9-S-256.1	AR-1715-0236
9-S-257.1	AR-1715-0313
9-S-371.1	AR-1715-0104
9-S-372.1	AR-1704-0089
9-S-373.1	AR-1715-0312
9-S-375.1	AR-1715-0100
9-S-376.1	AR-1715-0075
9-S-377.1	AR-1715-0103
9-S-378.1	AR-1715-0089
9-S-379.1	AR-1715-0040
9-S-433.1	AR-1704-0086
9-S-435.1	AR-1704-0088
9-26-F45	AR-1408-0123
9E-F1	AR-2201-0302
900-G-F1	AR-0326-0001
911-09W	AR-2201-0285
94BNCOA	AR-1729-0008
94B10-OSUT	AR-1729-0009
95B10-OSUT	AR-1728-0023
95C10	AR-1728-0062
95C10-NAVY	AR-1728-0062
95C10-OSUT	AR-1728-0007

Appendix E

Conversion of Army Enlisted Military Occupational Specialties to Department of Defense Enlisted Occupational Codes

This appendix is designed to aid the user in determining the Army formal course number when only the MOS code is known.

The number that the Army assigns to a formal course for enlisted personnel often consists of a three-digit Department of Defense (DoD) occupational code followed by the five-digit code for the MOS and skill level associated with the course, e.g., 300–91C10. In order to use the Course Number Index to locate a specific course exhibit ID number, the user must know the entire official Army course number. However, on some soldiers' records the entire course number is not given; instead, the military record may list the course number as only the MOS and skill level, without the DoD code.

For example, the Army course number for the course that trains persons for MOS 91C (Clinical Specialist) is 300–91C10. When a soldier's record incompletely lists the course number as 91C10, the user can refer to MOS 91C in this appendix to find the DoD occupational code, 300. The user can then turn to 300–91C10 in the Course Number Index to find the ID number of the course exhibit, which in this example is AR–0709–0009.

MOS	DOD CODE
00B	433
00C	830
00D	920
00E	501
00F	012
00G	600
00H	801
00J	800
00R	501
00U	500, 762
00Z	521
01B	440
01C	440
01D	440
01E	440
01F	440
01G	440
01H	311, 440, 496
01K	500
01L	541
02B	450
02C	450
02D	450
02E	450
02F	450
02G	450
02H	450
02J	450
02K	450
02L	450
02M	450
02N	450
02P	450
02Q	450
02R	450
02S	450
02T	450
02U	450
02Z	450
03B	562
03C	562
03D	562
03Z	562
04B	241
04C	241
05B	201
05C	201
05D	231
05E	201
05F	201
05G	231
05H	231
05K	231
09C	920
09D	912
09R	912
09S	911
09T	911
09W	911
11B	010
11C	010
11D	250
11E	020
11F	250
11G	010
11H	010
11M	010
12A	030
12B	030
12C	030
12D	030
12E	030, 431
12F	030
12Z	030
13A	041
13B	041
13C	250
13E	250
13F	250
13M	042
13N	221, 042
13P	043
13R	221
13T	250, 221
13W	250
13Y	041
13Z	041
15B	043
15D	043
15E	043
15F	042
15J	043, 250
15Z	043
16B	043
16C	043
16D	043
16E	043
16F	043
16G	043
16H	250
16J	221
16K	221
16L	041
16P	043
16R	041, 043
16S	043
16T	043
16Z	043

MOS	DOD CODE
17A	221
17B	221
17C	241, 412, 250
17D	412
17E	030
17K	221
17L	221, 233
17M	221
17Z	221
18B	011
18C	011
18D	011
18E	011
18F	011
18Z	011
19D	250
19E	020
19F	020
19G	020
19H	020
19J	020
19K	020
19L	020
19Z	020
21G	121
21L	121
21M	121
21R	121
21S	121
21T	121
21U	121
22G	121
22K	121
22L	121
22M	121
22N	121
23N	104
23Q	121
23S	104
23T	104
23U	104
23V	121
23W	104
24B	104
24C	121
24D	121
24E	121
24F	121
24G	104, 121
24H	104
24J	104
24K	104
24L	121
24M	121
24N	121
24P	104

MOS	DOD CODE
24Q	121
24R	121
24S	121
24T	632
24U	121
24V	121
24W	121
25D	150
25G	150
25H	150
25J	150
25K	150
25L	150
25P	400
25Q	414
25R	570
25S	400
25Z	150, 570
26B	104
26C	104
26D	104
26E	104
26F	198
26H	104
26K	104
26L	101
26M	104
26N	104
26P	198
26Q	201
26R	201
26T	191, 570
26V	101
26W	104
26Y	102
27B	121
27C	121
27D	121, 122
27E	121
27F	101, 121
27G	121
27H	121
27J	104
27K	104
27L	632
27M	611
27N	104
27P	121
27Q	122
27V	121
27Z	121
28M	121
29E	101
29F	160, 820, 101
29G	150
29H	150

MOS	DOD CODE
29J	160, 822, 160
29M	720, 101
29N	822, 622
29P	820, 160
29S	820, 160
29T	101, 201
29U	150
29V	102, 101
29W	101
29X	101
29Y	102
29Z	101
31B	101
31C	201
31D	101
31E	101
31F	260
31G	101
31J	160
31K	201
31L	101, 621
31M	202
31N	101, 202
31Q	201
31R	198
31S	160
31T	160
31U	160
31V	101
31W	101, 260
31X	101
31Y	260
31Z	260
32A	101
32C	101
32D	101
32E	101
32F	160
32G	160
32H	101
32Z	101
33B	102
33C	102
33D	102
33F	102
33G	102
33M	102
33P	102
33Q	102
33R	102
33S	102
33T	102
33V	102
33Z	102

MOS	DOD CODE
34B	150
34C	150
34D	150
34E	150
34F	150
34G	113
34H	150
34J	150
34K	150
34L	150
34M	150
34T	150
34Y	113
34Z	150
35B	198
35C	198
35D	198
35E	198
35F	140
35G	198, 326
35H	198
35J	112
35K	102
35L	102
35M	102
35N	102
35P	102
35R	102
35S	198
35T	198
35U	198, 326
36C	621
36D	621
36E	621
36G	622
36H	622
36L	622
36M	621
39B	201, 726
39C	104
39D	150
39E	198
39G	150
39K	150
39L	113
39T	150
39V	101
39W	101
39X	101
39Y	113
41B	670
41C	670
41E	198
41F	198
41G	198
41H	198
41J	670
41K	690
42C	304
42D	331
42E	323, 311
42F	331
43A	760
43E	860
43J	760
43K	760
43L	760
43M	760
44A	700
44B	704
44C	701
44D	701
44E	702
44K	704
44Z	700
45A	640
45B	641
45D	642, 643
45E	643
45G	113
45J	646
45K	643
45L	642
45M	646
45N	643
45P	643
45R	643
45T	643, 611
45Z	640
46A	632
46D	121
46L	631
46N	631
46Q	631
46R	570
46Z	570
51A	710
51B	712
51C	710
51D	710
51E	790
51F	710
51G	491
51H	710
51J	720
51K	720
51L	720
51M	495, 780
51N	720
51P	720
51Q	491
51R	721
51T	413
51Z	710
52A	721
52B	662
52C	662
52D	662
52E	662
52F	662
52G	721
52H	661
52J	661
52K	661
52L	661
52M	661
52X	610
53B	750
53C	750
54A	030
54B	494, 030
54C	030
54D	690
54E	494
54F	030
54Z	494
55A	645
55B	645
55C	645
55D	431
55G	644
55R	551
55X	645
55Z	645
57A	850
57C	760
57D	710
57E	840
57F	492
57G	850
57H	822
61A	062
61B	062
61C	652
61D	062
61E	652
61F	704
61Z	062
62B	612
62C	633
62D	730
62E	713, 730

MOS	DOD CODE
62F	713, 730
62G	713, 730
62H	713, 730
62J	713, 730
62K	730
62L	730
62M	730
62N	713, 730
63A	610
63B	610
63C	611
63D	611
63E	611
63F	610
63G	610
63H	610, 611
63J	690
63K	690
63N	611
63R	611
63S	610
63T	611
63W	610
63Y	611
63Z	610
64C	811
64Z	811
65A	690
65B	690
65C	662
65D	690
65E	690
65F	662
65G	850
65H	850
65J	812
65K	553, 812
65Z	812
66G	600
66H	600
66J	600
66N	600
66R	600
66S	600
66T	600
66U	600
66V	600
66X	600
66Y	600
67A	600
67B	600
67C	600
67F	600
67G	600
67H	600
67M	600
67N	600
67P	600
67R	600
67S	600
67T	600
67U	600
67V	600
67W	600
67X	600
67Y	600
67Z	600
68A	600
68B	601
68C	601
68D	602
68E	602
68F	602
68G	603
68H	602
68J	646
68K	602
68M	646
68N	102
68P	102
68Q	102
68R	102
71B	510
71C	511
71D	512
71E	511, 512
71F	515
71G	340, 513
71H	500
71L	510
71M	561
71N	514, 553
71P	517, 556
71Q	570
71R	570
71S	243
71T	510
71U	531
72B	580
72C	580
72D	580
72E	260, 580
72F	580
72G	260, 580
72H	260, 580
73C	542
73D	541
73Z	542
74B	531
74C	531
74D	531
74E	531
74F	532
74G	531
74Z	531
75B	500
75C	500
75D	500
75E	500
75F	500
75Z	500
76A	551
76C	551
76D	551
76J	340, 551
76L	400
76N	551
76P	551
76Q	551
76R	551
76S	551
76T	551
76U	551
76V	551
76W	821
76X	551, 822
76Y	552
76Z	551
77F	821
77L	491
77W	720
79D	501
81A	413
81B	413
81C	411
81D	411
81E	414
81F	790
81Q	411
81Z	412
82A	412
82B	412
82C	412
82D	412
82E	412
83A	740
83D	740
83E	740
83F	740
83Z	740
84B	400
84C	400
84D	191
84E	400

MOS	DOD CODE
84F	400
84G	400
84T	570
84Z	570
88H	822
88K	062
88L	652
88M	811
88N	553
88P	690
88Q	690
88R	690
88S	662
88T	850
88U	812
88V	812
88W	553
88X	812
88Y	062
88Z	811
91A	300
91B	300
91C	300
91D	301
91E	330
91F	302
91G	302
91H	304
91J	303
91K	303
91L	303
91M	311
91N	300, 311
91P	313
91Q	312
91R	321
91S	322
91T	321
91U	300, 301
91V	300
91W	300, 311, 313
91X	322, 324
91Y	300, 323
91Z	300
92B	311
92D	491
92E	311
93B	250
93C	222
93D	191, 102
93E	420
93F	420
93H	222
93J	222
93K	222
93L	222
93P	556

MOS	DOD CODE
94A	800
94B	800
94C	800
94D	800
94F	800, 325
94Z	800
95B	830
95C	831
95D	832
96B	243
96D	242
96F	243
96H	233
96R	243
96Z	243
97B	244
97C	244
97D	244
97E	243, 241
97F	120
97G	231
97Z	231, 243
98B	232
98C	232
98G	231
98J	233
98Z	230
001A	9E
002A	9A
003A	9B
004A	9E
005A	9E
006A	9E
007A	9E
008A	9E
011A	6H
021A	8E
031A	7N
041A	8E
051A	6G
100A	2C
100B	2C
100C	2C
100D	2C
100E	2C
100K	2C
100Q	2B
100R	2B
131A	4C
131B	4F
132A	5B
140A	4F
140B	4F
140C	4F
140D	4F

MOS	DOD CODE
140E	4F
150A	2G
151A	4D
152B	2C
152C	2C
152D	2C
152F	2C
152G	2C
153A	2C
153B	2C
153C	2C
153D	2C
154A	2C
154B	2C
154C	2C
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156A	2B
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202A	5B, 6I
210A	4A
211A	4C
212A	4F
213A	4L
214E	4F
214G	4F
215A	4M
215B	4M
215C	8G
215D	4N
221B	4F
222B	4B
222C	4B
223B	4F
224B	4F
224D	4F
225B	4F
225D	4F
250A	4C
250B	4C
251A	7E
252A	4B
256A	4C
257A	4B
260A	4E
271A	4F
285A	4C
286A	4C
287A	4B
290A	4C
310A	4A
311A	7H
350B	3A
350D	3A
350L	3A
351B	3C
351C	3A

MOS	DOD CODE
351D	3A
352C	3B
352D	3B
352G	3B
352H	3B
352J	3B
352K	3B
353A	4C
401A	4N
411A	4E
420A	7C
420C	7N
420D	8E
421A	4E
441A	4L
500A	8C
510A	4H
550A	5F
600A	6H
621A	4L
630A	4L
630B	4L
630C	4L
630D	4L
630E	4L
640A	6G
670A	6H
711A	7C
712A	7A
713A	5F
741A	7E
761A	8B
762A	8B
811A	4M
821A	4M
833A	8G
841A	4N
880A	8C
881A	4H
910A	4E
911A	4E
912A	4F
913A	4E
914A	4L
915A	4L
915B	4L
915C	4L
915D	4L
915E	4L
920A	8B
920B	8B
921A	4N
922A	8G
951A	7H
961A	3A
962A	3A
964A	3A
971A	3C
972A	3A
973A	3A
982A	3B
983A	3B
984A	3B
985A	3B
986A	3B
988A	3B

REQUEST FOR COURSE RECOMMENDATION

The applicant for credit must fill out one form for *each* service school course completed. The institutional official is responsible for verifying from official military records that the student completed the entire course, and for submitting the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193. ATTN: Military Evaluations. *Please Print.*

1. *Exact* course title *(do not abbreviate)*

2. Service branch offering the course:
☐ Air Force
☐ Army
☐ Coast Guard
☐ Department of Defense
☐ Marine Corps
☐ Navy

3. Name of service school attended:

4. Location (installation, state):

5. Length of course *(in weeks)*:

6. Dates of attendance: From: day/month/year To: day/month/year

7. Official military course number:

8. MOS/AFSC/Rating:

9. Course was designed for:
☐ Warrant Officers
☐ Officer Candidates
☐ Commissioned Officers
☐ Enlisted Personnel
☐ Aviation Cadets
☐ Noncommissioned Officers

10. Rank or rating upon completion of the course:

11. Please give some indication of subjects studied in course:

NAME OF STUDENT

STATUS (FRESHMAN, SOPHOMORE, ETC.)

DO NOT WRITE IN THIS SPACE
STAFF USE

SIGNATURE OF COLLEGE OFFICIAL

NAME OF COLLEGE OFFICIAL

TITLE

INSTITUTION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1991 735 446

2 Army MOS's

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

AMERICAN COUNCIL ON EDUCATION One Dupont Circle • Washington, D.C. 20036-1193

685

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THE CHAIRMAN, JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20318

5 October 1990

Dear Service Member,

I support the DOD policy of providing postsecondary education opportunities for all active duty and Reserve Service members. I strongly advise you to take advantage of the voluntary education program to catch up with your education before you leave the military. The Military Services need well-trained, educated people. Your pursuit of higher education will not only enhance your military job performance and chance for promotion, but will also improve your job opportunities when you return to civilian life.

The Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education, describes how you can receive college credits for your military training and experience and is widely recognized by the colleges and universities that grant credit for this training and experience. This guide is available for your reference at your base or post Education Center.

A number of programs are available through education centers on military installations, including courses taught in the classroom, independent study, testing of all kinds, and education guidance. Take advantage of these resources and educational programs during your military tour, and continue to use educational and Montgomery GI Bill benefits when you return to civilian life.

I wish you good luck and success in pursuit of your educational goals.

Sincerely,

COLIN L. POWELL
Chairman
Joint Chiefs of Staff

2 Army MOS's

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

AMERICAN COUNCIL ON EDUCATION One Dupont Circle • Washington, D.C. 20036-1193

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Foreword

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in military life. ACE has worked cooperatively with the Department of Defense and the armed services in assisting hundreds of thousands of service men and women to achieve recognition for their learning. The long-term success of the *Guide* evaluation system for military training has resulted in its serving as a model for the evaluation of programs offered by other noncollegiate organizations, including business, industry, government agencies, voluntary and professional associations, and labor unions. These formalized efforts to evaluate noncollegiate-sponsored programs enable students to combine their extrainstitutional learning with study at postsecondary institutions to achieve degree-related educational objectives. Not only is this sound educational practice, it is also an efficient use of educational resources and an incentive for the persons affected to undertake further study.

Special recognition must be paid to hundreds of individuals who have served as evaluators and the many educational institutions, professional and disciplinary associations, and the apprenticeship training community for their wholehearted cooperation in this endeavor. Without their support and assistance, the *Guide* would not have been possible. We are greatly indebted to them.

Once again, we are pleased to commend this work to you in your continuing work with service men and women and veterans.

ROBERT H. ATWELL
President
American Council on Education

How to Find and Use MOS Exhibits

This volume contains recommendations for all Army enlisted and warrant officer military occupational specialties (MOS's) evaluated through June 1988.

The instructions that follow provide a step-by-step procedure for finding and using the MOS exhibits and recommendations. Readers unfamiliar with MOS's—how they are structured and how MOS proficiency is demonstrated—should read Appendix A. Additional information on MOS's is provided in the Questions and Answers section.

Step 1

Have the applicant submit official Army documentation to you.

Several records may be used for MOS verification. A servicemember or veteran may submit one or several of the following forms:

Enlisted Personnel:

- *Army/ACE Transcript.*
- *Military Orders* (order awarding an MOS).
- *Course Completion Certificate.*
- *DA Form 2166–5, Enlisted Evaluation Report (EER).*
- *DA Form 2166–5A, Senior Enlisted Evaluation Report (SEER).*
- *DA Form 2166–7, NCO Evaluation Report*
- *USAEEC Form 10* and *EREC Form 10A, Enlisted Evaluation Data Report.*
- *DA Form 2–1, Personnel Qualifications Record.*
- *DA Form 20, Enlisted Qualification Record.*
- *Individual Soldier's Report (ISR).*
- *DD Form 295, Application for the Evaluation of Educational Experiences During Military Service* (April 1975) and *Application for the Evaluation of Learning Experiences During Military Service* (June 1979 and November 1986).
- *DD Form 214, Armed Forces of the United States Report of Transfer or Discharge* (November 1955) and *Certificate of Release or Discharge from Active Duty* (July 1979).

Warrant Officers:

- *DA Form 67–8, 67–7, 67–6, Officer Evaluation Report (OER).*
- *DA Form 67–8–1, Officer Evaluation Report Support Form.*
- *DA Form 2–1, Personnel Qualifications Record.*
- *DA Form 66, Officer Qualification Record.*
- *DA Form 4037, Officer Record Brief.*

NOTE: Many warrant officers began their careers as enlisted personnel; in such cases, warrant officers may also submit their enlisted records for evaluation.

Army records must be requested by the individual. Records may be obtained as follows:

Active-duty enlisted soldier or warrant officer. The Army installation to which he or she is assigned.

Army National Guard personnel. The National Guard unit to which he or she is assigned.

Army Reservist or retired personnel. The U.S. Army Reserve Component and Administrative Center (TAGO), 9700 Page Boulevard, St. Louis, Missouri 63132.

Army veteran. General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132. The veteran may request service records by submitting U.S. Government Standard Form 180, which may be obtained from a state's veterans affairs office, the Veterans Administration, or the National Personnel Records Center.

Step 2

By referring to military records, verify each MOS the person has successfully held.

When verifying enlisted MOS's it is important to identify the skill level. Since the higher skill levels of an MOS encompass the duties of the lower skill levels (i.e., a person with MOS 12B40 is able to perform the duties of 12B30), the credit recommendation for MOS 12B40 would include the recommendation for 12B30. Thus, you need to verify the highest skill level a person held.

To determine an individual's eligibility for the award of MOS credit, determine the dates the MOS was held and follow the appropriate instructions from the following list:

- October 1973–December 1976. Check for a score of 70 or above on the MOS evaluation test.
- January 1977–July 1983. Use the SQT score in conjunction with EERs and SEERs, and/or other assessment methods; if score is not available, use EERs and SEERs. (See question 15 in the Questions and Answers section.)
- August 1983–Present. Check for a score of 60 or above on the SQT; if score is not available, use EERs, SEERs, or NCO Evaluation Reports.

Question 3 in the Questions and Answers section and Appendix A contain more information on the Army MOS testing system.

You may need to consult several records in order to verify the MOS, the skill level, and to determine eligibility for the credit award. Refer to the records listed in Step 1 and look for the necessary information.

Enlisted Personnel:

- *Army/American Council on Education Registry Transcript System (AARTS).* This transcript may be used for verifying MOS's held. It is used to document military training and experience for active-duty personnel who entered the service on or after October 1, 1981. Transcripts are available by writing to the AARTS Operations Center, Ft. Leavenworth, KS 66027-5073. (See questions 20, 21 and 22 in the Questions and Answers section and see sample records in Appendix G. The transcript request form in Appendix G may be duplicated as necessary.)
- *Military Order* (order awarding an MOS). This document indicates that the individual was awarded the MOS following a period of supervised on-the-job training. Only individuals who have been judged competent in the MOS during this training period are awarded the MOS.
- *A course completion certificate for an MOS-producing course.* This indicates that the individual was awarded the MOS upon successful completion of the course. The certificate verifies that the person is qualified to perform the entry-level duties of a particular MOS skill level.
- *DA Form 2166–5, Enlisted Evaluation Report (EER).* This document contains the supervisor's rating. It provides ratings on duty performance traits, demonstrated overall performance of assigned duties, and advancement potential. Because supervisors' ratings tend to be subjective, one EER alone is seldom sufficient to validate proficiency. *DA Form 2166–5A, Senior Enlisted Evaluation Reports (SEERs)* provide ratings on performance qualities, leadership skills, demonstrated overall performance, and advancement potential. The maximum score attainable on EERs and SEERs is 125. EERs were formerly given to those in paygrades E–4 and E–5, while E–6 and above received SEERs. Then EERs were discontinued, and those in paygrades E–5 through E–7 were given SEERs. Those in paygrades E–4, E–8, and E–9 were not evaluated. Both EERs and SEERs have been discontinued.
- *DA Form 2166–7, NCO Evaluation Report.* Current supervisor's rating, replacing EERs and SEERs. Provides description and scope of duties, and ratings and written comments about the NCO's MOS competence, leadership abilities, training responsibilities, and responsibility and accountability. In Part IV, check for a *success* rating (meets standards) or an *excellence* rating (exceeds standards) in sections b, d, e, and f. In Part V, determine that an overall rating of *fully capable* or *among the best* has been achieved.
- *EREC Form 10A, Enlisted Evaluation Data Report* (replaces USAEEC Form 10). This record provides an EER weighted average (EERWA) score. It also lists raw SQT scores along with a percentile score. The percentile compares the soldier with others who have taken the test in that MOS.
- *DA Form 2–1, Personnel Qualifications Record.* This record provides a summary of a soldier's career, including MOS's held, courses taken, and awards received. Item 6 lists each MOS designation and skill level, title, and date held. Item 35 lists the soldier's assignments, with MOS and skill level designations, and the effective date of the assignment.
- *DA Form 20, Enlisted Qualification Record.* Sections 22 and 23 provide the MOS code, title, date awarded, and MOS evaluation scores and dates. Section 38 lists duty positions held and dates.
- *Individual Soldier's Report (ISR).* This form reports SQT results. You should check for the MOS designation, skill level, dates, and a score report. A score of 60 or above indicates that the individual has qualified in the MOS for the Army's purposes. (Unlike the score of 70 or above on MOS tests, this score does not automatically qualify the individual for the MOS credit but should be considered with the other information available.)
- *DD Form 295, Application for the Evaluation of Educational Experiences During Military Service* (April 1975) or *Application for the Evaluation of Learning Experiences During Military Service* (June 1979, November 1986). This form may be used when it contains occupational information. The April 1975 version contains the section "Major Service Jobs or Billets." The June 1979 and November 1986 versions have a section entitled "Military Occupational History." Check for MOS designation, title, and period during which the MOS was held. The form may also list test scores and dates.
- *DD Form 214, Transfer or discharge papers.* This form may be used for verifying an MOS but will not necessarily provide the dates during which the MOS was held. On the old version (November 1, 1955) *Armed Forces of the United States Report of Transfer or Discharge,* check item 25 for the MOS designation and title. On the new version (July 1, 1979) *Certificate of Release or Discharge from Active Duty,* check item 11 for MOS designation, title, and years and months in the MOS.

Warrant Officers:

- *DA Form 67–7.* See section on description of duties for MOS designation, professional attributes, demonstrated performance, and potential.
- *DA Form 67–8.* See section on duty description for MOS designation, performance evaluation, and performance and potential evaluation.

- *DA Form 67–8–1.* See written statements by the rated officer and the rater.
- *DA Form 2–1.* See items 3 and 6 for MOS designation, relevant dates, and dates of evaluation.
- *DA Form 66.* See section 9 for MOS designation, title, and relevant dates.
- *DA Form 4037.* See Section I for MOS designations and titles.

See Appendix G for sample copies of the above forms.

Step 3

Find the appropriate MOS exhibit in the Guide.

Using the military records, find the information necessary for locating the correct MOS exhibits. Pertinent information includes: the MOS designation, the MOS title, the dates each MOS was held, and when appropriate, the date associated with an MOS evaluation (MOS Evaluation Test score, SQT results, EER/SEER). When you cannot verify MOS proficiency through a careful examination of military records, you may wish to conduct your own assessment. (See question 15 in Questions and Answers.) Verification of MOS proficiency should precede the granting of credit or advanced standing.

There are two sections for MOS exhibits: the Army Enlisted MOS Exhibits, beginning on page 1–1 and the Army Warrant Officer MOS Exhibits, beginning on page 2–1. Within each section, exhibits are arranged by ACE ID number.

The exhibit(s) for a given MOS can easily be found when the MOS designation is known. Each MOS exhibit is assigned an ACE ID number that has three components. The first component, *MOS*, identifies the exhibit as one that describes an Army military occupational specialty. The second component consists of the MOS designation, e.g., 81C or 271A. The third component, a three-digit, sequentially assigned number, e.g., –001, –002, –003, uniquely identifies the exhibit. Enlisted MOS exhibit ID numbers have nine characters, e.g., MOS–81C–001. Warrant officer MOS exhibit ID numbers have ten characters, e.g., MOS–271A–001.

When the title of the MOS is known, the exhibit ID number(s) can be found by referring to the Army Occupational Title Index.

There may be several exhibits for an MOS. Each time there is a new recommendation for an MOS, there is a new exhibit. For example, three exhibits appear for MOS 12B. The ACE ID numbers for the three exhibits are MOS–12B–001, MOS–12B–002, and MOS–12B–003. The oldest exhibit for the MOS, the first to be evaluated, is assigned –001 as the last three characters. The last exhibit for an MOS, the exhibit ending in the highest number, is the most recent.

When there is more than one exhibit, select the correct one by referring to the exhibit dates which conform to the time frame in which the individual held the MOS. The exhibit dates for each new exhibit establish continuity with the previous exhibit, e.g., if the end date for the first exhibit is 8/75, the start date for the next exhibit would be 9/75. In many cases, the date of the soldier's last MOS evaluation will indicate which exhibit is most appropriate. However, when the time period that a person held an MOS skill level spans more than one exhibit for the MOS, you should exercise your own judgment in deciding which exhibit is more appropriate. (See question 5 in Questions and Answers.)

Step 4

Read the entire MOS exhibit.

Although credit is granted for a particular skill level of an MOS, users are urged to read the entire MOS exhibit. Doing so will make possible the most appropriate application of a given recommendation to the student's program of study at your institution. Each item in the exhibit has been prepared to help users identify or interpret the recommendations. (See sample exhibits.) The descriptions and the special notes on career progression will be particularly helpful to users.

The descriptions, which are similar to learning outcome statements of postsecondary courses and programs of study, will provide essential information about the learning required for proficiency in the MOS. Comparing the MOS "Description" with a description of the course or program of study that the student will pursue at your institution will help you

- determine how much of the recommended credit applies to the course or program of study at your institution
- identify additional areas of possible credit
- resolve problems with duplication of credit when the applicant has applied for credit for more than one military learning experience
- place the student at the appropriate point in the course sequence or program of study.

In addition, the exhibits contain special notes on career progression. These notes will help users identify other areas of possible credit and resolve duplication of credit. Enlisted MOS descriptions often include special notes on prerequisite MOS's and normal patterns of career progression. In warrant officer MOS exhibits, other MOS's an individual may have held are listed in the exhibit item "Career Pattern."

Step 5

Award credit as appropriate.

The MOS recommendations are advisory. They are intended to assist in formally recognizing the learning of enlisted soldiers, warrant officers, and veterans, and in placing them in postsecondary programs of study, apprenticeship programs, and jobs. The recommendations may be modified.

When an applicant has applied for credit for more than one military learning experience, you may find that you will have to reduce the total amount of credit recommended to avoid granting duplicate credit. (See questions 7, 11 and 12 in Questions and Answers.)

You may also wish to increase the recommended credit to account for the learning that the applicant may have acquired in other military or nonmilitary settings.

Step 6

When assistance is required, contact The Center.

The Center operates an advisory service to assist education officials, apprenticeship and training officials, and employers in evaluating the learning experiences of military personnel. Publication of the *Guide* is part of that service. However, there are instances when additional assistance is needed.

When requesting an exhibit for an enlisted or warrant officer MOS, complete a copy of the Request for Army Enlisted and Warrant Officer MOS Exhibits form that appears at the back of this volume.

When assistance in interpretation is needed and it appears that official military records will help staff members in responding to an inquiry, copies should be attached to the letter of inquiry. *Do not send original records.*

When an MOS exhibit or assistance in interpretation is needed immediately, you may telephone The Center at (202) 939-9470. Whether inquiring by letter or telephone, you should always obtain information concerning MOS exhibits directly from The Center, not the applicant. (See question 10 in Questions and Answers.)

Inquiries concerning *MOS exhibits* should be addressed to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036-1193
ATTN: Military Evaluations Program

Sample Enlisted MOS Exhibit

ID Number. A nine-character code assigned by ACE to identify each enlisted MOS exhibit.

MOS Designation. The five-character codes that identify the MOS and each of its skill levels. An MOS may have as many as five skill levels (e.g., Skill Levels 10, 20, 30, 40 and 50) or as few as one. The enlisted MOS structure is fully described in Appendix A.

Career Management Field. Two digits and a title designating a group of related MOS's; if divided into subfields (three digits and a title), the subfield is also provided. When a person has held more than one MOS in the same career management field or subfield, you should be alert to the possibility of overlapping recommendations. Brief descriptions of enlisted career management fields are provided in Appendix D.

Description. A summary description applying to all skill levels and a specific description for each skill level. Provides information about the duties performed and the qualifications required for proficiency in the MOS. It indicates the rationale behind a given recommendation and provides information that can be used as a starting point should you wish to conduct further assessment of the learning a soldier or veteran has acquired. The description is also useful in making decisions when recommendations from more than one learning experience appear to duplicate each other.

Date of Evaluation. By month and year. Follows the recommendation for each skill level.

Important: Read entire MOS exhibit before awarding educational credit.

MOS-13B-003

CANNON CREWMEMBER

13B10
13B20
13B30
13B40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves as a member of a field artillery cannon unit. Places and fires cannon, maintains transport vehicles and weapons, and operates communications equipment. *Skill Level 10:* Serves as vehicle driver, ammunition specialist, cannoneer, maintenance technician, and communications equipment operator; determines azimuth, reads maps, navigates, and operates radio set; services hydraulic, pneumatic, and electro-mechanical systems. *Skill Level 20:* Able to perform the duties required for *Skill Level 10;* assists section chief; uses aiming devices . . . *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief; directs defense of section; instructs and supervises 7 to 12 section personnel; supervises equipment maintenance. . . . *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 12 to 60 section personnel; selects sites for weapon emplacement; . . .

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in communications systems operation, 1 in hydraulic and electromechanical systems troubleshooting and maintenance, 1 in map reading, and 1 in applied mathematics (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, and 2 in applied mathematics (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, 2 in applied mathematics, 3 in principles of supervision, 3 in communication skills, and 1 in technical report writing (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, 2 in applied mathematics, 3 in principles of supervision, 3 in communication skills, and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

Title. The official Army title of the MOS during the period of the exhibit dates. If the title changed during that period, the newer title is given first and the older title is given in parentheses on the next line.

Exhibit Dates. Start and end dates by month and year. The earliest start date for enlisted MOS's is 10/73 because The Center does not have the information necessary to evaluate enlisted MOS's as they may have existed earlier than 10/73. When an end date is given, the MOS was either discontinued (an explanation is provided) or changed (another exhibit will follow for the MOS, e.g., MOS-81C-002). An end date of "Present" indicates that the MOS still exists and the exhibit is current as of June 1990. Some exhibits will end with the phrase "Pending evaluation."

Recommendation. By skill level. Only the recommendation for the *highest* skill level held should be used; skill-level recommendations should *not* be added.

Educational credit is recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

You are free to modify the recommendation.

Sample Warrant Officer MOS Exhibit

ID Number. A ten-character code assigned by ACE to identify each warrant officer MOS exhibit.

MOS Designation. The four-character code that identifies the MOS plus the neutral fifth character, zero ("0"). The zero is added as a reminder that the MOS evaluation does not include the evaluation of learning associated with Special Qualifications Identifiers (SQI's). When a person's MOS designation includes an SQI, signified by a letter or number other than zero as the fifth character, additional credit may be granted on the basis of individual assessment (refer to Appendix E).

Description. Provides information about the duties performed and the qualifications required for proficiency in the MOS. It indicates the rationale behind a given credit recommendation and provides information that can be used as a starting point should you wish to conduct further assessment of the learning a warrant officer or veteran has acquired. The description is also useful in making decisions about how much credit to grant when credit recommendations from more than one learning experience appear to duplicate each other.

MOS-132A-002

METEOROLOGY TECHNICIAN

132A0

Exhibit Dates: 6/89–Present.

Career Pattern

NOTE: This MOS was formerly designated 201A. May have progressed to Meteorology Technician from MOS 93F (Field Artillery Meteorological Crewman).

Description

Normally serves as the chief of a meteorology section that provides ballistic meteorological data (not involving weather forecasting) to artillery units; is responsible for the organization and operation of the section and its physical facilities as well as the supervision and training of enlisted specialists in the section; manages and allocates resources to install, operate, and maintain mercurial, aneroid, electronic, optical, and mechanical meteorological instruments and equipment; determines layout of ballistic meteorological stations and facilities and plans equipment installation; knows methods of observing and plotting meteorological data; inspects and tests meteorological equipment; determines operating procedures and techniques; allocates work to subordinates; determines requirements for, procures, and manages supplies, repair parts, and equipment; supervises calibration of graphs and other recording devices; evaluates ballistic meteorological data and produces messages to be transmitted to artillery units; instructs subordinates on established maintenance techniques and operating procedures; may serve as an instructor at a formal service school; may be employed in research, development, and evaluation activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in supply management, 3 in applied mathematics, and 3 in general meteorology. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (6/89).

Important: Read entire MOS exhibit before awarding educational credit.

Title. The official Army title of the MOS during the period of the exhibit dates. If the title changed during that period, the newer title is given first and the older title is given in parentheses on the next line. A title in the exhibit may be different from the title that appears on the person's Army records. The latter title may be a Special Qualifications identifier (see Appendix E).

Exhibit Dates. Start and end dates by month and year. The start dates vary considerably for each warrant officer MOS exhibit. Each start date reflects a historical tracing of the MOS requirements. The end date for all warrant officer MOS's that have been evaluated is given as "Present," indicating that the exhibit is current as of June 1990. Some exhibits will end with the phrase "Pending evaluation."

Career Pattern. Enlisted or other warrant officer MOS's that an individual may have held. You should be alert to the possibility of overlapping recommendations when a warrant officer has held one or more of these MOS's.

Recommendation. Educational credit is recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

Date of Evaluation. By month and year.

You are free to modify the recommendation.

Questions and Answers

This section is designed to answer questions that may arise about using the **Guide** *and awarding credit.*

1

Which learning experiences have been evaluated for the Army?

Formal courses offered by the active Army, Army Reserve, and National Guard are all eligible to be evaluated. See Volume 1 for information and credit recommendations. In addition, Army Military Occupational Specialties (MOS's) have been evaluated. ACE began evaluating MOS's in 1974. The exhibits will not have a start date that is earlier than October 1973, the Army regulation in effect at the time. MOS exhibits are contained in this volume.

2

What are primary, secondary, and duty MOS's?

All soldiers receive a primary MOS. A primary MOS is the MOS in which soldiers normally work and in which they are tested annually with the Skills Qualification Test (SQT). Currently, in instances in which a soldier has been tested, institution officials should verify an SQT score of 60 or above to document proficiency. In the absence of an SQT score (SQTs have not been developed for some MOS's), or when the SQT was taken prior to 8/83, one or several Enlisted Evaluation Reports (EERs—supervisor's ratings) may be used. (See question 3.)

Some soldiers receive a secondary MOS. It is generally related to their primary MOS, and they are tested in their secondary MOS every other year. If an SQT score is recorded, or the soldier has received one or more EERs for working in that MOS, credit may be awarded.

A duty MOS indicates the MOS in which the individual is working. In most cases, the duty MOS is the same as the primary MOS. In instances in which the duty MOS is different from the primary MOS, soldiers take an SQT in their primary MOS, but are evaluated by their supervisor in their duty MOS. Credit may be awarded in either the primary or duty MOS or both. The soldier must maintain proficiency in the primary MOS by studying for and passing the annual SQT. If there is no SQT for the primary MOS, institutions may prefer awarding credit for the duty MOS on the basis of EERs.

Very often the primary, secondary, and duty MOS's are in the same or related career field. If this is the case, there is apt to be some duplication in the credit recommendations. Follow the guidelines in question 11.

3

How can I determine whether an applicant is eligible to receive the credit recommended in an enlisted MOS exhibit?

If the individual seeking credit held the MOS between 10/73 and 12/76, check military records for a score of 70 or above on the MOS evaluation test. See Step 2 in How to Find and Use MOS Exhibits for a complete listing of military records and the information they contain.

For those who held the MOS between 1/77 and 7/83, verification of MOS-related learning may require additional considerations beyond those under the old MOS test system. The testing system in use during these dates, the Skill Qualification Test (SQT), was considerably different from the old system and from the current SQT system. During this period it served as a diagnostic training tool for Army MOS trainers rather than an actual assessment of individual proficiency.

Although the SQT should not be used by itself in credit decisions for MOS's held between 1/77 and 7/83, it is one indicator of MOS proficiency. In the absence of an MOS evaluation test score, it is possible for you to assess an applicant's eligibility with other documentation of MOS proficiency. See Step 2 in How to Find and Use MOS Exhibits for a complete listing of all such documents and descriptions of the information they contain.

You may wish to consult several of these forms before deciding the appropriate credit award. As with a portfolio type of assessment, multiple indicators of learning outcomes serve to increase your confidence in the person's proficiency and the validity and reliability of the credit awards. For example, consulting an individual's records that span a period of years allows you to follow that individual's career path through the Army's MOS skill levels. If you are uncertain about a person's proficiency in a given subject area, you are encouraged to use additional means of assessment. Any of the assessment methods used by your institution to grant credit for experiential learning are applicable to MOS verification. See question 15 for suggestions on using the MOS recommendations in conducting individual assessments.

For those who held the MOS from 8/83 to the present, the SQT score may be used. (See Appendix A for information about the improved SQT.) Check the applicant's records for a score of 60 or above.

See Step 2 in How to Find and Use MOS Exhibits for a complete listing of military records and the information they contain.

4

Can MOS credit be awarded to Army reservists and National Guard members as well as active-duty soldiers?

Credit for MOS's may be granted to Reserve Forces personnel (Army National Guard members and reservists), but institutions should be aware that documenting MOS proficiency for them is different from that for active-duty soldiers.

The SQT is taken annually by active-duty soldiers, and every two years by members of the Reserve Forces. For active-duty personnel, the SQT has been considered a reliable instrument for making academic credit award decisions. However, Reserve and National Guard commanders generally narrow down the tasks for each soldier. They select the tasks that are necessary for a soldier to maintain proficiency in the skills required to support the mission of the particular unit. Thus, scores are based on these selected items, and have a meaning different from the scores of active-duty personnel. National Guard members and reservists receive EERs on an annual basis. Therefore, EERs, not SQTs, should be used to verify MOS proficiency for Reserve Forces personnel. ACE suggests that institutions check for a minimum of two EERs in the same MOS before awarding credit. The guidelines mentioned above for the pre-August 1983 time frame should be followed before granting MOS credit.

An explanation of the application of credit recommendations for other learning may also be useful. Individuals in the active Army and Reserve Forces receive identical basic training. If it was taken after December 1979, the credit that is recommended in exhibit AR-2201-0197 may be granted. After completing basic training, all soldiers now attend an Advanced Individual Training (AIT) formal course. AIT provides basic entry-level MOS skills. Credit may be awarded for AIT in accordance with the credit recommendations in the *Guide*.

Following AIT, active Army soldiers are assigned to a permanent duty station where they receive supervised on-the-job training. Members of the Reserve Forces receive their MOS training and perform their MOS duties one weekend a month and during their two-week tour of active-duty training each year.

Credit may be granted for *formal courses* taken by the soldiers. Members of the Reserve Forces are eligible to receive the credit for successful completion of courses which have been evaluated by ACE.

In granting credit to either an active-duty soldier or a member of the Reserve Forces for successful completion of formal courses as well as MOS's, care must be taken to avoid granting duplicate credit. (See question 11.)

5

What if the applicant held the MOS before the start date of the MOS exhibit? Should I still use the recommendation to grant credit to this person?

If you have the institutional resources to do so, you should do some investigating before deciding to accept or modify the recommendation. Since MOS duties and skill level structures sometimes change, you need to determine if the earlier MOS is the same as the current MOS described in the *Guide*. You may be able to confirm the comparability of the new MOS description to an old description. There are three steps you will need to follow in deciding whether or not to award credit:

1. Obtain a description of the MOS as it existed when the person held it. If the person held it since October 1, 1973, write to the Advisory Service for a copy of the Army description (be sure to tell us when the person held the MOS). If the person held it before October 1973, a copy of the description may be obtained by writing to the Soldier Support Center, National Capitol Region, ATT: ATZI-NCR-MO, 200 Stovall Street, Alexandria, VA 22332. Be sure to include the full title, dates held, and MOS designator. They will send a copy of the description if it is available. Use the description to identify the learning outcomes represented by the MOS.

2. Determine whether the individual demonstrated proficiency in the MOS. If the person held the MOS since October 1, 1973, follow the procedures outlined in question 3 and in Steps 1 and 2 in How to Find and Use MOS Exhibits to determine MOS proficiency. If the person held the MOS before October 1973, conduct your own assessment to verify that the person achieved the learning outcomes represented by the MOS. (See question 15 for information about assessment techniques.)

3. Determine how much credit may be granted to the person. A careful comparison of the description in the MOS exhibit and the one obtained in Step 1, above, may reveal whether the MOS was substantively different. If it was not, the credit recommendation in the exhibit may be used. If specific differences are identified, then the recommended credits may need to be modified accordingly.

6

Is a four-digit number such as 5241 an acceptable warrant officer MOS designation?

In some cases, yes. The four-digit number is the warrant officer MOS designation that was used before the present warrant officer MOS classification system was adopted in June 1961. For example, the MOS designation for Bandmaster was 5241, then became 031A, and is now 420C. When the start date for a warrant officer MOS exhibit is earlier than 6/61, the four-digit MOS designation is provided in the MOS exhibit because some warrant officer records may show the old number.

7

Should I award credit to a warrant officer for his or her *enlisted MOS's?*

Yes, you may award credit for any combinaton of learning experiences. (See question 11.)

8

What is the significance of the date which appears after each credit recommendation?

That date is called the "evaluation date" and represents the month and year the credit recommendation was established. Each time a course or MOS is evaluated, a date is provided to indicate when the course or MOS was last considered for a credit equivalency. The date tells you how recently a recommendation was established so that you can judge the currency of the credit recommended. This information is particularly useful in subject areas where "state of the art" is important in determining the applicability of credit. You can also use the evaluation date when your institution has established a "statute of limitations" for acceptance of transfer credit. The date is provided purely for your information; do not confuse the date with exhibit dates.

9

When an MOS exhibit includes the statement "Pending evaluation," how will I know when the ACE recommendations will be available?

The abbreviated exhibit format was developed to let you know the evaluation status of MOS's. Such exhibits include only the ACE ID number, the MOS title, the MOS designations, and the exhibit dates with the statement "Pending evaluation." When you encounter the statement, two things are certain: (1) the MOS is one that was in use as of the publication cut-off date of June 1990 and (2) that ACE plans to evaluate it. As MOS recommendations are available they will be announced in *The Center Update* and will appear in evaluation updates to the *Handbook to the Guide* (see question 19). Inquiries about the evaluation status of an MOS should be directed to the Advisory Service. Submit a completed "Request for Army Enlisted and Warrant Officer Exhibits" form located at the back of this volume.

10

How long does it take to receive a response?

About two to three weeks for most requests. Every effort will be made to respond as quickly as possible. If you wish, you may call in requests.

11

I have looked up several courses and MOS's for one applicant. It appears that a lot of the recommended credit is in the same subject area. How can I avoid granting too much or duplicate credit to this person? Also, if I grant credit for a course, should I also grant credit for the MOS?

You may grant credit for any combination of learning experiences. In doing so, however, you must be alert to the possibility of overlapping credit recommendations. When the person is applying for credit for more than one learning experience, the recommendations might cover some of the same learning. In such cases, awarding a simple total of the recommended credits could result in the award of more credit than the learning merits. Credit recommendations may overlap between (1) related courses, (2) courses and related MOS's, (3) related enlisted MOS's, and (4) enlisted and warrant officer MOS's. The MOS and course exhibits contain information that will assist you in identifying cases of duplication.

1. *Course recommendations* will overlap when the individual has participated in several military courses in the same subject area and at the same level.

2. *Course recommendations and MOS recommendations* will overlap when the individual has acquired his or her proficiency, or a significant portion of it, through completion of one or more formal service school courses. That is, some formal courses are MOS-producing; successful completion of the course leads to the award of a specific MOS. Other courses often supplement on-the-job training and work experience and are clearly related to the skills, competencies, and knowledge required for proficiency in an MOS. Related MOS's include those awarded upon completion of the course, those required as a prerequisite to the course, and those for which the course is supplementary.

3. *Enlisted MOS recommendations* will overlap when the soldier or veteran has held two or more MOS's that require related qualifications and the performance of related or similar duties. MOS's in the same career management field or subfield are probably related.

4. *Enlisted and warrant officer MOS recommendations* will probably overlap because most warrant officers progress through the enlisted ranks, in enlisted MOS's directly related to warrant officer positions. Related MOS's are noted in the "Career Pattern" item in warrant officer MOS exhibits.

To reconcile overlapping credit recommendations, compare the descriptions and recommendations for all courses and/or MOS's and interview the soldier or veteran to obtain additional information. When the learning outcomes, courses in which credits are recommended, and the number of credits recommended for a given course or subject are the same or very similar, there is overlap, and you should modify the credit recommendations to avoid granting duplicate credit. To determine how much credit without duplication may be awarded to an individual who has completed a number of courses and held a number of MOS's, use the following steps:

1. Identify Army MOS's held and formal courses completed by the individual from the official military records the individual provides.
2. Locate all pertinent and available MOS exhibits and course exhibits in the *Guide*, and note the "Related Occupation Codes" listed in the course exhibit.
3. For enlisted MOS's, locate the correct skill level within each enlisted MOS exhibit; for courses, locate the correct version within each course exhibit.
4. Read and compare all the descriptions.
5. On the basis of the person's program of study, identify the appropriate recommendations in each exhibit.
6. Read and compare all the pertinent recommendations. It may be helpful to list the amount of credit and the subject areas of each recommendation.
7. If necessary, obtain additional information from the individual through interview or further assessment.
8. When the nature and extent of the individual's learning has been identified, refer to all pertinent recommendations and make decisions on how much credit may be awarded without duplication. Credit should be awarded as appropriate to the educational goals of the individual and the institution.

If you cannot determine whether duplication exists, write to the Advisory Service.

12

Why does the MOS I just looked up have more credit recommended than the course that leads to it?

It is rare for the subject matter covered in a course to perfectly coincide with the learning represented by occupational proficiency. In most cases, there is quite a difference in scope: a difference in the subject matter mastered by the learner and, when the subject matter is the same, a difference in the depth and breadth of the learning.

Usually the scope of a course is narrower than that of the job. Most Army courses are designed to prepare the soldier to be able to function on the job or to take on additional tasks. As such, the courses normally provide entry-level occupational skills and competencies. However, successful performance in an MOS is predicated on the additional factor of job experience and/or extensive self-instruction.

Enlisted and warrant officer MOS's related to courses are listed in the course exhibit item "Related Occupation Codes" in Army course exhibits. A related MOS may be one that is awarded upon completion of the course, one for which the course is supplementary, or one which is required as a prerequisite to the course. Therefore, this item in the course exhibit tells you that there is a relationship—a likelihood of overlapping credit recommendations—between the MOS and the course. The term "overlapping" connotes that at least part of the learning represented by the MOS is the same as that for the course; therefore, some of the credits recommended may duplicate each other. A suggested procedure for resolving duplication is given in the answer to question 11.

13

When credit is recommended in more than one category, what should I do?

Credit has frequently been recommended in more than one category. One reason for multiple-category recommendations is that the scope of a given MOS or course reflects learning in several subject fields at different levels of complexity. The learning outcomes acquired in a course or MOS in one subject field may apply to courses normally included in lower-division baccalaureate/associate degree programs, while those in another subject field may apply to courses normally included in upper-division baccalaureate programs. Another reason for multiple-category recommendations is that learning in a given subject field can be applied to courses and programs of study encompassed by more than one of the categories. That is, learning in business, for example, may apply to the vocational certificate category and to the lower-division baccalaureate category. A thorough reading of the exhibit will help you to determine which category is the best for you to apply. You will need to read the exhibit and compare learning outcomes achieved and course objectives and content with those of your own institution.

In the first instance—learning in several subject fields—the recommended credits may be added as long as all the subjects are applicable to the student's program of study at your institution.

> *Example A:*
>
> In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/75).

In Example A, up to 5 semester hours may be awarded if they apply to the student's program: 1 in communication skills, 1 in principles of management, and 3 in personnel management.

In the second instance—learning in a given subject field that is applied to two or more categories—the recommended credits probably should not be added. You will have to determine how they apply to the student's program of study at your institution.

> *Example B:*
>
> In the vocational certificate category, 15 semester hours in electricity or electronics. In the lower-division baccalaureate/associate degree category, 10 semester hours in electricity or electronics. In the upper-division baccalaureate category, 5 semester hours in electricity or electronics (6/75).

In Example B, to determine how many credits to award, compare the information in the exhibit description with the desired outcomes of electricity or electronics or related courses and programs of study at your institution. Award credit based on comparison of these outcomes.

In the third instance—a combination of Examples A and B—you may combine the credit categories when the subject areas are different, but should not add subject areas with the same title.

> *Example C:*
>
> In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in management (11/75).

The 3 semester hours in office management recommended in the lower-division baccalaureate/associate degree category and the 3 in office management recommended in the upper-division baccalaureate category should not be combined for a total of 6. Eight semester hours might be granted if they apply to the student's program: 3 in typing, 3 in office management, and 2 for field experience in management. The evaluators have described the course content, and using that description from the course exhibit, you must determine the appropriate application of the credit recommendation.

All three examples are from early evaluations. Evaluators now place the credit in a given subject area in the highest, most appropriate, category. If credit is placed in more than one category, specific subjects will be cited. For example, if credit in the lower division is in personnel supervision, credit in the upper division might be in human resource management.

As a general rule, you should read the course description or the MOS summary and skill level descriptions, and then award credit as it best applies to the student's program of study, as determined through academic counseling.

Credit may be applied to a student's program in various ways: (1) applied to the major to replace a required course, (2) applied as an optional course within the major, (3) applied as a general elective, (4) applied to meet basic degree requirements, or (5) applied to waive a prerequisite. Credit granted by a postsecondary institution will depend on institutional policies and degree requirements.

For additional help in this area, see the Model Policy on page xxxi.

14

Do I have to grant credit *exactly* as it appears in the recommendation?

No. You are under no obligation to grant credit, although most colleges do recognize learning that occurs in a military setting. The use of ACE recommendations is the prerogative of education officials and employers. The recommendations are provided to assist you in assessing the applicability of a person's military learning experiences to his or her educational program or occupation. *You may modify the recommendations in accordance with your institution's policies and practices.*

You should keep in mind that the recommendations are advisory and are designed as a tool for use in giving due recognition to an individual for learning experiences acquired in the armed services. You should also keep in mind that the learning of some service personnel may exceed the skills, competencies, and knowledge evaluated for a specific course or MOS. In these cases, you may wish to conduct further assessment. (See question 15 for information about assessment techniques.)

15

May I conduct my own assessment of an applicant's learning?

Yes. In a sense, you are *always* conducting your own assessment, even when you use the recommendations in this book. The *Guide* is one of many tools you can use to assess what an applicant has learned and how that learning can be applied to a specific program of study at your institution. When you cannot find a recommendation in the *Guide* or cannot obtain one from the Advisory Service, we encourage you to use other means to assess what the person has learned.

There is a wide variety of assessment techniques that you can use, e.g., written examinations, oral examinations, faculty committee assessment, evaluation of materials supplied by the applicant, personal interviews, performance tests, and standardized examinations such as CLEP. A combination of several techniques will usually result in a reliable assessment of the person's learning.

You may learn more about assessment techniques through the publications of the Council for Adult and Experiential Learning (CAEL). Their publications may be purchased from CAEL, 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606 (312-922-5909).

The *ACE Guide Series* now comprises this *Guide* and companion volumes, *The National Guide to Educational Credit for Training Programs* (which lists recommendations for courses offered by business and industry, government agencies, professional and voluntary associations, and labor unions), and the *Guide to Educational Credit by Examination* (which provides descriptions and credit recommendations for nationally recognized testing programs). This *Guide* and the *National Guide* may be purchased through Macmillan Professional Books Division, Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022 (800-257-5755). The *Guide to Educational Credit by Examination* may be purchased from ACE Publications.

16

How can the MOS recommendations assist me in conducting an individual assessment of a student?

The process of conducting an individual assessment to verify MOS proficiency is not very different from making a "portfolio" assessment of a student's experiences. The *Guide* can provide guidance to help simplify the steps in the assessment process.

When a student submits a portfolio, the institution official must (1) determine the thoroughness and preciseness of the documentation of the experience, (2) identify clearly the learning outcomes that have been achieved, (3) judge the equivalence of the learning outcomes to those achieved through the institution's programs of study or courses, and (4) translate the learning outcomes into credit. In considering whether to grant credit for an MOS, you should keep in mind that ACE evaluation teams have already accomplished three of these steps. They have (1) determined the expected learning outcomes of that MOS, (2) judged the compatibility of the MOS training with postsecondary curricula, and (3) translated the learning outcomes into credit recommendations for specific postsecondary courses. These teams are composed of subject-matter experts, nearly all of whom are faculty members at postsecondary education institutions. Accompanied by an ACE staff member, they actually visit military installations where soldiers are working in their MOS's.

In order to make a recommendation, ACE evaluators must first identify the skills, competencies, and knowledge associated with a given MOS. To do this, they use various resources, including the official Army MOS regulation, which describes the duties and qualifications for each MOS skill level; technical manuals, soldier's manuals, and other publications used by soldiers in the day-to-day performance of their duties and to prepare for their SQTs; MOS evaluation tests or SQTs; and study guides that outline the proficiency requirements for each MOS skill level. During site visits to Army installations, evaluators interview and observe soldiers on the job.

Thus, ACE provides a sound initial assessment of MOS's in terms of their equivalency to postsecondary learning. The institution must verify whether the individual actually possesses the skills and knowledge described in the *Guide* entry before awarding the recommended credit. Thus, although the ACE MOS credit recommendations are valid in a general way, they cannot be applied routinely to every individual seeking MOS-related credit. When you can confirm that the individual has attained some or all of the skills and knowledge represented by the MOS, the ACE recommendation can be utilized or appropriately modified.

17

Should a two-year college use only the lower-division credit recommendations? And, should a four-year college use only upper-division credit recommendations?

Not necessarily. Evaluators are instructed to be as general as possible. That is, they place a course recommendation in the category in which it is *generally* taught at most institutions. If your institution teaches a given course at a different level, you are encouraged to grant the credit at that level. Depending on the recommendation, the programs of study available at the institution, and the objectives of the student, all types of institutions can use any or *all* of the four categories used in the *Guide*, namely the vocational certificate category, the lower-division baccalaureate/associate degree category, the upper-division baccalaureate category, and the graduate degree category. Please read "Categories of Credit" in Appendix A. (See questions 11, 12, 13, 14, and 15.)

18

I am an employer. How will the *Guide* be useful to me?

As an employer, you may find the exhibits helpful when hiring and placing veterans in jobs. The recommendations and descriptions enable you to compare a veteran's training and experience with the qualifications and requirements for jobs. The recommendations relate learning to postsecondary courses and curricula and, in some cases, to apprentice training programs.

19

What is the *Handbook to the Guide to the Evaluation of Educational Experiences in the Armed Services?*

The *Handbook to the Guide* was designed to keep institutional and military representatives up to date on the activities of ACE and The Center as well as to provide credit recommendations for courses and occupations evaluated since the latest *Guide* was printed. Revisions are mailed to military education personnel and civilian institutions three times between *Guides*. Sections most likely to be revised are those on exams, other aids, and evaluation updates.

20

I have heard that active duty Army personnel may obtain a transcript containing a servicemember's military training and educational experiences while in the Army. Is this true?

Yes. An Army/ACE Registry System (AARTS) transcript is available to active duty enlisted personnel and veterans who entered the service on or after October 1, 1981. The transcript will document courses, Military Occupational Specialties (MOS's) held, Skill Qualification Test (SQT) scores, and college-level standardized test results with descriptions and American Council on Education (ACE) credit recommendations.

Service members can obtain a request form (DA Form 5454-R) from the *Handbook*, the *Guide*, or from their local education center office or send a request directly to: AARTS Operations Center, Ft. Leavenworth, KS 66027-5073. There is no charge for the transcript. (See Appendix G for a sample transcript and a sample request form. The request form may be duplicated as necessary.)

21

Why don't all courses taken by a soldier or a veteran while on active duty in the Army appear on the AARTS transcript?

Automation of military course completion records began in 1984. As a result you may find omissions in the military course completion section of the transcript. ACE has determined that transcript omissions are permissable based on results of their survey of college registrars. When information is missing from AARTS transcripts, soldiers should use DD Form 295 and veterans should use DD Form 214 to supplement transcripts.

22

What distinguishes an official AARTS transcript from an unofficial issuance?

An official AARTS transcript has the phrase "institutional copy" printed at the top of each page of the transcript. When a soldier or veteran requests that a transcript be sent to a particular college or university, entry of that institution's "FICE code" alerts the system to automatically print "institutional copy" on the transcript pages. This procedure was recommended by the committee of college registrars who have advised AARTS since the initial development of the transcript registry. Transcripts going to soldiers, veterans, education center counselors or employers do not contain the phrase "institutional copy." For soldiers applying for admission to colleges and universities prior to their transition from active duty, AARTS transcripts included in the Admissions Packet from the United States Army Continuing Education System are not official transcripts. They are provided for information and initial planning purposes only. You should have the soldier request that an official transcript be sent to your institution to meet your established time requirements.

23

An Army student I'm counseling has taken an Air Force course. It's not in the Air Force volume of the *Guide*. What should I do?

Anyone attending an Air Force school or course can obtain a Community College of the Air Force (CCAF) transcript which documents that training if the school or course is recognized by CCAF for credit. The transcript may be used to request transfer of credit to another institution or otherwise document college credit, since non-Air Force personnel cannot enroll in CCAF. CCAF does not award credit for all Air Force courses, but only those regularly attended by Air Force enlisted personnel and taught by CCAF-affiliated schools.

A CCAF transcript may be obtained by sending a completed AF Form 2099 or a brief letter requesting transcript service to CCAF/RRRA, Maxwell Air Force Base, AL 36112-6655. A certificate of training must accompany the request. DD Form 219 is not acceptable. Specify the type of transcript (personal or official) and the address to which the transcript is to be mailed. Provide full name, social security number, and ensure that the person whose transcript is requested signs the request form. The transcripts are free. Official transcripts will be mailed only to institutions.

24

I understand many military records were destroyed in a fire at the General Services Administration a number of years ago. What should I do if the applicant's military records were among those destroyed?

Many records were reclaimed or reconstructed and are now available. In addition, the applicant's copies of certificates may be used in lieu of records destroyed in the GSA fire.

25

What are USAFI and DANTES? Can I grant credit for the courses and tests listed on an applicant's USAFI or DANTES military test reports?

USAFI was the United States Armed Forces Institute, which offered an extensive educational program to active-duty personnel. USAFI correspondence, seminar, and self-study courses, end-of-course tests, and Subject Standardized Tests (SSTs) were made available to service personnel worldwide until 1974, when USAFI was disestablished. Credit recommendations for USAFI courses and examinations may be found in the *Handbook to the*

Guide. Subsequently, the Defense Activity for Non-Traditional Education Support (DANTES) was established in 1974, and that agency continued the development and administration of Subject Standardized Tests and other educational services. The Center continues to recommend credit for USAFI offerings and DANTES SSTs. Credit recommendations for DANTES SSTs are found in the *Handbook*. Detailed descriptions may be found in the *Guide to Educational Credit by Examination*, which can be purchased through ACE Publications.

In verifying completion of USAFI or DANTES courses or tests, the military test report should not be considered official. That report is given to all service personnel who have taken a course or test. To obtain official USAFI or DANTES transcripts, refer to the addresses provided in Appendix A, under "Other Recommendations."

26

We have received a transcript from a military service school listing semester credits and carrying the statement that the school is accredited by one of the six regional accrediting associations. How do we handle this?

At this time we know of no military schools that are accredited above the certificate level other than the following: Community College of the Air Force, which is accredited at the two-year community college level; Army Command and Staff College at Fort Leavenworth, Kansas, which is accredited to grant an M.A. degree; Air Force Institute of Technology at Wright-Patterson Air Force Base, Ohio, which is accredited through the doctoral level; Defense Intelligence College, Washington, DC, accredited to grant an M.A. degree; Naval Postgraduate School, Monterey, CA, accredited through the doctoral level; Uniformed Service University of the Health Sciences School of Medicine, Bethesda, MD, accredited through the doctoral level; and, of course, the Service Academies.

We recommend that you handle the certificate-level credit listings in accordance with your institutional policy regarding certificate-level credit.

27

I've found exhibits for most enlisted occupations, but not for the Air Force. How come?

The student may write to the Community College of the Air Force (CCAF) to obtain a transcript which will include credit for the AFSCs held, reported as internship. The student should write to CCAF/RRRA, Office of the Registrar, Maxwell AFB, AL 36112-6655.

Marine Corps MOS recommendations are included in the *Guide*. Recent evaluations have been conducted for MOS's in the aircraft maintenance and avionics occupational fields. The exhibits are in Volume 4. Refer to How to Find and Use Marine Corps MOS Exhibits and Appendix A in Volume 4 for information on the Marine Corps MOS system.

If you are not already receiving the newsletter, write to the Editor, Update, The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036–1193.

Awarding Credit for Extrainstitutional Learning

The following statement by the ACE Commission on Educational Credit and Credentials has been approved by the ACE Board of Directors and endorsed by the Council on Postsecondary Accreditation.

The American Council on Education recommends that postsecondary education institutions develop policies and procedures for measuring and awarding credit for learning attained outside their sponsorship.[1]

American society abounds in resources for learning at the postsecondary level. Public, private, and proprietary education institutions exercise the central but not exclusive responsibility for instruction and learning. Associations, business, government, industry, the military, and unions sponsor formal instruction. In addition, independent study and reading, work experiences, the mass media, and social interaction contribute to learning and competency.

Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning:

- Educational credentials have a significant bearing on the economic, professional, and social status of the individual. Thus, social equity requires that equivalent learning, regardless of where and how it is achieved, be incorporated into the system of rewards for learning and competency.
- Recognition encourages learning and contributes to pedagogical effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

In the development of institutional policies and procedures, the American Council on Education recommends the following guidelines and resources.

Guidelines

1.

Reliable and valid evaluation of student achievement is the sine qua non in awarding credit. Experience, whether acquired at work, in social settings, in the library, at home, or in the formal classroom, is in itself an inadequate basis for awarding credit. Increased attention in choosing evaluation procedures and techniques and more thorough evaluation are necessary when learning has been attained without participation in a program of study prescribed by an educational institution and offered by its faculty.

2.

In determining whether it is appropriate to accept a student's extrainstitutional learning for credit, the governing considerations should be its applicability to the student's program of study, including graduation requirements, and the relationship of the learning to the institution's mission, curricula and standards for student achievement. Learning should be articulated, documented and measured in these terms.

3.

Institutions should evaluate extrainstitutional learning only in subject-matter fields in which they have or can arrange for faculty expertise or where they can rely on nationally validated examinations or other procedures for establishing credit equivalencies. Institutions should award credit in these areas only if the quality of learning meets their standards for student achievement. Normally, institutions should evaluate learning and award credit only in subject fields in which they offer courses or curricula. However, if the acquisition of college level learning outcomes has been demonstrated in an area not taught by the institution, but related to the student's program of study, an exception may and ought to be made.

4.

Institutions awarding credit for extrainstitutional learning should develop clearly stated policies regarding administrative responsibility, student eligibility, means of assessment, recording of results on transcripts, storage of documentation, student fees, and maximum number of credits allowable. Information on these and related institutional policies and procedures should be disseminated to students and faculty for maximum awareness and utilization.

5.

Institutional policy should include provision that the institution's policies and procedures for awarding credit for extrainstitutional learning should be subject to periodic reevaluation.

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[1] "Extrainstitutional learning" is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and unions.

Resources

1.

Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education and available from Macmillan Publishing Company.

2.

The National Guide to Educational Credit for Training Programs, published by the American Council on Education and available from Macmillan Publishing Company.

3.

Credentialing Educational Accomplishment, edited by Jerry W. Miller and Olive Mills, published by the American Council on Education and available from Macmillan Publishing Company.

4.

Guide to Educational Credit by Examination, published by the American Council on Education and available from ACE Publications.

5.

Publications of the Council for Adult and Experiential Learning, 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606 (312-922-5909).

Transfer and Award of Credit

The following set of guidelines was developed by the three national associations whose member institutions are directly involved in the transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation. The need for such a statement came from an awareness of the growing complexity of transfer policies and practices, which have been brought about, in part, by the changing contours of postsecondary education. With increasing frequency, students are pursuing their education in a variety of institutional and extrainstitutional settings. Social equity and the intelligent use of resources require that validated learning be recognized wherever it takes place.

The statement is intended to serve as a guide for institutions developing or reviewing policies dealing with transfer and award of credit. The statement is under periodic review by the three associations, and reactions to it would, of course, be welcome. Comments may be directed to Henry Spille, Vice President, ACE, and Director, The Center for Adult Learning and Educational Credentials.

Robert H. Atwell, President

American Council on Education

This statement is directed to institutions of postsecondary education and others concerned with the transfer of academic credit among institutions and award of academic credit for extrainstitutional learning. Basic to this statement is the principle that each institution is responsible for determining its own policies and practices with regard to the transfer and award of credit. Institutions are encouraged to review their policies and practices periodically to assure that they accomplish the institutions' objectives and that they function in a manner that is fair and equitable to students. Any statements, this one or others referred to, should be used as guides, not as substitutes, for institutional policies and practices.

Transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extrainstitutional learning, as well as transfer between institutions and curricula with similar characteristics. As their personal circumstances and educational objectives change, students seek to have their learning, wherever and however attained, recognized by institutions where they enroll for further study. It is important for reasons of social equity and educational effectiveness, as well as the wise use of resources, for all institutions to develop reasonable and definitive policies and procedures for acceptance of transfer credit. Such policies and procedures should provide maximum consideration for the individual student who has changed institutions or objectives. It is the receiving institution's responsibility to provide reasonable and definitive policies and procedures for determining a student's knowledge in required subject areas. All institutions have a responsibility to furnish transcripts and other documents necessary for a receiving institution to judge the quality and quantity of students' work. Institutions also have a responsibility to advise the students that the work **reflected** on the transcript **may or may not** be accepted by a receiving institution.

INTERINSTITUTIONAL TRANSFER OF CREDIT

Transfer of credit from one institution to another involves at least three considerations:

(1) the educational quality of the institution from which the student transfers

(2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution

(3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.

Accredited Institutions

Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Users of accreditation are urged to give careful attention to the accreditation conferred by accrediting bodies recognized by the Council on Postsecondary Accreditation (COPA). COPA has a formal process of recognition which requires that all accrediting bodies so recognized must meet the same standards. Under these standards, COPA has recognized a number of accrediting bodies, including:

(1) regional accrediting commissions (which historically accredited the more traditional colleges and universities but which now accredit proprietary, vocational-technical, and single-purpose institutions as well)

(2) national accrediting bodies that accredit various kinds of specialized institutions

(3) certain professional organizations that accredit freestanding professional schools, in addition to programs within multipurpose institutions (COPA annually publishes a list of recognized accrediting bodies, as well as a directory of institutions accredited by these organizations).

Although accrediting agencies vary in the ways they are organized and in their statements of scope and mission, all accrediting bodies that meet COPA's standards for recognition function to assure that the institutions or programs they accredit have met generally accepted minimum standards for accreditation.

Accreditation affords reason for confidence in an institution's or a program's purposes, in the appropriateness of its resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals, insofar as these things can be judged. Accreditation speaks to the probability, but does not guarantee, that students have met acceptable standards of educational accomplishment.

Comparability and Applicability

Comparability of the nature, content, and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by the receiving institution are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from catalogues and other materials and from direct contact between knowledgeable and experienced faculty and staff at both the receiving and sending institutions. When such considerations as comparability and appropriateness of credit are satisfied, however, the receiving institution should have reasonable confidence that students from accredited institutions are qualified to undertake the receiving institution's educational program.

Admissions and Degree Purposes

At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may accept previous work, place a credit value on it, and enter it on the transcript. However, that previous work, because of its nature and not its inherent quality, may be determined to have no applicability to a specific degree to be pursued by the student.

Institutions have a responsibility to make this distinction, and its implications, clear to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind. Institutions also should make every reasonable effort to reduce the gap between credits accepted and credits applied toward an educational credential.

Unaccredited Institutions

Institutions of postsecondary education that are not accredited by COPA-recognized accrediting bodies may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards. That being the case, students transferring from such institutions may encounter special problems in gaining acceptance and transferring credits to accredited institutions. Institutions admitting students from unaccredited institutions should take special steps to validate credits previously earned.

Foreign Institutions

In most cases, foreign institutions are chartered and authorized by their national governments, usually through a ministry of education. Although this policy provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to voluntary accreditation. The Division of Higher Education of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is engaged in a project to develop international compacts for the acceptance of educational credentials. At the operational level, four organizations—the Council on International Educational Exchange (CIEE), the National Council on the Evaluation of Foreign Student Credentials (CEC), the National Association for Foreign Student Admissions (NAFSA), and the National Liaison Committee on Foreign Student Admissions (NLC)—often can assist institutions by distributing general guidelines on admission and placement of foreign students. Equivalency or placement recommendations are to be evaluated in terms of the programs and policies of the individual receiving institution.

VALIDATION OF EXTRAINSTITUTIONAL AND EXPERIENTIAL LEARNING FOR TRANSFER PURPOSES

Transfer-of-credit policies should encompass educational accomplishment attained in extrainstitutional settings as well as at accredited postsecondary institutions. In deciding on the award of credit for extrainstitutional learning, institutions will find the services of the American Council on Education's Center for Adult Learning and Educational Credentials helpful. One of The Center's functions is to operate and foster programs to determine credit equivalencies for various modes of extrainstitutional learning. The Center maintains evaluation programs for formally structured courses offered by the military, and civilian noncollegiate sponsors such as business, corporations, government agencies, and labor unions. Evaluation services are also available for examination programs, for occupations with validated job proficiency evaluation

systems, and for correspondence courses offered by schools accredited by the National Home Study Council. The results are published in a Guide series. Another resource is the General Education Development (GED) Testing Program, which provides a means for assessing high school equivalency.

For learning that has not been validated through the ACE formal credit recommendations process or through credit-by-examination programs, institutions are urged to explore the Council for Adult and Experiential Learning (CAEL) procedures and processes.

USES OF THIS STATEMENT

This statement has been endorsed by the three national associations most concerned with practices in the area of transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation.

Institutions are encouraged to use this statement as a basis for discussions in developing or reviewing institutional policies with regard to transfer. If the statement reflects an institution's policies, that institution might want to use this publication to inform faculty, staff, and students.

It is recommended that accrediting bodies reflect the essential precepts of this statement in their criteria.

Approved by the Executive Committee, American Association of Collegiate Registrars and Admissions Officers
November 21, 1978 and reaffirmed in 1989.

Approved by the American Council on Education/Commission on Educational Credit and Credentials
December 5, 1978 and reaffirmed in 1989.

Approved by the COPA Board
October 10, 1978

Elements of a Model Policy on Awarding Credit for Extrainstitutional Learning

Extrainstitutional learning is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary education institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military and unions.

I. Example Statement of General Policy

Degree credit shall be awarded for postsecondary-level extrainstitutional learning. Such credit awards shall be made under protocols designed to assure that reliable and valid measures of learning outcomes are or have been applied.

Rationale

Adult students are demanding that their learning acquired in extrainstitutional settings be assessed and that appropriate degree-related credit be awarded. This is a reasonable request and also one in keeping with the national interest. Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning.

American society abounds in resources for learning at the postsecondary level. Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials accordingly have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

Educational credentials have a significant bearing on the economic, professional, and social status of the individual. It follows that social equity requires that equivalent learning regardless of where and how it is achieved be incorporated into the system of rewards for learning and competency. Recognition encourages learning and contributes to teaching effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Through reliable and valid assessment of extrainstitutional learning, more persons can be enabled to enter college and work successfully toward degrees and other academic goals. Many of these individuals are those who have been educationally disadvantaged in the past.

II. Example Policy for Administrative Responsibility

Responsibility for administering policies and procedures for awarding credit for extrainstitutional learning rests with the Academic Vice President (or other designated senior academic official).

Rationale

Awarding credit is an academic matter. Therefore, administrative responsibility for the policies and procedures pertaining to awarding credit for extrainstitutional learning should be assigned to the institution's senior academic official. Policy implementation and application may be delegated to other institutional officials such as deans, department chairpersons, and registrars. However, oversight of their policy implementation and application is performed by a senior academic official.

Example of Application of the Policy

The academic vice president delegates to the institutional registrar the responsibility for transcripting credit awarded on the basis of recommendations in the ACE Guides (the policy was approved through the institution's usual governance procedures) and provides the registrar with guidelines for performing this responsibility. Included in the guidelines are a series of steps to follow in determining how to apply the ACE credit recommended for a course whose title is not the same as the title of any course offered by the institution.

The ACE *Guide* recommends 3 semester hours in automotive maintenance, but the institution's courses are more specific and carry titles such as Tune-Up I, Auto Brakes, and Automatic Transmission I. In accordance with the guidelines, the registrar compares course descriptions in the institution's catalog with the course description in the *Guide*, finds that the learning outcomes acquired through Tune-Up I match very closely the learning outcomes acquired through the military's automotive maintenance course, and transcripts 3 semester hours in Tune-Up I.

III Example Policy on Learning That Will Be Evaluated and Who Will Conduct the Evaluations

Extrainstitutional learning related to subject areas, courses and programs of study will be evaluated for registered students. Established institutional evaluation procedures will be followed, using one or more of the authorized publications and methods for effecting assessment. Students of any age may apply for credit for extrainstitutional learning at any time during a period of enrollment.

Rationale

The learning that is evaluated must be in subject areas in which faculty expertise is available or in which expertise can be arranged. This expertise is essential for conducting evaluations and making credit-award decisions. If subject-matter experts do not conduct the evaluations and make the decisions, the credibility of the activity is suspect.

While the great majority of students requesting credit for extrainstitutional learning will be of relatively mature years, it is possible that "young students" may have acquired learning in extrainstitutional settings. Providing a student can document the attainment of appropriate learning outcomes, he or she should receive credit regardless of age. While most applications for award of extrainstitutional learning credit will be received at the time of enrollment from new students, it is possible that students already enrolled may realize that they, too, have extrainstitutional learning experiences that might qualify for credit awards. It is also possible that enrolled students, especially those who are employed, will continue to learn in noncollegiate settings, and will want their learning assessed. Student initiatives with respect to extrainstitutional learning assessment shall not be limited or restricted to the initial term of enrollment.

Example of Application of the Policy

A 19-year old student has been enrolled at Local College for two years and is about to enter her junior year. At the time of enrollment, it did not occur to her that the foreign language requirement might be satisfied with a language other than one of those taught at the institution. This student's parents were refugees from Hungary who entered the United States in 1958. The Hungarian language is spoken in the home and the student speaks the language fluently. The student is able to document to the satisfaction of the institution's language faculty, through evaluation done by a person in the community fluent in Hungarian, that she is, indeed, proficient in Hungarian. She received 6 credits in Hungarian that satisfy the foreign language requirement for the bachelor's degree.

IV. Example Policy on Publications and Methods for Use in Awarding Credit for Extrainstitutional Learning

Nine publications and methods are permitted for use in awarding credit for extrainstitutional learning. These publications and methods are: (1) ACE *Guide to the Evaluation of Educational Experiences in the Armed Services*, (2) ACE *National Guide to Educational Credit for Training Programs*, (3) ACE *Guide to Educational Credit by Examination*, (4) New York Regents *Guide to Educational Programs in Noncollegiate Organizations*, (5) College Entrance Examination Board Advanced Placement Program (CEEB/AP), (6) department challenge examinations and/or faculty end-of-course examinations, (7) degree-relevant extrainstitutional learning credit awarded and transcripted by other accredited institutions, as well as that credit transcripted by ACE on the Army/ACE Registry Transcript System (AARTS) and the Registry of Credit Recommendations (ROCR), (8) subject-matter experts who are not members of the institution's faculty but who evaluate extrainstitutional learning at the faculty's request, and (9) individual portfolios using Council for Adult and Experiential Learning (CAEL) or other standardized guidelines.

In addition, advice on using other publications and methods for awarding credit for extrainstitutional learning may be sought from the American Council on Education.

Rationale

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in the military. More recently, the *National Guide to Educational Credit for Training Programs* and the *Guide to Educational Credit by Examination* have attained similar stature. ACE has worked cooperatively with the Department of Defense, the armed services, business, industry, labor unions, other organizations providing education and training, and test publishers, as well as with accredited colleges and universities in developing the credit recommendations presented in the *Guide* series. All recommendations carried are the result of careful and periodic review by evaluation teams that consist of university and college faculty members who are subject-matter experts. All evaluation teams work under policies and procedures approved by the ACE Commission on Educational Credit and Credentials and under protocols and supervision provided by the staff of the ACE Center for Adult Learning and Educational Credentials.

The policies and procedures used to develop the exhibits in the New York Regents *Guide to Educational Programs in Noncollegiate Organizations* are similar to those used by the American Council on Education.

The CEEB/AP program permits high school students to demonstrate the attainment of college-level learning outcomes; the important factor is that learning outcomes are attained, not where the learning took place (in a high school) or who taught the course (usually a high school teacher).

The practice of administering departmental or individual faculty member challenge examinations or end-of-course examinations is long-standing and permits the faculty members to make direct judgements about the equivalence of learning for specific courses.

Credit transcripted on the basis of extrainstitutional learning should be treated the same as that transcripted for courses; in both instances the faculty of the sending institution has attested to the student's attainment of required learning outcomes. Credit transcripted on ACE's Army/ACE Registry Transcript System (AARTS) and Registry of Credit Recommendations (ROCR) for the Army component of the Military Evaluations Program and participants in the Program on Noncollegiate Sponsored Instruction (PONSI) should also be treated as that transcripted for courses; in these instances, teams of fac-

ulty members from accredited colleges and universities have evaluated the learning and judged its equivalence to learning acquired on campuses.

Sometimes the expertise to evaluate extrainstitutional learning is not available on the faculty; in these instances, the faculty can designate an expert to conduct the evaluation. Criteria for selection of "outside" experts should be established.

The portfolio assessment guidelines promulgated by CAEL are widely accepted by faculty assessors and are considered exemplary. The portfolio provides a reliable method for evaluating learning outcomes acquired individually, as opposed to a set of learning outcomes acquired by large numbers of persons, such as through a course offered by the U.S. Army for soldiers.

Example of Application of the Policy

A student (soldier), upon entering Local College, provides an AARTS transcript that confirms completion of a course entitled "Advanced Geodetic Surveyor" at the Engineer School, Ft. Belvoir, Virginia, in October 1981, while holding the rank of sergeant in the U.S. Army. Information on the transcript and in the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services* indicates that the soldier completed this course when it was taught at Ft. Belvoir between January 1977 and November 1983. Its objectives were to train warrant officers and senior noncommissioned officers in advanced geodetic survey techniques. The course was delivered by means of lectures and practical exercises in advanced geodetic surveying techniques including map compiling, vertical and horizontal control surveys, gravity, astronomic observations, and mathematics. The *Guide* recommends that a college or university award 6 semester hours in geodesy at the upper-division baccalaureate level; this recommendation also appears on the AARTS transcript. After review of this recommendation, Local College awards this student 6 semester hours of credit in geodesy toward completion of a planned major in mathematics.

V. Example Policy on Maximum Number of Credits That May Be Awarded for Extrainstitutional Learning

The maximum number of credits that may be awarded for extrainstitutional learning is three-fourths the number required for a degree.

Rationale

Most postsecondary education institutions have a requirement that stipulates that a minimum of one-fourth of the credits required for a degree must be earned in residence. The balance of the required credits could be awarded on the basis of extrainstitutional learning. However, the credits awarded for extrainstitutional learning and those earned in residence would have to satisfy all degree requirements before a degree could be awarded. In the absence of a residency requirement, all degree requirements conceivably could be met through extrainstitutional learning.

Example of Application of the Policy

John Smith is a newly registered student at Local College. He is a financial vice president of a major U.S. corporation, CPA, and licensed realtor; he is fluent in three foreign languages—German, French, and Spanish; he has published seven articles in domestic and foreign journals and has contributed chapters in two books on international economics; he is knowledgeable about foreign countries and cultures as a result of having lived abroad for eleven years; and he is proficient in computer programming (COBOL and FORTRAN).

On the basis of Mr. Smith's demonstrated knowledge, skills, and competencies, the faculty awarded him 106 credits. The college requires 124 credits for a degree and has a 24 credit residency requirement. Therefore, Mr. Smith must earn 24 credits in residence. What courses does he take to earn 24 credits? His academic advisers decided, and Mr. Smith concurred, that he lacked knowledge about the environment, a special focus and thrust of the college's general education requirement. He took courses to satisfy this requirement and was awarded a degree.

VI. Example Policy on Recording Credits Awarded for Extrainstitutional Learning on Transcripts

The credit awarded for extrainstitutional learning shall be transcripted in the same manner as credits awarded for course completions.

Rationale

The faculty members have either evaluated the learning or approved the other means by which credit can be awarded. They have verified that learning has occurred and is equivalent to the learning acquired in their courses and programs. Therefore, special notation or differentiation of courses and credits awarded on the basis of extrainstitutional learning is unnecessary.

Example of the Application of the Policy

Examples of the way in which Mr. Smith's credit was transcripted are:

Accounting 261	—Financial Information Systems—3 semester hours
Accounting 360	—Financial Reporting Theory and Practice—3 semester hours
Computer Science 251	—Principles of Programming—FORTRAN—4 semester hours
Computer Science 252	—Principles of Programming—COBOL—4 semester hours
German 101	—Elementary German—4 semester hours
German 201	—Intermediate German—4 semester hours
German 309	—Advanced Conversation—3 semester hours

VII. Example Policy on Retention of the Documentation of Extrainstitutional Learning

Documents used to verify the award of credit for extrainstitutional learning shall be retained for one calendar year.

Rationale

The length of time documentation for the credits awarded for extra-institutional learning shall be retained should be consistent with the length of time documentation for credits awarded for classroom learning are retained. Consistency facilitates equitable handling of student documents and represents sound recordkeeping practices.

Example of Application of the Policy

Local College keeps students' final exams on file for one calendar year, after which they are shredded. Mr. Smith's documentation—copies of articles and chapters he authored, copies of his computer programs, notes and summaries of interviews faculty members had with him, etc.—were kept on file for one calendar year and were then shredded.

VIII. Student Fees for Assessing Extrainstitutional Learning

A fee for the assessment of extrainstitutional learning shall be charged.

Rationale

Assessing extrainstitutional learning, transcripting the credits awarded, etc., are valuable services to students. These services require faculty and staff time. Students should therefore pay a fee for these services just as they pay fees for other institutional services.

Example of Application of the Policy

The fee for assessing extrainstitutional learning and transcripting the results at Local College is based on its average hourly salaries for various faculty ranks (assistant professor, professor, etc.) and administrative positions plus the costs for benefits and administrative services which are computed as percentages of salaries. The average hourly salaries are multiplied by the amount of time spent in performing the evaluation and administrative functions, rounded up to the half-hour. The fee for assessing Mr. Smith's extrainstitutional learning and transcripting the results was $880.

IX. Example Policy on Oversight of the "Program"/Activity

An Oversight Committee, broadly representative of the institution's divisions/departments, shall be appointed (by the "program" administrator or through the institution's usual means of appointing committees). The major function of this committee is to review the credit award decisions to assure consistency across the institution.

Rationale

To protect the integrity and credibility of the activity, consistency is absolutely necessary. If either the faculty or the students perceive that credit awards are made capriciously, their confidence in the activity will be lost. When this occurs, the activity will no longer be viable.

Example Application of the Policy

The Oversight Committee detected that, when a faculty evaluation team for portfolio assessment was comprised of three specific faculty members, the credit awards seemed overly "generous." The Oversight Committee recommended to the administrator that these three faculty members not comprise a team. The administrator discussed the credit-award information with the three faculty members, and they agreed with the Oversight Committee's recommendation, which was then implemented.

X. Example Policy on "Program" Evaluation

The "program" for assessing extrainstitutional learning shall be evaluated on an annual basis by the academic vice-president or his designee(s).

Rationale

It is sound administrative practice to evaluate "programs" on a regular basis to determine if "program" objectives are being met. It is especially important to evaluate new "programs" so that problems are detected early on and changes can be made, if necessary. Evaluation should probably be done jointly by "program" staff and the staff of the Office of Institutional Research.

Example of Application of the Policy

At Local College, responsibility for "program" evaluation is assigned to the Office of Institutional Research, but the Office involves the "program" staff. "Program" evaluation includes but is not limited to, an indepth look at the academic performance of students who have received credit for extrainstitutional learning. Recent data showed that their overall performance, in terms of GPA, was higher than that of the student body as a whole; the average number of credits carried each semester was equivalent to the average number carried by the student body as a whole; they were enrolled in all academic departments of the college, etc. Credit awards were examined by age categories and by assessment instrument used. This information was useful to the college faculty and administrators in deciding to continue the "program."

Army Enlisted MOS Exhibits

MOS-00B-001

Diver

00B10
00B20
00B30
00B40

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Supervises or performs underwater reconnaissance, demolition, repair, and salvage. *Skill Level 10:* Performs as assistant to diver; operates power-driven air compressor and electric and engine-driven winches; makes simple repairs to diving gear and equipment; applies principles of water rescue and first aid. *Skill Level 20:* Able to perform the duties required for Skill Level 10; using self-contained underwater breathing apparatus, performs reconnaissance, salvage, repair, and demolition operations; collects and reports on hydrographic conditions; makes charts and maps of underwater photographs, and prepares beach or river intelligence reports and keeps the diving log; uses demolition techniques to clear underwater obstacles; employs sophisticated first aid treatment, particularly as related to diving operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; using surface-supplied air and diving equipment; performs underwater repair by caulking seams, patching holes, and clearing fouled equipment; directs or assists in underwater construction projects; rigs submerged objects for surfacing; employs underwater welding techniques and other special construction tools; operates decompression chamber; performs underwater inspection, estimates weight of underwater objects, and calculates method of lifting underwater material and objects. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises underwater reconnaissance, demolition, repair, and salvage in addition to scuba and standard diving activities; supervises diver's bell (or appropriate mechanical diving unit) and directs maintenance of diving equipment; interprets hydrographic charts, maps, and sketches; instructs in diving procedures and safety practices; prepares reports on diving operations.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in the use, operation, and maintenance of mechanical equipment and 2 in first aid. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in the use, operation, and maintenance of mechanical equipment and 4 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in mapping, 3 in technical report writing, 3 in marine and oceanographic technologies, and 4 in first aid, and additional credit for detonation/demolition and photography, on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in the use, operation, and maintenance of mechanical equipment, 12 in marine underwater repair and construction, and 6 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in physics, 3 in mapping, 3 in technical report writing, 6 in marine and oceanographic technologies, 6 in first aid, and 3 in human relations, and additional credit for detonation/demolition and photography on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 18 semester hours in the use, operation, and maintenance of mechanical equipment, 18 in marine underwater repair and construction, and 6 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in mapping, 3 in marine geography, 6 in physics, 6 in technical report writing, 9 in marine and oceanographic technologies, 6 in first aid and safety, 3 in human relations, 3 in personnel supervision, and 6 for field experience in management, and additional credit for detonation/demolition/salvage and photography on the basis of institutional evaluation (5/76).

MOS-00B-002

Diver

00B10
00B20
00B30
00B40

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Supervises or performs underwater reconnaissance, demolition, repair, and salvage. *Skill Level 10:* Performs as assistant to senior divers, operating power-driven air compressor and electric and engine-driven winches; makes simple repairs to diving gear and equipment; applies principles of water rescue and first aid; may perform as diver, using self-contained underwater breathing apparatus and surface-supplied air diving equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; using self-contained underwater breathing apparatus, performs reconnaissance, salvage, repair, and demolition operations; serves as senior diver; collects and reports on hydrographic conditions; makes charts and maps of underwater conditions, takes underwater photographs, and prepares beach or river intelligence reports and keeps the diving log; uses demolition techniques to clear underwater obstacles; employs sophisticated first aid treatment, particularly as related to diving operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; using surface-supplied air and diving equipment, performs underwater repair by caulking seams, patching holes, and clearing fouled equipment; directs or assists in underwater construction projects; rigs submerged objects for surfacing; employs underwater welding techniques and other special construction tools; operates decompression chamber; performs underwater inspection, estimates weight of underwater objects, and calculates method of lifting underwater material and objects. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises underwater reconnaissance, demolition, repair, and salvage in addition to scuba and standard diving activities; supervises diver's bell (or appropriate mechanical diving unit) and directs maintenance of diving equipment; interprets hydrographic charts, maps, and sketches; instructs in diving procedures and safety practices; prepares reports on diving operations.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in the use, operation, and maintenance of mechanical equipment and 2 in first aid; if duties included diving, 3 semester hours in scuba diving. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid (9/79).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in the use, operation, and maintenance of mechanical equipment, 4 in first aid, and 6 in scuba diving. In the lower-division baccalaureate/associate degree category, 3 semester hours in mapping, 3 in technical report writing, 3 in marine and oceanographic technologies, 4 in first aid, and 3 in scuba diving, and additional credit for detonation/demolition, photography, and scuba diving on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in the use, operation, and maintenance of mechanical equipment, 12 in marine underwater repair and construction, 6 in scuba diving, and 6 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in physics, 3 in mapping, 3 in technical report writing, 6 in marine and oceanographic technologies, 6 in first aid, 3 in scuba diving, and 3 in human relations, and additional credit for detonation/demolition, photography, and scuba diving on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 18 semester hours in the use, operation, and maintenance of mechanical equipment, 18 in marine underwater repair and construction, 6 in scuba diving, and 6 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in mapping, 3 in marine geography, 6 in physics, 6 in technical report writing, 9 in marine and oceanographic technologies, 6 in first aid and safety, 3 in scuba diving, 3 in human relations, 3 in personnel supervision, and 6 for field experience in management, and additional credit for detonation/demolition/salvage, photography, and scuba diving on the basis of institutional evaluation (9/79).

MOS-00C-001

DOG TRAINER

00C20

00C40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 00C was discontinued and its functions were incorporated into MOS 95B, Military Police.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Trains dogs to obedience. *Skill Level 20:* Leads dogs through prescribed series of excercises, teaches dogs to obey commands, knows physical capabilities and limitations of dogs under varying conditions of terrain and climate; determines rejection or assignment to more advanced and specialized training by observing physical and psychological traits; feeds, waters, and grooms dogs; complies with established preventive medicine techniques; applies first aid and administers medicine to dogs. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the training of dogs; analyzes training for more efficient methods and techniques; assigns personnel to positions and evaluates their performance.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in veterinary science or animal science, 3 in dog training, and 3 in animal first aid (12/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in veterinary science or animal science, 3 in dog training, 3 in animal first aid, 3 in personnel supervision, and 3 in instructional techniques. In the upper-division baccalaureate category, 3 semester hours for field experience in management, and additional credit in management, in education, and in animal science or veterinary science on the basis of institutional evaluation (12/75).

MOS-00D-001

SPECIAL DUTY ASSIGNMENT

00D20

00D40

Exhibit Dates: 10/73–Present.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: This MOS code is used to identify duty positions for special assignments; its use is approved on an individual case basis by the Headquarters of the Department of the Army. Before this code is assigned, a position must encompass duties that are highly specialized, that cannot be classified elsewhere, that do not correspond with formal military courses, and that occur so rarely and in such small numbers that establishment of a separate MOS is not practical. *Skill Level 20:* Used to identify all journeymen and technician levels of skill. *Skill Level 40:* Used to identify all leader levels of skill.

Recommendation, Skill Level 20

Credit on the basis of institutional evaluation of the individual student seeking competency recognition (5/76).

Recommendation, Skill Level 40

Credit on the basis of institutional evaluation of the individual student seeking competency recognition (5/76).

MOS-00E-001

RECRUITER AND CAREER COUNSELOR

00E40

00E50

Exhibit Dates: 10/73–2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Recruits or counsels civilian and military personnel concerning Army careers. NOTE: Required to have held at least one other MOS. *Skill Level 40:* Contracts, interviews, and advises civilian and military personnel; presents formal and informal talks to individuals and groups; writes, edits, and distributes recruiting material; establishes liaison with public media; evaluates the occupational, educational, and psychological background of prospective recruits and reenlistees; administers and scores screening tests; conducts occupational or career counseling. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, organizes and coordinates recruitment and reenlistment programs and activities; supervises up to five Skill Level 40 personnel; trains Skill Level 40 personnel; supervises the preparation of correspondence and the keeping of files and records.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of advertising, 3 in applied psychology, 3 in salesmanship, 3 in technical report writing or business correspondence, 3 in public speaking, 3 in records management, 3 in conference coordination, and 2 in preparation of audio-visual materials. In the upper-division baccalaureate category, 3 semester hours in advertising media, 3 for field experience in recruiting, 2 in human relations, and 2 in vocational counseling, or 10 semester hours for field experience in counseling and recruiting. In the graduate degree category, 1 semester hour in human relations and 3 in vocational counseling (2/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in advertising media, 4 for field experience in recruiting, 2 in human relations, 2 in vocational counseling, 3 in publicity release writing, 3 in office management, and 3 in personnel management, or 14 semester hours for field experience in counseling and recruiting, 3 in office management, and 3 in personnel management. In the graduate degree category, 3 semester hours in office administration, 2 in vocational counseling, and 1 in human relations (2/75).

MOS-00E-002

RECRUITER

00E20

00E30

00E40

00E50

Exhibit Dates: 3/78–Present.

Career Management Field: 79 (Recruitment and Retention).

Description

Summary: Recruits or supervises the recruitment of personnel for the Army. *Skill Level 20:* Contacts and conducts interviews of individuals who are prospective enlistees into the Army; contacts representatives of schools, corporations, civic groups and other agencies to present career and employment opportunities of the Army; presents formal and informal talks to organizations, groups, or individuals; writes, edits, and presents recruiting material for use by local communications media; interviews and counsels individuals on enlistment incentives, Army benefits and educational opportunities; evaluates applicants, using screening tests; prepares forms and documents as part of enlistment processing; counsels disqualified applicants; assists in market research and analysis of recruiting area. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; may serve as Recruiting Station Commander, Professional Development Sergeant, or Reception Station Liaison Sergeant, supervising 5-8 persons; plans and organizes recruitment programs; maintains statistics on recruiting; prepares enlistment reports and official correspondence; prepares station plans, and conducts professional development programs; supervises subordinate personnel; provides guidance for improvement, and evaluates their performance. *Skill Level 50:* Able to perform the duties required for Skill Level 40; may serve as principal noncommissioned officer of a recruiting region, Senior Professional Development Sergeant, Staff Operations Sergeant or Management Noncommissioned Officer for recruiting; may supervise up to 30 personnel; assists area commander concerning training, production and personnel status; plans and conducts recruiting seminars and conferences; develops presentations reflecting a change in requirements, sales techniques and enlistment contract options; identifies, investigates, and takes corrective action in problem areas; trains, assigns duties, and evaluates performance of subordinates; develops recruiter training programs.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of advertising, 2 in social psychology, 3 in sales techniques, [illegible] in public speaking, 3 in records management, and 2 in audio-visual techniques. In the upper-division baccalaureate category, 3 semester hours in advertising media, 3 for field experience in recruiting, and 2 in vocational counseling (7/79).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. In the upper-division baccalaureate category, 3 semester hours in advertising media, 3 for field experience in recruiting, 2 in vocational counseling, and 2 in publicity release writing (7/79).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of advertising, 3 in social psychology, 3 in sales techniques, 3 in public speaking, 3 in records management, 3 in audio-visual techniques, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in advertising media, 3 for field experience in recruiting, 2 in vocational counseling, 2 in publicity release writing, and 3 in personnel management (7/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of advertising, 3 in social psychology, 3 in sales techniques, 3 in public speaking, 3 in records management, 3 in audio-visual techniques, 3 in personnel supervision, and 3 in office practice. In the upper-division baccalaureate category, 3 semester hours in advertising media, 3 for field experience in recruiting, 2 in vocational counseling, 2 in publicity release writing, 3 in personnel management, and 3 in office management (7/79).

MOS-00F-001

Drill Sergeant

00F40

00F50

Exhibit Dates: 10/73-2/75. (Effective 3/75, MOS 00F was discontinued and its functions were incorporated into Special Qualifications Identifier X, Drill Sergeant.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Is a group organizer and leader in various public and special interest activities; conducts classes to develop basic skills in group living and to generate group cohesiveness; plans and coordinates short-term and long-range educational and recreational activities of groups; supervises subordinate personnel; prepares oral and written reports; maintains records. *Skill Level 40:* Prepares lesson plans and and training schedules; assists in determining operational policies and procedures; teaches, guides, observes, and evaluates personnel in training; plans and coordinates billeting, food, and transportation arrangements for trainees. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans and coordinates all instructional and operational activities of the Drill Sergeant School; applies prescribed training management policies and procedures to insure the most economical and efficient use of manpower, facilities, equipment, time, and money.

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in personnel supervision, 3 in records administration, and 3 for field experience in education. In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 3 semester hours in institutional management, 3 in communication skills, and 3 for field experience in education (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in personnel supervision, 3 in records administration, and 6 for field experience in education. In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 3 semester hours in institutional management, 3 in communication skills, and 6 for field experience in education (2/75).

MOS-00H-001

Enlisted Aide

00H20

00H50

Exhibit Dates: 10/73-8/76. (Effective 9/76, MOS 00H was discontinued and its functions were incorporated into MOS 94B, Food Service Specialist.)

Career Management Field: 94 (Food Service).

Description

Summary: Serves on the personal staff of a general officer; Able to perform the duties required for 94B20 (Food Service Specialist). *Skill Level 20:* Performs duties that aid a general officer in the performance of official and military responsibilities, including social responsibilities; assists in planning, arranging, and preparing for official social functions and activities; plans seating arrangements; arranges flowers; recommends menus and orders foodstuff; sets table; cooks and prepares foods, desserts, and beverages; serves meals; receives and keeps records of telephone calls; makes appointments; provides administrative assistance, and receives guests and visitors; assists in maintaining quarters; cares for military uniforms and equipment. *Skill Level 50:* Able to perform the duties required for Skill Level 20; as the supervisor of a large household staff, supervises and coordinates the activities of the enlisted aides.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in food service operations, 3 in catering, 3 in menu planning, 3 in estimating and purchasing foods, 2 in record keeping, 2 in food decorating, and 1 in first aid (5/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. In the upper-division baccalaureate category, 3 semester hours in human relations, 3 in introduction to management, 6 for field experience in management, and 6 in industrial arts education (food service) (5/76).

MOS-00J-001

Club Manager

00J50

Exhibit Dates: 10/73-2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Oversees the business management of a club, including all financial operations, food and beverage services, social and recreational activities, alcoholic beverage stores, swimming pools, hotel or motel operations, golf courses, and related services and activities; implements policies concerning the use of facilities, membership, dues, credit, guests, and employee compensation; hires, trains, supervises, and discharges employees. NOTE: Required to have attained MOS 71L40 (Administrative Specialist), 94B40 (Food Service Specialist), 03B40 (Performing Arts Specialist), or 04Z50 (Food Service Supervisor).

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 3 in office management, 3 in office accounting, 3 in hotel/motel management, 3 in food and beverage purchasing and inventory control, 3 in food preparation, and 3 in personnel supervision. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (3/75).

MOS-00J-002

Club Manager

00J30

00J40

00J50

Exhibit Dates: 3/78-8/81.

Career Management Field: 71 (Administration), subfield 711 (Administration).

Description

Summary: Supervises and directs activities of officers or noncommissioned officer/enlisted clubs and associated facilities. *Skill Level 30:* Performs general supervisory duties, including control over funds, personnel, and property; plans, organizes, directs, and controls activities and functions; recommends and enforces adopted club house rules; responsible for planning social functions, including entertainment and recreation; inspects facilities for compliance with sanitation, safety, and security regulations; determines need for property maintenance and repairs; prepares publicity and promotional materials; responsible for personnel functions, including the selection, training, and evaluation of employees; prepares and maintains labor cost records; responsible for employee productivity and recommends promotion, transfer, termination, disciplinary action, and awards; plans and organizes food and beverage operations, including establishing menus, recipes, and prices for various food and beverages; establishes and monitors procedures for receipt, storage, issue, preparation, serving, sanitation, and preservation of food and beverage products; responsible for recommending and monitoring the type and scope of club concessionary operations; prepares or reviews purchase orders and requisitions and maintains responsibility for stock control and inventory; plans, prepares, and analyzes all financial management data, including daily receipts, club operating reports, operating budgets, and capital expenditure budgets; establishes procedures for billing members for dues and charges, collection of accounts receivable, and collection of delinquent acounts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations of medium-size officers or noncommissioned officers/enlisted club. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises operations of large officers or noncommissioned officers/enlisted club; coordinates club operations with other installation organizations for matters that affect operations or programs; reports progress and resolution of problems in achieving goals and objectives such as profitability, membership drives and customer service.

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in food purchasing and inventory control, 3 in food sanitation and safety, 3 in food preparation, 3 in food service equipment and maintenance, 3 in hotel/motel management, 3 in restaurant management, 3 in office accounting, and 2 in business mathematics (1/82).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in office management and 3 in personnel management (1/82).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 in marketing (1/82).

MOS-00J-003

CLUB/COMMUNITY ACTIVITY MANAGER
(CLUB MANAGER)

00J20
00J30
00J40
00J50

Exhibit Dates: 9/81–9/89. (Effective 9/89, MOS 00J was discontinued.)

Career Management Field: 71 (Administration), subfield 711 (Administration).

Description

Summary: Supervises or assists with operations of officers or noncommissioned officer/enlisted clubs and associated facilities. *Skill Level 20:* Supervises or assists with operations of a very small club or club annex; generally under supervision of an 00J30, plans, organizes, directs, and controls activities and functions; performs general supervisory duties, including control over funds, personnel, and property; recommends and enforces adopted club house rules; responsible for planning social functions, including entertainment and recreation; inspects facilities for compliance with sanitation, safety, and security regulations; determines need for property maintenance and repairs; prepares publicity and promotional materials; responsible for personnel functions, including the selection, training, and evaluation of employees; prepares and maintains labor cost records; responsible for employee productivity and recommends promotion, transfer, termination, disciplinary action, and awards; plans and organizes food and beverage operations, including establishing menus, recipes, and prices for various food and beverages; establishes and monitors procedures for receipts, storage, issue, preparation, serving, sanitation, and preservation of food and beverage products; responsible for recommending and monitoring the type and scope of club concessionary operations; prepares or reviews purchase orders and requisitions and maintains responsibility for stock control and inventory; plans, prepares, and analyzes all financial management data, including daily receipts, club operating reports, operating budgets, and capital expenditure budgets; establishes procedures for billing members for dues and charges, collection of accounts receivable, and collection of delinquent accounts. *Skill Level 30:* Able to perform the duties required for SKill Level 20; supervises or assists with operations of a small club and associated facilities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations of medium-size officers or noncommissioned officers/enlisted club. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises operations of large officers or noncommissioned officers/enlisted club; coordinates club operations with other installation organizations for matters that affect operations or programs; reports progress and resolution of problems in achieving goals and objectives such as profitability, membership drives and customer service.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 3 in food sanitation and safety, 3 in food service equipment and maintenance, 2 in office accounting, and 2 in business math (1/82).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in food purchasing and inventory control, 3 in food sanitation and safety, 3 in food preparation, 3 in food service equipment and maintenance, 3 in hotel/motel management, 3 in restaurant management, 3 in office accounting, and 2 in business mathematics (1/82).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in office management and 3 in personnel management (1/82).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 in marketing (1/82).

MOS-00R-001

RECRUITER/RETENTION NCO

00R20
00R30
00R40
00R50

Exhibit Dates: 9/83–Present.

Career Management Field: 79 (Recruitment and Retention).

Description

Summary: Recruits, reenlists, or supervises personnel for military service in the Army. NOTE: MOS 00E (Recruiter) and MOS 79D (Reenlistment NCO) have been incorporated into MOS 00R. The combining of the two former MOS's results in a career track in which an individual has principal assignment either in recruiting or in retention, with special duties available in counseling, recruiting, training management, instructing, professional development advising, or serving in a supervisory role as the principal noncommissioned officer of a recruiting facility or a recruiting area/region. The recruiting track includes skill levels 20, 30, 40, and 50; the retention track, skill levels 30, 40, and 50. Because of the principal assignment option after skill level 20, descriptions and recommendations below are cited in two groups at skill levels 30, 40, and 50. *Skill Level 20:* (Recruiting): Contacts and interviews individuals as prospective enlistees; contacts representatives of schools, corporations, civic groups and other agencies to present employment and career opportunities of the Army; presents formal and informal talks to organizations and groups; distributes recruiting publicity materials; establishes liaison with communications media, and prepares local news releases; evaluates applicants, using screening tests and vocational aptitude tests; prepares forms and documents as part of the enlistment process; arranges for transportation, meals, and lodging of enlistees; assists in market research and analysis of recruiting area. *Skill Level 30:* Recruiting: Able to perform the duties required for Skill Level 20; provides technical guidance to lower skill level personnel. Retention: Knows Army occupations, career fields and skill levels; explains reenlistment options, benefits and obligations; counsels persons who will be separating from the Army about reserve component benefits; explains training options, vocational opportunities, and reenlistment bonuses; counsels respective reenlistees and assists in designing career plan; processes forms, documents, and records for reenlistment; prepares status charts and statistics; conducts training and inspections; advises unit commanders on status of reenlistment programs; recommends corrective actions in areas that are deficient. *Skill Level 40:* (Recruiting): Able to perform the duties required for Skill Level 30; commands a recruiting station and maintains records, statistics, administrative files, and publications library; prepares enlistment reports; supervises and evaluates subordinate personnel; conducts professional development programs for lower skill level personnel; accomplishes administrative functions to include preparation of official correspondence and reports; assigns duties to subordinates and supervises resources. Retention: Advises commanders on status of reenlistment programs; conducts training for commanders, staff persons, noncommissioned officers and others when assigned as principal noncommissioned officer in a large facility or region. *Skill Level 50:* Recruiting: Able to perform the duties required for Skill Level 40; supervises recruiting programs and personnel at several recruiting stations within an area; assists area commanders with training, operations, administration, and personnel matters; plans and conducts recruiting conferences and seminars; develops presentations which reflect changing sales techniques, enlistment contracts, and enlistment requirements; supervises subordinates; identifies and takes corrective actions to problem areas; evaluates subordinates; develops training programs and inspects recruiting stations to ensure efficient operation and management. Retention: Supervises, assigns duties, and evaluates performance of subordinate personnel; organizes and coordinates retention/career counseling activities; conducts reenlistment seminars and serves as policy advisor in reenlistment matters; coordinates the use and management of reenlistment funds; presents information talks as needed on reenlistment programs.

Recommendation, Skill Level 20

Recruiter: In the lower-division baccalaureate/associate degree category, 2 semester hours in social psychology, 2 in audio-visual techniques, 3 in sales techniques, 3 in public speaking, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in recruiting and 3 in records management (9/83).

Recommendation, Skill Level 30

Recruiter: In the lower-division baccalaureate/associate degree category, 2 semester hours in social psychology, 3 in sales techniques, 3 in public speaking, 2 in audio-visual techniques, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in recruiting and 3 in records management. Retention: In the lower-division baccalaureate/associate degree category, 2 semester hours in social psychology, 3 in sales techniques, 3 in public speaking, 2 in audio-visual techniques, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hour in records managment and 3 in vocational guidance (9/83).

Recommendation, Skill Level 40

Recruiter: In the lower-division baccalaureate/associate degree category, 3 semester hours in social psychology, 3 in record keeping, 3 in sales techniques, 3 in public speaking, 3 in audio-visual techniques, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in recruiting, 3 in records management, and 3 in personnel management. Retention: In the lower-division baccalaureate/associate degree category, 3 semester hours in social psychology, 3 in record keeping, 3 in sales techniques, 3 in public speaking, and 3 in audio-visual techniques. In the upper-division baccalaureate category, 3 semester hours in records management and 3 in vocational guidance (9/83).

Recommendation, Skill Level 50

Recruiter: In the lower-division baccalaureate/associate degree category, 3 semester hours in social psychology, 3 in record keeping, 3 in sales techniques, 3 in public speaking, 3 in audio-visual techniques, 3 in personnel supervision, and 3 in office procedures. In the upper-division baccalaureate category, 3 semester hours for field experience in recruiting, 3 in records management, 3 in personnel management, and 3 in office management. Retention: In the lower-division baccalaureate/associate degree category, 3 semester hours in social psychology, 3 in record keeping, 3 in sales techniques, 3 in public speaking, 3 in audio-visual techniques, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in records management, 3 in vocational guidance, and 3 in personnel management (9/83).

MOS-00U-001

Race Relations/Equal Opportunity
Specialist

00U20
00U40
00U50

Exhibit Dates: 10/73–2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 00 (Special Assignment).

Description

Summary: Plans, organizes, and coordinates activities of community organizations and groups concerned with social problems. NOTE: Required to have held at least one other MOS. *Skill Level 20:* Administers programs designed to study, analyze, and make recommendations for improvement of social conditions for individuals or small communities. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor and trainer of Skill level 20 personnel; coordinates activities of several agencies or groups; writes reports; directs programs in medium-sized communities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager; coordinates the activities of program directors (Skill Level 40 personnel); conducts programs in large communities; trains subordinates; conducts conferences, leads discussions, and gives lectures on race relations/equal opportunity programs; assists in establishing policies and procedures.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in communication skills and 6 in social sciences. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills, 2 in social psychology, 2 in human relations, and 2 in minority groups. In the upper-division baccalaureate category, 2 semester hours in social psychology, 2 in human relations, and 2 in minority groups (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in communication skills, 6 in social science, 2 in personnel supervision, and 2 for field experience in race relations/equal opportunity. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills, 2 in social psychology, 2 in human relations, 2 in minority groups, 2 in group dynamics or group organizing, and 2 for field experience in race relations/equal opportunity. In the upper-division baccalaureate category, 2 semester hours in social psychology, 2 in human relations, 2 in minority groups, 2 for field experience in race relations/equal opportunity, and 1 in social change (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 2 semester hours in communication skills, 6 in social science, 2 in personnel supervision, 3 in program administration, 3 for field experience in race relations/equal opportunity, and 2 for field experience in education. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills, 2 in social psychology, 2 in human relations, 2 in minority groups, 2 in group dynamics or group organizing, 2 in program administration, 1 in personnel management, 3 for field experience in race relations/equal opportunity, and 2 for field experience in education. In the upper-division baccalaureate category, 2 semester hours in social psychology, 2 in human relations, 2 in minority groups, 1 in social change, 1 in personnel management, 1 in program administration, 2 for field experience in race relations/equal opportunity, and 1 for field experience in education (2/75).

MOS-00U-002

Equal Opportunity NCO

00U20
00U30
00U40
00U50

Exhibit Dates: 3/78–2/85. (Effective 3/85, MOS 00U was discontinued).

Career Management Field: 71 (Administration), subfield 711 (Administration).

Description

Summary: Plans, organizes, and coordinates activities of community organizations and groups concerned with social problems. NOTE: Required to have held at least one other MOS. *Skill Level 20:* Administers programs designed to study, analyze, and make recommendations for improvement of social conditions for individuals or small communities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor and trains Skill Level 20 personnel; coordinates activities of several agencies or groups; writes reports and maintains files; directs programs in medium-sized communities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; recommends and drafts equal opportunity and affirmative action plans; conducts training course in human relations and management effectiveness; makes presentations; assists in establishing policies and procedures. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a mid-level manager; supervises, evaluates, and coordinates the activities of lower skill level personnel; assigns duties.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in communication skills and 6 in social sciences. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills, 2 in social psychology, 2 in human relations, 2 in minority groups, and 1 in filing and records management. In the upper-division baccalaureate category, 2 semester hours in social psychology, 2 in human relations, and 2 in minority groups (7/79).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in communication skills, 6 in social sciences, 2 in personnel supervision, and 2 in filing and records management. In the lower-division baccalaureate/associate degree category, 3 semester hours in communication skills, 3 in social psychology, 3 in human relations, 3 in minority groups, 2 in interviewing techniques, 2 in personnel supervision, and 1 in filing and records management. In the upper-division baccalaureate category, 2 semester hours in social psychology, 3 in human relations, and 3 in minority groups (7/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in communication skills, 6 in social sciences, 2 in personnel supervision, 1 in filing and records management, and 2 for field experience in race relations. In the lower-division baccalaureate/associate degree category, 3 semester hours in communication skills, 3 in social psychology, 3 in human relations, 3 in minority groups, 2 in interviewing techniques, 2 in technical writing, 2 in personnel supervision, 2 in educational techniques, and 1 in filing and records management. In the upper-division baccalaureate category, 2 semester hours in social psychology, 3 in human relations, 3 in minority groups, 2 in educational methods, 2 for field experience in race relations, and 1 in personnel management (7/79).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in communication skills, 6 in social sciences, 3 in personnel management, 1 in filing and records management, 2 for field experience in race relations, and 2 for field experience in education. In the lower-division baccalaureate/associate degree category, 3 semester hours in communication skills, 3 in social psychology, 3 in human relations, 3 in minority groups, 3 in personnel supervision, 2 in interviewing techniques, 2 in technical writing, 2 in educational techniques, and 1 in filing and records management. In the upper-division baccalaureate category, 2 semester hours in social psychology, 3 in human relations, 3 in minority groups, 2 in educational methods, 3 for field experience in race relations, and 2 in personnel management (7/79).

MOS-00Z-001

COMMAND SERGEANT MAJOR

00Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Skill Level 50: Is an experienced mid-level manager responsible for advising high-level administrators on matters of personnel assignment, utilization, promotion, and training, and about operations and logistics; supervises subordinate staff members and evaluates their performance; evaluates the operational effectiveness of the organization. NOTE: Required to have attained Skill Level 50 in at least one other MOS.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 18 semester hours in personnel management, 3 in staff principles, procedures, and organization, and 3 in office administration (2/75).

MOS-01B-001

ELECTRICAL-ELECTRONIC ENGINEERING ASSISTANT

01B20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 01B was discontinued and its functions were incorporated into MOS 32Z, Communications-Electronics Maintenance Chief; MOS 35E, Special Electrical Devices Repairer; MOS 35G, Biomedical Equipment Repairer; MOS 35S, Electronic Biomedical Equipment Repairer; MOS 35U, Biomedical Equipment Maintenance Chief; and MOS 74F, Programmer/Analyst.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level laboratory and field research in any functional branch of electrical or electronic engineering, including power generation and distribution, illumination, wire communication, radar, radio, microwave, and infrared radiation; receives assignments which outline scope of problem, time allotment, and related projects; develops plans for research and locates source material; designs new equipment or the modification of existing equipment; uses advanced mathematics including calculus and differential equations; uses computer terminal and other electronic test and measurement equipment; writes detailed reports, bids, and specifications; supervises engineering shop personnel. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months of related experience, or a master's degree in electrical or electronic engineering.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in electrical/electronic engineering research and laboratory procedures and additional credit on the basis of institutional evaluation (6/76).

MOS-01C-001

MECHANICAL ENGINEERING ASSISTANT

01C20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 01C was discontinued and its functions were incorporated into MOS 51T, Technical Engineering Supervisor, and MOS 81B, Technical Drafting Specialist.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level laboratory and field research in mechanical and metallurgical engineering, including research in automotive and aeronautical fields; receives broad scope assignments for the design and development of mechanical equipment and systems; interprets, adapts, and applies engineering principles and practices and complex guidelines in devising research and development working plans; reviews manufacturers' drawings of commercial equipment for possible adaptation for military use; writes formal justifications for proposed designs; prepares specifications and operating and maintenance instruction; sets up test objectives and criteria for designed equipment; evaluates performance te ; data and field reports; prepares summary reports and staff studies on research projects. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months related experience, or a master's degree in mechanical, automotive, aeronautical, or metallurgical engineering.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in mechanical engineering research and additional credit on the basis of institutional evaluation (6/76).

MOS-01D-001

CIVIL ENGINEERING ASSISTANT

01D20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 01D was discontinued and its functions were incorporated into MOS 51T, Technical Engineering Supervisor, MOS 81B, Technical Drafting Specialist; and MOS 91S, Environmental Health Specialist.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level office and field duties in the field of civil engineering; orginates, evaluates, and inspects projects in construction, highway, stuctural, hydraulics, and sanitary engineering; prepares and interprets blueprints and engineering diagrams and makes inspections before and during construction; reviews plans and specifications submitted on engineering projects, and prepares estimates of personnel, materials, and equipment required; performs preconstruction layout and schedules flow of materials and equipment to project; prepares detailed progress reports on projects. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months of related experience, or a master's degree in civil engineering.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in engineering management and additional credit on the basis of institutional evaluation (6/76).

MOS-01E-001

MATHEMATICS-STATISTICS ASSISTANT

01E20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 01E was discontinued and its functions were incorporated into MOS 73D, Accounting Specialist, and MOS 74F, Programmer/Analyst.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Develops and adapts mathematical or statistical theory and methodology for all kinds of mathematical or statistical investigation; investigates and evaluates applicability, efficiency, and accuracy of theory and methods used in mathematical or statistical programs and studies; applies general mathematics such as differential and integral calculus, theory of differential equations and complex numbers; selects and refines systems of experimental and sample designs and specifications; develops theory and appropriate methodology for analysis of problems; carries out research in experimental and sample design; tests validity and efficiency of design; aplies principles of statistical inference and probability. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months related experience, or a master's degree, in mathematics; or a bachelor's degree and a minimum of one year related experience, or a master's degree in statistics.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in mathematical and statistical research and additional credit on the basis of institutional evaluation (6/76).

MOS-01F-001

PHYSICAL SCIENCES ASSISTANT

01F20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 01F was discontinued and its functions were incorporated into MOS 73D, Accounting Specialist; MOS 92C, Petroleum Laboratory Specialist; MOS 93E, Meteorological Observer; and MOS 93F, Field Artillery Meteorological Crewman.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level laboratory and research functions in the field of physics, meteorology, geology, or chemistry; performs research involving theoretical analysis, exploration, or experimentation of physical phenomena or composition, molecular structure, and properties of substances; investigates applications of theoretical concepts to specific processes, devices, techniques, or products; develops research design and investigative techniques; performs chemical analyses of samples; collects and interprets test data and draws conclusions based on evidence; prepares technical reports and makes recommendations on suitability of samples for intended use. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months of related experience, or a master's degree in physics, meteorology, geology, or chemistry.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in physical sciences research and additional credit on the basis on institutional evaluation (6/76).

MOS-01G-001

CHEMICAL ENGINEERING ASSISTANT

01G20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 01G was discontinued and its functions were incorporated into MOS 92B, Medical Laboratory Specialist, and MOS 92G, Petroleum Laboratory Specialist.)

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level laboratory and field research in chemical engineering; conducts research in chemical, ceramic, or petroleum engineering; operates small pilot plants or installs and operates a limited variety of equipment for study of one phase of complex development project; plots governing equations of problems to ascertain relationships between experimental data; consolidates data collected during operations and makes necessary conversions for application to large-scale equipment design; performs a variety of chemical and simulated service tests on commercial products or on products newly developed in the laboratory to determine suitability for particular applications; prepares reports describing test procedures and results and recommending actual materials and machinery to be used. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months related experience, or a master's degree in chemical, ceramic, or petroleum production engineering.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in chemical research and laboratory procedures and additional credit on the basis of institutional evaluation (6/76).

MOS-01H-001

BIOLOGICAL SCIENCES ASSISTANT

01H20

Exhibit Dates: 10/73-2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 001 (Professional Requirements).

Description

Skill Level 20: Performs professional-level laboratory and research duties in the field of biological science; conducts studies in biology, bacteriology, biochemistry, entomology, or pharmacology; performs culture work on animal diseases; keeps records of culturing and of purity, density, and viability tests of cultures prepared for use as vaccines; inoculates and performs autopsies on laboratory animals used in the preparation of cultures; identifies, prepares, and ships cultures; makes bio-assays to determine toxicity of drugs and other substances; plans and executes experiments; calculates and administers doses and observes toxic effects produced; prepares detailed reports on experiments and tests. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum of six months of related experience, or a master's degree in biology, bacteriology, zoology, parisitology, botany, pharmacology, or entomology.

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in biological research and laboratory procedures and additional credit on the basis of institutional evaluation (6/76).

MOS-01H-002

BIOLOGICAL SCIENCES ASSISTANT

01H10
01H20
01H30

Exhibit Dates: 3/78-Present.

Career Management Field: 91 (Medical).

Description

Summary: Performs professional-level laboratory and research duties in the field of biological science. *Skill Level 10:* Conducts studies in biology, bacteriology, biochemistry, entomology; or pharmacology; performs culture work on animal diseases; keeps records of culturing and of purity, density, and viability tests of cultures prepared for use as vaccines; inoculates and performs autopsies on laboratory animals used in the preparation of cultures; identifies, prepares, and ships cultures; makes bioassays to determine toxicity of drugs and other substances; plans and executes experiments; calculates and administers doses and observes toxic effects produced; prepares detailed reports on experiments and tests. NOTE: The prerequisite for the assignment of this MOS is a bachelor's degree and a minimum or six months of related experience, or a master's degree in biology, bacteriology, zoology, parisitology, botany, pharmacology, or entomology. *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes scientific data for publications; maintains inventories and equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides overall research division supervision including quality control and training.

Recommendation, Skill Level 10

In the graduate degree category, 3 semester hours in biological research (3/90).

Recommendation, Skill Level 20

In the graduate degree category, 6 semester hours in biological research (3/90).

Recommendation, Skill Level 30

In the graduate degree category, 9 semester hours in biological research (3/90).

MOS-02B-001

CORNET-TRUMPET PLAYER

02B20
02B40

Exhibit Dates: 10/73-2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays cornet or trumpet in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the cornet or trumpet; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal). In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02B-002

CORNET OR TRUMPET PLAYER

02B10
02B20
02B30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays cornet or trumpet in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays cornet or trumpet; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on cornet or trumpet. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays cornet or trumpet in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02B-003

TRUMPET PLAYER

02B10
02B20
02B30
02B40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays trumpet in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays trumpet; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on trumpet. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays trumpet in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02C-001

BARITONE-EUPHONIUM PLAYER

02C20
02C40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays baritone or euphonium in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the baritone or euphonium; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups. may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02C-002

BARITONE OR EUPHONIUM PLAYER

02C10
02C20
02C30

Exhibit Dates: 3/77-6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays baritone or euphonium in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays baritone or euphonium; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on baritone or euphonium. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays baritone or euphonium in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band. and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation, because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02C-003

BARITONE OR EUPHONIUM PLAYER

02C10
02C20
02C30
02C40

Exhibit Dates: 7/86-Present.

Career Management Field: 97 (Band).

Description

Summary: Plays baritone or euphonium in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays baritone or euphonium; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on cornet or trumpet. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays baritone or euphonium in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02D-001

French Horn Player

02D20

02D40

Exhibit Dates: 10/73-2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays French horn in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the French horn; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups. may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02D-002

French Horn Player

02D10

02D20

02D30

Exhibit Dates: 3/77-6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays French horn in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays French horn; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on French horn. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays French horn in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02D-003

French Horn Player

02D10

02D20

02D30

02D40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays French horn in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays French horn; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on French horn. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays French horn in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02E-001

TROMBONE PLAYER

02E20
02E40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays trombone in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the trombone; performs duties as may be assigned in adminstration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02E-002

TROMBONE PLAYER

02E10
02E20
02E30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays trombone in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays trombone; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on trombone. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays trombone in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02E-003

TROMBONE PLAYER

02E10
02E20
02E30
02E40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays trombone in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays trombone; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory, discriminates and matches pitches; performs preventive maintenance on trombone. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays trombone in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02F-001

Tuba

02F20
02F40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays tuba in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the tuba; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02F-002

Tuba Player

02F10
02F20
02F30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays tuba in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays tuba; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on tuba. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays tuba in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02F-003

Tuba Player

02F10
02F20
02F30
02F40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays tuba in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays tuba; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on tuba. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays tuba in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02G-001

Flute-Piccolo Player

02G20
02G40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays flute or piccolo in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the flute or piccolo; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02G-002

Flute or Piccolo Player

02G10
02G20
02G30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays flute or piccolo in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays flute or piccolo; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on flute or piccolo. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays flute or piccolo in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/

administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02G-003

Flute or Piccolo Player

02G10
02G20
02G30
02G40

Exhibit Dates: 7/86-Present.

Career Management Field: 97 (Band).

Description

Summary: Plays flute or piccolo in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays flute or piccolo; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on flute or piccolo. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays flute or piccolo in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02H-001

Oboe Player

02H20
02H40

Exhibit Dates: 10/73-2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays oboe in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the oboe; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of insititutional evaluation (6/76).

MOS-02H-002

OBOE PLAYER

02H10
02H20
02H30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays oboe in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays oboe; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on oboe. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays oboe in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02H-003

OBOE PLAYER

02H10
02H20
02H30
02H40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays oboe in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays oboe; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on oboe. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays oboe in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02J-001

CLARINET PLAYER

02J20
02J40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays clarinet in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the clarinet; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02J-002

Clarinet Player

02J10
02J20
02J30

Exhibit Dates: 3/77-6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays clarinet in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays clarinet; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on clarinet. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays clarinet in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02J-003

Clarinet Player

02J10
02J20
02J30
02J40

Exhibit Dates: 7/86-Present.

Career Management Field: 97 (Band).

Description

Summary: Plays clarinet in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays clarinet; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on clarinet. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays clarinet in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02K-001

BASSOON PLAYER

02K20
02K40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays bassoon in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the bassoon; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02K-002

BASSOON PLAYER

02K10
02K20
02K30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays bassoon in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays bassoon; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on bassoon. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays bassoon in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02K-003

BASSOON PLAYER

02K10
02K20
02K30
02K40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays bassoon in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays bassoon; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on bassoon. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays bassoon in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02L-001

SAXOPHONE PLAYER

02L20
02L40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays saxophone in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the saxophone; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02L-002

SAXOPHONE PLAYER

02L10
02L20
02L30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays saxophone in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays saxophone; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on saxophone. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays saxophone in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02L-003

SAXOPHONE PLAYER

02L10
02L20
02L30
02L40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays saxophone in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays saxophone; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on saxophone. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays saxophone in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02M-001

PERCUSSION PLAYER

02M20

02M40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays specified percussion instrument(s) in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on percussion instruments; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass. woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of instititional evaluation (6/76).

MOS-02M-002

PERCUSSION PLAYER

02M10

02M20

02M30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Performs on specified percussion instrument(s) in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, indefinite pitch percussion parts of standard band literature; plays, with minimum preparation, definite and indefinite pitch percussion parts of standard band literature; performs preventive maintenance on all percussion instruments. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental groups as appropriate; plays, with minimum preparation, any percussion part of medium and difficult concert band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises percussion section; serves in various intermediate staff/administrative positions within the band as assigned; organizes, instructs, and rehearses the percussion section; organizes and leads small instrumental groups; plays at sight, intermediate definite and indefinite pitch percussion parts of all styles of music; plays, with minimum preparation, any moderately difficult to difficult percussion music; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of instruments in the percussion section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02M-003

Percussion Player

02M10
02M20
02M30
02M40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Performs on specified percussion instrument(s) in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, indefinite pitch percussion parts of standard band literature; plays, with minimum preparation, definite and indefinite pitch percussion parts of standard band literature; performs preventive maintenance on all percussion instruments. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental groups as appropriate; plays, with minimum preparation, any percussion part of medium and difficult concert band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises percussion section; serves in various intermediate staff/administrative positions within the band as assigned; organizes, instructs, and rehearses the percussion section; organizes and leads small instrumental groups; plays at sight, intermediate definite and indefinite pitch percussion parts of all styles of music; plays, with minimum preparation, any moderately difficult to difficult percussion music; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of instruments in the percussion section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02N-001

Piano Player

02N20
02N40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays piano in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the piano; performs duties as may be assigned in administration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of institutional evaluation (6/76).

MOS-02N-002

Piano Player

02N10
02N20
02N30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays keyboard or percussion instrument(s) in appropriate musical organizations; performs in military marching and concert musical organizations, and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays keyboard or percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays piano in dance/stage bands, ensembles, and combos; plays percussion instrument in marching band; plays, with minimum preparation, easy percussion parts of standard concert band music on keyboard type mallet instruments; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on musical instruments. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental group as appropriate; improvises on the piano utilizing chord progressions; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises consolidated piano/guitar section; serves in various intermediate staff/administrative positions within band as assigned; organizes, tunes, instructs, and rehearses section; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02N-003

PIANO PLAYER

02N10
02N20
02N30
02N40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays keyboard or percussion instrument(s) in appropriate musical organizations; performs in military marching and concert musical organizations, and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays keyboard or percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays piano in dance/stage bands, ensembles, and combos; plays percussion instrument in marching band; plays, with minimum preparation, easy percussion parts of standard concert band music on keyboard type mallet instruments; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on musical instruments. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental group as appropriate; improvises on the piano utilizing chord progressions; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises consolidated piano/guitar section; serves in various intermediate staff/administrative positions within band as assigned; organizes, tunes, instructs, and rehearses section; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (6/78).

MOS-02P-001

BRASS GROUP LEADER

02P40

Exhibit Dates: 10/73–8/86. (Effective 9/86, MOS 02P was discontinued and its functions were incorporated into MOS 02B, Cornet or Trumpet Player, MOS 02C, Baritone or Euphonium Player, MOS 02D, French Horn Player, MOS 02E, Trombone Player, or MOS 02F, Tuba Player.)

Career Management Field: 97 (Band).

Description

Skill Level 40: Supervises a brass band section and performs in military marching and concert musical organizations, and, as qualified, in associated choral, jazz, and other small ensembles; able to perform the duties of a related instrumentalist MOS at Skill Level 40; is delegated primary responsibility for specific administrative duties of the musical unit, such as equipment or library management, coordination of assigned musical performances, and administration of the equal opportunity program; is capable of conducting and rehearsing the band in the absence of the bandmaster and the enlisted bandleader.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, 4 in music theory (basic harmony and ear training), and 3 in personnel supervision, and additional credit in music theory, applied music (individual instruction in performance), small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal), and human relations on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision, and additional credit in arranging and for field experience in education on the basis of institutional evaluation (6/76).

MOS-02Q-001

WOODWIND GROUP LEADER

02Q40

Exhibit Dates: 10/73–8/86. (Effective 9/86, MOS 02Q was discontinued and its functions were incorporated into MOS 02G, Flute or Piccolo Player, MOS 02H, Oboe Player, MOS 02J, Clarinet Player, MOS 02K, Bassoon Player, or MOS 02L, Saxophone Player.)

Career Management Field: 97 (Band).

Description

Skill Level 40: Supervises a woodwind band section and performs in military marching and concert musical organizations, and, as qualified, in associated choral, jazz, and other small ensembles; able to perform the duties of a related instrumentalist MOS at Skill Level 40; is delegated primary responsibility for specific administrative duties of the musical unit, such as equipment or library management, coordination of assigned musical performances, and administration of the equal opportunity program; is capable of conducting and rehearsing the band in the absence of the bandmaster and the enlisted bandleader.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, 4 in music theory (basic harmony and ear training), and 3 in personnel supervision, and additional credit in music theory, applied music (individual instruction in performance), small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal), and human relations on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision, and additional credit in arranging and for field experience in education on the basis of institutional evaluation (6/76).

MOS-02R-001

PERCUSSION GROUP LEADER

02R40

Exhibit Dates: 10/73–8/86. (Effective 9/86, MOS 02R was discontinued and its functions were incorporated into MOS 02M, Percussion Player, MOS 02N, Piano Player, MOS 02T Guitar Player, or MOS 02U, Electric Bass Guitar Player.)

Career Management Field: 97 (Band).

Description

Skill Level 40: Supervises a percussion band section and performs in military marching and concert musical organizations, and, as qualified, in associated choral, jazz, and other small ensembles; able to perform the duties of a related instrumentalist MOS at Skill Level 40; is delegated primary responsibility for specific administrative duties of the musical unit, such as equipment or library management, coordination of assigned musical performances, and administration of the equal opportunity program; is capable of conducting and rehearsing the band in the absence of the bandmaster and the enlisted bandleader.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, 4 in music theory (basic harmony and ear training), and 3 in personnel supervision, and additional credit in music theory, applied music (individual instruction in performance), small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal), and human relations on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision, and additional credit in arranging and for field experience in education on the basis of institutional evaluation (6/76).

MOS-02S-001

SPECIAL BANDSMAN

02S20

02S50

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Performs as a musician or as a member of a special band, such as the U.S. Army Band, the U.S. Army Field Band, or the U.S. Military Academy Band at West Point. *Skill Level 20:* Plays brass, woodwind, percussion, or stringed instruments or performs as musical arranger, copyist, librarian, music electronic integration specialist, musical instrument repairman, music commentator/annotator, procurement specialist, solo instrumentalist or vocalist; executes marching movements in military formations; doubles on related instruments; plays solo passages. *Skill Level 50:* Able to perform the duties required for Skill Level 20; serves as the principle noncommissioned officer in an instrumental, choral, or music section, instrumental group, or special band; instructs, trains, rehearses, and conducts instrumental groups to achieve recognized standards; organizes, explains, demonstrates, and corrects section performance techniques; rehearses and trains section members to achieve correct musical rendition and coordination; ascertains section changes to improve overall sound rendition, tone quality, playability, and balance; instructs section instrumentalist in all aspects of related music; plans, directs, and controls group and other band segment rehearsals; determines and produces proper rendition of all sections and composite coordination; plans, arranges, instructs, and conducts sound improvement, intonation, tonality, and musicality of concert band; conducts band as assistant enlisted bandleader in formations and ceremonies; plans administrative and logistical support for special band operations; designs, constructs, and assembles necessary facilities for band presentation; applies public relations techniques to special band employment.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) on the basis of institutional evaluation. In the upper-division baccalaureate category, or in the graduate degree category, credit on the basis of institutional evaluation of the individual's experience and area of specialization in the following subject areas: applied music, advanced music theory, conducting, composition, arranging, music history, instrument repair, music administration and supervision, education, human relations, and management (6/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) on the basis of institutional evaluation. In the upper-division baccalaureate category, or graduate degree category, credit on the basis of institutional evaluation of the individual's experience and area of specialization in the following subject areas: applied music, advanced music theory, conducting, composition, arranging, music history, instrument repair, music administration and supervision, education, human relations, and management (6/76).

MOS-02S-002

SPECIAL BANDSPERSON

02S10

02S20

02S30

02S40

02S50

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Performs as musician or in allied field as member of a special band. NOTE: Persons holding MOS 02S are also elibible for credit for their secondary MOS's, which identify their particular musical instruments. Consult the appropriate exhibit for the credit recommendation. *Skill Level 10:* Plays brass, woodwind, percussion, keyboard, or stringed instrument; performs as musician in field music detachment or related groups, as appropriate; plays musical instrument and executes marching movements in military formations. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs as instrumentalist in field music detachment or special band, or as technician in special band support activities; doubles on related instruments; provides technical guidance to musicians in field music detachment; performs as vocalist when appropriate; classifies music or performs as copyist, librarian, and commentator/annotator; performs basic instrument maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with music procurement; provides technical guidance to lower-skill-level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs as arranger or solo instrumental specialist; provides technical guidance to lower-skill-level instrumental specialists. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer in instrumental, choral, or music support section, instrumental group, or special band; instructs, trains, rehearses, and conducts instrumental groups to achieve recognized standards; organizes separate musical groups, as needed; rehearses and trains section members to achieve correct musical rendition, coordination, and styles; conducts band as assistant bandleader in formations and ceremonies; supervises band segment in separate support activities, including designing, constructing, and assembling necessary facilities for band presentation; using public relations techniques, arranges performances.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training) (9/81).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 8 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in conducting, 3 in music administration and supervision, and credit on the basis of institutional evaluation of the individual's experience and area of specialization in the following subject areas: applied music, advanced music theory, composition, arranging, education, human relations, and management (9/81).

MOS-02S-003

SPECIAL BANDSPERSON

02S20
02S30
02S40
02S50

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Performs as musician or in allied field as member of a special band. NOTE: Persons holding MOS 02S are also elibible for credit for their secondary MOS's, which identify their particular musical instruments. Consult the appropriate exhibit for the credit recommendation. *Skill Level 20:* Plays brass, woodwind, percussion, keyboard, or stringed instrument and executes marching movements in military formations; performs as instrumentalist in field music detachment or special band, or as technician in special band support activities; doubles on related instruments; provides technical guidance to musicians in field music detachment; performs as vocalist when appropriate; classifies music or performs as copyist, librarian, and commentator/annotator; performs basic instrument maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with music procurement; provides technical guidance to lower-skill-level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs as arranger or solo instrumental specialist; provides technical guidance to lower-skill-level instrumental specialists. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned offier in instrumental, choral, or music support section, instrumental group, or special band; instructs, trains, rehearses, and conducts instrumental groups to achieve recognized standards; organizes separate musical groups, as needed; rehearses and trains section members to achieve correct musical rendition, coordination, and styles; conducts band as assistant bandleader in formations and ceremonies; supervises band segment in separate support activities, including designing, constructing, and assembling necessary facilities for band presentation; using public relations techniques, arranges performances.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 8 in music theory (basic harmony and ear training), and additional credit in band, music theory, electronics, and small performing ensembles (jazz, brass, woodwind, percussion, keyboard, string, and vocal) on the basis of institutional evaluation (9/81).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. (9/81). In the upper-division baccalaureate category, 3 semester hours in conducting, 3 in music administration and supervision, and credit on the basis of institutional evaluation of the individual's experience and area of specialization in the following subject areas: applied music, advanced music theory, composition, arranging, education, human relations, and management (9/81).

MOS-02T-001

GUITAR PLAYER

02T20
02T40

Exhibit Dates: 10/73–2/77.

Career Management Field: 97 (Band).

Description

Summary: Plays guitar in appropriate musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 20:* Executes instrumental studies and ensemble and solo literature of moderate difficulty within the facility-range typical of university lower-division music majors; sings simple melodic patterns at sight; possesses a basic understanding of musical structure equivalent to that of a college or university freshman music major; performs preventive maintenance on the guitar; performs duties as may be assigned in adminstration, supply, and music library. *Skill Level 40:* Possesses the musicianship and skills required for Skill Level 20; supervises and assigns duties to Skill Level 20 personnel; is assigned to lead instrumental sections, marching formations, and large or small performing groups; may be assigned appropriate tasks in music arranging, music library, supply, equipment management, and other administrative duties.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in marching band, 2 in concert band, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training); because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) In the upper-division baccalaureate category, credit in conducting, arranging, and music administration and supervision on the basis of instituiional evaluation (6/76).

MOS-02T-002

GUITAR PLAYER

02T10
02T20
02T30

Exhibit Dates: 3/77–6/86.

Career Management Field: 97 (Band).

Description

Summary: Plays guitar or percussion instruments in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays guitar or percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays guitar in dance/jazz bands, ensembles, and combos; plays percussion instrument in marching band; plays miscellaneous percussion instruments in concert band; plays, at sight, moderately easy melodic lines with chord symbols; plays, with minimum preparation, standard guitar music of any style; improvises on the guitar using chord progressions; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on musical instrument. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental groups as appropriate; plays, at sight, moderately easy guitar music of any style; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises consolidated piano/ guitar section; serves in various intermediate staff/ administrative positions within band as assigned; organizes, tunes, instructs, and rehearses section; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

MOS-02T-003

GUITAR PLAYER

02T10
02T20
02T30
02T40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays guitar or percussion instruments in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays guitar or percussion instruments; marches in military band in response to drum major's signals and oral commands; reads, interprets, and plays instrumental music; plays guitar in dance/jazz bands, ensembles, and combos; plays percussion instrument in marching band; plays miscellaneous percussion instruments in concert band; plays, at sight, moderately easy melodic lines with chord symbols; plays, with minimum preparation, standard guitar music of any style; improvises on the guitar using chord progressions; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on musical instrument. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays instrument in small instrumental groups as appropriate; plays, at sight, moderately easy guitar music of any style; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises consolidated piano/ guitar section; serves in various intermediate staff/ administrative positions within band as assigned; organizes, tunes, instructs, and rehearses section; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (6/78).

MOS-02U-001

ELECTRIC BASS GUITAR PLAYER

02U10
02U20
02U30
02U40

Exhibit Dates: 7/86–Present.

Career Management Field: 97 (Band).

Description

Summary: Plays electric bass guitar in appropriate musical organizations; performs in military marching and concert musical organizations and, as qualified, in associated choral, jazz, and other small ensembles. *Skill Level 10:* Plays electric bass guitar; marches in military band in response to drum major's signals and oral commands; reads,interprets, and plays instrumental music; plays instrument in marching, concert, or dance/jazz band as appropriate; plays, at sight, secondary parts to ceremonial music and marches of medium difficulty; plays with minimum preparation secondary parts to all styles of standard band literature; doubles on another musical instrument as assigned; applies knowledge of minimum basic music theory; discriminates and matches pitches; performs preventive maintenance on electric bass guitar. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; plays electric bass guitar in small instrumental groups as appropriate; plays, at sight, principle parts to ceremonial music and marches of medium difficulty; plays, with minimum preparation, principle parts to all styles of standard band literature; performs music library duties as assigned. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises section as instrumental section leader; serves in various intermediate staff/administrative positions within the band as assigned; organizes, tunes, instructs, and rehearses section or consolidated section of related musical instruments; organizes and leads small instrumental groups; plays, at sight, intermediate music of any style; balances chords and volumes, and interprets complex rhythms; supervises preventive maintenance of musical instruments in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to lower-skill-level personnel; supervises section leaders; rehearses the stage band; assists in rehearsing the concert band; conducts the stage band in a performance; organizes, rehearses, and leads instrumental ensembles; organizes, tunes, and rehearses elements of the band in rehearsal; arranges and transcribes concert and dance/stage band music; tunes and prepares the concert band for rehearsal.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 2 in music theory, 1 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1-3 semester hours (equivalent of one semester) in applied study of major instrument, 3 in music theory, 2 in concert band, 2 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles (6/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2-6 semester hours (equivalent of two semesters) in applied study of major instrument, 4 in music theory, (including ear training), 3 in concert band, 3 in marching band, 3 in personnel supervision, and credit in small ensemble on the basis of institutional evaluation; because of the wide range of individual abilities, additional credit may be awarded on the basis of institutional evaluation in music theory, applied music (individual instruction in performance), and small performing ensembles. In the upper-division baccalaureate category, 3 semester hours in conducting and 3 in music administration and supervision (3/86).

MOS-02Z-001

BANDS SENIOR SERGEANT
(ENLISTED BANDLEADER)

02Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 97 (Band).

Description

Skill Level 50: Serves as the principal noncommissioned officer of an Army band; able to perform the duties required for 02P40 (Brass Group Leader), 02Q40 (Woodwind Group Leader), or 02R40 (Percussion Group Leader); selects, prepares, and presents concert, marching, dance, stage, and show band music and assumes any other musical or military functions of the bandmaster as delegated; assists in planning, coordinating, and supervising all activities in support of the band mission; applies public relations techniques to band employment; supervises on-the-job training; advises bandmaster on all personnel matters.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in marching band, 3 in concert band, 2 in ensemble electives, and 4 in music theory (basic harmony and ear training), and additional credit in music theory, applied music (individual instruction in performance), and small performing ensembles (jazz, brass, woodwind, percussion, string, and vocal) on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in conducting, 3 in music administration and supervision, 3 in introduction to management, 3 in personnel management, 3 in human relations or public relations, and 6 for field experience in management, and additional credit in arranging and for field experience in education on the basis of institutional evaluation (6/76).

MOS-03B-001

PERFORMING ARTS SPECIALIST

03B20

03B40

Exhibit Dates: 10/73–8/77. (Effective 9/77 MOS 03B was discontinued.)

Career Management Field: 71 (Administration), subfield 715 (Recreational Services).

Description

Summary: Supervises and conducts theatrical and musical programs. *Skill Level 20:* Selects material; locates directors, writers, and technicians; auditions performers; calls rehearsals; plans costumes and staging; schedules use of facilities; conducts clinics and workshops in all areas of theatrical production. *Skill Level 40:* Able to perform the duties required for Skill Level 20; coordinates and supervises the planning of all elements and phases of several performing arts programs; directs productions.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in costume and scene design, 3 in musical theater, 3 in technical theater, 3 in stagecraft, 6 in play production, and 6 for a theater internship (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in costume and scene design, 3 in musical theater, 3 in technical theater, 3 in stagecraft, 6 in play production, 6 for a theater internship, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in play directing, 3 for field experience in management, and 3 in records administration (5/76).

MOS-03C-001

PHYSICAL ACTIVITIES SPECIALIST

03C20

03C40

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 715 (Recreational Services).

Description

Summary: Supervises, conducts, and administers sports, recreation, and first aid programs; manages sports and recreation facilities and equipment. *Skill Level 20:* Plans, organizes, and conducts sports and recreation programs; manages or assists in the management of indoor and outdoor sports and recreation facilities; organizes and conducts team and individual sports competitions; provides instruction in physical fitness excercises, first aid, water safety, and various sports; conducts sports clinics to explain rules, techniques, safety, and sportsmanship; issues athletic supplies and equipment; inspects and performs preventive maintenance on athletic facilities and equipment; acts as lifeguard. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the operation of sports and outdoor recreation programs, the organization of team and individual sports competitions, the management of sports facilities; controls the issuance of athletic supplies and equipment and the scheduling of facilities; supervises and accounts for fees collected for the rental or sales of supplies or equipment and the use of sports or recreation facilities; manages and evaluates the work activities of subordinate personnel; prepares correspondence, reports, and publicity materials concerning physical activity programs.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in beginning lifesaving, and 2 in senior lifesaving, based on American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 3 in public speaking, 2 in first aid (care and prevention of athletic injuries), 2 in individual and dual sports, 2 in team sports, 2 in physiology of excercise, 2 in theory of teaching and coaching sports, 2 in beginning lifesaving, and 1 in senior lifesaving (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in beginning lifesaving and 2 in senior lifesaving, based on American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 3 in public speaking, 3 in English composition, 3 in office management, 3 in personnel management, 3 in organization and administration of physical education programs, 2 for field experience in education, 2 in control of athletic facilities, 2 in first aid (care and prevention of athletic injuries), 2 in individual and dual sports, 2 in team sports, 2 in physiology of excercise, 2 in theory of teaching and coaching sports, 2 in beginning lifesaving, and 1 in senior lifesaving (2/75).

MOS-03C-002

PHYSICAL ACTIVITIES SPECIALIST

03C10

03C20

03C30

03C40

Exhibit Dates: 9/77–8/88. (Effective 9/88, MOS 03C was discontinued.)

Career Management Field: 71 (Administration), subfield 711 (Administration).

Description

Summary: Supervises or conducts sports and physical activities programs. *Skill Level 10:* Conducts sports and physical activities programs, including team sports, individual sports, and field type meets; schedules use of facilities and equipment; prepares facilities for use, including erection/dismantling of portable playing equipment and bleachers, scoreboard, and public address systems; inspects facilities for maintenance, repairs, and compliance with safety requirements for spectators and participants; responsible for sports officiating; attends rules meeting and officiating clinics; assists in training officials and assigns officials to contests; determines sports publicity and recognition requirements; arranges for news and photographic coverage of sports events and awards ceremonies. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises volunteer or paid personnel operating sports/physical activity programs; evaluates requirements for sports programs to insure compatibility with unit's mission and interest. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as principal noncommissioned officer in recreational services staff element or activity; arranges for assignment of personnel for general duty in service clubs, libraries, and craft shops; compiles data and participates in preparation of recreational services budget.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in beginning lifesaving and 2 in senior lifesaving based on American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 2 semester hours in coaching and instructing team sports, 2 in scheduling and conducting sports programs, and 2 in individual and dual sports (1/82).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in beginning lifesaving and 2 in senior lifesaving based on the American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 2 semester hours in coaching and instructing team sports, 2 in scheduling and conducting sports programs, 2 in individual and dual sports, and 3 in introduction to recreational administration (1/82).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in beginning lifesaving and 2 in senior lifesaving based on the American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 2 semester hours in coaching and instructing team sports, 2 in scheduling and conducting sports programs, 2 in individual and dual sports, 3 in introducton to recreational administration, and 3 in the control and maintenance of athletic facilities (1/82).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in beginning lifesaving and 2 in senior lifesaving based on the American Red Cross Certificate. In the lower-division baccalaureate/associate degree category, 2 semester hours in coaching and instructing team sports, 2 in scheduling and conducting sports programs, 2 in individual and dual sports, 3 in introduction to recreational administration, 3 in the control and maintenance of physical facilities, 3 in personnel supervision, and 3 in organization and administration of physical education programs (1/82).

MOS-03D-001

ARTS AND CRAFTS SPECIALIST

03D20
03D40

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 03D was discontinued.)

Career Management Field: 71 (Administration), subfield 715 (Recreational Services).

Description

Summary: Supervises, organizes, and conducts arts and crafts activities. *Skill Level 20:* Instructs and supervises individuals and groups of varying levels of ability in a wide variety of basic arts and crafts activities; manages and maintains crafts facilities and equipment; organizes and promotes displays, exhibits, contests, and demonstrations. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises arts and crafts programs and management of facilities; requisitions and controls the use of supplies; accounts for use of funds; instructs subordinate personnel.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in painting fundamentals, 3 in drawing fundamentals, 3 in introductory sculpture, 3 in ceramics, 9 in crafts, and 3 in human relations, and additional credit on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in painting fundamentals, 3 in drawing fundamentals, 3 in introductory sculpture, 3 in ceramics, 9 in crafts, 6 in human relations, and 3 in personnel supervision, and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in records administration, and 3 for an internship in education (5/76).

MOS-03Z-001

SPECIAL SERVICES SENIOR SERGEANT

03Z50

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 03Z was discontinued and its functions were incorporated into MOS 03C, Physical Activities Specialist, and MOS 71L, Administrative Specialist.)

Career Management Field: 71 (Administration), subfield 715 (Recreational Services).

Description

Skill Level 50: Supervises development and management of Special Services programs, including entertainment, sports, arts and crafts, outdoor recreation, youth activities, and library programs.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 6 semester hours in recreation resource relationships, 6 in recreation resources inventory and planning, 3 in recreation facility and site planning, 3 in organization and management of recreational sports activities, 6 in special problems in recreation, 6 for a recreation internship, 6 in human relations, 6 for field experience in management, 3 in introduction to management, 3 in records administration, and 3 in personnel supervision (5/76).

MOS-04B-001

TRANSLATOR-INTERPRETER

04B20
04B30

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 04B was discontinued and its functions were incorporated into MOS 96C, Interrogator.)

Career Management Field: 96 (Military Intelligence).

Description

Summary: Performs translating and interpreting duties, using knowledge of English and a foreign language. *Skill Level 20:* Prepares translations of written foreign language material into English and written English into a foreign language; prepares summaries of translated foreign documents; translates foreign technical publications; translates announcements, speeches, radio scripts, publications, and other materials into a foreign language; establishes and maintains a file of translation and language reference materials; edits translations for correctness of grammatical construction, phraseology, punctuation, idiom, and clarity of expression; coordinates translating activities; instructs and advises translators. *Skill Level 30:* Able to perform the duties required for Skill Level 20; interprets oral statements into either English or a foreign language using phraseology selected to preserve the original intent, meaning, and emphasis; translates and orally expresses statements in English or in a foreign language.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 2 in record keeping, and 1 in filing. In the lower-division baccalaureate/associate degree category, 3 semester for field experience in translating, 3 in written communication skills, 2 in English grammar, 2 in typing, 1 in record keeping, and 1 in filing. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in typing, 2 in record keeping, and 1 in filing. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in translating (written), 3 in written communication skills, 3 in public speaking, 3 in human relations, 2 in English grammar, 2 in typing, 1 in record keeping, and 1 in filing. In the upper-division baccalaureate category, 3 semester hours in interpreting (oral). NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

MOS-04C-001

EXPERT LINGUIST

04C20

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 04C was discontinued and its functions were incorporated into MOS 96C, Interrogator.)

Career Management Field: 96 (Military Intelligence).

Description

Skill Level 20: Able to perform the duties required for 04B30 (Translator-Interpreter);

understands the customs and habits of the people of at least one foreign country; analyzes the content of foreign documents and publications; translates or writes in English or foreign language on a variety of technical, tactical, and strategic subjects; reviews translations for accuracy and completeness; employs free translation techniques and uses idiomatic language; interprets, into either English or foreign language, statements made by participants in legal proceedings, conferences, public relations interviews, and radio and loudspeaker broadcasts; acts as a chief interpreter in an interpreter platoon of a military intelligence linguistic company.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semster hours in typing, 2 in record keeping, and 1 in filing. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in translating (written), 3 in public speaking, 3 in understanding a foreign culture, 3 in written communication, 3 in human relations, 2 in English grammar, 2 in typing, 1 in record keeping, and 1 in filing. In the upper-division baccalaureate category, 3 semester hours for field experience in interpreting (oral). NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

MOS-05B-001

Radio Operator

05B20

05B40

Exhibit Dates: 10/73-2/78.

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or operates and maintains radio communications equipment and transmits and receives messages by voice or by Morse Code. *Skill Level 20:* Connects equipment components; erects antennas; installs power generators; test-operates equipment; applies prescribed radio procedures; transcribes International Morse Code into clear text and records on message forms; performs preventive maintenance on radio and associated power equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of a radio-operating activity comprised of at least 4 to 30 or more radio operators; selects installation sites; prepares and disseminates work schedules, operating procedures, and instructions; corrects faulty work practices and operating techniques by instruction and demonstration; checks operational logs maintenance schedules, and station files for completeness and accuracy; requisitions supplies; prepares technical and administrative reports. NOTE: May have progressed to 05B40 from 05E40 (Voice Radio Operator).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in broadcasting, 3 in radio communications (code), 3 in small instrument maintenance, and 2 in basic Morse Code. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications, 3 in elementary broadcasting, and 2 in basic Morse Code (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications, 3 in elementary broadcasting, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 2 in basic Morse Code. In the upper-division baccalaureate category, 3 semester hours for field experience in management (3/76).

MOS-05B-002

Radio Operator

05B10

05B20

Exhibit Dates: 3/78-9/84. (Effective 9/84, MOS 05B was discontinued and its functions were incorporated into MOS 31C, Single-Channel Radio Operator, MOS 31K, Combat Signaler, and MOS 18E, Special Operations Communications Sergeant.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Operates and installs radio communications equipment and transmits and receives messages by voice. *Skill Level 10:* Connects voice radio equipment components; erects antennas; installs power generators; test-operates equipment; applies prescribed radio procedures; performs limited preventive maintenance on radio and associated power equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may serve as first-line supervisor of radio-operating activity of two or three Skill Level 10 personnel; selects installation sites; corrects faulty work practices and operating techniques by instruction and demonstration; checks operational logs and station files for completeness and accuracy; prepares equipment inspection reports.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications and 3 in elementary broadcasting (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications and 3 in elementary broadcasting (10/79).

MOS-05C-001

Radio Teletype Operator

05C20

05C40

05C50

Exhibit Dates: 10/73-2/78.

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or sets up and operates radio teletype or tape relay or Morse Code. *Skill Level 20:* Connects and operates radio teletype keyboard and tape relay equipment; erects antennas; installs power generators; prepares messages in proper format for delivery; establishes and maintains station logs; performs preventive maintenance on radio teletype and tape relay systems; operates radio equipment in voice mode. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of a radio teletype operating team comprised of 4 to 24 operators; selects sites and supervises installation of equipment; prepares work schedules, operating procedures, and instructions; instructs and demonstrates proper procedures to radio teletype operators; checks logs and files for accuracy; prepares administrative and technical reports. NOTE: May have progressed to 05C40 from 05F40 (Radio Teletypewriter Operator, Non-Morse). *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager; interprets and supervises the execution of policies and procedures; advises superiors on personnel matters; directs and coordinates administrative activities; coordinates food service and supply activities; assists superiors in planning and implementing on-the-job training. NOTE: May have progressed to 05C50 from 05C40 or 05B40 (Radio Operator).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in teletypewriter operation, 3 in typewriting, 3 in broadcasting, 3 in small instrument maintenance, and 2 in basic Morse Code. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting, 3 in teletypewriter operation, and 3 in elementary radio communications (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting, 3 in teletypewriter operations, 3 in elementary radio communications, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 2 in technical writing. In the upper-division baccalaureate category, 3 semester hours for field experience in management (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in maintenance management, 3 in records administration, and 3 in office management (3/76).

MOS-05C-002

Radio Teletype Operator

05C10

05C20

05C30

Exhibit Dates: 3/78-9/84. (Effective 9/84, MOS 05C was discontinued and its functions were incorporated into MOS 31C, Single-Channel Radio Operator.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or sets up and operates radio teletype or tape relay equipment and transmits and receives messages by teletype or tape relay. *Skill Level 10:* Connects and operates radio teletype keyboard or voice equipment; erects antennas; installs power generators; prepares messages in proper format for delivery; establishes and maintains station logs; performs preventative maintenance on radio teletype and tape relay systems; operates radio equipment in voice mode. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may serve as a team chief, supervising two or more Skill Level 10 personnel; selects sites and assists in installation of equipment; prepares work schedules, operating procedures, and instructions; instructs and demonstrates power procedures; prepares equipment inspection reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises from 2 to 4 radio teletype operations teams; supervises installation of equipment; establishes training program to correct faulty work practices and operating procedures; prepares and disseminates work schedules, operating procedures and instructions; establishes and supervises maintenance program to ensure operational readiness of equipment; requisitions supplies and prepares technical and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in teletypewriter operation and 3 in typewriting. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in teletypewriter operation and 3 in typewriting. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting, 3 in human relations, and 3 in personnel supervision (10/79).

MOS-05D-001

EW/Signal Intelligence Emitter
Identifier/Locator

05D20
05D30
05D40

Exhibit Dates: 10/73-2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates or supervises the operation of radio direction-finding systems and other systems using advanced identification techniques; intercepts and acquires bearings on target transmitters and performs analysis on maps or charts to establish probable location of target transmitters; intercepts, acquires, and performs analysis on signals from target transmitters. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Employs special identification techniques to recognize, identify, and locate foreign radio transmitters; forwards bearings and identification information to a control center; selects, erects, and orients tactical antennas; obtains desired visual display on specialized monitor oscilloscopes; records electrical characteristics of signals displayed, using light sensitive recorders; operates direction-finding and related cryptological, communications, and automatic data processing equipment; prepares and maintains operation logs and card files; types at a minimum rate of 25 words per minute; copies International Morse Code at a minimum rate of 15 groups per minute. *Skill Level 30:* Able to perform the duties required for Skill Level 20; maintains section management files; classifies, analyzes, and evaluates observed bearings and waveform oscillograms; establishes, plots, and evaluates bearings to determine probable geographical location of foreign transmitters; performs measurements of bands on oscillograms to determine ripple frequency, modulation percentages, and duration of other effects; maintains calibration and accuracy studies, and computes statistical data, including standard deviations and systemic errors; monitors quality control of input and data for automatic data processing support; may serve as a first-line supervisor, assigning workloads and completing personnel evaluations; presents oral and written reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; inspects equipment to ensure proper alignment and orientation; provides guidance and assistance in site selection and equipment installation; prepares written and oral reports; establishes and supervises training programs; performs quality control measures and writes quality control reports; establishes and maintains facilities and support for site personnel; implements emergency action plans; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations and 2 in typing (9/79).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 1 in office practices (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in office practices (9/79).

MOS-05D-002

EW/Signal Intelligence Emitter
Identifier/Locator

05D10
05D20
05D30

Exhibit Dates: 3/77-8/87.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates or supervises the operation of radio direction-finding systems and other systems using advanced identification techniques; intercepts and acquires bearings on target transmitters and performs analysis on maps or charts to establish probable location of target transmitters; intercepts, acquires, and performs analysis on signals from target transmitters. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Employs special identification techniques to recognize, identify, and locate foreign radio transmitters; forwards bearings and identification information to a control center; selects, erects, and orients tactical antennas; obtains desired visual display on specialized monitor oscilloscopes; records electrical characteristics of signals displayed, using light sensitive recorders; operates direction-finding and related cryptological, communications, and automatic data processing equipment; prepares and maintains operation logs and card files; types at a minimum rate of 25 words per minute; copies International Morse Code at a minimum rate of 15 groups per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains section management files; classifies, analyzes, and evaluates observed bearings and waveform oscillograms; establishes, plots, and evaluates bearings to determine probable geographical location of foreign transmitters; performs measurement of bands on oscillograms to determine ripple frequency, modulation percentages, and duration of other effects; maintains calibration and accuracy studies, and computes statistical data, including standard deviations and systemic errors; monitors quality control of input and data for automatic data processing support; may serve as a first-line supervisor, assigning workloads and completing personnel evaluations; presents oral and written reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects equipment to ensure proper alignment and orientation; provides guidance and assistance in site selection and equipment installation; prepares written and oral reports; performs quality control measures and writes quality control reports; establishes and maintains facilities and support for site personnel; implements emergency action plans; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations and 2 in typing (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 1 in office practices (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in office practices (6/77).

MOS-05D-003

Electronic Warfare (EW)/Signal Intelligence Emitter Identifier/Locator

05D10
05D20
05D30

Exhibit Dates: 9/87-3/90. (Effective 3/90, MOS 05D was discontinued and its duties were incorporated into MOS 98D, Emitter Locator/Identifier.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates or supervises the operation of radio direction-finding systems and other systems using advanced identification techniques; intercepts and acquires bearings on target transmitters and performs analysis on maps or charts to establish probable locations of target transmitters. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Employs special transmitters; forwards bearings and identification information to a control center; selects, erects, and orients tactical antennas; obtains desired visual display on specialized monitor oscilloscopes; records electrical characteristics of signals displayed, using light sensitive recorders; operates direction-finding and related cryptological, communications, and automatic data processing equipment; prepares and maintains operation logs and card files; types at a minimum rate of 25 words per minute; copies International Morse Code at a minimum rate of 20 groups per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains section management files; classifies, analyzes, and evaluates observed bearings and waveform oscillograms; establishes, plots, and evaluates bearings to detemine probable geographical location of foreign transmitters; performs measurement of bands on oscillograms to determine ripple frequency, modulation percentages, and duration of other effects; maintains calibration and accuracy studies, and computes statistical data, including standard deviations and systemic errors; monitors quality control of input and data for automatic data processing support; may serve as a first-line supervisor, assigning workloads and completing personnel evaluations; presents oral and written reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects equipment to ensure proper alignment and orientation; provides guidance and assistance in site selection and equipment installation; prepares written and oral reports; establishes and maintains facilities and support for site personnel; implements emergency action plans; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding and 1 in computer literacy (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in written communications, 1 in office practices, and 2 in computer literacy (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in written communications, 3 in office practices, 3 in computer literacy, and 3 for field experience in personnel supervision (9/88).

MOS-05E-001

Voice Radio Operator

05E20
05E40

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 05E was discontinued and its functions were incorporated into MOS 05B, Radio Operator.)

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or operates and maintains radio communications equipment and transmits and receives messages by voice. *Skill Level 20:* Connects components; erects antennas; installs power generators; test-operates equipment; installs and operates radio wire integration facilities and devices associated with FM/SSB radio nets; performs preventive maintenance on radio and associated power equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of a radio operating facility comprised of at least 4 to 30 or more radio operators; selects installation sites; prepares and disseminates work schedules, operating procedures, and instructions; instructs and demonstrates proper procedures to radio operators; checks operational logs, station files, and maintenance schedules for completeness and accuracy; prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in broadcasting and 3 in small instrument maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary broadcasting and 3 in elementary radio communications (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in broadcasting and 3 in small instrument maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary broadcasting, 3 in elementary radio communications, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (3/76).

MOS-05F-001

Radio Teletypewriter Operator (Non-Morse)

05F20
05F40

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 05F was discontinued and its functions were incorporated into MOS 05C, Radio Teletype Operator.)

Career Management Field: 72 (Telecommunications).

Description

Summary: Sets up and operates teletypewriter and tape relay equipment. *Skill Level 20:* Erects antennas; installs power generators; processes incoming and outgoing messages; converts perforated tape into literal copy; encodes and decodes messages with cryptographic devices; establishes and posts logs; performs preventive maintenance on equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises Skill Level 20 personnel; teaches subordinates correct operating procedures; plans work and maintenance schedules; maintains records; writes technical and administrative reports; supervises installation of equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in basic typewriting, 3 in radio operation, 6 in radio service and repair, and 1 in small-engine operation and maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic typewriting, 3 in radio operation, and 3 in radio service and repair (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in basic typewriting, 3 in radio operation, 6 in radio service and repair, 1 in small-engine operation and maintenance, 3 in technical writing, and 6 for a practicum in personnel and records management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic typewriting, 3 in radio operation, 3 in radio service and repair, 3 in technical writing, 2 in personnel supervision, and 2 in records management. In the upper-division baccalaureate category, 3 semester hours in business administration (2/75).

MOS-05G-001

Signal Security Specialist

05G20
05G40
05G50

Exhibit Dates: 10/73-2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Supervises and conducts signal security operations throughout the army; monitors and analyzes communications signals; performs electronic security inspections; reviews documents for adequacy of security; prepares comprehensive written reports and makes oral presentations. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill*

Level 20: Performs transcriptions, monitoring, and basic analysis of radiotelephone and conventional telephone messages to detect communications security discrepancies and violations; reviews communications, electronic signal instructions, communications electronic operating instructions, and operations plans and orders to determine adequacy of communications security; reads and interprets maps and map overlays; prepares basic reports on signal security activities; operates and performs user maintenance on communications security and monitoring equipment; selects sites for, erects, and orients tactical antennas; selects and uses commerical battery and generator power; performs general office duties such as filing, typing (35 words per minute minimum), preparation of reports and record keeping; presents oral reports concerning communications security activities. If duty position was communication security specialist, performs the following duties: Provides basic signal security advice and assistance to commanders and performs security analysis of security codes; establishes and supervises operating sites; writes reports, including statistical analyses and presents oral reports on data collected; makes recommendations to eliminate disclosures of intelligence information; provides advice and assistance concerning cryptographic systems and the interpretation of basic documents and regulations; determines need for written communication security instructions; prepares special, periodic, and project reports on signal security activities; may serve as team chief, supervising 2-5 persons. If duty position was senior communications security specialist, performs the following duties: Is a first-line supervisor of 10-12 persons; provides advice and assistance on electronic security procedures and signal security training; prepares signal security monitoring cover plan; analyzes the signal output of communications and noncommunications equipment to establish methods of operations, cryptonetting, and other types of intelligence; reviews documents for signal security; plans and supervises electronic security support; schedules signal security operational activities. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 15 or more persons; determines needed signal intelligence support; presents oral reports to commanders on operational security plan; serves as advisor to commanders on signal security matters; plans and conducts classes on signal security activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as signal security operations chief, first sergeant of a company, or signal security chief; supervises 50-300 persons; has experience as the enlisted commander of a detachment; develops and writes signal security doctrine; advises commander and manages signal security personnel; plans career progression training; allocates personnel; advises commander and manages signal security missions; advises generals and high-level government officials on signal security activities.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in written communication skills, 2 in oral communication skills, 2 in electronic systems operations, and 1 in office practices. If the duty position was communications security specialist, use the following recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 2 in electronic systems operation, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. If the duty position was senior communications security specialist, use the following recommendation: In the vocational certificate category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 2 semester hours for field experience in management (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 for an internship in education (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, and 3 for an internship in education (6/77).

MOS-05G-002

SIGNAL SECURITY SPECIALIST

05G10
05G20
05G30
05G40
05G50

Exhibit Dates: 3/77-9/85. (Effective 9/85, MOS 05G was discontinued and its functions were incorporated into MOS 97G, Signal Security Specialist.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Supervises and conducts signal security operations throughout the Army; monitors and analyzes communications signals; performs electronic security inspections; reviews documents for adequacy of security; prepares comprehensive written reports and makes oral presentations.

NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Performs transcription, monitoring, and basic analysis of radiotelephone and conventional telephone messages to detect communications security discrepancies and violations; reviews communications, electronic signal instructions, communications electronic operating instructions, and operations plans and orders to determine adequacy of communications security; reads and interprets maps and map overlays; prepares basic reports on signal security activities; operates and performs user maintenance on communications security and monitoring equipment; selects sites for, erects, and orients tactical antennas; selects and uses commercial battery and generator power; performs general office duties such as filing, typing (35 words per minute minimum), preparation of reports, and record keeping; presents oral reports concerning communications security activities. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as team chief, supervising 2-5 persons; provides basic signal security advice and assistance to commanders and performs security analysis of security codes; establishes and supervises operating sites; writes reports, including statistical analyses, and presents oral reports on data collected; makes recommendations to eliminate disclosures of intelligence information; provides advice and assistance concerning cryptographic systems and the interpretation of basic documents and regulations; determines need for written communication security instructions; prepares special, periodic, and project reports on signal security activities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of 10-12 persons; provides advice and assistance on electronic security procedures and signal security training; prepares signal security monitoring cover plan; analyzes the signal output of communications and noncommunications equipment to establish methods of operations, cryptonetting, and other types of intelligence; reviews documents for signal security; plans and supervises electronic security support; schedules signal security operational activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 15 or more persons; determines needed signal intelligence support; presents oral reports to commanders on operational security principles; plans signal security actions to support the operational security plan; serves as advisor to commanders on signal security matters; plans and conducts classes on signal security activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as signal security operations chief, first sergeant of a company, or signal security operations chief, first sergeant of a company, or signal security chief; supervises 50-300 persons; has experience as the enlisted commander of a detachment; develops and writes signal security doctrine; advises commander and manages signal security personnel; plans career progression training; allocates personnel; advises commander and manages signal security equipment resources; plans and carries out signal security missions; advises generals and high-level government officials on signal security activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associ-

ate degree category, 3 semester hours in typing, 2 in written communication skills, 2 in oral communication skills, 2 in electronic systems operations, and 1 in office practices (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 2 semester hours for field experience in management (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 for an internship in education (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, and 3 for an internship in education (6/77).

MOS-05H-001

EW/SIGNAL INTELLIGENCE MORSE
INTERCEPTOR
05H20
05H40

Exhibit Dates: 10/73-2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates International Morse Code message interception and simple printer equipment and supervises the operation of such equipment in mobile or fixed installation for the purpose of detecting, identifying, and exploiting foreign communications. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the comptencies and knowledge associated with the MOS were evaluated. *Skill Level 20:* Operates Morse Code interception equipment, including radio receivers, special typewriters, teletypewriters, antenna-selection devices, internal communications equipment, and magnetic tape recorders; searches for, identifies, and manually records foreign International Morse Code communications at a minimum rate of 20 groups per minute; performs first-level analysis of messages to detect anomalies and suspect items which may be of intelligence interest; maintains operator's log of messages and related data and delivers messages to analysts for interpretation; performs operator maintenance on equipment; types at a minimum speed of 25 words per minute. If duty position was senior Morse interceptor, also performs the following duties: Performs more detailed message analysis and evaluation prior to forwarding messages to other analysts; writes detailed reports regarding intercepted messages; conducts on-the-job training; presents oral reports to high-level command staff. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises Morse intercept activities; establishes and maintains extensive intercept files for messages and related data; assists in formulating unit development plans. If duty position was Morse operations control chief, Morse operations supervisor, or Morse operations shift supervisor, also performs the following duties: Allocates personnel and equipment resources; assists in designing collection strategies; may have experience as the enlisted commander of a detachment; establishes and supervises training programs; analyzes automatic data processing results and confers with computer programmers and analysts. NOTE: May have progressed to 05H40 from 05H30 or 05D30 (EW/ Signal Emitter Identifier/Locator).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations and 2 in typing. If the duty position was senior Morse interceptor, use the following recommendation: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 1 in office practices (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, and 2 in office practices. If the duty position was Morse operations control chief, Morse operations supervisor, or Morse operations shift supervisor, use the following recommendation: In the vocational certificate category, 6 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/79).

MOS-05H-002

EW/SIGNAL INTELLIGENCE MORSE
INTERCEPTOR
05H10
05H20
05H30
05H40

Exhibit Dates: 3/77-8/87.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates International Morse Code message interception and simple printer equipment and supervises the operation of such equipment in mobile or fixed installations for the purpose of detecting, identifying, and exploiting foreign communications. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates Morse Code interception equipment, including radio receivers, special typewriters, teletypwriters, antenna selection devices, internal communications equipment, and magnetic tape recorders; searches for, identifies, and manually records foreign International Morse Code communications at a minimum rate of 20 groups per minute; performs first-level analysis of messages to detect anomalies and suspect items which may be of intelligence interest; maintains operator's log of messages and related data and delivers messages to analysts for interpretation; performs operator maintenance on equipment; types at a minimum speed of 25 words per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs more detailed message analysis and evaluation prior to forwarding messages to other analysts; writes detailed reports regarding intercepted messages; conducts on-the-job training; presents oral reports to high-level command staff. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises Morse intercept activities; establishes and maintains extensive intercept files for messages and related data; assists in formulating unit deployment plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; allocates personnel and equipment resources; assists in designing collection strategies; may have experience as the enlisted commander of a detachment; analyzes automatic data processing results and confers with computer programmers and analysts. NOTE: May have progressed to 05H40 from 05H30 or 05D30 (EW/ Signal Intelligence Emitter Identifier/Locator).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations and 2 in typing (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associ-

ate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 1 in office practices (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, and 2 in office practices (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

MOS-05H-003

ELECTRONIC WARFARE (EW)/SIGNAL INTELLIGENCE MORSE INTERCEPTOR

05H10

05H20

05H30

05H40

Exhibit Dates: 9/87-3/90. (Effective 3/90, MOS 05H was discontinued and its duties were incorporated into MOS 98H, Morse Interceptor.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates International Morse Code message interception and simple printer equipment and supervises the operation of such equipment in mobile or fixed installations for the purpose of detecting, identifying, and exploiting foreign communications. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates Morse Code interception equipment, including radio receivers, special typewriters, teletypewriters, antenna selection devices, internal communications equipment, and magnetic tape recorders; searches for, identifies, and manually records foreign international Morse Code communications at a minimum rate of 20 groups per minute; performs first-level analysis of messages to detect anomalies and suspect items which may be of intelligence interest; maintains operator's log of messages and related data and delivers messages to analysts for interpretation; performs operator maintenance on equipment; types at a minimum speed of 25 words per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs more detailed message analysis and evaluation prior to forwarding messages to other analysts; writes detailed reports regarding intercepted messages; conducts on-the-job training; presents oral reports to high-level command staff. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises Morse intercept activities; establishes and maintains extensive intercept files for messages and related data; assists in formulating unit deployment plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; allocates personnel and equipment resources; assists in designing collection strategies; may have experience as the enlisted commander of a detachment; analyzes automatic data processing results and confers with computer programmers and analysts; uses counseling techniques to alleviate stress among subordinates. NOTE: May have progressed to 05H40 from 05H30 or 05D30 (EW/Signal Intelligence Emitter Identifier/Locator).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding and 1 in office practices (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in office practices, 3 in human relations, 3 for field experience in personnel supervision, and 3 in written communications (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in office practices, 3 in human relations, 3 for field experience in personnel supervision, 3 in written communications, 3 for a counseling practicum, and 3 in social science and humanities. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

MOS-05K-001

EW/SIGNAL INTELLIGENCE NON-MORSE INTERCEPTOR

05K20

O5K40

Exhibit Dates: 10/73-2/77.

Career Management Field: 98 (Electronic Warfare/Cryptolgic).

Description

Summary: Operates non-Morse communications intercept and recording equipment and supervises the operation of such equipment in mobile or fixed environments for the purpose of identifying and recording foreign radioteletype, facsimile, and data communications transmissions. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 20:* Operates radioteletype, facsimile, and data intercept and recording equipment; knows basic AC and DC theory, circuit electronic theory, basic frequency analysis, spectrum analysis, and functional algebra; searches for, identifies, and records foreign transmissions; maintains a log of interceptions; prepares technical reports; types at a minimum rate of 25 words per minute; copies International Morse Code at a minimum rate of 15 groups per minute; performs operator maintenance on non-Morse intercept equipment; selects, erects, and orients tactical antennas. If duty position was senior teletypewriter interceptor, also performs the following duties: Assists in the establishment of operational sites; maintains the technical data base to support collection operations; employs special electronic equipment for complex signal analysis; analyzes intercepted communications for items of intelligence interest; understands computer usage in the interpretation of intercepted messages; prepares detailed reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises non-Morse intercept activities; allocates equipment and personnel resources; writes extensive reports to accurately provide intelligence information; analyzes long-term trends, using statistical analysis techniques; coordinates interaction with other collection and processing activities; conducts on-the-job training. If duty position was teletypewriter operations shift supervisor (paygrade E-7), also performs the following duties: Supervises non-Morse intercept activities; interprets signal intelligence collection priorities; ensures proper handling of intelligence information; assesses procedures and operations for adequacy in meeting intelligence requirements and recommends changes; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in introduction to automatic data processing equipment. If the duty position was senior teletypewriter interceptor, use the following recommendation: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 1 in office practices (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. If the duty position was teletypewriter operations supervisor, (paygrade E-7), or teletypewriter operations shift supervisor (paygrade E-7), use the following recommendation: In the vocational certificate category, 6 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (7/79).

MOS-05K-002

EW/Signal Intelligence Non-Morse Interceptor

05K10
05K20
05K30
05K40

Exhibit Dates: 3/77–8/87.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates non-Morse communications intercept and recording equipment and supervises the operation of such equipment in mobile or fixed environments for the purpose of identifying and recording foreign radioteletype, facsimile, and data communications transmissions. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates radioteletype, facsimile, and data intercept and recording equipment; knows basic AC and DC theory, circuit electronics theory, basic frequency analysis, spectrum analysis, and functional algebra; searches for, identifies, and records foreign transmissions; maintains a log of interceptions; prepares technical reports; types at a minimum rate of 25 words per minute; performs operator maintenance on non-Morse intercept equipment; selects, erects, and orients tactical antennas. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in the establishment of operational sites; maintains the technical data base to support collection operations; employs special electronic equipment for complex signal analysis; analyzes intercepted communications for items of intelligence interest; understands computer usage in the interpretation of intercepted messages; prepares detailed reports; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises non-Morse intercept activities; allocates equipment and personnel resources; writes extensive reports to accurately provide intelligence information; analyzes long-term trends, using statistical analysis techniques; coordinates interaction with other collection and processing activities; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises non-Morse intercept activities; interprets signal intelligence collection priorities; ensures proper handling of intelligence information; assesses procedures and operations for adequacy in meeting intelligence requirements and recommends changes; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in introduction to automatic data processing equipment (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 1 in office practices (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

MOS-05K-003

Electronic Warfare (EW)/Signal Intelligence Non-Morse Interceptor

05K10
05K20
05K30
05K40

Exhibit Dates: 9/87–3/90. (Effective 3/90, MOS 05K was discontinued and its duties were incorporated into MOS 98K, Non-Morse Interceptor/Analyst.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates non-Morse communications intercept and recording equipment and supervises the operation of such equipment in mobile or fixed environments for the purpose of identifying and recording foreign radioteletype, facsimile, and data communications transmissions. NOTE: Many of the duties for this MOS involve highly classified material, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates radioteletype, facsimile, and data intercept and recording equipment; knows basic AC and DC theory, circuit electronic theory, basic frequency analysis, spectrum analysis, and functional algebra; searches for, identifies, and records foreign transmissions; maintains a log of interceptions; prepares technical reports; types at a minimum rate of 25 words per minute; performs operator maintenance on non-Morse intercept equipment; selects, erects, and orients tactical antennas. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in the establishment of operational sites; maintains the technical data base to support collection operations; employs special electronic equipment for complex signal analysis; analyzes intercepted communications for items of intelligence interest; prepares detailed reports; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises non-Morse intercept activities; allocates equipment and personnel resources; writes extensive reports to accurately provide intelligence information; analyzes long-term trends, using statistical analysis techniques; coordinates interaction with other collection and processing activities; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises non-Morse intercept activities; interprets signal intelligence collection priorities; ensures proper handling of intelligence information; assesses procedures and operations for adequacy in meeting intelligence requirements and recommends changes; may have experience as the enlisted commander of a detachment; uses counseling techniques to alleviate stress among subordinates.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 1 in computer literacy, and 2 in office practices (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 2 in computer literacy, 3 in office practices, and 3 in written communications (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in computer literacy, 3 in office practices, 3 in written communications, 3 in human relations, and 3 in social sciences and humanities (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in computer literacy, 3 in office practices, 3 in written communications, 3 in human relations, 3 in social sciences and humanities, 3 for a counseling practicum, and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

MOS-11B-001

INFANTRYMAN
(LIGHT WEAPONS INFANTRYMAN)

11B10
11B20
11B40

Exhibit Dates: 10/73-8/75.

Career Management Field: 11 (Maneuver Combat Arms), subfield 111 (Infantry).

Description

Summary: Is a member of a unit which consists of 10-70 persons and which utilizes individual weapons and machine guns in offensive and defensive ground combat. *Skill Level 10:* Fires rifles and machine guns; utilizes camouflage to conceal weapons and personnel; assists in the construction of minor fortifications, roadblocks, wire entanglements, and minefields; prepares rough maps, sketches, and simple overlays; reads maps and aerial photographs; performs preventive maintenance on weapons and equipment; administers first aid. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates machine guns and hand-held antiaircraft weapons; uses grenade launchers. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor, directing the utilization of personnel and equipment; supervises construction and maintenance activities; gives commands and makes oral reports; supervises the receipt, storage, and distribution of equipment, supplies and food.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/75).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, if the duty assignment was team leader, section leader, squad leader, or team chief, 3 semester hours for field experience in management; if the duty assignment was duty sergeant, ammunition chief, or section chief, 3 semester hours in public speaking and 6 for field experience in management; if the duty assignment was instructor, 3 semester hours in principles of instruction, 3 in public speaking, and 6 for field experience in management; if the duty assignment was section sergeant, 3 semester hours in office accounting, 3 in public speaking, 1 in inventory management, and 6 for field experience in management (2/75).

MOS-11B-002

INFANTRYMAN

11B10
11B20
11B30
11B40
11B50

Exhibit Dates: 9/75-2/78.

Career Management Field: 11 (Maneuver Combat Arms), subfield 111 (Infantryman).

Description

Summary: Leads, supervises, and serves as a member of an infantry unit of 10-20 persons, employing individual weapons, machine guns, and anti-armor weapons in offensive and defensive ground combat. *Skill Level 10:* Uses individual infantry weapons; lays field wire; performs basic communications functions and operates communication equipment; utilizes camouflage to conceal weapons and personnel; constructs minor fortifications; performs land navigation; performs preventive maintenance on weapons, equipment, and some vehicles; makes verbal reports; administers first aid; operates wheeled vehicles to transport personnel, supplies, and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a team leader, directing deployment and employment of personnel; supervises maintenance and construction activities; reads, interprets, and collects intelligence information; distributes administrative and training documents; trains subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; as a first-line supervisor, directs the utilization of personnel and equipment; coordinates unit actions with adjacent and supporting elements; insures proper collection and reporting of intelligence data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate units; supervises receipt, storage, and distribution of supplies, equipment, and food to subordinate units; provides oral and written reports; assists in production and administration of staff journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer in an infantry company; assists in planning, coordinating, and supervising all company activities; advises superiors on all matters concerning subordinate personnel. NOTE: May have progressed to 11B50 from 11B40 or 11C40 (Indirect Fire Infantryman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying and 1 in first aid (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in record keeping, 3 in human relations, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in record keeping, 3 in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in office administration, 4 in record keeping, 6 in human relations, 3 in surveying, 3 in introduction to management, 3 for field experience in management, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-11B-003

INFANTRYMAN

11B10
11B20
11B30
11B40
11B50

Exhibit Dates: 3/78-2/81.

Career Management Field: 11 (Infantry).

Description

Summary: Leads, supervises, and serves as a member of an infantry unit of 10-20 persons, employing individual weapons, machine guns, and anti-armor weapons in offensive and defensive ground combat. *Skill Level 10:* Uses individual infantry weapons; lays field wire; performs basic communications functions and operates communication equipment; utilizes camouflage to conceal weapons and personnel; constructs minor fortifications; performs land navigation; performs preventive maintenance on weapons, equipment, and some vehicles; makes verbal reports; administers first aid; operates wheeled vehicles and transport personnel, supplies, and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a team leader, directing deployment and employment of personnel; supervises maintenance and construction activities; reads, interprets, and collects intelligence information; distributes administrative and training documents; trains subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; as a first-line supervisor, directs the utilization of personnel and equipment; coordinates unit actions with adjacent and supporting elements; insures proper collection and reporting of intelligence data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and trains personnel in infantry operations and intelligence activities; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate units; supervises receipt, storage, and distribution of supplies, equipment, and food to subordinate units; provides oral and written reports; assists in production and administration of staff journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer in infantry company; assists in planning, coordinating, and supervising all company activities; advises superiors on all matters concerning subordinate personnel. NOTE: May have progressed to 11B50 from 11B40, 11C40 (Indirect Fire Infantryman), or 11H40 (Heavy Antiarmor Weapons Crewman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying and 1 in first aid (6/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance.

In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in record keeping, 3 in human relations, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in record keeping, 3 in surveying, 3 in principles of instruction, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in office administration, 4 in record keeping, 6 in human relations, 3 in surveying, 3 in introduction to management, 3 for field experience in management, 3 in principles of instruction, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (6/79).

MOS-11B-004

INFANTRYMAN

11B10
11B20
11B30
11B40
11B50

Exhibit Dates: 3/81–Present.

Career Management Field: 11 (Infantry).

Description

Summary: Leads, supervises, and serves as a member of an infantry unit of 10-20 persons, employing individual weapons, machine guns, and anti-armor weapons in offensive and defensive ground combat. *Skill Level 10:* Uses individual infantry weapons; lays field wire; performs basic communications functions and operates communication equiment; utilizes camouflage to conceal weapons and personnel; constructs minor fortifications; performs land navigation; performs preventive maintenance on weapons, equipment, and some vehicles; makes verbal reports; administers first aid; operates wheeled vehicles to transport personnel, supplies, and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a team leader, directing deployment and employment of personnel; supervises maintenance and construction activities; reads, interprets, and collects intelligence information; distributes administrative and training documents; trains subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; as a first-line supervisor, directs the utilization of personnel and equipment; coordinates unit actions with adjacent and supporting elements; insures proper collection and reporting of intelligence data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and trains personnel in infantry operations and intelligence activities; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate units; supervises receipt, storage, and distribution of supplies, equipment, and food to subordinate units; provides oral and written reports; assists in production and administration of staff journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer in an infantry company; assists in planning, coordinating, and supervising all company activities; advises superiors on all matters concerning subordinate personnel. NOTE: May have progressed to 11B50 from 11B40, 11C40 (Indirect Fire Infantryman), 11H40 (Heavy Antiarmor Weapons Crewman), or 11M40 (Fighting Vehicle Infantryman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in first aid, and credit in surveying on the basis of institutional evaluation (10/83).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading, 1 in first aid, and credit in surveying on the basis of institutional evaluation (10/83).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 1 in first aid, 2 in record keeping, 3 in personnel supervision, and 3 in human relations, and credit in surveying on the basis of institutional evaluation (10/83).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in record keeping, 3 in personnel supervision, 3 in human relations, and 3 in principles of instruction, and credit in surveying on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/83).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in record keeping, 3 in personnel supervision, 3 in human relations, 3 in prinicples of instruction, 3 in office administration, and 3 in introduction to management, and credit in surveying on the basis on institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (10/83).

MOS-11C-001

INDIRECT FIRE INFANTRYMAN

11C10
11C20
11C30
11C40

Exhibit Dates: 9/75–2/78.

Career Management Field: 11 (Maneuver Combat Arms), subfield 111 (Infantry).

Description

Summary: Leads or serves as a member of a mortar squad, section, or platoon employing crew-served and individual weapons in offensive and defensive operations. *Skill Level 10:* Employs individual weapons; assists in construction of minor fortifications; performs minor maintenance on weapons, equipment, and wheeled and tracked vehicles; performs land navigation; measures horizontal and vertical angles; estimates ranges; computes firing data; administers first aid; collects and verbally reports tactical information using basic communications equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads mortar squad; supervises crew readiness; trains crew; supervises work details. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads mortar section; supervises employment and deployment of personnel and equipment; conducts surveys to determine weapon location. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises mortar platoon; assists in planning, organizing, training, reporting, and coordinating activities of subordinate sections; supervises receipt, storage, and distribution of ammunition, supplies, equipment, and food.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in human relations, 3 in record keeping, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in record keeping, 3 in surveying, 3 for field experience in management, and 1 in first aid (11/75).

MOS-11C-002

INDIRECT FIRE INFANTRYMAN

11C10
11C20
11C30
11C40

Exhibit Dates: 3/78–8/87.

Career Management Field: 11 (Infantry).

Description

Summary: Leads or serves as a member of a mortar squad, section, or platoon employing crew-served and individual weapons in offensive and defensive operations. *Skill Level 10:* Employs individual weapons; assists in construction of minor fortifications; performs minor maintenance on weapons, equipment, and wheeled and tracked vehicles; performs land navigation; measures horizontal and vertical angles; estimates ranges; computes firing data; administers first aid; collects and verbally reports tactical information using basic communications equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads mortar squad; supervises crew readiness; trains crew; supervises work details. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads mortar section; supervises employment and deployment of personnel and equipment; conducts surveys to determine weapon location. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises mortar platoon; assists in planning, organizing, training, reporting, and coordinating activities of subordinate sections; supervises receipt, storage, and distribution of ammunition, supplies, equipment and food.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying and 1 in first aid (6/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in human relations, 3 in recordkeeping, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in recordkeeping, 3 in surveying, 3 for field experience in management, and 1 in first aid (6/79).

MOS-11C-003

INDIRECT FIRE INFANTRYMAN

11C10
11C20
11C30
11C40
11C50

Exhibit Dates: 9/87–Present.

Career Management Field: 11 (Infantry).

Description

Summary: Leads or serves as a member of a mortar squad, section, or platoon employing crew-served and individual weapons in offensive and defensive operations. *Skill Level 10:* Employs individual weapons; assists in construction of minor fortifications; performs minor maintenance on weapons, equipment, and wheeled and tracked vehicles; performs land navigation; measures horizontal and vertical angles; estimates ranges; computes firing data; administers first aid; collects and verbally reports tactical information using basic communications equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads mortar squad; supervises crew readiness; trains crew; supervises work details. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads mortar section; supervises employment and deployment of personnel and equipment; conducts surveys to determine weapon location. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises mortar platoon; assists in planning, organizing, training, reporting, and coordinating activities of subordinate sections; supervises receipt, storage, and distribution of ammunition, supplies, equipment and food. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates, supervises, and participates in activities pertaining to organization, training, and combat operations and intelligence; serves as principal NCO in a mechanized infantry headquarters company; supervises the processing of operations and intelligence information at a battalion or higher level.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying and 1 in first aid (6/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in human relations, 3 in recordkeeping, 3 for field experience in management, and 1 in first aid (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in recordkeeping, 3 in surveying, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (5/88).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations, 3 in office administration, 3 in recordkeeping, 3 in surveying, and 1 in first aid. In the upper-division baccalaureate category, 6 semester hours for field experience in management and and 3 in personnel management (5/88).

MOS-11D-001

ARMOR RECONNAISSANCE SPECIALIST

11D10
11D20
11D40
11D50

Exhibit Dates: 10/73–8/75.

Career Management Field: 11 (Maneuver Combat Arms), subfield 112 (Armor).

Description

Summary: Leads or serves as a member of a scout squad or section, intelligence staff section, scout or reconnaissance platoon, air cavalry team, or armored cavalry team. *Skill Level 10:* Under supervision, surveys large geographical areas for the purpose of analyzing concentrations of people, materiel, industries, and roads; provides information about transportation networks, communications capability, and mobility of area inhabitants; performs basic vehicle maintenance; drives various vehicles; knows basic voice radio communication procedures; does some technical report writing. *Skill Level 20:* Able to perform the duties required for Skill Level 10; prepares situation maps and overlays; analyzes topographic maps; maintains records and files; operates more complex communications equipment; processes prisoners of war, captured documents, and materiel. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor; supervises deployment of small armored units in reconnaissance and security operations; supervises maintenance of unit vehicles, weapons, and equipment; supervises unit communication operations; supervises the technical and tactical training of small armored units; writes reports; gives oral reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises armor intelligence operations at battalion, regiment, brigade, or comparable headquarters; interprets, analyzes, evaluates, and disseminates data about enemy personnel and materiel; supervises operations staff; serves as the principal enlisted assistant to the company commander; manages the activities of 200-250 persons. NOTE: May have progressed to 11D50 from 11D40 or 11E40 (Armor Crewman).

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (1/75).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (1/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing, 3 in public speaking, 3 for field experience in management, and 1 in management techniques (1/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 9 semester hours for field experience in management, 3 in public speaking, 3 in technical writing, 3 in office procedures, 3 in personnel management, 3 in management techniques, and 2 in introductory typing (1/75).

MOS-11D-002

ARMOR RECONNAISSANCE SPECIALIST

11D10
11D20
11D30
11D40

Exhibit Dates: 9/75–2/78. (Effective 3/78, MOS 11D was discontinued and its functions were incorporated into MOS 19D, Cavalry Scout; 19G Armor Reconnaissance Vehicle Crewman; and 19H, Armor Reconnaissance Vehicle Driver.)

Career Management Field: 11 (Maneuver Combat Arms), subfield 112 (Armor).

Description

Summary: Leads or serves as a member of a scout squad or section, reconnaissance platoon, air cavalry team, or armored cavalry team, in support of security, reconnaissance, and combat armor operations. *Skill Level 10:* Surveys large geographical areas to determine population concentrations, industries, terrain features, bridges, and transportation networks; performs operator maintenance on vehicles and preventive maintenance on weapons and communications equipment; administers first aid; drives tracked and wheeled vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; processes intelligence and operations data; prepares maps and overlays; analyzes topographical maps; performs liaison duties; maintains records; processes prisoners of war and captured documents and material. *Skill Level 30:* Able to perform the duties required for Skill Level 20; is a first-line supervisor, overseeing tactical development, training, and maintenance activities; assists in the collection, evaluation, and interpretation of intelligence data; assists in administrative matters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises armored cavalry or reconnaissance platoon; assists in planning, organizing, directing, training, coordinating, and reporting activities of subordinate sections; supervises receipt, storage, and distribution of ammunition, supplies, equipment, and food.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying and 1 in first aid (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, 3 in human relations, 3 in recordkeeping, and 1 in first aid (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration, 3 in recordkeeping, 6 in human relations, 3 in surveying, 3 for field experience in management, and 1 in first aid (11/75).

MOS-11E-001

ARMOR CREWMAN

11E10
11E20
11E30
11E40
11E50

Exhibit Dates: 9/75–8/76.

Career Management Field: 11 (Maneuver Combat Arms), subfield 112 (Armor).

Description

Summary: Leads, supervises, or serves as a member of an armored activity, employing individual weapons, tanks, and/or armored combat vehicles in offensive and defensive operations. *Skill Level 10:* Uses individual weapons; performs operator maintenance on tanks, armored combat vehicles, and communications equipment; administers first aid; assists in minor fortification construction; operates wheeled and tracked vehicles; makes verbal reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as team leader; performs land navigation; determines ranges and prepares range cards; reads and interprets maps and aerial photos; reproduces, distributes, and files operations, intelligence, and administrative documents; trains subordinate personnel; leads ammunition supply section and supervises resupply operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; is a first-line supervisor, leading a tank crew or section or a security section; directs the deployment of subordinate personel; evaluates terrain and selects targets; trains personnel; collects and reports intelligence data; supervises construction of fortifications, and equipment and vehicle maintenance; controls execution of tactical missions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises armor platoon; processes operation and intelligence information; supervises receipt, storage, and distribution of ammunition, supplies, equipment, and food; assists in planning, organizing, training, and coordinating of subordinate sections. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is the principal noncommissioned officer in an armor company; supervises intelligence operations; advises company commander on all matters concerning enlisted personnel and the company mission; directs and coordinates company administration. NOTE: May have progressed to 11E50 from 11E40 or 11D40 (Armor Reconnaissance Specialist).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in record keeping, 3 in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration, 3 in record keeping, 6 in human relations, 3 in surveying, 3 for field experience in management, and 1 in first aid (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration, 3 in record keeping, 6 in human relations, 6 for field experience in management, 3 in surveying, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-11E-002

ARMOR CREWMAN

11E10
11E20
11E30
11E40
11E50

Exhibit Dates: 9/76–2/78. (Effective 3/78, MOS 11E was discontinued and its functions were incorporated into MOS 19E, M48-M60A1/A3 Armor Crewman; 19F, Tank Driver; 19G, Armor Reconnaissance Vehicle Crewman; 19H, Armor Reconnaissance Vehicle Driver; 19J, M60A2 Armor Crewman; and 12Z, Armor Senior Sergeant.)

Career Management Field: 11 (Maneuver Combat Arms), subfield 112 (Armor).

Description

Summary: Leads, supervises or serves as a member of an armor activity employing individual weapons, tanks, light armored tracked vehicles, and armored combat vehicles. *Skill Level 10:* Uses individual weapons; performs operator maintenance on tanks, armored combat vehicles, and communications equipment; administers first aid; assists in construction of minor fortifications; operates wheeled and tracked vehicles; reads maps, marine charts, and photographs for reconnaissance and terrain analysis; operates special-purpose launching, lifting, and power winches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; determines ranges and prepares range cards; operates firing controls and fire control systems; performs operator maintenance on fire control equipment; reproduces, distributes, and files operations, intelligence, and administrative documents; supervises ammunition resupply operations; interprets maps, aerial photographs, and operating diagrams; reads information on maps; identifies and selects targets; supervises demolition activities; lays and removes obstacles and barriers, including mines; supervises recovery of disabled vehicles and crew engaged in engineering and security duties; supervises and trains replacements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads a tank crew or section or a security section; operates ranging equipment; coordinates actions of unit with adjacent or supporting units; supervises construction of hasty fortifications; insures that proper procedures are followed; insures collection and proper reporting of intelligence data; judges tide flow and estimates high water marks and types of offshore bottoms. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises replacement team or armor platoon; processes operations and intelligence information; supervises receipt, storage, and distribution of ammunition, supplies, equipment, and food; supervises and trains personnel in operations and intelligence activities; assists in training, administration, and communications; assists in production and administration of journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises subordinate personnel holding MOS 11E or MOS 11D (Armor Reconnaissance Specialist); is principal noncommissioned officer in armor company or troop; supervises intelligence operations; plans, coordinates, and supervises activities pertaining to organization, training, combat operations, and combat intelligence activities. NOTE: May have progressed to 11E50 from 11E40 or 11D40 (Armor Reconnaissance Specialist).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance and 1 in first aid (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance, 3 in map reading, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 3 in map reading, 3 for field experience in personnel supervision, and 1 in first aid (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 3 in map reading, 3 for field experience in personnel supervision, 3 in personnel supervision, 3 in human relations, and 1 in first aid (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 3 in map reading, 3 for field experience in personnel supervision, 3 in personnel supervision, 3 in human relations, 3 in record keeping, and 1 in first aid (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 3 in map reading, 3 for field experience in personnel supervision, 3 in personnel supervision, 3 in human relations, 3 in record keeping, 3 in office administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management (11/77).

MOS-11H-001

HEAVY ANTIARMOR WEAPONS CREWMAN

11H10
11H20
11H30
11H40

Exhibit Dates: 3/78–8/87.

Career Management Field: 11 (Infantry).

Description

Summary: Leads or serves as a member of heavy antiarmor crew-served vehicles squad, section, or platoon. *Skill Level 10:* Serves as a loader of a special ammunition weapon; fires weapon or drives the vehicle; prepares ammunition; excercises safety precautions and knows first-aid procedures; lays field wire, performs basic communications function and operates communications equipment; performs preventive maintenance on vehicle, armament, and weapon fire control system; assists in clearing or breaching minefields or fortifications. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a vehicle crew commander, directing employment of personnel in field operations; evaluates terrain; selects emplacement locations and assigns target locations; supervises construction of fortifications; interprets maps and prepares field sketches; supervises crew training and various work details. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and leads an antiarmor section consisting of several vehicles; coordinates and supervises the employment of the section; supervises the receipt, storage, and distribution of food, supplies, and communication; coordinates firepower and advises on tactical situations; supervises maintenance program of all section vehicles and equipment; trains and instructs replacement personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning, organizing, and coordinating activities of subordinate activities and squads; assists in coordinating administrative matters, implementing training programs and communications activities; advises commander on employment of weapons systems.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid and 3 in map reading (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (11/79).

MOS-11H-002

HEAVY ANTIARMOR WEAPONS CREWMAN

11H10
11H20
11H30
11H40
11H50

Exhibit Dates: 9/87–Present.

Career Management Field: 11 (Infantry).

Description

Summary: Leads or serves as a member of heavy antiarmor crew-served vehicles squad, section, or platoon. *Skill Level 10:* Serves as a loader of a special ammunition weapon; fires weapon or drives the vehicle; prepares ammunition; excercises safety precautions and knows first-aid procedures; lays field wire, performs basic communications function and operates communications equipment; performs preventive maintenance on vehicle, armament, and weapon fire control system; assists in clearing or breaching minefields or fortifications. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a vehicle crew commander, directing employment of personnel in field operations; evaluates terrain; selects emplacement locations and assigns target locations; supervises construction of fortifications; interprets maps and prepares field sketches; supervises crew training and various work details. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and leads an antiarmor section consisting of several vehicles; coordinates and supervises the employment of the section; supervises the receipt, storage, and distribution of food, supplies, and communication; coordinates firepower and advises on tactical situations; supervises maintenance program of all section vehicles and equipment; trains and instructs replacement personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning, organizing, and coordinating activities of subordinate activities and squads; assists in coordinating administrative matters, implementing training programs and communications activities; advises commander on employment of weapons systems. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates, supervises, and participates in activities pertaining to organization, training, combat operations, and intelligence; serves as a principal noncommissioned officer in a heavy antiarmor weapons company; supervises the processing of operations and intelligence information at batallion or higher level.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid and 3 in map reading (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (11/79).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in personnel management (5/88).

MOS-11M-001

FIGHTING VEHICLE INFANTRYMAN

11M10
11M20
11M30
11M40

Exhibit Dates: 3/81-8/87.

Career Management Field: 11 (Infantry).

Description

Summary: Leads, supervises, manages, and serves as a member of a fighting vehicle unit or activity employing vehicular and dismounted weapons in combat operations. *Skill Level 10:* Operates and conducts preventive maintenance checks and services on the Infantry Fighting Vehicle (IFV) and components; performs operator maintenance on automotive components; selects routes and firing positions; provides a steady platform for stabilized weapons fire; assists in target detection, identification, and round sensing; assists in refueling and vehicle recovery operation; is familiar with turret recovery operation, loading, and controls; presents verbal reports and operates communications equipment; collects and reports technical information; assists in construction of fortifications; carries and prepares ammunition; administers first aid and applies field sanitation methods; maintains assigned weapons and individual equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts preventive maintenance checks and services on IFV turret and weapon systems; performs operator maintenance on turret; assists in supervising automotive maintenance; loads and fires weapons; detects, acquires, identifies, and engages targets; responds to fire commands; determines range to targets; employs battlesight gunnery techniques and adjusts direct fire; prepares range cards; boresights and zeroes weapons; leads infantry dismount team in combat operations and processes intelligence and operations data; receives and implements combat orders; directs deployment of personnel in offensive, defensive, and retrograde combat operations; evaluates terrain, selects weapons' placement sites, and assigns target engagement areas and fields of fire; utilizes IFV capabilities to maintain night surveillance; requests, observes, and adjusts direct supporting fires; supervises construction of hasty fortifications; supervises receipt, storage, issue, and loading of ammunition; records operational information on maps; reads and interprets maps and aerial photos; trains lower skill-level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; receives and issues orders; controls vehicular and dismounted weapons' fire in mounted and dismounted operations; engages targets from commander's position; coordinates action of squad with adjacent and supporting elements; coordinates organic and supporting firepower; leads and participates in patrols; insures collection and proper reporting of intelligence data to unit and responsible staff sections; supervises and manages all squad preventive and operator maintenance activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs duties as vehicle element or dismount element leader; assists platoon leader in controlling infantry fighting platoon in mounted or dismounted operations; acts as platoon leader in his absence; processes operations and intelligence information; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate squads; supervises receipt, storage and distribution of ammunition, supplies, equipment, and food to subordinate elements; supervises platoon preventive and operation maintenance activities of IFV; collects intelligence information to support combat operations; supervises and trains personnel in fighting vehicle operations, maintenance and intelligence activities; assists in dissemination of intelligence information to unit and staff sections; assists in coordination and implementation of combat operations, training programs, and administrative and communication procedures; assists in production and administration of staff journals, files, records, and reports; assists in organization and operation of the tactical operations center.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in vehicle maintenance, and 1 in map reading (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 2 in personnel supervision (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management (9/85).

MOS-11M-002

FIGHTING VEHICLE INFANTRYMAN

11M10
11M20
11M30
11M40
11M50

Exhibit Dates: 9/87-Present.

Career Management Field: 11 (Infantry).

Description

Summary: Leads, supervises, manages, and serves as a member of a fighting vehicle unit or activity employing vehicular and dismounted weapons in combat operations. *Skill Level 10:* Operates and conducts preventive maintenance checks and services on the Infantry Fighting Vehicle (IFV) and components; performs operator maintenance on automotive components; selects routes and firing positions; provides a steady platform for stabilized weapons fire; assists in target detection, identification, and round sensing; assists in refueling and vehicle recovery operation; is familiar with turret recovery operation, loading, and controls; presents verbal reports and operates communications equipment; collects and reports technical information; assists in construction of fortifications; carries and prepares ammunition; administers first aid and applies field sanitation methods; maintains assigned weapons and individual equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts preventive maintenance checks and services on IFV turret and weapon systems; performs operator maintenance on turret; assists in supervising automotive maintenance; loads and fires weapons; detects, acquires, identifies, and engages targets; responds to fire commands; determines range to targets; employs battlesight gunnery techniques and adjusts direct fire; prepares range cards; boresights and zeroes weapons; leads infantry dismount team in combat operations and processes intelligence and operations data; receives and implements combat orders; directs deployment of personnel in offensive, defensive, and retrograde combat operations; evaluates terrain, selects weapons' placement sites, and assigns target engagement areas and fields of fire; utilizes IFV capabilities to maintain night surveillance; requests, observes, and adjusts direct supporting fires; supervises construction of hasty fortifications; supervises receipt, storage, issue, and loading of ammunition; records operational information on maps; reads and interprets maps and aerial photos; trains lower skill-level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; receives and issues orders; controls vehicular and dismounted weapons' fire in mounted and dismounted operations; engages targets from commander's position; coordinates action of squad with adjacent and supporting elements; coordinates organic and supporting firepower; leads and participates in patrols; insures collection and proper reporting of intelligence data to unit and responsible staff sections; supervises and manages all squad preventive and operator maintenance activities.

Skill Level 40: Able to perform the duties required for Skill Level 30; performs duties as vehicle element or dismount element leader; assists platoon leader in controlling infantry fighting platoon in mounted or dismounted operations; acts as platoon leader in his absence; processes operations and intelligence information; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate squads; supervises receipt, storage and distribution of ammunition, supplies, equipment, and food to subordinate elements; supervises platoon preventive and operation maintenance activities of IFV; collects intelligence information to support combat operations; supervises and trains personnel in fighting vehicle operations, maintenance and intelligence activities; assists in dissemination of intelligence information to unit and staff sections; assists in coordination and implementation of combat operations, training programs, and administrative and communication procedures; assists in production and administration of staff journals, files, records, and reports; assists in organization and operation of the tactical operations center. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates, supervises, and participates in activities pertaining to organization, training, and combat operations and intelligence; serves as principal noncommissioned officer in a mechanized infantry company; supervises the processing of operations and intelligence information at battalion or higher level.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in vehicle maintenance, and 1 in map reading (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 2 in personnel supervision (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in personnel management (5/88).

MOS-11Z-001

Maneuver Combat Arms Sergeant

11Z50

Exhibit Dates: 9/75–2/78. (Effective 3/78, MOS 11Z was discontinued and its functions were incorporated into 11B50, Infantryman, and 19Z50, Armor Senior Sergeant; effective 9/87, MOS 11Z was reestablished with the title Infantry Senior Sergeant–see exhibit MOS-11Z-002.)

Career Management Field: 11 (Maneuver Combat Arms), subfield 110 (General).

Description

Skill Level 50: Serves as the principal noncommissioned officer in operations and intelligence sections or as the first sergeant at a combined arms headquarters at brigade or higher level; supervises senior noncommissioned officers performing the duties of 11B50 (Infantryman) or 11E50 (Armor Crewman); as an experienced mid-level manager, plans, coordinates, and supervises all activities pertaining to daily operations, training, and administrative activities of subordinate personnel. NOTE: May have progressed to 11Z50 from 11B50 or 11E50.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 15 semester hours in business administration and personnel management, 6 in human relations, and 3 for field experience in management (11/75).

MOS-11Z-002

Infantry Senior Sergeant

11Z50

Exhibit Dates: Pending evaluation. 9/87–Present.

MOS-12B-001

Combat Engineer

12B20
12B30
12B40

Exhibit Dates: 10/73–9/74.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Engages in construction and demolition activities. *Skill Level 20:* Uses hand tools and engineering tools; operates a dump truck; assists with excavation, earthmoving, rigging, and concrete work. *Skill Level 30:* Able to perform the duties required for Skill Level 20; uses basic algebraic skills and physical principles; interprets maps; reads and interprets blueprints; writes technical reports; applies oral communication skills; has a broad knowledge of construction practices. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises teams of construction personnel. NOTE: May have progressed to 12B40 from 12B20, 12B30, or 12F40 (Combat Engineer Tracked Vehicle Crewman).

Recommendation, Skill Level 20

In the vocational certificate category, 12 semester hours in construction equipment operation (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in construction equipment operation, 6 in construction methods, 3 in algebra, 1 in applied physics, 1 in blueprint reading, and 2 in communication skills. In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 1 in applied physics, 2 in geography (map interpretation), 6 in construction methods, 1 in blueprint reading, and 2 in communication skills (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in construction equipment operation, 3 in algebra, 1 in applied physics, 2 in geography (map interpretation), 6 in construction methods, 1 in blueprint reading, 2 in communication skills, and 3 in construction supervision. In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 1 in applied physics, 2 in geography (map interpretation), 6 in construction methods, 1 in blueprint reading, 2 in communication skills, and 3 in construction supervision (2/75).

MOS-12B-002

Combat Engineer

12B10
12B20
12B30
12B40

Exhibit Dates: 10/74–8/76.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Engages in construction and demolition activities. *Skill Level 10:* Assists combat engineers, bridge and powered bridge specialists, atomic demolition munitions specialists, and combat engineer tracked vehicle crewmen in performance of duties; uses hand tools and engineering tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates a dump truck; assists with excavation, earthmoving, rigging, and concrete work. *Skill Level 30:* Able to perform the duties required for Skill Level 20; acts as demolition expert. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises teams of construction and demolition personnel. NOTE: May have progressed to 12B40 from 12B20, 12B30, or 12F40 (Combat Engineer Tracked Vehicle Crewman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in hand tool operation (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in construction equipment operation and 3 in hand tool operation (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in demolition operations, 6 in construction equipment operation, and 3 in hand tool operation (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in construction equipment operation, 9 in demolition operations, 2 in geography (map interpretation), 6 in construction methods, 1 in blueprint reading, 2 in communication skills, and 3 in construction supervision. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, and additional credit in administration and in construction on the basis of institutional evaluation (12/75).

MOS-12B-003

COMBAT ENGINEER

12B10
12B20
12B30
12B40

Exhibit Dates: 9/76–Present.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Engages in vertical, road, and airfield construction, and rigging, bridging, and demolition activities. *Skill Level 10:* Assists combat engineers and bridge and powered-bridge specialists in performance of duties; uses hand tools and engineering tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists with excavation, earthmoving, rigging, and concrete work. *Skill Level 30:* Able to perform the duties required for Skill Level 20; acts as demolition expert. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises teams of construction and demolition personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in hand-tool operation (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in construction equipment operation and 3 in hand-tool operation (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in demolition operations, 6 in construction equipment operation, and 3 in hand-tool operation (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in construction equipment operation, 9 in demolition operations, 3 in hand-tool operation, 2 in geography (map interpretation), 3 in construction methods, 1 in blueprint reading, 2 in communication skills, and 3 in construction supervision. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, and additional credit in administration and in construction on the basis of institutional evaluation (11/77).

MOS-12C-001

BRIDGE SPECIALIST

12C20
12C30
12C40

Exhibit Dates: 10/73–8/76.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Provides engineer bridging for streams and dry gaps. *Skill Level 20:* Assembles, erects, and dissassembles floating and fixed prefabricated bridges; uses rigging techniques; operates rafts and ferries; uses and maintains hand tools. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates power boats; interprets maps; uses and maintains construction hand tools. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises bridge construction and repair; interprets maps; determines bridge construction sites; provides work and material estimates; supervises the use of heavy construction equipment; prepares technical reports; supervises a minimum of 10 persons.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in bridge construction and 3 in use and maintenance of hand tools (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in bridge construction, 4 in use and maintenance of construction hand tools, and 4 in power boat operation. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction methods and 1 in blueprint reading (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 12 semester hours in bridge construction, 4 in use and maintenance of construction hand tools, 4 in power boat operation, 4 in construction methods, 3 in bridge maintenance, and 3 in construction supervision. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction methods, 3 in construction supervision, 1 in blueprint reading, 2 in geography (map interpretation), 2 in technical writing, 2 in communication skills, and 1 in applied physics (2/75).

MOS-12C-002

BRIDGE CREWMAN

12C10
12C20
12C30
12C40

Exhibit Dates: 9/76–Present.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Provides engineer bridging for streams and dry gaps. *Skill Level 10:* Assists in the assembly, erection, and disassembly of floating and fixed prefabricated bridges; uses and maintains hand tools; assists in rigging; prepares for operation and operates assault boats. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises rigging; performs as demolition expert. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates power boats; interprets maps; uses and maintains construction hand tools. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises bridge construction and repair; determines bridge construction sites; provides work and material estimates; supervises the use of heavy construction equipment; prepares technical reports; supervises a minimum of 10 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in construction hand-tool operation and maintenance (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in bridge construction and 3 in construction hand-tool operation and maintenance (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in bridge construction, 4 in construction hand-tool operation and maintenance, and 4 in power boat operation. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction methods and 1 in blueprint reading (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, 12 semester hours in bridge construction, 4 in construction hand tool operation and maintenance, 4 in power boat operation, 4 in construction methods, 3 in bridge maintenance, and 3 in construction supervision. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction methods, 3 in construction supervision, 1 in blueprint reading, 2 in geography (map interpretation), 2 in technical writing, 2 in communication skills, and 1 in applied physics (11/77).

MOS-12D-001

POWERED BRIDGE SPECIALIST

12D20
12D40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 12D was discontinued and its functions were incorporated into MOS 12C, Bridge Crewman.)

Career Management Field: 12 (Combat Engineering).

Description

Summary: Performs or supervises powered bridging and rafting support duties for stream and other wet gap crossing operations; duties are similar to those performed in operating and maintaining ferry boats, tug boats, busses, and heavy duty trucks. *Skill Level 20:* Operates boats, trucks, and heavy duty equipment; connects with other vehicles to form rafts and bridges; holds position with or without anchor; utilizes compasses, ranges, charts, tide and current tables to take bearings and soundings; couples and uncouples bridge units; employs rigging techniques; maintains tools. *Skill Level 40:* Able to perform the duties required for Skill Level 20; interprets blueprints, aerial photographs, maps, and operating diagrams; plans and draws working sketches of crossing points, launching areas, and approach road nets; determines stream flow, effect of stream velocities, high water marks, type of stream bottom, and safe load capacities of raft and bridges; coordinates use of multiple units; inspects powered bridge components and equipment and supervises periodic and emergency maintenance; prepares technical reports on bridging and rafting activities; supervises powered bridge personnel.

Recommendation, Skill Level 20

In the vocational certificate category, 12 semester hours in boat operation, 3 in heavy equipment operation, and 3 in heavy equipment maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment operation and 1 in use and care of tools (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in heavy equipment operation, 4 in powered bridge construction, 4 in multiple unit management, 3 in heavy equipment maintenance, 2 in blueprint reading, and 2 in navigation. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in heavy equipment operation, 2 in navigation, 2 in powered bridge construction management, and 1 in use and care of tools. In the upper-division baccalaureate category, if the duty assignment was either bridge section sergeant or bridge platoon sergeant, 3 semester hours for field experience in management (12/75).

MOS-12E-001

Atomic Demolition Munitions
Specialist

12E20
12E40

Exhibit Dates: 10/73-8/76.

Career Management Field: 12 (Combat Engineering).

Description

Summary: Assembles, arms, disarms, disassembles, tests, monitors, and transports atomic demolition munitions. NOTE: Able to perform the duties required for 12B10 (Combat Engineer). *Skill Level 20:* Interprets aerial photographs and reads maps; prepares atomic demolition munitions for destruction, using conventional demolition materials; employs radiological accident and incident control procedures; uses engineer handtools; performs combat engineering tasks and simple construction necessary in the employment of atomic demolition munitions. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor, serving as a squad or team leader or as a platoon sergeant; supervises atomic demolition munitions activities; interprets technical literature and instructs subordinates in the use of atomic demolition munitions equipment; enforces safety regulations; advises commander on the employment of the weapon and makes recommendations concerning technical improvements, safety procedures, and security; requisitions supplies and equipment; keeps files of related manuals and regulations; coordinates with other units on storage, security, and transportation of atomic demolition munitions and on communications procedures. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; these duties were not evaluated.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in the use of hand tools and 1 in map reading (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in the use of hand tools and 1 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 for field experience in management, and 3 for field experience in education (6/76).

MOS-12E-002

Atomic Demolition Munitions (ADM)
Specialist

12E10
12E20
12E30
12E40

Exhibit Dates: 9/76-2/89. (Effective 3/89, MOS 12E was discontinued.)

Career Management Field: 12 (Combat Engineering).

Description

Summary: Assembles, arms, disarms, disassembles, tests, monitors, and transports atomic demolition munitions (ADM). NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 10:* Assists in assembling, arming, disarming, disassembling, testing, and monitoring of ADM; prepares ADM for transport; operates and maintains vehicles; inspects and repairs ADM, test equipment, training sets, tools, and related equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; interprets aerial photographs and reads maps; prepares ADM for destruction, using conventional demolition materials; employs radiological accident and incident control procedures; handles classified material and employs security procedures; uses engineering hand tools; performs combat engineering tasks and simple construction necessary in the employment of ADM. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises prefire, arming, disarming, firing, cancellation and emergency destruction procedures; supervises nuclear weapons transportation preparation, routing, and security; conducts briefings. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor of ADM activities; interprets technical literature and instructs subordinates in the use of ADM equipment; enforces safety regulations; advises commander on the weapon and makes recommendations concerning operational improvements, safety procedures, and security; requisitions supplies and equipment; keeps files of related manuals and regulations; coordinates with other units on storage, security, and transportation of ADM and on communications procedures.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hand-tool operation and maintenance (11/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hand-tool operation and maintenance, and 1 in map reading (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in hand-tool operation and maintenance 1 in map reading, and 3 in demolition operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in hand-tool operation and maintenance, 3 for field experience in personnel supervision, and 1 in map reading (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in hand-tool operation, 2 in map reading, 3 in demolition operations, and 2 in communication skills. In the lower-division baccalaureate/associate degree category, 3 semester hours in hand-tool operation and maintenance, 3 for field experience in personnel supervision, 3 in personnel supervision, 3 in human relations, 3 in safety, 3 in nuclear surveillance monitoring, and 2 in map reading (11/77).

MOS-12F-001

Combat Engineer Track Vehicle
Crewman

12F20
12F40

Exhibit Dates: 10/73-8/76. (Effective 9/76, MOS 12F was discontinued and its functions were incorporated into MOS 11E, Armor Crewman.)

Career Management Field: 12 (Combat Engineering).

Description

Summary: Commands or serves as a member of a combat engineer vehicle crew, an armored vehicle launched bridge crew, or a landing vehicle track crew. *Skill Level 20:* Operates combat engineer tracked vehicles over rough or smooth terrain, in sandy, swampy, and marshy areas, or in water; performs operator maintenance on vehicle and communication equipment; observes and reports targets and other combat information; reads compasses, maps, marine charts, and photographs for reconnaissance and terrain analysis and to establish locations; constructs field fortifications and utilizes camouflage; operates special purpose equipment, such as demolition guns, bridge launching mechanisms, mine clearing devices, lifting devices, and power winches; keeps required records and reports. NOTE: May have progressed to Skill Level 20 from 12B10 (Combat Engineer). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises activities of combat engineer platoons, squads, and crews equipped with tracked vehicles operating independently or with engineer amphibious assault units; judges tide flow and estimates high water marks and types of offshore bottoms; interprets military maps, aerial photographs, and operating diagrams; assists in the preparation of operations directives, reports, and records.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in operation of tracked construction equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading or photographic interpretation (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 10 semester hours in operation of tracked construction equipment, 2 in equipment maintenance, 1 in records administration, and 1 in technical mathematics or physics. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading or photographic interpretation, 1 in records administration, and 2 in personnel supervision (12/75).

MOS-12F-002

Engineer Tracked Vehicle Crewman

12F10
12F20
12F30
12F40

Exhibit Dates: 9/79-Present.

Career Management Field: 12 (Combat Engineer).

Description

Summary: Leads, supervises, or serves as member of combat engineer vehicle launched bridge crew, or operates engineer armored personnel carrier. *Skill Level 10:* Operates combat engineer vehicles over varied terrain and roads; reacts to commands and navigates over land; operates special equipment such as bridge launchers, lifting devices, power winches, and bulldozers; loads, fires, and unloads guns; installs and dismantles radios and antennas; services and adjusts vehicle components; participates in bridging and demolition operations. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as squad leader; supervises, instructs, and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises crew and section personnel; directs overall operations and training exercises; conducts battle drills; identifies targets, and selects placement of demolitions; coordinates maintenance requirements; manages equipment and personnel; conducts reconnaissance and reports intelligence information. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises platoon and section personnel; assists in planning, organization, direction, supervision, and management at the platoon, section, or team level; directs assignment of vehicles and personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in heavy equipment operation. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in vehicle maintenance, and 1 in map reading (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in heavy equipment operation. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 2 in personnel supervision (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in heavy equipment operation. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/85).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in heavy equipment operation. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in vehicle maintenance, 2 in map reading, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management (9/85).

MOS-12Z-001

COMBAT ENGINEER SENIOR SERGEANT

12Z50

Exhibit Dates: 10/73-8/76.

Career Management Field: 12 (Combat Engineering).

Description

Skill Level 50: Serves as the principal noncommissioned officer of a combat engineer company, bridge company, or engineering section; capable of the management of personnel and activities in a civilian engineering/construction firm; assists in planning, supervising, and coordinating all company activities; advises company commander on all personnel matters; provides subordinate supervisors with instructions; inspects work; provides on-the-job training; prepares reports; has a prerequisite knowledge of engineering equivalent to an associate degree in engineering technology. NOTE: May have progressed to 12Z50 from Skill Level 40 of any MOS in the combat engineering career management field (12).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 12 semester hours in business administration, 6 in personnel supervision, and 6 for field experience in management (12/75).

MOS-12Z-002

COMBAT ENGINEERING SENIOR SERGEANT

12Z50

Exhibit Dates: 9/76–Present.

Career Management Field: 12 (Combat Engineer).

Description

Skill Level 50: Serves as principal noncommissioned officer of a combat engineer company, bridge company, or engineer staff section; serves as a bridge inspector, operations or intelligence noncommissioned officer; may advise higher headquarters, supported units, allied forces, Army Reserve units, and Army National Guard units; may serve as an instructor in a formal military school; capable of managing personnel and activities in a civilian engineering/construction firm; assists in planning, supervising, and coordinating all unit activities; advises commander on personnel equipment and technical matters; provides subordinate supervisors with instructions; plans and implements training programs; inspects work progress and enforces job specifications and safety standards; supervises maintenance of functional and project files; prepares correspondence, plans, orders, construction schedules, and reports; maintains equipment records; maintains technical publications. NOTE: May have progressed to 12Z50 from Skill Level 40 of any MOS in the combat engineering career management field (12).

Recommendation, Skill Level 50

NOTE: Has a prerequisite knowledge of engineering equivalent to an associate degree (30-40 semester hours depending on general education requirements) in engineering technology. In the upper-division baccalaureate category, 3 semester hours in elements of construction management, 3 in management problems, 3 in records management, 3 in quality control, 3 in personnel supervision, 3 in supervision and leadership, and 6 for field experience in management (11/77).

MOS-13A-001

FIELD ARTILLERY BASIC
(CANNONEER)

13A10

Exhibit Dates: 10/73-9/74. (Effective 10/74, MOS 13A was discontinued and its functions were incorporated into 13B10, Field Artillery Crewman.)

Career Management Field: 13 (Field Artillery Cannon).

Description

Skill Level 10: Serves as a member of a gun crew, ammunition section, or security section; may be a data recorder, truck driver, or ammunition specialist; operates radios, field telephones, and power generating equipment; conducts circuitry tests; uses vernier scales; measures tolerances; performs preventive maintenance on vehicles, generators, and crew-served weapons.

Recommendation, Skill Level 10

Credit on the basis of institutional evaluation (2/75).

MOS-13B-001

FIELD ARTILLERY CREWMAN

13B10
13B20
13B30
13B40

Exhibit Dates: 10/73-8/76.

Career Management Field: 13 (Field Artillery Cannon).

Description

Summary: Serves in a field artillery unit; reads schematic diagrams; uses wire and radio communications equipment; services hydraulic systems. *Skill Level 10:* Serves as a data recorder, truck driver, or ammunition specialist; operates radios, field telephones, and power generating equipment; conducts circuitry tests; measures tolerances and uses vernier scales; performs preventive maintenance on vehicles, generators, and crew-served weapons. NOTE: Skill Level 10 (formerly 13A10, Field Artillery Basic) was not added to MOS 13B until 10/74. *Skill Level 20:* Under supervision, uses optical measuring devices, adjusts instruments to required tolerances, and performs preventive maintenance on vehicles; knows angular relationships of optical devices in both horizontal and vertical planes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; uses specialized precision tools; uses technical publications; has theoretical background in mechanics, hydraulics, electrical systems, and optional measurement instruments; performs organizational maintenance on wheeled and tracked vechicles, optical instruments, and hydraulic systems; diagnoses and repairs malfunctions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for 8-15 persons; supervises the maintenance of vehicles, instruments, and equipment; preperes technical reports; coordinates record keeping; conducts on-the-job training; inspects the work of subordinates.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit in measurement and instrumentation, electronic communications, and applied mathematics on the basis of institutional evaluation (3/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 1 in electronic communications, and 1 in basic mathematics (3/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, and 2 in hydraulics and mechanics (3/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electric circuits, 2 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, 2 in hydraulics and mechanics, 1 in equipment management, 1 in personnel management, and 3 for an internship (management) (3/76).

MOS-13B-002

CANNON CREWMAN

13B10
13B20
13B30
13B40

Exhibit Dates: 9/76-5/89.

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Supervises or serves in a field artillery unit; reads equipment placement and systems diagrams; uses wire and radio communications equipment; services hydraulic systems. *Skill Level 10:* Serves as security guard, cannoneer, vehicle driver, or ammunition specialist; operates radios, field telephones, and power generating equipment; conducts continuity tests; measures tolerances and uses vernier scales; uses metric notation; performs preventive maintenance on vehicles, generators, and crew-served weapons. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists the section chief; uses optical measuring devices, adjusts instruments to required tolerances; supervises preventive maintenance on vehicles; know angular relationships of optical devices in both horizontal and vertical planes; supervises transportation and use of ammunition. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a section chief, supervising 10-14 persons; instructs in gunnery procedures; uses technical publications; has theoretical background in mechanics, hydraulics, electrical systems, and optical measurement instruments; supervises preventive maintenance on wheeled and tracked vehicles; assures adherence to safety procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for 12-45 persons; supervises the maintenance of vehicles, instruments, and equipment; prepares technical and personnel reports; coordinates record keeping; supervises on-the-job training; inspects the work of subordinates; assures compliance with safety procedures.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in communications systems operation and 1 for field experience in electromechanical and hydraulic maintenance, and additional credit in applied mathematics and in measurements and instrumentation on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 1 in communications systems operation, 1 for field experience in electromechanical and hydraulic maintenance, and 1 in measurements and instrumentation (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, 2 sememster hours in basic mathematics, 2 for field experience in electromechanical and hydraulic maintenance, 1 in communications systems operation, and 1 in measurements and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in communication skills, 2 in human relations, 2 in personnel supervision, 2 in basic mathematics, 2 for field experience in electromechanical and hydraulic maintenance, 1 in communications systems operation, and 1 measurements and instrumentation (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in communication skills, 3 in human relations, 3 in personnel supervision, 2 in basic mathematics, 2 for field experience in electromechanical and hydraulic maintenance, 1 in communications systems operation, 1 in measurements and instrumentation, and 1 in safety procedures (4/77).

MOS-13B-003

CANNON CREWMEMBER

13B10
13B20
13B30
13B40

Exhibit Dates: 6/89-Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves as a member of a field artillery cannon unit; places and fires cannon, maintains transport vehicles and weapons, and operates communications equipment. *Skill Level 10:* Serves as a vehicle driver, ammunition specialist, cannoneer, maintenance technician, and communications equipment operator; determines azimuth, reads maps, navigates, and operates radio set; services hydraulic, pneumatic, and electromechanical systems. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists section chief; uses aiming devices; performs boresight; supervises preventive maintenance, ammunition supply, and equipment transport. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief; directs defense of section; instructs and supervises 7 to 12 section personnel; supervises equipment maintenance, emplacement construction, safety procedures, and ammunition handling and distribution. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 12 to 60 section personnel; selects sites for weapon emplacement; supervises firing; supervises and conducts training of section personnel; lays fire direction; conducts weapon checks; supervises ammunition train, movement of weapons, and prepares technical reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in communication systems operation, 1 in hydraulic and electromechanical systems troubleshooting and maintenance, 1 in map reading, and 1 in applied mathematics (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in communication systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, and 2 in applied mathematics (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in communication systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, 2 in applied mathematics, 3 in principles of supervision, 3 in communication skills, and 1 in technical report writing (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in communication systems operation, 2 in hydraulic and electromechanical systems troubleshooting and maintenance, 2 in map reading, 2 in applied mathematics, 3 in principles of supervision, 3 in communication skills, and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13C-001

TACFIRE OPERATIONS SPECIALIST

13C10
13C20
13C30
13C40

Exhibit Dates: 9/79-5/89.

Career Management Field: 13 (Field Artillery), subfield 133 (Field Artillery Fire Direction/Fire Support).

Description

Summary: Supervises or serves as a member of activity operating tactical fire direction (TACFIRE) equipment in a field artillery cannon battalion or higher unit. *Skill Level 10:* Operates equipment in conjunction with or in support of TACFIRE computer; assists in preparation and operation of the computer; assists in preparing the computer center for operation and shutdown; performs cabling and equipment installation and removal; operates computer center equipment during normal, alternate mode and emergency operations; recognizes partial/complete computer center failure and performs alternate mode reconfiguration procedures; prepares fire plan, firing capability, and target and control point overlays using a digital plotter map; distributes printed data generated by TACFIRE computer; performs computer center preventive maintenance and performance checks; operates and performs operator maintenance on power generation equipment; prepares TACFIRE Remote Terminal (TRT) for operation; performs TRT cabling and installation/removal procedures; operates TRT to input and retrieve computer control, tactical data base, artillery target intelligence, fire planning, survey, tactical, and technical fire control operations data; recognizes partial/complete TRT failure and performs alternate mode reconfiguration procedures; performs TRT troubleshooting procedures and operator maintenance; performs TRT shutdown procedures; lays field wire; installs field telephones, vehicle radio remote control equipment; erects/dismantles antennas; performs operator checks and maintenance on communication equipment; transmits and receives on communications equipment; monitors radio broadcasts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; inputs and retrieves computer center control information necessary to establish communications with subcribers and initiates computer center operations; performs maintenance on TACFIRE computer and remote devices; maintains required tools, test equipment, and appropriate spare parts to accomplish organizational maintenance duties. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates TACFIRE computer in field artillery cannon battalion fire direction center; operates TACFIRE computer to input and retrieve computer initialization control and tactical data base information; processes tactical and technical fire control data, artillery target intelligence, non-nuclear fire planning data survey information and routines, and meteorological data; performs operator maintenance and checks on computer; supervises lower-skill-level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in supervision of battalion or higher operations section; operates TACFIRE computer in field artillery brigade or higher unit; supervises TACFIRE Remote Terminal (TRT) operators; prepares and distributes maps, operational information and training materials; present briefings on current operations and situations; compiles information for and prepares reports; ensures compliance with security precautions and regulations; supervises march order and emplacement of fire direction center equipment; operates TACFIRE computer to input and retrieve computer initialization, control, and tactical data base information. NOTE: May have progressed to 13C40 from 13C30 or 13E30 (Cannon Fire Direction Specialist).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics and 2 in computer concepts (7/82).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in computer concepts, and 3 in computer maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in computer concepts, and 3 in computer maintenance (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in computer concepts, 3 in computer maintenance, and 3 in personnel supervision (7/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in computer concepts, 3 in computer maintenance, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management (7/82).

MOS-13C-002

TACFIRE OPERATIONS SPECIALIST

13C10
13C20
13C30
13C40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves as a member of an activity operating tactical fire direction (TACFIRE) equipment in a field artillery cannon battalion or higher unit. *Skill Level 10:* Operates equipment in conjunction with or in support of TACFIRE computer; assists in preparation and operation of the computer; assists in preparing the computer center for operation and shutdown; performs cabling and equipment installation and removal; operates computer center equipment during normal, alternate mode and emergency operations; recognizes partial/complete computer center failure and performs alternate mode reconfiguration procedures; distributes printed data generated by TACFIRE computer; performs computer center preventive maintenance and performance checks; operates and performs operator maintenance on power generation equipment; prepares TACFIRE Remote Terminal (TRT) for operation; performs TRT cabling and installation/removal procedures; operates TRT to input and retrieve computer control, tactical data base, artillery target intelligence, fire planning, survey, tactical, and technical fire control operations data; recognizes partial/complete TRT failure and performs alternate mode reconfiguration procedures; performs TRT troubleshooting procedures and operator maintenance; performs TRT shutdown procedures; lays field wire; installs field telephones, vehicle radio remote control equipment; erects/dismantles antennas; performs operator checks and maintenance on communication equipment; transmits and receives on communications equipment; monitors radio broadcasts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; inputs and retrieves computer center control information necessary to establish communications with subcribers and initiates computer center operations; performs maintenance on TACFIRE computer and remote devices; maintains required tools, test equipment, and appropriate spare parts to accomplish organizational maintenance duties; supervision and management experience may vary. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates TACFIRE computer in field artillery cannon battalion fire direction center; operates TACFIRE computer to input and retrieve computer initialization control and tactical data base information; processes tactical and technical fire control data, artillery target intelligence, non-nuclear fire planning data survey information and routines, and meteorological data; performs operator maintenance and checks on computer; supervises lower-skill-level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in supervision of battalion or higher operations section; operates TACFIRE computer in field artillery brigade or higher unit; supervises TACFIRE Remote Terminal (TRT) operators; prepares and distributes maps, operational information and training materials; present briefings on current operations and situations; compiles information and prepares reports; ensures compliance with security precautions and regulations; supervises march order and emplacement of fire direction center equipment; operates TACFIRE computer to input and retrieve computer initialization, control, and tactical data base information. NOTE: May have progressed to 13C40 from 13C30 or 13E30 (Cannon Fire Direction Specialist).

Recommendation, Skill Level 10

Credit is not recommended because of the limited and specialized nature of the skills, competencies, and knowledge (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, if served in a supervisory position, 3 semester hours in principles of supervision and 3 in maintenance management (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in maintenance management, and 3 in communication skills (oral and written) (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13E-001

FIELD ARTILLERY CANNON OPERATIONS/ FIRE DIRECTION ASSISTANT

13E20
13E40

Exhibit Dates: 10/73–8/76.

Career Management Field: 13 (Field Artillery Cannon).

Description

Summary: Supervises or serves as a member of an operations and intelligence section, liaison section, forward observer party, fire support coordination element, or field artillery cannon fire direction center. *Skill Level 20:* Serves in a field artillery section as a member of a gun crew; plots target locations and constructs firing locations, angles, corrections, and displacements; operates gun control and gun direction computer; reads maps and aerial photographs; assists in liaison activities with infantry and armor; operates chronograph and computes muzzle velocity; performs preventive maintenance on generators, communications equipment (wire and radio), vehicles, and gun direction computer. *Skill Level 40:* Able to perform the duties required for Skill Level 20; prepares situation maps; collects and consolidates data for fire control; prepares operations journal; assists in liaison activities with other units; armor, and infantry; determines target distance and azimuth, utilizing optical instruments, compass, maps, mil relation formula, and timing of sound; supervises operation and preventive maintenance of section equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 1 in electronic communications, and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 1 in electronic communications, 1 in basic mathematics, and 1 in introduction to computer science (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electric circuits, 2 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, 2 in hydraulics and mechanics, 1 in equipment management, and 1 in personnel supervision. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electric circuits, 2 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, 2 in hydraulics and mechanics, 1 in equipment management, 1 in personnel supervision, 3 for field experience in management, and 1 in introduction to computer science (3/76).

MOS-13E-002

Cannon Fire Direction/Fire Support Specialist

13E10
13E20
13E30
13E40

Exhibit Dates: 9/76–2/78.

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Supervises or serves as a member of a field artillery fire direction center, liaison section, operations section, or forward observer section. *Skill Level 10:* Uses graphs, tables, and maps for computing firing locations, angles, altitudes, corrections, and displacements; constructs firing charts; computes meteorological, registration, and muzzle velocity corrections; operates gun direction computer (FADAC) or chronograph; installs and operates field wire telephones and switchboards; operates radio transmitter/receiver and speech security equipment; operates and maintains vehicles, section equipment, and generators; maintains situation map, fire support records, reports, and overlays; uses optical instruments, mil relation formula, and data for firing weapons from standardized tables. *Skill Level 20:* Supervises operations within the section; computes firing data and transmits to firing units; computes data corrections; prepares status charts, target lists, and situation maps; participates in reconnaissance. *Skill Level 30:* Supervises computations, operations, and planning; maintains records and reports; processes fire support requests; recommends fire support means; supervises maintenance of equipment, vehicles, and generators. *Skill Level 40:* Supervises fire direction control operations; assists in preparing training schedules, fire support plans, and tactical operations plans; trains, supervises, and evaluates 8-12 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit on the basis on institutional evaluation in any of the following areas: applied mathematics, communications systems operation, measurements and instrumentation, map reading, and introduction to computer concepts (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic mathematics, 1 in communications systems operation, 1 in map reading, and 1 in introduction to computer concepts, and additional credit in measurements and instrumentation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 1 in communications systems operation, 1 in map reading, 1 in introduction to computer concepts, and 1 in personnel supervision, and additional credit in measurements and instrumentation on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic mathematics, 2 in map reading, 1 in communications systems operation, and 1 in introduction to computer concepts, and additional credit in measurements and instrumentation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in personnel supervision, 2 in communication skills, 2 in human relations, 2 in basic mathematics, 2 in map reading, 1 in communications systems operation, and 1 in introduction to computer concepts, and additional credit in measurements and instrumentation on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in communication skills, 3 in human relations, 2 in basic mathematics, 2 in map reading, 1 in communications systems operation, 1 in introduction to computer concepts, and 1 in safety procedures, and additional credit in measurements and instrumentation on the basis of institutional evaluation (4/77).

MOS-13E-003

Cannon Fire Direction Specialist

13E10
13E20
13E30
13E40

Exhibit Dates: 3/78–5/89.

Career Management Field: 13 (Field Artillery), subfield 133 (Field Artillery Fire Direction/Fire Support).

Description

Summary: Supervises or serves as a member of a field artillery fire direction center or operations section. *Skill Level 10:* Uses graphs, tables, and maps for computing firing locations, angles, altitudes, corrections, and displacements; constructs firing charts; computes meteorological, registration, and muzzle velocity corrections; operates gun direction computer (FADAC) or chronograph; installs and operates field wire telephones and switchboards; operates and maintains vehicles, section equipment, and generators; maintains situation map, fire support records, reports, and overlays; uses optical instruments, mil relation formula, and data for firing weapons from standardized tables. *Skill Level 20:* Able to perform the duties required for Skill Level 10; computes firing data and transmits to firing units; computes data corrections; prepares status charts, target lists, and situation maps. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises computations, operations, and planning; maintains records and reports; processes fire support requests; recommends fire support means; supervises maintenance of equipment, vehicles, and generators. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises fire direction control operations; assists in preparing training schedules, fire support plans, and tactical operations plans; trains, supervises, and evaluates 8-12 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 1 in communications systems operation, 1 in measurements and instrumentation, 1 in map reading, and 1 in introduction to computer concepts (6/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 1 in communications systems operation, 1 in measurements and instrumentation, 1 in map reading, and 1 in introduction to computer concepts (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic mathematics, 2 in map reading, 1 in communications systems operation, 1 in introduction to computer concepts, and 1 in measurements and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in personnel supervision, 2 in communication skills, 2 in human relations, 2 in basic mathematics, 2 in map reading, 1 in communications systems operations, 1 in introduction to computer concepts, and 1 in measurements and instrumentation (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in communication skills, 3 in human relations, 2 in basic mathematics, 2 in map reading, 1 in communications systems operation, 1 in introduction to computer concepts, 1 in safety procedures, and 1 in measurements and instrumentation. In the upper-division baccalaureate category, 2 semester hours in introduction to management and 3 for field experience in management (6/79).

MOS-13E-004

Cannon Fire Direction Specialist

13E10
13E20
13E30
13E40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Leads, supervises, or serves as a member of a field artillery cannon fire direction center (FDC) or of an operations section. *Skill Level 10:* Uses graphs, tables, charts and maps for manual computation of firing locations, angles, altitude corrections, and displacements; constructs firing charts; computes corrections for meteorological, registration and muzzle velocity; operates computer for computerized method of determining data; knows and can use either the Battery Computer System (BCS) or the Back-up Computer System (BUCS) (military version of Hewlitt-Packard 71B (16K) computer); installs and operates field telephones, digital message system, and FM radio transmitter/receiver; knows and uses mathematics concepts (including some geometry and trigonometric functions) for manual computations; operates and maintains vehicles, section equipment and generators; maintains situation map, fire support records, reports and overlays; uses data from standardized tables to calculate data for nonstandard conditions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; computes firing data and transmits to firing units; prepares status charts, target lists, and situation maps; enters database into computer unit; computes and enters meteorological and muzzle velocity corrections; prepares BUCS for operation and computes firing data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; instructs personnel in fire direction techniques and operations; supervises computation of data; insures accuracy and completeness of firing data; evaluates and prepares annual efficiency reports on subordinates. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises fire direction operations; assists operations sergeant in supervision of operations section; presents briefings on current operations; prepares training materials; insures compliance with security requirements; supervises and evaluates 8-12 persons.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in applied mathematics, 1 in communications systems operations, 1 in map reading, and 1 in computer operations (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in applied mathematics, 1 in communications systems operations, 1 in map reading, and 2 in computer operations (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 1 in communications systems operations, 2 in map reading, 2 in computer operations, 3 in principles of supervision, and 2 in communication skills (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 1 in communications systems operations, 2 in map reading, 2 in computer operations, 3 in principles of supervision, and 3 in communication skills. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13F-001

Fire Support Specialist

13F10
13F20
13F30
13F40

Exhibit Dates: 3/78–5/89.

Career Management Field: 13 (Field Artillery), subfield 133 (Field Artillery Fire Direction/Fire Support).

Description

Summary: Supervises or serves as a member of a field artillery forward observer section, a company fire support team, or a fire support element at a battalion or higher level. *Skill Level 10:* Assists in locating targets and initiating requests for fire on them; uses optical instruments, laser range finder, night observation device and compass; installs field wire and telephone; operates radio transmitter/receiver and speech security equipment; uses graphs, tables and maps for computing target locations including altitude, coordinates, vertical interval and distance; maintains fire support map, status charts, capability overlay, records of missions fired and visibility diagram/profile; operates and maintains vehicles, generators, and other section equipment; performs patrol and land navigation duty. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs reconnaissance, both map and physical; selects observation post location, develops visibility and capability diagrams, orients maps using optical devices and compass, and establishes communications to support units; identifies, locates, computes data, and initiates fire on targets; adjusts artillery, mortar, naval, or aerial fire on targets; prepares fire support plans for offensive and defensive operations; capable of conducting night operations through use of night observation devices or by coordinated illumination techniques. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises, or assists in supervising development of fire plans, coordination of fire support requests, and maintenance of records; processes and disseminates fire support information via written messsage format or by radio/telephone network; instructs and evaluates lower skill level personnel in work techniques and procedures; supervises maintenance of vehicles, communications and speech security equipment, and fire support instruments/equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises, trains, and evaluates 8-12 persons; prepares and coordinates fire support plans with maneuver plan; recommends use and coordinated employment of fire support means for tactical operations; familiar with concepts and principles of employment of various munitions and fire support means including close air support and naval gunfire; assists in preparing operation orders or plans, including the fire support plan.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 1 in communications systems operation, 1 in basic mathematics, and 1 in measurement and instrumentation (6/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 1 in communications systems operation, 1 in basic mathematics, and 1 in measurement and instrumentation (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in map reading, 1 in communications systems operation, 2 in basic mathematics, and 1 in measurement and instrumentation. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 2 in basic mathematics, 1 in communications systems operation, 1 in measurement and instrumentation, 2 in human relations, 2 in communication skills, and 2 in personnel supervision (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 2 in basic mathematics, 1 in communications systems operation, 1 in measurement and instrumentation, 2 in human relations, 3 in communication skills, 3 in personnel supervision, 1 in safety procedures, and 3 for field experience in management. In the upper-division baccalaureate category, 2 semester hours in introduction to management and 3 for field experience in management (6/79).

MOS-13F-002

Fire Support Specialist

13F10
13F20
13F30
13F40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Serves as a member of a field artillery unit; leads or supervises fire support activities including intelligence, target processing, and observation. *Skill Level 10:* Reads maps and makes map entries; assists in fire support planning; prepares staff journals; prepares target records; encodes and decodes messages; requests munitions; emplaces and uses laser range finders; locates targets; determines target location; erects antennas and installs field telephones; operates radios and telephones; transports personnel and weapons; maintains vehicles; administers first aid; performs patrol duty; fires defense weapons. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads and instructs forward observer and combat observation lasing team; assists in training subordinates in fire support; assists in developing fire support plan and tactics; prepares target lists and assists in compiling target information; sets up and maintains observation system; and performs map reconnaissance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 5 to 10 persons; instructs, advises, and evaluates personnel; supervises operator maintenance on equipment; assists targeting noncommissioned officer; processes fire requests; prepares technical reports; integrates fire support plan; performs duties of the Fire Support Officer in his absence. *Skill Level 40:* Able to perform the duties required for Skill Level 30; leads and trains targeting personnel in combat, fire support element, liaison section and fire support sergeants; writes and coordinates fire support plans; recommends fire support employment, recommends target selection, and assists in tactics and target analysis at the brigade, division, and corps levels.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading, 1 in communications systems operation, and 1 in applied mathematics (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 2 in communications systems operation, and 2 in applied mathematics (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 2 in communications systems operation, 2 in applied mathematics, 2 in technical writing, 3 in principles of supervision, and 2 in communication skills (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 2 in communications systems operation, 2 in applied mathematics, 3 in technical writing, 3 in principles of supervision, and 3 in communication skills. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13M-001

MULTIPLE LAUNCH ROCKET SYSTEM
(MLRS) CREWMEMBER
13M10
13M20

Exhibit Dates: 9/81-2/87.

Career Management Field: 13 (Field Artillery).

Description

Summary: Serves as a member of a multiple launch rocket system crew. *Skill Level 10:* Drives launch vehicle; performs manual elevation; operates boon hoist; operates radio; performs general maintenance on vehicle; removes and installs fire control components; conducts reconnaissance; fires weapon systems. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel; operates multiple launch rocket system fire control systems; enters fire control data; computes meteorological data; performs fire missions and diagnoses fire control system problems.

Recommendation, Skill Level 10

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (11/85).

Recommendation, Skill Level 20

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (11/85).

MOS-13M-002

MULTIPLE LAUNCH ROCKET SYSTEM
(MLRS) CREWMEMBER
13M10
13M20
13M30
13M40

Exhibit Dates: 3/87-Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves in a field artillery unit on the multiple launch rocket system; operates and maintains the launcher, transport vehicle, trailer, and other support equipment. *Skill Level 10:* Participates in launch maintenance and ammunition resupply activities; drives transport vehicles; participates in launcher operations; operates radio; maintains computer and performs systems checks. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists the section chief; trains subordinate personnel; operates fire control panel; operates launcher; performs organizational maintenance; serves as firing platoon reconnaissance sergeant. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief supervising 7 to 12 persons; instructs in launch procedures; supervises preventive maintenance on launch vehicles; supervises fire control panel maintenance; writes reports, and assures safety procedure compliance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 12 to 60 persons; supervises all section maintenance; writes technical and personnel reports; supervises and performs training of personnel, and assures safety procedure compliance.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in communications systems operations, 1 in electromechanical systems troubleshooting and maintenance, and 1 in electronic and computer systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hour in communications systems operations, 2 in electromechanical systems troubleshooting and maintenance, 2 in electronic and computer systems troubleshooting and maintenance, and 1 in map reading (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hour in communications systems operations, 2 in electromechanical systems troubleshooting and maintenance, 2 in electronic and computer systems troubleshooting and maintenance, 1 in map reading, 1 in applied mathematics, 1 in technical report writing, 3 in principles of supervision, and 3 in communication skills (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hour in communications systems operations, 2 in electromechanical systems troubleshooting and maintenance, 2 in electronic and computer systems troubleshooting and maintenance, 1 in map reading, 1 in applied mathematics, 3 in technical report writing, 3 in principles of supervision, and 3 in communication skills In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13N-001

LANCE CREWMEMBER
13N10
13N20
13N30
13N40

Exhibit Dates: 3/87-Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves as a Lance missile crewmember. *Skill Level 10:* Under supervision, performs crewmember duties during placement, assembly, disassembly or firing of missile; drives vehicles; emplaces missile launcher; operates power generator; performs maintenance; prepares missile handling equipment; provides proper storage locations for ammunition; performs guard duties and assists in defense of position; renders first aid and provides sanitation facilities. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides leadership and applicable training to Skill Level 10 personnel; assists in instruction of security teams; assists or supervises orientation of aluncher; monitors computer operation and programming; performs warhead settings; supervises or assists in maintenance and adjustments on equipment; establishes communication with proper facility; counsels subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads and supervises preparation of launcher and missile firing; provides leadership and instruction to personnel in receipt, storage, handling, and firing of missile; directs assembly of missile components; directs operation and maintenance of section equipment; supervises and coordinates ammunition supply; prepares maintenance and technical records; verifies sighting and emplacement operations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; leads and directs missile placement and resupply operations; leads and directs maintenance; plans and organizes crew work schedules; ensures proper safety procedures; verifies final missile tests; originates and/or reviews technical personnel, administrative, readiness, and efficiency reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in communications systems operation, 2 in electronics and computer systems troubleshooting and maintenance, and 2 in electrohydraulic systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 4 in electronics and computer systems troubleshooting and maintenance, 2 in electro-hydraulic systems troubleshooting and maintenance, and 2 in map reading (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 4 in electronics and computer systems troubleshooting and maintenance, 2 in electro-hydraulic systems troubleshooting and maintenance, 2 in map reading, 1 in applied mathematics, 2 in technical writing, 3 in principles of supervision, and 3 in communication skills (6/89).

Recommendation, Skill Level 40
In the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems operation, 4 in electronics and computer systems troubleshooting and maintenance, 2 in electro-hydraulic systems troubleshooting and maintenance, 2 in map reading, 1 in applied mathematics, 3 in technical writing, 3 in principles of supervision, and 3 in communication skills. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13P-001

Multiple Launch Rocket System/
LANCE Operations/Fire
Direction Specialist
13P10
13P20
13P30
13P40

Exhibit Dates: 9/88–Present.

Career Management Field: 13 (Field Artillery).

Description
Summary: Leads, supervises, or serves as a member of a Multiple Launch Rocket System (MLRS) or a Lance missile fire direction center (FDC0, or of an operations section for either nuclear or conventional missions. *Skill Level 10:* Uses graphs, tables, charts, and maps for manual computation of firing locations, angles, altitudes, corrections, and displacements; constructs firing charts; knows and uses mathematics concepts (including some plane geometry and trigonometric functions) for manual computations; plots information on situation maps; operates the following specialized computers: Fire Direction System (FDS), Platoon Leaders Digital Message Device (PLDMD), or the Back-up Computer System (BUCS) (military version of Hewlett-Packard 71B (16K) computer); installs and operates digital message systems, FM radio transmitter/receiver and secures voice equipment; operates and maintains vehicles, equipment, and generators; uses data from standardized tables to calculate data for nonstandard conditions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; computes data for Lance targets; operates BUCS in Lance fire direction centers; assists in supervising and instructing fire direction center personnel; uses map reading skills in maintaining situation maps. *Skill Level 30:* Able to perform the duties required for Skill Level 20; instructs personnel in techniques and procedures for manual computation of firing data; maintains target and mission reports; may serve in a high level Fire Support Element (FSE) to provide guidance and advice on matters of employment of Lance missiles; instructs in the use and operation of FDS, PLDMD, and BUCS communications equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises FDC to insure accurate computations, plotting and issuing of fire commands; organizes work schedules and assigns duties to FDC personnel; instructs and supervises personnel; prepares technical, personnel, and administrative reports of section activities; provides emergency action plans and information in a Lance unit.

Recommendation, Skill Level 10
In the lower-division baccalaureate/associate degree category, 1 semester hour in applied mathematics, 1 in communications systems operations, 1 in map reading, and 1 in computer operations (6/89).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 1 semester hour in applied mathematics, 1 in communications systems operations, 1 in map reading, and 2 in computer operations (6/89).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in communications systems operations, 2 in map reading, 2 in computer operations, 2 in principles of supervision, and 2 in communication skills (6/89).

Recommendation, Skill Level 40
In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in communications systems operations, 2 in map reading, 2 in computer operations, 3 in principles of supervision, 3 in communication skills and 3 in personnel management (6/89).

MOS-13R-001

Field Artillery Firefinder Radar
Operator
13R10
13R20
13R30

Exhibit Dates: 3/80–2/87.

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquistion Operations).

Description
Summary: Operates or supervises operation of artillery and mortar firefinder radars to locate hostile firing weapons and adjusts friendly artillery. *Skill Level 10:* Prepares radar set for operation; operates radar set; directs and reports system malfunctions; installs field telephones, constructs fortifications, and administers first aid. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in radar emplacement. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation of firefinder radar section; prepares for radar operation and site selection; instructs personnel in radar operation, and supervises organizational maintenance.

Recommendation, Skill Level 10
In the lower-division baccalaureate/associate degree category, 2 semester hours in radar operations, 2 in map reading, and 1 in computer operations (10/83).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 2 semester hours in radar operations, 2 in map reading, and 2 in computer operations (10/83).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 2 semester hours in radar operations, 2 in map reading, 2 in computer operations, and 3 in personnel supervision (10/83).

MOS-13R-002

Field Artillery Firefinder Radar
Operator
13R10
13R20
13R30
13R40

Exhibit Dates: 3/87–Present.

Career Management Field: 13 (Field Artillery).

Description
Summary: Operates or supervises operation of artillery and mortar firefinder radars to locate hostile firing weapons, and adjusts friendly artillery. *Skill Level 10:* Prepares radar set for operation; operates radar set; directs and reports system malfunctions, and administers first aid. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill level 10 personnel; assists in radar emplacement; assists section chief; in the absence of the section chief, assumes duties of that position. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation of firefinder radar section; prepares for radar operation and site selection; instructs personnel in radar operation, and supervises organizational maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises, trains, and evaluates subordinates; coordinates survey data and assists in site selection; prepares reports summarizing data obtained from radar sections on troop strengths, logistics, surveillance techniques, and tactical operations.

Recommendation, Skill Level 10
In the vocational certificate category, 2 semester hours in radar operations (6/89).

Recommendation, Skill Level 20
In the vocational certificate category, 2 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, if served as section chief, 3 semester hours in principles of supervision and 3 in maintenance management (6/89).

Recommendation, Skill Level 30
In the vocational certificate category, 2 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in maintenance management, and 3 in communication skills (oral and written) (6/89).

Recommendation, Skill Level 40
In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-13T-001

Remotely Piloted Vehicle
Crewmember
13T10
13T20
13T30
13T40

Exhibit Dates: Pending evaluation. 7/86–Present.

MOS-13W-001

Field Artillery Target Acquisition
Senior Sergeant

13W50

Exhibit Dates: 9/76–2/87. (Effective 3/87, MOS 13W was discontinued and its functions were incorporated into MOS 13Z, Field Artillery Senior Sergeant.)

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquisition Operations).

Description

Skill Level 50: Supervises intelligence activities in a field-artillery-cannon, rocket, missile, and target-acquisition activity; serves as the principal noncommissioned officer in a target acquisition battery; coordinates target-acquisition collection activities; collects, interprets, analyzes, and evaluates intelligence and target-acquisition data; plots, records, and reports targets; reads and interprets maps and aerial photos; keeps situation maps, charts, and overlays; processes security clearances; maintains files and records; prepares reports. NOTE: May have progressed to 13W50 from 17B40 (Field Artillery Radar Crewman), 17C40 (Field Artillery Target Acquisition Specialist), 82C40 (Field Artillery Surveyor), or 93F40 (Field Artillery Meteorological Crewman).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in supervision and leadership, and 6 for field experience in management, and additional credit in map reading and aerial photo interpretation on the basis of institutional evaluation (5/77).

MOS-13Y-001

Cannon/Missile Senior Sergeant

13Y50

Exhibit Dates: 9/76–2/87. (Effective 3/87, MOS 13Y was discontinued and its functions were incorporated into MOS 13Z, Field Artillery Senior Sergeant.)

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Skill Level 50: Supervises operations and fire support activities in a field artillery battalion or serves as the principal noncommissioned officer in a field artillery cannon, missile, or rocket battery; prepares and distributes maps, operational information, operation reports, and training material; participates in coordination and implementation of cannon, missile, or rocket operations, training programs, administrative matters, and communication activities; maintains staff journals, files, and records; prepares reports. NOTE: May have progressed to 13Y50 from 13B40 (Cannon Crewman), 13E40 (Cannon Fire Direction/Fire Support Specialist), 15D40 (Lance Missile Crewman), 15E40 (Pershing Missile Crewman), or 15J40 (Lance/Honest John Operations/Fire Direction Specialist).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in supervision and leadership, and .6 for field experience in management (5/77).

MOS-13Z-001

Field Artillery Senior Sergeant
(Field Artillery Cannon Senior
Sergeant)

13Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 13 (Field Artillery).

Description

Skill Level 50: Serves as the principal noncommissioned officer in a major field artillery organization; supervises operations, intelligence activities, and liaison activities; assists superiors in planning, coordinating, and supervising all operations and personnel matters; holds meetings with subordinate noncommissioned officers to provide guidance and direction; directs on-the-job training; is a mid-level manager overseeing 45-150 persons. NOTE: May have progressed to 13Z50 from 13B40 (Field Artillery Crewman), 13W50 (Field Artillery Target Acquisition Senior Sergeant), or 13Y50 (Cannon/Missile Senior Sergeant).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in human relations, and 6 for field experience in management, and additional credit in public speaking and for an internship in education on the basis of institutional evaluation (3/76, 4/77).

MOS-15B-001

Sergeant Missile Crewman

15B10
15B20
15B30
15B40

Exhibit Dates: 10/73–8/76.

Career Management Field: 15 (Field Artillery Missiles).

Description

Summary: Is familiar with the mechanical energy conversion, hydraulics, and pneumatic systems; understands both rocket and missile technology and the operation of missile guidance components, electrical subsystems, and communications systems as utilized in coordinated launch processes; operates mechanical equipment, optical devices, and gas turbine generators. *Skill Level 10:* Under supervision, assists in basic missile system operations, including receiving, handling, and assembling missile parts and components; uses radio and telephone communications equipment; tests and maintains equipment; operates gas turbine generator set. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates heavy equipment boom in handling and assembling major missile components; assists in operating the computer-firing set used in missile countdown and self-test procedures; checks out the guidance system, propulsion system, and electrical system; uses azimuth-orienting devices; understands and applies precision standards in optical measurement, mechanical tolerances, and computer-based self-test data prior to launch. *Skill Level 30:* Able to perform the duties required for Skill Level 20; can serve as the principle operater of an azimuth orientation unit, the test station equipment, or the firing set; conducts countdown procedures; coordinates communications between stations at the launch site; computes firing data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for a minimum of 15 persons; supervises the operations of the missile system at the launch site; directs the emplacement and relocation of launch stations; coordinates assembling, inspecting, testing, and firing of the missiles; maintains equipment records, verifies computations and conversions of firing data and guidance system data.

Recommendation, Skill Level 10

Credit on the basis of institutional evaluation (3/75).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in measurements and instrumentation, 1 in rocket engines and guidance systems, and 1 in mechanical technology (hydraulics, pneumatics, and energy conversion) (3/75).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronic circuits, 2 in measurements and instrumentation, 1 in management of equipment and personnel, 2 in rocket engines and guidance systems, and 2 in mechanical technology (hydraulics, pneumatics, and energy conversion) (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronic circuits, 2 in measurements and instrumentation, 2 in management of equipment and personnel, 2 in mechanical technology (hydraulics, pneumatics, and energy conversion), 2 in rocket engines and guidance systems, 2 in public speaking, and 3 for a practicum in management (3/75).

MOS-15B-002

Sergeant Missile Crewman

15B10
15B20
15B30

Exhibit Dates: 9/76–9/78. (Effective 10/78, MOS 15B was discontinued.)

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Is familiar with the mechanical-energy-conversion, hydraulics, and pneumatic systems; understands rocket and missile technology and the operation of missile guidance components, electrical subsystems, and communications systems as utilized in coordinated launch processes; operates mechanical equipment, optical devices, and gas-turbine generators. *Skill Level 10:* Under supervision, assists in basic missile system operations, including receiving, handling, and assembling missile parts and components; uses radio and telephone communications equipment; participates in emplacement of azimuth-orienting equipment; tests and maintains equipment; operates gas turbine generator set. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in operating the computer-firing set used in missile countdown and self-test procedures; checks out the guidance system, propulsion system, and electrical system; uses azimuth-orienting devices; understands and applies precision standards in optical measurement, mechanical tolerances, and computer-based self-test data prior to launch; supervises receipt, storage, and preparation of ammunition for delivery to firing and missile test section; assists in supervising assembly and disassembly of the missile and emplacement of launcher. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief and first-line supervisor for 9-11 subordinates; serves as the principal noncommissioned officer in a unit of approximately 70 persons; supervises preparation for missile section tests, missile check-out, and preparation for travel; supervises work techniques, work distribution, and maintenance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours for field experience in electromechanical and hydraulic maintenance, and credit in electric circuitry, measurement and instrumentation, and rocket engines and components, on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 2 for field experience in electromechanical and hydraulic maintenance, 2 in communication skills (oral and written), 2 in human relations, 2 in personnel supervision, and 3 for field experience in management (4/77).

MOS-15D-001

LANCE MISSILE CREWMAN

15D10
15D20
15D40

Exhibit Dates: 10/73-8/76.

Career Management Field: 15 (Field Artillery Missile).

Description

Summary: Supervises or serves as a member of a Lance missile crew. *Skill Level 10:* Under supervision, assists in basic missile operations, including receiving, handling, and assembling missile components; uses radio and telephone communications equipment; performs operator maintenance and assists in routine maintenance of equipment, missiles, weapons, and vehicles; operates gas turbine generator set. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates heavy equipment boom in handling and assembling major missile components; assists in operating the computer firing set used in missile countdown and self-test procedures; is familiar with the mechanical technology of guided missiles, including thrust propulsion, energy conversion, hydraulics, and pneumatic systems; checks out the guidance, propulsion, and electrical missile systems; uses azimuth orienting devices; applies precision standards in optical measurement and mechanical tolerances. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor for 10 or more persons; supervises missile operations at the launch site, coordinating the assembly, inspection, testing, and firing of missiles; establishes and maintains equipment records; verifies computations and conversion of firing data and guidance system data; directs the emplacement and relocation of launch stations.

Recommendation, Skill Level 10

In the vocational certificate category, credit in heavy equipment operation and maintenance and in surveying on the basis of institutional evaluation (3/76).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 1 semester hour in measurements and instrumentation, 1 in missile guidance and propulsion systems, and 1 in mechanical technology (hydraulics, pneumatics, and energy conversion) (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hours in measurements and instrumentation, 2 in guidance and propulsion systems, 2 in mechanical technology (hydraulics, pneumatics, and energy conversion), 3 in human relations, 1 in public speaking, and 3 for field experience in management (3/76).

MOS-15D-002

LANCE MISSILE CREWMEMBER
(LANCE MISSILE CREWMAN)

15D10
15D20
15D30
15D40

Exhibit Dates: 9/76-3/87. (Effective 3/87, MOS 15D was discontinued and its functions were incorporated into MOS 13N, Lance Crewmember and MOS 13M, Multiple Launch Rocket System Crewmember.)

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Supervises or serves as member of Lance missile crew, or supervises Honest John rocket firing battery or Sergeant missile crew. *Skill Level 10:* Participates in positioning, emplacement, assembly, and preparation of Lance missile for firing; operates missile-handling equipment; performs maintenance on equipment, missiles, weapons, carrier, unit vehicles, and communications equipment; operates gas-turbine generator set; uses radio and telephone communication equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists section chief in firing or assembly and transport section and serves as section chief in ammunition or security section; operates heavy-equipment boom in handling and assembling major missile components; assists in supervision of receipt, storage, handling, assembly, and transporting missile to firing section; uses azimuth-orienting devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises preparation of launcher and missile for firing; supervises receipt, storage, handling, assembly, mating, movement, and firing of missile; serves as section chief and first-line supervisor for 9-11 subordinates; supervises work techniques, work distribution, and maintenance; supervises maintenance of missiles and section equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as first-line supervisor for 11 or more persons; directs positioning emplacement, and employment of firing sections; establishes and maintains equipment records; verifies computations and conversion of firing data and guidance system data; reviews and prepares technical, personnel, administrative, and readiness reports on unit activities. NOTE: May have progressed to 15D40 from 15D30, 15B30 (Sergeant Missile Crewman), or 15F30 (Honest John Rocket Crewman).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours for field experience in electromechanical and hydraulic maintenance, and credit in electric circuitry, measurement and instrumentation, and rocket engines and components on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 2 for field experience in electromechanical and hydraulic maintenance, 2 in communication skills (oral and written), 2 in human relations, 2 in personnel supervision, and 3 for field experience in management (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 2 for field experience in electromechanical and hydraulic maintenance, 3 in communication skills (oral and written), 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 1 in safety procedures (4/77).

MOS-15E-001

PERSHING MISSILE CREWMAN

15E10

15E20

15E30

15E40

Exhibit Dates: 10/73–8/76.

Career Management Field: 15 (Field Artillery Missile).

Description

Summary: Supervises or serves as a member of a Pershing missile crew. *Skill Level 10:* Under supervision, assists in basic missile system operations, including receiving, handling, and assembling missile components; uses radio and telephone communications equipment; operates gas turbine generator set; operates wrecker boom and tracked vehicles; performs operator maintenance on wheeled vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates equipment necessary to position launch vehicles and to assemble missiles; installs and monitors special equipment; operates erector-launcher control panel; operates power station to provide electrical power and pressurized air for the missile system; performs operator maintenance on system equipment; is familiar with the mechanical technology of guided missiles, including thrust propulsion, energy conversion, hydraulics, and pneumatic systems; operates optical devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies precision standards in optical measurement and mechanical tolerances; connects and operates computerized missile launch control system, aligns missile guidance platform on the firing azimuth; positions, assembles, and levels theodolite. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for 11 or more persons; supervises missile operations at the launch site, coordinating the assembly, inspection, testing, and firing of missiles; directs the emplacement and relocation of launch stations; establishes and maintains equipment records; verifies computations and conversions of firing data and guidance system data; coordinates liaison activities.

Recommendation, Skill Level 10

In the vocational certificate category, credit in heavy equipment operation and maintenance and in surveying on the basis of institutional evaluation (3/76).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for SKill Level 10. In the lower-division baccalaureate/associate degree category, 1 semester hour in measurements and instrumentation, 1 in missile guidance and propulsion systems, and 1 in mechanical technology (hydraulics, pneumatics, and energy conversion) (3/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hours in measurements and instrumentation, 2 in guidance and propulsion systems, and 2 in mechanical technology (hydraulics, pneumatics, and energy conversion). (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for SKill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hour in measurements and instrumentation, 2 in guidance and propulsion systems, 2 in mechanical technology (hydraulics, pneumatics, and energy conversion), 3 in human relations, 1 in public speaking, and 3 for field experience in management (3/76).

MOS-15E-002

PERSHING MISSILE CREW MEMBER
(PERSHING MISSILE CREWMAN)

15E10

15E20

15E30

15E40

Exhibit Dates: 9/76–5/89.

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Supervises or serves as a member of a Pershing missile crew. *Skill Level 10:* Under supervision, assists in launcher emplacement and receipt, assembly, disassembly, transporting, and storing of missile and missile components; uses radio and telephone communications equipment; operates gas-turbine generator set; operates wrecker boom and tracked vehicles; performs maintenance on vehicles and field communications equipment; participates in emplacement and operation of azimuth reference unit. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates equipment necessary to position launch vehicles and to assemble missiles; installs and monitors special equipment; operates erector launcher control panel during mating, recovery, and firing operations; is familiar with the mechanical technology of guided missiles, including thrust propulsion, energy conversion, hydraulics, and pneumatic systems; supervises operations performed by missile handlers while drawing, transporting, and storing missiles and components; assists in supervising crew during missile prefire, firing, postfiring, assembly, and disassembly operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief and first-line supervisor for 9-11 subordinates; supervises emplacement and preparation of missile for firing; supervises work techniques, work distribution, and maintenance; supervises positioning and operation of azimuth-laying equipment or azimuth reference unit; supervises missile storage, maintenance, assembly, disassembly, and firing procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for 11 or more persons; supervises operation of firing, ammunition, or security platoon or battery control central section; supervises procurement, distribution, and testing of missile and missile components; serves as principal noncommissioned officer; prepares operation reports; participates in coordination and implementation of Pershing missile operation, training programs, administrative matters, and communication activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours for field experience in electromechanical and hydraulic maintenance, and credit in electric circuitry, measurement and instrumentation, and rocket engines and components on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 2 for field experience in electromechanical and hydraulic maintenance (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 2 for field experience in electromechanical and hydraulic maintenance, 2 in communication skills (oral and written), 2 in human relations, 2 in personnel supervision, and 3 for field experience in management (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 2 for field experience in electromechanical and hydraulic maintenance, 3 in communication skills (oral and written), 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 1 in safety procedures (4/77).

MOS-15E-003

PERSHING MISSILE CREW MEMBER

15E10

15E20

15E30

15E40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or serves as a member of a Pershing missile crew. *Skill Level 10:* Under supervision, assists in launcher emplacement and receipt, assembly, disassembly, transporting, and storing of missile and missile components; uses radio and telephone communications equipment; operates gas-turbine generator set; operates wrecker boom and tracked vehicles; performs maintenance on vehicles and field communications equipment; participates in emplacement and operation of azimuth reference unit; runs system diagnostic. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates equipment necessary to position launch vehicles and to assemble missiles; installs and monitors special equipment; operates erector launcher control panel during mating, recovery, and firing operations; is familiar with the mechanical technology of guided missiles, including thrust propulsion, energy conversion, hydraulics, and pneumatic systems; supervises operations performed by missile handlers while drawing, transporting, and storing missiles and components; assists in supervising crew during missile prefire, firing, post-firing, assembly, and disassembly operations; supervision experience may vary. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief and first-line supervisor for 9-11 subordinates; supervises emplacement and preparation of missile for firing; supervises work techniques, work distribution, and maintenance; supervises positioning and operation of azimuth-laying equipment or azimuth reference unit; supervises missile storage, maintenance, assembly, disassembly, and firing procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor for 11 or more persons; supervises operation of firing, ammunition, or security platoon or battery control central section; supervises procurement, distribution, and testing of missile and missile components; serves as principal noncommissioned officer; prepares operation reports; participates in coordination and implementation of Pershing missile operation, training programs, administrative matters, and communication activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical and hydraulic systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical and hydraulic systems troubleshooting and maintenance; if served as section chief, team leader, or squad/shift leader, 3 semester hours in principles of supervision and 3 in maintenance management (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical and hydraulic systems troubleshooting and maintenance, 3 in principles of supervision, 3 in maintenance management, and 3 in communication skills (oral and written) (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-15F-001

HONEST JOHN ROCKET CREWMAN

15F10

15F20

15F40

Exhibit Dates: 10/73–8/76.

Career Management Field: 15 (Field Artillery Missiles).

Description

Summary: Is familiar with precision standards of mechanical and electrical systems of rocketry and with processes and procedures for launch and communications systems/equipment necessary for coordination of activities; operates optical and electrical test devices such as anemometer, multimeter, micrometer aiming circle, and panoramic telescope; knows procedures for receiving, transporting, assembling, and loading rocket or launcher; knows procedure for tests of circuitry; performs maintenance on generators, vehicle, launcher, and allied equipment associated with preparation of rockets for launching. *Skill Level 10:* Under supervision, assists in receiving, storing, handling, assembling, and inspecting rocket components; assists in emplacing launcher with associated launch equipment and accessories; understands and uses communications equipment (telephone and radio), test instruments, and electronic instruments; performs electrical circuitry tests; maintains vehicles and launch equipment; understands mechanics of rocket power and thrust. *Skill Level 20:* Able to perform the duties required for Skill Level 10; does some troubleshooting; is familiar with optical as well as electronic measuring instruments and tolerances (or precision). *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor for 5-11 subordinates; coordinates receiving, handling, and assembly of rockets; coordinates loading and inspection operations; serves as gunner at each launching; serves as a principal noncommissioned officer in a unit of approximately 70 persons.

Recommendation, Skill Level 10

Credit on the basis of institutional evaluation (1/75).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in electronic communications operations, and 1 in measurements and instrumentation (1/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in management internship experience, 2 in basic electronic circuits, 2 in rocket engines and components, 2 in measurements and instrumentation, 2 in equipment management or personnel management, and 2 in public speaking (1/75).

MOS-15F-002

HONEST JOHN ROCKET CREW MEMBER
(HONEST JOHN ROCKET CREWMAN)

15F10

15F20

15F30

Exhibit Dates: 9/76–2/80. (Effective 3/80, MOS 15F was discontinued and its functions were incorporated into MOS 13B, Cannon Crewman.)

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Is familiar with precision standards of mechanical and electrical systems of rocketry and with processes and procedures for launch and communications systems/equipment necessary for coordination of activities; operates optical and electrical test devices such as anemometer, multimeter, micrometer aiming circle, and panoramic telescope; knows procedures for receiving, transporting, assembling, and loading rocket or launcher; knows procedure for tests of circuitry; performs maintenance on generators, vehicle, launcher, and allied equipment associated with preparation of rockets for launching. *Skill Level 10:* Under supervision, assists in receiving, storing, handling, assembling, and inspecting rocket components; assists in emplacing launcher with associated launch equipment and accessories; understands and uses communications equipment (telephone and radio), test instruments, and electronic instruments; performs electrical circuitry tests; maintains vehicles and launch equipment; understands mechanics of rocket power and thrust. *Skill Level 20:* Able to perform the duties required for Skill Level 10; does some troubleshooting; is familiar with optical as well as electronic measuring instruments and tolerances (or precision); serves as gunner for each launching; performs supervisory function in maintaining launcher, windset, handling equipment, and warhead test equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief and first-line supervisor of 9-11 persons; supervises emplacement and firing of rocket; supervises work techniques, work distribution, and maintenance, coordinates receiving, handling, and assembly of rockets; coordinates loading and pre-fire inspection operations; serves as principal noncommissioned officer in unit of approximately 70 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours for field experience in electromechanical and hydraulic maintenance, and credit in electric circuitry, measurement and instrumentation, and rocket engines and components, on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 3 for field experience in electromechanical and hydraulic maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in measurement and instrumentation, 1 in communications systems operation, and 3 for field experience in electromechanical and hydraulic maintenance (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic circuits, 1 in rocket engines and components, 1 in communications systems operation, 1 in measurement and instrumentation, 3 for field experience in electromechanical and hydraulic maintenance, 2 in communication skills (oral and written), 2 in human relations, 2 in personnel supervision, and 3 for field experience in management (4/77).

MOS-15J-001

LANCE/HONEST JOHN OPERATIONS/FIRE DIRECTION ASSISTANT

15J20

15J40

Exhibit Dates: 10/73–8/76.

Career Management Field: 15 (Field Artillery Missile).

Description

Summary: Supervises or serves as a member of a Lance/Honest John missile crew. *Skill Level 20:* Collects and evaluates observer data for fire control; uses specialized charts and tables to compute firing data; plots targets and computes range, altitude, and azimuth; reads and prepares maps; performs operator maintenance on gun direction computer, desk calculators, generators, communications equipment (wire and radio), and vehicles. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises all operations of fire direction activity to insure proper computations and data evaluations; preforms liaison activities for collection and dissemination of missile firing data.

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 1 in electronic communications, and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electric circuits, 1 in measurement and instrumentation, 1 in electronic communications, 1 in basic mathematics, and 1 in introduction to computer science (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electric circuits, 2 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, 2 in hydraulics and mechanics, 1 in equipment management, and 1 in personnel supervision. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electric circuits, 2 in measurement and instrumentation, 2 in electronic communications equipment operation and troubleshooting, 2 in basic mathematics, 2 in hydraulics and mechanics, 1 in equipment management, 1 in personnel supervision, 3 for field experience in management, and 1 in introduction to computer science (3/76).

MOS-15J-002

Lance/Honest John Operations/Fire
Direction Specialist

15J10

15J20

15J30

15J40

Exhibit Dates: 9/76-8/81.

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations)

Description

Summary: Supervises or serves as member of a Lance or Honest John missile crew. *Skill Level 10:* Assists in computation of firing data; reads and prepares maps; operates and maintains fire direction center communications equipment and vehicles; participates in the gathering of operations and intelligence data; participates in operations and liaison activities. *Skill Level 20:* Able to perform the duties required for Skill Level 10; computes firing data; plots targets and computes range, altitude, and azimuth to target; operates and performs maintenance on gun direction computer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists in supervision of all operations of the fire direction center; performs liaison activities, including collection and transmission of data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations of fire direction center to insure proper computations, plotting of targets, and issuance of fire commands; plans and organizes work schedules; instructs subordinate personnel in techniques and procedures in computation of firing data; reviews and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, and 1 for field experience in electromechanical and hydraulic maintenance, and credit in electric circuitry, measurement and instrumentation, and rocket engines and components on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in communications systems operation, 1 in basic mathematics, and 1 in introduction to computer concepts, and credit in electronic circuits on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in communications systems operation, 1 in basic mathematics, and 1 in introduction to computer concepts, and credit in electronic circuits on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in communications systems operation, 1 in basic mathematics, 1 in introduction to computer concepts, 2 in communication skills (oral and written), 2 in human relations, 2 in personnel supervision, and 3 for field experience in management, and credit in electronic circuits on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in communications systems operation, 1 in basic mathematics, 1 in introduction to computer concepts, 3 in communication skills (oral and written), 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 1 in safety procedures, and credit in electronic circuits on the basis of institutional evaluation (4/77).

MOS-15J-003

MLRS/LANCE Operation/Fire
Direction Specialist

15J10

15J20

15J30

15J40

Exhibit Dates: 9/81-9/88. (Effective 9/88, MOS 15J was discontinued and its duties were incorporated into MOS 13P, Multiple Launch Rocket System/Lance Operations/Fire Direction Specialist.)

Career Management Field: 13 (Field Artillery), subfield 131 (Field Artillery Cannon/Missile Operations).

Description

Summary: Supervises or serves as a member of Multiple Launch Rocket System (MLRS)/LANCE Fire Direction Center or Firing Platoon Headquarters. *Skill Level 10:* Assists in computation of firing data; reads and prepares maps; operates and maintains fire direction center communications equipment and vehicles; participates in the gathering of operations and intelligence data; participates in operations and liaison activities. *Skill Level 20:* Able to perform the duties required for Skill Level 10; computes firing data; plots targets and computes range, altitudes, and azimuth to target; operates and performs maintenance on gun direction computer. *Skill Level 30:* Able to perform the duties required for Skill level 20; assists in supervision of all operations of the fire direction center; performs liaison activities, including collection and transmission of data. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations of fire direction center to insure proper computations, plotting of targets, and issuance of fire commands; plans and organizes work schedules; instructs subordinate personnel in techniques and procedures in computation of firing data; reviews and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in electronic circuitry, 2 in computer operations, and 1 in measurement and instrumentation (10/83).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in electronic circuitry, 2 in computer operations, 1 in communications systems operation, and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in electronic circuitry, 2 in computer operations, 1 in communications systems operation, and 1 in basic mathematics (10/83).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in electronic circuitry, 1 in communications systems operation, 1 in basic mathematics, 2 in introduction to computer operations, 2 in communication skills (oral and written), 2 in human relations, and 2 in personnel supervision (10/83).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and interpretation, 1 for field experience in electromechanical and hydraulic maintenance, 1 in measurement and instrumentation, 1 in communications systems operations, 1 in basic mathematics, 2 in introduction to computer operations, 3 in communication skills (oral and written), 2 in human relations, 3 in personnel supervision, 3 for field experience in management, 1 in electronic circuitry, and 1 in safety procedures (10/83).

MOS-15Z-001

Field Artillery Missile/Rocket
Senior Sergeant

15Z50

Exhibit Dates: 10/73-8/76. (Effective 9/76, MOS 15Z was discontinued and its functions were incorporated into Skill Level 50 of MOS 13W, Field Artillery Target Acquisition Senior Sergeant, MOS 13Y, Cannon/Missile Senior Sergeant, or MOS 13Z, Field Artillery Senior Sergeant.)

Career Management Field: 15 (Field Artillery Missile).

Description

Skill Level 50: NOTE: Able to perform the duties of Skill Level 40 in any MOS in career management field 15. Serves as the principal noncommissioned officer in a field artillery missile unit; supervises operations, intelligence activities, and liaison activities; assists superiors in planning, coordinating, and supervising all unit activities and personnel matters; is a mid-level manager who supervises 45-150 persons; directs on-the-job training; holds meeting with subordinate noncommissioned officers to provide guidance and direction.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in human relations, and 6 for field experience in management, and additional credit in public speaking and for an internship in education on the basis of institutional evaluation (3/76).

MOS-16B-001

Hercules Missile Crewman

16B10
16B20
16B40

Exhibit Dates: 10/73-8/75.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile Operations).

Description

Summary: Engages in launching activities of surface-to-air missiles. *Skill Level 10:* Under supervision, participates in the emplacement and displacement of missile launchers and associated equipment; checks missile components and related equipment; assists in assembling the rocket and attaching it to the launcher; performs the duties of switchboard operator; knows safety precautions necessary for working with high voltage potentials and propellants. *Skill Level 20:* Able to perform the duties required for Skill Level 10; under supervision, participates in pre-fire checks and adjustments to missiles; assists in testing, adjusting, and replacing defective components; performs preventive maintenance on missile, launching equipment, handling equipment, transport trailers, light vehicles, and power equipment; assists in receiving, unpacking, inspecting, assembling, and storing explosive heads and related equipment; possible duty assignments include assembly crewman, fire panel operator, launcher crewman, senior launcher crewman, and senior assembly crewman. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of a launching section or platoon; directs the emplacement and displacement of missile launcher and related equipment; supervises the preparation and orientation of the missile for launching; enforces safety precautions; supervises low-level maintenance of launchers and related equipment; interprets technical material for subordinate personnel.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, if the duty assignment was either senior launcher or senior assembly crewman, 1 semester hour in electronic test equipment, 2 in introduction to electric circuits, and 3 for field experience in management (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic test equipment, 3 in introduction to electric circuits, 3 in basic electronic circuits, and 6 for field experience in management (2/75).

MOS-16B-002

Hercules Missile Crew Member
(Hercules Missile Crewman)

16B10
16B20
16B30
16B40

Exhibit Dates: 9/75-8/86. (Effective 9/86, MOS 16B was discontinued.)

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Engages in launching activities of surface-to-air missiles. *Skill Level 10:* Under supervision, assembles, prepares, and maintains Nike-Hercules missile for launching; participates in the emplacement and displacement of missile launchers and associated equipment; checks missile components and related equipment; assists in assembling the rocket and attaching it to the launcher; performs the duties of switchboard operator; knows safety precautions necessary for working with high voltage potentials and propellants. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in testing, adjusting, and replacing defective components; performs preventive maintenance on missile, launching equipment, handling equipment, transport trailers, light vehicles, and power equipment; assists in receiving, inspecting, assembling, transporting, and storing explosive warheads and related equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises launching section operations in a Nike-Hercules missile battery; reads and interprets technical materials pertaining to missile components and related equipment; supervises crew training and preventive maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises launch fire control platoon operations in a Nike-Hercules missile battery; is a first-line supervisor of a launching platoon; directs the emplacement and displacement of missile launcher and related equipment; supervises the preparation and orientation of the missile for launching; enforces safety precautions. NOTE: May have progressed to 16B40 from 16B30 or 16C30 (Hercules Fire Control Crewman).

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in introductory electronics and additional credit in mechanical maintenance on the basis of institutional evaluation. In an electronic technician apprentice training program, 100 clock hours of experience and 20 contact hours of related instruction (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in introductory electronics and additional credit in mechanical maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 1 in introductory electronics, and additional credit in mechanical maintenance on the basis of institutional evaluation. In an electronic technician apprentice training program, 100 clock hours of experience and 20 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in introductory electronics and additional credit in mechanical maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 for field experience in management, 1 in introductory electronics, and additional credit in mechanical maintenance on the basis of institutional evaluation. In an electronic technician apprentice training program, 100 clock hours of experience and 20 contact hours of related instruction (2/76).

MOS-16C-001

Hercules Fire Control Crew Member
(Hercules Fire Control Crewman)

16C10
16C20
16C30

Exhibit Dates: 9/75–8/86. (Effective 9/86, MOS 16C was discontinued.)

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Engages in fire control activities of surface-to-air missiles. *Skill Level 10:* Operates fire control equipment and associated test equipment for Nike-Hercules missiles; performs preventive maintenance on radars, automatic data transmission systems, and associated power supply equipment; makes basic adjustments and corrects simple malfunctions of fire control equipment; recognizes various types of jamming and employs electronic counter-countermeasure procedures; excercises safety precautions when working around high voltage potentials. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises over 20 persons in a fire control section; interprets intelligence information; reviews logs containing operating data; enforces safety precautions and security requirements; supervises maintenance; directs on-the-job training.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

MOS-16D-001

Hawk Missile Crew Member
(Hawk Missile Crewman)

16D10
16D20
16D30
16D40

Exhibit Dates: 9/75–Present.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Serves as a member of or supervises the operation of a firing platoon, an assembly section, or a service and maintenance section of a Hawk missile battery. *Skill Level 10:* Maintains and prepares Hawk missile and associated equipment for launching; participates in the unloading and emplacement of equipment; assists in assembling, arming, and disarming the missile; performs routine preventive maintenance on launch and handling equipment; assists in performing checks and adjustments; observes safety precautions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the assembly, testing, arming, disarming, loading, and unloading of Hawk missiles; supervises the transportation and emplacement of equipment; supervises preventive maintenance and coordinates organizational maintenance of launch and loading equipment. *Skill Level 40:* Able to perform the duties required for 16D30 or 16E30 (Hawk Fire Control Crewman); serves as platoon sergeant, supervising over 20 persons; plans and organizes security arrangements; interprets intelligence information; supervises maintenance of equipment.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in hydraulic and electrohydraulic systems (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in hydraulic and electrohydraulic systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in hydraulic and electrohydraulic systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (2/76).

MOS-16E-001

Hawk Fire Control Crew Member
(Hawk Fire Control Crewman)

16E10
16E20
16E30

Exhibit Dates: 9/75–Present.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Serves as a member of or supervises a command and acquisition section or firing section of a Hawk firing platoon. *Skill Level 10:* Operates fire control equipment or engagement simulator; operates and performs operator maintenance checks and adjustments on Hawk missile fire control equipment; observes safety precautions. *Skill Level 20:* Performs the duties required for Skill Level 10 (with the exception of operating engagement simulator) and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises approximately 10 persons operating Hawk fire control equipment; prepares radar coverage and clutter diagrams; determines known reference point; supervises moving and placement of equipment.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

MOS-16F-001

Light Air Defense Artillery
Crewman (Reserve Forces)

16F10
16F20
16F30
16F40

Exhibit Dates: 10/73–9/90.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Supervises or serves as a member of a light air defense artillery automatic weapons, machinegun, or ammunition platoon, section, or squad. *Skill Level 10:* Loads ammunition and fires automatic weapons; operates computing sight; operates communications equipment; performs operator maintenance on automatic weapons; requisitions, receives, stores, and distributes ammunition. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads air defense artillery automatic weapons squad of approximately 10 persons; serves as assistant ammunition sergeant. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and coordinates the activities of subordinate squads; assures that operator maintenance standards are attained. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the operations of an automatic weapons platoon of approximately 30 persons.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 for field experience in management (2/76).

MOS-16F-002

Light Air Defense Artillery
Crewmember

16F10
16F20
16F30
16F40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-16H-001

Air Defense Artillery (ADA) Operations and Intelligence Assistant

16H10
16H20
16H30
16H40

Exhibit Dates: 9/75-3/90. (Effective 3/90, MOS 16H was discontinued and its duties were incorporated into MOS's 16F, Light Air Defense Artillery Crewmember, 16J, Forward Area Alerting Radar Operator, 16P, Chaparral Crewmember, 16R, Vulcan Crewmember, and 16S, Man Portable Air Defense System (MANPADS) or Pedestal Mounted Stinger (PMS) Crewmember.)

Career Management Field: 16 (Air Defense Artillery), subfield 162 (Air Defense Operations and Intelligence).

Description

Summary: Supervises or serves as a member of an air defense artillery activity engaged in operations or intelligence functions to prepare and revise operations data and situation maps. *Skill Level 10:* Performs plotting and operations or intelligence duties in an air defense artillery unit; plots, reports, and records operations or intelligence information by preparing charts, overlays, strip maps, training aids, logs, reports, and correspondence; installs and operates field telephone equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; collects and consolidates information from related units; prepares training materials and coordinates training activities; transmits intelligence and grid locations to other units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operations; demonstrates correct procedures and techniques; supervises the preparation of situation maps and overlays; coordinates operations and intelligence data; supervises operation of communications equipment. *Skill Level 40:* Able to perform the duties required for 16H30 or 16J30 (Defense Acquisition Radar Operator); as a first sergeant, supervises 20 or more persons in an airspace control element; supervises and evaluates training; prepares operations plans; assists in reconnaissance.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (2/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading and 3 in human relations (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (2/76).

MOS-16J-001

Defense Acquisition Radar Crewman

16J10
16J20
16J30

Exhibit Dates: 9/75-9/90.

Career Management Field: 16 (Air Defense Artillery), subfield 162 (Air Defense Artillery Operations and Intelligence).

Description

Summary: Supervises or serves as a member of a defense acquisition radar section or a forward area alerting radar unit. *Skill Level 10:* Operates radars and IFF (identification-friend-or-foe) equipment to obtain early warning and target identification data; manipulates radar adjustments to achieve optimum operating performance; observes, tracks, and interprets targets; reads topographic maps to locate points by means of coordinates and prepares grid overlays to plot positions; employs electronic countermeasures to avoid signal jamming; prepares records; performs operator maintenance; follows safety procedures; uses special test equipment to insure proper radar operation and maintenance; installs and operates communications equipment; operates power generating equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises over 20 persons; supervises operation and maintenance of radar and related equipment; directs on-the-job training; maintains equipment records; interprets intelligence information.

Recommendation, Skill Level 10

In the vocational certificate category, credit in surveying on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (2/76).

Recommendation, Skill Level 20

In the vocational certificate category, credit in surveying on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, credit in surveying on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading and 3 in human relations (2/76).

MOS-16J-002

Forward Area Alerting Radar Operator

16J10
16J20
16J30
16J40

Exhibit Dates: Pending evaluation. 9/90-Present.

MOS-16L-001

Sgt. York Air Defense Gun System Crewmember

16L10
16L20
16L30
16L40

Exhibit Dates: 9/83-8/87.

Career Management Field: 16 (Air Defense Artillery).

Description

MOS 16L was discontinued before an evaluation could be scheduled.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-16P-001

ADA (Air Defense Artillery) Short Range Missile Crewman (Chaparral Crewman)

16P10
16P20
16P30

Exhibit Dates: 9/75-8/87.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Supervises or serves as a crewman in a Chaparral system unit or as a gunner in a Redeye section. *Skill Level 10:* Prepares Chaparral fire unit for firing; prepares and fires Redeye missiles; stores ammunition; operates Chaparral unit equipment, including tracked vehicles, power generating equipment, target alert area display set, and fire control devices; assists in equipment maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares and fires Chaparral missile; leads Redeye team. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads Chaparral squad; is chief of Redeye section; supervises 12-20 persons engaged in storing, loading, and transporting ammunition; supervises operation and operator maintenance of the equipment.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

MOS-16P-002

Chaparral Crewmember

16P10
16P20
16P30
16P40

Exhibit Dates: 9/87-Present.

Career Management Field: 16 (Air Defense Artillery).

Description

Summary: Supervises or serves as a crewman in a Chaparral system unit or as a gunner in a Redeye section. *Skill Level 10:* Prepares Chaparral fire unit for firing; prepares and fires Redeye missile; stores ammunition; operates Chaparral unit equipment, including tracked vehicles, power generating equipment, target alert area display set, and fire control devices; assists in equipment maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares and fires Chaparral missile; leads Redeye team. *Skill Level 30:* Able to perform the duties required for SKill Level 20; leads Chaparral squad; is chief of Redeye section; supervises persons engaged in storing, loading, and transporting ammunition; supervises operation and operator maintenance on the equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as platoon sergeant; plans, organizes, directs, supervises, trains, coordinates, and reports activities of subordinate squads and sections; supervises platoon maintenance activities; supervises 20–30 persons; prepares and issues platoon operation orders.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (11/88).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (11/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (11/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (11/88).

MOS-16R-001

Vulcan Crewman

16R10
16R20
16R40

Exhibit Dates: 10/73–8/75.

Career Management Field: 16 (Air Defense Artillery), subfield 162 (Air Defense Artillery Gun Operations).

Description

Summary: Supervises or serves as a crewman in a Vulcan system section or serves as a platoon sergeant in a Chaparral or Vulcan platoon. *Skill Level 10:* Under supervision, operates selected basic communications equipment and tracked vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; under supervision, manipulates the weapons system; operates generating equipment and firing devices; performs preventive maintenance on equipment; assists in the emplacement and displacement of the weapons system. *Skill Level 40:* Able to perform the duties required for Skill Level 20; as a first-line supervisor, coordinates the activities of the equipment operators; supervises the personnel engaged in storing, issuing, and transporting ammunition and missiles; supervises the emplacement and displacement of the weapons system; supervises the maintenance of equipment.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/75).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision or personnel management, 3 in public speaking, and 6 for field experience in management (2/75).

MOS-16R-002

ADA (Air Defense Artillery) Short Range Gunnery Crewman
(Short Range Air Defense Artillery Crewman)
(Area Air Defense Artillery Crewman)

16R10
16R20
16R30
16R40

Exhibit Dates: 9/75–9/90.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Supervises or serves as a crewman in a Vulcan system section or serves as a platoon sergeant in a Chaparral or Vulcan platoon. *Skill Level 10:* Prepares and assists in firing Vulcan antiaircraft gun; operates and performs operator maintenance on wheeled and tracked vehicles, power generating equipment, communications equipment, and fire control devices; handles ammunition; assists in the emplacement and displacement of the weapons system; assists in performance of routine maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises equipment operation and operator maintenance; supervises the emplacement and displacement of weapons system; supervises squad training and coordinates squad activities. *Skill Level 40:* Able to perform the duties required for 16R30 or 16P30 (ADA Short Range Missile Crewman or Chaparral Crewman); serves as platoon sergeant in a Chaparral or Vulcan platoon of more than 20 persons; assists superiors in planning, directing, training, coordinating, and reporting the activities of the platoon.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (2/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 for field experience in management (2/76).

MOS-16R-003

Vulcan Crewmember

16R10
16R20
16R30
16R40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-16S-001

MANPADS Crewman

16S10
16S20
16S30
16S40

Exhibit Dates: 9/80–9/90.

Career Management Field: 16 (Air Defense Artillery), subfield 161 (Air Defense Artillery Missile and Gun Operations).

Description

Summary: Supervises or serves as a member of MANPADS (Man Portable Air Defense System) missile unit. *Skill Level 10:* Prepares and fires MANPADS missiles; identifies friendly and hostile aircraft; operates and assists in programming interrogator equipment; operates assigned vehicles, simulators, and interrogator and cryptological equipment; establishes and maintains radio and/or wire communication with firing units and higher headquarters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation of MANPADS section; assists in planning and conducting air defense; assigns personnel as required to provide air defense coverage to other units; supervises programming of interrogator equipment; supervises radio and wire communications and the issuance of ammunition. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of MANPADS platoon; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate sections; assists in coordination and implementation of training programs, administrative matters, and communication activities.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/82).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/82).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (7/82).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in

personnel supervision and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management (7/82).

MOS-16S-002

Man Portable Air Defense System (MANPADS) or Pedestal Mounted Stiner (PMS) Crewmember

16S10
16S20
16S30
16S40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-16T-001

Patriot Missile Crewmember

16T10
16T20
16T30
16T40
16T50

Exhibit Dates: 9/80–8/85.

Career Management Field: 16 (Air Defense Artillery).

Description

Summary: Supervises or serves as a crewmember in a PATRIOT air defense unit. *Skill Level 10:* Performs engagement control and launcher emplacement duties; erects radar set and antennas; activates, adjusts, and stabilizes electric power and frequency; activates radios; operates launching stations; performs preventive maintenance on the information and coordination central (ICC), engagement control station, decoy equipment, radar set, missile launcher, and missile-handling equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in supervising on-the-job training. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises emplacement of launching and fire control equipment; supervises crew maintenance of PATRIOT and related equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate sections and squads. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS16T or MOS 24T (PATRIOT Operator and System Mechanic); supervises activities involved with collection, evaluation, and distribution of intelligence data; assists in planning, organization, and training operations; serves as principal noncommissioned officer.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (12/84).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (12/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (12/84).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (12/84).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 for field experience in management, and 3 in management problems (12/84).

MOS-16T-002

PATRIOT Missile Crewmember

16T10
16T20
16T30
16T40

Exhibit Dates: 9/85–Present.

Career Management Field: 16 (Air Defense Artillery).

Description

Summary: Supervises or serves as a crewmember in a PATRIOT air defense unit. *Skill Level 10:* Drives heavy equipment to move missile system to site; sets up and performs operator maintenance on system; operates truck, electrical generator, and launcher; may include familiarization with general surveying techniques. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in supervising on-the-job training. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises emplacement of launching and fire control equipment; supervises crew maintenance of PATRIOT and related equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinate sections and squads.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in heavy truck operation (11/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in heavy truck operation (11/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in heavy truck operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (11/86).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in heavy truck operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (11/86).

MOS-16Z-001

Air Defense Artillery (ADA) Senior Sergeant

16Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 16 (Air Defense Artillery), subfield 160 (Air Defense Artillery General).

Description

Skill Level 50: Serves as the principal noncommissioned officer in an air defense artillery unit or headquarters and supervises 44 or more persons; assists superiors in the appraisal of air defense artillery operations, training, and intelligence information; prepares status board and situation map; collects, interprets, evaluates, and disseminates intelligence data; prepares and edits training and intelligence material and the operations manual; supervises security; advises superiors on all personnel matters; coordinates operation of battery food service and supply activities; assists superiors in planning, coordinating, and directing all air defense artillery activities. NOTE: May have progressed to 16Z50 from Skill Level 40 of any MOS in the air defense artillery career management field (16).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in technical writing, 3 in public speaking, 3 in map reading, and additional credit in electronics and mechanical maintenance on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in human relations, 6 for field experience in management, and additional credit in industrial arts education on the basis of institutional evaluation (2/76).

MOS-17A-001

Combat Surveillance and Target Acquisition Crewman

17A10

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 17A was discontinued and its functions were incorporated into Skill Level 10 of the following MOS's: 17B, Field Artillery Radar Crewman; 17C, Field Artillery Target Acquisition Specialist; 17K, Ground Surveillance Radar Crewman; 17L, Aerial Sensor Specialist (OV-1B/C); and 17M, Unattended Ground Sensor Specialist.)

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 170 (General).

Description

Skill Level 10: Assists in operation of combat surveillance and target acquisition systems; assists in determining direction and range of artillery rounds; assists in gathering intelligence; operates sound and light equipment; plots data on a map.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

MOS-17B-001

Field Artillery Radar Crewman
(Counterbattery/Countermortar
Radar Crewman)

17B20
17B40

Exhibit Dates: 10/73-8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Supervises or participates in operation of counterbattery, countermortar, and moving target radar and associated equipment to locate firing weapons, locate moving targets, and adjust artillery. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); assists in equipment emplacement and concealment; prepares radar and associated equipment for operation; operates power unit; locates firing weapons and moving targets; performs organizational maintenance on radar, basic communication equipment, vehicles, and related equipment; performs traverse to locate radar and establishes directional control; directs radar operations during period of interference or enemy jamming. *Skill Level 40:* Able to perform the duties required for Skill Level 20; selects site for emplacement of radar; employs knowledge of operational capabilities and limitations of all field artillery target acquisition systems; supervises subordinate personnel (20-22 in a section); organizes and conducts on-the-job training; supervises organizational maintenance; maintains equipment and personnel records.

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 for field experience in management; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17B-002

Field Artillery Radar Crewmember
Field Artillery Radar Crewman

17B10
17B20
17B30
17B40

Exhibit Dates: 9/76-Present.

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquisition Operations).

Description

Summary: Engages in operation of counterfire and moving target locating radars and associated equipment. *Skill Level 10:* Emplaces and conceals equipment; operates power unit; operates and performs minor maintenance on radars and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares site evaluation chart and surveillance cards; performs traverse to locate radar and establish directional control; assists in scheduling maintenance on radar and associated equipment; directs radar operations during periods of interference and jamming; employs electronic counter-countermeasures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a radar section of approximately 7 persons; selects and evaluates emplacement site; instructs radar operators in radar techniques and procedures; plans and organizes work schedules; assures adherence to safety procedures involving radar operation and maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of radar platoon of approximately 20 persons; supervises and directs operation of radar sections; assists platoon commander in supervision of platoon operations, training, resupply, and maintenance of platoon equipment; conducts reconnaissance and selection of tactical area for radars; prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour for field experience in electromechanical maintenance, 1 in basic mathematics, and 1 in map reading (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour for field experience in electromechanical maintenance, 1 in basic mathematics, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour for field experience in electromechanical maintenance, 1 in basic mathematics, and 1 in map reading (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in communication skills, 2 in human relations, 2 in personnel supervision, 1 for field experience in electromechanical maintenance, 1 in basic mathematics, and 1 in map reading (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in communication skills, 3 in human relations, 3 in personnel supervision, 1 for field experience in electromechanical maintenance, 1 in basic mathematics, and 1 in map reading (4/77).

MOS-17C-001

Sound Ranging Crewman

17C20
17C30
17C40

Exhibit Dates: 10/73-8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Supervises or participates in operation of sound ranging equipment in an artillery sound ranging section or platoon. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); operates sound recording equipment; uses formulas and tables to compute data; operates and maintains communication equipment and vehicles. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs minor operational maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation and maintenance of sound ranging section (up to 8 persons) or platoon (up to 30 persons).

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

Recommendation, Skill Level 30

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 for field experience in management; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17C-002

Field Artillery Target Acquisition
Specialist

17C10
17C20
17C30
17C40

Exhibit Dates: 9/76-2/88. (Effective 3/88, MOS 17C was discontinued and its functions were incorporated into MOS 13F, Fire Support Specialist.)

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquisition Operations).

Description

Summary: Supervises or participates in operation of sound ranging and flash-ranging equipment in the location of targets. *Skill Level 10:* Emplaces and operates sound-ranging and flash-ranging equipment; establishes and operates sound/flash observation post; initiates sound-ranging recordings; measures range and horizontal and vertical angles to weapon flashes and projectile bursts; uses mathematics and prepared tables to compute and plot sound/flash data for evaluation; performs preventive maintenance on sound-ranging and flash/ranging equipment; operates and performs operator maintenance on communications equipment and vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; orients, operates, and calibrates sound and flash equipment; supervises employment, operation, and preventive maintenance of field illumination equipment by Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation of a sound/flash ranging section; controls operation of sound/flash observation posts; supervises computation of sound/flash data and maintenance of equipment; accepts, evaluates, processes, correlates, and reports target information. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the activities of a sound/flash and field illumination platoon; conducts reconnaissance and selects tactical location for sound, flash, and searchlight equipment; coordinates and insures logistical, personnel, administrative, and training support for all platoon elements (sound, flash, searchlight, and processing sections).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in electromechanical systems, and 1 in map reading (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic mathematics, 1 in electromechanical systems, and 1 in map reading (4/77). In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in electromechanical systems, and 1 in map reading (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in personnel supervision, 2 in human relations, 2 in communication skills, 1 in basic mathematics, 1 in electromechanical systems, and 1 in map reading (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in human relations, 3 in communication skills, 1 in basic mathematics, 1 in electromechanical systems, and 1 in map reading (4/77).

MOS-17D-001

FLASH RANGING CREWMAN

17D20
17D40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 17D was discontinued and its functions were incorporated into MOS 17C, Field Artillery Target Acquisition Specialist.)

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Supervises or participates in flash ranging operations. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); computes firing data; locates observation post and establishes directional controls; orients and calibrates flash ranging instruments; operates observation post; measures range and horizontal and vertical angles; computes and evaluates flash ranging data; operates and performs preventive maintenance on equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as the principal noncommissioned officer in a flash ranging platoon or section; supervises operation and emplacement of flash ranging equipment; supervises 8-12 technical personnel; when the duty assignment is platoon sergeant, supervises up to 30 personnel.

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management and 3 in human relations; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17E-001

FIELD ILLUMINATION CREWMAN

17E20
17E30
17E40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 17E was discontinued and its functions were incorporated into MOS 17C, Field Artillery Target Acquisition Specialist.)

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Supervises or participates in field illumination and searchlight operations. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); sets up equipment to operate searchlight for field lighting and area findings; operates light direction center; assists in maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs rountine and preventive maintenance of field artillery searchlights and associated electrical equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of field illumination section, platoon, or comparable unit; supervises operation of light direction center; supervises maintenance of equipment and vehicles; when the duty assignment is platoon sergeant, supervises up to 30 persons. NOTE: May have progressed to Skill Level 40 from Skill Level 20 or 30.

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (3/76).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in basic electronics (repair) (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30, only if Skill Level 30 was held prior to Skill Level 40. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 for field experience in management; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17K-001

GROUND SURVEILLANCE RADAR
CREWMAN

17K20
17K40

Exhibit Dates: 10/73–8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 171 (Combat Surveillance).

Description

Summary: Operates radar and associated equipment; prepares maps, overlays, and surveillance records; maintains ground surveillance radar and associated equipment, communication equipment, and vehicles. NOTE: Able to perform the duties required for 17A10 (Combat Surveillance and Target Acquisition Crewman). *Skill Level 20:* Assists in the emplacement and relocation of equipment; operates power units; locates radar and orienting points. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises all activities of ground surveillance radar team, section, or comparable group.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in map reading, and 2 in equipment maintenance (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in map reading, 2 in equipment maintenance, and 3 in personnel supervision (2/75).

MOS-17K-002

GROUND SURVEILLANCE RADAR
CREWMAN

17K10
17K20
17K30
17K40
17K50

Exhibit Dates: 9/76–8/85. (Effective 9/85, MOS 17K was discontinued and its duties were incorporated into MOS 96R, Ground Surveillance Systems Operator.)

Career Management Field: 96 (Military Intelligence), subfield 963 (Tactical Intelligence Surveillance).

Description

Summary: Supervises or participates in operation of ground surveillance radar/unattended ground sensor elements engaged in intelligence and information collection activities. *Skill Level 10:* Assists in emplacement and displacement of radars and associated equipment; detects, locates, and reports target data for evaluation; operates and performs preventive maintenance on communications equipment, power generators, light wheeled vehicles, ground surveillance radars, and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; selects radar locations; supervises operation and preventive maintenance of communications equipment, power generators, vehicles, ground surveillance radars, and associated equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as section chief; conducts on-the-job training; selects potential radar emplacement sites using maps, aerial photographs, terrain studies, and intelligence reports; prepares overlays and situation maps and maintains operational records; requests replacement parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as platoon sergeant, supervising ground surveillance radar and unattended ground sensor activities; plans and organizes work schedules, assigns duties, instructs section chiefs in proper work techniques and procedures, and recommends operational changes; participates in intelligence surveillance. NOTE: May have progressed to 17K40 from 17M30 (Unattended Ground Sensor Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as first sergeant of a company or as the principal noncommissioned officer for ground surveillance at a large headquarters; assists in planning and coordinating employment of ground surveillance systems; assists in preparation and implementation of reconnaissance and surveillance assets.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in map reading, and 1 for field experience in electromechanical maintenance (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic mathematics, 1 in map reading, and 1 for field experience in electromechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in map reading, and 1 for field experience in electromechanical maintenance (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 2 in personnel supervision, 2 in human relations, 2 in communication skills, 1 in basic mathematics, 1 in map reading, and 1 for field experience in electromechanical maintenance (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in human relations, 3 in communication skills, 1 in basic mathematics, 1 in map reading, and 1 for field experience in electromechanical maintenance (4/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in human relations, and 3 for field experience in management (4/77).

MOS-17L-001

AIRBORNE SENSOR SPECIALIST

17L20
17L40

Exhibit Dates: 10/73-8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 171 (Combat Surveillance).

Description

Summary: Supervises or participates in airborne sensor operations in an aerial surveillance section or platoon. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); performs preflight checkout of airborne sensor equipment; performs inflight operation of airborne sensor equipment; assists aviator in using navigational aids in aircraft; performs limited imagery interpretation during mission; inspects operation of sensor equipment and readings of indicators; replaces malfunctioning unit or component with serviceable items; operates aircraft communications equipment as directed. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises preflight checkout of sensor equipment; supervises mounting and removal of sensor equipment in aircraft; supervises routine maintenance of sensor equipment, maintenance of records, and supervision of personnel; provides on-the-job training.

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 for field experience in management; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17L-002

AERIAL SENSOR SPECIALIST (OV-1B/C)

17L10
17L20
17L30
17L40

Exhibit Dates: 9/76-8/85. (Effective 9/85, MOS 17L was discontinued.)

Career Management Field: 96 (Military Intelligence), subfield 963 (Tactical Intelligence Surveillance).

Description

Summary: Supervises or participates in aerial surveillance operations using ground data terminal systems to provide information and imagery of intelligence value. *Skill Level 10:* Performs aerial surveillance, including visual reconnaissance, search and rescue, radiological survey, and similar intelligence activities; operates aerial infrared, radar, photographic, or similar sensor systems including associated data transmission links and ground data terminal stations; performs radio communications and aids aviator in aerial navigation; performs applicable electronic counter-countermeasures; assists in image interpretation; performs operator maintenance on sensors and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists aviator in weather analysis, navigation computations, and aircraft preflight inspection procedures; operates or supervises the operation of aerial surveillance and associated equipment; troubleshoots sensor systems; records operation and maintenance data in equipment logs; utilizes interpretation keys in assisting image interpreter. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operations and activities of a section; supervises inspections and operator maintenance of sensors and associated equipment; directs and conducts on-the-job training; assists in planning use of aerial surveillance systems; assists image interpreter in analysis and interpretation of imagery; conducts or participates in briefing headquarters staff on capabilities and limitations of aerial surveillance missions, and on the results obtained. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises aerial surveillance platoon operations; plans and organizes work schedules, assigns duties, and instructs section leaders in proper work techniques and procedures; critiques mission results; participates in planning the use of aerial surveillance systems and advises commander on coordination of aerial and ground surveillance; coordinates personnel, equipment, operational supply and maintenance support requirements.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in general mathematics, 1 in still-camera techniques, and 1 in electric circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 1 in still-camera techniques, 1 in electric circuits, and 1 in maps and air photos. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in general mathematics, 1 in still-camera techniques, and 1 in electric circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 1 in still-camera techniques, 1 in electric circuits, and 1 in maps and air photos. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 3 for field experience in management, 2 in maps and air photos, 2 in human relations, 2 in communication skills, 2 in personnel supervision, 1 in still-camera techniques, and 1 in electric circuits. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 3 for field experience in management, 3 in human relations, 3 in communication skills, 3 in personnel supervision, 2 in maps and air photos, 1 in still-camera techniques, and 1 in electric circuits. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

MOS-17M-001

UNATTENDED GROUND SENSOR SPECIALIST

17M20
17M30
17M40

Exhibit Dates: 10/74-8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 171 (Combat Surveillance).

Description

Summary: Commands or serves as a member of an unattended ground sensor team, section, or platoon engaged in emplacing and operating sensors and sensor monitoring equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 17A (Combat Surveillance and Target Acquisition Crewman); reads air photographs and contour maps to plan sensor and relay location; assists in sensor emplacement; emplaces and activates relay stations; emplaces, monitors, and recovers sensor devices; reads and interprets monitoring, recording, and display devices and reports information gathered; computes density, direction, rate of movement, and nature of targets detected. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assembles, tests, and maintains portable monitoring equipment, sensor relay and automated readout equipment; performs operational maintenance on equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; scouts potential areas, selects sensor emplacement sites, and supervises emplacement; determines employment and operational techniques; supervises maintenance; supervises unit personnel; maintains records; conducts on-the-job training. NOTE: May have progressed to Skill Level 40 from Skill Level 20 or 30.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photographic map reading (3/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electronics troubleshooting. In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photographic map reading (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electronics troubleshooting, only if Skill Level 30 was held prior to Skill Level 40. In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photographic map reading, 3 in human relations, and 3 for field experience in management; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision (3/76).

MOS-17M-002

UNATTENDED GROUND SENSOR SPECIALIST

17M10

17M20

17M30

Exhibit Dates: 9/76–8/85. (Effective 9/85, MOS 17M was discontinued and its duties were incorporated into MOS 96R, Ground Surveillance Systems Operator.)

Career Management Field: 96 (Military Intelligence), subfield 963 (Tactical Intelligence Surveillance).

Description

Summary: Operates unattended ground sensor elements engaged in intelligence and information collection activities. *Skill Level 10:* Emplaces, monitors, and recovers unattended ground sensors; reads aerial photographs and military maps; records, interprets, and reports unattended ground sensor activations; computes direction, rate of speed, target classification, and density; assists in performance of preventive maintenance on unattended ground sensors, relays, monitoring equipment, and associated equipment; performs operator maintenance on communications equipment and light-wheeled vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares for operation and operates sensors, sensor relays, monitoring equipment and associated equipment; uses maps, aerial photographs, terrain studies and intelligence reports; prepares sensor overlays; keeps records of sensor in place, including operating frequency, codes, presettings, locations, types of emplacement, activation, destruction/disability and recovery; performs preventive maintenance on unattended ground sensors and related equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises unattended ground sensor activities at the team level; supervises emplacement and displacement of unattended ground sensor equipment; prepares situation maps; maintains operational records; supervises maintenance of unattended ground sensors and associated equipment, communications equipment, and wheeled vehicles; inspects, tests, and maintains portable monitoring equipment.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photograph interpretation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, credit in basic electronic troubleshooting, communication equipment maintenance, wheeled vehicled maintenance, and map reading on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photograph interpretation, and credit in basic electronic troubleshooting, communications equipment maintenance, wheeled vehicle maintenance, and map reading on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in aerial photograph interpretation and 1 in personnel supervision, and credit in basic electronic troubleshooting, communications equipment maintenance, wheeled vehicle maintenance, and map reading on the basis of institutional evaluation (5/78).

MOS-17Z-001

COMBAT SURVEILLANCE AND TARGET ACQUISITION NCO

17Z50

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 17Z was discontinued and its functions were incorporated into the following MOS's: 13W, Field Artillery Target Acquisition Senior Sergeant; 13Z, Field Artillery Senior Sergeant; 17C, Field Artillery Target Acquisition Specialist; 17K, Ground Surveillance Radar Crewman; and 96Z, Intelligence Senior Sergeant.)

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 170 (General).

Description

Skill Level 50: Supervises operations of intelligence activities in target acquisition platoon, battery, battalion, or staff section at corps level artillery or serves as the principal noncommissioned officer in a combat surveillance target acquisition or searchlight battery; able to perform the duties required for Skill Level 40 of any MOS career management field 17; provides liaison between combat surveillance or target acquisition elements and firing elements; supervises operation of command post; establishes unit defense; prepares operations and intelligence plans and reports; coordinates intelligence collection activities; as first sergeant of a battery, directs and coordinates battery administration, assists battery commander in unit training, and supervises up to 200 persons; periodically serves as chief instructor in a training facility; prepares personnel reports and records; conducts on-the-job training.

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit in electronics on the basis on institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, 3 in personnel management, and 6 for field experience in management, and additional credit in industrial arts education on the basis of institutional evaluation; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education (3/76).

MOS-18B-001

SPECIAL FORCES WEAPONS SERGEANT (SPECIAL OPERATIONS WEAPONS SERGEANT)

18B30

18B40

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Serves as a detachment member in military operations, foreign internal defense, unconventional warfare, and counterterrorist operations; employs warfare tactics and techniques in small arms, antiaircraft, and antiarmor weapons; recruits, organizes, and trains forces. *Skill Level 30:* Conducts training in light infantry tactics and combat operations; prepares and teaches weapons skills to detachment members, indigenous, and non-indiginous personnel; reads and interprets maps and aerial photos; writes reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides tactical and technical guidance to detachment members; leads and trains small light infantry tactical units in highly specialized combat operations.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in

technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques (5/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques (5/87).

MOS-18C-001

Special Forces Engineer Sergeant
(Special Operations Engineer
Sergeant)

18C30

18C40

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Performs, supervises, and instructs in engineering techniques and operations employed in warfare; advises, trains, and assists foreign nationals in their own environment. *Skill Level 30:* Performs the duties of a combat engineer and demolition specialist; leads, supervises, plans, and conducts training in all special operations engineering duties; writes reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; leads, supervises, plans, and instructs in all phases of combat engineering and special operations engineering; provides technical guidance to subordinates and other special operations detachment members.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in construction technology and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in construction project management, 3 for a practicum in instructional techniques, 6 for field experience in construction, and 3 for field experience in management (5/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in construction project management, 3 for a practicum in instructional techniques, 6 for field experience in construction, and 3 for field experience in management (5/87).

MOS-18D-001

Special Forces Medical Sergeant
(Special Operations Medical
Sergeant)

18D30

18D40

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Establishes field and unconventional warfare medical facilities to support operations; ensures medical preparedness. *Skill Level 30:* Provides emergency, routine, and long term medical care for special operations members, associated allied, and indigenous personnel; trains personnel in basic emergency and preventive medical care; operates with minimal or no medical supervision or assistance; examines and provides medical care for special operations detachment members; maintains records. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises routine and emergency field medical activities, patient care and medical service activities.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in technical report writing. In the upper-division baccalaureate category, 9 semester hours for a practicum in medical care, 3 for field experience in management, 3 in case studies in medicine, and 3 for a practicum in instructional techniques (5/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in technical report writing. In the upper-division baccalaureate category, 9 semester hours for a practicum in medical care, 3 for field experience in management, 3 in case studies in medicine, and 3 for a practicum in instructional techniques (5/87).

MOS-18E-001

Special Forces Communications
Sergeant
(Special Operations Communications
Sergeant)

18E30

18E40

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Installs, operates, supervises, and trains indigenous forces in the installation and operations of FM, AM, HF, VHF, and UHF/SHF radio communications equipment. *Skill Level 30:* Develops lesson plans and instructs military and non-military personnel in the installation and use of radio communication equipment; writes reports; performs tests and operates maintenance on equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; prepares communication plans and annexes for commander of special operations detachment; supervises preparation of records and reports.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques (5/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques (5/87).

MOS-18F-001

Special Forces Intelligence Sergeant
(Special Operations Intelligence
Sergeant)

18F30

18F40

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Plans and executes small unit strike, foreign internal defense, unconventional warfare, and counterterrorist operations. *Skill Level 30:* Recruits, organizes, trains, and supervises indigenous and nonindigenous forces; writes reports; coordinates and conducts training in intelligence subjects; performs security duties; able to use fingerprint identification, operate photographic equipment, develop and print film, prepare area studies, and conduct area assessments. *Skill Level 40:* Able to perform the duties required for Skill Level 30; prepares tactical exercise plans and scenarios; establishes intelligence nets; prepares agent reports; conducts agent handling and training; prepares physical security plans; provides technical and tactical guidance to special operations members in intelligence-related subjects; advises special operations commander on all intelligence-related matters.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques and 3 for field experience in management (5/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques and 3 for field experience in management (5/87).

MOS-18Z-001

SPECIAL FORCES SENIOR SERGEANT
(SPECIAL OPERATIONS SENIOR SERGEANT)

18Z50

Exhibit Dates: 9/84–Present.

Career Management Field: 18 (Special Operations).

Description

Skill Level 50: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Heads, supervises, and serves as senior enlisted member for special operations activities; performs senior leadership, staff, and training functions within special operations; provides tactical and technical guidance and professional support to superior and subordinates; recruits, organizes, trains, and supervises indigenous and nonindigenous personnel and organizations.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in instructional techniques and 3 for field experience in management (5/87).

MOS-19D-001

CAVALRY SCOUT

19D10
19D20
19D30
19D40

Exhibit Dates: 3/78–Present.

Career Management Field: 19 (Armor).

Description

Summary: Leads, serves, or assists as a member of a scout crew, squad, section, or platoon in reconnaissance security and other combat operations. *Skill Level 10:* Serves as a member of observation and listening posts; gathers and reports information on terrain features, enemy strength, disposition, and equipment; identifies targets; requests and adjusts indirect and aerial fire; operates wheeled and tracked vehicles and operates communications equipment; uses maps and map symbols; navigates on ground; uses compass and distinguishes topographic features; performs operator maintenance on scout vehicles, weapons, and communications equipment; assists in firing of crew-served weapons; performs first aid and applies field sanitation methods; uses radiac instruments and chemical detection kits. *Skill Level 20:* Able to perform the duties required for Skill level 10; leads scout crew or assists squad leader; selects, organizes, and supervises operation of observation and listening posts; prepares, distributes, and files maps and overlays; reproduces, distributes, and files operations and intelligence information; coordinates with adjacent and supporting elements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads scout squad or section; directs tactical deployment; leads in combat; supervises maintenance of assigned vehicles and equipment; evaluates routes, assembly areas, and positioning for mounted combat operations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises armored cavalry or reconnaissance platoon and processes operations and intelligence information; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of the scout or armored cavalry platoon and staff sections; directs distribution of fire; supervises platoon maintenance activities; collects, evaluates, and assists in interpretation and dissemination of combat information. NOTE: May have progressed to 19D40 from 19D30 or 19G30 (Armor Reconnaissance Vehicle Crewman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in map reading and 3 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid and 3 in map reading (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in map reading and 6 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, and 3 in record keeping (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, 3 in record keeping, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 3 in map reading, 3 in record keeping, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (11/79).

MOS-19E-001

M48-M60A1/A3 ARMOR CREWMAN

19E10
19E20
19E30
19E40

Exhibit Dates: 3/78–Present.

Career Management Field: 19 (Armor).

Description

Summary: Leads, supervises, or serves as a member of an armor tank unit. *Skill Level 10:* Secures, prepares, and stows communications aboard vehicle; loads and unloads main gun; excercises all safety precautions in handling of ammunition; installs and dismantles antennas; prepares radio equipment for operation and operates communications equipment; assists in target detection and identification; determines range to target; prepares range cards, reads maps, places turret in operation, and fires main gun; performs operator maintenance on turret, weapons, controls, equipment, and communications equipment; protects self, weapons, and equipment from chemical and other contaminants; employs principles of escape and evasion; administers first aid and applies field sanitation methods; breaches and clears minefields and obstacles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; loads and fires main gun; leads ammunition supply section; helps process intelligence and operation data; provides technical guidance to Skill Level 10 personnel; prepares, files, and distributes operation maps, situation maps, and overlays; reads and interprets maps and aerial photographs; reproduces, distributes, and files operation intelligence, administrative, and unit training documents, orders, publications, and evaluation results. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; trains crews; requests, observes, and adjusts supporting fire. NOTE: May have progressed to 19E30 from 19E20 or 19F20 (Tank Driver). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises tank platoon and processing of operations and intelligence information; assists in planning, organization, direction, training supervision, coordination, and reporting activities of tank or staff sections; collects, evaluates, assists in interpretation and dissemination of combat information.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, and 2 in record keeping (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in personnel supervision, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for

Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in record keeping, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (11/79).

MOS-19F-001

TANK DRIVER

19F10

19F20

Exhibit Dates: 3/78–8/81. (Effective 9/81, MOS 19F was discontinued and its duties were incorporated into MOS 19E, M48-M60 Armor Crewman.)

Career Management Field: 19 (Armor).

Description

Summary: Drives and performs operator maintenance on tanks. *Skill Level 10:* Drives tanks, combat engineer vehicles, and armored vehicle launched bridges; operates tracked vehicles over varied terrain and roadways in combat formation and armor marches; excercises techniques of land navigation; assists in reading and interpreting maps and aerial photographs; selects tank routes; assists in target detection and identification; performs operator maintenance on automotive components; administers first aid and applies field sanitation methods; assists in construction of fortifications and barriers, including minefields; protects self, weapons, vehicle, and equipment from chemical and other contaminants. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs senior tank driving duties and provides technical guidance to Skill Level 10 personnel; assists in maintaining training readiness of platoon drivers; fires main gun as required; reads and interprets maps and aerial photographs.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading and 1 in first aid (11/79).

MOS-19G-001

ARMOR RECONNAISSANCE VEHICLE CREWMAN

19G10

19G20

19G30

Exhibit Dates: 3/78–8/81. (Effective 9/81, MOS 19G was discontinued and its duties were incorporated into MOS 19E, M48-M60 Armor Crewman.)

Career Management Field: 19 (Armor).

Description

Summary: Serves as a member or as commander of a crew operating in an armored reconnaissance vehicle. *Skill Level 10:* Serves as loader of conventional or missile ammunition; recognizes chemical or nuclear hazards and exercises safety precautions; knows first-aid procedures; operates gun firing control systems; prepares range cars and calibrates sighting devices; assists in constructing field barriers; operates radio communications equipment; performs maintenance on vehicle, fire control devices, and armament, using checklists to meet specified standards. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in maintaining gunnery proficiency of subordinate gunners; prepares, files, and distributes operation and situation maps and overlays; reads and interprets maps and aerial photographs; reproduces and distributes intelligence and operations documents; reproduces files and distributes training and administrative documents, publications, and evaluation reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor of a crew and as the vehicle/crew commander; plans reconnaissance routes, identifies and selects targets, and issues fire commands; supervises crew maintenance and coordinates organizational maintenance; trains crew; insures collection and reporting of intelligence data.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, and 2 in record keeping (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in personnel supervision, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

MOS-19H-001

ARMOR RECONNAISSANCE VEHICLE DRIVER

19H10

19H20

Exhibit Dates: 3/78–8/81. (Effective 9/81, MOS 19H was discontinued and its duties were incorporated into MOS 19E, M48-M60 Armor Crewman.)

Career Management Field: 19 (Armor).

Description

Summary: Drives and performs operator maintenance on armor personnel carrier vehicle. *Skill Level 10:* Operates tracked vehicle over varied terrain and roadways in combat formations and armor marches; exercises techniques of land navigation; assists in reading and interpreting maps and aerial photographs; selects tank routes; assists in target detection and identification; operates vehicular intercommunications equipment; performs crew maintenance on automotive components of tank; employs principles of cover, concealment, and camouflage; administers first aid and applies field sanitation methods; assists in construction of fortifications and barriers and minefields; protects self, weapons, vehicle, and equipment from chemical and other contaminants. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs as senior armor reconnaissance vehicle driver, and provides technical guidance to Skill Level 10 personnel; reads and interprets maps and aerial photographs.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mechanical mantenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading and 1 in first aid (11/79).

MOS-19J-001

M60A2 ARMOR CREWMAN

19J10

19J20

19J30

19J40

Exhibit Dates: 3/78–8/81. (Effective 9/81, MOS 19J was discontinued and its duties were incorporated into MOS 19E, Armor Crewman.)

Career Management Field: 19 (Armor).

Description

Summary: Leads or serves as a member of a tank unit in field operations. *Skill Level 10:* Serves as loader or gunner of weapon, using conventional ammunition or missile; exercises safety precautions and knows first-aid procedures; installs and prepares radio equipment for use; operates communication equipment; prepares range finder, determines ranges and prepares range cards; operates main gun controls and firing controls; performs operator maintenance on vehicle armament and weapons; assists in maintaining other organizational equipment; assists in clearing and breaching minefields. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel; inspects equipment for malfunctions; assists in maintaining gunnery proficiency of Skill Level 10 personnel; supervises ammunition supply operations; prepares, files, and distributes operation and situation maps and overlays; reads and interprets maps and aerial photos; reproduces and distributes intelligence and operations documents; reproduces files and distributes training and administrative documents, publications, and evaluation reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as tank commander and first-line supervisor; directs deployment of personnel in combat operations; identifies and selects targets; issues fire commands and directs fire on targets; trains crewmembers; coordinates action of tank with platoon and supporting elements; evaluates work performance of crewmembers; ensures collection and reporting of intelligence data. NOTE: May have progressed to 19J30 from 19J20 or 19F20 (Tank Driver). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises tank platoon operations and processing of intelligence information; assists in planning, organizing, and coordinating squads; advises commander on employment of weapons and the assigning of fields of fire.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, and 2 in record keeping (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in personnel supervision, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 1 in first aid, 3 in record keeping, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel supervision (11/79).

MOS-19K-001

XM1 ARMOR CREWMAN

19K10
19K20
19K30
19K40

Exhibit Dates: 3/80–Present.

Career Management Field: 19 (Armor).

Description

Summary: Leads, supervises, or serves as a member of XM1 armor unit in offensive and defensive combat operations. *Skill Level 10:* Drives tank, loads and fires main gun; exercises techniques of land navigation; reads and interprets maps; secures, prepares and stows ammunition; installs and dismantles antennas; prepares and operates communication equipment; assists in target detection and identification; prepares rangefinder for operation; performs operator maintenance on turret, weapons, controls and equipment, and communication equipment; conducts operational checks; services and maintains tank chassis, turret and automotive components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects automotive and turret components of platoon vehicles for malfunctions; assists in the training readiness of platoon drivers and the proficiency of gunners and loaders; processes intelligence and operational data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; Leads tank crew; coordinates action of tank with platoon and supporting elements; supervises crew operator maintenance; coordinates maintenance requirements; evaluates work of lower-skill-level crewmembers; ensures collection and proper reporting of intelligence data to units and responsible staff sections. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises tank platoon and processing of operations and intelligence data; assists in planning, organizing, directing, training, supervising, coordinating, and reporting of activities of tank or staff sections; supervises platoon maintenance activities; collects, evaluates, and assists in the interpretation and dissemination of combat information.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive maintenance and 3 in mechanical systems (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive maintenance and 3 in mechanical systems (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in automotive maintenance and 3 in mechanical systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive maintenance, 3 in mechanical systems, and 3 in personnel supervision (7/82).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in automotive maintenance and 3 in mechanical systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive maintenance, 3 in mechanical systems, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management (7/82).

MOS-19Z-001

ARMOR SENIOR SERGEANT

19Z50

Exhibit Dates: 3/78–Present.

Career Management Field: 19 (Armor).

Description

Skill Level 50: Plans, coordinates, and supervises activities of a unit; supervises operations, intelligence, or liaison activities; as intelligence sergeant, collects, interprets, analyzes, and distributes intelligence information; writes routine and special reports, commendations, and operations plans; edits and prepares tactical and training plans; coordinates and implements training programs and directs on-the-job training; is a mid-level manager overseeing 90-150 persons; assists in making formal briefing presentations, and in presenting instruction to larger groups (30-70); provides formal and informal counseling to individuals and groups. NOTE: May have progessed to 19Z50 from 19D40 (Cavalry Scout), 19E40 (M48-M60A1/A3 Armor Crewman), or 19J (M60A2 Armor Crewman).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 6 semester hours in personnel supervision, 3 in office management, 3 in report writing, and 3 in public speaking. In the upper-division baccalaureate category, 6 semester hours in personnel management, 6 for field experience in management, 3 in human relations, and 3 in report writing (11/79).

MOS-21G-001

PERSHING ELECTRONICS MATERIEL SPECIALIST

21G20
21G40

Exhibit Dates: 10/73–8/77.

Career Management Field: 21 (Ballistic Missile Repair), subfield 211, (Pershing Missile Repair).

Description

Summary: Supervises or performs inspection, checkout, and troubleshooting of electronic equipment associated with the Pershing missile system. *Skill Level 20:* Inspects, tests, adjusts, and troubleshoots the Pershing programmer test station, missile, missile trainer, erector launcher, power station, and associated equipment; pulls module unit or circuit board for others to repair; uses multimeter, frequency meter, and to a limited extent, other electronic meters; employs a working knowledge of electronics. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises five or more Skill Level 20 personnel; supervises the preparation of technical forms and reports; coordinates activities with other maintenance units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; supervises the requisitioning and storing of supplies and repair parts.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory and 1 in introduction to digital electronics. In an electronics apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction on the basis of employer of trade association performance examination (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 1 in introduction to digital electronics, 3 in human relations, and 3 for field experience in management. In an electronics apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction on the basis of employer or trade association performance examination (3/76).

MOS-21G-002

PERSHING ELECTRONICS MATERIEL SPECIALIST

21G10
21G20
21G30

Exhibit Dates: 9/77–8/81.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 271, (Ballistic/Land Combat Systems Maintenance).

Description

Summary: Supervises or performs inspection, checkout, and troubleshooting on electronic, mechanical, hydraulic, and pneumatic equipment associated with the Pershing missile system. *Skill Level 10:* Operates and performs maintenance on the Pershing missile programmer-test station, missile, missile trainer, erector-launcher, power station, and associated equipment; performs limited isolation of malfunctioning equipment and components through the use of computer and adapter diagnostic program tapes. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs detailed organizational maintenance of the system and provides technical guidance to operater personnel; isolates malfunctioning equipment and components through manual troubleshooting techniques, using electronic test equipment and functional schematics; adjusts or replaces malfunctioning components; prepares maintenance and supply forms and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; supervises the requisitioning and storage of supplies and repair parts.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory and 1 in technical mathematics (6/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in AC/DC theory, and 1 in digital electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 2 in technical mathematics, and 1 in digital electronics (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 3 in technical mathematics, 1 in digital electronics, 3 in human relations and 3 for field experience in management (6/79).

MOS-21G-003

PERSHING ELECTRONICS MATERIEL
SPECIALIST

21G10
21G20
21G30
21G40

Exhibit Dates: 9/81–5/89.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons System Maintenance), subfield 217, (Ballistic/Land Combat System Maintenance).

Description

Summary: Supervises or performs inspection, checkout, and troubleshooting on electronic, mechanical, hydraulic, and pneumatic equipment associated with the Pershing missile system. *Skill Level 10:* Operates and performs maintenance on the Pershing missile programmer-test station, missile, missile trainer, erector-launcher, power station, and associated equipment; performs limited isolation of malfunctioning equipment and components through the use of computer and adapter diagnostic program tapes. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs detailed organizational maintenance of the system and provides technical guidance to operator personnel; isolates malfunctioning equipment and components through manual troubleshooting techniques, using electronic test equipment and functional schematics; adjusts or replaces malfunctioning components; prepares maintenance and supply forms and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; supervises the preparation of technical forms and reports; coordinates activities with supporting maintenance units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; supervises the requisitioning and storage of supplies and repair parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises battery level organizational maintenance of Pershing missile system electronic equipment; supervises preparation of technical forms and reports, and battery requisitioning of missile supplies; serves as senior enlisted maintenance advisor for the battery and conducts instruction on equipment operation and maintenance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 1 in technical mathematics (10/83).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, and 1 in digital electronics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, and 1 in digital electronics (10/83).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, 1 in digital electronics, 2 in human relations, and 3 in personnel supervision (10/83).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, 1 in digital electronics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (10/83).

MOS-21G-004

PERSHING ELECTRONICS MATERIEL
SPECIALIST

21G10
21G20
21G30
21G40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or performs inspection, checkout, and troubleshooting on electronic, mechanical, hydraulic, and pneumatic equipment associated with the Pershing missile system. *Skill Level 10:* Operates and performs maintenance on the Pershing missile programmer-test station, missile, missile trainer, erector-launcher, power station, and associated equipment; performs limited isolation of malfunctioning equipment and components through the use of computer and adapter diagnostic program tapes. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs detailed organizational maintenance of the system and provides technical guidance to operator personnel; isolates malfunctioning equipment and components through manual troubleshooting techniques, using volt-ohmmeters and functional schematics; adjusts or replaces malfunctioning components; prepares maintenance and supply forms and reports; in the absence of a supervisor or section chief, assumes duties of those positions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; supervises the preparation of technical forms and reports; coordinates activities with supporting maintenance units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; supervises the requisitioning and storage of supplies and repair parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises battery level organizational maintenance of Pershing missile system electronic equipment; supervises preparation of technical forms and reports, and battery requisitioning of missile supplies; serves as senior enlisted maintenance advisor for the battery and conducts instruction on equipment operation and maintenance.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics systems troubleshooting and maintenance; if served in a supervisory position, 3 semester hours in principles of supervision and 3 in maintenance management (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics systems troubleshooting and maintenance, 3 in principles of supervision, 3 in maintenance management, and 3 in communication skills (written and oral) (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-21L-001

PERSHING ELECTRONICS REPAIRMAN

21L20
21L40
21L50

Exhibit Dates: 10/73–8/77.

Career Management Field: 21 (Ballistic Missile Repair), subfield 211 (Pershing Missile Repair).

Description

Summary: Supervises or performs maintenance and repair of all electronic systems and components of the Pershing missile system, using a theoretical and working knowledge of electronic, digital, and logic circuits. *Skill Level 20:* Performs maintenance on the programmer test station, training set, and associated equipment, and on system test equipment; reads electronic schematics, uses a wide range of electronic meters, including scope, to inspect, test, and adjust components; determines the causes of malfunctions in electronic, electrical, electromechanical, and pneumatic assemblies, subassemblies, modules, and circuit elements, and makes necessary repairs or replaces defective components; has background in electronic theory and is familiar with digital and logic circuits; performs quality control measures; installs modifications on electronic equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes repair priorities; supervises 6 or more persons in an electronic repair section; conducts on-the-job training; implements quality control measures; establishes and keeps maintenance records; determines faulty work practices and demonstrates proper maintenance techniques. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as the principal noncommissioned officer in a missile maintenance unit, supervises 30 or more persons; assists superiors in establishing policies and procedures; directs and coordinates the administration of a unit or facility; directs on-the-job training; may serve as a chief instructor in a formal training facility; holds meetings with subordinate noncommissioned officers to provide guidance and direction. NOTE: May have progressed to 21L50 from 21L40, 21G40, (Pershing Electronics Materiel Specialist), or 46N40 (Pershing Electrical-Mechanical Repairman).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 2 in digital electronics, and 2 in technical mathematics, and additional credit in electronic instruments on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in digital electronics, and 2 in technical mathematics, and additional credit in electronic instruments on the basis of institutional evaluation. In an electronic technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 2 in digital electronics, 2 in technical mathematics, 3 in human relations, 3 for field experience in management, and additional credit in electronic instruments on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, 3 in personnel management, 6 for field experience in management, and 3 in industrial arts education (electronics); if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (3/76).

MOS-21L-002

PERSHING ELECTRONICS REPAIRER

21L10
21L20
21L30
21L40
21L50

Exhibit Dates: 9/77–Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance).

Description

Summary: Supervises or performs maintenance and repair of electronic, mechanical, hydraulic, and pneumatic systems and components associated with the Pershing missile system, using a theoretical and working knowledge of electronic, digital, and logic circuits. *Skill Level 10:* Performs maintenance on the programmer test station, items for the guidance and control section, training set and associated training equipment, and on-system test equipment; reads electronic schematics and uses a wide range of electronic meters, including scope, to inspect, test, and adjust components to specific tolerances; determines deficiencies and causes of malfunctions in electronic, electrical, electromechanical, and pneumatic assemblies, subassemblies, modules, and circuit elements; determines serviceability and disposition of defective assemblies, subassemblies, and parts; serves on inspection teams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs equipment modifications; provides technical assistance to support units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes workload and repair priorities; supervises receipt, storage, inspection, testing, and repair of items; implements quality control measures; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance techniques; establishes and maintains maintenance records; serves as maintenance inspector; may supervise 6 or more persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 21L, 21G (Pershing Electronic Materiel Specialist), or 46N (Pershing Electrical-Mechanical Repairer); supervises maintenance on electronic and electro-mechanical systems and components of the missile system; serves as section chief or platoon sergeant of a detachment, platoon company, or comparable organization; supervises and assists in the development of quality control programs; may supervise 7 or more persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises Pershing missile system maintenance activities; serves as maintenance chief; may supervise 30 or more persons; serves as principal noncommissioned officer in a missile maintenance unit.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in AC/DC theory, 6 in basic electronics, 9 in computer fundamentals, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 3 in computer fundamentals, and 3 in technical mathematics (6/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in AC/DC theory, 6 in basic electronics, 9 in computer fundamentals, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 3 in computer fundamentals, and 3 in technical mathematics (6/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 3 in computer fundamentals, 3 in technical mathematics, 3 in maintenance management, 3 in personnel supervision, and 3 in human relations (6/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in basic electronics, 3 in computer fundamentals, 3 in technical mathematics, 3 in maintenance management, 3 in personnel supervision, 3 in human relations, 2 in communication skills, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, and 3 in industrial arts education (electronics) (6/79).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to managment, 6 for field experience in management, 3 in industrial arts education (electronics) and 3 in personnel management (6/79).

MOS-21R-001

SERGEANT FIRING SET REPAIRMAN

21R20
21R40

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 21R was discontinued.)

Career Management Field: 21 (Ballistic Missile Repair), subfield 212 (Sergeant Missile Repair).

Description

Summary: Supervises or performs support maintenance on the Sergeant missile system firing set. *Skill Level 20:* Performs functional tests on the firing set in conjunction with the missile or training missile to assure proper countdown operation; performs systems analysis with portable test equipment and built-in self-test circuits to locate and isolate malfunctioning electrical circuits and electronic assemblies; removes and replaces defective assemblies and adjusts equipment to insure performance within specified tolerances; performs initial and final checkout and serviceability inspections; determines disposition of defective assemblies; performs quality control measures; performs minor calibration; provides technical assistance; serves on inspection teams; prepares maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; recommends procedures for receipt, storage, inspection, testing, and repair of items; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management (6/76).

MOS-21S-001

SERGEANT MISSILE GUIDANCE REPAIRMAN

21S20

21S40

Exhibit Dates: 10/73-8/77. (Effective 9/77, MOS 21S was discontinued.)

Career Management Field: 21 (Ballistic Missile Repair), subfield 212 (Sergeant Missile Repair).

Description

Summary: Supervises or performs support maintenance on the Sergeant missile guidance system. *Skill Level 20:* Operates test stations and appropriate supplemental shop sets to isolate malfunctions to the assembly level in missile guidance and control systems and training missiles; may isolate malfunctions to the subassembly level when required; removes and replaces defective assemblies; performs initial and final checkout and inspection; makes authorized adjustments on equipment; determines disposition or defective assemblies; performs quality control measures; performs simple calibrations; provides technical assistance; serves on inspection teams; prepares applicable maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; recommends procedures for receipt, storage, inspection, testing, and repair of items; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management (6/76).

MOS-21T-001

SERGEANT TEST EQUIPMENT REPAIRMAN

21T20

21T40

Exhibit Dates: 10/73-8/77. (Effective 9/77, MOS 21T was discontinued.)

Career Management Field: 21 (Ballistic Missile Repair), subfield 212 (Sergeant Missile Repair).

Description

Summary: Supervises or performs support maintenance on Sergeant missle system test equipment. *Skill Level 20:* Operates and performs support maintenance on special test sets used on the Sergeant missile system; isolates subassembly malfunctions; repairs or removes and replaces defective components and parts; performs initial and final checkout and inspection of equipment; determines serviceability and disposition of defective assemblies, subassemblies, and components; performs quality control measures; performs maintenance and calibration on maintenance test equipment; serves on inspection teams; prepares maintenance and supply forms and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises support maintenance on Sergeant missile system test equipment; establishes workloads and repair priorites; recommends procedures for receipt, storage, inspection, testing, and repair of items; implements quality contol measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management (6/76).

MOS-21U-001

SERGEANT MAINTENANCE CHIEF

21U50

Exhibit Dates: 10/73-8/77. (Effective 9/77, MOS 21U was discontinued.)

Career Management Field: 21 (Ballistic Missile Repair), subfield 212 (Sergeant Missile Repair).

Description

Skill Level 50: Supervises support maintenance of the Sergeant missile system; able to perform the duties required for 21R40 (Sergeant Firing Set Repairman); 21S40 (Sergeant Missile Guidance Repairman; 21T40 (Sergeant Test Equipment Repairman); or 46L40 (Sergeant Electrical-Mechanical Repairman); supervises and coordinates support maintenance of the Sergeant missile, launching station and firing set, azimuth orientation unit, training missile, special test stations, suplemental shop sets, and other system-associated equipment; may supervise up to 120 persons; supervises and assists in the development of quality assurance/quality control programs; may serve as an administrator; advises superiors on all enlisted personnel matters; may serve as a chief instructor in a formal training facility.

Recommendation, Skill Level 50

In the vocational certificate category, 2 semester hours in hydraulic laboratory, 2 in basic electricity laboratory, and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in office management, 1 in public speaking, 3 in personnel supervision, and 6 for field experience in management. UP 3 semester hours in introduction to management; if the duty assignment was chief instructor, 3 semester hours for an internship in education (6/76).

MOS-22K-001

HAWK MISSILE-LAUNCHER REPAIRMAN

22K20

22K40

Exhibit Dates: 10/73-1/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Performs inspection, maintenance, and repair on specialized missile and support equipment. *Skill Level 20:* Performs routine maintenance on missile and launching devices; inspects, tests, and adjusts equipment components to specified tolerances; identifies and repairs malfunctions in fluidic, electrical, electronic, and mechanical systems, using a wide variety of test equipment, including multimeters, bridges, oscilloscopes, signal generators, and pulse counters; performs calibration and repair for all test equipment; keeps applicable maintenance and supply forms and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor with responsibility for on-the-job training; establishes workloads and repair priorities; implements quality control measures; conducts technical inspections; keeps maintenance records.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics and 3 in basic mathematics (including trigonometry). In an electronic technician apprentice training program, 1,000 clock hours of experience and 200 contact hours of related instruction (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics and 3 in basic mathematics (including trigonometry), and additional credit in personnel supervision and for field experience in education on the basis of institutional evaluation. In an electronic technician apprentice training program, 1,200 clock hours of experience and 250 contact hours of related instruction (3/75).

MOS-22K-002

Hawk Missile-Launcher Repairman

22K20
22K40

Exhibit Dates: 2/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on the Hawk missile system, launcher, and associated equipment. *Skill Level 20:* Uses common and system special-design test equipment to inspect, test, and adjust missile and launcher-control components to specific tolerances and to troubleshoot malfunctions (to component level) in electronic, electrical, mechanical, hydraulic, and electro-mechanical assemblies, subassemblies, modules, and circuit elements; installs equipment modifications; performs quality control measures, minor calibrations, and initial and final checkouts and inspections; determines the serviceability and disposition of defective assemblies, subassemblies, and parts. *Skill Level 40:* Able to perform the duties required for Skill Level 20; provides first-line technical supervision for Hawk missile-launcher repairmen; coordinates repair activities; organizes and supervises maintenance and inspection teams; prepares technical reports and forms plans and conducts on-the-job training; keeps maintenance records; implements quality control measures; recommends procedures for receiving, storing, testing, and repairing equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in technical mathematics, 2 in shop practices, and 1 in control systems, and additional credit in electronics, hydraulics, and mechanics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 2 in DC circuit analysis, 2 in AC circuit analysis, 2 in technical mathematics, 1 in transistor/tube theory, 1 in electronic instruments, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in human relations, 3 in personnel supervision, 2 in DC circuit analysis, 2 in AC circuit analysis, 2 in technical mathematics, 1 in transistor/tube theory, and 1 in electronic instruments, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-22K-003

Hawk Missile and Launcher Repairer

22K10
22K20
22K30

Exhibit Dates: 3/78–8/80. (Effective 9/80, MOS 22K was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Performs maintenance on the Hawk missile and missile launcher. *Skill Level 10:* Performs routine maintenance on missile and launching devices; inspects, tests, and adjusts components, subassemblies, and assemblies to specified tolerances; identifies and repairs malfunctions in hydraulic, electrical, electronic, and mechanical systems, using a wide variety of test equipment, including oscilloscopes, signal generators and allied instruments; performs tests of missiles in storage to ascertain readiness condition. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs initial and final type checkout and inspection of designated system assemblies; installs approved system modifications; provided technical assistance to supported units; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises activities of lower skill level personnel; establishes workloads and repair priorities; recommends procedures for repair, inspection, and storage of systems under the area of responsibility; organizes and supervises inspection teams; organizes and conducts on-the-job training programs; establishes and keeps maintenance records current.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic mathematics (including trigonometry) and 3 in basic electricity and electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning algebra and 3 in basic electricity and electronics (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic mathematics (including trigonometry), 3 in basic electricity and electronics, and 3 in electronic test procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning algebra, 3 in basic electricity and electronics, and 3 in electronic test procedures (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic mathematics (including trigonometry), 3 in basic electricity and electronics, 3 in electronic test procedures, 3 in electronics shop practices, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning algebra, 3 in basic electricity and electronics, 3 in electronic test procedures, 3 in electronic shop practices, 3 in personnel supervision, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management (1/80).

MOS-22L-001

Nike Test Equipment Repairman

22L20
22L40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance on Nike special purpose test equipment. *Skill Level 20:* Inspects, tests, and adjusts system-item chassis and test equipment to specific tolerances; troubleshoots and repairs deficiencies in electronic assemblies and subassemblies (to component level); determines serviceability and disposition of defective assemblies, subassemblies, and parts; performs initial and final checkouts and inspections; performs quality control measures; performs minor calibrations; installs modifications; *Skill Level 40:* Able to perform the duties required for Skill Level 20; provides first-line technical supervision of Nike test equipment repairmen; establishes workloads and repair priorities; prepares technical forms and reports; organizes and supervises inspection and maintenance teams; plans and conducts on-the-job training programs; supervises requisitioning and storing of repair parts and supplies.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 2 in control systems, 1 in systems maintenance, 1 in communication systems (electronics), 1 in shop practices, and 1 in alignment techniques (video). In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 3 in human relations, 3 in personnel supervision, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), 3 for field experience in management, and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-22L-002

NIKE TEST EQUIPMENT REPAIRER

22L10
22L20
22L30

Exhibit Dates: 3/78–8/87. (Effective 9/87, MOS 22L was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance and repair on Nike special purpose test equipment. *Skill Level 10:* Inspects, tests, and adjusts system-item chassis and test equipment to specific tolerances, having known-input reading to test against; knows circuit diagrams and reads schematics; troubleshoots and repairs deficiencies in electronic assemblies and subassemblies; replaces individual components; uses multimeters, oscilloscopes and electronic shop assemblies; determines serviceability and disposition of defective assemblies, subassemblies and parts; performs quality control measures; performs minor calibrations and repair; serves on inspection teams to evaluate serviceability of associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel and supported units; installs equipment modifications; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; corrects faulty work practices; establishes workloads and repair priorities; prepares technical forms and keeps maintenance records; organizes and conducts on-the-job training programs; recommends procedures for inspecting, testing, and repair of items; implements quality control program; performs initial and final checkout inspections of workload items; organizes and supervises inspection and maintenance teams.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in basic electricity, 1 in systems maintenance, and 3 in electronic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device theory, radar/microwave, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity, 1 in systems maintenance, and 3 in electronic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device theory, radar/microwave, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic electricity, 3 in systems maintenance, 3 in electronic shop practices, 2 in maintenance management, and 3 in electronic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, 3 in electronics shop practices, 2 in maintenance management, 1 in electronic instruments, 3 in personnel supervision, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 for field experience in personnel management, and credit in electronic device theory, radar/microwave, and circuit analysis on the basis of institutional evaluation (1/80).

MOS-22N-001

NIKE-HERCULES MISSILE-LAUNCHER REPAIRMAN

22N20
22N40

Exhibit Dates: 10/74–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance on the Nike-Hercules missile system, launcher, and associated equipment. *Skill Level 20:* Uses common and system special-design test equipment to inspect, test, and adjust missile and launcher-control components to specific tolerances and to troubleshoot malfunctions (to component level), in electronic, electrical, mechanical, electromechanical, hydro-pneumatic assemblies, subassemblies, modules, and circuits; installs equipment modifications; performs quality control measures, minor calibrations, and initial and final checkouts and inspections; determines the serviceability and disposition of defective assemblies, subassemblies, and parts. *Skill Level 40:* Able to perform the duties required for Skill Level 20; provides first-line technical supervision for Nike-Hercules missile-launcher repairmen; coordinates repair activities; organizes and supervises inspection and maintenance teams; prepares technical reports and forms; plans and conducts on-the-job training; keeps maintenance records; implements quality control measures; recommends procedures for receiving, storing, testing, and repairing equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 2 in control systems, 1 in systems maintenance, 1 in communication systems (electronics), 1 in shop practices and 1 in alignment techniques (video). In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 3 in human relations, 3 in personnel supervision, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), 3 for field experience in management, and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-22N-002

NIKE-HERCULES MISSILE LAUNCHER REPAIRER

22N10
22N20
22N30

Exhibit Dates: 3/78–8/87. (Effective 9/87, MOS 22N was discontinued.)

Career Management Field: (23 Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance and repair on Nike-Hercules missile system, launcher, and associated equipment. *Skill Level 10:* Uses common and special-design test equipment to inspect, test, and adjust launcher-control and missile components to specific tolerances; troubleshoots and repairs electric, mechanical, electromechanical, and hydropneumatic assemblies and subassemblies; replaces individual component items; uses multimeter and oscilloscope to verify radio frequency pulse and to diagnose; performs quality control measures, minor calibrations, and checkout inspection; determines serviceability and disposition of defective assemblies or parts; serves on inpsection teams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel and supported units; installs equipment modifications; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; establishes and keeps maintenance records; organizes and supervises inspection and maintenance teams; conducts on-the-job training programs; recommends procedures for inspecting, testing, and repairing items; implements quality control procedures; and coordinates repair activities.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in basic electricity, 1 in systems maintenance, 1 in electronic systems troubleshooting, and 2 in mechanical/hydraulic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device theory, hydraulic theory, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity, 1 in systems maintenance, 1 in electronic systems troubleshooting, and 2 in mechanical/hydraulic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device theory, hydraulic theory, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic electricity, 3 in systems maintenance, 1 in electronic systems troubleshooting, 3 in electronic shop practices, 2 in mechanical/hydraulic systems troubleshooting, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 2 in AC/DC circuit fundamentals, 1 in electronic instruments, 2 in record keeping, 3 in electronic shop practices, 3 in personnel supervision, and 2 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 for field experience in personnel management, and credit in electronic device theory, hydraulic theory, and circuit analysis on the basis of institutional evaluation (1/80).

MOS-23N-001

NIKE TRACK RADAR REPAIRMAN

23N20
23N40

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defense Missile Maintenace), subfield 231 (Nike Missile System Repair).

Description

Summary: Maintains low-power acquisition radar, target and missile tracking radar, target ranging radar, as well as on-site systems, including analog computer, test sets, antenna mast group, operator console, and associated test equipment. *Skill Level 20:* Inspects, tests, and adusts components to specific tolerances; determines malfunctions in electronic, mechanical, electrical, and electromechanical systems with common and special-designed system test equipment; repairs assemblies and modules; performs initial and final inspection on systems and assemblies; performs calibration and repair on job-related equipment; installs modifications on system items; serves on inspection teams. *Skill Level 40:* Able to perform the duties required for Skill Level 20; provides first-line technical supervision; trains personnel; supervises the preparation of technical forms and reports; coordinates unit activities; demonstrates proper maintenance and troubleshooting techniques; establishes workloads and repair priorities; conducts technical inspections.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 2 in control systems, 1 in systems maintenance, 1 in communication systems (electronics), 1 in shop practices, and 1 in alignment techniques (video). In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 3 in human relations, 3 in personnel supervision, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, 1 in digital computer fundamentals, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), 3 for field experience in management, and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-23N-002

NIKE TRACK RADAR REPAIRER

23N10
23N20
23N30

Exhibit Dates: 3/78-8/87. (Effective 9/87, MOS 23N was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Maintains low-power acquisition radar, target and missile tracking radar, target ranging radar, as well as on-site systems, including analog computer, test sets, antenna mast group, operator console, and associated test equipment. *Skill Level 10:* Inspects, tests, and adjusts components to specific tolerances; follows specified written procedures and circuit schematics; uses typical industrial, as well as military test equipment to determine malfunctions in electronic, mechanical, electrical, and electro-mechanical systems; troubleshoots and repairs assemblies and modules down to the component level; performs calibration and repair on job-related equipment; may install modifications on systems and serve on inspection teams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs initial and final inspection on systems and subassemblies; may assist in on-the-job training. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides first-line technical supervision; trains personnel; supervises the preparation of technical forms; coordinates unit activities; demonstrates proper maintenance and troubleshooting techniques; establishes workloads and repair priorities; conducts technical inspections.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in basic electronics, 2 in electronics systems troubleshooting, and 2 in electronic instruments. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronics, and 2 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electronics, 2 in electronics systems troubleshooting, and 2 in electronic instruments. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronics, and 2 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic electronics, 2 in electronics systems troubleshooting, 2 in electronic instruments, 2 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronics, 2 in electronic instruments, 3 in personnel supervision, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) and 3 for field experience in personnel management (1/80).

MOS-23Q-001

HAWK FIRE CONTROL REPAIRMAN

23Q20
23Q40

Exhibit Dates: 10/73-2/78. (Effective 9/80, MOS 23Q was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on the Hawk missile fire control system equipment. *Skill Level 20:* Tests, evaluates, and repairs electronics modules, circuit elements, and complete assemblies for radar and communications; uses test equipment such as oscilloscopes, voltmeters, ohmmeters, and spectrum analyzers; installs equipment modifications; analyzes malfunctions; assists radar equipment operators in maintaining equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises support level maintenance on the Hawk fire control system equipment; establishes workloads and repair priorities; implements quality control measures; organizes and supervises inspection and maintenance teams; conducts on-the-job training; keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 3 in advanced electronics and additional credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics (including right angle trigonometry), 3 in DC circuits, 3 in AC circuits, 3 in transistors/tubes/amplifiers/oscillators and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in AC/DC concepts and 3 in industrial arts education (electronics). In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics (including right angle trigonometry), 3 in DC circuits, 3 in AC circuits, 3 in transistors/tubes/amplifiers/oscillators, 3 in human relations, and 3 in personnel supervision, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in AC/DC concepts and 3 in industrial arts education (electronics). In an electronic technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-23R-001

HAWK MISSILE SYSTEM MECHANIC

23R10
23R20
23R30
23R40
23R50

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-23S-001

HAWK PULSE RADAR REPAIRMAN

23S20
23S40

Exhibit Dates: 10/73–2/78. (Effective 9/80, MOS 23S was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on the Hawk pulse acquisition radar and associated equipment. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances; determines deficiencies in electronic, electrical, mechanical, electromechanical, and heat transfer assemblies, subassemblies, modules, and circuit elements, using common and system special-design test equipment; troubleshoots to the component level; installs equipment modifications; performs initial and final checkouts and inspections. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises support-level maintenance on the Hawk pulse radar and related equipment; establishes workloads and repair priorities; implements quality control measures; organizes and supervises maintenance and inspection teams; conducts on-the-job training; demonstrates proper repair techniques; keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in DC circuits, 3 in AC circuits, and 3 in transistors/tubes. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics (including trigonometric functions), 3 in DC circuits, 3 in AC circuits, and 3 in transistors/tubes. In the upper-division baccalaureate category, 3 semester hours in AC/DC concepts and 3 in industrial arts education (electronics). In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics (including trigonometric functions), 3 in DC circuits, 3 in AC circuits, 3 in transistors/tubes, 3 in human relations, 3 in personnel supervision and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in AC/DC concepts and 3 in industrial arts education (electronics). In an electronic technician apprentice training program, 3,000 clock hours of experience and 216 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-23T-001

HAWK CONTINUOUS WAVE RADAR REPAIRMAN

23T20
23T40

Exhibit Dates: 10/73–1/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Performs inspection, maintenance, and repair on a specialized continuous wave acquisition radar and associated equipment. *Skill Level 20:* Inspects, tests, adjusts, troubleshoots, and repairs items associated with this specific continuous wave radar system; provides technical assistance to operators; uses a wide range of test equipment including mulitmeters, bridges, oscilloscopes, signal generators, and pulse counters. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor responsible for on-the-job training; establishes workloads and maintenance priorities; implements quality control measures; keeps maintenance records.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics and 3 in basic mathematics (including trigonometry). In an electronic technician apprentice training program, 1,000 clock hours of experience and 200 contact hours of related instruction (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and elctronics and 3 in basic mathematics (including trigonometry), and additional credit in personnel supervision and for field experience in education on the basis of institutional evaluation. In an electronic technician apprentice training program, 1,200 clock hours of experience and 250 contact hours of related instruction (3/75).

MOS-23T-002

HAWK CONTINUOUS WAVE RADAR REPAIRMAN

23T20
23T40

Exhibit Dates: 2/76–2/78. (Effective 9/80, MOS 23T was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Performs maintenance on Hawk continuous wave radars and associated equipment. *Skill Level 20:* Performs maintenance on the Hawk continuous wave radar, continuous wave illuminator radar (high powered illuminator-HPI), including HPI built-in test equipment and other system-designed test equipment; inspects, tests, and adjusts components to specific tolerances; determines shortcomings and malfunctions in electronic, electrical, electromechanical, and heat transfer assemblies, subassemblies, modules, and circuit elements, using common and system special-design test equipment; determines serviceability and disposition of defective assemblies, subassemblies, and parts; performs 'C' level calibration and repair on test equipment; installs equipment modifications; performs initial and final checkouts and inspections; provides technical assistance to other units. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance on Hawk continuous wave radar and associated equipment; establishes repair priorities and workloads; implements quality control measures; supervises inspection and maintenance teams; conducts on-the-job training programs; demonstrates proper repair techniques and procedures; keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and use of test equipment, and 3 in radar, and additional credit in mechanics and electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and use of test equipment, and 3 in radar, and additional credit in mechanics and electronics on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and use of test equipment, 3 in radar, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management, and additional credit in mechanics and electronics on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-23U-001

NIKE HIGH POWER RADAR-SIMULATOR
REPAIRMAN

23U20
23U40

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defnese Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance on Nike high-power acquisition radar, radar target simulator, and associated equipment. *Skill Level 20:* Uses common and special-design test equipment to inspect, test, and adjust components to specific tolerances and to determine malfunctions in electronic, electrical, mechanical, hydraulic, pneumatic, and heat transfer assemblies, modules, and circuit elements; determines serviceability and disposition of defective assemblies, subassemblies, and parts; performs initial and final checkouts and inspections; performs quality control measures; installs equipment modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; recommends procedures for receiving, storing, testing, and repairing equipment; implements quality control measures; organizes and supervises inspection and maintenance teams; conducts on-the-job training; demonstrates proper repair techniques; keeps maintenance records; is a first-line supervisor.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in AC and DC theory and 3 in vacuum tube and transistor theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory and/or AC and DC circuit theory on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in AC and DC theory, 3 in vacuum tube and transistor theory, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 6 semester hours in AC and DC theory, 3 in vacuum tube and transistor theory, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), 3 for field experience in management, and additional credit in electronic device theory and/or AC and DC circuit theory on the basis of institutional evaluation. In an electronic technician apprentice training program, 3,000 clock hours of experience and 216 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-23U-002

NIKE HIGH POWER RADAR-SIMULATOR
REPAIRER

23U10
23U20
23U30

Exhibit Dates: 3/78-8/87. (Effective 9/87, MOS 23U was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance and repairs on Nike high-power acquisition radar, radar target simulator, and associated equipment. *Skill Level 10:* Performs highly complex maintenance, calibration and repairs on solid-state, as well as vacuum tube radar and microwave equipment; uses knowledge in basic electronics and schematic tracing to troubleshoot assemblies and circuits down to the component level; performs certain mathematical calculations during routine calibration or alignment procedures; uses common and specialized handtools to perform repairs or adjustments on electrical, electronic, mechanical, pneumatic, and hydraulic equipment; supervises or trains maintenance and operator personnel on the proper handling or maintenance of various parts of the radar equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel and supported units; installs equipment modifications; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; assigns duties; manages maintenance schedules, inspections, and quality control; supervises inspection and maintenance teams; conducts on-the-job training programs; keeps maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics, 2 in electronic control devices, 3 in radar/microwave technology, 1 in digital circuits, 2 in electronic instruments, and 1 in mechanical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in radar/microwave technology, and 1 in digital circuits. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) and 3 in a technical elective (radar/microwave theory) (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 2 in electronic control devices, 3 in radar/microwave technology, 1 in digital circuits, 2 in electronic instruments, and 1 in mechanical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in radar/microwave technology, and 1 in digital circuits. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) and 3 in a technical elective (radar/microwave theory) (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electronics, 2 in electronic control devices, 3 in radar/microwave technology, 1 in digital circuits, 2 in electronic instruments, 1 in mechanical laboratory, 3 in electronics shop practices, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in radar/microwave technology, 3 in electronics shop practices, 2 in maintenance management, 1 in digital circuits, 3 in personnel supervision, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 in a technical elective (radar/microwave theory), and 3 for field experience in personnel management (1/80).

MOS-23V-001

HAWK MAINTENANCE CHIEF

23V50

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Skill Level 50: Supervises the maintenance of the Hawk missile system; assists in the development of the quality assurance/quality control program and supervises its implementation; interprets policy; recommends changes in policy and procedures; advises superiors; plans all work activities and operations; directs on-the-job training. NOTE: May have progressed to 23V50 from 22K40 (Hawk Missile-Launcher Repairman), 23Q40 (Hawk Fire Control Repairman), 23S40 (Hawk Pulse Radar Repairman), 23T40 (Hawk Continuous Wave Radar Repairman), 24B40 (Hawk Continuous Wave Radar Mechanic), 24D40 (Hawk Missile-Launcher Mechanic), or 24F40 (Hawk Fire Control Mechanic).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, 3 in maintenance management, 6 for field experience in management, and 3 in industrial arts education (electronics); if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education. In an electronic technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-23V-002

Hawk Maintenance Chief

23V40

23V50

Exhibit Dates: 3/78–8/80. (Effective 9/80, MOS 23V was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 233 (Hawk Missile System Repair).

Description

Summary: Supervises and coordinates maintenance of Hawk missile system. *Skill Level 40:* Supervises and coordinates maintenance of Hawk missile system, including launcher, maintenance test shop, battery control, simulator, radar, and test equipment; serves as a section chief or principle noncommissioned officer of a platoon performing missile system support maintenance; supervises and inspects activities of subordinates engaged in missile system maintenance; assists in development and supervises quality assurance/quality control program; advises superiors on technical and personnel matters; assists in planning and accomplishing on-the-job training. NOTE: May have progressed to 23V40 from 22K30 (Hawk Missile and Launcher Repairer), 23Q30 (Hawk Fire Control Repairer), 23S30 (Hawk Pulse Radar Repairer), or 23T30 (Hawk Continuous Wave Radar Repairer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer of a company performing missile systems support maintenance; or, may serve as chief instructor in a training facility. NOTE: May have progressed to 23V50 from 23V40, 24B40 (Hawk Continuous Wave Radar Mechanic), 24D40 (Hawk Missile Launcher Mechanic), or 24F40 (Hawk Fire Control System Mechanic).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, and 3 in public speaking. In the upper-division baccalaureate category, 2 semester hours in human relations, 3 in introduction to management, 3 for field experience in management, 3 in personnel management, and 3 in industrial arts education (1/80).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 2 semester hours in human relations, 3 in introduction to management, 6 for field experience in management, 3 in personnel management, and 3 in industrial arts education; if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 semester hours for an internship in education (1/80).

MOS-23W-001

Nike Maintenance Chief

23W50

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Skill Level 50: Supervises the maintenance of the Nike-Hercules missile system; assists in the development of the quality assurance/quality control program and supervises its implementation; interprets policy; recommends changes in policy and procedures; advises superiors; plans all work activities and operations; directs on-the-job training; NOTE: May have progressed to 23W50 from 28M50 (Anti-Ballistic Missile Maintenance Specialist), 22L40 (Nike Test Equipment Repairman), 22N40 (Nike-Hercules Missile-Launcher Repairman), 23N40 (Nike Track Radar Repairman), 23U40 (Nike High Power Radar-Simulator Repairman), 24Q40 (Nike-Hercules Fire Control Mechanic), 24U40 (Hercules Electronics Mechanic), or 26H30 (Air Defense Radar Repairman).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, 3 in maintenance management, 6 for field experience in management, and 3 in industrial arts educations (electronics); if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education. In an electronic technician apprentice training program, 4,000 clock hours of experience 288 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 hours of experience and 72 contact hours of related instruction (2/76).

MOS-23W-002

Nike Maintenance Chief

23W40

23W50

Exhibit Dates: 3/78–8/87. (Effective 9/87, MOS 23W was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises maintenance of the Nike-Hercules missile system. *Skill Level 40:* Supervises and coordinates support level maintenance of the improved Nike-Hercules system including missile, launcher control, launcher with associated equipment, radar sets, tracking station equipment, radar simulator and test equipment and devices; may serve as an instructor; serves as principal non-commissioned officer of a platoon which provides missile system support maintenance; supervises and assists in development of quality assurance program; responsible for on-the-job training; evaluates performance of assigned personnel. NOTE: May have progressed to 23W40 from 22L30 (Nike Test Equipment Repairer), 22N30 (Nike Hercules Missile Launcher Repairer), 23N30 (Nike Track Radar Repairer), 23U30 (Nike High Power Radar Simulator Repairer), or 26H30 (Air Defense Radar Repairer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal non-commissioned officer at battalion level or higher performing direct support or general support maintenance on the Nike system; may serve as First Sergeant of a company of approximately 90 enlisted persons; may serve as chief instructor in a training facility; may serve as chief advisor to a Reserve component unit or as chief advisor to a foreign military unit; is a top level supervisor and coordinator, experienced in troop leadership techniques, training management and planning work production. NOTE: May have progressed to 23W50 from 23W40, 24Q40 (Nike Hercules Fire Control Mechanic), 24U40 (Hercules Electronics Mechanic), or 24P40 (Defense Acquisition Radar Mechanic).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in public speaking, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 in introduction to management, 3 in personnel management, 2 in human relations, and 3 for field experience in management (1/80).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 6 for field experience in management, 2 in human relations, and 3 for an electronics technical elective (non-engineering); if the duty position was Chief Instructor, 3 additional semester hours for an internship in education; if served as a foreign advisor, 3 semester hours in comparative culture (1/80).

MOS-24B-001

Hawk Continuous Wave Radar Mechanic

24B20

24B40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 234 (Hawk Missile System Mechanics).

Description

Summary: Maintains and repairs Hawk continuous wave acquisition radar, continuous wave illuminator radar, high power illuminator radar, along with associated consoles, power, and test equipment. *Skill Level 20:* Performs electrical checks and adjustments on equipment; locates and corrects malfunctions; provides technical assistance in orientation, alignment, or synchronization of subassemblies and systems; performs authorized equipment modifications; completes required forms for equipment and repair parts; provides technical assistance in the conduct of operational and maintenance inspections; prepares technical reports on system equipment; provides technical assistance for setting up, taking down, and moving equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor; provides technical supervision in training programs; coordinates work activities of radar section; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; organizes and supervises maintenance and inspection teams; supervises the requisitioning and storing of supplies and repair parts.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 2 in electronic devices, 3 in basic electronics, 3 in electronic instruments, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 2 in pulse circuits, 2 in radar/microwave, and 1 in antennas. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), and additional credit in AC/DC circuits and electronic devices on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 3 in human relations, 3 in personnel supervision, 2 in pulse circuits, 2 in radar/microwave, and 1 in antennas. In the upper-division baccalaureate category, the recommendation is the same as that for Skill Level 20. In an electronic technician apprentice training program, 3,000 clock hours of experience and 216 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-24B-002

HAWK CONTINUOUS WAVE RADAR MECHANIC

24B10

24B20

24B30

24B40

Exhibit Dates: 3/78–8/80. (Effective 9/80, MOS 24B was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 234 (Hawk Missile System Mechanics).

Description

Summary: Supervises or performs organizational maintenance on Hawk continuous wave acquisition radar, continuous wave illuminator radar, high-power illuminator, along with associated consoles, power, and test equipment. *Skill Level 10:* Performs electrical checks and adjustments on equipment; locates and corrects equipment malfunctions; performs organizational maintenance with authorized tools, test equipment, and parts; provides technical assistance in orientation, alignment, or synchronization of listed equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in operator training programs; provides technical assistance during emplacement of equipment; installs equipment and modifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical supervision in training programs for operator and maintenance personnel; supervises preparation of technical forms and reports; demonstrates proper maintenance and troubleshooting procedures; supervises maintenance or inspection teams. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as chief continuous wave radar mechanic at battalion or higher level; assists in supervision and coordination of maintenance activities in subordinate units.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 3 in basic electronics, 1 in radar/microwave, and 1 in antennas (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in electronic devices, 3 in electronics instruments, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 3 in basic electronics, 2 in radar/microwave, and 1 in antennas. In the upper-division baccalaureate category, credit in AC/DC circuits and electronic devices on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in electronic devices, 3 in electronics instruments, 3 in applied mathematics, 2 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 3 in basic electronics, 2 in radar/microwave, 1 in antennas, 3 in electronics shop practices, 2 in maintenance management, 3 in personnel supervision, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and 3 for field experience in personnel management, and credit in AC/DC circuits and electronic devices on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in electronic devices, 3 in electronics instruments, 3 in applied mathematics, 3 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in technical mathematics, 3 in basic electronics, 2 in radar/microwave, 1 in antennas, 3 in electronics shop practices, 3 in personnel supervision, 2 in records and reports preparation, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in industrial education (electronics), 3 for field experience in personnel management, 3 in human relations, and 3 in introduction to management, and credit in AC/DC circuits and electronic devices on the basis of institutional evaluation (1/80).

MOS-24C-001

IMPROVED HAWK FIRING SECTION MECHANIC

24C20

24C40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk firing section equipment. *Skill Level 20:* Performs maintenance on Improved Hawk high-powered illuminator radar, missile launching section control box, and electrical, mechanical, and hydraulic systems of the launcher and loader-transporter; inspects, tests, and adjusts to specific operational levels; determines malfunctions and repairs by replacing subassembly units; assists in orientation, alignment, and synchronization of subassemblies and systems; assembles external hardware of the missile and makes prescribed tests to determine operational condition; supervises missile crewmen in transferring, handling, arming, and disarming missiles; initiates requests for repair parts, test equipment, tools, and supplies. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line technical supervisor; establishes workloads and repair priorities; coordinates work activities with other units; demonstrates proper maintenance and troubleshooting techniques; supervises the preparation of technical reports and forms; organizes and supervises maintenance and inspection teams.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semster hours in basic electronics and 3 in basic electricity, and additional credit in electronics, technical mathematics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 1 in radar/microwave, and additional credit in electronics, algebra, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, advanced standing on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in human relations, 3 in personnel supervision, and 1 in radar/microwave, and additional credit in electronics, algebra, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24C-002

Hawk Firing Section Mechanic (Improved Hawk Firing Section Mechanic)

24C10
24C20
24C30
24C40

Exhibit Dates: 3/78–Present.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk firing section equipment. *Skill Level 10:* Performs maintenance on Hawk or Improved Hawk radar, missile launching control box, and electrical, mechanical, and hydraulic systems of the launcher, transporter, and associated equipment; determines malfunction; performs repairs by replacing subassembly units; assists in orientation, alignment, and sychronization of equipment; assembles external hardware of missile; makes prescribed tests to determine operational and maintenance inspections. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs equipment modifications; supervises transfer and handling of missile; provides technical training to missile crew supervisory and operational personnel in arming and disarming missile; initiates request for repair parts, test equipment, tools, and supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical supervision in training programs for operator and maintenance personnel; demonstrates proper maintenance and troubleshooting techniques; supervises maintenance and inspection teams; supervises the preparation of technical forms and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates organizational maintenance of Hawk or Improved Hawk firing section equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics, 3 in basic electricity, and 3 in applied mathematics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in radar/microwave, and 3 in technical mathematics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semster hours in basic electronics, 3 in basic electricity, and 3 in applied mathematics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in radar/microwave, and 3 in technical mathematics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electronics, 3 in basic electricity, 3 in applied mathematics, and 3 in electronics shop practices, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in radar/microwave, 3 in technical mathematics, 3 in electronics shop practices, 3 in personnel supervision, and 2 in records and report preparation, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management and 3 in industrial education (electronics) (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in radar/microwave, 3 in technical mathematics, 3 in electronics shop practices, 3 in personnel supervision, 2 in records and reports preparation, and 3 in maintenance management, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management, 3 in introduction to management, 3 in human relations, and 3 in industrial education (electronics) (1/80).

MOS-24D-001

Hawk Missile-Launcher Mechanic

24D20
24D40

Exhibit Dates: 10/73–1/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 234 (Hawk Missile System Mechanics).

Description

Summary: Performs inspections and maintenance on specialized missile equipment. *Skill Level 20:* Inspects, tests, and adjusts equipment and components to specified tolerances; identifies malfunctions in fluidic, electrical, and mechanical systems, using multimeter and test equipment designed specifically for the missile system; repairs fluidic and mechanical components; performs a limited amount of calibration for special test sets. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a foreman and technical inspector, supervising four to six persons; establishes workloads and repair priorities; implements quality control measures; conducts on-the-job training; supervises the preparation of technical forms and reports and the requisition and stockage of supplies and repair parts.

Recommendation, Skill Level 20

Credit is not recommended because of the limited and military nature of the skills, competencies, and knowledge. In an apprentice training program in equipment repair, advanced standing only on the basis of employer or trade association performance examination because of the limited nature of the skills, competencies, and knowledge (3/75).

Recommendation, Skill Level 40

Credit is not recommended because of the limited and military nature of the skills, competencies, and knowledge. In an apprentice training program in equipment repair, advanced standing only on the basis of employer or trade association performance examination because of the limited nature of the skills, competencies, and knowledge (3/75).

MOS-24D-002

Hawk Missile-Launcher Mechanic

24D20
24D40

Exhibit Dates: 2/76–2/78. (Effective 9/80, MOS 24D was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 234 (Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Hawk missile and launcher. *Skill Level 20:* Performs maintenance on Hawk missile, on-missile electronic guidance control components, and mechanical, hydraulic, and electrical systems of launcher and loader-transporter; inspects, tests, and adjusts equipment and components to specified tolerances; assembles, interconnects, and tests components to determine operational condition; identifies malfunctions in electrical, mechanical,and fluidic systems, using multimeter and special-design test equipment; repairs fluidic and mechanical components, using basic block diagrams; substitutes electrical and electronic components; supervises the missile crew in installing initiators, electric power unit fuel stick, ignitors, arming devices, and safety devices; performs a limited amount of calibration for special test sets. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line technical supervisor; establishes workloads and repair priorties; implements quality control measures; conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; coordinates work activities with other units; supervises the preparation of technical reports and forms; supervises the requisitioning and storing of supplies and repair parts.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity and 3 in basic electronics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and additional credit in electronics, mechanics, and hydrualics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in human relations, 3 in personnel supervision, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24E-001

IMPROVED HAWK FIRE CONTROL
MECHANIC
24E20
24E30
24E40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk fire control equipment and engagement simulator. *Skill Level 20:* Checks and adjusts radar and associated power test equipment; performs electrical tests and adjustments; determines malfunctions and makes repairs; provides technical assistance in orientation, alignment, or synchronization of subassemblies and systems; installs equipment modifications; prepares maintenance and supply reports and forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; checks, adjusts, and repairs Improved Hawk engagement simulator; assists in the preparation of training programs for battery crews. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as the first-line technical supervisor for Improved Hawk operators and mechanics; coordinates work activities with supporting maintenance units; demonstrates proper troubleshooting and maintenance techniques; organizes and supervises maintenance and inspection teams; supervises requisitioning and storing of supplies and repair parts.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics and 3 in electronic instruments, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in electronic instruments, and additional credit in electronics and algebra on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician (sound and manufacturing) apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics and 3 in electronic instruments, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in electronic instruments, and additional credit in electronics and algebra on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician (sound and manufacturing) apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in human relations, and 3 in personnel supervision, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, the recommendation is the same as that for Skill Level 30. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 30 because additional skills are administrative and supervisory in nature (2/76).

MOS-24E-002

IMPROVED HAWK FIRE CONTROL
MECHANIC
24E10
24E20
24E30
24E40

Exhibit Dates: 3/78–2/81.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk fire control equipment and engagement simulator, pulse acquisition radar, range-only-radar, and associated equipment. *Skill Level 10:* Performs checks and adjustments on Improved Hawk battery control center, pulse acquisition radar, range-only-radar, and associated equipment; localizes malfunctions and accomplishes repairs using appropriate tools, test equipment and parts; provides technical assistance in orientation, alignment, and synchronization of subassemblies and systems; assists in training operators in operator level maintenance; provides technical assistance in operational and maintenance inspections; provides technical assistance in logistics, emplacement, and helicopter rigging of listed equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance and guidance to Skill Level 10 personnel; installs electrical and electronic equipment modifications; initiates request for repair parts, tools, test equipment and other supplies; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical supervision in training programs for operator personnel; supervises the preparation of technical forms and reports; coordinates activities with supporting maintenance units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; supervises the requisitioning and stockage of supplies and repair parts; organizes and supervises maintenance and inspection teams. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as first-line technical supervisor for system operators and mechanics; serves as section chief of fire control mechanics; serves as chief fire control mechanic at battalion or higher level to assist in supervision and coordination of maintenance activities.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in technical mathematics, and additional credit in electronics and technical mathematics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in technical mathematics, and additional credit in electronics and technical mathematics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in electronic shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in technical mathematics, 3 in electronics shop practices, 3 in personnel supervision, 2 in records and reports preparation, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management and 3 in industrial education (electronics) (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in technical mathematics, 3 in personnel supervision, 3 in electronics shop practices, 2 in records and reports preparation, 3 in maintenance management, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management, 3 in introduction to management, 3 in human relations, and 3 in industrial education (electronics) (1/80).

MOS-24E-003

HAWK FIRE CONTROL MECHANIC
(IMPROVED HAWK FIRE CONTROL
MECHANIC)
24E10
24E20
24E30

Exhibit Dates: 3/81–Present.

Career Management Field: 23 (Air Defense Missile Maintenance).

Description

Summary: Supervises or performs organizational maintenance on Hawk or Improved Hawk fire control equipment, engagement simulator, radar, battery control central, and associated equipment. *Skill Level 10:* Performs equipment checks and adjustments; localizes malfunctions and repairs at the block diagram level; assists in the training of operators in operator level of maintenance and provides technical assistance in the conduct of operational and maintenance inspections. *Skill Level 20:* Able to perform the duties required for Skill Level 10; initiates request for repair parts, tools, and supplies; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises training programs for operator and maintenance personnel; prepares forms and reports; demonstrates proper maintenance and troubleshooting techniques; supervises requisition and stockage of supplies and repair parts; organizes and supervises maintenance and inspection teams.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic test equipment, and 3 in digital circuits (12/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic test equipment, and 3 in digital circuits (12/84).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic test equipment, 3 in digital circuits, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in in technical mathematics, 3 in electronic test equipment, 3 in digital circuits, and 3 in personnel supervision (12/84).

MOS-24F-001

HAWK FIRE CONTROL MECHANIC

24F20

24F30

24F40

Exhibit Dates: 10/73-2/78. (Effective 9/80, MOS 24F was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 234 (Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Hawk fire control and engagement simulator. *Skill Level 20:* Checks and adjusts radar and associated power and test equipment; performs electrical tests and adjustments; provides technical assistance in orientation, alignment, or sychronization of subassemblies and systems; localizes malfunctions and makes repairs; installs equipment modifications; prepares maintenance and supply forms and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; checks, adjusts, and repairs Hawk engagement simulator; assists in the preparation of training programs for battery crews. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as the first-line technical supervisor for operator and maintenance personnel; coordinates work activities with supporting maintenance units; demonstrates proper maintenance and troubleshooting techniques; supervises requisitioning and storing of supplies and repair parts; organizes and supervises maintenance and inspection teams.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, and 3 in electronic instruments, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in electronic instruments, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician (sound and manufacturing) apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, and 3 in electronic instruments, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in electronic instruments, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician (sound and manufacturing) apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, and 3 in electronic instruments, and additional credit in technical mathematics and electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in electronic instruments, 3 in human relations, and 3 in personnel supervision, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). The recommendation for advanced standing in an apprentice training program is the same as that for Skill Levels 20 and 30 because additional skills are administrative and supervisory in nature (2/76).

MOS-24G-001

IMPROVED HAWK INFORMATION COORDINATION CENTRAL MECHANIC

24G20

24G40

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk information and coordination equipment. *Skill Level 20:* Performs maintenance on Improved Hawk continuous wave acquisition radar, coordination central, automatic data equipment, battery terminal equipment, and associated test equipment; performs electrical checks and adjustments on equipment; assists in orientation, alignment, and synchronization of subassemblies and systems; performs equipment modifications; initiates requests for repair parts, test equipment, tools, and supplies; prepares maintenance and supply records and forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor; provides technical supervision in training programs; coordinates work activities; determines faulty work practices and demonstrates proper troubleshooting and maintenance techniques; organizes and supervises maintenance and inspection teams; supervises the requisitioning and storing of supplies and repair parts.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and additional credit in technical mathematics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 2 in pulse circuits, 1 in radar/microwave, and additional credit in electronics, digital computer operation, and mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), and additional credit in AC/DC circuits and electronic devices on the basis of institutional evaluation. In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a construction electrician apprentice training program, advanced standing on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in human relations, 3 in personnel supervision, 2 in pulse circuits, 1 in radar/microwave, and additional credit in electronics, digital computer operation, and mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24G-002

Improved Hawk Information
Coordination Central Mechanic
24G10
24G20
24G30
24G40

Exhibit Dates: 3/78–2/81.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 235 (Improved Hawk Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Improved Hawk information and coordination equipment. *Skill Level 10:* Performs maintenance on Improved Hawk radar, information coordination central, automatic data equipment, battery terminal equipment, and associated equipment; performs electrical checks and adjustments on equipment; localizes malfunctions and accomplishes authorized repairs; assists with technical assistance in orientation, alignment, and synchronization of equipment; provides technical assistance in conduct of operational and maintenance inspection. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs equipment modifications, initiates orders for repair parts, tools and other supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises activities of lower skill level personnel; provides supervision of on-the-job training for operator and maintenance personnel; coordinates activities with supporting maintenance units; demonstrates proper maintenance and troubleshooting techniques; supervises requisitioning and stockage of supplies and repair parts; supervises the preparation of technical forms and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates maintenance of Improved Hawk information and coordination equipment mechanics; may serve as section chief for mechanics; may serve as chief mechanic at battalion or higher level to assist in coordination of maintenance activities in subordinate units.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 6 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in microwave techniques, 3 in technical mathematics, 3 in computer mathematics, and additional credit in electronics and digital computer operations on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in microwave techniques, 3 in technical mathematics, 3 in computer mathematics, 3 in introduction to computers, and additional credit in electronics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, 6 in applied mathematics, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in microwave techniques, 3 in technical mathematics, 3 in computer mathematics, 3 in introduction to computers, 3 in electronics shop practices, 3 in personnel supervision, and 2 in records and reports preparation, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial education (electronics) and 3 for field experience in personnel management (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC/DC circuits, 1 in microwave techniques, 3 in technical mathematics, 3 in computer mathematics, 3 in introduction to computers, 3 in electronics shop practices, 3 in personnel supervision, 2 in records and reports preparation, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in industrial education (electronics), 3 for field experience in personnel management, 3 in introduction to management, and 3 in human relations (1/80).

MOS-24G-003

Hawk Information Coordination
Central Mechanic
(Improved Hawk Information
Coordination Central
Mechanic)
24G10
24G20
24G30

Exhibit Dates: 3/81–Present.

Career Management Field: 23 (Air Defense Missile Maintenance).

Description

Summary: Supervises or performs organizational maintenance on Hawk or Improved Hawk information and coordination equipment. *Skill Level 10:* Performs equipment checks and adjustments; localizes malfunctions and repairs at the block diagram level; assists in the training of operators in operation level of maintenance and provides technical assistance in the conduct of operational and maintenance inspections. *Skill Level 20:* Able to perform the duties required for Skill Level 10; initiates requests for repair parts, tools, and supplies; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises training programs for operator and maintenance personnel; prepares forms and reports; demonstrates proper maintenance and troubleshooting techniques; supervises requisition and stockage of supplies and repair parts; organizes and supervises maintenance and inspection teams.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic systems troubleshooting, 1 in microwave techniques, 3 in digital techniques, and credit in computer operations on the basis of institutional evaluation (12/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic systems troubleshooting, 1 in microwave techniques, 3 in digital techniques, and credit in computer operations on the basis of institutional evaluation (12/84).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic systems troubleshooting, 3 in electronics shop practices, 1 in microwave techniques, 3 in digital techniques, and credit in computer operations on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in technical mathematics, 3 in electronic systems troubleshooting, 1 in microwave techniques, 3 in digital techniques, 3 in personnel supervision, and credit in computer operations on the basis of institutional evaluation (12/84).

MOS-24H-001

Improved Hawk Fire Control
Repairman
24H20
24H40

Exhibit Dates: 10/73–8/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises and performs support maintenance on electronic systems of Improved Hawk fire control equipment. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances and determines malfunctions in electronic assemblies, subassemblies, modules, and circuit elements, using common and system special-design test equipment; performs initial and final checkouts and inspections of the system, assemblies, and subassemblies; installs equipment modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics and 3 in introduction to computer science or data processing, and additional credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics and 3 in introduction to computer science or data processing, and additional credit in electronics on the basis of institutional evaluation. In an electronic technician apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in introduction to computer science or data processing, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and additional credit in electronics on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24H-002

IMPROVED HAWK FIRE CONTROL REPAIRMAN

24H20
24H40

Exhibit Dates: 9/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Performs support maintenance and inspections of Improved Hawk battery control centers, including radar consoles, electronic systems, communications systems, computers, and various types of advanced electronic test instruments. *Skill Level 20:* Applies basic electronic theory and advanced circuit concepts in troubleshooting both vacuum tube and solid-state electronic systems and circuits; uses schematics and logic diagrams to trace specific problems in analog, digital, or mechanical systems; uses both electrical and mechanical hand tools when performing adjustments and making repairs; operates sophisticated test instruments such as digital multimeters, frequency counters, time-interval meters, pulse generators, sweep generators, test simulators, dual-trace dual-sweep oscilloscopes, and radar computers; frequently performs repairs and minor calibration of support test instruments; uses simple algebraic and trigonometric formulas for calculating tolerances on various electromechanical systems; logs equipment failures, repairs, and inspections; completes maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records; prepares maintenance reports.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 3 in electronics laboratory, 3 in basic algebra and trigonometry, 3 in radar circuit theory, 2 in computer circuit theory, 2 in electromechanics, 2 in instrumentation, and 1 in introduction to television. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, and 3 in technical mathematics. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. In an electronics instrument mechanic/repairman apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, 3 in technical mathematics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (5/77).

MOS-24H-003

HAWK FIRE CONTROL REPAIRER
(IMPROVED HAWK FIRE CONTROL REPAIRER)

24H10
24H20
24H30

Exhibit Dates: 3/78–9/90.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance and inspections of Hawk or Improved Hawk battery control centers including radar consoles, electronic systems, communications systems, computers, and various types of advanced electronic test equipment. *Skill Level 10:* Inspects, tests, and adjusts components to specific tolerances; determines shortcomings and malfunctions in electronic assemblies, subassemblies, modules, and circuit elements with common and system special-design test equipment; repairs unserviceable items by removing and replacing defective components and parts; determines serviceability and disposition of defective assemblies, subassemblies, modules, and circuit elements; performs quality control measures; serves on inspection teams; performs maintenance and repair on test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs electrical and electronic equipment modifications; provides technical assistance to supported units; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises duties performed at preceding levels; establishes workloads and repair priorities; recommends procedures for receipt, storage, inspection, testing, and repair of items; implements quality control measures; performs initial and final type checkout and inspection of designated system items and their assemblies and subassemblies; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records; prepares maintenance reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in technical mathematics, and additional credit in electronics and technical mathematics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in technical mathematics, and additional credit in electronics and technical mathematics on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, 3 in applied mathematics, and 3 in electronic shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, 3 in technical mathematics, 3 in electronic shop practices, 3 in personnel supervision, 2 in records and reports preparation, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management (1/80).

MOS-24H-004

HAWK FIRE CONTROL REPAIRER

24H10
24H20
24H30
24H40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-24J-001

IMPROVED HAWK PULSE RADAR REPAIRMAN

24J20
24J40

Exhibit Dates: 10/73–8/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs support maintenance on Improved Hawk pulse radars and associated equipment. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances and determines malfunctions in electronic assemblies, subassemblies, modules, and circuit elements, using common and system special-design test equipment; performs initial and final checkouts and inspections of the system, assemblies, and subassemblies; installs equipment modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20;

establishes workloads and repair priorities; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, 3 in radar, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24J-002

IMPROVED HAWK PULSE RADAR
REPAIRMAN

24J20

24J40

Exhibit Dates: 9/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Peforms or supervises support maintenance on Improved Hawk pulse radars and associated equipment. *Skill Level 20:* Maintains improved pulse acquisition radar, range-only radar, test equipment, and systems associated with test equipment; inspects, tests, and adjusts components to specific tolerances; determines malfunctions in electronic assemblies, subassemblies, modules, and circuit elements by using common and system special-design test equipment; determines disposition of defective assemblies, subassemblies, modules, and circuit elements; locates, removes, and replaces defective components and parts; performs initial and final checkouts; installs equipment modifications; completes maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance on Improved Hawk pulse radars and associated equipment; establishes workloads and repair priorties; recommends procedures for receiving, storing, inspecting, testing, and repairing equipment, parts, and supplies; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records; prepares maintenance reports.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in electricity/electronics laboratory, 3 in radar circuit theory, 3 in tube and transistor circuits, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, and 3 in technical mathematics. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. In an electronics instrument mechanic/repairman apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, 3 in technical mathematics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (5/77).

MOS-24J-003

HAWK PULSE RADAR REPAIRER
(IMPROVED HAWK PULSE RADAR
REPAIRER)

24J10

24J20

24J30

Exhibit Dates: 3/78–2/89. (Effective 3/89, MOS 24J was discontinued and its duties were incorporated into MOS 27J, Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises and performs maintenance on Hawk or Improved Hawk missile pulse radars and associated equipment. *Skill Level 10:* Performs maintenance on electronic systems of pulse acquisition radars and pulse ranging radars of the Hawk Missile System; inspects, tests, and adjusts electronic components, modules, subassemblies, and assemblies, using common and specialized electronic test instruments; performs initial and final checkouts and inspections for the electronic portions of the radar system; replaces defective parts and does approved modifications; serves on inspection teams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs equipment modifications and provides technical assistance to support units; prepares maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; performs initial and final check out and inspection of the radar system and the subassemblies; supervises inspection and maintenance teams; establishes and keeps maintenance records; organizes and conducts on-the-job training programs.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronics test procedures, 3 in tube and transistor circuits, and 1 in microwave techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in elementary DC and AC circuits, 3 in introduction to tube and transistor circuits, 3 in electronic test procedures, and 1 in microwave techniques (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronic test procedures, 3 in tube and transistor circuits, and 2 in microwave techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in elementary AC and DC circuits, 3 in introduction to tube and transistor circuits, 3 in electronic test procedures, and 2 in microwave techniques (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronics test procedures, 3 in tube and transistor circuits, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 3 in elementary DC and AC circuits, 3 in introduction to tube and transistor circuits, 3 in electronics shop practices, 3 in personnel supervision, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management (1/80).

MOS-24K-001

IMPROVED HAWK CONTINUOUS WAVE
RADAR REPAIRMAN

24K20

24K40

Exhibit Dates: 10/73–8/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs support maintenance on electronic systems of Improved Hawk continuous wave radars and associated equipment. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances and determines malfunctions in electronic assemblies, subassemblies, modules, and circuit elements, using common and system special-design test equipment; performs initial and final checkouts and inspections of the system, assemblies, and subassemblies; installs equipment modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, 3 in radar, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24K-002

Improved Hawk Continuous Wave Radar Repairman

24K20
24K40

Exhibit Dates: 9/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Performs or supervises maintenance on electronic systems of Improved Hawk continuous wave radars, high-power illuminator radars, and associated equipment. *Skill Level 20:* Performs maintenance on Improved Hawk continuous wave radars, high-power illuminator radars, test equipment, mobile team shops, and associated system-peculiar portable test equipment; inspects, tests, and adjusts components to specific tolerances; determines malfunctions in electronic assemblies, subassemblies, modules, and circuit elements by using common and system-design test equipment; removes and replaces defective components and parts; determines disposition of defective assemblies, subassemblies, modules, and circuit elements; performs initial and final checkouts; installs equipment modifications; completes maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance on Improved Hawk continuous wave radars and associated equipment; establishes workloads and repair priorities; recommends procedures for receiving, storing, inspecting, testing, and repairing equipment and parts; organizes and conducts on-the-job training programs; supervises maintenance and inspection teams; demonstrates proper work procedures and troubleshooting techniques; keeps maintenance records; prepares maintenance reports.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in electricity/electronics laboratory, 3 in radar circuit theory, 3 in tube and transistor circuits, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, and 3 in technical mathematics. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. In an electronics instrument mechanic/repairman apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in advanced electronics, 3 in electronics laboratory, 3 in technical mathematics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (5/77).

MOS-24K-003

Hawk Continuous Wave Radar Repairer
(Improved Hawk Continuous Wave Radar Repairer)

24K10
24K20
24K30

Exhibit Dates: 3/78–9/90.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on Hawk or Improved Hawk continuous wave radars and associated equipment. *Skill Level 10:* Performs support maintenance on electronic systems of continuous wave radars and special high-power illuminator radars associated with the Hawk missile system; adjusts, inspects, and tests electronic assemblies, subassemblies, modules, and circuit elements, using common and special-design test equipment; performs initial and final checkouts and inspections for the electronic portions of the radar systems; performs approved modifications and serves on inspection teams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs equipment modifications and provides technical assistance to supported units; prepares maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; performs initial and final checkouts and inspection of the radar systems and their subassemblies; supervises inspection and maintenance teams; establishes and keeps maintenance records; prepares maintenance reports; organizes and conducts on-the-job training programs.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronics test procedures, 3 in tube and transistor circuits, and 1 in microwave techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in elementary DC and AC circuits, 3 in introduction to tube and transistor circuits, 3 in electronic test procedures, and 1 in microwave laboratory (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronic test procedures, 3 in tube and transistor circuits, and 2 in microwave techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in elementary DC and AC circuits, 3 in introduction to tube and transistor circuits, 3 in electronic procedures, and 2 in microwave laboratory (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in DC and AC circuits, 3 in electronics test procedures, 3 in tube and transistor circuits, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in elementary DC and AC circuits, 3 in introduction to tube and transistor circuits, 3 in electronics test procedures, 3 in microwave laboratory, 3 in personnel supervision, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management (1/80).

MOS-24K-004

Hawk Continuous Wave Radar Repairer

24K10
24K20
24K30
24K40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-24L-001

Improved Hawk Launcher and Mechanical Systems Repairman

24L20
24L40

Exhibit Dates: 9/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on electrical, hydraulic, hydropneumatic, mechanical, and electromechanical portions of the Improved Hawk missile system and on the electronic systems of the Improved Hawk launcher and associated test equipment. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances; determines deficiencies in electronic, electrical, hydraulic, hydropneumatic, mechanical, and electromechanical assemblies, subassemblies, and circuits by using common and system special-design test equipment; removes and replaces defective components and determines their disposition; performs load testing and maintenance calibration; repairs job-related tools and equipment; installs electrical, hydraulic, hydropneumatic, mechanical, and electromechanical modifications on Improved Hawk system items; completes maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance of electrical, mechanical, electromechanical, hydraulic, and hydropneumatic systems of the Improved Hawk missile system and of the electronics system of the Improved Hawk launcher; establishes workloads and repair priorities; recommends procedures for receiving, storing, inspecting, testing, and repairing items; organizes and conducts on-the-job training programs; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records; prepares maintenance reports.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in electromechanical systems, 3 in mechanics, 3 in hydraulics, 3 in technical mathematics, and 1 in care and use of tools, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, and 3 in technical mathematics, and additional credit in electronics, electricity, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. In a wireman-electrician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, 3 in technical mathematics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management, and additional credit in electronics, electricity, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in industrial arts on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skill are administrative and supervisory in nature (5/77).

MOS-24L-002

HAWK LAUNCHER AND MECHANICAL
SYSTEMS REPAIRER
(IMPROVED HAWK LAUNCHER AND
MECHANICAL SYSTEMS REPAIRER)

24L10
24L20
24L30

Exhibit Dates: 3/78-2/89. (Effective 3/89, MOS 24L was discontinued and its duties were incorporated into MOS 27H, Hawk Firing Section Repairer.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on the electrical, hydraulic, hydropneumatic, mechanical, and electromechanical portions of the Improved Hawk system and the electronic systems of Hawk or Improved Hawk launcher. *Skill Level 10:* Inspects, tests, and adjusts to specific tolerances; determines deficiencies in electronic, electrical, hydraulic, hydropneumatic, mechanical, and electromechanical assemblies, subassemblies, and circuits with common and special-design test equipment; performs required maintenance; repairs unserviceable items by removing and replacing defective components and parts and determines their disposition; performs quality control measures; performs load testing, maintenance calibration, and repair of job related tools and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs electrical, hydraulic, hydropneumatic, mechanical, and electromechanical equipment modifications; provides technical assistance to supported units; completes maintenance and supply forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises duties performed by lower skill level personnel involving maintenance of the Improved Hawk missile and launching systems; establishes workloads and repair priorities; recommends procedures for receiving, storing, inspecting, testing, and repairing items; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps records; prepares maintenance reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in electromechanical systems, 3 in mechanics, 3 in hydraulics, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, and 3 in technical mathematics (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in electromechanical systems, 3 in mechanics, 3 in hydraulics, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, and 3 in technical mathematics (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in electromechanical systems, 3 in mechanics, 3 in hydraulics, 3 in applied mathematics, and 3 in electrical and mechanical shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, 3 in technical mathematics, 3 in electrical and mechanical shop practices, 3 in personnel supervision, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel supervision (1/80).

MOS-24M-001

VULCAN SYSTEM MECHANIC

24M20
24M30
24M40

Exhibit Dates: 10/73-8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 271 (Combat Missile Mechanics).

Description

Summary: Supervises or performs maintenance on Vulcan weapon system and associated equipment. *Skill Level 20:* Performs routine maintenance on the range-only radar, the rapid alerting identification display, and test, diagnostic, and measuring equipment; uses test equipment to determine malfunctioning components, parts, and accessories; initiates requests for repair parts, tools, test equipment, and other supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs maintenance on the forward area alert radar. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical supervision in training programs for operator and maintenance personnel; coordinates work activities with supporting units; demonstrates proper maintenance and troubleshooting techniques; is responsible for requisitioning and storing supplies and repair parts.

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 30

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (2/76).

MOS-24M-002

VULCAN SYSTEM MECHANIC
(VULCAN/FAAR SYSTEM MECHANIC)

24M10
24M20
24M30
24M40

Exhibit Dates: 9/77-Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 272 (Light Air Defense Systems Maintenance).

Description

Summary: Supervises or performs maintenance on the Vulcan weapons system and the Forward Area Alerting Radar (FAAR) and associated equipment. *Skill Level 10:* Performs routine maintenance on range-only radar, the target display system, and test, diagnostic, and measuring equipment; maintains electro-mechanical and mechanical components associated with turret assemblies on Vulcan launch equipment; uses some basic test equipment including meters, oscilloscopes, and specialized test equipment; isolates malfunctions to the black box level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill-level personnel; assigns duties; maintains forms and records to insure proper maintenance procedures for all Chaparral systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; establishes maintenance procedures; conducts technical inspections and coordinates maintenance activities.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in electronics laboratory, and 2 in mechanical laboratory. In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in electronics laboratory, and 2 in mechanical laboratory. In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in electronics laboratory, 2 in mechanical laboratory, 2 in maintenance management, and 3 in electronic and mechanical shop practices. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 3 in electronics and mechanical shop practices, 2 in maintenance management, and 2 in electronics laboratory (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in electronics laboratory, 2 in mechanical laboratory, 3 in electronics and mechanical shop practices, and 4 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in electronics and mechanical shop practices, 4 in maintenance management, and 2 in electronics laboratory (1/80).

MOS-24N-001

CHAPARRAL SYSTEM MECHANIC

24N20
24N30
24N40

Exhibit Dates: 10/73-8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 271 (Combat Missile Mechanics).

Description

Summary: Supervises or performs maintenance on Chaparral weapon systems and on Forward Area Alerting Radar (FAAR). *Skill Level 20:* Performs routine maintenance on Chaparral weapons systems, using test equipment to locate malfunctions in the assemblies and subassemblies of the systems; initiates requests for repair parts, tools, test equipment, and other supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs maintenance on Forward Area Alerting Radar (FAAR). *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical supervision in training programs for operational and maintenance personnel; coordinates work activities with supporting units; demonstrates proper maintenance and troubleshooting techniques, organizes and supervises maintenance and inspection teams; is responsible for requisitioning and storing supplies and repair parts.

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 30

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (2/76).

MOS-24N-002

CHAPARRAL SYSTEM MECHANIC

24N10
24N20
24N30
24N40

Exhibit Dates: 9/77-Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 272 (Light Air Defense Systems Maintenance).

Description

Summary: Supervises or performs maintenance on Chaparral weapon system and associated equipment. *Skill Level 10:* Performs routine maintenance on Chaparral weapon system and target display sets; maintains mechanical, electrical, hydraulic, pneumatic, and some electronic systems associated with the Chaparral launch equipment; uses test meters and specialized test sets to localize malfunctions to the black-box level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; assigns duties; maintains forms and records to insure proper maintenance procedures for all Chaparral systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; establishes maintenance procedures; conducts technical inspections of Chaparral systems and coordinates maintenance activities.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in mechanical laboratory (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in mechanical laboratory (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in mechanical laboratory, 3 in mechanical shop practices, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 3 in mechanical shop practices, and 2 in maintenance management (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in mechanical laboratory, 3 in mechanical shop practices, and 4 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in mechanical shop practices, and 4 in maintenance management (1/80).

MOS-24P-001

DEFENSE ACQUISITION RADAR MECHANIC

24P20
24P40

Exhibit Dates: 10/73-2/78.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 261 (Radar Mechanics).

Description

Summary: Supervises or performs maintenance of air defense acquisition radars. *Skill Level 20:* Performs maintenance on high-power acquisition radars, low-power acquisition radars, auxiliary battery acquisition radars, communications systems security devices, battery control circuits, and fire unit integration facility; performs maintenance checks with specialized test and measuring devices; locates and isolates malfunctions; inspects, tests, and replaces defective components; makes adjustments to return equipment to operating order; keeps maintenance records and prepares equipment maintenance reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; supervises preparation and administration of maintenance records and reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and test equipment operation, and 3 in tubes and transistor circuits. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and test equipment operation, and 3 in tubes and transistor circuits. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits, and test equipment operation, 3 in tube and transistor circuits, 3 in personnel supervision, and 3 in human relations. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-24P-002

DEFENSE ACQUISITION RADAR MECHANIC

24P10
24P20
24P30
24P40

Exhibit Dates: 3/78-2/87. (Effective 3/87, MOS 24P was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 232 (Nike Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on air defense acquisition radar sets and associated equipment. *Skill Level 10:* Performs maintenance on several radar sets, including high power acquisition radar, low power acquisition radar, and auxiliary battery acquisition radar; maintains and determines operational condition of communications security devices, firing control coordination facility, and battery control circuits; uses common and specialized test equipment and measuring devices to locate and isolate malfunctions, along with circuit analysis techniques; inspects, tests, and replaces defective components; adjusts equipment to return to operating condition; know basic electric/electronic theory, principles of solid-state-devices, and binary fundamentals. *Skill Level 20:* Able to perform the duties required for Skill Level 10; completes maintenance and supply forms; installs equipment modifications; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; coordinates activity with supporting maintenance units; supervises preparation of technical and maintenance logs, forms, records and reports; supervises the requisition of supplies and repair parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as chief radar mechanic at battalion or higher level; knows characteristics of equipment, repair procedures, supply management and maintenance management; supervises and coordinates maintenance activities in subordinate units.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 1 in systems maintenance, and 2 in electronic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics fundamentals, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device fundamentals, radar principles, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 1 in systems maintenance, and 2 in electronic systems troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics fundamentals, 2 in AC/DC circuit fundamentals, and 1 in electronic instruments. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and credit in electronic device fundamentals, radar principles, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in systems maintenance, 2 in maintenance management, 3 in electronic systems troubleshooting, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics fundamentals, 2 in AC/DC circuit fundamentals, 3 in electronics shop practices, 1 in electronic instruments, 3 in personnel supervision, 2 in maintenance management, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 for field experience in personnel management, and credit in electronic device fundamentals, radar principles, and circuit analysis on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in systems maintenance, 3 in electronic systems troubleshooting, 2 in supply management procedures, 3 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics fundamentals, 2 in AC/DC circuit fundamentals, 3 in electronics shop practices, 1 in electronic instruments, 3 in personnel supervision, 2 in records and reports preparation, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 for field experience in personnel management, and credit in electronic device fundamentals, radar principles, and circuit analysis on the basis of institutional evaluation (1/80).

MOS-24Q-001

NIKE-HERCULES FIRE CONTROL MECHANIC

24Q20
24Q30
24Q40

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 232 (Nike Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on misssile fire control equipment and radar target simulator. *Skill Level 20:* Checks and adjusts target and missile tracking and ranging radar systems, computers, multichannel data recorders, and associated battery control circuits; locates and repairs malfunctions, using common and special-design tools and test equipment; installs equipment modifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; maintains radar target simulator. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line technical supervisor; trains maintenance personnel; coordinates work activities with other maintenance units; demonstrates proper maintenance and troubleshooting techniques; organizes and supervises maintenance and inspection teams; establishes workloads and repair priorities; supervises the requisitioning and storing of repair parts and supplies.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 2 in control systems, 1 in systems maintenance, 1 in communication systems (electronics), 1 in shop practices, and 1 in alignment techniques (video). In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 2 in digital circuit analysis, 1 in digital computer fundamentals, 1 in electronic instruments, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in technical mathematics, 2 in control systems, 1 in systems maintenance, 1 in communication systems (electronics), 1 in shop practices, and 1 in alignment techniques (video). In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 2 in digital circuit analysis, 1 in digital computer fundamentals, 1 in electronic instruments, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20 In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in radar/microwave theory, 3 in human relations, 3 in personnel supervision, 2 in DC circuit analysis, 2 in AC circuit analysis, 2 in digital circuit analysis, 1 in digital computer fundamentals, 1 in electronic instruments, and 1 in transistor/tube theory. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) and additional credit in electronic device theory, radar/microwave, digital computers, and circuit analysis on the basis of institutional evaluation; if the duty assignment was chief fire control mechanic, 3 additional semester hours for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 30 because additional skills are administrative and supervisory in nature (2/76).

MOS-24Q-002

NIKE-HERCULES FIRE CONTROL MECHANIC

24Q10
24Q20
24Q30
24Q40

Exhibit Dates: 3/78-2/87. (Effective 3/87, MOS 24Q was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 232 (Nike Missile System Mechanics).

Description

Summary: Supervises or performs organizational maintenance on Nike Hercules fire control equipment and radar target simulator. *Skill Level 10:* Performs maintenance on tracking radar, range radar, missile tracking radar, data recorders, and battery control circuits; performs checks and adjustments to the component level using schematic-related troubleshooting techniques; uses standard circuit tracing equipment such as an oscilloscope, multimeter, differential voltmeter; circuitry primarily involves vacuum tubes, but some transistors and integrated circuitry are also encountered. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises activities of lower skill levels; supervises the preparation of maintenance forms and reports; supervises training programs, requisition of parts and stocks for repairs; organizes and supervises maintenance and inspection teams. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates all maintenance on the Nike Hercules fire control equipment including the radar target simulator; may serve as Chief Fire Control Mechanic at battalion or higher level.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, and 3 in electronics fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals and 3 in radar operations. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, and 3 in electronics fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals and 3 in radar operations. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, 3 in electronics troubleshooting, 3 in electronics shop practices, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, 3 in electronics troubleshooting, 3 in electronics shop practices, 2 in records and reports preparation, 2 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) and 3 for field experience in personnel management (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, 3 in electronics troubleshooting, 3 in electronics shop practices, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in electric/electronic fundamentals, 3 in electronics maintenance, 3 in electronics troubleshooting, 3 in electronics shop practices, 2 in records and reports preparation, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 for field experience in personnel management, 3 in introduction to management, and 3 in human relations (1/80).

MOS-24R-001

HAWK MASTER MECHANIC

(IMPROVED HAWK MASTER MECHANIC)

24R40

24R50

Exhibit Dates: 3/81-Present.

Career Management Field: 23 (Air Defense Missile Maintenance).

Description

Summary: Supervises or performs maintenance on Improved Hawk equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 24E, Hawk (Improved Hawk) Fire Control Mechanic, MOS 24G, Hawk (Improved Hawk) Information Coordination Central Mechanic, and MOS 24C, Hawk Firing Section Mechanic; supervises and coordinates the maintenance of Improved Hawk information coordination central, automatic data equipment, improved continuous wave acquisition radar, identification friend or foe, battery terminal equipment, battery control central, pulse acquisition radar, range-only radar, and associated tools and test equipment; prepares maintenance forms and supply records; diagnoses and determines causes of malfunctions; reads, interprets, and explains complex circuit diagrams and schematics; provides technical advice and assistance. NOTE: May have progressed to 24R40 from 24E30 (Hawk (Improved Hawk) Fire Control Mechanic or 24G30 (Hawk (Improved Hawk) Information Coordination Central Mechanic). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and coordinates maintenance on Improved Hawk high-powered illuminator radar, missile-launching section control box, launcher, mechanical, hydraulic, and electrical systems, and loader-transporter; serves as senior mechanic; establishes, maintains and monitors on-the-job training programs; provides technical guidance to other units.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (12/84).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 for field experience in management, and 3 in management problems (12/84).

MOS-24T-001

PATRIOT OPERATOR AND SYSTEM MECHANIC

24T10

24T20

24T30

24T40

Exhibit Dates: 9/80–3/84.

Career Management Field: 23 (Air Defense Missile Maintenance).

Description

Summary: Supervises, operates, or performs maintenance on the Patriot air defense missile system. *Skill Level 10:* Performs repairs on the Patriot radar set; installs authorized equipment modifications and prepares appropriate supplies, communication equipment, computer and computer peripherals, tools, and test equipment; removes and replaces faulty circuit cards and operates the maintenance vehicle. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower skill level personnel; performs organizational maintenance on the Patriot radar set, and assists in training operators in maintenance techniques; troubleshoots problems with external test equipment when isolation is not accomplished by built-in or other machine-aided equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor; provides supervision in training programs for operator and maintenance personnel; supervises preparation of technical forms and reports as well as requisitioning and stockage of supplies and repair parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; coordinates activities of maintenance personnel; supervises inspection of maintenance performance; supervises inspection teams and the maintenance of repair parts stockage; establishes maintenance priorities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits (12/84).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits (12/84).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, 3 in digital circuits, and 3 in personnel supervision (12/84).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, 3 in digital circuits, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (12/84).

MOS-24T-002

Patriot Operator and System Mechanic

24T10
24T20
24T30
24T40
24T50

Exhibit Dates: 3/84–Present.

Career Management Field: 23 (Air Defense Missile Maintenance).

Description

Summary: Supervises, operates, or performs maintenance on the Patriot air defense missile system. *Skill Level 10:* Performs repairs on the Patriot radar set; installs authorized equipment modifications and prepares appropriate supplies, communication equipment, computer and computer peripherals, tools, and test equipment; removes and replaces faulty circuit cards and operates the maintenance vehicle. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower skill level personnel; performs organizational maintenance on the Patriot radar set, and assists in training operators in maintenance techniques; troubleshoots problems with external test equipment when isolation is not accomplished by built-in or other machine-aided equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor; provides supervision in training programs for operator and maintenance personnel; supervises preparation of technical forms and reports as well as requisitioning and stockage of supplies and repair parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; coordinates activities of maintenance personnel; supervises inspection of maintenance performance; supervises inspection teams and the maintenance of repair parts stockage; establishes maintenance priorities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as maintenance chief; assists in planning, organization, and training operations; provides technical expertise; may serve as a member of a multi-national evaluation team.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits (12/84).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, and 3 in digital circuits (12/84).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, 3 in digital circuits, and 3 in personnel supervision (12/84).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 3 in electronic systems troubleshooting, 3 in digital circuits, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (12/84).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in personnel management and 6 for field experience in management (12/84).

MOS-24U-001

Hercules Electronics Mechanic

24U20
24U40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 232 (Nike Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Hercules missiles, airframes, and launching devices. *Skill Level 20:* Assembles, installs, maintains, and adjusts mechanical on-missile guidance control systems and associated equipment; assembles and interconnects electronic missile components; locates and repairs malfunctions, using common and special-design tools and test equipment; initiates requisitions for repair parts, tools, test equipment, and supplies. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as the first-line technical supervisor of Hercules electronics mechanics; establishes workloads and maintenance priorities; coordinates maintenance activities with other units; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; organizes and supervises inspection and maintenance teams; supervises the preparation of technical reports and forms.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, and 3 in electronic instruments, and additional credit in advanced electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in basic electricity, and 3 in technical mathematics (including trigonometry). In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a construction electrician apprentice training program, advanced standing on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in electronic instruments, and 3 in advanced electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in basic electricity, 3 in technical mathematics (including trigonometry), and 3 in human relations. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-24U-002

Nike-Hercules Custodial Mechanic
(Hercules Electronics Mechanic)

24U10
24U20
24U30
24U40

Exhibit Dates: 3/78–3/90. (Effective 3/90, MOS 24U was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 232 (Nike Missile System Mechanics).

Description

Summary: Supervises or performs maintenance on Hercules missiles, airframes, and launch devices. *Skill Level 10:* Assembles, installs, maintains, and adjusts certain mechanical assemblies relating to on-missile guidance control; assembles and interconnects electronic missile components; localizes malfunctions and repairs authorized components using specialized test sets; initiates requisitions for repairs of mechanical and some electronic missile subsystems; checks calibration of test sets; makes adjustments; isolates malfunctions in test sets to component level and makes repairs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises activities of lower skill level personnel; supervises the preparation of maintenance forms and reports; supervises training programs, requisition of parts and stock for repairs; organizes and supervises maintenance and inspection teams. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates all maintenance on the Hercules missiles, airframe and launch devices; may serve as chief electronics mechanic at battalion or higher level.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronic maintenance, and 3 in electronic troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronic maintenance, and 3 in electronic troubleshooting. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electric/electronic fundamentals, 3 in electronic maintenance, 3 in electronic troubleshooting, 2 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals, 2 in maintenance management, 3 in personnel supervision, 3 in electronic shop practices, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electrical/electronic fundamentals, 3 in electronic maintenance, 3 in electronic troubleshooting, 3 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals, 3 in maintenance management, 3 in personnel supervision, 3 in electronics shop practices, and 2 in records and reports preparation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel management, 3 in introduction to management, and 3 in human relations (1/80).

MOS-24V-001

IMPROVED HAWK MAINTENANCE CHIEF

24V50

Exhibit Dates: 10/73–8/76.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Skill Level 50: Supervises the maintenance of the Improved Hawk missile system; assists in the development of the quality assurance/quality control program and supervises its implementation; interprets policy; recommends changes in policy and procedures; advises superiors on all personnel matters; plans all work activities and operations; directs on-the-job training. NOTE: May have progressed to 24V50 from Skill Level 40 of any Improved Hawk mechanic or repairman MOS.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, 3 in maintenance management, 3 in industrial arts education (electronics), and 6 for field experience in management; if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education (2/76).

MOS-24V-002

IMPROVED HAWK MAINTENANCE CHIEF

24V50

Exhibit Dates: 9/76–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Skill Level 50: Supervises and coordinates maintenance of Improved Hawk missile system, including launcher; assists in the development of the qulity control program and supervises its implementation; interprets polices and procedures; advises superiors on technical and personnel matters; plans work activities and operations; assists in planning and accomplishing on-the-job taining; directs and coordinates the administration of the unit to which assigned; assists commander with inspections, observes discrepancies, and initiates appropriate corrective action. NOTE: May have progressed to 24V50 from Skill Level 40 of any Improved Hawk mechanic or repairman MOS.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in supervision and leadership, 3 in maintenance management, 3 in industrial arts education, and 6 for field experience in management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education (5/77).

MOS-24V-003

HAWK MAINTENANCE CHIEF
(IMPROVED HAWK MAINTENANCE CHIEF)

24V40

24V50

Exhibit Dates: 3/78–2/89. (Effective 3/89, MOS 24V was discontinued and its duties were incorporated into the following MOS's: 27V, Hawk Maintenance Chief; 24H, Hawk Fire Control Repairer; 27J, Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer; 24K, Hawk Continuous Wave Radar Repairer; and 27H, Hawk Firing Section Repairer.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises and coordinates maintenance of Hawk or Improved Hawk system. *Skill Level 40:* Supervises and coordinates maintenance of Hawk or Improved Hawk system, including launcher, radar, battery control, information coordination, simulator station, test equipment and associated training equipment; serves as a section chief or principle noncommissioned officer of platoon performing missile system support maintenance; supervises and inspects activities of subordinates engaged in missile system maintenance; assists in development and supervises quality assurance and quality control programs; advises superiors on technical and personnel matters; assists in planning and accomplishing on-the-job training. NOTE: From 3/87–present, progressed to 24V40 from 26H30 (Air Defense Radar Repairer); from 3/78–2/87, may have progressed to 24V40 from 22K30 (Hawk Missile and Launcher Repairer), 23Q30 (Hawk Fire Control Repairer), 22S30 (Hawk Pulse Radar Repairer), or 23T30 (Hawk Continuous Wave Radar Repairer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as maintenance chief in unit at battalion level or higher, or serves as chief instructor in a training facility; may serve as first sergeant of a company. NOTE: From 3/87–present, may have progressed to 24V50 from 24V40 or 24R50 (Hawk Master Mechanic); from 2/78–3/78, may have progressed to 24V50 from 24V40, 24B40 (Hawk Continuous Wave Radar Mechanic, 24D40 (Hawk Missile Launcher Mechanic), 24F40 (Hawk Fire Control System Mechanic), or 23V50 (Hawk Maintenance Chief).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, and 3 in public speaking. In the upper-division baccalaureate category, 2 semester hours in human relations, 3 in introduction to management, 3 for field experience in management, 3 in industrial arts education, and 3 in personnel management (1/80).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 2 semester hours in human relations, 3 in introduction to management, 6 for field experience in management, 3 in industrial arts education, and 3 in personnel management; if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education (1/80).

MOS-24W-001

SGT. YORK AIR DEFENSE GUN SYSTEM MECHANIC

24W10

24W20

24W30

24W40

Exhibit Dates: 3/84–8/87.

Career Management Field: 23 (Air Defense System Maintenance).

Description

MOS 24W was deleted from the MOS system before an evaluation could be scheduled.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-25D-001

BIRDIE REPAIRMAN

25D20

25D40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 25D was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 238 (Fire Distribution Systems Repair).

Description

Summary: Supervises or performs support maintenance on battery integration radar display equipment (BIRDIE) and associated radar data processing equipment (RDPE). *Skill Level 20:* Troubleshoots circuitry; conducts lamp tests on test panel, replaces indicators, and substitutes circuit packages; repairs or replaces defective test panel internal circuitry; troubleshoots and aligns data link system; test operates monitor console; adjusts deflection presentations, offset functions, and range marker accuracy; adjusts sweep and tag amplifiers for zero and test voltages, using portable oscilloscope and test panel; aligns analog subsystem by measuring and adjusting amplitude and phase; adjusts sweep revolver to align servomechanism; maintains air conditioners, test equipment, and tools. *Skill Level 40:* Able to perform the duties required for Skill Level 20; coordinates work activities with equipment operators and fire distribution terminal equipment repairmen; is responsible for the preparation of technical and administration records and reports; prepares, plans and schedules work shifts and assignments; observes, corrects, instructs, and supervises subordinate personnel in proper maintenance techniques and procedures; diagnoses complex equipment malfunctions.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics (including AC and DC circuits and use of test equipment), 3 in technical mathematics, 1 in digital circuits, and additional credit in electronics, mathematics, and computer science on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics (including AC and DC circuits and use of test equipment), 3 in technical mathematics, 1 in digital circuits, and additional credit in electronics, mathematics, and computer science on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics (including AC and DC circuits and use of test equipment), 3 in technical mathematics, 1 in digital circuits, 3 in human relations, 3 in maintenance supervision, 3 for field experience in management, and additional credit in electronics, mathematics, and computer science on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-25G-001

MOBILE ADCP MONITOR REPAIRMAN

25G20

25G40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 25G was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 238 (Fire Distribution Systems Repair).

Description

Summary: Maintains weapons monitoring center and associated mobile monitor equipment. *Skill Level 20:* Troubleshoots and repairs or replaces analog, digital, and analog-digital interface circuits; repairs or replaces monitor equipment components, such as buffers, magnetic drum and memory read-write amplifiers, display generators, consoles, cathode ray displays, radar data converters, data links, sequencers, computers, communications, and power supplies; uses oscilloscopes, digital testers, signal generators, transistor testers, tube testers, frequency meters, electronic voltmeters, and multimeters; performs field maintenance on test equipment, air conditioners, and equipment vans; modifies equipment to work order specifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20; prepares, plans, and schedules work shifts and assignments; observes, corrects, and instructs personnel in proper maintenance techniques and procedures; advises and assists repair personnel in solving complex maintenance problems; prepares technical and administrative records and reports. NOTE: May have progressed to 25G40 from either 25G20 or 25H20 (Radar Data Processing Equipment Repairman).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in basic electronics (including AC and DC circuits and use of test equipment), 3 in tube and transistor circuits, and 3 in digital circuits. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in basic electronics (including AC and DC circuits and use of test equipment), 3 in tube and transistor circuits, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in basic electronics (AC and DC circuits and use of test equipment), 3 in tube and transistor circuits, 3 in digital circuits, 3 in human relations, 3 in maintenance supervision, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-25H-001

RADAR DATA PROCESSING EQUIPMENT REPAIRMAN

25H20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 25H was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 238 (Fire Distribution Systems Repair).

Description

Skill Level 20: Troublshoots, diagnoses malfunctions, and repairs radar data processing and associated mobile monitoring equipment, such as buffers, magnetic drum and memory read-write amplifiers, display generators, digilogs, cathode ray displays and associated circuitry, consoles, data links, sequencers, remote data controls, radar data information circuits, communications, and power supplies; uses block diagrams, schematics, wire run charts and electronic test equipment; modifies equipment to work order specifications; maintains tools, test equipment, air conditioners, and equipment vans; keeps maintenance records; requisitions parts and subassemblies.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 6 in mathematics and trigonometry, 3 in digital circuits, 3 in tube and transistor circuits, and additional credit in basic electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in technical mathematics, 3 in digital circuits, 3 in tube and transistor circuits, and additional credit in computer technology on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-25J-001

OPERATIONS CENTRAL REPAIRMAN (OC-CDG REPAIRMAN)

25J20

25J40

Exhibit Dates: 10/73–2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 238 (Fire Distribution Systems Repair).

Description

Summary: Supervises or performs support maintenance on operations central. *Skill Level 20:* Diagnoses malfunctions; locates defects; repairs and replaces components, including binary counter, relays, digital card assemblies, vacuum tubes, cathode ray tubes, summing network circuits, power supplies, and associated regulation circuits; performs inspections and conducts system tests; studies and interprets technical manuals, schematics and wiring diagrams; organizes troubleshooting and maintenance procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises repair activities; observes, corrects, and instructs subordinates in proper maintenance functions with supported units; prepares records and reports.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in direct current, 3 in alternating current, 6 in technical mathematics, 3 in tube and transistor circuits, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in direct current, 3 in alternating current, 6 in technical mathematics, 3 in tube and transistor circuits, and 3 in digital circuits. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in direct current, 3 in alternating current, 6 in technical mathematics, 3 in tube and transistor circuits, 3 in digital circuits, 3 in human relations, 3 in maintenance supervision, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-25J-002

OPERATIONS CENTRAL REPAIRER

25J10

25J20

25J30

25J40

Exhibit Dates: 3/78–8/83. (Effective 9/83, MOS 25J was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance, subfield 237 (Fire Distributing Systems Repair).

Description

Summary: Supervises and performs maintenance on operations central. *Skill Level*

10: Peforms full range of maintenance on operations central system; troubleshoots equipment and circuitry; diagnoses malfunctions and locates defects; repairs or replaces components including binary counters, relays, digital card assemblies, vacuum tube amplifiers, cathode ray tubes, circuits, power supplies, and associated regulation circuits; test-operates system; conducts functional and system test, utilizing common and special test equipment; uses technical material, block diagrams, schematics, and charts to organize troubleshooting procedures and techniques; traces and tests circuits for malfunctioning components using oscilloscopes, multimeters, tube testers, and digital element testers; disassembles and repairs chassis and assemblies replacing defective circuit elements; tests repaired chassis and assemblies to ensure proper operations; performs user maintenance on tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs system electrical/electronic equipment modifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises duties of lower skill level personnel; observes, corrects, and instructs subordinates in proper maintenance techniques and procedures; prepares or supervises preparation of maintenance and administrative records and reports; advises and assists repair personnel on more difficult phases of maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as senior instructor in a training facility.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 6 in applied mathematics, 3 in transistor circuits, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 3 in technical mathematics, 3 in computer mathematics, 3 in transistor circuits, and 3 in digital circuits (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 6 in applied mathematics, 3 in transistor circuits, and 3 in digital circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 3 in technical mathematics, 3 in computer mathematics, 3 in transistor circuits, and 3 in digital circuits (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 6 in applied mathematics, 3 in transistor circuits, 3 in digital circuits, 2 in maintenance management, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in AC theory, 3 in DC theory, 3 in technical mathematics, 3 in computer mathematics, 3 in transistor circuits, 3 in digital circuits, 3 in electronics shop practices, 2 in maintenance management, 2 in records and reports preparation, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel supervision, and 3 in industrial arts education (electronics) (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel supervision, 3 in industrial arts education (electronics), and 3 for a practicum in education (1/80).

MOS-25K-001

AN/TSQ-51 SYSTEM REPAIRMAN/
MAINTENANCE CHIEF
25K20
25K40
25K50

Exhibit Dates: 9/75-2/78. (Effective 9/80, MOS 25K was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 238 (Fire Distribution Systems Repair).

Description

Summary: Supervises or performs support maintenance on the Air Defense Command and Control System (AN/TSQ-51). *Skill Level 20:* Performs full range of maintenance on display consoles, display and signal generation equipment, radar integration and video processing equipment, and general-purpose computers; troubleshoots equipment circuitry; diagnoses malfunctions and locates defects; repairs or replaces components in system; test-operates system; studies and interprets technical material, diagrams, computer programs, and interconnection lists; modifies system and components. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; schedules work shifts and assignments; provides technical guidance; prepares technical and administrative records and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 25K, 25D (BIRDIE Repairman), 25G (Mobile ADCP Monitor Repairman), or 25J (Operations Central Repairman); supervises fire distribution system maintenance unit at brigade or comparable level; supervises tactical movements of mobile fire distribution system; coordinates installation of equipment; handles classified material; diagnoses and determines causes of unusual or recurrent malfunctions; prepares reports and makes recommendations for modification of components; serves as chief instructor in a training facility.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in direct current, 3 in alternating current, 3 in basic electronics, 3 in introduction to computer science, 3 in technical mathematics (including algebra and trigonometry), and additional credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in direct current, 3 in alternating current, 3 in basic electronics, 3 in introduction to computer science, 3 in technical mathematics (including algebra and trigonometry), and additional credit in electronics on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in direct current, 3 in alternating current, 3 in basic electronics, 3 in introduction to computer science, 3 in technical mathematics (including algebra and trigonometry), 3 in human relations, 3 in personnel supervision, 3 for field experience in management, 3 in industrial arts education (electronics), and additional credit in electronics on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics), 3 in introduction to management, 3 in maintenance management, 3 in human relations and 6 for field experience in management; if the duty assignment was maintenance chief, 3 additional semester hours in personnel management; if the duty assignment was chief instructor in a training facility, 3 additional semester hours for an internship in education. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-25L-001

AN/TSQ-73 AIR DEFENSE ARTILLERY
COMMAND AND CONTROL SYSTEM
OPERATOR/REPAIRER
25L10
25L20
25L30
25L40

Exhibit Dates: 9/77-Present.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 237 (Fire Distribution Systems Repair).

Description

Summary: Supervises, operates, and performs maintenance on Air Defense Command and Control System (AN/TSQ-73). *Skill Level 10:* Operates the command and control system in the collection, evaluation, and distribution of target data to air defense artillery fire units; operates general purpose target display systems and communication stations; monitors display status readouts to ensure correct target identification; although this skill level indicates primarily operator duties, maintenance skills are being developed; diagnostic procedures are, in general, limited to programmed diagnostic checks. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs full range of maintenance on display consoles, power supplies, communications equipment, general purpose computers, and peripheral devices; provides technical and operational assistance to skill level 10 personnel; removes and replaces faulty assemblies and circuit cards. *Skill Level 30:* Able to perform the duties required for Skill

Level 20; provides technical guidance to lower skill level personnel in accomplishment of duties; able to detect and replace defective individual components; supervises on-the-job training and all operation/repair activities of subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and inspects overall organizational maintenance of the air defense command and control system.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in basic electricity, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in technical mathematics, and additional credit in electronics and digital computer operations on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in applied mathematics, and 3 in electronic test procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in technical mathematics, and 3 in electronics test procedures, and additional credit in electronics and digital computer operations on the basis of institutional evaluation (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in applied mathematics, 3 in electronics test procedures, 2 in maintenance management, 3 in electronics shop practices, and 3 in introduction to computers. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in technical mathematics, 3 in electronics test procedures, 3 in introduction to computer science, 3 in electronics shop practices, 3 in personnel supervision, and 2 in maintenance management, and additional credit in electronics and digital computer operations on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel supervision (1/80).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in applied mathematics, 3 in electronics test procedures, 3 in maintenance management, 3 in electronics shop practices, and 3 in introduction to computers. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electricity, 3 in technical mathematics, 3 in electronics test procedures, 3 in introduction to computer science, 3 in electronics shop practices, 3 in personnel supervision, and 3 in maintenance management, and additional credit in electronics and digital computer operations on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in personnel supervision, 3 in introduction to management, and 3 in human relations (1/80).

MOS-25P-001

Visual Information/Audio Documentation Systems Specialist

25P10
25P20
25P30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-25Q-001

Graphics Documentation Specialist

25Q10
25Q20
25Q30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-25R-001

Visual Information/Audio Equipment Repairer

25R10
25R20
25R30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-25S-001

Still Documentation Specialist

25S10
25S20
25S30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-25Z-001

Audio-Visual Chief

25Z50

Exhibit Dates: Pending evaluation. 3/87–Present.

MOS-26B-001

Weapons Support Radar Repairman

26B20
26B30

Exhibit Dates: 10/73–2/78.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 262 (Ground Radar Repair).

Description

Summary: Performs maintenance on weapons support radar and associated equipment. *Skill Level 20:* Uses hand tools and test and measuring equipment to detect sources of malfunctions in weapons support radars; interprets schematic diagrams and technical material; replaces faulty components; adjusts operating radars and associated equipment for maximum performance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; adjusts recorders, relays, controls, and power units; determines the extent of required maintenance; makes comparison checks of repaired equipment with test standards; keeps work logs; prepares supply requisitions.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and test equipment operation, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in AC and DC circuits and test equipment operation, 3 in tube and transistor circuits, and 3 in radar. In an electronic technican apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-26B-002

Weapons Support Radar Repairer

26B10
26B20

Exhibit Dates: 3/78–8/85. (Effective 9/85, MOS 26B was discontinued and its duties were incorporated into MOS 26C, Target Acquisition/Surveillance Radar Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs maintenance on weapons support radar, meteorological and associated equipment. *Skill Level 10:* Performs equipment serviceability criteria checks; maintains logs and records; replaces and repairs faulty components; uses hand tools and test measuring equipment to detect sources of malfunctions; interprets schematic diagrams and technical materials; adjusts operating radars, meteorological and associated equipment for maximum performance; tests, operates, and aligns repaired equipment to ensure operation conforms to standards. *Skill Level 20:* Able to perform the duties required for Skill Level 10; tests and adjusts recorders, relays, controls and power units; determines the extent of required maintenance; makes comparison checks of repaired equipment with test standards; keeps working logs; prepares supply requisitions.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 6 in AC/DC circuits, 3 in tube and transistor circuits, and 3 in radar (10/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 6 in AC/DC circuits, 3 in tube and transistor circuits, and 3 in radar (10/79).

MOS-26C-001

Combat Area Surveillance Radar Repairman

26C20

Exhibit Dates: 10/74-8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 262 (Ground Radar Repair).

Description

Skill Level 20: Maintains ground surveillance and light air defense Doppler radars and associated equipment; uses voltmeters, ohmmeters, signal generators, oscilloscopes and other testing devices to localize and isolate source of malfunction; determines extent of required maintenance; replaces faulty components, including vacuum tubes,resistors, capacitors, and multivibrators; adjusts relays, dials, and controls; applies electrical theory to series and parallel circuitry motors and generators; interprets circuit diagrams, block diagrams, schematics, and technical manuals.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-26C-002

Combat Area Surveillance Radar Repairer

26C20

26C30

26C40

Exhibit Dates: 9/77-2/78.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 262 (Ground Radar Repair).

Description

Summary: Maintains ground surveillance equipment and light air defense pulse Doppler radars and associated equipment. *Skill Level 20:* Makes detailed tests through stages of equipment, using voltmeters, ohmmeters, signal generators, oscilloscopes, and other testing devices to localize and isolate source of malfunctions; replaces faulty components, including vacuum tubes, resistors, capacitors, and multivibrators; adjusts relays, dials, and controls, using common or specialized hand tools; maintains tools and test equipment with test standards; applies electrical theory to series and parallel circuitry, motors, and generators; applies servo, timing, and gating circuitry to light air-defense and ground surveillance radars; aligns radar transmitting and receiving chassis; interprets circuit diagrams, block diagrams, schematics and technical manuals; troubleshoots malfunctioning equipment by sectionalization and isolation of malfunction to individual components or associated group of components. *Skill Level 30:* Able to perform the duties required for Skill Level 20; checks maintenance performed by Skill Level 20 personnel for adequacy and suitability; inspects radar systems and components for wear, evidence of damage, and indications of breakdown; test-operates repaired nonintegrated radar and equipment with measuring devices, special tools, and test equipment; assists in diagnosis of complex malfunctions; ensures that completed repairs comply with prescribed standards; recognizes electronic countermeasures and interference problems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises radar repair personnel engaged in maintenance of nonintegrated radar and associated equipment; organizes and supervises radar repair teams; plans, organizes, and supervises operations of a repair maintenance shop; establishes work priorities; supervises and assists in making complex authorized modifications on nonintegrated radar and associated equipment; interprets complex specification, circuit, schematic, and cable diagrams; determines technical operating difficulties and corrective actions necessary from oscilloscope wave analyses and signal training and schematic or circuit diagrams; conducts on-the-job training. NOTE: May have progressed to 26C40 from 26C20 or 26C30.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity, 3 in radar, 3 in applied mathematics, and 3 in use and care of tools and test equipment. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in radar, 3 in applied mathematics, and 3 in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic electricity, 3 in radar, 3 in applied mathematics, and 3 in use and care of tools and test equipment. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in radar, 3 in applied mathematics, and 3 in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in radar, 3 in applied mathematics, 3 in use and care of tools and test equipment, 3 in human relations, 3 in personnel supervision, and 3 in shop management (5/78).

MOS-26C-003

Combat Area Surveillance Radar Repairer

26C10

26C20

26C30

Exhibit Dates: 3/78-8/85.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Maintains ground surveillance equipment and light air-defense pulse Doppler radars and associated equipment. *Skill Level 10:* Makes detailed tests through stages of equipment, using voltmeters, ohmmeters, signal generators, oscilloscopes, and other testing devices to localize and isolate source of malfunctions; replaces faulty components, including vacuum tubes, resistors, capacitors, and multivibrators; adjusts relays, dials, and controls, using common or specialized hand tools; maintains tools and test equipment in operating condition; test-operates, aligns, and checks repaired equipment with test standards; applies electrical theory to series and parallel circuitry, motors, and generators; applies servo, timing, and gating circuitry to light air-defense and ground surveillance radars; aligns radar transmitting and receiving chassis; interprets circuit diagrams, block diagrams, schematics and technical manuals; troubleshoots malfunctioning equipment by sectionalization and isolation of malfunction to individual components or associated group of components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; checks maintenance performed by Skill Level 10 personnel for adequacy and suitability; inspects radar systems and components for wear, evidence of damage, and indications of breakdown; test-operates repaired nonintegrated radar and equipment with measuring devices, special tools, and test equipment; assists in diagnosis of complex malfunctions; ensures that completed repairs comply with prescribed standards; recognizes electronic countermeasures and interference problems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises radar repair personnel engaged in maintenance of nonintegrated radar and associated equipment; organizes and supervises radar repair teams; plans, organizes and supervises operations of repair maintenance shop; establishes work priorities; supervises and assists in making complex authorized modifications on nonintegrated radar and associated equipment; interprets complex specification, circuit, schematic, and cable diagrams; determines technical operating difficulties and corrective actions necessary from oscilloscope wave analyses and signal tracing on schematic or circuit diagrams; conducts on-the-job training. NOTE: May have progressed to 26C30 from 26C20 or 26B20 (Weapons Support Radar Repairer).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits, 3 in AC laboratory practices, 3 in very high frequency (VHF) techniques, and 6 in troubleshooting techniques (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in DC circuits, 3 in AC laboratory practices, 3 in very high frequency (VHF) techniques, and 6 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits, 3 in AC laboratory practices, 3 in very high frequency (VHF) techniques, and 6 in troubleshooting techniques (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits, 3 in AC laboratory practices, 3 in very high frequency (VHF) techniques, 6 in troubleshooting techniques, and 3 in personnel supervision (10/79).

MOS-26C-004

TARGET ACQUISITION/SURVEILLANCE RADAR REPAIRER
(COMBAT AREA SURVEILLANCE RADAR REPAIRER)

26C10

26C20

26C30

Exhibit Dates: 9/85–9/87. (MOS 26C has been redesignated MOS 39C; see exhibit MOS-39C-001.)

Career Management Field: 29 (Communications Electronics).

Description

Summary: Performs or supervises maintenance on target acquisition and ground level surveillance radar and associated equipment, and on meteorological equipment. *Skill Level 10:* Performs maintenance on target acquisition/surveillance, and meteorological radar and associated equipment; utilizes test equipment such as multimeters, oscillscopes, voltmeters, ohmmeters, signal generators and other testing and measuring devices; refers to technical manuals and circuit diagrams for diagnostic repair procedures; replaces faulty modules and/or components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and limited supervision to Skill Level 10 personnel involved in repair and maintenance of radar equipment; maintains maintenance logs; writes reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the performance of lower skill level personnel; schedules and distributes workloads; provides assistance in diagnosing unusual and complex malfunctions.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit diagnosis and 3 in radar maintenance and repair (11/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit diagnosis, 3 in radar maintenance and repair, 3 in recordkeeping, and 1 in personnel supervision (11/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit diagnosis, 3 in radar maintenance and repair, 3 in recordkeeping, 3 in personnel supervision, and 3 in office management (11/85).

MOS-26D-001

GROUND CONTROL APPROACH RADAR REPAIRMAN

26D20

Exhibit Dates: 10/73–8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 262 (Ground Radar Repair).

Description

Skill Level 20: Inspects, tests, and repairs ground control radar equipment at field and depot level; utilizes test equipment such as multimeters, electronic voltmeters, oscilloscopes, signal generators, echo boxes, and other test equipment to troubleshoot radar systems to the component level; replaces faulty components, including vacuum tubes, transistors, resistors, and capacitors; adjusts relays, dials, and controls; adjusts and aligns equipment to specified performance levels; interprets circuit diagrams, block diagrams, schematics, and technical manuals.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-26D-002

GROUND CONTROL APPROACH RADAR REPAIRER

26D10

26D20

26D30

Exhibit Dates: 9/77–2/86. (Effective 3/86, MOS 26D was discontinued and its duties were incorporated into MOS 93D, Air Traffic Control Systems, Subsystems and Equipment Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Maintains ground control approach radar system and associated equipment. *Skill Level 10:* Localizes and diagnoses causes of equipment malfunction or nonfunction; tests and aligns equipment to ensure maximum efficiency; replaces faulty components and parts; performs adjustments after installation. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains equipment records; makes detailed tests through stages of malfunctioning equipment, using voltmeters, ohmmeters, echo boxes, signal generators, and other testing devices; determines the cause of malfunction and extent of maintenance; adjusts relays, dials, and controls; test-operates, aligns, and performs comparison checks on repaired equipment with test standards; performs modification work orders; keeps tools and test equipment in operating condition. *Skill Level 30:* Able to perform the duties required for Skill Level 20; keeps work logs; prepares supply requisitions; aligns radar transmitting and receiving chassis; installs ground control approach radar systems; uses sectionalization, localization, and isolation of malfunction in troubleshooting; repairs faulty components; uses safety precautions when working around high voltages; authorizes acquisitions of spare parts, supply stock, and technical literature.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in applied mathematics, and 3 in radar (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in radar, and 3 in use and care of tools and test equipment. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in radar, and 3 in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in radar, 3 in use and care of tools and test equipment, 1 for field experience in management, and additional credit in basic electricity and radar on the basis of institutional evaluation (5/78).

MOS-26E-001

AERIAL SURVEILLANCE SENSOR REPAIRER

26E10

26E20

26E30

Exhibit Dates: 9/77–2/82.

Career Management Field: 28 (Aviation Communication-Electronics).

Description

Summary: Maintains aerial surveillance systems employed in the OV-1D (MOHAWK) aircraft, associated data link, and ground receiving and processing components. *Skill Level 10:* Tests, troubleshoots, aligns, and repairs equipment using conventional and special purpose electronic testing and diagnostic equipment and handtools; maintains conventional and special purpose test equipment; employs special handling techniques for delicate and touch-sensitive devices such as photo lenses, optic reflectors, exposure, and processing devices; reads and analyzes electrical/electronic block/detailed schematic diagrams; reads and analyzes mechanical assembly diagrams; maintains technical reference library on aerial surveillance system. *Skill Level 20:* Able to perform the duties required for Skill Level 10; modifies and records aerial surveillance modifications in accordance with modification work orders; maintains maintenance forms and records; requisitions parts and supplies; maintains selected items of special purpose test equipment; provides assistance to Skill Level 10 personnel in diagnoses of complex maintenance problems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; ensures that proper parts and supply inventories are maintained; supervises personnel engaged in the maintenance of aerial surveillance equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity, 3 in shop mathematics, and 3 in use and care of tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in technical mathematics, 3 in basic instrumentation, and 3 in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electricity, 3 in shop mathematics, and 3 in use and care of tools and test equipment. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in technical mathematics, 3 in basic instrumentation, and 3 in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for

Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in technical mathematics, 3 in basic instrumentation, 3 in use and care of tools and test equipment, and 1 in personnel supervision (5/78).

MOS-26E-002

Aerial Radar Sensor Repairer

26E10

26E20

26E30

Exhibit Dates: 3/82-2/87. (Effective 3/87, MOS 26E was discontinued and its functions were incorporated into MOS 33V, Electronic Warfare/Intercept Aerial Sensor Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics Systems Maintenance).

Description

Summary: Supervises and performs unit support, intermediate support, and component level maintenance on aerial radar surveillance sensor systems installed in OV-1D (Mohawk) aircraft, associated data link, and ground-receiving components. *Skill Level 10:* Maintains and repairs aerial radar surveillance sensor systems, including all associated data link, data annotation, and ground-receiving terminals; performs testing, troubleshooting, alignment, and repair; isolates and replaces malfunctioning equipment using a wide variety of conventional and special purpose electronic test equipment, technical literature, and hand tools; prepares work request forms; posts maintenance and inspection entries; assists in maintenance of current technical reference library; requisitions parts and supplies. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains and repairs selected items of special purpose test equipment used in a radar sensor equipment maintenance section. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises, plans, and coordinates unit malfunction diagnostic and repair functions to ensure compliance with established standards; supervises five or more persons; conducts on-the-job training; maintains repair parts, stockage levels, forms, records and technical references.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 3 in basic AC/DC laboratory, and 3 in electronic circuits and systems analysis (10/84).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 6 in basic AC/DC laboratory, and 6 in electronic circuits and systems analysis (10/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 6 in basic AC/DC laboratory, 6 in electronic circuits and systems analysis, and 3 in personnel supervision (10/84).

MOS-26F-001

Aerial Photoactive Sensor Repairer

26F10

26F20

Exhibit Dates: 3/82-3/87. (Effective 3/87, MOS 26F was discontinued and its functions were incorporated into MOS 33V, Electronic Warfare/Intercept Aerial Sensor Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics Systems Maintenance).

Description

Summary: Supervises and performs unit support, intermediate support, and component level maintenance on aerial photoactive surveillance sensor systems installed in OV-1D (Mohawk) aircraft. *Skill Level 10:* Diagnoses and repairs faulty sensor equipment, employing special techniques for delicate and costly devices such as photolenses, optic reflectors, film exposure devices, and integrated microcircuit card; uses standard system troubleshooting, calibration, and alignment procedures, requiring ability to analyze detailed electronic schematic diagrams, mechanical assembly diagrams, and applicable technical literature; maintains records, orders parts, and prepares work request forms. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains and repairs selected items of special purpose test equipment and provides technical supervision to lower skill level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 8 semester hours in operation and repair of photographic processing machines and camera systems. In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 3 in electrical circuits and systems analysis, and 3 in basic photography (10/84).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in operation and repair of photographic processing machines and camera systems, and 3 in maintenance and repair of small appliances and optical devices. In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 3 in electrical circuits and systems analysis, and 3 in basic photography (10/84).

MOS-26H-001

Air Defense Radar Repairman

26H20

26H30

Exhibit Dates: 10/73-2/78.

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Performs maintenance on air defense radars and associated equipment, including height, azimuth, and distance finding radars, servo, data transmission systems, and computers. *Skill Level 20:* Keeps tools and test equipment in operating condition; makes detailed tests of operating stages of the equipment, using the voltmeter, ohmmeter, echo box, signal generator, and oscilloscope; determines causes of malfunctions and replaces faulty components; test-operates, aligns, and comparison-checks repaired equipment with test standards; performs modification work orders; interprets circuit diagrams, schematics, and technical manuals; troubleshoots by sectionalization, localization, and isolation; performs servo, timing, and gating circuitry analysis. *Skill Level 30:* Able to perform the duties required for Skill Level 20; maintains specialized air defense radars.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 3 in basic electronics, 1 in shop practices, and 1 in use and care of tools and test equipment, and additional credit in advanced electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, and 1 in transistor/tube theory, and additional credit in computer science on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in technical mathematics, 3 in basic electronics, 1 in shop practices, and 1 in use and care of tools and test equipment, and additonal credit in advanced electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in radar/microwave theory, 2 in DC circuit analysis, 2 in AC circuit analysis, 1 in electronic instruments, and 1 in transistor/tube theory, and additional credit in computer science on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics). In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-26H-002

Air Defense Radar Repairer

26H10

26H20

26H30

Exhibit Dates: 3/78-3/90. (Effective 3/90, MOS 26H was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 231 (Nike Missile System Repair).

Description

Summary: Supervises or performs maintenance and repairs on air defense radars and associated equipment, including height, azimuth, and distance-finding radars, servo, data transmission systems, and computer. *Skill Level 10:* Performs highly complex repairs on solid-state, integrated circuit, and vacuum tube radar and associated equipment; provides repair support and advice for various radar maintenance groups; uses advanced as well as basic electronics and schematic tracing to troubleshoot systems, and subassemblies down to the component level; performs certain mathematical calculations during routine calibration or alignment procedures; uses common and advanced industrial type test equipment as well as specialized test sets to diagnose system and subassembly failures; uses common and specialized test sets to diagnose system and subassembly failures; uses common and specialized hand tools to perform repairs, adjustment, or modifications on radar or associated equipment; may train maintenance and operator personnel on the proper handling or maintenance of specified radar equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; updates knowledge of advanced modifications being performed on existing radar equipment through on-the-job training or by attending workshops. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; assigns duties; manages maintenance schedules, inspections, and quality control; supervises inspection and maintenance teams; conducts on-the-job training; keeps maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics, 3 in electronic control devices, 3 in radar/microwave technology, 2 in technical mathematics, 1 in electronic instruments, and 1 in digital circuitry. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in radar/microwave technology, and 1 in digital circuitry. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering) and 3 in a radar/microwave technical elective (1/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in electronic control devices, 3 in radar/microwave technology, 3 in digital circuitry, 2 in technical mathematics, and 3 in electronics instruments. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in radar/microwave technology, 1 in digital circuitry, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), and 3 in a radar/microwave technical elective (1/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electronics, 3 in electronic control devices, 3 in radar/microwave technology, 3 in digital circuitry, 2 in technical mathematics, 3 in electronic instruments, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in radar/microwave technology, 1 in digital circuitry, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in an electronics technical elective (non-engineering), 3 in a radar/microwave technical elective, and 3 for field experience in personnel supervision (1/80).

MOS-26K-001

ELECTRONIC WARFARE EQUIPMENT REPAIRMAN

26K20
26K40

Exhibit Dates: 10/73–8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 263 (Airborne Surveillance Equipment Radar).

Description

Summary: Performs field and depot maintenance on electronic systems used for countermeasures and warfare support. *Skill Level 20:* Uses test equipment such as multimeters, electronic voltmeters, oscilloscopes, signal generators, and other electronic test equipment to troubleshoot electronic equipment to the component level; determines if equipment meets original specifications after repair; dismantles and repairs circuit wiring; replaces parts, including vacuum tubes, transistors, resistors, capacitors, and printed circuit cards; adjusts relays, dials, and controls; performs maintenance on electrical generators, amplydines, and selsyn motors; interprets complex circuit diagrams. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel by scheduling work assignments and loads, evaluating personnel performance, preparing technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, and 3 in tube and transistor circuits. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, and 3 in tube and transistor circuits. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, 3 in maintenance supervision, 3 in human relations, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-26K-002

AERIAL ELECTRONIC WARNING DEFENSE EQUIPMENT REPAIRER

26K10
26K20
26K30

Exhibit Dates: 9/77–2/87. (Effective 3/87, MOS 26K was discontinued and its functions were incorporated into MOS 35R, Avionic Special Equipment Repairer and MOS 35P, Avionic Equipment Maintenance Supervisor.)

Career Management Field: 28 (Aviation Communications-Electronics Systems Maintenance).

Description

Summary: Supervises and peforms unit support, intermediate support, and component level maintenance on aerial electronic warning defense and associated equipment. *Skill Level 10:* Performs maintenance on aerial warning defense equipment; applies theory and systems analysis in isolating faulty circuits and components; repairs, removes, and replaces defective assemblies, sub-assemblies, and component parts; test-operates optical/laser and digital control systems, infrared countermeasure equipment, automatic and semi-automatic radar warning receivers and special high power transmitters, using technical publications and special test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; prepares reports on supportive equipment; performs maintenance quality control checks and performs final checks of repaired equipment; requisitions supplies and repair parts. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel and provides technical assistance; maintains records and stockage levels; maintains reports and records on repaired equipment.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 12 semster hours in basic electricity/electronics, 3 in AC/DC laboratory, and 3 in electronic circuits and systems analysis (10/84).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 6 in AC/DC laboratory, and 6 in electronic circuits and systems analysis (10/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 12 semester hours in basic electricity/electronics, 6 in AC/DC laboratory, 6 in electronic circuits and systems analysis, and 3 in personnel supervision (10/84).

MOS-26L-001

TACTICAL MICROWAVE SYSTEMS REPAIRMAN

26L10
26L20
26L40

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Performs installations, operational adjustments, and maintenance of line-of-sight microwave and troposcatter radio and multiplexing equipment, and related power equipment; applies common basic electronics theory and schematic-reading skills in interpreting circuit functions and specifications; uses common and specialized tools and multimeters in performing operational checks and in diagnosing troubles in microwave equipment; performs preventive maintenance of equipment; adjusts, lubricates, and cleans electrical and mechanical components; applies safety precautions when working around high voltages and performs emergency action in the event of injury; prepares and keeps records for prescribed equipment load lists. *Skill Level 10:* Installs and operates tactical line-of-sight microwave and troposcatter radio and multiplexing equipment and related power equipment; performs operational tests on equipment; follows safety measures and provides first aid when necessary; uses tools and multimeters in performing preventive maintenance procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs complex maintenance of tactical microwave radio equipment; uses specified tools and test instruments in diagnosing and repairing equipment; prepares and keeps maintenance and operational logs and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises installation, operation, and maintenance of tactical microwave communications sytems; prepares technical and administrative reports; supervises, coordinates, or conducts training programs; normally supervises 5-8 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in basic AC/DC electronics theory and laboratory, 6 in radio frequency circuit systems and functions, 2 in microwave communications, 1 in high frequency amplifier circuits and devices, 1 in elementary algebra, and 1 in safety and first aid. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, and 1 in safety and first aid. In the upper-division baccalaureate category, 3 semester hours for a technical elective and 3 in industrial arts. In an electronic technician or communications technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic AC/DC electronics theory and laboratory, 6 in radio frequency circuit systems and functions, 2 in microwave communications, 1 in high frequency amplifier circuits and devices, 1 in elementary algebra, and 1 in safety and first aid. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, and 1 in safety and first aid. In the upper-division baccalaureate category, 3 semester hours for a technical elective and 3 in industrial arts. In an electronic technician or communications technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, 1 in safety and first aid, 3 in introduction to management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for a technical elective, 3 in industrial arts, and 3 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Levels 10 and 20 because additional skills are administrative and supervisory in nature (3/76).

MOS-26L-002

TACTICAL MICROWAVE SYSTEMS REPAIRER

26L10
26L20
26L30
26L40

Exhibit Dates: 3/78–3/86. (Effective 3/86, MOS 26L was discontinued and its functions were incorporated into MOS 29M, Tactical Satellite Microwave Repairer, and MOS 32Z, Communication-Electronics Maintenance Chief.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Supervises or performs installation, operational adjustment, repair and maintenance of microwave and communication radio, multiplex systems, and related power equipment. *Skill Level 10:* Installs and operates line-of-sight microwave and communication radio, multiplexing equipment, and power supply equipment; applies basic electronic theory and schematic-reading skills for circuit functions and specifications; uses specialized tools, mulitmeters, and oscilloscopes; aligns and adjusts klystrons, magnetrons, and traveling wave tubes; repairs, reassembles, and tests components; computes voltage, amperage, and resistance factors; diagnoses and repairs multiplexing and pulse code modulation equipment; performs operational tests on equipment; aligns and adjusts equipment; adjusts high power amplifier, parametric amplifiers, and receivers; repairs circuit wiring; reassembles, replaces and test-operates components; establishes and maintains records of equipment repair; applies safety precautions when working with high voltage and performs emergency action in the event of injury. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; ensures that proper procedures are followed in maintenance and repair; requisitions and maintains spare parts. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the installation and maintenance of microwave communications radio systems and multiplex equipment; prepares schedules and work assignments; ensures that proper maintenance procedures are followed; assists in preparation of radio system profile charts and maintenance plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises installation and maintenance of microwave communications radio systems and multiplex equipment; supervises eight or more persons in a shop or section engaged in operation or maintenance functions; coordinates installation of new or replacement equipment; supervises training programs; prepares radio frequency charts and communications systems diagrams; evaluates the efficiency and capability of lower skill level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in AC/DC electronic theory and laboratory, 6 in radio frequency circuit systems and functions, 2 in microwave communications, 1 in high frequency amplifier circuits and devices, 1 in industrial safety procedures, and 1 in elementary algebra. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, and 1 in safety and first aid (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in AC/DC electronic theory and laboratory, 6 in radio frequency circuit systems and functions, 2 in microwave communications, 1 in high frequency amplifier circuits and devices, 1 in industrial safety procedures, and 1 in elementary algebra. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, and 1 in safety and first aid (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, 1 in safety and first aid, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in personnel administration (10/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electronics, 6 in radio/microwave communications, 1 in safety and first aid, 2 in personnel supervision, 2 in human relations, and 2 in introduction to management. In the upper-division baccalaureate category, 2 semester hours in personnel administration, 3 in industrial arts, 3 in technical electronics, and 3 for field experience in management (10/79).

MOS-26M-001

AIRBORNE SURVEILLANCE RADAR REPAIRMAN

26M20
26M40

Exhibit Dates: 10/73–8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 263 (Airborne Surveillance Equipment Repair).

Description

Summary: Supervises, inspects, and performs support and depot maintenance on airborne surveillance radar systems and associated ground equipment. *Skill Level 20:* Performs support and depot maintenance on side-looking maintenance airborne radar systems (including the airborne surveillance radar, radar data transmitting set, radar data receiving set, and data transfer system alignment); inspects, tests, and repairs malfunctioning equipment by using voltmeters, ohmmeters, signal generators, and oscilloscopes; adjusts, calibrates, and aligns equipment to manufacturers specifications; performs authorized modifications and advises maintenance personnel on changes in operation and maintenance requirements due to equipment modification; prepares appropriate maintenance and supply forms and reports; keeps tools and test equipment in proper operating condition and accurately calibrated. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities and technician training functions. NOTE: May have progressed to 26M40 from 26M20 or 41G20 (Surveillance Photographic Equipment Repairman).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associ-

ate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, 3 in radar, and additional credit in digital electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, 3 in radar, 3 in human relations, 3 in maintenance supervision, 3 for field experience in management, and additional credit in digital electronics, algebra, and triognometry on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-26M-002

AERIAL SURVEILLANCE RADAR REPAIRER

26M10
26M20
26M30

Exhibit Dates: 9/77–9/84.

Career Management Field: 16 (Air Defense Artillery).

Description

Effective 9/77, MOS 26M was discontinued for use in the active Army and retained for use in the Reserve Forces only; effective 9/84, MOS 26M was discontinued and its functions were incorporated into MOS 26E, Aerial Radar Sensor Repairer.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-26N-001

SURVEILLANCE INFRARED REPAIRMAN

26N20

Exhibit Dates: 10/73–8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 263 (Airborne Surveillance Equipment Repair).

Description

Skill Level 20: Performs support and depot maintenance of infrared surveillance systems; locates and determines causes of malfunctions by circuit diagrams and specialized testing; repairs, modifies, and aligns by using test equipment and specialized hand tools; provides technical assistance; performs administrative duties including requisitioning, stocking, and filing of repair parts and supplies.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radio. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-26N-002

AERIAL SURVEILLANCE INFRARED REPAIRER

26N10
26N20

Exhibit Dates: 9/77–9/84.

Career Management Field: 28 (Aviation Communications-Electronics Systems Maintenance).

Description

Effective 9/77, MOS 26N was discontinued for use in the active Army and retained for use in the Reserve Forces only; effective 9/84, MOS 26N was discontinued and its functions were incorporated into MOS 26E, Aerial Radar Sensor Repairer, and MOS 26F, Aerial Photoactive Sensor Repairer.

Recommendation

Credit is recommended on the basis of institutional evaluation.

MOS-26P-001

RADIO PROPAGATION SPECIALIST

26P20
26P40
26P50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 26P was discontinued and its functions were incorporated into MOS 32H, Fixed Station Radio Repairer, and MOS 32Z, Communications Electronics Maintenance Chief.)

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Performs inspections and maintenance on specialized electromagnetic equipment. *Skill Level 20:* Installs, operates, maintains, and repairs radio propagation equipment; locates malfunctions of major components; adjusts equipment, using standardized and specialized meters and oscilloscopes; interprets circuit diagrams, schematic diagrams, and technical literature pertaining to operation and maintenance of ionosonde, field intensity, radio noise measuring, and associated equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; performs routine management functions of a radio propagation station; supervises ionosphere recording operations and associated radio propagation tests and analysis activites; supervises installation of equipment; may write specifications for equipment and technical reports; prepares work schedules and operating procedures; demonstrates correct maintenance and operating procedures; keeps work logs; prepares supply requisitions; prepares and consolidates technical and administrative reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; organizes and directs survey teams; plans and controls maintenance of facility equipment and physical plant; diagnoses and determines causes of unusual malfunctions; evaluates test equipment; determines tool requirements; provides technical assistance and on-the-job training for subordinate personnel.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in electronics and 2 in technical mathematics. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics and 2 in technical mathematics. In an electronics technician (communications) apprentice training program, 500 clock hours of experience and 60 contact hours of related instruction (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics, 3 in personnel supervision, 3 in human relations, and 2 in technical mathematics. In an electronics technician (communications) apprentice training program, 500 clock hours of experience and 60 contact hours of related instruction (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in maintenance management. In an electronics technician (communications) apprentice training program, 500 clock hours of experience and 60 contact hours of related instruction (6/76).

MOS-26Q-001

TACTICAL SATELLITE/MICROWAVE SYSTEMS OPERATOR

26Q10
26Q20
26Q30
26Q40

Exhibit Dates: 3/78–9/87. (Effective 9/87, MOS 26Q was discontinued and its duties were incorporated into MOS 31Q, Tactical Satellite/Microwave Systems Operator and MOS 31Y, Communications System Supervisor.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or performs installation, operation and maintenance of microwave, troposcatter radio, satellite, multiplexing equipment and communications security equipment. *Skill Level 10:* Installs, operates and maintains microwave, troposcatter radio satellite, multiplexing equipment and associated power equipment and communications security devices; assembles, erects, and orients antennas; tunes, adjusts and aligns equipment for maximum performance; adjusts multiplexing equipment for maximum efficiency; operates on voice frequency and teletype; performs satellite balancing procedures; employs test equipment and tools such as spectrum analyzers and voltmeters; corrects operational troubles; detects electronic countermeasures; interprets military maps and traffic diagrams;

applies safety precautions around high voltages and performs emergency actions in event of injury. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in selection of site for systems equipment; makes alignment adjustments to maximum efficiency; monitors operations of system equipment; recognizes electronic countermeasures and employs corrective action; maintains station logs and provides technical guidance to subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises installation and performance of station equipment and personnel; instructs in proper operating procedures; maintains logs and records; prepares administrative and technical reports; requisitions supplies; provides assistance in complex or unusual operational problems; supervises and evaluates 5 or more personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; coordinates maintenance support; assists in the planning, utilization, operation, and maintenance support for communications systems; supervises up to 20 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in AC/DC electronics theory, 3 in microwave and radio frequency communications, 1 in high-frequency amplifier and multiplex operations, and 1 in industrial safety procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in microwave/radio communications, and 1 in safety and first aid (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in AC/DC electronics theory, 3 in microwave and radio frequency communications, 1 in high-frequency amplifier and multiplex operations, and 1 in industrial safety procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in microwave/radio communications, and 1 in safety and first aid (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in microwave/radio communications, 1 in safety and first aid, and 2 personnel supervision. In the upper-division baccalaureate category, 2 semester hours in personnel administration (10/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in microwave/radio communications, 1 in safety and first aid, 2 in personnel supervision, and 2 in introduction to management. In the upper-division baccalaureate category, 2 semester hours in personnel administration and 3 for field experience in management (10/79).

MOS-26R-001

STRATEGIC SATELLITE/MICROWAVE SYSTEM OPERATOR

26R10
26R20
26R30

Exhibit Dates: 3/78–2/86. (Effective 3/86, MOS 26R was discontinued and its duties were incorporated into MOS 26V, Strategic Microwave Systems Repairer.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Operates strategic microwave, troposcatter radio, and multiplexing equipment. *Skill Level 10:* Positions, prepares, starts, and adjusts power units; makes preoperative equipment checks; adjusts equipment for desired frequency operation; tunes, adjusts, and aligns receiving and transmitting equipment; establishes and posts station logs; utilizes hand tools and test equipment; operates voice frequency and teletype order wires; maintains equipment logs and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; applies accepted standards, policies, and reporting procedures in the operation of communications systems; coordinates the operation of the communications system; provides assistance to lower-skill-level personnel; makes administrative and technical reports as required; monitors operation of communications systems equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares work assignments and schedules; requisitions supplies; demonstrates proper operating procedures and techniques to lower-skill-level personnel.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (10/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing and 3 in personnel supervision (10/81).

MOS-26T-001

TELEVISION EQUIPMENT REPAIRMAN

26T20
26T30
26T40
26T50

Exhibit Dates: 10/73–2/77.

Career Management Field: 72 (Telecommunications and Audio-Visual), subfield 722 (Audio-Visual).

Description

Summary: Installs, operates, and repairs monochrome and color television receivers, monochrome and color camera chains and film chains, video tape equipment, television transmitting equipment, and television microwave relay systems. *Skill Level 20:* Installs and operates television receivers, cameras, and tape equipment; locates malfunctions of major components; adjusts equipment for proper performance; uses common test equipment such as VOM and oscilloscope; keeps transmitter logs; reads schematic diagrams and wiring diagrams. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assures video quality and is capable of diagnosing substandard video transmission; is familiar with equipment capabilities and limitations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; knows equipment operating parameters; supervises repair and testing of equipment; assists in writing specifications for equipment purchases; increases proficiency beyond Skill Level 30 in diagnosing malfunctions from schematic diagrams; supervises 5 to 29 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; prepares maintenance schedules; evaluates test equipment and tool requirements; supervises equipment modifications; provides technical assistance for maintenance and repair; supervises 30 or more persons; provides on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in television equipment (closed circuit and cable TV) repair and additional credit on the basis of institutional evaluation. In a television broadcast engineer or a television repairman apprentice training program, 400 clock hours of experience and 50 contact hours of related instruction (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in television equipment (closed circuit and cable TV) repair and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in television equipment repair. In a television broadcast engineer or a television repairman apprentice training program, 800 clock hours of experience and 100 contact hours of related instruction (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in television equipment (closed circuit and cable TV) repair and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in television equipment repair and 3 for a practicum in personnel management. In a television broadcast engineer or television repairman apprentice training program, 1,200 clock hours of experience and 150 contact hours of related instruction. NOTE: At this level in civilian television broadcast service, a first-class FCC operators license is mandatory; the skills and knowledge required to pass the FCC license examination are broader in scope than those required for the performance of this MOS (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in television equipment (closed circuit and cable TV) repair and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in television equipment repair and 3 for a practicum in personnel management. In the upper-division baccalaureate category, 3 semester hours in maintenance management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 40 because additional skills are administrative and supervisory in nature (2/75).

MOS-26T-002

RADIO/TELEVISION SYSTEMS SPECIALIST

26T10
26T20
26T30

Exhibit Dates: 3/77–9/89. (Effective 9/89, MOS 26T was discontinued and its functions were incorporated into MOS 25R, Visual Information/Audio Equipment Repairer.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Summary: Installs, operates, and repairs monochrome and color television receivers, monochrome and color camera chains and film chains, video tape equipment, television transmitting equipment, and television microwave relay systems. *Skill Level 10:* Under supervision, installs and operates television receivers, cameras, and tape equipment; locates malfunctions of major components; adjusts equipment for proper performance; uses common test equipment such as VOM and oscilloscope; uses common and specialized hand tools and measuring devices; reads schematic diagrams and wiring diagrams; keeps transmitter logs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel performing the duties of MOS 26T20 or MOS 41E20, Audio Visual Equipment Repairer; assures video quality on all display devices associated with originating or recording equipment; diagnoses substandard video transmission; supervises up to 7 persons; supervises personnel engaged in setting up and aligning cameras, camera control, special effects, and associated transmission equipment; checks the repair work of lower skill level personnel; establishes work schedules. NOTE: May have progressed to 26T30 from 26T20 or 41E20, Audio-Visual Equipment Repairman.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in television equipment repair, 3 in use and care of tools and test equipment, and credit in basic electronics and troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, and credit in television equipment repair, technical aspects of television, troubleshooting techniques, and basic electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in television equipment repair, 3 in use and care of tools and test equipment, and 3 in troubleshooting techniques, and credit in basic electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in television equipment repair, 3 in technical aspects of television, 3 in troubleshooting techniques, and credit in basic electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in television equipment repair, 3 in use and care of tools and test equipment, and 3 in troubleshooting techniques, and credit in basic electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in television equipment repair, 3 in technical aspects of television, 3 in troubleshooting techniques, 1 in personnel supervision, and credit in basic electronics and human relations on the basis of institutional evaluation (5/78).

MOS-26U-001

UNATTENDED GROUND SENSOR SYSTEMS
REPAIRMAN

26U20
26U40

Exhibit Dates: 10/73-8/76. (Effective 9/76, MOS 26U was discontinued and its functions were incorporated into MOS 17K, Ground Surveillance Radar Crewman, and MOS 17M, Unattended Ground Sensor Specialist.)

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 171 (Combat Surveillance).

Description

Summary: Supervises and performs maintenance on the unattended ground sensor systems. *Skill Level 20:* Diagnoses and repairs electronic sensors; operates test equipment in automatic, semiautomatic, and manual modes; determines faults in the data transmission, relay, receiver, recorder/display assemblies, sensor module construction, and associated equipment; removes, repairs, and replaces malfunctioning assemblies, subassemblies, modules, and/or component parts; checks out radio frequency channel and unique digital or analog message format of sensor; aligns, adjusts, and repairs equipment; modifies systems; interprets electronic circuit diagrams; applies safety precautions. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance of the unattended ground sensor systems; organizes units; instructs operator personnel; keeps equipment records and prepares reports; diagnoses and determines causes of unusual malfunctions.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introductory electronics and 3 in equipment repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics and 3 in equipment repair. Fully qualified to enter an apprentice training program in the electrical and electronic trades (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in equipment repair, 3 in human relations, 3 for field experience in management, and additional credit in technical writing on the basis of institutional evaluation; if the duty assignment was platoon sergeant, 3 additional semester hours in personnel supervision. Fully qualified to enter an apprentice training program in the electrical and electronics trades (3/76).

MOS-26V-001

STRATEGIC MICROWAVE SYSTEMS
REPAIRMAN

26V10
26V20
26V40
26V50

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Installs, maintains, and operates line-of-sight and tropospheric scatter microwave communications equipment; wires and connects equipment for installation; makes performance tests on operating equipment, using only one type of equipment for testing. *Skill Level 10:* Knows terminology and can read simple wiring diagrams; uses manuals to interpret meter reading to determine equipment condition; under supervision, operates basic microwave equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; uses basic electronics mathematics and becomes proficient in reading schematic diagrams of subassemblies; under supervision, repairs complicated microwave communications equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; becomes familiar with interconnect concepts; troubleshoots and repairs electronic circuits; applies knowledge of microwave antenna radiation to select operational sites; is a first-line supervisor of personnel who operate and repair microwave communications equipment; as an office manager, makes shift and work assignments, issues instructions, and writes technical and administrative reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as a mid-level manager, supervises the technical operation and repair of communications equipment, writes instructions and technical reports pertaining to system operations, and may supervise 30 or more persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (2/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics. In the electronics technician or a communications fixed plant installer or repairman apprentice training program, 480 clock hours of experience and 60 contact hours of related instruction (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics and 3 in personnel supervision or office management. In the upper-division baccalaureate category, 3 semester hours in personnel management or in administration. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics and 6 in personnel supervision or office management. In the upper-division baccalaureate category, 6 semester hours in personnel management or in administration. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature. NOTE: At this level in a comparable civilian occupation, a second-class FCC radio operator's license is mandatory; the skills and knowledge, particularly in mathematics and electronics theory, required to pass the FCC license examination are broader in scope than those required for the performance of this MOS (2/75).

MOS-26V-002

STRATEGIC MICROWAVE SYSTEMS
REPAIRER
26V10
26V20
26V30
26V40

Exhibit Dates: 3/78–3/87. (Effective 3/87, MOS 26V was discontinued and its duties were incorporated into MOS 29V, Strategic Microwave System Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Installs, repairs, operates, and performs maintenance on line-of-sight and tropospheric scatter microwave communications equipment; wires and connects equipment for installation; makes performance tests on operating equipment. *Skill Level 10:* Knows microwave communications systems, terminology and circuitry; uses test equipment to determine equipment condition; operates basic microwave equipment; does first line repair and maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; repairs microwave communications systems to component level; uses schematic diagrams and test equipment to perform repair duties. *Skill Level 30:* Able to perform the duties required for Skill Level 20; troubleshoots and repairs microwave equipment circuits; uses knowledge of antenna radiation to select operational sites; is a first-line supervisor of personnel who operate and repair microwave communications equipment; as an office manager, makes shift and work assignments, issues instructions, and maintains maintenance records; may supervise 3 to 5 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a mid-level manager, supervises the technical operation and repair of a microwave communications station, writes instructions and technical reports pertaining to system operations; may supervise from 10 to 15 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in AC/DC circuits, 2 in communications principles, 2 in troubleshooting techniques, and 2 in active devices (5/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications principles, 4 in troubleshooting techniques, 3 in active devices, and 4 in microwave circuits (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications principles, 5 in troubleshooting techniques, 3 in active devices, and 4 in microwave circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications principles, 5 in troubleshooting techniques, 3 in active devices, 4 in microwave circuits, 2 in personnel supervision, 3 in human relations, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications principles, 5 in troubleshooting techniques, 3 in active devices, 4 in microwave circuits, 3 in personnel supervision, 3 in human relations, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/79).

MOS-26W-001

RADAR MAINTENANCE SUPERVISOR-
INSPECTOR
26W20
26W40
26W50

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 26W was discontinued and its functions were incorporated into MOS 26C, Combat Area Surveillance Radar Repairer; MOS 35P, Avionic Equipment Maintenance Supervisor; or MOS 27F, Vulcan Repairer.)

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 262 (Ground Radar Repair).

Description

Summary: Supervises maintenance and performs technical inspection of non-integrated radars including ground surveillance, weapons support, ground control, airborne, and air defense radars and associated equipment. *Skill Level 20:* Able to perform the duties of any radar repair MOS in career management field 26; inspects and checks maintenance performed by Skill Level 20 personnel in radar repair MOS's for adequacy, suitability, and workability; inspects for wear, damage, and performance; measures performance against test standards; ascertains needed replacements or repairs of component parts. NOTE: May have progressed to 26W20 from 26B20, 26B30 (Weapons Support Radar Repairman), 26C20 (Combat Area Surveillance Radar Repairman), 26D20 (Ground Control Approach Radar Repairman), 26K20 (Electronic Warfare Equipment Repairman), 26M20 (Airborne Surveillance Radar Repairman), or 26N20 (Surveillance Infrared Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; able to perform the duties of any radar repair MOS in career management field 26; supervises radar repair units; organizes and supervises repair team activities, plans work schedules, supervises maintenance and repairs; interprets complex specification, circuit, schematic, and cable diagrams; analyzes malfunctions and recommends corrective action. NOTE: May have progressed to 26W40 from either 26W20 or 26B30 (Weapons Support Radar Repairman). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises maintenance unit at battalion or higher level; organizes maintenance facilities and plans maintenance schedule; prepares reports; recommends machine design changes and changes in work procedures; provides technical guidance. NOTE: May have progressed to 26W50 from 26W40, 26P40 (Defense Acquisition Radar Mechanic), 26K40 (Electronic Warfare Equipment Repairman), or 26M40 (Airborne Surveillance Radar Repairman).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test equipment, 3 in tube and transistor circuits, and 3 in radar. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 5 in DC and AC circuits, 3 in tube and transistor circuits, 3 in radar, 3 in maintenance supervision, 3 in human relations, and additional credit in industrial arts education (electronics) and computer science on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in DC and AC circuits and use of test euipment, 3 in tube and transistor circuits, 3 in radar, 3 in maintenance supervision, 3 in personnel supervision, 3 in human relations, and additional credit in industrial arts education (electronics) and computer science on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in industrial arts education (electronics), 3 in human relations, 3 in maintenance management, and 6 for field experience in management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (2/76).

MOS-26Y-001

SATELLITE COMMUNICATIONS GROUND
STATION EQUIPMENT REPAIRMAN

26Y20

26Y40

26Y50

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Installs, maintains, and operates satellite tracking systems, antenna positioning systems, and communications systems. *Skill Level 20:* Reads wiring, circuit, cable, and schematic diagrams and knows technical terminology related to the specific equipment; uses technical manuals to interpret meter readings and determine the serviceability of equipment; inspects, tests, and adjusts components to specific tolerances, primarily by using system-specific test equipment, as well as voltmeters, ohmmeters, spectrum analyzers, deviation meters, oscilloscopes, signal generators, frequency counters, and power meters; computes voltage, amperage, and resistance factors; repairs, removes, or replaces defective components and parts; identifies electronic jamming and applies appropriate electronic computer-countermeasures. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a shift supervisor, an operations sergeant, or, at a small facility of fewer than 18 persons, a station chief; conducts on-the-job training; makes work assignments; keeps work logs and requisitions supplies; reviews, consolidates, and prepares technical and administrative reports; interprets complex specifications and diagrams for subordinate personnel and diagnoses unusual cases of equipment malfunction. *Skill Level 50:* Able to perform the duties required for Skill Level 40; manages a large satellite ground station.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics. In an electronic technician apprentice training program, 480 clock hours of experience and 60 contact hours of related instruction (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in electronics. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics, 3 in personnel supervision, and 3 in human relations. In an electronic technician apprentice training program, 480 clock hours of experience and 60 contact hours of related instruction (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in electronics. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in introduction to management. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-26Y-002

SATELLITE COMMUNICATIONS GROUND
STATION EQUIPMENT REPAIRER

26Y10

26Y20

26Y30

26Y40

Exhibit Dates: 3/78-3/87. (Effective 3/87, MOS 26Y was discontinued and its duties were incorporated into MOS 29V, Strategic Microwave System Repairer.)

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Installs and maintains satellite tracking, antenna positioning, and communications transmitting and receiving systems. *Skill Level 10:* Performs preventive and corrective maintenance on satellite communications ground station equipment; uses voltmeters, ohmmeters, oscilloscopes, spectrum analyzers, deviation meters, signal generators, frequency counters, power meters, modulation deviation and noise measurement equipment; troubleshoots to component level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; requisitions repair and replacement parts and tools. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower skill level personnel; prepares and implements standard operating procedures; coordinates maintenance and safety problems with appropriate authorities; coordinates and establishes liaison with support activities; diagnoses unusual cases of equipment malfunction. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises installation, operation, and maintenance of satellite communications ground station equipment, prepares maintenance schedules and work assignments; reviews, coordinates, and prepares technical and administrative reports; may supervise 17 or more persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 2 in communications electronics, 2 in troubleshooting techniques, 2 in solid-state circuits, 2 in instrumentation and controls, 4 in digital circuits, and 4 in microwave fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in AC/DC circuits, 2 in communications electronics, 2 in troubleshooting techniques, 2 in solid-state circuits, 2 in instrumentation and controls, 2 in digital circuits, and 2 in microwave fundamentals (5/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications electronics, 3 in troubleshooting techniques, 3 in solid-state circuits, 3 in instrumentation and controls, 5 digital circuits, and 6 in microwave fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 4 in communications electronics, 4 in troubleshooting techniques, 3 in solid-state circuits, 3 in instrumentation and controls, 4 in digital circuits, and 4 in microwave fundamentals (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in communications electronics, 3 in troubleshooting techniques, 3 in solid-state circuits, 3 in instrumentation and controls, 5 in digital circuits, and 8 in microwave fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 4 in communications electronics, 5 in troubleshooting techniques, 3 in solid-state circuits, 3 in instrumentation and controls, 4 in digital circuits, 4 in microwave fundamentals, 3 in maintenance management, and 3 in human relations. In the upper-division baccalaureate category, 2 semester hours for field experience in management (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 4 in communications electronics, 5 in troubleshooting techniques, 3 in solid-state circuits, 3 in instrumentation and controls, 4 in digital circuits, 4 in microwave fundamentals, 3 in maintenance management, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/79).

MOS-27B-001

LAND COMBAT SUPPORT SYSTEM TEST
SPECIALIST

27B20

27B40

Exhibit Dates: 10/73-8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Supervises or performs maintenance on the Land Combat Support System (LCSS). *Skill Level 20:* Uses basic test equipment such as oscillocope, VOM, and signal generator; solders on printed circuit boards and discrete wiring; reads and interprets schematic diagrams and logic diagrams; identifies common electronic components; uses proper troubleshooting procedures; loads digital computer tapes; interprets digital printer outputs; performs basic instrument calibrations; aligns optical lens systems, shafts, and gear systems; draws block diagrams of systems; performs quality control inspections. *Skill Level 40:* Able to perform the duties required for Skill Level 20; maintains equipment records; establishes shop priorities and procedures; supervises shop operations.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 2 in industrial electronics, and 1 in digital theory, and additional credit in basic electronics, industrial electronics, digital theory, digital computer systems, systems maintenance, industrial science, and intermediate algebra on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory electronics, 1 in electronic instrumentation, and 2 in digital computer systems. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory electronics, 1 in electronic instrumentation, 2 in digital computer systems, and 3 in human relations. In an electronic technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-27B-002

Land Combat Support System Test
Specialist/Lance Repairer

27B10
27B20
27B30
27B40

Exhibit Dates: 9/77–Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 271 (Ballistic/Land Combat Systems Maintenance).

Description

Summary: Performs maintenance on Land Combat Systems (LCSS) and the Lance missile system; inspects and tests equipment; locates card-level faults with special test equipment; replaces faulty assemblies and subassemblies; selects program tapes, patchboards and cable assemblies; adjusts and aligns mechanical, electrical, and optical assemblies; calibrates and repairs support equipment; performs quality control measures; prepares maintenance and supply forms and reports. *Skill Level 10:* Works under close supervision in performing maintenance functions; uses technical manuals; follows schematics and organized maintenance procedures; uses multimeters, oscilloscopes, signal generators, and power supplies; tests digital multimeters, waveform connectors, signal generators, pulse generators, power supplies, printers, and detector adapters; performs operator maintenance on AC power generators and replaces faulty components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and provides technical assistance to Skill Level 10 personnel; repairs multimeters, waveform connectors, pulse generators, power supplies, signal generators, and patchboards; performs modifications on support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower skill level personnel in accomplishment of duties; schedules work; sets repair priorities; inspects, tests, and repairs missile system components; demonstrates proper work practices and maintenance techniques; implements quality control measures; performs system inspections; supervises maintenance and inspection teams; may supervise a minimum of 5 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; able to supervise personnel performing the duties of MOS 27B, MOS 27E (TOW/Dragon Repairer), and MOS 27H (Shillelagh Repairer); supervises and coordinates support maintenance activities of system associated electronic equipment; assists in developing quality control measures; serves as section chief performing missile system support maintenance; serves as senior instructor in a training facility. NOTE: May have progressed to 27B40 from 27B30, 27E30 (TOW/Dragon Repairer), or 27H30 (Shillelagh Repairer).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in an electronics technician program. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity and electronics (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in an electronics technician program. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity and electronics, 2 in electronics instrumentation, and 2 in digital computer principles (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in an electronics technician program. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity and electronics, 2 in electronic instrumentation, 2 in digital computer principles, and 1 in personnel supervision; if the duty assignment was Lance Repair Supervisor or LCSS Repair Supervisor, 1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in an electronics technician program. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity and electronics, 3 in personnel supervision, 3 in human relations, 2 in electronic instrumentation, and 2 in digital computer principles (5/78).

MOS-27D-001

Lance Missile System Repairman

27D20
27D40

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 27D was discontinued and its functions were incorporated into MOS 27B, Land Combat Support System Test Specialist/Lance Repairer.)

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Supervises or performs routine maintence on Lance missile systems. *Skill Level 20:* Performs field-level maintenance on Lance missile system, missile trainer, nickel-cadmium batteries; and field test equipment; inspects, tests, and adjusts subassemblies to specific functional levels; determines area of malfunction in specific subassemblies (electrical, mechanical, electronic, and electro-mechanical); determines serviceability of subassemblies and removes and replaces subassemblies; performs field calibration and provides technical assistance to supported units. *Skill Level 40:* Able to perform the duties required for Skill Level 20; sueprvises field maintenance on Lance missile systems; schedules workloads and establishes priorities; recommends procedures for receipt and storage of items; supervises inspection of items and on-the-job training; establishes and maintains maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation. In an electronic technician apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, and credit in electronics on the basis of institutional evaluation. In an electronic technician apprentice training program, 144 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination. In a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

MOS-27E-001

Wire-Guided Missile Systems
Repairman

27E20
27E40

Exhibit Dates: 10/73–8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Supervises or performs maintenance on the TOW or Dragon missile systems. *Skill Level 20:* Performs maintenance on wire-guided missile systems, trainers, night sights, battery charges, and system-peculiar test equipment; performs adjustments to isolate malfunctions; diagnoses malfunctions; removes and replaces modules and assemblies. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises inspection and maintenance crews; organizes and conducts on-the-job training; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, and additional credit in basic electronics and direct current on the basis of institutional evaluation. In a construction electrician apprentice training program, 2,000 clock hours of experience and 120 contact hours of related instruction (does not have experience in installing electrical components in buildings being constructed) (2/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in

basic electronics and 3 in human relations, and additional credit in basic electronics and direct current on the basis of institutional evaluation. In a construction electrician apprentice training program, 2,000 clock hours of experience and 120 contact hours of related instruction (does not have experience in installing electrical components in buildings being constructed) (2/76).

MOS-27E-002

TOW/Dragon Repairer

27E10
27E20
27E30

Exhibit Dates: 9/77–Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 271 (Ballistics/Land Combat Systems Maintenance).

Description

Summary: Performs maintenance on TOW and Dragon missile system trainers, night sites, battery chargers and system test equipment. *Skill Level 10:* Performs maintenance tasks under close supervision; follows technical manuals in servicing and maintaining systems; inspects, tests, and adjusts components to specified tolerances using special test equipment; locates and replaces malfunctioning electronic, electrical, mechanical, pneumatic and electro-mechanical subassemblies, modules, and circuit elements; prepares maintenance and supply forms and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower skill level personnel; provides technical assistance to support units; installs equipment modifications; troubleshoots weapon system, launch effects trainer, TOW training set, and breakout box; performs operational checks on tracker test set, tracker and launch effects trainer and monitoring set. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; supervises inspection and maintenance teams; establishes work loads and priorities; conducts in-service staff training; demonstrates proper maintenance and troubleshooting techniques; recommends maintenance procedures; implements quality control measures; establishes and maintains maintenance records; performs inspections; may supervise up to 5 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of tools and test equipment, and 3 in introduction to electricity and electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, and 3 in introduction to electricity and electronics (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in introduction to electricity and electronics, and 1 in personnel supervision; if the duty position was TOW/Dragon Repair foreman,1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

MOS-27F-001

Chaparral/Vulcan Air Defense System Repairman

27F20
27F40

Exhibit Dates: 10/73–8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Performs support maintenance on specialized missile equipment; has a basic knowledge of electronics, including radar and electromechanical applications. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances, and identifies malfunctions using primarily system-specific test equipment; repairs, removes, or replaces defective components and parts; performs initial and final check-out and inspection of system items; performs quality control measures; performs calibration on test sets peculiar to Chaparral and Vulcan equipment; prepares maintenance and supply forms; duties required for maintenance of the Chaparral missile system involve largely modular repair, requiring the ability to read block diagrams; duties required for maintenance of the Vulcan electronic assemblies and radar involve specific component repair, requiring substantially more electronic theory and the ability to read schematic diagrams. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a technical inspector or foreman, supervising and appraising the performance of 9 to 16 persons; establishes workloads and repair priorities; implements quality control measures; conducts on-the-job training, demonstrating proper maintenance and troubleshooting techniques.

Recommendation, Skill Level 20

Credit is not recommended because of the limited and military nature of the skills, competencies, and knowledge. Advanced standing in an electronic technician apprentice training program only on the basis of employer or trade association performance examination because of the limited and military nature of the skills, competencies, and knowledge (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in personnel administration, and additional credit for field experience in education on the basis of institutional evaluation. Advanced standing in an electronic technician apprentice training program only on the basis of employer or trade association performance examination because of the limited and military nature of the skills, competencies, and knowledge (3/75).

MOS-27F-002

Vulcan Repairer

27F10
27F20
27F30

Exhibit Dates: 9/77–Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 272 (Light Air Defense Systems Maintenance).

Description

Summary: Performs maintenance on Vulcan electronic assemblies, range-only-radar, and associated equipment. *Skill Level 10:* Works under close supervision; inspects, tests, and adjusts components to specific tolerances; determines malfunctions in assemblies, subassemblies, modules, circuit elements with common and system-peculiar test equipment; removes and replaces defective components and parts; tests transmitters/receivers, antennas, range computers, power supplies, amplifiers, control, and electronic field test sets; performs maintenance calibrations of power supplies, modular testers, receiver test sets, and other components unique to Vulcan electronic assemblies. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel; installs system modifications; provides technical assistance to support units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and performs maintenance tasks; establishes work loads and priorities; establishes and conducts staff training; implements quality control measures; supervises inspection and maintenance teams; maintains records; recommends inspection, testing, and maintenance techniques; may supervise up to 5 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of tools and test equipment and 3 in basic electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment and 3 in basic electronics (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in basic electronics, and 1 in personnel supervision; if the duty position was Vulcan Repair Supervisor, 1 additional semester hour in personnel supervision, and credit in human relations on the basis of institutional evaluation (5/78).

MOS-27G-001

Redeye Missile System Repairman

27G20
27G40

Exhibit Dates: 10/73–8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Supervises or performs field maintenance on Redeye missile system, trainer, and associated equipment. *Skill Level 20:* Inspects, tests, and adjusts assemblies and subassemblies to specific operational levels; determines malfunctions in electronic, electrical, and cryogenic assemblies, subassemblies, modules, and circuit elements; removes and replaces defective components and parts; installs equipment modifications; performs initial and final checkouts and inspections; performs 'C' level calibration on test equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the maintenance on the Redeye missile system, trainer, contact support test set, and associated equipment; schedules workloads; establishes priorities; recommends procedures for receiving, storing, inspecting, testing, and repairing equipment; implements quality control measures; supervises maintenance and inspection teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, and additional credit in basic electronics on the basis of institutional evaluation. In an electronic technician (sound and manufacturing) apprentice training program or in a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electronics, and additional credit in basic electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in basic electronics, and additional credit in basic electronics on the basis of institutional evaluation. In an electronic technician (sound and manufacturing) apprentice training program or in a construction electrician apprentice training program, 72 contact hours of related instruction; clock hours of experience on the basis of employer or trade association performance examination (2/76).

MOS-27G-002

CHAPARRAL/REDEYE REPAIRER

27G10
27G20
27G30
27G40

Exhibit Dates: 9/77–Present.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapon Systems Maintenance), subfield 272 (Light Air Defense Systems Maintenance).

Description

Summary: Performs maintenance on the Chaparral and Redeye missiles systems and associated equipment and trainers. *Skill Level 10:* Inspects, tests, and adjusts components to specific tolerances; determines malfunctions; uses system-associated test equipment; removes and replaces defective components and parts; serves on maintenance and inspection teams; prepares maintenance and supply forms and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; installs equipment modifications; provides technical assistance to supported units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes work load and repair priorities; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; demonstrates proper maintenance and troubleshooting techniques; implements quality control measures; establishes and maintains maintenance records, may supervise up to 5 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 27G or 27F (Vulcan Repairer); supervises and coordinates support maintenance of the Chaparral and Redeye missile systems, Vulcan weapon system electronics, forward area alerting radar, system associated trainers and test equipment, power generation equipment, and calibration of system associated electronic equipment; assists in the development of and supervises the quality control program. NOTE: May have progressed to 27G40 from 27G30 or 27F30 (Vulcan Repairer).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in the use and care of tools and test equipment and credit in basic electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in the use and care of tools and test equipment and credit in basic electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in the use and care of tools and test equipment and credit in basic electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment and 1 semester hour in personnel supervision and credit in basic electronics on the basis of institutional evaluation; if the duty position was Chaparral/Redeye Missile Systems Repair Supervisor, 1 additional semester hour in personnel supervision, and credit in human relations on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in personnel supervision, and 3 in human relations, and credit in basic electronics on the basis of institutional evaluation (5/78).

MOS-27H-001

SHILLELAGH MISSILE SYSTEM REPAIRMAN

27H20
27H40

Exhibit Dates: 10/73–8/77.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Summary: Supervises or performs maintenance on the Shillelagh missile system. *Skill Level 20:* Inspects, tests, and adjusts Shillelagh missile system by using a method of programmed test equipment and basic electronic theory; replaces faulty cables and assemblies; prepares maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; recommends procedures for receiving, storing, inspecting, testing, and repairing equipment and components; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demostrates proper maintenance and troubleshooting techniques.

Recommendation, Skill Level 20

In the vocational certificate category, credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, and additional credit in electronics and direct current on the basis of institutional evaluation (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in human relations, and additional credit in electronics and direct current on the basis of institutional evaluation (2/76).

MOS-27H-002

SHILLELAGH REPAIRER

27H10
27H20
27H30

Exhibit Dates: 9/77–2/85. (Effective 3/85, MOS 27H was discontinued; in 3/89, the designator was reestablished - see exhibit MOS-27H-003.)

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 271 (Ballistic/Land Combat Systems Maintenance).

Description

Summary: Performs maintenance on the Shillelagh missile system, the trainer, and associated built-in and portable test equipment. *Skill Level 10:* Works under close supervision; performs on-site repairs by replacing cables and assemblies; inspects, tests, and adjusts components to specified tolerances; determines malfunctions in electronic, electro-mechanical, optical and infrared systems; maintains tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; provides technical assistance to support units; installs equipment modifications; troubleshoots instructor control unit, visual effects simulator, power supply, power control unit, fault locator, and transmitter signal analyzer; performs operational checks on equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; supervises inspection and maintenance teams; conducts on-the-job training programs; demonstrates proper maintenance and troubleshooting techniques; may supervise up to 5 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of tools and test equipment, and 3 in introduction to electricity and electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, and 3 in introduction to electricity and electronics (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 3 in introduction to electricity and electronics, and 1 in personnel supervision; if the duty assignment was Shillelagh Repair Supervisor, 1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

MOS-27H-003

Hawk Firing Section Repairer

27H10

27H20

27H30

27H40

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-27J-001

Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer

27J10

27J20

27J30

27J40

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-27K-001

Hawk Fire Control/Continuous Wave Radar Repairer

27K10

27K20

27K30

27K40

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-27L-001

Lance System Repairer (LANCE Repairer)

27L10

27L20

27L30

Exhibit Dates: 9/83–Present.

Career Management Field: 27 (Land Combat and Air Defense System Intermediate Maintenance).

Description

Summary: Performs or supervises intermediate maintenance on the Lance missile system, which includes trainer, loader, transporter and launcher. *Skill Level 10:* Inspects, tests, troubleshoots, and repairs electronic, electrical, hydraulic mechanical and electro-mechanical assemblies of the Lance system trainer, loader, transporter and launcher and system test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises field maintenance of Lance missile system. *Skill Level 30:* Able to perform the duties required for Skill Level 20; schedules work loads and establishes priorities; recommends procedures for receipt and storage of items; supervises inspection of items and on-the-job training; establishes and maintains maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic procedures in system analysis and maintenance (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic procedures in system analysis and maintenance, and 2 in personnel supervision (4/86).

MOS-27M-001

Multiple Launch Rocket System (MLRS) Repairer

27M10

27M20

27M30

Exhibit Dates: 9/82–Present.

Career Management Field: 27 (Land Combat and Air Defense System Intermediate Maintenance).

Description

Summary: Supervises or performs intermediate maintenance on Multiple Launch Rocket System (MLRS) self-propelled launcher loader, launcher pad/container trainer, and test support group. *Skill Level 10:* Troubleshoots electrical, electronic, and mechanical assemblies, modules, and interconnecting cables of the self-propelled launcher loader module; isolates malfunctions; repairs and replaces chassis mounted components; prepares and maintains equipment logs, modification and utilization records, and calibration charts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to support units; supervises field maintenance of MLRS system. *Skill Level 30:* Able to perform the duties required for Skill Level 20; schedules work loads and establishes priorities; recommends procedures for receipt and storage of items; supervises inspection of items; conducts on-the-job training; establishes and maintains maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic procedures in system analysis and maintenance (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in care and use of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic procedures in system analysis and maintenance and 2 in personnel supervision (4/86).

MOS-27N-001

Forward Area Alerting Radar (FAAR) Repairer

27N10

27N20

27N30

Exhibit Dates: 9/81–Present.

Career Management Field: 27 (Land Combat and Air Defense System Intermediate Maintenance).

Description

Summary: Performs or supervises direct support and general support maintenance on the Foward Area Alerting Radar (FAAR) system to include radar, Target Alert Data Display Set (TADDS) and Interrogator Set (IFF). *Skill Level 10:* Performs support level maintenance on radar, TADDS and IFF electronic assemblies and associated system-peculiar test equipment to include Organizational Maintenance Test Set (OMTS) and Support Maintenance Test Set (SMTS): troubleshoots assemblies, subassemblies, modular and circuit elements; repairs, removes and/or replaces defective components and parts; inspects, tests, and adjusts FAAR system components; performs inspections; prepares and maintains equipment logs, modification and utilization records, exchange tags, and calibration data cards. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; provides technical assistance to supported units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs or supervises duties of lower-skill-level personnel; establishes workload and repair priorities; recommends procedures for receipt, storage, inspection, testing, and repair of FAAR system items; organizes and conducts on-the-job training programs and implements quality control measures.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance and 3 in electronic circuitry (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance, 3 in electronic circuitry, and 2 in personnel supervision (4/86).

MOS-27P-001

SGT. YORK AIR DEFENSE GUN SYSTEM RADAR/ELECTRONIC REPAIRER

27P10
27P20
27P30
27P40

Exhibit Dates: 3/84–8/87. (Effective 9/87, MOS 27P was discontinued.)

Career Management Field: 27 (Land Combat and Air Defense System Intermediate Maintenance).

Description

Summary: Performs or supervises intermediate maintenance on Sgt. York gun system radar and fire control associated components and on the Organizational Maintenance Test Set (OMTS). *Skill Level 10:* Troubleshoots and repairs system radar, system armament, feed system and fire control electronic, electrical, mechanical, pneumatic, and hydraulic components; performs assembly replacement; repairs system cables and wiring harness; isolates malfunctions of laser and optic electronics, IFF (Identify Friend or Foe), radar, or fire control subsystems; prepares and maintains equipment records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance, guidance, and instruction to lower-skill-level personnel; installs equipment modifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides first line supervision of subordinate personnel engaged in intermediate maintenance activities; organizes and conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates intermediate maintenance activities; serves as section chief or platoon sergeant; assists in development of and supervises quality control program; identifies faulty work practices and demonstrates correct procedures; serves as maintenance inspector.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance and 3 in introduction to hydraulic systems (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance, 3 in introduction to hydraulic systems, and 2 in personnel supervision (4/86).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance, 3 in introduction to hydraulic systems, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (4/86).

MOS-27Q-001

SGT. YORK AIR DEFENSE GUN SYSTEM TEST SPECIALIST

27Q10
27Q20
27Q30

Exhibit Dates: 3/84–8/87. (Effective 9/87, MOS 27Q was discontinued.)

Career Management Field: 27 (Land Combat and Air Defense System Intermediate Maintenance).

Description

Summary: Operates, performs or supervises unit and intermediate maintenance on Sgt. York gun system. *Skill Level 10:* Able to perform unit and intermediate level maintenance on Sgt. York gun system special design field maintenance test equipment; performs unit-under-test checkout and repair of gun system radar and fire control associated components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs and supervises unit and intermediate level maintenance on Sgt. York gun system field maintenance test equipment; performs and supervises repair of the gun system radar and fire control associated equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance, and 3 in electronic circuitry (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in use and care of hand tools and test equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and diagnostic techniques in system analysis and maintenance, 3 in electronic circuitry, and 2 in personnel supervision (4/86).

MOS-27T-001

PEDESTAL MOUNTED STINGER, LINE OF SIGHT REAR AIR DEFENSE SYSTEM REPAIRER

27T10
27T20
27T30
27T40

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-27V-001

HAWK MAINTENANCE CHIEF

27V50

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-27X-001

PATRIOT SYSTEMS REPAIRER

27X20
27X30
27X40
27X50

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-27Z-001

LCSS MISSILE MAINTENANCE CHIEF

27Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 27 (Combat Missile Maintenance), subfield 272 (Combat Missile Repair).

Description

Skill Level 50: Coordinates support maintenance of the Land Combat Support System (LCCS), including the Lance, TOW, Dragon, Chaparral, Shillelagh, and Redeye missile systems, Vulcan weapon system electronics, Foward Area Alerting Radar (FAAR), and system-associated trainers and test equipment; helps determine and administers policy; assists superiors in planning and accomplishing training; advises superiors on all matters concerning enlisted personnel; may serve as a chief instructor in a training facility. NOTE: May have progressed to 27Z50 from 27D40 (Land Combat Support System Test Specialist), 27D40 (Lance Missile System Repairman), 27E40 (Wire-Guided Missile Systems Repairman), 27F40 (Chaparral/Vulcan Defense Systems Repairman), 27G40 (Redeye Missile System Repairman), 27H40 (Shillelagh Missile System Repairman), 24M40 (Vulcan System Mechanic), or 24N40 (Chaparral System Mechanic).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in human relations, 6 for field experience in management, and additional credit in industrial arts education on the basis of institutional evaluation; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education (2/76).

MOS-28M-001

ANTI-BALLISTIC MISSILE MAINTENANCE SPECIALIST

28M10
28M20
28M40
28M50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 28M was discontinued.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 237 (Ballistic Missile Defense).

Description

Summary: Supervises or performs on-line maintenance on the Safeguard missiles and their associated equipment. *Skill Level 10:* Operates and performs preventive maintennace on missile service and transporter vehicles, test equipment, associated gound support, and handling equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; tests and checks guidance control and warhead sections to verify presence and integrity of circuitry; checks and tests missile and launch equipment and isolates malfunctions; replaces defective missile stages and sections and launch equipment components; determines the cause and location of a malfunction of the environmental system in a cell or launch preparation equipment compartment in the event of a minor alarm; removes cover, deenergizes electrical power, and performs minor corrective action; prepares maintenance and supply records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises on-line maintenance of the missile and associated equipment; schedules and assigns work; corrects faulty work procedures by instruction and demonstration; enforces safety procedures; diagnoses and analyzes complex malfunctions; conducts on-the-job training programs; prepares technical reports; establishes maintenance controls and performance standards. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal maintenance supervisor in a multi-shift operation performing online missile maintenance.

Recommendation, Skill Level 10

In the vocational certificate category, credit in basic electricity laboratory and systems maintenance on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in basic electricity laboratory and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, 2 semester hours in basic electricty laboratory and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 6 for field experience in management (6/76).

MOS-29E-001

RADIO REPAIRER (COMMUNICATIONS-ELECTRONICS RADIO REPAIRER)

29E10
29E20
29E30

Exhibit Dates: 7/86–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Installs and maintains radio receivers, transmitters, and associated equipment. *Skill Level 10:* Uses oscilloscopes, multimeters, radio frequency generators, and spectrum analyzers to troubleshoot equipment; troubleshoots and repairs equipment to the component level; uses logical troubleshooting methods to locate faults. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists and instructs Skill Level 10 personnel in equipment maintenance; keeps detailed records of maintenance history on equipment; follows formal maintenance systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to Skill Level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronic troubleshooting and repair, and 2 in radio communications (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, 2 in radio communications, and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, 2 in radio communications, 2 in recordkeeping, 3 in maintenance management, and 3 in principles of supervision (7/87).

MOS-29F-001

FIXED COMMUNICATIONS SECURITY EQUIPMENT REPAIRER

29F10
29F20
29F30

Exhibit Dates: 9/85–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Inspects, tests, and performs maintenance on fixed communications security (COMSEC) equipment. *Skill Level 10:* Operates conventional and specialized test equipment; performs repairs on equipment or system by removing and replacing defective equipment; installs and tests equipment; interprets system diagrams, troubleshooting charts and technical publications; keeps maintenance records; individuals holding the following ASI's perform maintenance at the component level: ASI G7, COMSEC Equipment Full Maintenance (Field), ASI G8, COMSEC Equipment Full Maintenance (Fixed), ASI X8, COMSEC System Maintenance Specialized Repair Activity (SRA), and ASI X9, General COMSEC Maintenance Specialized Repair Activity (SRA). *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and procedural assistance to Skill Level 10 personnel; prepares and maintains repair parts stock records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to Skill Levels 10 and 20; establishes workload, work schedules, and maintenance priorities; responsible for quality control inspections; evaluates and counsels subordinate personnel; provides technical assistance to subordinates; maintains technical library; maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews technical and administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 1 in electronic troubleshooting and repair. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronic troubleshooting and repair, and 2 in recordkeeping. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in maintenance management, and 3 in principles of supervision. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

MOS-29G-001

DIGITAL COMMUNICATIONS EQUIPMENT REPAIRER

29G10
29G20
29G30

Exhibit Dates: 3/87–9/89. (Effective 9/89, MOS 29G was discontinued and its functions were incorporated into MOS 39G, Automated Communications Computer Systems Repairer.)

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Performs or supervises unit and intermediate level maintenance on digital communications message devices and associated equipment such as common unit control, universal keyboards, card readers, card punches, page printers, and modems. *Skill Level 10:* Uses test equipment to troubleshoot equipment; troubleshoots and repairs equipment to the component level; uses logical troubleshooting methods to locate faults. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists and instructs Skill Level 10 personnel in equipment maintenance; provides technical assistance to subordinates; keeps detailed records of equipment maintenance history. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns duties; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electromechanical devices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, and 2 in electronic systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 4 in electronic systems troubleshooting and maintenance, 1 in microprocessors, and 1 in solid state electronics (6/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electromechanical devices. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 6 in electronic systems troubleshooting and maintenance, 2 in microprocessors, 1 in solid state electronics, 2 in record keeping, 2 in maintenance management, and 3 in principles of supervision (6/88).

MOS-29H-001

AUTOMATIC DIGITAL MESSAGE SWITCH
EQUIPMENT (ADMSE) REPAIRER

29H20
29H30

Exhibit Dates: [illegible]/87-9/89. (Effective 9/89, MOS 29H was discontinued and its functions were incorporated into MOS 39G, Automated Communications Computer Systems Repairer.)

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Troubleshoots and maintains digital computer systems. *Skill Level 20:* Analyzes operation, software, and hardware, to locate system faults; writes software to aid in troubleshooting; repairs to the component level various mini and mainframe computers, power supplys, modems, printers, and disk drives; maintains equipment repair records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; advises superiors; inspects maintenance forms and records; provides guidance and assigns duties to subordinates; establishes workload, work schedules, and repair priorities; evaluates and counsels subordinates; performs and supervises quality control inspections; coordinates logistical support; establishes and monitors on-the-job training.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 5 in digital principles, 3 in solid state electronics, 2 in microprocessors, 4 in computer systems and organization, 6 in computer systems troubleshooting and maintenance, and 2 in record keeping (6/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 5 in digital principles, 3 in solid state electronics, 2 in microprocessors, 4 in computer systems and organization, 6 in computer systems troubleshooting and maintenance, 2 in record keeping, 2 in maintenance management, and 3 in principles of supervision (6/88).

MOS-29J-001

TELETYPEWRITER EQUIPMENT REPAIRER

29J10
29J20
29J30

Exhibit Dates: 7/86-Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs maintenance on electromechanical and electronic teletypewriter and facsimile equipment; individuals holding ASI T2, Teletypewriter Maintenance (MOD40TTY) also repair microcomputer systems. *Skill Level 10:* Installs, maintains, and repairs electrical and mechanical office machines at the module level; uses basic hand tools; reads elementary electrical and electronic diagrams; performs detailed testing to discover and diagnose causes of equipment malfunction. *Skill Level 20:* Able to perform the duties required for Skill Level 10; aligns electrical, electronic, and mechanical components as prescribed in applicable technical publications; reassembles and test-operates repaired equipment to ensure conformance with technical specifications; uses proper techniques to maintain, sectionalize, localize, and isolate electrical, electronic, and mechanical causes of equipment malfunction; prepares and keeps maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises four or more lower skill level personnel; able to diagnose equipment malfunctions and repair requirements; conducts on-the-job training; organizes and supervises maintenance and inspection teams; requisitions and stocks supplies and repair parts; maintains equipment forms and records; plans and schedules equipment maintenance.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting and repair and 3 in introduction to electronics. If ASI T2 is held, 3 semester hours in microcomputer systems repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic troubleshooting and repair, 3 in introduction to electronics, and 2 in recordkeeping. If ASI T2 is held, 3 semester hours in microcomputer systems repair (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic troubleshooting and repair, 3 in introduction to electronics, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management. IF ASI T2 is held, 3 semester hours in microcomputer systems repair (7/87).

MOS-29M-001

TACTICAL SATELLITE/MICROWAVE
REPAIRER

29M10
29M20
29M30

Exhibit Dates: 7/86-Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Supervises and performs maintenance on tactical satellite, microwave, multichannel radio, multiplexer and associated equipment. *Skill Level 10:* Operates vehicles and power generation equipment; inspects and repairs equipment using test equipment and procedures per technical manuals to determine cause of malfunction and corrective action required; tests repaired item to insure proper operation; performs preventive maintenance checks; records maintenance activities on appropriate forms. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs complex maintenance duties; provides technical and procedural assistance to skill level 10 personnel; requests and maintains authorized repair parts stock, supplies, and technical manuals. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports; performs more complex troubleshooting.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in microwave communication systems, and 2 in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in microwave communication systems, 4 in electronic troubleshooting and repair, and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in microwave communication systems, 6 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

MOS-29N-001

TELEPHONE CENTRAL OFFICE REPAIRER

29N10
29N20
29N30

Exhibit Dates: 9/85-Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs and supervises maintenance on manual and semi-automatic and selected transportable automatic electronic telephone central office systems. *Skill Level*

10: Maintains relay-operated central office systems and electronic switching systems; uses test equipment including oscilloscopes and multimeters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a crew chief; schedules tasks and maintains maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; establishes workload, work schedules, and priorities; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in telephone equipment and repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronics and 2 in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in telephone equipment and repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in telephone equipment and repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

MOS-29P-001

COMMUNICATIONS SECURITY
MAINTENANCE CHIEF

29P40

Exhibit Dates: 9/85–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Supervises the maintenance and repair of communications security (COMSEC) equipment. *Skill Level 40:* May have progressed to 29P40 from 29F30, Fixed Communications Security Equipment Repairer, or 29S30, Field Communications Security Equipment Repairer; advises personnel, supervisors, and commanders on the operational matters dealing with COMSEC maintenance and supply; performs inspection of COMSEC accounting procedures; plans and supervises on-the-job training programs and evaluates and counsels subordinate personnel; supervises and coordinates maintenance and/or logistics support for COMSEC material.

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours for field experience in management (7/87).

MOS-29S-001

FIELD COMMUNICATIONS SECURITY
EQUIPMENT REPAIRER

29S10
29S20
29S30

Exhibit Dates: 9/85–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs maintenance on field cryptographic equipment. *Skill Level 10:* Uses oscilloscopes and multimeters to troubleshoot crytographic equipment; troubleshoots and repairs equipment to the board level; uses logical troubleshooting methods to locate faults; individuals holding the following ASI's perform maintenance at the component level: ASI G7, COMSEC Equipment Full Maintenance (Field), ASI G8, COMSEC Equipment Full Maintenance (Fixed), ASI X8, COMSEC System Maintenance Specialized Repair Activity (SRA), and ASI X9, General COMSEC Maintenance Specialized Repair Activity (SRA). *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists and instructs Skill Level 10 personnel in equipment maintenance; keeps detailed records of maintenance history on equipment; follows formal maintenance system. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to Skill Level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 1 in electronic troubleshooting and repair. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronic troubleshooting and repair, and 2 in recordkeeping. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in maintenance management, and 3 in principles of supervision. If ASI G7, G8, X8, or X9 is held, 2 additional semester hours in electronic troubleshooting and repair (7/87).

MOS-29T-001

SATELLITE/MICROWAVE COMMUNICATIONS
CHIEF

29T40

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Skill Level 40: Supervises unit and intermediate level maintenance of microwave communication systems that include satellite and ground station installations; serves as principal noncommissioned officer; provides direction to personnel performing maintenance at ground station microwave and satellite installations; supervises maintenance personnel; coordinates and assigns duties; evaluates and counsels subordinates; advises superiors on maintenance activities; prepares and coordinates technical reports and correspondence; initiates and conducts on-the-job training; instructs subordinates in the utilization of special test equipment; performs liaison between staff, operation, and maintenance personnel. NOTE: May have progressed to 29T40 from 29V30 (Strategic Microwave Systems Repairer) or 29Y30 (Satellite Communications Systems Repairer).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/88).

MOS-29U-001

DIGITAL EQUIPMENT MAINTENANCE CHIEF

29U40

Exhibit Dates: 3/87–9/89. (Effective 9/89, MOS 29U was discontinued and its functions were incorporated into MOS 39V, Computerized Systems Maintenance Chief.)

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Skill Level 40: Supervises unit and intermediate-level maintenance of digital communication and switching equipment; serves as principal noncommissioned officer; supervises maintenance personnel; coordinates duties; evaluates and counsels subordinates; advises superiors on maintenance activities; reviews, prepares, and coordinates technical reports and correspondence; initiates and conducts apprentice and on-the-job training programs; instructs subordinates in the utilization of special test equipment; performs liaison between staff, operation, and maintenance personnel; makes plans for the defense of the unit. NOTE: May have progressed to 29U40 from 29G30 (Digital Communications Equipment Repairer), or 29H30 (Automatic Digital Message Switch Equipment Repairer).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/88).

MOS-29V-001

STRATEGIC MICROWAVE SYSTEMS
REPAIRER

29V10
29V20
29V30

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Supervises, operates, and performs unit and intermediate level maintenance on microwave communication equipment, terminals, and systems. *Skill Level 10:* Uses test equipment to troubleshoot microwave communication equipment, terminals, and systems; troubleshoots and repairs to the component level; operates equipment and completes preventive maintenance procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists and instructs subordinates in equipment maintenance and provides technical assistance when needed; keeps detailed records of equipment maintenance history. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns duties; establishes workload, work schedules, and priorities; conducts quality control inspections; evaluates and counsels subordinates; provides technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, and 3 in electronic systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 6 in electronic systems troubleshooting and maintenance, 2 in maintenance management, and 2 in record keeping (6/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 6 in electronic systems troubleshooting and maintenance, 2 in maintenance management, 2 in record keeping, and 3 in principles of supervision (6/88).

MOS-29W-001

COMMUNICATIONS MAINTENANCE SUPPORT CHIEF

29W40

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Skill Level 40: Supervises the performance of the unit, intermediate, and depot-level maintenance of communication equipment; coordinates duties; evaluates and counsels subordinates; advises superiors on maintenance activities; reviews, prepares, and coordinates technical reports and correspondence; initiates and conducts on-the-job and apprentice training programs; instructs subordinates in the utilization of special test equipment; performs liaison between staff, operation, and maintenance personnel; makes plans for the defense of the unit. NOTE: May have progressed to 29W40 from 29E30 (Radio Repairer), 29J30 (Teletypewriter Equipment Repairer), 29M30 (Tactical Satellite/Microwave Repairer), or 29N30 (Telephone Central Office Repairer).

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/88).

MOS-29X-001

COMMUNICATIONS EQUIPMENT MAINTENANCE CHIEF

29X50

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Skill Level 50: Supervises the Army's communication equipment maintenance mission; determines requirements, assigns overall duties, and coordinates activities of subordinate personnel; develops and applies policies and procedures for a maintenance facility; selects communication sites and advises maintenance officer or unit commander on maintenance activities; conducts training and prepares technical and administrative reports. NOTE: May have progressed to 29X50 from 29P40 (Communications Security Maintenance Chief), 29U40 (Digital Equipment Maintenance Chief), 29W40 (Communications Maintenance Support Chief), or 29T40 (Satellite Microwave Communications Chief).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management (6/88).

MOS-29Y-001

SATELLITE COMMUNICATIONS (SATCOM) SYSTEMS REPAIRER

29Y10

29Y20

29Y30

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Operates and maintains satellite ground station equipment. *Skill Level 10:* Operates and performs preventive maintenance on satellite ground station equipment; uses common electronic test equipment to test and repair digital circuitry; performs a limited amount of troubleshooting. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs extensive troubleshooting and repair of equipment; keeps maintenance records, supervises and provides guidance to lower skill level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares technical and administrative reports; maintains files and records; assigns duties; performs and supervises quality control inspections; coordinates logistical support; establishes on-the-job training; advises superiors.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, and 1 in electronic systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 6 in electronic systems troubleshooting and maintenance, and 2 in record keeping (6/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 6 in electronic systems troubleshooting and maintenance, 2 in record keeping, 2 in maintenance management, and 3 in principles of supervision (6/88).

MOS-29Z-001

ELECTRONICS MAINTENANCE CHIEF (COMMUNICATIONS/ELECTRONICS CHIEF)

29Z50

Exhibit Dates: 3/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Skill Level 50: Supervises, monitors, and directs the Army's communications and electronics maintenance mission; determines requirements; assigns overall duties; coordinates activities of subordinate units; develops and applies policies and procedures for maintenance facilities; briefs commander and staff on maintenance posture of organization; prepares technical correspondence and administrative reports; supervises training in communications, operations, procedures, and maintenance practices. NOTE: May have progressed to 29Z50 from 29X50 (Communications Equipment Maintenance Chief), 39X50 (Electronics Equipment Maintenance Chief), or 35H50 (Calibration Specialist).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management (6/88).

MOS-31B-001

FIELD COMMUNICATIONS-ELECTRONICS EQUIPMENT MECHANIC (FIELD RADIO MECHANIC)

31B20

31B30

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31B was discontinued and its functions were incorporated into MOS 31V, Tactical Communications Systems Operator/Mechanic.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 311 (Field Communications Maintenance).

Description

Summary: Installs, operates, and performs preventive maintenance on electronic communications systems that include communications security equipment, common and special test, calibration, and diagnostic equipment, as well as selected target surveillance equipment. *Skill Level 20:* Inspects equipment for serviceability; cleans equipment covers and cases; replaces fuses, lamps, and batteries; reads and applies circuit and schematic diagrams; performs troubleshooting procedures at the circuit level to localize and diagnose causes of equipment malfunctions; maintains equipment and supply records; interprets technical reports and manuals; uses multimeter, oscilloscope, and signal injection and tracing equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs preventive maintenance and diagnostic troubleshooting procedures and repair on special purpose digital computer and associated equipment, including paper tape punches and readers.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in electronic circuits and devices (solid-state and vacuum tubes), and 3 in electronic communications systems (3/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in electronic circuits and devices (solid-state and vacuum tubes), 3 in electronic communications systems, and 3 in introduction to digital computer circuits (3/76).

MOS-31C-001

SINGLE-CHANNEL RADIO OPERATOR

31C10
31C20
31C30

Exhibit Dates: 9/84–Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Installs and operates high frequency radio, radio telephone, teletype, single channel satellite equipment, field generator power supplies, communications, security devices and associated equipment. *Skill Level 10:* Installs and operates equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises the operation of equipment; supervises 8-15 Skill Level 10 personnel; performs combat communications-electronics planning and maintenance administration. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 15-20 lower-skill-level personnel in the installation, operation and maintenance of equipment; has additional skills in the areas of signal security, tactical satellite communications, and personnel guidance and supervision.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature. If ASI was J7, WHCA Console Control Operations, credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (9/85).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature. If ASI was J7, WHCA Console Control Operations, credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (9/85).

MOS-31D-001

PERSHING COMMUNICATIONS SPECIALIST

31D20
31D40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31D was discontinued and its functions were incorporated into MOS 26Q, Tactical Satellite/Microwave Systems Operator; effective 3/88, MOS 31D was reestablished (Mobile Subscriber Equipment Transmission System Operator) – see exhibit MOS-31D-002.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 313 (Area Communications).

Description

Summary: Installs, operates, and performs routine maintenance on tropospheric scatter radio and associated multiplexing equipment. *Skill Level 20:* Positions antennas, interconnects equipment, and makes tuning adjustments on receivers and transmitters; uses compass; reads specialized metering scales on equipment; keeps equipment log books. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and organizes tropospheric scatter radio operations, maintenance, and security functions; corrects faulty work practices by instruction and demonstration of proper techniques; requests supplies and prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications (practices and procedures) and 1 in maintenance (radio or equipment) (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic communications (practices and procedures) and 2 in maintenance (radio or equipment). In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications (practices and procedures), 2 in maintenance (radio or equipment), 3 in human relations, 2 in industrial maintenance supervision, and 1 in technical writing. In the upper-division baccalaureate category, 2 semester hours for field experience in management (3/76).

MOS-31D-002

MOBILE SUBSCRIBER EQUIPMENT
TRANSMISSION SYSTEM OPERATOR

31D10
31D20
31D30

Exhibit Dates: 3/88–Present.

Career Management Field: 31 (Signal Operations).

Description

Summary: Installs, operates, supervises, and performs unit level maintenance on Mobile Subscriber Equipment (MSE) radio transmission equipment, radio access units and interoperable devices. *Skill Level 10:* Installs, operates and performs unit level maintenance on line-of-sight multichannel radio terminals, radio access units, communications security (COSMEC) devices, multiplexing equipment and antenna systems; interconnects equipment components and configures systems for operation; maintains records and reports pertaining to equipment operation; performs unit level maintenance on MSE radio transmission and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and trains subordinate personnel; prepares work schedules and checks operation records and station files for completeness and accuracy; writes technical reports and ensures sufficient spare parts and supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; determines requirements, assigns duties, and coordinates activities of communication personnel; plans, supervises and implements tactical training programs; prepares technical and administrative reports; supervises march orders and emplacement of section/team equipment; oversees and performs periodic and emergency adjustment on MSE transmission equipment, radio access units and interoperability devices.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in data communications system troubleshooting and maintenance (6/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in data communications system troubleshooting and maintenance (6/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in data communications system troubleshooting and maintenance, 3 in principles of supervision, and 3 in maintenance management (6/90).

MOS-31E-001

FIELD RADIO REPAIRMAN

31E20
31E40

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Inspects, tests, and performs maintenance of FM radios, single side band radios, and radio teletypewriter equipment. *Skill Level 20:* Performs testing and maintenance procedures; dismantles components, traces continuity, locates malfunctioning parts, and repairs faulty circuitry parts; uses multimeters, oscilloscopes, signal generators, and other equipment to locate and repair malfunctioning circuits; computes voltage, current, resistance, and power using Ohm's Law and Watt's Law functions. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises field radio equipment maintenance programs and instructs in maintenance procedures and techniques; diagnoses and determines causes of unusual and complex cases of equipment malfunction or nonfunction; interprets complex circuit and schematic diagrams; requisitions supplies; prepares, reviews, and consolidates technical and administrative reports; normally supervises 8-15 persons. NOTE: May have progressed to 31D40 from 31D20, 31B20, or 31B30 (Field Communications Electronics Equipment Mechanic).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, and 3 in electronic components (solid-state and vacuum tubes). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, and 2 in electronic devices (solid-state and vaccum tubes). Advanced standing in a radio-television repairman apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, 3 in electronic components (solid-state and vacuum tubes, and 2 in systems maintenance and repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, 3 in electronic devices (solid-state and vacuum tubes), 2 in systems maintenance and repair, 3 in human relations, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in maintenance management. Advanced standing in a radio-television apprentice training program on the basis of employer or trade association performance examination (3/76).

MOS-31E-002

FIELD RADIO REPAIRER

31E10
31E20
31E30

Exhibit Dates: 3/78–9/86. (Effective 9/86, MOS 31E was discontinued.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Inspects, tests, and performs maintenance on AM, FM, single side band, and FSK field radio receivers, transmitters, and associated equipment. *Skill Level 10:* Inspects, troubleshoots, repairs, and tests field radio receiver/transmitter equipment; replaces modules and major components; aligns and adjusts equipment to ensure proper operating efficiency; uses common and specialized tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; disassembles components and repairs circuit wiring; prepares reports and maintenance records; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises installation and use of necessary equipment for maintenance of field radio receiver and transmitter equipment; observes, corrects, and instructs lower skill level personnel in proper maintenance techniques; requisitions supplies; prepares, reviews, and consolidates technical and administrative reports; diagnoses and determines causes of complex and unusual cases of malfunctions; schedules workloads; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electricity (DC) and 3 in communications electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), and 3 in communications electronics (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, and 3 in electronic components (solid-state and vacumm tubes). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, and 2 in electronic devices (solid-state and vacuum tubes) (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, 3 in electronic components (solid-state and vacuum tubes), and 2 in systems maintenance and repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in communications electronics, 3 in electronic devices (solid-state and vacuum tubes), 2 in systems maintenance, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in maintenance management (10/79).

MOS-31F-001

MOBILE SUBSCRIBER EQUIPMENT NETWORK SWITCHING SYSTEM OPERATOR

31F10
31F20
31F30

Exhibit Dates: 3/88–Present.

Career Management Field: 31 (SIgnal Operations).

Description

Summary: Installs, operates, supervises and performs unit level maintenance on systems control center, node center switch, extension node switches, associated multiplexing, net radio interface equipment, communications security devices and remote transmission (down-the-hill) radios; troubleshoots to the board level using digital multimeters, computer terminals with diagnostic readouts and board level LEDs and configuration switches. *Skill Level 10:* Operations: Initializes and loads data base; positions, assembles and interconnects equipment components; operates motor vehicles and power generation equipment; adjusts and aligns equipment to prescribed tolerances; interprets and uses operating instructions, data base information, and system diagrams; establishes and maintains net connectivity; inputs and receives information from system control center for transmitting and receiving operating directives and data base input/output; and provides subscriber assistance. Maintenance: Interprets computer printouts to troubleshoot, repair or replace faulty line replaceable units; coordinates with system operators and managers to resolve difficulties; places spare equipment into operation upon failure of on-line unit. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises installation, operation and maintenance; trains personnel in the employment and operation of equipment; assists in selection of sites; corrects faulty work practices and operating procedures; performs various supervisory duties pertaining to work schedules, records, supplies and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; determines requirements, assigns duties and coordinates activities of communication personnel; plans, implements and supervises training programs; supervises maintenance programs; coordinates logistical support; prepares and oversees technical and administrative reports; oversees/performs periodic and emergency adjustments.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in data communications system troubleshooting and maintenance (6/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in data communications system troubleshooting and maintenance (6/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in data communications system troubleshooting and maintenance, 3 in principles of supervision, and 3 in maintenance management (6/90).

MOS-31G-001

TACTICAL COMMUNICATIONS CHIEF

31G40
31G50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31G was discontinued and its functions were incorporated into MOS 31V, Tactical Communications Systems Operator/Mechanic; effective 9/87, MOS 31G was reestablished–see exhibit MOS-31G-002.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 311 (Field Communications Maintenance).

Description

Summary: Supervises the installation, operation, and maintenance of communications systems in infantry, armor, artillery, or other units employing similar methods of communication. *Skill Level 40:* Supervises the installation, operation, and routine maintenance of wire communications systmes, FM radio nets, air-to-ground radio sets, and radio teletype sets; conducts training programs for unit personnel in communications procedures, operations, and maintenance practices; assists in selecting locations for communications facilities; assigns duties and coordinates the activities of various communications personnel. NOTE: May have progressed to 31G40 from 31B20, 31B30 (Field Communications Electronics Equipment Mechanic), 31D40 (Pershing Communications Specialist), 31E20 (Field Radio Repairman), 36K40 (Tactical Wire Operations Specialist), 05B40 (Voice Radio Operator), or 05F40 (Radio Teletypewriter Operator, Non-Morse). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and coordinates communications activities; administers maintenance records and prepares reports; supervises supply operations; determines unusual causes of defective equipment. NOTE: May have progressed to 31G50 from 31G40, 31E40 (Field

Radio Repairman), 05B40 (Radio Operator), 05C40, 05C50 (Radio Teletypewriter Operator, 05E40 (Voice Radio Operator), or 05F40 (Radio Teletypewriter Operator, Non-Morse).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in introduction to electricity (DC), 3 in introduction to electronic communications, and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity (DC), 3 in introduction to electronic communications systems, 3 in map reading, 3 in human relations, 3 in introduction to management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in a technical elective, and 3 in industrial arts (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 for an internship in education, 3 in a technical elective, and 3 in industrial arts (3/76).

MOS-31G-002

TACTICAL COMMUNICATION CHIEF

31G30

31G40

Exhibit Dates: 9/87–Present.

Career Management Field: 31 (Communications Electronics Operations).

Description

Summary: Supervises the installation, operation, and maintenance of communications systems in infantry, armor, artillery, or other units employing similar methods of communication. *Skill Level 30:* Plans, coordinates, and supervises the installation, operation, and maintenance of ground FM radio and field wire communications systems, air ground radio sets, radioteletypewriter sets, and switchboard systems; coordinates activities and assigns duties; conducts training programs; advises the commander on communication matters. NOTE: May have progressed to 31G30 from 31K20 (Combat Signaler) or 31V20 (Unit Level Communications Maintainer). *Skill Level 40:* Able to perform the duties required for Skill Level 30; monitors and coordinates the operation of the various elements of integrated communication systems; prepares, supervises, and conducts training programs; prepares technical and administrative reports; assists in selecting locations for communications facilities; performs liaison between staff, operations, and maintenance personnel.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 3 in maintenance management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 2 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

MOS-31J-001

TELETYPEWRITER REPAIRMAN

31J20

31J40

31J50

Exhibit Dates: 10/73–2/74.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Performs installation, maintenance, and repair of electromechanical and electronic teletypewriter and facsimile equipment. *Skill Level 20:* Installs, maintains, and repairs electrical and mechanical office machines; uses basic hand tools; reads elementary electrical and electronic diagrams. *Skill Level 40:* Able to perform the duties required for Skill Level 20; able to diagnose equipment malfunctions and repair requirements; conduct on-the-job training; organizes and supervises maintenance and inspection teams; requisitions and stocks supplies and repair parts; reviews and prepares technical and administrative reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as foreman, establishing workloads and maintenance priorities and conducting on-the-job training; implements quality control measures.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in industrial laboratory tool use and care and 1 in basic mathematics (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in industrial laboratory tool use and care and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial laboratory tool use and care, 1 in basic mathematics, and additional credit for field experience in personnel supervision, education, and industrial arts on the basis of institutional evaluation (3/75).

Recommendation, Skill Level 50

In the vocational certificate category, 1 semester hour in industrial laboratory tool use and care and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial laboratory tool use and care, 1 in basic mathematics, and additional credit for field experience in personnel supervision, office management, education, and industrial arts on the basis of institutional evaluation (3/75).

MOS-31J-002

TELETYPEWRITER REPAIRMAN

31J20

31J40

Exhibit Dates: 3/74–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Supervises and performs maintenance on electromechanical and electronic teletypewriter and facsimile equipment. *Skill Level 20:* Installs, tests, adjust, overhauls, and repairs electromechanical and electronic teletypewriters and facsimile equipment; performs detailed testing to diagnose equipment malfunctions, using specialized tools and testing equipment; replaces faulty components, subassemblies, and parts; adjusts electrical, electronic, and mechanical components in accordance with applicable technical publications; test-operates repaired equipment to assure conformance with technical specifications; maintains tools and test equipment; reads schematic and wiring diagrams pertaining to teletypewriters and facsimile equipment; uses conventional and specialized soldering techniques; prepares and keeps maintenance forms and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the maintenance of electromechanical and electronic teletypewriters and facsimile equipment; plans and schedules maintenance; maintains equipment forms and records; requisitions spare parts, supplies, and technical manuals; reviews, consolidates, and prepares technical and administrative reports pertaining to equipment and equipment maintenance activities; conducts on-the-job training; demonstrates correct maintenance techniques; diagnoses difficult and unusual equipment malfunctions; interprets complex specifications and circuit diagrams.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity, 2 in office machine repair, 1 in electromechanical systems, 1 in use of technical publications, and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity. In an electronic technician apprentice training program, advanced standing on the basis of employer or trade association performance examination (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity, 3 in office machine repair, 1 in electromechanical systems, 1 in use of technical publications, 1 in care and use of tools, and 1 in blueprint reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in personnel supervision, 3 in human relations, 3 in record keeping, and 2 in technical report writing. In an electronic technician apprentice training program, advanced standing on the basis of employer or trade association performance examination (5/77).

MOS-31J-003

TELETYPEWRITER REPAIRER

31J10
31J20
31J30

Exhibit Dates: 3/78–9/86. (Effective 9/86, MOS 31J was discontinued and its functions were incorporated into MOS 29J, Teletypewriter Equipment Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs maintenance on electromechanical and electronic teletypewriter and facsimile equipment. *Skill Level 10:* Installs, maintains, and repairs electrical and mechanical office machines at the module level; uses basic hand tools; reads elementary electrical and electronic diagrams; performs detailed testing to discover and diagnose causes of equipment malfunction. *Skill Level 20:* Able to perform the duties required for Skill Level 10; aligns electrical, electronic, and mechanical components as prescribed in applicable technical publications; reassembles and test-operates repaired equipment to ensure conformance with technical specifications; uses proper techniques to maintain, sectionalize, localize, and isolate electrical, electronic, and mechanical causes of equipment malfunction; prepares and keeps maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises four or more lower skill level personnel; able to diagnose equipment malfunctions and repair requirements; conducts on-the-job training; organizes and supervises maintenance and inspection teams; requisitions and stocks supplies and repair parts; maintains equipment forms and records; plans and schedules equipment maintenance.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in electronics laboratory and 1 in industrial laboratory tool use and care (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in electronics laboratory and 1 in industrial laboratory tool use and care (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in electronics laboratory and 1 in industrial laboratory tool use and care. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (10/79).

MOS-31K-001

COMBAT SIGNALER

31K10
31K20

Exhibit Dates: 9/84–Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises, installs, operates, maintains basic wire, switchboard, and frequency modulated (FM) radio communications equipment and systems in combat, combat support, and combat service support units. *Skill Level 10:* Performs field wire system troubleshooting; splices wires; installs field telephones and FM radios; processes messages. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and trains Skill Level 10 personnel; estimates supply requirements; interprets maps and overlays.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (9/85).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (9/85).

MOS-31L-001

MULTICHANNEL COMMUNICATIONS EQUIPMENT REPAIRMAN
(FIELD RADIO RELAY EQUIPMENT REPAIRMAN)

31L20
31L40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31L was discontinued and its functions were incorporated into MOS 26L, Tactical Microwave Systems Repairer; effective 9/87, MOS 31L was reestablished with the title Wire Systems Installer–see exhibit MOS-31L-002.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Inspects, tests, and performs maintenance on multichannel communication equipment including radio sets, carrier terminals, multiplexers, combiners, repeaters, and frequency division plus code modulated systems. *Skill Level 20:* Performs periodic and emergency repairs on multichannel communication equipment using electronic test equipment; tests components, integrated circuits, modules, and printed circuits to localize malfunctions; repairs and replaces faulty items; adjusts unit for proper functioning; interprets schematics and technical literature. NOTE: May have progressed to 31L20 from 31M20 (Multichannel Communications Equipment Operator). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 4 or more multichannel communications equipment repairmen; instructs subordinates in proper repair and maintenance techniques; diagnoses and determines causes of unusual cases of equipment malfunction and nonfunction.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in solid-state devices, 3 in basic digital computer circuits, 3 in communications systems, and 3 in electronic test equipment and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in solid-state devices, 3 in basic digital computer circuits, and 3 in communications circuits. In an electronic technician apprentice training program, 1,500 clock hours of experience and 100 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in solid-state devices, 3 in basic digital computer circuits, 3 in communications systems, 3 in communications circuits, and 3 in electronic test equipment and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 3 in solid-state devices, 3 in basic digital computer circuits, 3 in communications systems, 3 in communications circuits, 3 in electronic test equipment and instrumentation, 3 in human relations, and 3 in introduction to management. In an electronic technician apprentice training program, 2,500 clock hours of experience and 180 contact hours of related instruction on the basis of employer or trade association performance examination (3/76).

MOS-31L-002

WIRE SYSTEMS INSTALLER

31L10
31L20
31L30

Exhibit Dates: 9/87–Present.

Career Management Field: 31 (Communications Electronics Operations).

Description

Summary: Installs, operates, supervises, and performs operator maintenance on wire and cable communications systems; operates pole-setting and reeling equipment; works on wood structures using tools and techniques compatible with industry practice; installs field phones and cabling to telephone switchboards; identifies and corrects faults in telephone sets; tests, repairs, and splices wire/cable; knows CPR procedures, first aid, and safety practices relating to line construction. *Skill Level 10:* Installs, operates, and performs operator maintenance on wire and cable systems, including repeaters, restorers, voltage protective devices, telephones, test stations, and telephone substation equipment; climbs poles; clears and maintains rights of way; assists in the construction of tactical wire/cable and pole lines; operates construction equipment; maintains and tests cable communication systems using a variety of test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; coordinates and supervises team member activities in construction, installation, and rehabilitation of wire and cable communication systems and auxiliary equipment; coordinates logistic requirements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and coordinates all phases of construction, installation, and maintenance of wire/cable systems; schedules work load; estimates time, supplies, personnel, and equipment requirements; checks maintenance performed by lower skill level personnel; plans and conducts training and prepares all required reports.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in pole and line construction (communications systems), 3 in telephone installation and repair, and 1 in first aid/CPR. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in pole and line construction (communications systems), 3 in telephone installation and repair, 1 in first aid/CPR, and 3 in construction technology/heavy equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of supervision. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 3 in maintenance management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

MOS-31M-001

RADIO RELAY AND CARRIER ATTENDANT

31M20

31M40

Exhibit Dates: 10/73–2/74.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 313 (Area Communication).

Description

Summary: Installs and performs continuous maintenance on field radio relay equipment. *Skill Level 20:* Installs, operates, and maintains fixed radio relay equipment, including transmitters, receivers, and other electronic devices. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a foreman and inspector; conducts on-the-job training.

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge. Advanced standing in an apprentice training program in electronics or communications technology only on the basis of employer or trade association performance examination because of the limited technical nature of the skills, competencies, and knowledge (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, credit for field experience in personnel supervision and education on the basis of institutional evaluation. Advanced standing in an apprentice training program in electronics or communications technology only on the basis of employer or trade association examination because of the limited technical nature of the skills, competencies, and knowledge (3/75).

MOS-31M-002

MULTICHANNEL COMMUNICATIONS
EQUIPMENT OPERATOR

31M20

31M40

Exhibit Dates: 3/74–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 313 (Area Communications).

Description

Summary: Installs, operates, and maintains multichannel communications equipment, including transmitters, receivers, carrier terminals, repeaters, and associated multiplexing and communications devices. *Skill Level 20:* Performs minor electrical connections and mechanical adjustments on specific communications equipment and electrical generators; starts and adjusts power units to assure delivery of power at prescribed readings; checks equipment to determine readiness for operation; adjusts equipment to maintain efficiency circuits and operation of equipment at prescribed frequencies; maintains technical and administrative records pertaining to station operation; operates and performs preventive maintenance on light wheeled vehicles. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises installation, maintenance, and inspection of radio relay communications equipment; makes personnel assignments; conducts on-the-job training; demonstrates and instructs in proper operating techniques; requisitions supplies; prepares, reviews, and consolidates technical and administrative reports; maintains supply and maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in introduction to radio-telecommunications and additional credit in mechanical maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 1 semester hour in communications systems and additional credit in mechanical maintenance on the basis of institutional evaluation. Advanced standing in an apprentice training program in electronics or communications technology on the basis of employer or trade association performance examination (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in introduction to radio-telecommunications and 1 in communications techniques, and additional credit in mechanical maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 2 in personnel supervision, 2 in communications systems, 2 in maintenance management, and 1 in communications techniques, and additional credit in mechanical maintenance on the basis of institutional evaluation. Advanced standing in an apprentice training program in electronics or communications technology on the basis of employer or trade association performance examination (5/77).

MOS-31M-003

MULTICHANNEL COMMUNICATIONS
EQUIPMENT OPERATOR

31M10

31M20

31M30

Exhibit Dates: 3/78–Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Installs, operates, and supervises multichannel communications equipment. *Skill Level 10:* Installs and operates multichannel communications equipment, including radio, communications security devices, and multiplexer equipment; performs elementary operating checks and replaces modules as needed. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates and supervises the operation of multichannel communications equipment; applies fundamentals of radio procedures, communications security procedures, and precautions; oversees periodic and emergency maintenance; may supervise up to six persons. *Skill Level 30:* Supervises the installation and operation of multichannel communications systems; prepares and disseminates work schedules, operational procedures, and instructions; prepares traffic diagrams and administrative orders relative to system design; may supervise from five to nineteen lower skill level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in laboratory practices. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in laboratory practices. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in laboratory practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/79).

MOS-31N-001

TACTICAL CIRCUIT CONTROLLER

31N20

31N40

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 313 (Area Communication).

Description

Summary: Supervises and operates communications patching panels to establish interconnections between communications facilities. *Skill Level 20:* Terminates and patches circuits in accordance with patching orders; designates cable pairs to be used between loop and terminal; assists in testing local wire, radio, data, and teletypewriter circuits; operates test equipment, including multimeter, to identify circuit and equipment faults; operates telephone switchboard and teletypewriter components of patching panels; interprets system maps, overlays, and circuit diagrams; knows first aid procedures for electrical shock. NOTE: May have progressed to 31N20 from 31M20 (Multichannel Communications Equipment Operator). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises circuit activities in a switching center or serves in a headquarters that supervises circuit control functions; supervises the installation and operation of systems control facilities; serves as a central office supervisor analyzing telephone traffic and preparing routine, rerouting, and alternate routing orders and pertinent diagrams, charts, and records.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in introduction to management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management (3/76).

MOS-31N-002

Tactical Circuit Controller

31N10

31N20

31N30

Exhibit Dates: 3/78–2/89.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or operates communications patching panels to establish interconnections between communications facilities. *Skill Level 10:* Terminates and patches circuits in accordance with patching orders; designates cable pairs to be used between loop and terminal; assists in testing local wire, radio, data, and teletypewriter circuits; operates test equipment, including oscilloscope, signal generators, and multimeters, to identify circuit and equipment faults; operates telephone switchboard and teletypewriter components of patching panels; interprets system maps, overlays, and circuit diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may supervise up to three Skill Level 10 personnel; troubleshoots communications equipment, including VHP, microwave, troposcatter, satellite, and other narrow or wide band systems; prepares circuit connection record and interprets routing charts and communications diagrams; maintains circuit control records; identifies sources of communications interference and circuit trouble. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises circuit activities in a switching center; supervises the installation and operation of systems control facilities; diagnoses and determines causes of malfunctions of circuits and equipment; interprets and prepares operating instructions, circuit routing charts, communications diagrams, route bulletins, circuit registers, and other pertinent diagrams, charts, and records; evaluates performance of lower skill level personnel; may supervise four or more persons.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in laboratory practices (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in laboratory practices and 3 in troubleshooting techniques (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in laboratory practices and 3 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (10/79).

MOS-31N-003

Communications Systems/Circuit Controller

31N10

31N20

31N30

31N40

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-31Q-001

Tactical Satellite/Microwave Systems Operator

31Q10

31Q20

31Q30

Exhibit Dates: 9/87–Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or performs installation, operation, and maintenance of microwave, troppocatter radio, satellite, and multiplexing equipment. *Skill Level 10:* Installs, operates, and maintains microwave, troposcatter radio satellite, multiplexing equipment, and associated power equipment and communications security devices; assembles, erects, and orients antennas; tunes, adjusts, and aligns equipment for maximum performance; adjusts multiplexing equipment for maximum efficiency; operates on voice frequency and teletype; performs satellite balancing procedures; employs test equipment and tools such as spectrum analyzers and voltmeters; corrects operational troubles; detects electronic countermeasures; interprets military maps and traffic diagrams; applies safety precautions around high voltages and performs emergency actions in event of injury. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in selection of site for systems equipment; makes alignment adjustments to maximum efficiency; monitors operations of system equipment; recognizes electronic countermeasures and employs corrective action; maintains station logs and provides technical guidance to subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises installation and performance of station equipment and personnel; instructs in proper operating procedures; maintains logs and records; prepares administrative and technical reports; requisitions supplies; provides assistance in complex or unusual operational problems; supervises and evaluates 5 or more personnel.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting and repair, and 2 in satellite communication systems (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic troubleshooting and repair, 2 in satellite communication systems, and 2 in record keeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic troubleshooting and repair, 2 in satellite communication systems, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

MOS-31S-001

Field General COMSEC Repairman

31S20

31S30

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 314 (COMSEC Maintenance).

Description

Summary: Performs maintenance on communications security (COMSEC) equipment, including inspection, testing, diagnosis and isolation of defective components or modules, modification, repair, and calibration. *Skill Level 20:* Inspects, tests, and performs maintenance on communications security and compatible ancillary equipment and assemblies; uses associated special and common tools for tests, calibration, and diagnostic functions; locates and changes defective circuit modules; maintains equipment maintenance records and submits appropriate maintenance reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; troubleshoots equipment to locate defective component; installs and tests modifications to equipment; uses oscilloscope, multimeter, and specialized test equipment; uses Ohm's Law; reads schematic diagrams and logic diagrams; demonstrates correct and acceptable soldering techniques for miniaturized electronic equipment to include the application of printed circuit repair techniques.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC) and 1 in equipment maintenance or maintenance procedures. The skills, competencies, and knowledge are too limited and specialized to apply to an apprentice training program (3/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 2 in electronic devices (solid-state and vacuum tubes), 2 in basic digital computer circuits, and 1 in equipment maintenance or maintenance procedures. In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction on the basis of employer or trade association performance examination (3/76).

MOS-31S-002

FIELD GENERAL COMSEC REPAIRER

31S10
31S20
31S30
31S40

Exhibit Dates: 3/78–8/83.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs communications security (COMSEC) equipment maintenance, including inspection, testing, diagnosis and and isolation of defective components or modules, modification, repair, and calibration. *Skill Level 10:* Inspects, tests, and maintains communications security and compatible ancillary equipment and assemblies; uses associated special and common tools for tests, calibration, and diagnostic functions; locates and changes defective circuit modules; keeps equipment maintenance records and submits appropriate maintenance reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; troubleshoots equipment to locate defective components; installs and tests modifications to equipment; uses oscilloscope, multimeter, and specialized test equipment; uses Ohm's law; reads schematic diagrams and logic diagrams; demonstrates correct and acceptable soldering techniques, including the application of printed circuit repair techniques for miniaturized electronic equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises subordinate personnel who control and safeguard measures for communications security; schedules workloads and workflow; develops maintenance test procedures; instructs subordinates in proper maintenance procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and instructs subordinate personnel in maintenance procedures; coordinates the flow of supplies; prepares maintenance work schedules; prepares special reports regarding equipment maintenance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC) and 1 in equipment maintenance or maintenance procedures (9/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 2 in electronic devices (solid-state), 2 in basic digital circuits, and 1 in equipment maintenance or maintenance procedures (9/81).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in basic electronics (AC), 2 in electronics devices (solid-state), 2 in basic digital circuits, 2 in personnel supervision, and 1 in equipment maintenance or maintenance procedures. In the upper-division baccalaureate category, 3 semester hours in personnel management (9/81).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 6 semester hours in personnel management and 3 in job shop management (9/81).

MOS-31S-003

FIELD GENERAL COMSEC REPAIRER

31S10
31S20
31S30
31S40

Exhibit Dates: 9/83–3/86. (Effective 3/86, MOS 31S was discontinued and its duties were incorporated into MOS 29P, Communications Security Maintenance Chief, and 29S, Field Communications Security Equipment Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs and/or supervises limited maintenance on communication security (COMSEC) equipment, including inspecting, testing, calibrating, modifying, and diagnosing for defects; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by the additional skill identifier X9), also performs the following duties: Performs communications security (COMSEC) equipment maintenance and repair, including inspection, testing, diagnosis, and isolation of defects down to the component level. *Skill Level 10:* Maintains electronic communication equipment in serviceable condition, including testing and diagnosing to isolate malfunction and replace modules; uses calibration equipment for aligning and adjusting; prepares and maintains equipment maintenance records and submits appropriate reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects, tests, and performs module-level repairs on communication security equipment; assists, instructs, and provides technical guidance to lower-skill-level personnel; prepares and maintains COMSEC accounting reports and records, supply parts and records, and equipment records. *Skill Level 30:* May have progressed to 31S30 from 31S20 or 31T20 (Field Systems COMSEC Repairer); supervises subordinate personnel who control and safeguard measures for communications security; schedules workloads and workflow, and maintenance test procedures; instructs subordinates in proper maintenance procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; develops testing procedures; prepares and maintains required records and reports; prepares and submits technical reports concerning work progress and supply requirements; develops, directs, or conducts appropriate training programs.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics and 2 in equipment maintenance or maintenance procedures; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by the additional skill identifier X9), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronics test equipment and instrumentation (2/84).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in equipment maintenance or maintenance procedures, and 3 in shop management; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by additional skill identifier X9), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronics test equipment and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in equipment maintenance or maintenance procedures, and 3 in shop management; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by additional skill identifier X9), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronics test equipment and instrumentation (2/84).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in equipment maintenance or maintenance procedures, 3 in shop management, and 3 in personnel supervision; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by additional skill identifier X9), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronics test equipment and instrumentation (2/84).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in equipment maintenance or maintenance procedures, 3 in shop management, 3 in personnel supervision, and 3 in principles of management; if served as General COMSEC Maintenance at Specialized Repair Activities (identified by additional skill identifier X9), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures),and 3 in electronics test equipment and instrumentation. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/84).

MOS-31T-001

FIELD SYSTEMS COMSEC REPAIRMAN

31T20
31T30

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 314 (COMSEC Maintenance).

Description

Summary: Inspects, tests, and performs maintenance on communications security (COMSEC) equipment, including calibration, modification, and diagnosis of defects. *Skill Level 20:* Maintains electronic communications equipment in serviceable condition, including testing and diagnosing to isolate malfunctions and replace modules; uses multimeter and oscilloscope; maintains equipment maintenance records and submits appropriate maintenance reports. *Skill Level*

30: Able to perform the duties required for Skill Level 20; inspects, tests, and repairs communications security equipment; utilizes complex schematic, logic, and wiring diagrams and technical publications; repairs miniaturized electronic equipment; uses Ohm's Law, oscilloscope, multimeter, and specialized test equipment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (AC), 3 in basic electricity (DC), and 3 in control circuits (alarm, timing, synchronizing, and power). Advanced standing in an electronic technician apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (AC), 3 in basic electricity (DC), 3 in communications circuits, 3 in basic solid-state devices, 3 in basic solid-state circuits, and 3 in electronic test equipment and instrumentation. In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

MOS-31T-002

Field Systems COMSEC Repairer

31T10

31T20

Exhibit Dates: 3/78–8/83.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Inspects, tests, and performs maintenance on communications security (COMSEC) equipment, including calibration, modification, and diagnosis of defects. *Skill Level 10:* Maintains electronic communications equipment in serviceable condition, including testing and diagnosing to isolate malfunctions and replace modules; uses multimeter and oscilloscope; maintains equipment maintenance records and submits appropriate maintenance reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects, tests, and performs module-level repairs on communications security equipment; utilizes complex schematic, logic, and wiring diagrams and technical publications; repairs miniaturized electronic equipment; uses oscilloscope, multimeter, and specialized test equipment.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC) (10/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC), 3 in communications circuits, and 3 in electronic test equipment and instrumentation (10/79).

MOS-31T-003

Field Systems COMSEC Repairer

31T10

31T20

Exhibit Dates: 9/83–3/86. (Effective 3/86, MOS 31T was discontinued and its duties were incorporated into MOS 29S, Field Communications Security Equipment Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Inspects, tests, and performs limited maintenance on communications security (COMSEC) equipment, including calibration, modification, and diagnosis of defects; if served as COMSEC System Maintenance at Specialized Repair Activities (identified by the additional skill identifier X8), also performs the following duties: performs communications security COMSEC equipment maintenance and repair, including inspection, testing, diagnosis, and isolation of defects down to the component level. *Skill Level 10:* Maintains electronic communication equipment in serviceable condition, including testing and diagnosing to isolate malfunction and replace modules; uses calibration equipment for aligning and adjusting; prepares and maintains equipment maintenance records and submits appropriate reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects, tests, and performs module-level repairs on communication security equipment; assists, instructs, and provides technical guidance to lower-skill-level personnel; prepares and maintains COMSEC accounting reports and records, supply parts and records, and equipment records.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 2 in equipment maintenance or maintenance procedures; if served as COMSEC System Maintenance at Specialized Repair Activities (identified by the additional skill identifier X8), additional credit as follows: 3 semester hours in telecommunications circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronic test equipment and instrumentation (2/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in equipment maintenance or maintenance procedures, and 3 in shop management, if served as COMSEC System Maintenance at Specialized Repair Activities (identified by the additional skill identifier X8), additional credit as follows: 3 semester hours in telecommunication circuitry, 3 in circuit analysis (diagnostic procedures), and 3 in electronic test equipment and instrumentation (2/84).

MOS-31U-001

Tactical COMSEC Maintenance Chief

31U40

31U50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31U was discontinued and its functions were incorporated into MOS 31S, Field General COMSEC Repairer, and 32Z50 Communications-Electronics Maintenance Chief.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 314 (COMSEC Maintenance).

Description

Summary: Supervises and coordinates installation, maintenance, repair, modifications, overhaul, and inspection of communications security (COMSEC) systems. NOTE: Able to perform the duties of 31S30 (Field General COMSEC Repairman) or 31T30 (Field Systems COMSEC Repairman). *Skill Level 40:* Supervises 6-12 subordinate technicians in the installaton, maintenance, and repair of electronic communications equipment; supervises the safeguarding of classified information and material, signal security practices, and safety precautions; supervises the management of equipment of maintenance records and supply inventory; provides subordinates with technical guidance, including the use of oscilloscope and multimeter; diagnoses and evaluates complex causes for defective equipment; coordinates workflow; prepares technical reports and correspondence; develops test precedures for subordinates to use in determining the extent of repairs required and adequacy of repairs completed. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a maintenance chief; instructs Skill Level 40 supervisors in the application of maintenance procedures; evaluates the efficiency and effectiveness of maintenance operations and training procedures; supervises the modification of equipment and provides on-the-job training in the maintenance of modified equipment.

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electronics (AC), 3 in basic electricity (DC), 3 in communications circuits, 3 in basic solid-state devices, 3 in basic solid-state circuits, and 3 in electronic test equipment and instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (AC), 3 in basic electricity (DC), 3 in communications circuits, 3 in basic solid-state devices, 3 in basic solid-state circuits, 3 in electronic test equipment and instrumentation, 2 in personnel supervision, 3 in introduction to management, 3 in human relations, and 3 in maintenance shop operation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 for a technical elective, and 3 in industrial arts. Advanced standing in an electronic technician apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 for an internship in education, 3 for a technical elective, and 3 in industrial arts. Advanced standing in an electronic technician apprentice training program on the basis of employer or trade association performance examination (3/76).

MOS-31V-001

Tactical Communications Systems Operator/Mechanic

31V10
31V20
31V30
31V40
31V50

Exhibit Dates: 3/78–8/87.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Installs, operates, supervises, and performs preventive maintenance on tactical communications and selected electronic equipment in tactical units. *Skill Level 10:* Installs and operates tactical radio equipment; performs limited maintenance, such as module replacement, antenna repair, HF and VHF ground and air-to-ground tactical equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may supervise up to four operator/mechanics; plans and implements the installation of tactical communication systems; may serve as chief of a communication section; supervises communication center cryptographic operations in a tactical unit. *Skill Level 40:* Able to perform the duties required for Skill Level 30; coordinates activities with signal support and maintenance units; keeps units commander and staff advised on communication matters; conducts training program for unit personnel; determines communication requirements and assigns duties; prepares administrative and technical reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and plans tactical radio and wire communications; coordinates operating activities of subordinate communication units in establishment of effective communication systems; selects communication sites and advises commander on communication matters; may supervise 38 or more personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in radio broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications and 3 in elementary broadcasting (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in radio broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications and 3 in elementary broadcasting (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in radio broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications, 3 in elementary broadcasting, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/79).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in radio broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications, 3 in elementary broadcasting, 3 in human relations, 3 in personnel supervision, 3 in technical report writing, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 3 in personnel management (10/79).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in radio broadcasting. In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary radio communications, 3 in elementary broadcasting, 3 in human relations, 6 in personnel supervision, 3 in technical report writing, 3 in maintenance management, and 3 in introduction to management. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 6 in personnel management (10/79).

MOS-31V-002

Unit Level Communications Maintainer

31V10
31V20

Exhibit Dates: 9/87–Present.

Career Management Field: 31 (Communications Electronics Operations).

Description

Summary: Installs, operates, supervises, and performs preventive maintenance on tactical communications and selected electronic equipment in tactical units. *Skill Level 10:* Installs and operates tactical radio equipment; performs limited maintenance, such as module replacement, antenna repair, HF and VHF ground and air-to-ground tactical equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises, maintains, and checks the preparation and documentation of equipment maintenance records; conducts on-the-job training programs.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics communications and 3 in basic electronics laboratory (6/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics communications, 3 in basic electronics laboratory, 2 in personnel supervision, and 3 in record keeping (6/88).

MOS-31W-001

Tactical Electronics Maintenance Chief

31W40
31W50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 31W was discontinued and its functions were incorporated into MOS 31E, Field Radio Repairer; MOS 31J, Teletypewriter Repairer; MOS31V, Tactical Communications Systems Operator/Mechanic; and MOS 32Z, Communications-Electronics Maintenance Chief; effective 3/88, MOS 31W was reestablished (Mobile Subscriber Equipment Communications Chief) – see exhibit MOS-31W-002.)

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 312 (Tactical Electronics Maintenance).

Description

Summary: Supervises maintenance (rebuilding and repair to the component level) of electronic communications equipment. *Skill Level 40:* Organizes, supervises, and inspects activities of the maintenance shop; prepares lesson plans and instructs subordinate repair specialists in on-the-job training; reviews, consolidates, and prepares technical reports pertaining to electronic communications equipment maintenance activities; establishes work priorities; supervises equipment inspection and storage; diagnoses and determines causes of unusual equipment malfunctions; interprets complex specifications and circuit, schematic, and wiring diagrams; explains complex concepts and demonstrates correct repair procedures and utilization of special test equipment and tools. NOTE: May have progressed to 31W40 from 31L40 (Multichannel Communications Equipment Repairman), 31B20, 31B30 (Field Communications-Electronics Equipment Mechanic), or 36L30 (Electronic Switching Systems Repairman). *Skill Level 50:* Able to perform the duties required for Skill Level 40; as the principal noncommissioned officer, supervises 30 or more persons (and, as a maintenance chief at Grade E-9, supervises more than 50 persons); supervises and assists in making complex modifications to electronic communications equipment; assists superiors in the continuous appraisal of electronic communications equipment maintenance, operations, and training situations; provides technical guidance to subordinate maintenance personnel; as first sergeant of a company (approximately 200 enlisted personnel), serves as an administrator, personnel director, training director, and inspector. NOTE: May have progressed to 31W50 from 31W40, 31E40 (Field Radio Repairman), 31J40 (Teletypewriter Repairman), 26L40 (Tactical Microwave Systems Repairman), or 31U50 (Tactical COMSEC Maintenance Chief).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in basic electronics (AC/DC) theory and laboratory, 1 in elementary algebra, 3 in amplifier circuits and devices, 6 in radio frequency circuit functions and analysis, 6 in electronic communications systems, and 2 in instrument applications. In the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuit theory and laboratory, 2 in AC circuit theory and laboratory, 2 in electronic devices, 3 in electronic communication systems, 3 in systems maintenance and repair, 3 in basic electronics with laboratory, 3 in personnel supervision, and 3 in maintenance shop operation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in introduction to management, 3 for a technical elective, and 3 in industrial arts. Advanced standing in an electronic apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 for an internship in education, 3 in introduction to management, 3 in maintenance management, 3 for a technical elective, and 3 in industrial arts; if the duty assignment was first sergeant of a company at grade E-8 or maintenance chief at grade E-9, 3 additional semester hours in personnel management. In the graduate degree category, credit in personnel management on the basis of institutional evaluation. Advanced standing in an electronic technician apprentice training program on the basis of employer or trade association performance examination (3/76).

MOS-31W-002

MOBILE SUBSCRIBER EQUIPMENT
COMMUNICATIONS CHIEF

31W40

31W50

Exhibit Dates: 3/88–Present.

Career Management Field: 31 (Signal Operations).

Description

Summary: Plans, coordinates, directs, provides technical assistance, and supervises the installation, operation and maintenance of Mobile Subscriber Equipment (MSE). *Skill Level 40:* Assigns, supervises and coordinates duties of subordinate personnel concerning setup and operation of MSE equipment records and reports; supervises and conducts training in operating techniques, equipment, utilization and maintenance; manages, develops, and supervises maintenance system; monitors adequacy and effectiveness of maintenance programs and supply support. NOTE: May have progressed to 31W40 from 31D30 (Mobile Subscriber Equipment Transmission System Operator) or 31F30 (Mobile Subscriber Equipment Network Switching System Operator). *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates and directs deployments; performs liaison between command, staff, operations and maintenance personnel; prepares and supervises the preparation of technical studies, evaluation reports and associated records.

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in managment problems (6/90).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (6/90).

MOS-31X-001

COMMUNICATIONS SYSTEMS/CIRCUIT
CONTROL SUPERVISOR SYSTEMS

31X40

Exhibit Dates: 9/87–2/89. (Effective 3/89, MOS 31X was discontinued and its duties were incorporated into MOS 31N, Communications Systems/Circuit Controller.)

Career Management Field: 31 (Communications Electronics Operations).

Description

Skill Level 40: Directs, plans, and coordinates the operation of communications system facilities; manages the installation and new construction of communications systems; manages personnel engaged in maintenance of communications system quality; prepares technical reports; maintains system documentation; conducts briefings for staff and maintenance personnel; performs liaison with staff, operations, and maintenance personnel; manages human resources function for personnel engaged in the signal quality control function including telephone switchboards, radio frequency, satellite, and microwave communications systems; manages training programs. NOTE: May have progressed to 31X40 from 31N30 (Tactical Circuit Controller) or 32D30 (Communications System Circuit Controller.)

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/88).

MOS-31Y-001

COMMUNICATIONS SYSTEMS SUPERVISOR

31Y40

Exhibit Dates: 9/87–Present.

Career Management Field: 31 (Communications Electronics Operations).

Description

Skill Level 40: Directs, coordinates, and manages the installation, operation, and maintenance of manual and automated communications equipment, systems, and facilities; provides technical guidance concerning all aspects of communications systems employment, maintenance, and logistical support; prepares technical reports; maintains system documentation; conducts briefings for staff and maintenance personnel; performs liaison with staff, operations, and maintenance personnel; manages human resources functions for personnel engaged in the maintenance and operations of wire and cable systems, switchboards, radio teletype, relay, satellite, and microwave communications; conducts training programs. NOTE: May have progressed to 31Y40 from 13C30 (Single Channel Radio Operator), 31L30 (Wire Systems Installer), 31M30 (Multichannel Communications Systems Operator), 31Q30 (Tactical Satellite/Microwave Systems Operator), 36L30 (Transportable Automatic Switching Systems Operator/Maintainer), or 36M30 (Switching Systems Operator).

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

MOS-31Z-001

AREA COMMUNICATIONS CHIEF

31Z40

31Z50

Exhibit Dates: 10/73–2/78.

Career Management Field: 31 (Field and Area Communications Maintenance), subfield 313 (Area Communications).

Description

Summary: Supervises, coordinates, and directs the installaton, operation, and maintenance of integrated electronic communications systems. *Skill Level 40:* Supervises and coordinates the installation, operation, and maintenance of integrated electronic communications center facilities, including wire, telephone central, carrier, radio relay, message center, and cryptographic activities; determines location of facilities, capabilities of equipment within the system, and appropriate use of circuits, lines, and equipment; conducts training in all phases of operating the communications system; collects, analyzes, and distributes material pertaining to signal intelligence; assists officer in the appraisal of general signal intelligence and operations. NOTE: May have progressed to 31Z40 from 31E20 (Field Radio Repairman), 31D40 (Pershing Communications Specialist), 31M40 (Multichannel Communications Equipment Operator), 31N40 (Tactical Circuit Controller), or 72E40 (Telecommunications Center Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and directs the installation, operation, and maintenance of major integrated electronic communications systems; prepares orders, line route maps, circuit and traffic diagrams, and related technical reports and materials; assists in planning, utilization of resources, operation of communications system, and maintenance support for the entire system; assigns duties and coordinates the activities of administrative, operating, and maintenance personnel in the employment of wire, radio relay, radio teletype, telephone, and message handling facilities; determines the effectiveness of system operation, adequacy of communication plant, and the need for additional equipment to meet unusual or added traffic demands; recommends changes in location, types or quantities of equipment, alternate routes, and establishment of switching centers; may serve as the first sergeant of a company (at grade E-8), supervising approximately 200 persons. NOTE: May have progressed to 31Z50 from 31Z40, 31M40 (Multichannel Communications Equipment Operator), 31N40 (Tactical Circuit Controller), 31G50 (Tactical Communications Chief), 31J40 (Teletypewriter Repairman), or 31U50 (Tactical COMSEC Maintenance Chief).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance shop operation, 3 in technical writing, 3 in map reading, and 3 in industrial safety. NOTE: Credit recommendations for technical expertise in the area of electronic communications may be obtained through the exhibits for previously held MOS's. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, 3 in a technical elective, 3 in industrial arts, and 3 for an internship in education. There is no recommendation for advanced standing in an apprentice training program because the skills are administrative and supervisory in nature (3/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 6 for field experience in management, 3 in a technical elective, 3 in industrial arts, 3 for an internship in education, 3 in human relations, and 3 in industrial management; if the duty assignment was first sergeant of a company or chief signal NCO, 3 additional semester hours in personnel management; if the duty assignment was sergeant major, 3 additional semester hours for field experience in management and 3 in personnel management. There is no recommendation for advanced standing in an apprentice training program because the skills are administrative and supervisory in nature (3/76).

MOS-31Z-002

COMMUNICATIONS-ELECTRONICS OPERATIONS CHIEF

31Z40
31Z50

Exhibit Dates: 3/78-8/87.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises, coordinates, and directs the installation, operation, and maintenance of integrated electronic communications systems. *Skill Level 40:* NOTE: May have progressed to 31Z40 from 05C30 (Radio Teletype Operator), 36E30 (Cable Splicer), 26R30 (Strategic Satellite/Microwave Systems Operator), 31M30 (Multi-Channel Communications Equipment Operator), or 31N30 (Tactical Circuit Controller); able to supervise, assist, and inspect the duties performed by personnel working in the above MOS's; supervises and coordinates the installation, operation, and maintenance of integrated electronic communications center facilities, including wire, telephone central, carrier, radio relay, message center, and cryptographic activities; determines location of facilities, capabilities of equipment within the system, and appropriate use of circuits, lines, and equipment; conducts training in all phases of operating the communications system; collects, analyzes, and distributes material pertaining to signal intelligence; assists officer in the appraisal of general signal intelligence and operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40. NOTE: May have progressed to 31Z50 from 31V50 (Tactical Communications Systems Operator/Mechanic), 72G50 (Data Communication Switching Center Specialist), 36C50 (Wire Systems Installer/Operator), 26Q40 (Tactical Satellite/Microwave System Operator), 32D40 (Station Technical Controller), 36D40 (Antenna Installer Specialist), 72E40 (Telecommunications Center Operator), or 72H40 (Central Office Operations Operator); able to supervise, assist, and inspect duties performed by personnel working in the above MOS's; supervises and directs the installation, operation, and maintenance of major integrated electronic communications systems; prepares orders, line route maps, circuit and traffic diagrams, and related technical reports and materials; assists in planning, utilization of resources, operation of communications system, and maintenance support for the entire system; assigns duties and coordinates the activities of administrative, operating, and maintenance personnel in the employment of wire, radio relay, radio teletype, telephone, and message-handling facilities; determines the effectiveness of system operation, adequacy of communication plant, and the need for additional equipment to meet unusual or added traffic demands; recommends changes in location, types, or quantities of equipment, alternate routes, and establishment of switching centers; may serve as the first sergeant of a company (at pay grade E-8), supervising approximately 200 persons.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in technical report writing, 3 in office management, 3 in human relations, and 3 in a technical elective. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 3 in personnel management; if served as an instructor, 3 semester hours for a practicum in education. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in technical report writing, 3 in office management, 3 in human relations, and 3 for a technical elective. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in introduction to management, and 3 in personnel management; if served as an instructor, 3 semester hours for practicum in education; if duty position was Communications-Electronics Operations First Sergeant (designated on records as 31Z5M), or Chief Communications-Electronics NCO, 3 additional semester hours in personnel management; if rank was sergeant major, 3 additional semester hours in personnel management and 3 for field experience in management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/79).

MOS-31Z-003

COMMUNICATIONS-OPERATIONS CHIEF

31Z50

Exhibit Dates: 9/87-Present.

Career Management Field: 31 (Communications Electronics Operations).

Description

Skill Level 50: Supervises, coordinates, and directs the installation, operation, and maintenance of integrated electronics communications systems; manages the entire communication facility; performs liaison between civilian, command staff, and operations and maintenance personnel; plans, organizes, directs, and supervises the deployment of integrated communications systems including site selection, personnel assignments, and budget development. NOTE: May have progressed to 31Z50 from 31G40 (Tactical Communications Chief), 31Y40 (Communications Systems Supervisor), 31X40 (Communications Systems/Circuit Control Supervisor), 72E40 (Tactical Telecommunications Center Operator), or 72G40 (Automatic Data Telecommunications Center Operator).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in organizational management and 3 for field experience in management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (6/88).

MOS-32D-001

FIXED STATION TECHNICAL CONTROLLER

32D20
32D40

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises or insures fidelity and continuity of Army communications circuits. *Skill Level 20:* Prevents and corrects conditions which disrupt fidelity, continuity, and operation of communications circuits; tests communications circuits and teletype equipment; uses signal generators, meters, distortion analyzers, and monitoring aids; interprets diagrams to determine mode of keying and levels at various points along transmission paths; applies techniques to counteract continuity and fidelity jamming by hostile forces; keeps logs and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel and equipment; maintains system network operation; prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity (DC current, test equipment, and diagrams), 3 in basic electronics (AC current and test equipment), 3 in electronic circuits, and 3 in electronic communications principles. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC current, test equipment, and diagrams), 3 in basic electronics (AC current and test equipment), 3 in electronic circuits, and 3 in electronic communications principles. In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in basic electricity (DC current, test equipment, and diagrams), 3 in basic electronics (AC current and test equipment), 3 in electronic circuits, and 3 in electronic communications principles. In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

MOS-32D-002

STATION TECHNICAL CONTROLLER

32D10
32D20
32D30
32D40

Exhibit Dates: 3/78-8/87.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or ensures the quality and continuity of communications. *Skill Level 10:* Performs operational tests on circuits, channels, and equipment to ensure high quality operation and maximum efficiency; uses communications test equipment, including signal generators, meters, distortion analyzers, oscilloscopes, and voltmeters; determines overall circuit conditions from test results; directs radio frequency changes. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains required logs and records and provides data for preparation of pertinent reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises technical control activities; assigns duties; evaluates performance of lower-skill-level personnel; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans and schedules work assignments; develops, directs, or conducts local training programs; compiles and submits technical and administrative reports; coordinates resolution of communications difficulties between local and distant facilities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, and 3 in circuit analysis (10/81).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, 3 in circuit analysis, and 3 in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, 3 in circuit analysis, and 3 in technical report writing (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, 3 in circuit analysis, 3 in technical report writing, and 3 in personnel supervision (10/81).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic electronic communications, 3 in circuit analysis, 3 in technical report writing, 3 in personnel supervision, and 3 in human relations (10/81).

MOS-32D-003

Communications Systems Circuit Controller

32D10

32D20

32D30

Exhibit Dates: 9/87–3/89. (Effective 3/89, MOS 32D was discontinued and its duties were incorporated into MOS 31N, Communications Systems/Circuit Controller.)

Career Management Field: 31 (Communications Electronics Operations).

Description

Summary: Tests and maintains the quality and continuity of telephone and radio frequency communications systems. *Skill Level 10:* Performs operational tests on a wide range of communication equipment to ensure high quality operation and maximum efficiency; uses communications test equipment including signal generators, meters, distortion analyzers, and oscilloscopes; determines overall circuit conditions from test results; isolates system-level malfunctions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains logs and records; provides data for preparation of pertinent reports; serves as a shift supervisor. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises technical control activities; assigns duties; manages lower skill level personnel; conducts on-the-job training.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, and 3 in electronics communication (6/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 3 in electronics communication, and 2 in personnel supervision (6/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 3 in electronics communications, 3 in personnel supervision, and 2 in maintenance management (6/88).

MOS-32E-001

Fixed Plant Carrier Repairman

32E20

32E40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 32E was discontinued and its functions were incorporated into MOS 26V, Strategic Microwave Systems Repairer.)

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises and performs installation, operation, or maintenance on fixed station carrier, control terminal, multiplex, and a submarine cable terminal equipment. *Skill Level 20:* Makes minor adjustments on equipment; replaces malfunctioning equipment; advises superiors of equipment failure or malfunction; keeps technical and administrative records; performs emergency testing and inspects parts; interprets schematics and diagrams; replaces and repairs electric motors and adjusts relays, dials, and switches. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises technical operation and maintenance of the equipment; prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in direct current, 3 in alternating current, 3 in communications systems, and 2 in solid-state devices, and additional credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in direct current, 3 in alternating current, 3 in communications systems, and 2 in solid-state devices, and additional credit in electronics on the basis of institutional evaluation (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in direct current, 3 in alternating current, 3 in communications systems, and 2 in solid state devices, and additional credit in electronics on the basis of institutional evaluation (3/76).

MOS-32F-001

Fixed Ciphony Repairman

32F20

32F40

Exhibit Dates: 10/73–2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises or performs maintenance on fixed ciphony communications security (COMSEC) equipment. *Skill Level 20:* Performs all levels of maintenance on fixed ciphony equipment; adjusts, repairs, and overhauls equipment; isolates and diagnoses malfunctions using electrical and electronic theory; removes, examines, and replaces faulty components and parts; traces circuit continuity; reads schematic and wiring diagrams; keeps maintenance logs and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises installation and repair of fixed COMSEC equipment; assigns duties; advises, instructs, and assists subordinates in difficult phases of diagnoses; requisitions supplies and prepares administrative reports; supervises subordinate personnel in the handling of classified information and materials.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in commercial and residential wiring, 2 in digital circuit theory, 2 in AC and DC theory, 2 in electronic test equipment, and 2 in advanced circuit theory. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics, 2 in commercial and residential wiring, 2 in electronic instrumentation, and 1 in introduction to digital circuits. Advanced standing in an electronic technician apprentice training program only on the basis of employer or trade association performance examination because of the military nature of the skills, competencies, and knowledge (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 4 semester hours in industrial and residential wiring, 3 in basic electronics, 3 in digital circuits, 2 in electronic instrumentation, 2 in electromechanical systems, 3 in human relations, 2 in personnel supervision, and 2 in maintenance supervision. Advanced standing in an electronic technician apprentice

training program only on the basis of employer or trade association performance examination because of the military nature of the skills, competencies, and knowledge (6/76).

MOS-32F-002

FIXED CIPHONY REPAIRER

32F10
32F20
32F30
32F40

Exhibit Dates: 3/78-2/86. (Effective 3/86, MOS 32F was discontinued and its duties were incorporated into MOS 29F, Fixed Communications Security Equipment Repairer, and MOS 29P, Communications Security Maintenance Chief.)

Career Management Field: 29 (Communications-Electronics Management).

Description

Summary: Repairs and performs maintenance on ciphony communications security equipment. *Skill Level 10:* Repairs equipment according to the appropriate directives and standards; makes operating adjustments and performs routine maintenance; traces circuit continuity; performs authorized equipment modifications in accordance with modification work orders; aligns, adjusts, and test-operates repaired equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; makes regular and emergency repairs to equipment; determines equipment readiness and serviceability; disassembles or removes assemblies and components and replaces faulty items. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and instructs lower skill level personnel in installation, maintenance, repair, modification, and inspection of equipment; assures the safeguarding of classified defense information; prepares work schedules; may supervise from 5 to 9 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; makes continuous appraisal of maintenance operations and training situations; provides technical guidance to lower skill level personnel; coordinates and supervises repair activities and personnel; may supervise 9 or more persons. NOTE: May have progressed to 32F40 from 32F30 or 32G30 (Fixed Cryptographic Equipment Repairer).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 2 in solid-state circuits, 3 in digital circuits, and 3 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semeter hours in introduction to electronics, 2 in AC/DC circuits, 1 in solid-state circuits, 2 in digital circuits, and 1 in troubleshooting techniques (5/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in solid-state circuits, 6 in digital circuits, and 6 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in solid-state circuits, 6 in digital circuits, and 4 in troubleshooting techniques (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid-state circuits, 6 in digital circuits, 3 in maintenance management, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid-state circuits, 6 in digital circuits, 3 in maintenance management, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/79).

MOS-32G-001

FIXED CRYPTOGRAPHIC EQUIPMENT REPAIRMAN

32G20
32G40

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises or performs maintenance on fixed cryptographic systems communications security (COMSEC) equipment. *Skill Level 20:* Performs all levels of maintenance on fixed systems digital communications security equipment; adjusts, repairs, and overhauls equipment; applies electronic theory and analysis techniques in diagnosis and isolation of malfunctions; removes, examines, and replaces faulty components and parts; traces circuit continuity; properly uses, calibrates, and cares for tools and test equipment; keeps maintenance logs and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises installation and maintenance of fixed system COMSEC equipment; assigns duties; advises, instructs, and assists subordinates in difficult phases of diagnoses; prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in commercial and residential wiring, 2 in digital circuit fundamentals, 2 in DC and AC theory, 2 in electronic test equipment, and 2 in advanced circuit theory. In the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuit fundamentals, 2 in basic electronics, 2 in commercial and residential wiring, and 2 in electronic instrumentation. Advanced standing in an electronic technician apprentice training program only on the basis of employer or trade association performance examination because of the military nature of the skills, competencies, and knowledge (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 5 semester hours in digital computer circuits, 4 in industrial and residential wiring, 3 in basic electronics, 2 in electronic instrumentation, 2 in electromechanical systems, 3 in human relations, 2 in personnel supervision, and 2 in maintenance supervision. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-32G-002

FIXED CRYPTOGRAPHIC EQUIPMENT REPAIRER

32G10
32G20
32G30

Exhibit Dates: 3/78-2/86. (Effective 3/86, MOS 32G was discontinued and its duties were incorporated into MOS 29F, Fixed Communications Security Equipment Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Repairs and performs maintenance on cryptographic communications equipment. *Skill Level 10:* Performs minor maintenance and repairs; applies electronic theory and analysis techniques to find and replace defective components; makes operating adjustments on equipment; adjusts, aligns, and test-operates repaired items to assure proper functioning. *Skill Level 20:* Able to perform the duties required for Skill Level 10; makes emergency repairs on equipment; makes determinations of location of systems malfunctions, using localization procedures and techniques. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and instructs lower skill level personnel in installation, maintenance, repair, modification, and inspection of equipment; supervises personnel in preparation of work orders, record keeping, and ordering of stock items; schedules work assignments; prepares administrative and technical reports; may supervise 13 or more persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 2 in solid-state circuits, 3 in digital circuits, and 3 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in AC/DC circuits, 1 in solid-state circuits, 2 in digital circuits, and 1 in troubleshooting techniques (5/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in solid-state circuits, 6 in digital circuits, and 6 in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in solid-state circuits, 6 in digital circuits, and 4 in troubleshooting techniques (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid-state circuits, 6 in digital circuits, 3 in maintenance management, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/79).

MOS-32H-001

Fixed Station Radio Repairman

32H20
32H40

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises and performs installation, operation, and maintenance on fixed station radio equipment. *Skill Level 20:* Installs, operates, and repairs fixed station radio receiver and transmitter equipment; makes frequency and calibration adjustments; replaces defective radio equipment with operational units; interprets circuit, schematic, and cable diagrams; maintains records on equipment status; uses related equipment, such as antennas and cables; inspects and tests equipment for malfunction; locates faulty components and replaces them with operational components or parts; employs radio troubleshooting techniques with electronic test equipment; operates associated communications equipment, such as carrier and teletypewriters; applies safety precautions pertaining to high voltage. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises installation, maintenance, and operation of fixed station radio equipment; assigns personnel to duties; advises and instructs personnel; diagnoses and determines causes of equipment malfunction; writes technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals (direct current), 3 in electronics fundamentals (alternating current), 3 in electronic circuits, and 3 in electronic devices (solid-state and vacuum tubes). In an electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronics fundamentals (direct current), 3 in electronics fundamentals (alternating current), 3 in radio transmitters and receivers system theory, 3 in electronic circuits, and 3 in electronic devices (solid-state and vacuum tube). In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics fundamentals (direct current), 3 in electronics fundamentals (alternating current), 3 in radio transmitters and receivers system theory, 3 in electronic circuits, 3 in electronic devices (solid-state and vacuum tube), 3 in human relations, and 3 in personnel supervision. In an electronic technician apprentice training program 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

MOS-32H-002

Fixed Station Radio Repairer

32H10
32H20
32H30

Exhibit Dates: 3/78-6/86. (Effective 7/86, MOS 32H was discontinued and its functions were incorporated into MOS 29E, Communications-Electronics Radio Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Installs, adjusts, aligns, maintains, and troubleshoots fixed high-frequency radio stations, including transmitters, receivers, and antenna systems. *Skill Level 10:* Uses voltmeters, ohmmeters, oscilloscopes, spectrum analyzers, and signal generators; performs preventive and corrective maintenance on receivers, transmitters, and antenna systems; troubleshoots to component level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; aligns receivers and transmitters to perform to specifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the installation and maintenance of fixed radio stations; advises, instructs, and assigns workloads to subordinate personnel; may supervise more than 20 persons; prepares, reviews, and consolidates technical and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 2 in troubleshooting techniques, 2 in solid-state circuits, and 2 in electronic communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in AC/DC circuits, 2 in troubleshooting techniques, 2 in solid-state circuits, and 2 in electronic communications (5/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 4 in troubleshooting techniques, 3 in solid-state circuits, and 4 in electronic communications (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid-state circuits, and 4 in electronic communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid-state circuits, 4 in electronic communications, 3 in personnel supervision, 3 in human relations, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/79).

MOS-32Z-001

Fixed Station Chief

32Z40
32Z50

Exhibit Dates: 10/73-2/78.

Career Management Field: 32 (Fixed Plant Communications Maintenance).

Description

Summary: Supervises installation, operation, and maintenance of fixed transmitter, receiver, or terminal equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 32D (Fixed Station Technical Controller), 32E (Fixed Station Carrier Repairman), 32F (Fixed Ciphony Repairman), 32G (Fixed Cryptographic Equipment Repairman), or 32H (Fixed Station Repairman); supervises and technically assists in the installation, operation, and maintenance of strategic transmitter, receiver, terminal, microwave, radio relay, message center, data processing, and cryptographic and satellite communications ground station equipment; conducts on-the-job training; oversees station operation and schedules maintenance, diagnoses and resolves equipment malfunctions; prepares technical reports; supervises up to 15 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises the installation, operation, and maintenance of integrated strategic communications systems in a large fixed station installation or serves in a communications headquarters; determines requirements, assigns duties, and coordinates activities of subordinate personnel; plans and supervises technical operations, maintenance of facility equipment, and training of personnel; supervises from 15-30 personnel; may serve as first sergeant of a company, supervising approximately 200 persons; advises company commander on all matters concerning enlisted personnel and is responsible for all enlisted personnel actions; directs and coordinates company administration; disseminates instructions and information to subordinate enlisted supervisors. NOTE: May have progressed to 32Z50 from 32Z40, 32D40 (Fixed Station Technical Controller), 32E40 (Fixed Station Carrier Repairman), 32F40 (Fixed Ciphony Repairman), 32G40 (Fixed Crypotographic Equipment Repairman), 32H40 (Fixed Station Repairman), 26P50 (Radio Propagation Specialist), 26V50 (Strategic Microwave Systems Repairman), or 26Y50 (Satellite Communications Ground Station Equipment Repairman).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 for field experience in management (6/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 6 for field experience in management, 3 in maintenance management, and 2 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 6 for field experience in management, 3 in industrial arts education (electronics), and 3 in personnel management; if the duty assignment was chief instructor at a formal training facility, 3 additional semester hours for an internship in education (6/76).

MOS-32Z-002

Communications-Electronics
Maintenance Chief

32Z40

32Z50

Exhibit Dates: 3/78–2/87. (Effective 3/87, MOS 32Z was discontinued and its functions were incorporated into MOS 29W, Communications Maintenance Support Chief, MOS 29X, Communications Equipment Maintenance Chief, and MOS 29Z, Communications Electronics Maintenance Chief.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Supervises and coordinates the performance of maintenance, calibration, and installation of transmitters, receivers, or terminal communications equipment. *Skill Level 40:* NOTE: May have progressed to 32Z40 from any of the following MOS's: 31E (Field Radio Repairer); 31J (Teletypewriter Repairer); 32H (Fixed Station Radio Repairer); 35E (Special Electronic Devices Repairer); 36L (Electronic Switching Systems Repairer); 26C (Combat Area Surveillance Radar Repairer); and 26B (Weapons Support Radar Repairer); able to supervise, assist, and inspect the duties performed by personnel working in the above MOS's; organizes and supervises personnel and activities of shops and units engaged in the use of communications equipment; reviews and prepares technical reports regarding equipment and personnel; maintains records pertaining to equipment needs of personnel and authorizes supply needs: coordinates the logistics necessary to support the personnel under his command; sets up maintenance, calibration, and installation activities; provides guidance regarding unusual equipment malfunctions; instructs in new equipment and procedures; may supervise up to 40 persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40. NOTE: May have progressed to 32Z50 from 32Z40 or from Skill Level 40 of any of the following MOS's: 31S (Field General COMSEC Repairer); 35B (Electronic Instrument Repairer); 36H (Dial/Manual Central Office Repairer); 26L (Tactical Microwave Systems Repairer); 26V (Strategic Microwave Systems Repairer); 26Y Satellite Communications Ground Station Equipment Repairer); 32F (Fixed Ciphony Repairer); or 35H50 (Calibration Specialist); able to supervise, assist, and inspect duties performed by personnel working in the above MOS's; supervises the installation, operation, and maintenance of integrated strategic communications headquarters; determines requirements, assigns duties, and coordinates activities of subordinate personnel; plans and supervises technical operations, maintenance of facility equipment, and training of personnel; supervises up to 70 persons; may serve as first sergeant of a company, supervising approximately 200 persons; advises company commander on all matters concerning enlisted personnel and is responsible for all enlisted personnel actions; directs and coordinates company administration; disseminates instructions and information to enlisted supervisors.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in technical report writing, 3 in office management, 3 in human relations, and 3 for a technical elective. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 3 in personnel management; if served as an instructor, 3 semester hours for a practicum in education (10/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 6 semester hours in personnel supervision, 3 in maintenance management, 3 in technical report writing, 3 in office management, 3 in human relations, and 3 for a technical elective. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in introduction to management, and 3 in personnel management; if served as an instructor, 3 additional semester hours for a practicum in education; if the duty position was first sergeant (designated on records as 32Z5M), 3 additional semester hours in personnel management; if rank was sergeant major, 3 additional semester hours in personnel management, and 3 for field experience in management (10/79).

MOS-33B-001

General Intercept Equipment
Repairman

33B20

Exhibit Dates: 10/73–2/74. (Effective 3/74, MOS 33B was discontinued.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Skill Level 20: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. Performs maintenance on mobile and fixed station general intercept equipment including high frequency receivers, single and dual tract magnetic recorders-reproducers, and special demodulators; dismantles and cleans electronic and mechanical components, assemblies, and subassemblies; performs electrical, electronic, and mechanical tests with test equipment and schematic diagrams; isolates defective circuits and parts; determines causes of malfunctions; repairs or replaces defective circuitry, parts, and components; aligns electronic circuits; performs authorized modification of equipment; makes authorized substitution of components and parts and fabricates simple parts not requiring machine tooling; test operates repaired equipment; prepares and keeps maintenance records and reports; requisitions parts or supplies; observes safety precautions.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (9/79).

MOS-33C-001

Intercept Receiving Systems
Repairman

33C20

33C40

Exhibit Dates: 10/73–2/76. (Effective 3/76, MOS 33C was discontinued and its functions were incorporated into MOS 33S, EW/Intercept Systems Repairer.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Summary: Supervises or assembles, operates, and performs maintenance on intercept receiving systems. NOTE: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Operates and performs maintenance on intercept receiving systems in mobile and fixed stations; assembles, modifies, checks, and inspects intercept receiving systems, positions, and facilities; dismantles and cleans electronic and mechanical components, assemblies, and subassemblies; performs electrical, electronic, and mechanical tests with advanced test equipment, schematic diagrams, logic diagrams, and equipment performance standards; isolates defective circuits and parts; determines cause of malfunction; repairs or replaces defective circuitry parts and components; aligns electronic circuits; adjusts mechanical performance of equipment to meet prescribed standards; makes authorized equipment modifications; fabricates parts; test-operates repaired equipment to ensure performance standards are met; prepares and keeps maintenance records and reports; uses pulse and spectrum analyzers, sweep generators, frequency counters, and noise figure meters; uses special and common hand tools; operates microwave, radar, and special purpose systems for repair of equipment; provides technical assistance and advice. NOTE: May have progressed to 33C20 from 33B20 (General Intercept Equipment Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; instructs and provides technical assistance to lower skill level personnel; supervises intercept receiving systems maintenance activities; diagnoses and determines causes of unusual cases of equipment malfunction; explains and interprets complex operating and maintenance problems.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication (9/79).

MOS-33D-001

INTERCEPT RECORDING SYSTEMS REPAIRMAN

33D20
33D40

Exhibit Dates: 10/73-2/76. (Effective 3/76, MOS 33D was discontinued and its functions were incorporated into MOS 33S, EW/Intercept Systems Repairer.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on intercept recording systems. NOTE: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Performs maintenance on intercept recording systems in mobile and fixed stations; assembles, modifies, checks, and inspects intercept recording/reproducing systems, positions, and facilities; interconnects power supplies, audio, video, direct-current amplifiers, and mechanical tape drive assemblies; aligns electronic components for prescribed gain and frequency response in audio and video amplifiers; performs electrical, electronic, and mechanical tests with advanced test equipment, schematic diagrams, logic diagrams, and equipment performance standards; isolates defective circuits and parts; determines cause of malfunction; dismantles equipment; repairs or replaces defective components, circuitry, and parts; fabricates parts; inspects and adjusts to fine tolerances, motor torque and speed, drive roller and brake tensions, and recording-reproducing head alignment; test-operates repaired equipment to ensure performance standards are met; provides technical assistance and advice; prepares and keeps records applicable to maintenance function. NOTE: May have progressed to 33D20 from 33B20 (General Intercept Equipment Repairman. *Skill Level 40:* Able to perform the duties required for Skill Level 20; instructs and provides technical assistance to lower skill level personnel; supervises maintenance activities; interprets and explains complex maintenance problems; diagnoses and determines causes of unusual cases of equipment malfunction.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication (9/79).

MOS-33F-001

INTERCEPT DEMULTIPLEX SYSTEMS REPAIRMAN

33F20
33F40

Exhibit Dates: 10/73-2/76. (Effective 3/76, MOS 33F was discontinued and its functions were incorporated into MOS 33S, EW/Intercept Systems Repairer.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on intercept demultiplex systems. NOTE: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Dismantles and cleans equipment; assembles, modifies, checks and inspects equipment systems, positions, and facilities; interconnects components; performs electronic and mechanical tests with advanced test equipment, schematic diagrams, and equipment performance standards; isolates defective circuits and parts; determines cause of malfunctions; repairs or replaces defective circuitry, parts, and components; aligns electronic circuits; adjusts mechanical performance of equipment to meet prescribed standards; makes authorized equipment modifications; fabricates parts; test-operates repaired equipment to insure that performance standards are met; provides technical advice and assistance; prepares and keeps maintenance records and reports. NOTE: May have progressed to 33F20 from 33B20 (General Intercept Equipment Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; instructs and provides technical assistance to lower skill level personnel; supervises maintenance activities; interprets and explains complex maintenance problems; diagnoses and determines causes of unusual cases of equipment malfunction.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications sytems, 3 in systems troubleshooting, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication (9/79).

MOS-33G-001

ECM/DF SYSTEMS REPAIRMAN

33G20
33G40

Exhibit Dates: 10/73-2/76. (Effective 3/76, MOS 33G was discontinued and its functions were incorporated into MOS 33S, EW/Intercept Systems Repairer.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on electronic countermeasures and direction-finding systems, positions, and facilities. NOTE: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Performs maintenance on electronic countermeasures and direction-finding equipment; dismantles and cleans equipment; assembles, modifies, checks, and inspects equipment; interconnects antennas, receivers, transmitters, jammers, and associated equipment; performs electrical, electronic, and mechanical tests to insure compliance with performance standards; isolates defective circuitry and parts; determines causes of malfunctions; repairs or replaces defective components, circuitry and parts; aligns electronic circuits; makes authorized equipment modifications; fabricates simple parts; test-operates equipment; provides technical advice and assistance; prepares and keeps maintenance records. NOTE: May have progressed to 33G20 from 33B20 (General Intercept Equipment Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; instructs lower skill level personnel; interprets and explains complex maintenance problems; diagnoses and determines causes of unusual cases of equipment malfunction.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication (9/79).

MOS-33M-001

ELECTRONIC WARFARE/INTERCEPT
STRATEGIC SYSTEMS ANALYST AND
COMMAND AND CONTROL
SUBSYSTEMS REPAIRER

33M20
33M30
33M40

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Supervises or performs unit, intermediate, and depot maintenance on bus controllers, time code generators, microcomputers, and peripheral equipment. *Skill Level 20:* Replaces, repairs, and installs electronic warfare/intercept command and control equipment according to manufacturers' instructions; conducts electrical and mechanical tests using wiring diagrams and technical manuals; performs preventive maintenance on computers and computer peripheral devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as maintenance team leader or assistant team leader; serves as quality assurance inspector and equipment calibration coordinator; manages, counsels, and evaluates subordinate personnel; develops maintenance procedures; prepares and reviews technical reports; maintains a technical library; requisitions spare parts; maintains records; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as team leader or shop foreman; assigns personnel to maintenance teams and supervises team activities; conducts and monitors on-the-job training programs; counsels and evaluates subordinates and determines their training requirements; prepares status reports and maintains administrative and maintenance files. NOTE: May have progressed to 33M40 from 33M30, 33P30, Electronic Warfare/Intercept Strategic Receiving Subsystems Repairer, or 33Q30, Electronic Warfare/Intercept Strategic Processing/Storage Subsystems Repairer.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33M20 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33M20 and 102-33M30 (5/87).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in office management and 3 in personnel management. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33M20 and 102-33M30 (5/87).

MOS-33P-001

ELECTRONIC WARFARE/INTERCEPT
STRATEGIC RECEIVING SUBSYSTEMS
REPAIRER

33P10
33P20
33P30

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Supervises or performs preventive maintenance on receivers, direction finders, antenna control, multiplexers, demultiplexers, and other equipment associated with RF and receiving subsystems. *Skill Level 10:* Troubleshoots electronic warfare/intercept receiving equipment and support equipment down to the component level; installs receiving equipment and support equipment according to manufacturers' specifications; performs tests using volt-ohm-meters, oscilloscopes, signal generators, spectrum analyzers, and other test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in conducting on-the-job training and quality assurance inspections; assists as service school instructor; performs advanced electrical and mechanical tests using wiring diagrams, signal flow charts, technical manuals, troubleshooting charts, and other diagnostic materials; supervises work performed by Skill Level 10 technicians. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as maintenance team leader or assistant team leader; serves as quality assurance inspector and equipment calibration coordinator; manages, counsels, and evaluates subordinate personnel; develops maintenance procedures; prepares and reviews technical reports; maintains a technical library; requisitions spare parts; maintains records; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in troubleshooting techniques. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33P10 (5/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33P10 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronics shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33P10 and 102-33P30 (5/87).

MOS-33Q-001

ELECTRONIC WARFARE/INTERCEPT
STRATEGIC PROCESSING/STORAGE
SUBSYSTEMS REPAIRER

33Q10
33Q20
33Q30

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Supervises or performs maintenance on electronic warfare/intercept processing/storage subsystems, multiplexers, recorder-reproducers, oscillographs, control units, video amplifiers, power supplies, and other associated equipment. *Skill Level 10:* Uses voltmeters, ohmmeters, oscilloscopes, signal generators, power meters, spectrum analyzers, and other testing devices; conducts electrical and mechanical tests using wiring diagrams, signal flow charts, technical manuals, troubleshooting charts, and job performance aids; uses high reliability soldering techniques; bench tests to ensure alignment; troubleshoots and repairs to the component level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs harmonic, wow and flutter, and other distortion tests, and takes corrective action; tests analog and digital circuits to determine course of pulse, spectra, time phase and amplitude deterioration, frequency shifting and bandpass reduction/expansion; assists in conducting formal/informal on-the-job training; serves as quality assurance inspector and as assistant service school instructor. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the performance of unit, intermediate, and depot maintenance on electronic warfare/intercept equipment; manages, counsels, and evaluates subordinate personnel; maintains records; requisitions spare parts; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in troubleshooting techniques. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33Q10 (5/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33Q10 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronics shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33Q10 and 102-33Q30 (5/87).

MOS-33R-001

ELECTRONIC WARFARE/INTERCEPT
AVIATION SYSTEMS REPAIRER

33R10
33R20
33R30
33R40

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Repairs, supervises, or performs unit, intermediate, or depot maintenance on electronic-warfare intercept, airborne systems, equipment, and assemblies. *Skill Level 10:* Performs maintenance on aviation equipment including wide-band receivers, recorders, modulators, multiplexers, demodulators, antennas, monitors, and direction-finding and positioning equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs maintenance on additional equipment, including various airborne and air-to-ground intercept, recording, countermeasure, and computer peripheral devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the maintenance on electronic warfare intercept airborne equipment; manages, counsels, and evaluates subordinate personnel; requisitions spare parts; prepares and reviews technical reports; maintains technical library; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as maintenance team leader or foreman; prepares status reports and maintains administrative and maintenance files. NOTE: May have progressed to 33R40 from 33R30 or 33V30, Electronic Warfare/Intercept Aerial Sensor Repairer.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in troubleshooting techniques. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33R10 (5/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33R10 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33R10 and 102-33R30 (5/87).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in office management and 3 in personnel management. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33R10 and 102-33R30 (if progressed from 33R30) or 102-33V10 (if progressed from MOS 33V) (5/87).

MOS-33S-001

EW/INTERCEPT SYSTEMS REPAIRER
(EW/INTERCEPT SYSTEMS REPAIRMAN)

33S10
33S20
33S30
33S40
33S50

Exhibit Dates: 3/76–2/85. (Effective 3/85, MOS 33S was discontinued and its duties were incorporated into MOS 33M, Electronic Warfare/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer, MOS 33P, Electronic Warfare/Intercept Strategic Receiving Subsystems Repairer, MOS 33Q, Electronic Warfare/Intercept Strategic Processing/Storage Subsystems Repairer, MOS 33R, Electronic Warfare/Intercept Aviation Systems Repairer, MOS 33T, Electronic Warfare/Intercept Tactical Systems Repairer, and MOS 33Z, Electronic Warfare/Intercept Systems Maintenance Supervisor.)

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Supervises or performs maintenance on equipment that operates throughout the frequency spectrum, including receivers, multichannel magnetic sound recorders-reproducers, countermeasures sets, direction finder sets, and special demodulators used in mobile and fixed stations. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 10:* Connects equipment to power sources; disassembles and cleans electronic and mechanical components, assemblies, and subassemblies; performs electronic and mechanical tests using test equipment, schematic diagrams, logic diagrams, and equipment performance standards; analyzes operation of malfunctioning equipment to locate defective components, subassemblies, and modules; repairs or replaces defective circuitry, parts, and components; aligns simple electronic circuits and adjusts mechanical performance of equipment to meet prescribed standards; has knowledge of transistors and integrated circuits; makes authorized substitutions of components and fabricates simple parts not requiring machine tooling; test-operates repaired equipment to insure performance and quality standards are met; prepares and maintains maintenance records and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; interconnects antennas, receivers, transmitters, demultiplexers, preamplifiers, frequency converters, power supplies, audio and video amplifiers, and associated equipment according to specifications; uses advanced test measuring and diagnostic equipment; aligns complex electronic components for gain and frequency response in amplifiers; prepares, maintains, and reviews maintenance records and reports; provides technical assistance, guidance, and advice to subordinates on repair and maintenance of electronic systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; checks system interfacing to insure that performance meets required system standards; performs quality control inspections of maintenance performed; recommends design changes on unsatisfactory equipment, positions, and facilities; prepares and consolidates technical reports and maintenance records; diagnoses unusual cases of system malfunctions; interprets and explains complex operating and maintenance problems; supervises and instructs subordinate personnel and knows supply procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; establishes work priorities and assigns work to subordinate personnel; assists in the supervision of personnel making complex modifications and repairs; instructs and demonstrates diagnostic and repair procedures and use of advanced test equipment and tools; plans and supervises maintenance for mobile and fixed station facilities; recommends changes in work procedures; assists in preparation of maintenance schedules; makes oral presentations concerning maintenance activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a maintenance manager of an activity of up to 175 persons; prepares lesson plans; approves changes in work procedures; reports on unsatisfactory equipment and circuitry; recommends equipment design changes and reports on efficiency of changes performed; assists in technical inspections and evaluates the effectiveness of maintenance procedures and practices; supervises personnel performing complex modifications and repairs on intercept and deception-jamming systems; evaluates subordinates; advises commander on matters of personnel welfare, morale, assignment, utilization, promotion, privileges, discipline, and training; interprets and explains technical literature on the operation and maintenance of general and special types of intercept and deception-jamming systems; prepares maintenance schedules; may serve as a chief instructor in a formal training facility; may have experience as the enlisted commander of a detachment; may have served as the first sergeant of a company.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid-state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associ-

ate degree category, 3 semester hours in AC/DC circuits, 3 in communications systems, 3 in systems troubleshooting, 3 in solid-state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, and 1 in digital electronics (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid state electronics, 3 in technical mathematics, 3 in human relations, 3 for field experience in personnel supervision, 3 in shop management, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in resource management, and 3 in personnel management; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education (6/77).

MOS-33T-001

ELECTRONIC WARFARE/INTERCEPT
TACTICAL SYSTEMS REPAIRER

33T10

33T20

33T30

33T40

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Repairs, supervises, or performs unit, intermediate, or depot maintenance on electronic warfare/intercept equipment and assemblies. *Skill Level 10:* Performs maintenance on equipment including HF, VHF, UHF, and MF receivers, narrowband recorder-reproducers, tactical antennas and controls, modulators and demodulators, multiplexers and demultiplexers, signal monitors, direction-finding and electronic countermeasures equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs harmonic distortion, wow and flutter tests on tactical narrowband recorders; tests analog and digital circuits to determine the cause of pulse, spectra, time phase and amplitude deterioration, frequency shifting and bandpass reduction/expansion; assists in conducting formal and informal on-the-job training; provides technical guidance to subordinate personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the performance of maintenance activities; manages, counsels, and evaluates subordinate personnel; maintains records; requisitions spare parts; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as maintenance team leader or foreman; organizes and monitors performance of maintenance activities; prepares status reports and maintains applicable administrative and maintenance files.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in troubleshooting techniques. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33T10 (5/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandaotry course, 102-33T10 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33T10 and 102-33T30 (5/87).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronic shop practices, 3 in office procedures, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in office management and 3 in personnel management. NOTE: For additional credit, check official records to verify completion of the mandatory courses, 102-33T10 and 102-33T30 (5/87).

MOS-33V-001

ELECTRONIC WARFARE/INTERCEPT AERIAL
SENSOR REPAIRER

33V10

33V20

33V30

Exhibit Dates: 3/87–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Summary: Repairs, supervises, or performs unit, intermediate, or depot maintenance on electronic warfare intercept airborne sensor systems, associated data links, and assemblies. *Skill Level 10:* Performs maintenance on aviation equipment including side-looking radars, signal processors, monitors, receiving-transmitting equipment, encoding and decoding devices and aircraft annotation equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and assists subordinates; repairs selected specialized equipment and performs technical inspections of sensor modules and assemblies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; counsels subordinates; assigns, monitors, and inspects work; develops maintenance procedures; supervises installation of certain aerial sensor systems; supervises acquisition of parts; diagnoses unusual and complex malfunctions of aerial sensor systems and recommends modifications of sensor systems; maintains technical library; writes reports.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in troubleshooting techniques. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33V10 (5/87).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory and 3 in electronic shop practices. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33V10 (5/87).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in troubleshooting techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in electronics shop practices, 3 in office procedures, and 3 in human relations. NOTE: For additional credit, check official records to verify completion of the mandatory course, 102-33V10 (5/87).

MOS-33Z-001

INTERCEPT SYSTEMS MAINTENANCE
SUPERVISOR

33Z40

33Z50

Exhibit Dates: 10/73–2/76. (Effective 3/76, MOS 33Z was discontinued and its functions were incorporated into MOS 33S, EW/Intercept Systems Repairer; effective 3/85, MOS 33Z was reestablished–see exhibit MOS-33Z-002.)

Career Management Field: 33 (Intercept Equipment Maintenance).

Description

Summary: Supervises maintenance on intercept equipment. NOTE: Many of the duties required for this MOS involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 40:* Able to perform the duties required for MOS 33C (Intercept Receiving Systems Repairman), MOS 33D

(Intercept Recording Systems Repairman), MOS 33F (Intercept Demultiplex Systems Repairman), and MOS 33G (ECM/DF Systems Repairman); serves as maintenance supervisor on intercept systems; establishes work priorities and assigns repair specialists; assists in supervision of personnel making complex authorized modifications on intercept and deception-jamming systems; explains complex electronic, mechanical, and solid-state concepts; instructs and demonstrates diagnostic and repair procedures and utilization of special test equipment and tools; diagnoses causes of unusual equipment malfunction; determines technical operating difficulties; plans and supervises operations of maintenance shop in tactical unit and fixed station facility. NOTE: May have progressed to 33Z40 from 33C40 (Intercept Receiving System Repairman), 33D40 (Intercept Recording Systems Repairman), 33F40 (Intercept Demultiplex Systems Repairman), or 33G40 (ECM/DF Systems Repairman). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as maintenance chief at battalion, field station, or higher headquarters; prepares lesson plans and demonstrations; recommends changes in work procedures; reports on unsatisfactory equipment and circuitry within intercept and deception-jamming systems; recommends equipment design changes; assists in technical inspections; prepares technical reports and maintenance records; provides technical guidance to maintenance personnel performing complex repairs on equipment; prepares maintenance schedules.

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid-state electronics, 3 in technical mathematics, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in systems troubleshooting, 3 in AC/DC circuits, 3 in communications systems, 3 in solid-state electronics, 3 in technical mathematics, 3 in human relations, 3 in shop management, 3 for field experience in personnel supervision, 2 in power supplies, 2 in pulse circuits, 2 in antenna and wave propagation theory, 2 in instrumentation, 1 in electromechanical devices, 1 in digital electronics, and 1 in circuit fabrication. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/79).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in resource management, and 3 in personnel management; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education (9/79).

MOS-33Z-002

Electronic Warfare/Intercept
Systems Maintenance
Supervisor

33Z50

Exhibit Dates: 3/85–Present.

Career Management Field: 33 (Electronic Warfare/Intercept Systems Maintenance).

Description

Skill Level 50: Supervises unit, intermediate, and depot maintenance on all types of electronic warfare/intercept equipment; plans layout and design of maintenance and facilities; identifies training requirements and develops training plans; serves as liaison between staff command, site and unit personnel; prepares technical evaluations, reports, and correspondence pertaining to maintenance operations. NOTE: May have progressed to 33Z50 from 33R40, Electronic Warfare/Intercept Aviation Systems Repairer, 33T40, Electronic Warfare/Intercept Tactical Systems Repairer, or 33M40, Electronic Warfare/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in applied psychology. In the upper-division baccalaureate category, 3 semester hours in technical writing, 3 in a management elective, 3 in industrial education, 3 in counseling, 3 for an education internship, and 3 for field experience in management (5/87).

MOS-34B-001

Tabulating Equipment Repairman

34B10

34B20

34B30

34B40

Exhibit Dates: 9/75–8/78.

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on electrical accounting machines. *Skill Level 10:* Inspects, tests, adjusts, and maintains electrical accounting machine equipment; locates and determines causes of malfunction; replaces pins, gears, arms, shafts, and rollers; cleans, oils, and lubricates equipment; reads wiring diagrams and mechanical blueprints; computes voltage, amperage, and resistance factors; employs safety precautions when working with high voltages. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects electrical accounting equipment to insure proper operation; adjusts or repairs improperly working electrical accounting equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a senior tabulating equipment repairman; performs or assists in supervising maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as chief tabulating equipment repairman; supervises 5 or more tabulating equipment repairmen.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals and 3 in office equipment repair (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical fundamentals and 3 in office equipment repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals, 3 in office equipment repair, and 3 for field experience in office machine repair (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electrical fundamentals and 3 in office equipment repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals, 3 in office equipment repair, 3 for field experience in office machine repair, and 3 in human relations (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electrical fundamentals and 3 in office equipment repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals, 3 in office equipment repair, 3 for field experience in office machine repair, 3 in human relations, and 3 for field experience in maintenance management (5/76).

MOS-34B-002

Punch Card Machine Repairer

34B10

34B20

34B30

34B40

Exhibit Dates: 9/78–8/85. (Effective 9/85, MOS 34B was discontinued.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Performs or supervises maintenance on punch card equipment. *Skill Level 10:* Inspects, tests, adjusts, and maintains punch-card-related equipment; locates and determines causes of malfunctions; replaces pins, gears, arms, shafts, and rollers; cleans, oils, and lubricates equipment; reads wiring diagrams and mechanical blueprints; computes voltage, *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects electrical punch card equipment to insure proper operation; adjusts or repairs improperly working punch card equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a senior punch card equipment repairman; performs or assists in supervising maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as chief punch card repairman; supervises several punch card equipment repairmen.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical fundamentals and 3 in electromechanical fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals (9/81).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semes-

ter hours in electrical fundamentals and 3 in electromechanical device repair (9/81).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals, 3 in electromechanical device repair, and 3 in human relations (9/81).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals, 3 in electromechanical device repair, 3 in human relations, and 3 for field experience in maintenance management (9/81).

MOS-34C-001

DECENTRALIZED AUTOMATED SERVICE SUPPORT SYSTEM COMPUTER REPAIRER

34C20

34C30

34C40

Exhibit Dates: 3/79–8/87. (Effective 9/87, MOS 34C was discontinued and its functions were incorporated into MOS 39D, DAS3 Computer Systems Repairer and MOS 39V, Computerized Systems Maintenance Chief.)

Career Management Field: 74 (Automatic Data Processing).

Description

Summary: Supervises or performs maintenance on the Decentralized Automated Service Support System Center (DAS3). *Skill Level 20:* Inspects, adjusts, and repairs the DAS3 computer system, including the peripheral equipment; determines areas of malfunction by inspecting components and running software programs; interprets circuit and schematic diagrams; using simple algebraic formulas, computes voltage, amperage, and resistance factors; tests equipment with special diagnostic test programs and special test equipment, including ohmmeters, oscilloscopes, tube checkers, transistor checks, flip-flop circuit checkers, pulse code board testing devices, and pulse generators; disassembles malfunctioning equipment and replaces faulty components; performs preventive maintenance on computer and associated equipment; prepares and keeps maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; repairs console panels, memory units, card readers, and peripheral equipment; manages inventory control. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises or performs support maintenance; keeps personnel records and assigns duties.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity/electronics and 3 in fundamentals of digital logic (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in basic electricity/electronics, 3 in fundamentals of digital logic, and 2 in digital system maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity/electronics, 3 in fundamentals of digital *logic, 2 in digital system maintenance, and 3* in personnel supervision (10/81).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity/electronics, 3 in fundamentals of digital logic, 2 in digital system maintenance, 3 in personnel supervision, 3 in fundamentals of management, and 3 in human relations (10/81).

MOS-34D-001

ADPS (AUTOMATIC DATA PROCESSING SYSTEMS) REPAIRMAN

34D20

34D50

Exhibit Dates: 10/73–8/75. (Effective 9/75, MOS 34D was discontinued and its functions were incorporated into the other data processing equipment maintenance MOS's in subfield 742.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs on-site maintenance and malfunction isolation of digital computers, peripheral equipment, and subscriber terminals (input/output devices); reads and interprets schematic diagrams, truth tables, logic diagrams, and flow charts. *Skill Level 20:* Applies electronic and logic theory in trouble diagnosis; uses test equipment such as VOM and oscilloscope for troubleshooting and repair; understands digital computer principles and operation; performs flow chart and diagnostic routine operations; lubricates and cleans equipment as required. *Skill Level 50:* Able to perform the duties required for Skill Level 20; provides technical assistance for complex problem diagnosis; supervises on-site computer maintenance and repair; schedules maintenance periods and coordinates work flow; supervises Skill Level 20 personnel, providing technical guidance and appraising performance.

Recommendation, Skill Level 20

In the vocational certificate category, a minimum of 18 semester hours in computer science, and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, a minimum of 12 semester hours in computer science, and additional credit on the basis of institutional evaluation. In an electronic technician apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction in office machine repair, and additional hours on the basis of employer or trade association performance examination (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, a minimum of 18 semester hours in computer science, additional credit in computer science on the basis of institutional evaluation, and 3 semester hours for a practicum in business management. In the lower-division baccalaureate/associate degree category, a minimum of 12 semester hours in computer science, additional credit in computer science on the basis of institutional evaluation, and 3 semester hours for a practicum in business management. In the upper-division baccalaureate category, 3 semester hours for a practicum in business management. In an electronic technician apprentice training program, 3,000 clock hours of experience and 150 contact hours of related instruction in office machine repair (2/75)

MOS-34E-001

NCR 500 COMPUTER REPAIRER
(NCR 500 COMPUTER REPAIRMAN)

34E20

34E30

34E40

Exhibit Dates: 9/75–8/85. (Effective 9/85, MOS 34E was discontinued.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on the NCR 500 computer. *Skill Level 20:* Performs routine maintenance on NCR 500 equipment; determines and repairs common electrical, electronic, and mechanical malfunctions; interprets circuit diagrams and technical literature; prescribes test procedures; uses specialized test equipment, including multimeters, checking processors (tube, transistor, and circuit), and oscilloscopes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; repairs console panels, processor, memory unit, arithmetic, power supply, card reader and controller, punched card peripheral equipment, and auxiliary units; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on NCR 500 equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices and systems, 3 in electronic circuit applications, 2 in basic mathematics, 2 in introduction to digital and logic theory, 2in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, and 2 in instrument applications. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in industrial arts, 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34F-001

DSTE REPAIRER
(DSTE REPAIRMAN)

34F20
34F30
34F40

Exhibit Dates: 10/73–2/87. (Effective 3/87, MOS 34F was discontinued and its duties were incorporated into MOS 29G, Digital Communications Equipment Repairer.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on Digital Subscriber Terminal Equipment (DSTE). *Skill Level 20:* Performs routine maintenance on DSTE equipment; determines and repairs common electrical, electronic, and mechanical malfunctions; interprets circuit diagrams and technical literature; prescribes test procedures; uses specialized test equipment, including multimeters, checking processors (tube, transistor, and circuit), and oscilloscopes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs inspections on systems and peripheral equipment; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on DSTE equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices and systems, 3 in electronic circuit applications, 2 in basic mathematics, 2 in introduction to digital and logic theory, 2 in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, and 2 in instrument applications. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technican (certified) apprentice training program, 1000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in industrial arts, 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34G-001

FIRE CONTROL COMPUTER REPAIRER
(FIRE CONTROL COMPUTER REPAIRMAN)

34G10
34G20
34G30

Exhibit Dates: 9/75–8/81. (Effective 9/81, MOS 34G was discontinued and its duties were incorporated into MOS 34Y, Field Artillery Computer Repairer, and MOS 45G, Tactical Fire Control Systems Repairer.)

Career Management Field: 63 (Mechanical Maintenance), subfield 643 (Armament Maintenance).

Description

Summary: Supervises or performs maintenance on fire control gun directional digital computer, viewer computer systems, laser rangefinders, electronic analog computers and related test equipment. *Skill Level 10:* Maintains field artillery digital automatic computer system, AR-85Z viewer computer, electronic analog computers, and laser rangefinders; uses and maintains special electronic and mechanical systems test equipment and electrician's and mechanic's hand tools; determines causes of malfunctions and removes and replaces defective electronic, electrical, and mechanical components; seals, spot paints, and purges and charges laser rangefinder components with nitrogen, as required; interprets complex schematic diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs support and depot maintenance on AR-85A viewer computer; provides technical guidance to Skill Level 10 personnel; supervises or installs equipment modifications; diagnoses complex malfunctions; conducts on-the-job training; maintains maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; instructs Skill Level 10 and 20 personnel in troubleshooting, proper repair methods, and maintenance techniques and procedures; establishes maintenance priorities and schedules and assigns work; performs final inspection and testing of repaired equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in use and care of hand and power tools, 3 in the use and maintenance of testing equipment, 3 in electrical wiring systems, and 3 in basic electronics, and additional credit in these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, and 3 in technical mathematics and additional credit in electronics, electricity, applied physics, mathematics, and computer maintenance on the basis of institutional evaluation. In an electronics technician apprentice training program, 500 clock hours of experience and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of hand and power tools, 3 in use and maintenance of testing equipment, 3 in electrical wiring systems, and 5 in basic electronics, and additional credit in these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in technical mathematics, 6 in shop practices, and 3 in personnel supervision and training, and additional credit in electronics, electricity, mathematics, applied physics, and computer maintenance on the basis of institutional evaluation. In an electronics technician apprentice training program, 1,500 clock hours of experience and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in technical mathematics, 3 in personnel supervision, 6 in shop practices, and 1 in records administration, and additonal credit in electronics, electricity, mathematics, applied physics, and computer maintenance on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, only if the duty assignment was fire control computer repair foreman. In an electronics technician apprentice training program, 3,000 clock hours of experience and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-34H-001

ADMSE REPAIRMAN

34H20
34H30
34H40

Exhibit Dates: 9/75–2/87. (Effective 3/87, MOS 34H was discontinued and its functions were incorporated into MOS 29H, Automatic Digital Message Switch Equipment Repairer and MOS 29U, Digital Equipment Maintenance Chief.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on Automatic Digital Message Switch equipment (ADMSE). *Skill Level 20:* Performs routine maintenance on ADMS equipment; determines and repairs common electrical, electronic, and mechanical malfunctions; interprets circuit diagrams and technical literature; perscribes test procedures; uses specialized test equipment, including multimeters, checking processors (tube, transistor, and circuit), and oscilloscopes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs inspections on systems and peripheral equipment; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on ADMSE equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices and systems, 3 in electronic circuit applications, 2 in basic mathematics, 2 in introduction to digital and logic theory, 2 in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, and 2 in instrument applications. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in industrial arts, and 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34J-001

UNIVAC 1004/1005, DCT-9000 SYSTEM REPAIRER
(UNIVAC 1004/1005, DCT-9000 SYSTEM REPAIRMAN)

34J20
34J30
34J40

Exhibit Dates: 9/75–8/85. (Effective 9/85, MOS 34J was discontinued.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on the univac 1004/1005, DCT-9000 computer system and peripheral equipment. *Skill Level 20:* Performs maintenance on computer input-output equipment (card and paper tape processors); follows schematic diagrams and maintenance manuals in determining the nature, location, and extent of malfunctions in either electrical or mechanical equipment; uses specialized test equipment, including multimeters, oscilloscopes, transistor-and-tube-checkers, and pulse generators; performs inspections, adjustments, repairs, and modifications as specified in official technical manuals. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs periodic and emergency inspections of systems and peripheral equipment; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on UNIVAC and DCT-9000 systems.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices and systems, 3 in electronic circuits applications, 2 in basic mathematics or introduction to algebra, 2 in basic electronics (AC/DC theory), 2 in amplifier devices (tubes, transistors), 2 in basic electronics laboratory, and 1 in instrument applications. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics theory/laboratory and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20.

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics theory/laboratory, 3 in industrial arts, 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34K-001

IBM 360 REPAIRER
(IBM 360 REPAIRMAN)

34K20
34K30
34K40

Exhibit Dates: 9/75–8/87. (Effective 9/87, MOS 34K was discontinued and its functions were incorporated into MOS 39K, IBM 360 Automated Data Processing Repairer and MOS 39V, Computerized Systems Maintenance Chief.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on the IBM 360 computer and peripheral equipment. *Skill Level 20:* Performs maintenance on the IBM 360 computer and peripheral equipment, including console control panels, processor, memory unit, arithmetic, power supply, card reader and controller, and auxiliary units; uses specialized equipment, including multimeters, oscilloscopes, tube- and transistor-testers, and pulse generators; performs preventive and routine maintenance of tools and test equipment; interprets technical manuals and schematic diagrams; adjusts, troubleshoots, and repairs various electrical devices, electronic circuit components and electromechanical systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs periodic and emergency inspections and adjustments with diagnostic test programs and special equipment; may supervise up to 15 lower skill level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on IBM 360 computer system.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electromechanical devices, 3 in electronic circuit applications, 2 in basic mathematics, 2 in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, 2 in digital-logic systems, and 1 in instrument applications. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 2 in basic electronics, 2 in transistor theory, and 2 in introduction to computer circuits. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics, 2 in basic electronics, 2 in transistor theory, 2 in introduction to computer circuits, 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34L-001

ADMS Peripheral Equipment Repairman

34L20
34L30
34L40

Exhibit Dates: 9/75-8/77. (Effective 9/77, MOS 34L was discontinued and its functions were incorporated into MOS 34H, ADMSE Repairer. In 3/85, MOS 34L was reestablished; see exhibit MOS-34L-002).

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on the Automatic Digital Message Switching (ADMS) peripheral equipment. *Skill Level 20:* Performs maintenance on ADMS peripheral equipment, including punched card subsystem, card reader, high speed printer subsystem, magnetic tape subsystem, and Systems Command Terminal; interprets technical manuals and schematic diagrams; uses specialized test equipment, including multimeters, oscilloscopes, tube- and transistor-checkers, and pulse generators; performs preventive and routine maintenance on electrical devices, electronic circuit components, and electromechanical apparatus; keeps maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs periodic and emergency inspections and adjustments; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on ADMS peripheral equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic circuit applications, 3 in electromechanical devices and systems, 2 in basic mathematics, 2 in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, 1 in instrument applications, and 1 in logic and digital principles. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in industrial arts, 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34L-002

Field Artillery Digital Systems Repairer

34L10
34L20
34L30

Exhibit Dates: 3/85-7/86. (Effective 7/86, MOS 34L was redesignated MOS 39L; see exhibit MOS-39L-001.)

Career Management Field: 74 (Automatic Data Processing).

Description

Summary: Performs and supervises intermediate maintenance on gun, rocket and missile fire control, directional, digital computer systems, meteorological computers, motor fire control calculations, remotely piloted vehicle control stations and peripheral equipment. *Skill Level 10:* Operates and performs intermediate level maintenance on digital fire control systems and peripheral support equipment; fault detection and correction is at the board level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; uses knowledge of digital electronics and computer system concepts to isolate and correct complex problems; keeps records on maintenance procedures; supervises Skill Level 10 personnel; conducts on-the-job training; oversees installation of modifications on equipment; plans and recommends establishment of procedures for receipt, storage, inspection, testing, and repair of components. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation and maintenance performed by subordinate personnel; prepares work schedules and coordinates overall activities; conducts training and counseling sessions.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in personnel supervision, and 3 in maintenance management (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in principles of supervision, 3 in maintenance management, and 3 in communication skills (oral and written) (6/89).

MOS-34M-001

SDS 920 Equipment Repairman

34M20
34M30
34M40

Exhibit Dates: 9/75-2/77. (Effective 3/77, MOS 34M was discontinued.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Summary: Supervises or performs maintenance on SDS 920 computer, including peripheral equipment and auxiliary units. *Skill Level 20:* Interprets schematic diagrams and maintenance manuals in determining the nature, location, and extent of malfunctions in either electrical or mechanical equipment; uses specialized test equipment, including multimeters, oscilloscopes, transistor- and tube-checkers, and pulse generators; performs inspections, adjustments, repairs, and modifications from technical manuals. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs periodic and emergency inspections of systems and peripheral equipment; may supervise Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs or supervises maintenance on SDS 920 computer systems.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic circuit applications, 3 in electromechanical devices and systems, 2 in basic mathematics, 2 in basic electronics theory, 2 in basic electronics laboratory, 2 in amplifier devices, 1 in instrument applications, and 1 in logic and digital principles. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in industrial arts. In an office machine repair apprentice training program, 2,000 clock hours of experience and 100 contact hours of related instruction; in a computer technician apprentice training program, 1,500 clock hours of experience and 78 contact hours of related instruction; in an electronic technician (certified) apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. May meet employer standards to qualify as a product test technician in the electronic/electrical manufacturing industry (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in industrial arts, and 3 in human relations, and additional credit in personnel supervision and maintenance management on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for Skill Level 20 because additional skills are administrative and supervisory in nature (6/76).

MOS-34T-001

TACTICAL COMPUTER SYSTEMS REPAIRER

34T10
34T20
34T30
34T40

Exhibit Dates: 9/85-9/87. (Effective 9/87, MOS 34T was discontinued and its duties were incorporated into MOS 39T (Tactical Computer Systems Repairer.)

Career Management Field: 74 (Automatic Data Processing).

Description

Summary: Performs and supervises maintenance on tactical data communications/computer systems. *Skill Level 10:* Prepares and updates maintenance forms and requests; utilizes test equipment, diagnostic programs and manuals to isolate faults; replaces faulty modules; verifies status of equipment; checks for proper operation of all equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes and interprets circuit diagrams, logic diagrams, and other technical literature; provides technical guidance to lower skill level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; counsels, evaluates, and supervises lower skill level personnel; plans and supervises on-the-job training; advises personnel, supervisors, and commanders on operational matters.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in computer system repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in computer system repair and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in computer system repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 4 semester hours in computer system repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (7/87).

MOS-34Y-001

FIELD ARTILLERY TACTICAL FIRE DIRECTION SYSTEMS REPAIRER (FIELD ARTILLERY COMPUTER REPAIRER)

34Y10
34Y20
34Y30

Exhibit Dates: 9/81-9/87. (Effective 9/87, MOS 34Y was redesignated MOS 39Y; see exhibit MOS-39Y-001.)

Career Management Field: 74 (Automatic Data Processing).

Description

Summary: Performs direct and general support maintenance on field artillery tactical fire direction systems, variable format entry devices, and related test equipment. *Skill Level 10:* Makes detailed tests through stages of equipment using voltmeters, ohmmeters, oscilloscopes, logic probes and other test equipment to localize and isolate malfunctions; replaces faulty components at the integrated circuit board level; may replace resistors, capacitors, integrated circuits, and other discrete components in emergency situations; maintains tools and test equipment; test-operates computer controlled system; checks and maintains electromechanical subsystems including motors, generators, servos and mechanical actuators; interprets complex block diagrams, schematics, and technical manuals. *Skill Level 20:* Able to perform the duties required for Skill Level 10; checks maintenance performed by Skill Level 10 personnel; inspects systems for wear and possible future problem areas; supervises system repair contact team; interfaces with system users to identify cause of malfunctions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; has complete responsibility for supervising a multi-million dollar maintenance van; directs and coordinates the activities of 5 to 10 subordinate personnel; performs performance appraisals; conducts on-the-job training; establishes work priorities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit diagnosis and 3 in computer system maintenance and repair (11/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in circuit diagnosis, 6 in computer system maintenance and repair, 3 in recordkeeping, and 1 in personnel supervision (11/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in circuit diagnosis, 6 in computer system maintenance and repair, 3 in recordkeeping, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/85).

MOS-34Z-001

ADPS (AUTOMATIC DATA PROCESSING SYSTEMS) MAINTENANCE SUPERVISOR

34Z50

Exhibit Dates: 9/75-8/87. (Effective 9/87, MOS 34Z was discontinued and its functions were incorporated into MOS 39X, Electronics Maintenance Chief and MOS 29Z, Communications Electronics Maintenance Chief.)

Career Management Field: 74 (Automatic Data Processing), subfield 742 (Data Processing Equipment Maintenance).

Description

Skill Level 50: Supervises Skill Level 40 personnel in subfield 742 (data processing equipment maintenance); supervises automatic data processing (ADP) maintenance activities; diagnoses and evaluates complex malfunctions; determines length of time, tools, and parts required to repair malfunctioning computer or related equipment; provides technical guidance to subordinate personnel and to superiors; evaluates quality of maintenance work, corrects faulty work practices, and instructs maintenance personnel in proper work procedures; may serve as a chief instructor at a formal training facility. NOTE: May have progressed to 34Z50 from any MOS in subfield 742.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in industrial arts education, and 3 for field experience in management, and 3 additional semester hours for field experience in management on the basis of institutional evaluation; if the duty assignment was chief instructor, 3 semester hours for an internship in education. NOTE: Consult the exhibits for previously held MOS's for credit recommended for automatic data processing equipment maintenance (6/76).

MOS-35B-001

ELECTRONIC INSTRUMENT REPAIRMAN

35B20
35B30
35B40

Exhibit Dates: 10/73-4/77.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 351 (Instrument Calibration and Maintenance).

Description

Summary: Performs maintenance calibration and support maintenance on radiation detectors, lie detectors, and electrical/electronic measuring and test equipment. *Skill Level 20:* Performs checks to detect malfunction or nonfunction of instruments and extent of maintenance required; disassembles, repairs, and retests instruments; uses common and specialized hand tools, measuring instruments, and testing devices; performs basic Ohm's law computations; interprets schematic and wiring diagrams. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs detailed testing on and repairs advanced electronic test equipment, including pulse scopes, digital frequency counters, spectrum analyzers, microwave/radar test equipment, differential and digital voltmeters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises repair and maintenance calibration of electronic test equipment; instructs subordinates in support maintenance procedures; schedules repair operations; keeps records; maintains a supply of spare parts; prepares administrative and technical reports; diagnoses unusual cases of malfunction or nonfunction; supervises a minimum of eight persons.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in instrumentation laboratory or electronic maintenance, and 6 in introductory electricity/electronics. In the lower-division baccalaureate/associate degree category, 6 semester hours in introductory electricity/electronics, and credit in instrumentation laboratory or electronic maintenance on the basis of institutional evaluation. In an electronic instrument repairman apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in instrumentation laboratory or electronic maintenance, and 3 in electronic troubleshooting. In the lower-division baccalaureate/associate degree category, 6 semester hours in electricity/electronics, and credit in instrumentation laboratory or electronic maintenance on the basis of institutional evaluation. In an electronic instrument repairman apprentice training program, 3,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in instrument laboratory or electronic maintenance, and 3 in electronics troubleshooting. In the lower-division baccalaureate/associate degree category, 6 semester hours in introductory electricity/electronics, 3 in personnel management practicum, and credit in instrumentation laboratory or electronic maintenance on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in maintenance management, and credit in industrial arts and for a practicum in business management on the basis of institutional evaluation. In an electronic instrument repairman apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (2/75).

MOS-35B-002

ELECTRONIC INSTRUMENT REPAIRMAN

35B20
35B30
35B40

Exhibit Dates: 5/77–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 351 (Instrument Calibration and Maintenance).

Description

Summary: Performs maintenance, repair, and calibration of radiac instruments, polygraph equipment, and electrical/electronic measuring and test equipment. *Skill Level 20:* Tests instruments and equipment to determine cause of malfunction; dismantles assemblies to inspect, remove, and replace components; repairs circuit wiring; performs calibration and final test of repaired equipment to comply with technical manual instructions, manufacturers' specifications, or equipment standards; tests electrical/electronic equipment, including ammeters, voltmeters, vacuum tube voltmeters, signal generators, tube and transistor testers, oscilloscopes, frequency meters and counters; uses common and specialized hand tools, measuring instruments, and testing devices; performs basic Ohm's law computations; interprets schematic and wiring diagrams; tests, troubleshoots, repairs, and adjusts radiac instruments to specified tolerances. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs detailed tests on and repairs advanced electronic test equipment, including pulse scopes, digital frequency counters, precision frequency meters, spectrum analyzers, panoramic indicators, microwave/radar test equipment, summation bridges, differential and digital voltmeters; performs final testing and calibration. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a minumum of 8 subordinates engaged in the repair and calibration of electronic test equipment; diagnoses unusual causes of malfunction; assigns personnel to specific duties; demonstrates proper maintenance procedures, practices, and techniques; plans and schedules repair, maintenance calibration, and certification of equipment; keeps equipment records; inventories and requisitions parts and supplies; establishes files of technical publications; prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in introductory electricity/electronics, 3 in technical mathematics, and 3 in instrumentation laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in transistor theory, and 2 in technical mathematics, and additional credit in instrumentation on the basis of institutional evaluation. In an electronic instrument repairman apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (5/77).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in electricity/electronics, 6 in instrumentation laboratory, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in transistor theory, 3 in instrumentation laboratory, and 2 in technical mathematics. In an electronic instrument repairman apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction (5/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in electricity/electronics, 6 in instrumentation laboratory, 3 in technical mathematics, 3 in electronics troubleshooting, and 1 in use of technical publications. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 3 in transistor theory, 3 in instrumentation laboratory, 2 in technical mathematics, 3 in human relations, 3 in personnel supervision, 2 in recordkeeping, and 1 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in maintenance management and additional credit in industrial arts and for field experience in management on the basis of institutional evaluation. In an electronic instrument repairman apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (5/77).

MOS-35B-003

ELECTRONIC INSTRUMENT REPAIRER

35B10
35B20
35B30
35B40

Exhibit Dates: 3/78–8/83. (Effective 9/83, MOS 35B was discontinued and its functions were incorporated into MOS 35H, Calibration Specialist.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs maintenance, repair, and calibration of radiac instruments, polygraph equipment, and electrical/electronic measuring and test equipment. *Skill Level 10:* Performs maintenance, repair, calibration, and testing of electrical and electronic test measuring and diagnostic equipment; troubleshoots equipment; dismantles equipment to inspect, remove, and replace components; repairs circuit wiring; adjusts, aligns, and performs maintenance calibration of repaired equipment using vacuum tube voltmeters, multimeters, signal generators, oscilloscopes, frequency meters, and counters; uses common and specialized tools; performs basic Ohm's law computations; interprets schematics and wiring diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs maintenance on test measuring diagnostic equipment; provides technical guidance to Skill Level 10 personnel; utilizes electronic equipment in electronic maintenance vans and computer automatic test equipment; inspects, troubleshoots, repairs, calibrates test sets in support of telephone, telegraph, teletype, microwave, radar, radio/carrier, and avionics equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs detailed tests on and repairs advanced electronic test equipment, including pulse scopes, digital frequency counters, precision frequency meters, spectrum analyzers, panoramic indicators, microwave/radar test equipment, summation bridges, differential and digital voltmeters; performs final testing and calibration; inspects and checks maintenance performed for adequacy and suitability; establishes production and quality control procedures; requisitions parts and supplies; maintains records, references, and reports; keeps equipment records; establishes files of technical literature; assigns duties. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises from 5-9 lower skill level personnel; plans and schedules repairs; supervises overall repair functions; instructs personnel in maintenance procedures, practices, and techniques; prepares administrative and technical reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in technical mathematics, and 3 in instrument laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory and 3 in instrument laboratory (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in technical mathematics, 3 in instrument laboratory, and 3 in transistor theory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 2 in technical mathematics, 3 in instrument laboratory, and 3 in basic electronics (10/79).

Recommendation, Skill Level 30
In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 2 in technical mathematics, 3 in instrument laboratory, 3 in basic electronics, and 3 in human relations (10/79).

Recommendation, Skill Level 40
In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC theory, 2 in technical mathematics, 3 in instrument laboratory, 3 in basic electronics, 3 in human relations, 3 in personnel supervision, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/79).

MOS-35C-001

Automatic Test Equipment Repairer

35C10
35C20
35C30

Exhibit Dates: 3/82–6/86. (Effective 7/86, MOS 35C was discontinued and its functions were incorporated into MOS 39B, Automatic Test Equipment Operator Maintainer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description
Summary: Supervises, operates, maintains, and performs maintenance on automatic test equipment. *Skill Level 10:* Repairs electronic equipment such as printed circuit boards and modules; uses schematic diagrams and logic plots; uses specialized tools; requisitions replacement parts and completes necessary records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates and performs organizational maintenance on the automatic test facility; operates test facility and performs test set-up of the equipment being tested; performs measurements and adjustments on the tested equipment as indicated by computer readout; operates the computing facility associated with the automatic tester; completes records and performs quality control on the unit under test; repairs automatic tester by replacement of faulty assembly or printed circuit boards. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation and maintenance of automatic electronic test equipment; provides technical guidance to lower-skill-level personnel; coordinates maintenance activities with other units; assigns duties; troubleshoots and repairs computer and peripheral equipment; uses schematic, logic, and signal flow diagrams; inspects overall maintenance activities and insures quality performance; maintains records and writes required reports; establishes and maintains technical library and insures proper maintenance of supply.

Recommendation, Skill Level 10
In the vocational certificate category, 3 semester hours in basic electronic shop procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics (2/84).

Recommendation, Skill Level 20
In the vocational certificate category, 3 semester hours in electronic shop procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in automatic diagnostic procedures (2/84).

Recommendation, Skill Level 30
In the vocational certificate category, 3 semester hours in electronic shop procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in automatic diagnostic procedures, and 3 in personnel supervision (2/84).

MOS-35D-001

Meteorological Equipment Repairman

35D20
35D30

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 35D was discontinued and its functions were incorporated into MOS 26B, Weapons Support Radar Repairer; MOS 35E, Special Electrical Devices Repairer; and MOS 93F, Field Artillery Meteorological Crewman.)

Career Management Field: 00 (Exceptional Management Specialities), subfield 000 (Special Assignment).

Description
Summary: Performs maintenance on electrical, electronic, and electro-mechanical weather equipment employed in meteorological units. *Skill Level 20:* Performs operational maintenance; assists in siting and operating meteorological equipment; keeps test and maintenance records; assists in maintaining proper supply levels of spare parts and expendable supplies; repairs circuit wiring; traces circuit continuity to identify malfunctions; troubleshoots such items as radiosonde, radio direction finder, radiosonde recorder, and frequency standard. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs direct and general support maintenance on electronic and electrical meteorological equipment; troubleshoots and repairs equipment such as barometric pressure, temperature, and wind measuring and recording instruments; inspects repairs and determines the adequacy of maintenance performed. NOTE: May progress from 35D30 to 35H50 (Calibration Specialist).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics, 4 in fundamentals of DC and AC electrical circuits, and 3 in electrical and electronic laboratory (11/75).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 5 semester hours in basic electronics, 4 in DC and AC electrical circuits, 3 in electrical and electronic laboratory, 3 in technical report writing, 3 in electronic circuits, and 3 in electronic tests and measurements (11/75).

MOS-35E-001

Special Electrical Devices Repairman

35E20
35E30
35E40

Exhibit Dates: 10/73–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 352 (Electrical/Electronic Devices Maintenance).

Description
Summary: Performs complex maintenance procedures on specialized electrical and electronic measurement equipment; assists with maintenance of electro-optical vision equipment and detection equipment; applies schematic tracing skills and basic electronics theory in troubleshooting malfunctions; performs repairs, replacements, or modifications in compliance with technical manuals; uses specialized tools and test equipment in diagnosing symptoms and in locating problems in circuits down to discrete electrical components; regularly updates maintenance manual, records, and supply stock. *Skill Level 20:* Performs maintenance on electronic orientation, surveillance, measurement, vision, and detection equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may supervise up to 5 persons in a maintenance facility. *Skill Level 40:* Able to perform the duties required for Skill Level 30; possesses advanced knowledge and more varied experience on specialized electrical and electronic equipment; supervises from 10 to 30 persons; prepares technical reports; plans maintenance activities; gives direction and instruction in resolving complex maintenance problems.

Recommendation, Skill Level 20
In the vocational certificate category, 9 semester hours in basic electronics, 3 in industrial electronic instrumentation, and 3 in electro-optics applications or electromechanical applications, 1 in technical mathematics, and 1 in semiconductor theory and applications. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 3 in basic electronics laboratory applications. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (3/76).

Recommendation, Skill Level 30
In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electronics laboratory applications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (3/76).

Recommendation, Skill Level 40
In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electronics laboratory applications, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (3/76).

MOS-35E-002

Special Electronic Devices Repairer

35E10
35E20
35E30

Exhibit Dates: 3/78–9/87. (Effective 9/87, MOS 35E was discontinued and its duties were incorporated into MOS 39E, Special Electronics Device Repairer.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs complex maintenance procedures on specialized electrical and electronic measuring equipment. *Skill Level 10:* Assists with maintenance of electro-optical vision equipment and detection equipment; applies schematic tracing skills and basic electronic theory in troubleshooting malfunctions; performs repairs, replacement, or modifications in compliance with technical manuals; uses specialized tools and test equipment in diagnosing symptoms and in locating problems in circuits down to discrete electrical components; regularly updates maintenance manuals, records, and supply stock; examines, tests, and observes equipment in operation to determine defects; localizes and determines cause of malfunctions; removes and replaces faulty major components, subassemblies and individual parts; uses test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; troubleshoots and repairs faulty equipment; observes and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance on special electrical devices equipment; maintains records, references and reports; prepares technical reports; provides assistance; gives direction and instructions in resolving complex maintenance problems; diagnoses causes of unusual malfunctions; may supervise six or more persons.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in basic electronics, 3 in industrial electronics instrumentation, 3 in electro-optics applications or electromechanical applications, 1 in technical mathematics, and 1 in semiconductor theory. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 3 in basic electronics laboratory applications. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in basic electronics, 3 in industrial electronics instrumentation, 3 in electro-optics applications or electromechanical applications, 1 in technical mathematics, 1 in semiconductor theory, and 2 in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in basic electronics laboratory, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) (10/79).

MOS-35F-001

Nuclear Weapons Electronics Specialist

35F10
35F20

Exhibit Dates: 3/76–9/84. (Effective 9/84, MOS 34F was discontinued and its functions were incorporated into MOS 55G, Nuclear Weapon Maintenance Specialist.)

Career Management Field: 55 (Ammunition).

Description

Summary: Performs maintenance on highly specialized electronic equipment associated with nuclear weapons and nuclear weapons trainers. *Skill Level 10:* Under close supervision of 35F20 personnel, assists in performing maintenance functions using multimeters and electronic hand tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs maintenance, diagnoses malfunctions, replaces defective parts, and test-operates repaired equipment; uses multimeters, oscilloscopes, and electrical/electronic hand tools; interprets schematic diagrams and technical publications; keeps records of work performed.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in basic electricity and 1 in care and use of tools and test equipment. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity, 2 in electrical/electronic troubleshooting, 2 in electrical/electronic maintenance, and 1 in care and use of tools and test equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical/electronics maintenance and 1 in basic electricity. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

MOS-35G-001

Biomedical Equipment Repairman
(Medical Equipment Repairman)

35G20

Exhibit Dates: 10/74–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 354 (Medical Equipment Maintenance).

Description

Skill Level 20: Performs routine maintenance on non-complex medical equipment, including electrical-electronic, mechanical, and optical equipment; repairs and installs mechanical equipment including sterilizers, stills, anesthesia apparatus, resuscitators, dental operating units, operating tables and lamps, food carts, hospital beds, etc., dismantles and cleans equipment; checks for wear and repairs simple mechanical and electrical defects; installs water, air, and steam lines and tests for leakage and fit; uses volt-ohm-milliameter.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical equipment maintenance, 2 in shop operations (procedures), and 1 in basic electricity laboratory (5/76).

MOS-35G-002

Biomedical Equipment Repairer

35G10
35G20

Exhibit Dates: 3/78–2/80.

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Performs routine maintenance on non-complex medical equipment. *Skill Level 10:* Performs routine maintenance on electrical-electronic, mechanical, and optical equipment; repairs and installs mechanical medical equipment, including sterilizers, stills, anesthesia apparatus, resuscitators, dental operating units, operating tables and lamps, food carts, hospital beds, etc.; dismantles and cleans equipment; installs water, air, and steam lines; performs routine tests on medical equipment to determine leakage currents and calibration. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in DC and AC circuit fundamentals, 6 in theory of operation and troubleshooting medical equipment, and 2 in shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in medical equipment maintenance and repair and 2 in shop practices (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in DC and AC circuit fundamentals, 6 in theory of operation and troubleshooting medical equipment, and 2 in shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in medical equipment maintenance and repair and 2 in shop practices (11/79).

MOS-35G-003

Biomedical Equipment Specialist,
Basic

35G10
35G20

Exhibit Dates: 3/80–Present.

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Performs routine maintenance on medical equipment. *Skill Level 10:* Performs routine maintenance and repair on electrical, analog and digital electronic, mechanical, and optical equipment; repairs and installs mechanical medical equipment, including sterilizers, stills, anesthesia apparatus, resuscitators, dental operating units, operating tables and lamps, food carts, hospital beds, etc.; dismantles and cleans equipment; installs water, air, and steam lines;

performs routine tests on medical equipment to determine leakage currents and calibration. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in DC and AC circuit fundamentals, 6 in theory of operation and troubleshooting medical equipment, and 2 in shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in medical equipment maintenance and repair and 2 in shop practices (10/82).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in DC and AC circuit fundamentals, 6 in theory of operation and troubleshooting medical equipment, and 2 in shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in medical equipment maintenance and repair and 2 in shop practices (10/82).

MOS-35H-001

Calibration Specialist

35H20
35H40
35H50

Exhibit Dates: 10/73-2/75.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 351 (Instrument Calibration and Maintenance).

Description

Summary: Performs complex calibration procedures at secondary reference or transfer reference level on electrical, electronic, pressure, vacuum, hydraulic, and mechanical test and measuring instruments and devices; performs linear measurements in all aspects of metrology; compares standards of measurement and references; performs minor electronic maintenance; checks and evaluates condition of equipment. *Skill Level 20:* Calibrates transfer standards to reference standards; checks and adjusts secondary standards for calibration against primary standards; calibrates test and system support equipment within design accuracy; computes voltage, current, and resistance factors; evaluates condition of test and measuring equipment and makes minor repairs. *Skill Level 40:* Able to perform the duties required for Skill Level 20; competent in error analysis; diagnoses unusual malfunctions of sophisticated equipment; performs complex calibration procedures; plans calibration loops and performs final check-out operations in closing calibration loops; recognizes and adheres to standards of accuracy to which secondary reference standards must be certified; teaches subordinates how to use and interpret calibration procedures. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a first-line supervisor; interprets and initiates changes in company policies; directs and coordinates the administrative activities of the company; supervises subordinates; conducts on-the-job training. NOTE: May have progressed to 35H50 from 35H40, 35B40 (Electronic Instrument Repairman), 35E40 (Special Electrical Devices Repairman), 35U50 (Biomedical Equipment Maintenance Chief), or 35P50 (Avionic Equipment Maintenance Supervisor).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic algebra and trigonometry, 6 in fundamentals of DC and AC electrical circuits, 6 in basic electronics with laboratory, 6 in communication electronics with laboratory, 6 in electronic instrumentation with laboratory, and 6 in laboratory techniques, and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic algebra and trigonometry, 3 in fundamentals of DC and AC electrical circuits, 3 in basic electronics with laboratory, 3 in communication electronics with laboratory, 3 in electronic instrumentation with laboratory, and 3 in laboratory techniques. In the upper-division baccalaureate category, 6 semester hours in industrial arts or technical electives and additional credit on the basis of institutional evaluation. In an electrical instrumentation repairman (communications) apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. In the upper-division baccalaureate category, 3 semester hours in industrial arts or technical electives and additional credit on the basis of institutional evaluation. In an apprentice training program, 5,000 clock hours of experience and 360 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in basic algebra and trigonometry, 6 in fundamentals of DC and AC electrical circuits, 6 in basic electronics with laboratory, 6 in communications electronics with laboratory, 6 in electronic instrumentation with laboratory, 6 in laboratory techniques, and 3 in office management, and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic algebra and trigonometry, 3 in fundamentals of DC and AC electrical circuits, 3 in basic electronics with laboratory, 3 in communication electronics with laboratory, 3 in electronic instrumentation with laboratory, 3 in laboratory techniques, 3 in personnel supervision, and 3 in office management. In the upper-division baccalaureate category, 6 semester hours in industrial arts or technical electives, 3 in personnel management, and 3 for field experience in management or administration, and additional credit in technical areas on the basis of institutional evaluation; and 3 additional semester hours for field experience in education only if the duty assignment was chief instructor. In an electronic instrumentation repairman (communications) apprentice training program, 5,000 clock hours of experience and 360 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

MOS-35H-002

Calibration Specialist

35H20
35H30
35H40
35H50

Exhibit Dates: 3/75-2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 351 (Instrument Calibration and Maintenance).

Description

Summary: Performs complex calibration procedures at secondary reference or transfer reference level on electrical, electronic, pressure, vacuum, hydraulic, and mechanical test and measuring instruments and devices; performs linear measurements in all aspects of metrology; compares standards of measurement and references; performs minor electronic maintenance; checks and evaluates condition of equipment. *Skill Level 20:* Applies knowledge of operational characteristics of tests, measurement, and diagnostic equipment; performs calibration of electronic equipment using secondary transfer standards; must be capable of performing calibrations in all transfer level parameters or measurement, including AC voltage and current, DC voltage and current, resistance, capacitance, inductance, frequency, time interval, rise time, RF power frequency response, distortion, phase, standing wave ratio, attenuation, magnetic field strength, photometric brightness, irradiance, sound pressure, relative humidity, temperature, viscosity, specific gravity, length, gas and liquid flow, mass torque, vacuum, hydraulic pressure, and pneumatic pressure; prepares and affixes calibration certificates, tags, labels and correction charts; recommends changes to calibration procedures and other technical publications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs calibrations using more sophisticated techniques and standards to obtain a much greater degree of precision and accuracy; operates secondary reference standards in a controlled environment and determines specific effect on the measurement process; calibrates all secondary reference standards; prepares technical reports and charts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs check-out operations in closing calibration loop; diagnoses and determines causes of unusual cases of malfunction or nonfunction of electrical and electronic devices; supervises or executes installation and location of equipment; instructs, explains, and interprets technical literature, schematics, specifications, and calibration procedures; organizes technical operations for calibration teams; operates a quality control and production control program for calibration operations and calibration equipment repair. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a first-line supervisor in a calibration laboratory or facility; plans, coordinates, and supervises activities pertaining to training and technical operation of the facility to which assigned; develops and reviews correspondence relating to calibration activities; coordinates the efforts of the technical support elements of a calibration activity in support of the calibration laboratory and teams; prepares interservice/intraservice agreements relative to calibration support. NOTE: May have progressed to 35H50 from 35H40, 35B40 (Electronic Instrument Repairman), 35E40 (Special Electrical Devices Repairman), 35U50 (Biomedical Equipment Maintenance Chief), or 35P50 (Avionic Equipment Maintenance Supervisor).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in electronic instrumentation with laboratory, 6 in basic electronics with laboratory, 5 in technical mathematics, 2 in DC circuit theory, 2 in DC circuit laboratory, 2 in AC circuit theory, and 2 in AC circuit laboratory. In the lower-division baccalaureate/associate degree category, 9 semester hours in electronic instrumentation with laboratory, 6 in basic electronics with laboratory, 5 in technical mathematics, 2 in DC circuit theory, 2 in DC circuit laboratory, 2 in AC circuit theory, and 2 in AC circuit laboratory. In the upper-division baccalaureate category, 3 semester hours in electronic instrumentation fundamentals and 3 in industrial arts education (electronics). In the graduate degree category, credit in instrumentation techniques on the basis of institutional evaluation. In an electrical instrumentation repairman (communications) apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 9 semester hours in electronic instrumentation with laboratory, 6 in basic electronics with laboratory, 5 in technical mathematics, 3 in laboratory techniques, 2 in technical writing, 2 in DC circuit theory, 2 in DC circuit laboratory, 2 in AC circuit theory, 2 in AC circuit laboratory. In the upper-division baccalaureate category, 3 semester hours in electronic instrumentation fundamentals and 3 in industrial arts education (electronics). In the graduate degree category, credit in instrumentation techniques on the basis of institutional evaluation. In an electrical instrumentation repairman (communications) apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 9 semester hours in electronic instrumentation with laboratory, 6 in basic electronics with laboratory, 5 in technical mathematics, 3 in laboratory techniques, 3 in personnel supervision, 3 in human relations, 2 in technical writing, 2 in DC circuit theory, 2 in DC circuit laboratory, 2 in AC circuit theory, and 2 in AC circuit laboratory. In the upper-division baccalaureate category, 6 semester hours in technical electives, 3 in electronic instrumentation fundamentals, and 3 in industrial arts education (electronics). In the graduate degree category, credit in instrumentation techniques on the basis of institutional evaluation. In an electrical instrumentation repairman (communications) apprentice training program, 5,000 clock hours of experience and 360 hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours in technical electives, 3 in electronic instrumentation fundamentals, and 3 in industrial arts education (electronics). In the graduate degree category, credit in instrumentation techniques on the basis of institutional evaluation. In an electrical instrumentation repairman (communications) apprentice training program, 5,000 clock hours of experience and 360 hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/76).

MOS-35H-003

CALIBRATION SPECIALIST

35H10
35H20
35H30
35H40
35H50

Exhibit Dates: 3/78–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Performs calibration and repair duties on all common test, measuring, and diagnostic equipment; performs maintenance on all calibration standards and accessories; performs maintenance on electrical, electronic, pressure, vacuum, hydraulic, and mechanical measuring instruments. *Skill Level 10:* Calibrates and repairs test, measuring, and diagnostic equipment, including meters and other low-level systems; maintains calibration and maintenance records; assists with more advanced repair and calibration procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs crosscheck of low-level calibration standards; maintains records applicable to these and other calibration and maintenance functions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides direct supervision, quality control, technical support and coordination of unit activities; supervises on-the-job training; supervises a calibration team and prepares their work schedule; performs calibration using more sophisticated and accurate standards including the following: flow rate, viscosity, specific gravity, phase, sound pressure level, irradiance, photometric, brightness, magnetic field strength, etc.; performs cross-checks of reference standards and maintains standard levels. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and provides on-the-job training to lower skill level personnel; maintains calibration files to provide historical, production, and scheduling information for control of operations; conducts liaison with supported units to schedule production advice on test, measuring, and diagnostic equipment; provides quality control by sample inspection against standards; previews correspondence and prepares interservice agreements relative to calibration support; establishes schedules; supervises the development and presentation of new equipment and technology training; may supervise four or more personnel, or if duty position is Calibration Operations NCO, may supervise five or more calibration teams. *Skill Level 50:* Able to perform the duties required for Skill Level 40 as principal noncommissioned officer of a calibration facility, performs technical and administrative duties; plans, coordinates, and supervises training and operation activities; prepares correspondence; advises superiors on technical calibration matters; may supervise five or more calibration teams.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in AC/DC circuits, 1 in digital circuits, 1 in solid-state circuits, 1 in communications principles, 2 in instrumentation, 3 in troubleshooting techniques, 2 in physics, and 2 in mathematics (algebra and trigonometry) (5/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in digital circuits, 3 in solid-state circuits, 2 in communications principles, 4 in instrumentation, 6 in troubleshooting techniques, 2 in physics, 2 in mathematics (algebra and trigonometry), and 3 in microwave circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in digital circuits, 3 in solid-state circuits, 2 in communications principles, 4 in instrumentation, 6 in troubleshooting techniques, 2 in physics, 2 in mathematics (algebra and trigonometry), and 3 in microwave circuits (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in digital circuits, 3 in solid-state circuits, 2 in communications principles, 5 in instrumentation, 6 in troubleshooting techniques, 2 in physics, 2 in mathematics (algebra and trigonometry), 3 in microwave circuits, 2 in human relations, 2 in personnel supervision, and 2 in maintenance management (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in digital circuits, 3 in solid-state circuits, 2 in communications principles, 5 in instrumentation, 6 in troubleshooting techniques, 2 in physics, 2 in mathematics (algebra and trigonometry), 3 in microwave circuits, 3 in human relations, 3 in personnel supervision, and 2 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management; if the duty position was calibration operations NCO, 3 additional semester hours in management problems (5/79).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 3 in digital circuits, 3 in solid-state circuits, 2 in communications principles, 5 in instrumentation, 6 in troubleshooting techniques, 2 in physics, 2 in mathematics (algebra and trigonometry), 3 in microwave circuits, 3 in human relations, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (5/79).

MOS-35J-001

AIRCRAFT FIRE CONTROL REPAIRMAN

35J20

35J40

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 35J was discontinued and its functions were incorporated into MOS 68J, Helicopter Missile Systems Repairer, and MOS 68K, Aircraft Components Repair Supervisor.)

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Supervises or performs support maintenance on optical electrical/electronic components of aircraft armament subsystems, printed cards, and systems peculiar to electronic test equipment for all aircraft armament subsystems. *Skill Level 20:* Performs support maintenance on aircraft fire control equipment; interprets electrical/electronic schematics and systems diagrams; employs standard and systems peculiar test equipment to troubleshoot and isolate malfunctions; replaces or adjusts faulty components; performs final checkout; performs support maintenance on test equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 5 or more persons performing maintenance on electrical/electronic aircraft armament fire control subsystems.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in basic electricity. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity and 2 in personnel supervision (11/75).

MOS-35K-001

AVIONICS MECHANIC

35K20

Exhibit Dates: 10/73-8/77.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 353 (Avionics Maintenance).

Description

Skill Level 20: Performs duties comparable to those of a Federal Communications Commission Second Class licensee; troubleshoots and maintains communications, navigation, and flight control systems, and onboard avionics equipment; isolates equipment malfunctions to the component level; reads and interprets electronic circuit diagrams and schematics; plans and schedules maintenance checks; performs maintenance on special and common hand tools and on test, calibration, diagnostic, and support equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical and electronic print reading, 4 in avionics maintenance, and 1 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and electronic print reading and 4 in electronics maintenance or avionics technology. In the upper-division baccalaureate category, 4 semester hours in aviation maintenance management or aviation maintenance engineering technology (2/75).

MOS-35K-002

AVIONIC MECHANIC

35K10

35K20

Exhibit Dates: 9/77-9/89. (Effective 9/89, MOS 35K was discontinued and its functions were incorporated into MOS 68N, Avionic Mechanic.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Performs duties comparable to those of a Federal Communications Commission Second Class licensee; performs maintenance on communications, navigation, and flight control systems, and onboard avionics equipment. *Skill Level 10:* Troubleshoots and isolates equipment malfunctions to the component level; reads and interprets electronic circuit diagrams and schematics; plans and schedules maintenance checks; performs maintenance on special and common hand tools and on test, calibration, diagnostic, and support equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical and electronic print reading, 4 in avionics maintenance, and 1 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and electronic print reading and 4 in electronics maintenance or avionics technology (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In the upper-division baccalaureate category, 4 semester hours in aviation maintenance management (5/78).

MOS-35L-001

AVIONIC COMMUNICATIONS EQUIPMENT REPAIRMAN

35L20

Exhibit Dates: 10/73-8/77.

Career Management Field: 35 (Electrical/Electronic Equipment Maintenance), subfield 353 (Avionics Maintenance).

Description

Skill Level 20: Performs highly complex maintenance procedures on transistorized and vacuum tube avionic radio communications equipment; uses knowledge in basic electronics and schematic tracing to troubleshoot equipment; uses specialized hand tools and test equipment to perform diagnostic tests of malfunctions down to discrete circuit components; tests, aligns, and adjusts equipment to insure maximum operating efficiency; replaces parts, performs repairs, or modifies equipment in compliance with technical manuals and modification orders; assists in the updating of maintenance manuals, records, and supply stock; assists in on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic AC and DC theory, 3 in basic AC and DC laboratory applications, 3 in radio communications theory, 3 in radio communications laboratory, 3 in transmitter/receiver repair, 1 in elementary algebra, 1 in basic amplifier circuit theory, and 1 in instrument applications laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in radio communications theory, 3 in introductory electronics, 1 in basic DC circuit theory, 1 in basic AC circuit theory, 1 in semiconductor theory, and additional credit in electronics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in technical electives. In an electrician apprentice training program, 500 clock hours of experience and 36 contact hours of related instruction (3/76).

MOS-35L-002

AVIONIC COMMUNICATIONS EQUIPMENT REPAIRER

35L10

35L20

Exhibit Dates: 9/77-9/89. (Effective 9/89, MOS 35L was discontinued and its functions were incorporated into MOS 68L, Avionic Communications Equipment Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Performs duties comparable to those of a Federal Communications Commission Second Class licensee; performs maintenance on avionic communications equipment. *Skill Level 10:* Troubleshoots and isolates equipment malfunctions to the component level; reads and interprets electronic circuit diagrams and schematics; plans and schedules maintenance checks; performs maintenance on special and common hand tools and test, calibration, diagnostic, and support equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; repairs faulty printed circuit boards; maintains equipment records, authorized spare parts, supply stock, and technical literature.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical and electronic print reading, 4 in avionics maintenance, and 1 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and electronic print reading and 4 in electronics maintenance or avionics technology (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill

Level 10. In the upper-division baccalaureate category, 4 semester hours in aviation maintenance management (5/78).

MOS-35M-001

Avionic Navigation Equipment
Repairman

35M20

Exhibit Dates: 10/73–8/77.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 353 (Avionics Maintenance.

Description

Skill Level 20: Performs preventive maintenance and repair to the component level on such items as marker beacons, radio direction finders, VOR and glidescopes, omnirange receivers, position fixers, airborne TACAN, and ground beacons; locates and diagnoses causes of equipment malfunction or nonfunction with common and specialized handtools and test equipment; determines repair procedures; interprets schematic diagrams and technical literature; traces circuitry; tests, aligns, and adjusts equipment to insure maximum operating efficiency; replaces faulty assemblies and components; test-operates repaired equipment for proper functioning; alters or modifies equipment using prescribed procedures; performs preventive maintenance on tools and test equipment; inspects completed work for accuracy and completeness; keeps maintenance records and completes supply forms.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 6 in avionic instrumentation, 3 in basic AC/DC theory, 3 in basic AC/DC laboratory applications, 2 in systems maintenance and repair, and 1 in elementary algebra. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 2 in electronic systems, 1 in DC circuit analysis, 1 in AC circuit analysis, 1 in electronic devices, 1 in instrumentation, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in technical electives. In an electrician apprentice training program, 500 clock hours of experience and 36 contact hours of related instruction (3/76).

MOS-35M-002

Avionic Navigation and Flight
Control Equipment Repairer

35M10

35M20

Exhibit Dates: 9/77–9/89. (Effective 9/89, MOS 35M was discontinued and its functions were incorporated into MOS 68Q, Avionic Flight Systems Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Performs preventive maintenance on avionic navigation and flight control equipment, including marker beacons, radio direction finders, VOR and glidescope receivers, automatic flight control, stability augmentation, automatic stabilization, radar altimeter, aircraft magnetic compass and altitude-heading equipment. *Skill Level 10:* Localizes and diagnoses causes of equipment malfunction or nonfunction with common and specialized hand tools and test equipment; replaces fuses, burned-out lamps, test equipment batteries, worn cords, cables, and other faulty components or individual parts; traces circuitry; tests, aligns, and adjusts equipment to insure maximum operating efficiency; test-operates repaired equipment for proper functioning; alters or modifies material in accordance with modification work orders and prescribed procedures; schedules and performs operator maintenance on tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; repairs faulty printed circuit boards; maintains equipment records, authorized spare parts, supply stock, and technical literature.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in basic electronics, 6 in avionic instrumentation, 3 in basic AC/DC electronics theory, 3 in basic AC/DC electronics laboratory applications, and 2 in systems maintenance and repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 1 in DC circuit analysis, 1 in AC circuit analysis, 2 in electronic systems, 1 in electronic devices, 1 in instrumentation, and credit in technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a technical elective (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In the upper-division baccalaureate category, 3 semester hours for a technical elective and 4 in aviation maintenance management (5/78).

MOS-35N-001

Avionic Flight Control Equipment
Repairman

35N20

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 35N was discontinued and its functions were incorporated into MOS 35M, Avionic Navigation and Flight Control Equipment Repairer, and MOS 35P, Avionic Equipment Maintenance Supervisor.)

Career Management Field: 35 (Electrical/Electronic Equipment Maintenance), subfield 353 (Avionics Maintenance).

Description

Skill Level 20: Performs complex maintenance procedures on avionic flight systems, such as automatic flight control, stability augmentation, aircraft magnetic compass, and computer-assist navigational equipment; troubleshoots equipment using concepts in basic electronics, electromechanical devices, and schematic tracing; uses specialized handtools and test equipment to perform diagnostic tests of malfunctions down to discrete circuit components; tests, aligns, and adjusts equipment to insure maximum operating efficiency; replaces parts and performs repairs or modifications on equipment in accordance with specified standards; assists in the updating of maintenance manuals, records, and supply stock; assists in on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 3 in radio frequency circuit analysis, 3 in radio frequency circuit laboratory applications, 3 in basic AC/DC theory, 3 in basic AC/DC laboratory applications, 2 in electromechanical systems, 1 in elementary algebra, 1 in basic amplifier circuit concepts, and 1 in instrument applications laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics theory, 3 in basic electronics laboratory applications, 2 in electronic circuits and systems, 1 in elementary algebra, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) or in technical electives. In an electrician apprentice training program, 500 clock hours of experience and 36 contact hours of related instruction (3/76).

MOS-35P-001

Avionic Equipment Maintenance
Supervisor

35P40

35P50

Exhibit Dates: 10/73–8/77.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 353 (Avionics Maintenance).

Description

Summary: Supervises the maintenance of avionic equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20 of at least one of the following MOS's: 35K (Avionics Mechanic), 35L (Avionic Communications Equipment Repairman), 35M (Avionic Navigation Equipment Repairman), 35N (Avionic Flight Control Equipment Repairman), 35R (Avionic Radar Equipment Repairman); assists in the diagnosis of complex malfunctions; inspects and checks maintenance work for adequacy and suitability; implements quality and production control procedures; assigns duties to personnel; instructs in maintenance practices, procedures, and techniques; conducts on-the-job training; assists in complex equipment modification. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises, administers, and coordinates all avionic maintenance activities for 30 or more mechanics and repairmen; plans and schedules maintenance; keeps equipment records; requisitions spare parts and supplies; reviews and takes appropriate action on all technical information and directives; provides technical advice.

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in maintenance supervision and 3 in advanced electronics systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communication devices, 3 in personnel supervision, and 3 in human relations (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in shop management, and 3 in introduction to management (3/76).

MOS-35P-002

AVIONIC EQUIPMENT MAINTENANCE SUPERVISOR

35P30

35P40

35P50

Exhibit Dates: 9/77–9/89. (Effective 9/89, MOS 35P was discontinued and its functions were incorporated into MOS's 68N, 68L, 68P, 68Q, 68R, and 67Z.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Supervises maintenance of aviation communications equipment and electrical/electronic systems equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of at least one of the following MOS's: 35K (Avionic Mechanic), 35L (Avionic Communications Equipment Repairer), 35M (Avionic Navigation/Flight Control Equipment Repairer), or 35R (Avionic Special Equipment Repairer); assists in the diagnosis of complex malfunctions; inspects and checks maintenance work for adequacy; implements quality and production control procedures; assigns duties to personnel; instructs in maintenance practices, procedures, and techniques; conducts on-the-job training; assists in complex equipment modifications; supervises from 5-10 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of at least one of the following MOS's: 35P, 26D (Ground Control Approach Radar Repairer), 26E (Aerial Surveillance Sensor Repairer), 26K (Aerial Electronic Warning/Defense Equipment Repairer), or 26M (Aerial Surveillance Radar Repairer); supervises, administers and coordinates aviation communications and electrical/electronic systems equipment maintenance activities; plans and schedules maintenance; supervises the maintenance of equipment records and the requisition of spare parts and supplies; supervises from 8-29 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises, administers, and coordinates all avionic maintenance activities for 30 or more mechanics and repairers; assists in preparation of plans, policies, and procedures for maintenance operations; applies production, quality control, and other maintenance management principles and procedures.

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in advanced electronics systems and 3 in maintenance supervision. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications, 3 in personnel supervision, 3 in human relations, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in shop management, and 3 in introduction to management (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 6 semester hour for field experience in management, 3 in shop management, and 3 in introduction to management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in shop management, and 3 in introduction to management (5/78).

MOS-35R-001

AVIONIC RADAR EQUIPMENT REPAIRMAN

35R20

Exhibit Dates: 10/73–8/77.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 353 (Avionics Maintenance).

Description

Skill Level 20: Inspects, tests, and performs preventive maintenance and repair to the module and component level on items such as radar altimeters, terrain following/avoidance radars, doppler navigation radars, and station-keeping radars; test-operates malfunctioning equipment; refers to circuit diagrams; performs detailed tests using voltmeters, ohmmeters, signal generators, oscilloscopes, and other test instruments to localize and isolate the faulty stage or component; determines extent of maintenance required; replaces faulty components to include transistors, solid-state devices, electronic switches, resistors, and capacitors; adjusts relays, dials, and controls using common or specialized handtools; cleans components of dust, rust, and foreign matter; test-operates, aligns, and comparison-checks repaired equipment with specialized test equipment; alters or modifies equipment using prescribed procedures; advises superiors about modifications and maintenance changes; keeps tools and test equipment in operating condition; keeps and completes maintenance and supply forms.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics, 6 in basic electronics laboratory applications, 6 in avionics instrumentation, 2 in systems maintenance and repair, and 1 in elementary algebra. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 2 in electronic systems, 1 in DC circuit analysis, 1 in AC circuit analysis, 1 in electronic devices, 1 in instrumentation, 1 in radar systems, and additional credit in electronics and technical mathematics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (electronics) or 3 in technical electives. In an electrician or electronic technician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

MOS-35R-002

AVIONIC SPECIAL EQUIPMENT REPAIRER

35R10

35R20

Exhibit Dates: 9/77–9/89. (Effective 9/89, MOS 35R was discontinued and its functions were incorporated into MOS 68R, Avionic Radar Repairer.)

Career Management Field: 28 (Aviation Communications-Electronics).

Description

Summary: Performs duties comparable to those of a Federal Communications Commission Second Class licensee; performs maintenance on special avionics equipment, including terrain following avoidance radar, doppler navigation radar, weather radar, station keeping radar, and inertial navigation systems. *Skill Level 10:* Troubleshoots and isolates equipment malfunctions to the component level; reads and interprets electronic circuit diagrams and schematics; plans and schedules maintenance checks; performs maintenance on special and common hand tools and on test, calibration, diagnostic, and support equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; repairs faulty printed circuit boards; maintains equipment records, authorized spare parts, supply stock, and technical literature.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical and electronic print reading, 4 in avionics maintenance, and 1 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and electronic print reading and 4 in electronics maintenance or avionics technology (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In the upper-division baccalaureate category, 4 semester hours in aviation maintenance management (5/78).

MOS-35S-001

ELECTRONIC BIOMEDICAL EQUIPMENT REPAIRMAN

35S20

35S40

Exhibit Dates: 10/74–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 354 (Medical Equipment Maintenance).

Description

Summary: Repairs or supervises the repair of complex medical equipment (with the exception of x-ray and ancillary equipment) that functions on the basis of electrical, electronic, hydraulic, pressurized gas, steam, and optical principles. *Skill Level 20:* Able to perform the duties required for Skill Level 20 MOS 35G (Biomedical Equipment Repairman); assembles, inspects, installs, adjusts, lubricates, and test-operates medical equipment, including electrocardiographs, electroencephalographs, patient monitoring systems, pulmonary equipment, short-wave diathermy apparatus, blood cell counters, spectrophotometers, ultrasonic therapy and treatment apparatus, heart-lung machines, and radioisotope monitoring and measuring equipment; troubleshoots faulty equipment using volt-ohm-milliameters, signal generators, oscilloscopes, solid-state testing apparatus, and other test equipment; repairs faulty equipment and insures proper calibration; renders technical advice and assistance to medical personnel as required; prepares and explains operating instructions, circuit diagrams, and technical literature; prepares maintenance forms and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises repair, inspection, and testing of electronic medical equipment; assigns duties to subordinate personnel and instructs them in proper repair procedures and techniques; plans, executes, and evaluates programs to assure workload quality and priorities; prepares reports of unit operations; recommends new or improved procedures for receipt, storage, inspection, testing, repair, and modification of equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in medical equipment repair, 5 in technical mathematics, 3 in AC theory and laboratory, 3 in tube theory and laboratory, 3 in DC theory and laboratory, 3 in transistor theory and laboratory, 3 in instrumentation techniques, 3 in physics, 3 in shop practices, 2 in digital theory and laboratory, 2 in anatomy and physiology, 2 in chemistry, 1 in medical terminology, and 1 in medical equipment safety practices and procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in medical equipment repair, 5 in technical mathematics, 3 in AC theory and laboratory, 3 in tube theory and laboratory, 3 in DC theory and laboratory, 3 in transistor theory and laboratory, 3 in instrumentation techniques, 3 in physics, 3 in shop practices, 2 in digital theory and laboratory, 2 in anatomy and physiology, 2 in chemistry, 1 in medical terminology, and 1 in medical equipment safety practices and procedures. In the upper-division baccalaureate category, credit in biomedical engineering on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in medical equipment repair, 5 in technical mathematics, 3 in tube theory and laboratory, 3 in DC theory and laboratory, 3 in AC theory and laboratory, 3 in transistor theory and laboratory, 3 in instrumentation techniques, 3 in physics, 3 in shop practices, 2 in personnel supervision, 2 in human relations, 2 in digital theory and laboratory, 2 in chemistry, 2 in anatomy and physiology, 2 in maintenance management, 2 in technical report writing, 1 in medical terminology, and 1 in medical equipment safety practices and procedures. In the upper-division baccalaureate category, credit in biomedical engineering on the basis of institutional evaluation (5/76).

MOS-35S-002

ELECTRONIC BIOMEDICAL EQUIPMENT
REPAIRER
35S10
35S20
35S30

Exhibit Dates: 3/78–2/80. (Effective 3/80, MOS 35S was discontinued and its functions were incorporated into MOS 35U, Biomedical Equipment Specialist, Advanced.)

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Repairs or supervises the repair of complex medical equipment (with the exception of x-ray and ancillary equipment) that functions on the basis of electrical, electronic, hydraulic, pressurized gas, steam, and optical principles. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 35G (Biomedical Equipment Repairer); assembles, inspects, installs, adjusts, lubricates, and test-operates medical equipment, including electrocardiographs, electroencephalographs, patient monitoring systems, pulmonary equipment, short-wave diathermy apparatus, blood cell counters, spectrophotometers, ultrasonic therapy and treatment apparatus, heart-lung machines, and radioisotope monitoring and measuring equipment; troubleshoots faulty equipment using volt-ohm-milliameters, signal generators, oscilloscopes, transistor testing apparatus, and other test equipment; repairs faulty equipment and insures proper calibration. *Skill Level 20:* Able to perform the duties required for Skill Level 10; renders technical advice and assistance to medical personnel as required; prepares and explains operating instructions, circuit diagrams, and technical literature; prepares maintenance forms and reports. NOTE: May have progressed to 35S20 from 35S10 or 35G20 (Biomedical Equipment Repairer). *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises repair, inspection, and testing of electronic medical equipment; assigns duties to lower skill level personnel and instructs them in proper repair procedures and techniques; plans, executes, and evaluates programs to assure workload quality and priorities; prepares reports of unit operations; recommends new or improved procedures for receipt, storage, inspection, testing, repair, and modification of equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in medical terminology, 2 in chemistry, 3 in physics, 3 in transistor theory and laboratory, 4 in electronic circuit theory, 4 in instrumentation techniques, 2 in digital theory, 1 in medical equipment safety practices, 4 in medical equipment repair, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronics construction methods, 1 in electrical safety, 4 in medical equipment repair, 3 in electronics shop practices, 4 in instrumentation, 2 in digital theory, and 3 in physics, and an additional 3 semester hours in biomedical instrumentation on the basis of institutional evaluation (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in medical terminology, 2 in chemistry, 3 in physics, 3 in transistor theory and laboratory, 4 in electronic circuit theory, 4 in instrumentation techniques, 2 in digital theory, 1 in medical equipment safety practices, 4 in medical equipment repair, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronics construction methods, 1 in electrical safety, 4 in medical equipment repair, 3 in electronics shop practices, 4 in instrumentation, 2 in digital theory, and 3 in physics, and an additional 3 semester hours in biomedical instrumentation on the basis of institutional evaluation (11/79).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in medical terminology, 2 in chemistry, 3 in physics, 3 in transistor theory and laboratory, 4 in electronic circuit theory, 4 in instrumentation techniques, 2 in digital theory, 1 in medical equipment safety practices, 6 in medical equipment repair, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronics construction methods, 1 in electrical safety, 6 in medical equipment repair, 3 in electronics shop practices, 4 in instrumentation, 2 in digital theory, 3 in physics, 3 in personnel supervision, 2 in human relations, and 2 in technical report writing, and an additional 3 semester hours in biomedical instrumentation on the basis of institutional evaluation (11/79).

MOS-35T-001

X-RAY BIOMEDICAL EQUIPMENT
REPAIRMAN
35T20
35T40

Exhibit Dates: 10/74–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 354 (Medical Equipment Maintenance).

Description

Summary: Repairs all types of medical x-ray equipment which functions on the basis of mechanical, hydraulic, electrical, electronic, solid state, and optical principles. *Skill Level 20:* Able to perform the duties required for Skill Level 20 of MOS 35G (Biomedical Equipment Repairman); inspects, installs, adjusts, maintenance-calibrates, test-operates, rebuilds, and maintains all types of x-ray equipment and ancillary equipment such as rapid film changers, dye contrast injection apparatus, cineradiography, closed-circuit television, and image intensifiers; employs test equipment such as volt-ohm-milliameters, vacuum tube or solid-state voltmeters, digital voltmeters, signal generators, and oscilloscopes to localize malfunction to the component level; determines utility requirements such as water, waste, or electrical lines and outlets for equipment; provides technical advice and assistance to medical personnel as required; prepares and explains operating instructions, circuit diagrams, technical literature, and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assigns duties to subordinate personnel; instructs them in proper repair procedures and techniques; plans, executes, and evaluates programs to assure workload quality and priorities; recommends new or improved procedures for receipt, storage, inspection, testing, repair, and modification of equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in tube theory and laboratory, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 3 in transistor theory and laboratory, 3 in physics, 3 in instrumentation techniques, 3 in shop practices, 2 in digital theory and laboratory, 2 in anatomy and physiology, 2 in chemistry, 1 in medical terminology, and 1 in medical equipment safety practices. In the lower-division baccalaureate/associate degree category, 5 semester hours in technical mathematics, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in tube theory and laboratory, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 3 in transistor theory and laboratory, 3 in physics, 3 in instrumentation techniques, 3 in shop practices, 2 in digital theory and laboratory, 2 in anatomy and physiology, 2 in chemistry, 1 in medical terminology, and 1 in medical equipment safety practices. In the upper-division baccalaureate category and in the graduate degree category, credit in biomedical engineering on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 5 semester hours in technical mathematics, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in tube theory and laboratory, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 3 in transistor theory and laboratory, 3 in physics, 3 in instrumentation techniques, 3 in shop practices, 2 in digital theory and laboratory, 2 in anatomy and physiology, 2 in chemistry, 2 in personnel supervision, 2 in human relations, 2 in technical report writing, 2 in maintenance management, 1 in medical terminology, and 1 in medical equipment safety practices. In the upper division baccalaureate category and in the graduate degree category, credit in biomedical engineering on the basis of institutional evaluation (5/76).

MOS-35T-002

X-Ray Biomedical Equipment Repairer

35T10
35T20
35T30

Exhibit Dates: 3/78–2/80. (Effective 3/80, MOS 34T was discontinued and its functions were incorporated into MOS 35U, Biomedical Equipment Specialist, Advanced.)

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Repairs all types of x-ray equipment, including subsystems based on mechanical, hydraulic, electrical, electronic, and optical principles. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 35G (Biomedical Equipment Repairer); inspects, installs, adjusts, calibrates, tests, and maintains all types of x-ray equipment and ancillary equipment including rapid film changers, dye contrast inspection apparatus, cineradiography, closed circuit television and image intensifiers; uses test equipment including volt-ohm-milliameters, vacuum tube or solid-state voltmeters, digital voltmeters, transistor checkers, signal generators, and oscilloscopes; keeps equipment maintenance records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. NOTE: May have progressed to 35T20 from 35T10 or 35G20 (Biomedical Equipment Repairer). *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns duties; instructs in proper repair procedures; ensures proper maintenance of records; prepares technical and administrative reports pertaining to unit operations; recommends new or improved procedures for receipt, storage, inspection, testing, and repair of equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in physics, 2 in chemistry, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 3 in transistor theory and laboratory, 4 in electronic circuit theory, 4 in instrumentation techniques, 2 in digital theory, 1 in medical equipment safety practices, 4 in x-ray equipment repair, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in electronics laboratory, [illegible] in electrical/electronics construction methods, 1 in electrical safety, 4 in x-ray equipment repair, 3 in electronics shop practices, 4 in instrumentation, 2 in digital theory, and 3 in physics, and an additional 3 semester hours in biomedical instrumentation on the basis of institutional evaluation (11/79).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10.

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in technical mathematics, 3 in physics, 2 in chemistry, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 3 in transistory theory and laboratory, 4 in electronic circuit theory, 4 in instrumentation techniques, 2 in digital theory, 1 in medical equipment safety practices, 6 in x-ray equipment repair, and 3 in electronics shop practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in medical terminology, 3 in DC circuit theory and laboratory, 3 in AC circuit theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronics construction methods, 1 in electrical safety, 6 in x-ray equipment repair, 3 in electronics shop practices, 4 in instrumentation, 2 in digital theory, 3 in physics, 3 in personnel supervision, 2 in human relations, and 2 in technical report writing, and an additional 3 semester hours in biomedical instrumentation on the basis of institutional evaluation (11/79).

MOS-35U-001

Biomedical Equipment Maintenance Chief

35U50

Exhibit Dates: 10/74–2/78.

Career Management Field: 35 (Electrical/Electronic Instrument Maintenance), subfield 354 (Medical Equipment Maintenance).

Description

Skill Level 50: Able to perform the duties required for Skill Level 40 of MOS 35S (Electronic Biomedical Equipment Repairman) or 35T (X-Ray Biomedical Equipment Repairman); serves as a first-line supervisor in a medical equipment maintenance section; supervises all levels of maintenance on all types of medical equipment; plans and lays out medical maintenance facilities; plans workflow, assigns duties, and instructs in maintenance work techniques; makes periodic checks of equipment to determine degree of maintenance effectiveness; establishes and maintains procedures to assure an effective preventive maintenance program for medical equipment; enforces hospital safety directives that apply to medical equipment and associated electronic test equipment; reacts expeditiously to emergency breakdowns of equipment utilized in electrically sensitive patient areas; supervises or assists in establishing reports control system, preparation of equipment maintenance reports, and surveys of medical equipment; provides advice on the advantages of contract maintenance versus in-house maintenance for specific medical systems; advises procurement personnel on function and safety capabilities of technical medical equipment and systems; recommends replacement of medical equipment based upon usage factors and personal experience.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in personnel supervision, 3 in technical report writing, and 3 in shop management. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in industrial arts education (electronics), and additional credit in biomedical engineering on the basis of institutional evaluation. In the graduate degree category, credit in biomedical engineering on the basis of institutional evaluation. NOTE: Award additional credit on the basis of previously assigned MOS–either 35S40 (Electronic Biomedical Equipment Repairman) or 35T40 (X-ray Biomedical Equipment Repairman) (6/76).

MOS-35U-002

Biomedical Equipment Maintenance Chief

35U40
35U50

Exhibit Dates: 3/78–2/80.

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Supervises maintenance on all types of medical equipment. *Skill Level 40:* Able to perform the duties required for MOS 35S (Electronic Biomedical Equipment Repairer) or MOS 35T (X-ray Biomedical Equipment Repairer); establishes procedures for the proper operation and maintenance of biomedical equipment; ensures that all test and measuring equipment is calibrated properly; plans workflow and assigns duties; conducts in-service training programs; establishes maintenance and inventory records; advises and assists superiors in administrative, fiscal, personnel and supply matters; monitors requisitioning, storage, issue, and utilization of supplies and equipment. NOTE: May have progressed to 35U40 from 35S30 (Electronic Biomedical Equipment Repairer) or 35T30 (X-ray Biomedical Equipment Repairer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises medical equipment maintenance operations; writes, develops, and coordinates regulations and policies pertaining to biomedical instrumentation material maintenance programs; provides guidance to subordinate units in the development of annual training programs; determines need for and schedules personnel for attendance at specialized manufacturer's courses; serves as team chief for medical maintenance assistance and instruction teams.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours in human relations, 3 in introduction to management, and 3 in personnel management, and credit in biomedical engineering on the basis of institutional evaluation (11/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in record keeping, 3 in public speaking, and 3 in technical writing. In the upper-division baccalaureate category, 3 semester hours in human relations, 3 in introduction to management, 6 in personnel management, and 6 in industrial arts education (electronics), and credit in biomedical engineering on the basis of institutional evaluation (11/79).

MOS-35U-003

BIOMEDICAL EQUIPMENT SPECIALIST, ADVANCED

35U20
35U30
35U40
35U50

Exhibit Dates: 3/80–Present.

Career Management Field: 91 (Medical), subfield 915 (Biomedical Equipment Repair).

Description

Summary: Provides periodic scheduled service and repairs all types of medical equipment which employ mechanical, hydraulic, high- and low-pressure gas and steam, electrical, electronic, solid state, digital, logic, radiological, and optical principles or supervises biomedical equipment repair functions. *Skill Level 20:* Must be able to perform duties of Biomedical Equipment Specialist, Basic (35G10); provides periodic scheduled service and repairs medical equipment which employ mechanical, hydraulic, high- and low-pressure gas and steam, electrical, electronic, solid state, digital, logic, radiological, and optical principles; develops sequence of operating events from schematic diagrams; unpacks, inspects, inventories, assembles, calibrates, installs, adjusts, cleans, lubricates, repairs, and tests all types of biomedical equipment such as electrocardiographs, electroencephalographs, patient monitoring systems, pulmonary equipment, diathermy apparatus, blood cell counters, spectrophotometers, ultrasonic therapy and treatment apparatus, heart-lung machines, radioisotope monitoring and measuring equipment, and X-ray systems with ancillary equipment such as tables, rapid film changers, dye contrast injection apparatus, automatic film processors, cinerography, closed circuit television, and image intensifiers; utilizes knowledge of electrical/electronic theory, including function of solid state devices, integrated circuits, servo systems, photoelectric cells, instrumentation and automation, digital principles, readout systems, and vacuum, cathode-ray, and X-ray tubes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance and supervision to Skill Level 20 personnel; develops and establishes procedures for operation of biomedical equipment maintenance activity; establishes and maintains procedures to assure effective preventive maintenance program; assures that test diagnostic and measuring equipment is calibrated in conformance with Army calibration program; determines personnel requirements; organizes work schedules; assigns duties; instructs in maintenance techniques; monitors personnel performance; counsels subordinates; prepares evaluation reports; ensures adherence to standards of conduct, cleanliness, technical accuracy, and safety regulations in all areas of activity; prepares and conducts in-service training programs; advises and assists in administrative, fiscal, personnel, and supply matters; advises commander on specific medical systems, including requirement for utilities, and advantages and disadvantages of contract versus in-house maintenance; advises procurement personnel of functional and safety aspects of technical medical equipment and systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises organizational, direct, and general support maintenance of biomedical equipment; organizes and supervises inspection and maintenance teams. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises medical equipment maintenance operations; writes, develops, and coordinates command-wide regulations and policies relating to logistical material maintenance programs; provides technical information and guidance to subordinate units; participates in review and approval of subordinate unit submissions; evaluates unit maintenance programs and institutes methods for upgrading such programs; monitors utilization of medical equipment maintenance personnel and associated material assets of subordinate units; determines need for and schedules personnel for attendance at specialized manufacturers' courses; performs as team chief for medical maintenance assistance and instruction teams.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in technical mathematics, 3 in DC circuits and laboratory, 3 in AC circuits and laboratory, 1 in medical terminology, 3 in physics, 3 in transistor laboratory and theory, 3 in electronic circuit theory, 3 in instrumentation, 2 in digital theory, 1 in medical equipment safety practices, 3 in electronics shop practices, 3 in x-ray equipment repair, and 3 in medical equipment repair. In the lower-division baccalaureate/associate degree category, 1 semester hour in medical terminology, 3 in AC/DC circuits theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronic construction methods, 1 in electrical safety, 3 in instrumentation, 2 in digital theory, 3 in x-ray equipment repair, and 3 in medical equipment repair (10/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in technical mathematics, 3 in DC circuits and laboratory, 3 in AC circuits and laboratory, 1 in medical terminology, 3 in physics, 3 in transistor laboratory and theory, 3 in electronic circuit theory, 3 in instrumentation, 2 in digital theory, 1 in medical equipment safety practices, 3 in electronics shop practices, 6 in x-ray equipment repair, and 6 in medical equipment repair. In the lower-division baccalaureate/associate degree category, 1 semester hour in medical terminology, 3 in AC/DC circuits theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronic construction methods, 1 in electrical safety, 3 in instrumentation, 2 in digital theory, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in personnel supervision, 2 in human relations, and 2 in technical writing (10/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 1 semester hour in medical terminology, 3 in AC/DC circuits theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronic construction methods, 1 in electrical safety, 3 in instrumentation, 2 in digital theory, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in personnel supervision, 2 in human relations, 2 in technical writing, 3 for field experience in management, and 3 in record keeping. In the upper-division baccalaureate category, 3 semester hours in industrial psychology, 3 in introduction to management, and 3 in personnel management (10/82).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 1 semester hour in medical terminology, 3 in AC/DC circuits theory and laboratory, 1 in electronics laboratory, 3 in electrical/electronic construction methods, 1 in electrical safety, 3 in instrumentation, 2 in digital theory, 3 in x-ray equipment repair, 3 in medical equipment repair, 3 in personnel supervision, 2 in human relations, 3 in technical writing, 3 for field experience in management, 3 in recordkeeping, and 3 in public speaking. In the upper-division baccalaureate category, 3 semester hours in industrial psychology, 3 in introduction to management, 6 in personnel management, and 6 in industrial arts education (electronics) (10/82).

MOS-36C-001

TELEPHONE INSTALLER AND LINEMAN (LINEMAN)

36C20
36C40
36C50

Exhibit Dates: 10/73–2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Can identify tools, materials, hardware, and supply nomenclature used in wood pole construction and, to a limited extent, in formal underground systems; climbs and works on wood structures, using tools and techniques compatible with industry practice; has some knowledge of telephone line cable practices; MOS 36C equates directly with the trade classification of installer as used by both the telephone and cable television industries. *Skill Level 20:* Knows line work processes, including safety practices, first aid procedures, and tools and equipment nomenclature; performs maintenance on wood pole lines and, to a limited degree, formal underground systems. *Skill Level 40:* Able to perform the duties required for Skill Level 20; functions as a telephone installer crewleader, supervising from 8 to 32 persons (one to four pole line construction teams); makes routine maintenance checks from a prescribed list; uses some specialized installation and operational techniques; records work and personnel information. NOTE: May have progressed to 36C40 from 36C20 or 36K40 (Tactical Wire Operations Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; could serve as a telephone installer foreman, if this position existed in industry, or as an installer-dispatcher with a large telephone system; installs and repairs cables; follows circuit charts; prepares technical and administrative reports; keeps limited records; supervises training. NOTE: May have progressed to 36C50 from 36C40, 36D40, 36D50 (Antennaman), 36E40 (Cable Splicer), or 36H50 (Dial Central Office Repairman).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen). In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 3 in telephone installation. In a telephone lineman or cable television apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a construction lineman or a utility lineman apprentice training program, 500 clock hours of experience and 30 contact hours of related instruction. In a telephone cable splicer or a network lineman apprentice training program, 250 clock hours of experience and 20 contact hours of related instruction. NOTE: The skills and knowledge of this MOS classification are usually regarded by industry as achieved by a trainee program rather than through formal apprenticeship (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 3 in cable communications systems. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 3 in telephone installation, 2 for field experience in education, and 3 in personnel supervision. In a telephone lineman or a cable television apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a construction lineman or a utility lineman apprentice training program, 500 clock hours of experience and 30 contact hours of related instruction. In a telephone cable splicer or a network lineman apprentice training program, 250 clock hours of experience and 20 contact hours of related instruction. NOTE: The skills and knowledge of this MOS classification are usually regarded by industry as achieved by a trainee program rather than through formal apprenticeship (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 6 in cable communications systems. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 6 in personnel supervision, 4 in telephone installation, and 4 for field experience in education. In a telephone lineman or cable television apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a construction lineman or utility lineman apprentice training program, 500 clock hours of experience and 30 contact hours of related instruction. In a telephone cable splicer or a network lineman apprentice training program, 250 clock hours of experience and 20 contact hours of related instruction. NOTE: The skills and knowledge of this MOS classification are usually regarded by industry as achieved by a trainee program rather than through formal apprenticeship (2/75). In March 1976, 35C50 was reevaluated and the following additional recommendation was made: In the upper-division baccalaureate category, 3 semester hours in introduction to management, 6 for field experience in management, and 3 in human relations; if the duty assignment was first sergeant or operations sergeant at paygrade E-8, 3 additional semester hours in personnel management; and/or if the duty assignment was chief instructor at a formal training facility or chief training NCO at paygrade E-9, 3 additional semester hours for an internship in education (3/76).

MOS-36C-002

WIRE SYSTEMS INSTALLER/OPERATOR

36C10

36C20

36C30

36C40

36C50

Exhibit Dates: 3/78–8/83.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Installs, operates, supervises, and performs operator maintenance on wire and cable communications systems. MOS 35C equates directly with the trade classification of installer as used by both the telephone and cable television industries. *Skill Level 10:* Installs and operates telephones and switchboards; installs, splices, and loads wire and cable circuits; climbs poles to perform cable operations. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises installation, operation, and performance of operator maintenance by subordinate personnel; schedules operator shift personnel, and estimates material needs for tactical communications installations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; coordinates and supervises all phases of wire/cable and distribution systems; assigns working crews and coordinates shift personnel; instructs and assists in training unit personnel; may supervise 7-15 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all phases of wire/cable installation and operations; coordinates shift personnel; prepares reports on installation and maintenance; coordinates and supervises training; may supervise 30 or more persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, monitors, and/or supervises installation, operation, maintenance, and training of personnel for wire and cable communications systems; may serve as principal noncommissioned officer; could serve as a telephone installer foreman, if this position existed in industry, or as an installer-dispatcher with a large telephone system.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen). In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 3 in telephone installation (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 3 in cable communications systems. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 3 in telephone installation, and 2 in personnel supervision (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 3 in telephone installation, and 3 in personnel supervision (10/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 3 in telephone installation, 3 in personnel supervision, and 2 in instructional techniques. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in introduction to management (10/79).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen) and 6 in cable communications systems. In the lower-division baccalaureate/associate degree category, 6 semester hours in pole and line construction (for radio and television broadcasting, telephone, and telegraph linemen), 6 in personnel supervision, 4 in telephone installation, and 4 in instruction techniques. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in human relations; if the duty assignment was first sergeant or wire systems operations sergeant, 3 additional semester hours in personnel management (10/79).

MOS-36C-003

Wire System Installer

36C10
36C20
36C30
36C40

Exhibit Dates: 9/83–9/87. (Effective 9/87, MOS 36C was discontinued and its functions were incorporated into MOS 31Y, Communications Systems Supervisor and MOS 31L, Wire Systems Installer.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Performs or supervises the installation, operation, and maintenance of wire and cable communication systems, and auxiliary equipment; operates a variety of heavy construction equipment. *Skill Level 10:* Installs, operates, and performs operator maintenance on wire and cable systems, including auxiliary equipment; climbs poles; clears and maintains rights of way; assists in the construction of tactical wire/cable and pole lines; operates construction equipment; maintains and tests cable communication system using a variety of test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; coordinates and supervises team member activities in construction, installation, and maintenance of wire/cable systems; coordinates logistic requirements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and coordinates all phases of construction, installation, and maintenance of wire/cable systems; schedules workload; estimates time, supplies, personnel, and equipment requirements; checks maintenance performed by lower-skill-level personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all phases of wire and cable communication system construction, installation, operation, and maintenance performed by lower-skill-level personnel; plans and conducts training and prepares all required reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic testing procedures (2/84).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic testing procedures and 3 in construction technology/heavy equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction technology/heavy equipment and 3 in personnel supervision (2/84).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic testing procedures and 3 in construction technology/heavy equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction technology/heavy equipment, 3 in personnel supervision, and 3 in plant management (2/84).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic testing procedures and 3 in construction technology/heavy equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction/heavy equipment, 3 in personnel supervision, 3 in plant management, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/84).

MOS-36D-001

Antennaman

36D20
36D40
36D50

Exhibit Dates: 3/74–2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Erects, anchors, and braces antenna towers complete with electrically controlled directional or fixed antennas; makes electrical connections of control and transmission cables between antennas and ground equipment; inspects, repairs, and tests electrical devices used to rotate antennas. *Skill Level 20:* Performs basic precedures and techniques involved in the installation of pole and steel tower antennas; bores holes and erects poles using motorized equipment; transports, assembles, and disassembles antenna towers using manual and motorized equipment; constructs antenna base and braces towers; adjusts tower guy wires for proper tension; has a basic knowledge of tower and antenna configuration for different operational requirements. *Skill Level 40:* Able to perform the duties required for Skill Level 20; organizes, supervises, and coordinates antenna installation, maintenance, and rehabilitation; instructs 8-30 subordinate antennamen in approved techniques for antenna installation and maintenance; estimates time, supplies, personnel, and equipment required for installation of antennas and towers. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer of an antenna maintenance team in a unit operating independently (without an officer); performs technical and administrative duties including writing reports, providing technical guidance to personnel related to complex construction and rehabilitation of antenna installations, and interpreting new technical literature.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in heavy equipment operation (boring and tower erection equipment), 3 in basic electricity (DC circuits), 3 in basic electrical motors and servos, and 3 in antennas (basic electronics). In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment operation (boring and tower erection equipment), 3 in basic electricity (DC circuits), 3 in basic electrical motors and servos, and 3 in antennas (basic electronics). In a radio-television repairman apprentice training program, 500 clock hours of experience in antenna installation and maintenance (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment operation (boring and tower erection equipment), 3 in basic electricity (DC circuits), 3 in basic electrical motors and servos, 3 in antennas (basic electronics), 3 in introduction to management, and 3 in human relations. In a radio-television repairman apprentice training program, 500 clock hours of experience in antenna installation and maintenance (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management. In a radio-television repairman apprentice training program, 500 clock hours of experience in antenna installation and maintenance (3/76).

MOS-36D-002

Antenna Installer Specialist

36D10
36D20
36D30
36D40

Exhibit Dates: 3/78–2/84. (Effective 3/84, MOS 36D was discontinued and its functions were incorporated into MOS 36C, Wire System Installer, with ASI F2, Antenna Installation.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Selects site, erects, anchors and braces antenna towers and antenna systems; makes connections of transmission cable or waveguide between antenna and ground equipment; inspects and performs preventive maintenance and repairs on towers and bases. *Skill Level 10:* Performs basic procedures of antenna tower erection; assists in determining proper site, constructing base and antenna support towers, adjusting guy wires for correct tension; uses motorized equipment for drilling base holes and erecting towers and poles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs basic procedures of installation of pole and steel tower antennas; bores holes and erects poles using motorized equipment; transports, assembles and disassembles antenna towers; attaches and adjusts guy wires and braces; has basic knowledge of tower and antenna configuration for different operational requirements and climatic conditions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; organizes, supervises, and coordinates antenna installation, maintenance, and repair; instructs subordinate antennamen in approved techniques for antenna installation and maintenance; estimates time, supplies, equipment, and personnel necessary for tower installation or repair; may supervise 3 or more antenna installers. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs technical and administrative duties attached to performance of the duty of team chief; supervises 3 or more antenna crews or 8 or more installer specialists; writes reports, provides technical guidance to personnel on maintenance, installation, and interpretation of new techical literature; supervises on-the-job training of antenna team.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, and credit in the building trades, construction, and heavy equipment on the basis of institutional evaluation (5/79).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in basic electricity, 3 in antenna maintenance, and credit in the building trades, construction, and heavy equipment on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 3 in antenna maintenance, and credit in the building trades, construction, and heavy equipment on the basis of institutional evaluation (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 3 in antenna maintenance, 2 in human relations, 2 in maintenance management, and 2 in personnel supervision, and credit in the building trades, construction, and heavy equipment on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 3 in antenna maintenance, 3 in human relations, 3 in maintenance management, and 3 in personnel supervision, and credit in the building trades, construction, and heavy equipment on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/79).

MOS-36E-001

CABLE SPLICER

36E20
36E40

Exhibit Dates: 10/73-2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Splices all types of communication cables. *Skill Level 20:* Prepares, tests, and joins insulated conductors in multiple-conductor cables; splices and seals spliced openings on nonquadded, quadded, coaxial, and video cables in aerial, trenched, underground, submarine, or buidling installations; tests, troubleshoots, and repairs pressurized and nonpressurized multiconductor telephone cable; locates and installs cable terminals; terminates and connects cables to distribution boxes and distribution frames; operates mechanical ladders and hydraulic booms; climbs poles and operates pump equipment; repairs cables and cable terminals, complying with standard splicing practices and safety procedures; interprets line route maps, overlays, circuit diagrams, detail splice diagrams, cable route prints, cable plant records, splicing diagrams, and symbols commonly used in cable communications system diagrams; employs cable splicer handtools, electrical test sets, cable splicer auxiliary equipment, and common construction tools. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 4-10 cable splicers; demonstrates splicing techniques and procedures; interprets specifications on the construction of manholes, cable vaults, and cable huts; prepares central office cable records, detail splicing diagrams, and cable route prints; reviews, consolidates, and prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical cable installation and 3 in electronics fundamentals (DC circuits). In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical cable installation and 3 in electronics fundamentals (DC circuits). In a cable splicer apprentice training program, 500 clock hours of experience (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical cable installation, 3 in electronics fundamentals (DC circuits), 3 in introduction to management, and 3 in human relations. In a cable splicer apprentice training program, 500 clock hours of experience (3/76).

MOS-36E-002

CABLE SPLICER

36E10
36E20
36E30

Exhibit Dates: 3/78-2/84. (Effective 3/84, MOS 36E was discontinued and its functions were incorporated intp MOS 36C, Wire Systems Installer, with ASI F6, Cable Splicing.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Splices various types of communication cable. *Skill Level 10:* Prepares, tests, and joins insulated conductors in multiple-conductor cables; splices and seals spliced openings on nonquadded and quadded cables in aerial, trenched, underground, and building installations (and possibly submarine installations); tests, troubleshoots, and repairs pressurized and nonpressurized multiconductor telephone cable; locates and installs cable terminals; terminates and connects cables to distribution boxes and distribution frames; operates mechanical ladders and hydraulic booms; climbs poles and operates pump equipment; repairs cables and cable terminals, complying with standard splicing practices and safety procedures; interprets line route maps, overlays, circuit diagrams, cable route prints, cable plant records, splicing diagrams, detail splice diagrams, cable route prints, cable plant records, splicing diagrams, and symbols commonly used in cable communications system diagrams; employs cable splicer hand tools, electrical test sets, cable splicer auxiliary equipment, and common construction tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; directs personnel concerning compliance with standard and local splicing practice; locates cable faults using specialized equipment and directs personnel in the repair of the faults. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 4-10 cable splicers; demonstrates splicing techniques and procedures; interprets specifications on the construction of manholes, cable vaults, and cable huts; prepares central office cable records, detail splicing diagrams, and cable route prints; reviews, consolidates, and prepares technical and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical cable installation and 3 in cable splicing techniques (9/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. (9/81).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electrical cable installation and 3 in cable splicing techniques. In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical cable installation, 3 in cable splicing techniques, and 3 in personnel supervision (9/81).

MOS-36G-001

MANUAL CENTRAL OFFICE REPAIRMAN

36G20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 36G was discontinued and its functions were incorporated into MOS 36H, Dial/Manual Central Office Repairer.)

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Skill Level 20: Maintains manual central office telephone exchange equipment; wires mainframe, switchboard, relay racks, and related units; performs minor maintenance on equipment including replacement or repair of broken wires, jumpers, and cables; adjusts openings between contacting parts; tests and changes spring tensions; conducts operating and electrical tests and compares results with specified standards; reconditions components, replaces parts, and rewires equipment; reads circuit and wiring diagrams; computes voltage, amperage, and resistance factors involving simple algebraic formulas.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity. Advanced standing in a telephone exchange repairman apprentice training program on the basis of employer or trade association performance examination (3/76).

MOS-36H-001

DIAL CENTRAL OFFICE REPAIRMAN

36H20
36H40
36H50

Exhibit Dates: 10/73-2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Installs, maintains, and repairs inside and outside plant dial telephone equipment. *Skill Level 20:* Installs wiring; mechanically secures mainframes; conducts tests; inspects, adjusts, and tests relays; troubleshoots and repairs or replaces defective components such as relays, wiring, and terminal boards; assists in identifying cable troubles. NOTE: May have progressed to 36H20 from 36G30 (Manual Central Office Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans installation, operation, and maintenance procedures and techniques; normally supervises 15 to 25 persons; allocates resources; interprets wiring diagrams, specifications, color-code charts, and technical literature pertaining to wire communications systems; demonstrates installation, operation, and maintenance techniques; diagnoses unusual cases of equipment malfunction. *Skill Level 50:* Able to perform the duties required for Skill Level 40; normally supervises more than 25 persons; statistically analyzes the system for planning and operational loading; prepares work schedules, directs record keeping, requisitions supplies; reviews, consolidates, and prepares technical and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity/electronics with laboratory. In a P.B.X. installer (telephone and telegraph) apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a telephone repairman apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction. In a central office installer-repairman apprentice training program, 500 clock hours of experience and 36 contact hours of related instruction (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in basic electricity/electronics with laboratory. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity/electronics with laboratory, 3 in introduction to management, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in communications electricity and 3 for field experience in management. In a telephone repairman or P.B.X. installer (telephone and telegraph) apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a central office installer-repairman apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in basic electricity/electronics with laboratory. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity/electronics with laboratory, 3 in introduction to management, 3 in personnel supervision, 3 in human relations, and 3 in technical writing. In the upper-division baccalaureate category, 3 semester hours in communications electricity and 6 for field experience in management. In a telephone repairman or P.B.X. installer (telephone and telegraph) apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction. In a central office installer-repairman apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (3/76).

MOS-36H-002

DIAL/MANUAL CENTRAL OFFICE REPAIRER

36H10
36H20
36H30
36H40

Exhibit Dates: 3/78–2/86. (Effective 3/86, MOS 36H was discontinued and its duties were incorporated into MOS 29N, Telephone Central Office Repairer, and MOS 32Z, Communications-Electronics Maintenance Chief.)

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Installs, maintains, and repairs central office telephone exchange equipment. *Skill Level 10:* Installs wiring; replaces or repairs system components; conducts operating and electrical tests; uses schematic diagrams to diagnose and locate malfunctions; uses general purpose and special electronic meters to test for signals. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists Skill Level 10 personnel in locating and repairing system malfunctions; conducts technical inspection of central office equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the installation, operation, and maintenance of central office telephone exchange equipment; diagnoses unusual cases of equipment malfunction; prepares and maintains technical and administrative records and reports; prepares work schedules; may supervise from six to eight persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans for and supervises the installation, operation and maintenance activities; prepares work schedules and specific assignments; requisitions supplies; monitors and corrects faulty work procedures; advises superiors about optimum utilization; may supervise eight or more persons; may be in charge of several central offices.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 2 in troubleshooting techniques, 2 in solid state circuits, and 2 in electronic communications (5/79).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 4 in troubleshooting techniques, 3 in solid state circuits, and 4 in electronic communications (5/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid state circuits, and 4 in electronic communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid state circuits, 4 in electronic communications, 3 in maintenance management, 2 in personnel supervision, 3 in human relations, and 2 in recordkeeping. In the upper-division baccalaureate category, 2 semester hours for field experience in management (5/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in AC/DC circuits, 5 in troubleshooting techniques, 3 in solid state circuits, 4 in electronic communications, 3 in maintenance management, 3 in personnel supervision, 3 in human relations, and 3 in recordkeeping. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in office management (5/79).

MOS-36K-001

TACTICAL WIRE OPERATIONS SPECIALIST (FIELD WIREMAN)

36K20
36K40

Exhibit Dates: 10/73–2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Installs and maintains field wire communications systems and performs related operating duties in field telephone centers. *Skill Level 20:* Installs and maintains field telephone and switchboards; climbs poles and constructs field wire lines; recovers and services field wire; uses grid and line route maps; employs lineman's common hand tools and testing devices; locates and repairs shorts, grounds, opens, and other damage in wire communications systems; operates switchboards and prepares, edits, transmits, and routes messages. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 4-8 field wiremen in the installation, operation, and maintenance of field wire communications systems; allocates resources and assigns workloads; demonstrates techniques of wire and cable installation and maintenance; interprets maps, overlays, and wire construction requirements.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC circuits) (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electricity (DC current) and 3 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (DC current), 3 in map reading, 3 in introduction to management, and 3 in human relations (3/76).

MOS-36K-002

TACTICAL WIRE OPERATIONS SPECIALIST

36K10
36K20

Exhibit Dates: 3/78–9/84. (Effective 9/84, MOS 36K was discontinued and its functions were incorporated into MOS 31K, Combat Signaler.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Installs and maintains field wire communications systems and performs related operating duties in field telephone centers. *Skill Level 10:* Installs field telephones and switchboards; climbs poles and constructs field telephones and switchboards; climbs poles and constructs field wire lines; recovers and services field wire; uses grid and line route maps; employs lineman's common hand tools; locates and repairs shorts, grounds, opens, and other damage in wire communications systems; operates switchboards and prepares, edits, transmits, and routes messages. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises 8 or more field wiremen in the installation, operation, and maintenance of field wire communications systems; allocates recources and assigns workloads; demonstrates techniques of wire and cable installation and maintenance; interprets maps, overlays and wire construction requirements.

Recommendation, Skill Level 10

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (9/81).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision (9/81).

MOS-36L-001

Electronic Switching Systems
Repairman

36L20
36L30

Exhibit Dates: 3/77-2/78.

Career Management Field: 36 (Wire, Antenna, and Central Office Maintenance).

Description

Summary: Installs and maintains automatic electronic switching equipment. *Skill Level 20:* Conducts and records results of visual and operational checks; interprets data to localize system malfunctions; performs maintenance on operator console; analyzes, troubleshoots, repairs, and replaces faulty equipment assemblies, subassemblies, and circuit cards; performs and interprets diagnostic tests; uses common and specialized measuring devices, test equipment, and handtools; conducts all operational tests in switching equipment to determine cause of complex malfunctions; initiates manual and programmed interconnections between subsystems and isolated malfunctions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and provides technical guidance to lower-skill-level personnel; analyzes and diagnoses complex subsystem malfunctions; inspects for correct maintenance procedures, techniques, and routines; programs control memory circuits.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), and 3 in microprocessor fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), and 3 in microprocessor fundamentals (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), 3 in microprocessor fundamentals, and 3 in personnel supervision (10/81).

MOS-36L-002

Transportable Electronic Switching
Systems Repairer
(Electronic Switching Systems
Repairer)

36L10
36L20
36L30

Exhibit Dates: 3/78-3/81.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Installs and maintains automatic electronic switching equipment. *Skill Level 10:* Conducts and records results of visual and operational checks; interprets data to localize system malfunctions; performs maintenance on operator console; analyzes and troubleshoots, repairs and/or replaces faulty equipment assemblies, subassemblies, and circuit cards; performs and interprets diagnostic tests; employs common and specialized measuring devices, test equipment, and handtools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts all operational tests on switching equipment to determine the causes of complex malfunctions; initiates manual and programmed interconnections between subsystems and malfunctions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and provides technical guidance to lower-skill-level personnel; analyzes and diagnoses complex subsystem malfunctions; ensures that correct maintenance procedures, techniques, and routines are followed; programs control memory circuits.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, and 3 in systems maintenance (10/81).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), and 3 in microprocessor fundamentals. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), and 3 in microprocessor fundamentals (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in technical mathematics, 3 in electronic communications, 3 in digital fundamentals, 6 in systems maintenance, 3 in computer maintenance, 3 in programming (machine language), 3 in microprocessor fundamentals, and 3 in personnel supervision (10/81).

MOS-36L-003

Transportable Electronic Switching
Systems Operator/Maintainer
(Transportable Electronic Switching
Systems Repairer)

36L10
36L20
36L30

Exhibit Dates: 4/81-Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises, installs, operates, and performs maintenance on transportable automatic circuit switches and central office equipment and installed communication security devices; performs preventive maintenance on vehicles and power generators. *Skill Level 10:* Installs, initializes, and performs maintenance on automatic switching systems, automatic message switching central systems and ancillary equipment; uses specialized test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance and guidance regarding installation and operation; performs off-line adjustments of the equipment; maintains maintenance and repair records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 3 in electronic troubleshooting and repair. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronic troubleshooting and repair, and 2 in recordkeeping. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (7/87).

MOS-36M-001

Wire Systems Operator

36M10

36M20

36M30

Exhibit Dates: 9/83–Present.

Career Management Field: 31 (Communications-Electronics Operation).

Description

Summary: Installs, operates, maintains, and supervises manual, semiautomatic and automatic switchboards, systems, telephone central offices, and auxiliary equipment. *Skill Level 10:* Installs, programs, initiates, operates, and performs operator and organizational maintenance on switchboards, telephone central offices, and assigned equipment; makes appropriate message log entries and uses route diagrams to handle proper switching procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises the installation, operation, and maintenance of switchboards, telephone central offices, assigned equipment, vehicles, and power generation equipment; trains and advises skill level 10 personnel on all assigned duties; monitors operator proficiency, responsiveness, cooperation, tact, and voice discipline; maintains station logs. *Skill Level 30:* Supervises, performs administrative functions, and coordinates the installation, operation, and maintenance performed by subordinate personnel; prepares work schedules and coordinates overall activities; conducts training and coordinates all phases of switchboard communications activities within the unit.

Recommendation, Skill Level 10

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge. If ASI was J7, WHCA Console Control Operations, credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (2/84).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (2/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in principles of management. If ASI was J7, WHCA Console Control Operations, additional credit as follows: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (2/84).

MOS-39B-001

Automatic Test Equipment Operator/Maintainer

39B10

39B20

39B30

Exhibit Dates: 7/86–Present.

Career Management Field: 29 (Communications-Electronics Maintenance).

Description

Summary: Operates, maintains, and supervises maintenance on automatic test equipment. *Skill Level 10:* Operates automatic test equipment. *Skill Level 20:* Able to perform the duties required for Skill level 10; maintains automatic test equipment; uses knowledge of digital electronics, microprocessors, and computer system concepts to troubleshoot equipment; uses oscilloscopes, meters, signal generators and logic probes to locate faults; keeps records on maintenance procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; responsible for quality control inspections; evaluates and counsels subordinates; provides technical assistance to subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronic troubleshooting and repair, 3 in digital electronics, 3 in microprocessors, 3 in computer systems repair, and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronic troubleshooting and repair, 3 in digital electronics, 3 in microprocessors, 3 in computer systems repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

MOS-39C-001

Target Acquisition/Surveillance Radar Repairer

39C10

39C20

39C30

Exhibit Dates: 7/86–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Performs or supervises maintenance on target acquisition and ground level surveillance radars and associated equipment. *Skill Level 10:* Uses oscilloscopes and multimeters to troubleshoot equipment to the component level; repairs equipment by adjusting, aligning, and replacing defective components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs complex maintenance tasks; provides technical assistance to skill level 10 personnel; keeps maintenance records and forms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns specific duties to skill level 10 and 20 personnel; establishes workload, work schedules, and priorities; responsible for quality control inspections; evaluates and counsels subordinates; maintains technical library; initiates and maintains forms and records; responsible for records pertaining to repair parts; prepares and reviews administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics and 2 in electronic troubleshooting and repair (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, and 2 in recordkeeping (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 4 in electronic troubleshooting and repair, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (7/87).

MOS-39D-001

Decentralized Automated Service Support System

39D10

39D20

39D30

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Supervises or performs maintenance on a military version of a commercial data processing computer. *Skill Level 10:* Working under direct supervision, inspects, adjusts, and repairs computer system components including Central Processing Unit (CPU), disk drives, tape drives, video terminals, printers, modems, and card readers/punches; uses vendor-supplied diagnostic software to localize system malfunctions; uses vendor-supplied documentation and test equipment to repair to the board and component level; uses standard electronic test and measurement equipment to troubleshoot and repair equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and provides on-the-job training to lower skill level personnel, manages inventory control. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares, reviews and consolidates technical and administrative reports, maintains files, records, and technical library; assigns duties; establishes workload, work schedules, and repair priorities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, and 3 in computer systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, and 6 in computer systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, 6 in computer systems troubleshooting and maintenance, 3 in record keeping, 3 in principles of supervision, and 2 in maintenance management (6/88).

MOS-39E-001

SPECIAL ELECTRONIC DEVICES REPAIRER

39E10
39E20
39E30

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description
Summary: Supervises or performs maintenance on specialized military combat equipment such as night vision, threat detection, and mine detection equipment; uses schematic diagrams and basic electronic troubleshooting skills in identifying and correcting malfunctions down to the component level; regularly updates maintenance manuals, records, and supplies. *Skill Level 10:* Working under direct supervision, inspects, adjusts, and repairs electronic surveillance, measurement, vision, and detection equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in solving unique problems found in a wide range of equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares, reviews, and consolidates technical and administrative reports and requests; maintains files and records; assigns duties; establishes workload, work schedules, and repair priorities; conducts on-the-job training programs.

Recommendation, Skill Level 10
In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in basic electronics laboratory, and 3 in electronic systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in basic electronics laboratory, and 6 in electronic systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 1 semester hour in AC circuits, 1 in DC circuits, 3 in basic electronics laboratory, 6 in electronic systems troubleshooting and maintenance, 3 in record keeping, 3 in principles of supervision, and 2 in maintenance management (6/88).

MOS-39G-001

AUTOMATED COMMUNICATIONS COMPUTER SYSTEMS REPAIRER

39G10
39G20
39G30

Exhibit Dates: 9/89–Present.

Career Management Field: 29 (Signal Maintenance).

Description
Summary: Performs maintenance and repair on computer systems (mainframes, minicomputers, and microcomputers) and related peripheral equipment including tape and disk drives, printers, CRT monitors, data/voice I/O equipment, and on measurement and test equipment; performs troubleshooting techniques including visual inspections, diagnostics, the use of built-in self-test equipment, and standard laboratory equipment such as oscilloscopes, logic probes, multimeters, logic analyzers, and time domain reflectometers. *Skill Level 10:* Performs repairs to the board level; may also perform component level repair; follows written procedures, schematics, and assembly language listings in troubleshooting procedures and diagnostics; performs modifications; repairs cables; requests parts; maintains service records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to subordinate personnel; tests repaired or modified equipment for compliance with specifications; requests logistical support; prepares and maintains technical and maintenance management records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes workloads, work schedules, and repair priorities; performs and supervises quality inspections; establishes and maintains on-the-job training programs; reviews technical and maintenance management reports; provides technical assistance to lower level maintenance and repair activities.

Recommendation, Skill Level 10
In the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in electronic systems troubleshooting and maintenance, and 3 in solid state electronics (6/90).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in electronic systems torubleshooting and maintenance, 3 in solid state electronics, 3 in computer systems and organization, and 3 in computer systems troubleshooting and maintenance (6/90).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 3 semester hours in digital fundamentals, 3 in electronic systems troubleshooting and maintenance, 3 in solid state electronics, 3 in computer systems and organization, and 3 in computer systems troubleshooting and maintenance, 3 in principles of supervision, and 3 in maintenance management (6/90).

MOS-39K-001

IBM AUTOMATIC DATA PROCESSING SYSTEMS REPAIRER

39K10
39K20
39K30

Exhibit Dates: 9/87–9/89. (Effective 9/89, MOS 39K was discontinued and its functions were incorporated into MOS 29J, Teletypewriter Equipment Repairer.)

Career Management Field: 29 (Communications Electronics Maintenance).

Description
Summary: Supervises or performs maintenance on a military version of a commercial data processing computer (IBM 360). *Skill Level 10:* Working under direct supervision, inspects, adjusts, and repairs computer system components including Central Processing Unit (CPU), tape drives, disk drives, video terminals, printers, modems, and card readers/punches; uses vendor-supplied diagnostic documentation and test equipment to troubleshoot and repair equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides on-the-job training; provides technical guidance to lower skill level personnel; manages inventory control. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; prepares, reviews, and consolidates technical and administrative reports and requests; maintains files, records, and technical library; assigns duties; establishes workload, work schedules, and repair priorities.

Recommendation, Skill Level 10
In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, and 3 in computer systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, and 6 in computer systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, 6 in computer systems troubleshooting and maintenance, 3 in principles of supervision, 2 in maintenance management, and 3 in recordkeeping (6/88).

MOS-39L-001

FIELD ARTILLERY DIGITAL SYSTEMS REPAIRER

39L10
39L20
39L30

Exhibit Dates: 7/86–Present.

Career Management Field: 29 (Signal Maintenance).

Description
Summary: Performs and supervises intermediate maintenance on gun, rocket and missile fire control, directional, digital computer systems, meteorological computers, motor fire control calculations, remotely piloted vehicle control stations and peripheral equipment. *Skill Level 10:* Operates and performs intermediate level maintenance on digital fire control systems and peripheral

support equipment; fault detection and correction is at the board level. *Skill Level 20:* Able to perform the duties required for Skill Level 10; uses knowledge of digital electronics and computer system concepts to isolate and correct complex problems; keeps records on maintenance procedures; supervises Skill Level 10 personnel; conducts on-the-job training; oversees installation of modifications on equipment; plans and recommends establishment of procedures for receipt, storage, inspection, testing, and repair of components. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation and maintenance performed by subordinate personnel; prepares work schedules and coordinates overall activities; conducts training and counseling sessions.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in personnel supervision, and 3 in maintenance management (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in principles of supervision, 3 in maintenance management, and 3 in communication skills (oral and written) (6/89).

MOS-39T-001

TACTICAL COMPUTER SYSTEMS REPAIRER

39T10

39T20

39T30

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Supervises or performs maintenance on a military version of a commercial desktop data processing microcomputer. *Skill Level 10:* Working under direct supervision, inspects, adjusts, and repairs computer system components including Central Processing Unit (CPU), hard disk drives, tape drives, video terminals, printers, and modems; uses vendor-supplied diagnostic software to localize system malfunctions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; has a basic knowledge of systems software and related utilities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; prepares, reviews, and consolidates technical and administrative reports; maintains files, records, and technical library; assigns duties; establishes workload, schedules, and repair priorities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, and 3 in computer systems troubleshooting and maintenance (6/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, 6 in computer systems troubleshooting and maintenance, and 3 in computer systems and organizations (6/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits, 1 in AC circuits, 2 in digital principles, 6 in computer systems troubleshooting and maintenance, 3 in computer systems and organizations, 2 in maintenance management, 3 in record keeping, and 3 in principles of supervision (6/88).

MOS-39V-001

COMPUTERIZED SYSTEMS MAINTENANCE CHIEF

39V40

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Signal Maintenance).

Description

Skill Level 40: Supervises and manages direct and general support level maintenance of computerized systems such as field artillery digital and tactical fire direction systems, and automated communications computer systems; determines requirements and assigns duties; coordinates activities involving installation and maintenance of minicomputers, peripherals, test and measuring equipment; prepares, reviews and consolidates technical reports; implements standard operating procedures; organizes and conducts on-the-job training programs; instructs and counsels subordinate personnel; performs liaison among staff, operations, and maintenance personnel; determines effectiveness of performance to meet workload standards; reads, interprets, and explains complex concepts, specifications circuits, schematic and wiring diagrams and minicomputer and mainframe organization. NOTE: May have progressed to 39V40 from 39D30 (Descentralized Automated Services Support System Computer Systems Repairer), 39G30 (Automated Communications Computer Systems Repairer), 39B30 (Automatic Test Equipment Operator/Maintainer), or 39Y30 (Field Artillery Tactical Fire Direction Systems Repairer).

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, 3 in principles of supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/90).

MOS-39W-001

RADAR/SPECIAL ELECTRONIC DEVICES MAINTENANCE CHIEF

39W40

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Signal Maintenance).

Description

Skill Level 40: Supervises the electronic maintenance shop operations by interpreting daily production reports and visual display loads of equipment in the shop; determines work priorities, parts needs, test equipment status and personnel qualifications; assists subordinates in troubleshooting equipment; coordinates installation of new equipment; prepares and maintains records associated with a daily and planned maintenance program; prepares and maintains support stockage lists; determines causes of and reports unusual maintenance failures; organizes and conducts formal and on-the-job training programs for shop personnel. NOTE: May have progressed to 39W40 from 39C30 (Target Acquisition/Surveillance Radar Repairer) or 39E30 (Special Electronic Devices Repairer).

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/90).

MOS-39X-001

ELECTRONICS EQUIPMENT MAINTENANCE CHIEF

39X50

Exhibit Dates: 9/87–Present.

Career Management Field: 29 (Signal Maintenance).

Description

Skill Level 50: Supervises the electronic maintenance mission of the radar/special electronic devices, automatic data processing, and automatic test equipment facility; determines work priorities and requirements; assigns and coordinates activities of shop personnel; applies policies and procedures for facility/unit/station management; prepares, maintains, and uses maintenance records and reports associated with routine and planned maintenance programs; plans and coordinates training in communication, operations procedures, and maintenance programs; assists staff in continuous appraisal of electronic equipment. NOTE: May have progressed to 39X50 from 39V40 (Computerized Systems Maintenance Chief) or 39W40 (Radar/Special Electronic Devices Maintenance Chief).

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (6/90).

MOS-39Y-001

FIELD ARTILLERY TACTICAL FIRE DIRECTION SYSTEMS REPAIRER

39Y10

39Y20

39Y30

Exhibit Dates: 7/86–Present.

Career Management Field: 29 (Communications Electronics Maintenance).

Description

Summary: Performs direct and general support maintenance on field artillery tactical fire direction systems, variable format entry devices, and related test equipment. *Skill Level 10:* Makes detailed tests through stages of equipment using voltmeters, ohmmeters, oscilloscopes, logic probes and other test equipment to localize and isolate malfunctions; replaces faulty components at the integrated circuit board level; may replace resistors, capacitors, integrated circuits, and other discrete components in emergency situations; maintains tools and test equipment; test-operates computer controlled system; checks and maintains electromechanical subsystems including motors, generators, servos and mechanical actuators; interprets complex block diagrams, schematics, and technical manuals. *Skill Level 20:* Able to perform the duties required for Skill Level 10; checks maintenance performed by Skill Level 10 personnel; inspects systems for wear and possible future problem areas; supervises system repair contact team; interfaces with system users to identify cause of malfunctions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; has complete responsibility for supervising a multi-million dollar maintenance van; directs and coordinates the activities of 5 to 10 subordinate personnel; performs performance appraisals; conducts on-the-job training; establishes work priorities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit diagnosis and 3 in computer system maintenance and repair (11/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in circuit diagnosis, 6 in computer system maintenance and repair, 3 in recordkeeping, and 1 in personnel supervision (11/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in circuit diagnosis, 6 in computer system maintenance and repair, 3 in recordkeeping, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/85).

MOS-41B-001

TOPOGRAPHIC INSTRUMENT REPAIRMAN

41B20

Exhibit Dates: 10/73-2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 812 (Surveying).

Description

Skill Level 20: Maintains, disassembles, repairs, tests, adjusts, and reassembles all topographic and cartographic instruments.

Recommendation, Skill Level 20

In the vocational certificate category, 22 semester hours in surveying and cartographic instrument repair and 2 in use and care of tools and equipment. In the lower-division baccalaureate/associate degree category, 4 semester hours in instrument repair and 2 in use and care of tools and equipment (12/75).

MOS-41B-002

TOPOGRAPHIC INSTRUMENT REPAIR SPECIALIST

41B10

41B20

Exhibit Dates: 3/77-3/90. (Effective 3/90, MOS 41B was discontinued and its duties were incorporated into MOS 82B, Construction Surveyor, and MOS 82D, Topographic Surveyor.)

Career Management Field: 81 (Topographic Engineering), subfield 812 (Surveying).

Description

Summary: performs maintenance on topographic survey and cartographic equipment. *Skill Level 10:* Inspects equipment for damaged, defective, or malfunctioning parts or assemblies; adjusts and performs operational tests on equipment; checks optics for such conditions as lens aberrations, parallax, tilt of recticule, and scratched lens; disassembles equipment and replaces defective parts with standard items; interprets blueprints, and military or manufacturers' specifications; isolates and corrects trouble; lays and fabricates unobtainable metal parts or coordinates their fabrication with machinist, welders, or other specialists; makes sketches or diagrams used in disassembling and reassembling equipment or fabricating parts; applies principles of basic electricity when making minor electrical repairs; makes precision bits and clearances using precision measuring instruments; requisitions and inventories spare parts; prepares maintenance records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; controls quality of topographic instrument maintenance to final inspection of repairs performed; estimate cost of repairs, parts, and labor; prepares and reviews maintenance records and reports; schedules and assigns duties; fabricates special tools; overhauls and rebuilds equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in survey and optical instrument repair, 3 in basic surveying, and 2 in care and use of tools and equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in survey and optical instrument repair, 3 in basic surveying, 2 in care and use of tools and equipment, and credit in optics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in survey and optical instrument repair, 3 in basic surveying, 2 in use and care of tools and equipment, and 2 in recordkeeping and credit in optics on the basis of institutional evaluation (5/78).

MOS-41C-001

FIRE CONTROL INSTRUMENT REPAIRMAN

41C10

41C20

41C40

Exhibit Dates: 10/73-8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 636 (Armament Maintenance).

Description

Summary: Performs maintenance on fire control instruments and related equipment. *Skill Level 10:* Assists in maintenance, repair, and modification of binoculars, aiming circles, telescopes, range finders, and periscopes; uses hand tools, power tools, and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects, tests, repairs, and synchronizes fire control systems; tests, adjusts, and repairs optical systems; checks and repairs electrical circuits, using instruments such as ohmmeters, voltmeters, and null-voltage test sets; conducts operating tests to insure that instruments perform within specified tolerances and performance standards. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises subordinate personnel; plans the use of facilities and equipment; administers shop safety programs; requisitions parts, equipment, and supplies; conducts final operating instrument tests.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in use and care of hand and power tools (3/75).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in use and care of hand and power tools and 3 in applied physics. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics and additional credit on the basis of institutional evaluation (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in use and care of hand and power tools, 1 in records administration, and 3 in applied physics. In the lower-division baccalaureate/associate degree category, 1 semester hour in shop management, 3 in personnel supervision, and 3 in applied physics, and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in administration and additional credit on the basis of institutional evaluation (3/75).

MOS-41C-002

FIRE CONTROL INSTRUMENT REPAIRER
(FIRE CONTROL INSTRUMENT REPAIRMAN)

41C10

41C20

41C30

41C40

Exhibit Dates: 9/75-8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Supervises or performs maintenance on fire control instruments and related equipment. *Skill Level 10:* Performs maintenance on fire control instruments and related equipment including binoculars, aiming circles, telescopes, rangefinders, and mechanical/electrical ballistic computers and output devices mounted in vehicles; utilizes hand and power tools and testing equipment in the removal, repair, replacement, and synchronization of fire control systems used in tanks and self-propelled and towed artillery; tests optical instruments for conditions such as parallax, lens aberration, tilt of reticle, and deviations in line of sight; traces circuits by referring to schematic diagrams; tests instruments to insure performance within specified standards and tolerances. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs preliminary and final inspection of fire control instruments and related equipment; is a first-line supervisor in direct and general support units; conducts on-the-job training; prepares maintenance records.

Skill Level 30: Able to perform the duties required for Skill Level 20; supervises fire control instrument maintenance activities; organizes the shop layout; establishes and administers a shop safety program; requisitions repair parts and materials; uses technical publications; performs final operating tests. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises fire control instrument and fire control computer maintenance activities. NOTE: May have progressed to 41C40 from 41C30 or 34G30 (Fire Control Computer Repairman).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in applied physics, 3 in optical instrument repair laboratory, and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, a minimum of 3 semester hours in applied physics, and additional credit in applied physics, optics, and instrument repair on the basis of institutional evaluation. In an industrial pyrometry and instrument repairman or recording instruments maintenance and repairman apprentice training program, 1,000 clock hours of experience and 60 contact hours of related instruction, if the duty assignment of fire control instrument repairman was held for a minimum of one year (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in applied physics, 3 in optical instrument repair laboratory, 1 in use and care of tools, and 1 in records administration. In the lower-division baccalaureate/associate degree category, a minimum of 3 semester hours in applied physics and additional credit in applied physics, optics, and instrument repair on the basis of institutional evaluation. In an industrial pyrometry and instrument repairman or recording instrument maintenance and repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, if the duty assignment of fire control instrument repairman was held for a minimum of one year (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in applied physics, 3 in optical instrument repair laboratory, 3 in shop practices and procedures, 1 in use and care of tools, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 2 in shop practices and procedures, 2 in personnel supervision, 1 in records administration, and additional credit in applied physics, optics, and instrument repair on the basis of institutional evaluation. In an industrial pyrometry and instrument repairman or recording instrument maintenance and repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in personnel supervision, 2 in shop practices and procedures, and 1 in records administration, and additional credit in applied physics, optics, and instrument repair on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management. In an industrial pyrometry and instrument repairman or recording instruments maintenance and repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-41C-003

FIRE CONTROL INSTRUMENT REPAIRER

41C10

41C20

41C30

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on fire control instruments and related equipment. *Skill Level 10:* Performs maintenance on fire control instruments and related equipment, including binoculars, aiming circles, telescopes, rangefinders, and ballistic computers; uses hand and power tools and testing devices to remove, repair, replace, and synchronize fire control systems; traces circuits using schematic diagrams; replaces defective parts, and performs operating tests to insure performance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; troubleshoots and diagnoses fire control instruments; supervises and provides technical assistance to Skill Level 10 personnel; conducts on-the-job training and prepares maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; instructs and supervises lower-skill-level personnel; plans and organizes work schedules; applies management principles and techniques; performs quality control checks and technical inspections; requisitions parts and materials; establishes and supervises a shop safety program.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in optical equipment repair laboratory and 1 in use and care of hand and power tools (7/82).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in applied physics, 3 in optical equipment repair laboratory, 1 in use and care of hand and power tools, and 1 in recordkeeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in optical equipment repair laboratory, 1 in use and care of hand and power tools, 1 in recordkeeping, 3 in shop practices, and 2 in personnel supervision (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in optical equipment repair laboratory, 1 in use and care of hand and power tools, 1 in recordkeeping, 3 in shop practices, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and additional credit in management on the basis of institutional evaluation (7/82).

MOS-41E-001

CAMERA REPAIRMAN

41E20

Exhibit Dates: 10/73–2/77.

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 20: Performs maintenance and repair on still and motion picture cameras and on darkroom equipment; demonstrates a knowledge of light, light sources, darkroom procedures, films, photo-chemistry, and operation of single-lens-reflex, twin-lens-reflex, and large-format cameras (including lens and shutter assemblies, film transport/release machanisms, and camera bodies).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic photography, 6 for field experience in photography, 3 in audio-visual equipment repair, 3 in troubleshooting concepts, and 3 in use of test equipment (5/76).

MOS-41E-002

AUDIO-VISUAL EQUIPMENT REPAIRER
(AUDIO-VISUAL EQUIPMENT REPAIRMAN)

41E10

41E20

Exhibit Dates: 3/77–9/89. (Effective 9/89, MOS 41E was discontinued.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Summary: Performs maintenance and repair on still cameras, motion picture cameras, darkroom equipment, and audio-visual equipment. *Skill Level 10:* Demonstrates a knowledge of light, light sources, darkroom procedures, film, photo-chemistry, operation of single-lens-reflex, twin-lens-reflex and large-format camera (including lens and shutter assemblies, film transport/release mechanism, and camera bodies), projects, and audio equipment; assists in troubleshooting faulty equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel; troubleshoots faulty equipment.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in physics (light and sound), 3 in troubleshooting concepts, 3 in audio-visual equipment operation, 3 in care and use of testing equipment, 6 in basic photography, 3 in audio-visual equipment repair, 6 for field experience in photography, and credit in technical mathematics (as it relates to electricity) and basic electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in physics (light and sound), 3 in troubleshooting concepts, 3 in troubleshooting techniques, 3 in audio-visual equipment operation, 3 in care and use of testing equipment, 6 in basic photography, 3 in audio-visual equipment repair, 6 for field experience in photography, and credit in technical mathematics (as it relates to electricity) and basic electronics on the basis of institutional evaluation (5/78).

MOS-41F-001

Projector Repairman

41F20

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 41F was discontinued and its functions were incorporated into MOS 41E, Audio-Visual Equipment Repairman.)

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 20: Inspects, troubleshoots, repairs, and test-operates projection equipment.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in physics of visual phenomena, light, and sound, 6 in troubleshooting concepts, 3 in audio-visual equipment repair, and 3 in use of test equipment (5/76).

MOS-41G-001

Surveillance Photographic Equipment Repairman

41G20

Exhibit Dates: 10/73-8/77.

Career Management Field: 26 (Non-Integrated Radar Maintenance), subfield 263 (Airborne Surveillance Equipment Repair).

Description

Skill Level 20: Inspects and test-operates photographic equipment to detect and determine general faults; replaces minor defective parts or replaceable assemblies and adjusts items to operating conditions; disassembles malfunctioning equipment into component assemblies and systems for further inspection; gauges mechanical parts to detect wear and misalignment; straightens or replaces bent mechanical parts and components; replaces and adjusts optical elements; paints and refinishes equipment cases and containers; inspects and tests electrical and electronic equipment to ascertain condition and functioning; repairs electronic circuits associated with cameras; assembles repaired equipment and test-operates and makes adjustments to assure proper functioning; stores tools and testing equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in shop practices, 1 in industrial science, 3 in introductory electronics, 2 in AC/DC circuits, 2 in electronic devices, 2 in systems maintenance, 2 in intermediate circuits, 1 in electronic instrumentation, and additional credit in machine shop on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic photography, 3 in introductory electronics, 2 in AC/DC circuits, 2 in electronic devices, and 1 in electronic instrumentation. In the upper-division baccalaureate category, 6 semester hours in advanced photography. In an electronic technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a construction electrician apprentice training program, 1,000 clock hours of experience and 72 contact hours of related instruction (2/76).

MOS-41G-002

Aerial Surveillance Photographic
Equipment Repairer

41G10
41G20

Exhibit Dates: 9/77-9/84.

Career Management Field: 28 (Aviation Communications-Electronics Systems Maintenance).

Description

Effective 9/84, MOS 41G was discontinued and its functions were incorporated into MOS 26E, Aerial Radar Sensor Repairer and MOS 26F, Aerial Photoactive Sensor Repairer.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-41H-001

Photographic Equipment Repair Chief

41H40

Exhibit Dates: 10/73-3/77. (Effective 3/77, MOS 41H was discontinued and its functions were incorporated into MOS 26T, Radio/Television Systems Specialist and MOS 84T, TV/Radio Broadcast Operations Chief.)

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 40: Able to perform the duties required for Skill Level 20 of MOS 41E (Camera Repairman), 41F (Projector Repairman), or 41G (Surveillance Photographic Equipment Repairman); supervises a photographic equipment repair center consisting of 10 to 20 photographic equipment maintenance personnel; develops procedures and standards and inspects repaired equipment to assure high standard of work performance; assigns duties; applies production line procedures for the maintenance of photographic equipment; corrects improper techniques and procedures and explains proper methods; interprets and explains technical literature and diagrams; requisitions supplies; prepares technical and administrative reports.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic photography, 6 for field experience in photography, 6 in troubleshooting concepts, 3 in use of test equipment, 6 in audio-visual equipment repair, 3 in introductory electronics, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in maintenance management or industrial management (5/76).

MOS-41J-001

Office Machine Repairman

41J20
41J40

Exhibit Dates: 10/73-8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 631 (Precision Devices).

Description

Summary: Performs general maintenance on office machines, excluding electronic calculators and accounting equipment. *Skill Level 20:* Diagnoses the causes of malfunctions; repairs, adjusts, cleans, and lubricates office machines; tests machine to determine the effectiveness of adjustments and repairs. *Skill Level 40:* Able to perform the duties required for Skill Level 20; diagnoses more complex malfunctions; supervises maintenance activities; makes final inspections; orders, stores, and distributes parts; establishes shop policies and procedures; supervises a minimum of five persons.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in office machine repair laboratory. In the lower-division baccalaureate/associate degree category, credit on the basis of institutional evaluation. In a business machines mechanic apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in office machine repair. In the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, a minimum of 3 semester hours in management and additional credit on the basis of institutional evaluation. Journeyman status (defined as 6,000 clock hours of experience and 432 contact hours of related instruction) as a business machine mechanic (2/75).

MOS-41J-002

Office Machine Repairer
(Office Machine Repairman)

41J10
41J20
41J30
41J40

Exhibit Dates: 9/75-2/89. (Effective 3/89, MOS 41J was discontinued.)

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Precision Devices).

Description

Summary: Performs general maintenance on office machines, excluding electronic calculators and accounting equipment. *Skill Level 10:* Assists in maintaining office machines; adjusts office machines. *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes condition and operating efficiency of office machines; diagnoses causes of malfunctions; determines maintenance requirements and replaces defective or excessively worn parts and assemblies; disassembles, repairs, cleans, adjusts, tightens, lubricates, reassembles, and test-operates machines. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the maintenance of office machines; inspects machines with complex malfunctions to determine the extent of repairs required; makes final inspection of machines maintained or repaired by Skill Level 10 and 20 personnel; instructs Skill Level 10 and 20 personnel in general and specialized repair operations; keeps maintenance records. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises office machine maintenance activities of a large unit or in a repair shop; usually supervises a minimum of 14 persons; instructs personnel on repair on non-electric and electric typewriters, adding machines, and calculators.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in use and care of hand tools, 2 in shop practices and procedures, 3 in basic electricity, and 3 in office machine repair laboratory. In the lower-division baccalaureate/associate degree category, 1 semester hours in use and care of hand tools, 2 in shop practices and procedures, and 3 in basic electricity. In a business machine or office machine repairman apprentice training program, 1,000 clock hours of experience and 60 contact hours of related instruction, only IF the duty assignment of office machine repairman was held for a minimum of one year (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in use and care of hand tools, 2 in shop practices and procedures, 3 in basic electricity, and 6 in office machine repair laboratory. In the lower-division baccalaureate/associate degree category, 1 semester hour in use and care of hand tools, 2 in shop practices and procedures, and 3 in basic electricity, and additional credit in electricity and office machine repair on the basis of institutional evaluation. In a business machine or office machine repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, only IF the duty assignment of office machine repairman was held for a minimum of one year (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in use and care of hand tools, 2 in shop practices and procedures, 3 in basic electricity, 9 in office machine repair laboratory, 1 in records administraion, and 2 in personnel supervision. In the lower-division baccalaureate/associate degree category, 1 semester hour in use and care of hand tools, 2 in shop practices and procedures, 3 in basic electricity, 1 in records administration, and 2 in personnel supervision, and additional credit in electricity, office machine repair, records administration, and personnel supervision on the basis of institutional evaluation. In a business machine or office machine repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management. In a business machine or office machine repairman apprentice training program, 1,300 clock hours of experience and 60 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-41K-001

REPRODUCTION EQUIPMENT REPAIRMAN

41K20

Exhibit Dates: 10/73-2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

Repairs printing equipment, including duplicators, offset presses, process cameras, and bindery, platemaking, and other machines.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools, 3 in offset press operation, 3 in process camera operation, 3 in bindery operation, 1 in platemaking operation, and 6 for field experience in graphic arts, and credit in mechanical maintenance on the basis of institutional evaluation (5/76).

MOS-41K-002

REPRODUCTION EQUIPMENT REPAIR SPECIALIST

41K10

41K20

Exhibit Dates: 3/77-2/81. (Effective 2/81, MOS 41K was discontinued and its functions were incorporated into MOS 83F, Photolithographer.)

Career Management Field: 81 (Topographic Engineering), subfield 813 (Photolithographer).

Description

Summary: Performs maintenance on printing equipment. *Skill Level 10:* Repairs printing equipment including duplicators, offset presses, process cameras, bindery, platemaking, stripping and other machines; assists in troubleshooting faulty equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; troubleshoots faulty equipment; schedules and coordinates equipment maintenance.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in duplicator operation, 3 in offset press operation, 3 in process camera operation, 3 in bindery operation, and 2 in platemaking operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in duplicator operation, 3 in offset press operation, 3 in process camera operation, 3 in bindery operation, 2 in platemaking operation, 3 for field experience in graphic arts, 3 in use and care of testing equipment, 1 in troubleshooting techniques, and credit in mechanical maintenance on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in duplicator operation, 3 in offset press operation, 3 in process camera operation, 3 in bindery operation, 2 in platemaking operation, 6 for field experience in graphic arts, 3 in use and care of tools and testing equipment, 3 in troubleshooting techniques, and credit in mechanical maintenance on the basis of institutional evaluation (5/78).

MOS-42C-001

BRACE SPECIALIST

42C20

42C40

Exhibit Dates: 10/73-8/76.

Career Management Field: 91 (Medical), subfield 911 (Prosthetic Appliances).

Description

Summary: Supervises or performs the construction, repair, and adjustment of orthopedic prosthetic appliances. *Skill Level 20:* Designs and constructs prosthetic devices such as braces, splints, corsets, and corrective footwear from impressions, blueprints, sketches, or other types of specifications, makes mold of limb or deformity or draws pattern from measurements; cuts and fashions devices from metal, plastic, and leather, using welding equipment, forge, riveting machine, drill, and handtools; fabricates and constructs artificial limbs; fits assembled appliance to patient; repairs, readjusts, and refits worn of defective appliances. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises fabrication and fitting of orthopedic appliances; organizes work schedules and assigns duties; instructs personnel in work techniques and procedures; inspects completed prostheses to insure construction according to specifications; requisitions, stores, and issues equipment and supplies.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 24 semester hours in orthotic techniques (including spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 3 in anatomy and physiology, and 2 in shop practices (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 24 semester hours in orthotic techniques (including spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 3 in anatomy and physiology, 3 in human relations, 3 in shop management, and 2 in shop practices (3/76).

MOS-42C-002

ORTHOTIC SPECIALIST

42C10

42C20

42C30

42C40

Exhibit Dates: 9/76-Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Designs, fabricates, fits, adjusts, and repairs orthotic devices. *Skill Level 10:* Able to perform the duties required for 91B10 (Medical Specialist); assists in designing, fabricating, fitting, adjusting, and repairing orthotic appliances; makes impressions of injured body members and fabricates orthotic appliances of metal, plastic, synthetics, resins, plaster, leather, rubber, textiles, and adhesives, using welding, soldering, forging, riveting, sewing, laminating, brazing, woodworking, pattern and template machines and equipment, and all types of power and hand tools; adjusts constructed appliances and fits to patient; repairs, readjusts, reworks, and refits worn and defective appliances. *Skill Level 20:* Able to perform the duties required for Skill Level 10; measures patient in operating room and molds temporary plastic socket; designs, fabricates, and tests experimental devices for which there are no models or standard pattern; adapts techniques to fit local requirements and available equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance for Skill Level 10 and 20 personnel; instructs subordinates in work techniques and procedures; inspects completed appliances. *Skill Level 40:* Able to perform the duties required for Skill Level 30; establishes work priorities; organizes work schedules and assigns duties; supervises the equipment maintenance program; makes sure the shop is safe, clean, and orderly; determines personnel requirements and prepares and conducts training programs; evaluates personnel performance; prepares administrative, technical, and personnel reports; coordinates orthopedic activities with other elements of the medical treatment facility; advises and assists physicians in professional, fiscal, technical, and administrative matters; establishes stock level for supplies and equipment and supervises the requisitioning, storing, and issuing of supplies.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 24 semster hours in orthotic techniques (including spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 2 in anatomy, 2 in shop practices, 1 in physiology, and 1 in kinesiology (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 24 semester hours in orthotic techniques (including spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 3 in clinical orthotics, 3 in human relations, 2 in anatomy, 2 in shop practices, 1 in physiology, and 1 in kinesiology (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 24 semester hours in orthotic techniques (includes spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 3 in clinical orthotics, 3 in human relations, 2 in anatomy, 2 in shop practices, 1 in physiology, and 1 in kinesiology (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 24 semester hours in orthotic techniques (including spinal, lower-extremity, and upper-extremity orthotics), 6 in applied design, 3 in clinical orthotics, 3 in human relations, 3 in personnel supervision, 2 in anatomy, 2 in shop practices, 1 in physiology, and 1 in kinesiology. In the upper-division baccalaureate category, 2 semester hours in medical facility management (6/77).

MOS-42D-001

Dental Removal Prosthetic Specialist

42D10
42D20
42D40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 911 (Prosthetic Appliances).

Description

Summary: Supervises or performs basic and advanced procedures in the fabrication and repair of removable dental prosthetic appliances. *Skill Level 10:* Performs basic procedures in the fabrication and repair of removable and fixed dental prosthetic appliances. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs advanced removable dental laboratory techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 20; performs with high degree of competency all dental prosthetic techniques; supervises overall operation of a dental laboratory. NOTE: May have progressed to 42D40 from 42D20 or 42F20 (Dental Fixed Prothetic Specialist).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in dental anatomy, 3 in dental materials, 5 in complete dentures, and 5 in removable partial dentures (2/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in dental anatomy, 3 in dental materials, 5 in complete dentures, and 5 in removable partial dentures (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in fixed and removable prosthesis, 9 in dental laboratory, 5 in complete dentures, 3 in dental anatomy, 3 in dental materials, and 1 in ethics of business management (2/75).

MOS-42D-002

Dental Laboratory Specialist

42D10
42D20
42D30
42D40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 911 (Dental).

Description

Summary: Supervises or performs basic and advanced procedures in fabrication and repair of dental prosthodontic appliances. *Skill Level 10:* Able to perform the duties required for 91E10 (Dental Specialist); performs primary procedures in fabrication and repair of removable and fixed dental prosthodontic appliances; reviews and processes prosthodontic prescriptions and consultation requests; prepares and uses basic dental laboratory materials; fabricates casts from preliminary impressions; fabricates final impression trays for complete, immediate complete, removable, and fixed partial dentures; prepares impressions and pours final casts for complete, immediate complete, removable, and fixed partial dentures; fabricates stabilized and nonstabilized occlusion rims for complete, immediate complete, removable, and fixed partial dentures; replaces missing or broken teeth and repairs fractured bases on complete and removable partial dentures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs basic dental laboratory procedures; uses facebrow and measurements to mount casts on adjustable articulator; employs mold guide, occlusion rims, registrations, markings, and interarch measurements to select denture teeth; fabricates maxillary and mandibular complete dentures using conventional and liquid resin techniques; fabricates immediate complete dentures with surgical templates; fabricates removable partial denture prostheses; modifies dental laboratory techniques to fabricate removable complete and partial dentures for cases with variant interarch and interridge relationships; repairs, relines, rebases, and duplicates removable complete and partial dentures; fabricates and repairs basic orthodontic, pedodontic, periodontic, and surgical appliances; fabricates and repairs conventional fixed partial dentures, including crowns, inlays, and performed pontics; fabricates transitional fixed partial dentures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs advanced dental laboratory procedures or assists in managing a small dental laboratory; fabricates ceramic and porcelain fused-to-metal crowns and fixed partial dentures; fabricates fixed and removable precision appliances; fabricates complex orthodontic, pedodontic, periodontic, and surgical appliances; assists in fabricating maxillofacial appliances; performs quality control procedures; establishes work priorities and assigns duties; organizes work schedules; demonstrates and explains work techniques and procedures to subordinates; evaluates personnel performance; supervises operational maintenance program of laboratory equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing a large dental laboratory or a section of a Regional Dental Activity; advises and assists dentists in personnel matters, supply economy procedures, and fiscal, technical, and administrative matters; prepares administrative and technical reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and tooth morphology, 1 in dental materials, and 1 in complete dentures (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in complete dentures, 3 in partial dentures, 3 in fixed restorative, 2 in anatomy and tooth morphology, 1 in dental anatomy, and 1 in dental materials (6/77).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in complete dentures, 4 in dental ceramics, 3 in partial dentures, 3 in fixed restorative, 2 in anatomy and tooth morphology, 2 in orthodontic procedures, 2 in dental anatomy, 1 in dental materials, and 1 in dental anatomy (occlusion), and additional credit in personnel supervision, field experience in management, and communication skills on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in complete dentures, 4 in dental ceramics, 3 in partial dentures, 3 in fixed restorative, 2 in anatomy and tooth morphology, 2 in orthodontic procedures, 2 in dental anatomy, 2 in personnel supervision, 2 for field experience in management, 2 in oral communication skills, 1 in health care management, 1 in dental materials, and 1 in dental anatomy (occlusion) (6/77).

MOS-42E-001

OPTICAL LABORATORY SPECIALIST

42E20
42E40
42E50

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 911 (Prosthetic Appliances).

Description

Summary: Supervises or performs the preparation of prescription lenses. *Skill Level 20:* Makes, duplicates, and inserts prescription lenses in spectacle frames and gas masks. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises optical laboratory operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises the functions of the optical laboratory section of a medical depot, providing technical guidance to personnel repairing complex optical equipment; prepares technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in physics and 12 for an optical internship (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in physics, 6 in management and supervision, and 15 for an optical internship (2/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in physics, 9 in management and supervision, and 15 for an optical internship (2/75).

MOS-42E-002

OPTICAL LABORATORY SPECIALIST

42E10
42E20
42E30
42E40
42E50

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Makes prescription lenses or supervises optical laboratories. *Skill Level 10:* Makes, duplicates, and inserts prescription lenses; selects proper stock to fill requirements of spectacle prescription; computes and records curvature and thickness and marks lenses for surfacing; prepares lenses for blocking and surfacing; grinds and polishes lenses to prescribed specifications; locates and identifies optical center, optical axis, and cutting line on lenses; chucks lenses for edging; edges lenses to correct size and shape; hardens glass lenses to required impact resistance; selects and assembles frame components; mounts lenses and aligns frames; prepares completed spectacles for shipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; edits prescriptions and maintains records of prescriptions received by optical unit; calculates and records amount of prism required to permit necessary decentration; calculates and records distance required between top of bifocal or trifocal segments and distance-optical-center to produce prescribed segment height; dyes plastic lenses to specified tints; maintains files of completed spectacle prescriptions; prepares surface work sheets for plastic len coating; calculates and records positonal effective lens power; maintains inventory of supplies and equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a small optical laboratory; inspects completed spectacles for compliance with prescription requirements and quality standards; assigns duties and trains subordinates in work techniques and procedures; determines stock levels; maintains supply records; requisitions, stores, and issues supplies; supervises preventive maintenance of equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a medium-sized optical laboratory; maintains records of cost data and expenditures; make sure the laboratory is safe, clean, and orderly; supervises quality control procedures; established work priorities; organizes work schedules; evaluates personnel performance; plans layout areas; prepares technical, personnel, and administrative reports; coordinates activities to the optical laboratory with medical treatment facilities; advises and assists professionals in fiscal, technical, and administrative matters. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises a large optical laboratory; prepares periodic laboratory reports; determines manpower requirements; drafts budget estimates; prepares operating procedures for optical unit.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 10 semester hours for an optical laboratory practicum, 8 in optical laboratory procedures, and 5 in physics (optics) (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 10 semester hours for an optical laboratory practicum, 8 in optical laboratory procedures, 5 in physics (optics), 1 in anatomy and physiology, and 1 in office procedures (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 10 semester hours for an optical laboratory practicum, 8 in optical laboratory procedures, 5 in physics (optics), 3 in office procedures, 1 in anatomy and physiology, and 1 in personnel supervision (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours for an optical laboratory practicum, 8 in optical laboratory procedures, 5 in physics (optics), 3 in office procedures, 3 in personnel supervision, 3 for field experience in management, and 1 in anatomy and physiology (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 10 semester hours for an optical laboratory practicum, 8 in optical laboratory procedures, 5 in physics (optics), 3 in office procedures, 3 in personnel supervision, 3 for field experience in management, 3 in introduction to management, and 1 in anatomy and physiology. In the upper-division baccalaureate category, 3 semester hours in medical facility management and 3 in management problems (6/77).

MOS-42F-001

DENTAL FIXED PROSTHETIC SPECIALIST

42F20

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 42F was discontinued and its functions were incorporated into MOS 42D, Dental Laboratory Specialist.)

Career Management Field: 91 (Medical), subfield 911 (Prosthetic Appliances).

Description

Skill Level 20: Able to perform the duties required for 42D10 (Dental Removable Prosthetic Specialist); fabricates and repairs fixed prosthodontic appliances; interprets dentists' prescriptions; pours impressions; prepares models (indices, saws out, and trims dies); waxes, casts, veneers, and finishes crowns and bridges for conventional fixed prostheses; waxes and casts substructures for ceramic crowns and bridges; prepares metal to receive porcelain; applies and bonds procelain to metal with porcelain furnace; grinds, polishes, and finishes fixed prostheses.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in beginning crown and bridge (conventional) and 5 in advanced crown and bridge (ceramics) (3/76). NOTE: See the recommendation for 42D10 (Dental Removable Prosthetic Specialist) in exhibit MOS-42D-001.

MOS-43E-001

PARACHUTE RIGGER

43E20
43E40
43E50

Exhibit Dates: 10/73–2/77.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Is a qualified parachutist; packs personnel parachutes and aircraft cargo; fabricates, assembles, repairs, and rigs airdrop equipment. *Skill Level 20:* Packs and tests personnel parachutes; fabricates, rigs, and assembles airdrop equipment; loads, positions, and secures cargo for airdrop. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and instructs parachute riggers; inspects the work of parachute riggers. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a midlevel manager assisting with planning, coordinating, and supervising all parachute and airdrop activities; normally supervises more than 36 persons.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in parachute inspection and rigging and 5 in airfreight (on-board) management. In the upper-division baccalaureate category, 3 semester hours in technical electives (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in parachute inspection and rigging, 6 in airfreight (on-board) management, and 3 in personnel management. In the upper-division baccalaureate category, 3 semester hours in technical electives (2/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in parachute inspection and rigging, 6 in airfreight (on-board) management, and 6 in personnel management. In the upper-division baccalaureate category, 3 semester hours in technical electives and 3 in personnel management (2/75).

MOS-43E-002

PARACHUTE RIGGER

43E10
43E20
43E30
43E40
43E50

Exhibit Dates: 3/77–Present.

Career Management Field: 76 (Supply and Service), subfield 762 (Service).

Description

Summary: Is a qualified parachutist; packs aircraft cargo and personnel parachutes; fabricates, assembles, repairs, and rigs airdrop equipment. *Skill Level 10:* Packs and repairs cargo and personnel parachutes; rigs, fabricates, and assembles airdrop equipment; loads, positions, and secures cargo for airdrops; tests hooks and releases; utilizes repair equipment for parachutists; reads maps; loads, unloads, receives, inspects, inventories, and stores air equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; conducts routine and in-storage inspections of airdrop equipment; tests ripcord and canopy release assemblies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small- and medium-size activities engaged in packing and repairing parachutes and rigging and loading supplies and equipment for airdrop; assigns packers, repairers, riggers, and inspectors; instructs personnel on job requirements and techniques and inspects work in progress; inspects working area to insure a clean and safe working environment; plans and supervises operational equipment maintenance programs; establishes supply requirements; requisitions, stores, and issues supplies and equipment; establishes, develops, and maintains operational and maintenance records and prepares periodic reports; may supervises up to 35 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large activities engaged in packing and repairing parachutes and rigging and loading of supplies and equipment for airdrop; may supervise up to 50 persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer in airdrop equipment support company; may supervise more than 50 persons, or serve in staff positions.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in parachute inspection and rigging and 1 in map reading (5/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in parachute inspection and rigging, 5 in air freight (on-board) management, and 1 in map reading (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in parachute inspection and rigging, 6 in air freight (on-board) management, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 6 semester hours in parachute inspection and rigging, 6 in air freight (on-board) management, 1 in map reading, 2 in technical report writing, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, 3 in inventory control, 3 in safety procedures, and 2 in records administration (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours in parachute inspection and rigging, 6 in air freight (on-board) management, 1 in map reading, 3 in personnel supervision, 3 in human relations, 2 in technical report writing, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, 3 in inventory control, 3 in safety procedures, 3 in records administration, and 3 in introduction to management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 for field experience in management, 3 in records administration, 3 in inventory control, 3 in safety procedures, and 3 in introduction to management (5/78).

MOS-43J-001

TEXTILE REPAIRMAN

43J10
43J20
43J40

Exhibit Dates: 10/74–2/76. (Effective 3/76, MOS 43J was discontinued and its functions were incorporated into MOS 43M, Fabric Repairman.)

Career Management Field: 57 (Field Service), subfield 573 (Textile Renovation).

Description

Summary: Repairs or supervises the repair and alteration of clothing and other textile items. *Skill Level 10:* Assists in repair and alteration of textile items and clothing; operates electric and pedal-driven sewing, stitching, and patching equipment; performs minor repairs and some preventive maintenance on textile repair equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; fabricates and repairs textile items; sizes, fits, and sews worn or damaged clothing; maintains and operates mobile textile repair facilities. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises textile repair personnel; performs complex mending, alteration, and renovation of clothing and textile items; demonstrates and instructs in machine sewing operations; demonstrates the operation of mobile units and other field operations; supervises the maintenance of textile repair equipment and related activities in mobile and fixed shop operations; assigns personnel to work positions; inspects completed work for accuracy; estimates supply requirements.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in power sewing machine operation and 4 for field experience in sewing operations (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in power sewing machine operation and 6 for field experience in sewing operations (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in power sewing machine operation and 8 for field experience in sewing and tailoring operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in introduction to management, 2 in personnel management, 2 in records administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in introduction to management (11/75).

MOS-43K-001

CANVAS REPAIRMAN

43K10
43K20
43K40

Exhibit Dates: 10/74–2/76. (Effective 3/76, MOS 43K was discontinued and its functions were incorporated into MOS 43M, Fabric Repairman.)

Career Management Field: 57 (Field Service), subfield 573 (Textile Renovation).

Description

Summary: Repairs or supervises the repair of canvas and webbed items and related equipment. *Skill Level 10:* Assists in the repair of canvas equipment and canvas and webbed items; operates electric and pedal-driven equipment for repair of canvas covers, tarpaulins, and other canvas and webbed items; performs minor repairs and preventive maintenance on canvas repair equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; fabricates and repairs canvas and webbed items; inspects repairable canvas equipment and webbed items for damage; tests tensile strength of canvas and repairs with approved test equipment; adjusts and performs preventive maintenance on canvas and webbed item repair equipment. *Skill Level*

40: Able to perform the duties required for Skill Level 20; supervises the repair of canvas repair equipment; directs personnel in setting up canvas repair equipment for repair and salvage operations; inspects repaired canvas and webbed items; directs the salvage of canvas and canvas equipment; instructs personnel in repair and salvage techniques; assigns personnel to work positions.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in power sewing machine operation and 4 for field experience in sewing operations (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in power sewing machine operation and 6 for field experience in sewing operations (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in power sewing machine operation and 8 for field experience in sewing operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in introduction to management, 2 in personnel management, 2 in records administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-43M-001

FABRIC AND LEATHER REPAIR FOREMAN

43M40

Exhibit Dates: 10/73–2/76.

Career Management Field: 57 (Field Services), subfield 573 (Textile Renovation).

Description

Skill Level 40: Serves as fabric and leather foreman; able to perform the duties required for 43J40 (Textile Repairman) or 43K40 (Canvas Repairman); supervises personnel involved in the classification, hand and machine repair and alteration, and fabrication of textile, canvas, clothing, webbed, and leather items; instructs subordinates in repair and salvage procedures and techniques; schedules maintenance of fabric and leather equipment; supervises movement and placement of mobile repair facilities and other field operations; schedules and expedites work schedules of personnel.

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in power sewing machine operation and 8 for field experience in sewing and tailoring operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in introductory organization management, 2 in personnel management, 2 in records administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and administration and 3 for field experience in management (11/75).

MOS-43M-002

FABRIC REPAIRMAN

43M10

43M20

43M40

Exhibit Dates: 3/76–2/77.

Career Management Field: 57 (Field Services), subfield 573 (Textile Renovation).

Description

Summary: Repairs or supervises the repair of textile, canvas, or webbed equipment and clothing. *Skill Level 10:* Assists in the repair and alteration of textile items and clothing, canvas equipment, and canvas and webbed items; operates electric and pedal-driven sewing, stitching, and patching equipment; performs minor repairs and some preventive maintenance on canvas repair and textile equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; fabricates and repairs textile, canvas, and webbed items and clothing; inspects repairable canvas equipment and webbed items for damage; sizes, fits, and sews worn or damaged clothing; adjusts sewing machines and replaces minor parts; lubricates equipment and performs preventive maintenance before, during, and after operation. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and instructs in the repair, alteration, and salvage of textile, canvas, and webbed items and clothing; assigns duties and schedules work; inspects completed work for accuracy and quality control; inspects irreparable items to assure that all salvageable parts have been removed; estimates supply requirements; coordinates fabric repair activities and preventive maintenance in mobile and fixed shop conditions; submits progress reports; supervises 15 to 30 fabric repairmen.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in power sewing machine operations and 4 for field experience in sewing operations (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in power sewing machine operations and 6 for field experience in sewing operations (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in power sewing machine operation and 8 for field experience in sewing and tailoring operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in human relations, 3 in introductory organization management, 2 in personnel management, 2 in records administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management and administration and 3 for field experience in management (5/76).

MOS-43M-003

FABRIC REPAIR SPECIALIST

43M10

43M20

43M30

43M40

Exhibit Dates: 3/77–Present.

Career Management Field: 76 (Supply and Service), subfield 762 (Service).

Description

Summary: Repairs or supervises the repair of textile and canvas items, webbed equipment and clothing. *Skill Level 10:* Repairs textile and canvas items; determines repair requirement; operates sewing, stitching and patching equipment; performs minor repairs and preventive maintenance on canvas repair and textile equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs quality assurance inspections; inspects, classifies and determines repairability of textile, canvas and webbed items; salvages repairable parts. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and coordinates small and medium-sized operations and preventive maintenance activities in mobile and fixed textile and canvas repair shop; establishes quality control standards; establishes work schedules and assignments; supervises from 8 to 30 persons; evaluates personnel performance; counsels personnel and prepares evaluation reports; maintains records. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large-sized operations and preventive maintenance activities in textile and canvas repair shop; supervises more than 31 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in power sewing machine operations and 4 for field experience in sewing operations (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in power sewing machine operations and 6 for field experience in sewing operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in power sewing machine operations and 8 for field experience in sewing operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in human relations, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours in sewing and tailoring operations, 3 in human relations, 3 in introductory organization management, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (5/78).

MOS-44B-001

METAL BODY REPAIRMAN

44B20

44B40

Exhibit Dates: 10/73–8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Repairs and straightens metal body panels, fenders, and sheet metal parts;

repairs radiators and fuel tanks, and modifies related parts and components. *Skill Level 20:* Determines nature and extent of damage and the repairs required; uses hand tools, power tools, and hydraulic jacks; cuts, welds, brazes, and solders body components; disassembles, repairs, reassembles, and installs fuel tanks, radiators, and similar items; prepares surfaces for painting by sanding, masking, and cleaning; selects, matches, and applies paint to surfaces. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the repair, repainting, and installation of metal body components, radiators, and fuel tanks; determines tools, equipment, and work requirements to repair extensive body damages; performs the more difficult tasks such as forming and forging; assigns work and projects to subordinate personnel and inspects their work; conducts on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in basic auto body repair. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic auto body repair and 3 in basic gas welding, and additional credit on the basis of institutional evaluation. In an auto body repairman apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic auto body repair, 3 in basic gas welding, 3 in shop practices and procedures, and 9 in body refinishing. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic auto body repair, 9 in body refinishing, 3 in basic gas welding, and 3 in personnel supervision, and additional credit on the basis of institutional evaluation. In an auto body repairman apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction (2/75).

MOS-44B-002

Metal Worker

44B10
44B20
44B30
44B40

Exhibit Dates: 9/75-8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Welds metal articles and parts; repairs, repaints, and installs metal body components, radiators, and fuel tanks, and modifies other related items; supervises machine shop activities. *Skill Level 10:* Welds ferrous and nonferrous metals using oxyacetylene or arc welding equipment; determines nature and extent of damage, repairs required, and the welding methods to be employed by examining shape of parts, type of metal, and thickness of section to be welded; selects appropriate welding rod and flux to produce secure bond; makes butt, corner, edge, lap, tee, tack, and slot welds from flat, vertical, and overhead welding positions; make body and fender repairs; prepares surfaces for painting by filling, sanding, masking, and cleaning; selects, matches, and mixes paints and applies to surfaces by brushing or spraying; repairs radiators, fuel tanks, and similar items by straightening, soldering, patching, tube rodding and splicing, plugging core sections, replacing cores, and pressure testing of leaks; uses hand tools, measuring devices, metal shears, drills, metal saws, dolly blocks, bending irons, mallets, sanders, and hydraulic jacks. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; demonstrates and performs more difficult phases of working metals by cutting, forming, welding, forging, and brazing; fabricates complex parts. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects incoming work and determines nature and extent of damage to metal parts and subassemblies; schedules, assigns, and coordinates work according to availability and capability of personnel and equipment; instructs subordinate supervisors in applications of maintenance policies, procedures, and work performance; supervises on-the-job training programs; supervises preparation of shop records and reports and the receipt, maintenance, and issue of shop tools, equipment, and parts. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs as metalworking foreman, machine shop foreman, or toolmaker foreman. NOTE: May have progressed to 44B40 from 44E30 (Machinist).

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in basic auto body repair and 3 in basic gas welding. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic auto body repair and 3 in basic gas welding, and additional credit on the basis of institutional evaluation. In an auto body repairman, painter, or radiator repairman apprentice training program, 1,000 clock hours of experience and 220 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In an auto body repairman, painter, or radiator repairman apprentice training program, 2,000 clock hours of experience and 250 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in basic auto body repair, 9 in auto body refinishing, and 3 in basic welding; if the duty assignment was welder foreman or metal worker foreman, 3 additional semester hours in personnel supervision. In an auto body repairman, painter, or radiator repairman apprentice training program, 3,000 clock hours of experience and 275 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management. In an auto body repairman, painter, or radiator repairman apprentice training program, 4,000 clock hours of experience and 300 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-44B-003

Metal Worker

44B10
44B20

Exhibit Dates: 9/80-Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Repairs and straightens metal body panels, fenders, and sheet metal parts; repairs and installs radiators and fuel tanks; welds ferrous and non-ferrous metals. *Skill Level 10:* Repairs damaged metal body components with hammer, dolly blocks, spoon, and hydraulic jacks; removes and replaces body trim; cuts, grinds, and installs safety glass; cleans, repairs, and installs radiators and fuel tanks; prepares surface for painting by filling, sanding, masking, and cleaning; welds ferrous and non-ferrous metals, using oxyacetylene, electric arc and inert gas welding equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; demonstrates and performs more difficult phases of working metal by forming, welding, forging, and brazing; fabricates complex parts.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive body repair, 3 in welding, and 3 in radiator repair (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive body repair, 6 in welding, and 3 in radiator repair (7/82).

MOS-44C-001

Welder

44C20
44C40

Exhibit Dates: 10/73-8/75. (Effective 9/75, MOS 44C was discontinued and its functions were incorporated into MOS 44B, Metal Worker.)

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Welds ferrous and nonferrous metals in vertical, flat, and overhead positions, using gas, including inert gas, and electric arc equipment; welds butt, corner, edge, lap, tee, tack, and slot joints; brazes and burns metals; uses hand tools, measuring devices, and power equipment such as shares, drills, and metal saws; fabricates complex parts; identifies metals; determines welding method to be used. *Skill Level 20:* Selects proper rod and flux; prepares metal and fastens it securely to prevent warpage and distortion; works from blueprints and sketches. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises welding operations; demonstrates and performs smithing operations; inspects welds for warpage, distortion, cracks, and hardness; lays out complex projects and assigns jobs to subordinate personnel; plans and conducts on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in welding (general). In the lower-division baccalaureate/associate degree category, a minimum of 9 semester hours in welding (general) and additional credit on the basis of institutional evaluation. In a welder (general) apprentice training program, a minimum of 1,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of performance examination (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in welding (general). In the lower-division baccalaureate/associate degree category, 15 semester hours in welding (general) and additional credit on the basis of institutional evaluation. In a welder (general) apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction; journeyman status achieved through employer or trade association evaluation (2/75).

MOS-44E-001

MACHINIST

44E20
44E30
44E40

Exhibit Dates: 10/73–8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Fabricates, repairs, and modifies metallic and nonmetallic parts, using all types of machine tools such as engine lathes, milling machines, boring machines, and grinders; machines pieces according to specifications, tooling instructions, and standard charts, applying knowledge of machine methods; reads blueprints and job order for product specifications. *Skill Level 20:* Lays out and sets up work; establishes and marks necessary reference points, centerlines, and machining guidelines; computes and set up proper machine speeds to attain correct cutting speeds, setups, and depth of cut and feed; clamps or fastens work in holding devices or to machines; selects, grinds, and affixes cutting tools; performs toolbit grinding and setting; adjusts and controls machines; checks dimensions of finished work, using measuring devices such as squares, rules, scales, calipers, micrometers, and thread gages; employs shop mathematics, charts, and tables; interprets simple drawings and sketches. *Skill Level 30:* Able to perform the duties required for Skill Level 20; designs, fabricates, modifies and repairs jigs, fixtures, dies, and special tools; sets and adjusts tools; applies heat-treating procedures, including annealing, normalizing, hardening, case hardening, and tempering; works within close precision tolerances of .001 inch; uses standard and nonstandard practices in accomplishing unusual machining jobs; inspects completed work and tests parts to determine proper performance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a fully qualified machinist; sets up and operates machine tools; fits and assembles parts to make or repair mechanisms, tools, or machines; applies knowledge of mechanics, shop mathematics, metal properties, and layout proceures; reads sketches, blueprints, and descriptions of parts; supervises machine operations and determines work request validity; assigns work in accordance with priority of jobs, availability of equipment, and abilities of machinists; inspects equipment and machines to determine condition and supervises adjustments and repairs; enforces safety regulations.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, a minimum of 9 semester hours in a machinist program, and additional credit on the basis of institutional evaluation. In a machinist apprentice training program, a minimum of 1,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (2/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, a minimum of 15 semester hours in a machinist program, and additional credit on the basis of institutional evaluation. In a machinist apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, a minimum of 15 semester hours in a machinist program, and additional credit on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a machinist or a machinist setup operator (2/75).

MOS-44E-002

MACHINIST

44E10
44E20
44E30

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Supervises or performs the fabrication, repair, and modification of metallic and nonmetallic parts. *Skill Level 10:* Fabricates, repairs, and modifies metallic and nonmetallic parts to blueprint specifications utilizing such machines as engine lathes, grinders, milling machines, vertical bandsaws, and drill presses and their associated attachments, accessories, and tools; interprets job orders, blueprints, and specifications; lays out and sets up work; establishes and marks necessary reference points, centerlines, and machining guidelines; computes and sets up proper machine speeds to attain correct cutting speeds, setups, and depth of cut and feed; clamps or fastens work in holding devices or to machines; selects, grinds, and affixes cutting tools; performs toolbit grinding and setting; adjusts and controls machines; checks dimensions of finished work, using measuring devices such as squares, rules, scales, calipers, micrometers, and thread gauges; employs shop mathematics, charts, and tables; interprets blueprints and sketches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs as a machinist and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; designs, fabricates, modifies, and repairs jigs, fixtures, dies, and special tools to facilitate metal working operations; performs as machine shop or toolmaker foreman; determines nature and extent of work to be performed and method of its accomplishment; employs standard parctices of machining, such as toolbit angles, proper cutting speeds for various materials, and methods of setting and adjusting tools to suit materials; applies heat-treating procedures, including annealing, normalizing, hardening, case hardening, and tempering; grinds and sharpens tools such as drills, toolbits, and reamers; works to dimensions as precise as tolerances of .001 inch; uses technical instruction in accomplishing unusual machining jobs involving standard and nonstandard practices; converts specifications and instructions to machining operations; inspects completed work and tests parts; requisitions sufficient supplies of expendable tools and materials.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, a minimum of 9 semester hours in a machinist program, and additional credit on the basis of institutional evaluation. In a machinist apprentice training program, a minimum of 1,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, a minimum of 15 semester hours in a machinist program, and additional credit on the basis of insitutional evaluation. In a machinist apprentice training program, a minimum of 4,000 clock hours of experience and 288 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, a minimum of 15 semester hours in a machinist or machinist setup operator program, and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, a minimum of 15 semester hours in a machinist or machinist setup operator program, and additional credit on the basis of institutional evaluation; if the duty assignment was either machine shop foreman or machine operator foreman, 3 additional semester hours for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management if the duty assignment was either machine shop foreman or machine operator foreman. In a machinist apprentice training program, a minimum of 6,000 clock hours of experience and 432 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-44E-003

Machinist

44E10
44E20
44E30
44E40

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 632 (Metalworking).

Description

Summary: Performs and supervises the fabrication, repair, and modification of metallic and nonmetallic parts; supervises metal work shop activity. *Skill Level 10:* Fabricates, repairs, and modifies metallic and nonmetallic parts using utility grinders, power cutoff saws, armature undercutters, arbor and hydraulic presses, drill presses and their associated attachments, accessories, and tools; interprets job orders, blueprints, sketches, and specifications; lays out and sets up work; establishes and marks necessary reference points, centerlines, and matching guidelines; computes and sets up proper machine speeds to attain correct cutting speeds, and depth of cut and feed; checks dimensions of finished work, using measuring devices such as squares, rules, scales, calipers, micrometers, and thread gauges; operates hand tools such as files, taps, dies, punches, hammers, screwdrivers, and wrenches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; fabricates, repairs, and modifies metallic and nonmetallic parts, using such machines as milling machines, shapers, vertical and horizontal bandsaws, lathes, and tool and cutter grinders; applies heat treating procedures; conducts on-the-job training. *Skill Level 30:* Able to perform the duties required for 44E20 or 44B20 (Metal Worker); supervises support maintenance/metalworking shop; performs final inspection and approves disposition of completed work; supervises preparation of shop records and reports; assists in planning and setting up of maintenance shops to obtain maximum utilization; schedules, assigns, and coordinates work; may supervise up to 19 lower-skill-level personnel. NOTE: May have progressed to 44E30 from 44E20 or 44B20 (Metal Worker). *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs as support maintenance machine shop supervisor or metal worker supervisor; performs support maintenance administrative functions and supervises the preparation of records and training of lower-skill-level personnel; may supervise 20 or more lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in machine shop laboratory, and 3 in machine shop theory (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in machine shop laboratory and 4 in machine shop theory (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in machine shop laboratory and 4 in machine shop theory. In the lower-division baccalaureate/associate degree category, 8 semester hours in machine shop laboratory, 4 in machine shop theory, and 3 in personnel supervision (7/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 8 semester hours in machine shop laboratory, 4 in machine shop theory, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (7/82).

MOS-45B-001

Small Arms Repairer
(Small Arms Repairman)

45B10
45B20
45B30

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Supervises or performs repair and limited overhaul of small arms and other infantry weapons. *Skill Level 10:* Cleans components of dirt, rust, and corrosion; lubricates moving parts; disassembles weapons and determines condition of components; measures degree of wear with precision measuring instruments; repairs and refinishes weapons by honing, grinding, sandblasting, degreasing, and soldering; reassembles weapons, makes adjustments, checks dimensions and tolerances, and tests weapons' mechanisms; tests fire weapons; uses common and specialized mechanics tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises inspection, repair, and technical service assistance teams; maintains records; evaluates the condition of small arms and determines the maintenance or repairs required; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in use and care of hand and power tools, 2 in use and care of precision testing equipment, and additional credit in a mechanical repairman program on the basis of institutional evaluation. In a maintenance mechanic or repairman (gun repairman) apprentice training program, 500 clock hours of experience and 70 contact hours of related instruction (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In a maintenance mechanic or repairman (gun repairman) apprentice training program, 1,000 clock hours of experience and 70 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in use and care of hand and power tools, 2 in use and care of precision testing equipment, 2 in personnel supervision, and 1 in records administration, and additional credit on the basis of institutional evaluation. In a maintenance mechanic or repairman (gun repairman) apprentice training program, 1,200 clock hours of experience and 70 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-45B-002

Small Arms Repairer

45B10
45B20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs or supervises the performance of maintenance, repair, and overhaul of small arms. *Skill Level 10:* Disassembles weapons and cleans components of dirt, rust, and corrosion; inspects components for defects; performs repairs by grinding, sandblasting, soldering, and fitting component parts; replaces defective parts; lubricates and reassembles weapons; fits and adjusts parts to ensure smooth operation; uses common and specialized hand tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; troubleshoots and diagnoses small arms malfunctions; provides technical guidance and assistance to Skill Level 10 personnel; supervises technical service assistance teams.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in use and care of hand tools and 2 in use and care of precision test equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in use and care of hand tools, 2 in use and care of precision test equipment, and 3 in basic firearms repair (7/82).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in use and care of hand tools and 2 in use and care of precision test equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in use and care of hand tools, 2 in use and care of precision test equipment, 3 in basic firearms repair, and additional credit in basic firearms repair on the basis of institutional evaluation (7/82).

MOS-45D-001

Self-Propelled Field Artillery
Turret Mechanic

45D10
45D20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Troubleshoots and performs maintenance on armament, fire control, and related components of field artillery systems. *Skill Level 10:* Removes, repairs, installs, and tests armament, sighting, fire control, electrical, and mechanical systems; repairs and adjusts previously diagnosed malfunctions of mechanical, electrical, and hydraulic systems; troubleshoots mechanical, electrical, and hydraulic systems using hand tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; diagnoses and troubleshoots to component level; isolates malfunctions using schematic diagrams; tests and inspects components; conducts on-the-job training and completes maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in basic electricity, and 1 in use and care of hand tools (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in basic electricity, 1 in use and care of hand tools, 1 in records administration, and 1 in industrial safety (7/82).

MOS-45E-001

XM1 Tank Turret Mechanic

45E10

45E20

Exhibit Dates: 3/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs maintenance on armament, fire control, and related components of tanks. *Skill Level 10:* Services, repairs, and adjusts armament and fire control systems; performs corrective maintenance on mechanical, electrical, and hydraulic components; performs site adjustments and test-operates equipment; troubleshoots and repairs mechanical, electrical, and hydraulic systems using schematic diagrams; uses power tools, hand tools and test equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; diagnoses and troubleshoots to component level; conducts on-the-job training and completes maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in basic electricity, and 1 in use and care of hand tools (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in basic electricity, 1 in use and care of hand tools, 1 in records administration, and 1 in industrial safety (7/82).

MOS-45G-001

Fire Control System Repairer
(Tactical Fire Control System
Repairer)

45G10

45G20

45G30

Exhibit Dates: 9/81–Present.

Career Management Field: 63 (Mechanical Maintenance, subfield 634 (Armament Maintenance).

Description

Summary: Performs and supervises maintenance of laser, infra-red laser devises, and electronic ballistic computers. *Skill Level 10:* Uses electronic and mechanical test equipment to perform troubleshooting and diagnostic procedures; traces circuits, uses schematic diagrams, hand and power tools; repairs circuit boards and practices laser safety precautions; has a workable knowledge of the multimeter, oscilloscope and other special meters; visually inspects circuits and removes and replaces defective electrical and electronic components; has a thorough knowledge and understanding of electrical and electronic theory. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs inspection and testing of repaired equipment; conducts on-the-job training; prepares reports and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and instructs lower-skill-level personnel in troubleshooting and proper maintenance procedures and practices; prepares reports and records; plans work schedules and maintenance priorities; administers the shop safety program.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in electrical shop, 5 in electrical fundamentals, and 5 in electronic fundamentals. In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical shop, 5 in electrical/electronics theory, and 2 in computer fundamentals (2/84).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in electrical shop, 5 in electrical fundamentals, and 5 in electronic fundamentals. In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical shop, 5 in electrical/electronics theory, and 2 in computer fundamentals (2/84).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical shop, 5 in electrical/electronics theory, 2 in computer fundamentals, and 3 in personnel supervision (2/84).

MOS-45J-001

Aircraft Armament Repairman

45J20

45J40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 45J was discontinued and its functions were incorporated into MOS 68J, Helicopter Missile Systems Repairer, and MOS 68K, Aircraft Components Repair Supervisor.)

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Supervises or performs maintenance on components and weapons of aircraft armament subsystems. *Skill Level 20:* Performs maintenance on mechanical, electrical, and hydraulic components, and on weapons of aircraft armament subsystems; inspects or performs final checkout of subsystems. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 5 or more persons performing aircraft armament maintenance activities.

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (11/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision (11/75).

MOS-45K-001

Tank Turret Repairman

45K20

45K40

Exhibit Dates: 10/73–8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 636 (Armament Maintenance).

Description

Summary: Performs maintenance on turret mechanisms and weapons of tanks, cupolas, and similar equipment; diagnoses malfunctions; repairs turrets, cupolas, and weapons; tests turret systems. *Skill Level 20:* Determines the nature and causes of malfunctions; repairs loading, firing, and recoil mechanisms; repairs turret-cupola hydraulic systems and wiring systems; analyzes and tests continuity of circuits; uses power tools and hand tools; keeps maintenance records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; determines maintenance required; supervises maintenance; establishes work schedules and priorities; conducts on-the-job training; supervises a minimum of five persons. NOTE: May have progressed to 45K40 from 45K20, 45N20 (Tank Turret Mechanic), 45P20 (Sheridan Turret Mechanic), or 45R20 (Missile Tank Turret Mechanic).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in the selection, care, and use of hand and power tools, 1 in hydraulics, and 1 in electrical wiring systems. In the lower-division baccalaureate/associate degree category, credit on the basis of institutional evaluation and/or performance examination. In a truck mechanic apprentice training program, advanced standing on the basis of employer or trade association performance examination in the areas of basic hand and power tools, electrical systems, and hydraulics (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in the selection, care, and use of hand and power tools, 1 in hydraulics, and 1 in electrical wiring systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and training and additional credit on the basis of institutional evaluation. In a truck mechanic apprentice training program, advanced standing on the basis of employer or trade association performance examination in the areas of basic hand and power tools, electrical systems, and hydraulics (2/75).

MOS-45K-002

Tank Turret Repairer
(Tank Turret Repairman)

45K10
45K20
45K30

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on turret mechanisms and weapons of tanks, cupolas, and similar equipment; diagnoses malfunctions; repairs turrets, cupolas, weapons; tests turret systems. *Skill Level 10:* Determines the nature and causes of malfunctions; repairs loading, firing, and recoil mechanisms; repairs turret-cupola hydraulic systems and wiring systems; analyzes and tests continuity of circuits; rewires circuits; tests and adjusts equipment in accordance with prescribed limits and tolerances; uses power, hand, and special tools and precision instruments; keeps maintenance records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and conducts some on-the-job training for Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; determines the category of maintenance required; establishes on-the-job training programs, workload schedules, and priorities; inspects equipment and prepares inspection reports; supervises a minimum of 9 persons. NOTE: May have progressed to 45K30 from 45K20, 45N20 (Tank Turret Mechanic) 45P20 (Sheridan Turret Mechanic), or 45R20 (Missile Tank Turret Mechanic).

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in the selection, care, and use of hand and power tools, 1 in hydraulics, and 1 in electrical wiring systems. In the lower-division baccalaureate/associate degree category, credit on the basis of institutional evaluation and/or performance examination. In a truck mechanic apprentice training program, advanced standing on the basis of employer or trade association performance examination in the areas of basic hand and power tools, electrical systems, and hydraulics (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in the selection, use, and care of hand and power tools, 2 in hydraulics, and 2 in electrical wiring systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and additional credit in hydraulics and electrical wiring systems on the basis of institutional evaluation. In a truck mechanic apprentice training program, advanced standing on the basis of employer or trade association performance examination in the areas of basic hand and power tools, electrical systems, and hydraulics (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in the selection, use, and care of hand and power tools, 2 in hydraulics, and 2 in electrical wiring systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management, and additional credit in hydraulics and electrical wiring systems on the basis of institutional evaluation. In a truck mechanic apprentice training program, advanced standing on the basis of employer or trade association performance examination in the areas of basic hand and power tools, electrical systems, and hydraulics (12/75).

MOS-45K-003

Tank Turret Repairer

45K10
45K20
45K30

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance and repair on turret mechanisms and weapons. *Skill Level 10:* Performs maintenance and repair of mechanical and hydraulic turret mechanisms and weapons; replaces bearings; cleans and repairs parts; removes and disassembles components for repair; uses precision instruments and hand tools; traces circuits and analyzes electrical problems using schematic diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; troubleshoots and diagnoses turret mechanisms and weapons; isolates causes of malfunctions; determines necessary repairs, and performs final tests and inspections to assure performance; conducts on-the-job training; completes maintenance records. *Skill Level 30:* Able to perform the duties required for 45K20, 45B20 (Small Arms Repairer), or 45L20 (Artillery Repairer); performs, supervises, and inspects maintenance; may supervise up to 19 lower-skill-level personnel in armament maintenance section; plans and organizes work schedules; instructs personnel; establishes a shop safety program. NOTE: May have progressed to 45K30 from 45K20, 45B20 (Small Arms Repairer) or 45L20 (Artillery Repairer).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in hydraulics, 1 in basic electrical wiring, and 1 in use and care of hand tools (7/82).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in hydraulics, 2 in basic electrical wiring, 2 in use and care of hand tools, 3 in troubleshooting techniques (hydraulic and electrical systems), 1 in record keeping, and 2 in personnel supervision. In the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics, 2 in basic electrical wiring, 2 in use and care of hand tools, 3 in troubleshooting techniques (hydraulic and electrical systems), 1 in record keeping, and 2 in personnel supervision (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics, 2 in basic electrical wiring, 2 in use and care of hand tools, 3 in troubleshooting techniques (hydraulic and electrical systems), 1 in record keeping, 3 in personnel supervision, and 3 for field experience in management, and additional credit in troubleshooting techniques (hydraulic and electrical systems) on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management and additional credit in management on the basis of institutional evaluation (7/82).

MOS-45L-001

Artillery Repairer
(Artillery Repairman)

45L10
45L20
45L30

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on artillery turrets, artillery weapons, and similar equipment. *Skill Level 10:* Performs maintenance on light, medium, and heavy self-propelled artillery and turret mechanisms, towed artillery, air defense artillery, and similar equipment; lubricates moving parts; uses common and specialized hand tools; measures tolerances with precision instruments and special tools; applies proper rigging procedures for hoisting heavy equipment and material; traces, tests, repairs, or replaces circuits; inspects equipment and prepares inspection reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; evaluates the condition of equipment to determine the kind of maintenance required; establishes workload schedules and priorities; conducts on-the-job training, inspects the work of subordinates; prepares records, forms and reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in shop practices and 2 in the care and use of tools and precision equipment, and additional credit in basic electricity on the basis of institutional evaluation. In a millwright apprentice training program, 1,000 clock hours of experience (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In a millwright apprentice training program, 1,000 clock hours of experience (12/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in shop practices, 2 in the care and use of tools and precision equipment, 2 in personnel supervision, and 1 in records administration, and additional credit in basic electricity on the basis of institutional evaluation. In a millwright apprentice training program, 1,000 clock hours of experience (12/75).

MOS-45L-002

Artillery Repairer

45L10
45L20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on artillery turrets, weapons and similar equipment. *Skill Level 10:* Performs maintenance on light, medium, and heavy self-propelled and towed artillery, turret mechanisms and similar equipment; lubricates moving parts; uses common and specialized hand tools; measures tolerance with precision instruments and special tools; applies proper rigging procedures for hoisting heavy equipment and material; traces, tests, repairs or replaces circuits. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in shop practices and 2 in use and care of tools and precision test equipment (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in shop practices and 2 in use and care of tools and precision test equipment (7/82).

MOS-45M-001

Aircraft Armament Subsystem
Mechanic

45M20
45M40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 45M was discontinued and its functions were incorporated into MOS 68K, Aircraft Components Repair Supervisor, and MOS 68M, Helicopter Weapon Systems Repairer.)

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Supervises or performs maintenance on aircraft armament subsystems. *Skill Level 20:* Examines armament systems and fire control equipment for malfunctions or defects; determines maintenance required and writes appropriate repair orders; removes, disassembles, repairs, assembles, installs, tests, and adjusts weapons and components; performs modifications, synchronization, boresighting, and aligment; performs final checkout of complete system; keeps records and assists in stacking replacement items. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises aircraft armament maintenance activities; diagnoses unusual malfunctions; establishes maintenance controls and performance standards; conducts on-the-job training.

Recommendation, Skill Level 20

Credit is not recommended because the skills and knowledge are military in nature (2/75).

Recommendation, Skill Level 40

Credit in management and human relations on the basis of institutional evaluation (2/75).

MOS-45N-001

Tank Turret Mechanic

45N10
45N20

Exhibit Dates: 9/75–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on conventional tank turret/cupola systems. *Skill Level 10:* Inspects, tests, troubleshoots, repairs, and adjusts electrical, hydraulic, fire control, mechanical, and firing systems; replaces components; cleans and lubricates turret/cupola systems; uses schematic diagrams; uses repair parts publications and orders parts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulics and 4 in basic electricity, and additional credit in hydraulics, electricity, and mechanics on the basis of institutional evaluation. In an industrial truck mechanic apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In an industrial truck mechanic apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-45P-001

Sheridan Turret Mechanic

45P10
45P20

Exhibit Dates: 9/75–8/80. (Effective 9/80, MOS 45P was discontinued and its functions were incorporated into MOS 45R, Missile Tank Turret Mechanic.)

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on Sheridan tank turret and related equipment. *Skill Level 10:* Inspects, tests, troubleshoots, repairs, and adjusts electrical traversing and elevation system, firing systems, gun launcher system, fire control system, cupola systems, and turret mounted weapons; cleans and lubricates systems; replaces components; uses technical and repair parts publications and electrical diagrams; modifies systems; keeps maintenance records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in basic electricity, and additional credit in basic electricity and mechanics on the basis of institutional evaluation. In an industrial truck mechanic apprentice training program, 1,000 clock hours of experience (electrical) and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In an industrial truck mechanic apprentice training program, 2,000 clock hours of experience (electrical) and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-45R-001

Missile Tank Turret Mechanic

45R10
45R20

Exhibit Dates: 9/75–8/81. (Effective 9/81, MOS 45R was discontinued.)

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Summary: Performs maintenance on missile tank turret system and related equipment. *Skill Level 10:* Performs as missile tank turret mechanic; inspects and tests stabilization systems, electro-hydraulic elevation and transverse system, recoil system, fire control systems, firing systems, gun launcher system, cupola systems, test equipment, and turret mounted weapons; troubleshoots turret cupola systems with fire control, stabilization, simulator sensor, electrical and air flow filter turret test equipment; troubleshoots, adjusts, removes, and replaces prescribed components of turret systems; cleans and lubricates systems; interprets technical publications; keeps maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulics, 4 in basic electricity, and 2 in use and care of testing equipment, and additional credit in hydraulics, basic electricity, and mechanics on the basis of institutional evaluation. In an industrial truck mechanic apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associ-

ate degree category, the recommendation is the same as that for Skill Level 10. In an industrial truck mechanic apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-45T-001

Bradley Fighting Vehicle System
Mechanic
(Improved TOW Vehicle/Infantry
Fighting Vehicle/Cavalry
Fighting Vehicle Turret
Mechanic)

45T10

45T20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Performs maintenance of vehicular-mounted turret armaments including turret weapons systems, fire control systems, and related electrical, mechnical, and hydraulic systems. *Skill Level 10:* Inspects, services, removes, replaces, adjusts, tests, and corrects previously diagnosed malfunctions of sighting and fire control systems and the vehicular-mounted turret electrical, mechanical, and hydraulic systems; cleans and maintains spare parts and hand tools; performs repair techniques as a member of a maintenance team; applies information from technical manuals and common schematic diagrams; completes applicable maintenance forms and records and practices safety precautions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical supervision to skill level 10 personnel; troubleshoots malfunctions using measuring and diagnostic equipment; interprets complex schematic diagrams; knows and applies map reading, traffic management, radio communication, and convoy operations skills.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

MOS-45Z-001

Armament Maintenance Supervisor
(Armament Maintenance Foreman)

45Z40

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Supervises, schedules, and assigns work to repair crews engaged in maintenance of all armament materiel; estimates time required to perform specific jobs; procures parts, supplies, and materiel; determines the method of repair or fabrication; applies information contained in technical publications; conducts on-the-job training; applies test and inspection procedures. NOTE: May have progressed to MOS 45Z40 from 45B30 (Small Arms Repairman), 45K30 (Tank Turret Repairman), or 45L30 (Artillery Repairman).

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management (12/75).

MOS-45Z-002

Armament/Fire Control Maintenance
Supervisor

45Z40

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 634 (Armament Maintenance).

Description

Supervises repair crews engaged in maintenance of all armament/fire control material; understands test and inspection procedure applicable to armament/fire control maintenance; plans and organizes work area layout to gain maximum efficiency and utilization of time, tools, equipment, and personnel; schedules, designs, and coordinates work according to availability and capabilities of personnel and equipment; estimates time required for specific maintenance effort; applies production control and quality control principles and procedures to maintenance operation; performs maintenance-related administrative functions and supervises the preparation of records and reports, and training of lower-skill-level personnel; may supervise 20 or more personnel engaged in mechanical maintenance. NOTE: May have progressed to 45Z40 from 45G30 (Fire Control Systems Repairer), 41C30 (Fire Control Instrument Repairer), or 45K30 (Tank Turret Repairer).

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management (7/82).

MOS-46D-001

Improved Hawk Mechanical Systems
Repairman

46D20

46D40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 46D was discontinued and its functions were incorporated into MOS 24L, Improved Hawk Launcher and Mechanical System Repairman.)

Career Management Field: 23 (Air Defense Missile Maintenance), subfield 236 (Improved Hawk Missile System Repair).

Description

Summary: Supervises or performs maintenance on the electrical, hydraulic, hydropneumatic, mechanical, and electro-mechanical portions of the Improved Hawk system. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances and determines shortcomings and deficiencies with common and system special-design test equipment; performs load-testing, maintenance calibration, and repair of job-related tools and equipment; installs equipment modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; implements quality control measures; supervises inspection and maintenance teams; organizes and conducts on-the-job training; demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electricity, 3 in mechanics, 3 in hydraulics, 1 in shop practices, 3 in technical mathematics, and additional credit in electronics, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in mechanics, 3 in technical mathematics, and additional credit in electronics, electricity, mechanics, and hydraulics on the basis of institutional evaluation (2/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 in mechanics, 3 in technical mathematics, 3 in personnel supervision, 3 in human relations, 3 for field experience in management, and additional credit in electronics, electricity, mechanics, and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (2/76).

MOS-46L-001

Sergeant Electrical-Mechanical
Repairman

46L20

46L40

Exhibit Dates: 10/74–8/77. (Effective 9/77, MOS 46L was discontinued.)

Career Management Field: 21 (Ballistic Missile Repair), subfield 212 (Sergeant Missile Repair).

Description

Summary: Supervises or performs maintenance on the electrical, mechanical, and hydraulic portions of the Sergeant missile system. *Skill Level 20:* Inspects, tests, aligns, and repairs electrical and mechanical portions of the missile rocket motor, control, finds, and drag brakes; performs maintenance of the azimuth orientation system, less theodolite; inspects, tests and adjusts items to specific tolerances and determines shortcomings and deficiencies in electrical, mechanical, and hydraulic assemblies with common and system special-design test equipment; removes malfunctioning assemblies; performs calibration and repairs on tools and equipment; provides technical assistance to support units. *Skill Level 40:* Able to perform the duties required for Skill Level 20; establishes workloads and repair priorities; recommends procedures for receipt, storage, inspection, testing, and repair of items; supervises inspection and maintenance teams; organizes and conducts on-the-job training programs; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in hydraulic laboratory, 2 in basic electricity laboratory, and 2 in systems maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in hydraulic laboratory, 2 in basic electricity laboratory, and 2 in systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 for field experience in management (6/76).

MOS-46N-001

PERSHING ELECTRICAL-MECHANICAL REPAIRMAN

46N20
46N40

Exhibit Dates: 10/73-8/77.

Career Management Field: 21 (Ballistic Missile Repair), subfield 211 (Pershing Missile Repair).

Description

Summary: Supervises or performs routine maintenance on the electrical, mechanical, and hydraulics portions of the Pershing missile system. *Skill Level 20:* Inspects, tests, and adjusts components to specific tolerances; determines shortcomings and deficiencies in electrical, mechanical, electromechanical, hydraulic, pneumatic, and hydropneumatic assemblies, subassemblies, and circuits, using special-design test equipment; repairs or removes, replaces, and determines the serviceability of defective components and parts; performs quality control measures; performs checkouts and inspections of equipment; prepares maintenance and supply forms. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of 5-15 persons; establishes workloads and repair priorities; implements quality control measures; conducts on-the-job training; determines faulty work practices and demonstrates proper maintenance and troubleshooting techniques; establishes and keeps maintenance records.

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in mechanical maintenance. Fully qualified to enter an apprentice training program (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, and 3 for field experience in management. Fully qualified to enter an apprentice training program (3/76).

MOS-46N-002

PERSHING ELECTRICAL-MECHANICAL REPAIRER

46N10
46N20
46N30

Exhibit Dates: 9/77-2/85.

Career Management Field: 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance), subfield 271 (Ballistic/Land Combat Systems Maintenance).

Description

Summary: Supervises or performs maintenance on the electrical, mechanical, and hydraulic portions of the Pershing missile system. *Skill Level 10:* Performs maintenance on the Pershing missile system erecter-launcher, some missile sections, systems structures, missile containers, ground handling equipment, power distribution sets, and related training devices; inspects, tests, and adjusts components to specific tolerances; determines short-comings and deficiencies in electrical, mechanical, electromechanical, hydraulic, pneumatic and hydro-pneumatic assemblies, subassemblies, and circuits with common and system special-design test equipment; removes and replaces defective components and parts; prepares maintenance and supply forms and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel; installs equipment modifications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor; organizes and conducts on-the-job training; supervises maintenance and inspection teams; establishes and keeps maintenance records.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and equipment, and credit in electricity, mechanics, and hydraulics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of tools and equipment, and credit in electricity, mechanics, and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and equipment, and credit in electricity, mechanics, and hydraulics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and equipment, 1 in personnel supervision, and credit in electricity, mechanics, and hydraulics on the basis of institutional evaluation; if the duty position was Pershing Electrical-Mechanical Supervisor, 1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

MOS-46N-003

PERSHING ELECTRICAL-MECHANICAL REPAIRER

46N10
46N20
46N30
46N40

Exhibit Dates: Pending evaluation. 3/85-Present.

MOS-46Q-001

JOURNALIST

46Q10
46Q20
46Q30
46Q40

Exhibit Dates: Pending evaluation. 3/89-Present.

MOS-46R-001

BROADCAST JOURNALIST

46R10
46R20
46R30
46R40

Exhibit Dates: Pending evaluation. 3/89-Present.

MOS-46Z-001

PUBLIC AFFAIRS CHIEF

46Z50

Exhibit Dates: Pending evaluation. 3/89-Present.

MOS-51A-001

CONSTRUCTION AND UTILITIES WORKER

51A10

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 51A was discontinued and its functions were incorporated into MOS 51B, Carpentry and Masonry Specialist; MOS 51C, Structures Specialist; MOS 51N, Water Treatment and Plumbing Systems Specialist; MOS 51R, Electrician; and MOS 52C, Utilities Equipment Repairer.)

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Assists in the performance of various construction and utilities maintenance duties; may have experience in one or more of the following areas: painting, material handling, carpentry, masonry, electricity, sheet metal working, heating and ventilating equipment, refrigeration and air conditioning equipment, water supply, and sewage disposal.

Recommendation

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (12/75).

MOS-51B-001

CARPENTER

51B20

Exhibit Dates: 10/73-2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Fabricates, erects, and maintains wooden articles and structures; examines blueprints, sketches, and drawings; orders materials and tools; performs preventive maintenance on tools and equipment; coordinates carpentry work with journeymen in other fields; assesses damaged articles and structures and determines how to repair them; inspects finished work; explains and demonstrates methods and procedures for construction helpers. NOTE: May have progressed to 51B20 from 51A10 (Construction and Utilities Worker).

Recommendation

In the vocational certificate category, 20 semester hours in carpentry (2/75).

MOS-51B-002

CARPENTRY AND MASONRY SPECIALIST (CARPENTER)

51B10
51B20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 514 (Contruction Engineering).

Description

Summary: Performs general and heavy carpentry or masonry duties in fabrication, erection, maintenance, and repair of wooden and masonry structures, and a variety of wooden articles. *Skill Level 10:* Uses basic carpentry tools and materials in building layout, framing, sheathing, fabricating, and roofing wooden structures; assists in erection of rough timber structures such as trestles, bridges, and wharves; assists in repair and renovation of all types of structures; uses basic masonry tools in construction of concrete walls, piers, and columns; places anchor bolts, rebars, and welded wire mesh; mixes mortar to specifications; lays brick and concrete blocks; maintains concrete mixes; cleans, lubricates, and sharpens woodworking and masonry tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; interprets construction drawings and blueprints; computes material requirements and prepares building layout; constructs wooden or concrete foundation and erects building framework; installs flooring, walls, partitions, exterior siding, roofing, and stairs; fabricates and installs doors, windows, and screens; installs interior finishing such as cabinets, hardware, and wallboard; mixes, pours, finishes, and cures concrete; constructs concrete wall, pier, and column forms; selects mix specifications for mortar and grout; selects brick and concrete block pattern, and joint type; installs lintels and finishes joints; cuts, trims, and faces stone, brick, and concrete blocks; installs and finishes tile; maintains carpentry and masonry tools and publications.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in carpentry, 9 in masonry, and 3 in tool use and care (2/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in tool use and care, 3 in blueprint reading, 3 in applied mathematics, 9 in carpentry, 9 in masonry, and additional credit in carpentry and masonry on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in applied mathematics, and 3 in industrial arts (construction methods) (2/80).

MOS-51C-001

STRUCTURES SPECIALIST

51C20
51C30

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Lifts and moves heavy objects, services cargo handling gear, and positions and joins heavy beams, fabricated pieces or trusses, and other structural assemblies. *Skill Level 20:* Serves as a rigger, using various rigging tools and assemblies and a wide combination of rope, wire rope, knot, and handling gear, including block and tackle; makes rough construction drawings. NOTE: May have progressed to 51C20 from 51A10 (Construction and Utilities Worker). *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a structures specialist; reads construction blueprints and other building plans; joins members by using bolts and rivets or by arc welding; uses oxyacetylene torch; performs preventive maintenance on tool and equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in blueprint reading, 2 in use and care of tools, and 2 in rigging (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in blueprint reading, 2 in use and care of tools, 2 in rigging, 2 in welding, 2 in carpentry, and 1 in construction drafting (6/76).

MOS-51C-002

STRUCTURES SPECIALIST

51C10
51C20

Exhibit Dates: 3/78–9/87. (Effective 9/87, MOS 51C was discontinued.)

Career Management Field: 51 (General Engineering), subfield 514 (Construction Engineering).

Description

Summary: Fabricates, assembles, erects, and repairs rigging devices, trusses, and other structural assemblies, petroleum pipeline systems, and sheet metal items. *Skill Level 10:* Assists in assembly of items used in construction rigging, construction and installation of petroleum pipelines, pumping stations, and fuel storage facilities, and in fabrication of sheet metal items; selects tackle for hoisting using fiber rope, and chain; assembles shears, derricks, gin poles, tripods, scaffolds, and boatswains chairs; assists in construction of towers, tramways, cable ways, and bridges; assists in erection of prefabricated and pre-engineered buildings; clears and stakes pipeline route; inspects, cleans, and maintains pipefitting, riveting, rigging, and other special tools. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assembles items used in construction rigging and rigid frame structures; constructs and installs petroleum pipelines, pumping stations, and fuel storage facilities; fabricates sheet metal items; interprets construction plans and blueprints; installs valves, manifolds, pressure regulators and pumps.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in construction blueprint reading, 3 in rigging, and 2 in general technology (tools, riveting, drilling, etc.) (2/80).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in construction blueprint reading, 3 in rigging, 2 in general technology (tools, riveting, drilling, etc.), and 4 in general construction (2/80).

MOS-51D-001

MASON

51D20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 51D was discontinued and its functions were incorporated into MOS 51B, Carpentry and Masonry Specialist.)

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Skill Level 20: Serves as a mason; reads blueprints in order to determine materials required and procedures to be followed; utilizes various tools; prepares proper cement and mortar mix as required and specified; lays blocks and bricks in the construction of foundations and walls; constructs forms and places concrete. NOTE: May have progressed to 51D20 from 51A10 (Construction and Utilities Worker).

Recommendation, Skill Level 20

In the vocational certificate category, 20 semester hours in masonry. In the lower-division baccalaureate/associate degree category, semester hours in masonry and 3 in mathematics (12/75).

MOS-51E-001

CAMOUFLAGE SPECIALIST

51E20
51E40
51E50

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 51E was discontinued and its functions were incorporated into MOS 12B, Combat Engineer, and MOS 12Z, Combat Engineering Senior Sergeant.)

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Constructs, selects, erects, and places decoys, nets, screens, drapes, and other camouflage devices. *Skill Level 20:* Fabricates camouflage materials and decoys; erects such items by rigging and supports; rigs and hoists them into position using anchors and shears of self design and construction, blocks and tackle, highline, and tramway; builds and erects scaffolds; paints, selects and applies garnishing materials with adhesives, and alters surface textures. NOTE: May have progressed to 51E20 from 51A10 (Construction and Utilities Worker). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises Skill Level 20 personnel; designs and sketches items to be fabricated; requisitions materials and equipment. *Skill Level 50:* Able to perform the duties required for Skill Level 40; interprets and supervises the execution of policy and operation procedures; assists in planning, coordinating, and supervising all company support activities; advises superiors on personnel matters.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in rigging and rough structure fabrication in a millwright or similar curriculum or 2 semester hours in concrete form construction in a carpentry curriculum. In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 3 semester hours in stage set construction in a drama or broadcasting curriculum (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 3 semester hours in stage set construction in a drama or broadcasting curriculum and 2 in introduction to management (12/75).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category or in the upper-division baccalaureate category, 3 semester hours in stage set construction in a drama or broadcasting curriculum, 3 in introduction to management, and 3 for field experience in management (12/75).

MOS-51F-001

PIPELINE SPECIALIST

51F20
51F40
51F50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 51F was discontinued and its functions were incorporated into MOS 51C, Structures Specialist; MOS 51H, Construction Engineering Supervisor; and MOS 51Z, General Engineering Supervisor.)

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Constructs and installs pipelines, pumping stations, and fuel storage facilities. *Skill Level 20:* Clears and prepares right-of-way access and terminal sites; assists in the construction of necessary bridges, ditches, and pipeline cradles; assists in assembling pipelines and installs pumping stations; operates pumps, combats petroleum fires, and exercises safety precautions; uses common and specialized tools. NOTE: May have progressed to 51F20 from 51A10 (Construction and Utilities Worker). *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of 15-25 persons; assists in planning pipeline systems; selects pumping station sites and supervises construction and equipment installation; reads blueprints, topographical maps, profile maps, and performance flow charts; supervises work crews and coordinates activities with surveying personnel; inspects completed projects; assists in the demolition of pipeline facilities; conducts on-the-job training; demonstrates and explains pipeline installation and operation; prepares reports pertaining to operations, training, and intelligence. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager, serving as first sergeant of a company of up to 120 persons; plans, coordinates, and supervises all company activities; advises company commander on all enlisted personnel matters and is responsible for all enlisted personnel actions; conducts meetings with subordinate supervisors; directs company administration; initiates corrective actions when necessary; directs training; may also serve as chief instructor in a formal training facility.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in heavy equipment operation, 1 in use and care of tools, 1 in pump maintenance, 1 in fire safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment operation, 2 in construction methods, 1 in fire safety, and 1 in first aid (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in heavy equipment operation, 2 in blueprint and map reading, 1 in use and care of tools, 1 in pump maintenance, 1 in fire safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in construction management, 3 in personnel supervision, 3 in human relations, 2 in principles of fluid hydraulics, 2 in blueprint and map reading, 2 in heavy equipment operation, 2 in construction methods, 1 in fire safety, and 1 in first aid (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, 3 in personnel management, and 3 in construction management; and, if the duty assignment was chief instructor at a formal training facility, 3 additional semester hours for an internship in education (6/76).

MOS-51G-001

SOILS ANALYST

51G20

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Surveys, samples, tests, analyzes, evaluates, and classifies soil and aggregates; studies soils with respect to origin, distribution, and composition; performs physical testing and experimental work in field and laboratory to determine engineering characteristics of soils and construction materials such as concrete, aggregate, bituminous, and other base materials; classifies soils according to standard engineering classifications; designs pavement mixes and inspects construction; investigates programs of stabilization and drainage of soils used as foundations for roads, dams, buildings, and other structures; advises on soil use in construction.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in soils, aggregates, and mix design, and 5 in soils, bituminous, and concrete laboratory (12/75).

MOS-51G-002

MATERIALS QUALITY SPECIALIST
(SOILS ANALYST)

51G10
51G20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 511 (Technical Engineering).

Description

Summary: Surveys, samples, tests, evaluates, and classifies soils and aggregates; investigates and recommends solutions for soil stabilization; designs pavement mixes and inspects construction. *Skill Level 10:* Surveys, samples, tests, analyzes, evaluates, and classifies soils and aggregates; studies soils with respect to origin, distribution, and composition; performs physical testing and experimental work in the field and laboratory to determine engineering characteristics of soils and construction materials such as concrete, aggregates, bituminous, and other base materials; classifies soils according to standard engineering classifications. *Skill Level 20:* Able to perform the duties required for Skill Level 10; designs pavement mixes and inspects construction; inspects and investigates problems of stabilization and drainage of soils used as foundations for roads, dams, buildings, and other structures; advises on soil use in construction.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in soil and concrete testing laboratory, 3 in soil classification, 3 in concrete mix design, and 3 in bituminous mix design. In the lower-division baccalaureate/associate degree category, 3 semester hours in soil and concrete testing laboratory (2/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in soil and concrete testing laboratory, 3 in soil classification, 3 in concrete mix design, 3 in soil stabilization, and 3 in bituminous mix design. In the lower-division baccalaureate/associate degree category, 3 semester hours in soil and concrete testing laboratory, 3 in concrete and bituminous mix design, and 3 in soil engineering (2/80).

MOS-51H-001

CONSTRUCTION FOREMAN

51H40
51H50

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Supervises construction and repair of structures and facilites such as barracks, warehouses, sheds, jetties, wharves, fixed bridges, and storage tanks. *Skill Level 40:* Estimates runoff for drainage areas, supply needs, and time requirements for construction projects; estimates utilities requirements for various types of structures; computes stresses; employs heavy construction equipment, standard construction techniques, and general engineering principles in projects; reinforces existing structures to correct faulty construction or to increase load capacity; enforces safety regulations; has responsibility for on-site utilization and supervision of personnel. NOTE: May have progressed to 51H40 from 51B20 (Carpenter), 51C30 (Structures Specialist), 51D20 (Mason), 51G20 (Soils Analyst), 51R20 (Electrician), or 81B20 (Construction Draftsman). *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates, and supervises activities pertaining to organization, training, and technical operation of a construction company; assists in planning construction procedures, specifications, and work schedules, and in determining material needs; schedules use of heavy equipment; conducts on-the-job training by adapting training guides, programs, and tests to fit needs; keeps records of construction projects and training. NOTE: May have progressed to 51H50 from 51H40 (Utilities Foreman), 62N50 (Construction Machine Supervisor), 82B40 (Construction Surveyor), or 00B40 (Diver).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in technical writing, 3 in industrial technology, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (12/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in records administration, 3 in technical mathematics, 3 in technical writing, 3 in industrial technology, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 9 semester hours in construction management, or 3 semester hours in introduction to management and 6 for field experience in management, and additional credit in management on the basis of institutional evaluation (12/75).

MOS-51H-002

CONSTRUCTION ENGINEERING SUPERVISOR (CONSTRUCTION FOREMAN)

51H30
51H40

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Engineering).

Description

Summary: Supervises construction and repair of buildings, warehouses, fixed bridges, port facilities, and petroleum pipelines, and tanks and related equipment. *Skill Level 30:* Supervises construction and repair operations involving single structures or designated elements of military complexes, port facilities, or piepline systems; provides direct supervision to personnel performing duties of carpentry and masonry specialists and of structural specialists; reads and interprets construction drawings; estimates material, time, utility, and labor requirements; computes material stress factors under varying conditions; directs earth-moving machines during minor clearing and leveling operations; inspects structures and facilities to ensure compliance with specifications and quality of workmanship; reinforces existing structures to correct faulty construction or increase load capacity; supervises construction rigging operations; assists in planning pipeline systems and supervises installation and repair of pipelines, pumping stations, and storage tanks; conducts on-the-job training; directs operator maintenance on assigned vehicles; supervises performance of electrical and plumbing services on construction and repair projects. NOTE: May have progressed to 51H30 from 51B20 (Carpentry and Masonry Specialist) or 51C20 (Structures Specialist). *Skill Level 40:* Supervises construction and repair projects involving simultaneous operation of several small elements; interprets construction drawings and specifications; devises network flow diagrams, such as critical path method for company-size or smaller projects; schedules work and equipment; prepares bills of material or material take-off lists; requisitions construction material; records and reports construction progress; coordinates work activities of supporting units; ensures compliance with directives, construction drawings, specifications, and verbal orders; develops and supervises vehicle and equipment operator maintenance program.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in blueprint reading, 3 in construction methods, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (2/80).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in blueprint reading, 3 in construction methods, 3 in personnel supervision, 3 in records administration, 3 in construction project planning, and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in construction project management, 3 in introduction to management, and 6 for field experience in management (2/80).

MOS-51J-001

HEATING AND VENTILATING SPECIALIST

51J20
51J30

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 51J was discontinued and its functions were incorporated into MOS 51C, Structures Specialist, and MOS 52C, Utilities Equipment Repairer).

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: Fabricates, assembles, erects, and repairs sheet metal items of tin, copper, terneplate, and metal alloy stock. *Skill Level 20:* Reads blueprints; selects, lays out, cuts, and bends metal stock; beads sheet metal pieces; joins metal sections, utilizing slip joints, rivets, nails, bolts, solder, and weld; uses hand tools and power machines. NOTE: May have progressed to 51J20 from 51A10 (Construction and Utilities Worker). *Skill Level 30:* Able to perform the duties required for Skill Level 20; installs and repairs heating units and nonrefrigerated air conditioning and ventilating units; heating units may be gas, oil, or coal fired, using hot air, steam, or hot water to transfer head; works with other tradesmen in installing electrical controls, blower units, and air ducts.

Recommendation, Skill Level 20

In the vocational certificate category, 20 semester hours in a sheet metal program. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 2 in blueprint reading, 3 in sheet metal laboratory, and 1 in care and use of hand and power tools (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 20 semester hours in a sheet metal program or 15 semester hours in a heating program. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial technology, 3 in technical mathematics, 3 in sheet metal laboratory, 2 in blueprint reading, 2 in heating laboratory, and 1 in care and use of hand and power tools, and additional credit in applied science and personnel supervision on the basis of institutional evaluation (12/75).

MOS-51K-001

PLUMBER

51K20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 51K was discontinued and its functions were incorporated into MOS 51N, Water Treatment and Plumbing Systems Specialist; in 3/81, MOS 51K was reestablished - see exhibit MOS-51K-002.) Treatment and Plumbing Systems Specialist.)

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Skill Level 20: Installs and repairs pipe systems and fixtures for water, gas, steam, petroleum, compressed air, and disposable systems for water and waste; cuts, connects, and seals joints; suspends, lays, or insulates cast iron and steel pipe, copper tubing, fiber, cement, or other pipe, and tests for leaks; determines correct pipe and tubing sizes, fitting requirements, proper venting and slopes for flow or drainage; plans work on the basis of furnished construction drawings, specifications, or sketches, using appropriate reference material to select required tools and materials; inspects, maintains, and repairs plumbing systems, including valves and other mechanisms, ruptured pipes and tubing. NOTE: May have progressed to 51K20 from 51A10 (Construction and Utilities Worker).

Recommendation, Skill Level 20

In the vocational certificate category, 34 semester hours in a plumbing program. In the lower-division baccalaureate/associate degree category, 24 semester hours in a plumbing program or sanitation technology curriculum (12/75).

MOS-51K-002

PLUMBER

51K10
51K20

Exhibit Dates: 3/81–Present.

Career Management Field: 51 (General Engineering).

Description

Summary: Installs and repairs plumbing pipe systems and fixtures. *Skill Level 10:*

Assists in installation and repair of pipe systems, plumbing fixtures, and equipment; reads and interprets drawings, plans, and specifications; installs, tests, troubleshoots, and repairs pipe systems for water, air, oil, gas, and sewage; services plumbing tools and equipment; assists in laying and clearing mine fields; primes and emplaces demolitions; constructs and removes wire, obstacles, emplacements, and bunkers. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs, maintains, and repairs pipe systems, fixtures, and equipment; explains and demonstrates techniques and procedures used in plumbing and pipefitting; conducts inspections of plumbing facilities.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in general plumbing (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 12 semester hours in general plumbing (9/85).

MOS-51L-001

Heating and Cooling Specialist

51L20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 51L was discontinued and its functions were incorporated into MOS 52C, Utilities Equipment Repairer.)

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Installs, maintains, regulates, adjusts and repairs conventional refrigeration equipment, general purpose air conditioning units, and multifuel forced air heaters; disassembles major components, removes and replaces faulty individual parts, and reassembles; repairs electric wiring in control circuits and repairs electro-menchanical controls; prepares and tests brine solutions; performs preventive maintenance on equipment, and organizational maintenance on gasoline engines; utilizes safety procedure applicable to toxic gases, pressurized components and electricity; instructs other personnel in operation of equipment. NOTE: May have progressed to 51L20 from 51A10 (Construction and Utilities Worker).

Recommendation

In the vocational certificate category, 20 semester hours in heating and air conditioning. In the lower-division baccalaureate/associate degree category, 12 semester hours in heating and air conditioning, and additional credit in physical sciences, general mathematics, and supervision on the basis of institutional evaluation (12/75).

MOS-51M-001

Firefighter

51M20

51M40

Exhibit Dates: 10/73–2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Serves as chief or member of a firefighting unit. *Skill Level 20:* Operates all types of extinguishers; knows which extinguishers to use for different types of fires; employs demolition methods when necessary; rescues trapped or injured personnel; administers first aid; employs explosion hazard meter as necessary; records firefighting equipment; maintains equipment in operable condition. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and directs firefighting and rescue units; identifies types of fires; supervises the administration of first aid; supervises maintenance of firefighting and rescue equipment to ensure proper operating condition; inspects for fire regulation violations; recommends and enforces fire prevention regulations; inspects buildings, facilities, and installations that have been damaged by fire to determine the cause of the fire; prepares recurring and special fire reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 5 semester hours in introduction to fire science and fire prevention and 1 in first aid (2/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 24 semester hours in introduction to fire science and fire prevention, 3 in first aid, 3 in communication skills, and additional credit in fire science and fire prevention on the basis of institutional evaluation (2/75).

MOS-51M-002

Firefighter

51M10

51M20

51M30

51M40

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 513 (Fire Protection).

Description

Summary: Supervises or performs firefighting, rescue, salvage and fire protection operations. *Skill Level 10:* Operates all types of fire extinguishers for different types of fires; administers first aid; performs basic firefighting duties, including selection of nozzles and hoses for applying water or fog stream on various types of fires; maintains firefighting equipment; operates firefighting vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts performance-oriented training sessions; performs as general crew chief in firefighting and investigation of fires. *Skill Level 30:* Performs the duties of fire chief/fire inspector; supervises fire prevention and equipment maintenance; monitors and evaluates training procedures; inspects for fire regulation violations; serves as principal noncommissioned officer of fire company or team chief of crash rescue team, consisting of four or more persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and directs firefighting and rescue units; identifies type of fires; recommends and enforces fire prevention regulators; inspects building facilities and installations after fires to determine damage and cause of fires; maintains records and reports; supervises two or more fire companies.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to fire science and 1 in first aid (2/80).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to fire science, 3 in fire prevention, and 2 in first aid (2/80).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to fire science, 6 in fire prevention, 2 in first aid, 3 in fire investigation, and 3 in fire administration. In the upper-division baccalaureate category, 3 semester hours in personnel management (2/80).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to fire science, 6 in fire prevention, 2 in first aid, 6 in fire investigation, 6 in fire administration, and 3 in technical report writing or communications. In the upper-division baccalaureate category, 3 semester hours in personnel management, and 3 for field experience in management (2/80).

MOS-51N-001

Water Supply Specialist

51N20

51N40

51N50

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: Produces and distributes potable water to supported field units. *Skill Level 20:* Checks sources of water for suitability; tests and analyzes raw water samples for contamination and other characteristics and identifies necessary treatments; sets up and operates mobile or portable water treatment equipment; checks and controls the process of water purification, including sedimentation, coagulation, pH value, turbidity, chlorination, and filtration; prepares standard solutions for water tests; operates pumps, engines, and vehicles; makes appropriate adjustments, replaces defective water-related components and performs preventive maintenance tasks; makes connections for distribution of purified water to users and maintains supply. NOTE: May have progressed to 51N20 from 51A10 (Construction and Utilities Worker). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises Skill Level 20 personnel; locates suitable water sources and determines potential supply volume; verifies suitability of actions taken by subordinates in testing, analysis, and treatment of water; supervises the installation, operation, and maintenance of equipment for production and distribution of potable water; prescribes standard or special methods as required; instructs and supervises the training of subordinates, evaluates their performance, and employs personnel management techniques. *Skill Level 50:* Able to perform the duties required for Skill Level 40; assists in planning, coordinating, and supervising all company support activities; advises superiors on personnel matters.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in water supply and purification. In the lower-division baccalaureate/associate degree category, 3 semester hours in water supply and pollution control (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in water supply and purification. In the lower-division baccalaureate/associate degree category, 3 semester hours in water supply and pollution control and 2 in introduction to management (12/75).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in water supply and purification. In the lower-division baccalaureate/associate degree category, 3 semester hours in water supply and pollution control, 3 in introduction to management, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (12/75).

MOS-51N-002

WATER TREATMENT AND PLUMBING SYSTEMS SPECIALIST
(WATER SUPPLY SPECIALIST)

51N10
51N20
51N30

Exhibit Dates: 3/78–2/81.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: Produces and distributes potable water to support field units. *Skill Level 10:* Installs and repairs pipe systems, plumbing fixtures and equipment, and assists in set-up, operation, and maintenance of field water points; must be able to identify types and quantities of materials used and know layout of plumbing fixtures; connects and installs appropriate pipes, valves, couplings, and fittings; installs sanitary fixtures, including all plumbing components; assists in field-site preparation, set-up, and maintenance of water production equipment and performs basic water analysis tests. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower skill level personnel; develops field water sources and water points; operates varied and complex water treatment equipment and produces potable water; analyzes raw water and treated water for various contaminants and determines chemical content and physical characteristics; operates fixed waste-water-treatment facilities; chemically treats waste; performs all organizational maintenance necessary for proper performance of water and waste-water-treatment equipment, including basic electrical, mechanical, hydraulic, and pneumatic control devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises installation, operation, and maintenance of water supply and waste-water-treatment plants and systems; is responsible for the management, repair, and supply and administration of the facilities and prepares reports incident to the proper operation of the treatment systems.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in water purification and 3 in waste treatment. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification (2/80).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in water purification, 3 in waste treatment, 3 in water and sewage facilities operation, and 3 in utility plumbing. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification and 3 in water supply (2/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in water purification, 3 in waste treatment, 3 in utility plumbing, and 6 in water and sewage facilities operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification, 3 in water supply, 3 in personnel supervision, and 3 for field experience in supervision (2/80).

MOS-51N-003

WATER TREATMENT SPECIALIST

51N10
51N20
51N30
51N40

Exhibit Dates: 3/81–2/87. (Effective 3/87, MOS 51N was discontinued and its duties were incorporated into MOS 77W, Water Treatment Specialist.)

Career Management Field: 92 (Petroleum).

Description

Summary: Supervises or performs installation, operation, and maintenance of water supply and treatment equipment and systems. *Skill Level 10:* Assists in water reconnaissance and set-up, operation, and maintenance of water points; assists in site preparations, set-up, operation, troubleshooting, and maintenance of water purification equipment and storage facilities; operates and maintains equipment used in production of potable water in field locations; performs water quality analysis tests. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs, operates, and maintains water supply equipment and systems; provides technical guidance to lower skill-level personnel; conducts water reconnaissance, develops water sources and water points and analyzes both raw and treated water; supervises operation of water purification equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the installation, operation, and maintenance of water supply and treatment systems; provides direct supervision to individual water team functions; inspects operational condition of equipment and systems; prepares reports incident to the operation and maintenance of water supply systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; develops and supervises operation of area water supply and treatment plan; directs water reconnaissance and water point development for divisional areas; manages operation and insures quality control of water supply and purification activities.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in waste treatment. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in waste treatment, 3 in water and sewage facility operation, and 3 in utility plumbing. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification and 3 in water supply (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in waste treatment, 3 in utility plumbing, and 6 in water and sewage facility operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification, 3 in water supply, and 3 in personnel supervision (9/85).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in waste treatment, 3 in utility plumbing, and 12 in water and sewage facility operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification, 3 in water supply, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/85).

MOS-51P-001

UTILITIES FOREMAN

51P40

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Skill Level 40: Plans and supervises the construction, installation, maintenance, and repair of water supply, waste disposal, electrical service, refrigeration, heating, and ventilation systems; estimates material, manpower, and equipment requirements; advises personnel on technical problems encountered; performs or supervises related administrative activities. NOTE: May have detailed knowledge of one or more of the following areas: heating and ventilating, plumbing, heating and cooling, and industrial gas production, through previous MOS experience in the general engineering career management field (51).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in industrial arts, 3 in technical mathematics, 3 in industrial technology (utilities maintenance), and 3 in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in utilities construction management or 3 semester hours in introduction to management and 3 for field experience in management (12/75).

MOS-51P-002

UTILITIES ENGINEERING SUPERVISOR
(UTILITIES FOREMAN)

51P40

Exhibit Dates: 3/78–2/81. (Effective 3/81, MOS 51P was discontinued and its functions were incorporated into MOS's 51H, Construction Engineering Supervisor, and 51N, Water Treatment and Plumbing System Specialist.)

Career Management Field: 51 (General Engineering) subfield 512 (Utilities Engineering).

Description

Skill Level 40: Supervises installation, operation, maintenance, repair, and conducts inspections of utilities systems, including water and sewage treatment plants, interior/exterior electrical distribution systems, building and grounds (including roads and street), air-conditioning and refrigeration, and power generation equipment; may have detailed knowledge of one or more of the above systems; solves installation and maintenance problems; analyzes utility systems; prepares the utility budget and operation and maintenance reports. NOTE: May have progressed to 51P40 from 51R30 (Electrician) or 51N30 (Water Treatment and Plumbing Systems Specialist).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in industrial arts, 3 in technical mathematics, 3 in industrial technology (utilities maintenance), and 6 in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in utilities construction management and 6 for field experience in management (2/80).

MOS-51Q-001

TERRAIN ANALYST

51Q20

Exhibit Dates: 10/73–9/74. (Effective 10/74, MOS 51Q was redesignated MOS 81Q; see exhibit MOS-81Q-001.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 811 (Drafting).

Description

Compiles, analyzes, and disseminates current and accurate data pertaining to a geographical area or region, including natural terrain features, population and industrial centers, transportation networks, and utility systems, for use in mapping, construction, and other operations; interprets conditions of travel and land use; interprets studies and reports as they relate to terrain and man-made features; coordinates and participates in the preparation of technical and special reports and map overlays; applies engineering techniques in the analysis of aerial photographs and other data; knows the principles of map compilation and interpretation; keeps records and files of completed studies; keeps data current through consultation with pertinent government agencies.

Recommendation

In the lower-division baccalaureate/associate degree category, 8 semester hours in land use planning, 6 in aerial photographic interpretation, 3 in geography, 3 in terrain analysis, 3 in cartography, and 1 in geology. In the upper-division baccalaureate category, 8 semester hours in land use planning and 3 in aerial photographic interpretations. In the graduate degree category, 6 semester hours in research techniques in geography (12/75).

MOS-51R-001

ELECTRICIAN

51R20
51R30
51R40
51R50

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: NOTE: The scope of duties performed in this MOS varies considerably throughout the Army; duties performed may include installation, inspection, maintenance, and repair on low- and high-voltage electrical systems in building and electrical distribution systems. *Skill Level 20:* Duties may include performing user maintenance on electrical test equipment and tools; performing minor maintenance on small electrical motors, generators, and controllers; performing elementary algebraic electrical calculations of voltage, current, resistance, and power; serving as marine electrician aboard vessels; installing low-voltage electrical lighting and outside distribution apparatus and hardware such as cables, conduits, outlets, panels and poles, crossarms, insulators, and conductors; taking emergency action in the event of injury to other persons. *Skill Level 30:* Duties may include those required for Skill Level 20 and installing, maintaining, inspecting, and repairing high-voltage electrical transmission systems; erecting poles and towers for power transmission and maintaining auxiliary equipment; estimating size and capacity of conductors and transformers to serve a specific area; performing cable tests for malfunctions and splicing cable; using electrical instruments to measure voltage, current, and phase angle; using and testing hot-line protective equipment; taking emergency action in case of injury, including first aid for electrical shock. *Skill Level 40:* Duties may include those required for Skill Level 20 or 30 and supervising the installation, maintenance, and repair of high-voltage electric transmission systems; advising on complex construction work, sequence of work operations, and work procedures; instructing subordinates in erection and maintenance of high-voltage electric transmission systems; planning complete installation for wiring of buildings. *Skill Level 50:* Duties may include those required for Skill Level 40 and serving as a first-line supervisor or mid-level manager; establishing workloads and maintenance priorities; implementing quality control measures; conducting on-the-job training; providing technical assistance; serving as the personnel director for over 50 persons.

Recommendation, Skill Level 20

Credit in basic electricity on the basis of institutional evaluation. Advanced standing in a construction electrician or an electrical lineman apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity. In the upper-division baccalaureate category, a minimum of 3 semester hours in industrial electricity and electronics (in programs preparing students for careers as power use advisors, electrical equipment sales agents, and company technical representatives). Advanced standing in a constuction electrician or an electrical lineman apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity. In the upper-division baccalaureate category, 6 semester hours in industrial electricity and electronics (in programs preparing students for careers as power use advisors, electrical equipment sales agents, and company technical representatives), and 2 in introduction to management. Advanced standing in a construction electrician or an electrical lineman apprentice training program on the basis of employer or trade association performance examination (3/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity. In the upper-division baccalaureate category, 6 semester hours in industrial electricity and electronics (in programs preparing students for careers as power use advisors, electrical equipment sales agents, and company technical representatives), 3 in introduction to management, and 3 for field experience in management. Advanced standing in a construction electrician or an electrical lineman apprentice training program on the basis of employer or trade association performance examination (3/76).

MOS-51R-002

ELECTRICIAN

51R10
51R20
51R30

Exhibit Dates: 3/78–2/81.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: Supervises or performs installation and maintenance of electrical systems and equipment. *Skill Level 10:* Installs interior electrical systems and equipment, using conduit, service wire, fuse panels, switches, outlets, junction and outlet boxes; installs service entrances and lighting fixtures; checks operational condition of circuits, using test equipment; splices and taps conductors; if exterior lineman experience is included, assists in exterior electrical construction and service. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises installation; inspects and maintains interior electrical systems; interprets plans; makes sketches of wiring diagrams, specifications, and blueprints; inspects interior system components for compliance with specifications; installs and maintains electric motors and controls; if exterior lineman experience is included, also performs the following duties: maintains exterior electrical distribution systems and equipment; serves as exterior lineman; erects service poles; installs crossarms, insulators, primary conductors, transformers, and service drops; uses components and tools for hotline maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises installation, maintenance, and repair of interior electric distribution systems and equipment; estimates manpower and requirements and prepares bills of materials necessary for electrical construction; plans work assignments; supervises maintenance of special-purpose safety equipment and tools during electrical construction; if exterior lineman experience is included, also supervises installation of underground electrical distribution systems.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (2/80).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in industrial electricity, and 3 in industrial motors and controls (2/80).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity, 3 in industrial electricity, 3 in industrial motors and controls, 3 in industrial electrical and distribution systems, 3 in blueprint reading, and additional credit in related electrical courses on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in industrial electricity, 3 in industrial motors and controls, 3 in industrial electrical and distribution systems, 3 in electrical blueprint reading, 2 in personnel supervision, and additional credit in related electrical courses on the basis of institutional evaluation (2/80).

MOS-51R-003

INTERIOR ELECTRICIAN

51R10

51R20

Exhibit Dates: 3/81–Present.

Career Management Field: 51 (General Engineering).

Description

Summary: Supervises or performs installation and maintenance of interior electrical systems and equipment; installs conduit service drops, fuse panels, switches, outlet, and lighting; follows National Electrical Code for installations. *Skill Level 10:* Installs service entrances from weatherhead to service panel and branch circuits, service protective panels, function and outlet boxes, thin wall, flexible, rigid, metallic, and non-metallic conduit, metallic and non-metallic sheathed cable, switches, outlets, and special electrical equipment; uses test equipment including multimeter, voltmeter, ammeter, and megger to test circuits. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises installation and maintenance of interior electrical systems; provides technical guidance to Skill Level 10 personnel; plans system layout using blueprints, sketches, specifications, and wiring diagrams; inspects systems for proper installation in accordance with the National Electrical Code.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in residential wiring (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in residential wiring (9/85).

MOS-51T-001

TECHNICAL ENGINEERING SUPERVISOR

51T30

51T40

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 511 (Technical Engineering).

Description

Summary: Supervises or participates in construction site development, including technical investigation surveying, development of construction plans and specifications, and performing quality control inspections. *Skill Level 30:* Supervises technical engineering relating to construction surveying, drafting, and testing of construction materials; conducts surveys and preliminary engineering inspections; prepares layouts and detail drawings of pavements, structures, buildings, and utility systems from sketches and specified design criteria. Assists in inspection of all phases of construction and repair. NOTE: May have progressed to 51T30 from 51G20 (Materials Quality Specialist), 82B (Construction Surveyor), or 81B (Technical Drafting Specialist). *Skill Level 40:* Able to perform the duties required for SKill Level 30; provides technical guidance to lower-skill-level personnel; plans and supervises preparation and layout of drawings; performs simple load calculations to ensure construction of safe facilities; prepares network flow diagrams, such as critical path method.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in civil engineering technology, 3 in materials testing, 3 in introduction to surveying, 3 in personnel supervision, and 6 in engineering drafting (2/80).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in engineering management and 6 in construction project planning (2/80).

MOS-51Z-001

GENERAL ENGINEERING SUPERVISOR

51Z50

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 510 (General Engineering).

Description

Skill Level 50: Provides staff supervision to units engaged in structural building and repair and provision of water and utilities services; serves as principal noncommissioned officer in an engineering combat (heavy) company or in an engineer combat battalion; may serve in an engineer section at engineer brigade or higher headquarters; directs and coordinates activities of staff personnel to insure proper integration of all construction and utility operations; assists in appraisal of training status, construction planning, and material requests; inspects structural facilities and water and utility production and distribution systems; supervises performance of combat engineer missions. NOTE: May have progressed to 51Z50 from 51T40 (Technical Engineering Supervisor), 52E40 (Prime Power Production Specialist), 51P40 (Utilities Engineering Supervisor), 51M40 (Firefighter), 51H40 (Construction Engineering Supervisor), 00B40 (Diver), 62N40 (Construction Equipment Supervisor), or 53B40 (Industrial Gas Production Specialist).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in records administration, 3 in technical mathematics, 3 in technical writing, 3 in industrial technology, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in construction management, 3 in personnel management, and 6 for field experience in management, and additional credit in engineering and management on the basis of institutional evaluation (2/80).

MOS-52B-001

POWER GENERATION EQUIPMENT OPERATOR/MECHANIC

52B20

52B30

Exhibit Dates: 10/73–9/74.

Career Management Field: 52 (Power Production), subfield 512 (Electric Power Production).

Description

Summary: Operates and performs routine maintenance on general and multipurpose portable generator sets. *Skill Level 20:* Operates and performs preventive maintenance on portable generators, arc welders, and frequency converters equipped with electric motors or with diesel or gas engines; uses mechanical and electrical handtools, and measuring and testing devices; computes voltage, amperage, and resistance; computes electrical power requirements, selects number of generators needed; determines phase rotation and load cable sizes; starts and synchronizes generators and sets control devices to attain power output; keeps maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs organizational maintenance on multipurpose portable generators, frequency converters, switch gear, load bands, control panels; uses special tools and test equipment; troubleshoots, adjusts, diagnoses, and replaces assemblies.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in power plant operation. In the lower-division baccalaureate/associate degree category, credit on the basis of institutional evaluation. In a power plant operator apprentice training program, 1,000 clock hours of experience and 262 contact hours of related instruction (3/75).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in power plant operation. In the lower-division baccalaureate/associate degree category, credit on the basis of institutional evaluation. In a power plant operator apprentice training program, 6,000 clock hours of experience and 300 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

MOS-52B-002

POWER GENERATION EQUIPMENT OPERATOR/MECHANIC

52B10

52B20

52B30

Exhibit Dates: 10/74–2/78. (Effective 3/78, MOS 52B was discontinued and its functions were incorporated into MOS 52D, Power Generation Equipment Repairer, and MOS 63B, Power Generation and Wheel Vehicle Mechanic.)

Career Management Field: 52 (Power Production), subfield 521 (Electric Power Production).

Description

Summary: Operates and performs routine maintenance on general and multipurpose portable generator sets. *Skill Level 10:* Performs as substation electrical helper or power generation helper; performs routine tests and minor repairs on motors, generators, starting and control equipment, and auxiliary equipment; applies fundamentals of AC and DC electricity to motors and generators; loads and unloads tools and equipment; performs preventive maintenance on equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates and performs maintenance on general purpose portable generators, arc welders, frequency converters equipped with AC or DC electric motors, diesel or gasoline engines, and auxiliary equipment; performs mechanical and electrical installations, adjustments, maintenance repairs, or modifications; applies fundamentals of electronics and mechanics; interprets technical manuals and traces schematic diagrams; performs diagnostic tests with specified electronics and pneumatic measuring instruments, including multimeters, amp probes, diode and transistor tester, tachometers, motor-generator testers, pressure guage, and engine-timing equipment; monitors engine and generator operation with the use of various tachometers, voltmeters, current meters, frequency meters, and watt meters; makes the necessary adjustments required to bring engines, generators, and loads within specified values for balanced and efficient operation; employs various mechanic's and electrician's handtools; keeps maintenance records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; troubleshoots, adjusts, diagnoses, replaces modules, and performs operational tests on equipment; performs maintenance on multi-purpose auxiliary generators, frequency converters, switch gears, load bands, control panels, and equipment; may supervise up to 15 subordinate personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in basic mathematics, 2 in basic electricity theory and laboratory, 2 in fundamentals of combustion engines, 2 in fundamentals of diesel engines, 2 in generator/motor theory and laboratory, 2 in AC electrical principles, and 2 in power generator systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in power mechanics, 2 in applied electricity, and 2 in applied mechanics. Advanced standing in a power plant operator (electric power and light) apprentice training program on the basis of employer or trade association performance examination (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in basic electricity theory and laboratory, 4 in power generator systems, 2 in basic mathematics, 2 in fundamentals of combustion engines, 2 in fundamentals of diesel engines, 2 in generator/motor theory and laboratory, 2 in AC electrical principles, and 2 in safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in power mechanics, 3 in applied electricity, and 3 in applied mechanics. In a power plant operator (electric power and light) apprentice training program, 1,000 clock hours of experience and 300 contact hours of related instruction (6/67).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in basic electrical theory and laboratory, 4 in power generator systems, 2 in basic mathematics, 2 in fundamentals of combustion engines, 2 in fundamentals of diesel engines, 2 in generator/motor theory and laboratory, 2 in AC electrical principles, and 2 in safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in power mechanics, 3 in applied electricity, and 3 in applied mechanics, and credit in personnel supervision and human relations on the basis of institutional evaluation. In a power plant operator (electric power and light) apprentice training program, 6,000 clock hours of experience and 300 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (6/76).

MOS-52C-001

POWER PACK SPECIALIST

52C20

Exhibit Dates: 10/73–2/78.

Career Management Field: 52 (Power Production), subfield 521 (Electric Power Production).

Description

Skill Level 20: Able to perform the duties required for 52B20 (Power Generation Equipment Operator/Mechanic); operates and performs maintenance on gas turbine driven generator sets and power pack units; diagnoses, troubleshoots, repairs, inspects, adjusts, and test-operates equipment; uses voltmeters and ohmmeters; may perform maintenance on related equipment, including internal-combustion engines and refrigeration and air conditioning equipment; applies theory of generators, pneumatics, hydraulics, and multiphase power production; reads electrical schematics and uses engine analyzers.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in basic electrical theory and laboratory, 4 in power generator systems, 2 in basic mathematics, 2 in fundamentals of combustion engines, 2 in fundamentals of diesel engines, 2 in generator/motor theory and laboratory, 2 in AC electrical principles, and 2 in safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in power mechanics, 3 in applied electricity, and 3 in applied mechanics, and additional credit in personnel supervision and human relations on the basis of institutional evaluation. In an industrial maintenance electrician apprentice training program, 6,000 clock hours of experience and 300 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (6/76).

MOS-52C-002

UTILITIES EQUIPMENT REPAIRER

52C10

52C20

52C30

Exhibit Dates: 3/78–2/84.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Supervises or performs maintenance on heating and cooling equipment and associated equipment. *Skill Level 10:* Operates and performs maintenance on gas turbine driven generator sets and power pack units; inspects, diagnoses, troubleshoots, repairs, adjusts and test-operates equipment; uses electrical and mechanical test equipment, such as ohmmeters, voltmeters, and engine analyzers; performs maintenance on related equipment, including internal-combustion engines, and refrigeration and air conditioning equipment; applies theory of generators, pneumatics, hydraulics, and multi-phase powei production; reads electrical schematics and mechanical drawings. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel; determines extent of repair and overhaul required; diagnoses and isolates unusual malfunctions; purges and recharges refrigeration systems; repairs and installs heating, refrigerating and air conditioning equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects operational condition of equipment and systems; requisitions, stores, inventories, and issues special tools, test equipment, components, supplies, and provides necessary publications; prepares operation and maintenance reports; plans and schedules work assignments, priorities, inspection procedures, and shop assignments; solves complex installation and maintenance problems of all heating and cooling equipment; supervises from 6 to 14 persons; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in electrical theory and laboratory, 4 in power generator systems, 3 in basic mathematics, 2 in internal-combustion engines, 2 in generator/motor theory and laboratory, 2 in AC theory, 2 in fundamentals of diesel engines, 2 in fundamentals of refrigeration and air conditioning, and 2 in safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (AC and DC), 3 in power mechanics, and 3 in air conditioning and refrigeration (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (AC and DC), 3 in power mechanics, 3 in air conditioning and refrigeration, 3 in applied electricity, 3 in applied mechanics, and 3 in technical mathematics (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (AC and DC), 3 in power mechanics, 3 in air conditioning and refrigeration, 3 in applied electricity, 3 in applied mechanics, 3 in technical mathematics, 3 in personnel supervision, 3 in human relations, and 3 in introduction to management (10/79).

MOS-52C-003

Utilities Equipment Repairer

52C10
52C20
52C30

Exhibit Dates: 3/84–6/86.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Performs or supervises maintenance on refrigeration equipment, air conditioning units, multifuel forced-air heaters, high pressure air compressors, gasoline and diesel engines, and electrical motors. *Skill Level 10:* Performs maintenance primarily on equipment that does not require disassemby for repair; maintenance duties may include some system or equipment disassembly. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises 4-5 Skill Level 10 personnel; supervises maintenance and performs repairs requiring system disassembly, replacing of parts, and rebuilding. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 25-50 lower-skill-level personnel; performs depot-level maintenance, final testing, and approval of repairs; schedules training; prepares maintenance schedules and inspection reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in air conditioning/refrigeration, 3 in small engine repair, and 3 in power mechanics (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in air conditioning/refrigeration, 3 in small engine repair, and 3 in power mechanics (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in air conditioning/refrigeration, 3 in small engine repair, 3 in power mechanics, 3 in personnel supervision, and 3 in maintenance management (9/85).

MOS-52C-004

Utilities Equipment Repairer

52C10
52C20
52C30

Exhibit Dates: 7/86–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Performs or supervises maintenance on refrigeration equipment, air conditioning units, multifuel forced-air heaters, high pressure air compressors, gasoline and diesel engines, and electrical motors. *Skill Level 10:* Performs maintenance primarily on equipment that does not require disassembly for repair; maintenance duties may include some system or equipment disassembly. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises 4–5 skill level 10 personnel; supervises maintenance and performs repairs requiring system disassembly, replacing of parts, and rebuilding. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 25–50 subordinate personnel; performs depot-level maintenance, final testing, and approval of repairs; schedules training; prepares maintenance schedules and inspection reports. May progress to 52C30 from 52C20 or 63J20 (Quartermaster and Chemical Equipment Repairer).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in air conditioning/refrigeration, 3 in small engine repair, and 3 in power mechanics (7/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 5 semester hours in air conditioning/refrigeration, 3 in small engine repair, and 3 in power mechanics (7/88).

Recommendation, Skill Level 30

If progressed to 52C30 from 52C20, use the following credit recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 6 semester hours in air conditioning/refrigeration, 3 in small engine repair, 3 in power mechanics, 3 in personnel supervision, and 3 in maintenance management. If progressed to 52C30 from 63J20, use the following credit recommendation: In the vocational certificate category, 1 semester hour in basic electricity laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in small appliance repair, 1 in use and care of hand tools, 1 in use of testing equipment, 3 in personnel supervision, and 3 in maintenance management (7/88).

MOS-52D-001

Power Generation Equipment Repairman

52D20
52D40

Exhibit Dates: 1/73–2/78.

Career Management Field: 52 (Power Production), subfield 521 (Electric Power Production).

Description

Summary: Supervises or performs maintenance on power generation equipment. *Skill Level 20:* Must be able to perform the duties of 52B30 (Power Generation Equipment Operator/Mechanic); repairs power generation equipment; disassembles, repairs, reassembles, tests, adjusts, and inspects major items, assemblies, subassemblies, and components of electrical equipment including motors, generators, portable power generator sets, frequency converters, arc welders, switch gear, electrical load banks, water purification sets, ion exchange units, electrical forklifts, battery charging panels, and light sets; repairs gas turbine, gasoline, and diesel engines; troubleshoots and diagnoses mechanical and electrical malfunctions; disassembles, repairs, and reassembles static and rotating exciters, and static and dynamic AC and DC voltage regulators and related equipment; rewinds AC and DC motors and generators; uses standard and special hand and power tools, and test equipment including gas turbine engine analyzer, automatic electrical tester, oscilloscopes, precision voltage and frequency meters, electronic tachometers, multimeters, and industrial analyzers. NOTE: May have progressed to 52D20 from 52B30 (Power Generation Equipment Operator/Mechanic) or 52C20 (Power Pack Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises repairs, overhauls, disassemblies/assemblies, tests, adjustments, and inspections of power generation equipment; conducts on-the-job training; establishes work priorities, work and shift schedules, shop administrative practices, and inspection procedures; prepares and keeps maintenance forms and records.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in AC/DC motor generator theory and laboratory, 4 in basic electricity/electronics theory and laboratory, 3 in industrial electricity, 2 in basic mathematics, 2 in semiconductor devices, 2 in instrument applications, 2 in fundamentals of small engine repair, 2 in fundamentals of combustion engine repair, 2 in fundamentals of diesel engine repair, 2 in fundamentals of turbine engine repair, and 2 in safety. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics theory and laboratory, 6 in power mechanics, 2 in semiconductor devices, 2 in industrial electricity, and 2 in electronic instrumentation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a maintenance equipment repairman (electric power and light) (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics theory and laboratory, 6 in power mechanics, 3 in industrial safety, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, 2 in semiconductor devices, 2 in industrial electricity, and 2 in electronic instrumentation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a maintenance equipment repairman (electric power and light) (6/76).

MOS-52D-002

Power Generation Equipment Repairer

52D10
52D20
52D30

Exhibit Dates: 3/78–2/84.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Supervises or performs support and maintenance functions of power generating equipment. *Skill Level 10:* Repairs and maintains power generation equipment and associated items such as arc welders, forklifts, and other materials handling equipment in addition to motor generators; determines condition of equipment, cause of malfunction, and need for repair; uses appropriate test procedures and test equipment, including multimeters and compression gauges, hand and power tools; repairs gasoline and diesel engines and electric motors. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel; repairs AC and DC voltage regulators, electrical and electronic load sensing governors, and control circuits; performs technical inspections. *Skill Level 30:* Able to perform the duties required for Skill Level 20; manages and supervises repair operations for power generating and similar equipment; conducts training of lower-skill-level personnel; inspects operational condition of equipment and installations; analyzes problems in power generation and associated equipment through maintenance histories, wiring diagrams and operating characteristics.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in AC/DC motor generator theory and laboratory, 3 in basic electricity/electronics, 2 in basic matematics, 2 in fundamentals of small engine repair, 2 in fundamentals of internal combustion engine repair, and 2 in fundamentals of diesel engine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in fundamentals of power mechanics (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in AC/DC motor generator theory and laboratory, 3 in basic electricity/electronics, 2 in basic mathematics, 2 in fundamentals of small engine repair, 2 in fundamentals of internal combustion engine repair, 2 in fundamentals of diesel engine repair, 3 in industrial electricity, 2 in electrical instrument applications, and 2 in safety. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, 6 in power mechanics, and 2 in industrial electricity (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 2 in technical mathematics, 6 in power mechanics, 2 in industrial electricity, 3 in human relations, 3 in personnel supervision, and 3 in introduction to management (10/79).

MOS-52D-003

POWER GENERATION EQUIPMENT
REPAIRER

52D10
52D20
52D30

Exhibit Dates: 3/84–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Supervises or maintains and overhauls power-generation equipment. *Skill Level 10:* Maintains engines by adjusting valves, carburators, ignition points, alternators, regulators, and solenoids; performs maintenance services such as lubrication, oil change, and radiator flushes; repairs small motor generators. *Skill Level 20:* Able to perform the duties required for Skill Level 10; repairs or overhauls starters, alternators, generators, voltage regulators, and control circuits; maintains and repairs diesel engines. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower-skill-level personnel; instructs in the use of tools and test equipment; conducts maintenance training and assigns duties.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in small engine repair (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in small engine repair, 3 in power generation equipment repair, and 3 in diesel engine maintenance (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in small engine repair, 3 in power generation equipment repair, 3 in diesel engine maintenance, 3 in personnel supervision, and 3 in maintenance management (9/85).

MOS-52E-001

POWER STATION OPERATOR

52E20
52E40

Exhibit Dates: 10/73–2/78.

Career Management Field: 52 (Power Production), subfield 521 (Electric Power Production).

Description

Summary: Operates or supervises operation of substation or generating system. *Skill Level 20:* Operates and maintains generating station equipment; inspects, tests, modifies, and performs installations and preventive maintenance of substation or generating station electrical equipment; starts, stops, and regulates motor, gas engine, deisel engine, and turbine engine driven generators; makes required voltage, power, frequency, and phase compensations in order to maintain specified electrical requirements; performs engine or motor input/output power inspections, tests, and adjustments as needed for providing proper operation of generator; uses fundamental electronics knowledge, schematic tracing, and electronic instruments in performing diagnostic tests on systems, circuits, and components; uses multimeters, oscilloscopes, clamp-on ammeters, insulation testers, generator-motor testers, diode-transistor testers, signal generators, tachometers, impedance bridges, and pressure gauges; troubleshoots and repairs down to actual discrete electronic components in solid-state or saturable reactor voltage regulators; makes adjustments or repairs overall phases of gas engines or deisel engines, including oil changes, ignition system tune-ups, carburetor adjustments, engine disassembly, valve grindings, and starter motor repairs; is qualified to perform preventive maintenance and repairs of other similar electromechanical equipment including arc welders, air conditioners, refrigeration units, dehumidifiers and small engines; as a power station operator, measures, records, and interprets data from electrical, pneumatic, and hydraulic instruments; performs on-site maintenance, including draining oil, cleaning, examining, and replacing minor parts; operates boilers on steam powered floating plants; may be responsible for the supervision of other operators and mechanics. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises operation of generating station, substations, or portable power generators; supervises installations, preventive maintenance, safety, inspections, and parts and equipment requisitioning; conducts on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in AC/DC motor generator theory and laboratory, 4 in basic electricity/electronics theory and laboratory, 3 in industrial electricity, 2 in basic mathematics, 2 in semiconductor devices, 2 in instrument applications, 2 in fundamentals of small engine repair, 2 in fundamentals of combustion engine repair, 2 in fundamentals of diesel engine repair, 2 in fundamentals of turbine engine repair, and 2 in safety. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics theory and laboratory, 6 in power mechanics, 2 in semiconductor devices, 2 in industrial electricity, and 2 in electronic instrumentation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a maintenance equipment repairman (electric power and light) (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in AC/DC motor generator theory and laboratory, 4 in basic electricity/electronics theory and laboratory, 3 in industrial electricity, 2 in basic mathematics, 2 in semiconductor devices, 2 in instrument applications, 2 in fundamentals of small engine repair, 2 in fundamentals of combustion engine repair, 2 in fundamentals of diesel engine repair, 2 in fundamentals of turbine engine repair, and 2 in safety. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics theory and laboratory, 6 in power mechanics, 3 in industrial safety, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, 2 in semiconductor devices, 2 in industrial electricity, and 2 in electronic instrumentation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a maintenance equipment repairman (electric power and light) (6/76).

MOS-52E-002

PRIME POWER PRODUCTION SPECIALIST

52E20
52E30
52E40

Exhibit Dates: 3/78–9/90.

Career Management Field: 51 (General Engineering), subfield 512 (Utilities Engineering).

Description

Summary: NOTE: MOS 52E contains four specialties. Each specialty is identified by an Additional Skill Identifier (ASI), a letter and a number appended to the MOS designation. For example, appending ASI S2 to the MOS designation (52E20S2) designates Nuclear Power Plant Mechanic specialty. Addition of ASI S3 designates Nuclear Power Plant Electrician; ASI S4, Nuclear Power Plant Instrument Repairer; and ASI S5, Nuclear Power Plant Health Physicist. General duties for all skill levels of MOS 52E are described below, followed by a specific description for each specialty. Individual holding this MOS supervises, operates, installs, and maintains electric power plant and associated auxiliary systems, and equipment; inspects, adjusts, repairs, and replaces equipment/systems. *Skill Level 20:* Assists in the operation and maintenance of prime power plants and auxiliary systems and equipment; assists in starting, stopping, and regulating diesel engine, gas engine, and turbine engine driven generators to attain power output or perform emergency procedures; assists in controlling instrumentation, power conversion equipment, station service electrical system, associated pumps, and chemical feed systems; observes and interprets instrument readings; maintains records of routine and unusual indications; adjusts temperatures, pressures, flow rates, and process liquid levels by regulating appropriate controls; operates regulatory controls to minimize or eliminate hazards associated with radiation exposure, high pressure steam, and high voltages; inspects, tests, and performs operator preventive maintenance on nuclear and conventional power plant equipment and auxiliary systems and equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates and maintains prime power plant; establishes start-up condition in power plants, and auxiliary systems and equipment; starts, stops, and regulates diesel engine, gas engine, and turbine engine driven generators to attain power output or perform emergency procedures; introduces control instrumentation, power conversion equipment, station service electrical systems, associated pumps, and chemical feed systems; brings plant to full power; manipulates nuclear power controls to adjust temperatures, pressures, flow rates, and process liquid levels; performs operator proventive maintenance on nuclear and conventional power plant equipment and auxiliary systems and equipment; conducts on-the-job training program; assists in establishing priorities and planning and scheduling work assignments; assists in establishing shop practices and inspection procedures; performs as shift supervisor in conventional power plant; provides technical guidance to Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation and maintenance of prime power plants and equipment; operates the control room in power plant; supervises preventive maintenance on nuclear/conventional power plant equipment and auxiliary systems and equipment; supervises on-the-job training program; plans, coordinates, and schedules work assignments, priorities, shop practices, and inspection procedures; spot checks work performance and informs subordinates of corrective action; prepares technical reports. For all skill levels: If ASI is S2, Nuclear Power Plant Mechanic, performs the following duties: installs, adjusts, repairs, replaces, and tests the operation of power plant mechanical equipment such as diesel engines, gas turbines, steam turbines, oil-fired high- and low-pressure boilers, oil purification systems, fuel and oil storage and transfer systems, air compressors, pumps, valves, heat exchangers, governing systems, piping systems, and hoisting equipment; perform nondestructive tests on equipment, components, and systems; fabricates parts by machining and welding metals and alloys; employs hand tools, precision-measuring devices, and electrical and pneumatic power tools; interprets schematics and mechanical drawings of equipment and systems to solve maintenance problems; performs as a member of refueling team and assists in preparing radioactive material for shipment and storage; performs scheduled and preventive maintenance on equipment and ensures historical and mechanical records are kept current. If ASI is S3, Nuclear Power Plant Electrician, performs the following duties: applies National Electric Code provisions that govern installation, modifications, and repair of electrical wiring and equipment in power plants; employs work safety practices while performing electrical maintenance; to solve maintenance problems, traces wiring and equipment diagrams related to plant electrical equipment and power distribution systems; troubleshoots electrical equipment by interpreting visual, mechanical, and audible symptoms; interprets mechanical and electrical problems that involve algebraic formulas; wires, repairs, and tests operation of switchgear, circuit breakers, motors, generators, transformers, high- and low-voltage distributors, transmission systems, and protective and synchronizing devices of power plant equipment; solders connections, splices cables, and makes cable and wire runs; installs, maintains, and troubleshoots batteries, inverters, battery chargers and motor generators; calibrates and maintains protective relays and associated auxiliary current transformers, potential transformers control wiring for generators, transformers, and motors; employs equipment such as multimeters, clamp-on ampmeters, meggers, high pot tester, phase rotation indicators, oscilloscopes and protective relay tests sets; performs scheduled preventive maintenance on electrical equipment/components and ensure that historical and maintenance records are kept current; assists in refueling operations and preparing radioactive materials for storage and shipment. If ASI is S4, Nuclear Power Plant Instrument Repairer, performs the following duties: troubleshoots all types of nuclear power plant instrumentation systems, using schematic and wiring diagrams; installs, calibrates, repairs, adjusts, and test instrumentation and control equipment; installs electrical, electronic, and pneumatic instruments; calibrates control, regulatory, and electronic instruments; repairs or replaces circuit wiring, coaxial cables, vacuum tubes, semiconductors, and saturable core devices; employs equipment such as multimeters, oscilloscopes, transistor test sets, signal generators, and pressure and vacuum comparators; adjusts and aligns conventional and solid-state electrical and electronic devices and pneumatic instruments used for motivation and control in other components of systems; interprets mechanical and electrical problems that involve algebraic formulas; interprets radiation survey instrument readings; performs scheduled preventive maintenance on equipment and maintains historical and maintenance records; assists in refueling operations and preparing radioactive materials for storage and shipment. If ASI is S5, Nuclear Power Plant Health Physicist, performs the following duties: monitors and treats process fluids for radioactivity and other impurities; prepares reagents and chemical standards; applies techniques for volumetric, gravimetric, colorimetric, and radio-chemical analysis of water; operates testing equipment and keeps it in operating condition; determines alpha, beta, gamma, and neutron activities in air, water, and solid samples; converts radiation levels into millicuries, interprets results in relation to maximum permissible concentrations prescribed by regulations; computes radiation levels, exposure time limits, accumulated dosages, and radiation counter efficiencies; employs slide rule, logarithm tables, and chemical and algebraic formulas; performs decontamination procedures; establishes and monitors plant radiological safety program; ensures that scheduled preventive maintenance on radiation monitoring equipment is performed; maintains historical and maintenance records; assists in refueling operations and preparing radioactive materials for storage and shipment.

Recommendation, Skill Level 20

If ASI is S2 (Mechanic), see credit recommendation in exhibit AR-1720-0004 in the Army courses volume of GUIDE; if ASI is S3 (Electrician), see exhibit AR-1720-0003; if ASI is S4 (Instrument Repairer), see exhibit AR-1720-0005; if ASI is S5 (Health Physicist), see exhibit AR-1720-0002. In addition, the following credit is recommended: In the vocational certificate category, 6 semester hours in the use and care of hand and power tools and 6 in troubleshooting techniques (mechanical and electrical). In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety and 6 in troubleshooting techniques (mechanical and electrical) (8/81).

Recommendation, Skill Level 30

If ASI is S2 (Mechanic), see credit recommendation in exhibit AR-1720-0004 in the Army courses volume of GUIDE; if ASI is S3 (Electrician), see exhibit AR-1720-0003; if ASI is S4 (Instrument Repair), see exhibit AR-1720-0005; if ASI is S5 (Health Physicist), see exhibit AR-1720-0002. In addition, the following credit is recommended: In the vocational certificate category, 6 semester hours in the use and care of hand and power tools and 6 in troubleshooting techniques (mechanical and electrical). In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 6 in troubleshooting techniques, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in industrial safety (8/81).

Recommendation, Skill Level 40

If ASI is S2 (Mechanic), see credit recommendation in exhibit AR-1720-0004 in the Army courses volume of GUIDE; if ASI is S3 (Electrician), see exhibit AR-1720-0003; if ASI is S4 (Instrument Repairer), see exhibit AR-1720-0005; if ASI is S5 (Health Physicist), see exhibit AR-1720-0002. In addition, the following credit is recommended: In the vocational certificate category, 6 semester hours in use and care of hand and power tools, 6 in troubleshooting techniques (mechanical and electrical), and 2 in technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 6 in troubleshooting techniques, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, and 2 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in industrial safety, 3 for field experience in management, and 3 in management problems (8/81).

MOS-52E-003

PRIME POWER PRODUCTION SPECIALIST

52E10
52E20
52E30
52E40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-52F-001

TURBINE ENGINE DRIVEN GENERATOR REPAIRER

52F10
52F20
52F30

Exhibit Dates: 3/84–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Performs or supervises maintenance and overhaul of turbine engine driven generator sets and turbine engine prime movers of tactical generator sets. *Skill Level 10:* Performs maintenance on turbine engine driven generator and associated equipment such as turbine engines used as prime movers on other units; troubleshoots mechanical and electrical systems; interprets schematic diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; repairs or overhauls components and assemblies including starters, generators, fuel pumps, exciters, AC and DC voltage regulators, electric and electronic load-sensing governors, contractors, switches, and control circuits; diagnoses faults in systems and components. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical assistance, guidance, and supervision to lower-skill-level personnel; plans and organizes work schedules and assigns duties; establishes maintenance priorties and allocates work loads; performs final inspection and testing of repaired equipment; conducts on-the-job training.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in turbine engine maintenance (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 6 semester hours in turbine engine maintenance (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electrical laboratory. In the lower-division baccalaureate/associate degree category, 6 semester hours in turbine engine maintenance, 3 in personnel supervision, and 3 in maintenance management (9/85).

MOS-52G-001

TRANSMISSION AND DISTRIBUTION SPECIALIST

52G10
52G20
52G30
52G40

Exhibit Dates: 3/81–Present.

Career Management Field: 51 (General Engineering).

Description

Summary: Supervises or installs and maintains electrical distribution systems. *Skill Level 10:* Installs and maintains electrical power distribution systems including poles, transformers, guy wires and service drops. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs inspection maintenance and repairs on 'hot' or 'power-on' transmission systems; repairs, calibrates and tests substation equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower-skill-level personnel; supervises power line and security/airport lighting installation; supervises operator-level maintenance on equipment and tools; insures adherence to proper safety and clearance procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; estimates project manpower, equipment and materials requirements; coordinates work, maintenance, and planning schedules; advises on construction and maintenance procedures and safety training.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in power line installation and maintenance (9/85).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in power line installation and maintenance (9/85).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in power line installation and maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in maintenance management (9/85).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in power line installation and maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/85).

MOS-52H-001

NUCLEAR POWER PLANT MECHANIC OR OPERATOR

52H20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 52H was discontinued and its functions were incorporated into MOS 52E, Prime Power Production Specialist.)

Career Management Field: 52 (Power Production), subfield 522 (Nuclear Power Production).

Description

Skill Level 20: Operates and repairs mechanical systems and auxiliary and standby equipment of an Army nuclear power plant; reads schematic diagrams and mechanical drawings; introduces control instrumentation, power conversion equipment, station service electrical system, associated pumps, and chemical feed systems; observes and interprets instrument readings; interprets nuclear, mechanical, and electrical problems involving mathematical formulas; calibrates, adjusts, and tests operation of mechanical equipment, including turbines, control rod drives, pumps, air compressors, heat exchanges, economizers, chlorinators, and diesel-driven auxiliary generating equipment; uses handtools, precision-measuring devices, and electrically and pneumatically operated power tools. NOTE: An individual assigned MOS 52H may have extensive additional training and experience as an Army-certified nuclear power plant operator (comparable to the position defined in the Code of Federal Regulatons, Title 10, Part 55) or as an Army-certified nuclear welder.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in physics, 6 in mathematics, 6 in mechanical engineering, 6 in electrical engineering, 6 in engineering technology, and 3 in chemistry, and additional credit in communications and technical writing on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in physics or engineering; and, for those persons with Army certification as a nuclear power plant operator, 15 additional semester hours in physics and/or engineering (6/76).

MOS-52J-001

NUCLEAR POWER PLANT ELECTRICIAN OR OPERATOR

52J20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 52J was discontinued and its functions were incorporated into MOS 52E, Prime Power Production Specialist.)

Career Management Field: 52 (Power Production), subfield 522 (Nuclear Power Production).

Description

Skill Level 20: Repairs electrical components of Army nuclear power plant equipment; observes instructions and records indications; adjusts temperature, pressures, flow rates, and process liquid levels; applies provisions of National Electrical Code governing installation, modification, and repair of electrical wiring and equipment; traces wiring and equipment diagrams; troubleshoots electrical systems; interprets nuclear, mechanical, and electrical problems involving mathematical formulas; wires, repairs, and tests operation of switchgear, circuit breakers, motors, transformers, generators, high and low voltage distributors, transmission systems, and protective and self-synchronizing devices; solders connections and splices cables; assists in refueling operations. NOTE: An individual assigned MOS 52J may have extensive additional training and experience as an Army-certified nuclear power plant operator (comparable to the position defined in the Code of Federal Regulations, Title 10, Part 55) or as an Army-certified nuclear welder.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in physics, 6 in mathematics, 6 in mechanical engineering, 6 in electrical engineering, 6 in engineering technology, and 3 in chemistry, and additional credit in communications and technical writing on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in physics or engineering; and, for those persons with Army certification as a nuclear power plant operator, 15 additional semester hours in physics and/or engineering (6/76).

MOS-52K-001

Nuclear Power Plant Instrumentman or Operator

52K20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 52K was discontinued and its functions were incorporated into MOS 52E, Prime Power Production Specialist.)

Career Management Field: 52 (Power Production), subfield 522 (Nuclear Power Production).

Description

Skill Level 20: Operates controls and equipment and installs and repairs electrical, electronic, and pneumatic instrumentation; establishes startup conditions in power conversion equipment station service electrical system, control instrumentation, associated pumps, and chemical feed systems; observes and interprets instrument readings; operates diesel-driven auxiliary generating equipment; troubleshoots Army nuclear power plant instumentation systems, using schematic and and wiring diagrams; installs, calibrates, adjusts, repairs, and tests instrumentation and control equipment; installs electrical, electronic, and pneumatic instruments; repairs or replaces circuit wiring, coaxial cables, vacuum tubes, semiconductors, and saturable core devices; uses multimeters, oscilloscopes, transistor test sets, signal generators, and pressure and vacuum comparators; interprets nuclear, mechanical, and electrical problems involving mathematical formulas. NOTE: An individual assigned MOS 52K may have extensive additional training and experience as a Army-certified nuclear power plant operator (comparable to the position defined in the Code of Federal Regulations, Title 10, Part 55) or as an Army-certified nuclear welder.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in physics, 6 in mathematics, 6 in mechanical engineering, 6 in electrical engineering, 6 in engineering technology, and 3 in chemistry, and additional credit in communications and technical writing on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in physics or engineering; and, for those persons with Army certification as a nuclear power plant operator, 15 additional semester hours in physics and/or engineering (6/76).

MOS-52L-001

Nuclear Power Plant Process Control Specialist or Operator

52L20

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 52L was discontinued and its functions were incorporated into MOS 52E, Prime Power Production Specialist.)

Career Management Field: 52 (Power Production), subfield 522 (Nuclear Power Production).

Description

Skill Level 20: Serves as a health physicist; conducts radiological surveys of personnel, equipment, work areas, and reactor elements, and carries out safety and decontamination procedures; establishes startup conditions in power conversion equipment, station service electrical system, control instrumentation, associated pumps, and chemical feed systems; observes and interprets instrument readings; sustains temperature, pressures, flow rates, and process liquid levels; interprets nuclear, mechanical, and electrical problems; operates diesel-driven auxiliary generating equipment; applies techniques for volumetric, gravimetric, colorimetric, and radiochemical analysis of water; determines alpha, beta, gamma, and neutron activities in air, water, and solid samples; converts radiation levels into millicuries; computes radiation levels, exposure time limits, accumulated dosages, and radiation counter efficiencies; employs slide rule, logarithm tables, and chemical and mathematical formulas; performs decontamination procedures; establishes and monitors plant radiological safety program. NOTE: An individual assigned MOS 52L may have extensive additional training and experience as an Army-certified nuclear power plant operator (comparable to the position defined in the Code of Federal Regulations, Title 10, Part 55) or as an Army-certified nuclear welder; also may be specialized in health physics, water chemistry, or instrumentation.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in physics, 6 in mathematics, 6 in mechanical engineering, 6 in electrical engineering, 6 in engineering technology, and 3 in chemistry, and additional credit in communications and technical writing on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in physics or engineering and 3 in health physics; and, for those persons with Army certification as a nuclear power plant operator, 15 semester hours in physics and/or engineering (6/76).

MOS-52M-001

Nuclear Power Plant Chief

52M40

52M50

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 52M was discontinued and its functions were incorporated into MOS 51Z, General Engineering Supervisor, and MOS 52E, Prime Power Production Specialist.)

Career Management Field: 52 (Power Production), subfield 522 (Nuclear Power Production).

Description

Summary: Supervises the operation and maintenance of an Army nuclear power plant. *Skill Level 40:* Able to perform the duties required for Skill Level 20 of 52H (Nuclear Power Plant Mechanic or Operator), 52J (Nuclear Power Plant Electrician or Operator), 52K (Nuclear Power Plant Instrumentman or Operator), or 52L (Nuclear Power Plant Process Control Specialist or Operator); when Army-certified as a senior reactor operator, serves as a nuclear power plant shift supervisor or, in a small nuclear power plant, as the maintenance supervisor; supervises operating and maintenance activities and takes appropriate actions to insure efficient and safe operation of the nuclear power plant; prepares technical and administrative reports on nuclear power plant operation and maintenance; instructs subordinates in plant operation and maintenance; makes independent technical decisions on small plant nuclear power facilities maintenance; supervises plant activities in the absence of plant supervisor or superintendent. NOTE: In some cases, an individual assigned 52M40 may NOT be Army-certified as a senior reactor operator and may instead perform the maintenance and special functions required for 52H20, 52J20, 52K20, or 52L20. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the maintenance supervisor in a large nuclear power plant or as the supervisor of a small or large nuclear power plant; serves as the first sergeant of a company; assists in planning, coordinating, and supervising all operations and activities; advises the company commander on all personnel matters; directs and coordinates company administration; directs and conducts on-the-job training; holds meetings with subordinate supervisors to provide instructions and guidance; inspects facilities to insure safety measures are followed; coordinates support activities, such as supply and food service; periodically serves as a chief instructor in a formal training facility.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in physics, 6 in mathematics, 6 in mechanical engineering, 6 in electrical engineering, 6 in engineering technology, 3 in chemistry, 3 in technical writing, and 3 in human relations, and additional credit in personnel supervision on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in physics or in engineering; and, for those persons with Army certification as a nuclear power plant operator, 15 additional semester hours in physics and/or engineering (6/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours in physics or engineering, 6 for field experience in management, 3 in introduction to management, 3 for an internship in education, 3 in industrial arts education (engineering technology), and 3 in health physics; and, for those persons with Army certification as a nuclear power plant operator, 15 additional semester hours in physics and/or engineering (6/76).

MOS-52X-001

Special Purpose Equipment Repairer

52X40

Exhibit Dates: 7/86–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Skill Level 40: Manages special purpose equipment repair facilities; (special purpose equipment includes utilities equipment (air conditioning, heating, refrigeration), power generation equipment, turbine engine driven generators, quartermaster and chemical equipment); supervises 25–60 persons; plans and organizes work area layout; applies production and quality control principles and procedures; trains and advises subordinates; performs maintenance administrative duties, including control of maintenance technical publication file and supervision of the preparation of records and reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (7/88).

MOS-53B-001

OXYGEN-ACETYLENE PRODUCTION SPECIALIST

53B20

53B40

Exhibit Dates: 10/73-2/78.

Career Management Field: 51 (General Engineering), subfield 513 (Industrial Gas Production).

Description

Summary: Operates oxygen-acetylene plants to manufacture gaseous nitrogen, oxygen, and acetylene. *Skill Level 20:* Has some basic knowledge of applied science, such as laws of gases, liquification and separation of air, theory of cooling, fractional distillation, basic instrumentation, chemistry of acetylene, forms of energy, changes of state, theory of carbon dioxide, and hydrogen production; employs safety measures; combats fires caused by chemicals. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor; isolates and corrects equipment malfunctions; coordinates plant operations and maintenance; enforces safety rules; writes routine, special, and technical reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in applied science and additional credit on the basis of institutional evaluation (3/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in applied science, 2 in personnel supervision, and 1 in technical writing, and additional credit on the basis of institutional evaluation (3/75).

MOS-53B-002

INDUSTRIAL GAS PRODUCTION SPECIALIST

53B10

53B20

53B30

53B40

Exhibit Dates: 3/78-8/86.

Career Management Field: 51 (General Engineering).

Description

MOS 53B was discontinued before an evaluation could be scheduled.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-53C-001

CARBON DIOXIDE-HYDROGEN PRODUCTION SPECIALIST

53C20

53C40

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 53C was discontinued and its functions were incorporated into MOS 53B, Industrial Gas Production Specialist.)

Career Management Field: 51 (General Engineering), subfield 513 (Industrial Gas Production).

Description

Summary: Operates carbon dioxide-hydrogen production plants. *Skill Level 20:* Operates a mobile production plant to manufacture carbon dioxide, dry ice, and hydrogen; prepares site for equipment installation; positions trailers, and connects piping, hoses, and power lines; starts up, operates, and shuts down gas producing, solidification, and related equipment; changes cylinders and packs solid carbon dioxide; employs safety measures in handling hydrogen and carbon dioxide under high pressure and at extremely low temperatures and knows how to combat petroleum fires; performs preventive maintenance on equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 1-4 carbon dioxide or hydrogen generating complexes; coordinates plant operations and maintenance; enforces safety rules and makes inspections; supervises storage and issue of gaseous and solid products; compiles reports on hydrogen and carbon dioxide generation.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in fire safety, 2 in first aid and chemcial protection, and 2 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and chemical protection and 1 in fire safety (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and chemical protection, 1 in fire safety, and 3 in human relations; if grade E-6 was achieved, 3 additional semester hours in personnel supervision; if grade E-7 was achieved, 3 additional semester hours for field experience in management (6/76).

MOS-54A-001

CHEMICAL OPERATIONS ASSISTANT

54A10

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 54A was discontinued and its functions were incorporated into MOS 54C, Smoke and Flame Specialist; MOS 54D, Chemical Equipment Repairman; and MOS 54E, Chemical Operations Specialist.)

Career Management Field: 54 (Chemical).

Description

Skill Level 10: Assists in technical operations in chemical units such as chemical decontamination, smoke and flame, and laboratory units; assists in the preparation, use, and handling of CBR (chemical, biological, and radiological warfare) weapons and munitions, decontaminants, herbicides, and riot control agents; assists in the operation of and performs preventive maintenance on chemical mechanical equipment, using common hand and power tools; learns, and complies with, safety precautions for handling chemicals and first aid procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in first aid and chemical safety, 2 in mechanical maintenance, and 2 in use and care of tools. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and chemical safety (5/76).

MOS-54B-001

DECONTAMINATION SPECIALIST

54B20

54B40

54B50

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 54B was discontinued and its functions were incorporated into MOS 54E, Chemical Operations Specialist); effective 9/87, MOS 54B was reestablished with the title Chemical Operations Specialist–see exhibit MOS-54B-002.)

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or performs activities related to neutralizing and decontaminating harmful chemical agents. *Skill Level 20:* Able to perform the duties required for 54A10 (Chemical Operation Assistant); performs duties related to chemical decontamination; performs standard tests to determine type, degree, and extent of contamination; prepares decontaminants; drives vehicles; determines decontamination levels after treatments; cleans and performs preventive maintenance on decontamination equipment; reads and interprets maps. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel and equipment involved in a decontamination team of 8-25 persons; instructs in techniques, policies, and procedures of decontaminations; instructs in first aid for toxic warfare casualties; plans decontamination activities; estimates amounts of decontaminants to be used; supervises preparation of the decontamination agents; supervises operation of equipment for applying decontaminating agents; prepares relevant records and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager, serving as first sergeant of a company; assists in planning, coordinating, and supervising all company activities; advises company commander on all personnel matters; coordinates operation of company food service and supply activities; assists in accomplishing unit training.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance, 3 in use and care of tools, 2 in first aid and chemical safety, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and chemical safety and 1 in map reading, and additional credit in applied chemistry on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, 2 in first aid and chemical safety, and 1 in map reading, and additional credit in applied chemistry on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in personnel management (5/76).

MOS-54B-002

Chemical Operations Specialist

54B10
54B20
54B30
54B40
54B50

Exhibit Dates: 9/87–Present.

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or operates and maintains both smoke generating equipment and nuclear, biological, and chemical (NBC) detection and decontamination equipment; assists in the establishment, administration, and application of NBC defense measures. *Skill Level 10:* Readies and participates in preparation and operation of smoke generating equipment; performs NBC reconnaissance; operates and maintains identification/detection and decontamination equipment. *Skill Level 20:* Able to perform the duties required for SKill Level 10; plans and organizes smoke generating fuel supply teamwork schedules; assigns duties; instructs and supervises subordinates in work techniques and procedures; supervises reconnaissance/decontamination operations and serves as company NBC operations noncommissioned officer; prepares and evaluates reports; conducts training; assists in computation of radiation factors; observes operating efficiency and preparedness of unit; instructs and supervises in work techniques and procedures; prepares, processes, and distributes NBC intelligence reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; controls and coordinates supply and resupply efforts; supervises and coordinates maintenance of assigned equipment; responsible for reports concerning fuel and fog oil supplies; computes and plots NBC data; supervises reconnaissance and decontamination squads, and serves as an advisor. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans and organizes smoke platoon operations; assigns work to subordinates according to their capabilities; assigns work, establishes priorities, and inspects smoke production for compliance with operational procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports covering unit activities; assists command and staff officers in continuous appraisal of chemical operations and training situations; supervises NBC decontamination platoon; monitors NBC company technical operations, and serves as NBC advisor; reviews, consolidates, and prepares technical, personnel, and administrative reports and coordinates logistical needs. *Skill Level 50:* Able to perform the duties required for Skill Level 40; conducts operations and intelligence functions; prepares and maintains maps and operations information of NBC units and activities; prepares operations and inspection reports; prepares tactical NBC plans and training material; collects, interprets, analyzes, and evaluates NBC intelligence data; provides technical advice in handling, transporting, and storing chemical munitions; maintains NBC staff journals, files, records, and reports.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (9/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision and 1 in technical writing (9/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in technical writing, 1 in records management, and 2 in human relations (9/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in technical writing, 1 in records management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (9/88).

MOS-54C-001

Smoke and Flame Specialist

54C20
54C40
54C50

Exhibit Dates: 10/73–2/77.

Career Management Field: 54 (Chemical).

Description

Summary: Operates or supervises the operation of smoke and flame equipment to provide smokescreens or flame support in combat operations. NOTE: Able to perform the duties required for 54A10 (Chemical Operations Assistant). *Skill Level 20:* Serves as smoke generator operator; operates and performs preventive maintenance on smoke and flame equipment; selects location to set up smoke equipment and smoke munitions; makes adjustments to smoke generators to obtain desired screening smoke; evaluates smokescreen effectiveness; serves as flame fuel equipment operator or as flamethrower driver; identifies targets and assists in loading and firing self-propelled flamethrowers; maintains flamethrowing equipment in operating condition; follows safety precautions and administers first aid for injury from chemical agents; reads maps. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor for a smoke section or platoon or a flamethrower section or platoon; prepares map overlays; supervises the transportation of smoke generating and flame equipment; assigns personnel; directs and conducts training; assists officers in the continuous appraisal of chemical operations and training; keeps records and prepares technical reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serving as operations sergeant, supervises activities pertaining to organization, training, and technical operations of chemical smoke generator battalion; serving as the first sergeant of a company, is a mid-level manager responsible for personnel actions, unit training, supplies, inspections, and tactical operations and directly supervises approximately 8-10 noncommissioned officers; may serve as a chief instructor in a formal training facility. NOTE: May have progressed to 54C50 from 54B40 or 54B50 (Decontamination Specialist).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in first aid and 1 in use and care of tools (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in first aid and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, and 2 in instructional methods (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, 1 semester hour in first aid and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, 3 for public speaking, and 2 in instructional methods. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in introduction to management, and 3 in personnel management (6/76).

MOS-54C-002

Smoke and Flame Specialist

54C10
54C20

Exhibit Dates: 3/77–2/81.

Career Management Field: 54 (Chemical).

Description

From 3/77 to 2/81, MOS 54C was discontinued for use in the active Army and retained for use in the Reserve Forces only; it was not evaluated during this time period. Exhibit MOS-54C-003 covers the dates 3/81–Present.

Recommendation

Credit may be granted on the basis of institutional evaluation.

MOS-54C-003

Smoke Operations Specialist

54C10
54C20
54C30
54C40

Exhibit Dates: 3/81–9/87. (Effective 9/87, MOS 54C was discontinued and its functions were incorporated into MOS 54B, Chemical Operations Specialist.)

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or operates and maintains smoke generating equipment in the field. *Skill Level 10:* Readies and participates in preparation and operation of smoke generating equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; plans and organizes smoke generating and fuel supply teamwork schedules; assigns duties; instructs and supervises subordinates in work techniques and procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; controls and coordinates supply and resupply efforts; supervises and coordinates maintenance of assigned equipment; responsible for reports concerning fuel and fog oil supplies. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans and organizes smoke platoon operations; assigns work to subordinates according to their capabilities; assigns work, establishes priorities, and inspects smoke production for compliance with operational procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports covering unit activities; assists command and staff officers in continuous appraisal of chemical operations and training situations.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (11/86).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision and 1 in technical writing (11/86).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in technical writing, 1 in records management, and 2 in human relations (11/86).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in technical writing, 1 in records management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/86).

MOS-54D-001

CHEMICAL EQUIPMENT REPAIRMAN

54D20
54D40
54D50

Exhibit Dates: 10/73–2/77.

Career Management Field: 54 (Chemical).

Description

Summary: Repairs or supervises the repair of chemical equipment. NOTE: Able to perform the duties required for 54A10 (Chemical Operations Assistant). *Skill Level 20:* Performs maintenance on chemical equipment, such as gas masks, smoke generators, and flamethrowers, and on decontaminating equipment; inspects, tests, adjusts, and cleans equipment; disconnects and assembles equipment components such as carburetor, fuel pump, or furnace assembly; uses common handtools; performs rough repair of damaged metal parts, such as sawing and soldering; sews canvas pieces to repair gas masks; replaces irreparable components, such as broken gas mask eyepieces. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises from 9 to 40 persons involved in the repair of chemical equipment and may serve as a maintenance inspector; establishes priorities and assigns work; requisitions supplies; establishes work methods and performance standards; directs and conducts on-the-job training; keeps maintenance records and prepares technical reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serving as a first sergeant of a company, is a mid-level manager responsible for operations, personnel actions, unit training, supplies, and inspections; makes recommendations to officers on all related matters; holds meetings with subordinate noncommissioned officers to provide them instructions and guidance.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical maintenance, 2 in first aid and chemical safety, 1 in use and care of tools, and 1 in map reading (basic surveying). In the lower-division baccalaureate/associate degree category, 2 semester hours in first aid and chemical safety (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in human relations, 3 in personnel supervision, 2 in instructional methods, and 2 in first aid and chemical safety (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in introduction to management, and 3 in personnel management (6/76).

MOS-54D-002

CHEMICAL EQUIPMENT REPAIRER
(CHEMICAL EQUIPMENT REPAIRMAN)

54D10
54D20

Exhibit Dates: 3/77–8/80. (Effective 9/80, MOS 54D was discontinued and its functions were incorporated into MOS 63J, Quartermaster Equipment Repairer.)

Career Management Field: 63 (Mehcnaical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Repairs or supervises repair of chemical equipment such as compression spray units, internal-combustion engines, generators, and detection instruments; has knowledge of atomic structure, radiation theory and effects, chemical agents and first aid. *Skill Level 10:* Performs maintenance on chemical equipment such as smoke generators, flamethrowers, gas masks, decontamination equipment and dispersers; inspects, tests, adjusts, cleans, and lubricates equipment; maintains or replaces equipment components such as carburetor, fuel pump, or furnace assembly; uses common or specialized hand tools and test equipment; reads and uses technical literature in diagnosing and repairing equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; may supervise up to 15 Skill Level 10 personnel; performs technical inspection of chemical equipment; maintains records of maintenance performed.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical maintenance, 2 in first aid and chemical safety, and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 2 in first aid and chemical safety, and 1 in care and use of tools (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical maintenance, 2 in first aid and chemical safety, and 1 in care and use of tools; if the duty assignment was chemical equipment repair foreman, 2 semester hours in personnel supervision (5/78).

MOS-54E-001

CHEMICAL STAFF SPECIALIST

54E20
54E40
54E50

Exhibit Dates: 10/73–2/77.

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or assists in the establishment, administration, and application of chemical, biological, and radiological health programs. *Skill Level 20:* Supervises communities during emergencies and disasters; prepares reports and maintains records; understands chemical toxicology, radiation dangers, and the effect of weather on chemical and radiation hazards; uses testing and detecting equipment; identifies physiological and behavioral effects of chemical agents and administers first aid to affected personnel. NOTE: May have progressed to 54E20 from 54A10 (Chemical Operations Assistant). *Skill Level 40:* Able to perform the duties required for Skill Level 20; uses advanced techniques for detecting, identifying, and analyzing chemical agents; as a first-line supervisor, trains personnel and plans and coordinates the acquisition, storage, and use of chemical and radiological agents and materials. NOTE: May have progressed to 54E40 from 54E20, 54B40 (Decontamination Specialist), 54C40 (Smoke and Flame Specialist), 54D40 (Chemical Equipment Repairman), or 92D40 (Chemical Laboratory Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; as an experienced senior supervisor, trains several hundred personnel, appraises the effectiveness of technical operations involving chemical agents and materials, and analyzes chemical and radiological data. NOTE: May have progressed to 54E50 from 54E40 or 54D50 (Chemical Equipment Repairman).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in administration or management, 3 in biology, 3 in cartography or meteorology, 3 in educational techniques, 3 in general chemistry, 3 in health science, 3 in physics, and 6 in laboratory techniques (2/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in biology, 3 in cartography or meteorology, 3 in educational techniques, 3 in general chemistry, 3 in physics, 6 in administration or management, 6 in health sciences, and 9 in laboratory techniques (2/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in biology, 3 in cartography or meteorology, 3 in educational techniques, 3 in general chemistry, 3 in physics, 6 in administration or management, 6 in health sciences, and 9 in laboratory techniques (2/75).

MOS-54E-002

CHEMICAL OPERATIONS SPECIALIST

54E10
54E20
54E30
54E40
54E50

Exhibit Dates: 3/77-2/81.

Career Management Field: 54 (Chemical).

Description

Summary: Operates or supervises the use of chemical equipment such as smoke generators, flamethrowers, and decontamination equipment; assists in establishing, administering, and applying health programs in the chemical, biological, and radiological areas. *Skill Level 10:* Prepares liquid and dry decontaminants; operates power driven decontaminating apparatus and chemical and radiological detection equipment; assists in the establishment and operation of personnel decontamination station; performs maintenance on associated equipment; understands chemical and radiological hazards; has knowledge of biological vectors, nomograms, and map reading; identifies physiological and behavioral effects of agents and administers first aid. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as supervisor in groups of 8 - 15 persons; prepares intelligence reports; assists in analysis of reports, records, maps, and overlays relating to chemical, nuclear, biological activities; maintains files and records; prepares meteorological fallout predictions and computes chemical agent requirements for special operations; assists in computations of radiation factors. *Skill Level 30:* Able to perform the duties required for Skill Level 20; must be able to supervise personnel performing the duties of 54E20 and 54C20 (Smoke and Flame Specialist); supervises decontamination of equipment, supplies, and terrain zones; supervises operation of chemical equipment; supervises the organizing, training, and functioning of specialized units in nuclear or chemical operations; prepares reports, supply and maintenance records, and training records; assists in planning for employment of chemical personnel units; collects and analyzes information and data and coordinates special support functions with larger military groups. NOTE: May have progressed to 54E30 from 54E20 or 54C20 (Smoke and Flame Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 30; must be able to supervise personnel performing the duties of 54E30 and 92D30 (Chemical Laboratory Specialist); uses advanced techniques for detecting, identifying, and analyzing chemical agents; plans, coordinates, and supervises organization, training, and employment of chemical personnel units; instructs in methods techniques and policies; assists commanders and staff in preparing plans and written documents for tactical operations. NOTE: May have progressed to 54E40 from 54E30 or 92D30 (Chemical Laboratory Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer in a unit of 100 - 150 persons or to high level staffs; appraises the effectiveness of technical operations involving chemical agents; analyzes chemical, biological, and radiological reports and data.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, and 3 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, and 3 in applied mathematics (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, 3 in applied mathematics, 2 in records administration, 3 in human relations and 3 in personnel supervision (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, 3 in applied mathematics, 3 in records administration, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, credit as follows: If the person progressed to 54E40 from 54E30, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, 3 in applied mathematics, 3 in records administration, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 3 in educational techniques; if the person progressed to 54E40 from 92D30, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in chemical laboratory techniques, 2 in applied technical mathematics, 1 in radiochemical laboratory, 1 in chemical safety, and 3 in educational techniques; if served as a section chief, 3 additional semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, credit as follows: If the person progressed to 54E40 from 54E30, 3 semester hours in general science, 2 in laboratory techniques, 3 in health sciences, 2 in cartography, 3 in applied mathematics, 3 in records administration, 3 in human relations, 3 in personnel supervision, 6 for field experience in management, and 3 in educational techniques; if the person progressed to 54E40 from 92D30, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in chemical laboratory techniques, 2 in applied technical mathematics, 1 in radiochemical laboratory, 1 in chemical safety, 3 for field experience in management, and 3 in educational techniques; if served as a section chief, 3 additional semester hours in human relations, 3 in personnel supervision, and 3 for field experience in managment. In the upper-division baccalaureate category, 3 semester hours for field experience in managment, 3 in personnel management, and 3 in management problems (5/78).

MOS-54E-003

NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) SPECIALIST

54E10
54E20
54E30
54E40

Exhibit Dates: 3/81-9/87. (Effective 9/87, MOS 54E was discontinued and its functions were incorporated into MOS 54B, Chemical Operations Specialist.)

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or operates and maintains nuclear, biological, and chemical (NBC) detection and decontamination equipment; assists in the establishment, administration, and application of NBC defense measures. *Skill Level 10:* Performs NBC reconnaissance; operates and maintains identification/detection and decontamination equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises reconnaissance/decontamination operations and serves as company NBC operations noncommissioned officer; prepares and evaluates reports; conducts training; assists in computation of radiation factors; observes operating efficiency and preparedness of unit; instructs and supervises in work techniques and procedures; prepares, processes, and distributes NBC intelligence reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; computes and plots NBC data; supervises reconnaissance and decontamination squads, and serves as an advisor. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises NBC decontamination platoon; monitors NBC company technical operations, and serves as NBC advisor; reviews, consolidates, and prepares technical, personnel, and administrative reports and coordinates logistical needs.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (11/86).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision and 1 in technical writing (11/86).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in technical writing, 1 in records management, and 2 in human relations (11/86).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in technical writing, 1 in records management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/86).

MOS-54Z-001

CHEMICAL SENIOR SERGEANT

54Z50

Exhibit Dates: 3/81–8/87. (Effective 9/87, MOS 54Z was discontinued and its functions were incorporated into MOS 54B, Chemical Operations Specialist.)

Career Management Field: 54 (Chemical).

Description

Skill Level 50: Supervises chemical operations; supervises duties performed by MOS 54C40 (Smoke Operations Specialist) or MOS 54E40 (NBC Specialist); conducts operations and intelligence functions; prepares and maintains maps and operations information of NBC units and activities; prepares operations and inspection reports; prepares tactical NBC plans and training material; collects, interprets, analyzes, and evaluates NBC intelligence data; provides technical advice in handling, transporting, and storing chemical munitions; maintains NBC staff journals, files, records, and reports.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in introduction to management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in organizational behavior, and 3 in technical communications (11/86).

MOS-55B-001

AMMUNITION STORAGE AND OPERATIONS SPECIALIST

55B20

55B30

55B40

Exhibit Dates: 10/73–9/74.

Career Management Field: 55 (Ammunition).

Description

Summary: Receives, inspects, classifies, stores, and issues ammunition; keeps records of warehouse transactions. *Skill Level 20:* Under supervision, works as a storekeeper, controlling stock and keeping inventory data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; functions as a senior storekeeper with a minimum of supervision; prepares and maintains files and special records systems; operates office equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; is a first-line supervisor of storage facility personnel; organizes and manages warehouse operations; has in-depth knowledge of storage systems.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office skills (2/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in office skills (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in office skills, records management, or personnel supervision. In the upper-division baccalaureate category, 3 semester hours in business administration (2/75).

MOS-55B-002

AMMUNITION SPECIALIST
(AMMUNITION STORAGE AND OPERATIONS SPECIALIST)

55B10

55B20

55B30

55B40

Exhibit Dates: 10/74–Present.

Career Management Field: 55 (Ammunition).

Description

Summary: Receives, inspects, classifies, stores, and issues ammunition; keeps records of warehouse transactions. *Skill Level 10:* Serves as an ammunition storage assistant or records clerk; assists in the receipt, storage, issue, and maintenance of all types of conventional and chemical ammunition, ammunition components, and explosives; loads, unloads, stacks, and stores ammunition supplies and explosives, including guided missiles, using materials handling equipment; prepares ammunition for shipment by bracing and staying loads; inventories ammunition in storage; assists in upkeep of operations area and facilities; applies safety precautions to ammunition storage, handling, and maintenance; assists in the routine destruction of unserviceable and irreparable conventional and chemical ammunition and explosives. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs emergency destruction of ammunition; prepares periodic statistical reports on issue, receipt and storage functions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower-skill-level personnel; plans and organizes ammunition storage facilities and maintenance operations; estimates requirements for personnel, tools, equipment, and supplies; supervises the establishment and maintenance of ammunition stock control records. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises ammunition supply operations, including maintenance of non-nuclear ammunition; performs as technical advisor; prepares activity reports; assigns duties to subordinate personnel; supervises the setting up and camouflaging of ammunition supply and maintenance facilities.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in explosives (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in explosives and 3 in supply procedures (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in explosives and 3 in supply procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in human relations (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in explosives and 3 in supply procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 for field experience in management (6/76).

MOS-55D-001

EXPLOSIVE ORDANCE DISPOSAL SPECIALIST

55D10

55D20

55D30

55D40

55D50

Exhibit Dates: 3/76–Present.

Career Management Field: 55 (Ammunition).

Description

Summary: Supervises or performs disposal activities related to explosive devices. *Skill Level 10:* Assists in the location, identification, rendering safe, removal, and destruction of explosive ordnance other than nuclear fission or fusion materials; uses detection instruments to determine hazards and to define or delineate exclusion areas; decontaminates explosive devices as required; assists in isolating explosive and/or contaminated areas; removes obstructions surrounding explosive devices; makes photographs and radiographs; operates and performs maintenance on explosive disposal equipment, tools, and vehicular equipment, including radiac equipment, radios, and chemical detection equipment; cooperates with and supports law enforcement agencies and protection services. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs render-safe and disposal procedures for nuclear devices; destroys or neutralizes unserviceable and irreparable explosive conventional devices; reads and interprets radiographs, diagrams, drawings and technical literature; identifies all explosives by appearance and markings; performs radiation monitoring and evaluates existing and potential hazards associated with nuclear devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises 4 or more subordinate personnel; prepares technical intelligence and incident reports; develops and/or modifies render-safe procedures for conventional explosive devices; conducts classes; assists in unit administration, supply, security, and record management; assumes command of an explosive disposal team. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 5 or more subordinate personnel; performs administrative and supervisory activities for the disposal unit including personnel, supply, maintenance, security, training, and management; consolidates, edits, and reviews disposal reports; maintains liaison with supporting security units; coordinates operations and movements; prepares order and operating procedures. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises entire disposal operation unit under direction of unit commander; coordinates operations and movements; supervises activities of several disposal teams over a wide geographical area; oversees and supervises coordination and liaison with supporting units; assumes command of unit in absence of commander.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in explosives or mechanical technology and 1 in photography (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in explosives or mechanical technology, 2 in blueprint interpretation, and 1 in photography; if the duty assignment was nuclear explosive ordnance specialist, 3 additional semester hours in nuclear technology (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in technical writing, 2 in maintenance management, 3 in human relations, and 3 in public speaking (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in radiation physics, 3 in introduction to management, and 3 for field experience in management (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing, 3 in maintenance management, 3 in human relations, 3 in public speaking, and 6 for innovative explosive devices. In the upper-division baccalaureate category, 3 semester hours in radiation physics, 3 in introduction to management, and 6 for field experience in management (6/76).

MOS-55G-001

Nuclear Weapons Maintenance Specialist

55G10

55G20

55G30

55G40

Exhibit Dates: 10/73–Present.

Career Management Field: 55 (Ammunition).

Description

Summary: Supervises or performs maintenance and surveillance of nuclear weapons, nuclear weapons trainers, and associated electrical, mechanical, and nuclear components. *Skill Level 10:* Assembles, tests, and adjusts electrical and mechanical components to insure proper operation; uses common and specialized handtools, power tools, and test equipment; performs surveillance and monitoring operations for radioactive matter; applies appropriate safety procedures; packages, unpacks, paints, and stencils weapons, components, and containers. *Skill Level 20:* Able to perform the duties required for Skill Level 10; test-operates weapons components; receives, stores, and inspects (preissue and preload) nuclear components; uses radioactive survey equipment; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and instructs lower-skill-level personnel in MOS 55G and 35F (Nuclear Weapons Electronics Specialist); calculates workloads, coordinates work activities, and makes assignments; prepares training charts, documents, and materials; strictly adheres to regulations and appropriate inspection techniques and procedures in the maintenance, modification, repair, transportation, and maintenance calibration of nuclear weapons and associated trainers, testers, and handling equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises, coordinates, and inspects maintenance facilities, activities, operations, and productivity; helps plan all maintenance activities; serves as an electronics technical advisor; reviews safety and fire regulations, standing operating procedures, and the utilization of equipment, and recommends changes; has office management responsibilities, including records and forms management, correspondence, security standards, and personnel processing.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in mechanical maintence, 2 in electrical maintenance, 2 in use and care of hand tools, power tools, and test equipment, 1 in safety practices and procedures, and 1 in shop operations. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hours in toxic material handling and 1 in nuclear technology. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in safety practices and procedures, 2 in electrical maintenance, 2 in use and care of hand tools, power tools, and test equipment, 2 in shop operations, and 1 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in maintenance management, 3 in human relations, 2 in toxic material handling, and 1 in nuclear technology, and additional credit in nuclear technology on the basis of institutional evaluation. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in maintenance management, 3 in human relations, 3 in office management, 3 in personnel supervision, 2 in toxic material handling, and 1 in nuclear technology, and additional credit in nuclear technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management. Advanced standing in an electrical maintenance apprentice training program on the basis of employer or trade association performance examination (6/76).

MOS-55R-001

Ammunition Stock Control and Accounting Specialist

55R10

55R20

55R30

Exhibit Dates: 9/82–Present.

Career Management Field: 55 (Ammunition).

Description

Summary: Supervises, performs or assists in ammunition stock control and accounting duties. Duties are related to receipt, storage, issue and distribution of conventional and specific munitions, guided missiles and large rockets, munitions components, packaging materials, and explosives. *Skill Level 10:* Performs ammunition supply stock control and accounting duties using both automated and manual procedures; prepares and posts accountable stock records; prepares and processes issue, receipt, adjustment and rewarehousing documents as well as shipping documents and transaction and stock status reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares periodic reports by compiling statistics on issue, receipt, adjustment, and storage functions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises manual and automated stock control operations; assigns duties and instructs subordinates in proper work techniques and procedures; plans and organizes work schedules and performs as technical advisor.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in supply procedures (4/86).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in supply procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to inventory control (4/86).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in supply procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to inventory control, 2 in records management, and 2 in personnel supervision (4/86).

MOS-55X-001

Ammunition Inspector

55X30

55X40

Exhibit Dates: 3/76–Present.

Career Management Field: 55 (Ammunition).

Description

Summary: Conducts inspections and tests to determine the serviceability of conventional and non-nuclear special ammunition, components, and related package materials. *Skill Level 30:* Inspects ammunition to determine deterioration; evaluates safety procedures; inspects incoming and outgoing ammunition shipments; inspects magazines, storage sites, and surrounding areas for storage safety; imspects ammunition destruction sites for safety condition; selects ammunition samples for tests, evaluations, or investigations; instructs in surveillance and safety techniques; performs function tests of selected ammunition items; maintains files. NOTE: May have progressed to 55X30 from 55B30 (Ammunition Specialist), 55D30 (Explosive Ordance Disposal Specialist), or 55G30 (Nuclear Weapons Maintenance Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as the principal advisor on ammunition surveillance and safety matters and provides technical guidance to subordinate personnel; reviews safety requirements; coordinates surveillance activities with civilian authorities and inspectors.

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in explosives, 3 in supply procedures, 3 in quality control, and 3 in safety inspection procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 1 in office procedures (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, and 3 in office procedures (6/76).

MOS-55Z-001

AMMUNITION SUPERVISOR

(AMMUNITION FOREMAN)

55Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 55 (Ammunition)

Description

Skill Level 50: Serves as the principal supervisor and advisor for the receipt, issue, classification, storage, surveillance, maintenance, disposition, and decontamination of conventional ammunition and nuclear and non-nuclear special ammunition; advises on packaging and rigging loads for movement by all types of transportation; assists in the selection and layout of ammunition storage facilities; recommends employment of and requirements for technical assistance teams, labor, equipment, and supplies; assists in the preparation of plans, policies, and procedures; prepares and reviews evaluations and reports on operations and training activities; analyzes ammunition stock with automatic data processing data; advises commander on all enlisted personnel matters. NOTE: May have progressed to 55Z50 from 55B40 (Ammunition Specialist), 55G40 (Nuclear Weapons Maintenance Specialist), or 55X40 (Ammunition Inspector).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in business administration, 3 in human relations, and 6 for field experience in management (6/76).

MOS-57D-001

SAWYER

57D10

57D20

57D40

57D50

Exhibit Dates: 10/74–2/78. (Effective 3/78, MOS 57D was discontinued and its functions were incorporated into MOS 51B, Carpentry and Masonry Specialist, and MOS 51H, Construction Engineering Supervisor.)

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Performs logging and sawmill operations. *Skill Level 10:* Serves as a lumberjack helper; assists in felling trees; trims branches; saws trunks into logs; lashes logs to skids or trucks and drags or hauls logs to sawmill; saws and stacks lumber at mill. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as lumberjack, millwright, timber cruiser, or lumber grader; distinguishes different species of trees and chooses proper saws; fells trees; grades lumber; services logging and sawmill equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises 15 or more persons involved in logging and sawmill operations; understands the effects of logging operations on the terrain and selects cutting areas, taking into consideration the types of lumber required, efficiency, and protection of the terrain from overcutting; calculates lumber content of logs and estimates board footage of standing trees based on diameter and height; supervises drying and storing of lumber; explains and demonstrates logging and sawmill techniques. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager serving as first sergeant of a company; assists in planning, coordinating, and supervising company activities; advises commander on all personnel matters and handles personnel activities; holds meetings with subordinates and supervisors to provide them instructions and guidance; directs training.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in use of tools and credit in a lumber specialist, saw filer, sawyer, or millwright program on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, credit in forest resources technology or forest management on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in use of tools and 2 in shop mathematics, and credit in a lumber specialist, saw filer, sawyer, or millwright program on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 in forest management, and additional credit in forest resources technology on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management (6/76).

MOS-57E-001

LAUNDRY AND BATH SPECIALIST

57E10

57E20

57E40

57E50

Exhibit Dates: 10/74–2/77.

Career Management Field: 57 (Field Services), subfield 571 (Services).

Description

Summary: Performs or supervises laundry, bath, and inpregnation functions and related activities at fixed and mobile locations. *Skill Level 10:* Assists in the operation of laundry and bath equipment; operates fumigation and delousing equipment; assists in the maintenance of related equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates mobile laundry and bath equipment; troubleshoots and maintains related equipment; uses washing, impregnation, and contamination solutions. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises field units providing laundry, bath and fumigation services; selects suitable operational sites; supervises setting up field units and equipment; coordinates the scheduling of personnel; supervises preventive maintenance of laundry, impregnation, fumigation, and bath equipment; supervises the training of personnel in techniques and operations; prepares reports related to laundry and bath operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as a mid-level manager, advises superiors on personnel matters, coordinates the operation of food service and supply operations; receives and maintains personnel reports; assists in conducting unit training.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (11/75).

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (11/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management, 2 in personnel management, 2 in records administration, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours in introduction to management, and 3 for field experience in management (11/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management, 2 in personnel management, 3 in records administration, 1 in first aid, and 2 in safety techniques. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management (11/75).

MOS-57E-002

Laundry and Bath Specialist

57E10
57E20
57E30
57E40
57E50

Exhibit Dates: 3/77–Present.

Career Management Field: 76 (Supply and Service), subfield 762 (Service).

Description

Summary: Performs or supervises laundry, bath, decontamination and reimpregnation functions. *Skill Level 10:* Operates laundry and bath equipment; operates fumigation and delousing equipment; installs, inspects, and operates generators, compressors, water pumps and water heaters; cleans, lubricates and performs preventive maintenance on laundry, bath and related equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; determines laundry sites, suitable water supplies, drainage, parking sites, and concealment; prepares facility layout; supervises marking, classifying, and washing operations; directs use of washing formulas, soaps, detergents, and other materials; establishes work priorities; prepares work schedules. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operations of medium-size unit; supervises and coordinates with medical authorities; determines personnel requirements and plans and supervises training program. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large-size units; establishes, evaluates and monitors unit training and preventive maintenance programs; prepares appropriate reports, operation plans, and orders; monitors mobile laundry and renovation operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer in field service company; advises superiors on personnel matters; assists in conducting unit training.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in institutional laundry (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in institutional laundry (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in institutional laundry. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in institutional laundry. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 2 in record keeping. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, 5 semester hours in institutional laundry. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 2 in record keeping. In the upper-division baccalaureate category, 2 semester hours in introduction to management and 6 for field experience in management (5/78).

MOS-57F-001

Memorial Activities Specialist

57F10
57F20
57F40
57F50

Exhibit Dates: 10/74–2/76.

Career Management Field: 57 (Field Services), subfield 572 (Memorial Activities).

Description

Summary: Recovers, identifies, processes, and inters human remains; performs duties at disaster sites as well as within the community; provides technical data to validate the personal identification process; designs cemetery facilities and directs funeral activities; prepares topographic sketches and map overlays for temporary cemetery planning and for site searches and recovery operations. *Skill Level 10:* Under supervision, performs as a mortuary assistant. *Skill Level 20:* Able to perform the duties required for Skill Level 10; functions as a mortuary technician alone or as a senior team member. *Skill Level 40:* Able to perform the duties required for Skill Level 30; functions as a first-line supervisor of a mortuary operation; prepares reports and maintains records. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as a mid-level manager, plans, organizes, and directs mortuary service operations and is responsible for administrative services for subordinate staff.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit in mortuary sciences and map reading on the basis of institutional evaluation (11/75).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mortuary sciences. In the lower-division baccalaureate/associate degree category, 3 semester hours in mortuary sciences and 3 in physical anthropology (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in mortuary sciences. In the lower-division baccalaureate/associate degree category, 6 semester hours in mortuary sciences and 3 in physical anthropology, and additional credit in mortuary sciences, speech, map reading, and report writing on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences and 3 in introduction to management (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, 12 semester hours in mortuary sciences. In the lower-division baccalaureate/associate degree category, 9 semester hours in mortuary sciences, 3 in physical anthropology, and 3 in office administration, and additional credit in mortuary sciences, speech, map reading, and report writing, on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences, 3 in introduction to management, and 3 for field experience in management (11/75).

MOS-57F-002

Memorial Activities Specialist

57F10
57F20
57F40
57F50

Exhibit Dates: 3/76–2/77.

Career Management Field: 57 (Field Services), subfield 572 (Memorial Activities).

Description

Summary: Recovers, identifies, processes, and inters human remains; performs duties at disaster sites as well as within the community; provides technical data to validate the personal identification process; designs cemetery facilities and directs funeral activities. *Skill Level 10:* Under supervision, serves as a mortuary assistant, assisting in the recovery, transportation, identification, and interment of remains. *Skill Level 20:* Able to perform the duties required for Skill Level 10; functions as a mortuary technician alone or as a team member; reads or indicates the location of graves on maps, sketches, or overlays; takes fingerprints or prepares teeth chart; writes descriptions of physical and anatomical characteristics; operates x-ray apparatus and camera. *Skill Level 40:* Able to perform the duties required for Skill Level 20; functions as a first-line supervisor of a mortuary operation; prepares topographical sketches and map overlays; prepares reports and records on processed remains, grave location, registers, master locator files, and memorial activities work. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a mid-level manager, directing and supervising mortuary activities operations; coordinates operations with combat units.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in map reading and credit in mortuary sciences on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 6 semester hours in mortuary sciences, 3 in physical anthropology, 2 in anatomy and physiology, and 1 in map reading (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 9 semester hours in mortuary sciences, 3 in physical anthropology, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, 2 in technical report writing, 2 in anatomy and physiology, and 1 in map reading. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences and 3 in introduction to management (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, 12 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 12 semester hours in mortuary sciences, 3 in physical anthroplogy, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, 2 in technical report writing, 2 in anatomy and physiology, and 1 in map reading. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, 3 in introduction to management, 3 in mortuary sciences, and 3 in records administration (5/76).

MOS-57F-003

Graves Registration Specialist

57F10
57F20
57F30
57F40
57F50

Exhibit Dates: 3/77–Present.

Career Management Field: 76 (Supply and Service), subfield 762 (Service).

Description

Summary: Recovers, identifies, processes, and inters human remains; performs duties at disaster sites as well as within the community; provides technical data to validate the personal identification process; designs cemetery facilities and directs funeral activities. *Skill Level 10:* Serves as a mortuary assistant in recovery, transportation, identification, and interment of remains; reads or indicates the location of graves on maps, sketches, or overlays; determines recovery locations; records identification characteristics including fingerprints, skeletal and dental charts; operates cameras and assists x-ray operations; assists in burials, excavating of graves and cemetery maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises search and recovery operations for remains; instructs in special handling, marking, and shipping of contagious disease cases and contaminated remains; prepares location sketches and overlays; prepares work schedules and assigns personnel to work positions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-size graves registration activities; serves as graves registration noncommissioned officer in staff position; assists in post-mortem examinations; assists in special criminal investigations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large-size graves registration activities; advises on health requirements for subordinates; coordinates and advises on military burials; assists in review of mortuary services contracts. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises memorial affairs and graves registration activities; provides technical and administrative advice and assistance on graves registration matters including acquisition of land for temporary cemeteries, and facility, manpower, and equipment requirements; establishes and maintains official records; serves on special boards and councils relative to technical activities; prepares reports on memorial affairs and graves registration activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in mortuary sciences and 1 map reading (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 6 semester hours in mortuary sciences, 1 in map reading, 2 in physical anthropology, and 2 in anatomy and physiology. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 9 semester hours in mortuary science, 1 in map reading, 2 in physical anthropology, 3 in human relations, 2 in personnel supervision, and 2 in anatomy and physiology. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences and 3 for field experience in management (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, 12 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 12 semester hours in mortuary sciences, 2 in physical anthropology, 3 in human relations, 3 in personnel supervision, 2 in anatomy and physiology, and 1 in map reading. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences, 3 in introduction to management, 3 for field experience in management, and 3 in personnel management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, 12 semester hours in mortuary sciences and 1 in map reading. In the lower-division baccalaureate/associate degree category, 12 semester hours in mortuary sciences, 2 in physical anthropology, 3 in human relations, 3 in personnel supervision, 2 in anatomy and physiology, 1 in map reading, and 2 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in mortuary sciences, 3 in introduction to management, 6 for field experience in management, 3 in management, 3 in personnel management, and 3 in records administration (5/78).

MOS-57H-001

Cargo Handler

57H20
57H40
57H50

Exhibit Dates: 10/73–2/74.

Career Management Field: 65 (Transportation), subfield 651 (Terminal Service).

Description

Summary: Transfers or supervises the transfer of cargo to and from water, land, and air transports by manual and mechanical methods. *Skill Level 20:* Performs the duties of rigger, longshoreman, member of a hatch gang, or assistant hatch foreman. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises one or more hatch gangs of longshoremen in loading and unloading cargo, employing stowage plans, loading plans, manifests, documentation forms, reports, and other cargo handling forms. *Skill Level 50:* Able to perform the duties required for Skill Level 40; equivalent to an assistant to a port captain or a marine operations specialist; plans, coordinates, and supervises all activities related to the stowage, loading, and discharging of dry cargo.

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in cargo handling and rigging (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours for a practicum in personnel management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 3 in office management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in office management. In the graduate degree category, 3 semester hours in organization and management (2/75).

MOS-57H-002

Terminal Operations Specialist

57H10
57H20
57H40
57H50

Exhibit Dates: 3/74–2/76.

Career Management Field: 65 (Transportation), subfield 651 (Terminal Service).

Description

Summary: Transfers or supervises the transfer of cargo to and from water, land, and air transports by manual and mechanical methods. *Skill Level 10:* Loads and unloads supplies and equipment from ships, docks, beaches, boxcars, aircraft, and warehouses; assists cargo checker; employs safety procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs the duties of rigger, longshoreman, member of a hatch gang, or assistant hatch foreman. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises one or more hatch gangs of longshoremen in loading and unloading cargo, employing stowage plans, loading plans, manifests, documentation forms, reports, and other cargo handling forms. *Skill Level 50:* Able to perform the duties required for Skill Level 40; equivalent to an assistant to a port captain or specialist; plans, coordinates, and supervises all activities related to the stowage, loading, and discharging of dry cargo.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours for a practicum in personnel management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, 13 semester hours in cargo handling, stowage and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 3 in office management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in office management. In the graduate degree category, 3 semester hours in organization and management (5/76).

MOS-57H-003

Terminal Operations Coordinator

57H10
57H20
57H30
57H40

Exhibit Dates: 3/76-9/87. (MOS 57H has been redesignated MOS 88H; see exhibit MOS-88H-001.)

Career Management Field: 64 (Transportation), subfield 641 (Surface Operation).

Description

Summary: Transfers or supervises the transfer of cargo to and from water, land, and air transports by manual and mechanical methods. *Skill Level 10:* Serves as cargo handler and checker; loads, unloads, checks, and tallies cargo; uses slings, nets, hooks, pallets, spreaders, lifting bars, winches, hoists, and other cargo-handling equipment; employs safety procedures; signals winchman, hoistman, or cargo equipment operator where to move cargo. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as hatch foreman or senior cargo checker and enforces safety practices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized terminal operation work force by planning and organizing work schedules, assigning duties, and designating work groups (hatch gangs) as required for each operation; advises on handling of all types of cargo and demonstrates techniques and use of equipment; coordinates heavy lift equipment and special terminal operations gear; prepares technical, personnel, and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large terminal work force normally consisting of 56 or more subordinate personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 2 in report writing, 2 in cargo planning, 2 in cargo processing and documentation, and 1 in transportation of dangerous materials (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 in records administration, 3 in report writing, 3 for field experience in management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials (5/76).

MOS-61B-001

Watercraft Operator

61B20
61B30
61B40

Exhibit Dates: 10/73-9/74.

Career Management Field: 65 (Transportation), subfield 653 (Marine).

Description

Summary: Performs the deck duties of an ordinary seaman, able seaman, and deck hand; operates towboats. *Skill Level 20:* Rigs tows; operates and performs preventive maintenance on deck machinery; performs tasks requiring marlinspike seamanship; is lead deck hand on towing vessels. *Skill Level 30:* Able to perform the duties required for Skill Level 20; works as a lookout or helmsman; plots courses; knows the rules of the road; skills are comparable to those of able seaman (tugboat) and second-class towboat operator. *Skill Level 40:* Able to perform the duties required for Skill Level 30; can be in complete charge of towing vessels up to 300 gross registered tons; steers vessels; manages the crew; provides berthing and unberthing assistance to large vessels; plans vessel maintenance; ensures the safety of vessels and barges.

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in seamanship (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in seamanship and 3 in basic navigation (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in seamanship, 3 in basic navigation, and 3 in advanced navigation. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation and 3 in basic management (2/75).

MOS-61B-002

Watercraft Operator

61B10
61B20
61B30
61B40

Exhibit Dates: 10/74-9/87. (MOS 61B has been redesignated MOS 88K; see exhibit MOS-88K-001.)

Career Management Field: 64 (Transportation), subfield 642 (Marine Operations).

Description

Summary: Operates and performs deck duties on Army watercraft and, in some instances, amphibians. *Skill Level 10:* Performs general seaman duties; under close supervision, assists in docking, unloading, and anchoring watercraft; assists in loading and unloading cargo; stands lookout watch; assists in inspecting, servicing, and operating fire equipment, lifeboats, and rafts; performs preventive maintenance on and inspections of Army watercraft; maneuvers Army watercraft; uses simple sounding devices, aids to navigation, steering compass courses, and running lights; communicates with stations ashore and afloat, using accepted communications equipment and techniques; applies basic water safety and rescue procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates and dispatches Army watercraft and, under close supervision, allocates and operates Army watercraft for a specific mission in accordance with navigational and communications rules and principles; keeps records of watercraft status and movements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation of watercraft and small boat crew; knows capabilities and limitations of Army watercraft and assigns and dispatches them accordingly; provides berthing and unberthing services to large or oceangoing vessels; computes fuel requirements and plans maintenance; knows procedures for abandoning ship, including sea rescue and lifeboat operations; supervises embarking and debarking of troops; instructs subordinate personnel in watercraft operational practices, procedures, and techniques. NOTE: Some Skill Level 30 personnel are trained as operators of large amphibian vehicles and can supervise their operation. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the operations of a large boat crew or assists in controlling Army watercraft operations; coordinates work activities; reviews, consolidates, and prepares technical, personnel, and administrative reports; supervises up to 20 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in seamanship, 1 in piloting and navigation, 1 in communications, and 1 in safety (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, and 1 in safety (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, 3 in basic navigation, 3 in advanced navigation, and 1 in safety, and additional credit in amphibian operation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation and 3 in human relations (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, 3 in basic navigation, 3 in advanced navigation, and 1 in safety, and additional credit in amphibian operation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 3 in human relations, 3 in marine management, 3 for field experience in management, and 3 in personnel supervision (6/76).

MOS-61C-001

MARINE ENGINEER

61C20
61C30
61C40

Exhibit Dates: 10/73-2/76.

Career Management Field: 65 (Transportation), subfield 653 (Marine).

Description

Summary: Supervises or performs maintenance and repair of GM Series 71 and similar-size marine diesels, small gas engines, and auxiliary equipment on harbor towing and deep sea towing vessels. NOTE: Able to perform the duties required for 61B10 (Watercraft Operator). *Skill Level 20:* Performs routine maintenance such as changing strainers and filters and installing bearings and bushings as required; monitors engine room equipment to assure proper operation; skills are comparable to those of a licensed oiler on a towing vessel, an unlicensed engineer on towing vessels of 200 gross registered tons and under, an assistant mechanic in a marine diesel engine shop, or an outside machinist in a shipyard. *Skill Level 30:* Able to perform the duties required for Skill Level 20; tears down engines and auxiliary equipment and replaces or repairs parts as necessary; skills are comparable to those of a head mechanic in a marine diesel repair shop and are related to those of an auto mechanic. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises engine room operations on a towing vessel; advises on complex repair problems; instructs repairmen in proper maintenance procedures and safety techniques; applies production and quality control procedures to maintenance operations; skills are comparable to those of a foreman in a marine diesel repair shop or an assistant port engineer for a towing company.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in internal-combustion engine principles (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in internal-combustion engine operation, 3 in internal-combustion engine principles, 3 in internal-combustion engine repair, and 3 in basic refrigeration (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in internal-combustion engine operation, 3 in internal-combustion engine principles, 3 in internal-combustion engine repair, and 3 in basic refrigeration. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic management (2/75).

MOS-61C-002

WATERCRAFT ENGINEER

61C10
61C20
61C30
61C40

Exhibit Dates: 3/76-9/87. (MOS 61C has been redesignated MOS 88L; see exhibit MOS-88L-001.)

Career Management Field: 64 (Transportation), subfield 642 (Marine Operations).

Description

Summary: Supervises or performs maintenance on propulsion systems and auxiliary equipment of marine vessels, and in some instances, on amphibians. *Skill Level 10:* Under close supervision, performs maintenance on Army watercraft; applies safety precautions pertinent to starting, stopping, and operating main diesel engines, electrical machinery, and other auxiliary components installed on board Army watercraft; reads and records pressures and temperatures to insure safe and efficient operation of machinery; uses hand and power tools; assists in performing preventive maintenance inspections and correcting maintenance shortcomings and deficiencies on watercraft. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; computes fuel consumption, tank capacities, and pumping rates for loading and discharging; maintains a working knowledge of damage control, fire prevention, and federal, state, and local environmental pollution control regulations; adjusts or troubleshoots malfunctioning diesel engines, electrical machinery, and auxiliary equipment; makes emergency repairs or takes emergency damage control measures at sea; performs soldering and pipefitting; uses precision tools; interprets technical publications; replaces engine and auxiliary equipment subassemblies; performs preventive maintenance inspections on watercraft; in some instances, may also perform these duties on amphibians. *Skill Level 30:* Able to perform the duties required for Skill Level 20; evaluates job performance of subordinate enginemen; maintains a reference library of technical manuals and service bulletins; interprets technical blueprints; troubleshoots, repairs, purges, recharges, and tests watercraft refrigeration systems; uses special test equipment and instruments in repairing diesel engines and accessory items; assists supervisor in engineering maintenance functions; plans and organizes work schedules and assigns duties to subordinates; instructs subordinates in work production and quality control procedures; is capable of supervising a medium-sized watercraft maintenance facility; establishes physical layout of work site and ensures maintenance of an efficient, clean, and safe work environment; requisitions, issues, stores, and maintains records of supplies and equipment; coordinates work activities with other maintenance elements; recommends changes to technical publications as required; in some instances, may also perform these duties on amphibians. *Skill Level 40:* Able to perform the duties required for Skill Level 30; sueprvises a large marine maintenance facility; performs managerial duties as indicated in previous skill levels; estimates and prepares preliminary budget forecasts of supply and maintenance activities; allocates funds and resources for the efficient operation of supply and maintenance activities; establishes operating procedures on the basis of directives and information received from superiors.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in internal-combustion engine principles, 1 in internal-combustion engine operation, and 1 in shipboard operations (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 4 in internal-combustion engine operation, and 5 in shipboard operations, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 5 in shipboard operations, 4 in internal-combustion engine operation, 3 in basic refrigeration, and 3 in use and care of tools and test equipment, and additional credit in amphibian maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in watercraft maintenance, 3 in marine refrigeration, and 3 in human relations, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 5 in shipboard operations, 4 in internal-combustion engine operation, 3 in basic refrigeration, and 3 in use and care of tools and test equipment, and additional credit in amphibian maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in watercraft maintenance, 3 in marine refrigeration, 3 in human relations, 3 in introduction to management, 3 in personnel supervision, and 3 for field experience in management, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

MOS-61F-001

MARINE HULL REPAIRER
(MARINE HULL REPAIRMAN)

61F10
61F20
61F30
61F40

Exhibit Dates: 3/76-8/83. (Effective 9/83, MOS 61F was deleted and its functions were incorporated into MOS 44B, Metal Worker, and MOS 44E, Machinist.)

Career Management Field: 64 (Transportation), subfield 642 (Marine Operations).

Description

Summary: Repairs hulls and accessories of Army watercraft and amphibians. *Skill Level 10:* Assists in the repair of all types of marine hulls and accessories; assists in laying out, measuring, cutting, shaping, and fabricating plastic and metal structures and parts; joins, fastens, and caulks new or repaired portions of the ship's hull by pinning, bolting, cementing, riveting, or welding; cleans, finishes, and preserves metal surfaces; employs working drawings to produce required shape dimensions, and fit of plates, planking, framing, and fitting. *Skill Level 20:* Able to perform the duties required for Skill Level 10; repairs and inspects marine hulls and accessories and provides technical guidance to Skill Level 10 personnel; performs inspections to identify defects and to determine supplies and equipment required to effect maintenance; examines repaired hulls and assessories to insure that repaired watercraft and amphibians are seaworthy. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a small facility involved in repairing marine hulls and accessories; estimates repair work in terms of time, material, manpower, and priorities; plans and organizes work schedules and assigns duties to subordinate personnel; instructs and supervises subordinates in work techniques and procedures; requisitions, issues, stores, and maintains records of supplies and equipment; prepares maintenance records, reports, and work orders; reviews, consolidates, and prepares technical, personnel, and administrative reports; performs nondestructive testing. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans, directs, and coordinates the activities of a large facility involved in repair of marine hulls and accessories; plans and directs marine salvage operations on stranded or sunken craft; estimates all costs and establishes priority of tasks; supervises and directs nondestructive testing on harbor craft and amphibians.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in welding theory, 3 in gas welding, 3 in inert gas welding, 3 in vessel fabrication and construction, and 3 in vessel maintenance (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in welding theory, 3 in gas welding, 3 in inert gas welding, 3 in vessel fabrication and construction, and 3 in vessel maintenance (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations and 3 in personnel supervision (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 for field experience in management, 3 in maintenance management, and 3 in personnel supervision (6/76).

MOS-61Z-001

MARINE SENIOR SERGEANT

61Z50

Exhibit Dates: 10/73–9/87. (MOS 61Z has been redesignated MOS 88Y; see exhibit MOS-88Y-001.)

Career Management Field: 64 (Transportation), subfield 642 (Marine Operations).

Description

Skill Level 50: Is a mid-level manager responsible for approximately 150 subordinate personnel engaged in watercraft operation and maintenance; assists in planning, implementing, and coordinating administrative activities, operations, and training programs; prepares, edits, and consolidates reports, records, plans, and training materials. NOTE: May have progressed to 61Z50 from 61B40 (Watercraft Operator), 61C40 (Watercraft Engineer), or 61F40 (Marine Hull Repairman).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, and 3 in records administration; if the duty assignment was chief instructor, 3 additional semester hours for an internship in education (6/76).

MOS-62B-001

ENGINEER EQUIPMENT REPAIRMAN

62B10
62B20
62B30
62B40
62B50

Exhibit Dates: 10/73–8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Maintains and repairs construction and off-the-road equipment. *Skill Level 10:* is a heavy equipment repairman helper; changes oil and filters; lubricates equipment; drains and flushes radiators; repairs tires and tubes; uses pioneer tools, winches, and related equipment; serves as a recovery vehicle or wrecker crewman; serves as a toolroom keeper. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects equipment for damage and wear; services and adjusts engine, clutches, carburetors, fuel systems, cooling systems, electrical components, brakes, and transmission assemblies; rigs construction equipment; repairs or replaces wheel bearings; operates recovery vehicles and wreckers; uses oxyacetylene and electric welding equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects, disassembles, and repairs power transmission units, engines, gears, shafts, and track and steering assemblies; reconditions and assembles such units as final drives, hydraulic systems, and crawler assemblies; uses precision measuring devices and power shop tools. *Skill Level 40:* Able to perform the duties required for Skill Level 30; organizes and coordinates maintenance shop activities; establishes work schedules and priorities; instructs and supervises subordinate personnel; applies quality and production control procedures; test-operates repaired equipment; supervises keeping of records; prepares reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; assists superiors in establishing maintenance policies and procedures; instructs subordinate supervisors; plans, coordinates, and oversees all maintenance activities; conducts on-the-job training; may serve as a chief instructor in a mechanical maintenance school.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in use and care of tools and 3 in heavy equipment mechanics. In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment mechanics. In a heavy equipment mechanic apprentice training program, 700 clock hours of experience and 144 contact hours of related instruction (3/75).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in use and care of tools, 1 in basic welding, and 6 in heavy equipment mechanics. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic welding and 6 in heavy equipment mechanics. In a heavy equipment mechanics apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction (3/75).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in use and care of tools, 1 in basic welding, and 15 in heavy equipment mechanics. In the lower-division baccalaureate/associate degree category, 1 semester hour in basic welding and 15 in heavy equipment mechanics, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In a heavy equipment mechanic or a heavy-duty truck mechanic apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in use and care of tools, 1 in records administration, 3 in welding, and 15 in heavy equipment mechanics. In the lower-division baccalaureate/associate degree category, 1 semester hour in records administration, 2 in personnel supervision, 3 in welding, and 15 in heavy equipment mechanics, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in heavy equipment management on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a heavy equipment mechanic or a diesel truck mechanic (3/75).

Recommendation, Skill Level 50

In the vocational certificate category, 1 semester hour in use and care of tools, 1 in records administration, 3 in welding, and 15 in heavy equipment mechanics. In the lower-division baccalaureate/associate degree category, 1 semester hour in records administration, 3 in welding, 3 in personnel supervision, and 15 in heavy equipment mechanics, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in heavy equipment management on the basis of institutional evaluation; if the duty assignment was chief instructor, a minimum of 3 semester hours for field experience in education and additional credit in education on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a heavy equipment mechanic or a diesel truck mechanic (3/75).

MOS-62B-002

CONSTRUCTION EQUIPMENT REPAIRMAN
(ENGINEER EQUIPMENT REPAIRMAN)

62B10
62B20
62B30
62B40

Exhibit Dates: 9/75–2/78.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Supervises or performs maintenance on engineer construction equipment, including powered bridging equipment. *Skill Level 10:* Performs maintenance on gasoline, diesel, and electrically powered engineer construction and associated equipment; performs preventive maintenance, including changing oil, replacing oil filters and air cleaners, draining and flushing radiators, and tightening body and chassis clamps and bolts; inspects, disassembles, repairs, and reassembles carburetors, fuel systems, cooling systems, electrical systems, transmission assemblies, and brake systems; reconditions and assembles such units as clutches, steering clutches, final drives, crawler assemblies, hydraulic systems, and track and stabilizer assemblies; uses hand tools, test equipment, powered shop tools, and oxyacetylene and electrical welding equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; diagnoses malfunctions and determines the level of maintenance to be performed; establishes work priorities; writes work orders and makes assignments; instructs subordinate personnel in inspection, maintenance, and testing practices and procedures; applies quality and production control procedures; performs final inspection of repaired equipment; supervises keeping of work records; prepares reports of unit activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises engineer equipment maintenance and repair activities of a large unit, depot, or subordinate units; supervises between 15 and 60 mechanics.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in heavy equipment mechanics, 1 in basic welding, and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy equipment mechanics and 1 in basic welding. In a heavy equipment mechanic or diesel mechanic apprentice training program, 500 clock hours of experience and 315 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 10. In a heavy equipment mechanic or diesel mechanic apprentice training program, 1,500 clock hours of experience and 315 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in heavy equipment mechanics, 3 in welding, 1 in use and care of tools, and 1 in records administration, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 15 semester hours in heavy equipment mechanics, 3 in welding, 2 in personnel supervision, 1 in use and care of tools, and 1 in records administration, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in heavy equipment management on the basis of institutional evaluation. In a heavy equipment mechanic or diesel mechanic apprentice training program, 6,000 clock hours of experience and 550 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 15 semester hours in heavy equipment mechanics, 3 in welding, 3 in personnel supervision, 1 in use and care of tools, and 1 in records administration, and additional credit in heavy equipment mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management, and additional credit in heavy equipment management, on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as a heavy equipment mechanic or diesel mechanic on the basis of employer or trade association performance examination (12/75).

MOS-62B-003

CONSTRUCTION EQUIPMENT REPAIRER

62B10
62B20
62B30
62B40

Exhibit Dates: 3/78–Present.

Career Management Field: 63 (Mechanical Maintenence), subfield 633 (Machine Maintenance).

Description

Summary: Supervises or performs maintenance on engineering construction equipment, including powered bridging equipment and power generation equipment. *Skill Level 10:* Performs maintenance on gasoline, diesel, and electrically powered construction and associated equipment; performs preventive maintenance, including all servicing; isolates malfunctions by using appropriate electric or hydraulic diagnostic equipment and technical publications; inspects, disassembles, repairs, and reassembles carburetors, fuel systems, cooling systems, electrical systems, transmission assemblies, and brake systems; reconditions and assembles clutches, steering clutches, final drives, hydraulic systems, and crawler assemblies; removes and overhauls engines; uses hand tools, test equipment, powered shop tools, and oxyacetylene and electrical welding equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs and records results of technical inspections; uses and maintains specialized shop equipment, test sets, and technical publications. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and inspects maintenance of engineering construction equipment; determines extent of repair and overhaul needed for equipment; controls requisitioning, storage, inventory of tools and supplies; plans and schedules work assignments and priorities; performs complex diagnosis and repair of all equipment; supervises record keeping and prepares activity reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides general management and supervision for maintenance on all engineering construction equipment, power generation equipment, and associated items; observes performance of lower skill level personnel; ensures compliance with safety regulations and practices; inspects work to ensure compliance with standard operating procedures, safety standards and technical publications; analyzes productivity and work quality; participates in research and development activities.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in heavy equipment mechanics, 1 in basic welding, and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy equipment mechanics and 1 in basic welding (7/79).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in heavy equipment mechanics, 1 in basic welding, and 1 in use and care of tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy equipment mechanics and 1 in basic welding (7/79).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in heavy equipment mechanics, 2 in basic welding, 1 in use and care of tools, and 1 in records maintenance. In the lower-division baccalaureate/associate degree category, 9 semester hours in heavy equipment mechanics, 2 in basic welding, 1 in records maintenance, and 2 in personnel supervision (7/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 9 semester hours in heavy equipment mechanics, 2 in basic welding, 1 in records maintenance, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (7/79).

MOS-62C-001

ENGINEER MISSILE EQUIPMENT SPECIALIST

62C20
62C30
62C40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 62C was discontinued and its functions were incorporated into MOS 52C, Utilities Equipment Repairer, and MOS 62B, Construction Equipment Repairer.)

Career Management Field: 52 (Power Production), subfield 521 (Electric Power Production).

Description

Summary: Installs, maintains, and repairs air compressors, gasoline engines, air conditioning units, elevators, and power generation equipment. *Skill Level 20:* Installs, maintains, and repairs portable generators, air compressors, gasoline engines, air conditioning units, and missile elevators; uses mechanical and electrical hand tools, and measuring and testing devices; isolates, diagnoses, and repairs equipment malfunctions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; removes and replaces faulty assemblies and subassemblies; determines type of maintenance required; fabricates metal parts; test-operates new or repaired equipment; uses test equipment to trace electrical and refrigeration circuits; establishes on-the-job training programs; may supervise up to 9 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; determines workload and prepares schedules and inspection reports; performs final inspection and test-operations on repaired equipment; supervises up to 18 persons.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in air conditioning and refrigeration mechanics, 5 in basic electricity, 5 in electrical wiring, 5 in motor and generator repair, and 5 in diesel mechanics. In the lower-division baccalaureate/associate degree category, 8 semester hours in air conditioning and refrigeration repair, 3 in electrical wiring and controls, 3 in applied electricity, 3 in power mechanics, and 3 in diesel mechanics. Journeyman status as an industrial maintenance electrician (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), as a construction electrician (residential) (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), or as an electric motor-and-tools repairman (defined as 6,000 clock hours of experience and 432 contact hours of related instruction) (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in air conditioning and refrigeration mechanics, 5 in basic electricity, 5 in electrical wiring, 5 in motor and generator repair, 5 in diesel mechanics, and 2 in fabrication processes. In the lower-division baccalaureate/associate degree category, 9 semester hours in air conditioning and refrigeration repair, 4 in applied electricity, 3 in electrical wiring and controls, 3 in power mechanics, 3 in diesel mechanics, and 2 in human relations, and additional credit in personnel supervision on the basis of institutional evaluation. Journeyman status as an industrial maintenance electrician (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), as a construction electrician (residential) (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), or as an electric motor-and-tools repairman (defined as 6,000 clock hours of experience and 432 contact hours of related instruction) (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 9 semester hours in air conditioning and refrigeration repair, 4 in applied electricity, 3 in electrical wiring and controls, 3 in power mechanics, 3 in diesel mechanics, 3 in human relations, 3 in personnel supervision, and 2 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in industrial arts. Journeyman status as an industrial maintenance electrician (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), as a construction electrician (residential) (defined as 8,000 clock hours of experience and 576 contact hours of related instruction), or as an electric motor-and-tools repairman (defined as 6,000 clock hours of experience and 432 contact hours of related instruction (6/76).

MOS-62D-001

ASPHALT EQUIPMENT OPERATOR

62D20

62D40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 62D was discontinued and its functions were incorporated into MOS 62H, Concrete and Asphalt Equipment Operator, and MOS 62N, Construction Equipment Supervisor.)

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Summary: Operates self-powered machines and accessories used in asphalt heating and dedrumming equipment, asphalt producing, and surfacing operations. *Skill Level 20:* Operates soil mixing, aggregate drying, asphalt distributing, and asphalt finishing machines to produce, lay, and finish asphalt products and surfaces; sets equipment controls for optimum efficiency; notes and corrects or assists in correcting any malfunctions or definciencies in the operation of equipment; cleans, lubricates, inspects, and services paving machines. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel engaged in asphalt producing and paving operations; supervises all phases of asphalt production and surfacing operations; interprets information contained in material graduation percentage charts; estimates work loads and schedules personnel and equipment for continuous asphalt producing and surfacing operations; prepares operational reports as to hours, tonnage, and yardage output; keeps production and allied operations records.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in asphalt paving machine operation and technology, 10 in asphalt plant operation and technology, 5 in construction material processing and storage, and 5 in basic construction equipment operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction materials processing and application, 1 in functions of grades and grade stakes, 1 in introduction to construction equipment, 1 in grades and plans, and 1 in paving equipment; and additional credit on the basis of institutional evaluation (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 10 semester hours in asphalt paving machine operation and technology, 10 in asphalt plant operation and technology, 5 in construction material processing and storage, 5 in basic construction equipment operation, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction material processing and application, 3 in construction management, 3 for field experience in management, 2 in personnel supervision, 1 in record keeping, 1 in functions of grades and grade stakes, 1 in introduction to construction equipment, 1 in grades and plans, and 1 in paving equipment; and additional credit on the basis of institutional evaluation, up to a maximum total of 40 semester hours. In the upper-division baccalaureate category, 3 semester hours of construction design and 2 in methods of construction, and additional credit in management on the basis of institutional evaluation, up to a maximum total of 9 semester hours (12/75).

MOS-62E-001

CRAWLER TRACTOR OPERATOR

62E20

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Skill Level 20: Operates crawler tractors and attachments, including towed scrapers; performs land-clearing, stripping, grubbing, earth-moving, and demolition tasks; spreads earth and rock fill; detects and identifies equipment malfunctions and assists in repairs; performs preventive maintenance such as cleaning, inspecting, lubricating, and minor adjustments and repairs.

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in heavy equipment operation and 5 in mechanical maintenance (12/75).

MOS-62E-002

HEAVY CONSTRUCTION EQUIPMENT OPERATOR

62E10

62E20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 515 (Construction Equipment Operation).

Description

Summary: Operates crawler and wheeled tractors with dozer attachments, scoop loader, motorized grader, and towed or self-propelled scraper. *Skill Level 10:* Clears, grubs, strips, rough-grades, excavates, backfills, levels, slopes, cuts, ditches, and stockpiles with crawler, wheeled tractor with dozer attachment, and scoop loader; under supervision, operates motorized grader and towed or self-propelled scooper; loads equipment for movement and drives tractor-trailer for hauling; performs operator maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; strips, scarifies, cuts, fills, spreads, backfills, backblades, ditches, and slopes with motorized grader; removes overburden; loads and spreads with tractor-scraper; windrows, blends, and spreads asphalt road mix; mixes soil stabilization materials; performs surface and drainage maintenance; performs operator maintenance.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in heavy equipment operation and 5 in mechanical maintenance (7/79).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in heavy equipment operation and 5 in mechanical maintenance (7/79).

MOS-62F-001

CRANE OPERATOR

62F20

62F30

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Summary: Operates cranes and crane shovels of stationary, crawler, and truck-mounted types used to hoist and transport heavy objects and to perform excavation. *Skill Level 20:* Operates crane with hook and block operated by single drum; receives instructions from a supervisor on a specific work assignment; performs preoperation inspection and servicing on crane and related equipment; moves crane to and from worksite; determines lift and rigging requirements; performs after-operation inspection and maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates and maintains crane shovel with clamshell, dragline, shovel backhoe, piledriver, and related attachments; connects attachments and reaves cable.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in single-drum crane operation (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 10 semester hours in single-drum crane operation, 1 in powertrains and undercarriages, and 1 in rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in revolving shovel and crane equipment and 1 in material hoisting and handling (12/75).

MOS-62F-002

Lifting and Loading Equipment
Operator

62F10

62F20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 515 (Construction Equipment Operation).

Description

Summary: Operates cranes and crane shovels of stationary, crawler, and truck-mounted types; operates rough terrain forklifts. *Skill Level 10:* Drives wheel-mounted cranes; loads crane shovel on vehicle for transports; maneuvers boom with spreader, hook, sling, or other device to attach, lift, swing, or lower loads in response to signals; directs rigging load and estimates safe lifting capacity; loads and unloads containerized, palletized, and unpalletized items on various types of surfaces; assists in operation of crane shovel with attachments; performs operator maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs ditching, sloping, excavating, and stockpiling with dragline; digs, loads, and stockpiles with clamshell; ditches and excavates with backhoe; performs pile setting and driving operations; levels, face cuts, and excavates with shovel front; operates special-purpose heavy cranes at industrial facilities; performs operator maintenance.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in crane operation and 5 in equipment maintenance (7/79).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in crane operation and 5 in equipment maintenance (7/79).

MOS-62G-001

Quarryman

62G20

62G30

62G40

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operaton).

Description

Summary: Operates electric, pneumatic, and internal combustion powered machines used in drilling, crushing, grading, and cleaning gravel and rock; detonates explosives to blast rock in quarries and at construction sites. *Skill Level 20:* Performs as a quarry machine operator; determines screen sizes and crusher settings to produce specification aggregate; indentifies kind and quality of aggregate by simple field tests; notes and corrects or assists in correcting any machine malfunctions or deficiencies; performs preventive maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs as powderman; able to use explosives above ground, underground, and underwater; determines hole spacings and power changes; operates rock drills. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises all phases of quarry operations.

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in crusher operation and 5 in aggregate sampling and field testing. In the lower-division baccalaureate/associate degree category, 2 semester hours in crushing, screening, and washing plants and 1 in construction materials handling and storage (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in crusher operation, 5 in aggregate sampling and field testing, and 2 in mining. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 2 in crushing, screening, and washing plants, 1 in construction materials handling and storage, 1 in mining and tunneling, and 1 in functions of grade stakes (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in field supervision, 5 in crusher operation, 5 in aggregate sampling and field testing, and 2 in mining. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in field supervision, 2 in crushing, screening and washing plants, 1 in recordkeeping, 1 in construction materials handling and storage, 1 in mining and tunneling and 1 in functions of grade stakes. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (12/75).

MOS-62G-002

Quarrying Specialist

62G10

62G20

62G30

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 515 (Construction Equipment).

Description

Summary: Operates or supervises the operation of electric, pneumatic, and internal combustion powered machines used in drilling, crushing, grading, and cleaning gravel and rock; detonates explosives to blast rock in quarries and at construction sites. *Skill Level 10:* Under supervision, assembles, erects, adjusts, and operates the crushing, screening, conveying, and washing units; operates rock drills; maintains tools and equipment; assists powder man. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; determines screen sizes and crusher setting to produce aggregate to specifications; identifies the type and quality of aggregate by simple field tests; notes and corrects or assists in correcting machine malfunctions and deficiencies; performs routine maintenance; performing as blaster, is able to transport and use explosives; determines drilling pattern, depth, and spacing of bore holes; operates various rock drills. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all phases of quarry operation.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in machine operation (8/79).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in machine operation, 5 in testing and sampling, and 2 in personnel supervision and training. In the lower-division baccalaureate/associate degree category, 2 semester hours in machine operation, 1 in testing and sampling, and 2 in personnel supervision (8/79).

Recommendation, Skill Level 30

In the vocational certificate category, 5 semester hours in machine operation, 5 in testing and sampling, 3 in personnel supervision and training, and 6 in plant management. In the lower-division baccalaureate/associate degree category, 2 semester hours in machine operation, 1 in testing and sampling, 3 in personnel supervision and training, 3 in plant management, and 3 in construction management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (8/79).

MOS-62H-001

Concrete Paving Equipment Operator

62H20

62H40

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Summary: Operates self-powered machines used in concrete producing and paving operations. *Skill Level 20:* Sets up concrete producing and surfacing equipment; operates concrete batching plant, and mixing, spreading, and finishing machines to produce concrete by formula or specifications and to spread concrete to desired thickness; sets equipment controls for optimum efficiency; notes equipment malfunctions or deficiencies and repairs or assists in the repair of equipment; performs equipment maintenance services such as cleaning, lubricating, inspecting, and minor adjustments. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises all phases of concrete producing and paving operations; supervises personnel and assigns work; interprets and utilizes information contained in material gradation charts; prepares operational reports; instructs subordinate personnel.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in concrete paving machine operation and technology, 10 in concrete plant operation and technology, 5 in construction material processing and storage, and 5 in basic construction equipment operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction material processing and application, 1 in functions of grades and grade stakes, 1 in introduction to construction equipment, 1 in grades and plans, and 1 in paving equipment, and additional credit on the basis of institutional evaluation up to a maximum total of 30 semester hours (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 10 semester hours in concrete paving machine operation and technology, 10 in concrete plant operation and technology, 5 in construction material processing and storage, 5 in basic construction equipment operation, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction material processing and application, 3 in construction management, 3 for field experience in management, 2 in personnel supervision, 1 in record keeping, 1 in functions of grades and grade stakes, 1 in introduction to construction equipment, 1 in grades, and plans, and 1 in paving equipment, and additional credit on the basis of institutional evaluation up to a minimum of 40 semester hours. In the upper-division baccalaureate category, 3 semester hours in construction design and 2 in methods of construction, and additional credit in management on the basis of institutional evaluation up to a maximum of 9 semester hours (12/75).

MOS-62H-002

CONCRETE AND ASPHALT EQUIPMENT
OPERATOR
62H10
62H20
62H30

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 515 (Construction Equipment Operator).

Description

Summary: Supervises or operates all equipment used in concrete and asphalt production and paving. *Skill Level 10:* Operates concrete mobile mixer truck; assists plant equipment operator in operation of equipment and machines used in asphalt production and paving; loads unmixed materials in concrete mobile mixer; adjusts controls to obtain required mix proportion and slump at the job site; assists in operation of spreading and finishing equipment; assists in erection, operation, and maintenance of asphalt producing plant; operates asphalt distributor and aggregate spreader; assists in operation of asphalt paving and surfacing equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates all equipment and machines used in asphalt production and paving and concrete paving operations; erects, operates, and maintains asphalt plant; directs preparation and placement of concrete with mobile mixer truck. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all aspects of asphalt and concrete production and paving operations; plans and directs layout and erection of asphalt plant; supervises production of hot plant mix asphalt; directs asphalt placing and rolling operations; supervises concrete mobile mixer truck use and employment; supervises concrete and asphalt equipment maintenance and training programs.

Recommendation, Skill Level 10

In the vocational certificate category, if the individual has experience in the operation of asphalt paving equipment, 5 semester hours in operation of asphalt paving equipment; if the individual has experience in the operation of concrete equipment, 5 semester hours in operation of concrete equipment (2/80).

Recommendation, Skill Level 20

In the vocational certificate category, 5 semester hours in handling and storage of materials, and additional credit as follows: If the individual has experience in the operation of asphalt paving equipment, 5 semester hours in operation of asphalt paving equipment; if the individual has experience in the operation of concrete equipment, 5 semester hours in the operation of concrete equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction material processing and application (2/80).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction material processing and application, 3 in construction management, and 2 personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/80).

MOS-62J-001

GENERAL CONSTRUCTION MACHINE
OPERATOR
62J20
62J30

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Summary: Operates a variety of equipment in support of construction projects, including air compressors, drilling equipment, pumps, soil processing equipment, and materials application equipment; possesses a basic understanding of soils mechanics, strength of materials, hydrology, mechanics, concrete, and asphalt. *Skill Level 20:* Performs as a utility equipment operator; selects proper bits, power units, and attachments for drills, air compressors, pumps, and rotary equipment; notes and assists in repairing equipment malfunctions; performs preventive and operational maintenance and inspects equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as well driller, drilling water wells and developing existing dug wells; possesses sufficient knowledge of geology, hydrology, and soils to make a finite analysis of drill cores to determine whether the strata being examined can produce the desired amount of water; installs well casings; prepares and analyzes electronic well logs; performs preventive maintenance on electronic well-logging equipment; sets up well screens and pumping equipment; grouts and gravel-packs wells; analyzes terrain and geologic features to determine the best probable location for a well; follows proper safety procedures associated with drilling operations; maintains records of drilling operations and product output.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in construction equipment operation and 10 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 5 semester hours in construction equipment operation and 5 in mechanical maintenance (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 40 semester hours and certification as a well drilling superintendent. In the lower-division baccalaureate/associate degree category, 5 semester hours in construction equipment operation, 5 in mechanical maintenance, 3 in electricity and electronics, and 3 in geology and hydrology (12/75).

MOS-62J-002

GENERAL CONSTRUCTION EQUIPMENT
OPERATOR
62J10
62J20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (Engineering), subfield 515 (Construction Equipment Operation).

Description

Summary: Operates a variety of equipment in support of construction projects, including air compressors and special-purpose construction machines engaged in compaction, ditching, pumping, augering, and well-drilling operations. *Skill Level 10:* Operates pneumatic wood borer, rock drill, air blower gun attachment, nail driver, sump pump, paving breaker, chain and circular saw, grinder, concrete vibrator, and backfill temper; operates power roller over foundations, filler stones and cover stone courses and surface treatments, asphalt macadam, road mix and hot-mix pavement; operates water distributor in compaction and dust control operations; performs operator maintenance; assists in operation of ditching machines. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates utility tractor with loader and backhoe, general purpose excavators and attachments, earth auger, and ditching machines; performs leveling, backfilling, rough grading, stockpiling, ditch digging, and loading with utility tractor loader and backhoe; drills vertical and angled holes of appropriate diameter to proper depth with earth auger for demolitions support, fence posts, power poles, and anchor posts.

Recommendation, Skill Level 10

In the vocational certificate category, 10 semester hours in machine operation and 10 in equipment maintenance (7/79).

Recommendation, Skill Level 20

In the vocational certificate category, 15 semester hours in machine operation and 15 in equipment maintenance (7/79).

MOS-62K-001

GRADER OPERATOR

62K20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 62K was discontinued and its functions were incorporated into MOS 62E, Heavy Construction Equipment Operator.)

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Skill Level 20: Operates construction motor grader and attachments under supervision; performs inspections and service on equipment; interprets information on surveyors' grade stakes; judges terrain and determines required action to alter variation to conform to constuction design; spreads and grades aggregate-asphalt and soil-asphalt road mixes.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in motor grader operation, 5 in machine maintenance, and 1 in grades and grade stakes. In the lower-division baccalaureate/associate degree category, 3 semester hours in material processing and application, 2 in construction plans, 2 in power sources and power systems, and 1 in grades and grade stakes (12/75).

MOS-62L-001

WHEELED TRACTOR OPERATOR

62L20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 62L was discontinued and its functions were incorporated into MOS 62E, Heavy Construction Equipment Operator.)

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Skill Level 20: Operates wheeled tractors, rubber-tired dozers with attachments, self-propelled scrapers, and heavy-duty quarry trucks; interprets the information on grade stakes.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in wheeled tractor operation (2/75).

MOS-62M-001

ROUGH TERRAIN FORKLIFT AND LOADER OPERATOR

62M20

Exhibit Dates: 10/73-2/78. (Effective 3/78, MOS 62M was discontinued and its functions were incorporated into MOS 62E, Heavy Construction Equipment Operator, and MOS 62F, Lifting and Loading Equipment Operator.)

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Skill Level 20: Operates rough-terrain forklifts and scoop loaders.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in forklift and scoop loader-operation (2/75).

MOS-62N-001

CONSTRUCTION MACHINE SUPERVISOR

62N40

62N50

Exhibit Dates: 10/73-2/78.

Career Management Field: 51 (General Engineering), subfield 514 (Construction Equipment Operation).

Description

Summary: Supervises construction machinery operations and operator and crew maintenance of equipment. *Skill Level 40:* Performs duties comparable to those of a civilian assistant job superintendent on a construction site; has technical skills, competencies, and knowledge equivalent to those acquired through an associate degree program in operating engineer technology; supervises employment of all kinds of construction machinery in support of construction operations; organizes machinery operations phases of construction projects; estimates equipment and operator requirements for specific jobs; coordinates construction machinery operations with related construction work; observes machine operations and inspects finished products; enforces safety rules; prepares reports on personnel, machine operations, training, and work progress; evaluates subordinates' work performance. NOTE: May have progressed to 62N40 from 51G20 (Soils Analyst), 62E20 (Crawler Tractor Operator), 62F30 (Crane Operator), 62J30 (General Construction Machine Operator),62K20 (Grader Operator), 62L20 (Wheeled Tractor Operator), or 62M20 (Rough Terrain Forklift and Loader Operator). *Skill Level 50:* Able to perform the duties required for Skill Level 40; manages more than 200 persons engaged in a variety of construction equipment operation activities; performs duties comparable to those of a civilian construction superintendent or operations manager; as the principal noncommissioned officer in a construction equipment company, assists in planning, coordinating, and supervising all company activities; advises superiors on personnel matters. NOTE: May have progressed to 62N50 from 62N40, 62D40 (Asphalt Equipment Operator), 62G40 (Quarryman), or 62H40 (Concrete Paving Equipment Operator).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours in construction equipment, 25 for field experience in construction equipment operation, 3 in material processing and application, 3 in introduction to electricity, hydraulics, and pneumatics, 1 in basic power trains and undercarriages, 1 in welding, rigging, soils, and compaction, 1 in fuels, oils, and lubricants, 1 in surveying (grades, grade stakes, and plans), and 1 in records administration. In the upper-division baccalaureate category, 3 semester hours in introduction to management, and 3 for field experience in management (12/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in introduction to management, and additional credit in construction management up to a maximum total of 30 semester hours (12/75).

MOS-62N-002

CONSTRUCTION EQUIPMENT SUPERVISOR

62N30

62N40

Exhibit Dates: 3/78-Present.

Career Management Field: 51 (General Engineering) subfield 515 (Construction Equipment Operation).

Description

Summary: Supervises construction equipment, quarry, paving, and plant equipment operations. *Skill Level 30:* Provides general supervision to personnel operating loading, lifting, heavy and general construction equipment; supervises and coordinates activities of all above equipment, including drilling operations; determines most efficient type and application of equipment to be used in construction, maintenance, and repair projects; estimates equipment and operator requirements for specific jobs; conducts on-the-job training and assists in supervision of unit engaged in construction equipment operations; maintains records; assists job superintendent at civilian construction site. NOTE: May have progressed to 62N30 from 62J20 (Heavy Construction Equipment Operator), or 62F20 (Lifting and Loading Equipment Operator). *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides general supervision over all phases of construction operations; coordinates the activities of personnel, equipment, and machinery; prepares operational reports; keeps production records; equivalent to job superintendent on civilian construction site.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in construction management, 3 in record keeping, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in maintenance management (8/79).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 6 semester hour for field experience in management, 3 in personnel management, 3 in maintenance management, and 3 in report writing (8/79).

MOS-63B-001

WHEEL VEHICLE MECHANIC

63B20

63B40

Exhibit Dates: 10/73-8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Automotive Maintenance).

Description

Summary: Diagnoses malfunctions and repairs internal-combustion engines, accessories, powertrains, and chassis components of wheel vehicles; adjusts operating mechanisms such as valve tappets, carburetors, governors, ignition system points, control linkage, clutches, and brakes; performs tune ups; operates wreckers. *Skill Level 20:* Replaces engine components such as fuel pumps, generators, regulators, brake shoes and fittings, and winches; road-tests vehicles; prepares and keeps maintenance forms and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor; establishes shop practices and procedures; plans and organizes work schedules and the use of facilities and equipment; instructs and supervises subordinate personnel; applies production and quality control principles; requisitions parts, tools, and supplies.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, up to 9 semester hours may be granted on the basis of institutional evaluation (3 semester hours in automotive mechanics, 3 in diesel mechanics, and 3 in truck mechanics). In an automotive, diesel, or truck mechanic apprentice training program, 400 clock hours of experience and 70 contact hours of related instruction (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, 5 in truck mechanics, and 1 in shop practices and procedures. In the lower-division baccalaureate/associate degree category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, 5 in truck mechanics, and 3 in personnel supervision and training, and additional credit on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 6,000 clock hours of experience and 140 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

MOS-63B-002

Wheel Vehicle Mechanic

63B10

63B20

63B30

Exhibit Dates: 9/75–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Diagnoses malfunctions and repairs internal-combustion engines, accessories, powertrains, and chassis components of wheel vehicles; adjusts operating mechanisms such as value tappets, carburetors, governors, ignition system points, control linkage, clutches, and brakes; performs tune-ups; operates wreckers. *Skill Level 10:* Replaces engine components such as fuel pumps, generators, starters, regulators, radiators, universal joints, brake shoes, engine mounts, and lines and fittings; adjusts operating mechanisms; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices and procedures; requisitions spare parts, tools, and supplies.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and additional credit on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 400 clock hours of experience and 70 contact hours of related instruction (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and additional credit on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 1,500 clock hours of experience and 70 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 2 in personnel supervision, and 1 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 2,000 clock hours of experience and 70 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-63B-003

Light Wheel Vehicle Mechanic
(Light Wheel Vehicle/Power
Generation Mechanic)

63B10

63B20

63B30

63B40

63B50

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Diagnoses malfunctions and performs and supervises corrective maintenance on internal-combustion engines and power generating units including accessories, powertrains, and chassis components of wheel vehicles; adjusts operating mechanisms such as valve tappets, carburetors, governors, ignition system points, control linkage, clutches, and brakes; performs tune-up and recommends appropriate power generating equipment to accommodate specific electrical loads; operates wreckers. *Skill Level 10:* Replaces engine components such as fuel pumps, generators, starters, regulators, radiators, universal joints, brake shoes, engine mounts, and lines and fittings; adjusts operating mechanism, including power generating units; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; able to diagnose problems and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63B, 63S (Heavy Wheel Vehicle Mechanic), or 63Y (Track Vehicle Mechanic); plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices, procedures, and safety. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs related administrative functions and supervises the preparation of records, reports, and training of maintenance personnel; initiates action necessary to requisition repair parts and supplies; responsible for control of technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates lower-skill-level personnel; determines training requirements and quality control principles; develops operation plans, policies, and procedures.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems) (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and additional credit on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and 2 in personnel supervision, and additional credit in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 2 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 3 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in applied psychology (9/82).

MOS-63C-001

TRACK VEHICLE MECHANIC

63C20
63C40

Exhibit Dates: 10/73-8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Diagnoses wheel and track vehicles, using test equipment and sequential tests; applies knowledge of internal combustion engines and accessories, power trains, and chassis components of track vehicles; road-tests vehicles; operates wreckers. *Skill Level 20:* Performs preventive maintenance and general servicing work, including tune-up, on both gasoline and diesel combustion engines; keeps maintenance operating forms and records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor, planning and organizing work schedules, shop practices, and use of facilities and equipment; instructs and supervises subordinate personnel; requisitions parts, tools, and supplies.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in automotive mechanics, 3 in diesel mechanics, and 3 in industrial truck mechanics. In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive mechanics, 3 in diesel mechanics, and 3 in industrial truck mechanics on the basis of institutional evaluation. In an automotive, diesel, or industrial truck mechanic apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, and 5 in industrial truck mechanics. In the lower-division baccalaureate/associate degree category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, 5 in industrial truck mechanics, 3 in personnel supervision, and 1 in records administration, and additional credit on the basis of institutional evaluation. In an automotive, diesel, or industrial truck mechanic apprentice training program, a minimum of 6,000 clock hours of experience and 214 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (3/75).

MOS-63C-002

TRACK VEHICLE MECHANIC

63C10
63C20
63C30
63C40

Exhibit Dates: 9/75-8/80. (Effective 9/80, MOS 63C was discontinued and its functions were incorporated into MOS's 63B, 63D, 63N, 63R, 63S, 63T, and 63Y.)

Career Management Field: 63 (Mechanical Maintenance, subfield 633 (Machinery Maintenance).

Description

Summary: Applies knowledge of operating principles of internal-combustion engines, accessories, powertrains, and chassis components to wheel and track vehicles. *Skill Level 10:* Performs detailed diagnoses of wheel and track vehicles; adjusts operating mechanisms such as valve tappets, carburetors, governors, ignition system points, linkage, clutches, and brakes; times magnetos, distributors, injectors, and pumps; replaces components such as fuel pumps, starters, carburetors, generators, regulators, universal joints, brakes shoes, and drive sprockets; road-tests vehicles; prepares and keeps maintenance records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and organizes work schedules and shop practices; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate maintenance practices and procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 63C, 63B (Wheel Vehicle Mechanic), or 63F (Recovery Specialist); supervises maintenance on track and wheel vehicles; supervises vehicle recovery operations and tire and tube activities.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems) and additional credit on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 500 clock hours of experience and 267 contact hours of related instruction (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, a minimum of 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). and additional credit on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 1,500 clock hours of experience and 267 contact hours of related instruction and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, truck, or diesel mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, truck, or diesel mechanics, (including engines and related systems, powertrain systems, and chassis systems) 2 in personnel supervision, and 1 in records administration, and additional credit in an automotive, diesel, or truck mechanics program on the basis of institutional evaluation. In an automotive, diesel, or truck mechanic apprentice training program, 4000 clock hours of experience and 267 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 15 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 1 in records administration, and additional credit in automotive mechanics, diesel mechanics, and truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management, only if the duty assignment was tire repair foreman or recovery sergeant. In an automotive, diesel, or truck mechanic apprentice training program, 6,000 clock hours of experience and 267 contact hours of related instruction (12/75).

MOS-63D-001

SELF-PROPELLED FIELD ARTILLERY SYSTEM MECHANIC

63D10
63D20
63D30
63D40
63D50

Exhibit Dates: 9/80-Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs and supervises maintenance on tracked and wheel vehicles. *Skill Level 10:* Services, lubricates, removes, and replaces components and assemblies such as engine, fuel, cooling, final drive, track and suspension; performs corrective maintenance on hydraulic, mechanical, and electrical systems and/or components; employs tests, measuring, and diagnostic equipment in troubleshooting; operates wrecker. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63D and 45D (Self-propelled Field Artillery Turret Mechanic); plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices, procedures, and safety; utilizes salvage techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs related administrative functions and supervises the preparation of records, reports, and training of maintenance personnel; initiates action necessary to requisition repair parts and supplies; responsible for control of technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates subordinates; determines training requirements; develops operation plans, policies, and procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems) (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and additional credit on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), and 2 in personnel supervision, and additional credit in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 2 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 3 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in applied psychology (9/82).

MOS-63E-001

M1 ABRAMS TANK SYSTEM MECHANIC (XM1 TANK SYSTEM MECHANIC)

63E10
63E20
63E30
63E40
63E50

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs and supervises maintenance and recovery operations on M1 tanks, including automotive, turret, fire control, and chemical protection systems. *Skill Level 10:* Troubleshoots and performs organizational maintenance on automotive systems and components of M1 Tank, Recovery Vehicle (M88/A1), M113 family vehicles, and 1/4 ton and 2 1/2 ton tactical trucks; services, lubricates, replaces, removes, installs, repairs, and adjusts, purges and tests following systems, components, and assemblies: the engine fuel exhaust, cooling, electrical, transmission, final drive, track and suspension, steering controls, hull, chemical protection system, miscellaneous accessories, and special purpose kits; prepares vehicles for operation under abnormal conditions by sealing, waterproofing, and servicing with special fuel and lubricants; performs corrective organizational maintenance on previously-diagnosed malfunctions of mechanical, electrical, and hydraulic systems and/or components; test-operates equipment as required and observes for evidence of abnormal operations; employs applicable test, measuring, and diagnostic equipment in conjunction with technical publications to perform troubleshooting actions and test continuity of electrical circuits; troubleshoots mechanical, electrical, and hydraulic systems; interprets schematic diagrams; operates hand and power operated tools and equipment; performs or assists in vehicle recovery and evacuation operations. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to lower-skill-level personnel; diagnoses automotive systems and components at the organizational maintenance level; troubleshoots to component level; isolates and identifies causes of malfunctions; operates vehicle for diagnoses and inspection purposes; interprets complex schematic diagrams; conducts on-the-job training; completes applicable maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs as M1 Tank System Mechanic, fulfilling duties of both automotive (MOS 63E20) and turret (MOS 45E20) mechanics; plans and organizes work schedules and assigns duties; instructs and supervises lower-skill-level personnel in troubleshooting and proper organizational maintenance practices and procedures; supervises maintenance training, including preventive maintenance training of equipment operators; performs or supervises on-site maintenance as a member or leader of an on-site maintenance team; performs inspections and tests repaired equipment; evaluates work performance of lower-skill-level personnel; determines training requirements, and recommends corrective action; assists in preparation of maintenance operation plans, policies, and procedures; supervises or prepares technical studies, evaluations, special reports, correspondence, and records pertaining to organizational maintenance operations, training, and related operations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs as M1 Tank Maintenance Supervisor (Master Mechanic) for company maintenance personnel; plans and organizes work area layout to gain maximum efficiency and utilization of time, equipment, and personnel; supervises and instructs lower-skill-level maintenance personnel in proper maintenance practices, procedures, and techniques; supervises maintenance administration personnel; initiates necessary maintenance management and repair parts supply corrective actions; employs rapid and accurate techniques to determine proper maintenance and repair parts requirements to return damaged system to serviceable condition; establishes and controls a file of organizational maintenance technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; performs as M1 Senior Tank Maintenance Supervisor (Senior Master Mechanic) for battalion maintenance section and personnel; supervises organizational maintenance on assigned track and wheeled vehicles and upkeep of hand and powered tools; plans workflow, assigns duties, and instructs in maintenance techniques; supervises processing of work orders; evaluates work performance of lower-skill-level personnel; determines training requirements, and recommends corrective action; assists in preparation of maintenance operation plans, policies, and procedures; supervises or prepares technical studies, evaluations, special reports, correspondence, and records pertaining to organizational maintenance operations, training and related operations.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive fundamentals (2/84).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fundamentals (2/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fundamentals and 3 in personnel supervision (2/84).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fundamentals, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (2/84).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive fundamentals, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 for field experience in management, and 3 in management problems (2/84).

MOS-63F-001

RECOVERY SPECIALIST

63F10
63F20
63F30

Exhibit Dates: 9/75-8/80. (Effective 9/80, MOS 63F was discontinued and its functions were incorporated into MOS's 63B, 63D, 63H, 63N, 63R, 63S, 63T, 63W, and 63Y.)

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Operates and performs operator maintenance on all types of wreckers, recovery vehicles, and associated equipment and accessories. *Skill Level 10:* Performs recovery and evacuation operations for abandoned, damaged, disabled, or mired light or heavy wheel or track vehicles; prepares recovery vehicle equipment for use; maneuvers recovery vehicles, selecting the most desirable positions for wreckers, trailers, full tracked recovery vehicles or transporters; uses winches, cranes, booms, jacks, block and tackle gear; applies lines and rigs; performs operator maintenance on recovery vehicles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance for Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, organizes, and supervises recovery operations; assigns duties; conducts on-the-job training; requisitions spare parts, tools, and supplies; schedules and coordinates equipment for periodic maintenance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in an automotive mechanics program. In a rigger apprentice training program, 1,000 clock hours of experience (12/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in an automotive mechanics program. In a rigger apprentice training program, 1,000 clock hours of experience (12/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semeter hours in an automotive mechanics program, 2 in personnel supervision, and 1 in records administration, and additional credit on the basis of institutional evaluation. In a rigger apprentice training program, 1,000 clock hours of experience (12/75).

MOS-63G-001

FUEL AND ELECTRICAL SYSTEMS REPAIRER
(FUEL AND ELECTRICAL SYSTEMS
REPAIRMAN)

63G10
63G20

Exhibit Dates: 9/75-8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Removes, disassembles, and repairs fuel and electrical systems and components. *Skill Level 10:* Diagnoses and performs direct and general support maintenance on fuel and electrical systems of wheel and track vehicles and material handling equipment; tests, adjusts, and repairs fuel and electrical system components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in fuel and electrical systems. In the lower-division baccalaureate/associate degree category, 9 semester hours in fuel and electrical systems, and additional credit on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or heavy-duty equipment mechanic apprentice training program, 500 clock hours of experience and 400 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in fuel and electrical systems. In the lower-division baccalaureate/associate degree category, 9 semester hours in fuel and electrical systems, and additional credit on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or heavy-duty equipment mechanic apprentice training program, 1,500 clock hours of experience and 400 contact hours of related instruction, and additional clock hours of experience on the basis of employer or trade association performance examination (12/75).

MOS-63G-002

FUEL AND ELECTRICAL SYSTEMS REPAIRER

63G10
63G20

Exhibit Dates: 9/80-Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs maintenance on fuel and electrical systems, brake components, vehicles, engines of power generating equipment and materials-handing equipment. *Skill Level 10:* Tests and repairs fuel and electrical systems and components such as fuel pumps, fuel injection pumps, batteries, generators, distributors, and ignition systems; rebuilds components such as carburetors, fuel injection pumps, generators, distributors, fuel injectors, master cylinders, brake chambers, and wheel cylinders; repairs disc brake calipers; turns brake drums; relines brake shoes. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; troubleshoots and uses diagnostic equipment to identify malfunctions in fuel and electrical systems; modifies equipment and recommends repair procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

MOS-63H-001

AUTOMOTIVE REPAIRMAN

63H20
63H30
63H40

Exhibit Dates: 10/73-8/75.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Automotive Maintenance).

Description

Summary: Disassembles, reassembles, and tests transmissions, engines, differentials, brakes, and other automotive components. *Skill Level 20:* Uses measuring and hand tools such as calipers, micrometers, wrenches, and torches; under supervision, repairs, adjusts, replaces, and overhauls engines, clutches, transmissions, differentials, steering assemblies, hydraulic cylinders, and brakes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; troubleshoots electrical and mechanical failures; repairs, overhauls, and installs fuel systems and electrical components; applies information contained in technical and trade manuals; instructs and assists subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises a minimum of six subordinates; plans and organizes work schedules; writes job tickets; prepares maintenance forms and records; requisitions parts, supplies, and equipment; keeps a file of technical publications; applies production and quality control precedures and standards.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), and additional credit in auto mechanics on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or equipment mechanic apprentice training program, 1,000 clock hours of experience and 144 contact hours of related instruction (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, chassis systems, and electrical and fuel systems). In the lower-division baccalaureate/associate degree category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, chassis systems, and electrical and fuel systems) and additional credit in auto mechanics on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or equipment mechanic apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction. Journeyman status achieved through employer or trade association performance examination (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, chassis systems, and electrical and fuel systems) and 3 in shop practices and procedures. In the lower-division baccalaureate/associate degree category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, chassis systems, and electrical and fuel systems), 1 in records administration, and 2 in personnel supervision. In the upper-division baccalaureate category, credit in automotive technology on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as an automotive, truck, heavy-duty truck, or equipment mechanic (2/75).

MOS-63H-002

AUTOMOTIVE REPAIRMAN

63H10
63H20
63H30
63H40

Exhibit Dates: 9/75–2/77.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Disassembles, reassembles, and tests transmissions, engines, differentials, brakes, and other automotive components. *Skill Level 10:* Under supervision, repairs, adjusts, replaces, and overhauls engines, clutches, transmissions, differentials, steering assemblies, hydraulic cylinders, and brakes; uses measuring and hand tools such as calipers, micrometers, wrenches, and torches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs maintenance on engine, powertrain, and chassis components of wheel and track vehicles and material-handling equipment, excluding the propulsion motor on electric material-handling equipment; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises automotive maintenance and fuel and electrical system repair operations; performs complete technical inspection of fuel and electrical systems repairs and repair or overhaul of engine powertrain and chassis components; plans and organizes work schedules; assigns duties; instructs subordinate personnel in proper maintenance practices, procedures, and techniques; applies quality and production control procedures; uses and keeps a file of technical publications; requisitions spare parts, tools, and supplies. NOTE: May have progressed to 63H30 from 63H20 or 63G20 (Fuel and Electrical Systems Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises repair of automotive and quartermaster equipment; supervises a minimum of 20 subordinate personnel. NOTE: May have progressed to 63H40 from 63H30 or 63J30 (Quartermaster Equipment Repairman).

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in auto mechanics and additional credit in auto mechanics on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or equipment mechanic apprentice training program, 500 clock hours of experience and 400 contact hours of related instruction (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems) and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems) and additional credit in auto mechanics on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or equipment mechanic apprentice training program, 1,500 clock hours of experience and 400 contact hours of related instruction (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in shop practices and procedures, and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 2 in personnel supervision, and 1 in records administration, and additional credit in auto mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in management or administration on the basis of institutional evaluation. In an automotive, truck, heavy-duty truck, or equipment mechanic apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in shop practices and procedures, and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 2 in personnel supervision, and 1 in records administration, and additional credit in auto mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management, and additional credit in management, administration, and automotive technology on the basis of institutional evaluation. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as an automotive, truck, heavy-duty truck, or equipment mechanic (12/75).

MOS-63H-003

AUTOMOTIVE REPAIRER
(AUTOMOTIVE REPAIRMAN)

63H10
63H20
63H30
63H40

Exhibit Dates: 3/77–8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs maintenance on wheel and track vehicles and materials-handling equipment, excluding propulsion motor on electrical materials-handling equipment. *Skill Level 10:* Diagnoses and analyzes engine, powertrain, and chassis component malfunctions by visual and auditory examination and by use of test equipment; isolates causes of malfunctions by systematic elimination of possible trouble; tests, repairs, overhauls, adjusts and replaces assemblies, subassemblies and components such as engines (gasoline, diesel, and multifuel), clutches, transmissions, differentials, steering assemblies, transfer case and hydraulic cylinders and components by replacing valves, shafts, gears, bearings, rings and seals, using jacks pullers, gauges and jigs. *Skill Level 20:* Performs the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel in accomplishment of these duties. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63H or 63G (Fuel and Electrical Systems Repairman); supervises automotive maintenance and fuel and electrical system repair operations or performs complete technical inspection of fuel and electrical system repairs and repair or overhaul of engine powertrain and chassis components; understands and applies information contained in technical publications to maintenance requirements; uses all types of measuring and testing equipment for alignment, adjustments, and functioning of components and assemblies; plans and organizes work schedules; assigns duties, supervises and instructs subordinate personnel in proper maintenance practices, procedures and techniques; applies production and quality control procedures; keeps file of technical publications; secures spare parts, tools, and supplies. NOTE: May have progressed to 63H30 from 63H20 or 63G20 (Fuel and Electrical Systems Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 63H or 63J (Quartermaster Equipment Repairman); supervises repair of automotive, chemical, and quartermaster equipment; serves as section chief, platoon sergeant, repair control sergeant or maintenance sergeant. NOTE: May have progressed to 63H40 from 63H30 or 63J30 (Quartermaster Equipment Repairman).

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in auto mechanics (including engines and related systems, powertrain system, and chassis systems) and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 1 in use and care of hand tools, and additional credit in auto mechanics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems) and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 1 in use and care of hand tools, and additional credit in auto mechanics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in shop practices and procedures, and 1 in use and care of hand tools. In the lower-division baccalaureate/associate degree category, 15 semester hours in auto mechanics (including engines and related systems, powertrain systems, and chassis systems), 1 in use and care of hand tools, 2 in personnel supervision, 3 in shop management, and 1 in records administration, and additional credit in auto mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in management or administration on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management, and additional credit in management, administration, and automotive technology on the basis of institutional evaluation (5/78).

MOS-63H-004

Track Vehicle Repairer

63H10

63H20

63H30

63H40

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs and supervises maintenance on wheel and track vehicles and materials-handling equipment. *Skill Level 10:* Diagnoses and analyzes engine, powertrain, and chassis component malfunctions; tests, repairs, overhauls, adjusts, and replaces assemblies, subassemblies and components such as engines (gasoline, diesel, and multifuel), clutches, transmissions, differentials, steering assemblies, transfer case and hydraulic cylinders and components by replacing valves, shafts, gears, bearings, rings and seals, using jacks, pullers, gauges and jigs; operates wreckers. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; determines serviceability of components using measuring devices. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63H, 63G (Fuel and Electrical Systems Repairer), or 63W (Wheel Vehicle Repairer); performs and supervises maintenance and completes technical inspections; repairs or overhauls engine powertrains and chassis components; understands and applies information contained in technical publications to maintenance requirements; uses types of measuring and testing equipment for alignment, adjustments, and functioning of components and assemblies; plans and organizes work schedules; assigns duties; supervises recovery operations; administers safety programs. NOTE: May have progressed to 63H30 from 63H20, 63G20 (Fuel and Electrical Systems Repairer), or 63W20 (Wheel Vehicle Repairer). *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 63H or 63J (Quartermaster and Chemical Equipment Repairer); supervises maintenance and repair of equipment and vehicles (automotive, chemical, and quartermaster); applies production and quality control procedures. NOTE: May have progressed to 63H40 from 63J30 (Quartermaster and Chemical Equipment Repairer).

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems) (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive mechanics (including engines and related systems, powertrain systems, chassis systems) and additional credit in automotive mechanics on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 15 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems), and 2 in personnel supervision, and additional credit in automotive mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in management or administration on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 15 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems). In the lower-division baccalaureate/associate degree category, 15 semester hours in automotive mechanics (including engines and related systems, powertrain systems, and chassis systems), 3 in personnel supervision, and 2 in records administration, and additional credit in automotive mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

MOS-63J-001

Quartermaster Equipment Repairman

63J10

63J20

63J30

Exhibit Dates: 9/75–2/77.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Supervises or performs maintenance on quartermaster machinery and special purpose equipment. *Skill Level 10:* Disassembles, repairs, reassembles, adjusts, and tests various types of quartermaster machinery and equipment such as sewing machines, stoves, gasoline lanterns, laundry units, bath units, bakery units, and special purpose equipment; performs maintenance on electrical circuits contained in this machinery and equipment; uses supply and technical literature, regulations, and manufacturers' catologs in performing maintenance and making repairs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns, schedules, and supervises personnel engaged in installing, repairing, and maintaining quartermaster machinery and equipment; performs technical inspections.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in use and care of hand tools, 1 in basic electricity, 1 in use of testing equipment, and 1 in small appliance repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair. In a sewing machine repairman apprentice training program, 100 clock hours of experience (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in use and care of hand tools, 1 in basic electricity, 1 in use of testing equipment, and 1 in small appliance repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair. In a sewing machine repairman apprentice training program, 200 clock hours of experience (12/75).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in use and care of hand tools, 1 in basic electricity, 1 in use of testing equipment, and 1 in small appliance repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair and 3 for field experience in personnel management. In a sewing machine repairman apprentice training program, 300 clock hours of experience (12/75).

MOS-63J-002

Quartermaster Equipment Repairer
(Quartermaster Equipment
Repairman)

63J10

63J20

63J30

Exhibit Dates: 3/77–6/86.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Supervises or performs maintenance on chemical, quartermaster, and special-purpose equipment. *Skill Level 10:* Disassembles, repairs, reassembles, adjusts and tests various types of quartermaster machinery and equipment such as sewing machines, gasoline lanterns, laundry units, bath units, or bakery units, and special-purpose equipment, including petroleum, oil, and lubricants equipment; performs maintenance on electrical circuits; performs welding, plumbing, and pipefitting tasks; uses supply and technical literature, regulations, and manufacturers' catalogs in performing maintenance and keeping records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; if serves as foreman, supervises from 6 to 10 persons. *Skill Level 30:* Able to perform the duties required for Skill Level 20; must be able to supervise personnel performing duties of 63J20 and 54D20 (Chemical Equipment Repairman); supervises, assigns, and schedules personnel engaged in the repair and maintenance of chemical equipment, and quartermaster machinery and equipment; may serve as technical inspector; plans work activities and schedules work requests; supervises from 11 to 40 persons. NOTE: May have progressed to 63J30 from 63J20 or 54D20 (Chemical Equipment Repairman).

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in use and care of hand tools, 1 in basic electricity, 1 in use of testing equipment, and 1 in small appliance repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair and 1 in use and care of hand tools (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair and 1 in use and care of hand tools; if the duty position was quartermaster equipment repair foreman, 3 additional semester hours in shop management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair and 3 for field experience in management; if the duty position was equipment repair foreman, chemical equipment repair foreman, or protection mask repair foreman, 3 additional semester hours in shop management (5/78).

MOS-63J-003

Quartermaster and Chemical
Equipment Repairer

63J10
63J20

Exhibit Dates: 7/86–Present.

Career Management Field: 63 (Mechanical Maintenance).

Description

Summary: Supervises or performs maintenance on chemical, quartermaster, and special-purpose equipment. *Skill Level 10:* Disassembles, repairs, reassembles, adjusts, and tests various types of quartermaster machinery and equipment such as sewing machines, gasoline lanterns, laundry units, bath units, or bakery units and special-purpose equipment, including petroleum, oil, and lubricants equipment; performs maintenance on electrical circuits; performs welding, plumbing, and pipefitting tasks; uses supply and technical literature, regulations, and manufacturers' catalogs in performing maintenance and in keeping records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to skill level 10 personnel; if serves as foreman, supervises from 6 to 10 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in basic electricity laboratory. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair, 1 in use and care of hand tools, and 1 in use of testing equipment (7/87).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in basic electricity laboratory. In the lower-division baccalaureate/associate degree category, 2 semester hours in small appliance repair, 1 in use and care of hand tools, and 1 in use of testing equipment (7/87).

MOS-63N-001

M60A1/A3 Tank System Mechanic

63N10
63N20
63N30
63N40
63N50

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs and supervises maintenance on tracked and wheel vehicles. *Skill Level 10:* Services, lubricates, removes, and replaces components and assemblies such as engine, fuel, cooling, final drive, track and suspension; performs corrective maintenance on hydraulic, mechanical, and electrical systems and/or components; employs tests, measuring, and diagnostic equipment in troubleshooting; operates wrecker. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63N and 63R (M60A2 Tank System Mechanic), and 45N (M60A1/A3 Tank Turret Mechanic); plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices, procedures, and safety; utilizes salvage techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs related administrative functions and supervises the preparation of records, reports, and training of maintenance personnel; initiates action necessary to requisition repair parts and supplies; responsible for control of technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates subordinates and determines training requirements; develops operation plans, policies, and procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and 2 in personnel supervision, and additional credit in automotive, diesel, or truck mechanics for a minimum total of 11 semester hours (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 2 in records administration, and additional credit in automotive, diesel, or truck mechanics for a minimum total of 14 semester hours. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 3 in records administration, and additional credit in automotive, diesel, or truck mechanics for a minimum total of 15 semester hours. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in applied psychology (9/82).

MOS-63R-001

M60A2 Tank System Mechanic

63R30
63R40
63R50

Exhibit Dates: 9/80–8/81. (Effective 9/81, MOS 63R was discontinued.)

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs and supervises maintenance on tracked and wheel vehicles. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63N (M60A1/A3 Tank System Mechanic) or 45R (M60A2 Tank Turret Mechanic); plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices, procedures, and safety; utilizes salvage techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs related administrative functions and supervises the preparation of records, reports, and training of maintenance personnel; initiates action necessary to requisition repair parts and supplies; responsible for control of technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates subordinates; determines training requirements; develops operation plans, policies and procedures.

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and 2 in personnel supervision, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 2 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of insitutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 3 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in applied psychology (9/82).

MOS-63S-001

Heavy Wheel Vehicle Mechanic

63S10
63S20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs maintenance on heavy wheel vehicles and materials-handling equipment. *Skill Level 10:* Replaces engine components such as fuel pumps, generators, starters, regulators, radiators, universal joints, brake shoes, engine mounts, and lines and fittings; adjusts operating mechanisms; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; troubleshoots and uses diagnostic equipment to identify malfunctions.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

MOS-63T-001

ITV/IFV/CFV System Mechanic

63T10
63T20
63T30
63T40
63T50

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 635 (Weapon System Maintenance).

Description

Summary: Performs and supervises maintenance on tracked and wheel vehicles. *Skill Level 10:* Services, lubricates, removes, and replaces components and assemblies such as engine, fuel, cooling, final drive, track and suspension; performs corrective maintenance on hydraulic, mechanical, and electrical systems and/or components; employs tests, measuring, and diagnostic equipment in troubleshooting; operates wrecker. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 63T or 45T (ITV/IFV/CFV Turret Mechanic); plans and organizes work schedules; assigns duties; performs operational and administrative duties; instructs and supervises subordinate personnel in appropriate practices, procedures and safety; utilizes salvage techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs related administrative functions and supervises the preparation of records, reports, and training of maintenance personnel; initiates action necessary to requisition repair parts and supplies; responsibile for control of technical publications. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates subordinates; determines training requirements; develops operation plans, policies, and procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics and 2 in personnel supervision, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 2 in records administration, and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (9/82).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, 3 in personnel supervision, and 3 in records administration, and additional credit in automotive, diesel, or truck mechanics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in applied psychology (9/82).

MOS-63W-001

Wheel Vehicle Repairer

63W10
63W20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs maintenance on wheel vehicles, materials-handling equipment (except the motor on electrical materials-handling equipment). *Skill Level 10:* Performs maintenance on engines, clutches, transmissions, differentials, steering assemblies, transfer cases, and hydraulic cylinders; repairs components by replacing valves, shafts, gears, bearings, rings, and seals; operates wrecker. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; troubleshoots and uses diagnostic equipment to identify malfunctions; modifies equipment and recommends repair procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

MOS-63Y-001

Track Vehicle Mechanic

63Y10
63Y20

Exhibit Dates: 9/80–Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Summary: Performs maintenance on track vehicles. *Skill Level 10:* Replaces engine components such as fuel pumps, generators, starters, regulators, radiators, universal joints, brake shoes, engine mounts, and lines and fittings; adjusts operating mechanisms; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance and supervision to Skill Level 10 personnel; troubleshoots and uses diagnostic equipment to identify malfunctions.

Recommendation, Skill Level 10

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics (9/82).

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in automotive, diesel, or truck mechanics. In the lower-division baccalaureate/associate degree category, 9 semester hours in automotive, diesel, or truck mechanics, and additional credit on the basis of institutional evaluation (9/82).

MOS-63Z-001

MECHANICAL MAINTENANCE SUPERVISOR

63Z50

Exhibit Dates: 9/75-8/80.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Skill Level 50: Supervises organizational, direct, and general support maintenance on all types of mechanical equipment; assists in making plans and establishing policies and procedures for maintenance units; plans facilities and workflow; assigns duties; instructs in maintenance work techniques; evaluates performance of subordinate personnel; interprets company policy and standard operating procedures; assists in accomplishing unit training. NOTE: May have progressed to 63Z50 from Skill Level 40 of any MOS in the mechanical maintenance career management field (63).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in personnel supervision, 3 in records administration, and 3 in leadership. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in records administration, 3 in leadership, and 3 for field experience in management, and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management, and additional credit on the basis of institutional evaluation (12/75).

MOS-63Z-002

MECHANICAL MAINTENANCE SUPERVISOR

63Z50

Exhibit Dates: 9/80-Present.

Career Management Field: 63 (Mechanical Maintenance), subfield 633 (Machinery Maintenance).

Description

Skill Level 50: Manages and supervises all phases of maintenance on all types of mechanical equipment; plans layout of maintenance shops and facilities; supervises production and quality control; evaluates work performance and training requirements; assists in preparing maintenance policies and special reports. NOTE: May have progressed to 63Z50 from Skill Level 40 of any MOS in the mechanical maintenance career management field (63).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in records administration, and 6 for field experience in management, and additional credit on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 6 for field experience in management, and additional credit on the basis of institutional evaluation (9/82).

MOS-64C-001

MOTOR TRANSPORT OPERATOR

64C20
63C30
64C40
64C50

Exhibit Dates: 10/73-2/76.

Career Management Field: 65 (Transportation), subfield 652 (Motor Transport).

Description

Summary: Operates wheel vehicles to transport personnel and cargo. *Skill Level 20:* Operates single-unit wheel vehicles with a capacity of five tons or less in all conditions of light, weather, and terrain; knows safety rules and practices; insures proper loading of vehicle; performs simple vehicular maintenance; keeps records of operation and performance; may serve as chauffeur or dispatcher. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates vehicles with a capacity of over five tons such as tractor-trailers and tank trucks. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises motor pool activities; schedules, routes, and controls movements of motor transport equipment. *Skill Level 50:* Able to perform the duties required for Skill Level 40; evaluates motor transport operations; assists in planning, coordinating, and supervising all supporting activities; prepares studies, routine and special reports, and records on motor transport operations; supervises personnel and technical operations.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in motor vehicle operation (single-unit truck) (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in motor vehicle operation (single-unit truck and tractor-trailer) (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in motor vehicle operation (all road vehicles). In the lower-division baccalaureate/associate degree category, 6 semester hours in transportation management and 3 in motor maintenance management (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in motor vehicle operation (all road vehicles). In the lower-division baccalaureate/associate degree category, 9 semester hours in motor transportation management, 6 in motor maintenance management, and 6 for field experience in education (driver training) (2/75).

MOS-64C-002

MOTOR TRANSPORT OPERATOR

64C10
64C20
64C30
64C40

Exhibit Dates: 3/76-9/87. (MOS 64C has been redesignated MOS 88M; see exhibit MOS-88M-001.)

Career Management Field: 64 (Transportation), subfield 641 (Surface Operations).

Description

Summary: Operates wheel vehicles to transport personnel and cargo. *Skill Level 10:* Operates single-unit wheel vehicles with a capacity of five tons or less in all conditions of light, weather, and terrain; knows safety rules and practices; insures proper loading of vehicle; performs simple vehicular maintenance; keeps records of operation and performance; may serve as chauffeur or dispatcher; depending on the type of unit to which assigned, may also perform the same duties for tractors, semitrailers, tank transporters, and other vehicles with a capacity of more than five tons. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small motor transport activity; participates in convoy operations and organization, including planning, the establishment of control measures, and the observance of civil laws and pertinent military regulations; reviews and prepares operations reports; determines the number of vehicles required for a given operation; schedules route and controls movements of motor transport equipment; may perform or direct driver testing functions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large motor transport activity.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 3 additional semester hours in motor vehicle operation (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 4 additional semester hours in motor vehicle operation (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 4 additional semester hours in motor vehicle operation. In the lower-division baccalaureate/associate degree category, 6 semester hours in motor vehicle transportation management and 3 in motor maintenance management; if the duty assignment was driver test sergeant, 3 additional semester hours for an internship in education (driver training) (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 8 semester hours in motor vehicle operation (all road vehicles). In the lower-division baccalaureate/associate degree category, 6 semester hours in motor transportation management, 3 in motor maintenance management, 3 in personnel supervision, 3 in human relations, and 3 for field experience in management; if the duty assignment was driver test sergeant, 3 additional semester hours for an internship in education (driver training) (5/76).

MOS-64Z-001

TRANSPORTATION SENIOR SERGEANT

64Z50

Exhibit Dates: 3/76-9/87. (MOS 64Z has been redesignated MOS 88Z; see exhibit MOS-88Z-001.)

Career Management Field: 64 (Transportation), subfield 641 (Surface Operations).

Description

Skill Level 50: Supervises operation and control of movement of personnel and cargo by air, rail, motor transport, and water; prepares tactical plans and training material; evaluates transportation operations; assists in planning, coordinating, and supervising all supporting activities; prepares studies, routine and special reports, and records on transportation operations; supervises personnel and technical operations. NOTE: The job description for 64Z50 reflects recent changes and indicates proficiency in MOS 71N40 (Traffic Management Coordinator) 64C40 (Motor Transport Operator), and 57H40 (Terminal Operations Coordinator). However, personnel holding MOS 64Z50 since May 1976 may not possess expertise in all these MOS's. With the additional experience and training that is planned, personnel should be fully qualified in the near future.

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in transportation operations. In the lower-division baccalaureate/associate degree category, 9 semester hours in transportation operations, 3 in records administration, and 3 in report writing. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 for field experience in education (5/76).

MOS-65B-001

LOCOMOTIVE REPAIRER
(LOCOMOTIVE REPAIRMAN)

65B10
65B20
65B30
65B40

Exhibit Dates: 3/76–9/87. (MOS 65B has been redesignated MOS 88P; see exhibit MOS-88P-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Supervises or enforces mainenance on nonelectric sections of locomotives. *Skill Level 10:* Inspects locomotives to diagnose malfunctioning parts; accompanies locomotive operator on test runs and observes functions of locomotives; cleans and lubricates components as required; performs technical inspections on locomotives and auxiliary equipment to insure proper maintenance has been performed; interprets technical drawings and sketches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs initial and final inspections on locomotives scheduled for maintenance; supervises and instructs repairmen in methods and techniques of repairs; enforces safety practices; prepares technical reports on locomotives and estimates personnel, supplies, parts, and equipment necessary to restore locomotives, tanks, and tank cars to efficient operating condition; plans, organizes, and coordinates work activity of subordinates engaged in maintaining, inspecting, and repairing locomotives and auxiliary equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 65B or 65F (Locomotive Electrician); supervises or controls repairs of mechanical and electrical portions of locomotives.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in locomotive maintenance (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in locomotive maintenance (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in locomotive maintenance. In the lower-division baccalaureate/associate degree category, 9 semester hours in management and supervision of locomotive maintenance (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 8 semester hours in locomotive maintenance. In the lower-division baccalaureate/associate degree category, 9 semester hours in management and supervision of locomotive maintenance, 3 in personnel supervision, and 3 in industrial management (5/76).

MOS-65D-001

RAILWAY CAR REPAIRER
(RAILWAY CAR REPAIRMAN)

65D10
65D20
65D30
65D40

Exhibit Dates: 3/76–9/87. (MOS 65D has been redesignated MOS 88Q; see exhibit MOS-88Q-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Supervises or performs maintenance on railway passenger, freight, and hospital cars. *Skill Level 10:* Dismantles and reassembles major components and auxiliary equipment; examines wheels, axles, journals, journal bearings, and draft gear for structural and safety defects; inspects cars for defects which interfere with proper loading and makes necessary repairs; repairs handbrake mechanisms, gear ratchets, linkage, center sills, and body bolsters; straightens bent sections of bodies; paints and stencils railway cars; performs technical inspection of railway cars to insure proper maintenance; interprets technical blueprints and sketches; assists in salvage and rehabilitation of cars. *Skill Level 20:* Performs the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel; inspects railway cars prior and subsequent to maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 65D or 65E (Airbrake Repairman); plans, organizes, coordinates, and supervises work activity of a railway car section team; instructs repairmen in proper maintenance techniques and safety procedures; calculates personnel and material requirements for specific repair work; maintains records and prepares detailed technical reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large repair facility (normally, a minimum of 39 lower skill level personnel) involved in repairing railway cars and airbrake systems of locomotives and cars.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in practices and procedures of railroad car repair (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in practices and procedures of railroad car repair. In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in practices and procedures of rairoad car repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 1 in technical writing (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in practices and procedures of railroad car repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, and 1 in technical writing (5/76).

MOS-65E-001

AIRBRAKE REPAIRER
(AIRBRAKE REPAIRMAN)

65E10
65E20

Exhibit Dates: 3/76–9/87. (MOS 65E has been redesignated MOS 88R; see exhibit MOS-88R-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Inspects, services, and repairs airbrake systems of locomotives and cars. *Skill Level 10:* Inspects airbrake components and system for defects; dismantles, cleans, and lubricates components; removes and replaces defective parts; tests and adjusts components for maximum efficiency of airbrake system; makes appropriate entries in parts and log books; prepares written reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in inspecting, servicing, and repairing airbrake systems (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in inspecting, servicing, and repairing airbrake systems (5/76).

MOS-65F-001

LOCOMOTIVE ELECTRICIAN

65F10
65F20
65F30

Exhibit Dates: 3/76–9/87. (MOS 65F has been redesignated MOS 88S; see exhibit MOS-88S-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Supervises or performs repairs on electrical portions of diesel-electric systems of diesel electric locomotives. *Skill Level 10:* Inspects, dismounts, dismantles, cleans, repairs, and replaces defective components of electrical systems of diesel-electric locomotives, including generators, traction motors, auxiliary motors, reversers, contactors, relays, and regulators; load-tests repaired electrical components; restores commutator surfaces, rebands armatures, and repairs armature bearings; calibrates electric measuring instruments; reads schematic wiring diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-sized activity involved in repairing electrical portions of electrical systems of diesel-electric locomotives; interprets complex wiring diagrams; prepares shop layouts; develops plans for utilization of personnel, materials, and equipment; conducts on-the-job training; requisitions tools, parts and supplies.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in repair of electrical systems (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in repair of electrical systems (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in repair of electrical systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in shop management, and 3 in human relations (5/76).

MOS-65G-001

RAILWAY SECTION REPAIRER
(RAILWAY SECTION REPAIRMAN)

65G10
65G20
65G30
65G40

Exhibit Dates: 3/76–9/87. (MOS 65G has been redesignated MOS 88T; see exhibit MOS-88T-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Performs and/or supervises maintenance, repair and clean-up of railway tracks, roadbeds, switches, and other railway facilities. *Skill Level 10:* Performs inspection, repair, clean-up, and maintenance of railway right-of-way and adjoining structures including switches, signals, degree of elevation, track curvature, and tie spacing; controls the issuing of repair and maintenance equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; determines need for repair and construction equipment and arranges for movement to job site; conducts on-the-job training in minor repairs, emphasizing safety to both train and work repair crews; supervises limited size maintenance, repair, and clean-up crews. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-sized crews (normally 29-38 subordinate personnel or 2 section gangs); adjusts work assignments to best reflect capabilities of subordinate personnel; prepares reports relating to the maintenance, repairs, and clean-up of railway right-of-way facilities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the maintenance, repair, and clean-up activities of a large-scale railway facility, normally consisting of more than 39 subordinate personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in railroad operations (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in railroad operations (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 7 semester hours in railroad operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 7 semester hours in railroad operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 6 for field experience in management (5/76).

MOS-65H-001

LOCOMOTIVE OPERATOR

65H10
65H20
65H30
65H40

Exhibit Dates: 3/76–9/87. (MOS 65H has been redesignated MOS 88U; see exhibit MOS-88U-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Operates steam, electric, and diesel-electric locomotives and related equipment. *Skill Level 10:* Operates steam, electric, and diesel-electric locomotives and related equipment; fires and sustains steam pressure by either hand or stoker firing of coal-burning locomotives; and assists in performing the duties required for Skill Level 20. *Skill Level 20:* Able to perform the duties required for Skill Level 10; interprets specific operating instructions; efficiently operates locomotives and trains, observing appropriate gauges and meters; lubricates moving parts of locomotive; interprets and executes operating instructions; inspects equipment for proper operating condition; interprets train orders; compiles performance and delay reports for each trip; submits locomotive inspection reports, noting needed corrective action for defects. *Skill Level 30:* Able to perform the duties required for Skill Level 20; reviews operation and inspection reports; investigates schedule delays, accidents, and unusual operating incidents and recommends corrective action; assigns specific duties to locomotive operators and other crewmen, and monitors performance of these personnel; provides on-the-job training; enforces safety procedures; coordinates maintenance of locomotives; prepares technical, personnel, and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of steam, electric, and diesel-electric locomotives and related equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in steam, electric, and diesel-electric mechanics, 3 in operation and maintenance of locomotive engines, and 3 in railway safety (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in steam, electric, and diesel-electric mechanics, 3 in operation and maintenance of locomotive engines, and 3 in railway safety (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in operation and maintenance of locomotive engines, 3 in steam, electric, and diesel mechanics, and 3 in railway safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 in report writing, and 1 in safety (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, 3 in report writing, and 1 in safety (5/76).

MOS-65J-001

TRAINSMAN

65J10
65J20
65J40

Exhibit Dates: 10/73–2/76.

Career Management Field: 65 (Transportation), subfield 654 (Railway).

Description

Summary: Serves as yardmaster, conductor, or brakeman in the make-up and movement of railway cars and trains. *Skill Level 10:* Assists in disassembly, cleaning, and reassembly of major components of locomotives and cars; moves tools and supplies to and from worksites; positions and braces heavy material or parts for repairmen; lubricates locomotives and cars; services storage batteries. *Skill Level 20:* Performs as brakeman in car coupling and uncoupling operations; lubricates cars and insures that they are properly loaded, braced, and lashed; prepares reports, lists, and records of yard and road railway operations. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises brakeman operations and serves as conductor and yardmaster in the movement and makeup of railway cars and trains, receives and prepares required train orders, forms, and records; conducts on-the-job training.

Recommendation, Skill Level 10

Credit on the basis of institutional evaluation. NOTE: Skill Level 10 was not evaluated during the time period of this exhibit, because it was added to MOS 65J in 3/75, one month after Skill Levels 20 and 40 were evaluated.

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in railroad operation (brakeman) (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in railroad operation (conductor and yardmaster). In the lower-division baccalaureate/associate degree category, 6 semester hours in management (2/75).

MOS-65J-002

TRAIN CREW MEMBER
(TRAINMAN)

65J10

65J20

65J30

65J40

Exhibit Dates: 3/76–9/87. (MOS 65J has been redesignated MOS 88V; see exhibit MOS-88V-001.)

Career Management Field: 64 (Transportation), subfield 653 (Railway Operations).

Description

Summary: Serves as yardmaster, conductor, or brakeman in the make-up and movement of railway cars and trains. *Skill Level 10:* Performs as a brakeman; receives orders for switching and performs car coupling and uncoupling operations; applies safety rules; gives and interprets railway signals for train control and operation; places placarded cars in trains and insures that cars are properly loaded and lashed for safe handling; prepares and interprets train orders; prepares reports and forms for yard and railway operations; inspects rolling stock to determine operating condition. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a conductor; supervises the operation of a railroad train and coordinates train movements; reviews and interprets train orders and time tables; instructs and supervises enginemen and brakemen in connecting and disconnecting trains and cars and switching cars to sidings or spurs. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as an assistant yardmaster; supervises and trains personnel in railway yard operation, including the handling, classification, and switching of trains and cars; maintains record of daily movement of railway cars; assures adherence to railway safety procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports covering railway yard activities. *Skill Level 40:* Supervises railway yard operations by performing the duties required for Skill Level 30 at a higher level, normally supervising two Skill Level 30 yardmasters.

Recommendation, Skill Level 10

In the vocational certificate category, 7 semester hours in the make-up and movement of railway cars and trains (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 13 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in human relations (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 6 for field experience in management (5/76).

MOS-65K-001

RAILWAY MOVEMENT COORDINATOR

65K10

65K20

65K30

65K40

Exhibit Dates: 3/76–9/87. (MOS 65K has been redesignated MOS 88W; see exhibit MOS-88W-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Summary: Supervises train dispatching or operates railway stations, railway signals and switches, and assists in control and coordination of train movements. *Skill Level 10:* Accounts for car and train movements by compiling records reflecting locations of all rolling stock; keeps records of arriving and departing trains; computes operational and statistical reports on traffic volume, demurrage, expediting, and train movements; requisitions cars, supervises loading, compiles and checks bills of lading (waybills), and seals cars; receives requisitions for empty cars and directs movement to loading areas; establishes liaison with other operating personnel and civilian carrier operating personnel to insure safe and prompt handling of freight. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises receipt and transmission of messages relating to train movements; reviews transit time; coordinates and arranges for train crews; establishes close liaison with representatives of civilian and military railroads; supervises on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides staff supervision to lower-grade personnel in railway operating activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management, 3 in personnel supervision, and 3 in human relations (5/76).

MOS-65Z-001

RAILWAY SENIOR SERGEANT

65Z50

Exhibit Dates: 10/73–9/87. (MOS 65Z has been redesignated MOS 88X; see exhibit MOS-88X-001.)

Career Management Field: 64 (Transportation), subfield 643 (Railway Operations).

Description

Skill Level 50: Supervises and coordinates maintenance-of-way and maintenance of equipment and railway operations, including the overall supervision of 65B40 (Locomotive Repairman), 65D40 (Railway Car Repairman), 65G40 (Railway Section Repairman), 65H40 (Locomotive Operator), 65J40 (Trainman), and 65K40 (Railway Movement Coordinator) personnel; advises superiors on all matters relating to operations, maintenance, and repair; monitors and controls railway passenger and freight traffic; prepares operational reports, training material, and programs.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in records administration, 3 in personnel management, 3 in human relations, 3 for field experience in management, 3 in maintenance management, 3 in introduction to management, and 6 in transportation management (5/76).

MOS-66G-001

UTILITY AIRPLANE TECHNICAL INSPECTOR
UTILITY/CARGO AIRPLANE
TECHNICAL INSPECTOR

66G20

66G30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66G was discontinued and its duties were incorporated into MOS 67G, Utility Airplane Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on utility or cargo airplanes to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66G20 from 67G20, Utility Airplane Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in

aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66H-001

OBSERVATION AIRPLANE TECHNICAL INSPECTOR

66H20

66H30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66H was discontinued and its duties were incorporated into MOS 67H, Observation Airplane Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on observation airplanes to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66H20 from 67H20, Observation Airplane Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66J-001

AIRCRAFT ARMAMENT TECHNICAL INSPECTOR

66J30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66J was discontinued and its duties were incorporated into MOS 68J, Aircraft Armament/Missile Systems Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Performs duties as an aircraft armament technical inspector; inspects and makes operational checks on armament systems and subsystems to isolate malfunctions using special test sets and applicable manuals and publications; plans and directs inspection activities; performs maintenance trend analysis; provides technical guidance and training to armament repairers on proper maintenance techniques and procedures; participates in armament system test flights. NOTE: Progressed to 66J30 from 68J30, Aircraft Fire Control Repairer.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in quality control, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66N-001

UTILITY HELICOPTER TECHNICAL INSPECTOR

66N20

66N30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66N was discontinued and its duties were incorporated into MOS 67N, UH-1 Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on UH-1 utility helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66N20 from 67N20, Utility Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66R-001

AH-64 ATTACK HELICOPTER TECHNICAL INSPECTOR

66R20

66R30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66R was discontinued and its duties were incorporated into MOS 67R, AH-64 Attack Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on AH-64 attack helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66R20 from 67R20, AH-64 Attack Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66S-001

SCOUT HELICOPTER TECHNICAL INSPECTOR

66S20

66S30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66S was discontinued and its duties were incorporated into MOS 67S, OH-58D Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on OH-58D scout helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66S20 from 67S20, Scout Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66T-001

TACTICAL TRANSPORT HELICOPTER TECHNICAL INSPECTOR

66T20

66T30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66T was discontinued and its duties were incorporated into MOS 67T, UH-60 Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on UH-60 tactical transport helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66T20 from 67T20, Tactical Transport Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66U-001

MEDIUM HELICOPTER TECHNICAL INSPECTOR

66U20

66U30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66U was discontinued and its duties were incorporated into MOS 67U, CH-47 Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on CH-47 medium helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66U20 from 67U20, Medium Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66V-001

OBSERVATION/SCOUT HELICOPTER TECHNICAL INSPECTOR

66V20

66V30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66V was discontinued and its duties were incorporated into MOS 67V, Observation/Scout Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on OH-58A/C observation/scout helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66V20 from 67V20, Observation/Scout Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66X-001

HEAVY LIFT HELICOPTER TECHNICAL INSPECTOR

66X20

66X30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66X was discontinued and its duties were incorporated into MOS 67X, Heavy Lift Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on CH-54 heavy lift helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66X20 from 67X20, Heavy Lift Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-66Y-001

AH-1 ATTACK HELICOPTER TECHNICAL INSPECTOR

66Y20

66Y30

Exhibit Dates: 3/84–3/90. (Effective 3/90, MOS 66Y was discontinued and its duties were incorporated into MOS 67Y, AH-1 Attack Helicopter Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs technical inspections on AH-1 attack helicopters to determine maintenance requiements and to insure that appropriate maintenance has been performed. *Skill Level 20:* Trains and provides technical guidance to repairers on proper maintenance techniques and safety procedures; checks airplane flight and maintenance records to determine adherence to prescribed maintenance standards; maintains technical library; inspects sytems, subsystems, and components according to applicable technical publications and checklists before, during, and after airplane maintenance and modifications; computes basic aircraft weight and balance records; checks and troubleshoots systems; participates in maintenance test flights; annotates records of required maintenance; evaluates operational readiness of airplanes and recommends corrective action; inspects crash-damaged airplanes and estimates time, parts, and costs to repair; insures compliance with aircraft configuration control, Army Oil Analysis Program and test measuring and diagnostic calibration. NOTE: Progressed to 66Y20 from 67Y20, AH-1 Attack Helicopter Repairer. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans, directs, and supervises technical inspections; provides technical guidance to subordinate personnel; evaluates technical training programs; prepares evaluation reports on subordinate personnel; performs maintenance trend analysis and checks maintenance supply documents to insure compliance with product quality control standards.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, and 3 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 3 in technical electives, 3 in aviation maintenance management, 3 in quality control, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

MOS-67B-001

O-1/U-6 AIRPLANE REPAIRMAN

67B20

67B40

Exhibit Dates: 9/75–2/77. (Effective 3/77, MOS 67B was discontinued and its functions were incorporated into MOS 67G, Airplane Repairer.)

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance, excluding any repair of system components, on 0-1 and U-6 airplanes; supervises or serves as crewman in target aircraft units. *Skill Level 20:* Readies, assists in launching, and conducts scheduled and special inspections of target aircraft; diagnoses operational defects, services systems, and adjusts or replaces parts or assemblies as authorized by maintenance doctrine and maintenance allocation charts; tightens, adjusts, removes, and replaces components, assemblies and subassemblies with common and special tools and precision measuring instruments; removes and replaces defective engine carburetors, fuselage components, seat belts, shoulder harnesses, seats, upholstery, propeller accessories, hydraulic system components, gages, and instruments; adjusts and replaces electrical system components; installs spark plugs, engines, cowlings, horizontal and vertical stabilizers, battery, wings, parachute, and parachute release mechanism on target aircraft for launching; maintains target aircraft engines, airframes, and wings; performs preflight checkout of target aircraft. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel involved in the launch, remote control, and recovery of target aircraft; plans work flow; applies production control, quality control, and other maintenance management principles and procedures to shop operations; keeps records on aircraft maintenance operations; estimates man-hour and parts requirements to repair airplanes and associated equipment; performs duties of airfield service supervisor; conducts on-the-job training; prepares, reviews, and consolidates technical and administrative reports pertaining to target aircraft equipment maintenance.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in basic airframe maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology or aviation maintenance management (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in basic airframe maintenance, 3 in shop procedures and practices, and 1 in technical writing. In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance management or airframe systems management, 3 in shop procedures and practices, 3 in personnel supervision, 1 in technical writing, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was maintenance supervisor section chief, section sergeant, or maintenance supervisor platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67C-001

U-1A Airplane Repairman

67C20
67C40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 67C was discontinued and its functions were incorporated into MOS 67G, Airplane Repairer.)

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance, excluding any repair of system components, on U-1A airplanes. *Skill Level 20:* Performs maintenance on airplanes, including inspecting, checking, troubleshooting, and repairing malfunctions in the airframe, powerplant, and their associated systems; uses common and special tools and precision measuring instruments; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints; loads, lashes, and unloads cargo. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises organizational, direct, and general support maintenance activities and applies production control, quality control, and other maintenance management principles and procedures to shop operations; evaluates damage and estimates man-hour and parts requirements to repair airplanes and associated equipment; instructs lower-skill-level personnel in safety principles and procedures; prepares forms, records, and reports on aircraft maintenance operations.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in basic airframe maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology or aviation maintenance management (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in basic airframe maintenance and 3 in shop practices and procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance management or airframe systems management, 3 in shop practices and procedures, 3 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was either maintenance supervisor section chief or maintenance supervisor platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67F-001

Airplane Technical Inspector

67F20
67F40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 67F was discontinued and its functions were incorporated into MOS 67W, Aircraft Quality Control Supervisor.)

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs technical inspections on fixed-wing airplanes. *Skill Level 20:* Determines maintenance required and ensures that maintenance has been properly performed in accordance with prescribed standards; conducts operational checks and troubleshoots aircraft systems; advises repairmen on proper maintenance standards and procedures; maintains records and technical library; interprets technical publications and solves problems arising in aircraft maintenance and modification; applies quality control techniques. NOTE: Must be able to perform the duties of Skill Level 20 of any fixed-wing aircraft maintenance MOS. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is the principal noncommissioned officer in an aviation maintenance unit; applies quality control techniques and procedures to maintenance operations; plans, directs, schedules, and supervises aircraft inspection activities; instructs and advises personnel in inspection techniques and quality control procedures; evaluates damaged aircraft and estimates man-hour, personnel, and equipment requirements to repair fixed-wing aircraft.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance and 6 in technical electives. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 6 in technical electives (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 20 semester hours in aircraft maintenance, 6 in technical electives, and 5 in quality control. In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 6 in technical electives, 5 in quality control, and 3 in personnel management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management, 6 in technical electives, and 3 in personnel management (11/75).

MOS-67G-001

U-8/U-21 Airplane Repairman

67G20
67G40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs line and shop maintenance, excluding any repair of system components, on U-8 and U-21 airplane. *Skill Level 20:* Performs maintenance on aircraft systems, ground support equipment, landing gear, power plant (reciprocating and turboprop) and related systems, hydraulic and related systems, propellers, flight controls, instruments, electrical systems, and accessories. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance; plans work flow; applies production control, quality control, and other maintenance management principles and procedures to line and shop operations; prepares records and reports on aircraft maintenance operations; utilizes and enforces safety principles and procedures.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in basic airframe maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology or aviation maintenance management (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in basic airframe maintenance. In the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 4 semester hours in aviation maintenance management or airframe systems management (2/75).

MOS-67G-002

Airplane Repairer

67G10
67G20
67G30

Exhibit Dates: 3/77–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises line and shop maintenance of light aircraft excluding any repair of system components, or conducts maintenance inspections. *Skill Level 10:* Performs maintenance and minor repair on aircraft systems, ground support equipment, accessories and appliances of fixed-wing light aircraft; prepares aircraft for extensive inspections by removing inspection plates, panels, floorboards, and auxiliary equipment; removes and replaces subsystem components including starters, generators, inventers, voltage regulators, lights, batteries, pumps, reservoirs, valves, hydraulic cylinders, and hoses; assists in removal and installation of subsystem assemblies such as engines, propellers, and main wheels; uses aircraft maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a crew chief on light fixed-wing aircraft; provides technical guidance to Skill Level 10 personnel; removes and replaces major components; performs maintenance operational checks; diagnoses and troubleshoots all systems on light-wing aircraft; uses and interprets technical manuals, directives, work standards, and operational policies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may serve as a technical inspector on light fixed-wing aircraft; plans work flow; applies quality control principles and other maintenance management principles to shop and flight line operations; supervises and evaluates work performance in aircraft maintenance, supply, and safety techniques; assists in performing aircraft weight and balance checks.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in general aircraft maintenance and repair. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in general aircraft maintenance and repair. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in general aircraft maintenance and repair. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology, 2 in aviation maintenance management, 3 in human relations (or a management elective), and 2 in quality control; if the duty position was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management, or 9 semester hours in management electives (5/78).

MOS-67G-003

Utility/Cargo Airplane Repairer

67G10
67G20
67G30
67G40

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Supervises and performs maintenance on utility airplanes at the unit, intermediate, and component levels, excluding repair of system components. *Skill Level 10:* Performs air crewmember duties, removes and installs sub-system such as engines, propellers, and landing gear; removes and installs components including starters, generators, inverters, batteries, pumps and hydraulic units; services and lubricates the airplane and the airplane sub-systems; prepares airplane for maintenance inspections; performs scheduled and special inspections and maintenance checks; assists in diagnosing and troubleshooting; prepares airplane for air or surface shipment and taxis aircraft; uses and performs maintenance on ground support equipment and special tools; prepares forms, records and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs maintenance and operational checks and scheduled inspections; accomplishes diagnostic and troubleshooting duties on aircraft sub-systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies production and quality control and other management principles to shop and flight line operation; plans work flow; instructs personnel and conducts training programs in maintenance, supply, and safety techniques; supervises the preparation of forms, records and reports on aircraft maintenance and supply procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the training of personnel; prepares evaluations, special reports, and maintenance records; plans and lays out airplane maintenance areas, repair shops, and facilities requirements; assists in the preparation of plans and policies and controls the flow of work orders, requisitions, and correspondence.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology and 3 in personnel supervision (10/84).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology, 3 in personnel supervision, and 3 in aircraft maintenance management (10/84).

MOS-67H-001

OV-1 Airplane Repairman

67H20
67H40

Exhibit Dates: 10/73–8/81.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance, excluding any teardown repair of system components, on OV-1 airplanes. *Skill Level 20:* Performs maintenance on airplanes, including inspecting, checking, troubleshooting, and repairing malfunctions of components or units in the airframe, powerplant, and their associated systems; uses hand and power tools, special tools, precision measuring instruments, and diagnostic test equipment; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints. *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans workflow; evaluates damage and estimates man-hour and parts requirements to repair OV-1 airplanes and associated equipment; applies production control, quality control, and other maintenance management principles and procedures to shop operations; prepares forms, records, and reports on aircraft maintenance operations; provides instruction in safety principles, procedures, and techniques.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic airframe maintenance or basic airplane maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance technology or aviation maintenance management (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in basic airframe maintenance or basic airplane maintenance, 3 in shop practices and procedures, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance management or airframe systems management, 3 in shop practices and procedures, 3 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was either maintenance supervisor section sergeant or maintenance supervisor platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67H-002

Observation Airplane Repairer

67H10
67H20
67H30

Exhibit Dates: 9/81–3/89.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Supervises and performs maintenance on observation airplanes at the unit, intermediate, and component levels, excluding repair of system components. *Skill Level 10:* Removes and installs sub-system assemblies such as engine, propellers, and landing gear; removes and installs components including starters, generators, inverters, batteries, pumps, and hydraulic units; services and lubricates the airplane and the airplane sub-systems; prepares airplane for maintenance inspections; performs scheduled and special inspections and maintenance checks; assists in diagnosing and troubleshooting; prepares airplane for air or surface shipment and taxis aircraft; uses and performs maintenance on ground support equipment and special tools; prepares forms, records, and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs maintenance and operational checks and scheduled inspections; accomplishes diagnostic and troubleshooting duties on aircraft sub-systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies production and quality control and other management principles to shop and flight line operation; plans work flow; instructs personnel and conducts training programs in maintenance, supply, and safety techniques; supervises the preparation of forms, records, and reports on aircraft maintenance and supply procedures.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology and 3 in personnel supervision (10/84).

MOS-67H-003

Observation Airplane Repairer

67H10
67H20
67H30
67H40

Exhibit Dates: 3/89–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Supervises and performs maintenance on observation airplanes at the unit, intermediate, and component levels, excluding repair of system components. *Skill Level 10:* Removes and installs sub-system assemblies such as engine, propellers, and landing gear; removes and installs components including starters, generators, inverters, batteries, pumps, and hydraulic units; services and lubricates the airplane and the airplane sub-systems; prepares airplane for maintenance inspections; performs scheduled and special inspections and maintenance checks; assists in diagnosing and troubleshooting; prepares airplane for air or surface shipment and taxis aircraft; uses and performs maintenance on ground support equipment and special tools; prepares forms, records, and reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs maintenance and operational checks and scheduled inspections; accomplishes diagnostic and troubleshooting duties on aircraft sub-systems. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies production and quality control and other management principles to shop and flight line operation; plans work flow; instructs personnel and conducts training programs in maintenance, supply, and safety techniques; supervises the preparation of forms, records, and reports on aircraft maintenance and supply procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the training of personnel; prepares evaluations, special reports, and maintenance records; plans and lays out airplane maintenance areas, repair shops, and facilities requirements; assists in the preparation of plans and policies and controls the flow of work orders, requisitions, and correspondence.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology (10/84).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology and 3 in personnel supervision (10/84).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in aircraft maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance technology, 3 in personnel supervision, and 3 in aircraft maintenance management (10/84).

MOS-67N-001

UH-1 Helicopter Repairman

67N20
67N40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance on UH-1 helicopters. *Skill Level 20:* Inspects, replaces, and repairs parts of the UH-1 helicopter; conducts scheduled and special inspections; troubleshoots and diagnoses all systems to detect malfunctions and isolate defective components; uses common and special tools and precision measuring instruments. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor; applies maintenance management principles and procedures to shop operations; prepares forms, records, and reports on aircraft maintenance operations; supervises a minimum of six subordinates; employs shop safety principles and procedures; evaluates damage and estimates repair requirements; does more complicated repair work; performs duties of airfield service supervisor.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic helicopter maintenance and 3 in shop practices and procedures. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 1 in records administration, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management principles or personnel administration (2/75).

MOS-67N-002

Utility Helicopter Repairer

67N10
67N20
67N30

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on utility helicopters, excluding repairs of systems components, or conducts maintenance inspections. *Skill Level 10:* Assists in the removal and installation of subsystem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopters for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of utility helicopter crew chief. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as utility helicopter crew chief; provides technical guidance to Skill Level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on utility helicopters; plans work flow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance, and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance, 2 in aviation maintenance management, 3 in human relations (or a management elective), and 2 in quality control; if the duty position was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management; or 9 semester hours in management electives (5/78).

MOS-67R-001

AH-64 Attack Helicopter Repairer

67R10
67R20
67R30
67R40

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on attack helicopters, excluding repairs of system components. *Skill Level 10:* Assists in the removal and installation of subsytem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopter for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of attack helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as attack helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on attack helicopters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft; if duty position is section chief, serves as the principal noncommissioned officer in a section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all maintenance activities; diagnoses complex malfunctions; determines personnel and parts requirements; coordinates work schedules and assigns duties; applies production, quality control, and other maintenance management principles and procedures; prepares evaluations, special reports, and maintenance records; supervises technical training programs; assists in the preparation of plans and policies; controls the flow of work orders, requisitions, and correspondence; plans the layout of helicopter maintenance areas, shops, and facilities. NOTE: May have progressed to 67R40 from 67R30, 66R30, AH-64 Attack Helicopter Technical Inspector, 67S30, Scout Helicopter Repairer, or 66S30, Scout Helicopter Technical Inspector.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, and 3 in personnel supervision; if duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, 6 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67S-001

OH-58D Helicopter Repairer
(Scout Helicopter Repairer)

67S10
67S20
67S30

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on scout helicopters, excluding repairs of system components. *Skill Level 10:* Assists in the removal and installation of subsystem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopters for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenace forms and records; may perform duties of scout helicopter crew chief. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as scout helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on utility helicopters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft; if duty position is section chief, serves as the principal noncommissioned officer in a section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, and 3 in personnel supervision; if duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67T-001

Tactical Transport Helicopter Repairer

67T10
67T20
67T30

Exhibit Dates: 9/78–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on tactical transport helicopters, excluding repairs of system components, or conducts maintenance inspections. *Skill Level 10:* Assists in the removal and installation of subsystem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopters for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of utility helicopter crew chief. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as tactical transport helicopter crew chief; provides technical guidance to Skill Level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on utility helicppters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter maintenance (9/81).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (9/81).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance, 2 in aviation maintenance management, and 3 in personnel supervision; if the duty assignment was maintenance supervisor section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management; or 9 semester hours in management electives (9/81).

MOS-67T-002

UH-60 Helicopter Repairer
(Tactical Transport Helicopter Repairer)

67T10
67T20
67T30
67T40

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on tactical transport helicopters, excluding repairs of system components. *Skill Level 10:* Assists in the removal and installation of subsytem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopter for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of tactical transport helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as tactical transport helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on tactical transport helicopters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft; if duty position is section chief, serves as the principal noncommissioned officer in a section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all maintenance activities; diagnoses complex malfunctions; determines personnel and parts requirements; coordinates work schedules and assigns duties; applies production, quality control, and other maintenance management principles and procedures; prepares evaluations, special reports, and maintenance records; supervises technical training programs; assists in the preparation of plans and policies; controls the flow of work orders, requisitions, and correspondence; plans the layout of helicopter maintenance areas, shops, and facilities. NOTE: May have progressed to 67T40 from 67T30, 66T30, Tactical Transport Helicopter Technical Inspector, 67N30, Utility Helicopter Repairer, or 66N30, Utility Helicopter Technical Inspector.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, and 3 in personnel supervision; if duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 4 semester hours in basic helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, 6 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67U-001

CH-47 HELICOPTER REPAIRMAN

67U20
67U40

Exhibit Dates: 10/73-2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises helicopter maintenance, excluding any teardown repair of system components, on CH-47 helicopters. *Skill Level 20:* Performs maintenance on helicopters, including inspecting, checking, troubleshooting, and repairing malfunctions of components or units in the airframe, powerplant, and their associated system; uses hand and power tools, special tools, precision measuring instruments, and diagnostic test equipment; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; applies production control and other maintenance management principles and procedures to shop operations; evaluates damage and estimates man-hour and parts requirements to repair CH-47 helicopters and associated equipment; prepares forms, records, and reports on aircraft maintenance operations.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, 3 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was either maintenance supervisor section chief or maintenance supervisor section platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67U-002

MEDIUM HELICOPTER REPAIRER

67U10
67U20
67U30

Exhibit Dates: 3/77-2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance on medium helicopters, excluding the repair of system components, or conducts maintenance inspections. *Skill Level 10:* Performs medium helicopter maintenance; assists in the removal and installation of subsystem assemblies such as engines, transmissions, gearboxes, roter hubs, and rotor blades; prepares helicopters for major inspections; assists in maintenance operational checks; uses maintenance forms and records; may perform duties of medium helicopter crew chief. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs maintenance operational checks; performs all scheduled and special aircraft inspection maintenance tasks; prepares maintenance forms and records; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs maintenance on cargo (heavy) helicopters; may serve as aircraft technical inspector; plans work flow; applies quality control, production control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; assists in performing weight and balance checks; monitors maintenance operational checks and test flights; certifies airworthiness of the aircraft.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance, 2 in aviation maintenance management, 3 in human relations (or a management elective), and 2 in quality control; if the duty position was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management; or 9 semester hours in management electives (5/78).

MOS-67U-003

CH-47 HELICOPTER REPAIRER
(MEDIUM HELICOPTER REPAIRER)

67U10
67U20
67U30
67U40

Exhibit Dates: 3/84-Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on medium helicopters, excluding repairs of system components. *Skill Level 10:* Assists in the removal and installation of subsytem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopter for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of medium helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as medium helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on medium helicopters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft; if duty position is section chief, serves as the principal noncommissioned officer in a section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all maintenance activities; diagnoses complex malfunctions; determines personnel and parts requirements; coordinates work schedules and assigns duties; applies production, quality control, and other maintenance management principles and procedures; prepares evaluations, special reports, and maintenance records; supervises technical training programs; assists in the preparation of plans and policies; controls the flow of work orders, requisitions, and correspondence; plans the layout of helicopter maintenance areas, shops, and facilities. NOTE: May have progressed to 67U40 from 67U30, 66U30, Medium Helicopter Technical Inspector, 67X30, Heavy Lift Helicopter Repairer, or 66X30, Heavy Lift Helicopter Technical Inspector.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, and 3 in personnel supervision; if duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, 6 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67V-001

OH-6/OH-58 Helicopter Repairman

67V20

67V40

Exhibit Dates: 3/74–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance, excluding any teardown repair of system components, on OH-6/OH-58 helicopters. *Skill Level 20:* Performs maintenance on helicopters, including inspecting, checking, troubleshooting, and repairing malfunctions of components or units in the airframe, powerplant, and their associated systems; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints; loads, lashes, and unloads cargo. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities and applies production control, quality control, and other maintenance management principles and procedures to shop operations; prepares forms, records, and reports on aircraft maintenance operations.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, 3 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was maintenance supervision platoon sergeant, 6 semester hours in aviation management, or 3 semester hours in introduction to management and 3 for field experience in managment (11/75).

MOS-67V-002

Observation/Scout Helicopter
Repairer

67V10

67V20

67V30

Exhibit Dates: 3/77–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance on observation/scout helicopters, excluding the repair of systems components, or conducts maintenance inspections. *Skill Level 10:* Performs maintenance on observation/scout helicopters; assists in the removal and installation of subsystem assemblies such as engines, transmissions, gearboxes, rotor hubs and rotor blades; prepares helicopters for major inspections; assists in maintenance operational checks; uses maintenance form and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs maintenance operational inspection checks; troubleshoots rotor system malfunctions; performs all scheduled and special aircraft inspection maintenance tasks; prepares maintenance forms and records; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may serve as aircraft technical inspector; applies quality control, production control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; assists in performing weight and balance checks; monitors maintenance operational checks and test flights; certifies airworthiness of aircraft.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance, 2 in aviation maintenance management, 3 in human relations (or a management elective), and 2 in quality control; if the duty position was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management; or 9 semester hours in management electives (5/78).

MOS-67V-003

Observation/Scout Helicopter
Repairer

67V10

67V20

67V30

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Supervises or performs maintenance on observation/scout helicopters, excluding the repair of systems components. *Skill Level 10:* Performs maintenance on observation/scout helicopters; assists in the removal and installation of subsystem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopters for major inspections; assists in maintenance operational checks; uses maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to skill level 10 personnel; performs maintenance operational inspection checks; troubleshoots rotor system malfunctions; performs all scheduled and special aircraft inspection maintenance tasks; prepares maintenance forms and records; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies quality control, production control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; assists in performing weight and balance checks; monitors maintenance operational checks and test flights; certifies airworthiness of aircraft; if duty position is section chief, serves as the principle noncommissioned officer in a section.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance, 2 in quality control, 3 in aviation maintenance management, and 3 in personnel supervision; if the duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67W-001

Helicopter Technical Inspector

67W20

67W40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs technical inspections on rotory-wing aircraft and life support equipment. *Skill Level 20:* Performs technical inspections on rotary-wing aircraft to determine maintenance requirements and to insure that maintenance has been properly performed in accordance with prescribed standards; conducts operational checks and troubleshoots helicopter systems; advises repairmen on proper maintenance standards and procedures; maintains records and technical library; interprets technical publications and resolves problems arising in helicopter maintenance and modification; applies quality control techniques. NOTE: Required to have attained Skill Level 20 in at least one rotary-wing aircraft maintenance MOS (67N, U, V, X, or Y). *Skill Level 40:* Able to perform the duties required for Skill Level 20; acts as the principal non-commissioned officer in an aviation maintenance battalion, group, or higher headquarters for helicopter inspection; supervises maintenance personnel; plans, directs, and supervises aircraft inspection activities; instructs and advises personnel in inspection techniques and quality control procedures; evaluates damaged aircraft and estimates man-hour, personnel, and equipment requirements to repair helicopters.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance and 6 in technical electives. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 6 in technical electives (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 20 semester hours in aircraft maintenance, 6 in technical electives, and 5 in quality control. In the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance, 6 in technical electives, 5 in quality control, and 3 in personnel management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management, 6 in technical electives, and 3 in personnel management (2/75).

MOS-67W-002

Aircraft Quality Control Supervisor

67W30

67W40

Exhibit Dates: 3/77–2/84. (Effective 3/84, MOS 67W was discontinued and its functions were incorporated into MOS's in the 66 series at paygrade E-6 and MOS's in the 67 series at paygrade E-7.)

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises or performs technical inspections on rotary-wing aircraft and life support equipment. *Skill Level 30:* Performs technical inspections on rotary-wing aircraft to determine maintenance requirements and insure maintenance has been properly performed in accordance with prescribed standards; conducts operational checks and troubleshoots helicopter systems; advises repairers on proper maintenance standards and procedures; maintains records and technical libraries; interprets technical publications and resolves problems arising in helicopter maintenance and modification; applies quality control techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as principal non-commissioned officer in an aviation maintenance unit; supervises maintenance personnel; plans, directs, and supervises aircraft inspection activities; instructs and advises personnel in inspection techniques and quality control procedures; evaluates damaged aircraft and estimates man-hour, personnel, and equipment requirements to repair helicopters.

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance and 6 for technical electives. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 6 for technical electives (5/78).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 20 semester hours in aircraft maintenance and 6 for technical electives. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management, 6 for technical electives, and 3 in production management (5/78).

MOS-67X-001

CH-54 Helicopter Repairman

67X20

67X40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises helicopter maintenance, excluding any teardown repair of system components, on CH-54 helicopters. *Skill Level 20:* Performs maintenance on helicopters, including inspecting, checking, troubleshooting, and repairing malfunctions of components or units in the airframe, powerplant, and their associated systems; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints; uses hand and power tools, precision measuring instruments, and diagnostic test equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities; applies production control, quality control, and other maintenance management principles and procedures to shop operations; prepares forms, records, and reports on aircraft maintenance operations; evaluates damage and estimates manhour and parts requirements to repair CH-54 helicopters and associated equipment; instructs in safety principles, procedures, and techniques.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, 3 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was either maintenance supervisor section chief or maintenance supervisor platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67X-002

Heavy Lift Helicopter Repairer

67X10

67X20

67X30

Exhibit Dates: 3/77–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises helicopter maintenance, excluding repair of system components. *Skill Level 10:* Performs maintenance and repair, including preparation for inspections and heavy-lift helicopters; removes and replaces subsystem components such as wheels, tires, starters, generators, inverters, voltage regulators, valves, hydraulic cylinders, and hoses; assists in maintenance operational checks; uses maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may serve as heavy lift helicopter crew chief; provides technical guidance to Skill Level 10 personnel; removes and replaces aircraft powerplant, powertrain components, flight controls, and flight control hydraulic components; troubleshoots rotor system malfunctions; performs maintenance operational checks; performs all scheduled and special inspection maintenance tasks; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans work flow; applies production control, quality control and other maintenance management principles to shop and flight line operations; prepares forms and records; performs technical inspections; certifies airworthiness of aircraft.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy) (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in basic helicopter maintenance (heavy). In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy) and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in basic helicopter maintenance (heavy). In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy), 2 in quality control, 2 in aviation maintenance management, and 3 in human relations; if the duty position was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management, or 9 semester hours in management electives (5/78).

MOS-67X-003

Heavy Lift Helicopter Repairer

67X10
67X20
67X30

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises helicopter maintenance, excluding repair of system components. *Skill Level 10:* Performs maintenance and repair, including preparation for inspections of heavy lift helicopters; removes and replaces subsystem components such as wheels, tires, starters, generators, inverters, voltage regulators, valves, hydraulic cylinders, and hoses; assists in maintenance operational checks; uses maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may serve as heavy lift helicopter crew chief; provides technical guidance to skill level 10 personnel; removes and replaces aircraft powerplant, powertrain components, flight controls, and flight control hydraulic components; troubleshoots rotor system malfunctions; performs maintenance operational checks; performs all scheduled and special inspection maintenance tasks; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans work flow; applies production control, quality control, and other maintenance management principles to shop and flight line operations; prepares forms and records; certifies airworthiness of aircraft.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy) (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy) and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in basic helicopter maintenance (heavy), 2 in quality control, 3 in aviation maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67Y-001

AH-1G Helicopter Repairman

67Y20
67Y40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance, excluding any teardown repair of system components, on AH-1G helicopters. *Skill Level 20:* Performs maintenance on helicopters, including inspecting, checking, troubleshooting, and repairing malfunctions of components or units in the airframe, powerplant, and associated systems; interprets wiring and schematic diagrams, complex technical instructions, plans, and blueprints; performs duties of crew chief. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises maintenance activities and supplies production control, quality control, and other maintenance management principles and procedures to shop operations; prepares forms, records, and reports on aircraft maintenance operations; evaluates damage and estimates man-hour and parts requirements to repair AH-1G helicopters and associated equipment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, and 1 in records administration. In the lower-division baccalaureate/associate degree category, 9 semester hours in basic helicopter maintenance, 3 in shop practices and procedures, 2 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, if the duty assignment was either maintenance supervisor section chief or maintenance supervisor platoon sergeant, 6 semester hours in aviation maintenance management, or 3 semester hours in introduction to management and 3 for field experience in management (11/75).

MOS-67Y-002

Attack Helicopter Repairer

67Y10
67Y20
67Y30

Exhibit Dates: 3/77–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Performs or supervises removal and installation of subsystem assemblies such as engines, transmissions, gearboxes, rotor hubs and rotor blades on attack helicopters, or conducts technical inspections. *Skill Level 10:* Assists in the performance of maintenance on helicopters, including inspecting, checking, troubleshooting and repairing malfunctions of components or units in the airframe, powerplant, and associated systems; prepares helicopters for extensive inspection and maintenance; uses and performs user maintenance on common and special tools and ground support equipment; prepares and uses maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; troubleshoots rotor system malfunctions; prepares maintenance forms and records; maintains ground support equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance; may perform as aircraft technical inspector; applies production control, quality control, and other maintenance management principles to shop and flight line operations; prepares forms, records, and reports on helicopter maintenance and supply operations; instructs personnel in helicopter maintenance, supply and safety techniques; performs technical inspections of aircraft before, during, and after repair or modification; monitors maintenance operational checks and test flights; certifies airworthiness of aircraft; assists in performing aircraft weight and balance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance and 2 in aviation maintenance management. In the upper-division baccalaureate category, 2 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in basic helicopter maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance, 2 in aviation maintenance management, 3 in human relations (or for a management elective), and 2 in quality control; if the duty assignment was maintenance supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management, 3 in personnel management, and 3 for field experience in management, or 9 semester hours in management electives (5/78).

MOS-67Y-003

AH-1 Attack Helicopter Repairer

67Y10

67Y20

67Y30

67Y40

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs or supervises maintenance on attack helicopters, excluding repairs of system components. *Skill Level 10:* Assists in the removal and installation of subsytem assemblies such as engines, transmissions, gear boxes, rotor hubs, and rotor blades; prepares helicopter for extensive inspections and maintenance; assists in maintenance operational checks; performs maintenance on common and special tools and ground support equipment; uses maintenance forms and records; may perform duties of attack helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as attack helicopter crew chief; provides technical guidance to skill level 10 personnel; maintains ground support equipment; prepares maintenance forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises all maintenance on attack helicopters; plans workflow; applies production control, quality control, and other maintenance management principles to shop, flight line, and supply operations; instructs personnel, and conducts on-the-job training programs in helicopter maintenance, supply, and safety techniques; evaluates work performance; monitors operational checks and test flights; certifies airworthiness of the aircraft; if duty position is section chief, serves as the principal noncommissioned officer in a section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all maintenance activities; diagnoses complex malfunctions; determines personnel and parts requirements; coordinates work schedules and assigns duties; applies production, quality control, and other maintenance management principles and procedures; prepares evaluations, special reports, and maintenance records; supervises technical training programs; assists in the preparation of plans and policies; controls the flow of work orders, requisitions, and correspondence; plans the layout of helicopter maintenance areas, shops, and facilities. NOTE: May have progressed to 67Y40 from 67Y30, 66Y30, AH-1 Attack Helicopter Technical Inspector, 67V30, Observation/Scout Helicopter Repairer, or 66V30, Observation/Scout Helicopter Technical Inspector.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance and 2 in aviation maintenance management (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, and 3 in personnel supervision; if duty position was section chief, 3 additional semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 7 semester hours in basic helicopter maintenance, 3 in aviation maintenance management, 2 in quality control, 6 in personnel supervision, and 1 in records administration. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-67Z-001

Aircraft Maintenance Senior Sergeant

67Z50

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Skill Level 50: Supervises fixed-wing aircraft and/or helicopter maintenance on any operational level with varying fleet sizes; plans, coordinates, and controls maintenance activities on a supervisory or management level in addition to perticipating in technical problem solving; when assigned to a unit in which no technical participation is involved, plans, coordinates, and controls personnel activities of varying organizational groups. NOTE: Must be able to perform the duties of Skill Level 40 of any MOS in the aviation maintenance career management field (67).

Recommendation, Skill Level 50

In the vocational certificate category, 20 semester hours in airframe maintenance (helicopter and fixed-wing), 20 in powerplant maintenance (helicopter and fixed-wing) and 20 in systems maintenance (helicopter and fixed-wing). In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe maintenance (helicopter and fixed-wing), 15 in powerplant maintenance (helicopter and fixed-wing), 15 in systems maintenence (helicopter and fixed-wing), 9 in technical electives, 3 in industrial organization, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in airframe maintenance (helicopter and fixed-wing), 3 in powerplant maintenance (helicopter and fixed-wing), 3 in systems maintenance (helicopter and fixed-wing), 3 in technical electives, 3 in production management, and 9 in aviation maintenance management or 3 in introduction to management and 6 for field experience in management (11/75).

MOS-67Z-002

Aircraft Maintenance Senior Sergeant

67Z40

67Z50

Exhibit Dates: 3/77–2/84.

Career Management Field: 67 (Aviation Maintenance), subfield 671 (Aircraft Maintenance).

Description

Summary: Supervises maintenance on fixed-wing aircraft and helicopters. *Skill Level 40:* Plans, coordinates, and controls maintenance activities; participates in technical problem-solving; supervises the preparation of work orders, requisitions, reports, and correspondence; applies production control and other maintenance management principles and procedures; advises in diagnosing complex malfunctions; assists in determining maintenance requirements; enforces shop safety principles and procedures. NOTE: May have progressed to 67Z40 from 67G30 (Airplane Repairer), 67N30 (Utility Helicopter Repairer), 67U30 (Medium Helicopter Repairer), 67V30 (Observation/Scout Helicopter Repairer), 67X30 (Heavy Lift Helicopter Repairer), or 67Y (Attack Helicopter Repairer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as principal noncommissioned officer of an aircraft maintenance unit; plans and lays out aircraft maintenance areas and component repair shops and facilities; insures that proper maintenance techniques have been employed by use of quality assurance inspections; supervises and participates in preparation of studies, evaluations, special reports, and records pertaining to aircraft maintenance and components repair operations, training, and related activities; applies production, quality control, and other maintenance management principles and procedures; processes work orders and allocates maintenance responsibilities. NOTE: May have progressed to 67Z50 from 67Z40 or 68K40 (Aircraft Component Repair Supervisor).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in maintenance supervision. In the lower-division baccalaureate/associate degree category, 3 semester hours for technical electives, 3 in personnel supervision, 3 in human relations, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in shop management, and 3 in introduction to management (5/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in shop management, and 3 in introduction to management (5/78).

MOS-67Z-003

Aircraft Maintenance Senior Sergeant

67Z50

Exhibit Dates: 3/84–Present.

Career Management Field: 67 (Aircraft Maintenance).

Description

Skill Level 50: Supervises aircraft maintenance at either unit, intermediate, or depot levels on activities having a mix of aircraft maintenance and/or component repair; serves as the principal noncommissioned officer in aircraft maintenance activities and may become first sergeant; plans and lays out aircraft maintenance areas and component repair shops and facilities; insures that proper maintenance techniques have been employed by use of quality assurance inspections; supervises and participates in preparation of studies, evaluations, special reports, and records pertaining to aircraft maintenance and component repair operations, training and related activities; applies production quality control, and other maintenance management principles and procedures; processes work orders and allocated maintenance responsibilities. NOTE: May have progressed to 67Z50 from 67G40, Utility Airplane Repairer, 67T40, Tactical Transport Helicopter Repairer, 67R40, AH-64 Attack Helicopter Repairer, 67H40, AH-1 Attack Helicopter Repairer, 67U40, Medium Helicopter Repairer, 68K40, Aircraft Components Repair Supervisor, or 68J40, Aircraft Fire Control Repairer.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing, 3 in applied psychology, and 3 in interpersonal communications. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 6 in management problems (7/87).

MOS-68B-001

AIRCRAFT TURBINE ENGINE REPAIRMAN

68B20
68B30
68B40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Maintains aircraft turbine (jet) engines and components. *Skill Level 20:* Diagnoses and corrects single turbine engine malfunctions; disassembles engines and components, examines parts and components for wear or damage, determines the type and extent of repairs required, and reassembles engines and components; adjusts engines to operate at peak efficiency; uses and interprets technical publications; uses diagnostic equipment; preserves and stores turbine engine system. *Skill Level 30:* Able to perform the duties required for Skill Level 20; reinstalls and rigs turbine engines on multiple turbine engines. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans the utilization and work flow of resources and facilities; applies production control, quality control, and other maintenance management principles and procedures; prepares records and technical reports; instructs personnel in engine maintenance and safety procedures; supervises the final adjustment of aircraft turbine engines.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and 6 in technical electives. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 16 semester hours in aircraft engine (turbine) maintenance and 6 in technical electives. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 16 semester hours in aircraft engine (turbine) maintenance, 6 in technical electives, and 3 in maintenance management. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

MOS-68B-002

AIRCRAFT POWERPLANT REPAIRER

68B10
68B20
68B30

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Performs or supervises maintenance on turbine engines and their components. *Skill Level 10:* Performs maintenance on turbine powerplants including assisting in powerplant removal; removes, replaces, services, prepares, preserves, and cleans engine assemblies or components; performs maintenance on ground support equipment; uses and performs maintenance on common and special tools; uses certain aircraft forms and records; prepares requests for turn-ins and repair parts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; applies troubleshooting techniques to diagnose malfunctions to specific engine components; disassembles, repairs, reassembles, adjusts, and tests turbine engine systems, subsystems and components; maintains select ground support equipment; performs maintenance on diagnostic equipment; prepares forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans work flow; applies production control, quality control, and other maintenance management principles and procedures to shop operations; prepares forms and records; conducts on-the-job training; supervises and evaluates work performance in powerplant maintenance; may serve as technical inspector; monitors shop and flight line safety.

Recommendation, Skill Level 10

In the vocational certificate category, 12 semester hours in turbine engine maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (or 12 in turbine engine maintenance and 3 for technical electives) (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 12 semester hours in turbine engine maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (or 12 in turbine engine maintenance and 3 for technical electives) and 3 in aviation maintenance management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in turbine engine maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (or 12 in turbine engine maintenance and 3 for technical electives), 3 in aviation maintenance management, 3 in quality control, 3 in flight safety, and 3 in human relations (or a management elective); if the duty assignment was aircraft powerplant repair supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 3 in personnel management (5/78).

MOS-68D-001

AIRCRAFT POWERTRAIN REPAIRMAN

68D20
68D40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Supervises or performs maintenance on aircraft powertrains and components. *Skill Level 20:* Diagnoses and locates malfunctions; removes, disassembles, repairs, and reinstalls powertrain components; insures proper clearances and alignment of parts utilizing shimming and precision measuring equipment; interprets technical literature, blueprints, and schematic diagrams; completes forms and maintains records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises up to 20 or more persons; plans work flow; applies production control, quality control, and other maintenance management principles and procedures to shop operations; instructs personnel in aircraft powertrain maintenance and safety techniques; supervises final alignment and adjustment of aircraft powertrain components.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in helicopter component maintenance and 3 in technical electives (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in helicopter component maintenance, 6 in technical electives, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours in helicopter component maintenance, 9 in technical electives, 3 in introduction to management, and 3 for field experience in management (11/75).

MOS-68D-002

AIRCRAFT POWERTRAIN REPAIRER

68D10
68D20
68D30

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Performs maintenance and repair, or supervises maintenance on helicopter powertrain subsystems and components. *Skill Level 10:* Performs maintenance and tests; assists with inspections on helicopter powertrain subsystems and components; removes and replaces powertrain quills, transmissions-adapting parts, and rotary wing hub oil tanks; obtains and prepares oil samples for analysis; applies corrosion preventive procedures; cleans, preserves, and stores components; performs maintenance on select ground support equipment; uses and performs maintenance on common and special tools; uses certain aircraft forms and records; prepares request for turn-in and repair parts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; applies troubleshooting techniques to diagnose malfunctions; performs nondestructive inspections on aircraft components; disassembles, repairs, reassembles, adjusts, and tests powertrain components, systems, and subsystems; balances main and tail rotor hub assembly and aligns main rotor and hub assembly; performs maintenance on diagnostic equipment; prepares forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may serve as technical inspector; plans work; applies production control, quality control, and other maintenance management principles; supervises and evaluates personnel work performance; conducts on-the-job training; monitors shop and flight line safety.

Recommendation, Skill Level 10

In the vocational certificate category, 12 semester hours in helicopter component maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (or 12 in helicopter component maintenance and 3 for technical electives) (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 12 semester hours in helicopter component maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours hours aviation maintenance technology (or 12 in helicopter component maintenance and 3 for technical electives), and 3 in aviation maintenance management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 12 semester hours in helicopter component maintenance and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (or 12 in helicopter component maintenance and 3 for technical electives), 3 in aviation maintenance management, 3 in quality control, 3 in flight safety and 3 in human relations (or a management elective); if the duty position was aircraft powertrain repair supervisor, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 3 in personnel management (5/78).

MOS-68E-001

AIRCRAFT ROTOR AND PROPELLER REPAIRMAN

68E20
68E30
68E40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 68E was discontinued and its duties were incorporated into MOS 68B, Aircraft Powerplant Repairer; 68D, Aircraft Powertrain Repairer; and 68G, Aircraft Structural Repairer.)

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises or performs maintenance on helicopter rotor blades, airplane propeller systems, and allied equipment. *Skill Level 20:* Performs maintenance on helicopter rotor blade assemblies and components; applies metal working and bonding techniques; balances and aligns main and tail rotor; applies hydraulic and electrical fundamentals in the repair, modification, and lubrication of propellers, rotor blades, assemblies and components; isolates malfunctions with special test equipment; utilizes non-destructive and precision test equipment; interprets technical literature, blueprints, and schematic diagrams; preserves and stores rotor blades and components; prepares forms, records, and reports; inspects and tests repaired units. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs direct and general support maintenance on fixed and constant speed propeller assemblies and components. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises direct and general support maintenance on helicopter rotor blades, airplane propeller systems and allied equipment; plans workflow in terms of resources and other maintenance management principles and procedures to shop operations; instructs personnel in rotor and propeller systems maintenance and safety techniques; supervises final alignment/adjustment of rotor and propeller systems.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in rotary wing and propeller maintenance and 3 in technical electives (11/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in rotary wing and propeller maintenance and 4 in technical electives (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in rotary wing and propeller maintenance, 6 in technical electives, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours in rotary wing and propeller maintenance, 9 in technical electives, 3 in introduction to management, and 3 for field experience in management (11/75).

MOS-68F-001

AIRCRAFT ELECTRICIAN

68F20
68F30
68F40

Exhibit Dates: 10/74–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises or performs maintenance on aircraft electrical/electronic systems and aircraft crew station instruments. *Skill Level 20:* Removes, disassembles, inspects, repairs, assembles, and reinstalls electrical/electronic elements of assemblies and components; applies troubleshooting techniques and diagnoses malfunctions in solid state and transistorized systems; repairs, replaces, splices, and solders electrical/electronic components; interprets technical literature, blueprints, and wiring schematic diagrams; prepares aircraft maintenance forms, records, and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies principles of electricity, electronics, gyroscopic motion, pneumatics, and hydraulics applicable to the repair of aircraft instruments; performs technical inspections to insure that completed repairs meet prescribed specifications; uses forms and records designed for quality control. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises up to 20 or more persons; plans work flow; orients and instructs personnel and conducts on-the-job training programs in aircraft electrical/electronic and instrument system maintenance, supply, and safety techniques.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft electrical system maintenance and 3 in technical electives (11/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft electrical system maintenance and 4 in technical electives (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft electrical system maintenance, 6 in technical electives, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours in aircraft electrical system maintenance, 9 in technical electives, 3 in introduction to management, and 3 for field experience in management (11/75).

MOS-68F-002

AIRCRAFT ELECTRICIAN

68F10
68F20
68F30

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises or performs maintenance on aircraft electrical/electronic systems and aircraft crew station instruments. *Skill Level 10:* Removes and replaces electrical/electronic elements of assemblies and components, including electrical wiring, aircraft battery systems, and instruments; applies proper soldering techniques during circuitry repair; cleans, preserves, and stores electrical/electronic components and aircraft instruments; uses and performs maintenance on common and special tools; maintains and repairs ground support equipment; uses certain aircraft forms and records; prepares request for turn-in and repair parts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; applies troubleshooting techniques to diagnose and localize malfunctions to specific electrical/electronic components including solid-state and transistorized subsystems; disassembles, repairs, reassembles, adjusts, and tests electrical/electronic elements of assemblies and components; applies principles of pneudraulics applicable to troubleshooting of interfacing electropneudraulic systems and components; repairs and replaces printed circuits; repairs nickel-cadmium batteries; applies principles of electricity/electronics, gyroscopic motion, pneumatics, and hydraulics, applicable to repair of aircraft instrument subsystems; performs maintenance on diagnostic equipment; prepares forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may serve as technical inspector; plans work flow; applies production control, quality control, and other maintenance management principles; supervises and evaluates personnel work performance; conducts on-the-job training; monitors shop and flight line safety.

Recommendation, Skill Level 10

In the vocational certificate category, 12 semester hours in aircraft electrical systems maintenance and repair and 3 for technical electives. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill level 10. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology and 3 in aviation maintenance management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation maintenance technology, 3 in aviation maintenance management, 3 in quality control, 3 in flight safety, and 3 in human relations (or a management elective); if the duty position was aircraft electrician supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 3 in personnel management (5/78).

MOS-68G-001

AIRFRAME REPAIRMAN

68G20
68G30
68G40

Exhibit Dates: 10/73-2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises or performs line and shop maintenance; is proficient in repairing aircraft structures, reading blueprints and drawings, forming metals, welding, and painting. *Skill Level 20:* Makes airframe structural repairs by fabrication of new parts, by using approved fasteners, rivets, and special purpose bolts, and by welding; prepares airframe surfaces for painting. *Skill Level 30:* Able to perform the duties required for Skill Level 20; as a senior repairman, inspects airframes and components before, during, and after repair or modification to insure that prescribed specifications are met; does the more complicated repair work. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a first-line supervisor, oversees the repair of airframe structures; completes maintenance forms and records; plans work loads and work flow; assures quality and production control; instructs personnel in airframe maintenance and in safety regulations and techniques; applies management principles and procedures to shop operations.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance technology or aviation maintenance management. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management or aviation maintenance engineering technology (2/75).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 9 semester hours in aviation maintenance technology or aviation maintenance management. In the upper-division baccalaureate category, 9 semester hours in aviation maintenance management or aviation maintenance engineering technology (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in aviation maintenance technology or airframe structures and 3 in shop practices and procedures. In the lower-division baccalaureate/associate degree category, 9 semester hours in aviation maintenance management and 3 in personnel supervision. In the upper-division baccalaureate category, 9 semester hours in aviation maintenance management or aviation maintenance engineering technology and 3 in personnel administration (2/75).

MOS-68G-002

AIRCRAFT STRUCTURAL REPAIRER

68G10
68G20
68G30

Exhibit Dates: 3/77-Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises, inspects, or performs maintenance and repair of aircraft structure. *Skill Level 10:* Makes airframe structural repairs by fabrication of new parts, by using approved fasteners, rivets, special-purpose fasteners, and fiberglass materials; prepares airframe surfaces for painting; mixes and applies primers and paints to aircraft; uses and maintains shop tool and equipment; uses field and technical manuals to make specific repairs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; inspects airframes and components before, during, and after repair of modification to insure that specifications are met; performs welding maintenance; uses precision measuring gauges and instruments; determines shop and bench stock requirements; prepares or assists in the preparation of requests for parts, tools, and supplies; interprets blueprints; coordinates work load; applies maintenance management principles and procedures to shop operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance; may perform technical inspections on aircraft structures and control surfaces; conducts and supervises on-the-job training; assures quality and production control; applies management principles and procedures to shop operations; may supervise from 6 to 19 persons; monitors shop and flight line safety.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in airframe structures, 3 for technical electives, and additional credit in airframe structures on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 9 semester hours in aviation maintenance technology (or 6 in airframe structures and 3 for technical electives), and additional credit in airframe structures or aviation maintenance technology on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 9 semester hours in aviation maintenance technology (or 6 in airframe structures and 3 for technical electives), and 3 in aviation maintenance management, and additional credit in airframe structures or aviation maintenance technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in airframe structures and 3 for technical electives, and additional credit in airframe structures on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 12 semester hours in aviation maintenance technology (or 9 in airframe structures and 3 for technical electives), 3 in aviation maintenance management, 3 in quality control, 3 *in flight safety, and 3 in human relations (or a management elective),* and additional credit in aviation maintenance technology or airframe structures on the basis of institutional evaluation; if duty position was aircraft structural repair supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 3 in personnel management (5/78).

MOS-68H-001

Aircraft Hydraulics Repairman

68H20

68H40

Exhibit Dates: 10/73–2/77.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Components Repair).

Description

Summary: Supervises or performs maintenance on aircraft hydraulic and pneumatic systems and components. *Skill Level 20:* Diagnoses and corrects hydraulic/pneumatic system and component malfunctions; examines parts and components; resurfaces valves and valve seats; hones and polishes cylinders; replaces bushings, bearings, and sleeves on equipment; employs precision measuring instruments and gages; tests component functions with specialized liquid, gas, air, and test equipment; performs modifications; interprets technical literature and schematic diagrams; prepares aircraft maintenance forms, records, and reports. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises up to 20 or more persons; plans work flow; applies production control, quality control, and other maintenance management principles and procedures to shop operations; instructs personnel in aircraft hydraulic/pneumatic system and components maintenance and safety techniques; supervises final alignment and adjustment of aircraft hydraulic/pneumatic systems and components onto airframe.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft hydraulic system maintenance and 3 in technical electives (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft hydraulic system maintenance, 6 in technical electives, and 3 in maintenance management. In the upper-division baccalaureate category, 6 semester hours in aircraft hydraulic system maintenance, 9 in technical electives, 3 in introduction to management, and 3 for field experience in management.(11/75).

MOS-68H-002

Aircraft Pneudraulics Repairer

68H10

68H20

68H30

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Supervises, inspects, or performs maintenance on aircraft hydraulic systems. *Skill Level 10:* Removes and installs tubing assemblies, hoses, valves, pressure transmitters, and switches; services filters, shock absorbers/struts; repairs tubing assemblies, hydraulic and pneumatic valves; flushes and bleeds hydraulic systems; uses and performs maintenance on common and special tools; prepares request for turn-in and repair parts; uses certain aircraft forms and records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; applies troubleshooting techniques to diagnose and localize malfunctions to hydraulic systems, subsystems, and components; disassembles, repairs, reassembles, adjusts, and tests hydraulic systems, subsystems, and components; maintains selected items of ground support equipment; prepares forms and records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies production/quality control and maintenance management principles and procedures to shop operations; plans workflow; conducts and supervises on-the-job training; may perform technical inspections of electrical/electronic and subsystems components before, during, and after repair or modification; may supervise from 6 to 19 persons.

Recommendation, Skill Level 10

In the vocational certificate category [illegible] semester hours in aircraft hydraulic system maintenance and 3 for technical electives and additional credit in aircraft hydraulic system maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 9 semester hours in aviation maintenance technology (or 6 in aircraft hydraulic system maintenance and 3 for technical electives), and 3 in aviation maintenance management, and additional credit in aviation maintenance technology or aircraft hydraulic system maintenance on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKill Level 10. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in aircraft hydraulic system maintenance and 3 for technical electives, and additional credit in aircraft hydraulic system maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 12 semester hours in aviation maintenance technology (or 9 in aircraft hydraulic system maintenance and 3 in technical electives), 3 in aviation maintenance management, 3 in quality control, 3 in flight safety, and 3 in human relations (or a management elective), and additional credit in aviation credit in aviation maintenance management or aircraft hydraulic system maintenance on the basis of institutional evaluation; if the duty position was aircraft pneudraulics repair supervisor section chief, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in aviation maintenance management and 3 in personnel management (5/78).

MOS-68J-001

Helicopter Missile Systems Repairer

68J10

68J20

68J30

Exhibit Dates: 3/77–2/80.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Maintains helicopter anti-tank missile systems, related fire control material and specialized test sets. *Skill Level 10:* Under close supervision, handles, stores, arms, prepares, loads, and unloads aircraft armanent ammunition and missiles. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs operational checks; removes, disassembles, repairs, assembles, installs, tests, and adjusts missile system, fire control, and supporting weapon components; tests, troubleshoots, and repairs special test sets and electronic, hydraulic, and mechanical components using schematics and technical drawings; implements authorized modifications; maintains records; demonstrates proper work procedures to lower-skill-level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs in-depth maintenance of anti-tank missile, fire control, and supporting weapon subsystems; plans, establishes, and supervises on-the-job training; implements production, quality control, and safety procedures; may supervise from 5 to 9 persons.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (5/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics electives, 3 in use and care of tools and test equipment, and additional credit in electronics on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronics electives, 3 in use and care of tools and test equipment, 1 in safety, and additional credit in electronics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics electives, 3 in use and care of tools and test equipment, 1 in safety, 1 in personnel supervision, and additional credit in electronics on the basis of institutional evaluation; if the duty position was Helicopter Missile System Repair Supervisor, 1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

MOS-68J-002

Aircraft Fire Control Repairer

68J10

68J20

68J30

Exhibit Dates: 3/80–2/84.

Career Management Field: 67 (Aircraft Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Performs electrical and electronic maintenance on aircraft fire control systems, armament systems, and ground support equipment. *Skill Level 10:* Removes, installs, assembles, disassembles, and performs maintenance on aircraft fire control systems; repairs and/or replaces electrical and electronic components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; tests and troubleshoots electrical and electronic components of fire control systems using schematics and test equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance and performs technical inspection of fire control systems; plans and supervises on-the-job training; supervises 8 or more lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics (7/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in troubleshooting techniques (electrical and electronics), and 3 in use and care of hand tools and test equipment (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in basic electricity/electronics, 3 in troubleshooting techniques (electrical and electronics), 3 in use and care of hand tools and test equipment, and 1 in industrial safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in troubleshooting techniques (electrical and electronics), 3 in use and care of hand tools and test equipment, 3 in personnel supervision, and 1 in industrial safety (7/82).

MOS-68J-003

AIRCRAFT FIRE CONTROL REPAIRER

68J10
68J20
68J30
68J40

Exhibit Dates: 3/84–3/89.

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs electrical and electronic maintenance on aircraft fire control systems, armament systems, and ground support equipment. *Skill Level 10:* Removes, installs, assembles, disassembles, and performs maintenance on aircraft fire control systems; repairs and/or replaces electrical and electronic components. *Skill Level 20:* Able to perform the duties required for Skill Level 10; tests and troubleshoots electrical and electronic components of fire control systems using schematics and test equipment. *Skill Level 30:* Able to perform the duties required for SKill Level 20; supervises maintenance and performs technical inspection of fire control systems; plans and supervises on-the-job training; supervises 8 or more lower skill level personnel. NOTE: May have progressed to 68J30 from 68J20 or 68M20, Aircraft Weapons System Repairer. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises all maintenance activities; determines personnel and parts requirements; coordinates work schedules and assigns duties; applies production, quality control, and other maintenance management principles and procedures; prepares evaluations, special reports, and maintenance records; supervises technical training programs; assists in the preparation of plans and policies; controls the flow of work orders, requisitions, and correspondence; plans the layout of aircraft weapons and fire control systems maintenance areas and facilities; advises personnel in diagnosing complex malfunctions. NOTE: May have progressed to 68J40 from 68J30 or 66J30, Aircraft Armament Technical Inspector.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in troubleshooting techniques (electrical and electronics), and 3 in use and care of hand tools and test equipment (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in troubleshooting techniques (electrical and electronics), 3 in use and care of hand tools and test equipment, 3 in personnel supervision, and 1 in industrial safety (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in troubleshooting techniques (electrical and electronics), 3 in use and care of hand tools and test equipment, 3 in personnel supervision, 1 in industrial safety, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (7/87).

MOS-68J-004

AIRCRAFT ARMAMENT/MISSILE SYSTEMS REPAIRER

68J10
68J20
68J30
68J40

Exhibit Dates: Pending evaluation. 3/89–Present.

MOS-68K-001

AIRCRAFT COMPONENTS REPAIR SUPERVISOR

68K40

Exhibit Dates: 3/77–Present.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Skill Level 40: Able to perform the duties required for Skill Level 30 in at least one of the following MOS's: 68B (Aircraft Power Plant Repairer), 68D (Aircraft Powertrain Repairer), 68F (Aircraft Electrician), 68G (Aircraft Structural Repairer), 68H (Aircraft Pneudraulics Repairer), 68J (Helicopter Missile System Repairer), or 68M (Helicopter Weapon Systems Repairer); supervises maintenance operations of aircraft components repairs; plans work loads in terms of resources and facilities; applies production control, quality control, and other maintenance management principles to aircraft components repair; supervises and evaluates the work performance of a minimum of 20 lower skill level personnel; orients and instructs lower skill level personnel; conducts on-the-job training programs.

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 3 semester hours in maintenance management and 3 for field experience in personnel management (5/78).

MOS-68L-001

AVIONIC COMMUNICATIONS EQUIPMENT REPAIRER

68L10
68L20
68L30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-68M-001

HELICOPTER WEAPON SYSTEM REPAIRER

68M10
68M20
68M30

Exhibit Dates: 3/77–2/80.

Career Management Field: 67 (Aviation Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Maintains helicopter armament subsystems, weapons, and specialized tests, excluding missile systems. *Skill Level 10:* Under close supervision, handles, stores, arms, prepares, loads, and unloads aircraft armament ammunition. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs operational checks; removes, installs, and adjusts armament subsystems, including electrical, hydraulic, and mechanical components; uses schematics and technical drawings; performs boresighting and alignment checks; implements modifications; maintains records; demonstrates proper work procedures to lower skill level personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs in-depth maintenance of helicopter armament systems and support equipment, excluding missile systems; plans, establishes, and supervises on-the-job training; implements production, quality control, and safety procedures; may supervise from 5 to 9 persons.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies and knowledge are uniquely military in nature (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in use and care of tools and test equipment, 1 in precision measuring techniques, and credit in mechanical systems on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, and credit in mechanical systems on the basis of institutional evaluation (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in use and care of tools and test equipment, 2 in mechanical systems, 1 in precision measuring techniques, 1 in safety, and credit in electricity and hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of tools and test equipment, 2 in a mechanical systems elective, 1 in personnel supervision, 1 in safety, and credit in electricity and hydraulics on the basis of institutional evaluation; if the duty position was helicopter weapons system supervisor, 1 additional semester hour in personnel supervision and credit in human relations on the basis of institutional evaluation (5/78).

MOS-68M-002

AIRCRAFT WEAPON SYSTEMS REPAIRER

68M10
68M20
68M30

Exhibit Dates: 3/80–2/84.

Career Management Field: 67 (Aircraft Maintenance), subfield 672 (Aircraft Component Repair).

Description

Summary: Performs mechanical and hydraulic maintenance on aircraft weapons systems, associated armament systems, and ancillary ground support equipment. *Skill Level 10:* Assists in the performance of mechanical and hydraulic maintenance of aircraft weapons systems; uses proper safety procedures; under close supervision, handles, loads, unloads, installs, removes, assembles, and disassembles aircraft weapons systems. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs unit and intermediate mechanical and hydraulic maintenance on aircraft weapons systems; performs operational checks and troubleshoots systems including built-in tests; removes, installs, and adjusts armament subsystems, including elecrtrical, hydraulic and mechanical components; uses schematics and technical drawings; performs boresighting and alignments checks; implements modifications; maintains records; demonstrates safety procedures and proper work procedures to Skill Level 10 personnel; conducts on-the-job training. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises maintenance and performs technical inspections of aircraft weapons systems; plans, supervises, organizes, and implements quality control practices, safety procedures, and on-the-job training; may supervise 9 or more lower-skill-level personnel.

Recommendation, Skill Level 10

Credit is not recommeded because the skills, competencies, and knowledge are uniquely military in nature (7/82).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in care and use of tools and test equipment, 1 in precision measuring techniques, 2 in mechanical systems, and 1 in safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in care and use of tools and test equipment, 1 in precision measuring techniques, 2 in mechanical systems, and 1 in safety (7/82).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in care and use of tools and test equipment, 2 in mechanical systems, 1 in precision measurement, 1 in safety, and 3 in personnel supervision (7/82).

MOS-68M-003

AIRCRAFT WEAPON SYSTEMS REPAIRER

68M10
68M20

Exhibit Dates: 3/84–3/89. (Effective 3/89, MOS 68M was discontinued and its duties were incorporated into MOS 68J, Aircraft Fire Control Repairer.)

Career Management Field: 67 (Aircraft Maintenance).

Description

Summary: Performs mechanical and hydraulic maintenance on aircraft weapons systems, associated armament systems, and ancillary ground support equipment. *Skill Level 10:* Assists in the performance of mechanical and hydraulic maintenance on aircraft weapons systems; uses proper safety procedures; under close supervision, handles, loads, unloads, installs, removes, assembles, and disassembles aircraft weapons systems. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs unit and intermediate mechanical and hydraulic maintenance on aircraft weapons systems; performs operational checks and troubleshoots systems, including built-in tests; removes, installs, and adjusts armament subsystems, including electrical, hydraulic, and mechanical components; uses schematics and technical drawings; performs boresighting and alignment checks; implements modifications; maintains records; demonstrates safety procedures and proper work procedures to skill level 10 personnel; conducts on-the-job training.

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in care and use of tools and test equipment, 1 in precision measuring techniques, 2 in mechanical systems, and 1 in safety (7/87).

MOS-68N-001

AVIONIC MECHANIC

68N10
68N20
68N30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-68P-001

MAINTENANCE SUPERVISOR

68P40

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-68Q-001

AVIONIC FLIGHT SYSTEMS REPAIRER

68Q10
68Q20
68Q30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-68R-001

AVIONIC RADAR REPAIRER

68R10
68R20
68R30

Exhibit Dates: Pending evaluation. 9/89–Present.

MOS-71B-001

CLERK-TYPIST

71B10
71B20
71B30

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 71B was discontinued and its functions were incorporated into MOS 71G, Medical Records Specialist, MOS 71L, Administrative Specialist, MOS 73C, Finance Specialist, and MOS 73D, Accounting Specialist.)

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Performs general clerical, typing, and related duties. *Skill Level 10:* Prepares letters and other office communications; handles mail, uses the telephone, and performs other office administrative functions; uses and maintains office machines and manages records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; types at a level comparable to that required upon completion of a beginning typing course. *Skill Level 30:* Able to perform the duties required for Skill Level 20; types at a level comparable to that required upon completion of an intermediate typing course.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office practices (12/74).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office practices and 3 in typing (12/74).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in office practices and 6 in typing (12/74).

MOS-71C-001

STENOGRAPHER

71C20
71C30

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Takes and transcribes dictation of correspondence, telephone conversations, meetings, and other information for typewritten records; prepares duplicating stencils and masters and operates stencil and fluid duplicators; acts as receptionist; schedules appointments; prepares correspondence, forms, memoranda, orders, circulars, and bulletins; maintains records and files; processes incoming and outgoing mail; performs other related clerical and administrative duties. *Skill Level 20:* Takes dictation at 90 to 120 words per minute and types at 45 or more words per minute. NOTE: May have progressed to 71C20 from 71B30 (Clerk-Typist). *Skill Level 30:* Takes dictation at 120 or more words per minute and types at 55 or more words per minute.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in dictation and transcription, 4 in typing, 2 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 for field experience in office practice, 1 in business machines (duplicating), and 1 in office practice (11/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in dictation and transcription, 6 in typing, 2 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 for field experience in office practice, 1 in business machines (duplicating), and 1 in office practice (11/75).

MOS-71C-002

STENOGRAPHER

71C10
71C20
71C30

Exhibit Dates: 9/77-8/82.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Takes and transcribes dictation of correspondence, telephone and office conversations, conferences, and other information for typewritten records; uses fluid and stencil duplicators, photocopy machines, and word processing equipment; acts as receptionist; schedules appointments, and arranges conferences and interviews; makes travel schedules and reservations; prepares correspondence, forms, messages, and reports; maintains records and files; processes incoming and outgoing mail; performs other related clerical and administrative duties. *Skill Level 10:* Takes dictation at a minimum speed of 90 words per minute for 3 minutes of sustained dictation and transcribes with no major errors; types at a minimum speed of 45 words per minute of a five-minute writing with a five-word penalty per error. *Skill Level 20:* Takes dictation at a minimum of 100 words per minute for 3 minutes of sustained dictation and transcribes with no errors; types at a minimum speed of 50 words per minute on a five-minute writing with a five-word penalty per error. *Skill Level 30:* Takes dictation at a minimum of 120 words per minute for 3 minutes of sustained dictation and transcribes with no major errors; types at a minimum speed of 55 words per minute on a five-minute writing with a five-word penalty per error; performs high-level paperwork with security aspects; may supervise 4 or 5 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in dictation and transcription, 3 in typing, 2 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 in office practice (including field experience in office practice), and 1 in business machines (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in dictation and transcription, 6 in typing, 2 in business communications, 2 in filing and records management, 2 in clerical record keeping, 3 in office practice (including field experience in office practice), and 1 in business machines (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in dication and transcription, 6 in typing, 3 in business communications, 2 in filing and records management, 2 in clerical record keeping, 3 in office practice (including field experience in office practice), and 1 in business machines. In the lower-division baccalaureate/associate degree category, 9 semester hours in dictation and transcription, 6 in typing, 3 in business communications, 2 in filing and records management, 2 in clerical record keeping, 3 in office practice (including field experience in office practice), 1 in business machines, 3 in English composition, and 3 in human relations (6/78).

MOS-71C-003

EXECUTIVE ADMINISTRATIVE ASSISTANT (SECRETARY)

71C10
71C20
71C30

Exhibit Dates: 9/82-Present.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Types correspondence, forms, and reports; transcribes recorded dictation; performs general office duties; maintains files; uses word processing equipment; drafts routine correspondence; may supervise office operations. *Skill Level 10:* Types at a minimum speed of 45 net words per minute; handles incoming and outgoing correspondence; types correspondence, forms, and reports; transcribes recorded dictation; files information and maintains files; proofreads and corrects work; serves as receptionist; prepares schedules and handles protocol matters; requisitions publications and forms; drafts routine correspondence. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assumes some responsibility for assigning and verifying work of others; types at a minimum of 50-55 net words per minute. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as secretary to general offices; plans and organizes office operations; prepares correspondence and writes procedures and directives.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in machine transcription, 3 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 in office procedures, and 2 in word processing (3/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 3 in machine transcription, 3 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 in office procedures, 2 in word processing, and 2 for a practicum in office procedures (3/84).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 3 in machine transcription, 3 in business communications, 2 in filing and records management, 2 in clerical record keeping, 2 in office procedures, 2 in word processing, 2 for a practicum in office procedures, and 2 in office management (3/84).

MOS-71D-001

LEGAL CLERK

71D20
71D50

Exhibit Dates: 10/73-8/77.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Summary: Supervises or assists in the preparation and processing of court martial records, investigations, and reclassification board proceedings; may act independently in the field as a legal paraprofessional; prepares miscellaneous legal documents, both civil and military; supervises or maintains an office and law library for the law officer. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Performs primarily under the direct supervision of a chief or senior legal clerk. *Skill Level 50:* Supervises the administrative functions of a legal office.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in English composition, 3 in business communications or technical writing, 3 in business law, and 3 in military legal practices and procedures, and additional credit in the lower-division baccalaureate/associate degree category in office management on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in office management on the basis of institutional evaluation (11/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in English composition, 3 in business communications or technical writing, 3 in business law, 3 in military legal practices and procedures, 3 in personnel management, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in office management, and 3 for field experience in legal office management (11/75).

MOS-71D-002

LEGAL SPECIALIST
(LEGAL CLERK)

71D10
71D20
71D30
71D40
71D50

Exhibit Dates: 9/77-Present.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Summary: Performs or supervises the preparation of court martial records, board proceedings, preliminary hearings, and investigations. *Skill Level 10:* Under close supervision, assists in preparation of legal papers and forms, in conducting investigations and researching activities, and in maintaining files; types at a minimum of 30 words per minute; assists in maintaining law library. *Skill Level 20:* Able to perform the duties required for Skill Level 10; prepares correspondence; compiles records into quarterly reports; provides legal assistance (military and civil) and makes referrals as needed. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a legal office or maintains a law library; provides guidance to lower-skill-level personnel; responsible for maintaining files. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans and organizes legal office operation; previews legal documentation for proper and prompt disposition; researches decisions, statutes, and regulations under supervision of a judge advocate or civilian attorney. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises the administrative functions of a large legal office; prepares budgets and plans programs.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in typing, 3 in office practices, and 3 in legal terminology. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in legal terminology, and 3 in English composition (6/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in office practices, 3 in business communication or technical writing, 3 in legal terminology, and 2 in military legal practices and procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in business communication or technical writing, 3 in legal terminology, 2 in military legal practices and procedures, and 3 in English composition (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in typing, 3 in office practices, 3 in business communication or technical writing, 3 in legal terminology, 3 in military legal practices and procedures, and 3 in office management. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in business communication or technical writing, 3 in legal terminology, 3 in military legal practices and procedures, 3 in English composition, 3 in human relations, and 3 in office management (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in business communication or technical writing, 3 in legal terminology, 3 in military legal practices and procedures, 3 in English composition, 3 in human relations, 3 in office management, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours for field experience in office management (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in office management (6/78).

MOS-71E-001

COURT REPORTER

71E20

Exhibit Dates: 10/73-2/76.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Skill Level 20: Takes notes of activities and statements in legal proceedings and prepares them for inclusion in official legal documents; able to perform the duties required for 71B30 (Clerk-Typist); records testimony at 175 words per minute; transcribes the testimony; maintains the records of military legal proceedings.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in dictation and transcription, 3 in office procedures, 3 in technical writing; if the duty assignment was assistant court reporter, 3 in typing; if the duty assignment was court reporter or senior court reporter, 6 in typing (11/75).

MOS-71E-002

COURT REPORTER

71E20
71E50

Exhibit Dates: 3/76-8/77.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Summary: Takes notes of activities and statements in legal proceedings and prepares them for inclusion in official legal documents; able to perform the duties required for 71B30 (Clerk-Typist); NOTE: May have previously held MOS 71C (Stenographer) or 71S (Attache Specialist). *Skill Level 20:* Records complete details of statements and activities during legal proceedings; takes dictation at 175-200 words per minute, usually by means of a stenomask (an oral dictating machine), although stenotype or shorthand may be used; transcribes testimony at a minumum speed of 40 words per minute; maintains the records of military legal proceedings. *Skill Level 50:* Able to perform the duties required for Skill Level 20; serves as chief court reporter in a judge advocate section in lieu of a chief legal clerk (71D50); supervises legal office activities; reviews records prepared by subordinates for correctness and proper application of legal policies and procedures.

Recommendation, Skill Level 20

In the vocational certificate category, 9 semester hours in dictation and transcription, 6 in typing, 3 in office procedures, and 3 in business communications or technical writing. In the lower-division baccalaureate/associate degree category, 9 semester hours in dictation and transcription, 6 in typing, 3 in office procedures, 3 in business communications or technical writing, and 3 in English composition (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in dictation and transcription, 6 in typing, 3 in office procedures, and 3 in business communications or technical writing. In the lower-division baccalaureate/associate degree category, 9 semester hours in dictation and transcription, 6 in typing, 3 in office procedures, 3 in business communications or technical writing, 3 in English composition, 3 in military legal practices and procedures, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in office management, and 3 for field experience in legal office management (6/76).

MOS-71E-003

COURT REPORTER

71E20
71E30
71E40
71E50

Exhibit Dates: 9/77-Present.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Summary: Takes notes of activities and statements in legal proceedings and prepares them for inclusion in official legal documents. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 71D (Legal Clerk); takes notes at legal proceedings at a minimum of 175 words per minute, usually by means of a stenomask (an oral dictating machine), although stenotype or shorthand may be used; transcribes testimony at a minimum speed at 40 words per minute; maintains the records of military legal proceedings; uses English grammar, punctuation, and composition skills. NOTE: Required to have held Skill Level 10 of MOS 71D (Legal Clerk). *Skill Level 30:* Able to perform the duties required for Skill Level 20; may provide technical guidance to Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and assists lower skill level personnel; coordinates work assignments. *Skill Level 50:* Able to perform the duties required for Skill Level 40; instructs lower-skill-level personnel; reviews completed records of trial for completeness and correctness.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, and 3 in office procedures (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, and 3 in office procedures (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in office procedures, and 3 in office management. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, 3 in office procedures, 3 in office management, and 3 in legal practices and procedures (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, 3 in office procedures, 3 in office management, and 6 in legal practices and procedures. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/78).

MOS-71E-004

Court Reporter

71E20

71E30

71E40

Exhibit Dates: 9/77–Present.

Career Management Field: 71 (Administration), subfield 714 (Legal).

Description

Summary: Takes notes of activities and statements in legal proceedings and prepares them for inclusion in official legal documents. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 71D (Legal Clerk); takes notes at legal proceedings at a minimum of 175 words per minute, usually by means of a stenomask (an oral dictating machine), although stenotype or shorthand may be used; transcribes testimony at a minimum speed at 40 words per minute; maintains the records of military legal proceedings; uses English grammar, punctuation, and composition skills. NOTE: Required to have held Skill Level 10 of MOS 71D (Legal Clerk). *Skill Level 30:* Able to perform the duties required for Skill Level 20; may provide technical guidance to Skill Level 20 personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and assists lower skill level personnel; coordinates work assignments.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, and 3 in office procedures (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, and 3 in office procedures (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in office procedures, and 3 in office management. In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 9 in dictation and transcription, 2 in business communication or technical writing, 3 in English grammar and composition, 3 in office procedures, 3 in office management, and 3 in legal practices and procedures (6/78).

MOS-71F-001

Postal Clerk

71F20

71F40

71F50

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 71F was discontinued and its functions were incorporated into MOS 71L, Administrative Specialist.)

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Provides postal sales and services to cumtomers. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Senographer) or 71S (Attache Specialist). *Skill Level 20:* As a clerk, assists and serves customers by selling stamps, issuing and cashing money orders, giving information about mail restrictions, special delivery and handling procedures, preparing forms for mail subject to customs inspection, computing postage, filing claims for lost or damaged mail, and issuing insurance; sorts and distributes mail; adheres to U.S. Post Office and Army regulations; keeps records of financial transactions and administrative matters; inventories property. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of a maximum of seven clerks; trains, assigns duties to, and reviews the work of clerks; plans and organizes the layout and operation of a postal facility; investigates complaints; inspects mail room to insure proper handling of mail. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level supervisor of more than 17 clerks; manages the entire operation of a postal facility.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in retailing or records administration or office management (3/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in retailing or records administration or office management, and 3 in personnel supervision (3/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in retailing or records administration or office management, 3 in personnel supervision, and 3 in business administration (3/75).

MOS-71G-001

Medical Records Specialist

71G20

71G40

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Performs of supervises patient admissions and transfers, patient administration, medical records and reports, and other administrative duties in the registrar division of hospitals or other medical facilities. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Performs medical administrative duties; receives patients; checks care eligibility; prepares admission records; arranges appropriate patient placement; prepares daily admission and disposition reports; accounts for and safeguards funds received and deposits of patient funds and valuables; classifies, indexes, and files medical records; prepares medical research service to professional staff; prepares correspondence relating to medical records, medical board proceedings, investigation reports, eligibility for health benefits; reviews medical boards for completeness and compliance with directives; coordinates actions required for period re-examination of persons on Temporary Disabled Retired List; assists in handling seriously ill and death cases by assisting survivors in making necessary arrangements. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and coordinates medical administrative activities; provides information to physicians, attorneys, insurance companies, or government agencies; requisitions supplies; assists in medical emergency operations planning; serves as office manager, supervising up to 29 persons; plans work schedules; assigns duties and instructs personnel in work techniques and procedures.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical administrative techniques, 2 in business communications, 2 in medical record keeping, 2 in filing and medical records management, 2 in medical terminology, 2 for field experience in medical office procedures, 1 in medical statistical reporting, and 1 in human relations (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in

medical office management, 2 in medical terminology, 2 in medical administrative techniques, 2 in business communications, 2 in medical record keeping, 2 in filing and medical records management, 2 in human relations, 2 in personnel management, and 1 in medical statistical reporting. In the upper-division baccalaureate category, 3 semester hours for field experience in office management, 2 in introduction to management, and 1 for field experience in hospital administration (11/75).

MOS-71G-002

PATIENT ADMINISTRATION SPECIALIST

71G10
71G20
71G30
71G40
71G50

Exhibit Dates: 9/77–Present.

Career Management Field: 91 (Medical), subfield 914 (Medical Support).

Description

Summary: Supervises or performs administrative duties in patient administration division of hospital or other medical activity. *Skill Level 10:* Performs patient administrative duties; applies knowledge of basic medical terminology, including construction or composition of medical terms; applies knowledge of provisions and limitations of Freedom and Information and Privacy Acts; receives patients being admitted to medical facility; interviews patients and reviews records and available data to obtain necessary information for preparation of admission records, including patient data cards and appropriate records and forms depending upon type of patient, illness or injury, and urgency of required treatment; receives valuables and monies from patients and deposits into patient's trust fund; initiates required notification of patient admission to unit commanders or other headquarters; compiles data for preparation and prepares daily admission and disposition reports; performs administrative duties and prepares appropriate forms to process and report very seriously ill patients and personnel including notification of next of kin and progress reports; prepares and dispatches casualty reports; prepares appropriate forms or letters and performs necessary administrative duties to evacuate or transfer patients to other medical facilities; completes forms and reports and performs tasks regarding disposition of personal effects; computes various charges for pay patients; performs administrative action involving third party liability; applies knowledge of administrative terminology to medical records; keeps repository for military health records and dependents' medical records of hospital, clinics, outpatient service, or dispensary; classifies, indexes, and files record folders in repository; reviews medical record for adequacy and completeness based upon nature of case and treatment given; answers inquiries and provides information on medical records; compiles statistical data pertaining to admission, diagnosis, treatment, and disposition of patients; prepares statistical tables, charts, and graphs on medical data; prepares reports and data on births, deaths, and reportable conditions for submission to military and civilian health authorities and to appropriate legal and governmental agencies; initiates correspondence pertaining to medical records, medical board proceedings, and lines of duty investigation; answers inquiries on results of board actions, eligibility for medical care under Uniform Service Health Benefit Program; prepares necessary medical forms to convene the medical board to determine medical fitness for duty; types military and nonmilitary letters, endorsements, disposition forms, messages, and special medical forms and documents in draft and final form; maintains nonmedical files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; performs administrative duties in medical, surgical, or similar department of the hospital, including obtaining record from repository, posting entries onto medical record, returning record, and coordinating administrative responsibilities with other departments. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; assigns tasks to subordinate personnel to affect orderly flow of workload and ensure timely accomplishment of tasks inherent to patient record keeping and the movement of patients; instructs subordinate personnel in performance of assigned tasks and instills understanding of need for timely completion and posting of records in an exacting manner with an appreciation of the sensitivity and confidentiality of the actions performed. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a medium-sized patient administration activity or hospital department. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises a large patient administration activity or hospital department.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical administrative techniques, 2 in medical record keeping, 2 in medical records administration, 2 in medical terminology, and 1 typing (1/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical administrative techniques, 2 in medical record keeping, 2 in medical records administration, 2 in medical terminology, 1 in typing, 2 in personnel supervision, and 1 in medical statistical reporting (1/82).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical administrative techniques, 2 in medical record keeping, 2 in medical records administration, 2 in medical terminology, 1 in typing, 2 in personnel supervision, 1 in medical statistical reporting, 2 in business communications, and 1 in human relations (1/82).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in medical administrative techniques, 2 in medical record keeping, 2 in medical records administration, 2 in medical terminology, 1 in typing, 3 in personnel supervision, 1 in medical statistical reporting, 2 in business communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours for field experience in office management, 2 for field experience in hospital administration, and 2 in introduction to management (1/82).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours for field experience in office management, 3 for field experience in hospital administration, and 3 in introduction to management (1/82).

MOS-71L-001

ADMINISTRATIVE SPECIALIST

71L20
71L40
71L50

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Performs administrative office functions for a military headquarters unit; performs duties comparable to those of the civilian occupation, administrative assistant. NOTE: May have previously held MOS 71B (Clerk-Typist), (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Drafts, types, and assembles unit publications, forms, and reports; prepares correspondence, tables, graphs, and charts; answers inquiries on administrative and clerical matters; sets up and keeps alphabetic and numeric files; processes incoming and outgoing mail; receives, stores, issues, and updates publications; analyzes work flow and report form design. *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans, organizes, and supervises office operations; reviews correspondence and establishes mail distribution; controls use of Xerox and other reproduction and duplicating facilities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises operation of administrative functions in Adjutant General or Inspector General sections and higher-level headquarters; inspects administrative activities and makes recommendations to correct deficiencies; interprets and supervises the execution of company policy and operating procedures; advises superiors on personnel matters; gives instructions to subordinate supervisors; coordinates company food service and supply activities.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in business communications, 3 in office procedures, 3 in typing, 3 for field experience in office practice, 2 in records management, and 1 in public relations (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in business communications, 3 in records management, 3 in office procedures, 3 in typing, 3 for field experience in office management, 2 in public relations, 2 in office management, and 2 in duplicating operations. In the upper-division baccalaureate category, 2 semester hours in office management and 3 for field experience in office management (11/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in office management, 4 in business communications, 4 in public relations, 3 in records management, 3 in office procedures, 3 in office management, 3 in personnel management, 3 in typing, and 2 in duplicating operations. In the upper-division baccalaureate category, 3 semester hours in office management, 3 in personnel management, and 3 for field experience in office management (11/75).

MOS-71L-002

ADMINISTRATIVE SPECIALIST

71L10
71L20
71L30
71L40
71L50

Exhibit Dates: 9/77-Present.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Supervises or performs administrative, clerical, and typing duties; types a minimum of 25 net words a minute. *Skill Level 10:* Types routine correspondence, messages, reports, and forms; serves as a receptionist; answers the telephone; handles incoming mail and messages; maintains files; uses copying equipment; receives and maintains publications. *Skill Level 20:* Able to perform the duties required for Skill Level 10; prepares special correspondence, composes routine correspondence, and proofreads correspondence for proper format and accuracy; provides technical guidance to typists and clerical personnel; prepares charts, graphs, and rosters. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel performing typing, general clerical and administrative duties; distributes workload; reviews and edits correspondence; sets up and reviews files; controls duplicating facilities; plans and organizes office operations; determines requirements for office equipment, supplies, and space. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs supervisory duties at a higher level of command. NOTE: May have progressed to 71L40 from 71L30 or 71C30 (Stenographer). *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises performance of administrative functions at higher level headquarters; provides guidance and engages in public relations activities. NOTE: May have progressed to 71L50 from 71L40 or 03C40 (Physical Activities Specialist).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in record keeping, 1 in business communications, and 3 in office procedures (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in business communications, 2 in record keeping, and 4 in office procedures (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in typing, 3 in business communications, 2 in record keeping, 4 in office procedures, 3 for field experience in office procedures, and 3 in office management. In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 3 in business communications, 2 in record keeping, 4 in office procedures, 3 for field experience in office practices, 3 in office management, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 3 in business communications, 2 in record keeping, 4 in office procedures, 3 for field experience in office practices, 3 in office management, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, 2 semester hours in typing, 3 in business communications, 2 in record keeping, 3 in records administration, 4 in office procedures, 3 in office management, and 3 for field experience in office practices. In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 3 in business communications, 2 in record keeping, 3 in records administration, 4 in office procedures, 3 in office management, 3 for field experience in office practices, 4 in human relations, 2 in public relations, 3 in personnel supervision, and 3 for field experience in office management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (6/78).

MOS-71M-001

CHAPLAIN'S ASSISTANT

71M20
71M50

Exhibit Dates: 10/73-8/77.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Acts as an administrative assistant to a military chaplain; performs or supervises office activities such as preparing correspondence, maintaining personnel records, and assisting in budget preparation; asssists the chaplain in developing and operating religious education programs; equivalent to a civilian hospital chaplain's assistant or an administrative assistant in a church or synagogue. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Performs general office duties such as reception, record keeping, written communications, and budgeting; assists in the development and establishment of religious education programs. *Skill Level 50:* Able to perform the duties required for Skill Level 20; supervises activities that assist the chaplain; acts as a paraprofessional in assisting the chaplain in the establishment and operation of religious education programs, conferences, seminars, and lectures.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in business communications, 2 in communication skills, 1 in filing, and 1 in office management. In the lower-division baccalaureate/associate degree category, 2 semester hours in business communication skills, and 1 in introduction to audio-visual equipment (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, 4 semester hours in communication skills, 3 in office management, 2 in business communications, and 1 in filing. In the lower-division baccalaureate/associate degree category, 4 semester hours in communication skills, 2 in business communications, 2 in office management, and 1 in introduction to audio-visual equipment (11/75).

MOS-71M-002

CHAPEL ACTIVITIES SPECIALIST

71M10
71M20
71M30
71M40
71M50

Exhibit Dates: 9/77-2/88.

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Acts as administrative assistant to a military chaplain; performs or supervises office activities such as preparing correspondence and maintaining records; assists the chaplain in preparing for chapel and religious programs; comparable to a civilian hospital chaplain's assistant or administrative assistant in a church or synagogue. *Skill Level 10:* Prepares facility for services; prepares programs and bulletins; prepares schedules and religious materials; operates and maintains audio-visual equipment; acts as receptionist; answers routine inquiries; requisitions, receives, and maintains equipment and supplies; types letters, messages, forms, and records; maintains files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in planning and programming religious services and education requirements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to personnel in accomplishment of these duties. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises lower skill level personnel; coordinates volunteer, part-time, and other personnel; reviews prepared correspondence and reports; participates in planning and programming religious activities and participates in preparation of budget; maintains fund records including disbursements, receipts, and petty cash. *Skill Level 50:* Able to perform the duties required for Skill Level 40; performs supervisory and management duties in large installation.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications, 2 in communication skills, 1 in filing, 1 in office management, and 2 in introduction to audio-visual equipment (6/78).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, and 2 in introduction to audio-visual equipment. In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, and 2 in introduction to audio-visual equipment (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, 2 in introduction to audio-visual equipment, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, and 2 in budget administration. In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio visual equipment, 2 in budget administration, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in public relations (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, and 2 in budget administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, 2 in budget administration, 3 in human relations, and 3 in applied psychology. In the upper-division baccalaureate category, 3 semester hours in public relations (6/78).

MOS-71M-003

CHAPLAIN ASSISTANT

71M10
71M20
71M30
71M40
71M50

Exhibit Dates: 3/88–5/90.

Career Management Field: 71 (Administration).

Description

Summary: Acts as administrative assistant to a military chaplain; performs or supervises office activities such as preparing correspondence and maintaining records; assists the chaplain in preparing for chapel and religious programs; comparable to a civilian hospital chaplain's assistant or administrative assistant in a church or synagogue. *Skill Level 10:* Prepares facility for services; prepares programs and bulletins; prepares schedules and religious materials; operates and maintains audio-visual equipment; acts as receptionist; answers routine inquiries; requisitions, receives, and maintains equipment and supplies; types letters, messages, forms and records; maintains files. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel; assists in planning and programming religious services and education requirements. *Skill Level 30:* Able to perform the duties required for Skill Level 20 and provides technical guidance to personnel in accomplishment of these duties; participates in preparation of budget; maintains fund records including disbursements, receipts, and petty cash. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises lower skill level personnel; coordinates volunteer, part-time, and other personnel; reviews prepared correspondence and reports; participates in planning and programming religious activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; performs supervisory and management duties in large installation.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications, 2 in communication skills, 1 in filing, 1 in office management, and 2 in introduction to audio-visual equipment (6/78).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, and 2 in introduction to audio-visual equipment (6/78). In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, and 2 in introduction to audio-visual equipment (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in communication skills, 1 in filing, 3 in business communications, 2 in introduction to audio-visual equipment, 2 in budget administration, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, and 2 in budget administration. In the lower-division baccalaureate/associate degree category, 2 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio visual equipment, 2 in budget administration, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in public relations (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, and 2 in budget administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in office management, 3 in business communications, 6 in communication skills, 2 in introduction to audio-visual equipment, 2 in budget administration, 3 in human relations, and 3 in applied psychology. In the upper-division baccalaureate category, 3 semester hours in public relations (6/78).

MOS-71M-004

CHAPLAIN ASSISTANT

71M10
71M20
71M30
71M40
71M50

Exhibit Dates: 6/90–Present.

Career Management Field: 71 (Administration).

Description

Summary: Acts as administrative assistant to a military chaplain; performs or supervises office activities such as preparing correspondence and maintaining records; assists the chaplain in preparing for chapel and religious programs; comparable to a civilian hospital chaplain's assistant or administrative assistant in a church or synagogue. *Skill Level 10:* Prepares facility for services; prepares schedules and religious materials; operates and maintains audio-visual equipment; acts as receptionist; answers routine inquiries; requisitions, receives, and maintains equipment and supplies; types letters, messages, forms and records; maintains files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists in planning and programming religious services and education requirements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may provide supervision of 5-8 persons in accomplishment of these duties; participates in preparation of budget; maintains fund records including disbursements, receipts, and petty cash. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises subordinate personnel; coordinates volunteer, part-time, and other personnel; reviews prepared correspondence and reports; participates in planning and programming religious activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; performs supervisory and management duties in large installation.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in business communications, 2 in communication skills, and 1 in office administration (6/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications, 3 in communication skills, 2 in office administration, and 2 in human relations (6/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications, 3 in communication skills, 2 in office administration, 3 in human relations, 1 in technical writing, 2 in principles of supervision, and 2 in budget administration. In the upper-division baccalaureate category, 1 semester hour in counseling services and 2 in crisis intervention (6/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications, 3 in communication skills, 2 in office administration, 3 in human relations, 1 in technical writing, 3 in principles of supervision, and 2 in budget administration. In the upper-division baccalaureate category, 1 semester hour in counseling services and 2 in crisis intrvention (6/90).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications, 3 in communication skills, 3 in office administration, 3 in human relations, 1 in technical writing, 3 in principles of supervision, 2 in budget administration, and 3 in applied psychology. In the upper-division baccalaureate category, 1 semester hour in counseling services and 3 in applied psychology (6/90).

MOS-71N-001

TRAFFIC MANAGEMENT COORDINATOR

71N10
71N20
71N30
71N40

Exhibit Dates: 3/76-9/87. (MOS 71N has been redesignated MOS 88N; see exhibit MOS-88N-001.)

Career Management Field: 64 (Transportation), subfield 641 (Surface Operations).

Description

Summary: Coordinates the departure and arrival of freight and personnel by air, rail, highway, and water. *Skill Level 10:* Performs clerical duties associated with the logistics of freight and personnel movements; issues government and civilian shipping documents, including freight bills, bills of lading, and freight manifest sheets; assists military members in the preparation of travel itineraries, personal property shipping documents, and passenger movement forms. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-scale freight movement office; plans, directs, and controls operation of subordinate personnel; assists in the development of future transportation plans; supervises freight reconsignment; maintains liaison with military and civilian transportation facilities; reviews, consolidates, and prepares reports covering transportation movement operations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises personnel at a large-scale freight movement office; when requested, reviews recommendations concerning facilities and site selection for depots, terminals, and railheads; advises superiors on present and future transportation capabilities and technical problems.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic and transportation or physical distribution management (5/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in traffic and transportation or in physical distribution management, 3 in human relations, 3 in personnel supervision and additional credit in traffic and transportation or in physical distribution management on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and additional credit in traffic and transportation or in physical distribution management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management (5/76).

MOS-71P-001

FLIGHT OPERATIONS COORDINATOR

71P20
71P40
71P50

Exhibit Dates: 10/73-2/76.

Career Management Field: 65 (Transportation), subfield 655 (Air Operations).

Description

Summary: Schedules, clears, and dispatches aircraft. *Skill Level 20:* Prepares routine and flight orders; processes local and extended flight clearances; coordinates flight plans with other agencies such as the FAA; maintains flights information board; keeps records and reports on flight operation activities; arranges ground services for transient aircraft; interprets weather reports and weather maps; understands and corrects aeronautical charts and publications used in navigation. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the scheduling, clearance, and dispatching of aircraft; plans and schedules work assignments; trains personnel; obtains instrument flight clearances; plans and supervises the movement of both personnel and cargo by air. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager responsible for either flight operations or overall operations of a unit such as a division aviation section or an operations section of an aviation battalion. NOTE: May have progressed to 71P50 from 71P40 or 93D40 (Flight Simulator Specialist).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft dispatching, 3 in aircraft operations management, and 2 in office practices. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, the lower-division baccalaureate/associate degree category, or the upper-division baccalaureate category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in personnel management, 3 in personnel training, and 2 in office practices (2/75).

Recommendation, Skill Level 50

In the vocational certificate category, the lower-division baccalaureate/associate degree category, or the upper-division baccalaureate category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 6 in personnel management, 6 in personnel training, and 2 in office practices (2/75).

MOS-71P-002

FLIGHT OPERATIONS COORDINATOR

71P10
71P20
71P30
71P40
71P50

Exhibit Dates: 3/76-3/85. (Effective 3/85, MOS 71P was reclassified as MOS 93P; see exhibit MOS-93P-001).

Career Management Field: 64 (Transportation), subfield 644 (Air Operations).

Description

Summary: Schedules, clears, and dispatches aircraft. *Skill Level 10:* Processes cross-country and local flight clearances; coordinates flight plans with other agencies, such as the FAA; maintains flight information; prepares, types, and maintains records and reports on flight operations and activities; maintains current files on flying regulations and navigational aid information; arranges ground services for transient aircraft; interprets and posts teletype weather reports; understands terminology used in air navigation and is aware of air traffic control advisory procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises a small flight operations activity consisting of 5 to 12 subordinate personnel; schedules aircraft missions, dispatches aircraft, and performs associated administrative duties; plans and schedules work assignments of subordinate flight operations personnel; checks work of subordinates and instructs them in proper work techniques and procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports; assists in preparing pre-accident plans. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized flight operations activity consisting of 13 or more subordinate personnel; provides technical guidance to subordinate personnel; supervises the preparation of the situation map; prepares operations letter. assists administratively in aircraft accident investigations; assists in the preparation of letters of agreement, operations estimates, and operations orders. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large flight operations activity. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a mid-level manager.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft dispatching, 3 in aircraft operations management, 3 in federal aviation regulations, and 2 in office practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft dispatching, 3 in aircraft operations management, operations management, 3 in federal aviation regulations, and 2 in office practices, and additional credit in personnel supervision on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in aviation management or air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in

aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, credit in aviation management or air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in aviation management or air traffic operations and additional credit on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in aviation management or air traffic operations, 6 for field experience in management, 3 in introduction to management, and 3 in personnel management, and additional credit for an intership in education on the basis of institutional evaluation (6/76).

MOS-71Q-001

INFORMATION SPECIALIST

71Q20
71Q40
'Q50

Exhibit Dates: 10/73-2/77.

Career Management Field: 71 (Administration), subfield 715 (Information).

Description

Summary: Supervises or participates in the administration of information programs. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Serving as a reporter, gathers information; prepares and edits news items, feature articles, and editorials for newspapers; prepares publicity releases and information releases; takes, develops, and selects photographs. Serving as an editor, edits news stories; prepares headlines and captions; plans format and layout, corrects and revises galley sheets; considers libel and copyright laws; makes reporter assignments. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and coordinates an information program and trains subordinates in all aspects of journalism. *Skill Level 50:* Able to perform the duties required for Skill Level 40; coordinates the activities of a large information program involving several media.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, and 6 for field experience in journalism; if the duty assignment was editor, additional credit as follows: 3 semester hours for a practicum in news preparation, 3 for a practicum in news editing, 3 in layout and design, 3 for field experience in management, and 3 in personnel supervision (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 6 for field experience in journalism, 3 for a practicum in news preparation, 3 for a practicum in news editing, 3 in layout and design, 3 for field experience in management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in human relations, and 6 for field experience in public relations (5/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 6 for field experience in journalism, 3 for a practicum in news preparation, 3 for a practicum in news editing, 3 in layout and design, 3 for field experience in management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in human relations, 3 in introduction to management, 3 in office management, 3 in records administration, 6 for field experience in management, and 6 for field experience in public relations (5/76).

MOS-71Q-002

JOURNALIST

71Q10
71Q20
71Q30
71Q40

Exhibit Dates: 3/77-3/89. (Effective 3/89, MOS 71Q was discontinued and its functions were incorporated into MOS 46Q, Journalist.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Summary: Supervises or participates in the administration of information programs. *Skill Level 10:* Serving as a reporter, gathers information; prepares and edits news items, feature articles, and editorials for newspapers; prepares publicity releases and information releases; takes, develops, and selects photographs. Serving as an editor, edits news stories, prepares headlines and captions, designs format and layout, corrects and revises galley sheets, considers libel and copyright laws, and makes reporter assignments. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel; coordinates news-gathering activities, and makes reporter assignments. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the administration of an information program and trains subordinates in all aspects of journalism, including circulation methods and business policies. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates the activities of a large information program involving several media; implements new programs.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 3 in continuity writing, and 3 for field experience in journalism; if the duty assignment was editor, additional credit as follows: 3 semester hours for a practicum in news preparation, 3 in personnel supervision, 3 in copy editing, and 3 in layout and design (5/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 3 in continuity writing, 6 for field experience in journalism, 3 for a practicum in news preparation, 3 in personnel supervision, 3 in copy editing, 3 in layout and design, and 3 in human relations (5/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 3 in continuity writing, 6 for field experience in journalism, 3 for a practicum in news preparation, 3 in personnel supervision, 6 in copy editing, 3 in layout and design, 3 in human relations, and credit in marketing on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in advanced news reporting (5/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in news reporting, 3 in feature writing, 3 in basic photography, 3 in publicity release writing, 3 in continuity writing, 6 for field experience in journalism, 3 for a practicum in news preparation, 3 in personnel supervision, 6 in copyediting, 3 in layout and design, 3 in human relations, 3 in introduction to media program management, and credit in marketing on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in advanced news reporting, 3 for field experience in management, and 3 in personnel management (5/78).

MOS-71R-001

BROADCAST SPECIALIST

71R20
71R40
71R50

Exhibit Dates: 10/73-2/77.

Career Management Field: 71 (Administration), subfield 715 (Information).

Description

Summary: Supervises or participates in the operation of a radio or television broadcast center. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Prepares scripts, announces, and gives play-by-play coverage of events; operates sound equipment and performs preventive maintenance. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as script supervisor, producer, and director of radio or television programs. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as station manager and coordinates programs and broadcast activities within the Armed Forces network.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast news writing, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 for field experience in television production, and additional credit on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast news writing, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 for field experience in television production, 6 for television workshop, 3 in television directing, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (5/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 6 in broadcasting station management, and 3 in records administration (5/76).

MOS-71R-002

BROADCAST SPECIALIST

71R10

71R20

71R30

71R40

Exhibit Dates: 3/77–3/89. (Effective 3/89, MOS 71R was discontinued and its duties were incorporated into MOS 46R, Broadcast Journalist.)

Career Management Field: 84 (Public Affairs and Audio-visual).

Description

Summary: Supervises or participates in the operation of a radio and television broadcast center. *Skill Level 10:* Prepares scripts; announces, performs, and gives play-by-play coverage of events; operates and performs preventive and emergency maintenance on sound equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as script supervisor, producer, and director of radio and television programs. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as station manager and coordinates programs and broadcast activities within the Armed Forces Network.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast newswriting, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 in public speaking, 3 in oral interpretation, and 3 for field experience in television production (5/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast newswriting, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 in public speaking, 3 in oral interpretation, 2 for field experience in television production, 3 in human relations, and 1 for field experience in broadcasting (5/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast newswriting, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 in public speaking, 3 in oral interpretation, 3 for field experience in television production, 3 in human relations, 3 for field experience in broadcasting, 3 in documentary production, 3 in news and public affairs, and 3 in personnel supervision (5/78).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast newswriting, 3 in continuity writing, 3 in announcing, 3 in studio techniques, 3 in public speaking, 3 for field experience in television production, 3 in oral interpretation, 3 in human relations, 3 for field experience in broadcasting, 3 in documentary production, 3 in news and public affairs, 3 in personnel supervision, and 6 for field experience in management. In the upper-division baccalaureate category, 6 semester hours in broadcast management, 3 in records administration, and 3 in personnel management (5/78).

MOS-71S-001

ATTACHE SPECIALIST

71S20

71S30

Exhibit Dates: 10/73–8/77. (Effective 9/77, MOS 71S was discontinued and its functions were incorporated into MOS 71L, Administrative Specialist.)

Career Management Field: 71 (Administration), subfield 711 (General Administration).

Description

Summary: Performs general administrative and office duties in support of Defense Army Attache office located in an embassy of the United States of America; able to perform the duties required for MOS 71B20 (Clerk-Typist). *Skill Level 20:* Types at a minimum speed of 35 words per minute; drafts and assembles correspondence; answers or responds to inquiries; operates duplicating equipment; prepares, computes, and processes vouchers for payment; drives and performs operator maintenance on sedan; establishes and keeps administrative and intelligence files; uses intelligence procedures to route classified correspondence, to file intelligence data, and to safeguard classified information in the office; assists the attache in collecting, integrating, tabulating, writing, and disseminating intelligence information; prepares distribution lists for intelligence reports; types and proofreads intelligence reports; coordinates with United States intelligence and embassy personnel to facilitate the flow and exchange of intelligence information. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs cryptographic functions, including encrypting and and decrypting messages, the preparation of reports on cryptographic operation, and the safeguarding of cryptographic materials; instructs less experienced personnel in proper work techniques and procedures.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 3 in office practices, 2 in filing, 2 in business communications, 2 in record keeping, and 1 in business machines (duplicating) (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in typing, 3 in office practices, 2 in filing, 2 in business communications, 2 in record keeping, and 1 in business machines (duplicating). In the lower-division baccalaureate/associate degree category, 6 semester hours in typing, 3 in office practices, 2 in filing, 2 in business communications, 2 in record keeping, 1 in business machines (duplicating), 3 in human relations, and 3 for field experience in office management (5/76).

MOS-71U-001

CARD AND TAPE WRITER

71U20

71U40

Exhibit Dates: 10/73–8/75. (Effective 9/75, MOS 71U was redesignated MOS 74B.)

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates keypunch, verifier, paper tape punch, and keytape machine to translate input data into machine-readable form; corrects any errors which may occur in the transcribing process. *Skill Level 20:* Able to prepare program drum cards for keypunch, follow record format specifications, and load and unload the machines. NOTE: May have progressed to 71U20 from 71B10 (Clerk-Typist). *Skill Level 40:* Able to perform the duties required for Skill Level 10; supervises the conversion of input data into machine-readable format and maintains quality control; trains and assigns work to subordinates; maintains workload records; initiates operating changes; requisitions, stores, and issues supplies and equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in keypunch operation (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in keypunch operation and 3 in office administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (12/75).

MOS-72B-001

COMMUNICATIONS CENTER SPECIALIST

72B10

72B20

72B30

72B40

Exhibit Dates: 10/73–9/74. (Effective 10/74, MOS 72B was discontinued and its functions were incorporated into MOS 72E, Telecommunications Center Specialist.)

Career Management Field: 72 (Communications and Audio Visual), subfield 721 (Communications Operations).

Description

Summary: Supervises communications center activities or operates automatic, semiautomatic, and manual teletypewriter equipment, cryptodevices, and related office equipment to send, receive, and route messages of a technical or classified nature. *Skill Level 10:* Performs as a messenger. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates teletypewriter and associated office equipment; maintains administrative records in a communications control center. *Skill Level 30:* Able to perform the duties required for Skill Level 20; is a senior telecommunications and office equipment operator working alone or as a member of a team; enforces security regulations; maintains records systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor of teletypewriter operators, with responsibility for the management of a medium-sized or large communications section; reviews machine accounting processes; plans, organizes, and coordinates use of personnel and equipment; may supervise 30 or more persons.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting or office machine operation or technical report writing (3/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting or office machine operation or technical report writing (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in typewriting or office machine operation and 3 in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting or office machine operation, 3 in technical report writing, 3 in management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management and 3 in personnel supervision on the basis of institutional evaluation (3/75).

MOS-72C-001

CENTRAL OFFICE SWITCHBOARD
OPERATOR
(TELEPHONE SWITCHBOARD OPERATOR)

72C20
72C40

Exhibit Dates: 10/73–2/78. (Effective 3/78, MOS 72C was discontinued and its functions were incorporated into MOS 36C, Wire Systems Installer/Operator.)

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or performs operator maintenance on manual, semi-automatic, and automatic switchboards and auxiliary equipment. *Skill Level 20:* Assists in the implacement of mobile switchboards; places local and long distance calls; checks circuits to ascertain proper functioning; reads traffic and cabling diagrams; uses handtools, such as electrician's knife and screwdriver. *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor; schedules operators; instructs operators on proper techniques and routing of calls; maintains updated traffic diagrams for operator reference; maintains station logs; requisitions supplies; supervises preventive maintenance on switchboards and auxiliary equipment; prepares operational and administrative reports.

Recommendation, Skill Level 20

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 for field experience in management (3/76).

MOS-72E-001

TELECOMMUNICATIONS CENTER SPECIALIST

72E10
72E20
72E30
72E40

Exhibit Dates: 10/74–2/78.

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or operates telecommunications center equipment and remote data terminal devices or performs functions related to these operations. *Skill Level 10:* Processes and delivers messages and performs related clerical functions in telecommunications centers. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assigns switch center or telecommunications center equipment for operation; installs and operates teletypewriter equipment; performs and records preventive maintenance on all equipment utilized; reproduces and distributes messages. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares and maintains the files necessary for accounting of cryptomaterial. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor; coordinates work activities in a data communications terminal; makes work assignments; coordinates equipment phase-down in event of power failure; prepares, conducts, and supervises on-the-job training of subordinate personnel; reviews accounting procedures and recommends necessary improvements; provides technical information on communications center operations to superiors; prepares final reports.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (3/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in basic electronics and 3 for field experience in communications center operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (3/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics and 3 in records administration (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in records administration, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (3/76).

MOS-72E-002

TELECOMMUNICATIONS CENTER OPERATOR

72E10
72E20
72E30
72E40

Exhibit Dates: 3/78–2/81.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or operates telecommunications center equipment and remote data terminal devices in either fixed-station or mobile mode; operates on-line and off-line cryptographic equipment for message security; receives, processes, and sends messages, including typing, using teletype, telegraph, and computer equipment. *Skill Level 10:* Receives, processes, and transmits messages, coded or uncoded; performs related clerical, typing, and administrative functions; installs and operates teletypewriter and automated data equipment; selects telecommunication equipment for on-line operation; prepares papertape and card messages, and uses security procedures for transmission; performs and maintains records of preventative maintenance on equipment and associated vehicles and generators; maintains message reference files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and performs administrative functions in telecommunications centers, including preparing and maintaining files; applies secure procedures for handling of high-precedence material and cryptomaterial; advises shift supervisor; insures accurate and secure handling of messages, and prepared reports of telecommunication operations. NOTE: Duties may also include computer equipment training and operations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation of a fixed or mobile communication center and remote terminals; coordinates activities in the center and supervises training; prepares reports of center operations; conducts audits and reviews of cryptomaterial; supervises 7-13 persons and evaluates their performances; coordinates routing of message traffic with switching centers. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations of telecommunications center; coordinates organizational training and technical operations; supervises office management, including clerical, administrative, and accounting procedures; makes work assignments; supervises 14 or more personnel in telecommunications operations, and evaluates their capabilities, including written evaluation reports; provides technical information to commander and staff sections; prepares final periodic reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in basic electronics, 2 in communications electronics, and 2 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics and 2 in typing (10/79).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in basic electronics, 2 in communications electronics, 2 in typing, and 3 for field experience in communications center operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics, 2 in typewriting, and 3 in records administration; if duties included computer equipment operation, 1 additional semester hour in computer operations (10/79).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics, 2 in typing, 3 in records administration, and 3 in personnel supervision; if duties included computer equipment operation, 1 additional semester hour in computer operations. In the upper-division baccalaureate category, 3 semester hours in personnel management (10/79).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in basic electronics, 2 in communications electronics, 2 in typing, 3 for field experience in communications center operations, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics, 2 in typing, 3 in records administration, 3 in personnel supervision, and 3 for field experience in office management; if duties included computer equipment operation, 2 additional semester hours in computer operations. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in office management (10/79).

MOS-72E-003

Combat Telecommunications Center
Operator

72E10
72E20
72E30
72E40

Exhibit Dates: 3/81-Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Operates, monitors, and supervises record telecommunications equipment or assemblies. *Skill Level 10:* Processes and delivers messages; performs related clerical and administrative functions within combat telecommunications centers; prepares messages in proper format; performs message reproduction and distribution functions; operates on-line and off-line cryptographic equipment using appropriate systems and materials; installs, operates, and does routine maintenance on telecommunications equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; processes messages; supervises and performs administrative functions in combat telecommunications centers; maintains files necessary for adequate accounting and control of crypotographic material; coordinates handling of messages in combat telecommunication centers. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation of combat telecommunications centers and remote terminals; establishes and supervises on-the-job training; evaluates capabilities of lower-skill-level personnel; reviews the control and accounting procedures for cryptographic material and recommends improvements. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the overall operation of combat telecommunications centers; coordinates organizational training and technical operation of center; evaluates capabilities of subordinate personnel; makes work assignments and coordinates efforts with other units.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office procedures (2/84).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, and 3 in office management (2/84).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in typing and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in office management, and 3 in personnel supervision (2/84).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in typing and 3 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in office management, 3 in personnel supervision, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/84).

MOS-72F-001

Data Communications Terminal
Specialist

72F20
72F40

Exhibit Dates: 10/73-9/74. (Effective 10/74, MOS 72F was discontinued and its functions were incorporated into MOS 72E, Telecommunications Center Specialist.)

Career Management Field: 72 (Telecommunications).

Description

Summary: Operates communications terminal equipment, including teletypewriter, cards, tapes, and cryptographic and associated devices. *Skill Level 20:* Processes and delivers messages; reviews data presented for adherence to procedures, format, routing, and precedence for input to an automated data communications network; operates control equipment to integrate teletype systems with digital network; performs preventive maintenance on data communications terminal equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises data communications terminal operations, personnel, and equipment maintenance activities; prepares technical and administrative reports; conducts on-the-job training.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment operation, 3 in digital data transmission, 3 in basic mathematics, 2 in typing, 1 in electronic communication theory, 1 in electronic equipment maintenance, 1 in digital principles, and 1 in AC and DC circuits (3/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment operation, 3 in digital data transmission, 3 in basic mathematics, 3 in office management, 3 in personnel supervision, 2 in typing, 1 in electronic communication theory, 1 in electronic equipment maintenance, 1 in digital principles, and 1 in AC and DC circuits; if pay grade E-7 was achieved, 3 additional semester hours for field experience in data communications (3/75).

MOS-72G-001

Data Communications Switching
Center Specialist

72G20
72G40
72G50

Exhibit Dates: 3/75-2/78.

Career Management Field: 72 (Telecommunications).

Description

Summary: Operates and monitors data communications equipment and peripheral devices in an automatic digital message switching center. *Skill Level 20:* Operates data communications equipment, including system control to monitor and direct digital message switching center operations; processes and transmits messages; understands circuit and message switching capabilities of data communications switching center equipment; assigns computer and peripheral equipment configurations for message processing on-line operation, off-line operation, and maintenance functions; prepares messages for transmission in paper tape or card form; prepares system flow of data to and from digital computers connected to electromechanical devices; operates peripheral equipment such as card readers, card punches, magnetic tape stations, high-speed printers, control consoles, off-line message processor, and teletypewriters; prepares station logs, assures adequate supplies, keeps files, indexes tapes, and prepares in-station message-handling efficiency statistics. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a shift supervisor or traffic service supervisor; supervises switching center shift operations applicable to console and console traffic service operations, programming, technical control, and terminal activities; coordinates routing of traffic with other stations and equipment maintenance, directs and conducts on-the-job training; prepares reports on such topics as circuit and equipment outages, traffic statistics, software and hardware deficiencies, program patches, circuit restoral actions, procedural problems. NOTE: May have progressed to 72G40 from 72G20 or 72E40 (Telecommunications Center Specialist). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a data communications supervisor or manager; performs office management functions; assists in problem-solving pertinent to programming, tributaries, equipment, maintenance, and administration; prepares administrative and technical report on cryptographic and data communications center operation; supervises organization, training, and technical operations. NOTE: May have progressed to 72G50 from 72G40, 72E40 (Telecommunications Center Specialist), 72H40 (Central Office Operations Specialist), or 72C40 (Central Office Switchboard Operator).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data communications. In the upper-division baccalaureate category, 3 semester hours in principles of data communications (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data communications, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in principles of data communications and 3 for field experience in management (6/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data communications, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 3 in technical writing. In the upper-division baccalaureate category, 3 semester hours in principles of data communications, 3 for field experience in management, and 3 in introduction to management (6/76).

MOS-72G-002

Data Communications Switching Center Specialist

72G10
72G20
72G30
72G40
72G50

Exhibit Dates: 3/78–2/81

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises, operates, and monitors data communications equipment and peripheral devices in automatic digital message switching center. *Skill Level 10:* Operates data communications equipment; processes and transmits messages through automatic digital networks; prepares messages for transmission in paper, tape, or card form; operates card readers, card punches, magnetic tape transports, magnetic tape stations, high-speed printers, and teletypewriters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates digital computers to receive, process, store, and forward data communications; assigns computer and peripheral equipment for online processing; prepares messages for encoding; maintains files; operates off-line message processor and teletypewriters; prepares station message-handling efficiency statistics. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor; ensures message protection and efficiency of high-speed traffic channels; employs automatic digital message switching start-up and restoring procedures; takes appropriate action to correct equipment malfunction, data discrepancies, or circuitry failure; prepares logs of equipment status and significant events. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as data communications supervisor; supervises switching center operations, including console, traffic service operations, programming, and technical control; facilitates routing traffic by coordination with various organizations and other stations; corrects discrepancies and faulty work practices; prepares, conducts, and supervises on-the-job training; prepares and submits technical reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer; supervises all aspects of the operations of a data communications switching center; implements regulations and directives applicable to data communications systems operations; prepares technical and administrative reports; supervises training procedures.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures (10/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures and 3 in computer system analysis (10/81).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in data processing procedures, 3 in computer system analysis, and 3 in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures, 3 in computer system analysis, 3 in technical report writing, and 3 in personnel supervision (10/81).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures, 3 in computer system analysis, 3 in technical report writing, 3 in personnel supervision, and 3 in human relations (10/81).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures, 3 in computer system analysis, 3 in technical report writing, 3 in personnel supervision, 3 in human relations, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, and 3 in management problems (10/81).

MOS-72G-003

Automatic Data Telecommunications Center Operator

72G10
72G20
72G30
72G40

Exhibit Dates: 3/81–Present.

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises, operates, and monitors data communications equipment and peripheral devices in automatic switching center. *Skill Level 10:* Operates data communications equipment; processes and transmits messages through automatic digital networks; prepares messages for transmission in paper tape, magnetic tape, and disc form; operates card readers, card punches, magnetic tape transports, magnetic tape stations, high-speed printers, and teletypewriters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates digital computers to receive, process, store, and forward data communications; assigns computer and peripheral equipment for online processing; prepares messages for encoding; maintains files; operates off-line message processor and teletypewriters; prepares station message-handling efficiency statistics. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor; ensures message protection and efficiency of high-speed traffic channels; employs automatic digital message switching start-up and restoring procedures; takes appropriate action to correct equipment malfunction, data discrepancies, or circuitry failure; initiates computer programs to operate equipment; prepares logs of equipment status and significant events. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as data communications supervisor; supervises switching center operations, including console, traffic service operations, programming, and technical control; facilitates routing traffic by coordination with various organizations and other stations; corrects discrepancies and faulty work practices; prepares, conducts, supervises on-the-job training and evaluates personnel; prepares and submits technical reports, including technical information on crypotographic operations.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures (2/84).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in data processing procedures and 3 in introduction to telecommunications networks. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures and 3 in introduction to telecommunications networks (2/84).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures, 3 in introduction to telecommunication networks, 3 in personnel supervision, and 3 in technical report writing (2/84).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing procedures, 3 in introduction to telecommunications networks, 3 in personnel supervision, 3 in technical report writing, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/84).

MOS-72H-001

CENTRAL OFFICE OPERATIONS SPECIALIST

72H20

72H40

Exhibit Dates: 10/74–2/78.

Career Management Field: 72 (Telecommunications).

Description

Summary: Supervises or operates switchboards and radio consoles providing communications to the President and other persons and offices of the executive branch of the government. *Skill Level 20:* Able to perform the duties required for Skill Level 20 of MOS 72C (Central Office Switchboard Operator); sets up and operates voice transmissions equipment to provide ground and air communications; makes continuity checks to ensure all local and nationwide circuits are working; maintains a roster showing current locations of staff, cabinet, and military officials and aides; maintains charts, circuitry logs, and worldwide locator systems pertaining to presidential communications networks; uses security regulations; employs proper telephone operator procedures; installs switchboards and radiophone interfaced equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises central office communications operations; initiates training programs and sets standards for training of central office personnel; oversees preventive maintenance of switchboard and auxiliary equipment; coordinates with telephone companies, both domestic and foreign, for placement of telephone service and long-line circuits; instructs and demonstrates proper work procedures and techniques; estimates traffic loads and equipment utilization; supervises the installation and maintenance of radio and telephone communications equipment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in elementary broadcasting, and 3 in small instrument repair (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in record keeping, 3 in elementary broadcasting, and 3 in small instrument repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in elementary broadcasting, 3 in small instrument repair, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in systems management (3/76).

MOS-72H-002

CENTRAL OFFICE OPERATIONS OPERATOR

72H10

72H20

72H30

72H40

Exhibit Dates: 3/78–2/87. (Effective 3/87, MOS 72H was discontinued and its functions were incorporated into ASI J7, White House Communications Agency Console Control Operations.)

Career Management Field: 31 (Communications-Electronics Operations).

Description

Summary: Supervises or operates switchboards, radio consoles, and other telecommunications equipment used to provide communications to the President, Vice-President, Secret Service, and other members of the Executive Branch of the government; integrates networks from ground units, mobile units, and air-to-ground units. *Skill Level 10:* Operates communications equipment including switchboards and radio consoles; sets up and operates voice transmission equipment to provide ground and air communications; makes continuity checks to ensure all local and nationwide circuits are working; maintains rosters showing current locations of staff, cabinet and military officials and aides, using computer-accessed data; maintains charts, telephone call logs, and worldwide locator systems pertaining to presidential communications networks; provides telecommunications between and among members of the Executive Branch, using matrix calls, conference calls, mobile phone calls, and special-handling calls. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs and operates mobile telecommunications facilities including switchboards, radio telephone equipment and telephones, wherever the President or other executive members travel; uses security regulations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs duties as chief operator, or supervises section members at telecommunications facility; supervises the installation of a mobile facility; certificated as a Senior Controller; estimates traffic loads and equipment utilization. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs duties as shift supervisor or section chief in the operation of communication systems; certificated as a Shift Supervisor; maintains current locator data for all designated persons in the Executive Branch, updating computer information on a daily basis; responsible for records and recordkeeping within the telecommunications center; coordinates installation and operations of mobile facilities; coordinates with telephone companies, both domestic and foreign, for placement of switchboard, auxiliary equipment and satellite voice communications; arranges for telephone services and long-line circuits; ensures continuity of voice transmission networks; provides emergency communications for the Executive Branch as required.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, and 3 in introduction to voice communications networks (10/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, 3 in introduction to voice communications networks, and 3 in recordkeeping (10/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, 3 in introduction to voice communications networks, 3 in recordkeeping, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in systems management (10/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 2 in files management, 3 in introduction to voice communications networks, 3 in recordkeeping, and 6 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in systems management and 3 for field experience in management (10/87).

MOS-73C-001

FINANCE SPECIALIST

73C20

73C30

73C40

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 713 (Finance).

Description

Summary: Receives and disburses cash; keeps financial records pertaining to payroll, travel, commercial accounts, and leave. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Under supervision, disburses, collects, and keeps custody of cash, checks, and bonds; balances and reconciles cash blotter and check register; exchanges foreign currency and military payment certificates; counsels and assists persons with pay and allowance problems; reviews accuracy of data, coding, numbering, and processing of documents, correspondence, and computer input and output for the Army pay system; posts and annually reviews military leave records; keeps records and prepares reports for income taxes and FICA; prepares statements of legal residence; keeps pay accounts for civilian employees, including payroll control registrar and leave accounts; determines the validity of commercial bills by examining supporting and substantiating documents; processes valid bills for payment and keeps bills, register, and file of documents; prepares, processes, and makes payment of vouchers for supplies, equipment, and non-personnel services; applies computer-oriented language in recording data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs quality assurance audits of pay, leave, travel, disbursement, and collection records; performs comprehensive reviews of on-site personnel financial records; detects errors, determines the causes, and initiates corrective changes; verifies procedures for examination and determination of entitlements; conducts pay inquiry analyses and procedural reviews; modifies procedures to improve efficiency, insure accuracy, and assure proper financial accountability; interprets and applies directives, regulations, and other legal requirements on civilian, military, and personnel travel and dislocation allowances; interprets and applies Comptroller General decisions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a first-line supervisor, plans and organizes work schedules, assigns duties, and instructs subordinates in proper work techniques and procedures; prepares administrative, technical, and personnel reports; provides liaison with finance organizations.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in business mathematics, 3 in government payroll procedures, 3 in business communications, 3 in introduction to credit, 2 in office practices, and 1 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 3 in government payroll procedures, 2 in office practices, 1 in typing, and 1 in personal finance and credit (3/75).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in business mathematics, 3 in government payroll procedures, 3 in office management, 3 in office accounting, 3 in introduction to credit, 3 in business communications, 2 in office practices, and 2 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 3 in government payroll procedures, 3 in office management, 2 in office practices, 2 in typing, and 1 in personal finance and credit (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in business mathematics, 3 in government payroll procedures, 3 in office accounting, 3 in introduction to credit, 3 in business communications, 3 in report writing, 3 in office management, 2 in office practices, and 2 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, business communications, 3 in government payroll procedures, 3 in office management, 3 in personnel supervision, 3 in report writing, 2 in office practices, 2 in typing, and 1 in personal finance and credit (3/75).

MOS-73C-002

FINANCE SPECIALIST

73C10
73C20
73C30
73C40

Exhibit Dates: 9/77-Present.

Career Management Field: 71 (Administration), subfield 713 (Finance).

Description

Summary: Completes forms, verifies data, computes amounts, and prepares reports of activity pertaining to pay, leave, travel, and personal finance records of military personnel. *Skill Level 10:* Determines entitlements to pay, prepares input, and verifies leave and earnings; prepares pay vouchers; verifies, corrects, and maintains files of personal financial records; operates calculator and other office equipment; answers inquiries from service members. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel; computes, reviews, verifies, and corrects items related to travel reports and allowances; disburses, collects, and prepares reconciliation reports; performs quality assurance audits and special reviews, and reports findings. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may supervise from 4-18 lower skill level personnel; prepares reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; may supervise from 3-24 personnel in a large finance organization.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in business mathematics, 2 in office procedures, and 2 in office machines (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in business mathematics, 2 in office machines, and 3 in office procedures (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 1 semester hour in business mathematics, 2 in office machines, 3 in office procedures, and 2 in office management. In the lower-division baccalaureate/associate degree category, 1 semester hour in business mathematics, 2 in office machines, 3 in office procedures, 2 in office management, and credit in human relations on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 1 semester hour in business mathematics, 2 in office machines, 2 in business communications, 3 in office procedures, and 3 in office management. In the lower-division baccalaureate/associate degree category, 1 semester hour in business mathematics, 2 in office machines, 2 in business communications, 3 in office procedures, 3 in office management, and credit in human relations and personnel supervision on the basis of institutional evaluation (6/78).

MOS-73D-001

ACCOUNTING SPECIALIST

73D20
73D30
73D40

Exhibit Dates: 10/73-8/77.

Career Management Field: 71 (Administration), subfield 713 (Finance).

Description

Summary: Conducts fiscal accounting, internal review, and budget operations. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), or 71S (Attache Specialist). *Skill Level 20:* Under supervision, analyzes, records, reconciles, and reports accounting transactions; keeps general, subsidiary, and cost accounting ledgers, journals, and fund control records; keeps vouchers and other files to support ledger entries; prepares cost reports and correspondence concerning funds and supply transactions; reviews requests for funds for legality, conformity with policy, and availability; keeps control accounts of consumer funds, financial property, stock funds, and industrial funds. *Skill Level 30:* Able to perform the duties required for Skill Level 20; under supervision, performs budgeting and internal review operations at military bases and higher levels of command; advises superiors on policies and procedures pertaining to budgeting and internal review; assists superiors in the development of instructions for data collection and the preparation and analysis of budget reports; prepares reports, estimates, and analyses required for budget management purposes. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor; plans and coordinates all phases of accounting, internal review, and budget operations; instructs subordinates in work techniques and procedures; reviews subordinates' work; plans and coordinates with the data processing center all activities that pertain to mechanized accounting, such as processing daily business, preparing reports, and changes in regulations that affect input and output; assists in designing mechanized accounting systems; coordinates the preparation activities for visits by Army Audit Agency and General Accounting Office representatives.

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in clerical record keeping, 3 in business mathematics, 3 in business communications, 2 in accounting principles, 2 for field experience in accounting, and 1 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 2 in accounting principles, 2 for field experience in accounting, and 1 in typing (3/75).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in clerical record keeping, 3 in business mathematics, 3 in business communications, 3 in office management, 2 in accounting principles, and 1 in typing; if pay grade E-7 was achieved, add 4 semester hours for field experience in accounting. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 3 in office management, 2 in principles of accounting, and 1 in typing; if pay grade E-7 was achieved, 4 additional semester hours for field experience in accounting (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in clerical record keeping, 2 in accounting principles, 6 for field experience in accounting, 3 in business mathematics, 3 in business communications, 3 in office management, 3 in introduction to data processing, and 1 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in business mathematics, 3 in business communications, 3 in office management, 3 in personnel supervision, 3 in introduction to data processing, 2 in principles of accounting, 4 for field experience in accounting, and 1 in typing (3/75).

MOS-73D-002

ACCOUNTING SPECIALIST

73D10
73D20
73D30
73D40

Exhibit Dates: 9/77-Present.

Career Management Field: 71 (Administration), subfield 713 (Finance).

Description

Summary: Records, verifies, and reconciles data in accordance with Army accounting procedures. *Skill Level 10:* Records and verifies data; prepares error-correction documents and reports; maintains files; operates calculator and other office equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; prepares expense reconciliations; interprets budget guidelines from higher headquarters and develops cost factors; develops activity budget submissions, reports, estimates, and analyses; conducts audit of accounting records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and instructs lower skill level personnel; may supervise 4-14 persons; plans and coordinates accounting operations; reviews reports for completeness and correctness. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises more than 15 persons; supervises operations in a large accounting activity.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office procedures, 1 in business mathematics, and 2 in office machines (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 2 in business mathematics, 2 in record keeping, and 1 in accounting (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in office procedures, 2 in business mathematics, 3 in record keeping, 1 in accounting, and 2 in office management. In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 2 in business mathematics, 3 in record keeping, 1 in accounting, and 2 in office management, and credit in human relations on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in office procedures, 2 in business mathematics, 3 in record keeping, 2 in accounting, 3 in office management, and 3 in management principles. In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 2 in business mathematics, 3 in record keeping, 2 in accounting, 3 in office management, and 3 in management principles, and credit in human relations and personnel supervision on the basis of institutional evaluation (6/78).

MOS-73Z-001

FINANCE SENIOR SERGEANT

73Z50

Exhibit Dates: 10/73–Present.

Career Management Field: 71 (Administration), subfield 713 (Finance).

Description

Skill Level 50: Able to perform the duties required for Skill Level 30 of MOS 73C (Finance Specialist), and 73D (Accounting Specialist); supervises or performs finance operations, accounting operations, or comptroller functions at military installations, agencies, or commands; supervises and reviews payroll accounting procedures and records, travel disbursements, and internal review and budget functions; performs staff functions such as research and preparation of financial accounting statements and statistical reports; as a finance operations chief at pay grade E-8, supervises a minimum of 25 persons; as a finance operations chief at pay grade E-9, supervises a minimum of 60 persons. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer) or 71S (Attache Specialist).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours for field experience in accounting, 3 in payroll accounting, 3 in business communications, 1 in filing, and additional credit as follows: if the duty assignment was division chief at pay grade E-8, 4 semester hours in office management, 4 in personnel supervision, and 2 in budgeting and systems; if the duty assignment was finance operations chief at pay Grade E-8, 5 semester hours in office management, 5 in personnel supervision, and 3 in budgeting and systems; if the duty assignment was finance operations chief at pay grade E-9, 6 semester hours in office management, 6 in personnel supervision, and 4 in budgeting and systems. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in accounting, 3 in business communications, and additional credit as follows: if the duty assignment was division chief at pay grade E-8, 4 semester hours in personnel supervision and 4 in office management; if the duty assignment was finance operations chief at pay grade E-8, 5 semester hours in personnel supervision, 5 in office management, and 1 in accounting systems; if the duty assignment was finance operations chief at grade E-9, 6 semester hours in personnel supervision, 6 in office management, and 2 in accounting systems. In the upper-division baccalaureate category, 3 semester hours in introduction to management, and additional credit as follows: if the duty assignment was either division chief at pay grade E-8 or finance operations chief at pay grade E-8, 3 semester hours for field experience in management; if the duty assignment was finance operation chief at pay grade E-9, 6 semester hours for field experience in management (11/75).

MOS-74B-001

CARD AND TAPE WRITER

74B10

74B20

Exhibit Dates: 9/75–2/86. (Effective 3/86, MOS 74B was discontinued.)

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates keypunch, verifier, paper tape punch, and keytape machine to translate input data into machine-readable orm; corrects any errors which may occur in the transcribing process. *Skill Level 10:* Able to prepare program drum cards for keypunch, follow record format specifications, and load and unload the machines. NOTE: May have progressed to 74B10 from 71B10 (Clerk-Typist). *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises the conversion of input data into machine-readable format and maintains quality control; trains and assigns work to subordinates; maintains workload records; initiates operating changes; requisitions, stores, and issues supplies and equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in keypunch operation (12/75).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in keypunch operation and 3 in office administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (12/75).

MOS-74D-001

ADPS MACHINE OPERATIONS SPECIALIST

74D20

74D40

Exhibit Dates: 10/73–8/75.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates or supervises the operation of a computer console and computer peripheral equipment; operates or supervises the operation of unit-record equipment. *Skill Level 20:* Able to operate unit-record devices such as sorters, interpreters, reproducers, card processors, and collators; wires control panels; able to operate computer peripheral equipment such as card reader/punch, printers, tape duplicators, tape units, and optical scanners. *Skill Level 40:* Able to perform the duties required for Skill Level 20; able to supervise control panel wiring and operation of unit-record equipment and computer peripheral devices.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in unit-record operation (12/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in unit-record operation and 3 in office administration. In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (12/75).

MOS-74D-002

COMPUTER/MACHINE OPERATOR

74D10

74D20

74D30

74D40

Exhibit Dates: 9/75–12/76.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates or supervises the operation of a computer console and computer peripheral equipment; operates or supervises the operation of unit-record equipment. *Skill Level 10:* Operates unit-record devices such as sorters, interpreters, reproducers, card processors, collators, and decollators; operates computer peripheral equipment such as card reader/punch, printers, tape and disk units, and optical scanners; may prepare wiring diagrams and wire control panels; performs functions of a scheduling clerk and tape librarian. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates the console of small, medium, or large scale computer systems; interprets system flow charts; supervises all activities within a tape library. NOTE: May have progressed to 74D20 from 74D10 or 74B10 (Card and Tape Writer). *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation of a computer console, peripheral computer equipment, and unit-record equipment. NOTE: May have progressed to 74D30 from 74D20 or 74B20 (Card and Tape Writer). *Skill Level 40:* Able to perform the duties required for Skill Level 30; schedules production and prepares work schedules; assigns duties and instructs personnel in work techniques.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in unit-record operation and 2 in computer operations (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in unit-record operation and 4 in computer operations. In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations management (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in unit-record operation and 4 in computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations management (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in unit-record operations and 4 in computer operations. In the lower-division baccalaureate/associate degree category, 4 semester hours in computer operations management, 3 in human relations, 3 for field experience in management, and additional credit in personnel supervision on the basis of institutional evaluation (6/76).

MOS-74D-003

COMPUTER/MACHINE OPERATOR

74D10
74D20
74D30
74D40

Exhibit Dates: 1/77–Present.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates electronic computer console and auxiliary equipment. *Skill Level 10:* Performs computer console supporting activities; mounts magnetic disk and tape; operates line printers; keeps a magnetic tape library. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates a computer system consisting of a central processing unit, magnetic tape units and/or disk storage units in a nonmultiprogramming or nonmultiprocessing environment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates a computer system in multiprogramming and multiprocessing environment; operates a computer system which has remote-inquiry stations and a program-interrupt capability. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises computer system and auxiliary equipment operator personnel; prepares production schedules.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in file organization and processing, and 2 in computer system operations (9/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in file organization and processing, and 3 in computer system operations (9/81).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 2 semester hours in computer operating systems and 1 in introduction to systems analysis and design (9/81).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 3 in operations management, 3 in personnel supervision, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 3 semester hours in operations management, 3 in personnel supervision, 2 in computer operating systems, and 1 in introduction to systems analysis and design (9/81).

MOS-74E-001

COMPUTER SYSTEMS OPERATOR

74E10
74E20
74E30
74E40

Exhibit Dates: 10/73–8/75. (Effective 9/75, MOS 74E was discontinued and some of its functions were incorporated into MOS 74D, Computer/Machine Operator.)

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Operates electronic computer console and auxiliary equipment. *Skill Level 10:* Performs computer console supporting activities; mounts magnetic disk and tape; operates ADP equipment; keeps a magnetic tape library. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates a computer system consisting of a central processing unit, magnetic tape units and/or disk storage units in a nonmultiprogramming or nonmultiprocessing environment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; operates a computer system in multiprogramming and multiprocessing environment; operates a computer system which has remote-inquiry stations and a program-interrupt capability. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises computer system and auxiliary equipment operator personnel; prepares production schedules.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in file organization and processing, 2 in unit-record machine operations, and 2 in computer system operations (3/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in file organization and processing, 3 in computer system operations, and 2 in unit-record machine operations (3/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 2 in unit-record machine operations, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 2 semester hours in computer operations systems and 1 in introduction to systems analysis and design (3/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in computer system operations, 3 in introduction to data processing, 3 in file organization and processing, 3 in operations management, 3 in personnel supervision, 2 in unit-record machine operations, 2 in computer operating systems, and 1 in introduction to systems analysis and design. In the upper-division baccalaureate category, 3 semester hours in operations management, 3 in personnel supervision, 2 in computer operating systems, and 1 in introduction to systems analysis and design (3/75).

MOS-74F-001

COMPUTER PROGRAMMER

74F20

Exhibit Dates: 10/73–8/75.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Skill Level 20: Analyzes, writes, tests, and implements computer programs and/or conducts data system studies involving investigation, evaluation, development, and implementation of new or modified data processing systems for an application area; develops procedures necessary for reducing data processing applications into detailed instructions, routines, and codes; constructs flow charts and block diagrams to outline necessary computer programs from flow charts; tests, debugs, and implements programs; produces necessary documentation.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 3 in introduction to computer programming/data processing, 3 in Assembler language programming, 3 in computer file organization, 3 in advanced programming techniques, 3 in systems and program design, 3 in ANSI COBOL programming, and 3 in computer operating systems, and additional credit for programming skills in other programming languages (FORTRAN, RPG, etc.) on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in advanced programming techniques, 3 in systems and program design, and 3 in computer operating systems, and additional credit on the basis of institutional evaluation (3/75).

MOS-74F-002

Programmer/Analyst

74F10
74F20
74F30
74F40

Exhibit Dates: 9/75-12/76.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Analyzes, writes, tests, and implements computer programs and/or conducts data system studies involving investigation, evaluation, development, and implementation of new modified data processing systems for an application area. *Skill Level 10:* Assist Assists in preparation, editing, testing, and implementation of computer programs; prepares and analyzes program and system flow charts; prepares program documentation; reviews and revises computer programs; writes simple Assembler and COBOL programs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes, writes, edits, tests, and implements computer programs; sorts, merges, and processes runs; writes detailed program specifications for minor problems; may supervise computer activities. NOTE: May have progressed to 74F20 from 74F10, 74B10 (Card and Tape Writer), or 74D10 (Computer/Machine Operator). *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs or assists in supervising programming and systems studies in personnel, intelligence, transportation, supply, maintenance, medical, finance, and data communications areas; develops procedures to produce flow charts, block diagrams, and detailed instructions, routines, and codes for data processing application. NOTE: May have progressed to 74F30 from 74F20, 74B20 (Card and Tape Writer), or 74D20 (Card and Tape Writer), or 74D20 (Computer/Machine Operator). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises systems analysis and programming activities; supervises, advises, guides, and evaluates programmers and system analysts.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in Assembler language programming, 3 in ANSI COBOL programming, and 3 in systems analysis and design. In the upper-division baccalaureate category, 3 semester hours in systems analysis and design (6/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in Assembler language programming, 3 in ANSI COBOL programming, 3 in computer file organization, and 4 in systems analysis and design. In the upper-division baccalaureate category, 4 semester hours in systems analysis and design (6/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in Assembler language programming, 3 in ANSI COBOL programming, 3 in computer file organization, and 6 in systems analysis and design. In the upper-division baccalaureate category, 6 semester hours in systems analysis and design (6/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in Assembler language programming, 3 in ANSI COBOL programming, 3 in computer file organization, 6 in systems analysis and design, 3 in systems and programming management, 3 in human relations, 3 for field experience in management, and additional credit in personnel supervision on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in systems analysis and design, 3 in systems and programming management, 3 in human relations, and 3 for field experience in management (6/76).

MOS-74F-003

Programmer/Analyst

74F10
74F20
74F30
74F40

Exhibit Dates: 1/77-Present.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Summary: Analyzes, writes, tests, and implements computer programs and/or conducts data system studies involving investigations, evaluation, development, and implementation of new or modified data processing systems for an application area. *Skill Level 10:* Assists in the preparation, editing, testing, and implementation of computer programs; prepares and analyzes program and system flow charts; prepares program documentation; reviews and revises computer programs; writes simple Assembler and COBOL programs, as well as programs in other universal languages (FORTRAN, RPG, BASIC). *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes, writes, edits, tests, and implements computer programs; sorts, merges, and processes runs; writes detailed program specifications for minor problems; may supervise computer programming activities. NOTE: May have progressed to 74F20 from 74B10 (Card and Tape Writer), or 74D10 (Computer/Machine Operator). *Skill Level 30:* Able to perform the duties required for Skill Level 20; applies advanced programming techniques; produces computer operations documentation; performs or assists in supervising programming and systems studies in personnel, intelligence, transportation, supply, maintenance, medical, finance, and data communications areas; develops procedures to produce flow charts, block diagrams, and detailed instructions, routines, and codes for data processing application. NOTE: May have progressed to 74F30 from 74F20, 74B20 (Card and Tape Writer), or 74D20 (Computer/Machine Operator). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises systems analysis and programming activities; supervises, advises, guides, and evaluates programmers and systems analysts.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in systems analysis and design, 3 in Assembler language programming, 3 in ANSI COBOL programming, and additional credit in other programming languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in systems analysis and design (9/81).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer file organization, 4 in systems analysis and design, 3 in Assembler language programming, 3 in ANSI COBOL programming, and additional credit in other programming languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 4 semester hours in systems analysis and design (9/81).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer file organization, 8 in systems analysis and design, 3 in computer operating systems, 3 in advanced programming techniques, 3 in Assembler language programming, 3 in ANSI COBOL programming, and additional credit in other programming languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 8 semester hours in systems analysis and design, and 3 in advanced programming techniques (9/81).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer file organization, 8 in systems analysis and design, 3 in computer operating systems, 3 in advanced programming techniques, 3 in systems and programming management, 3 in Assembler language programming, 3 in ANSI COBOL programming, 3 for field experience in management, 3 in human relations, and additional credit in personnel supervision and other programming languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 8 semester hours in systems analysis and design, 3 in system and programming management, 3 in advanced programming techniques, 3 in human relations, and 3 for field experience in management (9/81).

MOS-74G-001

ADP (Automatic Data Processing)
Systems Analyst

74G20

Exhibit Dates: 10/73-8/75. (Effective 9/75, MOS 74G was discontinued and some of its functions were incorporated into MOS 74F, Programmer/Analyst.)

Career Management Field: 74 (Automatic Data Processing, subfield 741 (Data Processing Equipment Operations).

Description

Skill Level 20: Conducts systems studies involving investigation, evaluation, and development of data processing systems for and in conjunction with a user; performs design and prepares detailed systems specifications, including those for all files and programs required; implements new or modified systems and prepares appropriate systems documentation; able to train the system user in the operation of the new system. NOTE: May have progressed to 74G20 from 74C20 (Data Analysis Specialist), 74D20 (ADPS Machine Operation Specialist), 74D20 (ADPS Machine Operation

Specialist), or 74F20 Computer Programmer).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in systems analysis, 3 in data processing principles, and 3 in computer file organization. In the upper-division baccalaureate category, 6 semester hours in systems analysis (12/75).

MOS-74Z-001

DATA PROCESSING NCO

74Z50

Exhibit Dates: 10/73-Present.

Career Management Field: 74 (Automatic Data Processing), subfield 741 (Data Processing Equipment Operations).

Description

Skill Level 50: Supervises a data processing installation including systems analysts, computer programmers, computer operators, and related support groups; delegates task areas to key subordinates and manages their activities; maintains a current knowledge of accepted systems and programming standards, personnel procedures, and office operation techniques; knows the basic principles of systems analysis, computer hardware, and unit-record equipment; possesses an overall understanding of computer programming. NOTE: May have detailed knowledge in one or more of the following areas: computer operations, computer equipment maintenance, computer programming, and systems analysis, through previous MOS experience in the automatic data processing career management field (74).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in unit record data processing, 3 in data processing principles, 2 in computer operations, and 1 in computer programming. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in management, 3 in data processing principles, 3 in introduction to management, 3 in office management, 3 in personnel management, 2 in business systems analysis, and 1 in computer programming. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in office management, 3 in personnel management, and 2 in business systems analysis (12/75).

MOS-75B-001

UNIT CLERK

75B20

Exhibit Dates: 10/73-8/77.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Skill Level 20: Performs clerical and related administrative functions, including typing, filing, serving as a receptionist, ordering office supplies, and completing forms.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office procedures (11/75).

MOS-75B-002

PERSONNEL ADMINISTRATION SPECIALIST

75B10

75B20

Exhibit Dates: 9/77-2/82.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Performs clerical and administrative functions. *Skill Level 10:* Types and completes forms; prepares correspondence; maintains files; maintains charts; orders office supplies; serves as a receptionist; answers inquiries and arranges appointments; provides input data for computer system. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing and 1 in office procedures and credit in business communications on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in office procedures, and 2 in business communications (6/78).

MOS-75B-003

PERSONNEL ADMINISTRATION SPECIALIST

75B10

75B20

75B30

Exhibit Dates: 3/82-Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Performs clerical and administrative functions regarding general personnel matters. *Skill Level 10:* Types and completes forms and records; prepares, reviews, and processes specific personnel reports; maintains files; answers telephone and serves as receptionist; receives and dispatches mail; provides input data for computer system. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel; composes correspondence. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assigns work to lower-skill-level personnel; counsels staff and clients on personnel matters; reviews and compiles data for reports and personnel actions; evaluates work of assigned staff.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing and 1 in office procedures (3/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, and 1 in business communications (3/84).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in business communications, 3 for a practicum in office procedures, 3 in personnel supervision, and 2 in office management (3/84).

MOS-75C-001

PERSONNEL MANAGEMENT SPECIALIST

75C20

75C40

Exhibit Dates: 10/73-8/77.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Supervises or participates in the occupational classification and management of manpower resources. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), 71S (Attache Specialist), or 75B (Unit-Clerk). *Skill Level 20:* Classifies, assigns, and reassigns personnel based on evaluation of credentials and qualifications; is familiar with interview techniques and interviews personnel as part of the evaluative process; processes reports, training and assignment requests, and personnel assignments and promotions; monitors personnel management records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises personnel management function and is capable of supervising up to 8 subordinate personnel management specialists; plans, organizes, and supervises work activities; coordinates personnel management actions with other agencies as necessary.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in interview techniques, and 2 in typing. In the upper-division baccalaureate category, 3 semester hours in principles of vocational counseling (11/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in interview techniques, 3 in personnel supervision, and 2 in typing. In the upper-division baccalaureate category, 3 semester hours in office management principles and practices, 3 in principles of vocational counseling, and 3 for field experience in management (11/75).

MOS-75C-002

PERSONNEL MANAGEMENT SPECIALIST

75C10

75C20

Exhibit Dates: 9/77-2/82.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Participates in the occupational classification and management of manpower resources. *Skill Level 10:* Compares personnel records with classification standards to determine qualifications of individuals; recommends duty positions and reclassifications based on such determinations; maintains files; types forms and correspondence; able to type 20 words per minute; may interview incoming personnel. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in office procedures, and credit in interview techniques on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 20
In the vocational certificate category, 1 semester hour in typing, 3 in office procedures, and credit in interview techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in office procedures, and credit in interview techniques on the basis of institutional evaluation (6/78).

MOS-75C-003

Personnel Management Specialist

75C10
75C20
75C30

Exhibit Dates: 3/82–Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description
Summary: Participates in the occupational classification of personnel. *Skill Level 10:* Compares personnel records with classification standards to recommend assignment of individuals; types forms and correspondence; may interview personnel; provides input for computer system and maintains files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; coordinates and makes work assignments; supervises and evaluates performance of staff; organizes training programs; provides counseling on personnel matters.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures and 2 in typing (3/84).

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in typing, and 1 in business communications (3/84).

Recommendation, Skill Level 30
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in typing, 1 in business communications, 3 for a practicum in office procedures, 2 in office management, 2 in human relations, and 3 in personnel supervision (3/84).

MOS-75D-001

Personnel Records Specialist

75D20
75D40

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description
Summary: Initiates and maintains military personnel records or supervises their initiation and maintenance. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), 71S (Attache Specialist), or 75B (Unit-Clerk). *Skill Level 20:* Posts information extracted from several sources on enlisted and officer personnel records; examines records for accuracy and completeness and initiates actions to correct deficiencies; prepares and processes questionnaires; prepares and maintains emergency data and beneficiary records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises up to 33 persons; plans, organizes, and assigns work to subordinates; coordinates activities with other personnel workers; reviews and checks personnel records and information for accuracy; initiates action to change operating procedures, policies, and regulations, when necessary; is responsible for requisitioning, storing, and issuing office supplies and equipment.

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in typing, and 3 in business communications or technical writing (11/75).

Recommendation, Skill Level 40
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in typing, 3 in business communications or technical writing, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in personnel supervision (11/75).

MOS-75D-002

Personnel Records Specialist

75D10
75D20

Exhibit Dates: 9/77–2/82.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description
Summary: Initiates and maintains military personnel records or supervises their initiation and maintenance. *Skill Level 10:* Posts information from several sources on enlisted and officer personnel records; examines records for accuracy and completeness and initiates actions to correct deficiencies; prepares and types correspondence and forms; maintains files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises up to nine Skill Level 10 personnel; plans, organizes, and assigns work; reviews and checks personnel records and information for accuracy; coordinates activities with other personnel workers.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in business communications or technical writing, and 3 in record keeping (6/78).

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in business communications or technical writing, 3 in record keeping, and 2 in office management (6/78).

MOS-75D-003

Personnel Records Specialist

75D10
75D20
75D30

Exhibit Dates: 3/82–Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description
Summary: Initiates and maintains military personnel records or supervises records initiation and maintenance. *Skill Level 10:* Types correspondence, memorandums, and forms; prepares computer input data for personnel records; maintains files and posts regulations changes; initiates, prepares, and verifies a variety of personnel records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel; drafts correspondence and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; determines personnel requirements; assigns duties and organizes work schedules; prepares and conducts training; evaluates and counsels personnel; monitors and audits personnel records; reviews computer system input and reconciles with output.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures, 2 in typing, and 2 in filing or records management (3/84).

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in typing, 2 in filing or records management, and 2 in business communications or technical writing (3/84).

Recommendation, Skill Level 30
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in typing, 2 in filing or records management, 3 in business communications or technical writing, 2 in office management, 3 in personnel supervision, and 3 for a practicum in office procedures (3/84).

MOS-75E-001

Personnel Actions Specialist

75E20
75E40

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description
Summary: Supervises and processes special and routine personnel actions concerning members of the military services; counsels and assists military personnel with personal affairs relating to benefits, rights, and privileges. Related entry-level civilian occupations include personnel clerk, personnel supervisor, or personnel counselor. NOTE: May have previously held MOS 71B (Clerk-Typist), 71C (Stenographer), 71S (Attache Specialist), or 75D (Unit Clerk). *Skill Level 20:* Performs general office duties relative to processing personnel actions; advises and assists military personnel who may be entitled to military benefits;

assists in correspondence concerning Social Security benefits; acts as an information referral source in directing individuals with personal affairs problems to appropriate organizations and support facilities. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises subordinates who are involved in processing personnel actions and/or assisting and counseling in certain personal affairs; reviews and checks the accuracy of personnel actions; performs office management functions with regard to procedures, policies, and regulations.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in personal finance, 2 in business communications, 2 in communication skills, 2 in office management, and 1 in filing. In the lower-division baccalaureate/associate degree category, 2 in personal finance, 2 in business communications, and 1 in office management (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, 5 semester hours in office management, 3 in personnel supervision, 2 in personal finance, 2 in business communications, and 1 in filing. In the lower-division baccalaureate/associate degree category, 3 semester hours in office management, 3 in personnel supervision, 2 in personal finance, and 2 in business communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 2 for field experience in management (11/75).

MOS-75E-002

Personnel Actions Specialist

75E10
75E20

Exhibit Dates: 9/77–2/82.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Processes personnel actions concerning service members and their dependents. *Skill Level 10:* Completes forms required for training, schools, awards and decorations, release and resignation, transfer, reenlistment, retirement, and casualties; provides information on benefits; types forms, correspondence, and messages; maintains related files. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in office procedures, and credit in business communications on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in office procedures, and 2 in business communications (6/78).

MOS-75E-003

Personnel Actions Specialist

75E10
75E20
75E30

Exhibit Dates: 3/82–Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Processes personnel actions concerning service members and their dependents. *Skill Level 10:* Completes forms required for training schools, awards and decorations, release, transfer, reenlistment, retirement, and casualties; provides information on veterans, social security, and retirement benefits; types forms, correspondence, and messages; verifies information; prepares computer input data; handles incoming and outgoing telephone calls; maintains and updates files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical assistance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; determines personnel requirements, work priorities, duty assignments, and work schedules; prepares and conducts training programs; prepares administrative, technical, and personnel reports; advises and counsels individuals on personnel matters; supervises personnel action activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing and 2 in office procedures (3/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, and 2 in business communications (3/84).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in business communications, 3 for a practicum in office procedures, and 3 in personnel supervision (3/84).

MOS-75F-001

Personnel Information System
Management Specialist

75F10
75F20
75F30

Exhibit Dates: 3/82–Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Operates and manages personnel information systems and assists or supervises users of systems. *Skill Level 10:* Analyzes, processes, distributes, and maintains personnel files; reviews input data for accuracy and prepares system documents; operates keypunch machines, optical scan equipment and other data reduction devices, such as IBM 129, DATA 200, and computer components; monitors accuracy of personnel files, and makes corrections as necessary; knows and performs automated interface procedures with other automated systems; types entries onto forms and records; maintains files within Army Functional Files System. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates personnel information systems and trains system users; provides technical assistance to Skill Level 10 personnel; controls incoming/outgoing automatic data information transmissions; prepares output distribution plan; visits system users, and gives assistance or formal instruction as needed. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel information systems, assigns duties, organizes work schedules, and insures work completion; determines training needs of subordinate personnel and conducts training programs; reviews reports to assess system performance; develops production schedules; maintains liaison with managers of interfaced systems; establishes and maintains office procedures; prepares administrative and technical reports; counsels subordinate personnel and prepares evaluation reports; may supervise 4 to 9 personnel; establishes stock level of needed supplies and blank forms.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems operations and 2 in data processing (3/84).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in computer system operations, 3 in data processing, 2 in computer file organization, and 1 in office procedures (3/84).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in computer system operations, 3 in data processing, 2 in office procedures, 2 in personnel supervision, and 2 in computer file organization (3/84).

MOS-75Z-001

Personnel Senior Sergeant

75Z40
75Z50

Exhibit Dates: 10/73–8/77.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Supervises all aspects of personnel operations, including personnel management, personnel records, and personnel actions; plans and organizes workload and makes work assignments; instructs subordinate personnel; reviews, consolidates, and drafts reports and surveys; researches specific policies and procedures relating to officer and enlisted personnel administration; as a mid-level manager, advises superiors on personnel administrative activities. NOTE: Able to perform the duties required for 75C40 (Personnel Management Specialist), 75D40 (Personnel Records Specialist), or 75E40 (Personnel Actions Specialist). *Skill Level 40:* Supervises up to 18 persons in segment of a large personnel office or in a small or medium-sized personnel office. *Skill Level 50:* Supervises up to 24 persons in a large segment of a large personnel office or serves as the principal noncommissioned officer of a large personnel office.

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in typing, 3 in office procedures, 3 in business communications or technical writing, and 3 in office management. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in business communications or technical writing, 3 in office management, 3 in personnel supervision, and 3 in managerial principles. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in vocational counseling techniques, 3 in applied psychology, and 6 in personnel management, and additional credit in management on the basis of institutional evaluation (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in vocational counseling techniques, 3 in applied psychology, 6 in personnel management, 3 for field experience in management, and additional credit in management on the basis of institutional evaluation (11/75).

MOS-75Z-002

Personnel Senior Sergeant

75Z30
75Z40
75Z50

Exhibit Dates: 9/77–2/82.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Supervises all aspects of personnel operations, including personnel administration, personnel management, personnel records, and personnel actions. *Skill Level 30:* Plans and organizes workload and makes work assignments; instructs subordinate personnel; supervises up to 5 persons in a segment of a large personnel office or in a small personnel office; reviews, consolidates, and drafts reports and surveys; researches specific policies and procedures relating to officer and enlisted personnel administration; reviews data prepared for computer input and reconciles output; as a mid-level manager, advises superiors on personnel administrative activities. NOTE: May have progressed to 75Z30 from 75B20 (Personnel Administration Specialist), 75C20 (Personnel Management Specialist), 75D20 (Personnel Records Specialist), or 75E20 (Personnel Actions Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises up to 18 persons in a segment of a large personnel office or in a small or medium-sized personnel office. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises up to 24 persons in a large segment of a large personnel office or serves as the principal noncommissioned officer of a large personnel office.

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in office procedures, 3 in office management, and 3 in business communications or technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in office management, 3 in business communications or technical writing, 3 in introduction to computer concepts, 3 in human relations, and 2 in personnel supervision (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in office procedures, 3 in office management, 3 in business communications or technical writing, and 3 in computer concepts, and 3 semester hours in records management on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in office management, 3 in business communications or technical writing, 3 in introduction to computer concepts, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management, and 3 in records management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (6/78).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in personnel management and 6 for field experience in management (6/78).

MOS-75Z-003

Personnel Sergeant

75Z40
75Z50

Exhibit Dates: 3/82–Present.

Career Management Field: 71 (Administration), subfield 712 (Personnel).

Description

Summary: Supervises the operation of a personnel office, including personnel administration, personnel management, personnel records, and information systems. *Skill Level 40:* Supervises performance of legal, reenlistment, and administrative matters, as well as personnel actions; reviews, consolidates, and drafts reports and surveys; researches specific policies and procedures relating to officer and enlisted personnel administration; reviews data prepared for computer input and reconciles output; as a mid-level manager, advises superiors on personnel administrative activites; supervises up to 18 persons in a segment of a large personnel office or in a small or medium-sized personnel office. NOTE: May have progressed to 75Z40 from 75B30 (Personnel Administration Specialist), 75C30 (Personnel Management Specialist), 75D30 (Personnel Records Specialist), 75E30 (Personnel Actions Specialist), or 75F30 (Information System Management Specialist); *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises up to 39 persons in a large segment of a large personnel office or serves as the principal noncommissioned officer of a large personnel office; may also perform the duties of a First Sergeant.

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in office procedures, 3 in office management, 3 in business communications or technical writing, and 3 in computer concepts, and 3 in records management on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures, 3 in office management, 3 in business communications or technical writing, 3 in introduction to computer concepts, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management, and 3 in records management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management (3/84).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in personnel management, and 6 for field experience in management (3/84).

MOS-76A-001

Supplyman

76A10

Exhibit Dates: 10/73–9/74. (Effective 10/74, MOS 76A was discontinued and its functions were incorporated into 76Y10, Unit and Organization Supply Specialist and Armorer.)

Career Management Field: 76 (Supply).

Description

Skill Level 10: As a storekeeper or warehouse clerk, receives, inventories, inspects, issues, delivers, and transfers property; stores property to provide for rotation of stocks within established sensitive, classified, radioactive, hazardous, and inflammable storage areas; provides for protection of personnel; prevents deterioration, contamination, and destruction of property; uses technical catalogs; knows stock record accounting methods; uses various office machines to maintain the records systems.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in office machine operations, 1 in records management, and 1 in elementary logistics (3/75).

MOS-76C-001

Equipment Records and Parts Specialist

76C10
76C20

Exhibit Dates: 9/80–Present.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Maintains records for repair parts inventory, equipment use, and equipment maintenance. *Skill Level 10:* Obtains or prepares repair parts lists; locates information using catalog data and technical manuals; prepares repair parts requests; receives, stores, and issues repair parts; keeps inventory records of repair parts; prepares and maintains records on equipment usage, operation, and maintenance; initiates, receives, and maintains manual control records; may initiate, receive, and maintain automated maintenance control records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; obtains repair parts to meet equipment maintenance needs; assists in planning maintenance needs for the unit.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 2 in inventory control; if person worked with automated maintenance control records, 2 semester hours in computer operations (9/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 2 in inventory control; if person worked with automated maintenance control records, 2 semester hours in computer operations (9/82).

MOS-76D-001

MATERIEL SUPPLYMAN

76D10

76D20

76D30

76D40

Exhibit Dates: 3/76–2/78.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Manages, receives, stores, maintains, preserves, and issues major end items and repair part supplies. *Skill Level 10:* Prepares and maintains stock records including inventory, stock control, and accounting reports; operates office machines; prepares requests, processes receipts, maintains prescribed stock levels, and maintains maintenance records; uses catalogs in identification of major assemblies, subassemblies, and associated repair parts; performs technical edit, stock accounting, and application by researching catalogs, manuals, publications, parts lists, microfiche, and other means; visually inspects, verifies, and classifies incoming equipment and repair parts; maintains locator card system; participates in location surveys and inventories; performs as equipment maintenance clerk; codes equipment and maintenance data for automated data processing application. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; reviews requests for major and controlled items; visually inspects salvage material to determine proper disposition; utilizes automatic data processing to assist in management. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and organizes major end items and repair parts supply operations; organizes, plans and controls warehouse and storage activities; directs personnel in supply/inventory control management functions; determines repair part requirements and space allocation; conducts inspections and analyzes supply activities for efficiency; determines materiel-handling equipment; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as commodity manager; assists in appraisal of supply operations and training; performs inspections and provides technical assistance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 2 in office machines, and 2 in parts management (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 3 in parts management, 2 in inventory control, and 2 in office machines (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 2 in inventory control, 2 in office machines, and 2 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 3 in personnel supervision, 2 in inventory control, 2 in office machines, and 2 in office procedures (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 3 in personnel supervision, 3 for field experience in management, 2 in inventory control, 2 in office machines, and 2 in office procedures (6/76).

MOS-76D-002

MATERIEL SUPPLY SPECIALIST

76D10

76D20

76D30

76D40

Exhibit Dates: 3/78–8/80. (Effective 9/80, MOS 76D was discontinued and its functions were incorporated into MOS 76C, Equipment Records and Parts Specialist, MOS 76P, Stock Control Specialist, and MOS 76V, Storage Specialist.)

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Manages, receives, stores, maintains, preserves, and issues major end items and repair part supplies. *Skill Level 10:* Prepares and maintains stock records, including inventory, stock control, and accounting reports; operates office machines; prepares requests, processes receipts, maintains prescribed stock levels, and maintains maintenance records; uses catalogs in identification of major assemblies, subassemblies, and associated repair parts; performs technical edit, stock accounting, and application by researching catalogs, manuals, publications, parts lists, microfiche, and other means; visually inspects, verifies, and classifies incoming equipment and repair parts; maintains locator card system; participates in location surveys and inventories; performs as equipment maintenance clerk; codes equipment and maintenance data for automated data processing application; operates a direct exchange parts store, exchanging new parts for unserviceable ones; maintains inventory, records, forms, and disposal procedures necessary for the parts store. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; reviews requests for major and controlled items; visually inspects salvage material to determine proper disposition; utilizes automatic data processing to assist in management. *Skill Level 30:* Able to perform the duties required for Skill Level 20; plans and organizes major end items and repair parts supply operations; organizes, plans, and controls warehouse and storage activities; directs personnel in supply/inventory control management functions; determines repair part requirements and space allocation; conducts inspections and analyzes supply activities for efficiency; determines materiel handling equipment requirements; conducts on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as commodity manager; assists in appraisal of supply operations and training; performs inspections and provides technical assistance.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 2 in office machines, and 2 in parts management (1/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 3 in parts management, 2 in inventory control, and 2 in office machines (1/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 2 in inventory control, 2 in office machines, and 2 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 3 in personnel supervision, 2 in inventory control, 2 in office machines, and 2 in office procedures (1/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in parts management, 3 in record keeping, 3 in personnel supervision, 3 for field experience in management, 2 in inventory control, 2 in office machines, and 2 in office procedures (1/82).

MOS-76J-001

MEDICAL SUPPLYMAN

76J10

76J20

76J30

76J40

Exhibit Dates: 3/76–2/77.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Requests, receives, inventories, stores, preserves, issues salvage, controls stock, and accounts for medical supplies and equipment. *Skill Level 10:* Transports and handles medical supplies and equipment; inventories medical supplies and assists in financial inventory accounting; determines requisition objectives and verifies quantities and quality of materials received; performs in-storage care and preservation of medical supplies, including special procedures for handling pharmaceuticals, biologicals, blood fractions, and medicines; assists in medical materiel serviceability inspections; interprets medical terminology and vocabulary directly related to supply functions; operates office machines; keeps medical supply files and records. *Skill Level 20:*

Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a small medical supply, stock control, or storage activity; plans medical supply and equipment operations; assigns duties, plans workloads, and instructs personnel in work techniques and procedures; directs inventory management activities; controls stock rotation and establishes delivery control activities; reviews and prepares technical, personnel, and administrative reports on medical supply activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a medium-sized medical stock control, or storage activity.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 2 in office machines, and 1 in medical terminology (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, and 1 in medical terminology (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office machines, 2 in office procedures, and 1 in medical terminology. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office machines, 2 in office procedures, and 1 in medical terminology (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 3 in personnel supervision, 3 for field experience in management, 2 in inventory control, 2 in office machines, 2 in office procedures, and 1 in medical terminology (6/76).

MOS-76J-002

MEDICAL SUPPLYMAN

76J10
76J20
76J30
76J40
76J50

Exhibit Dates: 3/77–Present.

Career Management Field: 76 (Supply and Services), subfield 761 (Supply).

Description

Summary: Supervises or performs requisitioning, receipt, inventory management, storage, preservation, stock control, and accounting of medical supplies and equipment. *Skill Level 10:* Transports and handles medical supplies and equipment; inventories and issues medical supplies; performs in-storage care and preservation; applies special procedures for handling, storage, packaging and shipping pharmaceuticals, biologicals, blood fractions, and medicines; interprets medical terminology and vocabulary directly related to supply function; operates office machines; keeps administrative and medical supply files; assists in keeping records on equipment operation and maintenance. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; responsible for local purchasing. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small-size medical supply, stock control, or storage activity; plans medical supply and equipment operations; assigns duties, plans workloads, and instructs personnel in work techniques and procedures; responsible for budgeting and managing funds; works with automated property book system. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervise medium-size medical supply, stock control, or storage activity. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises a large-size medical supply, stock control, or storage activity or serves as principal noncommissioned officer of medical depot; analyzes medical logistical management data.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 2 in office machines, 1 in medical terminology, 1 in filing, and credit in record keeping and office management on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, 1 in medical terminology, 2 in office management, and 2 in filing (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, and 2 in computer concepts. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, 2 in computer concepts, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, 2 in computer concepts, and 3 for field experience in management. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, 2 in computer concepts, 3 in human relations, and 3 for field experience in management. In the upper-division baccalaureate category, 3 for field experience in management.

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, 2 in computer concepts, and 6 for field experience in management. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in budgeting practices, 2 in inventory control, 2 in office machines, 2 in office procedures, 1 in medical terminology, 2 in filing, 3 in office management, 2 in computer concepts, 3 in human relations, 3 for field experience in management, and 3 in personnel supervison. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel supervision; if served as principal non-commissioned officer, 3 semester hours in personnel management (6/78).

MOS-76P-001

STOCK CONTROL SUPPLYMAN

76P10
76P20
76P30
76P40

Exhibit Dates: 3/76–2/78.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Performs inventory management functions and stock record keeping functions pertaining to the receipt, distribution, and issue of material. *Skill Level 10:* Prepares stock records and other documents, such as inventory, stock control and accounting sheets; operates office machines; prepares and processes requisitions, stockage listings, and receipt documents; performs financial inventory accounting administration functions; performs accounting and sales functions; interprets supply documents in an automated environment for input and output processing. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-sized stock control and accounting activity, sales activity, or property disposal activity; plans and organizes work schedules and instructs subordinates; plans and organizes operations to conform with work standards and quality control requirements; conducts on-the-job training; assists in all aspects of purchasing and contracting activities and acts as contracting officer; serves as imprest fund custodian cashier. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large stock control and accounting activity, sales activity, or property disposal activity.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 2 in office machines, and 2 in retail sales (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, 2 in retail sales, and 2 in business mathematics (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 office machines, 2 in retail sales, 2 in business mathematics, 2 in inventory control, and 2 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in warehouse practices, 3 in record keeping, 2 in office machines, 2 in retail sales, 2 in business mathematics, 2 in inventory control, and 2 in office procedures (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in warehouse practices, 3 in record keeping, 2 in office machines, 2 in retail sales, 2 in business mathematics, 2 in inventory control, and 2 in office procedures. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 2 for field experience in sales management (6/76).

MOS-76P-002

MATERIEL CONTROL AND ACCOUNTING SPECIALIST
(STOCK CONTROL SPECIALIST)

76P10
76P20
76P30
76P40

Exhibit Dates: 3/78–Present.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Performs or supervises inventory management functions and stock record keeping pertaining to receipt, distribution, and issue of materiel. *Skill Level 10:* Prepares stock records and other documents such as inventory, stock control, and accounting reports; operates office machines and data processing equipment; maintains technical reference library; reviews and processes supply requests; edits catalog data and daily activity workload; performs financial inventory accounting administration functions; interprets supply documents in an automated environment for input and output processing; may perform accounting and sales functions in self-service supply, repair and utilities, clothing sales, and military exchange activities; receives, stores, and issues direct exchange items. *Skill Level 20:* Able to perform the duties required for Skill Level 10; reviews stock items and recommends additions, deletions, or changes; reconciles supply transactions and processes inventory adjustment reports; performs financial management functions. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel in stock control and supply accounting, sales activity, or property disposal; plans and organizes work schedules and instructs subordinates; plans and organizes operations to conform with work standards, current regulations, and directives; reconciles problems in automated supply accounting system; assists in all aspects of purchasing and contracting activities and may act as contracting officer; serves as imprest fund custodian cashier; manages materials, determining and directing necessary maintenance or overhaul. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises material managers, supply activities and sales; determines methods and procedures to improve material operations; assists in development and preparation of operations including plans, maps, sketches, overlays and other data; analyzes data to determine trends, quality control, and efficiency of operations.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 1 in warehouse practices, 2 in office machines, 1 in retailing, and 2 in computer operations (9/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in warehouse practices, 2 in office machines, 2 in retailing, 2 in computer operations, and 2 in business mathematics (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in record keeping, 2 in warehouse practices, 2 in office machines, 2 in retailing, 2 in computer operations, 2 in business mathematics, 2 in office procedures, and 2 in inventory control. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in warehouse practices, 2 in office machines, 2 in retailing, 2 in computer operations, 2 in business mathematics, 2 in office procedures, 2 in inventory control, and 3 in personnel supervision (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in warehouse practices, 2 in office machines, 2 in retailing, 2 in computer operations, 2 in business mathematics, 2 in office procedures, 2 in inventory control, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in sales management (9/82).

MOS-76S-001

VEHICLE MATERIEL SUPPLY SPECIALIST
(AUTOMOTIVE REPAIR PARTS SPECIALIST)

76S20
76S40

Exhibit Dates: 10/73–2/76. (Effective 3/76, MOS 76S was discontinued and its functions were incorporated into MOS 76D, Materiel Supplyman.)

Career Management Field: 76 (Supply).

Description

Summary: Receives, stores, and issues vehicle repair parts. NOTE: Able to perform the duties required for 76P20 (Stock Control and Accounting Specialist). *Skill Level 20:* Identifies automotive repair parts by illustrations and numbers; maintains inventory records; determines the need to replenish stock items and prepares requisitions for replacement. *Skill Level 40:* Able to perform the duties required for Skill Level 20; organizes, plans, and supervises activities related to the storage of automotive repair parts; normally supervises more than 10 subordinates; conducts on-the-job training; modifies warehouse and storage facilities for maximum utilization of space; complies with regulations and directives pertaining to inventory accounting, stock funding, reclamation, salvage, and disposal.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in automotive parts inventory and supply and 1 in technical records and publications (3/75).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in office procedures, 3 in business communications, 2 in automotive parts inventory and supply, and 2 in automotive parts management. In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive parts management, 2 in office management, 2 in personnel supervision, and 2 in business communications (3/75).

MOS-76V-001

STORAGE SUPPLYMAN

76V10
76V20
76V30
76V40

Exhibit Dates: 3/76–2/78.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Stores and issues material; performs receipt, administrative process, inspection, and packing and shipment of material. *Skill Level 10:* Reviews and verifies shipping documents and unit of issue; inspects incoming and outgoing supplies and equipment for damage; operates materials handling equipment; performs inventories and location surveys; selects supplies and/or equipment for issue or shipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; plans organizes, and controls warehousing, packing, and crating activities; applies management principles; compiles statistical warehouse data; determines requirements and requests, assigns and controls use of warehouse facilities and equipment; supervises equipment storage, including document control and location inventories. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized material warehousing activity. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large material warehousing activity; conducts surveillance inspection of materials in storage.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, and 2 in inventory control (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in inventory control, and 2 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in warehouse practices, 3 in record keeping, 2 in inventory control, and 2 in office procedures (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office procedures, and 2 in material management. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office procedures, and 2 in material management (6/76).

MOS-76V-002

MATERIEL STORAGE AND HANDLING SPECIALIST
(STORAGE SPECIALIST)

76V10
76V20
76V30
76V40

Exhibit Dates: 3/78-Present.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Receives or supervises receipt, storage, issue, inspection, packing, and shipment of material. *Skill Level 10:* Reviews and verifies shipping documents; inspects incoming equipment for serviceability and damage; operates materiels-handling equipment; packs, crates, stencils, weighs, and bands equipment for shipment or storage; assigns storage location for rotation of stock, maximum utilization of sensitive, classified or hazardous storage, or warehouse space; maintains file of personnel authorized to receive supplies; performs inventory and location surveys, and maintains centralized stock locator files; receives, inventories, and issues Quick Supply Store items. *Skill Level 20:* Able to perform the duties required for Skill Level 10; plans, organizes, controls, and supervises small material storage activity; provides guidance to Skill Level 10 personnel; determines requirements and assigns use of warehouse equipment and personnel; supervises equipment storage, including document control and location inventories. *Skill Level 30:* Able to perform the duties required for Skill Level 20; conducts inspections to assure compliance with standards and regulations; prepares reports regarding personnel, storage, and relocation of materiel; supervises a medium-sized warehouse activity. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large warehousing activity; conducts surveillance inspection of materials in storage; develops training programs for lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices (9/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, and 2 in inventory control (9/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in inventory control, and 2 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in warehouse practices, 3 in record keeping, 2 in inventory control, and 2 in office procedures (9/82).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office procedures, and 2 in material management. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in warehouse practices, 3 in record keeping, 2 in inventory control, 2 in office procedures, and 2 in material management (9/82).

MOS-76W-001

PETROLEUM SUPPLY SPECIALIST
(PETROLEUM STORAGE SPECIALIST)

76W20
76W40
76W50

Exhibit Dates: 10/73-8/76.

Career Management Field: 92 (Petroleum).

Description

Summary: Operates and maintains petroleum storage, dispensing, and distribution facilities and pipeline systems. *Skill Level 20:* Serves as a petroleum pump operator, tank farm attendant, pipeline patrolman, or cleaning and packaging specialist; cleans and fills petroleum containers; maintains pipeline systems, pressure reducing stations, and dispensing equipment, including booster, transfer, and main-line pumps; applies firefighting and fire prevention techniques; visually inspects outgoing products to insure proper quantity and packaging and to detect contamination or deterioration; gages storage tanks; makes temperature and volume conversions to account for and inventory petroleum products; takes samples for laboratory examination; loads, unloads, and cleans tank cars, tank trucks, and storage trucks. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises from 7 persons in a pump station crew to more than 49 in a pipeline crew; estimates requirements for personnel, storage space, and equipment; uses product cycles to minimize product contamination; performs quality surveillance procedures to determine causes of product contamination and to carry out petroleum reclamation and salvage; supervises petroleum dispatching through work assignments and review of work plans. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 76W or 92C (Petroleum Laboratory Specialist); as the principle noncommissioned officer in a large petroleum operation, assists officers in the planning, coordination, and supervision of petroleum storage and distribution and in the appraisal of operations and training; supervises and inspects work performed by subordinate noncommissioned officers; collects and prepares material pertaining to petroleum operations and training; may serve as the first sergeant of a company, a mid-level managerial position involving personnel, supply, training, and inspection responsibilities.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 for field experience in management, and 3 in industrial safety; and if the duty assignment was petroleum pipeline supervisor at pay grade E-6 or if pay grade E-7 was achieved, 3 additional semester hours in personnel supervision and 2 in technical writing (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 for field experience in management, 3 in introduction to management, 3 in industrial safety, 3 in office administration, 3 in record keeping, 3 in technical writing, and 2 in material management (6/76).

MOS-76W-002

PETROLEUM SUPPLY SPECIALIST

76W10
76W20
76W30
76W40
76W50

Exhibit Dates: 9/76-3/87. (The designator for MOS 76W has been changed to MOS 77F; see exhibit MOS-77F-001.)

Career Management Field: 92 (Petroleum).

Description

Summary: Operates and maintains petroleum storage, dispensing and distribution facilities and pipeline systems. *Skill Level 10:* Receives and dispenses bulk and packaged petroleum products; operates equipment such as forklift trucks, conveyors, and cranes in loading, unloading, moving, and storing petroleum supplies; marks petroleum containers for proper identification; conducts safety inspections of storage facilities; performs basic preventive maintenance on petroleum storage and handling equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises aircraft refueling; assures adherence to safety procedures; maintains inventory records of petroleum products; inspects petroleum storage sites; may supervise small petroleum storage or dispensing activity; maintains pipeline systems and pressure reducing stations; applies fire fighting and fire prevention techniques. *Skill Level 30:* Able to perform the duties required for Skill Level 20; schedules, orders, dispatches and otherwise recommends movement of petroleum products; supervises pipeline or pump station operation and petroleum supply storage facilities; uses product cycles to minimize product contamination in storage facilites or pipelines; supervises dispersion and camouflage of supplies and equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; insures compliance with fire and safety regulations; coordinates petroleum operations at staff level; furnishes required reports on equipment to higher headquarters; performs quality surveillance; may supervise up to sixteen persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as the principal noncommissioned officer in a large petroleum operation, assists commissioned officers in the planning, coordination, and supervision of petroleum storage and distribution and in the appraisal of operations and training; supervises and inspects work performed by subordinate noncommissioned officers; collects and prepares material pertaining to petroleum operations and training; may serve as a first sergeant of a company, a mid-level managerial position involving personnel, supply, training, and inspection responsibilities. NOTE: May have progressed to 76W50 from 76W40 or 92C40 (Petroleum Laboratory Specialist).

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in fire safety (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in personnel supervision (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, 2 in pump safety, 2 in technical writing, and 3 in industrial safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, 3 for field experience in personnel supervision, 3 in human relations, and 2 in technical writing (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in technical writing, 2 in fire safety, 2 in basic mathematics, 2 in pump maintenance, and 3 in industrial safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, 3 for field experience in personnel supervision, 3 in human relations, 3 in technical writing, 3 in record keeping, 3 in office administration, and 2 in material management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/77).

MOS-76X-001

SUBSISTENCE SUPPLYMAN

76X10
76X20
76X30
76X40

Exhibit Dates: 3/76–2/78.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Receives, stores,issues, distributes inventories, sells and ships subsistence (food) supplies. *Skill Level 10:* Receives and checks accuracy of quantities of subsistence supplies received; checks orders received for quality and segregates damaged supplies; stores supplies and maintains locator records; issues stock and performs inventories; performs stock control and accounting, and requests supplies to maintain stock levels; operates office machines and material handling equipment; checks quality and quantity of outgoing supplies and prepares shipment; performs operator maintenance and service on equipment; distributes field rations; performs commissary store functions including stocking, pricing, and inventory; maintains supply records and files. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises food distribution and small commissary operations; plans and coordinates supply activities; directs supply personnel; applies principles of automatic data processing to supply system; conducts on-the-job training; checks accuracy of work; inspects warehouse cooler and freezer units; recommends corrective action and improved methods in the supply procedures; administers stock control; performs sales functions in commissary stores; analyzes statistical data and reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized commissary or food supply activity. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large commissary or food supply activity; interprets and uses annual food plans; manages food reserve stocks; insures compliance with food supply policies.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices and 2 in office machines; if the duty assignment included commissary work, 3 semester hours in retail sales (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, and 2 in business mathematics; if the duty assignment included commissary work, 3 semester hours in retail sales (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, 2 in business mathematics, 2 in inventory control, and 2 in office procedures; if the duty assignment included commissary work, 3 semester hours in retail sales. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 3 in personnel supervision, 2 in office machines, 2 in business mathematics, 2 in inventory control, and 2 in office procedures; if the duty assignment included commissary work, 3 semester hours in retail sales (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in warehouse practices, 3 in record keeping, 3 in personnel supervision, 2 in office machines, 2 in business mathematics, 2 in inventory control, and 2 in office procedures; if the duty assignment included commissary work, 3 semester hours in retail sales (6/76).

MOS-76X-002

SUBSISTENCE SUPPLY SPECIALIST

76X10
76X20
76X30
76X40

Exhibit Dates: 3/78–Present.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Receives, stores, issues, distributes, inventories, and ships subsistence (food) supplies; works or supervises foodstuff warehousing operations, including receipt and storage of commodities in freezers, refrigerators, or dry storage bins, and distribution to organizations, commissaries, and dining facilities. *Skill Level 10:* Receives and checks accuracy of quantities received and their condition; segregates damaged supplies; stores supplies and maintains locator records; issues stock and performs inventories; performs stock control and accounting and requisitions supplies to maintain stock levels; operates office machine and warehouse-handling equipment; checks quality and quantities of outgoing supplies and checks documents; distributes rations to each separate organization or account; may perform commissary store functions, including stocking, pricing of goods, and inventory, security, and construction of display of goods; serves as cashier. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises food distribution and small commissary operations; plans and coordinates supply activities; directs supply personnel; applies principles of automatic data processing to supply system; conducts on-the-job training; checks accuracy of work; inspects warehouse coolers and freezer units; recommends corrective action to minimize spoilage and improve supply procedures; administers stock control; performs sales functions in commissary stores; analyzes statistical data and reports; prices stock; computes resale item prices and reorders; maintains commissary consumption records. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized commissary or food supply activity; maintains monthly and quarterly records for each individual account which is supplied by the warehouse; maintains inventory control for 50 to 60 separate accounts, and for all items. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large commissary or food supply activity; interprets and uses annual food plans; manages food reserve stock; performs advisory duties in planning and coordinating food reserve stocks; performs advisory duties in planning and coordinating food storage and distribution operations; ensures compliance with food supply policies.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices and 2 in office machines; if the duty assignment included commissary work, 3 semester hours in retail sales (1/82).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, and 2 in business mathematics; if the duty assignment included commissary work, 3 semester hours in retail sales (1/82).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in warehouse practices, 3 in record keeping, 2 in office machines, 2 in business mathematics, 2 in inventory control, and 2 in office procedures; if the duty assignment included commissary work, 3 semester hours in retail sales. In the lower-division baccalaureate/associate degree category, 3 semester hours in warehouse practices, 3 in record keeping, 3 in personnel supervision, 2 in office machines, 2 in business mathematics, 2 in inventory control, and 2 in office procedures; if the duty assignment included commissary work, 3 semester hours in retail sales (1/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management (1/82).

MOS-76Y-001

UNIT/ORGANIZATION SUPPLYMAN

76Y10
76Y20
76Y30
76Y40

Exhibit Dates: 3/76–2/78.

Career Management Field: 76 (Supply and Service), subfield 761 (Supply).

Description

Summary: Supervises or performs duties connected with the requisition, receipt, storage, accounting, and issuance of organizational, installation, and individual supplies. *Skill Level 10:* Serves as unit supply clerk; prepares supply records and forms, inventory control listings and count cards, and inventory adjustment reports; practices safety in storage operations; loads and unloads supplies and operates forklifts; operates office machines and keeps administrative files; performs salvage operations; uses supply publications; prepares clothing for issue and processes laundry; determines supply needs by consulting property books records; maintains the security of small arms. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; establishes priorities and assigns work; conducts on-the-job training; maintains automated supply accounting system; computes supply usage factors; supervises the issue, handling, storage, and security of sensitive items and small arms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises personnel in a large supply activity (serving over 450 military personnel); trains and supervises personnel in external load rigging for rotary wing aircraft. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves on the staff at a battalion headquarters; analyzes statistical data to ascertain trends, conformity to standards, and efficiency; improves supply methods and procedures; coordinates supply activities with other units.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office procedures, 2 in office machines, and 1 in typing (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in personnel supervision, 3 in human relations, 3 in record keeping, 3 in office administration, 3 in inventory control, 2 in office machines, and 1 in typing (6/76).

MOS-76Y-002

UNIT SUPPLY SPECIALIST

76Y10
76Y20
76Y30
76Y40

Exhibit Dates: 3/78–Present.

Career Management Field: 76 (Supply and Services), subfield 761 (Supply).

Description

Summary: Supervises or performs duties connected with the requisition, receipt, storage, accountability, and issuance of individual, organizational, and installation supplies, clothing, and equipment. *Skill Level 10:* Serves as a unit supply clerk; prepares supply records and forms, inventory control listings and count cards, and inventory reports; uses supply catalogs in requisitioning and distributing supplies; uses typewriter, adding machines, calculators, copier, and microfiche in performing duties; keeps administrative files; practices safety, security, and accountability in storage operations; prepares, reviews, and corrects property listings and annexes; posts transactions to records; prepares clothing for issue; processes laundry, including laundry rosters and payroll deduction forms for laundry; maintains security and records for weapons; prepares weapons reports and ammunition reports for commander. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; establishes priorities and assigns work; conducts on-the-job training; inspects completed work, records, and reports for accuracy and for compliance with directives; maintains automated supply accounting system; computes supply usage factors; applies principles of automatic data processing input filing, processing, and output techniques; supervises the issue, handling, and security of sensitive items and small arms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises supply personnel in a large supply activity (serving over 450 military personnel); trains and supervises personnel in external load rigging for rotary wing aircraft; provides technical assistance to Records Specialists and Parts Specialists; assures professional development of subordinates. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves on the staff at a battalion headquarters; may supervise other supply sergeants in the Supply Career Management Field (76); analyzes statistical data to determine trends; coordinates logistical activities; reviews policies; improves supply methods and procedures; conducts assistance visits and develops training programs; coordinates supply activities with other units.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office procedures, 2 in office machines, and 1 in typing (1/82).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing (1/82).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in record keeping, 3 in office procedures, 3 in inventory control, 2 in office machines, and 1 in typing (1/82).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in record keeping, 3 in office administration, 3 in inventory control, 2 in office machines, and 1 in typing. In the upper-division baccalaureate category, 3 semester hours for field experience in management (1/82).

MOS-76Z-001

SENIOR SUPPLY SERGEANT

76Z50

Exhibit Dates: 10/73–2/78.

Career Management Field: 76 (Supply and Service), subfield 760 (Supply General).

Description

Skill Level 50: Able to perform the duties required for Skill Level 40 of any MOS in the supply career management field (76); serves as a mid-level manager, supervising personnel engaged in large supply and service operations such as laundry, bath, graves registration, decontamination, transportation, property disposal, medical supply, commissary operations, and resupply by airdrops; analyzes reports and appraises supply operations and training; manages stock control and accounting, procurement, and inventory control; supervises storage, receiving, issue, materials handling, supply locator systems, facility safety, and supply security operations; coordinates supply support data systems, salvage operations, and repair parts supply procedures; supervises the preparation of operating instructions, reports, and related technical material; recommends units for assignment to support special operations.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office administration, 3 in personnel supervision, 3 in inventory control, 3 in office procedures, 3 in warehouse practices, 3 in business mathematics, 2 in office machines, and 1 in typing. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in records administration, 3 in human relations, and 6 for field experience in management (6/76).

MOS-76Z-002

Senior Supply Sergeant

76Z50

Exhibit Dates: 3/78–Present.

Career Management Field: 76 (Supply and Service), subfield 760 (Supply General).

Description

Skill Level 50: Able to perform the duties required for Skill Level 40 of any MOS in the supply career management field (76); serves as a midlevel manager, supervising personnel engaged in large supply and service operations such as laundry, bath, graves, registration, decontamination, transportation, property disposal, medical supply, commissary operations, and resupply by airdrops; analyzes reports and appraises supply operations and training; manages stock control and accounting, procurement, and inventory control; supervises storage, receiving, issue, materiel handling, supply locator systems, facility safety, and supply security operations; coordinates supply support data systems, salvage operations, and repair parts supply procedures; supervises the preparation of operating instructions, reports, and related technical material; recommends units for assignment to support special operations. May be assigned as First Sergeant, with the following duties; assists the commander in planning, supervising, inspecting, developing, and executing unit policy; advises commander on enlisted personnel matters; provides counsel and guidance to subordinate personnel; coordinates administration of the unit and support services; may serve as the principal noncommissioned officer in a unit of approximately 150 personnel.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in office administration, 3 in personnel supervision, 3 in inventory control, 3 in office procedures, 3 in warehouse practices, 3 in business mathematics, 2 in office machines, and 1 in typing. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in records administration, 3 in human relations, and 6 for field experience in management (1/82).

MOS-77F-001

Petroleum Supply Specialist

77F10
77F20
77F30
77F40
77F50

Exhibit Dates: 3/86–Present.

Career Management Field: 77 (Petroleum and Water).

Description

Summary: Operates and maintains petroleum storage, dispensing and distribution facilities and pipeline systems. *Skill Level 10:* Receives and dispenses bulk and packaged petroleum products; operates equipment such as forklift trucks, conveyors, and cranes in loading, unloading, moving, and storing petroleum supplies; marks petroleum containers for proper identification; conducts safety inspections of storage facilities; performs basic preventive maintenance on petroleum storage and handling equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises aircraft refueling; assures adherence to safety procedures; maintains inventory records of petroleum products; inspects petroleum storage sites; may supervise small petroleum storage or dispensing activity; maintains pipeline systems and pressure reducing stations; applies fire fighting and fire prevention techniques. *Skill Level 30:* Able to perform the duties required for Skill Level 20; schedules, orders, dispatches and otherwise recommends movement of petroleum products; supervises pipeline or pump station operation and petroleum supply storage facilities; uses product cycles to minimize product contamination in storage facilites or pipelines; supervises dispersion and camouflage of supplies and equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; insures compliance with fire and safety regulations; coordinates petroleum operations at staff level; furnishes required reports on equipment to higher headquarters; performs quality surveillance; may supervise up to sixteen persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; as the principal noncommissioned officer in a large petroleum operation, assists commissioned officers in the planning, coordination, and supervision of petroleum storage and distribution and in the appraisal of operations and training; supervises and inspects work performed by subordinate noncommissioned officers; collects and prepares material pertaining to petroleum operations and training; may serve as a first sergeant of a company, a mid-level managerial position involving personnel, supply, training, and inspection responsibilities. NOTE: May have progressed to 77F50 from 77F40, 77L40 (Petroleum Laboratory Specialist), or 77W40 (Water Treatment Specialist).

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in fire safety (10/88).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance (10/88).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, and 2 in pump maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in personnel supervision (10/88).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in fire safety, 2 in basic mathematics, 2 in pump safety, 2 in technical writing, and 3 in industrial safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, 3 for field experience in personnel supervision, 3 in human relations, and 2 in technical writing (10/88).

Recommendation, Skill Level 50

In the vocational certificate category, 3 semester hours in technical writing, 2 in fire safety, 2 in basic mathematics, 2 in pump maintenance, and 3 in industrial safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, 3 for field experience in personnel supervision, 3 in human relations, 3 in technical writing, 3 in record keeping, 3 in office administration, and 2 in material management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/88).

MOS-77L-001

Petroleum Laboratory Specialist

77L10
77L20
77L30
77L40

Exhibit Dates: 3/86–Present.

Career Management Field: 77 (Petroleum and Water).

Description

Summary: Performs or supervises physical and chemical tests on petroleum products to determine suitability for intended use. *Skill Level 10:* Prepares laboratory equipment for operation; prepares reagents; calibrates instruments; obtains petroleum test samples; performs preventive maintenance on technical laboratory equipment; performs specification tests, including water content, sediment, color, carbon residue, penetration, and oxidation stability; performs quality surveillance tests; uses fire prevention and safety control measures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; employs cooperative fuel research engine to test fuels; prepares laboratory reports; evaluates test results with specification requirements and makes product recommendations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes calibration program; assists in establishment of quality surveillance programs; supervises medium-sized petroleum laboratory activities; plans work schedules and assigns duties; makes inspections of laboratory to insure proper procedures are being followed and work is being done efficiently; supervises inspection of anti-icing additives and corrosion inhibitors during pipeline transfers; supervises placement, setting up and maintenance of laboratory equipment; coordinates petroleum product storage and distribution activities; reviews work reports and evaluates results; maintains inventory control and performs all related supply activity; insures adherence to laboratory fire and safety procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large petroleum laboratory; assists and plans quality surveillance operations; applies principles of OSHA and EPA regulations; determines methods of reclaiming or downgrading contaminated and deteriorated petroleum products; performs quality surveillance of loading and unloading bulk shipments to insure safety and to prevent contamination; insures proper sampling and laboratory analysis of petroleum products; monitors sampling, testing, use, and blending of additives; makes reports on analysis results, environmental considerations, contracts for petroleum products, transporting, and storage; generally supervises from four to ten persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in petroleum products analysis, 1 in chemical safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in petroleum products analysis, 2 in applied chemistry, 1 in chemical safety, and 1 in first aid (10/88).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in petroleum products analysis, 1 in chemical safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 2 in applied chemistry, 1 in chemical safety, and 1 in first aid (10/88).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 3 in personnel supervision, 2 in applied chemistry, 1 in chemical safety, and 1 in first aid (10/88).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 3 in personnel supervision, 3 in technical writing, 3 in human relations, 2 in applied chemistry, 2 in industrial safety, 1 in chemical safety, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/88).

MOS-77W-001

WATER TREATMENT SPECIALIST

77W10
77W20
77W30
77W40

Exhibit Dates: 3/86–Present.

Career Management Field: 77 (Petroleum and Water).

Description

Summary: Supervises or performs installation, operation, and maintenance of water supply and treatment equipment and systems. *Skill Level 10:* Assists in water reconnaissance and set-up, operation, and maintenance of water points; assists in site preparations, set-up, operation, troubleshooting, and maintenance of water purification equipment and storage facilities; operates and maintains equipment used in production of potable water in field locations; performs water quality analysis tests. *Skill Level 20:* Able to perform the duties required for Skill Level 10; installs, operates, and maintains water supply equipment and systems; provides technical guidance to subordinate personnel; conducts water reconnaissance; develops water sources and water points and analyzes both raw and treated water; supervises operation of water purification equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the installation, operation, and maintenance of water supply and treatment systems; provides direct supervision to individual water team functions; inspects operational condition of equipment and systems; prepares reports incident to the operation and maintenance of water supply systems. *Skill Level 40:* Able to perform the duties required for Skill Level 30; develops and supervises operation of area water supply and treatment plan; directs water reconnaissance and water point development for divisional areas; manages operation and insures quality control of water supply and purification activities.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in waste treatment. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification (10/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in waste treatment, 3 in water and sewage facility operation, and 3 in utility plumbing. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification and 3 in water supply (10/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in waste treatment, 3 in utility plumbing, and 6 in water and sewage facility operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification, 3 in water supply, and 3 in personnel supervision (10/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in waste treatment, 3 in utility plumbing, and 12 in water and sewage facility operation. In the lower-division baccalaureate/associate degree category, 3 semester hours in water purification, 3 in water supply, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (10/88).

MOS-79D-001

REENLISTMENT NCO
(CAREER COUNSELOR)

79D30
79D40
79D50

Exhibit Dates: 3/78–Present.

Career Management Field: 79 (Recruitment and Retention).

Description

Summary: Counsels military personnel with regard to reenlistment and performs related reenlistment duties. *Skill Level 30:* Contacts, interviews, and advises enlisted personnel about reenlistment prerequisites, options, obligations, opportunities, and benefits; assists in designing individual career plans, using personnel records and data from interview and counseling sessions; relates physical, mental, and moral qualifications of individuals to prescribed standards, and determines if service schooling is needed; processes reenlistment documents; handles related administrative tasks of maintaining publications, compiling data, preparing reports, planning reenlistment ceremonies, and performing follow-ups. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance to Skill Level 30 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and evaluates lower skill level personnel; assigns duties; recommends reenlistment policy changes and develops and assesses reenlistment programs.

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in salesmanship and 1 in technical report writing. In the lower-division baccalaureate/associate degree category, 2 semester hours in public speaking, 2 in interview techniques, 1 in educational techniques, 1 in record keeping, and 1 in technical report writing. In the upper-division baccalaureate category, 1 semester hour for field experience in counseling (7/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 2 semester hours in public speaking, 3 in interview techniques, 2 in educational techniques, 1 in record keeping, and 1 in technical report writing. In the upper-division baccalaureate category, 2 semester hours for field experience in counseling and 2 in vocational counseling (7/79).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in public speaking, 3 in interview techniques, 2 in educational techniques, 1 in record keeping, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in counseling, 2 in vocational counseling, and 1 in personnel management (7/79).

MOS-81A-001

GENERAL DRAFTSMAN

81A10

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 81A was discontinued and its functions were incorporated into 81B20, Construction Draftsman, 81C10, Cartographer, and 81E10, Illustrator.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 811 (Drafting).

Description

Skill Level 10: Performs general drafting duties; traces drawings, organizational charts and diagrams, posters, and other drafting work; uses mathematics when applicable; utilizes basic drafting tools, instruments, and materials; lay out drawings to scale, applying dimensions, detail, and conventional symbols; letters free hand or with mechanical guides; receives, stores, and manages supplies and other materials.

Recommendation, Skill Level 10

In the vocational certificate category, 10 semester hours in basic drafting (12/75).

MOS-81B-001

Construction Draftsman

81B20
81B40

Exhibit Dates: 10/73–9/74.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Prepares working drawings for the construction field. *Skill Level 20:* Prepares orthographic drawings (shape description only); prepares maps and plots plans from surveyor's notes. NOTE: May have progressed to 81B20 from 81A10 (General Draftsman). *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans, lays out, and completes working drawings for the construction field; supervises 14 or more personnel engaged in the same activities.

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in construction drafting. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction drafting (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 30 semester hours in construction drafting. In the lower-division baccalaureate/associate degree category, 8 semester hours in construction drafting, 3 in algebra, 3 in trigonometry, 2 in communication skills, and 2 in personnel supervision (2/75).

MOS-81B-002

Construction Draftsman

81B20

Exhibit Dates: 10/74–2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Skill Level 20: Prepares working drawings for the construction field; prepares orthographic drawings (shape description only); prepares maps and plots plans from surveyor's notes; NOTE: May have progressed to 81B20 from 81A10 (General Draftsman).

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in construction drafting. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction drafting (2/75).

MOS-81B-003

Technical Drafting Specialist

81B10
81B20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 511 (Technical Engineering).

Description

Summary: Drafts detailed working plans for construction of bridges, roads, railroads, piers, buildings, and utilities installation. *Skill Level 10:* Assists in performance of construction or design drafting; prepares drawings and plans of miscellaneous structures and mechanical and electrical devices, using standard drafting equipment; plots profiles for construction of roads, railroads and other construction projects from survey notes or contour maps; prepares charts and graphs to portray various data. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; reviews, modifies, and corrects finished drawings to conform to specifications and assists design officer in modification design of steel, concrete and wood structues.

Recommendation, Skill Level 10

In the vocational certificate category, 10 semester hours in construction drafting. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction drafting (7/79).

Recommendation, Skill Level 20

In the vocational certificate category, 30 semester hours in construction drafting. In the lower-division baccalaureate/associate degree category, 8 semester hours in construction drafting, 3 in algebra, 3 in trigonometry, 2 in communication skills, and 2 in personnel supervision (7/79).

MOS-81C-001

Cartographic Specialist
(Cartographic Draftsman)

81C20
81C30
81C40
81C50

Exhibit Dates: 10/74–2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 811 (Drafting).

Description

Summary: Supervises or performs cartographic drafting activities, compilation or revision of planimetric and topographic maps, or construction of scale models of terrain. *Skill Level 20:* Draws or scribes cultural, topographic, hydrographic, or other features on drawings, transparent overlays, and scribing surfaces for reproduction of maps. NOTE: May have progressed to 81C20 from 81A10 (General Draftsman). *Skill Level 30:* Able to perform the duties required for Skill Level 20; compiles and revises planimetric and topographic maps. *Skill Level 40:* Able to perform the duties required for Skill Level 20 or 30; supervises cartographic drafting, map compiling, or model-making activities. NOTE: May have progressed to 81C40 from 81C20, 81C30, 81E20 (Illustrator), or 81Q20 (Terrain Intelligence Analyst). *Skill Level 50:* Able to perform the duties required for Skill Level 40; plans, coordinates, administers, and supervises activities pertaining to the compiling, preparation, and revision of topographic and hydrographic maps from aerial photographs and other data. NOTE: May have progressed to 81C50 from 81C40 or 81Q20 (Terrain Intelligence Analyst).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in cartography, 3 in mechanical drawing, and 3 in aerial photographic interpretation (12/75).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in cartography, 4 in photogrammetry, 3 in mechanical drawing, and 3 in aerial photographic interpretation (12/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in cartography, 4 in photogrammetry, 3 in mechanical drawing, 3 in aerial photographic interpretation, and 3 in introduction to management (12/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 6 semester hours in cartography, 4 in photogrammetry, 3 in mechanical drawing, 3 in aerial photographic interpretation, 3 in introduction to management, 3 in personnel supervision, and 3 for field experience in management (12/75).

MOS-81C-002

Cartographer

81C10
81C20
81C30
81C40

Exhibit Dates: 3/77–Present.

Career Management Field: 81 (Topographic Engineering), subfield 811 (Cartography).

Description

Summary: Supervises or performs cartographic drafting activities, or compiles or revises planometric and topographic maps. *Skill Level 10:* Draws or scribes cultural, topographic, hydrographic, or other features on drawings, transparent overlays and scribing surfaces for reproduction of maps; compiles and revises planometric and topographic maps; constructs mosaics from aerial photograph; constructs map projections and grids; uses photo interpretation methods for delineating aerial photographs; performs field classification of aerial photographs. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; keeps records and requests supplies; makes recommendations to supervisors. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises cartographic laboratory; edits computations, map compilation base, manuscripts, overlays, color proofs, and color separation drawings; makes production recommendation and maintains files; may supervise more than 12 persons. *Skill Level 40:* Able to perform the duties required for Skill Level 30; determines work priorities; supervises final inspection and editing of maps; plans, coordinates, and administers activities of cartographic laboratory with other units; may supervise more than 30 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in mechanical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical drawing, 6 in cartography, 3 in photogrammetry, and 3 in aerial photographic interpretation (6/78).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in mechanical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical drawing, 6 in cartography, 3 in photogrammetry, 3 for field experience in cartography, 3 in aerial photographic interpretation, and credit in human relations on the basis of institutional evaluation (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in mechnical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical drawing, 6 in cartography, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 for field experience in cartography, 3 for field experience in management, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in mechanical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical drawing, 6 in cartography, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 for field experience in cartography, 3 in introduction to management, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (6/78).

MOS-81E-001

Illustrator

81E20

Exhibit Dates: 10/73–2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 811 (Drafting).

Description

Skill Level 20: Illustrates, drafts, and lays out illustrations for posters, graphs, charts, tests, training aids, and for other purposes; interprets basic materials furnished for final illustration; measures model dimensions; appropriately lays out work; makes illustrations with inks, charcoal, oil paints, water colors, pencils, crayons, and pastels, using drafting instruments and other artist materials; selects appropriate materials and instruments and mixes colors; designs, executes, and prepares freehand and mechanical drawings; mounts and retouches photographs and drawings; prints and letters signs; maintains illustration equipment.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical drawing, 2 in commercial art, and 2 in principles of illustration, and additional credit on the basis of institutional evaluation (12/75).

MOS-81E-002

Illustrator

81E10

81E20

81E30

Exhibit Dates: 3/77–9/89. (Effective 9/89, MOS 81E was discontinued and its functions were incorporated into MOS 25Q, Graphics Documentation Specialist.)

Career Management Field: 84 (Public Affairs and Audio Visual).

Description

Summary: Designs, drafts, and lays out copy for posters, graphs, charts, tests, training aids, and for other purposes; uses creativity to portray specific productions. *Skill Level 10:* Serves as designer; selects oil paints, water colors, inks, charcoal, pencils, and crayons; selects and mixes colors and shades of colors; makes designs with ink, crayon, pastels, drafting instruments, and other artistic materials; prepares mechanical drawings to illustrate equipment and weapons; mounts photographs with electrical press, dry mounting paper, mounting board, and tacking iron; paints and letters signs; interprets blueprints, sketches, photographs, drawings, charts, technical manuals, and graphs; measures dimension of model, and determines proper method of laying out work and most appropriate manner of presentation; designs and executes freehand drawings of persons, scenic views, still life, and cartoons; retouches drawings and photographs to correct faults and to color reproductions; performs preventive maintenance on equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises lower skill level personnel; reviews work orders and notes; writes, sketches, or gives oral instructions; reviews completed work for artistic quality and technical accuracy.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in graphics design, 2 in calligraphy, 3 in mechanical drawing, 3 in principles of typography, 3 in development of audio-visual aids, and 3 in cartography applications (5/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in graphics design, 2 in calligraphy, 3 in mechanical drawing, 3 in principles of typography, 3 in development of audio-visual aids, and 3 in cartography applications (5/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in graphics design, 2 in calligraphy, 3 in mechanical drawing, 3 in principles of typography, 3 in development of audio-visual aids, 3 in cartography applications, 3 for field experience in management, 3 in technical illustrations, and credit in human relations on the basis of institutional evaluation (5/78).

MOS-81Q-001

Terrain Intelligence Analyst

81Q20

Exhibit Dates: 10/74–2/77. (Effective 3/77, MOS 81Q was discontinued and its functions were incorporated into MOS 81C, Cartographer; in 9/83, the designator 81Q was reestablished–see exhibit MOS-81Q-002.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 811 (Drafting).

Description

Skill Level 20: Compiles, analyzes, and disseminates current and accurate data pertaining to a geographical area or region, including natural terrain features, population and industrial centers, transportation networks, and utility systems, for use in mapping, construction, and other operations; interprets conditions of travel and land use; interprets studies and reports as they relate to terrain and man-made features; coordinates and participates in the preparation of technical and special reports and map overlays; applies engineering techniques in the analysis of aerial photographs and other data; knows the principles of map compilation and interpretation; keeps records and files of completed studies; keeps data current through consultation with pertinent government agencies.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 8 semester hours in land use planning, 6 in aerial photographic interpretation, 3 in geography, 3 in terrain analysis, 3 in cartography, and 1 in geology. In the upper-division baccalaureate category, 8 semester hours in land use planning and 3 in aerial photographic interpretations. In the graduate degree category, 6 semester hours in research techniques in geography (12/75).

MOS-81Q-002

Terrain Analyst

81Q10

81Q20

81Q30

81Q40

Exhibit Dates: 9/83–Present.

Career Management Field: 81 (Topographic Engineering).

Description

Summary: Performs or supervises the performance of terrain analysis activities to include reconnaissance, collection and maintenance of source materials, data extraction, analysis and synthesis, and prediction of terrain and weather effects. *Skill Level 10:* Participates in the collection of data or physical and cultural terrain features; uses stereoscopic and monocular instruments to extract terrain data from remotely sensed imagery and existing topographic products; records analysis results on overlays; adds to geographic data base; employs basic drafting techniques; assists in preparation of manuscripts that accompany maps and charts; reviews terrain descriptions and records findings; assists senior personnel. *Skill Level 20:* Able to perform the duties required for SKill Level 10; provides technical guidance to subordinate personnel; uses various techniques to measure terrain data from remotely sensed imagery and existing topographic products; estimates conditions not available from existing sources; manipulates data and transforms results to product specifications; edits finished manuscripts for completeness and accuracy; uses data base information to predict the effects of weather on terrain; compiles analysis, overlays and narrative for publication as special maps or terrain studies; inspects and edits completed work. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical assistance to subordinate personnel and superiors; supervises and conducts on-the-job training; supervises and maintains administrative, intelligence, and reference files; supervises division level terrain analysis team; advises commanding officer. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises terrain analysis activities in corps or theater Army terrain teams or higher unit level; coordinates collection requirements; plans and coordinates organization, training, and technical operations; relates to numerous other staff elements in the Army.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in physical geography, 3 in aerial photographic interpretation, and 3 in technical communications. In the upper-division baccalaureate category, 3 semester hours in photogrammetry and 3 in geographic field methods (7/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in physical geography, 3 in aerial photographic interpretation, and 3 in technical communications. In the upper-division baccalaureate category, 3 semester hours in photogrammetry, 3 in geographic field methods, 3 in terrain analysis, and 3 in cartography (7/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in physical geography, 3 in aerial photographic interpretation, 3 in technical communications, 3 in project management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in photogrammetry, 3 in geographic field methods, 3 in terrain analysis, 3 in cartography, and 3 in advanced photogrammetry (7/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in photogrammetry, 3 in geographic field methods, 3 in terrain analysis, 3 in cartography, 3 in advanced photogrammetry, 3 for field experience in management, and 3 in management problems (7/88).

MOS-81Z-001

Topographic Engineering Supervisor

81Z50

Exhibit Dates: 3/77–Present.

Career Management Field: 81 (Topographic Engineering), subfield 810 (Topographic Engineering, General).

Description

Skill Level 50: Supervises topographic surveying, cartography, and photolithography activities; serves as first sergeant of a company or as a topographic operations sergeant; assists in topographic planning and control activities; assists in determining requirements and providing program and technical supervision of topographic mapping and other military intelligence programs, including geodetic and topographic surveying activities; assists in command supervision and coordination of map reproduction and topographic map supply programs. NOTE: May have progressed to 81Z50 from 81C40, Cartographer, 82D40, Topographic Surveyor, or 83F40, Photolithographer.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in graphic arts, 3 in record keeping, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, and 6 in printing management. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphic arts), 3 in industrial management, 3 in plant organization, and 6 for field experience in management (6/78).

MOS-82A-001

Rodman and Tapeman

82A10

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 82A was discontinued and its functions were incorporated into 82B20, Construction Surveyor, and 82D10, Topographic Surveyor.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 812 (Surveying).

Description

Skill Level 10: Under supervision, assists topographic and construction survey party personnel in making land surveys and establishing reference points; assists survey party chief by removing minor terrain obstacles, carrying equipment, marking reference points and recording readings; aligns and positions stadia, level rods, and other target markers when directed by hand and/or verbal instructions; locates old and new markers; measures linear distance with tapes and angles of slope with hand level; reads verniers of targets; performs preventive maintenance on pertinent equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 1 semester hour in surveying (12/75).

MOS-82B-001

Construction Surveyor

82B20

82B40

Exhibit Dates: 10/73–2/78.

Career Management Field: 51 (General Engineering), subfield 511 (Construction Engineering).

Description

Summary: Supervises or establishes relative position of points on earth's surface for use in construction projects. *Skill Level 20:* Reads maps and construction specifications; operates surveying instruments and equipment, such as alidade, plane table, level, transit, and theodolite; employs such instruments as aneroid barometer and compass; records observations and makes minor computations; makes mathematical computations involving use of formulas; determines azimuths and astronomical observations of the sun or polaris; makes measurements and sets appropriate reference points; maintains surveying equipment and instruments. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises and instructs survey party personnel; responsible for initial study of construction area; assigns and coordinates work and manages its progress; supervises on-the-job training.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic land surveying (12/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic and advanced land surveying, 3 in introduction to management, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in introduction to management and 3 for field experience in management (12/75).

MOS-82B-002

Construction Surveyor

82B10

82B20

Exhibit Dates: 3/78–Present.

Career Management Field: 51 (General Engineering), subfield 511 (Technical Engineering).

Description

Summary: Performs construction surveys to determine relative positions of points on the ground to provide data for construction layout and earthwork. *Skill Level 10:* Serves as construction surveyor; reads maps and places appropriate reference points for construction layout and earthwork; operates surveying instruments and equipment such as tape, alidade, plane table, level, transit and theodolite; employs such instruments as aneroid barometer and compass; records observations and makes minor computations; maintains and adjusts survey instruments and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; directs survey party and works independently while conducting construction surveys; conducts initial reconnaissance of construction area; interprets construction drawings and briefs survey party; directs use of stadia; establishes centerlines for horizontal curves and spirals, and gradelines for vertical curves; responsibilities include surveys for all features of bridges, buildings, sewer lines, roads, airfields and drainage; maintains records of survey party work.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic land surveying (7/79).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic and advanced land surveying and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (7/79).

MOS-82C-001

Artillery Surveyor

82C10

82C20

82C40

Exhibit Dates: 10/73–8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Engages in surveying activities. *Skill Level 10:* Marks survey stations; utilizes range poles and target sets; assists in performance of preventive maintenance on surveying instruments and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as chief of a surveying party; uses basic algebraic and trigonometric skills; uses tape, level, transit, and theodolite to perform surveys; computes azimuths and distances, coordinates, altimetric and trigonometric heights from field data; makes traverse computations;

uses the triangulation method of survey and computations. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises a survey party; reviews survey data.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (2/75).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in algebra and 1 in trigonometry. In the lower-division baccalaureate/associate degree category, 8 semester hours in surveying, 2 in algebra, and 1 in trigonometry (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in algebra and 1 in trigonometry. In the lower-division baccalaureate/associate degree category, 8 semester hours in surveying, 2 in algebra, 1 in trigonometry, 3 in personnel supervision, and 3 in communication skills (2/75).

MOS-82C-002

Field Artillery Surveyor

82C10
82C20
82C30
82C40

Exhibit Dates: 9/76-5/89

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquisition Operations).

Description

Summary: Engages in surveying activities. *Skill Level 10:* Determines distance between survey stations; marks survey stations; operates and maintains survey equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; applies knowledge of basic algebra, basic geometry, and trigonometric functions and logarithms; computes azimuth and distance, coordinates, altimetric and trigonometric heights, and astronomic azimuths from field data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a survey party; selects starting station and method of survey; reviews survey data for accuracy; supervises maintenance of survey party equipment; instructs in survey procedures and techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates operations of several survey parties; prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and air photos and credit in surveying on the basis of institutional evaluation (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in introduction to maps and air photos, 2 in algebra, 1 in trigonometry, and 8 in surveying. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and air photos, 2 in algebra, 1 in trigonometry, and 8 in surveying (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and air photos, 2 in algebra, 1 in trigonometry, 8 in surveying, 2 in communication skills, 2 in human relations, 2 in personnel supervision, and 3 for field experience in management (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and air photos, 2 in algebra, 1 in trigonometry, 8 in surveying, 3 in communication skills, 3 in human relations, 3 in personnel supervision, and 3 for field experience in management (4/77).

MOS-82C-003

Field Artillery Surveyor

82C10
82C20
82C30
82C40

Exhibit Dates: 6/89-Present

Career Management Field: 13 (Field Artillery).

Description

Summary: Engages in surveying activities. *Skill Level 10:* Determines distance between survey stations; marks survey stations; performs astronomic observations for determining locations; operates and maintains survey equipment including theodolite, laser-activated infrared distance measuring instrument, PADS inertial system gyroscope unit for locations, and the Backup Computer Systems (BUCS) (Hewlett-Packard Computer) for computations; knows manual computation formulas, equations, procedures, and forms, as well as ephemeris and logarithmic tables. *Skill Level 20:* Able to perform the duties required for Skill Level 10; applies knowledge of basic algebra, basic geometry, and trigonometric functions and logarithms; computes azimuth and distance, coordinates, altimetric, and trigonometric heights, and astronomic azimuths from field data. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a survey party; selects starting station and method of survey; reviews survey data for accuracy; supervises maintenance of survey party equipment; instructs in survey procedures and techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises and coordinates operations of several survey parties; prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and aerial photos, 2 in surveying, 1 in trigonometry, 1 in algebra, 1 in computer operations, and 1 in introduction to astronomy (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and aerial photos, 8 in surveying, 2 in algebra, 1 in trigonometry, 2 in computer operations, and 1 in introduction to astronomy (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and aerial photos, 8 in surveying, 2 in algebra, 1 in trigonometry, 2 in computer operations, 1 in introduction to astronomy, 2 in communication skills, and 3 in principles of supervision (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to maps and aerial photos, 8 in surveying, 2 in algebra, 1 in trigonometry, 2 in computer operations, 1 in introduction to astronomy, 3 in communication skills, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-82D-001

Topographic Surveyor

82D20
82D30
82D40
82D50

Exhibit Dates: 10/73-2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 812 (Surveying).

Description

Summary: Supervises or conducts surveys and establishes relative position of points on earth's surface to provide control data for map making. *Skill Level 20:* Conducts topographic surveys; interprets maps and aerial photographs; operates surveying instruments and equipment such as alidade, plane tables, level, transit, theodolite, compass, and aneroid barometer; shoots routine azimuth shots on stellar bodies; determines exact location and measurements of points, lines, elevations, areas, and contours of earth's surface; records observations, makes minor computations, and prepares diagrams and map overlays for presentation of survey findings; makes mathematical computations involving logarithms and trigonometric principles and standard topographic survey formulas; consolidates and prepares topographic survey reports; inspects, cleans, lubricates, and adjusts surveying instruments and equipment. NOTE: May have progressed to 82D20 from 82A10 (Rodman and Tapeman). *Skill Level 30:* Able to perform the duties required for Skill Level 20; conducts geodetic surveys; operates, uses, and performs preventive maintenance on topographic surveying instruments capable of first order accuracy; sets up, calibrates, and employs such instruments in Wild T-3 and/or T-4 Theodolites, Bamberg Broken Telescope Transit, precise chronometer, and chronograph or oscillograph in combination with astro amplifier and other timing instruments; prepares for and makes all observations for precise determination of azimuth or geodetic position; observes stars for longitude, latitude, and azimuth determination; interprets and records timing data for topographic computers. NOTE: May have progressed to 82D30 from 82D20, 82E20 (Topographic Computer), or 41B20 (Topographic Instrument Repairman). *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises topographic surveying activities; studies and learns capabilities and limitations of all types of topographic survey equipment and systems; studies astronomical publications, such as star lists and ephemeris; determines composition and operational procedures and techniques of topographic survey parties; determines application of field survey activities to photogrammetric requirements; utilizes organic topographic stereophotogrammetric instruments; prepares records depicting type of survey, type of station, reference points used, and description of terrain; plans training and instructs subordinate personnel in all phases of topographic surveying; prepares and reviews technical, personnel, and administrative reports. NOTE: May have progressed to 82D40 from 82D20, 82D30, 82E20 (Topographic Computer), or 41B20 (Topographic Instrument Repairman). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer in a topographic surveying company, assists in planning, coordinating, and supervising all company activities; advises company commander on all personnel matters; provides subordinate supervisors with instructions; conducts training and inspections. NOTE: May have progressed to 82D50 from 82D40, 82E40, (Topographic Computer), or 82B40 (Construction Surveyor).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, and 3 in engineering computations (12/75).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in engineering computations, and 6 for field experience in surveying (12/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 15 semester hours for field experience in surveying, 9 semester hours in engineering computations, 3 in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in advanced surveying, 3 in advanced geodetic surveying, 3 in technical writing, 3 in personnel supervision, and 3 in project management (12/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 23 semester hours for field experience in surveying, 12 in engineering computations, 8 in project management, 5 in project layout, 6 in personnel supervision, 6 in advanced surveying, 3 in algebra, 3 in trigonmetry, 3 in geometry, 3 in spherical geometry, 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in advanced geodetic surveying, 3 in technical writing, and 3 in introduction to management (12/75).

MOS-82D-002

TOPOGRAPHIC SURVEYOR

82D10
82D20
82D30
82D40

Exhibit Dates: 3/77–Present.

Career Management Field: 81 (Topographic Engineering), subfield 812 (Surveying).

Description

Summary: Supervises or conducts surveys to provide control data for map making and supervises or performs topographic or geodetic computations. *Skill Level 10:* Records topographic survey data, operates survey instruments, and performs topographic computations; conducts topographic surveys; interprets maps and aerial photographs; records measurements and other field data; computes horizontal distances from taped, electronic, or stadia measurement; computes angular closures and triangulations; computes differences in elevation from trigonometric, altimetry, and differential leveling; computes azimuths from stellar observations and from grid coordinates; employs planetable with alidade, theodolite, level, microwave, infrared, and baseline taping distance measuring equipment; operates programmable electronic calculator. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs geodetic computation and adjustments, and topographic survey observations to extend horizontal and vertical control; employs theodolite, precise levels, altimeter, lasers; makes field checks; obtains data to calibrate instruments; computes and adjusts second order surveys; computes elevation of tidal bench marks from tidal observations data for secondary stations; determines and writes required numbers and types of condition equation used in least squares adjustments; operates and writes programs for programmable electronic calculation; directs and controls personnel when acting as survey party chief. *Skill Level 30:* Able to perform the duties required for Skill Level 20; must be able to supervise personnel performing the duties of 82D20 or 41B20 (Topographic Instrument Repair Specialist); performs astronomic observations, computes geographic azimuths to verify topographic surveys, or supervises survey section or computing activities in a survey party; calibrates equipment; performs survey reconnaissance, evaluates field data and results obtained; computes geographic positions to include elevation, from observation derived from triangulations, trilateration, traverse and spirit leveling; computes astronomic and la-place azimuth, latitude, and longitude from astronomical observations; computes gravity survey field data and earth tide gravity correction; evaluates and verifies results of all computations; supervises programming of electronic calculators. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises geodetic or topographic surveying party and computing activities of survey operations; plans work schedule; collects relevant data; supervises reconnaissance; plans and arranges for field party support in remote areas; coordinates surveying and computing activities; assigns duties, plans training, and instructs personnel; supervises field survey activities in support of photogrammetric requirements; prepares, reviews, and consolidates technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in surveying, and 3 in engineering computations. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, and 3 in engineering computations (6/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in engineering computations, 3 in dataprocessing, and 6 for field experience in surveying (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in surveying, 3 in engineering computations, and 3 in technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in personnel supervision, 6 in engineering computations, 9 for field experience in surveying, 3 in data processing, and 3 in human relations (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in surveying, 3 in engineering computations, 3 in technical writing, and 3 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics (including algebra, trigonometry, geometry, and spherical geometry), 3 in physics (optics), 3 in surveying, 3 in geodetic surveying, 3 in technical writing, 3 in personnel supervision, 9 in engineering computations, 12 for field experience in surveying, 3 in human relations, 3 in introduction to management, and 3 in data processing. In the upper-division baccalaureate category, 3 semester hours in personnel management and 5 in project layout (6/78).

MOS-82E-001

TOPOGRAPHIC COMPUTER

82E20
82E30
82E40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 82E was discontinued and its functions were incorporated into MOS 82D, Topographic Surveyor.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 812 (Surveying).

Description

Summary: Supervises or performs geodetic or topographic computations. *Skill Level 20:* Performs topographic, computations, such as determining exact positions of points and distances between points under various map construction systems, transforming geographic coordinates to linear distances, and computing taped and stadia traverse and baseline measurements using natural and log functions of angles; studies assembled data compiled from surveyor's notes; determines appropriate algebraic formula and method of computation to be used; makes projection, grid, and triangulation computations by application of geometry to notes from astrological observations;

performs fundamental computations and adjustments for third and lower order triangulation, traverse, vertical control, and special surveying schemes; performs fundamental computations involved in construction of military and geographic grids for maps; performs computations required for third and lower order astronomic azimuth and position observations, and solar observations; performs conversion computations for grid and geographic coordinates. NOTE: May have progressed to 82E20 from 82A10 (Rodman and Tapeman). *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as geodetic computer; measures time, records, time values by numerical and graphical means, and employs time data in making first order computations; computes azimuth and length of long lines (over 250 miles), and computes transformation of coordinates from one grid zone to another adjacent or more distant zone; performs la-place azimuth computations in addition to all common astronomical computations involving application of spherical trigonometry. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as chief topographic computer or as intelligence sergeant; coordinates surveying and computing activities, and performs related administrative duties; collects, prepares, and distributes material and data on intelligence matters, with special emphasis on intelligence matters peculiar to topographic operations; assigns work to subordinate personnel and conducts briefings.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in statistics, 3 in surveying, 3 in geodetic surveying, and 3 in engineering computations (12/75).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in statistics, 3 in surveying, 3 in geodetic surveying, 3 in engineering computations, and 6 for field experience in engineering (12/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 15 semester hours for field experience in engineering, 9 in engineering computations, 3 in algebra, 3 in trigonometry, 3 in geometry, 3 in spherical geometry, 3 in statistics, 3 in surveying, 3 in geodetic surveying, 3 in advanced surveying, 3 in advanced geodetic surveying, 3 in technical writing, 3 in personnel supervision, and 3 in project management (12/75).

MOS-83A-001

PRINTER'S APPRENTICE

83A10

Exhibit Dates: 10/73–9/74. (Effective 10/74, MOS 83A was discontinued and its functions were incorporated into MOS 83F, Offset Pressman.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

Skill Level 10: Assists in printing operations; installs and removes keybands and paper rollers and threads paper ribbon to monotype machines; operates and maintains multilith, bookbinding, photocopy, and photostat machines; sets up hand and machine cast type and arranges types cuts, spacers, quoins, and liners within chase; assembles and collates materials; cleans ink plates and press rollers; cuts and trims materials to required shapes and sizes; adjusts and sets paper cutting, perforating, drilling, punching, stitching, and folding machines; checks all materials printed for neatness and accuracy.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in offset press operation (2/75).

MOS-83D-001

PROCESS PHOTOGRAPHER

83D20

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 83D was discontinued and its functions were incorporated into MOS 83E, Photo and Layout Specialist.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

Skill Level 20: Operates a process camera and develops film to produce line, half tone, and continuous tone negatives for offset printing; demonstrates understanding of darkroom chemistry, camera techniques, use of camera controls, proper settings of lens, use of filters, and selection of films. NOTE: May have progressed to 83D20 from 83A10 (Printer's Apprentice), or 83F10 (Offset Pressman).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in process camera operation and 6 for field experience in graphic arts (5/76).

MOS-83E-001

PLATEMAKER

83E20

Exhibit Dates: 10/73–2/77.

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

20 Prepares and processes lithographic plates for use in offset printing, performing as a journeyman platemaker; knows procedures for single and multiple layouts, bookwork double burns, multiple-color systems, and register systems; works with presensitized and wipe-on plates. NOTE: May have progressed to 83E20 from 83A10 (Printer's Apprentice), or 83F10 (Offset Pressman).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in platemaking for offset printing and 3 in stripping for offset printing (5/76).

MOS-83E-002

PHOTO AND LAYOUT SPECIALIST

83E10

83E20

Exhibit Dates: 3/77–8/87.

Career Management Field: 81 (Topographic Engineering), subfield 813 (Photolithographer).

Description

Summary: Operates lithographic copy cameras and prepares lithographic negatives and positives, flats, contact prints, color proofs, scribe and peel coats, and offset press plates. *Skill Level 10:* Operates copy cameras, film processors, and densitometers to produce negatives from camera-ready copy; selects correct materials, exposures, and chemicals; uses developer and fixer solutions; washes and dries negatives; operates platemaking equipment; produces rectified aerial prints; performs operator maintenance on photographic and platemaking equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; makes quality checks; performs detailed topographic process photography and lithographic stripping and platemaking.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography and 3 in platemaking (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in platemaking, 3 in stripping for offset printing, and 3 for field experience in process photography (6/78).

MOS-83E-003

PHOTO AND LAYOUT SPECIALIST

83E10

83E20

83E30

Exhibit Dates: 9/87–Present.

Career Management Field: 81 (Topographic Engineering).

Description

Summary: Operates lithographic copy cameras and prepares lithographic negatives and positives, flats, contact prints, color proofs, scribe and peels coat products, and offset press plates. *Skill Level 10:* Operates copy cameras, film processors, and densitometers to produce negatives from camera-ready copy; selects correct materials, exposures, and chemicals; uses developer and fixer solutions; washes and dries negatives; performs stripping and/or platemaking activities; operates platemaking equipment; produces rectified aerial prints; performs operator maintenance on photographic and platemaking equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; makes quality checks; performs detailed topographic process photography and lithographic stripping and platemaking; performs preventive maintenance on automatic film processor; calibrates digital densitometers. *Skill Level 30:* Able to perform the duties required for SKill Level 20; supervises camera, photomechanical, layout and platemaking activities and personnel; assures quality of all operations; trains personnel in photolithographic operations; maintains supply inventory.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in process photography and 3 in platemaking and/or stripping for offset printing (based on institutional evaluation of the individual's experience (7/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in process photography, 3 in platemaking and/or stripping for offset printing (based on institutional evaluation of the individual's experience) and 3 for field experience in process photography (7/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in process photography, 3 in platemaking and/or stripping for offset printing (based on institutional evaluation of the individual's experience), 6 for field experience in process photography, and 3 in personnel supervision (7/88).

MOS-83F-001

Offset Pressman

83F10

83F20

83F40

Exhibit Dates: 10/74–2/77.

Career Management Field: 82 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

Summary: Operates duplicating and offset presses and supervises the operation of a pressroom. *Skill Level 10:* As a pressroom helper, assists in printing operations, including performing preventive maintenance on and operating multilith and photocopying equipment, storing supplies, loading and stacking paper, cleaning work area and equipment. *Skill Level 20:* Operates offset press to print multicolor work on light or heavy paper stock, using feeder, delivery, dampening, and inking assemblies; operates folding machines (16-page unit) and stitching machines; observes safety precautions and trains helpers. *Skill Level 40:* Able to perform the duties required for Skill Level 20; as a pressroom foreman, supervises multilith and offset press operators and bindery activities; schedules work and evaluates supply needs; coordinates pressroom printing and bindery activities; supervises equipment maintenance; explains and demonstrates the operation of lithograph and multilith machines and bindery techniques.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in offset press operation, 6 for field experience in graphic arts, 3 in platemaking, and 2 in ink and color. In the lower-division baccalaureate/associate degree category, 6 semester hours in offset press operation, 6 for field experience in graphic arts, 3 in platemaking, and 2 in ink and color (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in offset press operation, 6 for field experience in graphic arts, 3 in platemaking, 2 in ink and color, 3 in human relations, 3 in personnel supervision, and 3 in printing management (5/76).

MOS-83F-002

Printing and Bindery Specialist (Photolithographer)

83F10

83F20

83F30

83F40

Exhibit Dates: 3/77–Present.

Career Management Field: 81 (Topographic Engineering), subfield 813 (Photolithographer).

Description

Summary: Operates bindery equipment, offset presses, and duplicating equipment and supervises photolithographic activities. *Skill Level 10:* Performs bindery operations and operates offset presses and duplicators to include servicing, adjusting, mixing of etch solutions, storing supplies, and cleaning work area and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; makes quality checks, detects equipment malfunctions, and demonstrates operation and maintenance procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; must be able to supervise personnel performing the duties of 83F20, 41K20 (Reproduction Equipment Repair Specialist, and 83E20, (Photo and Layout Specialist; supervises lithographic photography and platemaking, offset press and duplicating, and bindery operations in a small lithographic activity; may supervise more than 19 persons. NOTE: May have progressed to 83F30 from 83F20, 83E20, Photo and Layout Specialist, or 41K20, Reproduction Equipment Repair Specialist. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large photolithographic activity; organizes and controls work flow; prepares administrative and operational reports, and determines work and supply requirements; may supervise more than 30 persons.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in operation and maintenance of duplication and reproduction machines, and 3 for field experience in bindery operations (6/78).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in operation and maintenance of duplication and reproduction machines, 3 for field experience in bindery operations, and 3 for field experience in reproduction operations (6/78).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in operation and maintenance of duplication and reproduction machines, 3 for field experience in bindery operations, 3 for field experience in reproduction operations, 3 in basic photography, 3 in platemaking, and 3 in stripping for offset printing. In the lower-division baccalaureate/associate degree category, 3 semester hours in operation and maintenance of duplication and reproduction machines, 3 for field experience in bindery operations, 3 for field experience in reproduction operations, 3 in basic photography, 3 in platemaking, 3 in stripping for offset printing, 3 in human relations, and 3 in personnel supervision (6/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in operation and maintenance of duplication and reproduction machines, 3 for field experience in bindery operations, 3 for field experience in reproduction operations, 3 in basic photography, 3 in platemaking, 3 in stripping for offset printing, 3 in human relations, 3 in personnel supervision, 3 in technical report writing, and 3 for field experience in management (6/78).

MOS-83Z-001

Photolithography Chief

83Z40

83Z50

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 83Z was discontinued and its functions were incorporated into 81Z50, Topographic Engineering Supervisor, and into 83F30 and 83F40, Photolithographer.)

Career Management Field: 81 (Topographic Engineering and Map Reproduction), subfield 813 (Map Reproduction and Printing).

Description

Summary: Supervises process photography, photocopy, platemaking, and offset press activities. *Skill Level 40:* Able to perform the duties required for Skill Level 20 of MOS 83D (Process Photographer), 83E (Platemaker), or 83F (Offset Pressman); serving as the production manager of a printing plant, supervises photolithography activities; sets work priorities; schedules, routes, and dispatches materials; implements quality control and safety procedures; makes oral and written administrative reports on personnel and activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as first sergeant of a company, supervising as many as 200 persons; assists in planning, coordinating, and supervising all company activities; advises superiors on all personnel matters; holds meetings to disseminate instructions and information to subordinate supervisors; supervises training activities. NOTE: May have progressed to 83Z50 from 83Z40 (Offset Pressman).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in offset press operation, 6 in process camera operation, 6 for field experience in graphic arts, 3 in platemaking, 3 in stripping for offset plates, 3 in ink and color, 3 in record keeping, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, and 6 in printing management. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphic arts) (5/76).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphic arts), 3 in industrial management, 3 in plant organization, and 6 for field experience in management (5/76).

MOS-84B-001

STILL PHOTOGRAPHER

84B20
84B40

Exhibit Dates: 10/73–2/77.

Career Management Field: 72 (Communications and Audio Visual), subfield 722 (Audio Visual).

Description

Summary: Takes still photographs for news releases, publications, and indentification, and for medical training, historical, and scenic purposes; performs preventive maintenance on photographic equipment; takes photos from moving and fixed positions; uses aerial cameras. *Skill Level 20:* Arranges subject matter for proper photographic emphasis; selects appropriate camera, film, and accessory equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises still photographers and motion picture cameramen; determines the quantity, types, and technical details of photographs to be taken; establishes work priorities and schedules; critiques completed work, advising on technical and artistic deficiencies; corrects faulty work practices of subordinates by instruction and demonstration of proper techniques; prepares technical and administrative reports. NOTE: May have progressed to 84B40 from 84B20 or 84C20 (Motion Picture Photographer).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in still photography (2/75).

Recommendation, Skill Level 40

In the vocational certificate category, 9 semester hours in still photography. In the lower-division baccalaureate/associate degree category, 9 semester hours in still photography, 3 in personnel management, and 3 in technical writing (2/75).

MOS-84B-002

STILL PHOTOGRAPHIC SPECIALIST

84B10
84B20
84B30
84B40

Exhibit Dates: 3/77–9/89. (Effective 9/89, MOS 84B was discontinued and its functions were incorporated into MOS 25S, Still Documentation Specialist, and MOS 25Z, Visual Information Chief.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Summary: Takes ground and aerial still photographs; develops black and white and color film. *Skill Level 10:* Takes still photographs and processes prints in black and white and color with single-lens reflex, twin-lens reflex, and large formate cameras; takes photos for news releases, publications, identification, medical, historical, and other military purposes; performs preventive maintenance on equipment; understands proper photographic composition and is able to select the appropriate equipment, film, and accessories to obtain the desired results; processes motion picture film. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises still photographers and motion picture cameramen; establishes work priorities and schedules; critiques completed work and advises on technical and artistic deficiencies; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises from 10-24 lower skill level personnel; supervises the operation of a photographic laboratory; provides technical guidance to lower skill level personnel; requisitions supplies; prepares technical and administrative reports and records. NOTE: May have progressed to 84B30 from 84B20 or 84C20 (Motion Picture Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 30; able to supervise personnel performing the duties of 84B30 or 81E30 (Illustrator); serves as a mid-level manager, supervising from 12 to over 30 personnel in a photographic laboratory; assists superiors on personnel and operational matters; conducts on-the-job training and inspection of facilities. NOTE: May have progressed to 84B40 from 84B30 or 81E30 (Illustrator).

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in still photography, 3 in black and white darkroom procedures, 3 in color darkroom procedures, and 3 in motion picture processing. In the lower-division baccalaureate/associate degree category, 9 semester hours in still photography, 3 in black and white darkroom procedures, 3 in color darkroom procedures, and 3 in motion picture processing (5/78).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 9 semester hours in still photography, 4 in black and white darkroom procedures, 4 in color darkroom procedures, 3 in motion picture processing, and 3 in human relations (5/78).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 9 semester hours in still photography, 6 in black and white darkroom procedures, 6 in color darkroom procedures, 3 in motion picture processing, 3 in human relations, 3 in personnel supervision, and 3 for technical electives (5/78).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 9 semester hours in still photography, 6 in black and white darkroom procedures, 6 in color darkroom procedures, 3 in motion picture processing, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 3 for technical electives. In the upper-division baccalaureate category, 3 semester hours in industrial arts education, 3 for field experience in management, and 3 in personnel management (5/78).

MOS-84C-001

MOTION PICTURE PHOTOGRAPHER

84C20

Exhibit Dates: 10/73–2/77.

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 20: Takes aerial photographs and pictures; performs preventive maintenance on photographic equipment; operates equipment and coordinates the shooting of documentary, training, or newsreel films.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in film production, 3 in basic photography, and 3 in cinematic techniques (5/76).

MOS-84C-002

MOTION PICTURE SPECIALIST

84C10
84C20

Exhibit Dates: 3/77–9/89. (Effective 9/89, MOS 84C was discontinued and its functions were incorporated into MOS 25P, Visual Information/Audio Documentation Systems Specialist.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Summary: Takes aerial photographs and motion pictures; operates and performs preventive maintenance on motion picture sound and magnetic tape recording equipment. *Skill Level 10:* Plans, set up, and operates movie equipment in a cinematography production (ground or aerial), under normal or adverse conditions; determines sound requirements and operates audio equipment; coordinates the shooting of documentary, training, or newsreel films. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; keeps production, supply, and maintenance records.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic cinematography, 3 in advanced cinematography, 3 in cinematic techniques, 3 in audio techniques, and 3 in audio recording (5/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic cinematography, 3 in advanced cinematography, 3 in cinematic techniques, 3 in audio techniques, 3 in audio recording, and 3 in record keeping (5/78).

MOS-84D-001

AUDIO SPECIALIST

84D20

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 84D was discontinued and its functions were incorporated into MOS 84C, Motion Picture Specialist, and MOS 84F, Audio/TV Specialist.)

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 20: Performs preventive and routine maintenance on audio equipment utilized in radio, television, and motion picture productions; determines the sound needs for a given situation; sets up and operates the necessary audio equipment.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in sound techniques, 3 in sound recording, and 3 in radio production (5/76).

MOS-84E-001

TV CAMERAMAN

84E20

84E40

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 84E was discontinued and its functions were incorporated into **MOS 84F**, Audio/TV Specialist.)

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Skill Level 20: Operates and performs preventive maintenance on television cameras; sets up camera and associated equipment; knows basic video techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 20; serves as a senior television cameraman; supervises 3 to 6 television cameramen; coordinates work with other television specialists and directorial personnel; instructs camera crew in proper camera techniques; evaluates technical, artistic, and mechanical composition of camera work.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in studio techniques and 6 for a television workshop (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in studio techniques, 6 for a television workshop, and 3 in human relations (5/76).

MOS-84F-001

TV PRODUCTION SPECIALIST

84F20

84F40

Exhibit Dates: 10/73-2/77.

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Summary: Serves as producer or director in the preparation and production of live and recorded television presentations. *Skill Level 20:* Is responsible for preproduction planning, preparation, and coordination in the production of television programs, including scripting, rewriting, stage and lighting design, and collection of production materials. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises production personnel engaged in stage property, makeup, and other production and related technical activities; conducts rehearsals, telecasts, and recording sessions; views recordings to evaluate quality; assists in editing; prepares detailed reports on production activities. NOTE: May have progressed to 84F40 from 84F20, 84E40 (TV Cameraman), or 84D20 (Audio Specialist).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in television production, 3 in writing for instructional television, 3 in set design and lighting for television, and 3 for a television workshop (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in television production, 3 in writing for instructional television, 3 in set design and lighting for television, 3 for a television workshop, 3 in television directing, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in advanced television production and 3 in advanced television directing (5/76).

MOS-84F-002

AUDIO/TV SPECIALIST

84F10

84F20

84F30

Exhibit Dates: 3/77-9/89. (Effective 9/89, MOS 84F was discontinued and its functions were incorporated into MOS 25P, Visual Information/Audio Documentation Systems Specialist.)

Career Management Field: 84 (Public Affairs and Audio Visual).

Description

Summary: Serves as producer in the preparation and production of live and recorded television presentations; operates and performs maintenance on equipment. *Skill Level 10:* Is responsible for preproduction planning, preparation, and coordination in the production of television programs, including scripting, rewriting, stage and lighting design, and collection of production materials. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises production personnel engaged in stage property, makeup, and other production and related technical activities; conducts rehearsals, telecasts, and recording sessions; reviews recordings to evaluate quality; assists in editing; prepares detailed reports on production activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in writing for television, 3 in set design/lighting for television, 3 in television techniques, 3 in audio techniques, 3 in recording techniques, and 3 in technical aspects of broadcasting (5/78).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in writing for television, 3 in set design/lighting for television, 3 in television techniques, 3 in audio techniques, 3 in recording techniques, 3 in technical aspects of broadcasting, and 3 for field experience in broadcasting (5/78).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semeter hours in writing for television, 3 in set design/lighting for television, 3 in television techniques, 3 in audio techniques, 3 in recording techniques, 3 in technical aspects of broadcasting, 3 in human relations, 3 for field experience in broadcasting, 3 in television production, 3 in personnel supervision, and 3 in broadcast management. In the upper-division baccalaureate category, 3 semester hours in advanced television production and 3 in advanced television directing (5/78).

MOS-84G-001

PHOTOGRAPHIC LABORATORY SPECIALIST

84G10

84G20

84G40

84G50

Exhibit Dates: 10/73-2/77. (Effective 3/77, MOS 84G was discontinued and its functions were incorporated into **MOS 84B**, Still Photographic Specialist, and **MOS 84Z**, Public Affairs/Audio Visual Chief.)

Career Management Field: 72 (Telecommunications and Audio Visual), subfield 722 (Audio Visual).

Description

Summary: Develops black and white and color film and does contact and projection printing. *Skill Level 10:* Serves as a photographic laboratory helper-trainee, assisting Skill Level 20 personnel in the development of film by setting up and cleaning equipment, monitoring solution temperature, and handling film as instructed under close supervision. *Skill Level 20:* Able to perform the duties required for Skill Level 10; processes black and white and color film, using a knowledge of photo-chemistry preparation, negative reading, paper selection, and cataloguing of negatives; processes motion picture film. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the operation of a photographic laboratory consisting of 5 to 25 subordinate photographic laboratory specialists; prepares work schedules and assigns laboratory tasks on a rotation basis to assure that subordinates obtain experience in all phases of photographic processing; evaluates work techniques, advises on technical problems, and conducts on-the-job training; requisitions supplies; prepares technical and administrative reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager, serving as first sergeant of a company; assists in planning, coordinating, and supervising all activities for a group of approximately 200 enlisted personnel; advises superiors on all personnel and operations matters; directs administrative activities; holds meetings with subordinate noncommissioned officers to provide them instructions and guidance; directs training; makes inspections.

Recommendation, Skill Level 10

Credit is not recommended because of the limited technical nature of the skills, competencies, and knowledge (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in black and white processing and 3 in color processing. In the lower-division baccalaureate/associate degree category, 3 semester hours in black and white processing, 3 in color processing, 3 in advanced color processing, 3 in darkroom procedures, and 3 in motion picture processing. In the upper-division baccalaureate category, 3 semester hours in color processing techniques and 3 for field experience in photography (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in black and white processing and 3 in color processing. In the lower-division baccalaureate/associate degree category, 3 semester hours in black and white processing, 3 in color processing, 3 in advanced color precessing, 3 in darkroom procedures, 3 in motion picture processing, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and 6 for technical electives. In the upper-division baccalaureate category, 3 semester hours in color processing techniques, 6 for field experience in photography, and 3 in motion picture editing (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in color processing techniques, 6 for field experience in photography, 3 in motion picture editing, 3 in introduction to management, 3 for field experience in management, and 3 in industrial arts education (photography) (6/76).

MOS-84T-001

TV/RADIO BROADCAST OPERATIONS CHIEF

84T40

Exhibit Dates: 3/77-9/89. (Effective 9/89, MOS 84T was discontinued and its functions were incorporated into MOS 25Z, Visual Information Chief.)

Career Management Field: 84 (Public Affairs and Audio-Visual).

Description

Skill Level 40: Supervises technical operations, production activities, and equipment maintenance; plans, directs, and participates in surveys for site locations of radio and TV stations, rebroadcasting, distribution, or relay systems; plans, directs, and conducts preproduction conferences with proponent agency, staff, and technical advisory personnel; provides TV production advice; prepares technical and administrative reports. NOTE: May have progressed to 84T40 from 84F30, Audio/TV Specialist or 26T30, Radio/TV Systems Technician.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast systems design, 3 in technical writing, and 3 in program development. In the upper-division baccalaureate category, 3 semester hours in personnel management, 6 in broadcast management, 6 for field experience in management, and additional credit in broadcast management, broadcast production, directing, and technical aspects of broadcasting on the basis of institutional evaluation (5/78).

MOS-84Z-001

PUBLIC AFFAIRS/AUDIO VISUAL CHIEF

84Z50

Exhibit Dates: 3/77-3/89. (Effective 3/89, MOS 84Z was discontinued and its duties were incorporated into MOS 46Z, Public Affairs Chief.)

Career Management Field: 84 (Public Affairs and Audio Visual).

Description

Skill Level 50: Supervises photographic operations, television equipment repair, radio broadcasting, Army command and public affairs programs, and television production; supervises, coordinates, and provides technical assistance in the operation of public affairs and audio-visual activities; determines equipment and personnel requirements for an activity; serves as liaison among staff, maintenance, and operating personnel; prepares administrative and technical reports; assigns duties. NOTE: May have progressed to 84Z50 from 71Q40, Journalist, 71R40, Broadcast Journalist, 84B40, Still Photographic Specialist, or 84T40, TV/Radio Broadcast Operations Chief.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing. In the upper-division baccalaureate category, 3 semester hours in human relations, 3 for field experience in management, 3 in personnel management, 3 in public relations, 3 in broadcast management, 3 in industrial managment, and 3 in industrial relations; if the duty assignment was broadcast supervisor, 3 additional semester hours in broadcast management; if the duty assignment was public affairs supervisor, 3 semester hours in public management (5/78).

MOS-88H-001

CARGO SPECIALIST

88H10

88H20

88H30

88H40

Exhibit Dates: 7/86-Present.

Career Management Field: 88 (Transportation).

Description

Summary: Transfers or supervises the transfer of cargo to and from water, land, and air transports by manual and mechanical methods. *Skill Level 10:* Serves as cargo handler and checker; loads, unloads, checks, and tallies cargo; uses slings, nets, hooks, pallets, spreaders, lifting bars, winches, hoists, and other cargo-handling equipment; employs safety procedures; signals winchman, hoistman, or cargo equipment operator where to move cargo. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as hatch foreman or senior cargo checker and enforces safety practices. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized terminal operation work force by planning and organizing work schedules, assigning duties, and designating work groups (hatch gangs) as required for each operation; advises on handling of all types of cargo and demonstrates techniques and use of equipment; coordinates heavy lift equipment and special terminal operations gear; prepares technical, personnel, and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large terminal work force normally consisting of 56 or more subordinate personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in cargo handling and rigging (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 2 in report writing, 2 in cargo planning, 2 in cargo processing and documentation, and 1 in transportation of dangerous materiais (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in cargo handling, stowage, and rigging. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 in records administration, 3 in report writing, 3 for field experience in management, 2 in cargo processing and documentation, 2 in cargo planning, and 1 in transportation of dangerous materials (5/76).

MOS-88K-001

WATERCRAFT OPERATOR

88K10

88K20

88K30

88K40

Exhibit Dates: 7/86-Present.

Career Management Field: 88 (Transportation).

Description

Summary: Operates and performs deck duties on Army watercraft and, in some instances, amphibians. *Skill Level 10:* Performs general seaman duties; under close supervision, assists in docking, unloading, and anchoring watercraft; assists in loading and unloading cargo; stands lookout watch; assists in inspecting, servicing, and operating fire equipment, lifeboats, and rafts; performs preventive maintenance on and inspections of Army watercraft; maneuvers Army watercraft; uses simple sounding devices, aids to navigation, steering compass courses, and running lights; communicates with stations ashore and afloat, using accepted communications equipment and techniques; applies basic water safety and rescue procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; operates and dispatches Army watercraft and, under close supervision, allocates and operates Army watercraft for a specific mission in accordance with navigational and communications rules and principles; keeps records of watercraft status and movements. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises the operation of watercraft and small boat crew; knows capabilities and limitations of Army watercraft and assigns and dispatches them accordingly; provides berthing and unberthing services to large or oceangoing vessels; computes fuel requirements and plans maintenance; knows procedures for abandoning ship, including sea rescue and lifeboat operations; supervises embarking and debarking of troops; instructs subordinate personnel in watercraft operational practices, procedures, and techniques. NOTE: Some Skill Level 30 personnel are trained as operators of large amphibian vehicles and can supervise their operation. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the operations of a large boat crew or assists in controlling Army watercraft operations; coordinates work activities; reviews, consolidates, and prepares technical, personnel, and administrative reports; supervises up to 20 persons.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in seamanship, 1 in piloting and navigation, 1 in communications, and 1 in safety (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, and 1 in safety (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, 3 in basic navigation, 3 in advanced navigation, and 1 in safety, and additional credit in amphibian operation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation and 3 in human relations (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 8 semester hours in seamanship, 6 in piloting and navigation, 3 in communications, 3 in basic navigation, 3 in advanced navigation, and 1 in safety, and additional credit in amphibian operation on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 3 in human relations, 3 in marine management, 3 for field experience in management, and 3 in personnel supervision (6/76).

MOS-88L-001

WATERCRAFT ENGINEER

88L10
88L20
88L30
88L40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Supervises or performs maintenance on propulsion systems and auxiliary equipment of marine vessels, and in some instances, on amphibians. *Skill Level 10:* Under close supervision, performs maintenance on Army watercraft; applies safety precautions pertinent to starting, stopping, and operating main diesel engines, electrical machinery, and other auxiliary components installed on board Army watercraft; reads and records pressures and temperatures to insure safe and efficient operation of machinery; uses hand and power tools; assists in performing preventive maintenance inspections and correcting maintenance shortcomings and deficiencies on watercraft. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; computes fuel consumption, tank capacities, and pumping rates for loading and discharging; maintains a working knowledge of damage control, fire prevention, and federal, state, and local environmental pollution control regulations; adjusts or troubleshoots malfunctioning diesel engines, electrical machinery, and auxiliary equipment; makes emergency repairs or takes emergency damage control measures at sea; performs soldering and pipefitting; uses precision tools; interprets technical publications; replaces engine and auxiliary equipment subassemblies; performs preventive maintenance inspections on watercraft; in some instances, may also perform these duties on amphibians. *Skill Level 30:* Able to perform the duties required for Skill Level 20; evaluates job performance of subordinate enginemen; maintains a reference library of technical manuals and service bulletins; interprets technical blueprints; troubleshoots, repairs, purges, recharges, and tests watercraft refrigeration systems; uses special test equipment and instruments in repairing diesel engines and accessory items; assists supervisor in engineering maintenance functions; plans and organizes work schedules and assigns duties to subordinates; instructs subordinates in work production and quality control procedures; is capable of supervising a medium-sized watercraft maintenance facility; establishes physical layout of work site and ensures maintenance of an efficient, clean, and safe work environment; requisitions, issues, stores, and maintains records of supplies and equipment; coordinates work activities with other maintenance elements; recommends changes to technical publications as required; in some instances, may also perform these duties on amphibians. *Skill Level 40:* Able to perform the duties required for Skill Level 30; sueprvises a large marine maintenance facility; performs managerial duties as indicated in previous skill levels; estimates and prepares preliminary budget forecasts of supply and maintenance activities; allocates funds and resources for the efficient operation of supply and maintenance activities; establishes operating procedures on the basis of directives and information received from superiors.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in internal-combustion engine principles, 1 in internal-combustion engine operation, and 1 in shipboard operations (6/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 4 in internal-combustion engine operation, and 5 in shipboard operations, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 5 in shipboard operations, 4 in internal-combustion engine operation, 3 in basic refrigeration, and 3 in use and care of tools and test equipment, and additional credit in amphibian maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in watercraft maintenance, 3 in marine refrigeration, and 3 in human relations, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, 7 semester hours in internal-combustion engine principles, 5 in shipboard operations, 4 in internal-combustion engine operation, 3 in basic refrigeration, and 3 in use and care of tools and test equipment, and additional credit in amphibian maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in watercraft maintenance, 3 in marine refrigeration, 3 in human relations, 3 in introduction to management, 3 in personnel supervision, and 3 for field experience in management, and additional credit in amphibian maintenance on the basis of institutional evaluation (6/76).

MOS-88M-001

MOTOR TRANSPORT OPERATOR

88M10
88M20
88M30
88M40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Operates wheel vehicles to transport personnel and cargo. *Skill Level 10:* Operates single-unit wheel vehicles with a capacity of five tons or less in all conditions of light, weather, and terrain; knows safety rules and practices; insures proper loading of vehicle; performs simple vehicular maintenance; keeps records of operation and performance; may serve as chauffeur or dispatcher; depending on the type of unit to which assigned, may also perform the same duties for tractors, semitrailers, tank transporters, and other vehicles with a capacity of more than five tons. *Skill Level 20:* Performs the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small motor transport activity; participates in convoy operations and organization, including planning, the establishment of control measures, and the observance of civil laws and pertinent military regulations; reviews and prepares operations reports; determines the number of vehicles required for a given operation; schedules route and controls movements of motor transport equipment; may perform or direct driver testing functions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large motor transport activity.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 3 additional semester hours in motor vehicle operation (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 4 additional semester hours in motor vehicle operation (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in motor vehicle operation (single-unit truck); if the duty assignment was heavy vehicle driver (tractor-trailer), 4 additional semester hours in motor vehicle operation. In the lower-division baccalaureate/associate degree category, 6 semester hours in motor vehicle transportation management and 3 in motor maintenance management; if the duty assignment was driver test sergeant, 3 additional semester hours for an internship in education (driver training) (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 8 semester hours in motor vehicle operation (all road vehicles). In the lower-division baccalaureate/associate degree category, 6 semester hours in motor transportation management, 3 in motor maintenance management, 3 in personnel supervision, 3 in human relations, and 3 for field experience in management; if the duty assignment was driver test sergeant, 3 additional semester hours for an internship in education (driver training) (5/76).

MOS-88N-001

TRAFFIC MANAGEMENT COORDINATOR

88N10
88N20
88N30
88N40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Coordinates the departure and arrival of freight and personnel by air, rail, highway, and water. *Skill Level 10:* Performs clerical duties associated with the logistics of freight and personnel movements; issues government and civilian shipping documents, including freight bills, bills of lading, and freight manifest sheets; assists military members in the preparation of travel itineraries, personal property shipping documents, and passenger movement forms. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-scale freight movement office; plans, directs, and controls operation of subordinate personnel; assists in the development of future transportation plans; supervises freight reconsignment, maintains liaison with military and civilian transportation facilities; reviews, consolidates and prepares reports covering transportation movement operations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises personnel at a large-scale freight movement office; when requested, reviews recommendations concerning facilities and site selection for depots, terminals, and railheads; advises superiors on present and future transportation capabilities and technical problems.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic and transportation or physical distribution management (5/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in traffic and transportation or in physical distribution management, 3 in human relations, 3 in personnel supervision and additional credit in traffic and transportation or in physical distribution management on the basis of institutional evaluation (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, and additional credit in traffic and transportation or in physical distribution management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in introduction to management (5/76).

MOS-88P-001

LOCOMOTIVE REPAIRER

88P10
88P20
88P30
88P40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Supervises or enforces mainenance on nonelectric sections of locomotives. *Skill Level 10:* Inspects locomotives to diagnose malfunctioning parts; accompanies locomotive operator on test runs and observes functions of locomotives; cleans and lubricates components as required; performs technical inspections on locomotives and auxiliary equipment to insure proper maintenance has been performed; interprets technical drawings and sketches. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs initial and final inspections on locomotives scheduled for maintenance; supervises and instructs repairmen in methods and techniques of repairs; enforces safety practices; prepares technical reports on locomotives and estimates personnel, supplies, parts, and equipment necessary to restore locomotives, tanks, and tank cars to efficient operating condition; plans, organizes, and coordinates work activity of subordinates engaged in maintaining, inspecting, and repairing locomotives and auxiliary equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30 of MOS 88P or 88S (Locomotive Electrician); supervises or controls repairs of mechanical and electrical portions of locomotives.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in locomotive maintenance (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in locomotive maintenance (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 9 semester hours in management and supervision of locomotive maintenance (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 9 semester hours in management and supervision of locomotive maintenance, 3 in personnel supervision, and 3 in industrial management (5/76).

MOS-88Q-001

RAILWAY CAR REPAIRER

88Q10
88Q20
88Q30
88Q40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Supervises or performs maintenance on railway passenger, freight, and hospital cars. *Skill Level 10:* Dismantles and reassembles major components and auxiliary equipment; examines wheels, axles, journals, journal bearings, and draft gear for structural and safety defects; inspects cars for defects which interfere with proper loading and makes necessary repairs; repairs handbrake mechanisms, gear ratchets, linkage, center sills, and body bolsters; straightens bent sections of bodies; paints and stencils railway cars; performs technical inspection of railway cars to insure proper maintenance; interprets technical blueprints and sketches; assists in salvage and rehabilitation of cars. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; inspects railway cars prior and subsequent to maintenance. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 88Q or 88R (Airbrake Repairer); plans, organizes, coordinates, and supervises work activity of a railway car section team; instructs repairmen in proper maintenance techniques and safety procedures; calculates personnel and material requirements for specific repair work; maintains records and prepares detailed technical reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large repair facility (normally, a minimum of 39 lower skill level personnel) involved in repairing railway cars and airbrake systems of locomotives and cars.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in practices and procedures of railroad car repair (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 1 in technical writing (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, and 1 in technical writing (5/76).

MOS-88R-001

AIRBRAKE REPAIRER

88R10

88R20

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Inspects, services, and repairs airbrake systems of locomotives and cars. *Skill Level 10:* Inspects airbrake components and system for defects; dismantles, cleans, and lubricates components; removes and replaces defective parts; tests and adjusts components for maximum efficiency of airbrake system; makes appropriate entries in parts and log books; prepares written reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in inspecting, servicing, and repairing airbrake systems (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in inspecting, servicing, and repairing airbrake systems (5/76).

MOS-88S-001

LOCOMOTIVE ELECTRICIAN

88S10

88S20

88S30

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Supervises or performs repairs on electrical portions of diesel-electric systems of diesel-electric locomotives. *Skill Level 10:* Inspects, dismounts, dismantles, cleans, repairs, and replaces defective components of electrical systems of diesel-electric locomotives, including generators, traction motors, auxiliary motors, reversers, contactors, relays, and regulators; load-tests repaired electrical components; restores commutator surfaces, rebands armatures, and repairs armature bearings; calibrates electric measuring instruments; reads schematic wiring diagrams. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-sized activity involved in repairing electrical portions of electrical systems of diesel-electric locomotives; interprets complex wiring diagrams; prepares shop layouts; develops plans for utilization of personnel, materials, and equipment; conducts on-the-job training; requisitions tools, parts and supplies.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in repair of electrical systems (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 8 semester hours in repair of electrical systems (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 8 semester hours in repair of electrical systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in shop management, and 3 in human relations (5/76).

MOS-88T-001

RAILWAY SECTION REPAIRER

88T10

88T20

88T30

88T40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Performs and/or supervises maintenance, repair, and clean-up of railway tracks, roadbeds, switches, and other railway facilities. *Skill Level 10:* Performs inspection, repair, clean-up, and maintenance of railway right-of-way and adjoining structures including switches, signals, degree of elevation, track curvature, and tie spacing; controls the issuing of repair and maintenance equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; determines need for repair and construction equipment and arranges for movement to job site; conducts on-the-job training in minor repairs, emphasizing safety to both train and work repair crews; supervises limited size maintenance, repair, and clean-up crews. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises medium-sized crews (normally 29-38 subordinate personnel or 2 section gangs); adjusts work assignments to best reflect capabilities of subordinate personnel; prepares reports relating to the maintenance, repairs, and clean-up of railway right-of-way facilities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the maintenance, repair, and clean-up activities of a large-scale railway facility, normally consisting of more than 39 subordinate personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 5 semester hours in railroad operations (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 7 semester hours in railroad operations (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, and 6 for field experience in management (5/76).

MOS-88U-001

LOCOMOTIVE OPERATOR

88U10

88U20

88U30

88U40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Operates steam, electric, and diesel-electric locomotives and related equipment. *Skill Level 10:* Operates steam, electric, and diesel-electric locomotives and related equipment; fires and sustains steam pressure by either hand or stoker firing of coal-burning locomotives; and assists in performing the duties required for Skill Level 20. *Skill Level 20:* Able to perform the duties required for Skill Level 10; interprets specific operating instructions; efficiently operates locomotives and trains, observing appropriate gauges and meters; lubricates moving parts of locomotive; interprets and executes operating instructions; inspects equipment for proper operating condition; interprets train orders; compiles performance and delay reports for each trip; submits locomotive inspection reports, noting needed corrective action for defects. *Skill Level 30:* Able to perform the duties required for Skill Level 20; reviews operation and inspection reports; investigates schedule delays, accidents, and unusual operating incidents and recommends corrective action; assigns specific duties to locomotive operators and other crewmen, and monitors performance of these personnel; provides on-the-job training; enforces safety procedures; coordinates maintenance of locomotives; prepares technical, personnel, and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of steam, electric, and diesel-electric locomotives and related equipment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in steam, electric, and diesel-electric mechanics, 3 in operation and maintenance of locomotive engines, and 3 in railway safety (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in steam, electric, and diesel-electric mechanics, 3 in operation and maintenance of locomotive engines, and 3 in railway safety (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 9 semester hours in operation and maintenance of locomotive engines, 3 in steam, electric, and diesel mechanics, and 3 in railway safety. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 in report writing, and 1 in safety (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations, 3 in personnel supervision, 3 for field experience in management, 3 in report writing, and 1 in safety (5/76).

MOS-88V-001

TRAIN CREW MEMBER

88V10

88V20

88V30

88V40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Serves as yardmaster, conductor, or brakeman in the make-up and movement of railway cars and trains. *Skill Level 10:* Performs as a brakeman; receives orders for switching and performs car coupling and uncoupling operations; applies safety rules; gives and interprets railway signals for train control and operation; places placarded cars in trains and insures that cars are properly loaded and lashed for safe handling; prepares and interprets train orders; prepares reports and forms for yard and railway operations; inspects rolling stock to determine operating condition. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a conductor; supervises the operation of a railroad train and coordinates train movements; reviews and interprets train orders and time tables; instructs and supervises enginemen and brakemen in connecting and disconnecting trains and cars and switching cars to sidings or spurs. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as an assistant yardmaster; supervises and trains personnel in railway yard operation, including the handling, classification, and switching of trains and cars; maintains record of daily movement of railway cars; assures adherence to railway safety procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports covering railway yard activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises railway yard operations; normally supervises two Skill Level 30 yardmasters.

Recommendation, Skill Level 10

In the vocational certificate category, 7 semester hours in the make-up and movement of railway cars and trains (5/76).

Recommendation, Skill Level 20

In the vocational certificate category, 10 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, 13 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in human relations (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 13 semester hours in the make-up and movement of railway cars and trains. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 6 for field experience in management (5/76).

MOS-88W-001

RAILWAY MOVEMENT COORDINATOR

88W10

88W20

88W30

88W40

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Summary: Supervises train dispatching or operates railway stations, railway signals and switches, and assists in control and coordination of train movements. *Skill Level 10:* Accounts for car and train movements by compiling records reflecting locations of all rolling stock; keeps records of arriving and departing trains; computes operational and statistical reports on traffic volume, demurrage, expediting, and train movements; requisitions cars, supervises loading, compiles and checks bills of lading (waybills), and seals cars; receives requisitions for empty cars and directs movement to loading areas; establishes liaison with other operating personnel and civilian carrier operating personnel to insure safe and prompt handling of freight. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises receipt and transmission of messages relating to train movements; reviews transit time; coordinates and arranges for train crews; establishes close liaison with representatives of civilian and military railroads; supervises on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides staff supervision to lower-grade personnel in railway operating activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in traffic and transporiation or in physical distribution management (5/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in traffic and transportation or in physical distribution management, 3 in personnel supervision, and 3 in human relations (5/76).

MOS-88X-001

RAILWAY SENIOR SERGEANT

88Z50

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Skill Level 50: Supervises and coordinates maintenance-of-way and maintenance of equipment and railway operations, including the overall supervision of 88P40 (Locomotive Repairer), 88Q40 (Railway Car Repairer), 88T40 (Railway Section Repairer), 88U40 (Locomotive Operator), 88V40 (Train Crew Member), and 88W40 (Railway Movement Coordinator) personnel; advises superiors on all matters relating to operations, maintenance, and repair; monitors and controls railway passenger and freight traffic; prepares operational reports, training material, and programs.

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 3 semester hours in records administration, 3 in personnel management, 3 in human relations, 3 for field experience in management, 3 in maintenance management, 3 in introduction to management, and 6 in transportation management (5/76).

MOS-88Y-001

MARINE SENIOR SERGEANT

88Y50

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Skill Level 50: Is a mid-level manager responsible for approximately 150 subordinate personnel engaged in watercraft operation and maintenance; assists in planning, implementing, and coordinating administrative activities, operations, and training programs; prepares, edits, and consolidates reports, records, plans, and training materials. NOTE: May have progressed to 88Y50 from 88K40 (Watercraft Operator) or 88L40 (Watercraft Engineer).

Recommendation, Skill Level 50

In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, and 3 in records administration; if the duty assignment was chief instructor, 3 additional semester hours for an internship in education (6/76).

MOS-88Z-001

TRANSPORTATION SENIOR SERGEANT

88Z50

Exhibit Dates: 7/86–Present.

Career Management Field: 88 (Transportation).

Description

Skill Level 50: Supervises operation and control of movement of personnel and cargo by air, rail, motor transport, and water; prepares tactical plans and training material; evaluates transportation operations; assists in planning, coordinating, and supervising all supporting activities; prepares studies, routine and special reports, and records on transportation operations; supervises personnel and technical operations. NOTE: May have progressed to 88Z50 from 88M40 (Motor Transport Operator), 88N40 (Traffic Management Coordinator), or 88H40 (Cargo Specialist).

Recommendation, Skill Level 50

In the vocational certificate category, 9 semester hours in transportation operations. In the lower-division baccalaureate/associate degree category, 9 semester hours in transportation operations, 3 in records administration, and 3 in report writing. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 for field experience in education (5/76).

MOS-91A-001

Medical Corpsman

91A10

Exhibit Dates: 10/73–9/74. (Effective 10/74, MOS 91A was discontinued and its functions were incorporated into 91B10, Medical Specialist. In 9/84, MOS 91A was reinstituted; see exhibit MOS-91A-002.)

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Skill Level 10: Performs basic medical care and treatment; assists in setting up and moving emergency and temporary medical care facilities; performs duties related to emergency care and transportation of patients; performs general bedside nursing activities and procedures, including patient hygiene, collection and labeling of specimens, measurement and recording of patient vital signs, administration of treatments and simple medications as directed, and supervised physical and occupational therapeutic functions; assists in surgical procedures under supervision.

Recommendation, Skill Level 10

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 7 semester hours in fundamentals of nursing, 4 in emergency nursing procedures, 1 in communicable disease nursing, 1 in health science, and 1 in surgical nursing procedures (2/75).

MOS-91A-002

Medical Specialist

91A10

91A20

Exhibit Dates: 9/84–Present.

Career Management Field: 91 (Medical).

Description

Summary: Administers emergency medical treatment to battlefield casualties; assists with out-patient care and treatment; assists with in-patient care and treatment under supervision of physician, nurse, physician's assistant or noncommissioned officer (NCO). *Skill Level 10:* Administers emergency treatment in the field; assists with out-patient and in-patient care; maintains health records and clinical files; assists with nursing care of patients including medical examinations; takes and records temperature, pulse, respiration, and blood pressure; applies and removes surgical, wound, or skin dressings; collects and prepares specimens for analysis; assists in clinic and dispensary; performs routine admission tests; administers immunizations; assists with treatment of patients with common diseases; provides emergency medical care; surveys and sorts casualties; determines requirements for and administers emergency treatment; assists with triage of mass casualties; performs duties related to emergency care. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; manages casualties until admission to medical facility; performs sorting and screening procedures on battlefield, dispensaries, or clinics; reads and interprets medical tags or records.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 3 in emergency nursing procedures, 3 in first aid, and 3 for an internship in emergency nursing procedures (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 3 in emergency nursing procedures, 3 in first aid, 6 for an internship in emergency nursing procedures, and 1 in principles of administration (9/85).

MOS-91B-001

Medical Specialist

91B10

91B20

91B40

Exhibit Dates: 10/74–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises dispensary or field medical facilities; administers emergency treatment independently to battlefield casualties; assists with inpatient and outpatient care and treatment. *Skill Level 10:* Administers emergency treatment in the field; assists in transporting patients to medical facilities; performs general bedside nursing aide activities and procedures, including patient hygiene, collection and labeling of specimens, and measurement and recording of patient vital signs; performs field sanitation procedures, including water treatment and waste disposal. *Skill Level 20:* Able to perform the duties required for Skill Level 10; administers medications to relieve pain, prevent infection, or treat patients in shock; administers plasma, other blood derivatives, and vaccines; carries out medical asepsis, including disposal of infectious materials and wastes and decontamination of communicable disease area; assists physician in performing routine diagnostic tests, administering immunizations, and performing minor surgical procedures; sets up medical equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises paraprofessional medical service activities in fixed and tactical facilities; plans and organizes work schedules; assigns duties; instructs subordinate personnel in proper work techniques and procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports; manages dispensaries; assists in supervising the setting up of medical units.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 2 in first aid, and 1 in environmental health (3/76).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in emergency nursing procedures, 2 in first aid, 2 in environmental health, 1 in administration of medications, 1 in surgical nursing procedures, and 1 in communicable disease nursing. In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 2 in first aid, 2 in environmental health, 1 in administration of medications, 1 in surgical nursing procedures, and 1 in communicable disease nursing (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in patient care administration, 3 in personnel supervision, 2 in first aid, 2 in environmental health, 1 in administration of medications, 1 in surgical nursing procedures, and 1 in communicable disease nursing. In the upper-division baccalaureate category, if the duty assignment was chief dispensary NCO/detachment sergeant at pay grade E-7, 3 semester hours for field experience in management (3/76).

MOS-91B-002

Medical Specialist

91B10

91B20

91B30

91B40

91B50

Exhibit Dates: 9/76–8/82.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises dispensary or field medical facilities; administers emergency medical treatment to battlefield casualties; assists with inpatient and outpatient care and treatment; assists with technical and administrative management of medical treatment facilities. *Skill Level 10:* Administers emergency treatment in the field; assists in transporting patients to medical facilities; performs general bedside nursing aide activities and procedures, including patient hygiene, collection and labeling of specimens, and measurement and recording of patient vital signs; performs field sanitation procedures, including water treatment and waste disposal. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; manages the care and transportation of casualties until admitted to a medical facility; screens patients during sick call; assists physicians in patient care and minor surgical procedures; reads and interprets medical records, patient charts, and diagnostic reports and makes entries as required. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises paraprofessional medical service activities in fixed and temporary facilities; plans and organizes work schedules; instructs subordinate personnel in first aid and patient care procedures; administers medications; prepares and conducts training programs; prepares technical and patient reports; coordinates activities of dispensary or clinic with other medical facility activities; maintains supply levels; supervises setting up of unit equipment and shelters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises paraprofessional medical service activities in large fixed and mobile treatment facilities; coordinates activities of wards, clinics, and combined medical care facilities; maintains intelligence information and records; supervises paraprofessional medical field activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principle noncommissioned officer of staff sections, hospitals, other medical facilities, or service teams; serves on special boards and councils incident to medical service activities; supervises general administrative functions in a medical or treatment facility; supervises functional activities within the Army medical department or multifunctional medical staff activities; assists command surgeon in technical supervision of subordinate medical activities; evaluates personnel and the operational effectiveness of medical facilities; advises superiors on administrative medical matters; keeps official records and patient files; establishes reports control systems; prepares periodic and special reports concerning assigned personnel, patients, and medical care and treatment; makes recommendations for improving working procedures and conditions; evaluates training programs and requirements; determines requirements and adequacy of medical service supporting elements such as ambulance, supply, and transportation. NOTE: May have progressed to 91B50 from 91B40, 91D40 (Operating Room Specialist), 91F40 (Psychiatric Specialist), 91G40 (Behavioral Science Specialist), 91H40 (Orthopedic Specialist), 91J40 (Physical Therapy Specialist), 91L40 (Occupational Therapy Specialist), 91N40 (Cardiac Specialist), 91P40 (X-ray Specialist), 91Q40 (Pharmacy Specialist), 91U40 (Ear, Nose, and Throat Specialist), 91V40 (Respiratory Specialist), 91W40 (Nuclear Medicine Specialist), 91Y40 (Eye Specialist), or 42C40 (Orthotic Specialist).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in first aid, and 1 in environmental health (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in first aid, 3 in environmental health, and 3 for clinical experience (6/77).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in first aid, 3 in environmental health, 3 for clinical experience, 1 in administration of medication, 1 in surgical nursing, and 1 in communicable disease nursing. In the upper-division baccalaureate category, 3 semester hours in patient care administration (6/77).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in first aid, 3 in environmental health, 3 for clinical experience, 3 in personnel supervision, 1 in administration of medication, 1 in surgical nursing, and 1 in communicable disease nursing. In the upper-division baccalaureate category, 3 semester hours in patient care administration (6/77).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in emergency nursing procedures, 3 in first aid, 3 in environmental health, 3 for clinical experience, 3 in personnel supervision, 1 in administration of medication, 1 in surgical nursing, 1 in communicable disease nursing, 9 in administration or management, 6 in office management, 6 in introductory medical records administration, 6 for an internship in medical administration, and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in patient care administration, 3 in management of medical facilities, 3 in advanced medical records administration, 3 in management problems, 6 for field experience in management or for an internship in management of medical facilities, and 3 in personnel management, and additional credit in administration, management, medical records, administration, management of medical facilities, and for an internship in medical administration on the basis of institutional evaluation (6/77).

MOS-91B-003

MEDICAL SPECIALIST

91B10
91B20
91B30
91B40
91B50

Exhibit Dates: 9/82–9/84.

Career Management Field: 91 (Medical).

Description

Summary: Supervises field and clinical medical facilities; assists with technical and administrative management of medical treatment facilities under supervision of physician, nurse, or physician's assistant; administers emergency and routine out-patient medical treatment to battle and non-battle casualties; assists with out-patient care and treatment. *Skill Level 10:* Administers emergency treatment in the field; assists with out-patient and in-patient care; maintains health records and clinical files; assists with nursing care of patients including medical examinations; takes and records temperature, pulse, respiration, and blood pressure; applies and removes surgical, wound, or skin dressings; collects and prepares specimens for analysis; assists in clinic and dispensary; performs routine admission tests; administers immunizations; assists with treatment of patients with common diseases; provides emergency medical care; surveys and sorts casualties; determines requirements for and administers emergency treatment; assists with triage of mass casualties; performs duties related to emergency care. *Skill Level 20:* Able to perform the duties required for Skill Level 10; administers emergency and routine medical treatment to casualties including minor surgery and IV fluid administration; assists with out-patient care and supervises out-patient facilities under the supervision of a physician, nurse, or physician's assistant; establishes priorities for medical emergency care; stabilizes patients and accompanies them to medical facilities; provides guidance and supervision to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises activities in dispensaries, large clinics and field medical services; coordinates activities of clinic with the medical treatment facility; supervises ordering of supplies; determines personnel requirements and conducts training programs. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises paraprofessional medical services activities of wards, clinics, and combined medical care facilities; maintains intelligence information and records; supervises paraprofessional medical field activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principle noncommissioned officer of staff sections, hospitals, other medical facilities, or service teams; serves on special boards and councils incident to medical service activities; supervises general administrative functions in a medical or treatment facility; supervises functional activities within the Army medical department or multifunctional medical staff activities; assists command surgeon in technical supervision of subordinate medical activities; evaluates personnel and the operational effectiveness of medical facilities; advises superiors on administrative medical matters; keeps official records and patient files; establishes reports control systems; prepares periodic and special reports concerning assigned personnel, patients, and medical care and treatment; makes recommendations for improving working procedures and conditions; evaluates training programs and requirements; determines requirements and adequacy of medical service supporting elements such as ambulance, supply, and transportation. NOTE: May have progressed to 91B50 from 91B40, 42C40 (Orthotic Specialist), or 91C50 (Practical Nurse).

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 3 in emergency nursing procedures, 3 in first aid, and 3 for an internship in emergency nursing procedures (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, and 3 in personnel supervision (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in patient care administration (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in patient care administration, 3 in personnel management, and 3 in hospital administration (9/85).

MOS-91B-004

MEDICAL NCO

91B20

91B30

91B40

91B50

Exhibit Dates: 9/84–Present.

Career Management Field: 91 (Medical).

Description

Summary: Supervises field and clinical medical facilities; assists with technical and administrative management of medical treatment facilities under supervision of physician, nurse, physician's assistants; administers emergency and routine out-patient medical treatment to battle and non-battle casualties; assists with out-patient care and treatment. *Skill Level 20:* Able to perform the duties of 91A10 or 91A20, Medical Specialist; administers emergency and routine medical treatment to casualties including minor surgery and IV fluid administration; assists with out-patient care and treatment and supervises out-patient facilities under the supervision of a physician, nurse, or physician's assistant; establishes priorities for medical emergency care; stabilizes patients and accompanies them to medical facilities; provides guidance and supervision to lower skill-level personnel. NOTE: May have progressed to 91B20 from 91A10 or 91A20, Medical Specialist. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 91B or MOS 91A, Medical Specialist; supervises activities in dispensaries, large clinics and field medical services; coordinates activities of clinic with the medical treatment facility; supervises ordering of supplies; determines personnel requirements and conducts training programs. NOTE: May have progressed to 91B30 from 91B20 or 91A20, Medical Specialist. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises paraprofessional medical services activities in large fixed and mobile treatment facilities; coordinates activities of wards, clinics, and combined medical care facilities; maintains intelligence information and records; supervises paraprofessional medical field activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 91B and MOS 42C, Orthotic Specialist, and Skill Level 50 of MOS 91C, Practical Nurse; serves as the principle noncommissioned officer of staff sections, hospitals, other medical facilities, or service teams; serves on special boards and councils incident to medical service activities; supervises general administrative functions in a medical or treatment facility; supervises functional activities within the Army medical department or multifunctional medical staff axtivities; assists command surgeon in technical supervision of subordinate medical activities; evaluates personnel and the operational effectiveness of medical facilities; advises superiors on administrative medical matters; keeps official records and patient files; establishes reports control systems; prepares periodic and special reports concerning assigned personnel, patients, and medical care and treatment; makes recommendations for improving working procedures and conditions; evaluates training programs and requirements; determines requirements and adequacy of medical service supporting elements such as ambulance, supply, and transportation. NOTE: May have progressed to 91B50 from 91B40, 42C40 (Orthotic Specialist), or 91C50 (Practical Nurse).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, and 3 in personnel supervision (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in patient care administration (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of nursing, 6 in emergency nursing procedures, 3 in first aid, 3 for an internship in emergency nursing procedures, 3 in personnel supervision, 3 in supply management, and 1 in methods of instruction. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in patient care administration, 3 in personnel management, and 3 in hospital administration (9/85).

MOS-91C-001

CLINICAL SPECIALIST

91C20

91C40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Applies nursing care principles, procedures, and techniques in care and treatment of patients, normally under the general supervision of a registered nurse or physician. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); applies nursing care procedures in caring for and treating acutely, seriously, and chronically ill patients; observes, detects, reports, and records objective and subjective symptoms using correct terminology; accurately calculates, prepares, and dispenses the prescribed dosage of medication, administering them by mouth, intradermal, subcutaneous, and intramuscular injections, and observing and recording their effects; administers parenteral fluids and blood derivatives; performs catheterizations and bladder irrigations and instillations; obtains specimens from patients and records results of diagnostic test and treatment procedures; performs and records pre-operative preparations and post-operative care and observations; assists with prenatal, natal, postnatal, newborn, and pediatric care; performs or assists physician with diagnostic tests, therapeutic procedures, sterile procedures, blood transfusions, removal of sutures, and similar procedures under both hospital and field conditions; treats common diseases and injuries and performs more technical life-saving treatment procedures in the absence of a physician or registered nurse; instructs patients in good health pratices. *Skill Level 40:* Able to perform the duties required for Skill Level 20; applies techniques and principles of nursing management; knows patient admission, transfer, and discharge procedures; reads and interprets medical records, patients' charts, and diagnostic reports, and makes entries, as required; requisitions, stores, safeguards, and issues supplies; inspects medical facilities to insure comfortable, orderly, clean, and safe environment for patients; assists physicians and registered nurses in conducting in-service training programs; supervises other enlisted personnel in providing health care.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical experience in nursing, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 2 in theory and practice of patient care, 2 in introduction to pharmacology, 2 in administration of medications, 1 in psychiatric nursing, 1 in nutrition, and 1 in preventive medicine (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical experience in nursing, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in team leadership, 3 in patient care administration, 2 in theory and practice of patient care, 2 in introduction to pharmacology, 2 in administration of medications, 1 in psychiatric nursing, 1 in nutrition, and 1 in preventive medicine. In the upper-division baccalaureate category, if the duty assignment was chief wardmaster, 3 semester hours for field experience in medical facility management (3/76).

MOS-91C-002

PATIENT CARE SPECIALIST
(CLINICAL SPECIALIST)

91C10

91C20

91C30

91C40

91C50

Exhibit Dates: 9/76–8/82.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Applies nursing care principles, procedures, and techniques in care and treatment of patients, normally under the general supervision of a registered nurse or physician. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); applies nursing care procedures in caring for and treating acutely, seriously, and chronically ill patients; observes, detects, reports, and records objective and subjective symptoms using correct terminology; accurately calculates, prepares, and dispenses the prescribed dosages of medication, administering them by mouth, intradermal, subcutaneous, and intramuscular injections, and observing and recording their effects; administers parenteral fluids and blood derivatives; performs catheterizations and bladder irrigations and instillations; obtains specimens from patients and records results of diagnostic test and treatment procedures; performs and records pre-operative care and observations; assists with prenatal, natal, postnatal, newborn, and pediatric care; performs or assists physician with diagnostic tests, therapeutic procedures, blood transfusions, removal of sutures, and similar procedures under both hospital and field conditions; treats common disease and injuries and performs more technical life-saving treatment procedures in the absence of a physician or registered nurse; instructs patients in good health practices. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with planning and providing emergency medical treatment; supervises operational maintenance program of assigned equipment; instructs in first aid procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; requisitions, stores, and issues supplies; inspects medical facilities; organizes work schedules, assigns duties, and instructs subordinates in work techniques and procedures; evaluates and counsels subordinate personnel; coordinates activities of duty area with other elements of the medical facility; prepares technical and administrative reports; assists with inservice training programs and with ward management. *Skill Level 50:* Able to perform the duties required for Skill Level 40; advises and assists professional staff in personnel, supply, fiscal, technical, and administrative matters; develops, implements, and evaluates training programs; establishes stock levels for supplies and equipment; establishes work priorities, distributes workload, and assigns personnel; compiles management data; inspects organizational activities, observes discrepancies, and takes corrective action.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, and 1 in psychiatric nursing (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, and 1 in psychiatric nursing (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 20. In the upper-division baccalaureate category, 3 semester hours in patient care administration (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 3 in human relations, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, and 1 in psychiatric nursing. In the upper-division baccalaureate category, 3 semester hours in patient care administration (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 3 in human relations, 3 in personnel supervision, 3 in introduction to management, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, and 1 in psychiatric nursing. In the upper-division baccalaureate category, 3 semester hours in patient care administration and 3 in medical facilities management (6/77).

MOS-91C-003

PRACTICAL NURSE

91C30
91C40
91C50

Exhibit Dates: 9/82–8/84.

Career Management Field: 91 (Medical).

Description

Summary: Supervises or performs preventive therapeutic, and emergency nursing care procedures under supervision of a physician or registered nurse. *Skill Level 30:* Able to perform the duties required for Skill Level 20 of MOS 91B (Medical Specialist); assists with all levels of patient administration; prepares and maintains clinical records; reads patient charts and diagnostic reports and makes entries in medical records; requisitions, receives, packs, unpacks, stores, and safeguards clinical equipment and supplies; operates and maintains records on clinical equipment; ensures maximum patient hygiene and safety; assists with providing emergency medical treatment and management, interprets and carries out nursing care plans; cares for patients of all ages with common diseases and minor injuries and those who are seriously, chronically, and acutely ill; assists during labor and child birth; assesses condition of newborns; assists and teaches mothers the principles of infant care; prepares and administers prescribed medications; obtains and prepares samples and specimens for laboratory cultures and analysis; administers intravenous fluids; performs traction care; prepares patients for surgery and assists with transportation; assists with post-operation care; assists maintenance of nasograstic tubes; performs care for patients with asthma, pneumonia or bronchitis; assists with oxygen therapy, bladder catherterization, colostomy irrigation, and intravenous therapy procedures; carefully observes patients for signs of problems such as dehydration, mental stress, and life threatening symptoms; obtains appropriate admission data and assists with patient transfer and discharge; performs advanced nursing procedures and provides technical guidance and advice to lower skill-level personnel; manages small wards and provides nursing care leadership; this specialty has been approved by the State of Texas as a practical nursing program and graduates must pass the state practical nursing exam to practice. NOTE: May have progressed to 91C30 from 91B20 (Medical Specialist). *Skill Level 40:* Able to perform the duties required for Skill Level 30; manages large or multi-ward units, prepares nursing care plans and supervises implementation of these plans; conducts inservice programs. *Skill Level 50:* Able to perform the duties required for Skill Level 40; advises and assists professional staff in personnel matters; develops and evaluates training programs; manages supplies and equipment stores; establishes priorities, distributes workload, and assigns personnel; compiles management data; inspects organizational activities, observes discrepencies, and initiates corrective action.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in nursing care management (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in nursing care management and 3 in administration (9/85).

MOS-91C-004

PRACTICAL NURSE

91C20
91C30
91C40
91C50

Exhibit Dates: 9/84–Present.

Career Management Field: 91 (Medical).

Description

Summary: Supervises or performs preventive therapeutic, and emergency nursing care procedures under supervision of a physician or registered nurse. *Skill Level 20:* Able to perform the duties required for Skill Level 10 or Skill Level 20 of MOS 91A (Medical Specialist); assists with all levels of patient administration; prepares and maintains clinical records; reads patient charts and diagnostic reports and makes entries in medical records; requisitions, receives, packs, unpacks, stores, and safeguards clinical equiment and supplies; operates and maintains records on clinical equipment; ensures maximum patient hygiene and safety; assists with providing emergency medical treatment and management; interprets and carries out nursing care plans; cares for patients of all ages with common diseases and minor injuries and those who are seriously, chronically, and acutely ill; assists during labor and child birth; assesses condition of newborns; assists and teaches mothers the principles of infant care; prepares and administers prescribed medications; obtains and prepares samples and specimens for laboratory cultures and analysis, administers intravenous fluids; performs traction care; prepares patients for surgery and assists with transportation; assists with maintenane of nosograstic tubes; performs care for patients with asthma, pneumonia, or bronchitis with oxygen therapy, bladder catherterization, colostomy irrigation, and intravenous therapy procedures; carefully observes patients for signs of problems such as dehydration, mental stress, and life-threatening symptoms; obtains appropriate admission data and assists with patient transfer and discharge. This specialty has been approved by the State of Texas as a practical nursing program and graduates must pass the state practical nursing exam to practice. NOTE: May have progressed to 91C20 from 91A10 or 91A20 (Medical Specialist). *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs advanced nursing procedures and provides technical guidance and advice to lower-skill-level personnel; manages small wards and provides nursing care leadership. *Skill Level 40:* Able to perform the duties required for Skill Level 30; manages large or multi-ward units; prepares nursing care plans and supervises implementation of these plans; conducts in-service programs. *Skill Level 50:* Able to perform the duties required for Skill Level 40; advises and assists professional staff in personnel matters; develops and evaluates training programs; manages supplies and equipment stores; establishes priorities, distributes workload and assigns personnel; compiles management data; inspects organizational activities, observes discrepencies, and initiates corrective action.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, and 1 in psychiatric nursing (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in nursing care management (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 12 semester hours for clinical nursing experience, 8 in medical-surgical nursing, 4 in anatomy and physiology, 3 in maternal and child nursing, 3 in environmental health, 2 in theory and practice of patient care, 2 in pharmacology, 1 in nutrition, 1 in preventive medicine, 1 in psychiatric nursing, 3 in patient care, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in nursing care management and 3 in administration (9/85).

MOS-91D-001

OPERATING ROOM SPECIALIST

91D20
91D40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Prepares the patient and the operating room suite for surgical procedures, assists during surgery as a member of the surgical team, and prepares and issues sterile medical supplies and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); performs duties under supervision and with assistance; prepares patient for surgery by shaving and cleansing operative field; checks that extraneous articles such as dentures, jewelry, and prostheses have been removed from patient; transports patient and assists with positioning patient on operating table; performs final skin preparation and surgical draping of patient; scrubs and dons mask, cap, gown, and gloves; assists surgeon, anticipating need for, and passing, instruments and other items and retracting tissue and cutting sutures as directed; assists nurse with accounting of items used during surgery; collects, cares for, labels, and logs in specimens; applies dressings and simple casts; receives, sorts, inventories, decontaminates, cleans, examines, and sterilizes medical and surgical items; stamps, stores, and issues sterilized items; inspects for outdate; loads and operates washer-sterilizers, sterilizers, and ethyline aerators; tests samples from distilling apparatus for purity; prepares and sterilizes distilled water and normal saline for irrigation; reports defective material to supervisor; cleans and maintains work area. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists in managing operating room suite or central material section; plans and organizes work activities; inspects work area for physical and environmental safety; instructs Skill Level 20 personnel in techniques and procedures; serves as technical clinical consultant, administrative advisor, and coordinator to operating room, central material personnel, and other elements of medical treatment facility; conducts enlisted in-service programs to present, explain, plan, and discuss changes in clinical practices, new technical equipment, and changes in personnel policies; supervises procedures enabling units to function to toxic environments; keeps records; prepares reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), and 8 for a practicum in operating room techniques and procedures (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), 8 for a practicum in operating room techniques and procedures, 3 in principles and practices of management and supervision; if the duty assignment was chief operating room specialist or chief central material specialist, 3 additional semester hours for field experience in management (3/76).

MOS-91D-002

OPERATING ROOM SPECIALIST

91D10
91D20
91D30
91D40

Exhibit Dates: 9/76–8/82.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Under the supervision of a registered nurse, supervises or assists in preparation and issue of sterile medical supplies and special equipment or prepares patient and operating suite for surgical procedures and assists during surgery. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); under close suervision, prepares and issues central material supplies and equipment, including sterile and nonsterile solutions, surgical packs, and instruments; performs operating room duties, including transporting, positioning, draping, and skin preparation of patient; circulates and/or scrubs to assist in minor operative procedures; collects and maintains records of specimens; maintains record of items and inventories items after surgery is performed; applies dressings. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in supervision, guidance, and training of subordinate personnel; maintains and operates highly technical surgical equipment; assists in surgical procedures; prepares tissue exam and culture slips; maintains emergency equipment; assists with cardiopulmonary resuscitation; inspects operating room to insure a clean, safe, and organized environment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; manages central material service; supervises maintenance of operating room equipment; supervises the requisitioning, storing, and issuing of supplies; manages the operating room suite, including the assignment of personnel; supervises, trains, and evaluates subordinate personnel; establishes work priorities; organizes work schedules; assigns duties; determines stock level of supplies and equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; administers central material service in large hospitals; supervises subordinate personnel and activities of central material service and operating rooms; advises and assists professional staff in clinical, fiscal, technical, and administrative matters; coordinates the activities of the operating room and central material service and operating rooms; advises and assists professional staff in clinical, fiscal, technical, and administrative matters; coordinates the activities of the operating room and central material service with other elements of the medical treatment facility; compiles and evaluates management data for personnel requirements.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), and 8 for a practicum in operating room techniques and procedures (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), and 8 for a practicum in operation room techniques and procedures (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), 3 in personnel supervision, and 8 for a practicum in operating room techniques and procedures (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (includes anatomy and physiology in relation to the surgical approach to disease and injury), 3 in personnel supervision, 3 for field experience in management, and 8 for a practicum in operating room techniques and procedures. In the upper-division baccalaureate category, credit in patient care administration and health facility management on the basis of institutional evaluation (6/77).

MOS-91D-003

OPERATING ROOM SPECIALIST

91D10

91D20

91D30

91D40

91D50

Exhibit Dates: 9/82–Present.

Career Management Field: 91 (Medical).

Description

Summary: Under the supervision of a registered nurse, supervises or assists in preparation and issue of sterile medical supplies and special equipment or prepares patient and operating suite for surgical procedures and assists during surgery. *Skill Level 10:* Under close supervision, prepares and issues central material supplies and equipment, including sterile and nonsterile solutions, surgical packs, and instruments; performs operating room duties, including transporting, positioning, draping, and skin preparation of patient; circulates and/or scrubs to assist in minor operative procedures; collects and maintains records of specimens; maintains a record of items and inventories items after surgery is performed; applies dressings. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in supervision, guidance, and training of subordinate personnel; maintains and operates highly technical surgical equipment; assists in surgical procedures; prepares tissue exam and culture slips; maintains emergency equipment; assists with cardiopulmonary resuscitation; inspects operating room to insure clean, safe, and organized environment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; manages central material service; supervises maintenance of operating room equipment; supervises the requisitioning, storing, and issuing of supplies; manages the operating room suite, including the assignment of personnel; supervises, trains, and evaluates subordinate personnel; establishes work priorities; organizes work schedules; assigns duties; determines stock level of supplies and equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; administers central material service in large hospitals; supervises subordinate personnel and activities of central material service and operating rooms; advises and assists professional staff in clinical, fiscal, technical, and administrative matters; coordinates the activities of the operating room and central material service with other elements of the medical treatment facility; compiles and evaluates management data and personnel requirements. *Skill Level 50:* Able to perform the duties required for Skill Level 40; assists with management of operating room suite in large hospital.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (anatomy and physiology in relation to surgical approach to disease and injury), and 8 for a practicum in operating room techniques and procedures (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (anatomy and physiology in relation to surgical approach to disease and injury), and 8 for a practicum in operating room techniques and procedures (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (anatomy and psysiology in relation to the surgical approach to disease and injury), 3 in personnel supervision, and 8 for a practicum in operating room techniques and procedures (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation and technique, microbiology, and surgical terminology), 3 in surgical basic sciences (anatomy and physiology in relation to the surgical approach to disease and injury), 3 in personnel supervision, 3 for field experience in management, and 8 for a practicum in operating room techniques and procedures. In the upper-division baccalaureate category, credit in patient care administration and health facility management on the basis of institutional evaluation (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of operating room procedures (includes O.R. orientation technique, and microbiology, and surgical terminology), 3 in surgical basic sciences (anatomy and physiology in relation to the surgical approach to disease and injury), 3 in personnel supervision, 3 for field experience in management, and 8 for a practicum in operating room techniques and procedures. In the upper-division baccalaureate category, 3 semester hours in personnel management and credit in patient care administration and health facility management on the basis of institutional evaluation (9/85).

MOS-91E-001

DENTAL SPECIALIST

91E20

91E30

91E40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Performs technical and administrative tasks in assisting a dentist in the prevention, examination, care and treatment of disease of the teeth and oral region. *Skill Level 20:* Takes dental x-rays or assists a dentist in patient dental care and treatment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; works as a chairside assistant and performs oral phophylaxis. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in the management of a dental office; performs all duties of chairside assisting and basic oral prophylaxis.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in dental science, 6 in chairside assisting and x-ray, 3 in dental materials, 1 in introduction to dental auxiliaries, and 1 in first aid (2/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in dental science, 6 in chairside assisting and x-ray, 3 in basic dental hygiene, 3 in dental materials, 1 in introduction to dental auxiliaries, and 1 in first aid (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in dental science, 6 in chairside assisting and x-ray, 3 in basic business management, 3 in dental hygiene, 3 in dental materials, 1 in introduction to dental auxiliaries, and 1 in first aid (2/75).

MOS-91E-002

Dental Specialist

91E10
91E20
91E30
91E40
91E50

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 911 (Dental).

Description

Summary: Assists in managing a dental facility or assists dentist in preventing, examining, and treating diseases of the teeth and oral region. *Skill Level 10:* Assists dentist in dental care and treatment; protects patient from excessive exposure to ionizing radiation; exposes and mounts bitewing, periapical, and occlusal radiographs, using bisecting angle and long-cone paralleling techniques; exposes extraoral panoramic radiographs; prepares developer and fixer solutions; prepares equipment and materials to measure and mix commonly used permanent and nonpermanent restorative materials, such as dental amalgam, composite and unfilled acrylic resins, zinc oxide and eugenol materials, cavity liners and bases, intermediate restorative materials, and zinc phosphate cement; prepares equipment and materials to measure and mix commonly used impression materials and gypsum products, including irreversible hydrocolloid, polysulfide impression material, plaster of Paris, and artificial stone; fabricates casts from preliminary impressions; prepares and maintains dental chair, unit, and light; sharpens dental instruments; prepares instrument setups for commonly performed dental procedures; identifies, selects, and passes to dentist appropriate instruments for dental treatment procedures in the oral surgical, oral diagnostic, endodontic, restorative, periodontic, pedodontic, orthodontic, and prosthodontic specialties; performs resuscitative procedures and operates resuscitative equipment; schedules dental appointments; maintains patient records and records information and data, using authorized symbols and abbreviations; applies aseptic techniques in cleaning, packaging, sterilizing, and storing dental instruments, equipment, and supplies. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as a dental hygienist; selects and prepares dental handpieces, contra-angles, ultrasonic equipment, solutions, and other materials to perform oral prophylaxis; applies disclosing solutions; assists dentists in carrying out oral disease control programs, including individual and group patient education and motivation; removes anatomical and acquired stains, calculus, and bacterial plaque from teeth, using hand instruments or ultrasonic equipment, dental floss, and other adjuncts; polishes teeth with abrasives; applies topical flouride solutions for prevention of dental caries; applies pit and fissure sealants; records information on abnormal appearance and characteristics of the tissues of teeth and oral region; refers patient to dentist for consultation and treatment; performs user maintenance on hand instruments, contra-agles, and ultrasonic equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs reversible dental procedures under the direct supervision of a dentist; assists in managing a small dental facility; performs diagnostic procedures such as vitality tests, diet analysis, and nutritional consultation, exposes and develops special intraoral and extraoral radiographs; isolates operative site by placement of rubber dam; select and applies matrix bands and wedges; inserts, condenses, carves, polishes, and finishes various restorations; assists dentist in treating pericoronitis and local osteritis; removes sutures; manages surgical patient pre- and post-operatively; makes preliminary impressions; isolates teeth for endodontic treatment; establishes stock level for supplies and equipment and is responsible for ordering, storing, and issuing supplies. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing medium-sized dental facility; assists dentist in performing complex dental procedures. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 91E or 42D (Dental Laboratory Specialist); assists in managing a dental clinic, dental laboratory, or dental organization; normally supervises from 20 to 120 subordinate personnel, inspects dental facilities to assure cleanliness, safety, and comfort; assists dentists in analyzing clinical and laboratory operations to insure efficient utilization of personnel and equipment; supervises maintenance of administrative and professional dental files and technical library; reviews and consolidates technical, administrative, and personnel reports; coordinates the activities of dental units; provides technical assistance in planning and staffing new facilities and in modifying existing facilities; plans, schedules, coordinates, and supervises dental specialty training.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in clinical training (dental assistant), 3 in chairside assisting, 3 in dental radiology, 2 in basic dental science, and 1 in emergencies (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in clinical training (dental assistant), 8 in clinical training (dental hygienist), 3 in chairside assisting, 3 in dental radiology, 3 in associated dental science, 3 in dental materials, 2 in basic dental science, 2 in dental health, and 1 in emergencies (6/77).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in clinical training (dental assistant), 8 in clinical training (dental hygienist), 8 in clinical training (dental therapy assistant), 6 in dental materials, 4 in dental health, 3 in chairside assisting, 3 in dental radiology, 3 in associated dental science, 2 in basic dental science, 2 in related dental science, 1 in emergencies, and 1 in four-handed dentistry (6/77).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in clinical training (dental assistant), 8 in clinical training (dental hygienist), 8 in clinical training (dental therapy assistant), 6 in dental materials, 4 in dental health, 3 in chairside assisting, 3 in dental radiology, 3 in associated dental science, 2 in basic dental science, 2 in related dental science, 1 in emergencies, and 1 in four-handed dentistry (6/77).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in clinical training (dental assistant), 8 in clinical training (dental hygienist), 8 in clinical training (dental therapy assistant), 6 in dental materials, 4 in dental health, 3 in chairside assisting, 3 in dental radiology, 3 in associated dental science, 2 in basic dental science, 2 in related dental science, 1 in emergencies, 1 in four-handed dentistry, 3 in personnel supervision, 2 in health care management, and 2 for field experience in management (6/77).

MOS-91F-001

Neuropsychiatric Specialist

91F20
91F30
91F40

Exhibit Dates: 3/74–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists in the care and treatment of psychiatric, drug, and alcohol patients and in the management of a psychiatric facility, under the supervision of a psychiatric nurse. *Skill Level 20:* Able to perform the duties of 91B10 (Medical Specialist); assists with diagnostic procedures; observes, records, and reports significant patient behavior; identifies and responds to psychopathological behaviors; provides intensive care for patients who are receiving special treatment; participates in individual and group therapies and somatic therapy; safeguards confidentiality of patients' records and reports; orients patients to the services and routines of the treatment facility; supervises personal hygiene of patients; assists them in meeting their physical needs; accompanies patients to appointments and therapeutic activities within treatment facility and local community; functions as a member of electroconvulsive therapy team; assists with general nursing care activities, measuring and recording vital signs, administering prescribed medications, and collecting and labeling specimens. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with management of psychiatric ward; organizes work schedules and assigns duties; evaluates personnel; requisitions stores, and issues supplies and equipment; assists with in-service training programs; serves as a group facilitator, under professional supervision. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with management of psychiatric nursing activity; advises and assists professional staff in technical, administrative, personnel, and fiscal matters; establishes work priorities; compiles management data; inspects facility to insure a comfortable, safe, and sanitary environment; coordinates activities with other elements of medical treatment facility.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 5 semester hours for clinical experience in mental health, 3 in psychiatric nursing, 3 in psychiatric therapies, 2 in human development, 2 in psychology of human adjustment (concepts of normality and psychopathology) (3/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 5 semester hours for clinical experience in mental health, 3 in psychiatric nursing, 3 in psychiatric therapies, 3 in psychiatric ward management, 3 in personnel supervision, 2 in human development, and 2 in psychology of human adjustment (concepts of normality and psychopathology) (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, if the duty assignment was chief psychiatric wardmaster at pay grade E-7 or detachment sergeant at pay grade E-7, 3 semester hours for field experience in management (3/76).

MOS-91F-002

PSYCHIATRIC SPECIALIST

91F10
91F20
91F30
91F40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists in the care and treatment of psychiatric, drug, and alcohol patients and in the management of a psychiatric facility, under the supervision of a psychiatric nurse. *Skill Level 10:* Able to perform the duties of 91B10 (Medical Specialist); assists with diagnostic procedures; observes, records, and reports significant patient behavior; identifies and responds to psychopathological behaviors; provides intensive care for patients who are receiving special treatment; participates in individual and group therapies and somatic therapy; safeguards confidentiality of patients' clinical records and reports; orients patients to the services and routines of the treatment facility; supervises personal hygiene of patients and assists them in meeting their physical needs; accompanies patients to appointments and therapeutic activities within treatment facility and local community; functions as a member of electroconvulsive therapy team; assists with general nursing care activities, measuring and recording vital signs, administering prescribed medications, and collecting and labeling specimens. *Skill Level 20:* Able to perform the duties required for Skill Level 10; dispenses medication; supervises patient activities, such as physical reconditioning, occupational therapy, recreational therapy, and group therapy. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with management of psychiatric ward; organizes work schedules and assigns duties; evaluates personnel; requisitions, stores, and issues supplies and equipment; assists with in-service training programs; serves as a group facilitator, under professional supervision. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with management of psychiatric nursing activity; advises and assists professional staff in technical, administrative, personnel, and fiscal matters; establishes work priorities; compiles management data; inspects facility to insure a comfortable, safe, and sanitary environment; coordinates activities with other elements of medical treatment facility; reviews and consolidates technical and administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in psychiatric nursing, 3 in psychiatric therapies, 3 for clinical experience in mental health, 2 in abnormal psychology, and 2 in human development (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in psychiatric nursing, 3 in psychiatric therapies, 5 for clinical experience in mental health, 2 in abnormal psychology, and 2 in human development (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 5 semester hours for clinical experience in mental health, 3 in psychiatric nursing, 3 in psychiatric therapies, 3 in psychiatric ward management, 3 in personnel supervision, 2 in abnormal psychology, and 2 in human development (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91G-001

BEHAVIORAL SCIENCE SPECIALIST
(SOCIAL WORK/PSYCHOLOGY SPECIALIST)

91G20
91G40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Assists with management of mental health facility or assists professional staff in obtaining social case histories, collecting basic psychological data, and counseling. *Skill Level 20:* Assists psychologist, social worker, or psychiatrist in gathering social histories and psychological data and in counseling clients; interviews clients; administers and scores tests; records behavioral characteristics based on interviews and observations; conducts collateral interviews and abstracts and compiles pertinent information from clinical and other records; presents case study and recommendations orally and in writing; maintains a counseling relationship to ascertain adjustment of clients; assists in resolving adjustment problems, including physical trauma; assists in providing counseling services for personnel with marital problems, indebtedness, drug abuse, alcoholism, child and adolescent maladaptive behavior patterns; intervenes in a crisis situation; collects and organizes statistical data. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises preparation, dispatch, safeguarding, and filing of clinical reports and records; plans work schedules and assigns duties; supervises Skill Level 20 personnel, conducts in-service training programs and conferences; coordinates activities with other medical personnel; prepares, consolidates, and reviews technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in psychology (includes human growth and development, testing, behavioral concepts, and personality disorders), 3 in interviewing theory and skills, 3 in psychiatric treatment modalities, and 3 for a practicum in counseling (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in psychology (includes human growth and development, testing, behavioral concepts, and personality disorders), 3 in interviewing theory and skills, 3 in psychiatric treatment modalities, 3 for a practicum in counseling, 2 mental health facility management, and 1 personnel supervision (3/76).

MOS-91G-002

BEHAVIORAL SCIENCE SPECIALIST

91G10
91G20
91G30
91G40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Under professional supervision, assists with management of mental health activity or obtains social case histories; collects basic psychological data; performs counseling functions. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Spcialist); interviews clients; conducts collateral interviews and screens records; administers and scores intelligence tests under supervision; assists in determining client need for referral to a professional; records psychosocial data and behavior observations; orients and refers clients to military, civilian, and agency resources; prepares and presents cases for staffings and conferences; requests and transmits client records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; under professional supervision, provides supportive counseling and follow-up service to individuals experiencing a wide range of social or emotional problems; assists with group counseling and therapy sessions; leads discussion groups; assists in determination of need for hospitalization; under supervision, administers and scores achievement tests, objective personality tests, and test of organic impairment and records the results; assists patients with discharge planning; consults on management of individual behavioral problems; assists professional staff in setting up home health care programs and makes follow-up home visits; gathers statistical data; establishes and maintains clinical and general office files. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides advice and limited technical guidance to subordinate personnel; provides supportive counseling and crisis intervention services to clients; assists in staffing and coordination of highly complex cases; collects and organizes research data and makes statistical computations; assists in analysis of research data and report writing; compiles case load data and assigns clients to specific staff members; evaluates manpower requirements; prepares administrative reports; requisitions, stores, and issues supplies, equipment, publications, and training aids; develops work procedures and practices; prepares and conducts in-service training programs. *Skill Level 40:* Able to perform the duties required for Skill Level 30; under supervision, administers and records thematic projective tests; assists in determining program and management objectives and procedures; establishes work priorities and work schedules; assigns duties and instructs subordinates in work techniques and procedures; prepares and counsels personnel and prepares evaluation reports; coordinates activity of facility with related elements of the medical treatment facility; advises and assists professionals with fiscal, technical, and administrative matters, establishes stock level for supplies and equipment.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 6 semester hours in clinical psychology and counseling, 3 in psychology, 3 in human relations, 1 in sociology, and 1 in psychological testing (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in clinical psychology and counseling, 3 in psychology, 3 in human relations, 3 in psychological testing, and 1 in sociology (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 8 semester hours in clinical psychology and counseling, 3 in psychology, 3 in human relations, 3 in psychological testing, 2 in personnel supervision, and 1 in sociology. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 8 semester hours in clinical psychology and counseling, 4 in psychological testing, 3 in psychology, 3 in human relations, 3 in personnel supervision, 3 in principles of administration, and 1 in sociology. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91H-001

ORTHOPEDIC SPECIALIST

91H20
91H40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists physician in treatment of patients with orthopedic conditions and injuries and/or assists with the management of orthopedic clinic. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); assists with minor surgery in orthopedic clinic (does not scrub in the operating room); prepares treatment area and lays out equipment and sterile/nonsterile supplies; transfers and prepares patient for surgery; assists in positioning patient on fracture table or other work surface and operates the fracture table under supervision of physician; assists with suturing in orthopedic clinic; changes dressings and bandages, removes sutures, and cleans and performs minor debridement of open wounds; fabricates, modifies, applies, and removes casts; constructs and applies splints; makes support bandages and slings; instructs patients regarding care of casts; assists with application of skeletal traction; applies skin traction to open stumps. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists with management of orthopedic clinic; organizes work schedules and assigns duties; instructs personnel in techniques and procedures; requisitions, stores, and issues supplies; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 7 semester hours for clinical experience in cast fabrication, modification, and application, 4 in anatomy and physiology, 2 in cast technique, 2 in orthopedic methods and materials, and 1 for clinical experience in traction application (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 7 semester hours for clinical experience in cast fabrication, modification, and application, 4 in anatomy and physiology, 3 in human relations, 3 in clinic management, 2 in cast technique, 2 in orthopedic methods and materials, and 1 for clinical experience in traction application (3/76).

MOS-91H-002

ORTHOPEDIC SPECIALIST

91H10
91H20
91H30
91H40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists physician in treating patients with orthopedic conditions and injuries or assists in managing an orthopedic clinic. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); under close supervision of a physician, treats orthopedic patients; may perform the duties required for Skill Level 20. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists with minor surgery in orthopedic clinic; prepares treatment area and patient for surgery or treatment; transfers patients with unstable fractures to fracture table or other work surface; operates fracture table and assists in positioning patient; changes dressings and bandages; removes sutures; cleans and performs minor debridement of open wounds; fabricates, modifies, and removes short and long leg and arm casts and hip and shoulder spica; rolls or manually shapes plaster around area to be immobilized; constructs and applies plaster and mechanized splints; makes support bandages and slings; instructs patients regarding care and danger of casts; assists in applying and adjusting skeletal traction. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing an orthopedic clinic; organizes work schedules; assigns duties; instructs subordinate personnel in work techniques and procedures; evaluates personnel performance and prepares evaluation reports; establishes safety procedures; inspects work area to insure a safe working environment; supervises operator maintenance on assigned equipment; requisitions, stores, and issues supplies and equipment; reviews, consolidates, and prepares technical, personnel, and administrative reports; coordinates activities of orthopedic clinic with other elements of treatment facility; assists physician with technical, personnel, and fiscal matters.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, credit in anatomy, physiology, principles of orthopedics, orthopedic methods and materials, and clinical application of orthopedic principles on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 5 semester hours in clinical application or orthopedic principles, 4 in principles of orthopedics, 4 in orthopedic methods and materials, 3 in clinical orthopedic assisting, 3 in anatomy, and 1 in physiology (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 5 semester hours in clinical application or orthopedic principles, 4 in principles of orthopedics, 4 in orthopedic methods and materials, 3 in clinical orthopedic assisting, 3 in anatomy, and 1 in physiology (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 5 semester hours in clinical application of orthopedic principles, 4 in principles of orthopedics, 4 in orthopedic methods and materials, 3 in clinical orthopedic assisting, 3 in anatomy, 3 in personnel supervision, 2 in communication skills, 2 in principles of management, 1 in health care management, and 1 in physiology. In the lower-division baccalaureate/associate degree category, credit in medical facility management on the basis of institutional evaluation (6/77).

MOS-91J-001

PHYSICAL THERAPY SPECIALIST

91J20
91J40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 913 (Physical Medicine).

Description

Summary: Administers heat, water, manual, and other selected physical therapy treatments to patients; works under the supervision of a physical therapist. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); administers treatments involving the use of hot and cold packs, infrared, diathermy, ultrasonic apparatus, ultraviolet lamps, whirlpool, and contrast and paraffin baths; conducts progressively graded conditioning exercises for patients; explains and demonstrates the use of exercise equipment for patients. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists with the management of the physical therapy section of a medical or treatment facility; inspects the facility; inspects the facility and equipment for safety hazards; organizes work schedules and assigns duties for a minimum of three personnel; assists the physical therapist with in-service training programs; orders, stores, and issues supplies; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in

health science and 6 in physical therapy (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in health science, 6 in physical therapy, and 6 in administration or management (2/75).

MOS-91J-002

Physical Therapy Specialist

91J10
91J20
91J30
91J40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Under the direction of a physical therapist and following medical prescription, supervises or administers physical therapy treatment and exercises to decrease physical disabilities and to promote physical fitness of patients. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); under close supervision, administers physical therapy treatments to patients. *Skill Level 20:* Able to perform the duties required for Skill Level 10; transports, positions, and drapes patients for treatment; administers treatment involving use of heat, ice, cervical and pelvic traction, ultraviolet light, ultrasound treatment, whirlpool, hydrotherapy, therapeutic massage, electrical stimulation, and manual exercise procedures; assists in performing postural drainage; instructs and assists patients with casts in ambulation and gait training; administers progressive resistance and physical reconditioning exercises; stores and issues supplies and equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with management of medium-sized physical therapy clinic; instructs and assists patients in exercise activities; performs exercise procedures for amputees and patients with central nervous system disorders; supervises operational management of unit, including personnel, supplies, equipment, and scheduling; prepares patient and administrative reports; coordinates activities of physical therapy clinic with other elements of medical treatment facility. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with management of large physical therapy clinic; supervises integration of segmented and diversified physical therapy programs conducted in several clinics.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in health science (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in health science and 6 in physical therapy. In the lower-division baccalaureate/associate degree category, 6 semester hours in health science and 6 in physical therapy (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in health science, 6 in physical therapy, 2 in human relations, and 1 for field experience in management. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in health science, 6 in physical therapy, 3 in human relations, and 3 for field experience in management. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91L-001

Occupational Therapy Specialist

91L20
91L40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 913 (Physical Medicine).

Description

Summary: Instructs and assists patients in arts and crafts activities to promote recovery from injury or illness; works under the supervision of an occupational therapist. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); instructs and assists patients in activities such as woodworking, metal working, printing, leather working, and weaving and in the use of ceramics, plastics, and other media; observes patient response and reports pertinent observations to an occupational therapist; motivates patients to participate in occupational therapy activities. *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans occupational therapy programs; assigns duties and instructs a minimum of three personnel in techniques and procedures used in a variety of therapeutic activities; prepares technical, personnel, and administrative reports on occupational therapy activities; requisitions, stores, and issues supplies and equipment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in creative arts, 6 in educational techniques, and 6 in occupational therapy (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in creative arts, 6 in educational techniques, 6 in occupational therapy, and 6 in administration or management. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

MOS-91L-002

Occupational Therapy Specialist

91L10
91L20
91L30
91L40

Exhibit Dates: 9/76–8/88.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Under the direction of a registered occupational therapist, assists patients in media skills and work therapy activities; conducts interviews, administers tests, and assists patients with daily living activities to promote physical and mental health. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); interviews, tests, teaches, and assists clients in occupational therapy activities; assists in evaluating test results; interprets physician's referrals to determine therapeutic strategies; arranges for and supervises work for recreational therapeutic activities; observes, measures, and reports physiological and psychological patient responses; maintains progress records; measures, fabricates, fits, adjusts, and instructs in the use of adaptive devices; maintains equipment and supplies; maintains safe and comfortable work area. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in administering occupational therapy programs; plans ward, clinic, and recreational activity programs and assists with planning for home activity programs; teaches activities of daily living. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with management of medium-sized occupational therapy clinic; prepares work schedules; instructs subordinates; evaluates personnel performance; prepares administrative and patient reports; coordinates activities of occupational therapy program; advises and assists therapist in personnel and administrative matters; maintains supply levels as needed; coordinates activities of occupational therapy clinic with other elements of the medical treatment facility. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with management of a large occupational therapy clinic; coordinates integration of segmented and diversified occupational therapy programs conducted in several clinics; develops, supervises, and evaluates work method procedures and training programs; plans clinic layout and requests supporting services.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in creative arts, 3 in educational techniques, 3 in occupational therapy skills, and 3 for field experience in occupational therapy (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in creative arts, 6 in occupational therapy, 6 for field experience in occupational therapy, 3 in educational techniques, and 3 in human relations (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in creative arts, 6 in occupational therapy, 6 for field experience in occupational therapy, 3 in educational techniques, 3 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in creative arts, 6 in occupational therapy, 6 for field experience in occupational therapy, 3 in educational techniques, 3 in human relations, and 3 in personnel supervision, and additional credit in principles of administration or introduction to management on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91L-003

OCCUPATIONAL THERAPY SPECIALIST

91L10
91L20
91L30
91L40

Exhibit Dates: 9/88–Present.

Career Management Field: 9 (Medical).

Description

Summary: Under the direction of a registered occupational therapist, assists patients in adapting skills for daily living and in work therapy activities; conducts interviews, administers tests, and assists patients with daily living activities to promote physical and mental health. *Skill Level 10:* Interviews, tests, teaches, and assists clients in occupational therapy activities; assists in evaluating test results; interprets physician's referrals to determine therapeutic strategies; arranges for and reports physiological and psychological patient responses; maintains progress records; measures, fabricates, fits, adjusts, and instructs in the use of adaptive devices; maintains equipment and supplies; maintains safe and comfortable work area. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assists in administering occupational therapy programs; plans ward, clinic, and recreational activity programs and assists with planning for home activity programs; teaches activities of daily living. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists with management of medium-sized occupational therapy clinic; prepares work schedules; instructs subordinates; evaluates personnel performance; prepares administrative and patient reports; coordinates activities of occupational therapy program; advises and assists therapist in personnel and administrative matters; maintains supply levels as needed; coordinates activities of occupational therapy clinic with other elements of the medical treatment facility. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with management of a large occupational therapy clinic; coordinates integration of segmented and diversified occupational therapy programs conducted in several clinics; develops, supervises, and evaluates work method procedures and training programs; plans clinic layout and requests supporting services.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in occupational therapy skills, 3 for field experience in occupational therapy, 3 in creative arts, 3 in communication skills, and 3 in human relations (3/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in occupational therapy skills, 6 for field experience in occupational therapy, 6 in creative arts, 3 in communication skills, and 3 in human relations (3/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in occupational therapy skills, 6 for field experience in occupational therapy, 6 in creative arts, 3 in communication skills, 3 in human relations, 3 in principles of supervision, and 3 in patient care administration (3/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in occupational therapy skills, 6 for field experience in occupational therapy, 6 in creative arts, 3 in communication skills, 3 in human relations, 3 in principles of supervision, 3 in patient care administration, and 3 in educational techniques (3/90).

MOS-91N-001

CARDIAC LABORATORY SPECIALIST

91N20
91N30
91N40

Exhibit Dates: 3/74–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Assists with management of cardiac laboratory or records electrocardiograms (ECG) and vectorcardiograms or assists with specialized cardiac tests and examinations. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); sets up, calibrates, operates, and maintains electrocardiograph, vectorcardiograph, and phonocardiograph; attaches electrodes and conducts tests according to established procedures; transmits record to physician; cuts and mounts tracing for inclusion in medical record. *Skill Level 30:* Able to perform the duties required for Skill Level 20; prepares and sets up equipment in sterile field for right and left cardiac catheterization, venous and arterial angiography, and insertion of temporary and permanent pacemakers; calibrates and operates multichannel physiologic recorders with attachments and monitors ECG, pressure curves, and other physiologic parameters; standardizes and operates electronic oximeters, dye curve densitometers, and wheatstone bridges; calibrates and operates blood gas analyzer; calculates test results, using standardized formulas; forms, molds, and refines special cardiovascular catheters, needles, and tubing; assists with resuscitation procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing cardiac laboratory; plans work schedules; assigns duties; trains personnel in work procedures and techniques; requisitions, stores, and issues supplies and equipment; enforces safety rules in use of equipment and medical gases; prepares, reviews, and consolidates technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 1 semester hour for cardiovascular technology and 1 for cardiovascular electronics (3/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 10 semester hours for a cardiovascular internship, 3 in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular chemical analysis, 2 in physiological chemistry, 2 in pulmonary functions, 2 in cardiovascular technology, 2 in cardiovascular electronics, and 1 in technical mathematics (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours for a cardiovascular internship, 3 in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular chemical analysis, 2 in physiological chemistry, 2 in pulmonary functions, 2 in cardiovascular technology, 2 in cardiovascular electronics, 1 in technical mathematics, 3 in human relations, 1 in personnel supervision, and 2 in laboratory management (3/76).

MOS-91N-002

CARDIAC SPECIALIST

91N10
91N20
91N30
91N40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists with management of cardiac clinic or performs specialized noninvasive cardiac tests and examinations. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); under close supervision, assists Skill Level 20 personnel. *Skill Level 20:* Sets up, calibrates, operates, and maintains electrocardiograph, vectorcardiograph, and phonocardiograph; attaches electrodes and conducts tests according to established procedures; transmits record to physician; cuts and mounts tracing for inclusion in medical records; administers endurance tests; under supervision, performs technical examination during operation of artificial pacemaker; performs cardiopulmonary resuscitation and uses defibrillator; performs maintenance on equipment; receives, stores, and maintains level of supplies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; establishes work priorities and work schedules; assigns duties and instructs subordinates in procedures; inspects facilities; determines personnel requirements and conducts training programs; supervises operational maintenance program of laboratory and clinical equipment; evaluates and counsels personnel; establishes stock level for supplies and equipment and supervises requisition, storage, and issue of supplies.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular technology, 2 in cardiovascular electronics, 2 in physiological chemistry, and 1 in technical mathematics (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 10 semester hours for a cardiovascular internship, 3 in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular technology, 2 in cardiovascular electronics, 2 in physiological chemistry, and 1 in technical mathematics (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 10 semester hours for a cardiovascular internship, 3 in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular technology, 2 in cardiovascular electronics, 2 in physiological chemistry, 1 in technical mathematics, and 2 in personnel supervision (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours for a cardiovascular internship, 3 in cardiovascular anatomy and physiology, 3 in cardiovascular patient care, 2 in cardiovascular technology, 2 in cardiovascular electronics, 2 in physiological chemistry, 1 in technical mathematics, 3 in personnel supervision, 3 in human relations, and 2 for field experience in management (6/77).

MOS-91P-001

X-RAY SPECIALIST

91P20

91P40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Operates or supervises the operation of fixed and portable x-ray equipment to take radiographs and to assist with treatment procedures. *Skill Level 20:* Operates x-ray machines, utilizing proper controls, voltage, current, exposure time, and safety precautions; applies principles of anatomy and physiology in determining essential factors of positioning in radiopathy; assists during fluoroscopic procedures, such as gastrointestinal studies, aortograms, arteriograms, venograms, cardiac catheterizations, urograms, and pneumogynecograms; connects and operates other equipment items used during fluoroscopy, such as cine camera, fluoroscopic viewers, rapid film changers, and automatic high-pressure injectors of contrast media. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises x-ray activities; inspects safety standards and initiates corrective action if necessary; organizes work schedules, assigns duties, and instructs personnel in technical procedures; supervises specialists in radiopathy procedures; requisitions, stores, and issues supplies; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in radiation protection, 6 in introductory radiologic technology, 9 for a radiologic internship, and 12 in radiologic technology procedures, positioning, contrast media, and intra-oral radiopathy (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in radiation protection, 3 in personnel management, 3 in equipment and supplies management, 6 in introductory radiologic techology, 12 for a radiologic internship, and 12 for radiologic procedures, positioning, contrast media, and intra-oral radiopathy (2/75).

MOS-91P-002

X-RAY SPECIALIST

91P10

91P20

91P30

91P40

Exhibit Dates: 9/76–2/84.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Operates or supervises the operation of fixed and portable x-ray equipment to take radiographs and to assist with treatment procedures. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); performs routine radiographic procedures; operates x-ray machines, utilizing proper exposure factors; applies radiation safety principles to protect self and patients from ionizing radiation; assists radiologists with fluoroscopic examination and simple special radiographic films by manual and automatic methods; performs routine patient administration, including the maintenance of radiographic records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assembles radiographs for reading; performs body section, stereoscopic foreign body localization, prenatal, and pediatric radiographic procedures; performs followup radiographic examinations of the digestive, urogenital, respiratory, vascular, and nervous systems; takes radiographs of the extremities, trunk, and skull, using portable equipment; assists with special radiographic and fluoroscopic procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs complex or specialized radiograph procedures or supervises a medium-sized x-ray activity; performs routine examinations or assists with special examinations of the urogenital, respiratory, vascular, and nervous systems; inspects x-ray activities for compliance with radiation safety procedures and initiates corrective action; organizes work schedules; assigns duties; instructs personnel in technical procedures; supervises preventive maintenance of equipment; supervises procedures to enable unit to function in a toxic environment; evaluates personnel performance and prepares evaluation reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large x-ray activity; inspects clinic to insure a safe, clean, orderly, comfortable environment for patients; establishes work priorities; reviews, consolidates, and prepares technical, administrative, and personnel reports; coordinates activities of clinic with other elements of the medical treatment facility.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours for a clinical internship, 6 in radiographic techniques, and 3 in radiation protection (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, and 3 in special radiographic procedures. In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, and 3 in special radiographic procedures (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, 3 in special radiographic procedures, and 3 in personnel supervision. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, 3 in special radiographic procedures, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in radiology department administration and credit in patient care administration on the basis of institutional evaluation (6/77).

MOS-91P-003

X-RAY SPECIALIST

91P10

91P20

91P30

91P40

91P50

Exhibit Dates: 3/84–Present.

Career Management Field: 91 (Medical).

Description

Summary: Operates or supervises the operation of fixed and portable x-ray equipment to take radiographs and to assist with treatment procedures. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); performs routine radiographic procedures; operates x-ray machines, utilizing proper exposure factors; applies radiation safety principles to protect self and patients from ionizing radiation; assists radiologists with fluoroscopic examination and simple special radiographic procedures; processes radiographic films by manual and automatic methods; performs routine patient administration, including the maintenance of radiographic records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; assembles radiographs for reading; performs body section, stereoscopic foreign body localization, prenatal, and pediatric radiographic procedures; performs followup radiographic examinations of the digestive, urogenital, respiratory, vascular, and nervous systems; takes radiographs of the extremities, trunk, and skull, using portable equipment; assists with special radiographic and fluoroscopic procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs complex or specialized radiograph procedures or supervises a medium-sized x-ray activity; performs routine examinations or assists with special examinations of the urogenital, respiratory, vascular, and nervous systems; inspects x-ray activities for compliance with radiation safety procedures and initiates corrective action; organizes work schedules; assigns duties; instructs personnel in technical procedures; supervises preventive maintenance of equipment; supervises procedures to enable unit to function in a toxic environment; evaluates personnel performance and prepares evaluation reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large x-ray activity; inspects clinic to insure a safe, clean, orderly, comfortable environment for patients; establishes work priorities; reviews, consolidates, and prepares technical, administrative, and personnel reports; coordinates activities of clinic with other elements of the medical treatment facility. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises x-ray activity in large medical center; assumes departmental management duties including budget, personnel, and supply.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 9 semester hours for a clinical internship, 6 in radiographic techniques, and 3 in radiation protection (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, and 3 in special radiographic procedures (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, 3 in special radiographic procedures, and 3 in personnel supervision. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, 3 in special radiographic procedures, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in radiology department administration and credit in patient care administration on the basis of institutional evaluation (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 15 semester hours for a clinical internship, 6 in radiographic techniques, 3 in radiation protection, 3 in special radiographic procedures, 3 in personnel supervision, and 3 for field experience in management. In the upper-division baccalaureate category, 6 semester hours in radiology department administration and credit in patient care administration on the basis of institutional evaluation (9/85).

MOS-91Q-001

PHARMACY SPECIALIST

91Q10
91Q20
91Q40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Works under the supervision of a registered pharmacist or a physician; compounds, manufactures, and packages pharmaceutical products; assists in dispensing pharmaceuticals. *Skill Level 10:* Prepares commonly used ointments, solutions, lotions, and syrups; pours, weighs, and measures dosages; grinds, heats, filters, dissolves, and mixes liquid or soluble drugs and chemicals; packages, labels, stores, and issues pharmaceuticals. *Skill Level 20:* Able to perform the duties required for Skill Level 10; interprets and verifies authenticity of prescriptions prepared by physicians, dentists, podiatrists, and veterinarians; assists a registered pharmacist in preparing drugs and medications, including narcotics and registered drugs; labels prescriptions; files signature cards and prescriptions. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists with the management of pharmacy, assuring compliance with Federal and Army laws, rules, and regulations; keeps inventory of supplies; provides information regarding strength and composition of medications; supervises a minimum of five pharmacy personnel; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 6 semester hours in general chemistry, 6 in general biology, 6 in laboratory techniques, and 6 in health sciences (2/75).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 9 semester hours in laboratory techniques, 6 in general chemistry, 6 in biology, 6 in health sciences, 3 in administration, and 3 for a pharmaceutical assistant internship. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 9 semester hours in administration, 9 in laboratory techniques, 9 for a pharmaceutical assistant internship, 6 in general chemistry, 6 in biology, and 6 in health sciences. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

MOS-91Q-002

PHARMACY SPECIALIST

91Q10
91Q20
91Q30
91Q40

Exhibit Dates: 9/76–2/84.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises or prepares, controls, and issues pharmaceutical products, under supervision of pharmacist or physician. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); under supervision, interprets, compounds, manufactures, and files presciption orders, bulk drug orders, or unit dose orders; performs storage, accounting, inventory, and control procedures for pharmaceuticals; operates and maintains manufacturing and packaging equipment; assists in setting up unit equipment and shelters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; issues and requisitions medications; evaluates prescription orders, bulk drug orders, or unit dose orders; checks drug orders for interactions, incompatibilities, and availability of dosage forms; issues medications to patients, wards, clinics, and other using agencies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides guidance to subordinate personnel; assists in pharmacy inspections; orders standard and non-standard supplies; maintains stock levels; supervises sections within pharmacy service. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in compiling information for meetings of Therapeutic Agent Board; assists in revision and update of hospital formulary or drug list; organizes work schedules; instructs personnel in procedures and conducts in-service training; evaluates personnel and prepares evaluation reports; sets stock levels and prepares requisitions; prepares technical, personnel, and administrative reports; coordinates pharmacy activities with other elements of medical treatment facility.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 5 semester hours in introduction to pharmacy practice and 3 in pharmacy assisting, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, health sciences, and physiology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice and 3 in pharmacy assisting, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, health sciences, and physiology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice, 3 in pharmacy assisting, and 1 in inventory control, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, pharmaceutical preparations, health sciences, physiology, and laboratory techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice, 3 in pharmacy assisting, 3 in personnel supervision, 2 in principles of administration, and 1 in inventory control, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, pharmaceutical preparations, health sciences, physiology, and laboratory techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics, and additional credit in medical facility management on the basis of institutional evaluation (6/77).

MOS-91Q-003

Pharmacy Specialist

91Q10
91Q20
91Q30
91Q40
91Q50

Exhibit Dates: 3/84–Present.

Career Management Field: 91 (Medical).

Description

Summary: Supervises or prepares, controls, and issues pharmaceutical products, under supervision of pharmacist or physician. *Skill Level 10:* Able to perform the duties required for Skill level 10 of MOS 91B (Medical Specialist); under supervision, interprets, compounds, manufactures, and files prescription orders, bulk drug orders, or unit dose orders; performs storage, accounting, inventory, and control procedures for pharmaceuticals; operates and maintains manufacturing and packaging equipment; assists in setting up unit equipment and shelters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; issues and requisitions medications; evaluates prescription orders, bulk drug orders, or unit dose orders; checks drug orders for interactions, incompatibilities, and availability of dosage forms; issues medications to patients, wards, clinics, and other agencies. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides guidance to subordinate personnel; assists in pharmacy inspections; orders, standard and nonstandard supplies; maintains stock levels; supervises sections within pharmacy service. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in compiling information for meetings of Therapeutic Agent Board; assists in revision and update of hospital formulary or drug list; organizes work schedules; instructs personnel in procedures and conducts in-service training; evaluates personnel and prepares evaluation reports; sets stock levels and prepares requisitions; prepares technical, personnel, and administrative reports; coordinates pharmacy activities with other elements of medical treatment facility. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises pharmacy activities in large hospital, medical center, or general hospital; assists in establishment and operation of formal training programs; insures compliance with quality control standards for doctrinal material in formal training programs.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 5 semester hours in introduction to pharmacy practice and 3 in pharmacy assisting, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, health sciences, and physiology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (9/85).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice and 3 in pharmacy assisting, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, health sciences, and physiology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice, 3 in pharmacy assisting, and 1 in inventory control, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, pharmaceutical preparations, health sciences, physiology, and laboratory techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice, 3 in pharmacy assisting, 3 in personnel supervision, 2 in principles of administration, and 1 in inventory control, and additonal credit in general chemistry, pharmaceutical chemistry, pharmacology, pharmaceutical preparations, health sciences, phisiology, and laboratory techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory and 2 in pharmaceutical mathematics, and additional credit in medical facility management on the basis of institutional evaluation (9/85).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 10 semester hours in introduction to pharmacy practice, 3 in pharmacy assisting, 3 in personnel supervision, 2 in principles of administration, and 1 in inventory control, and additional credit in general chemistry, pharmaceutical chemistry, pharmacology, pharmaceutical preparations, health sciences, physiology, and laboratory techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in pharmaceutical laboratory, 2 in pharmaceutical mathematics, 3 in methods of instruction, 3 for field experience in management, and additional credit in medical facility management on the basis of institutional evaluation (9/85).

MOS-91R-001

Food Inspection Specialist

91R10
91R20
91R40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Inspects food and food products for quality, safety, and adherence to contractual specifications. *Skill Level 10:* Assists with food hygiene and quality assurance inspections, using principles of statistical sampling, food microbiology, laboratory analysis, and knowledge of food processing and preservation. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts subsistence procurement inspections; inspects processing, handling, packaging, packing, and quality control procedures in canneries, slaughterhouses, and dairies and in waterfood, meatpacking and dehydration plants; examines poultry, eggs, fruit, vegetables, seafoods, meats, and dairy products; selects, prepares, and transmits samples for laboratory testing; reviews tests results for contractual requirements; records contractual deficiencies and violations and initiates recommendations for corrective action; develops and applies double and multiple statistical sampling procedures and switching techniques; reviews and updates publications relative to quality assurance procedures; assists veterinarian in antemortem and postmortem examination of food animals. *Skill Level 40:* Able to perform the duties required for Skill Level 20; trains subordinates in food inspection and sanitary control programs; analyzes reports and surveys and recommends remedial action; coordinates transportation, administration, and logistical support of food inspectors assigned from parent veterinary activity; reviews, consolidates, and prepares team inspection records and other technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 8 semester hours in food science, 3 in inspection procedures and regulations, and 2 in microbiology (3/76).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 17 semester hours in food science, 4 in inspection procedures and regulations, and 2 in microbiology (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 17 semester hours in food science, 4 in inspection procedures and regulations, 3 in human relations, 3 in personnel supervision, and 2 in microbiology. In the upper-division baccalaureate category, if the duty assignment was chief food inspection NCO at pay grade E-8, 3 semester hours for field experience in management (3/76).

MOS-91R-002

Veterinary Specialist

91R10
91R20
91R30
91R40
91R50

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Inspects food and food products for quality, safety, and adherence to contractual specifications. *Skill Level 10:* Assists with food hygiene and quality assurance inspections, using principles of statistical sampling, food microbiology, laboratory analysis, and knowledge of food processing and preservation. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts subsistence procurement inspections; inspects processing, handling, packaging, packing, and quality control procedures in canneries, slaughterhouses, and dairies, and in waterfood, meatpacking, and dehydration plants; examines poultry, eggs, fruit, vegetables, seafoods, meats, and dairy products; selects, prepares, and transmits samples for laboratory testing; reviews test results for contractual requirements; records contractual deficiencies and violations and initiates recommendations for corrective action; develops and applies double and multiple statistical sampling procedures and switching techniques; reviews and updates publications relative to quality assurance procedures; assists veterinarian in antemortem and postmortem examination of food animals. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises procurement quality assurance and surveillance inspections; establishes work priorities; organizes work schedules; assigns duties; instructs subordinate personnel; supervises equipment maintenance programs; prepares and conducts training programs; evaluates personnel performance; maintains technical records; requisitions, stores, and issues supplies. *Skill Level 40:* Able to perform the duties required for Skill Level 30; trains subordinates in food inspection and sanitary control programs; analyzes reports and surveys and recommends remedial action; coordinates transportation, administration, and logistical support of food inspectors; reviews, consolidates, and prepares team inspection records and other technical, personnel, and administrative reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 91R, 91S (Environmental Health Specialist), or 91T (Animal Specialist); develops work methods and procedures; develops, directs, and evaluates training programs; coordinates activities of veterinary and environmental health activities; assists professional staff with technical, administrative, and fiscal matters.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 7 semester hours in food science, 6 in inspection procedures and regulations, and 1 in veterinary preventive medicine (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 16 semester hours in food science, 7 in inspection procedures and regulations, and 2 in veterinary preventive medicine (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 16 semester hours in food science, 7 in inspection procedures and regulations, 2 in veterinary preventive medicine, and 2 in personnel supervision (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 16 semester hours in food science, 7 in inspection procedures and regulations, 3 in personnel supervision, 3 in human relations, and 2 in veterinary preventive medicine (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 16 semester hours in food science, 7 in inspection procedures and regulations, 3 in personnel supervision, 3 in human relations, 3 in principles of management, and 2 in veterinary preventive medicine. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/77).

MOS-91S-001

PREVENTIVE MEDICINE SPECIALIST

91S10
91S20
91S40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Supervises or conducts surveys and inspections of environmental factors affecting health of persons in areas of concern. *Skill Level 10:* Inspects living quarters, food-handling establishments, water and waste disposal systems, work areas, barber shop and other facilities to detect deficiencies in sanitation standards and recommends corrective action; collects, identifies, preserves, and ships medically important arthropods and rodents; performs pest control procedures, including selection, safe handling, mixing, application, and disposal of pesticides; conducts environmental health surveys to determine compliance with standards and regulations; inspects facilities where ionizing and non-ionizing radiation is produced to identify and report potential health hazards; operates and maintains equipment used in inspections, surveys, and control procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs field studies and surveys to determine potential for and incidence of disease vectors; tests and recommends procedures to control insects resistant to insecticides; conducts on-the-job training for field sanitation teams in environmental sanitation and control of animal reservoirs and disease vectors. *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans work schedules; assigns duties; instructs Skill Level 10 and 20 personnel in techniques and procedures; requisitions, stores, and issues supplies and equipment; assists in analyzing and evaluating data; prepares, reviews, and consolidates technical, administrative, and personnel reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in environmental science (includes basic concepts of chemistry, biology, laboratory procedures, mathematics, and statistics), 3 in environmental hygiene and engineering, 3 in medical entomology, 3 in environmental health practices and procedures, 2 in water supply and pollution control, 2 in chemical and radiological safety, 1 in food technology, and 1 in occupational health practices (3/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in environmental science (includes basic concepts of chemistry, biology, laboratory procedures, mathematics, and statistics), 3 in environmental hygiene and engineering, 3 in medical entomology, 3 in environmental health practices and procedures, 2 in water supply and pollution control, 2 in chemical and radiological safety, 1 in food technology, 1 in occupational health practices, 3 in pest management, and 3 for a practicum in environmental sanitation (3/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in environmental science (includes basic concepts of chemistry, biology, laboratory procedures, mathematics, and statistics), 3 in environmental hygiene and engineering, 3 in medical entomology, 3 in environmental health practices and procedures, 2 in water supply and pollution control, 2 in chemical and radiological safety, 1 in food technology, 1 in occupational health practices, 3 in pest management, 3 for a practicum in environmental sanitation, and 2 in personnel administration (3/76).

MOS-91S-002

ENVIRONMENTAL HEALTH SPECIALIST

91S10
91S20
91S30
91S40

Exhibit Dates: 9/76–2/80.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Supervises, conducts, or assists in surveys and inspections and establishes control measures of environmental factors affecting health of persons in areas of concern. *Skill Level 10:* Conducts environmental health surveys and inspections and assists in environmental health laboratories by inspecting living quarters, food handling establishments, water systems, liquid and solid waste disposal systems, barber and beauty shops, swimming facilities, nurseries, and industrial areas; inspects personal hygiene practices; reports deviations from prescribed health standards and recommends corrective action; collects specimens and samples and submits them to the laboratory; mixes and applies insecticides, rodenticides, and repellants; performs bacteriological examination and chemical analysis of water and inspects for quarantine standards; performs operator maintenance on environmental health equipment; collects data for environmental health reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts environmental health surveys, inspections, and laboratory procedures; performs stream surveys; inspects hospital infectious waste control and disposal procedures; interviews food poisoning patients and tuberculosis, VD, and other communicable disease patients and contacts; conducts related communicable disease investigations; completes case and contact reports; assists with monitoring electromagnetic radiation; identifies medically important parasites, disease vectors, and their animal hosts and recommends insect control procedures; inspects and provides technical assistance for water supply systems, liquid and solid waste collection, treatment, and disposal; inspects and provides technical assistance for collection, treatment, and disposal of hazardous waste; performs operator maintenance on environmental health equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises environmental health sections; collects and analyzes data on occupational illness, injuries, and environmental health; organizes work schedules; assigns duties; instructs in work techniques and procedures; plans and conducts training programs; supervises operational maintenance program of assigned equipment; evaluates personnel performance and prepares evaluation reports as well as administrative, technical, and personnel reports; prepares supply and equipment requisitions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises environmental health activities; organizes environmental stress surveillance programs; coordinates toxicology data with poison control center; plans vector control program; analyzes and evaluates data pertaining to environmental health activities; determines personnel requirements and establishes work priorities; advises and assists professionals in supply, fiscal, technical, and administrative matters.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 15 semester hours in sanitation and disease control (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control and 9 in environmental science (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control, 9 in environmental science, 3 in human relations, and 3 in personnel administration (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management (6/77).

MOS-91S-003

ENVIRONMENTAL HEALTH SPECIALIST

91S10
91S20
91S30
91S40
91S50

Exhibit Dates: 3/80–6/86.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Supervises, conducts, or assists in surveys and inspections and establishes control measures of environmental factors affecting health of persons in areas of concern. *Skill Level 10:* Conducts environmental health surveys and inspections and assists in environmental health laboratories by inspecting living quarters, food handling establishments, water systems, liquid and solid waste disposal systems, barber and beauty shops, swimming facilities, nurseries, and industrial areas; inspects personal hygiene practices; reports deviations from prescribed health standards and recommends corrective action; collects specimens and samples and submits them to the laboratory; mixes and applies insecticides, rodenticides, and repellants; performs bacteriological examination and chemical analysis of water and inspects for quarantine standards; performs operator maintenance on evironmental health equipment; collects data for environmental health reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts environmental health surveys, inspections, and laboratory procedures; performs stream surveys; inspects hospital infectious waste control and disposal procedures; interviews food poisoning patients and tuberculosis, VD, and other communicable disease patients and contacts; conducts related communicable disease investigations; completes case and contact reports; assists with monitoring electromagnetic radiation; identifies medically important parasites, disease vectors, and their animal hosts and recommends insect control procedures; inspects and provides technical assistance for water supply systems, liquid and solid waste collection, treatment, and disposal; inspects and provides technical assistance for collection, treatment, and disposal of hazardous waste; performs operator maintenance on environmental health equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises environmental health sections; collects and analyzes data on occupational illness, injuries, and environmental health; organizes work schedules; assigns duties; instructs in work techniques and procedures; plans and conducts training programs; supervises operational maintenance program of assigned equipment; evaluates personnel performance and prepares evaluation reports as well as administrative, technical, and personnel reports; prepares supply and equipment requisitions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises environmental health activities; organizes environmental stress surveillance programs; coordinates toxicology data with poison control center; plans vector control program; analyzes and evaluates data pertaining to environmental health activities; determines personnel requirements and establishes work priorities; advises and assists professionals in supply, fiscal, technical, and administrative matters. *Skill Level 50:* Able to perform the duties required for Skill Level 40; writes, develops, and coordinates command-wide regulations and policies relating to environmental health services; evaluates training programs and recommends improvements in such programs; participates in studies, reviews, and makes recommendations regarding proposals; prepares and presents briefings; assists command environmental health officer in technical supervision of subordinate unit environmental health activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 15 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in environmental health, 3 for field exercises in prevention and control of communicable diseases, and 3 in entomological and pest management (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in environmental health, 3 for field exercises in prevention and control of communicable diseases, 3 in entomological and pest management, and 3 in environmental health administration), and 9 in environmental science (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in environmental health, 3 for field exercises in prevention and control of communicable diseases, 3 in entomological and pest management, and 3 in environmental health administration), 9 in environmental science, 3 in human relations, and 3 in personnel administration (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 6 for field experience in management (6/77).

MOS-91S-004

PREVENTIVE MEDICINE SPECIALIST

91S10
91S20
91S30
91S40
91S50

Exhibit Dates: 7/86–Present.

Career Management Field: 91 (Medical).

Description

Summary: Supervises, conducts, or assists in surveys and inspections and establishes control measures of environmental factors affecting health of persons in areas of concern. *Skill Level 10:* Conducts environmental health surveys and inspections and assists in preventive medicine laboratories by inspecting living quarters, food handling establishments, water systems, liquid and solid waste disposal systems, barber and beauty shops, swimming facilities, nurseries, and industrial areas; inspects personal hygiene practices; reports deviations from prescribed health standards and recommends corrective action; collects specimens and samples and submits them to the laboratory; mixes and applies insecticides, rodenticides, and repellants; performs bacteriological examination and chemical analysis of water and inspects for quarantine standards; performs operator maintenance on preventive medicine equipment; collects data for environmental health reports. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts environmental health surveys, inspections, and laboratory procedures; performs stream surveys; inspects hospital infectious waste control and disposal procedures; interviews food poisoning patients and tuberculosis, VD, and other communicable disease patients and contacts; conducts related communicable disease investigations; completes case and contact reports; assists with monitoring electromagnetic radiation; identifies medically important parasites, disease vectors, and their animal hosts and recommends insect control procedures; inspects and provides technical assistance for water supply systems, liquid and solid waste collection, treatment, and disposal; inspects and provides technical assistance for collection, treatment, and disposal of hazardous waste. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises preventive medicine sections; collects and analyzes data on occupational illness, injuries, and environmental health; organizes work schedules; assigns duties; instructs in work techniques and procedures; plans and conducts training programs; supervises operational maintenance program of assigned equipment; evaluates personnel performance and prepares evaluation reports as well as administrative, technical, and personnel reports; prepares supply and equipment requisitions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises preventive medicine activities; organizes environmental stress surveillance programs; coordinates toxicology data with poison control center; plans vector control program; analyzes and evaluates data pertaining to preventive medicine activities; determines personnel requirements and establishes work priorities; advises and assists professionals in supply, fiscal, technical, and administrative matters. *Skill Level 50:* Able to perform the duties required for Skill Level 40; writes, develops, and coordinates command-wide regulations and policies relating to environmental health services; evaluates training programs and recommends improvements in such programs; participates in studies, reviews, and makes recommendations regarding proposals; prepares and presents briefings; assists command environmental health officer in technical supervision of subordinate unit environmental health activities.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 15 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in preventive medicine, 3 for field exercises in prevention and control of communicable diseases, and 3 in entomological and pest management (9/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in preventive medicine, 3 for field exercises in prevention and control of communicable diseases, 3 in entomological and pest management, and 3 in preventive medicine administration), and 9 in environmental science (9/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 18 semester hours in sanitation and disease control (6 semester hours in sanitation and disease control, 3 in laboratory exercises in preventive medicine, 3 for field exercises in prevention and control of communicable diseases, 3 in entomological and pest management, and 3 in preventive medicine administration), 9 in environmental science, 3 in human relations, and 3 in personnel administration (9/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management (9/88).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 6 for field experience in management (9/88).

MOS-91T-001

VETERINARY SPECIALIST

91T20

91T40

Exhibit Dates: 10/73-8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Cares for and treats animals in field veterinary service facilities, research laboratories, and veterinary clinics. *Skill Level 20:* Restrains, isolates, and quarantines animals which have signs of communicable diseases; performs emergency treatment procedures; sets up equipment and assists veterinarian with examinations, surgical procedures, immunizations, and procedures to identify, prevent, and control zoonotic diseases; collects specimens for laboratory analysis and conducts, evaluates, and records the results of macroscopic and microscopic studies; examines animals for external parasites and prepares and examines slides to identify microscopic external and internal parasites; administers medications and innoculations, as prescribed; maintains laboratory animal colony, under supervision; makes appropriate entries on animal health records. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises veterinary specialists in veterinary dispensary, animal hospital, laboratory animal colony, and animal farm; plans work schedules; trains veterinary specialists in work techniques and procedures; assures compliance with state, federal, and military regulations for handling, housing, and quarantine of animals; keeps inventory of all species of animals, laboratory and special diets, and equipment; evaluates animals to determine suitability for use in specific research projects; requisitions, stores, and issues supplies, equipment, and surgical instruments; reviews and prepares technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours for a practicum in veterinary science, 3 in anatomy and physiology of animals, 2 in microbiology, 2 in aninal hygiene, 2 in screening for diseases in animal populations, 2 in medical and surgical procedures for animals, 1 in animal nutrition, 1 in pharmacology, and 1 in administration of medications; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours for a practicum in veterinary science, 3 in anatomy and physiology of animals, 3 in personnel supervision, 3 in administration of veterinary service facilities, 2 in microbiology, 2 in animal hygiene, 2 in screening for diseases in animal populations, 2 in medical and surgical procedures for animals, 1 in animal nutrition, 1 in pharmacology, and 1 in administration of medications. In the upper-division baccalaureate category, 2 semester hours in veterinary science research; if the duty assignment is chief veterinary animal NCO at pay grade E-8, 3 additional semester hours for field experience in management; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (3/76).

MOS-91T-002

ANIMAL CARE SPECIALIST
(ANIMAL SPECIALIST)

91T10

91T20

91T30

91T40

Exhibit Dates: 9/76-2/78.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Under the direction of a veterinarian, supervises, performs, or assists in the care and treatment of small, medium-sized, and large animals. *Skill Level 10:* Assists in providing animal care, management, and treatment by feeding and watering small and medium-sized animals; cleans and sanitizes animal facility, equipment, and utensils; receives and identifies incoming animals; quarantines incoming and sick animals; administers parenteral and oral medications and immunizations; collects and prepares blood and urine samples and fecal specimens; performs common laboratory tests, such as examination for microfilaria; assists in taking radiographs; prepares animals and equipment for surgery and anesthesia; administers post-operative treatment and monitors post-operative recovery; provides emergency treatment when appropriate; records laboratory results in health records. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides animal care, management, and treatment; prepares health and vaccination certificates for veterinarian's signature; requisitions, receives, stores, and inventories pharmaceuticals, supplies, and equipment; prepares reagents, emergency drugs, and special animal rations; maintains animal files, including registration, health data, and immunization record; identifies common animal diseases and performs standard treatment techniques; debrides and sutures superficial wounds; calculates and administers drugs; induces general anesthesia and operates anesthetic equipment; assists in surgical procedures; maintains operating room supplies and cleanliness; performs appropriate laboratory analyses; informs owners of proper treatment instructions and medications prescribed by veterinarian; supervises animal registry and animal pound. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small and medium-sized veterinary activities; organizes work schedules and assigns duties; instructs personnel in proper work techniques and procedures; evaluates personnel performance and prepares evaluation reports; establishes safety procedures; supervises operator maintenance on assigned equipment; conducts in-service training programs; supervises requisition of supplies and equipment; prepares, reviews, and consolidates technical, personnel, and administrative reports; inspects facility; assists veterinarian in personnel, supply, and fiscal matters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large veterinary activities.

Recommendation, Skill Level 10

In the vocational certificate category, 4 semester hours in veterinary laboratory techniques. In the lower-division baccalaureate/associate degree category, 2 semester hours in animal hygiene, 2 in animal diseases, 1 in microbiology, 1 in anatomy and physiology of animals, and 1 in administration of drugs; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 4 semester hours in veterinary laboratory techniques and 3 in office practices and procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours for a practicum in veterinary science, 4 in veterinary laboratory techniques, 4 in microbiology, 3 in anatomy and physiology of animals, 3 in administration of drugs, 2 in animal hygiene, 2 in animal diseases, and 1 in surgical procedures for animals; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in veterinary laboratory techniques and 3 in office practices and procedures. In the lower-division baccalaureate/associate degree category, 6 semester hours for a practicum in veterinary science, 4 in veterinary laboratory techniques, 4 in microbiology, 3 in anatomy and physiology of animals, 3 in administration of drugs, 3 in personnel supervision, 3 in technical report writing, 3 in office management, 2 in animal hygiene, 2 in animal diseases, and 1 in surgical procedures for animals; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, credit in veterinary facility management and for field experience in management on the basis of institutional evaluation; if served as a researcher (and/or participated in research studies), additional credit on the basis of institutional evaluation (6/77).

MOS-91T-003

ANIMAL SPECIALIST

91T10
91T20
91T30
91T40

Exhibit Dates: 3/78–Present.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Under the direction of a veterinarian, supervises or provides care and treatment for small, medium-sized, and large animals. *Skill Level 10:* Provides animal care, management, and treatment; feeds and waters small and medium-sized animals; cleans and sanitizes animal facility, equipment, and utensils; receives and identifies incoming animals; quarantines incoming and sick animals; administers parenteral and oral medications and immunizations; collects and prepares blood and urine samples and fecal specimens; performs common laboratory tests, such as examination for microfilaria; assists in taking radiographs; prepares animals and equipment for surgery and anesthesia; administers post-operative treatment and monitors post-operative recovery; provides emergency treatment when appropriate; records laboratory results in health records; prepares health and vaccination certificates for veterinarian's signature; requisitions, receives, stores, and inventories pharmaceuticals, supplies, and equipment; prepares reagents, emergency drugs, and special animal rations; maintains animal files, including registration, health data, and immunization record; identifies common animal diseases and performs standard treatment techniques; debrides and sutures superficial wounds; calculates and administers drugs; induces general anesthesia and operates anesthetic equipment; assists in surgical procedures; maintains operating room supplies and cleanliness; performs appropriate laboratory analyses; informs owners of proper treatment instructions and medications prescribed by veterinarian; supervises animal registry and animal pound. *Skill Level 20:* Able to perform the duties required for Skill Level 10; conducts on-the-job training and provides technical guidance to Skill Level 10 personnel; may supervise up to 9 persons. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small and medium-sized veterinary activities; organizes work schedules and assigns duties; instructs personnel in proper work techniques and procedures; evaluates personnel performance and prepares evaluation reports; establishes safety procedures; supervises operator maintenance on assigned equipment; conducts in-service training programs; supervises requisition of supplies and equipment; prepares, reviews, and consolidates technical, personnel, and administrative reports; inspects facility; assists veterinarian in personnel, supply, and fiscal matters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large veterinary activities.

Recommendation, Skill Level 10

In the vocational certificate category, 15 semester hours in veterinary laboratory techniques. In the lower-division baccalaureate/associate degree category, 2 semester hours for a practicum in veterinary science, 4 in veterinary laboratory techniques, 3 in microbiology, 3 in anatomy and physiology of animals, 3 in administration of drugs, 2 in animal hygiene, 2 in animal diseases, and 1 in surgical procedures for animals. In the upper-division baccalaureate category, 6 semester hours in research on the basis of institutional review of scientific papers or projects (9/80).

Recommendation, Skill Level 20

In the vocational certificate category, 15 semester hours in veterinary laboratory techniques and 3 in office practices and procedures. In the lower-division baccalaureate/associate degree category, 2 semester hours for a practicum in veterinary science, 4 in veterinary laboratory techniques, 3 in microbiology, 3 in anatomy and physiology of animals, 3 in administration of drugs, 2 in animal hygiene, 2 in animal diseases, 1 in surgical procedures for animals, 3 in personnel supervision, and 3 in advanced veterinary laboratory techniques. In the upper-division baccalaureate category, 6 semester hours in research on the basis of institutional review of scientific papers or projects (9/80).

Recommendation, Skill Level 30

In the vocational certificate category, 15 semester hours in veterinary laboratory techniques and 3 in office practices and procedures. In the lower-division baccalaureate/associate degree category, 2 semester hours for a practicum in veterinary science, 4 in veterinary laboratory techniques, 3 in microbiology, 3 in anatomy and physiology of animals, 3 in administration of drugs, 3 in personnel supervision, 3 in technical report writing, 3 in office management, 2 in animal hygiene, 2 in animal diseases, 1 in surgical procedures for animals, and 3 in advanced veterinary laboratory techniques. In the upper-division baccalaureate category, 6 semester hours in research on the basis of institutional review of scientific papers or projects (9/80).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, credit in veterinary facility management and for field experience in management on the basis of institutional evaluation; and 6 semester hours in research on the basis of institutional review of scientific papers or projects (9/80).

MOS-91U-001

EAR, NOSE, AND THROAT SPECIALIST

91U20
91U40

Exhibit Dates: 9/75–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises or conducts routine diagnostic tests and assists in caring for and treating patients with ear, nose, and throat illnesses or injuries. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); administers and records patient responses to various labyrinthine tests; measures audiotory acuity with audiometer and tuning forks, records test results, makes graphs and interpolates to determine patients' test scores and need for further audiometric testing; irrigates patients' ears; assists physician with clinical procedures, such as Proetz position treatment, antral irrigation, control of nose and throat hemorrhage, dilation of salivary gland ducts and removal of calculi, reduction of nasal fractures, biopsies of the ears, nose, and throat; assists surgeon in removing cysts, nasal polyps, and other minor surgery; assists with application of post operative dressings and procedures; sterilizes and cares for instruments and equipment; performs and records results of special diagnostic tests, such as electronystagmography and acoustic bridge. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists in management of ENT clinics; instructs Skill Level 20 personnel in proper work techniques and procedures; organizes work schedules; assigns duties; sets priorities; inspects clinic and takes corrective action, as necessary; supervises maintenance program of clinical equipment; requisitions, stores, and issues supplies; prepares administrative and patient reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours for clinical experience in otolaryngology, 4 for clinical experience in audiometry, 3 in principles of audiometry, 3 in diseases and injuries of the ears, nose, and throat, and 1 in anatomy and physiology of the ears, nose, and throat (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 4 semester hours for clinical experience in otolaryngology, 4 for clinical experience in audiometry, 3 in principles of audiometry, 3 in diseases and injuries of the ears, nose, and throat, 1 in anatomy and physiology of the ears, nose, and throat, 2 in clinic management, and 1 in personnel supervision (3/76).

MOS-91U-002

EAR, NOSE, AND THROAT (ENT)
SPECIALIST
91U10
91U20
91U30
91U40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Conducts routine diagnostic tests and assists physician in care and treatment of ear, nose, and throat patients. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); administers and records patient responses to various diagnostic and labyrinthine tests; measures auditory acuity; irrigates patients' ears; sets up equipment and assists physician with clinical procedures; obtains specimens for culture and prepares laboratory requests; prepares equipment trays and basins; assists the physician in the performance of minor surgery; sterilizes and cares for instruments and equipment; operates resuscitation and oxygenation equipment; performs and records the results of diagnostic tests; assists audiologist in hearing aid evaluation. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; administers prescribed medication. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists in managing a small ear, nose, and throat clinic; organizes work schedules; assigns duties; instructs subordinates in work techniques and procedures; supervises operational maintenance program of clinical equipment; prepares training programs; evaluates personnel performance and prepares evaluation reports; coordinates activities of ENT clinic with other elements of the medical treatment facility; assists physician with personnel, fiscal, and administrative matters; prepares, reviews, and consolidates technical and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing a large ear, nose, and throat clinic.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 4 semester hours for a practicum in otolaryngology, 3 in principles of otolaryngology, and 1 in anatomy and physiology (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 7 semester hours for a practicum in otolaryngology, 3 in principles of otolaryngology, 2 in principles of audiometry, and 1 in anatomy and physiology (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 7 semester hours for a practicum in otolaryngology, 3 in principles of otolaryngology, 3 in personnel supervision, 2 in principles of audiometry, 2 in communication skills, 2 in principles of management, 1 in anatomy and physiology, and 1 in health care management. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91V-001

RESPIRATORY SPECIALIST
91V20
91V40

Exhibit Dates: 10/73–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Operates equipment to deliver medicinal gases and drugs in aerosoled mist to respiratory system and performs diagnostic tests. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); administers oxygen and aerosols containing prescribed medications to aid ventilation; assists in operation of mechanical respiratory aids; observes and records response of patients and conditions requiring professional attention; operates spirometer to obtain diagnostic data; performs blood gas analyses; calculates respiratory volumes; prepares records of test results. *Skill Level 40:* Able to perform the duties required for Skill Level 20; plans work schedules; makes duty assignments; trains subordinate personnel in techniques and procedures; provides orientation to other hospital personnel; instructs on precautions and enforces safety regulations; responsible for purchases and inventories; prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic sciences (mathematics, chemistry, physics), 4 in anatomy and physiology, 1 in pharmacology, 2 in microbiology and immunology, 8 in cardiopulmonary physiology and resuscitation, 4 in clinical medicine, 1 in physical therapy, 4 in respiration therapy, and 8 in clinical experience in respiration therapy (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic science (mathematics, chemistry, physics), 4 in anatomy and physiology, 1 in pharmacology, 2 in microbiology and immunology, 8 in cardiopulmonary physiology and resuscitation, 4 in clinical medicine, 1 in physical therapy, 4 in respiration therapy, 8 in clinical experience in respiration therapy, 3 in personnel supervision, and 3 in human relations (3/76).

MOS-91V-002

RESPIRATORY SPECIALIST
91V10
91V20
91V30
91V40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Assists with the care and treatment of patients requiring respiratory assistance; performs pulmonary function tests under the supervision of a physician or anesthetist. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); administers respiratory therapy and performs pulmonary function tests; receives and interprets treatment request; prepares and tests equipment; mixes prescribed cardiopulmonary medications; verifies identity and instructs, orients, and positions patient for therapy; adjusts controls of intermittent positive pressure breathing (IPPB) apparatus and administers therapy; assesses tidal volume and adjusts apparatus to meet ventilatory changes; observes, corrects, and records patient response; administers aerosol and gas therapy; adjusts and maintains equipment during operation and observes safety regulations; administers pulmonary drainage procedures; percusses and virbrates patient; collects and visually analyzes sputum specimens for foreign substances; assists with cardiopulmonary resuscitation, evaluates effectiveness, and records results; prepares and tests nebulizer for administration of medication and adjusts for drug concentration; follows isolation procedures; disassembles, cleans, sterilizes, assembles, and tests respiratory therapy equipment; adjusts volume ventilator controls for initial operation and during therapy; observes and corrects patient response and evaluates ventilator effectiveness; weans patient from ventilator dependence; prepares, tests, and administers special volume ventilator equipment, such as chronic positive pressure breathing (CPPB), intermittent mandatory ventilation (IMV), chronic positive airway pressure (CPAP), and positive and expiratory pressure (PEEP); applies electromechanical monitors; evaluates airway patency; instills solution prior to tracheobronchial aspiration; hyperinflates and hyperoxgenates patient; aspirates tracheobronchial passage; inflates and deflates tracheostomy cuff; provides tracheostomy tube and stoma care; evaluates patient cardiorespiratory status; utilizes emergency ventilators; evaluates resuscitator's effectiveness; implements culturing procedures; applies corrective actions for contaminated equipment; reads and evaluates patient charts; instructs patient and family in breathing exercises and postural drainage procedures and evaluates ability to operate home therapy equipment; maintains safe, clean, and orderly work area; stores and maintains supplies and equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 calibrates and slopes arterial blood gas analyzer; performs arterial blood gas procedures and interprets and records results; applies safety precautions relevent to pulmonary function testing; calculates data, and compares results; performs auscultation of lungs; receives and issues supplies and equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists in defibrillation of patient; plans and monitors culturing procedures; determines corrective action for contaminated equipment; inspects working areas to insure an orderly, clean, and safe environment for patients; supervises operational maintenance program of clinical equipment; prepares and conducts training programs; evaluates personnel performance and prepares evaluation reports; prepares administrative technical and patient reports; supervises packing, unpacking, loading, unloading, and setting up of unit equipment and shelters. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises respiratory unit activities; applies and monitors safety procedures relevant to modular pulmonary function testing; administers test, calculates test data, records results, and compares results with normal predicted values; develops, implements, and evaluates training programs; compiles management data, evaluates and determines personnel requirements, and assists in the planning and operation of respiratory unit; coordinates activies of unit with other elements of the medical treatment facility; advises and assists professional staff in supply economy procedures and fiscal, technical, and administrative matters; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category, 30 semester hours in a respiratory therapy program. In the lower-division baccalaureate/associate degree category, 8 semester hours for clinical experience in respiratory therapy, 4 in respiratory therapy in clinical medicine, 4 in anatomy and physiology, 3 in principles of pulmonary therapy, 3 in principles of ventilation therapy, 3 in cardiopulmonary physiology, 2 in microbiology and immunology, 2 in basic sciences (chemistry and physics), and 1 in pharmacology (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 33 semester hours in a respiratory therapy program. In the lower-division baccalaureate/associate degree category, 11 semester hours for clinical experience in respiratory therapy, 4 in respiratory therapy in clinical medicine, 4 in anatomy and physiology, 3 in principles of pulmonary therapy, 3 in principles of ventilation therapy, 3 in cardiopulmonary physiology, 2 in microbiology and immunology, 2 in basic sciences (chemistry and physics), and 1 in pharmacology (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 33 semester hours in a respiratory therapy program. In the lower-division baccalaureate/associate degree category, 11 semester hours for clinical experience in respiratory therapy, 4 in respiratory therapy in clinical medicine, 4 in anatomy and physiology, 3 in principles of pulmonary therapy, 3 in principles of ventilation therapy, 3 in cardiopulmonary physiology, 2 in microbiology and immunology, 2 in basic sciences (chemistry and physics), and 1 in pharmacology (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 33 semester hours in a respiratory therapy program. In the lower-division baccalaureate/associate degree category, 11 semester hours for clinical experience in respiratory therapy, 4 in respiratory therapy in clinical medicine, 4 in anatomy and physiology, 3 in principles of pulmonary therapy, 3 in principles of ventilation therapy, 3 in cardiopulmonary physiology, 2 in microbiology and immunology, 2 in basic sciences (chemistry and physics), 1 in pharmacology, 3 in personnel supervision, and 3 in clinic management. In the upper-division baccalaureate category, credit in patient care administration, introduction to management, and for field experience in management on the basis of institutional evaluation (6/77).

MOS-91W-001

NUCLEAR MEDICINE SPECIALIST

91W20
91W40

Exhibit Dates: 9/75–8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Supervises or performs medical diagnostic and therapeutic procedures with isotopes. *Skill Level 20:* Able to perform the duties required for Skill Level 20 of MOS 91P (X-Ray Specialist) or 92B (Medical Laboratory Specialist); uses radioactive materials to aid in diagnosis and treatment of patients; operates radiological imaging devices and counters; makes scans of organs, such as brain, liver, thyroid, kidneys, pancreas, spleen, and lungs; labels pharmaceuticals with radioactive materials; calculates dosage, prepares dilution, and administers radiopharmaceuticals orally or by injection, under direct supervision of physician; performs blood volume determination, Schilling test, thyroid uptake, red cell survival time, and fat metabolism studies on collected specimens; performs assay procedures, such as thyroxine, cortisal, digoxin and insulin determinations, on biologic specimens, in vitro, using beta and gamma radioassay techniques; determines and records activity of radioisotope stocks and waste; operates detectors to determine presence of health hazards from therapeutic, diagnostic, and experimental radioactive isotopes; measures and records degree of contamination, controls spread of contamination, and institutes decontamination procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises operation of nuclear medicine facility; evaluates accuracy, efficiency, and safety of all techniques; conducts radiation safety program; requisitions, accounts for, and stores radioisotopes; disposes of stocks when radioactivity decays to nonusable level; reviews, consolidates, and prepares technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 12 semester hours for a practicum in nuclear medicine, 8 in nuclear medicine methodology, 2 in nuclear physics, 2 in nuclear instrumentation, 1 in radiopharmaceuticals, and 1 in radiation safety (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 12 semester hours for a practicum in nuclear medicine, 8 in nuclear medicine methodology, 3 in interpersonal relationships in health care, 3 in personnel supervision, 2 in nuclear physics, 2 in nuclear instrumentation, 2 in radiation safety, and 1 in radiopharmaceuticals (3/76).

MOS-91W-002

NUCLEAR MEDICINE SPECIALIST

91W10
91W20
91W30
91W40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises or performs medical diagnostic and therapeutic procedures with radioactive isotopes. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91P (X-Ray Specialist), 92B (Medical Laboratory Specialist) or 91B (Medical Specialist); prepares and administers radioisotopes to patients and operates radiological imaging devices and counters. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs operational checks, standardizing procedures, and preventive maintenance on equipment; calculates dosage, prepares dilution, and administers it under direct supervision of physician; operates imaging device to make scans of organs, such as brain, liver, thyroid, pancreas, spleen, and lungs; makes photographs of images; collects appropriate specimens for procedures, such as blood volume determination, Schilling test, thyroid uptake, red cell survival time, and fat metabolism studies; performs assay procedures, using beta and gamma radioassay techniques; determines activity of radioisotope stocks and waste; determines presence of health hazards from therapeutic, diagnostic, and experimental radioactive isotopes; measures and records degree of contamination, controls spread of contamination, and institutes decontamination procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists with the management of a nuclear medicine facility; requisitions, accounts for, and stores radioisotopes used in the laboratory; is responsible for radiation safety program in laboratory area; supervises radiation survey, monitoring, and comtamination control procedures; disposes of stocks when radioactivity decays to nonusable level; establishes work priorities and procedures; organizes work schedules; assigns duties; establishes safety procedures; instructs subordinates in work techniques and procedures; supervises operational maintenance program of clinical equipment; evaluates personnel performance and prepares evaluation reports; prepares patient, technical, and administrative reports; coordinates activities of nuclear medicine facility with other elements of the medical treatment facility; advises and assists professional staff with technical, administrative, and fiscal matters.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours for a clinical internship, 6 in algebra, and 6 in physics, and additional credit in nuclear medicine technology, radiology, and occupational health and safety on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours for a clinical internship, 6 in nuclear medicine procedures, 6 in algebra, and 6 in physics, and additional credit in nuclear medicine technology, radiology, and occupational health and safety on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours for a clinical internship, 6 in nuclear medicine procedures, 6 in algebra, 6 in physics, and 3 in advanced nuclear medicine procedures, and additional credit in nuclear medicine technology, radiology, and occupational health and safety on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours for a clinical internship, 6 in nuclear medicine procedures, 6 in algebra, 6 in physics, and 3 in advanced nuclear medicine procedures, and additional credit in nuclear medicine technology, radiology, and occupational health and safety on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours for a clinical internship, 6 in nuclear medicine procedures, 6 in algebra, 6 in physics, 3 in advanced nuclear medicine procedures, 3 in personnel supervision, and 3 in human relations, and additional credit in nuclear medicine technology, radiology, and occupational health and safety on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in administration of nuclear medicine facility (6/77).

MOS-91X-001

HEALTH PHYSICS SPECIALIST

91X20
91X30
91X40

Exhibit Dates: 9/83–Present.

Career Management Field: 91 (Medical).

Description

Summary: Supervises or performs technologist-level health physics functions in support of radiation protection programs either in medical treatment facilities or other agencies operating under Army control. *Skill Level 20:* Conducts ionizing and non-ionizing radiation protection surveys, including diagnostic x-ray, nuclear medicine in-patient, sealed and unsealed source radiation therapy and teletherapy in research and vitro clinical laboratories, industrial facilities, gamma irradiators, waste storage and disposal areas, electronic microscope, laser, microwave equipment, ultraviolet and high intensity visible light source facilities, environmental radiation and occupational air sampling; evaluates out-patient potential hazards and development of improvement techniques to minimize risk of radiation exposure to workers; coordinates collections and disposal of radioactive waste with material users, calibrates radiation survey meters and other health physics-type detectors, monitors, and measuring equipment; arranges outside calibration support; conducts preliminary investigation of radioactive contamination incidents and apparent overexposure to radiation; prepares results of surveys; performs quality control procedures; develops and presents special radiation safety instruction for technician-level users. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assumes basic supervisory activities; supervises personnel dosimetry program; establishes work schedules and priorities; conducts non-routine radiation protection surveys; performs non-routine analysis; reports incidence of non-compliance; evaluates complex radiation activities for potential hazards; evaluates working conditions for workers; conducts studies to define radiation hazards; repairs and calibrates complex equipment; develops requirements for new equipment; prepares data for budget planning; conducts training of emergency team members. *Skill Level 40:* Able to perform the duties required for Skill Level 30; designs and conducts sophisticated radiation protection surveys; reviews plans for proposed construction of radiation facilities for design adequacy; conducts thorough investigations of unusual or complex radiation incidents.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of physical sciences, 4 in introduction to health physical sciences, 2 in environmental and legal aspects of radiation, 5 in medical x-ray survey procedures, and 5 for clinical experience in applied health physics (9/85).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of physical sciences, 4 in introduction to health physical sciences, 2 in environmental and legal aspects of radiation, 5 in medical x-ray procedures, 5 for clinical experience in applied health physics, 2 in oral communications, and 3 for field experience in radiation protection (9/85).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of physical sciences, 4 in introduction to health physical sciences, 2 in environmental and legal aspects of radiation, 5 in medical x-ray procedures, 5 for clinical experience in applied health physics, 3 in oral communications, and 6 for field experience in radiation protection (9/85).

MOS-91Y-001

EYE SPECIALIST

91Y20
91Y40

Exhibit Dates: 9/75–8/76.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Supervises or conducts routine dagnostic tests and assists in care and treatment of ophthomology or optometry patients. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); measures visual acuity; neutralizes and records power or corrective lenses or fragments of lenses; measures and records color vision, accommodative ability, muscle balance, intraocular pressure, limits of central and peripheral visual field, corneal curvature and vertical height of palpebral fissure; takes necessary measurements for fitting spectacles; treats minor eye ailments and injuries; assists physician in performing minor surgery; maintains ophthalmology and optometry equipment and instruments. *Skill Level 40:* Able to perform the duties required for Skill Level 20; assists in management of eye clinic; organizes work schedules and sets priorities; assigns duties; instructs Skill Level 20 personnel in proper work techniques and procedures; inspects clinic and initiates corrective action, if necessary; supervises maintenance of clinical equipment; requisitions, stores, and issues supplies; prepares administrative and patient reports.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours for clinical experience in ophthalmology, 3 for clinical experience in optometry, 2 in anatomy and physiology of the eye, 2 in principles of ophthalmology, and 2 in principles of optometry (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours for clinical experience in ophthalmology, 3 for clinical experience in optometry, 2 in anatomy and physiology of the eye, 2 in principles of ophthalmology, 2 in principles of optometry, 2 in clinic management, and 1 in personnel supervision (3/76).

MOS-91Y-002

EYE SPECIALIST

91Y10
91Y20
91Y30
91Y40

Exhibit Dates: 9/76–Present.

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Summary: Conducts routine diagnostic tests and assists in care and treatment of ophthalmology or optometry patients. *Skill Level 10:* Able to perform the duties required for Skill Level 10 of MOS 91B (Medical Specialist); conducts routine diagnostic tests, administers prescribed medications, and assists in caring for eye patients; determines purpose of patient visit; administers various visual tests and records results; measures accommodative ability; measures muscle balance with and without correction, near and distant; measures limits of central and peripheral field, intraocular pressure, interpupillary distance, bridge size, and temple length; performs minor repairs and adjustments to spectacles; instills drops and ointments in eye as prescribed; removes nonimbedded foreign objects from surface of eye or underside of lid; assists in obtaining specimens; assists the physician in performing minor surgery; maintains opthalmology and optomety equipment and instruments; performs prescribed sterilization procedures; performs ophthalmic photography; measures prismatic power of lenses; operates resuscitation and oxygenation equipment; instructs patients in insertion, removal, and care of contact lenses; prepares slides for weights and grams staining; applies and removes dressings as directed; performs emergency procedures as required; maintains inventory of supplies and equipment; *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; assists in managing a small ophthalmology or optometry clinic; organizes work schedules and determines personnel requirements; assigns duties and established work priorities; instructs subordinates in work techniques and procedures; supervises operational maintenance program of clinical equipment; evaluates personnel performance and prepares evaluation reports; coordinates activities of ophthalmology and optometry clinics with other elements of the medical treatment facility; assists physician with personnel, fiscal, and administrative matters; prepares patient and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in managing a large ophthalmology or optometry clinic.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of ophthalmology, 4 for a practicum in ophthalmology, 4 for a practicum in optometry, 2 in principles of optometry, and 1 in anatomy and physiology (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of ophthalmology, 6 for a practicum in ophthalmology, 6 for a practicum in optometry, 2 in principles of optometry, and 1 in anatomy and physiology (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of ophthalmology, 6 for a practicum in ophthalmology, 6 for a practicum in optometry, 2 in principles of optometry, 1 in anatomy and physiology, 3 in personnel supervision, 2 in communication skills, 2 in principles of management, and 1 in health care administration. In the upper-division baccalaureate category, credit in patient care administration on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, credit in patient care administration and medical facility management on the basis of institutional evaluation (6/77).

MOS-91Z-001

MEDICAL SENIOR SERGEANT

91Z50

Exhibit Dates: 10/73-8/76. (Effective 9/76, MOS 91Z was discontinued and its functions were incorporated into MOS 91B, Medical Specialist.)

Career Management Field: 91 (Medical), subfield 912 (Patient Care).

Description

Skill Level 50: Supervises general administrative functions in a medical or treatment facility; advises superiors on administrative matters; establishes and supervises the maintenance of medical records and medical reporting systems; prepares periodic and special reports concerning assigned personnel, patients, and medical care and treatment operations; evaluates training programs and requirements and supervises or conducts individual or group training; assists command surgeon in technical supervision of subordinate medical activities, staff, and unit operations; makes recommendations for improving working conditions and procedures; determines requirements for and adequacy of medical service supporting elements such as ambulance, supply, and transportation. NOTE: Required to have attained Skill Level 40 or 50 in a least one other in the MOS in the medical career management field (91).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 26 semester hours in administration or management, 12 for an internship in medical administration, 6 in accounting, 6 in business machines operation, and 6 in medical records administration. In the upper-division baccalaureate category, a minimum of 17 semester hours in administration or management, 6 for an internship in medical administration, and 3 in medical records administration, and additional credit in accounting, business machines operation, administration or management, medical records administration, and for an internship in medical administration on the basis of institutional evaluation (2/75).

MOS-92B-001

MEDICAL LABORATORY SPECIALIST

92B20

92B30

92B40

Exhibit Dates: 10/73-8/76.

Career Management Field: 91 (Medical), subfield 914 (Medical Services).

Description

Summary: Supervises or performs bloodbanking procedures and elementary and advanced examinations of biological specimens to aid in diagnosis, treatment, and prevention of disease. *Skill Level 20:* Performs blood banking and elementary laboratory procedures related to immunohematology, hematology, biochemistry, serology, bacteriology, and parasitology; selects, pretests, and bleeds donors and stores and issues blood; determines ABO group and Rh type of donor and recipient; performs immunohemotology techniques, such as antibody detection and identification, antibody titers, and compatability testing; prepares and stores blood components; performs hematology tests and determinations, such as hemoglobin, cell counts, and sedimentation rate; conducts elementary biochemical tests relating to blood glucose, blood urea nitrogen, amlase, sodium and potassium chloride, and carbon dioxide; performs serology procedures, such as preparation of antigen emulsion, use of control sera, and cardiolipin microflocculation tests; tests urine and urine sediment to determine specific gravity, sugar, protein, ketone, blood, pathological constituents, and presence of formed elements and amorphous sediment; examines feces for presence of protozoa and helminths; prepares and sterilizes synthetic culture media; introduces specimens into appropriate media, incubates culture, prepares smears, makes stains, and examines slides under microscope; isolates and identifies bacterial organisms of the cocci family and common gramnegative microorganisms; calculates and records findings; collects and processes specimens for shipment to consultant laboratories. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs advanced procedures in all phases of clinical laboratory testing, including virology, mycology, histology, toxicology, and radiobiology; makes subcultures, tissue cultures, antimicrobial sensitivity determinations, and animal inoculations and autopsies; performs clinical parasitology procedures; performs fluorescent antibody agglutenation, complement fixation and other serological tests; processes tissue removed by biopsy, from autopsy, or discharged from body; performs biochemical analyses of blood, urine, sweat, spinal fluid, and tissue for carbohydrates, proteins, hemoglobins, lipids, hormones, minerals, electrolytes, vitamins, enzymes, pigments, and drugs; performs metabolic and liver and renal function tests; screens exfoliative cytology specimens; performs complete blood counts and identifies and reports erythrocyte and leukocyte maturation stages in normal and abnormal cells; performs special procedures in staining, preparation of bone marrow films, erythrocyte osmotic fragility studies, lupus erythematosus films, hemoglobin electrophoresis, detection of coagulation disorders, and abnormal cell morphology in anemias and leukemias; analyzes air, food, water, and biological fluids for radioactivity and makes radionuclide determinations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises medical laboratory activities; logs requests for laboratory procedures; establishes priorities; distributes workload; forwards specimens to consultant laboratories, as required; supervises Skill Level 20 and 30 personnel; conducts quality control program to assure validity of clinical laboratory results; assists with inspection of laboratory, notes discrepancies, and initiates corrective action; requisitions, stores, and issues supplies and equipment; reviews, consolidates, and prepares technical, administrative, and personnel reports.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic procedures in hematology, 4 in basic procedures in clinical chemistry and urinalysis, 3 in basic procedures in immunohematology and serology, 3 in procedures in medical bacteriology, and 2 in basic procedures in parasitology (3/76).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 16 semester hours in advanced clinical chemistry, 8 in advanced hematology, 8 in advanced medical bacteriology, 4 in introduction to cytology, 4 in parasitology, 4 in immunology, 4 in histopathology, 4 in immunohematology and blook banking, 4 in mycology, 4 in virology, and 2 in anatomy and physiology (3/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 16 semester hours in advanced clinical chemistry, 8 in advanced hematology, 8 in advanced medical bacteriology, 4 in introduction to cytology, 4 in parasitology, 4 in immunology, 4 in histopathology, 4 in immunohematology and blood banking, 4 in mycology, 4 in virology, 2 in anatomy and physiology, 2 in medical laboratory management, and 1 in personnel supervision (3/76).

MOS-92B-002

MEDICAL LABORATORY SPECIALIST

92B10

92B20

92B30

92B40

92B50

Exhibit Dates: 9/76-Present.

Career Management Field: 91 (Medical), subfield 913 (Health Services).

Description

Summary: Performs bloodbanking procedures and elementary and advanced examinations of biological and environmental specimens to aid in diagnosis, treatment, and prevention of disease. *Skill Level 10:* Receives, collects, and labels specimens; calculates and records results of analyses; prepares laboratory specimens for the determination of parasites, plasmodium species, ABO group and Rh type blood; performs antihuman globulin, microhematocrit, and manual hemoglobulin procedures; performs manual white-blood-cell counts; prepares and examines thin-blood film slides and stain procedures; performs erythrocyte sedimentation rate procedures; determines specific gravity and performs chemical tests on urine to detect glucose, protein, blood, ketones, mucin, or melanogen; prepares urine samples for determination of PH, microscopic examination, cells, and mucous threads; innoculates bacteriological specimens and stains bacteriological smears and examines for stain reaction; prepares and sterilizes culture media; performs manual biochemical determinations on blood; examines semiautomatically for chlorides, sodium, and potassium; performs basic serological screening for syphillis and rheumatoid arthritis; performs basic preventive maintenance on laboratory equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs bloodbanking and elementary laboratory procedures to immunohematology, hematology, biochemistry, serology, bacteriology, and parasitology; selects, pretests, and bleeds donors and stores and issues blood; determines ABO group and Rh type of donor and recipient; performs immunohematology techniques, such as antibody titers and compatability testing; prepares and stores blood components; performs ABO subgrouping and DU testing to detect antibodies; performs complete blood count and cell counts; performs coagulation tests; uses automated, semiautomated, or manual procedures to determine cholesterol, total protein and A/G ratio, blood pH, pO2, and pCO2; performs basic serology procedures for syphillis, pregnancy, infectious mononucleosis, and arthritis; prepares red cell suspensions and dilutions; examines body fluids and feces for presence of protozoa, helminths, and extraintestinal parasites; prepares and sterilizes culture media; innoculates specimens for microscopic examination; isolates, identifies, and studies microorganisms such as streptococcus, staphylococcus, pneumococcus, and common gramnegative organisms. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises small medical laboratory or performs advanced procedures in all phases of blood banking and clinical laboratory testing, including virology, mycology, histology, and toxicology; performs complex laboratory tests, examinations, and analyses under general supervision and provides technical assistance to subordinate personnel; performs cultures, antimicrobial sensitivity determinations, and animal inoculations, including those taken from autopsies; performs clinical parasitology procedures; performs fluorescent antibody agglutinaton, complement fixation, and other seriological tests; processes tissue; performs biochemical analysis of blood, urine, sweat, and spinal fluid for carbohydrates, proteins, hemoglobins, lipids, hormones, minerals, electrolytes, vitamins, enzymes, pigments, and drugs; performs metabolic, liver function, and renal function tests; screens exfoliative cytology specimens; performs complete blood counts and identifies maturation stages in normal and abnormal cells; performs special procedures in staining and preparing bone marrow smears, erythrocyte osmotic fragility studies, lupus erythematosus determinations, detection of coagulation disorders, complex electrophoresis studies, and abnormal cell morphology in anemias and leukemias; analyzes air, food, water, and biological fluids for contaminants; supervises operator maintenance procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises medium-sized medical laboratory; develops and supervises quality control measures and procedures; assigns duties; organizes work schedules; instructs subordinates; inspects laboratory; supervises operational maintenance; determines personnel requirements and prepares and conducts training program; evaluates personnel performance; prepares administrative, technical, and personnel reports; coordinates activities of medical laboratories with other units of medical facility; assists laboratory officer in administrative matters. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises large medical laboratory activities.

Recommendation, Skill Level 10

In the vocational certificate category, 10 semester hours in a certified laboratory assistant program. In the lower-division baccalaureate/associate degree category, 15 semester hours in a medical laboratory technician program (basic procedures in hematology, clinical chemistry and urinalysis, immunohematology and serology, medical bacteriology, and parasitology) (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 24 semester hours in a medical laboratory technician program (hematology, immunology, immunohematology and blood banking; and basic procedures in hematology, clinical chemistry and urinalysis, immunohematology and serology, medical bacteriology, and parasitology) (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 54 semester hours in a medical laboratory technician program (hematology, immunology, immunohematology and blood banking, histopathology, mycology, virology, anatomy and physiology, cytology, parasitology, advanced clinical chemistry, advanced medical bacteriology, and advanced hematology; and basic procedures in hematology, clinical chemistry and urinalysis, immunohematology and serology, medical bacteriology, and parasitology). In the upper-division baccalaureate category, credit in medical technology, chemistry, and biology on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 54 semester hours in a medical laboratory technician program (hematology, immunology, immunohematology and blood banking, histopatholgy, mycology, virology, anatomy and physiology, cytology, parasitology, advanced clinical chemistry, advanced medical bacteriology, advanced hematology; and basic procedures in hematology, clinical chemistry and urinalysis, immunohematology and serology, medical bacteriology, and parasitology), 3 in personnel supervision, and 3 in principles of administration. In the upper-division baccalaureate category, credit in medical technology, chemistry, biology, and medical facility management on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 10. In the lower-division baccalaureate/associate degree category, 54 semester hours in a medical laboratory technician program (hematology, immunology, immunohematology and blood banking, histopatholgy, mycology, virology, anatomy and physiology, cytology, parasitology, advanced clinical chemistry, advanced medical bacteriology, advanced hematology; and basic procedures in hematology, clinical chemistry and urinalysis, immunohematology and serology, medical bacteriology, and parasitology), 3 in personnel supervision, and 3 in principles of administration. In the upper-division baccalaureate category, credit in medical technology, chemistry, biology, and medical facility management on the basis of institutional evaluation (6/77).

MOS-92C-001

Petroleum Laboratory Specialist

92C20
92C40

Exhibit Dates: 10/73–8/76.

Career Management Field: 92 (Petroleum).

Description

Summary: Performs or supervises physical and chemical tests on petroleum products to determine suitability for intended use. *Skill Level 20:* Prepares reagents and glassware; calibrates and standardizes laboratory instruments; obtains petroleum test samples; performs complete specification tests, including determination of tetraethyl lead in gosoline, oxidation stability of petroleum products, and water separation; performs preventive maintenance on technical laboratory equipment; uses adequate fire prevention and safety control measures; prepares layouts and installs equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises petroleum laboratory testing activities and participates in quality surveillance programs; evaluates test results; supervises injection of anti-icing additives and corrosion inhibitors during pipeline transfers; establishes stock levels and requisitions and stores equipment, chemicals, reagents, and reference fuels; determines methods of reclaiming or downgrading contaminated and deteriorated petroleum products; plans work schedules, assigns duties, and trains personnel in laboratory techniques; prepares and reiews administrative and technical reports; supervises from four to ten or more persons.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical laboratory, 2 in basic chemistry, 1 in chemical safety, and 1 in first aid (5/76).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical laboratory, 2 in basic chemistry, 1 in chemical safety, 1 in first aid, 3 for field experience in management, 3 in human relations, and 3 in personnel supervision (5/76).

MOS-92C-002

Petroleum Laboratory Specialist

92C10
92C20
92C30
92C40

Exhibit Dates: 9/76–3/87. (The designator for MOS 92C has been changed to MOS 77L; see exhibit MOS-77L-001.)

Career Management Field: 92 (Petroleum).

Description

Summary: Performs or supervises physical and chemical tests on petroleum products to determine suitability for intended use. *Skill Level 10:* Prepares laboratory equipment for operation; prepares reagents; calibrates instruments; obtains petroleum test samples; performs preventive maintenance on technical laboratory equipment; performs specification tests, including water content, sediment, color, carbon residue, penetration, and oxidation stability; performs quality surveillance tests; uses fire prevention and safety control measures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; employs cooperative fuel research engine to test fuels; prepares laboratory reports; evaluates test results with specification requirements and makes product recommendations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; establishes calibration program; assists in establishment of quality surveillance programs; supervises medium-sized petroleum laboratory activities; plans work schedules and assigns duties; makes inspections of laboratory to insure proper procedures are being followed and work is being done efficiently; supervises inspection of anti-icing additives and corrosion inhibitors during pipeline transfers; supervises placement, setting up and maintenance of laboratory equipment; coordinates petroleum product storage and distribution activities; reviews work reports and evaluates results; maintains inventory control and performs all related supply activity; insures adherence to laboratory fire and safety procedures. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises large petroleum laboratory; assists and plans quality surveillance operations; applies principles of OSHA and EPA regulations; determines methods of reclaiming or downgrading contaminated and deteriorated petroleum products; performs quality surveillance of loading and unloading bulk shipments to insure safety and to prevent contamination; insures proper sampling and laboratory analysis of petroleum products; monitors sampling, testing, use, and blending of additives; makes reports on analysis results, environmental considerations, contracts for petroleum products, transporting, and storage; generally supervises from four to ten persons.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in petroleum products analysis, 1 in chemical safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 3 semester hours in petroleum products analysis, 2 in basic chemistry, 1 in chemical safety, and 1 in first aid (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in petroleum products analysis, 1 in chemical safety, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 2 in basic chemistry, 1 in chemical safety, and 1 in first aid (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 3 in personnel supervision, 2 in basic chemistry, 1 in chemical safety, and 1 in first aid (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in petroleum products analysis, 3 in basic analytical chemistry laboratory, 3 in personnel supervision, 3 in technical writing, 3 in human relations, 2 in basic chemistry, 2 in industrial safety, 1 in chemical safety, and 1 in first aid. In the upper-division baccalaureate category, 3 semester hours for field experience in management (11/77).

MOS-92D-001

CHEMICAL LABORATORY SPECIALIST

92D20

92D40

92D50

Exhibit Dates: 10/73–2/77.

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or performs routine chemical and physical tests in a chemical laboratory. *Skill Level 20:* Balances equations; knows and uses basic gas laws; performs stoichiometric calculations; sets up laboratory equipment for chemical and physical tests; prepares and labels standard solutions and reagents; performs field sampling; performs routine laboratory analysis of chemicals with established formulas and procedures; conducts physical tests to determine durability, strength, and resistance to effects of climate or chemicals of items such as clothing, shoes, paints, plastics, metals, and ceramics; performs quantitative and qualitative analyses, including microanalytical; performs toxicological studies to determine irritability and permeability; determines beta and gamma energies and half-lives of unknown isotopes; keeps records and repair reports; requisitions, receives, stores, and inventories chemical supplies and equipment; understands and applies safety procedures. NOTE: May have progressed to 92D20 from 54A10 (Chemical Operations Assistant). *Skill Level 40:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of chemical laboratory personnel; estimates supply requirements based on current and projected workloads; improvises apparatus and procedures for special purposes; instructs subordinates in laboratory techniques and procedures. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-lever manager involved in planning, coordinating, and supervising the activities of a chemical laboratory; advises company commander on all matters concerning enlisted personnel; assists company commander in planning and implementing unit training; coordinates operation of the unit food service and supply activities.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in applied technical mathematics and 1 in chemical safety. In the lower-division baccalaureate/associate degree category, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in basic instrumental analysis, 2 in applied technical mathematics, 1 in radiochemical laboratory, and 1 in chemical safety (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, 2 in basic instrumental analysis, 2 in applied technical mathematics, 1 in radiochemical laboratory, and 1 in chemical safety (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in personnel management (5/76).

MOS-92D-002

CHEMICAL LABORATORY SPECIALIST

92D10

92D20

92D30

Exhibit Dates: 3/77–6/86. (Effective 6/86, MOS 92D was discontinued.)

Career Management Field: 54 (Chemical).

Description

Summary: Supervises or performs routine chemical, biological, and physical tests. *Skill Level 10:* Balances equations; knows and uses basic gas laws; performs stoichiometric calculations; sets up laboratory equipment for chemical and physical tests; prepares and labels standard solutions and reagents; performs field sampling; performs routine laboratory analysis of chemicals with established formulas and procedures; conducts physical tests to determine durability, strength, and resistance of items such as clothing, shoes, paints, plastics, metals, and ceramics to the effects of climate or chemicals; performs quantitative and qualitative analyses, including micro-analytical; performs toxicological studies to determine irritability and permeability; determines beta and gamma energies and half-lives of unknown isotopes; keeps records and repair reports; requisitions, receives, stores, and inventories chemical supplies and equipment; understands and applies safety procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may serve as Section Chief and supervise up to 12 Chemical Laboratory Specialists; estimates supply requirements based on current and projected workloads; improvises apparatus and procedures for special purposes; instructs subordinates in laboratory techniques and procedures; performs field sampling and identification of chemical agents.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in applied technical mathematics and 1 in chemical safety. In the lower-division baccalaureate/associate degree category, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in chemical laboratory techniques, 2 in applied technical mathematics, 1 in radiochemical laboratory, and 1 in chemical safety (8/78).

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in applied technical mathematics and 1 in chemical safety. In the lower-division baccalaureate/associate degree category, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in chemical laboratory techniques, 2 in applied technical mathematics, 1 in radiochemical laboratory, and 1 in chemical safety (8/78).

Recommendation, Skill Level 30

In the vocational certificate category, 2 semester hours in applied technical mathematics and 1 in chemical safety. In the lower-division baccalaureate/associate degree category, 4 semester hours in introductory chemistry, 4 in analytical chemistry, 4 in applied organic chemistry, 2 in chemical laboratory techniques, 2 in applied technical mathematics, 1 in radiochemical laboratory, and 1 in chemical safety; if served as a section chief, 3 semester hours in human relations, 3 in personnel supervision, and 3 for field experience in management (8/78).

MOS-92E-001

CYTOLOGY SPECIALIST

92E20

92E30

92E40

Exhibit Dates: 9/81-Present.

Career Management Field: 91 (Medical).

Description

Summary: Provides professional support and service to pathologists by supervising or performing diagnostic cytology services and rendering diagnoses. *Skill Level 20:* Logs, processes, and examines variety of cellular samples of tissues and body fluids and renders diagnoses; examines microscope slides containing cells and processes cytological specimens from vagina and cervix, pleural fluid, gastric juice, bronchial washings, ascitic fluid, spinal fluid, prostatic fluid or needle aspiration, breast secretions or aspirates, urine, sputum, buccal smears, other body secretions, excretions, or scraping, bones and soft tissue tumors; identifies variety of cell types from various parts of body and interprets morphologic abnormalities; interprets variations that fall within normal limits and subtle variations in gross and microscopic appearance of cytologic specimens and correlates clinical history with microscopic findings; evaluates and interprets cellular morphologic changes associated with infectious processes including viral, bacterial, fungal, and parasitic diseases; identifies organisms where possible on morphologic basis; interprets endocrinologic states, including both normal variations and abnormal conditions, as shown by cellular reactions; evaluates cellular changes brought about by radiation, drugs, and other forms of therapy; applies knowledge of carcinogenesis to interpretation of premalignant and malignant cellular changes; recognizes and reports wide variety of neoplasms, including both epithelial and mesodermal; differentiates between carcinoma-in-situ and invasive squamous carcinoma; classifies and grades neoplasm according to current classification schemes; determines, where possible, whether neoplasm is primary or metastatic; prepares written diagnostic reports on all cases based on correlation of clinical data with results fo cytologic study; includes interpretation of benign versus malignant, classification or grade of neoplasm, and recommendations for the need of further diagnostic procedures in these reports; assists in, selects, and advises on proper mode of collection of cytologic specimens; recognizes and evaluates departures from expected performance norms and determines and accomplishes necessary actions for correcting procedural deficiencies; examines specimens describing color, viscosity, amount, and specific gravity; determines, selects, and smears portions for the specimen that may have particular pathological significance; prepares cell blocks for transmittal to histology; prepares cytocentrifuge preparations; stains and coverslips specimens; selects and performs quality control procedures; performs routine histology procedures; inspects, cleans, adjusts, and calibrates laboratory equipment; receives, packs, unpacks, inspects, and stores supplies and equipment; maintains statistics and compiles monthly reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to subordinate personnel; supervises small cytology section; inspects laboratory to ensure orderly, clean, and safe environment; organizes work schedules and assigns duties; instructs subordinates in work techniques and procedures; evaluates personnel performances and counsels personnel; prepares evaluation reports; establishes and maintains teaching file of interesting or unusual cases; implements and conducts in-service and performance-oriented training programs; evaluates and initiates new procedures; performs advanced cytologic procedures, including chromosomal analysis by karyotyping; establishes and administers program for correlation of cytologic diagnosis with histological findings; reports findings to pathologist; reviews findings with pathologist; advises and assists in administrative, fiscal, personnel, and supply matters; prepares administrative technical, and personnel reports; requisitions, safeguards, issues, and monitors effective utilization of supplies and equipment; establishes reports control system; prepares and reviews correspondence; supervises maintenance of office files and technical administrative publications library; supervises operational and preventive maintenance program of assigned equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises medium and large cytology laboratories; develops and supervises quality control program; participates in training of resident physicians in pathology; reviews and consolidates reports.

Recommendation, Skill Level 20

In the upper-division baccalaureate category, 4 semester hours in introduction to cytology, 3 in female genital tract (benign), 4 in female genital tract (malignant), 2 in respiratory tract cytology, 2 in gastrointestinal tract cytology, 3 in central nervous system and effusion, 2 in urinary tract cytology, 3 in fine needle aspiration cytology, 2 in research, 18 for clinical experience, and 1 in organizational management (3/90).

Recommendation, Skill Level 30

In the upper-division baccalaureate category, 4 semester hours in introduction to cytology, 3 in female genital tract (benign), 4 in female genital tract (malignant), 2 in respiratory tract cytology, 2 in gastrointestinal tract cytology, 3 in central nervous system and effusion, 2 in urinary tract cytology, 3 in fine needle aspiration cytology, 2 in research, 24 for clinical experience, 3 in organizational managment, and 3 in laboratory administration (3/90).

Recommendation, Skill Level 40

In the upper-division baccalaureate category, 4 semester hours in introduction to cytology, 3 in female genital tract (benign), 4 in female genital tract (malignant), 2 in respiratory tract cytology, 2 in gastrointestinal tract cytology, 3 in central nervous system and effusion, 2 in urinary tract cytology, 3 in fine needle aspiration cytology, 2 in research, 24 for clinical experience, 6 in organizational management, 6 in laboratory administration, and 3 in educational methodology (3/90).

MOS-93B-001

AEROSCOUT OBSERVER

93B10

93B20

93B30

Exhibit Dates: 9/87-Present.

Career Management Field: 93 (Aviation Operations).

Description

Summary: Participates in aerial observation, communication and navigation in the operation of the observation/scout helicopter (OH58A/C). *Skill Level 10:* Develops flight plan; navigates by navigation aids or dead reckoning; locates target and determines coordinates or deviation from known point; uses map graphics to control security of operation by other units; communicates by open as well as secure means; performs as a crew memeber; recognixes hazards and executes evasive action; prepares situation reports relative to communication and navigation; maintains aircrew training manuals; assists pilot with visual and instrument navigation; performs aerial reconnaissance; directs close air support; relays requests for close support; formulates and transmits pilot reports relative to weather; assists in emergency procedures and is able to act as the helicopter pilot in emergencies. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises and provides technical guidance to subordinates; prepares operational maps; indicates location and deployment of enemy and friendly units; reproduces and distributes required reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides information for tactical deployment to the commander; supervises maintenance equipment and ammunition issues; prepares weight and balance computations; collects, evaluates, and coordinates with adjacent units; prepares and updates enemy/friendly situation map; evaluates and counsels subordinates.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in basic helicopter maneuvers and 2 in aerial navigation (4/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic helicopter maneuvers and 4 in aerial navigation (4/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic helicopter maneuvers, 4 in aerial navigation, and 3 in principles of supervision (4/90).

MOS-93C-001

AIR TRAFFIC CONTROL (ATC) OPERATOR

93C10

93C20

93C30

93C40

93C50

Exhibit Dates: 9/88–12/89.

Career Management Field: 93 (Aviation Operation).

Description

Summary: Provides both radar and nonradar air traffice control services for military and civilian air traffic during take-off, flight, and landing under Visual Flight Rules (VFR), Special Visual Flight Rules (SVFR), and Instrument Flight Rules (IFR). *Skill Level 10:* Controls takeoffs, flight, and landing of IFR/VFR/SVFR air traffic; provides flight following, enroute, terminal approach control and ground controlled approach services; operates radar; installs and moves ATC radar and associated equipment; applies FAA and Army air traffic rules and regulations; may hold an FAA radar controller certificate; issues special air traffic control instructions to aviators concerning airfield facilities, emergency landing areas, obstructions, landmarks, flying areas, restrictions, local regulations, weather advisories, and observed hazards that affect the safe operation of aircraft; keeps records and statistics, including tape recordings of voice radio communications, on daily air traffic operations; processes incoming and outgoing flight data information and analyzes air traffic; operates airfield lighting systems, light signals, and nonradar approach control boards; employs aeronautical charts, maps, radio, and ground communications; applies FAA and Army air traffic rules and regulations and may hold an FAA control tower operator certificate; controls vehicular traffic on airport movement area. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor or facility chief; supervises inspection procedures, site operation, and record keeping; prepares shift duty rosters; administers facility training program and on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as ATC tower chief, plans, organizes, and supervises air traffic control tower activities; assigns duties, spot-checks work performed, instructs subordinates in work techniques and procedures, coordinates work activities, and establishes and supervises on-the-job training programs; prepares technical, personnel, and administrative reports; monitors the handling and storage of tape-recorded conversations between air traffic control personnel and aircraft pilots and other ATC facilities; maintains records and statistics on daily air traffic operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises all air traffic control operations in a large facility; assigns personnel; establishes physical layout of work sites and insures an efficient and safe environment; reviews, consolidates, and prepares technical, personnel, and administrative reports covering all phases of air traffic control operations.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operations or aviation management on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in human relations, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in air traffic operations, air traffic control, or aviation management and additional credit on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in human relations, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in air traffic operations, air traffic control, or aviation management, 6 for field experience in management, 3 in introduction to management, 3 in personnel management, and additional credit for an internship in education on the basis of institutional evaluation (6/76).

MOS-93C-002

AIR TRAFFIC CONTROL (ATC) OPERATOR

93C10

93C20

93C30

93C40

93C50

Exhibit Dates: 1/90–Present.

Career Management Field: 93 (Aviation Operation).

Description

Summary: Provides both radar and nonradar air traffice control services for military and civilian air traffic during take-off, flight, and landing under Visual Flight Rules (VFR), Special Visual Flight Rules (SVFR), and Instrument Flight Rules (IFR). *Skill Level 10:* Controls takeoffs, flight, and landing of IFR/VFR/SVFR air traffic; provides flight following, enroute, terminal approach control and ground controlled approach services; operates radar; installs and moves ATC radar and associated equipment; applies FAA and Army air traffic rules and regulations; may hold an FAA radar controller certificate; issues special air traffic control instructions to aviators concerning airfield facilities, emergency landing areas, obstructions, landmarks, flying areas, restrictions, local regulations, weather advisories, and observed hazards that affect the safe operation of aircraft; keeps records and statistics, including tape recordings of voice radio communications, on daily air traffic operations; processes incoming and outgoing flight data information and analyzes air traffic; operates airfield lighting systems, light signals, and nonradar approach control boards; employs aeronautical charts, maps, radio, and ground communications; applies FAA and Army air traffic rules and regulations and holds an FAA control tower operator certificate; controls vehicular traffic on airport movement area. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor or facility chief; supervises inspection procedures, site operation, and record keeping; prepares shift duty rosters; administers facility training program and on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as ATC tower chief, plans, organizes, and supervises air traffic control tower activities; assigns duties, spot-checks work performed, instructs subordinates in work techniques and procedures, coordinates work activities, and establishes and supervises on-the-job training programs; prepares technical, personnel, and administrative reports; monitors the handling and storage of tape-recorded conversations between air traffic control personnel and aircraft pilots and other ATC facilities; maintains records and statistics on daily air traffic operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises all air traffic control operations in a large facility; assigns personnel; establishes physical layout of work sites and insures an efficient and safe environment; reviews, consolidates, and prepares technical, personnel, and administrative reports covering all phases of air traffic control operations.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, and 3 in federal regulations (4/90).

Recommendation, Skill Level 20

and 20 In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, and 3 in federal regulations (4/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal regulations, and 3 in principles of supervision (4/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in organizational management, 3 for field experience in management, and 6 in air traffic operations (4/90).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in organizational management, 6 for field experience in management, and 6 in air traffic operations (4/90).

MOS-93D-001

AIR TRAFFIC CONTROL SYSTEMS,
SUBSYSTEMS AND EQUIPMENT
REPAIRER

93D10
93D20
93D30
93D40
93D50

Exhibit Dates: 9/85–Present.

Career Management Field: 93 (Aviation Operations).

Description

Summary: Installs and performs maintenance on air traffic control communications equipment, navigational aids and landing systems. *Skill Level 10:* Performs installation of air traffic control and navigation aids; uses troubleshooting techniques to locate equipment malfunctions; tests, aligns, and adjusts equipment; maintains maintenance records, spare parts and tools; makes checks and admustments to associated avionic components; updates and uses technical manuals and trouble analysis charts; replaces faulty components and individual parts. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to skill level 10 personnel; accomplishes comparison checks and modifications to equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance and instruction to lower skill level personnel; assists in the establishment of production and quality control procedures; inspects work areas and maintenance equipment; assists in the diagnosis of complex malfunctions anad component modifications. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises maintenance procedures and practices; conducts training programs for unit personnel; interprets and explains complex specifications, circuits, schematic and wiring diagrams; diagnoses and determines the causes of unusual equipment malfunctions; prepares technical reports; coordinates maintenance certification programs. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and evaluates maintenance and installation procedures and practices; assists in logistical appraisal of air traffic control systems; develops policies and procedures for unit management and determines the effectiveness of unit maintenance performance; supervises maintenance certification programs.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced electronic laboratory and 2 in navigation/communications systems (7/87).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory, 3 in navigation/communications sytems, and 3 in instrument landing systems (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory, 3 in navigation/communications systems, and 3 in instrument landing systems (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory, 3 in navigation/communications systems, 3 in instrument landing systems, 3 in personnel supervision, and 2 in records administration. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory, 3 in navigation/communications systems, 3 in instrument landing systems, 3 in personnel supervision, and 3 in records administration. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 for field experience in management, and 3 in applied psychology (7/87).

MOS-93E-001

METEOROLOGICAL OBSERVER

93E20
93E30
93E40
93E50

Exhibit Dates: 10/73–2/78.

Career Management Field: 00 (Exceptional Management Specialties), subfield 000 (Special Assignment).

Description

Summary: Supervises or performs meteorological observations and weather forecasts. *Skill Level 20:* Performs routine and special weather observations, employing basic meteorological principles; takes upper air observations by pilot balloon and radiosonde systems; computes meteorological ballistic data; encodes meteorological data for transmission; interprets weather data and plots surface and upper air charts; performs preventive maintenance on standard and special meteorological equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides weather forcasts from surface and upper air meteorological charts; performs climatological analyses for use in research and development activities; prepares and issues routine and severe weather warnings. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises the making and reporting of meteorological observations, forecasts, and special warnings; prepares, administers, and monitors meteorological team operations; supervises the preparation of routine and special reports; conducts on-the-job training; supervises 11 or more persons. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal noncommissioned officer of meteorological teams; at the division level, coordinates activities and use of meteorological teams; gathers and analyzes material for the improvement of meteorological training; supervises 29 or more persons.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observing, 3 in mathematics, and 2 in electrical and electronics laboratory (11/75).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observing, 3 in mathematics, 3 in weather station operation, 3 in climatology, and 2 in electrical and electronics laboratory (11/75).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observing, 3 in mathematics, 3 in weather station operation, 3 in climatology, 3 in human relations, 3 for field experience in management, and 2 in electrical and electronics laboratory (11/75).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observing, 3 in mathematics, 3 in weather station operation, 3 in climatology, 3 in human relations, 3 for field experience in management, 3 in introduction to management, and 2 in electrical or electronics laboratory. In the upper-division baccalaureate category, 3 semester hours in human relations and 3 for field experience in management (11/75).

MOS-93E-002

METEOROLOGICAL OBSERVER

93E10
93E20
93E30
93E40
93E50

Exhibit Dates: 3/78–2/87. (Effective 3/87, MOS 93E was discontinued.)

Career Management Field: 64 (Transportation), subfield 644 (Air Operations).

Description

Summary: Supervises or performs meteorological observations and weather forecasts. *Skill Level 10:* Performs routine and special weather observations, employing basic meteorological principles; installs primary instruments/equipment used for measuring and recording weather conditions; calibrates and orients gound-mounted instruments; assembles, inspects and activates airborne instruments; measures surface effects, including pressure, temperature, humidity, wind speed and direction; records data sent from radiosonde; reads and records elevation and azimuth data from theodolite in tracking balloons for upper-air conditions; performs calibration checks; erects and orients hemispherical radiometer and net exchange radiometer; computes meteorological data from raw data [illegible] both surface effects and effects aloft; evaluates recorded and computed data; compares barometer values, using standard chart or graph values, to assembled current data; constructs profiles and curves needed for analysis and prediction; converts and encodes meteorological data into standard message format for transmission to receiving agencies; performs calibration checks and maintenance on all standard and special meteorological equipment; performs preventive maintenance on vehicles. *Skill Level*

20: Able to perform the duties required for Skill Level 10; performs meteorolgoical observations and provides technical guidance to lower-skill-level. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises and provides technical guidance to lower-skill-level personnel; trains team/section members, provides work schedules, selects station sites, determines coordinates and altitude of site, and selects locations for instruments and equipment; prepares meteorological observation plans; coordinates activities with other services and governmental agencies; coordinates support to Army research and development activities; provides maintenance supervision and administration; provides general management and administration of the station, including records, reports, counseling, evaluation of personnel, and preparation of efficiency reports; conducts inspections and advises commander on personnel matters, including promotions, awards and training; serves as weather forecaster, using data accumulated by meteorological observers; instructs and insures safety, fire prevention and first aid programs in section. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 11 or more personnel in meteorological unit or station, including 2 or more forecasters; ensures the efficient, timely issuance of collected data and forecasts. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises functions at larger meteorological units; functions in units of 30 or more personnel with 4 or more forecasters; performs administrative and supervisory duties; serving as principal noncommission officer, exercises overall operating responsibility for meteorological activities in unit.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observation, 3 in technical mathematics, 3 in weather station operation, and 2 in electrical/electronics laboratory (6/79).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observation, 3 in technical mathematics, 3 in weather station operation, and 2 in electrical/electronics laboratory (6/79).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observation, 3 in technical mathematics, 3 in weather station operation, 2 in electrical/electronics laboratory, 3 in climatology, 2 in human relations, 3 in personnel supervision, and 3 in office management (6/79).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observation, 3 in technical mathematics, 3 in weather station operation, 2 in electrical/electronics laboratory, 3 in climatology, 3 in human relations, 3 in personnel supervision, 3 in office management, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 for field experience in management (6/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in meteorological instruments, 3 in weather observation, 3 in technical mathematics, 3 in weather station operation, 2 in electrical/electronics laboratory, 3 in climatology, 3 in human relations, 3 in personnel supervision, 3 in office management, and 6 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in management problems and 6 for field experience in management (6/79).

MOS-93F-001

BALLISTIC METEOROLOGY CREWMAN

93F20

93F40

Exhibit Dates: 10/73–8/76.

Career Management Field: 17 (Combat Surveillance and Target Acquisition), subfield 172 (Target Acquisition).

Description

Summary: Supervises or participates in the operation of a meteorology observation station to obtain and report atmospheric data for artillery target acquisition. *Skill Level 20:* Operates and calibrates meteorological equipment; assembles, tests, and calibrates radiosonde transmitter and recorder; uses basic principles of meteorology in the evaluation and conversion of radiosonde data into data on temperature, humidity, atmospheric pressure, and wind speed and direction; performs operator maintenance on radio direction finder and other meteorological equipment; records data on charts. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises approximately 12 persons in the operation of the meterological observation station and the use of both ground and airborne equipment; using a basic knowledge of meteorology, assures proper calibration of electronic equipment and computation of recorded data; supervises routine maintenance of meteorological and communication equipment; establishes and maintains liaison with other weather installations both within and outside the Army.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in meteorology, 2 in general science, 2 in instrumentation and calibration, and 1 in technical writing. In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 2 in general science, 2 in instrumentation and calibration, 2 in map reading, 1 in technical writing, and 1 in electronics (3/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 2 in general science, 2 in instrumentation and calibration, 3 in personnel supervision, 1 in technical writing, 3 in human relations, 2 in map reading, 3 for field experience in management, and 2 in electronics (3/76).

MOS-93F-002

FIELD ARTILLERY METEOROLOGICAL
CREW MEMBER
(FIELD ARTILLERY METEOROLOGICAL
CREWMAN)

93F10

93F20

93F30

93F40

Exhibit Dates: 9/76–5/89.

Career Management Field: 13 (Field Artillery), subfield 132 (Field Artillery Target Acquisition Operations).

Description

Summary: Supervises or participates in operation of field artillery meteorological observation station. *Skill Level 10:* Operates meteorological equipment in meteorological observation station; participates in assembly and emplacement of meteorological equipment and appropriate generators; operates recorders; plots pressure and wind data; assembles and disassembles balloon inflation and launching equipment; inflates and releases balloons; assembles, tests, and adjusts radiosonde transmitter; evaluates and converts raw temperature, density, and wind data; performs operator maintenance on equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as team chief during periods of extended operation; checks data and records; examines samples of data for quality control. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of meteorological section or station; selects station site; supervises emplacement, installation, calibration, maintenance, and operation of equipment; supervises preparation and distribution of ballistic meteorological messages; assigns, instructs, and supervises crewmen; reviews, consolidates, and prepares technical, personnel, and administrative reports.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, and 1 in map reading (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 1 semester hour in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 1 semester hour in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, and 1 in map reading (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 1 semester hour in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, 1 in map reading, and 2 in personnel supervision (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, 2 semester hours in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 2 in general science, 2 in instrumentation and calibration, 1 in technical writing, 1 in map reading, 4 in personnel supervision, 3 in human relations, and 3 for field experience in management (4/77).

MOS-93F-003

FIELD ARTILLERY METEOROLOGICAL CREWMEMBER

93F10

93F20

93F30

93F40

Exhibit Dates: 6/89–Present.

Career Management Field: 13 (Field Artillery).

Description

Summary: Supervises or participates in operation of field artillery meteorological observation station. *Skill Level 10:* Operates meteorological equipment in meteorological observation station; participates in assembly and emplacement of meteorological equipment and associated generators; operates recorders; tabulates pressure and wind data; assembles, operates, and disassembles balloon inflation and launching equipment; installs, tests, and adjusts radio weather instrument (Rawin) sets and radiosonde transmitters; operates computer that converts raw temperature, pressure, and resultant wind velocities to digital data that presents temperature, density, and wind profiles; performs operator maintenance on equipment; has experience in use of rifle, grenade launcher, and machine gun operation; installs and operates digital and voice radio communication equipment; drives vehicles under various adverse conditions. *Skill Level 20:* Able to perform the duties required for Skill Level 10; employs applicable navigation aids to derive correct location; uses proper maps to best advantage; performs operational checks on Rawin set; is proficient in basic combat techniques; instructs Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as team chief during periods of extended operation; originates reports and checks data for quality control; makes operational checks on equipment; operates communication equipment; encodes and decodes meteorological data; serves as instructor and counselor to subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operation of meteorological section or station; selects station sites; supervises emplacement, calibration, maintenance, and operation of equipment; supervises preparation and distribution of ballistic meteorological messages; assigns, instructs, and supervises crewmen; reviews, consolidates, and prepares technical, personnel, and administrative reports; counsels subordinate personnel.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 2 semester hours in general meteorology and 3 in meteorological instrumentation (6/89).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in general meteorology, 3 in meteorological instrumentation, 1 in technical writing, 1 in map reading, and 2 in meteorological observation (6/89).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in general meteorology, 3 in meteorological instrumentation, 3 in technical writing, 1 in map reading, 2 in meteorological observation, and 3 in principles of supervision (6/89).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in personnel management (6/89).

MOS-93H-001

AIR TRAFFIC CONTROL (ATC) TOWER OPERATOR

93H20

93H40

Exhibit Dates: 10/73–2/76.

Career Management Field: 65 (Transporation), subfield 655 (Air Operations).

Description

Summary: Provides control tower and non-radar approach control services for military and civilian air traffic. *Skill Level 20:* Holds an FAA control tower operator certificate; controls air traffic operating under visual flight rules in the vicinity of the control tower; coordinates movements of aircraft operating under instrument flight rules with civil air traffic facilities; issues instructions to aircraft in accordance with published FAA and Army procedures and regulations; operates radio equipment, light signals, airport lighting systems, interphone equipment; keeps records, statistics, and recordings of radio communications; uses the operational features of various electronic navigation facilities and systems; informs aircraft personnel of hazardous conditions; prepares notices to airmen (NOTAMS). *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises Skill Level 20 personnel; establishes training programs and conducts on-the-job training in air traffic control operations; administers safety programs; supervises the preparation of interfacility agreements; prepares recommendations for changes to air traffic control regulations; supervises inspections of the facility's navigational aids and radio communications equipment.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, and 3 in federal aviation regulations. In the upper-division baccalaureate category, credit on the basis of institutional evaluation (2/75).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 4 in personnel management. In the upper-division baccalaureate category, 6 semester hours in air traffic operations or air traffic control or aviation management and additional credit on the basis of institutional evaluation (2/75).

MOS-93H-002

AIR TRAFFIC CONTROL (ATC) TOWER OPERATOR

93H10

93H20

93H30

93H40

Exhibit Dates: 3/76–9/88. (Effective 9/88, MOS 93H was discontinued and its duties were incorporated into MOS 93C, Air Traffic Control (ATC) Operator.)

Career Management Field: 64 (Transportation), subfield 655 (Air Operations).

Description

Summary: Provides control tower and non-radar approach control services for military and civilian air traffic. *Skill Level 10:* Operates air traffic control tower and controls military and civilian aircraft during take-off, flight, and landing under Visual Flight Rules (VFR), Special Visual Flight Rules (SVFR), and Instrument Flight Rules (IFR); issues special instructions to aviators concerning airfield facilities, emergency landing areas, obstructions, landmarks, flying areas, restrictions, local regulations, weather advisories, and observed hazards that affect the safe operation of aircraft; keeps records and statistics, including tape recordings of voice radio communications, on daily air traffic operations; processes incoming and outgoing flight data information and analyzes air traffic; operates airfield lighting systems, light signals, and non-radar approach control boards; employs aeronautical charts, maps, radio, and ground communications; applies FAA and Army air traffic rules and regulations and may hold an FAA control tower operator certificate; controls vehicular traffic on airport movement area. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor or facility chief; supervises inspection procedures, site operation, and record keeping; prepares shift duty rosters; administers facility training program and on-the-job training. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as ATC tower chief, plans, organizes, and supervises air traffic control tower activities; assigns duties, spot-checks work performed, instructs subordinates in work techniques and procedures, coordinates work activities, and establishes and supervises on-the-job training programs; prepares technical, personnel, and administrative reports; may be a designated FAA control tower operator examiner.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operations or aviation management on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in human relations, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in air traffic operations, air traffic control, or aviation management and additional credit on the basis of institutional evaluation (6/76).

MOS-93J-001

ATC (AIR TRAFFIC CONTROL) RADAR CONTROLLER

93J10

93J20

93J30

93J40

93J50

Exhibit Dates: 3/76–8/88. (Effective 9/88, MOS 93J was discontinued and its duties were incorporated into MOS 93C, Air Traffic Control Operator.)

Career Management Field: 64 (Transportation), subfield 644 (Air Operations).

Description

Summary: Provides air traffic control services, employing radar, during aircraft departure, flight, and approach. *Skill Level 10:* Provides terminal and approach control services for aircraft during take-off, flight, and landing; operates radar, issues special air traffic control instructions, keeps records, processes and analyzes air traffic data, and installs and moves ATC radar and associated equipment; applies FAA and Army air traffic rules and regulations; may hold an FAA radar controller certificate. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as shift supervisor or facility chief; supervises record keeping and radar scope alignment procedures; administers facility training programs; prepares duty rosters; prepares recommended changes to air traffic control regulations. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as air traffic control chief at a terminal and approach control facility; inspects facilities, prepares operating standards, evaluates operations, and recommends changes; monitors the handling and storage of tape-recorded conversations between air traffic control personnel and aircraft pilots and other ATC facilities; arranges for training and certification of subordinate personnel and instructs personnel in ATC procedures and FAA regulations; maintains records and statistics on daily air traffic operations. *Skill Level 50:* Able to perform the duties required for Skill Level 40 of MOS 93J and MOS 93H (Air Traffic Control Tower Operator) and supervises these personnel; supervises all air traffic control operations in a large facility; assigns personnel; establishes physical layout of work sites and insures an efficient and safe environment; reviews, consolidates, and prepares technical, personnel, and administrative reports covering all phases of air traffic control operations.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operations or aviation management on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, credit in air traffic operation or aviation management on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in air traffic operations or aviation management, and additional credit on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in air traffic operations or aviation management, 6 for field experience in management, 3 in introduction to management, 3 in personnel management, and additional credit for an internship in education of the basis of institutional evaluation (6/76).

MOS-93P-001

FLIGHT OPERATIONS COORDINATOR

93P10

93P20

93P30

93P40

93P50

Exhibit Dates: 3/84–12/89.

Career Management Field: 93 (Aviation Operation).

Description

Summary: Schedules, clears, and dispatches aircraft. *Skill Level 10:* Processes cross-country and local flight clearances; coordinates flight plans with other agencies, such as the FAA; maintains flight information; prepares, types, and maintains records and reports on flight operations and activities; maintains current files on flying regulations and navigational aid information; arranges ground services for transient aircraft; interprets and posts teletype weather reports; understands terminology used in air navigation and is aware of air traffic control advisory procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises a small flight operations activity consisting of 5 to 12 subordinate personnel; schedules aircraft missions, dispatches aircraft, and performs associated administrative duties; plans and schedules work assignments of subordinate flight operations personnel; checks work of subordinates and instructs them in proper work techniques and procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports; assists in preparing pre-accident plans. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized flight operations activity consisting of 13 or more subordinate personnel; provides technical guidance to subordinate personnel; supervises the preparation of the situation map; prepares operations letters; assists administratively in aircraft accident investigations; assists in the preparation of letters of agreement, operations estimates, and operations orders. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large flight operations activity. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft dispatching, 3 in aircraft operations management, 3 in federal aviation regulations, and 2 in office practices (6/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft dispatching, 3 in aircraft operations management, 3 in federal aviation regulations, and 2 in office practices, and credit in personnel supervision on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in aviation management or air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in organization and management, and 2 in office practices. In the upper-division baccalaureate category, credit in aviation management or air traffic operations on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 40

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in aviation management or air traffic operations and additional credit on the basis of institutional evaluation (6/76).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft dispatching, 6 in aircraft operations management, 3 in federal aviation regulations, 6 in personnel supervision, 3 in organization and management, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in aviation management or air traffic operations, 6 for field experience in management, 3 in introduction to management, and 3 in personnel management, and additional credit for an internship in education on the basis of institutional evaluation (6/76).

MOS-93P-002

AVIATION OPERATIONS SPECIALIST

93P10
93P20
93P30
93P40
93P50

Exhibit Dates: 1/90–Present.

Career Management Field: 93 (Aviation Operation).

Description

Summary: Schedules, clears, and dispatches aircraft. *Skill Level 10:* Processes cross-country and local flight plans with other agencies, such as the FAA; maintains flight information; prepares, types, and maintains records and reports on flight operations and activities; maintains current files on flying regulations and navigational aid information; arranges ground services for transient aircraft; interprets and posts teletype weather reports understands terminology used in air navigation and is aware of air traffic control advisory procedures. *Skill Level 20:* Able to perform the duties required for Skill Level 10; supervises a small flight operations activity consisting of 5 to 12 subordinate personnel; schedules aircraft missions, dispatches aircraft, and performs assiciated administrative duties; plans and schedules work assignments of subordinate flight operations personnel; checks work of subordinates and instructs them in proper work techniques and procedures; reviews, consolidates, and prepares technical, personnel, and administrative reports; assists in preparing pre-accident plans. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises a medium-sized flight operations activity consisting of 13 or more subordinate personnel; provides technical guidance to subordinate personnel; supervises the preparation of the situation map; prepares operations letters; assists administratively in aircraft accident investigations; assists in the preparation of letters of agreement, operations estimates, and operations orders. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises a large flight operations activity; plans, coordinates, and supervises activities pertaining to organization, training, combat operations and combat intelligence; coordinates implementation of operations, training programs, and communications activities. NOTE: May have progressed to 93P40 from 93P30 or 93B30, Aeroscout Observer. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as a mid-level manager; supervises the processing of operations and intelligence information at the bridage level.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to aircraft dispatching, 3 in aircraft operations management, 3 in federal aviation regulations, and 2 in office procedures (4/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to aircraft dispatching, 3 in aircraft operations management, 3 in federal aviation regulations, 2 in office procedures, and 3 in principles of supervision. In the upper-division baccalaureate category, 3 semester hours in aviation management (4/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to aircraft dispatchig, 3 in aircraft operations management, 3 in federal aviation regulations, 2 in office procedures, 3 in principles of suprevision, 3 in airfield management, and 3 in advanced aircraft dispatching. In the upper-division baccalaureate category, 3 semester hours in aviation management and 2 in organizational management (4/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in aviation management, 3 in organizational management, 3 in air traffic operations, and 3 for field experience in management (4/90).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in aviation management, 3 in organizational management, 3 in air traffic operations, and 6 for field experience in management (4/90).

MOS-94B-001

FOOD SERVICE SPECIALIST

94B20
94B40

Exhibit Dates: 10/73–9/74.

Career Management Field: 94 (Food Service).

Description

Summary: Procures, prepares, and cooks food; identifies and uses appropriate equipment. *Skill Level 20:* Prepares meats, fruits, vegetables, salads, desserts, beverages, and dairy products for serving; performs small-scale baking and meat cutting; operates and performs preventive maintenance on kitchen equipment; has knowledge of hygiene and sanitation procedures. Alternative job paths are available with assignment either as cook leading to dining facility manager or meatcutter leading to chief meatcutter. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the scheduling of personnel and facilities and the preparation of foods; inspects food prior to serving; supervises operation and maintenance of kitchen equipment; supervises procurement and storage of food; applies accounting procedures; maintains inventories, records, and files; completes appropriate reports. NOTE: May have progressed to 94B40 from 94B20 or 00H20 (Enlisted Aide).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation and 3 in kitchen operations; if the duty assignment was cook, 3 semester hours in food service operation; if the duty assignment was meatcutter, 3 semester hours in meatcutting (1/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 2 in bookkeeping; if the duty assignment was cook, 3 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 6 for a food service internship, 3 in kitchen operations, 3 in menu planning, 3 in personnel supervision, and 3 in human relations; if the duty assignment was cook, 3 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the upper-division baccalaureate category, 6 semester hours for a food service internship (5/76).

MOS-94B-002

FOOD SERVICE SPECIALIST

94B10
94B20
94B40

Exhibit Dates: 10/74–8/76.

Career Management Field: 94 (Food Service).

Description

Summary: Procures, prepares, and cooks food; identifies and uses appropriate equipment. *Skill Level 10:* Either has undergone on-the-job training program in food preparation and serving techniques or has recently completed a program of instruction in the basic principles of food preparation and service; under the supervision of an experienced cook, weights, blends, mixes, and cooks food in accordance with prescribed procedures; washes, peals, cuts, and dices fruits, vegetables, meats, salads, and dairy products; prepares simple soups, sauces, and gravies; under the supervision of an experienced baker, prepares simple baked items, including breadstuffs and desserts; assists in receiving and storing food and supplies; operates and performs preventive maintenance on food service equipment; portions and serves food on serving line; applies required sanitation procedures in handling, storing, preparing, and serving food. *Skill Level 20:* Able to perform the duties required for Skill Level 10; prepares meats, fruits, vegetables, salads, desserts, beverages, and dairy products for serving; performs small-scale baking and meat cutting; operates and performs preventive maintenance on kitchen equipment; has knowledge of hygiene and sanitation procedures. Alternative job paths are available with assignment either as cook leading to dining facility manager or meatcutter leading to chief meatcutter. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the scheduling of personnel and facilities and the preparation of foods; inspects food prior to serving; supervises operation and maintenance of kitchen equipment; supervises procurement and storage of food; applies accounting procedures; maintains inventories, records, and files; completes appropriate reports. NOTE: May have progressed to 94B40 from 94B20 or 00H20 (Enlisted Aide).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 1 in kitchen operations, and 1 in food service operations (5/76).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation and 3 in kitchen operations; if the duty assignment was cook, 3 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting (1/75).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 2 in bookkeeping; if the duty assignment was cook, 3 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 6 for a food service internship, 3 in kitchen operations, 3 in menu planning, 3 in personnel supervision, and 3 in human relations; if the duty assignment was cook, 3 semester hours in food service operation; if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the upper-division baccalaureate category, 6 semester hours for a food service internship (5/76).

MOS-94B-003

FOOD SERVICE SPECIALIST

94B10
94B20
94B30
94B40
94B50

Exhibit Dates: 9/76–Present.

Career Management Field: 94 (Food Service).

Description

Summary: Procures, prepares, and cooks food; identifies and uses appropriate equipment. *Skill Level 10:* Either has undergone on-the-job training program in food preparation and serving techniques or has recently completed a program of instruction in the basic principles of food preparation and service; under the supervision of an experienced cook, weighs, blends, mixes, and cooks food in accordance with prescribed procedures; washes, peels, cuts, and dices fruits, vegetables, meats, salads, and dairy products; prepares simple soups, sauces, and gravies; under the supervision of an experienced baker, prepares simple baked items, including breadstuffs and desserts; assists in receiving and storing food and supplies; operates and performs preventive maintenance on food service equipment; portions and serves food on serving lines; applies required sanitation procedures in handling, storing, preparing, and serving food. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides guidance to Skill Level 10 personnel; prepares meats, fruits, vegetables, salads, desserts, beverages, and dairy products for serving; performs small-scale baking and meat cutting; operates and performs preventive maintenance on kitchen equipment; has knowledge of hygiene and sanitation procedures. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises, as first cook, the scheduling of personnel and facilities and the preparation of foods; inspects food prior to serving; supervises procurement and storage of foods; alternative job paths are available with assignment either as cook (leading to dining facility manager) or as meatcutter (leading to chief meatcutter). *Skill Level 40:* Able to perform the duties required for Skill Level 30; develops work sheet according to master menu; maintains records and files; applies accounting procedures to operate within budget; prepares reports; serves as dining facilities manager. *Skill Level 50:* Able to perform the duties required for Skill Level 40; has management responsibilities at the staff level, including developing plans and conducting evaluations; develops, coordinates, implements, and advises on food programs; evaluates operation of dining and serving areas, kitchens, field bakeries, and food service training facilities, and maintenance of equipment; is a member of the menu board; assists in menu development; may be in complete charge of food service operations during partial unit deployment or at a large facility with multiple food service outlets; prepares reports and studies on food service activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 1 in kitchen operations, and 1 in food service operations (11/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 1 in food service operations (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 1 in food service operations; if duty assignment was cook, 2 semester hours in food service operations; and if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in personnel supervision, 3 for field experience in food service, and 1 in food service operations; if the duty assignment was cook, 2 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in personnel supervision, 3 in human relations, 3 for field experience in food service, and 1 in food service operations; IF the duty assignment was cook, 2 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in personnel supervision, 3 in human relations, 3 in report writing, 3 in communication skills (oral), 3 for field experience in food service, and 1 in food service operations; if the duty assignment was cook, 2 semester hours in food service operations; if the duty assignment was meatcutter, 3 semester hours in meat cutting. In the upper-division baccalaureate category, 6 semester hours for a food service internship (11/77).

MOS-94D-001

BAKER

94D20
94D40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 94D was discontinued and its functions were incorporated into MOS 94B, Food Service Specialist.)

Career Management Field: 94 (Food Service).

Description

Summary: Prepares and bakes breads and pastries, using and maintaining specialized bakery equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 of MOS 94B (Food Service Specialist); identifies, measures, and incorporates ingredients into breads or pastry doughs; controls times and temperatures of mixing and fermentation periods; divides, molds, and shapes breads and pastry products; prepares fillings and icings and fills and decorates baked pastries; slices and wraps baked bread; operates and performs preventive maintenance on all bakery equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the operating shifts in the preparation of breads and pastries; maintains the daily ingredient consumption and production schedules; instructs lower-skill-level personnel in acceptable baking techniques and in the proper operation of equipment; adjusts baking formulas, production processes and procedures to changing conditions; inspects personnel, supply and baking areas, and equipment for cleanliness and proper operation; may participate in site selection of field bakeries.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in baking and bakery operations, 3 in quantity food preparation, 1 in kitchen operations, and 2 in food service operations (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in baking and bakery operations, 3 in quality food preparation, 1 in kitchen operations, 2 in food service operations, and 2 in bookkeeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in baking and bakery operations, 3 in quantity food preparation, 3 for an internship in baking, 3 in personnel supervision, 3 in human relations, 1 in records administration, 1 in kitchen operations, and 2 in food service operations. In the upper-division baccalaureate category, 3 semester hours for an internship in bakery operations (5/76).

MOS-94F-001

HOSPITAL FOOD SERVICE SPECIALIST

94F20

94F40

94F50

Exhibit Dates: 10/73–8/76.

Career Management Field: 94 (Food Service).

Description

Summary: Assists in the planning and implementation of the food service program in hospitals; prepares, cooks, and serves food to patients and staff. *Skill Level 20:* Able to provide the duties required for Skill Level 10 of MOS 94B (Food Service Specialist); measures, weighs, blends, and mixes various foodstuffs; roasts, fries, broils, and stews meats; prepares fruits, vegetables, salads, desserts, beverages, and dairy products; bakes yeast breads, quick breads, pies, cakes, and cookies; sets up and serves regular and modified diets for patients; assembles and checks patient trays; instructs patients on modified diets to aid them in food selection; maintains records pertaining to patient food preferences and diet changes and adjusts diet menus; prepares food in accordance with instructions from dietition or physician; performs preventive maintenance on kitchen equipment. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises food production or diet therapy activities in a hospital; plans and prepares hospital menus for regular and modified diets and estimates the number of persons to be fed; schedules and supervises food preparation; inspect food preparation for conformance with dietetic requirements, and quality and quantity standards; inspects prepared food for palatability and appearance and to determine conformance with menus and recipes; inspects hospital food service facilities and initiates appropriate corrective action to remove deficiencies; supervises procurement, storage, distribution, accounting for, and serving of food in a hospital food service; conducts classroom and on-the-job training for subordinate personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; directs the operation of a hospital food service; implements preventive medical and environmental hygiene practices; advises superiors on food service equipment layout and space design; prepares budgets, reports, accounting reports, and audits for the hospital food service; supervises the preparation of purchase requisitions for hospital food service supplies and equipment.

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 3 in food service operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in food service operations, 2 in nutrition, 2 in diet therapy, and 1 in menu planning (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in food service operations, and 2 in bookkeeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 6 for a food service internship, 3 in menu planning, 3 in personnel supervision, 3 in human relations, 3 in kitchen operations, 3 in food service operation, 2 in nutrition, and 2 in diet therapy. In the upper-division baccalaureate category, 6 semester hours for a food service internship (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in food service operations, 2 in bookkeeping, and 1 in hygiene and sanitation. In the lower-division baccalaureate/associate degree category, 6 semester hours for a food service internship, 6 in quantity food preparation, 3 in personnel supervision, 3 in menu planning, 3 in human relations, 3 in kitchen operations, 3 in food service operations, 2 in nutrition, 2 in diet therapy, 2 in accounting, 2 in purchasing, and 1 in hygiene and sanitation. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in food service equipment layout design, 3 in records administration, 3 in industrial arts education (food service), and 1 in diet therapy (5/76).

MOS-94F-002

HOSPITAL FOOD SERVICE SPECIALIST

94F10

94F20

94F30

94F40

94F50

Exhibit Dates: 9/76–Present.

Career Management Field: 94 (Food Service).

Description

Summary: Assists in the planning and implementation of the food service program in hospitals; prepares, cooks, and serves food to patients and staff. *Skill Level 10:* Measures, weighs, blends, and mixes various foodstuffs; roasts, fries, broils, boils, and stews meats; prepares fruits, vegetables, salads, desserts, beverages, and dairy products; bakes yeast breads, quick breads, pies, cakes, and cookies; sets up and serves regular and modified diets for patients; assembles and checks patient trays; instructs patients on modified diets to aid them in food selection; maintains records as to patient food preferences and diet changes and adjusts diet menus; prepares food in accordance with instructions from dietition or physician; performs preventive maintenance on kitchen equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10 and provides technical guidance to Skill Level 10 personnel; ensures adherence to procedures, temperatures, and time periods in food preparation; writes and adjusts individual standard diet menus; participates in planning of food service activities; conducts food acceptability studies; applies storage standards, completes food production forms and records; monitors tasks in support of patient tray service operation, including preparation, assembly, and delivery to wards. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises food production or diet therapy activities in a hospital; plans and prepares hospital menus for regular and modified diets and estimates the number of persons to be fed; schedules and supervises food preparation for conformance with dietetic requirements and for quality and quantity standards; inspects prepared food for palatability and appearance and to determine conformance with menus and recipes; inspects hospital food service facilities and initiates appropiate corrective action to deficiencies; supervises procurement, storage, distribution, accounting for, and serving of food in a hospital food service; conducts classroom and on-the-job training for subordinate personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 30; performs supervisory duties; develops, coordinates, implements, and advises on food programs; evaluates and designs improvements in food programs and training programs; assists in preparation of hospital food service budget. *Skill Level 50:* Able to perform the duties required for Skill Level 40; prepares budget and determines financial requirements; instructs military and civilian personnel; utilizes office management techniques; advises superiors on food service equipment layout and space design.

Recommendation, Skill Level 10

In the vocational certificate category, 6 semester hours in quantity food preparation. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in nutrition, 2 in diet therapy, and 1 in food service administration and sanitation (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 6 semester hours in quantity food preparation and 3 in kitchen operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in nutrition, 3 in kitchen operations, 2 in diet therapy, and 1 in food service administration and sanitation (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 6 semester hours in quantity food preparation and 3 in kitchen operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in nutrition, 3 in kitchen operations, 2 in diet therapy, 2 in personnel supervision, and 1 in food service administration and sanitation, and additional credit in menu planning, food service operation, and for a food service internship on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 2 in bookkeeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in nutrition, 3 in kitchen operations, 3 in personnel supervision, 3 in human relations, 2 in diet therapy, and 1 in food service administration and sanitation, and additional credit in menu planning, in food service operation, and for a food service internship on the basis of institutional evaluation. In the upper-division baccalaureate category, credit for a food service internship on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 3 in nutrition, 3 in kitchen operations, 3 in personnel supervision, 3 in human relations, 2 in diet therapy, 1 in accounting, and 1 in food service administration and sanitation, and additional credit in menu planning, in food service operations, and for a food service internship on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in food service equipment layout design, and additional credit in introduction to management, industrial arts (food service), and diet therapy on the basis of institutional evaluation (6/77).

MOS-94Z-001

Food Service Supervisor

94Z50

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 94A was discontinued and its functions were incorporated into MOS 94B, Food Service Specialist.)

Career Management Field: 94 (Food Service).

Description

Skill Level 50: Able to perform the duties required for Skill Level 40 of MOS 94B (Food Service Specialist) or 94D (Baker); supervises food preparation and food service activities; supervises procurement, storage, distribution, receipt, preparation, and serving of food; evaluates and designs improvements to the food program; prepares reports and studies on food service activities and programs; supervises food cost control system, accounting, and monetary allowance ration; computes nutrition requirements; develops or analyzes menus; supervises field feeding operations and the maintenance of field equipment.

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, 3 in food service operations, and 1 in hygiene and sanitation. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 6 for a food service internship, 3 in personnel supervision, 3 in menu planning, 3 in human relations, 3 in kitchen operations, 3 in food service operations, 2 in accounting, 2 in purchasing, and 1 in hygiene and sanitation. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in records administration, 3 in industrial arts education (food service), and 3 in food service equipment layout design (5/76).

MOS-95B-001

Military Policeman

95B10

95B20

95B40

95B50

Exhibit Dates: 10/73–8/75.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Functions as a police officer, controlling vehicular traffic, investigating crimes, and safeguarding lives and property in a community setting; functions as a guard for a detention facility or temporary confinement facility, controlling property and dangerous and hostile personnel by serveillance, searching, and movement control; conducts inspections of and writes technical reports on, problematical social interaction; presents evidence and testifies in court. *Skill Level 10:* Under supervision functions as a police patrolman. *Skill Level 20:* Functions as a senior police patrolman on a team or alone; conducts preliminary investigations. *Skill Level 40:* Functions as a first-line supervisor, overseeing several police officers; reviews written reports; maintains record systems. *Skill Level 50:* As an administrator and planner at the mid-management level, oversees first-line supervisors of police organizations or units; knows and applies personnel and office management principles. NOTE: May have progressed to 95B50 from 95B40 or 95D20, 95D30, or 95D40 (Assistant Special Agent).

Recommendation, Skill Level 10

In the vocational certificate category, in the lower-division baccalaureate/associate category, or in the upper-division baccalaureate category, 3 semester hours in law enforcement, police administration, or criminology (1/75).

Recommendation, Skill Level 20

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 6 semester hours in law enforcement, police administration, or criminology (1/75).

Recommendation, Skill Level 40

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 9 semester hours in law enforcement, police administration, or criminology (1/75).

Recommendation, Skill Level 50

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 12 semester hours in law enforcement, police administration, or criminology (1/75).

MOS-95B-002

Military Police

95B10

95B20

95B30

95B40

95B50

Exhibit Dates: 9/75–8/78.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Performs law enforcement and traffic control duties; provides security for temporary detention facilities, individuals, and urban or industrial communities; conducts arrests, searches and seizures of persons and property in consonance with current legal rulings; collects evidence and testimony for presentation in court; maintains record for the law enforcement component of the criminal justice system. *Skill Level 10:* Performs as a trainee policeman under close supervision. *Skill Level 20:* Serves as a senior policeman on a team or alone; prepares records and reports. *Skill Level 30:* Able to perform the duties required for Skill level 20; is a first-line supervisor of small groups of policemen; maintains record system and reviews reports; conducts crime prevention briefings; performs preliminary investigations. *Skill Level 40:* Able to perform the duties required for Skill level 30; as a mid-level manager, supervises and directs the police operations of a larger police organization; reviews reports and maintains records; assists in the planning, coordination, and administration of police activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as the principal administrator of a police organization, correctional facility, or criminal investigation agency; coordinates, inspects, and directs subordinates. NOTE: May have progressed to 95B50 from 95B40, 95C50 (Correctional Specialist), or 95D40 (Assistant Special Agent).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, credit in police science, law enforcement, or criminology on the basis of institutional evaluation (11/75).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in police science, law enforcement, or criminology (11/75).

Recommendation, Skill Level 30

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 6 semester hours in police science, law enforcement, or criminology (11/75).

Recommendation, Skill Level 40

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 12 semester hours in police science, law enforcement, or criminology (11/75).

Recommendation, Skill Level 50

In the vocational certificate category, 12 semester hours in police science, law enforcement, or criminology. In the lower-division baccalaurate/associate degree category, or in the upper-division baccalaurate category, 12 semester hours in police science, law enforcement, or criminology, 3 for field experience in management, and 3 in introduction to management (11/75).

MOS-95B-003

Military Police

95B10

95B20

95B30

95B40

95B50

Exhibit Dates: 9/78–2/86.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Supervises or provides law enforcement activities, preserves military control, provides security, controls traffic, quells disturbances, protects property and personnel, handles prisoners of war, refugees, or evacuees, and investigates incidents. *Skill Level 10:* Enforces traffic regulations and law and order; exercises military control and discipline and guards prisoners of war; responsible for traffic accident investigation; provides physical security for designated individuals, installations, facilities, and equipment; maintains traffic control and enforces traffic regulations and safety; participates in civil disturbances and riot control operations; responsible for law enforcement investigations; performs foot and motorized patrol and applies crime prevention measures; prepares military police reports, including sworn statements, and processes evidence. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads military police patrol, small squad, and small detachment; supervises compound or work project; coordinates MP activities with civil police organizations; directs MP activities to quell disturbances and cope with disasters; supervises traffic safety activity and riot and crowd control; prepares reports, forms, and records on MP operations and activities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads military police squad, medium-sized section, detachment, or platoon; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinates; organizes work schedules, assigns duties, and instructs personnel in techniques and procedures; evaluates personnel performance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; leads large military police detachment, section, or platoon; collects offensive and defensive intelligence information and trains personnel in police operations and intelligence activities; assists in coordinating and implementing military policy operations, training programs, and communication activites; assists in production and administration of staff journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; provides staff supervision or principal noncommissioned officer (NCO) direction to units engaged in military police or criminal investigation operations and confinement facilities; may have served as the principal NCO of a military police unit; determines requirements for adequacy of police support; evaluates training programs and requirements.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic accident investigation (2/82).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic accident investigation (2/82).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic accident investigation, 3 in police supervision, and 3 for a police field internship (2/82).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic accident investigation, 3 in police supervision, 3 for a police field internship, 3 in principles of management, and 3 in office record management (2/82).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in traffic accident investigation, 3 in police supervision, 3 for a police field internship, 3 in principles of management, 3 in office records management, and 3 in introduction to criminal investigation. In the upper-division baccalaureate category, 3 semester hours in introduction to public administration (2/82).

MOS-95B-004

MILITARY POLICE

95B10
95B20
95B30
95B40
95B50

Exhibit Dates: 3/86–Present.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Supervises or provides law enforcement activities, preserves military control, provides security, controls traffic, quells disturbances, protects property and personnel, handles prisoners of war, refugees, or evacuees, and investigates incidents. *Skill Level 10:* Enforces traffic regulations and law and order; exercises military control and discipline and guards prisoners of war; responsible for traffic accident investigation; provides physical security for designated individuals, installations, facilities, and equipment; maintains traffic control and enforces traffic regulations and safety; participates in civil disturbances and riot control operations; responsible for law enforcement investigations; performs foot and motorized patrol and applies crime prevention measures; prepares military police reports, including sworn statements, and processes evidence. *Skill Level 20:* Able to perform the duties required for Skill Level 10; leads military police patrol, small squad, and small detachment; supervises compound or work project; coordinates MP activities with civil police organizations; directs MP activities to quell disturbances and cope with disasters; supervises traffic safety activity and riot and crowd control; prepares reports, forms, and records on MP operations and activities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; leads military police squad, medium-sized section, detachment, or platoon; assists in planning, organizing, directing, supervising, training, coordinating, and reporting activities of subordinates; organizes work schedules, assigns duties, and instructs personnel in techniques and procedures; evaluates personnel performance. *Skill Level 40:* Able to perform the duties required for Skill Level 30; leads large military police detachment, section, or platoon; collects offensive and defensive intelligence information and trains personnel in police operations and intelligence activities; assists in coordinating and implementing military policy operations, training programs, and communication activites; assists in production and administration of staff journals, files, records, and reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; provides staff supervision or principal noncommissioned officer (NCO) direction to units engaged in military police or criminal investigation operations and confinement facilities; may have served as the principal NCO of a military police unit; determines requirements for adequacy of police support; evaluates training programs and requirements.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in patrol operations (11/86).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in patrol operations (11/86).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in patrol operations, 3 in police supervision, and 3 in a law enforcement elective (11/86).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in patrol operations, 3 in police supervision, 3 in a law enforcement elective, and 3 in office records management. In the upper-division baccalaureate category, 3 semester hours in principles of management (11/86).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in introduction to public administration (11/86).

MOS-95C-001

CORRECTIONAL SPECIALIST

95C10
95C20
95C30
95C40
95C50

Exhibit Dates: 9/75–3/86.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Functions as a correctional officer, providing rehabilitative, health, welfare, and security services to prisoners within a correctional facility; conducts inspections; prepares written reports; coordinates activities of inmates and facility staff personnel. *Skill Level 10:* Under supervision, functions as a detention guard or correctional officer. *Skill Level 20:* Able to perform the duties required for Skill Level 10; functions as a correctional officer; provides individual counseling and guidance to prisoners within a rehabilitative program. *Skill Level 30:* Able to perform the duties required for Skill Level 20; functions as a first-line supervisor of up to ten correctional officers; prepares or reviews reports and records of individuals and programs; provides formal counseling. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a mid-level manager, supervises and coordinates all correctional, custodial, treatment, and rehabilitative activities of inmates and up to 100 staff members in local correctional facility containing as many as 250 prisoners; responsible for administrative inspection and review of all records, reports, and activities; furnishes recommendations to superiors regarding clemency, restoration to duty, and further treatment of inmates; advises superior on matters concerning enlisted personnel under his supervision. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and coordinates inmate and staff activities in a large consolidated correctional facility; as an administrator, plans, coordinates, and implements all counseling, rehabilitative, and correctional programs in a permanent facility containing 250 or more prisoners; equivalent to a federal maximum security prison warden.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in corrections or criminology (11/75).

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in corrections or criminology (11/75).

Recommendation, Skill Level 30
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in corrections or criminology. In the upper-division baccalaureate category, 3 semester hours in correctional administration and 3 in criminology (11/75).

Recommendation, Skill Level 40
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in corrections or criminology. In the upper-division baccalaureate category, 6 semester hours in correctional administration, 3 in criminology, and 3 in introduction to management (11/75).

Recommendation, Skill Level 50
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 18 semester hours in corrections or criminology. In the upper-division baccalaureate category, 6 semester hours in correctional administration, 3 in criminology, 3 in introduction to management, and 6 for field experience in management (11/75).

MOS-95C-002

CORRECTIONAL NCO

95C20
95C30
95C40
95C50

Exhibit Dates: 3/86–Present.

Career Management Field: 95 (Law Enforcement).

Description
Summary: Functions as a correctional officer, providing rehabilitative, health, welfare, and security services to prisoners within a correctional facility; conducts inspections; prepares written reports; coordinates activities of inmates and facility staff personnel. *Skill Level 20:* Functions as a correctional officer; provides individual counseling and guidance to prisoners within a rehabilitative program. *Skill Level 30:* Able to perform the duties required for Skill Level 20; functions as a first-line supervisor of up to ten correctional officers; prepares or reviews reports and records of individuals and programs; provides formal counseling. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a mid-level manager, supervises and coordinates all correctional, custodial, treatment, and rehabilitative activities of inmates and up to 100 staff members in local correctional facility containing as many as 250 prisoners; responsible for administrative inspection and review of all records, reports, and activities; furnishes recommendations to superiors regarding clemency, restoration to duty, and further treatment of inmates; advises superior on matters concerning enlisted personnel under his supervision. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and coordinates inmate and staff activities in a large consolidated correctional facility; as an administrator, plans, coordinates, and implements all counseling, rehabilitative, and correctional programs in a permanent facility containing 250 or more prisoners; equivalent to a federal maximum security prison warden.

Recommendation, Skill Level 20
In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional operations (11/86).

Recommendation, Skill Level 30
In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional operations, 3 in criminal supervision, and 3 in a criminal justice elective (11/86).

Recommendation, Skill Level 40
In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional operations, 3 in correctional supervision, 3 in a criminal justice elective, and 3 in correctional administration. In the upper-division baccalaureate category, 3 semester hours in principles of management (11/86).

Recommendation, Skill Level 50
In the lower-division baccalaureate/associate degree category, 3 semester hours in correctional operations, 3 in correctional supervision, 3 in a criminal justice elective, and 3 in correctional administration. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 in introduction to public administration (11/86).

MOS-95D-001

ASSISTANT SPECIAL AGENT

95D10
95D20
95D30
95D40

Exhibit Dates: 9/75–8/78.

Career Management Field: 95 (Law Enforcement).

Description
Summary: Investigates incidents and offenses, and inquires into complaints involving government property and soldiers. *Skill Level 10:* Under extremely close supervision, performs criminal investigations and physical and personal security activities; prepares reports and sketches; operates cameras and surveillance equipment; uses small arms weaponry; arrests, searches, and interviews suspects; helps prepare legal cases; gives court testimony and presentations. *Skill Level 20:* Able to perform the duties required for Skill Level 10; under close supervision, conducts criminal investigations, physical and personal security activities, and crime prevention programs; prepares and reviews case reports and sketches of crime scenes; supervises the use of camera and surveillance equipment. *Skill Level 30:* Able to perform the duties required for Skill Level 20; under general supervision, conducts criminal investigations, physical and personal security activities, and crime prevention programs; performs as the senior member of an investigation team responsible for arrest, search, and interview of violators of laws; prepares and presents oral and physical evidence in court. *Skill Level 40:* Able to perform the duties required for Skill Level 30; as a chief assistant investigator, performs as sole resident agent at isolated locations or supervises lower-ranked investigators; supervises or performs criminal investigations, physical and personal security activities, and crime prevention programs; reviews, prepares, and maintains case and office records; prepares cases for presentation in court; maintains custody of evidence.

Recommendation, Skill Level 10
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in police science and administration, law enforcement, or criminology. In the upper-division baccalaureate category, credit in police science and administration, law enforcement, or criminology on the basis of institutional evaluation (12/75).

Recommendation, Skill Level 20
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in police science and administration, law enforcement, or criminology. In the upper-division baccalaureate category, credit in police science and administration, law enforcement, or criminology on the basis of institutional evaluation (12/75).

Recommendation, Skill Level 30
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in police science and administration, law enforcement, or criminology. In the upper-division baccalaureate category, credit in police science and administration, law enforcement, or criminology on the basis of institutional evaluation (12/75).

Recommendation, Skill Level 40
In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 15 semester hours in police science and administration, law enforcement, or criminology, 3 in police supervision, and 3 in office management. In the upper-division baccalaureate category, 6 semester hours in public administration, and additional credit in police supervision and in criminology, law enforcement, or police science and administration on the basis of institutional evaluation (12/75).

MOS-95D-002

SPECIAL AGENT

95D10
95D20
95D30
95D40
95D50

Exhibit Dates: 9/78–3/86.

Career Management Field: 95 (Law Enforcement).

Description
Summary: Supervises or conducts investigations of incidents, offenses, and allegations of criminality. *Skill Level 10:* Assists in investigations of incidents, offenses, and allegations of criminality; under close supervision, performs duties shown for MOS 95D30. *Skill Level 20:* Assists in investigations of incidents, offenses, and allegations of criminality; under close supervision, performs duties shown for MOS 95D30. *Skill Level 30:* Conducts investigations of incidents, offenses, or allegations of criminality; applies laws governing investigation,

search, and apprehension; plans, organizes, and coordinates investigations of incidents, offenses, and allegations of criminality; photographs and sketches crime scenes and takes investigative notes; interviews/interrogates witnesses, suspects, subjects, and victims of crimes, obtaining necessary statements/confessions and/or polygraph examinations; analyzes evidence, laboratory findings, and statements relating to investigations; testifies before courtmartial and other tribunals; examines crime scenes for evidence such as fingerprints, bloodstains, weapons, footprints, documents, and other trace evidence; collects, preserves, and tags evidence, including suspected drugs, and determines need for crime laboratory analysis and identification; conducts surveillance, searches of premises, and line-ups associated with investigations of allegations of criminality; conducts crime prevention surveys on nonlogistic facilities and operations; prepares chronology of investigative activities, investigative reports, and action records relating to incidents, offenses, and allegations of criminality. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance and assistance to lower-skill-level personnel; investigates incidents, offenses, and allegations of criminality; reviews completed cases and processes evidence; maintains chain of custody accountability for evidence gathered during investigations; preserves and safeguards evidence in order to meet court admissibility standards; assists in conduct of crime prevention surveys of logistic facilities and operations; supervises general administrative functions and personnel engaged in investigative support activities; reviews reports and records relating to investigative activity for administrative accuracy and sufficiency; maintains investigative complaint log, status board, and suspense system; prepares periodic and special reports concerning assigned personnel and investigative activity and develops statistical data; monitors criminalistics field tests of newly acquired investigative equipment, coordinates implementation of new investigative techniques, and determines equipment needs of operational elements; prepares unit training program; supervises word processing center and administrative and supply personnel; evaluates personnel performance, counsels personnel, and prepares evaluation reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; provides investigative support in central headquarters; manages general administrative functions and personnel engaged in investigative support activities; determines equipment and budgetary needs of operational elements; prepares and provides unit training programs and instruction.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, and 3 in technical report writing (9/81).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, and 3 in technical report writing (9/81).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, and 3 in technical report writing (9/81).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, 3 in technical report writing, 4 in introduction to criminalistics (including laboratory), and 3 in crimes and delinquency. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization administration, 3 in principles of criminal evidence, 3 in technical report writing, 4 in introduction to criminalistics (including laboratory), 3 in crime and delinquency, and 3 in personnel supervision (9/81).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in crime prevention and control, 3 in principles of management, and 3 in resource management (9/81).

MOS-95D-003

CID SPECIAL AGENT

95D20
95D30
95D40
95D50

Exhibit Dates: 3/86–Present.

Career Management Field: 95 (Law Enforcement).

Description

Summary: Supervises or conducts investigations of incidents, offenses, and allegations of criminality. *Skill Level 20:* Assists in investigations of incidents, offenses, and allegations of criminality; under close supervision, performs duties shown for MOS 95D30. *Skill Level 30:* Conducts investigations of incidents, offenses, or allegations of criminality: applies laws governing investigation, search, and apprehension; plans, organizes, and coordinates investigations of incidents, offenses, and allegations of criminality; photographs and sketches crime scenes and takes investigative notes; interviews/interrogates witnesses, suspects, subjects, and victims of crimes, obtaining necessary statements/confessions and/or polygraph examinations; analyzes evidence, laboratory findings, and statements relating to investigations; testifies before courtmartial and other tribunals; examines crime scenes for evidence such as fingerprints, bloodstains, weapons, footprints, documents, and other trace evidence; collects, preserves, and tags evidence, including suspected drugs, and determines need for crime laboratory analysis and indentification; conducts surveillance, searches of premises, and line-ups associated with investigations of allegations of criminality; conducts crime prevention surveys on nonlogistic facilities and operations; prepares chronology of investigative activities, investigative reports, and action records relating to incidents, offenses, and allegations of criminality. *Skill Level 40:* Able to perform the duties required for Skill Level 30; provides technical guidance and assistance to lower-skill-level personnel; investigates incidents, offenses, and allegations of criminality; reviews completed cases and processes evidence; maintains chain of custody accountability for evidence gathered during investigations; preserves and safeguards evidence in order to meet court admissibility standards; assists in conduct of crime prevention surveys of logistic facilities and operations; supervises general administrative functions and personnel engaged in investigative support activities; reviews reports and records relating to investigative activity for administrative accuracy and sufficiency; maintains investigative complaint log, status board, and suspense system; prepares periodic and special reports concerning assigned personnel and investigative activity and develops statistical data; monitors criminalistics field tests of newly-acquired investigative equipment; coordinates implementation of new investigative techniques; determines equipment needs of operational elements; prepares unit training program; supervises word processing center and administrative and supply personnel; evaluates personnel performance, counsels personnel, and prepares evaluation reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; provides investigative support in central headquarters; manages general administrative functions and personnel engaged in investigative support activities; determines equipment and budgetary needs of operational elements; prepares and provides unit training programs and instruction.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, and 3 in technical report writing (9/81).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, and 3 in technical report writing (9/81).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization and administration, 3 in principles of criminal evidence, 3 in technical report writing, 4 in introduction to criminalistics (including laboratory), and 3 in crimes and delinquency. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in introduction to criminal justice, 3 in police organization administration, 3 in principles of criminal evidence, 3 in technical report writing, 4 in introduction to criminalistics (including laboratory), 3 in crime and delinquency, and 3 in personnel supervision (9/81).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in crime prevention and control, 3 in principles of management, and 3 in resource management (9/81).

MOS-96B-001

INTELLIGENCE ANALYST

96B20
96B30
96B40
96B50

Exhibit Dates: 10/73–8/76.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Assembles, integrates, analyzes, and disseminates intelligence information collected from tactical, strategic, and technical source; functions as a mail examiner, file clerk, editor, and censor; analyzes intelligence information and serves as a country or geographic area specialist. *Skill Level 20:* Performs the duties of mail clerk; collects and analyzes intelligence information on unit personnel strengths and dispositions; draws maps depicting personnel and equipment locations, collates and summarizes in report form data concerning enemy organizations and personnel; edits and censors information and communications prior to publishing or broadcasting. *Skill Level 30:* Able to perform the duties required for Skill Level 20; performs the duties of intelligence analyst with minimal supervision; is a country or geographic area specialist; assists in the collection of military, economic, political, sociological, and geographic information; prepares and reads related charts, graphs, tables, and other graphic aids; extracts and collates intelligence information from various publications, documents, and media. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as a chief strategic intelligence analyst and as a first-line supervisor for intelligence operations teams at the lower unit level; supervises and coordinates the preparation of intelligence reports and prepares consolidated reports containing maps, aerial photographs, and technical data; serves as chief editor or censor for intelligence information. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as chief operations and intelligence sergeant at military units as large as a division; supervises intelligence activities pertaining to organizations; supervises the training of tactical and technical operations of intelligence sections within high-level commands; assists superiors in the appraisal of intelligence operations and training activities; serves as instructor in intelligence procedures and operations.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices and 3 in records administration (1/75).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices and 3 in records administration (1/75).

Recommendation, Skill Level 40

In the vocational certificate category, in the lower-division baccalaurate/associate degree category, or in the upper-division baccalaureate category, 3 semester hours in clerical practices 3 in records administration, and 3 in personnel management (1/75).

Recommendation, Skill Level 50

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, 3 semester hours in clerical practices, 3 in records administration, 6 in personnel management, and 6 for field experience in education (1/75).

MOS-96B-002

INTELLIGENCE ANALYST

96B10
96B20
96B30
96B40
96B50

Exhibit Dates: 9/76–Present.

Career Management Field: 96 (Military Intelligence); subfield 962 (Technical Intelligence Production).

Description

Summary: Assembles, integrates, analyzes, and disseminates intelligence information collected from tactical, strategic, and technical sources; analyzes intelligence information and serves as a country or geographic area specialist; may function as censor, editor, mail examiner, or file clerk. *Skill Level 10:* Processes incoming reports and messages; assists in maintaining intelligence records, files, and situation maps; assists in preparation of consolidated reports, maps, overlays, and aerial photographs; proofreads and assembles individual intelligence reports; safeguards classified information; assists in integration of information. *Skill Level 20:* Able to perform the duties required for Skill Level 10; analyzes intelligence holdings and identifies intelligence collection requirements; assists in coordination with technical intelligence personnel and preparation of reports on captured enemy material; prepares drafts of intelligence reports; reads maps. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower-skill-level personnel; supervises receipt analysis and storage of intelligence information; edits, completes, and disseminates intelligence reports; assists in conducting intelligence training programs; assists in establishing personnel security; assists in the collection of military, economic, political, sociological, and geographic information; serves as senior intelligence editor or as intelligence team chief; supervises from four to ten individuals. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as a chief strategic intelligence analyst or as a first-line supervisor for intelligence operations teams; assists in supervision of combined information/intelligence coordination centers; conducts general intelligence training programs; supervises and coordinates the preparation of intelligence reports and prepares consolidated reports containing maps, aerial photographs, and technical data; conducts current situation briefings; may also supervise personnel holding MOS 96C (Interrogator). *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as chief operations and intelligence sergeant of large military units; supervises intelligence activities; assists supervisors in the appraisal of intelligence procedures and operations; supervises the training of personnel assigned to tactical and technical operations of intelligence sections; supervises up to 200 persons. NOTE: May have progressed to 96B50 from 96B40 or 96C40 (Interrogator).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices (11/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, and 1 in map reading (11/77).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, and 1 in map reading (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in oral communication, and 1 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in oral communication, 3 in personnel supervision, and 1 in map reading (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for field experience in management, and 3 for a practicum in education (11/77).

MOS-96C-001

INTERROGATOR

96C20
96C30
96C40
96C50

Exhibit Dates: 10/73–8/76.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises and conducts interrogations in foreign language; able to perform the duties required for MOS 04B (Translator-Interpreter). *Skill Level 20:* Selects persons to interrogate by examining biographical records; questions prisoners of war, enemy deserters, and civilians in foreign language; verifies information by comparison with other interrogators, documents, and intelligence reports; prepares reports on interrogations performed. *Skill Level 30:* Able to perform the duties required for Skill Level 20; participates in difficult interrogations to insure accurate exchange of ideas and information; checks interrogations for adequacy of coverage; edits translated questions, reports, and other written materials of interrogators for accuracy and clarity. *Skill Level 40:* Able to perform the duties required for Skill Level 30; is a first-line supervisor of 15 or more persons in an interrogation section; plans and organizes work schedules and assigns interrogators to specific tasks; assists officers in intelligence operations; assists with the instruction and training of interrogators; collects, prepares, and distributes material on intelligence operations; establishes and keeps file of language reference materials. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager; assists superiors in intelligence operations and training situations for strategic intelligence interrogation activities; supervises and inspects duties preformed by lower-skill-level personnel; collects, prepares, and distributes material and data on intelligence, operations, and training, advises company commander on all enlisted personnel matters; coordinates operation of company food service and supply activities; directs and coordinates company administration. NOTE: May have progressed to 96C50 from 96C40, 96C30, or 04C21 (Expert Linquist).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 2 in report writing, and 1 in filing. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in translating, 3 in written communication skills, 2 in English grammar, 2 in report writing, 2 in typing, and 1 in filing. In the upper-division baccalaureate category, 3 semester hours for field experience in interpreting. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Education Experiences in the Armed Services (5/76).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in translating, 3 in written communication skills, 2 in English grammar, 2 in report writing, 2 in editing, 2 in typing, and 1 in filing. In the upper-division baccalaureate category, 3 semester hours for field experience in interpreting. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in translating, 3 in written communication skills, 3 in personnel supervision, 3 in human relations, 3 for field experience in management, 2 in English grammar, 2 in report writing, 2 in editing, 2 in typing, and 1 in filing. In the upper-division baccalaureate category, 3 semester hours for field experience in interpreting. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, 3 in records administration, and 3 for field experience in interpreting. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/76).

MOS-96C-002

INTERROGATOR

96C10
96C20
96C30
96C40

Exhibit Dates: 9/76–9/85. (Effective 9/85, MOS 96C was redesignated MOS 97E; see exhibit MOS-97E-001.)

Career Management Field: 96 (Military Intelligence), subfield 962 (Technical Intelligence Production).

Description

Summary: Conducts and supervises interrogations in foreign language; knows geography, political system, economic system, and customs of the countries in which the foreign language is spoken; prepares translation reports. *Skill Level 10:* Conducts interrogations in foreign language of prisoners of war, enemy deserters, civilians, and refugees to obtain information necessary for the development of military intelligence; compares and verifies information obtained with information contained in other interrogation reports, captured documents, and intelligence reports; prepares notes and keeps detailed records on all interrogations performed; translates and prepares summaries, extracts, and full translations of written foreign material (directives, records, messages, combat orders, technical publications) into English; translates speeches, announcements, radio scripts, and other materials into foreign language for use in non-English speaking countries; types translated materials; establishes reference files of translation materials. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel; reviews and edits translations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower-skill-level personnel; performs more difficult interrogations and translations, including scientific information; determines requirements for summaries, extracts, or complete translations of documents; performs as a team chief for interrogations and translator/interpretation functions; monitors interrogations and translations for accuracy, adequacy, and completeness; organizes and conducts on-the-job training; assists in preparation and presentation of information to superiors. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises an interrogation center or interrogation, translation/interpreter section; plans and organizes work schedules; assigns specific tasks; plans training activities; insures establishment of required files and preparation of required reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 30

In the vocational ceftificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in personnel management, and additional credit in area studies, for field experience in management, and for a practicum in education, on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-96D-001

IMAGE INTERPRETER

96D20
96D40
96D50

Exhibit Dates: 10/73–8/76.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Interprets aerial and ground imagery developed by photographic and electronic means. *Skill Level 20:* Utilizes principles and techniques of photogrammetry and employs electronic, mechanical, and optical devices to study and interpret photographs and photographed scope presentations produced by radar and infrared senory devices; prepares map overlays, charts, mosaics, and other graphics; computes distances and field coordinates; prepares graphic and written reports on imagery interpretation findings. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises image interpretation activities; plans and organizes work schedules, assigns duties, and instructs subordinates in proper work techniques; establishes and maintains files. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager serving as the principal noncommissioned officer in a headquarters or as the first sergeant of a company; assists in planning, coordinating, and supervising all activities related to imagery interpretation; advises superiors on all personnel matters and is responsible for carrying out personnel actions; directs training; serves as inspector; prepares reports on intelligence, operations, and training; may serve as chief instructor at a formal training facility.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in map reading and 2 in mechanical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 2 in mechanical drawing, 2 in technical mathematics, and 1 in technical writing (6/76).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical writing, 3 in human relations, 3 in personnel supervision, 3 for field experience in management, 2 in mechanical drawing, and 2 in technical mathematics (6/76).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 in office management, and 3 for field experience in management, if the duty assignment was chief instructor at a formal training facility, 3 semester hours for an internship in education (6/76).

MOS-96D-002

IMAGERY ANALYST
(IMAGE INTERPRETER)

96D10
96D20
96D30
96D40
96D50

Exhibit Dates: 9/76–3/89.

Career Management Field: 96 (Military Intelligence), subfield 962 (Technical Intelligence).

Description

Summary: Interprets aerial and ground imagery developed by photographic and electronic means. *Skill Level 10:* Utilizes principles and techniques of photogrammetry and employs electronic, mechanical, and optical devices to study and interpret photographs; assists in preparation of map overlays, plots, mosaics, charts, and other graphics; computes distances and field coordinates; assists in the preparation of written reports on image interpretation findings. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; studies and interpretes imagery produced by aerial senors systems and hand-held camera; determines physical and cultural features of the landscape; prepares maps; conducts briefings; computes areas and volumes. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises image interpretation activities; prepares and edits reports; establishes and maintains report and photo library; plans and organizes work schedules and assigns duties; instructs subordinates in proper work techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning activities related to image utilization; instructs subordinates in proper image interpretation techniques; supervises preparation and maintenance of files. *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager at company and higher level; prepares, coordinates, and supervises activities related to image interpretation; directs training; supervises staff and advises superiors. NOTE: May have progressed to 96D50 from 96D40, 96H40 (Aerial Sensor Specialists, OV-1D), or 17L40 (Aerial Sensor Specialist, OV-1B/C).

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 2 in mechanical drawing, 2 in aerial photographic interpretation, 2 in photogrammetry, 1 in technical writing, and 1 in technical mathematics (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical mathematics, 2 in mechanical drawing, and 1 in technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical mathematics, 3 in physical geography, 2 in mechanical drawing, and 1 in technical writing (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical mathematics, 3 in technical writing, and 2 in mechanical drawing. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in physical geography, 3 in technical mathematics, 3 in technical writing, 3 in human relations, and 2 in mechanical drawing (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in personnel management, and 3 for field experience in management; if the duty assignment was instructor in a service school, 6 additional semester hours for a practicum in education (11/77).

MOS-96D-003

IMAGERY ANALYST

96D10
96D20
96D30
96D40
96D50

Exhibit Dates: 3/89–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Interprets aerial and ground imagery developed by photographic and electronic means. *Skill Level 10:* Utilizes principles and techniques of photogrammetry and employs electronic, mechanical, and optical devices to study and interpret photographs; assists in preparation of map overlays, plots, mosaics, charts, and other graphics; computes distances and field coordinates; assists in the preparation of written reports on image interpretation findings. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to subordinate personnel; studies and interpretes imagery produced by aerial sensor systems and hand-held camera; prepares maps; conducts briefings; computes areas and volumes; selects entry zones. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises image interpretation activities; assists air reconnaissance liaison officer and tactical surveillance officer; performs quality control on imagery analysis and reports; coordinates planning for ground and air reconnaissance and surveillance plans and requests; receives, evaluates and disseminates mission results; plans and organizes work schedules and assigns duties; instructs subordinates in proper work techniques. *Skill Level 40:* Able to perform the duties required for Skill Level 30; assists in planning activities related to image utilization; arranges priorities for conduct of operation; assists in planning; levies imagery reproduction requirements; supervises preparation of reconnaissance and surveillance plan; coordinates with collection agencies and requesters; instructs subordinates in proper image interpretation techniques; supervises preparation and maintenance of files. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises the duties of 96D40 and 96H40 (Aerial Intelligence Specialist); prepares and coordinates the surveillance plan; assists command and staff officers; coordinates operation requirements; prepares, coordinates, and supervises activities related to image interpretation; directs training; supervises staff and advises superiors. NOTE: May have progressed to 96D50 from 96D40 or 96H40 (Aerial Intelligence Specialist).

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 2 in mechanical drawing, 3 in aerial photographic interpretation, 3 in photogrammetry, 1 in technical writing, and 3 in technical mathematics (6/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in

map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical mathematics, 2 in mechanical drawing, and 1 in technical writing (6/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in technical mathematics, 3 in technical writing, 3 in principles of supervision, and 2 in mechanical drawing (6/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in managment problems and 3 for field experience in management (6/90).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in management problems and 6 for field experience in management (6/90).

MOS-96F-001

PSYCHOLOGICAL OPERATIONS SPECIALIST

96F10
96F20
96F30
96F40
96F50

Exhibit Dates: 3/85–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises, coordinates, and participates in analysis, planning, production, and dissemination of tactical, strategic, and consolidation psychological operations (PSYOP). *Skill Level 10:* Assists in collecting and reporting PSYOP-related information; assists in processing information into intelligence to support PSYOP; assists in identifying intelligence collection requirements for PSYOP support; assists in evaluating and analyzing current intelligence, PSYOP studies and estimates to determine PSYOP targets; assists in establishment and maintenance of situation maps to provide current intelligence/PSYOP information and identification, disposition, and movement of enemy forces; assists in the design of PSYOP products; assists in the development and administration of surveys to evaluate the effects of planned and executed products; operates PSYOP dissemination equipment and assists in the delivery of PSYOP products; assists in the packaging of PSYOP products for delivery of various means; maintains journals, status boards, visual displays, charts, and graphs required to manage PSYOP, either manually or using automatic data processing equipment; prepares, stores, and retrieves information on PSYOP-related intelligence, plans, campaigns, and products; assists and performs intelligence functions as required; maintains and operates organizational communications equipment, generators, and organic PSYOP production and dissemination team equipment; assists in establishing and maintaining systematic cross-referenced PSYOP records and files; safeguards classified information. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; coordinates resource requirements for the development, production, and dissemination of PSYOP products; assists in the integration of PSYOP planning in support of conventional, special operations, and deception planning; develops and administers surveys to evaluate the effectiveness of PSYOP products; assists in determining the appropriate mix of media, relative to available assets, to disseminate PSYOP products; analyzes current intelligence holdings to identify intelligence gaps and subsequent intelligence collection requirements to support PSYOP; evaluates current intelligence, PSYOP studies, and estimates to determine PSYOP targets; assists in identifying psychological vulnerabilities and susceptibilities of PSYOP targets; assists in evaluating translations of captured enemy documents and intelligence information reports of interrogations; assists in the analysis of enemy foreign propaganda and other foreign media; informs superiors of information of immediate tactical PSYOP value; packages PSYOP products for delivery by various means; identifies and maintains information on the availability of products and delivery means; establishes and maintains reference files of translated material. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises receipt, analysis, and storage of PSYOP-related intelligence information; coordinates PSYOP intelligence collection requirements with supported command and higher headquarters; spot checks analyses performed by subordinates; plans and advises on PSYOP in direct and general support of operational forces; plans and implements PSYOP campaigns; assists in planning, identification, mobilization, and deployment of PSYOP resources; supervises propaganda writers, broadcast specialists, journalists, and illustrators to develop and produce PSYOP products; supervises PSYOP dissemination and delivery sections and teams; determines dissemination requirements for PSYOP products; assists in the conduct of liaison with the supported command; advises supported commands on psychological considerations of planning operations; provides specific guidance and training for subordinates; assists in preparing and conducting PSYOP training programs; analyzes enemy propaganda. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans and organizes work schedule and assigns specific tasks in support of tactical or strategic PSYOP missions; assists in supervision of the propaganda development and tactical operations centers; conducts general PSYOP training programs for the command; supervises planning and dissemination of PSYOP products; controls the execution of PSYOP campaigns; monitors preparation and production of PSYOP products and acquisition of resources necessary to support implementation of PSYOP campaigns; conducts liaison with supported commands; supervises intelligence analysts, interpreters, interrogators, and translators assigned or attached to PSYOP units. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises and provides technical guidance to subordinate personnel; provides liaison to supported staff and commands; assists PSYOP commanders and staff officers in planning, organizing, directing, supervising, training, and coordinating activities pertaining to PSYOP at all levels of command.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 1 semester hour in technical writing, 1 in record keeping, and 1 in audio-visual technology (12/88).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 2 semester hours in technical writing, 1 in record keeping, 2 in audio-visual technology, 2 in records management, 1 in oral communications, and 2 in personnel supervision (12/88).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in technical writing, 1 in record keeping, 2 in audio-visual technology, 2 in records management, 2 in oral communications, 3 in personnel supervision, and 3 in business organization and management (12/88).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in principles of management (12/88).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in principles of management, and 3 in management problems (12/88).

MOS-96H-001

AERIAL SENSOR SPECIALIST (OV-1D)

96H10
96H20
96H30
96H40

Exhibit Dates: 9/76–3/89.

Career Management Field: 96 (Military Intelligence), subfield 963 (Tactical Intelligence Surveillance).

Description

Summary: Supervises or participates in aerial surveillance operations using ground data terminal systems to provide information and imagery of intelligence value. *Skill Level 10:* Performs aerial surveillance, including visual reconnaissance, search and rescue, radiological survey, and similar intelligence activities; operates aerial infrared, radar, photographic, or similar senor systems including associated data transmission links and ground data terminal stations; performs radio communications and aids aviator in aerial navigation; performs applicable electronic counter-countermeasures; assists in image interpretation; performs operator maintenance on sensors and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to Skill Level 10 personnel; assists aviator in weather analysis, navigation computations, and aircraft preflight inspection procedures; operates or supervises the operation of aerial surveillance and associated equipment; troubleshoots sensor systems; records operation and maintenance data in equipment logs; utilizes interpretation keys in assisting image interpreter. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operations and activities of a section; supervises inspections and operator maintenance of sensors and associated equipment; directs and conducts on-the-job training; assists in planning use of aerial surveillance systems; assists image interpreter in analysis and interpretation of imagery; conducts or participates in briefing headquarters staff on capabilities and limitations of aerial surveillance missions, and on the results obtained. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises aerial surveillance platoon operations; plans and organizes work schedules, assigns duties, and instructs section leaders in proper work techniques and procedures; critiques mission results; participates in planning use of aerial surveillance systems and advises commander on coordination of aerial and ground surveillance; coordinates personnel, equipment, operational supply, and maintenance support requirements.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in general mathematics, 1 in still camera techniques, and 1 in electric circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 1 in still camera techniques, 1 in electric circuits, and 1 in maps and air photos. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in general mathematics, 1 in still camera techniques, and 1 in electric circuits. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 1 in still camera techniques, 1 in electric circuits, and 1 in maps and air photos. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 3 for field experience in management, 2 in maps and air photos, 2 in human relations, 2 in communication skills, 2 in personnel supervision, 1 in still camera techniques, and 1 in electric circuits. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 3 semester hours in general mathematics, 3 in outdoor survival skills, 3 for field experience in management, 3 in human relations, 3 in communication skills, 3 in personnel supervision, 2 in maps and air photos, 1 in still camera techniques, and 1 in electric circuits. In the upper-division baccalaureate category, 1 semester hour in remote sensing (4/77).

MOS-96H-002

AERIAL INTELLIGENCE SPECIALIST

96H10
96H20
96H30
96H40

Exhibit Dates: 3/89–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises or participates in aerial surveillance and electronic intercept operations to provide information and imagery of intelligence value. *Skill Level 10:* Participates in mission planning for aerial surveillance, aerial visual reconnaissance, aerial search and rescue, aerial radiological survey and similar missions; operates data link terminal station and performs side-looking airborne radar imagery analysis; prepares and operates aerial surveillance/electronic intercept systems; performs aerial missions operating aerial infrared, radar, and photographs, including data transmission links and ground data terminal station; performs radio communications and aids in aerial navigation; recognizes enemy electronic countermeasures and performs countermeasures; acquires targets; participates in mission debriefing and assists in the analysis of images; performs preflight, preoperation and operator and unit maintenance on surveillance and electronic intercept equipment; troubleshoots systems to determine nature and location of problems; records operation and maintenance data. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to subordinate personnel; may serve as assistant instructor at service school; operates and supervises the operation of aerial surveillance and aerial surveillance/electronic intercept systems; assists in flight planning, weather analysis, navigational computation and aircraft preflight inspections; prepares aerial surveillance equipment for operation; assists imagery analyst in interpreting imagery recording using keys and reference material. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises operation and activities of aerial surveillance, electronic intercepts and data terminal section; supervises inspection and operator maintenance of aerial surveillance and electronic intercept equipment; assists in planning, employment, and management of aerial surveillance, electronic intercept, and data terminal systems; serves as instructor at service school; assists in the analysis and interpretation of aerial sensor imagery to determine geographical features of terrain and physical features of enemy installation; conducts or participates in briefing of commander and staff of supported headquarters on capabilities and limitations of aerial surveillance and similar missions. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises operations and activities of platoon-size detachment; plans and organizes work schedules; assigns duties and instructs section sergeant in proper work techniques; reviews and critiques mission results; advises commander; coordinates personnel on team employments, deployment, operational supply, and maintenance requirements; serves as instructor at service school.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics and 1 in map/air photo reading. In the upper-division baccalaureate category, 1 semester hour in remote sensing (6/90).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 1 in map/air photo reading, and 1 in basic electronic systems. In the upper-division baccalaureate category, 1 semester hour in remote sensing (6/90).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in map/air reading, 1 in basic electronic systems, 3 in principles of supervision, and 3 in communication skills (oral and written). In the upper-division baccalaureate category, 1 semester hour in remote sensing and 3 for field experience in management (6/90).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 1 semester hour in remote sensing, 3 for field experience in management, and 3 in management problems (6/90).

MOS-96R-001

GROUND SURVEILLANCE SYSTEMS OPERATOR

96R10
96R20
96R30
96R40
96R50

Exhibit Dates: 9/85–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises or operates ground surveillance systems engaged in intelligence and information gathering. *Skill Level 10:* Operates ground surveillance systems; reads military maps, overlays and aerial photographs; uses radar surveillance cards and plotters; assists in emplacement, camouflage, and recovery of equipment; detects, locates, and reports target data; operates organic communications equipment, light wheeled vehicles and power sources; assists in performance of preventive maintenance on ground surveillance systems and associated equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to skill level 10 personnel; selects specific equipment emplacement sites and supervises emplacement and operation of equipment; prepares overlays and surveillance cards. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises organizational maintenance, preventive maintenance, emplacement and displacement of equipment, and preparation of surveillance cards; notifies supported unit of team locations; recommends methods of employment; conducts tactical and equipment-oriented training, and maintains operational records. *Skill Level 40:* Able to perform the duties required for Skill Level 30; plans, recommends, and determines employment and operational techniques; plans and organizes work schedules and assigns duties; instructs squad and team leaders in proper work techniques and procedures; supervises operations, activities of platoon and requisition of replacement parts; applies military intelligence collection processes and surveillance planning operations; participates in processes and surveillance planning operations; participates in electromagnetic intelligence surveillance and collection training of personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; assists tactical surveillance officer in planning and coordinating employment of ground surveillance equipment, and in preparation and implementation of reconnaissance and surveillance operations plans; provides input to collection plans; prepares and updates the ground reconnaissance and surveillance situation maps; may serve as the principal noncommissioned officer (identified by the Special Qualifications Identifier "M" - First Sergeant).

Recommendation, Skill Level 10

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

Recommendation, Skill Level 20

Credit is not recommended because the skills, competencies, and knowledge are uniquely military in nature (7/87).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision (7/87).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management and 3 for field experience in management (7/87).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 for field experience in management, and 3 in applied psychology (7/87).

MOS-96Z-001

INTELLIGENCE SENIOR SERGEANT

96Z50

Exhibit Dates: 9/76–Present.

Career Management Field: 96 (Military Intelligence), subfield 960 (General Tactical Intelligence).

Description

Skill Level 50: Supervises intelligence collection, analysis, processing, and surveillance activities at group, division, corps, or comparable higher headquarters; supervises training activities; supervises tactical and technical operations; assists commissioned officers in appraisal of intelligence operations and training; instructs in specific phases of command intelligence procedures; supervises collection, preparation, and distribution of intelligence operations, and training data; advises supervisors on matters concerning intelligence, operations, and administration. NOTE: May have progressed to 96Z50 from 96B50 (Intelligence Analyst), 96D50 (Image Interpreter), or 17K50 (Ground Surveillance Radar Crewman).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in oral communication, 3 in personnel supervision, and 1 in map reading. In the upper-division baccalaureate category, 6 semester hours for a practicum in education, 3 for field experience in management, and 3 in management problems (11/77).

MOS-97B-001

COUNTERINTELLIGENCE AGENT

97B40

97B50

Exhibit Dates: 10/73–8/76.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Conducts investigations to determine whether laws have been violated; collects background information about individuals, groups, and organizations through surveys of public and private records, personal interviews, and surveillance techniques; operates specialized photographic and audio-visual recording equipment; conducts inspections of facilities to determine security weaknesses; maintains record systems; prepares oral and written reports; conducts briefings and classes. *Skill Level 40:* Is a first-line supervisor of an investigation or physical security team; sometimes conducts investigations without assistance. NOTE: May have progressed to 97B40 from 97C40 (Area Intelligence Specialist), 97D20, or 97D40 (Military Intelligence Coordinator). *Skill Level 50:* Able to perform the duties required for Skill Level 40; is a mid-level manager; plans and administers operations and training activities; supervises subordinate personnel; knows and applies office management principles. NOTE: May have progressed to 97B50 from 97C50 (Area Intelligence Specialist).

Recommendation, Skill Level 40

In the vocational certificate category, in the lower-division baccalaureate/associate degree category, or the upper-division baccalaureate degree category, 3 semester hours in police administration, 2 in law enforcement, 2 in industrial security, and 2 in criminology (2/75).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in police administration, 2 in law enforcement, 2 in industrial security, 2 in criminology, 1 in personnel supervision, 1 in records administration, and 1 in communication skills. In the upper-division baccalaureate category, 3 semester hours in police administration, 3 for a practicum in management, 2 in law enforcement, 2 in industrial security, and 2 in criminology (2/75).

MOS-97B-002

COUNTERINTELLIGENCE AGENT

97B20

97B30

97B40

97B50

Exhibit Dates: 9/76–2/81.

Career Management Field: 96 (Military Intelligence), subfield 961 (Controlled Intelligence).

Description

Summary: NOTE: The skill levels of MOS 97B are not necessarily indicative of progressively complex duties, increased skills, and greater responsibilities; the higher skill levels in this MOS usually indicate longer tenure. Individual in this MOS conducts security oriented investigations when there is a threat to military operations, installations, and personnel; collects background information concerning foreign and domestic individuals, groups, and organizations posing such a threat; collects information through personal interviews, screening of public and private records made available to them, and surveillance techniques; is knowledgeable about the geography, political, and economic systems, culture, and customs of at least one foreign country; operates specialized photographic and sound recording equipment; conducts physical surveys of installations and facilities to minimize threats to security; maintains files; prepares written reports and gives oral reports of findings; conducts security oriented classes and briefings; may be proficient in a foreign language. NOTE: Required to have held another MOS for at least two years prior to holding this MOS. *Skill Level 20:* Conducts counterintelligence investigations, often without close supervision; functions as a basic counterintelligence agent; applies fundamentals of military and civil law in conducting investigations; evaluates sources and information; prepares and types reports and summaries; conducts security surveys. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may provide counterintelligence support at higher headquarters; may assist in on-the-job training of newer agents; functions as chief counterintelligence agent; plans and conducts counterintelligence operations to include analyzing, selecting, exploiting, and neutralizing targets of counterintelligence interest. *Skill Level 40:* Able to perform the duties required for Skill Level 30; may be used in a supervisory capacity; plans, organizes, and coordinates activities of counterintelligence support teams; functions as a senior counterintelligence agent. *Skill Level 50:* Able to perform the duties required for Skill Level 40; may conduct especially sensitive investigations; may be used as a staff specialist, planning and supervising intelligence operations. NOTE: May have progressed to 97B50 from 97B40 or 97C50 (Area Intelligence Specialist).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in United States government, 3 in applied psychology, 3 in report writing, and 1 in typing, and additional credit in personnel supervision and office management on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in United States government, 3 in applied psychology, 3 in report writing, and 1 in typing, and additional credit in personnel supervision and office management on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations (11/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations (11/77).

MOS-97B-003

COUNTERINTELLIGENCE AGENT

97B10
97B20
97B30
97B40
97B50

Exhibit Dates: 3/81-Present.

Career Management Field: 96 (Military Intelligence), subfield 961 (Controlled Intelligence).

Description

Summary: NOTE: The skill levels of MOS 97B are not necessarily indicative of progressively complex duties, increased skills, and greater responsibilities; the higher skill levels in this MOS usually indicate longer tenure. Individual in this MOS conducts security oriented investigations when there is a threat to military operations, installations, and personnel; collects background information concerning foreign and domestic individuals, groups, and organizations posing such a threat; collects information through personal interviews, screening of public and private records made available to them, and surveillance techniques; is knowledgeable about the geography, political, and economic systems, culture, and customs of at least one foreign country; operates specialized photographic and sound-recording equipment; conducts physical surveys of installations and facilities to minimize threats to security; maintains files; prepares written reports and gives oral reports of findings; conducts security-oriented classes and briefings; may be proficient in a foreign language. NOTE: Required to have held another MOS for at least two years prior to holding this MOS. *Skill Level 10:* Under close supervision, assists in tactical noninvestigative counterintelligence and operational security duties; assists in determining enemy intelligence collection assets, organizations, composition, personnel, methods of operation, capabilities, vulnerabilities, limitations, and missions; assists in evaluating sources of information; assists in formulating investigation plans; prepares recording and photographic equipment for operation; compiles collected counterintelligence information; prepares and types summaries and reports; prepares interrogation rooms; disseminates intelligence reports; stores, inventories, and controls classified documents. *Skill Level 20:* Conducts counterintelligence investigations, often without close supervision; functions as a basic counterintelligence agent; applies fundamentals of military and civil law in conducting investigations; evaluates sources and information; prepares and types reports and summaries; conducts security surveys. *Skill Level 30:* Able to perform the duties required for Skill Level 20; may provide counterintelligence support at higher headquarters; may assist in on-the-job training of newer agents; functions as chief counterintelligence agent; plans and conducts counterintelligence operations to include analyzing, selecting, exploiting, and neutralizing targets of counterintelligence interest. *Skill Level 40:* Able to perform the duties required for Skill Level 30; may be used in a supervisory capacity; plans, organizes, and coordinates activities of counterintelligence support teams; functions as a senior counterintelligence agent. *Skill Level 50:* Able to perform the duties required for Skill Level 40; may conduct especially sensitive investigations; may be used as a staff specialist, planning and supervising intelligence operations. NOTE: May have progressed to 97B50 from 97B40 or 97C50 (Area Intelligence Specialist).

Recommendation, Skill Level 10

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (10/84).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in United States government, 3 in applied psychology, 3 in report writing, and 1 in typing, and additional credit in personnel supervision and office management on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (10/84).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in United States government, 3 in applied psychology, 3 in report writing, and 1 in typing, and additional credit in personnel supervision and office management on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (10/84).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations (10/84).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations (10/84).

MOS-97C-001

AREA INTELLIGENCE SPECIALIST

97C40
97C50

Exhibit Dates: 10/73-8/76.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises and performs intelligence analysis of a geographic area; may be employed in either a group activity or individually with minimum supervision; formulates and carries out intelligence-gathering missions with a specific objective and utilizes extremely demanding operational security procedures in both domestic and foreign environments. NOTE: Many of the required duties for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 40:* May have previously held MOS 97B (Counterintelligenc Agent) or MOS 97D (Military Intelligence Coordinator); performs extensive research to gain an in-depth understanding of the geography, politics, culture, technology, economics, and military and legal practices and institutions of one or more foreign nations; directs the operational or administrative activities of 1-12 U.S. or foreign personnel; performs discrete personnel investigations; may have written, oral, and/or aural skills in one or more foreign languages or dialects; understands and uses a wide variety of security techniques and procedures; uses specialized intelligence equipment, including standard and nonstandard communications and photographic equipment; may be familiar with computer usage in storing and retrieving intelligence data; identifies, assesses, and applies psychological factors which influence and motivate human behavior; writes extensive informational, operational, and administrative reports; if duty position was chief area intelligence sergeant, also performs the following duties: Serves as a senior area intelligence specialist; may serves as a service school instructor; may assume the duties normally assigned to Skill Level 50 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as chief area intelligence specialist; directs area intelligence activities, performing less field work; performs budget analysis and justification; coordinates the preparation of extensive reports; supervises the activities of approximately 10-40 persons; trains subordinates in the application of security procedures and intelligence-gathering techniques; may serve as first sergeant of a company.

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in area studies, 3 in written communication skills, 3 in applied psychology, 3 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations, and additional credit in area studies on the basis of institutional evaluation; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation; if duty position was chief area intelligence sergeant, use the following recommendation: In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 9 semester hours in area studies, 3 in written communication skills, 3 in applied psychology, 2 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation; additional credit in area studies, written communication skills, field experience in management, management problems, and field experience in personnel supervision (up to the amounts in the recommendation for Skill Level 50) on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 15 semester hours in area studies, 6 in written communication skills, 6 for field experience in management, 3 in management problems, 3 for field experience in personnel supervision, 3 in applied psychology, 3 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation (9/79).

MOS-97C-002

AREA INTELLIGENCE SPECIALIST

97C30

97C40

97C50

Exhibit Dates: 9/76–3/87. (Effective 3/87, MOS 97C was discontinued and its functions were incorporated into MOS 97B, Counterintelligence Agent.)

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises and performs intelligence analysis of a geographic area; may be employed in either a group activity or individually with minimum supervision; formulates and carries out intelligence-gathering missions with a specific objective and utilizes extremely demanding operational security procedures in both domestic and foreign environments. NOTE: Many of the required duties for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and and knowledges associated with the MOS were evaluated. *Skill Level 30:* May have previously held MOS 97B (Counterintelligence Agent) or MOS 97D (Military Intelligence Coordinator); performs extensive research to gain and in-depth understanding of the geography, politics, culture, technology, economics, and military and legal practices and institutions of one or more foreign nations; directs the operational or administrative activities of 1-12 U.S. or fogeign personnel; performs discrete personnel investigations; may have written, oral, and/or aural skills in one or more foreign languages or dialects; understands and uses a wide variety of security techniques and procedures; uses specialized intelligence equipment, including standard and nonstandard communications and photographic equipment; may be familiar with computer usage in storing and retrieving intelligence data; indentifies, assesses, and applies psychological factors which influence and motivate human behavior; writes extensive informational, operational, and administrative reports. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as a senior area intelligence specialist; may serve as a service school instructor; may assume the duties normally assigned to Skill Level 50 personnel. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as chief area intelligence specialist; directs area intelligence activities, performing less field work; performs budget analysis and justification; coordinates the preparation of extensive reports; supervises the activities of approximately 10-40 persons; trains subordinates in the application of security procedures and application of security procedures and intelligence-gathering techniques; may serve as first sergeant of a company.

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in area studies, 3 in written communication skills, 3 in applied psychology, 3 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations, and additional credit in area studies on the basis of institutional evaluation; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 9 semester hours in area studies, 3 in written communication skills, 3 in applied psychology, 3 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation; additional credit in area studies, written communication skills, field experience in management, management problems, and field experience in personnel supervision (up to the amounts in the recommendation for Skill Level 50) on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category extending into the upper-division baccalaureate category, 15 semester hours in area studies, 6 in written communication skills, 6 for field experience in management, 3 in management problems, 3 for field experience in personnel supervision, 3 in applied psychology, 3 in geography, 3 in photography, 2 in typing, and 2 in electronic systems operations; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education; add credit for foreign language proficiency by referring to the recommendation(s) in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the credit on the basis of institutional evaluation (6/77).

MOS-97D-001

MILITARY INTELLIGENCE COORDINATOR

97D20

97D40

Exhibit Dates: 10/73–8/76. (Effective 9/76, MOS 97D was discontinued.)

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises and performs the analysis of intelligence data in conjunction with counterintelligence or area intelligence operations; must be familiar with the duties required for MOS 97B (Counterintelligence Agent) and MOS 97C (Area Intelligence Specialist). NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 20:* Provides general and specialized administrative services to support the activities of 5-15 U.S. Army intelligence agents, which may include conducting document research, establishing and maintaining intelligence files, requisitioning supplies and equipment, and processing personnel actions; prepares and edits operational and administrative reports; types at a minumum speed of 25 words per minute; adheres to proper security procedures in the performance of all duties; may assist in an investigation by collecting information from public sources; may acquire proficiency in one or more foreign languages; may supervise lower-ranking personnel. *Skill Level 40:* Able to perform the duties required for Skill Level 20; coordinates the reporting of intelligence agents' activities; may manage a military intelligence coordination office.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in written communication skills, 3 in security procedures, 2 in office practices, and 2 in typing, and additional credit in investigative report writing on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in security procedures, 2 in office practices, and 2 in typing, and additional credit in investigative report writing, for field experience in personnel supervision, and for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 3 in security procedures, 3 in investigative report writing, 2 in office practices, and 2 in typing. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in security procedures, 3 in investigative report writing, 3 for field experience in personnel supervision, 2 in office practices, and 2 in typing, and additional credit for foreign language proficiency on the basis of institutional evaluation (6/77).

MOS-97E-001

INTERROGATOR

97E10

97E20

97E30

97E40

Exhibit Dates: 9/84–2/87.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Conducts and supervises interrogations in foreign language; knows geography, political system, economic system, and customs of the countries in which the foreign language is spoken; prepares translation reports. *Skill Level 10:* Conducts interrogations in foreign language of prisoners of war, enemy deserters, civilians, and refugees to obtain information necessary for the development of military intelligence; compares and verifies information obtained with information contained in other interrogation reports, captured documents, and intelligence reports; prepares notes and keeps detailed records on all interrogations performed; translates and prepares summaries, extracts, and full translations of written foreign material (directives, records, messages, combat orders, technical publications) into English; translates speeches, announcements, radio scripts, and other materials into foreign language for use in non-English speaking countries; types translated materials; establishes reference files of translation materials. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel; reviews and edits translations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower-skill-level personnel; performs more difficult interrogations and translations, including scientific information; determines requirements for summaries, extracts, or complete translations of documents; performs as a team chief for interrogations and translator/interpretation functions; monitors interrogations and translations for accuracy, adequacy, and completeness; organizes and conducts on-the-job training; assists in preparation and presentation of information to superiors. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises an interrogation center or interrogation, translation/interpreter sections; plans and organizes work schedules; assists specific tasks; plans training activities; insures establishment of required files and preparation of required reports.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in personnel management, and additional credit in area studies, for field experience in management, and for a practicum in education, on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-97E-002

INTERROGATOR

97E10
97E20
97E30
97E40
97E50

Exhibit Dates: 3/87–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Conducts and supervises interrogations in foreign language; knows geography, political system, economic system, and customs of the countries in which the foreign language is spoken; prepares translation reports. *Skill Level 10:* Conducts interrogations in foreign language of prisoners of war, enemy deserters, civilians, and refugees to obtain information necessary for the development of military intelligence; compares and verifies information obtained with information contained in other interrogation reports, captured documents, and intelligence reports; prepares notes and keeps detailed records on all interrogations performed; translates and prepares summaries, extracts, and full translations of written foreign material (directives, records, messages, combat orders, technical publications) into English; translates speeches, announcements, radio scripts, and other materials into foreign language for use in non-English speaking countries; types translated materials; establishes reference files of translation materials. *Skill Level 20:* Able to perform the duties required for Skill Level 10; provides technical guidance to lower-skill-level personnel; reviews and edits translations. *Skill Level 30:* Able to perform the duties required for Skill Level 20; provides technical guidance to lower-skill-level personnel; performs more difficult interrogations and translations, including scientific information; determines requirements for summaries, extracts, or complete translations of documents; performs as a team chief for interrogations and translator/interpretation functions; monitors interrogations and translations for accuracy, adequacy, and completeness; organizes and conducts on-the-job training; assists in preparation and presentation of information to superiors. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises an interrogation center or interrogation, translation/interpreter sections; plans and organizes work schedules; assists specific tasks; plans training activities; insures establishment of required files and preparation of required reports. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises strategic intelligence interrogation center; plans, coordinates, and supervises intelligence interrogation training and operation; provides expert interrogation capability for high-level, technical interrogations, advises commander and staff on distribution and assignment of interrogation personnel.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in record keeping, 3 in report writing, and 2 in filing. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 30

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in typing, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in personnel management, and additional credit in area studies, for field experience in management, and for a practicum in education, on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 20. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 30. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for field experience in management, and additional credit in area studies and for a practicum in education on the basis of institutional evaluation. Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (5/88).

MOS-97G-001

SIGNAL SECURITY SPECIALIST

97G10
97G20
97G30
97G40
97G50

Exhibit Dates: 9/84–Present.

Career Management Field: 96 (Military Intelligence).

Description

Summary: Supervises and conducts signal security operations throughout the Army; monitors and analyzes communications signals; performs electronic security inspections; reviews documents for adequacy of security; prepares comprehensive written reports and makes oral presentations. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Performs transcription, monitoring, and basic analysis of radiotelephone and conventional telephone messages to detect communications security discrepancies and violations; reviews communications, electronic signal instructions, communications electronic operating instructions, and operations plans and orders to determine adequacy of communications security; reads and interprets maps and map overlays; prepares basic reports on signal security activities; operates and performs user maintenance on communications security and monitoring equipment; selects sites for, erects, and orients tactical antennas; selects and uses commercial battery and generator power; performs general office duties such as filing, typing (35 words per minute minimum), preparation of reports, and record keeping; presents oral reports concerning communications security activities. *Skill Level 20:* Able to perform the duties required for Skill Level 10; serves as team chief, supervising 2-5 persons; provides basic signal security advice and assistance to commanders and performs security analysis of security codes; establishes and supervises operating sites; writes reports, including statistical analyses, and presents oral reports on data collected; makes recommendations to eliminate disclosures of intelligence information; provides advice and assistance concerning cryptographic systems and the interpretation of basic documents and regulations; determines need for written communication security instructions; prepares special, periodic, and project reports on signal security activities. *Skill Level 30:* Able to perform the duties required for Skill Level 20; is a first-line supervisor of 10-12 persons; provides advice and assistance on electronic security procedures and signal security training; prepares signal security monitoring cover plan; analyzes the signal output of communications and noncommunications equipment to establish methods of operations, cryptonetting, and other types of intelligence; reviews documents for signal security; plans and supervises electronic security support; schedules signal security operational activities. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises 15 or more persons; determines needed signal intelligence support; presents oral reports to commanders on operational security principles; plans signal security actions to support the operational security plan; serves as advisor to commanders on signal security matters; plans and conducts classes on signal security activities. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as signal security operations chief, first sergeant of a company, or signal security operations chief, first sergeant of a company, or signal security chief; supervises 50-300 persons; has experience as the enlisted commander of a detachment; develops and writes signal security doctrine; advises commander and manages signal security personnel; plans career progression training; allocates personnel; advises commander and manages signal security equipment resources; plans and carries out signal security missions; advises generals and high-level government officials on signal security activities.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in written communication skills, 2 in oral communication skills, 2 in electronic systems operations, and 1 in office practices (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in written communication skills, 3 in oral communication skills, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 2 semester hours for field experience in management (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in typing, 3 in oral communication skills, 3 for field experience in personnel supervision, 3 in human relations, 2 in electronic systems operations, 2 in office practices, and 2 in introductory mathematics. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 for an internship in education (6/77).

Recommendation, Skill Level 50

In the vocational certificate category, the recommendation is the same as that for Skill Level 40. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, 3 in personnel management, and 3 for an internship in education (6/77).

MOS-97Z-001

COUNTERINTELLIGENCE/HUMAN
INTELLIGENCE SENIOR SERGEANT

97Z50

Exhibit Dates: 3/87–Present.

Career Management Field: 96 (Military Intelligence).

Description

Skill Level 50: Able to perform the duties required for 97B, Counterintelligence Agent, 97E, Interrogator, or 97G, Counter Signal Intelligence Specialist; supervises and guides all counterintelligence activities; plans mission assignments; participates in long and short range planning for organizational operations, including contingency operations and needs; responsible for coordinating and managing career and professional development of senior enlisted personnel in unit; responsible for supervising the maintenance records pertaining to materials, resources, personnel actions, and reports; oversees employment, substance abuse, and counseling; supervises daily schedules, insuring that the unit is efficient and ready; responsible for development and maintenance of all unit standard operating procedures. NOTE: May have progressed to MOS 97Z50 from 97B40, Counterintelligence Agent, 97E40, Interrogator, or 97G40, Signal Security Specialist.

Recommendation

In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in human resources management, and 3 in organizational planning (6/90).

MOS-98B-001

EW/CRYPTOLOGIC CRYPTANALYST
(CRYPTANALYTIC SPECIALIST)

98B20
98B40

Exhibit Dates: 10/73–2/77. (Effective 3/77, MOS 98B was discontinued and its functions were incorporated into MOS 98C, EW/Signal Intelligence Analyst.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Conducts or supervises cryptanalysis of coded messages obtained through the interception of foreign communications. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Scans intercepted communications to isolate encrypted messages; identifies method of encryption; decodes or deciphers messages employing simple cryptographic systems; uses automatic data processing techniques to aid in the analysis of encrypted messages; reduces decoded and deciphered data into automatic data processing format; prepares reports and maintains support files and records; types at a minumum rate of 24 words per minute; may acquire a technical vocabulary in a foreign language. *Skill Level 40:* Able to perform the duties required for Skill Level 20; supervises the processing, analysis, and reporting of encrypted foreign communications; performs cryptanalysis of messages employing complex encryption systems; prepares technical intelligence reports and presents oral reports on cryptanalytic activities; coordinates cryptanalytic activities with other signal intelligence activities; develops new cryptanalytic approaches and methods to insure maximum utilizaton of personnel and efficiency of operations; performs statistical tests and studies.

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 1 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 2 in geography, 1 in office practices, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in written communication skills, 3 in oral communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in oral communication skills, 3 in social sciences and humanities, 3 for field experience in personnel supervision, 2 in typing, 2 electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in office practices, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

MOS-98C-001

EW/SIGNAL INTELLIGENCE ANALYST

98C20
98C30
98C40

Exhibit Dates: 10/73–2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Supervises and performs analysis and reporting of intercepted foreign communications at a mobile or fixed site. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 20:* Gathers, sorts, and scans intercepted messages and signals, and performs initial analysis to establish communications patterns, isolates valid message traffic; reduces communications data into automatic data processing format; operates communications equipment for reporting and coordination; types at a minimum rate of 25 words per minute; has a knowledge of the geography and culture of the area from which intercepted communications originate; may acquire a technical vocabulary in one or more foreign languages; if duty position was senior traffic analyst, also performs the following duties: May supervise 5-8 persons; analyzes foreign communications, including encrypted communications; uses automatic data processing techniques to analyze communications; presents written and oral technical and intelligence reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises traffic analysis and provides guidance on the interpretation of collected information; devises methods for solving complex analytic problems; maintains analytic files; compiles, writes, edits, evaluates, and disseminates intelligence reports; analyzes automatic data processing results and confers with computer programmers and analysts; coordinates activities and schedules work; implements emergency action plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises traffic and signal intelligence analysis and coordinates collection, processing, analysis, and reporting functions; analyzes and evaluates intelligence data and releases reports; establishes and supervises training programs; supervises 18-40 persons; may serve as an operations sergeant, supervising up to 75 persons; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 20

In the vocational certificate category, 2 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, and 1 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 2 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 1 in introductory mathematics, and 1 in geography; if the duty position was senior traffic analyst, use the following recommendation: In the vocational certificate category, 3 semester hours in written communications skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 1 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 1 in office practices, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 2 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in human relations, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 2 in office practices, 2 in visual comprehension techniques, and 1 in introduction to automatic data processing equipment, and 1 credit for foreign language proficiency on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 2 in office practices, 2 in visual comprehension techniques, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/79).

MOS-98C-002

SIGNALS INTELLIGENCE ANALYST
(EW/SIGNAL INTELLIGENCE ANALYST)

98C10
98C20
98C30
98C40

Exhibit Dates: 3/77–8/87.

Career Management Field: 98 (Electronic Warfare/Crypotologic).

Description

Summary: Supervises and performs analysis and reporting of intercepted foreign communications at a mobile or fixed site. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Gathers, sorts, and scans intercepted messages and signals, and performs initial analysis to establish communications patterns; isolates valid message traffic; reduces communications data into automatic data processing format; operates communications equipment for reporting and coordination; types at a minimum rate of 25 words per minute; has knowledge of the geography and culture of the area from which intercepted communications orginate; may acquire a technical vocabulary in one or more foreign languages. *Skill Level 20:* Able to perform the duties required for Skill Level 10; may supervises 5-8 persons; analyzes foreign communications, including encrypted communications; uses automatic data processing techniques to analyze communications; presents written and oral technical and intelligence reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises traffic analysis and provides guidance on the interpretation of collected information; devises methods for solving complex analytic problems; maintains analytic files; compiles, writes, edits, evaluates, and disseminates intelligence reports; analyzes automatic data processing results and confers with computer programmers and analysts; coordinates activities and schedules work; implements emergency action plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises traffic and signal intelligence analysis activities and coordinates collection, processing, analysis, and reports; supervises 18-40 persons; may serve as an operations sergeant, supervising up to 75 persons; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 10

In the vocational certificate category, 2 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, and 1 in introductory mathematics. In the lower-division baccalaureate/associate degree category, 2 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 1 in introductory mathematics, and 1 in geography (6/77).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 1 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operation, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 1 in office practices, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in written communication skills, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in oral communication skills, 2 in office practices, and 1 in introduction to automatic data processing equipment. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in human relations, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 2 in office practices, 2 in visual comprehension techniques, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, the recommendation is the same as that for Skill Level 30. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in typing, 2 in electronic systems operations, 2 in introductory mathematics, 2 in geography, 2 in oral communication skills, 2 in office practices, 2 in visual comprehension techniques, and 1 in introduction to automatic data processing equipment, and credit for foreign language proficiency on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

MOS-98C-003

ELECTRONIC WARFARE (EW)/SIGNAL INTELLIGENCE ANALYST

98C10
98C20
98C30
98C40

Exhibit Dates: 9/87–Present.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Supervises and performs analysis and reporting of intercepted foreign communications at a mobile or fixed site. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Gathers, sorts, and scans intercepted messages and signals, and performs initial analysis to establish communications patterns; isolates valid message traffic; reduces communications data into automatic data processing format; operates communications equipment for reporting and coordination; types at a minimum rate of 25 words per minute; has knowledge of the geography and culture of the area from which intercepted communications originate; may acquire a technical vocabulary in one or more foreign language(s). *Skill Level 20:* Able to perform the duties required for Skill Level 10; may supervise 5-8 persons; analyzes foreign communications, including encrypted communications; uses data processing techniques to analyze communications; presents written and oral technical and intelligence reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises traffic analysis and provides guidance on the interpretation of collected information; devises methods for solving complex analytic problems; maintains analytic files; compiles, writes, edits, evaluates, and disseminates intelligence reports; analyzes automatic data processing results and confers with computer programmers and analysts; coordinates activities and schedules work; implements emergency action plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises traffic and signal intelligence analysis activities and coordinates collection processing, analysis, and reports; supervises 18-40 persons; may serve as an operations sergeant, supervising up to 75 persons; may have experience as the enlisted commander of a detachment; uses counseling techniques to alleviate stress among subordinates.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in written communications, 3 in keyboarding, 1 in computer literacy, and 2 in geography, and credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communications, 3 in geography, 2 in oral communications, 2 in office practices, 3 in keyboarding, and 2 in computer literacy, and credit in foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communications, 3 in geography, 3 in oral communications, 3 in office practices, 3 in keyboarding, 3 in social science and humanities, 3 in human relations, and 3 in computer literacy, and credit in foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic systems operation. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communications, 3 in geography, 3 in oral communications, 3 in office practices, 3 in keyboarding, 3 in social science and humanities, 3 in human relations, 3 for a counseling practicum, 3 in computer literacy, and 3 for field experience in personnel supervision, and credit in foreign language proficiency on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

MOS-98D-001

EMITTER/LOCATOR IDENTIFIER

98D10
98D20
98D30
98D40

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-98D-003

ELECTRONIC WARFARE (EW)/SIGNAL INTELLIGENCE EMITTER IDENTIFIER/LOCATOR

05D10
05D20
05D30

Exhibit Dates: 9/87–3/90. (Effective 3/90, MOS 05D was discontinued and its duties were incorporated into MOS 98D, Emitter Locator/Identifier.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates or supervises the operation of radio direction-finding systems and other systems using advanced identification techniques; intercepts and acquires bearings on target transmitters and performs analysis on maps or charts to establish probable locations of target transmitters. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Employs special transmitters; forwards bearings and identification information to a control center; selects, erects, and orients tactical antennas; obtains desired visual display on specialized monitor oscilloscopes; records electrical characteristics of signals displayed, using light sensitive recorders; operates direction-finding and related cryptological, communications, and automatic data processing equipment; prepares and maintains operation logs and card files; types at a minimum rate of 25 words per minute; copies International Morse Code at a minimum rate of 20 groups per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; maintains section management files; classifies, analyzes, and evaluates observed bearings and waveform oscillograms; establishes, plots, and evaluates bearings to detemine probable geographical location of foreign transmitters; performs measurement of bands on oscillograms to determine ripple frequency, modulation percentages, and duration of other effects; maintains calibration and accuracy studies, and computes statistical data, including standard deviations and systemic errors; monitors quality control of input and data for automatic data processing support; may serve as a first-line supervisor, assigning workloads and completing personnel evaluations; presents oral and written reports. *Skill Level 30:* Able to perform the duties required for Skill Level 20; inspects equipment to ensure proper alignment and orientation; provides guidance and assistance in site selection and equipment installation; prepares written and oral reports; establishes and maintains facilities and support for site personnel; implements emergency action plans; may have experience as the enlisted commander of a detachment.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding and 1 in computer literacy (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in written communications, 1 in office practices, and 2 in computer literacy (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in written communications, 3 in office practices, 3 in computer literacy, and 3 for field experience in personnel supervision (9/88).

MOS-98G-001

EW/SIGNAL INTELLIGENCE VOICE
INTERCEPTOR
98G20
98G30
98G40

Exhibit Dates: 10/73-2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Conducts and supervises the interception, transcription, translation, and reporting of foreign voice transmissions in a mobile or fixed station environment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Operates intercept receivers, including radiotelephone and multichannel systems, and recording equipment; selects, erects, and orients tactical antennas; makes written records of foreign voice transmissions which are composed of limited terminology and simple syntactic structures; identifies languages spoken in the geographic area to which assigned; categorizes foreign voice signals by type of activity; prepares voice activity records; make verbatim translation from foreign language to English; scans written foreign language materials for key words and indicators; provides translation assistance to non-language-qualified analysts; extracts specific intelligence information from voice radio transmissions; researches and develops special project reports; presents oral reports; types in English and in language of proficiency; performs operator maintenance on equipment. IF duty position was Senior Voice Interceptor (paygrade E-5), also performs the following duties: Intercepts, identifies, and records foreign voice transmissions; supervises a small unit; assembles, integrates, analyzes, and disseminates intelligence information covering political, economic, sociological, historical, and phychological factors of a geographic area; prepares special studies and reports as required. Must have the following minimum capabilities in at least one foreign language: vocabulary (aural recognition) of 6,000-8,000 words; 750-1,000 technical term items; knowledge of complex grammar and syntax; 85-90 percent of all existing word functions; 85-90 percent of all kinship terms; total comprehension of writing systems, except in languages with ideographic systems where the ability to write 500 and read 1,500 characters is required. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises voice communication intercept activities; operates sophisticated equipment designed to collect and simultaneously produce on-line activity records of complex foreign voice radio transmissions containing technical terminology, advanced grammar/syntax, and colloquial conversational forms; directs voice signal collection and processing activities; determines collection and processing priorities; identifies and performs limited analysis on nonclear voice and nonvoice signals; writes complex reports; makes oral presentations to general staff. Must achieve a fluent and accurate proficiency in one or more foreign languages and have the following minimum foreign language capabilities: vocabulary (aural recognition) of 8,000-10,000 words; 1,000-1,500 technical term items; advanced knowledge of grammar and syntax; 90-100 percent of all existing word functions; 90-100 percent of all existing kinship terms and forms of address; must be able to write 700 and read 2,000 characters in an ideographic writing system. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises voice communication countermeasure activities; refines essential elements of information needed to support assigned mission; performs voice intercept and processing of high military and governmental levels. Must achieve the following minimum capabilities in one or more foreign languages: vocabulary (aural recognition) of 10,000-15,000 words; 1,500-3,000 technical term items; total knowledge of word functions; total knowledge of kinship terms and forms of address; must be able to write 1,000 and read 2,500-3,000 charaters in an ideographic writing system. IF paygrade E-7 has been achieved, also performs the following duties: Serves as electronic warfare/signal intelligence voice operations chief; evaluates and defines job requirements and systems capabilities for communication intelligence linguists. Must attain a foreign language proficiency equivalent to that of a well-educated native speaker and have the following minimum capabilities; vocabulary (aural recognition) of 15,000-plus words; 3000-plus technical terms; advanced knowledge of grammar and syntax; must be able to write 1,500 and read 2,500-3,000 characters in an ideographic writing system.

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in library technology. In the upper-division baccalaureate category, 6 semester hours in written communication skills and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation. If the duty position was senior voice interceptor (paygrade E-5), use the following recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, and 3 in geography. In the upper-division baccalaureate category, 6 semester hours in written communication skills, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 3 in social sciences and humanities, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in written communication skills, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/79).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 6 in social sciences and humanities, 3 in human relations, 3 for field experience in personnel supervision, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in written communication skills and 3 for field experience in management, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation. If paygrade E-7 was achieved, use the following recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 6 in social sciences and humanities, 3 in human relations, 3 for field experience in personnel supervision, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in introduction to management, and 3 in personnel management, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/79).

MOS-98G-002

EW/SIGNAL INTELLIGENCE VOICE
INTERCEPTOR

98G10

98G20

98G30

98G40

98G50

Exhibit Dates: 3/77-8/87.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Conducts and supervises the interception, transcription, translation, and reporting of foreign voice transmisions in a mobile or fixed station environment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates intercept receivers, including radiotelephone and multichannel systems, and recording equipment; selects, erects, and orients tactical antennas; makes written records of foreign voice transmissions which are composed of limited terminology and simple syntactic structures; identifies languages spoken in the geographic area to which assigned; categorizes foreign voice signals by type of activity; prepares voice activity records; makes verbatim translation from foreign language to English; scans written foreign language materials for key words and indicators; provides translation assistance to non-language-qualified analysts; extracts specific intelligence information from voice radio transmissions; researches and develops special project reports; presents oral reports; types in English and in language of proficiency; performs operation maintenance on equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; intercepts, identifies, and records foreign voice transmissions; supervises a small unit; assembles, integrates, analyzes, and disseminates intelligence information covering political, economic, sociological, historical, and psychological factors of a geographic area; prepares special studies and reports as required. Must have the following minimum capabilities in at least one foreign language: vocabulary (aural recognition) of 6,000-8,000 words; 750-1,000 technical term items; knowledge of complex grammar and syntax; 85-90 percent of all existing word functions; 85-90 percent of all kinship terms; total comprehension of writing systems, except in languages with ideographic systems where the ability to write 500 and read 1,500 characters is required. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises voice communication intercept activities; operates sophisticated equipment designed to collect and simultaneously produce on-line activity records of complex foreign voice radio transmissions containing technical terminology, advanced grammer/syntax, and colloquial conversational forms; directs voice signal collection and processing priorities; identifies and performs limited analysis on nonclear voice and nonvoice signals; writes complex reports; makes oral presentations to general staff. Must achieve a fluent and accurate proficiency in one or more foreign languages and have the following minimum foreign language capabilities: vocabulary (aural recognition) of 8,000-10,000 words; 1,000-1,500 technical term items; advanced knowledge of grammar and syntax; 90-100 percent of all existing kinship terms and forms of address; must be able to write 700 and read 2,000 characters in an ideographic writing system. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises voice communication countermeasure activities; refines essential elements of information needed to support assigned mission; performs voice intercept and processing of highly complex foreign voice transmissions; prepares paper for use at high military and governmental levels. Must achieve the following minimum capabilities in one or more foreign languages: vocabulary (aural recognition) of 10,000-15,000 words; 1,500-3,000 technical terms; to a knowledge of word functions; total knowledge of kindship terms and forms of address; must be able to write 1,000 and read 2,500-3,000 characters in an ideographic writing system. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as electronic warfare/signal intelligence voice operations chief; evaluates and refines job requirements and systems capabilities for communication intelligence linguists. Must attain a foreign language proficiency equivalent to that of a well-educated native speaker and have the following minumum capabilities; vocabulary (aural recognition) of 15,000-plus words; 3000-plus technical term items; advanced knowledge of grammar and syntax; must be able to write 1,500 and read 2,500-3,000 characters in ideographic writing systems.

Recommendation, Skill Level 10

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in library technology. In the upper-division baccalaureate category, 6 semester hours in written communication skills and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 20

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, and 3 in geography. In the upper-division baccalaureate category, 6 semester hours in written communication skills, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s) using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 30

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 3 in social sciences and humanities, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in written communication skills, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 40

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 6 in social sciences and humanities, 3 in human relations, 3 for field experience in personnel supervision, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in written communication skills and 3 for field experience in management, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (6/77).

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in library technology, 3 in records administration, 3 in geography, 6 in social sciences and humanities, 3 in human relations, 3 for field experience in personnel supervision, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in written communication skills, 6 for field experience in management, 3 in introduction to management, and 3 in personnel management, and credit in linguistics on the basis of institutional evaluation. Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (6/77).

MOS-98G-003

ELECTRONIC WARFARE (EW)/SIGNAL INTELLIGENCE VOICE INTERCEPTOR

98G10

98G20

98G30

98G40

98G50

Exhibit Dates: 9/87–9/90.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Conducts and supervises the interception, transcription, translation, and reporting of foreign voice transmissions in a mobile or fixed station environment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates intercept receivers, including radiotelephone and multichannel systems, and recording equipment; selects, erects, and orients tactical antennas; makes written records of foreign voice transmissions which are composed of limited terminology and simple syntactic structures; identifies languages spoken in the geographic area to which assigned; categorizes foreign voice signals by type of activity; prepares voice activity records; makes verbatim translation from foreign language to English; scans written foreign language materials for key words and indicators; provides translation assistance to non-language-qualified analysts; extracts specific intelligence information from voice radio transmissions; researches and develops special project reports; presents oral reports; types in English and in language of proficiency; performs operation maintenance on equipment. *Skill Level 20:* Able to perform the duties required for Skill Level 10; intercepts, identifies, and records foreign voice transmissions; supervises a small unit; assembles, integrates, analyzes, and disseminates intelligence information covering political, economic, sociological, historical, and psychological factors of a geographic area; prepares special studies and reports as required; must have the following minimum capabilities in at least one foreign language: vocabulary (aural recognition) of 6,000–8,000 words; 750–1,000 technical term items; knowledge of complex grammar and syntax; 85–90 percent of all existing word functions; 85–90 percent of all kinship terms; total comprehension of writing systems, except in languages with ideographic systems where the ability to write 500 and read 1,500 characters is required. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises voice communication intercept activities; operates sophisticated equipment designed to collect and simultaneously produce on-line activity records of complex foreign voice radio transmissions containing technical terminology, advanced grammar/syntax, and colloquial conversational forms; directs voice signal collection and processing priorities; identifies and performs limited analysis on nonclear voice and nonvoice signals; writes complex reports; makes oral presentations to general staff; must achieve a fluent and accurate proficiency in one or more foreign languages and have the following minimum foreign language capabilities: vocabulary (aural recognition) of 8,000–10,000 words; 1,000–1,500 technical term items; advanced knowledge of grammar and syntax; 90–100 percent of all existing kinship terms and forms of address; must be able to write 700 and read 2,000 characters in an ideographic writing system. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises voice communication countermeasure activities; refines essential elements of information needed to support assigned mission; performs voice intercept and processing of highly complex foreign voice transmissions; prepares paper for use at high military and government levels; must achieve the following minimum capablilities in one or more foreign languages; vocabulary (aural recognition) of 10,000–15,000 words; 1,500–3,000 technical terms; total knowledge of word functions; total knowlege of kinship terms and forms of address; must be able to write 1,000 and read 2,500–3,000 characters in an ideographic writing system; uses counseling techniques to alleviate stress among subordinates. *Skill Level 50:* Able to perform the duties required for Skill Level 40; serves as electronic warfare/signal intelligence voice operations chief; evaluates and refines job requirements and systems capabilities for communication intelligence linguists; must attain a foreign language proficiency equivalent to that of a well-educated native speaker and have the following minimum capabilities: vocabulary (aural recognition) of 15,000-plus words; 3,000-plus technical terms; advanced knowledge of grammar and syntax; must be able to write 1,500 and read 2,500–3,000 characters in ideographic writing systems.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 1 in computer literacy, and 3 in library research techniques. In the upper-division baccalaureate category, 3 semester hours in advanced written communications. NOTE: Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 2 in computer literacy, 3 in library research techniques, 3 in records administration, and 3 in geography. In the upper-division baccalaureate category, 6 semester hours in advanced written communications. NOTE: Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in computer literacy, 3 in library research techniques, 3 in records administration, 3 in geography, 3 in social science and humanities, 3 in human relations, and 2 in office practices. In the upper-division baccalaureate category, 6 semester hours in advanced written communications. NOTE: Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in computer literacy, 3 in library research techniques, 3 in records administration, 3 in geography, 6 in social science and humanities, 3 in human relations, 2 in office practices, 3 for a counsling practicum, and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, 6 semester hours in advanced written communications and 3 for field experience in management. NOTE: Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Recommendation, Skill Level 50

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for Skill Level 40. In the upper-division baccalaureate category, 6 semester hours in advanced written communications, 6 for field experience in management, 3 in principles of management, and 3 in personnel management. NOTE: Add credit for the specific foreign language(s), using the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum and awarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

MOS-98G-004

VOICE INTERCEPTOR

98G10

98G20

98G30

98G40

Exhibit Dates: Pending evaluation. 9/90–Present.

MOS-98H-001

MORSE INTERCEPTOR

98H10

98H20

98H30

98H40

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-98H-003

ELECTRONIC WARFARE (EW)/SIGNAL INTELLIGENCE MORSE INTERCEPTOR

05H10

05H20

05H30

05H40

Exhibit Dates: 9/87–3/90. (Effective 3/90, MOS 05H was discontinued and its duties were incorporated into MOS 98H, Morse Interceptor.)

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates International Morse Code message interception and simple printer equipment and supervises the operation of such equipment in mobile or fixed installations for the purpose of detecting, identifying, and exploiting foreign communications. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Operates Morse Code interception equipment, including radio receivers, special typewriters, teletypewriters, antenna selection devices, internal communications equipment, and magnetic tape recorders; searches for, identifies, and manually records foreign international Morse Code communications at a minimum rate of 20 groups per minute; performs first-level analysis of messages to detect anomalies and suspect items which may be of intelligence interest; maintains operator's log of messages and related data and delivers messages to analysts for interpretation; performs operator maintenance on equipment; types at a minimum speed of 25 words per minute. *Skill Level 20:* Able to perform the duties required for Skill Level 10; performs more detailed message analysis and evaluation prior to forwarding messages to other analysts; writes detailed reports regarding intercepted messages; conducts on-the-job training; presents oral reports to high-level command staff. *Skill Level 30:* Able to perform the duties required for Skill Level 20; supervises Morse intercept activities; establishes and maintains extensive intercept files for messages and related data; assists in formulating unit deployment plans. *Skill Level 40:* Able to perform the duties required for Skill Level 30; allocates personnel and equipment resources; assists in designing collection strategies; may have experience as the enlisted commander of a detachment; analyzes automatic data processing results and confers with computer programmers and analysts; uses counseling techniques to alleviate stress among subordinates. NOTE: May have progressed to 05H40 from 05H30 or 05D30 (EW/Signal Intelligence Emitter Identifier/Locator).

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding and 1 in office practices (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in office practices, 3 in human relations, 3 for field experience in personnel supervision, and 3 in written communications (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in Morse code and 3 in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in keyboarding, 3 in office practices, 3 in human relations, 3 for field experience in personnel supervision, 3 in written communications, 3 for a counseling practicum, and 3 in social science and humanities. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

MOS-98J-001

EW/SIGNAL INTELLIGENCE NONCOMMUNICATIONS INTERCEPTOR

98J20

98J30

98J40

98J50

Exhibit Dates: 10/73–2/77.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates noncommunications intercept recording and analysis equipment; intercepts, identifies, interprets, and analyzes signals from noncommunications sources; operates electro-optical receiving and analysis equipment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 20:* Erects noncommunications collection systems; conducts search for selected categories or classes on noncommunications or electro-optic signals; uses technical references and equipment to record and perform preliminary analysis and identification of intercepted signals of interest; determines line bearings of intercepted signals within specified limits; reports acquired information; posts entries and keeps logs; operates communications equipment for intellignece reporting coordination. *Skill Level 30:* Able to perform the duties required for Skill Level 20; searches for general categories or classes of noncommunications or electro-optic signals; exercises quality control over intercept effort; uses indexed data base and technical references to fix origin of intercepted signals; performs technical analysis and threat assessments; prepares intercept and analysis reports, maps and overlays; assists with fusion product reporting; establishes and maintains files. *Skill Level 40:* Able to perform the duties required for Skill Level 30; serves as a first-line supervisor of an intercept-analysis (noncommunications signals) activity; assigns search missions; intercepts and analyzes more complex noncommunications or electro-optic signals; prepares technical and administrative reports; establishes and supervises training programs; makes recommendations on the employment of noncommunications intercept units; selects and establishes operations sites; interprets and analyzes technical documents and reports; performs fusion analysis and intelligence reporting. *Skill Level 50:* Able to perform the duties required for Skill Level 40; supervises noncommunications intercept, countermeasures, and analysis activities of 20 or more persons; based on requirements, determines objectives and priorities; assigns workloads and allocates resources among subordinate supervisors; coordinates activities with other units; evaluates requirements and assists in developing plans to meet future operations, personnel, and equipment needs.

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in introduction to automatic data processing equipment (9/79).

Recommendation, Skill Level 30

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 1 in office practices (9/79).

Recommendation, Skill Level 40

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices (9/79).

Recommendation, Skill Level 50

In the vocational certificate category, 6 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/79).

MOS-98J-002

EW/Signal Intelligence
Noncommunications Interceptor
98J10
98J20
98J30
98J40

Exhibit Dates: 3/77–8/87.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates noncommunications intercept recording and analysis equipment; intercepts, identifies, interprets, and analyzes signals for noncommunications sources; operates electro-optical receiving and analysis equipment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated. *Skill Level 10:* Erects noncommunications collection systems; conducts search for selected categories or classes of noncommunications or electro-optic signals; uses technical references and equipment to record and perform preliminary analysis and identification of intercepted signals of interest; determines line bearings of intercepted signals within specified limits; reports acquired information; posts entries and keeps logs; operates communications equipment for intelligence reporting and coordination. *Skill Level 20:* Able to perform the duties required for Skill Level 10; searches for general categories or classes of noncommunications or electro-optic signals; exercises quality control over intercept effort; uses indexed data base and technical references to fix origin of intercept and analysis reports, maps, and overlays; assists with fusion product reporting; establishes and maintains files. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor of an intercept/analysis (noncommunications signals) activity; assigns search missions; intercepts and analyzes more complex noncommunications or electro-optic signals; prepares technical and administrative reports; makes recommendations on the employment of noncommunications intercept units; selects and establishes operations sites; interprets and analyzes technical documents and reports; performs fusion analysis and intelligence reporting. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises noncommunications intercept, countermeasures, and analysis activities of 20 or more persons; based on requirements, determines objectives and priorities; assigns workloads and allocates resources among subordinate supervisors; coordinates activities with other units; evaluates requirements and assists in developing plans to meet future operations, personnel, and equipment needs.

Recommendation, Skill Level 10

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations, 2 in typing, 2 in introductory mathematics, and 2 in introduction to automatic data processing equipment (6/77).

Recommendation, Skill Level 20

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 1 in office practices (6/77).

Recommendation, Skill Level 30

In the vocational certificate category, 4 semester hours in written communication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 4 semester hours in written communication skills, 3 in human relations, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices (6/77).

Recommendation, Skill Level 40

In the vocational certificate category, 6 semester hours in written commnication skills, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the lower-division baccalaureate/associate degree category, 6 semester hours in written communication skills, 3 in human relations, 3 for field experience in personnel supervision, 2 in electronic systems operations, 2 in typing, 2 in introductory mathematics, 2 in introduction to automatic data processing equipment, and 2 in office practices. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/77).

MOS-98J-003

Noncommunications Interceptor/
Analyst
(Electronic Warfare (EW)/Signal
Intelligence
Noncommunications
Interceptor)
98J10
98J20
98J30
98J40

Exhibit Dates: 9/87–Present.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Summary: Operates noncommunications intercept recording and analysis equipment; intercepts, identifies, interprets, and analyzes signals for noncommunications sources; operates electro-optical receiving and analysis equipment. NOTE: Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledge associated with the MOS were evaluated. *Skill Level 10:* Erects noncommunications collection systems; conducts search for selected categories or classes of noncommunications or electro-optic signals; uses technical references and equipment to record and perform preliminary analysis and identification of intercepted signals of interest; determines line bearings of intercepted signals within specified limits; reports acquired information; posts entries and keeps logs; operates communications equipment for intelligence reporting and coordination. *Skill Level 20:* Able to perform the duties required for Skill Level 10; searches for general categories or classes of noncommunications or electro-optic signals; exercises quality control over intercept effort; uses indexed data base and technical references to fix origin of intercept and analysis reports, maps, and overlays; assists with fusion product reporting; establishes and maintains files. *Skill Level 30:* Able to perform the duties required for Skill Level 20; serves as a first-line supervisor of an intercept/analysis (noncommunications signals) activity; assigns search missions; intercepts and analyzes more complex noncommunications or electro-optic signals; prepares technical and administrative reports; makes recommendations on the employment of noncommunications intercept units; selects and establishes operations sites; interprets and analyzes technical documents and reports; performs fusion analysis and intelligence reporting. *Skill Level 40:* Able to perform the duties required for Skill Level 30; supervises noncommunications intercept, countermeasures, and analysis activities of 20 or more persons; based on requirements, determines objectives and priorities; assigns workloads and allocates resources among subordinate supervisors; coordinates activities with other units; evaluates requirements and assists in developing plans to meet future operations, personnel, and equipment needs; uses counseling techniques to alleviate stress among subordinates.

Recommendation, Skill Level 10

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in computer literacy and 3 in keyboarding (9/88).

Recommendation, Skill Level 20

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy, 3 in keyboarding, 3 in written communications, and 2 in office practices (9/88).

Recommendation, Skill Level 30

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy, 3 in keyboarding, 3 in written communications, 3 in office practices, 3 in human relations, 3 in oral communications, and 3 in social science and humanities (9/88).

Recommendation, Skill Level 40

In the vocational certificate category, 3 semester hours in electronic systems operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in computer literacy, 3 in keyboarding, 3 in written communications, 3 in office practices, 3 in human relations, 3 for a counseling practicum, 3 in oral communications, 3 in social science and humanities, and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management (9/88).

MOS-98K-001

Non-Morse Interceptor/Analyst
98K10
98K20
98K30
98K40

Exhibit Dates: Pending evaluation. 3/90–Present.

MOS-98Z-001

EW/Signal Intelligence Chief
(EW/Cryptologic Operations Chief)
(Signal Intelligence Operations
Chief)

98Z50

Exhibit Dates: 10/73–8/87.

Career Management Field: 98 (Electronic Warfare/Crypotologic).

Description

Skill Level 50: Serves as the principal authority on signal intelligence matters in a high-level military organization; directs signal intelligence activities and provides technical, operational, and administrative guidance to subordinate personnel; interprets all signal intelligence requirements and develops signal intelligence tasks; evaluates military posture of other nations and determines the capabilities and limitations of U.S. signal intelligence activities to meet the determined threats; reviews, evaluates, prepares, and implements plans and orders; assists high-level commanders in appraising the effectiveness of signal intelligence operations and staff; evaluates signal intelligence functions, publications, and procedures and recommends changes; advises commanders on matters of personnel welfare, morale, assignment, utilization, promotion, privileges, discipline, and training; provides written and oral evaluations of subordinate personnel; uses counseling techniques to alleviate stress among subordinates; prepares and presents written and oral reports to high-level personnel in the Department of the Army and other national agencies involved in the preparation of national security and intelligence policy; manages equipment, material, and support service resources. NOTE: May have progressed to 98Z50 from 98B40 (EW/Cryptologic Crytanalyst), 98C40 (EW/Signal Intelligence Analyst), 98G50 (EW/Signal Intelligence Voice Interceptor), 98J40 (EW/Signal Intelligence Noncommunications Interceptor), 05H40 (EW/Signal Intelligence Morse Interceptor), or 05K40 (EW/Signal Intelligence Non-Morse Interceptor); may have acquired proficiency in one or more foreign languages through the performance of a previously held MOS. Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated.

Recommendation, Skill Level 50

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems operations, 2 in introductory mathematics, 2 in typing, 2 in introduction to automatic data processing equipment, 3 in records administration, 3 in industrial security, 3 in social sciences and humanities, 3 in geography, 3 in human relations, 3 in oral communication skills, 6 in written communication skills, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours for a counseling practicum, 6 for field experience in management, 3 in introduction to management, and 3 in personnel management; if the duty assignment was chief instructor in a formal training facility, 3 additional semester hours for an internship in education. NOTE: Persons holding 98Z50 may have acquired proficiency in one or more foreign languages through the performance of a previously-held MOS; add credit for the specific foreign language(s) by referring to the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services, and modifying the recommendation on the basis of institutional evaluation (6/77).

MOS-98Z-002

Signals Intelligence/Electronic
Warfare Chief
(Electronic Warfare (EW)/Signal
Intelligence Chief)

98Z50

Exhibit Dates: 9/87–Present.

Career Management Field: 98 (Electronic Warfare/Cryptologic).

Description

Skill Level 50: Serves as the principal authority on signal intelligence matters in a high-level military organization; directs signal intelligence activities and provides technical, operational, and administrative guidance to subordinate personnel; interprets all signal intelligence requirements and develops signal intelligence tasks; evaluates military posture of other nations and determines the capabilities and limitations of U.S. signal intelligence activities to meet the determined threats; reviews, evaluates, prepares, and implements plans and orders; assists high-level commanders in appraising the effectiveness of signal intelligence functions, publications, and procedures, and recommends changes; advises commanders on matters of personal welfare, morale, assignment, utilization, promotion, privileges, discipline, and training; provides written and oral evaluations of subordinate personnel; prepares and presents written and oral reports to high-level personnel in the Department of the Army and other national agencies involved in the preparation of national security and intelligence policy; manages equipment, material, and support service resources. NOTE: May have progressed to 98Z50 from 98C40 (EW/Signal Intelligence Analyst), 98G50 (EW/Signal Intelligence Voice Interceptor), 98J40 (EW/Signal Intelligence Noncommunications Interceptor), 05H40 (EW/Signal Intelligence Morse Interceptor), 05K40 (EW/Signal Intelligence Non-Morse Interceptor); may have acquired proficiency in one or more foreign langualges through the performance of a previously held MOS. Many of the duties required for this MOS involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with this MOS were evaluated.

Recommendation

In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in office management, 3 in personnel management, and 3 in principles of management; add credit for the specific foreign language(s) by referring to the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services as a minimum andawarding additional credit for foreign language proficiency on the basis of institutional evaluation. In the graduate degree category, credit for foreign language proficiency on the basis of institutional evaluation (9/88).

Army Warrant Officer MOS Exhibits

MOS-011A-001

Military Physician's Assistant

011A0

Exhibit Dates: 8/73-12/87. (Effective 1/88, the MOS designator 011A was changed to 600A; see exhibit MOS-600A-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 911A. May have progressed to Military Physician's Assistant from MOS 91B (Medical Specialist), MOS 91C (Clinical Specialist), MOS 91D (Operating Room Specialist), MOS 91S (Preventive Medicine Specialist), MOS 91Z (Medical Senior Sergeant), or MOS 92B (Medical Laboratory Specialist); has from 3 to 10 years of clinical experience prior to appointment as a Physician's Assistant.

Description

Working under the guidance and supervision of a physician, provides general medical care for the sick and injured; makes diagnoses of diseases, disorders, and injuries; applies preventive, diagnostic, and therapeutic medical and surgical procedures; obtains and records medical data and case histories on prescribed forms; recognizes potential zoonotic and food-borne disease problems. NOTE: Appointment to Warrant Officer as a Physician's Assistant is based upon satisfactory completion of the two-year Physician's Assistant program of instruction at the Army's Academy of Health Sciences, Fort Sam Houston, Texas. This program consists of 52 weeks of didactic instruction and 52 weeks of clinical practicum. Didactic instruction is provided in human anatomy and physiology, clinical physiology, inorganic chemistry, biological chemistry, community health, mental health, pharmacology, clinical medicine, clinical surgery, pediatrics, pathology and laboratory practices, preventive medicine methods and practices, and medical and surgical procedures. Practica of either four weeks or six weeks duration are taken in the following clinics: obstetrics/gynecology, pediatric, EENT (eye, ear, nose and throat), neuro-psychiatric, dermatology, orthopedic, surgical medicine; clinical practices are also taken in preventive medicine, ambulatory care, and laboratory service.

Recommendation

In the upper-division baccalaureate category, 60 semester hours in physician assisting; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (6/77).

MOS-021A-001

Club Manager

021A0

Exhibit Dates: 8/70-12/87. (Effective 1/88, the MOS designator 021A was changed to 420D; see exhibit MOS-420D-001.)

Career Pattern

May have progressed to warrant officer Club Manager from enlisted MOS 00J (Club Manager).

Description

Manages the operation of U.S. Army or joint service clubs, club systems, hotels, or similar activities involving up to several thousand members; supervises all business operations of the activities, including financial operations, beverage and food services, membership activities, and social and recreational activities; knows regulations and policies governing financial management and accountability for property and funds, including in-depth knowledge of internal controls, budgeting, credit card operations, and financial statements and reports; knows fundamentals of business law and contractual relationships; knows military and civilian protocol and social customs; monitors operations to insure control of costs, waste, pilferage, inventory rotation, and accountability; has knowledge of appropriate laws, codes, and regulations; supervises purchase, storage, preparation, and service of food and beverages; monitors club operations to insure control of costs, inventory, accountability, and receipts; completes required reports; supervises catering of social functions, parties, and special events; selects and recommends contracting for entertainment groups; enforces safety requirements, club rules of conduct and dress codes; supervises, directs, and trains subordinates and civilian employees.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in report writing, 3 in communication skills (oral), 3 in food and beverage management, 3 in food and labor cost control systems, 3 in personnel supervision, and 3 in office practices. In the upper-division baccalaureate category, 3 semester hours in hotel, motel, or club management, and 3 in personnel management and training; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (11/77).

MOS-031A-001

Bandmaster

031A0

Exhibit Dates: 2/46-12/87. (Effective 1/88, the MOS designator 031A was changed to 420C; see exhibit MOS-420C-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 5241. Normally progresses to Bandmaster from an Army enlisted bandsman (currently any MOS in Career Management Field 97, Band, which includes MOS 02B through MOS 02Z), completing from one to three preparatory programs of instruction.

Description

Possesses skill and understanding in applied music ensemble playing basic music theory, planning concerts, conducting, etc.; acquires basic understanding of the techniques of all wind and percussion instruments; has extensive and practical experience in arranging music for bands and jazz ensembles and, in some cases, choral groups; conducts band literature equivalent to that included in upper-division and graduate courses; acquires a thorough grasp of military marching evolutions, commands, and procedure; is responsible for band administration and the supervision of the musical development of band units; directs personnel, administration, supply (uniforms, instruments, and publications), and repair and maintenance activities of band units; has fiscal control of band units; routinely serves as a company commander; may serve as an instructor in the Army element of the School of Music.

Recommendation

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (includes harmony, sight singing, ear training, and keyboard), 8 in applied music, 4 in performing ensemble, 3 in woodwind, brass, and percussion techniques, and 3 in personnel supervision, and additional credit in applied music on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in arranging, 4 in performing ensemble, 6 in conducting, 2 in marching band techniques, and 3 for field experience in management, and additional credit in introduction to management on the basis of institutional evaluation; IF the duty assignment was an instructor in the army element of the school of music, credit in teaching methods in music, education materials, evaluation and testing in education, and for a practicum in education on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management. In the graduate degree category, 3 semester hours in conducting, 3 in band administration, and 2 in performing ensemble, and additional credit in educational administration on the basis of institutional evaluation (4/77).

MOS-041A-001

Food Service Technician
(Food Service Advisor, 941A0)
(Food Advisor, 4114)

041A0

Exhibit Dates: 3/54-12/87. (Effective 1/88, the MOS designator 041A was changed to 922A; see exhibit MOS-922A-001.)

Career Pattern

May have progressed to Food Service Technician from any enlisted food service MOS: MOS 94B (Food Service Specialist), MOS 94D (Baker), MOS 94F (Hospital

Food Service Specialist), or MOS 94Z (Food Service Supervisor).

Description

Supervises and administers food service activities for installations, commands, or organizations; maintains complete operational control over facilities, personnel, and specialized equipment; supervises the procurement, storage, distribution, and preparation of foods to be served; writes reports; develops procedures for implementing policies from higher authority; uses specialized accounting methods; plans use, layout, and mainenance of food service equipment; in carrying out specialized duties, is required to devote most energies in the technical and human resource areas of food service administration; interprets contracts and monitors contractor's performance; if assigned to hospital food service duties, may be required to perform additional specialized supervisory functions in nutritional and diet therapy areas; may serve as staff advisor to a general officer or provide technical assistance to nonappropriated fund food service activites; may serve as a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in food service management, 3 in principles of management, 3 in personnel supervision, 3 in food service equipment and layout, and 3 in business report writing. In the upper-division baccalaureate category, 3 semester hours in management problems and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 3 additional semester hours for a practicum in education; if assigned to a hospital as a food service technician, 3 additional semester hours in nutrition or diet therapy (11/77).

MOS-051A-001

Morse Intercept Technician

051A0

See exhibit MOS-984A-001. Effective 9/81, the designator 051A was reestablished with the title Food Inspection Technician; see exhibit MOS-051A-002.

MOS-051A-002

Food Inspection Technician

051A0

Exhibit Dates: Pending Evaluation. 9/81–Present.

MOS-052A-001

Non-Morse Intercept Technician

052A0

See exhibit MOS-985A-001.

MOS-053A-001

Special Identification Technician

053A0

Description

See exhibit MOS-986A-001.

MOS-062B-001

Utility/Observation Helicopter Pilot

062B0

See exhibit MOS-100B-001.

MOS-062C-001

Cargo Helicopter Pilot

062C0

See exhibit MOS-100C-001.

MOS-062D-001

Heavy Lift Helicopter Pilot

062D0

See exhibit MOS-100D-001.

MOS-062E-001

Attack Helicopter Pilot

062E0

See exhibit MOS-100E-001.

MOS-062Q-001

Combat Service/Support Fixed Wing Pilot

062Q0

See exhibit MOS-100Q-001.

MOS-062R-001

Combat Surveillance Fixed Wing Pilot

062R0

See exhibit MOS-100R-001.

MOS-100A-001

Multiengine Utility Helicopter Pilot

100A0

Exhibit Dates: 3/82–6/87. (Effective 7/87, MOS 100A was discontinued and its duties were incorporated into MOS 153D, UH-60 Pilot.)

Career Pattern

May have progressed to MOS 100A from any enlisted MOS.

Description

Pilots and commands multiengine utility helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100AG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100AC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100B-001

Multi/Observation Helicopter Pilot (Utility/Observation Helicopter Pilot)

100B0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100B was discontinued and its duties were incorporated into the following MOS's: 152B, 152C, 152D, 153A, 153B, and 153C.

Career Pattern

NOTE: MOS 100B was formerly designated MOS 062B. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100BG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100BC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100C-001

CARGO HELICOPTER PILOT

100C0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100C was discontinued and its duties were incorporated into MOS 154B, CH-47A/B/C Pilot, and MOS 154C (CH-47D Pilot.)

Career Pattern

NOTE: MOS 100C was formerly designated MOS 062C. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands cargo helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100CG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100CC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100D-001

HEAVY LIFT HELICOPTER PILOT

100D0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100D was discontinued and its duties were incorporated into MOS 154A, CH-54 Pilot.

Career Pattern

NOTE: MOS 100D was formerly designated MOS 062D. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands heavy lift helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100DG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100DC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100E-001

ATTACK HELICOPTER PILOT

100E0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100E was discontinued and its duties were incorporated into MOS 152G, AH-1 Attack Pilot.)

Career Pattern

NOTE: MOS 100E was formerly designated MOS 062E. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands attack helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100EG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100EC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100K-001

MULTIENGINE ATTACK HELICOPTER PILOT

100K0

Exhibit Dates: 9/82–6/87. (Effective 7/87, MOS 100K was discontinued and its duties were incorporated into MOS 152F, AH-64 Pilot.)

Career Pattern

May have progressed to MOS 100K from any enlisted MOS.

Description

Pilots and commands multiengine attack helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100KG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100KC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100Q-001

COMBAT SERVICE/SUPPORT FIXED WING PILOT

100Q0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100Q was discontinued and its duties were incorporated into MOS 155A, Fixed Wing Aviator, MOS 155D, U-21 Pilot, and MOS 155E, C-12 Pilot.)

Career Pattern

NOTE: MOS 100Q was formerly designated MOS 062Q. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100QG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100QC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-100R-001

COMBAT SURVEILLANCE FIXED WING PILOT

100R0

Exhibit Dates: 12/68–6/87. (Effective 7/87, MOS 100R was discontinued and its duties were incorporated into MOS 156A, OV-1/RV-1 Pilot.)

Career Pattern

NOTE: MOS 100R was formerly designated MOS 062R. May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 100RG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 100RC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-103A-001

AVIATION TECHNICIAN

103A0

See exhibit MOS-160A-001.

MOS-130A-001

PERSHING MISSILE SYSTEM TECHNICIAN

130E0

Exhibit Dates: 1/88–5/89.

Career Pattern

NOTE: This MOS was formerly designated 214E. May have progressed to Pershing Missile System Technician from MOS 15E (Pershing Missile Crewmember), MOS 21G (Pershing Electronics Materiel Specialist), MOS 21L (Pershing Electronics Repairer), or MOS 46N (Pershing Electrical-Mechanical Repairer).

Description

Supervises the maintenance of field artillery missiles, fire control systems, and missile launching and handling equipment; oversees assembly of missiles; supervises utilization, testing, and maintenance of tools, specialized test sets, cable sets, and warhead assemblies; inspects and directs testing, servicing, and repair of missile launching and guidance equipment; supervises maintenance of missile components, determines repair/replacement requirements, insures that repairs and adjustments are made, and makes final inspections; advises superiors on technical and tactical considerations affecting the employment of missiles; serves as a technical advisor on matters of preventive maintenance and inspection of radar, missiles, fire control systems, missile launching and handling equipment, and on-missile materiel; observes and corrects improper technical procedures and repair techniques; coordinates maintenance techniques and standards with preventive maintenance personnel to insure uniformity; implements changes in inspection, repair, and test procedures and instructs personnel on new techniques of missile maintenance and repair; insures that equipment modifications are accomplished; examines and interprets procedures, directives, schematics, and technical publications for data pertinent to the employment of radar, missiles, and related equipment and transmits data to subordinate personnel; reviews operating and maintenance records and tests equipment to ascertain adequacy of maintenance; monitors storage of missile guidance and motor sections; insures compliance with safety and security regulations and procedures; writes and reviews technical reports; reviews and consolidates requests for tools, spare parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation

In the vocational certificate category, 3 semester hours in electronics laboratory and 1 in care and use of hand tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in technical report writing, 2 in maintenance management, and 2 in industrial/human relations, and additional credit in instructional methods on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (3/77).

MOS-130B-001

LANCE MISSILE SYSTEM TECHNICIAN

130B0

Exhibit Dates: 1/88–Present.

Career Pattern

May have progressed to Lance Missile System Technician from MOS 13N (Lance Crewmember).

Description

Supervises the maintenance of field artillery missiles, fire control systems, and missile launching and handling equipment; oversees assembly of missiles; supervises utilization, testing, and maintenance of tools, specialized test sets, cable sets, and warhead assemblies; inspects and directs testing, servicing, and repair of missile launching and guidance equipment; supervises maintenance of missile components, determines repair/replacement requirements, insures that repairs and adjustments are made, and makes final inspections; advises superiors on technical and tactical considerations affecting the employment of missiles; serves as a technical advisor on matters of preventive maintenance and inspection of radar, missiles, fire control systems, missile launching and handling equipment, and on-missile materiel; observes and corrects improper technical procedures and repair techniques; coordinates maintenance technical procedures and repair techniques; coordinates maintenance techniques and standards with preventive maintenance personnel to insure uniformity; implements changes in inspection, repair, and test procedures and instructs personnel on new techniques of missile maintenance and repair; insures that equipment modifications are accomplished; examines and interprets procedures, directives, schematics, and technical publications for data pertinent to the employment of radar, missiles, and related equipment and transmits data to subordinate personnel; reviews operating and maintenance records and tests equipment to ascertain adequacy of maintenance; monitors storage of missile guidance and motor sections; insures compliance with safety and security regulations and procedures; writes and reviews technical reports; reviews and consolidates requests for tools, spare parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation

In the vocational certificate category, 3 semester hours in electronics laboratory and 1 in care and use of hand tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in technical report writing, 2 in maintenance management, and 2 in industrial/human relations, and additional credit in instructional methods on the basis of institutional evaluation (3/77).

MOS-131A-001

TARGET ACQUISITION RADAR TECHNICIAN

131A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 211A. May have progressed to Target Acquisition Radar Technician from any MOS in Career Management Field 13 (except MOS's 13B and 13M) and Career Management Field 29.

Description

Normally serves as chief of a section or platoon engaged in maintaining and operating field artillery radars to provide target location; has a detailed knowledge of the operational aspects of field artillery radar, the technical principles of equipment construction, the scope and techniques of field artillery radar, and safety precautions relevant to operations and maintenance; advises on technical considerations involving field artillery radar; coordinates the activities of field artillery radar personnel; supervises the movement and emplacement of radar and associated equipment; interprets technical data; implements changes in inspections, repair, and test procedures; instructs personnel on new or revised techniques of radar electronics maintenance and employment; inspects completed work and assists personnel in isolating and correcting malfunctions in equipment; must be able to transmit target and counterfire data to support artillery units; reviews maintenance records; supervises the requisitioning of tools, repair parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school, on a headquarters staff, or in research, development, test, and evaluation activities.

Recommendation

In the vocational certificate category, 6 semester hours in electronics theory and laboratory and 2 in use of basic hand tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics theory and laboratory, 3 in personnel supervision, 3 for field experience in management, 2 in industrial/human relations, 2 in technical report writing, and 2 in maintenance management (3/77).

MOS-131B-001

REMOTELY PILOTED VEHICLE TECHNICIAN

131B0

Exhibit Dates: Pending evaluation. 1/88–Present.

MOS-132A-001

METEOROLOGY TECHNICIAN

132A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 201A. May have progressed to Meteorology Technician from MOS 93F (Field Artillery Meteorological Crewman).

Description

Normally serves as the chief of a meteorology section that provides ballistic meteorological data, not involving weather forecasting to artillery units; is responsible for the organization and operation of the section and its physical facilities as well as the supervision and training of enlisted specialists in the section; manages and allocates resources to install, operate, and maintain mercurial, aneroid, electronic, optical, and mechanical meteorological instruments and equipment; determines layout of ballistic meteorological stations and facilities and plans equipment installation; knows methods of observing and plotting meteorological data; inspects and tests meteorological equipment; determines operating procedures and techniques; allocates work to subordinates; determines requirements for, procures, and manages supplies, repair parts, and equipment; supervises calibration of graphs and other recording devices; evaluates ballistic meteorological data and produces messages to be transmitted to artillery units; instructs subordinates on established maintenance techniques and operating procedures; may serve as an instructor at a formal service school; may be employed in research, development, and evaluation activities.

Recommendation

In the vocational certificate category, 2 semester hours in electronic laboratory and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in industrial/human relations, 2 in electronic laboratory, 1 in basic mathematics, and 1 in meteorology. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in management electives (3/77).

MOS-140A-001

COMMAND AND CONTROL SYSTEMS TECHNICIAN

140A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 225B. May have progressed to Command and Control Maintenance Technician from MOS 24C (Hawk Firing Section Mechanic), MOS 24E (Hawk Fire Control Mechanic), MOS 24G (Hawk Information Coordination Central Mechanic), MOS 24H (Hawk Fire Control Repairer), MOS 24J (Pulse Radar Repairer), MOS 24K (Hawk Continuous Wave Radar Repairer), MOS 24L (Hawk Launcher and Mechanical Systems Repairer), MOS 24R (Hawk Master Mechanic), MOS 24T (Patriot Operator and Systems Mechanic), MOS 24U (Nike-Hercules Custodial Mechanic), MOS 24V (Hawk Maintenance Chief), or MOS 24L (AN/TSQ 73 Air Defense Artillery Command and Control System Operator/Repairer).

Description

Coordinates the activities of 25–30 maintenance personnel and manages equipment for the installation, repair, maintenance, and modification of Army air defense command and control systems, including data processing equipment, radar equipment, communications equipment, and power system equipment; develops maintenance procedures; performs hands-on troubleshooting when subordinate personnel are unable to isolate problems; advises and instructs repair personnel; estimates repair priorities based on mission, type of work to be performed, and availability of parts and personnel; advises commissioned officers on command and control system capabilities and limitations.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in computer and data processing concepts, and 3 in training management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in human resource management, and 6 for field experience in management. Credit in the following areas on the basis of institutional evaluation: computer electronics, computer system repair, radar systems, electronic communications, and power systems (11/88).

MOS-140B-001

CHAPARRAL/VULCAN SYSTEMS TECHNICIAN

140B0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 224B. May have progressed to Chaparrl-Vulcan Systems Technician from any of the following MOS's: 24C, 24E, 24G, 24H, 24J, 24K, 24L, 24M, 24N, 24R, 24S, 24T, 24U, 24V, 25L, 27F, and 27G.

Description

Supervises repair and maintenance of the Chaparral and Vulcan light air defense electronic systems and land combat support missile systems, including forward area alert radar (FAAR) and target alerting identification systems; supervises operation of maintenance shops, on-site maintenance activities, and shop quality control activities; knows theory, operation, and functioning of Chaparral/Vulcan systems and associated equipment, including test and training equipment and motor support units; has knowledge of electricity, electronics, pneumatics, hydraulics, and mechanics; reads, uses, and interprets schematic diagrams and other technical publications; uses special tools and test equipment to maintain, adjust, troubleshoot, and repair system equipment; organizes, supervises, manages, and evaluates most phases of maintenance programs peculiar to the system and to its support equipment; acts in the capacity of maintenance officer in the absence of a line officer; coordinates activities with other maintenance organizations; supervises 20-50 subordinates; advises and assists in establishing training programs for operators and crewmen; knows and provides staff supervision for supply functions; supervises inventory and purchasing of maintenance parts, tools, and equipment; knows safety procedures pertaining to the missile systems and associated equipment; writes technical and administrative reports; advises superiors on the technical and tactical capabilities, limitations, and employment of the missile systems; may serve as an instructor at a formal training school or as a technical advisor on a headquarters staff.

Recommendation

In the vocational certificate category, 6 semester hours in electricity/electronics laboratory, 5 in automotive mechanics, 5 in diesel mechanics, 5 in industrial truck mechanics, 3 in troubleshooting, 1 in shop practices and procedures, and 1 in industrial safety. In the lower-division baccalaureate/associate degree category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, 5 in industrial truck mechanics, 3 in basic electronics, 3 in troubleshooting, 1 in shop practices and procedures, 1 in industrial safety, 3 in maintenance management, 3 in personnel supervision, 2 in inventory management, 2 in maintenance shop record keeping, 2 in report writing, and credit in public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-140C-001

CUSTODIAL SYSTEMS TECHNICIAN

140C0

Exhibit Dates: 1/88–8/90. (Effective 9/90, MOS 140C was discontinued.)

Career Pattern

May have progressed to Custodial Systems Technician from MOS 24U (Nike-Hercules Custodial Mechanic).

Description

Supervises the assembly, testing, and maintenance of all components of Air Defense/Ballistic Missile Defense (AD/BMD) missiles; knows operations, theory, and online maintenance of missile testing and servicing equipment associated with warhead sections, fuses, electronic and mechanical on-missile guidance equipment, hydraulic systems, and propulsion units; knows theory and function of hydraulic systems, vacuum tubes, solid state devices, and associated circuits and circuit elements; performs checkouts of electronic, electrical, mechanical, electromechanical, and hydraulic systems; knows authorized procedure for modifying existing equipment; knows AD/BMD missile transport, storage, and safety program regulations and policies for nuclear and explosive components; knows theory, operation, and maintenance procedures for all launching area equipment; oversees uncrating and mating of missiles, rocket motor assemblies, and warhead sections; supervises emplacement of missiles and launching area equipment in mobile air defense units; knows maintenance record keeping and inventory control procedures; trains and evaluates missile maintenance personnel in troubleshooting and maintenance procedures; advises commander on the tactical aspects of missile employment, emplacement, readiness status, and firing.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in troubleshooting, 3 in technical mathematics, 3 in basic electronics, 3 in AC/DC circuit analysis, 3 in transistor theory, 3 in maintenance management, 2 in instrumentation, 2 in controls, 2 in pulse circuits, 2 in inventory management, 2 in personnel supervision, 2 in report writing, 1 in maintenance shop record keeping, and additional credit in controls, transistor theory, mathematics, hydraulics, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-140D-001

HAWK MISSILE SYSTEMS TECHNICIAN

140D0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 223B. May have progressed to Hawk Missile Systems Technician from any of the following MOS's: 24C, 24E, 24G, 24H, 24J, 24K, 24L, 24R, 24S, 24T, 24U, 24V, 25L, 27F, and 27G.

Description

Supervises the assembly, inspection, and repair of the Improved Hawk missile system, simulator equipment, and associated test equipment; understands theory, functions, and operation on on-missile guidance equipment, ranging radars, pulse radars, launchers, fire control equipment, simulator stations, computers, and automatic data transmission systems used with the Improved Hawk air defense missile system and associated power generation and air-conditioning equipment; knows theory and functions of solid-state devices and associated circuits and circuit elements; knows how to assemble and test components of missile, radar, and fire control equipment; supervises testing of the system specialized test sets and procedures; supervises repairmen in isolating malfunctions and in repairing, adjusting, and aligning systems and system components; advises personnel on equipment modificatons and of changes to inspection, repair, test, and maintenance calibration procedures; knows safety procedures and regulations pertaining to high-energy electromagnetic radiation hazards, high-voltage hazards, and high-pressure hydraulic equipment; knows missile transport and storage methods; knows operation, function, and maintenance of battery terminal equipment; trains personnel in safety and security procedures and maintenance techniques; interprets technical publications; supervises parts inventory and supply system, including procurement; reviews and prepares reports; evaluates supply and maintenance problems, advises superiors, and recommends corrective actions; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in electronics troubleshooting, 3 in basic electronics, 3 in AC/DC circuit analysis, 3 in transistor theory, 3 in instrumentation, 2 in pulse circuits, 2 in control systems, 2 in digital circuitry, 2 in computer fundamentals, 1 in radar/microwave theory, 1 in machine language, 3 in maintenance management, 2 in inventory management, 2 in personnel supervision, 2 in report writing, 1 in maintenance shop record keeping, and additional credit in electronics, mathematics, data processing, computer science, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-140E-001

PATRIOT MISSILE SYSTEM TECHNICIAN

140E0

Exhibit Dates: 1/88–Present. NOTE: The skills, competencies, and knowledge required to maintain the Patriot missile are comparable to those required to maintain the Nike. Use the recommendation in exhibit MOS-222B-001.

MOS-150A-001

AIR TRAFFIC CONTROL TECHNICIAN

150A0

Exhibit Dates: Pending evaluation. 9/82–Present.

MOS-150A-002

AIR TRAFFIC CONTROL TECHNICIAN

150A0

Exhibit Dates: 9/82–Present.

Career Pattern

May have progressed to MOS 150A from MOS 93C, Air Traffic Control Operator.

Description

Summary: Supervises and manages personnel in an Air Traffic Control organization. Senior Warrant Officer: Develops, revises, and reviews instrument enroute and terminal procedures (TERPS); provides technical expertise pertaining to all aspects of enroute and terminal aircraft operations; supervises air traffic control training requirements. Master Warrant Officer: Able to perform the duties required for Senior Warrant Officer; conducts liaison with collateral units and functions as senior advisor for air traffic control operations; coordinates and establishes special-use airspace; develops and monitors standards for instruction of personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision. In the upper-division baccalaureate category, 3 semester hours in organizational management, 3 in management problems, and 3 for field experience in management; if served as Master Warrant Officer, 3 additional semester hours for field experience in management (4/90).

MOS-151A-001

AVIATION MAINTENANCE TECHNICIAN

151A0

Exhibit Dates: 7/87–Present.

Career Pattern

NOTE: This MOS was formerly designated 160A. May have progressed to Aviation Maintenance Technician from all aircraft maintenance MOS's.

Description

Supervises aviation maintenance and repair shops, teams, sections, or platoons which maintain or repair army rotary and fixed-wing aircraft; organizes and manages maintenance facilities, equipment, and personnel to inspect, service, test, disassemble, replace parts on, repair, reassemble, adjust and retest aircraft or aircraft components; assigns work to subordinates and supervises work in progress, final inspection, and final testing; develops operating procedures and performs administrative duties related to supply and maintenance activities; provides technical assistance to pilots and flight crews concerning required crew maintenance of aircraft and aircraft components; interprets technical material related to aircraft maintenance.

Recommendation

In the vocational certificate category, 3 semester hours in essentials of supervision, 3 in survey of computer concepts, 3 in technical writing, 2 in maintenance shop record keeping, 2 in warehousing and storage, 2 in material handling and safety, and 3 in maintenance management and inventory control. In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in shop practices and procedures, 2 in inventory management, 2 in material handling and safety, 3 in personnel supervision, 3 in survey of computer concepts, 2 in maintenance shop record keeping, and 3 in communication skills (speech/technical writing). In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, section leader, or equivalent leadership position, credit in leadership and supervision on the basis of institutional evaluation (7/78).

MOS-152B-001

OH-58A/C SCOUT PILOT

152B0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 152BG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 152BC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-152B-002

OH-58A/C SCOUT PILOT

152B0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 152B from any enlisted MOS.

Description

Pilots and commands attack and scout helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; coordinates, conducts, and directs tactical helicopter operations; participates in reconnaissance and security missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communications skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 152BC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 152BF), 3 semester horus in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 152BG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-152C-001

OH-6 SCOUT PILOT

152C0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 152CG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 152CC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-152C-002

OH-6 Scout Pilot

152C0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 152C from any enlisted MOS.

Description

Pilots and commands attack and scout helicopters under tactical and nontactical conditions; operates aircraft during day, night, and while using night vision goggles; coordinates, conducts, and directs tactical helicopter operations; participates in reconnaissance and security missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 152CC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 152CF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 152CG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-152D-001

OH-58D Scout Pilot

152D0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 152DG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 152DC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-152D-002

OH-58D Scout Pilot

152D0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 152D from any enlisted MOS.

Description

Pilots and commands attack and scout helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; coordinates, conducts, and directs tactical helicopter operations; participates in reconnaissance and security missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigational (VFR), 3 in flight psychology, 3 in aviation meterorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 152DC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 152DF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 152DG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-152F-001

AH-64 Pilot

152F0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to MOS 100K from any enlisted MOS.

Description

Pilots and commands multiengine attack helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 152FG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 152FC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-152F-002

AH-64 Attack Pilot

152F0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 152F from any enlisted MOS.

Description

Pilots and commands attack and scout helicopter under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; coordinates, conducts, and directs tactical helicopter operations; participates in reconnaissance and security missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 152FC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 152FF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 152FG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-152G-001

AH-1 Attack Pilot

152G0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands attack helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 152GG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 152GC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-152G-002

AH-1 Attack Pilot

152G0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 152G from any enlisted MOS.

Description

Pilots and commands attack and scout helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; coordinates, conducts, and directs tactical helicopter operations; participates in reconnaissance and security missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meterology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 152GC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 152GF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 152GG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-153A-001

Rotary Wing Aviator

153A0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 153AG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 153AC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-153A-002

Rotary Wing Aviator (Aircraft Nonspecific)

153A0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 153A from any enlisted MOS.

Description

Pilots and commands utility helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs aircraft operations including rescue hoist, air assaults, aerial mine and flare deliveries, internal/external loads, and paradrop/rappelling procedures; may perform aerial reconnaissance and be used to transport passengers or cargo; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 153AC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 153AF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 153AG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-153B-001

UH-1 Pilot

153B0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 153BG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 153BC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-153B-002

UH-1 Pilot

153B0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 153B from any enlisted MOS.

Description

Pilot and commands utility helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs aircraft operations including rescue hoist, air assaults, aerial mine and flare deliveries, internal/external loads, and paradrop/rappelling procedures; may perform aerial reconnaissance and be used to transport pasengers or cargo; routinely participates in combat support training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 153BC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 153BF), 3 smester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 153BG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-153C-001

OH-58A/C Observation Pilot

153C0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands utility/observation helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 153CG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 153CC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-153C-002

OH-58A/C Observation Pilot

153C0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 153C from any enlisted MOS.

Description

Pilots and commands utility helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs aircraft operations including rescue hoist, air assaults, aerial mine and flare deliveries, internal/external loads, and paradrop/rappelling procedures; may perform aerial reconnaissance and be used to transport passengers or cargo; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirement; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 153CC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 153CF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 153CG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-153D-001

UH-60 Pilot

153D0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to MOS 100A from any enlisted MOS.

Description

Pilots and commands multiengine utility helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 153DG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 153DC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-153D-002

UH-60 Pilot

153D0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 153D from any enlisted MOS.

Description

Pilots and commands utility helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs aircraft operations including rescue hoist, air assaults, aerial mine and flare deliveries, internal/external loads, and paradrop/rappelling procedures; may perform aerial reconnaissance and be used to transport passengers or cargo; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 153DC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 153DF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 153DG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-154A-001

CH-54 Pilot

154A0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands heavy lift helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 154AG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 154AC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-154A-002

CH-54 Pilot (Heavy Lift RC only)

154A0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 154A from any enlisted MOS.

Description

Pilots and commands cargo helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs hoist, internal/external load, supply, paradrop/rappelling, and water operations; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commerical/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 154AC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 154AF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 154AG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-154B-001

CH-47A/B/C Pilot

154B0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands cargo helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 154BG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 154BC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-154B-002

CH-47 Pilot

154B0

Exhibit Dates: 1/90-Present.

Career Pattern

May have progressed to MOS 154B from any enlisted MOS.

Description

Pilots and commands cargo helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs hoist, internal/external load, supply, paradrop/rappelling, and water operations; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 154BC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 154BF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 154BG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-154C-001

CH-47D Pilot

154C0

Exhibit Dates: 7/87-12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands cargo helicopter under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 154CG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 154CC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-154C-002

CH-47D Pilot

154C0

Exhibit Dates: 1/90-Present.

Career Pattern

May have progressed to MOS 154C from any enlisted MOS.

Description

Pilots and commands cargo helicopters under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, night, and while using night vision goggles; performs hoist, internal/external load, supply, paradrop/rappelling, and water operations; routinely participates in combat and combat support training; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 154CC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 154CF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 154CG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-155A-001

Fixed Wing Aviator

155A0

Exhibit Dates: 7/87-12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 155AG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 155AC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-155A-002

Fixed Wing Aviator (Aircraft Nonspecific)

155A0

Exhibit Dates: 1/90-Present.

Career Pattern

May have progressed to MOS 155A from any pilot Warrant Officer MOS in the 152, 153, or 154 MOS series.

Description

Pilots and commands fixed wing utility aircraft under tactical and nontactical conditions; operates aircraft during day and night; transports passengers and cargo; routinely performs instrument flight procedures, navigation, and airborne weather radar interpretations; performs military intelligence and airborne radio relay missions;

maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 155AC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 155AF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 154AG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-155D-001

U-21 Pilot

155D0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 155DG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 155DC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-155D-002

U-21 Pilot

155D0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 155D from any pilot Warrent Officer MOS in the 152, 153, or 154 MOS series.

Description

Pilots and commands fixed wing utility aircraft under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day and night; transports passengers and cargo; routinely performs instrument flight procedures, navigation, and airborne weather radar interpretations; performs military intelligence and airborne radio relay missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 155DC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 155DF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 155DG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-155E-001

C-12 Pilot

155E0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 155EG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 155EC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-155E-002

C-12 Pilot

155E0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 155E from any pilot Warrent Officer MOS in the 152, 153, or 154 MOS series.

Description

Pilots and commands fixed wing utility aircraft under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day and night; transports passengers and cargo; routinely performs instrument flight procedures, navigation, and airborne weather radar interpretations; performs military intelligence and airborne radio relay missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology, 3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and 3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 155EC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 155EF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 155EG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-156A-001

OV-1/RV-1 PILOT

156A0

Exhibit Dates: 7/87–12/89.

Career Pattern

May have progressed to warrant officer pilot from any enlisted MOS.

Description

Pilots and commands combat service/support fixed wing aircraft under tactical and non-tactical conditions; transports passengers, mail, or cargo for military purposes; supervises aircraft maintenance; supervises loading and unloading to ensure load stability balance, and adherence to aircraft load limitations; may function as a service school instructor for aviators; may serve in aircraft procurement activities.

Recommendation

In the vocational certificate category, 40 to 60 semester hours in aviation flight technology (comparable to F.A.A. commercial and instrument ratings on category aircraft). NOTE: Knowledges and skills may be equivalent to other F.A.A. ratings (flight instructor, instrument instructor, etc.), or the applicant may be trained on additional categories of aircraft; award additional credit for these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for the vocational certificate category plus 3 semester hours in general mathematics, 3 in technical writing, 3 in aviation safety, 3 in communication skills (oral), and 3 for field experience in personnel supervision. In the upper-division baccalaureate category, if served as section or platoon chief, assistant section or assistant platoon chief, or aircraft repair technician (designated on Army records as 156AG), 3 semester hours in personnel management, 3 for management electives, and 3 in human relations; if served as instructor pilot (designated on Army records as 156AC), 3 semester hours in psychology electives, 3 for management electives, and 3 in human relations (7/78).

MOS-156A-002

OV-1/RV-1 PILOT

156A0

Exhibit Dates: 1/90–Present.

Career Pattern

May have progressed to MOS 156A from Warrant Officer Pilot MOS's 155A, 155D, or 155E.

Description

Pilots and commands fixed wing surveillance aircraft under tactical and nontactical conditions; operates aircraft during all types of meteorological conditions during day, and night; routinely performs instrument flight procedures, navigation, and airborne weather radar interpretations; performs military intelligence gathering, threat penetration, reconnaissance, imagery and message drop, and electronic countermeasure missions; maintains current flight status in accordance with established training requirements; knowledge and skills are equivalent to F.A.A. commercial/instrument ratings on rotorcraft category aircraft. NOTE: Knowledge and skills may be equivalent to other F.A.A. certificates/ratings (flight instructor, instrument instructor, ground instructor, airline transport pilot, flight engineer, etc.) or the applicant may be trained on additional categories of aircraft.

Recommendation

In the lower-division baccalaureate/associate degree category, 18 semester hours in commercial/instrument rating, 3 in aircraft rules and procedures, 3 in navigation (VFR), 3 in flight psychology, 3 in aviation meteorology,3 in instrument flight planning and procedures, 3 in aircraft engines and systems, 3 in aircraft performance, 3 in general mathematics, 3 in aviation safety, 3 in communication skills (oral), and3 in principles of supervision. In the upper-division baccalaureate category, if served as instructor pilot (designated on Army records as 156AC), 3 semester hours in educational psychology, 3 in personnel management, and 3 in interpersonal communications; if served as an instrument flight examiner (designated on Army records as 156AF), 3 semester hours in airline transport pilot training; if served as section leader or aircraft repair maintenance technician (designated on Army records as 156AG), 3 semester hours in organizational management, 3 in accident investigation procedures, and 3 in aircraft systems management (4/90).

MOS-160A-001

AVIATION MAINTENANCE TECHNICIAN
(AVIATION TECHNICIAN)

160A0 (formerly 103A0)

Exhibit Dates: 3/75–Present.

Career Pattern

May have progressed to Aviation Maintenance Technician (160A) or Aviation Technician (103A) from MOS 67G (Airplane Repairer), MOS 67N (Utility Helicopter Repairer), MOS 67U (Medium Helicopter Repairer), MOS 67V (Observation/Scout Helicopter Repairer), MOS 67W (Aircraft Quality Control Supervisor), MOS 67X (Heavy Lift Helicopter Repairer), MOS 67Y (Attack Helicopter Repairer), MOS 67Z (Aircraft Maintenance Senior Sergeant), MOS 68B (Aircraft Power Plant Repairer), MOS 68D (Aircraft Powertrain Repairer), MOS 68F (Aircraft Electrician), MOS 68G (Aircraft Structural Repairer), or MOS 68H (Aircraft Pneudraulics Repairer).

Description

Supervises aviation maintenance and repair shops, teams, sections, or platoons which maintain or repair army rotary and fixed-wing aircraft; organizes and manages maintenance facilities, equipment, and personnel to inspect, service, test, disassemble, replace parts on, repair, reassemble, adjust and retest aircraft or aircraft components; assigns work to subordinates and supervises work in progress, final inspection, and final testing; develops operating procedures and performs administrative duties related to supply and maintenance activities; provides technical assistance to pilots and flight crews concerning required crew maintenance of aircraft and aircraft components; interprets technical material related to aircraft maintenance.

Recommendation

In the vocational certificate category, 3 semester hours in essentials of supervision, 3 in survey of computer concepts, 3 in technical writing, 2 in maintenance shop record keeping, 2 in warehousing and storage, 2 in material handling and safety, and 3 in maintenance management and inventory control. In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management, 3 in shop practices and procedures, 2 in inventory management, 2 in material handling and safety, 3 in personnel supervision, 3 in survey of computer concepts, 2 in maintenance shop record keeping, and 3 in communication skills (speech/technical writing). In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, section leader, or equivalent leadership position, credit in leadership and supervision on the basis of institutional evaluation (7/78).

MOS-180A-001

SPECIAL OPERATIONS TECHNICIAN

180A0

Exhibit Dates: 9/84–Present.

Career Pattern

May have progressed to MOS 180A from MOS 18B (Special Operations Weapons Sergeant), 18C (Special Operations Engineer Sergeant), 18D (Special Operations Medical Sergeant), 18E (Special Operations Communications Sergeant), 18F (Special Operations Intelligence Sergeant), or 18Z (Special Operations Senior Sergeant).

Description

Summary: NOTE: Duties primarily involve participation in a special operations team or detachment involving unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism; the operational detachment works unilaterally or with foreign military forces; duties frequently require regional orientation, including foreign language proficiency and in-country experience; duties include participation in waterborne, jungle, desert, mountain, and winter operations; many of the duties are highly classified. Manages and supervises special operations team members and technicians in communications, weapons, engineering, medicine, and operations techniques; conducts management assistance, planning, and training of special operations detachments; provides technical expertise in administration, logistics, intelligence, planning, and training; manages, supervises, and trains from 12 to 100 personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for a practicum in instructional techniques, and 6 for field experience in management (5/87).

MOS-201A-001

Meteorology Technician

201A0

Exhibit Dates: 6/61–12/87. (Effective 1/88 the MOS designator 201A was changed to 132A; see exhibit MOS-132A-001.)

Career Pattern

May have progressed to Meteorology Technician from MOS 35D (Meteorological Equipment Repairman), MOS 93E (Meteorological Observer), or MOS 93F (Ballistic Meteorology Crewman or Field Artillery Meteorological Crewman).

Description

Normally serves as the chief of a meteorology section that provides ballistic meteorological data, not involving weather forecasting to artillery units; is responsible for the organization and operation of the section and its physical facilities as well as the supervision and training of enlisted specialists in the section; manages and allocates resources to install, operate, and maintain mercurial, aneroid, electronic, optical, and mechanical meteorological instruments and equipment; determines layout of ballistic meteorological stations and facilities and plans equipment installation; knows methods of observing and plotting meteorological data; inspects and tests meteorological equipment; determines operating procedures and techniques; allocates work to subordinates; determines requirements for, procures, and manages supplies, repair parts, and equipment; supervises calibration of graphs and other recording devices; evaluates ballistic meteorological data and produces messages to be transmitted to artillery units; instructs subordinates on established maintenance techniques and operating procedures; may serve as an instructor at a formal service school; may be employed in research, development, and evaluation activities.

Recommendation

In the vocational certificate category, 2 semester hours in electronic laboratory and 1 in basic mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in management, 3 in industrial/human relations, 2 in electronic laboratory, 1 in basic mathematics, and 1 in meteorology. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in management electives (3/77).

MOS-202A-001

Biomedical Equipment Repair Technician

202A0

Exhibit Dates: 6/61–Present.

Career Pattern

May have progressed to Biomedical Equipment Repair Technician from MOS 35B (Electronic Instrument Repairman), MOS 35G (Biomedical Equipment Repairer), MOS 35S (Electronic Biomedical Equipment Repairer), MOS 35T (X-ray Biomedical Equipment Repairer), or MOS 35U (Biomedical Equipment Maintenance Chief).

Description

Organizes, supervises, and manages personnel and organizations responsible for installing, operating, maintaining, and repairing optical; dental, and medical technical diagnostic and treatment equipment; plans and develops detailed procedures for installation of instruments or equipment; develops internal operating procedures and manages allocated resources; anticipates and determines repair requirements, parts, and replacement of equipment; instructs on established maintenance techniques and operating procedures; advises on and supervises use of schematics, tube testing equipment, oscilloscopes, voltmeters, and other test equipment to isolate equipment malfunctions; inspects inoperative equipment, develops cost estimates for repair, and makes appropriate recommendations regarding repair or replacement; maintains records; distributes workload; makes final inspections; develops plans for design and layout of medical laboratory or equipment facilities; prepares drawings, sketches, notes, and materials for installation of equipment; may serve as a service school instructor; may perform duties in support of the procurement or research, development, test, and evaluation of medical equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in communication skills (oral and written), and 3 in record keeping. In the upper-division baccalaureate category, 6 semester hours in personnel management, 3 for field experience in management, 3 in management problems, 3 in introduction to management, 3 in public speaking, 3 in technical report writing, 3 in records administration, and 3 in office management; IF rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (11/79).

MOS-210A-001

Utilities Operation and Maintenance Technician

210A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 310A. May have progressed to Utilities Operation and Maintenance Technician from MOS 52D (Power Generation Equipment Repairer), 52E (Prime Power Production Specialist), or 52F (Turbine Engine Driven Generator).

Description

Manages personnel engaged in utilities operation and maintenance; performs administrative, supply management, and quality control functions which insure operation, delivery, and maintenance of utilities for an installation, hospital, or associated activity; manages and knows the fundamentals of installation, operation, and maintenance of water supply, plumbing, heating, sewage, electrical, refrigeration, air conditioning, and fire fighting systems, and power stations; estimates material and personnel requirements for maintenance and repair of utilities plants and systems; reads and interprets blueprints, schematics, and electrical diagrams; knows electrical, electronic, and mechanical theory and applications relevant to electrical power plants using steam, gas, or diesel-powered generating units; knows basic principles of military, civilian, and contractor procedures and personnel management; understands technical publications of operating principles of utilities plants and systems; diagnoses difficulties; plans maintenance and repair schedules and procedures; manages personnel and equipment engaged in the production of electrical power; determines maintenance and repair requirements and establishes work priorities; allocates maintenance and repair resources; establishes shop practices and policies; directs activities of plant and shift supervisors, electricians, mechanics, instrumentation and process control technicians, and health physics specialists; supervises installation and maintenance of high-voltage electrical power transmission lines and substations; establishes operating procedures for power plant operations, maintenance, equipment inspections, and industrial safety programs; supervises preparation of operating, malfunction, and supply reports; directs procurement and distribution of supplies, tools, and equipment, administers appropriate budgets; acts as technical advisor to commanders concerned with utilities operations; may serve as service school instructor; serves as station or power plant superintendent, power system technician, section or team chief; may directly supervise up to 100 persons; may be able to apply occupational skill to specialized features of nuclear power plants or of ballistic missile (Safeguard System) support equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in shop management, 3 in material management, 3 in personnel supervision, 3 in office administration, 3 in record keeping, 3 in technical writing, and 3 in human relations, and credit in ballistic missile support equipment repair and nuclear power on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in management and training, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 6 semester hours for a practicum in education (11/77).

MOS-211A-001

Target Acquisition Radar Technician (Field Artillery Radar Technician)

211A0

Exhibit Dates: 10/66–12/87. (Effective 1/88, the MOS designator 211A was changed to 131A; see exhibit MOS-131A-001.)

Career Pattern

May have progressed to Target Acquisition Radar Technician from MOS 13W (Field Artillery Target Acquisition Senior Sergeant), MOS 17B (Field Artillery Radar Crewman), MOS 17C (Field Artillery Target Acquisition Specialist), MOS 17Z (Combat Surveillance and Target Acquisition NCO), MOS 24P (Defense Acquisition Radar Mechanic), MOS 26B (Weapons Support Radar Repairman), MOS 26C (Combat Area Surveillance Radar Repairer), MOS 26D (Ground Control Approach Radar Repairer), or MOS 26W (Radar Maintenance Supervisor-Inspector).

Description

Normally serves as chief of a section or platoon engaged in maintaining and operating field artillery radars to provide target location; has a detailed knowledge of the operational aspects of field artillery radar, the technical principles of equipment construction, the scope and techniques of field artillery radar, and safety precautions relevant to operations and maintenance; advises on technical considerations involving field artillery radar; coordinates the activities of field artillery radar personnel; supervises the movement and emplacement of radar and associated equipment; interprets technical data; implements changes in inspections, repair, and test procedures; instructs personnel on new or revised techniques of radar electronics maintenance and employment; inspects completed work and assists personnel in isolating and correcting malfunctions in equipment; must be able to transmit target and counterfire data to support artillery units; reviews maintenance records; supervises the requisitioning of tools, repair parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school, on a headquarters staff, or in research, development, test, and evaluation activities.

Recommendation

In the vocational certificate category, 6 semester hours in electronics theory and laboratory and 2 in use of basic hand tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics theory and laboratory, 3 in personnel supervision, 3 for field experience in management, 2 in industrial/human relations, 2 in technical report writing, and 2 in maintenance management (3/77).

MOS-212A-001

Remotely Piloted Vehicle Technician

212A0

Exhibit Dates: Pending evaluation. 4/86–Present.

MOS-213A-001

Engineer Equipment Repair
Technician

213A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 621A. May have progressed to Engineer Equipment Repair Technician from MOS 52C (Utilities Equipment Repairer), MOS 52D (Power Generation Equipment Repairer), MOS 52F (Turbine Engine Driven Generator Repairer), MOS 62B (Construction Equipment Repairer), or MOS 62N (Construction Equipment Supervisor).

Description

Supervises personnel engaged in maintenance of engineer equipment; analyzes malfunctions and supervises minor repair and adjustment of engineer equipment utilized for power generation, earthmoving, shaping and compacting, lifting and loading, quarrying and rock crushing, asphalt/concrete mixing and surfacing, water purification, refrigeration and air conditioning, missile systems support, water gap crossing, transfer and engineer electronic application; supervises modification of equipment required by modification work orders; inspects incoming equipment to determine repair requirements; assigns work and inspects out-going equipment; establishes maintenance and repair schedules; establishes internal administrative procedures for procurement, storage, and distribution of tools, parts, and publications.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-214E-001

Missile System Technician, Pershing
(Field Artillery Missile System
Technician, Pershing)

214E0

Exhibit Dates: 12/62–12/87. (Effective 1/88, the MOS designator 214E was changed to 130A; see exhibit MOS-130A-001.)

Career Pattern

May have progressed to Missile System Technician, Pershing, from MOS 15E (Pershing Missile Crewman), MOS 21G (Pershing Electronics Materiel Specialist), MOS 21L (Pershing Electronics Repairman), or MOS 46N (Pershing Electrical Mechanical Repairer).

Description

Supervises the maintenance of field artillery missiles, fire control systems, and missile launching and handling equipment; oversees assembly of missiles; supervises utilization, testing, and maintenance of tools, specialized test sets, cable sets, and warhead assemblies; inspects and directs testing, servicing, and repair of missile launching and guidance equipment; supervises maintenance of missile components, determines repair/replacement requirements, insures that repairs and adjustments are made, and makes final inspections; advises superiors on technical and tactical considerations affecting the employment of missiles; serves as a technical advisor on matters of preventive maintenance and inspection of radar, missiles, fire control systems, missile launching and handling equipment, and on-missile materiel; observes and corrects improper technical procedures and repair techniques; coordinates maintenance techniques and standards with preventive maintenance personnel to insure uniformity; implements changes in inspection, repair, and test procedures and instructs personnel on new techniques of missile maintenance and repair; insures that equipment modifications are accomplished; examines and interprets procedures, directives, schematics, and technical publications for data pertinent to the employment of radar, missiles, and related equipment and transmits data to subordinate personnel; reviews operating and maintenance records and tests equipment to ascertain adequacy of maintenance; monitors storage of missile guidance and motor sections; insures compliance with safety and security regulations and procedures; writes and reviews technical reports; reviews and consolidates requests for tools, spare parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation

In the vocational certificate category, 3 semester hours in electronics laboratory and 1 in care and use of hand tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in technical report writing, 2 in maintenance management, and 2 in industrial/human relations, and additional credit in instructional methods on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (3/77).

MOS-214G-001

Missile System Technician, Lance
(Field Artillery Missile System
Technician, Lance)

214G0

Exhibit Dates: 2/75–12/87. (Effective 1/88, the MOS designator 214G was changed to 130B; see exhibit MOS-130B-001.)

Career Pattern

May have progressed to Missile System Technician, Lance, from MOS 15D (Lance Missile Crewman) or MOS 27D (Lance Missile System Repairman).

Description

Supervises the maintenance of field artillery missiles, fire control systems, and missile launching and handling equipment; oversees assembly of missiles; supervises utilization, testing, and maintenance of tools, specialized test sets, cable sets, and warhead assemblies; inspects and directs testing, servicing, and repair of missile launching and guidance equipment; supervises maintenance of missile components, determines repair/replacement requirements, insures that repairs and adjustments are made, and makes final inspections; advises superiors on technical and tactical considerations affecting the employment of missiles; serves as a technical advisor on matters of preventive maintenance and inspection of radar, missiles, fire control systems, missile launching and handling equipment, and on-missile materiel; observes and corrects improper technical procedures and repair techniques; coordinates maintenance technical procedures and repair techniques; coordinates maintenance techniques and standards with preventive maintenance personnel to insure uniformity; implements changes in inspection, repair, and test procedures and instructs personnel on new techniques of missile maintenance and repair; insures that equipment modifications are accomplished; examines and interprets procedures, directives, schematics, and technical publications for data pertinent to the employment of radar, missiles, and related equipment and transmits data to subordinate personnel; reviews operating and maintenance records and tests equipment to ascertain adequacy of maintenance; monitors storage of missile guidance and motor sections; insures compliance with safety and security regulations and procedures; writes and reviews technical reports; reviews and consolidates requests for tools, spare parts, technical supplies, publications, and equipment; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation
In the vocational certificate category, 3 semester hours in electronics laboratory and 1 in care and use of hand tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in technical report writing, 2 in maintenance management, and 2 in industrial/human relations, and additional credit in instructional methods on the basis of institutional evaluation (3/77).

MOS-215A-001

PHOTOMAPPING TECHNICIAN

215A0

Exhibit Dates: 1/88–Present.

Career Pattern
NOTE: This MOS was formerly designated 811A. May have progressed to Photomapping Technician from MOS 81C, Cartographer.

Description
Supervises activities and personnel engaged in preparation and revision of military maps, charts, and orthophotographs; supervises technical and specialized photogrammetric and drafting procedures used in the preparation of detailed military maps, mosaics, overlays, and prints; must be proficient in photogrammetric techniques and principles and know topographic drafting operations and procedures; establishes work priorities; assigns duties; solves unusual problems in map making; prepares records and reports; writes technical reports.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in plant management or office management, 3 in technical report writing, 3 in photogrammetry, and 3 in aerial photographic interpretation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 for management electives, and 3 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (6/78).

MOS-215B-001

SURVEY TECHNICIAN

215A0

Exhibit Dates: 1/88–Present.

Career Pattern
NOTE: This MOS was formerly designated 821A. May have progressed to Survey Technician from MOS 82C (Field Artillery Surveyor) or MOS 82D (Topographic Surveyor).

Description
Manages field-surveying activities and personnel in support of map-making and artillery survey requirements; supervises technical and special procedures employed by survey parties; knows land, highway, and topographic surveying procedures; prepares and interprets aerial photographs and topographic maps; knows basic survey methods such as traverse, triangulation, and resection; knows standard survey computing forms; knows methods for determining azimuth by astronomic or other means; uses astronomical publications such as star lists and ephemeris; coordinates the activities of crews engaged in land, highway, and topographic surveys; adapts survey methods to terrain conditions; converts grid and geographical coordinates; uses trigonometry in various calculations; interprets ground maps, aerial photographs, and map substitutes; insures exact location of points, distances, elevations, lines, areas, and contours in map making efforts; keeps accurate records of secured data; oversees proper use of surveying instruments; verifies accuracy of data obtained from surveys; makes appropriate calculations for map making, using reference tables, standard data, and mathematical formulas; establishes work priorities; designates survey parties and teams; solves complex and unusual problems encountered during survey operations; supervises accountability and maintenance of equipment; maintains records and reports of surveying activities; may serve as a service school instructor.

Recommendation
NOTE: Has knowledge of surveying or geodetic science equivalent to an associate degree (30-40 semester hours, depending on the general education requirements) in geometronic technology. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in management problems, 3 in quality control, 3 in records management, 3 in personnel management, 3 in supervision and leadership, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; and additional credit in geodetic or related sciences and cartography on the basis of institutional evaluation (11/77).

MOS-215C-001

REPRODUCTION TECHNICIAN

215C0

Exhibit Dates: 1/88–Present.

Career Pattern
NOTE: This MOS was formerly designated 833A. May have progressed to Reproduction Technician from MOS 83E (Photo and Layout Specialist) or MOS 83F (Printing and Bindery Specialist).

Description
Supervises fixed and mobile platoons and teams engaged in the reproduction of maps, related material, or psychological operations material; organizes activities, schedules production, and establishes procedures; oversees maintenance of equipment; supervises reproduction of topographic maps, pictomaps, overlays, and overprints; must know lithogrphic reproduction quality standards and color separation processes; prepares records and reports; writes technical reports.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in production control, 3 in technical report writing, and 6 for field experience in graphic arts. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management electives, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-215D-001

TERRAIN ANALYSIS TECHNICIAN

215D0

Exhibit Dates: 1/88–Present.

Career Pattern
This MOS was formerly designated 841A. May have progressed to Terrain Analysis Technician from MOS 81Q, Terrain Analyst, 81C, Cartographer, 82D, Topographic Surveyor, 93E, Meteorological Observer, or 96B, Intelligence Analyst.

Description
Supervises activities and personnel in identification, analysis, synthesis, production, and dissemination of terrain information; collects data; designs and develops graphics; identifies project needs; analyzes impact of weather; briefs commanders at all levels; develops automated and manual filing systems; supervises use and operation of computer-aided equipment; interacts with other units; understands elements of soils, vegetation, geology, weather hydrology and their relationship to each other; prepares lengthy reports; presents oral briefings.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in public speaking and 3 in expository writing. In the upper-division baccalaureate category, 3 semester hours in advanced physical geography, 3 in geodesy, 3 in geographic information systems, 3 in human resource management, and 3-6 semester hours for field experience in management (7/88).

MOS-221B-001

MISSILE ASSEMBLY TECHNICIAN, NIKE

221B0

Exhibit Dates: 1/69–12/87. (Effective 1/88, the MOS designator 221B was changed to 140C (Custodial Systems Technician); see exhibit MOS-140C-001.)

Career Pattern
May have progressed to Missile Assembly Technician, Nike, from MOS 22N (Nike-Hercules Missile-Launcher Repairman), MOS 23W (Nike Maintenance Chief), MOS 24U (Hercules Electronics Mechanic), or MOS 28M (Anti-Ballistic Missile Maintenance Specialist).

Description
Supervises the assembly, testing, and maintenance of all components of Air De-

fense/Ballistic Missile Defense (AD/BMD) missiles; knows operations, theory, and on-line maintenance of missile testing and servicing equipment associated with warhead sections, fuses, electronic and mechanical on-missile guidance equipment, hydraulic systems, and propulsion units; knows theory and function of hydraulic systems, vacuum tubes, solid state devices, and associated circuits and circuit elements; performs checkouts of electronic, electrical, mechanical, electromechanical, and hydraulic systems; knows authorized procedure for modifying existing equipment; knows AD/BMD missile transport, storage, and safety program regulations and policies for nuclear and explosive components; knows theory, operation, and maintenance procedures for all launching area equipment; oversees uncrating and mating of missiles, rocket motor assemblies, and warhead sections; supervises emplacement of missiles and launching area equipment in mobile air defense units; knows maintenance record keeping and inventory control procedures; trains and evaluates missile maintenance personnel in troubleshooting and maintenance procedures; advises commander on the tactical aspects of missile employment, emplacement, readiness status, and firing.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in troubleshooting, 3 in technical mathematics, 3 in basic electronics, 3 in AC/DC circuit analysis, 3 in transistor theory, 3 in maintenance management, 2 in instrumentation, 2 in controls, 2 in pulse circuits, 2 in inventory management, 2 in personnel supervision, 2 in report writing, 1 in maintenance shop record keeping, and additional credit in controls, transistor theory, mathematics, hydraulics, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-221C-001

MISSILE MAINTENANCE TECHNICIAN,
SAFEGUARD

221C0

Exhibit Dates: 3/72–3/78. NOTE: Effective 4/78, MOS 221C was discontinued and its functions were incorporated into MOS 221B, Missile Assembly Technician, Nike. The skills, competencies, and knowledge required to maintain the Safeguard missile are comparable to those required to maintain the Nike missile. Use the recommendation in exhibit MOS-221B-001.

MOS-222B-001

MISSILE FIRE CONTROL TECHNICIAN, NIKE
(AIR DEFENSE MISSILE FIRE CONTROL
TECHNICIAN, NIKE)

222B0

Exhibit Dates: 1/69–6/87. (Effective 7/87, MOS 222B was discontinued.)

Career Pattern

May have progressed to Missile Fire Control Technician, Nike, from MOS 16Z (Air Defense Artillery Senior Sergeant), MOS 22L (Nike Test Equipment Repairman), MOS 22N (Nike-Hercules Missile-Launcher Repairman), MOS 23N (Nike-Track Radar Repairman), MOS 23U (Nike High Power Radar-Simulator Repairman), MOS 23W (Nike Maintenance Chief), MOS 24P (Defense Acquisition Radar Mechanic), MOS 24Q (Nike-Hercules Fire Control Mechanic), MOS 24U (Hercules Electronic Mechanic), MOS 26H (Air Defense Radar Repairman), or MOS 34G (Fire Control Computer Repairman).

Description

Supervises the repair and maintenance of Nike air defense missile control equipment, data processing and simulator equipment, and radars; supervises the movement, emplacement, and testing of fire control and auxiliary equipment; understands theory, function, and operation of solid-state devices, associated circuits, tracking radars, acquisition radars, interrogator equipment, computer data transmission systems, tactical control circuits, counter-countermeasure systems, and power supply equipment for Nike air defense missile fire control equipment; supervises the use, testing, and maintenance of tools and test equipment used in diagnosing complex malfunctions in missile electronic ground guidance and tactical data processing equipment; monitors equipment during testing, simulations, and missile firing exercises to detect operator error and/or systems malfunctions and initiates corrective action, if required; knows regulations and procedure required for working with high voltage, electromagnetic radiation, and x-rays; supervises emplacement, testing, and maintenance of fire control equipment, advises commander on employment of counter-countermeasures; knows operation, function, and maintenance of battery terminal equipment; trains maintenance and operator personnel in Nike air defense missile control equipment; supervises parts inventory and supply system, including procurement for Nike air defense missile; supervises maintenance and operation inventory; evaluates effectiveness of maintenance programs, operator training, and parts and equipment supply operations; prepares reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics troubleshooting, 3 in technical mathematics, 3 in basic electronics, 3 in AC/DC circuits analysis, 3 in transistor theory, 3 in maintenance management, 2 in instrumentation 2 in pulse circuits, 2 in digital circuitry, 2 in computer fundamentals, 2 in inventory management, 2 in personnel supervision, 2 in report writing, 1 in maintenance shop record keeping, 1 in control systems, 1 in radar/microwave theory, 1 in machine language, and additional credit in electronics, mathematics data processing, computer science, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel mangement and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-222C-001

MISSILE SYSTEM TECHNICIAN, PATRIOT

222C0

Exhibit Dates: 4/80–Present. NOTE: The skills, competencies, and knowledge required to maintain the Patriot missile are comparable to those required to maintain the Nike. Use the recommendation in exhibit MOS-222B-001.

MOS-223B-001

MISSILE SYSTEM TECHNICIAN, HAWK
(MISSILE SYSTEM TECHNICIAN, IMPROVED
HAWK)

223B0

Exhibit Dates: 10/71–12/87. (Effective 1/88, the MOS designator 223 was changed to 140D; see exhibit MOS-140D-001.) NOTE: MOS 223B was established in 4/78. It is a consolidation of two previous MOS's, MOS 223D (Air Defense Missile System Technician, Improved Hawk) and MOS 251D (Air Defense Missile System Repair Technician, Improved Hawk). Because these two MOS's represented substantially the same skills, competencies, and knowledge required for MOS 223B, persons who held MOS 223D or MOS 251D are eligible for the credit recommended in this exhibit for MOS 223B. However, readers should also note that many persons who held two other previous MOS's, MOS 223C (Air Defense Missile System Technician, Hawk) and MOS 251C (Air Defense Missile System Repair Technician, Hawk) were reassigned to MOS 223B. Because of the additional training normally required for personnel to change over from the Hawk missile system to the Improved Hawk missile system, the recommendation in this exhibit should be applied to a person who held MOS 223C or MOS 251C only after an institutional evaluation confirms that the individual acquired substantially the same skills, competencies, and knowledge described for MOS 223B. This MOS was formerly designated MOS 223D and MOS 251D.

Career Pattern

May have progressed to Missile System Technician, Improved Hawk, from any enlisted MOS in Improved Hawk missile system repair or mechanics MOS in Career Management Field 23 (subfields 233, 234, 235, or 236).

Description

Supervises the assembly, inspection, and repair of the Improved Hawk missile system, simulator equipment, and associated test equipment; understands theory, functions, and operation on on-missile guidance equipment, ranging radars, pulse radars, launchers, fire control equipment, simulator stations, computers, and automatic data transmission systems used with the Improved Hawk air defense missile system and associated power generation and air-conditioning equipment; knows theory and functions of solid-state devices and associated circuits and circuit elements; knows how to assemble and test components of missile, radar, and fire control equipment; supervises testing of the system specialized test sets and procedures; supervises repairmen in isolating malfunctions and in repairing, adjusting, and aligning systems and system components; advises personnel on equipment modificatons and of changes to inspection, repair, test, and maintenance calibration procedures; knows safety procedures and regulations pertaining to high-energy electromagnetic radiation hazards, high-voltage hazards, and high-pressure hydraulic equipment; knows missile transport and storage methods; knows operation, function, and maintenance of battery terminal equipment; trains personnel in safety and security procedures and maintenance techniques; interprets technical publications; supervises parts inventory and supply system, including procurement; reviews and prepares reports; evaluates supply and maintenance problems, advises superiors, and recommends corrective actions; may serve as an instructor at a formal training school or be employed in missile procurement activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in electronics troubleshooting, 3 in basic electronics, 3 in AC/DC circuit analysis, 3 in transistor theory, 3 in instrumentation, 2 in pulse circuits, 2 in control systems, 2 in digital circuitry, 2 in computer fundamentals, 1 in radar/microwave theory, 1 in machine language, 3 in maintenance management, 2 in inventory management, 2 in personnel supervision, 2 in report writing, 1 in maintenance shop record keeping, and additional credit in electronics, mathematics, data processing, computer science, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-223D-001

Air Defense Missile System
Technician, Improved Hawk

223D0

Exhibit Dates: 10/71-3/78. NOTE: Effective 4/78, MOS 223D was discontinued and its functions were incorporated into MOS 223B, Missile System Technician, Improved Hawk. See exhibit MOS-223B-001.

MOS-224B-001

Short Range Air Defense Systems
Technician
(Chaparral/Vulcan System
Technician)

224B0

Exhibit Dates: 12/68-12/87. (Effective 1/88, the MOS designator 224B was changed to 140B; see exhibit MOS-140B-001.)

Career Pattern

May have progressed to Short Range Air Defense Systems Technician from MOS 24M (Vulcan System Mechanic), MOS 24N (Chaparral Systems Mechanic), MOS 27B (Land Combat Support System Test Specialist), MOS 27F (Chaparral/Vulcan Air Defense System Repairman or Vulcan Repairer), MOS 27G (Redeye Missile System Repairman or Chaparral/Redeye Repairer), or MOS 27Z (LCSS Missile Maintenance Chief).

Description

Supervises repair and maintenance of the Chaparral and Vulcan light air defense electronic systems and land combat support missile systems, including forward area alert radar (FAAR) and target alerting identification systems; supervises operation of maintenance shops, on-site maintenance activities, and shop quality control activities; knows theory, operation, and functioning of Chaparral/Vulcan systems and associated equipment, including test and training equipment and motor support units; has knowledge of electricity, electronics, pneumatics, hydraulics, and mechanics; reads, uses, and interprets schematic diagrams and other technical publications; uses special tools and test equipment to maintain, adjust, troubleshoot, and repair system equipment; organizes, supervises, manages, and evaluates most phases of maintenance programs peculiar to the system and to its support equipment; acts in the capacity of maintenance officer in the absence of a line officer; coordinates activities with other maintenance organizations; supervises 20-50 subordinates; advises and assists in establishing training programs for operators and crewmen; knows and provides staff supervision for supply functions; supervises inventory and purchasing of maintenance parts, tools, and equipment; knows safety procedures pertaining to the missile systems and associated equipment; writes technical and administrative reports; advises superiors on the technical and tactical capabilities, limitations, and employment of the missile systems; may serve as an instructor at a formal training school or as a technical advisor on a headquarters staff.

Recommendation

In the vocational certificate category, 6 semester hours in electricity/electronics laboratory, 5 in automotive mechanics, 5 in diesel mechanics, 5 in industrial truck mechanics, 3 in troubleshooting, 1 in shop practices and procedures, and 1 in industrial safety. In the lower-division baccalaureate/associate degree category, 5 semester hours in automotive mechanics, 5 in diesel mechanics, 5 in industrial truck mechanics, 3 in basic electronics, 3 in troubleshooting, 1 in shop practices and procedures, 1 in industrial safety, 3 in maintenance management, 3 in personnel supervision, 2 in inventory management, 2 in maintenance shop record keeping, 2 in report writing, and credit in public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-224D-001

Sgt. York Air Defense Systems
Technician
(DIVAD Gun System Technician)

224D0

Exhibit Dates: 3/83-Present. NOTE: The skills, competencies, and knowledge required for MOS 224D are comparable to those required for MOS 224B. Use the recommendation in exhibit MOS-224B-001.

MOS-225B-001

Air Defense Artillery (ADA)
Command and Control
Maintenance Technician

225B0

Exhibit Dates: 1/85-12/87. (Effective 1/88, the MOS designator 225B was changed to 140A; see exhibit MOS-140A-001.)

Career Pattern

May have progressed to ADA Command and Control Maintenance Technician from MOS 24C (Hawk Firing Section Mechanic), MOS 24E (Hawk Fire Control Mechanic), MOS 24G (Hawk Information Coordination Central Mechanic), MOS 24H (Hawk Fire Control Repairer), MOS 24J (Pulse Radar Repairer), MOS 24K (Hawk Continuous Wave Radar Repairer), MOS 24L (Hawk Launcher and Mechanical Systems Repairer), MOS 24R (Hawk Master Mechanic), MOS 24T (Patriot Operator and Systems Mechanic), MOS 24U (Nike-Hercules Custodial Mechanic), MOS 24V (Hawk Maintenance Chief), or MOS 24L (AN/TSQ 73 Air Defense Artillery Command and Control System Operator/Repairer).

Description

Coordinates the activities of 25-30 maintenance personnel and manages equipment for the installation, repair, maintenance, and modification of Army air defense command and control systems, including data processing equipment, radar equipment, communications equipment, and power system equipment; develops maintenance procedures; performs hands-on troubleshooting when subordinate personnel are unable to isolate problems; advises and instructs repair personnel; estimates repair priorities based on mission, type of work to be performed, and availability of parts and personnel; advises commissioned officers on command and control system capabilities and limitations.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in computer and data processing concepts, and 3 in training management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in human resource management, and 6 for field experience in management. Credit in the following areas on the basis of institutional evaluation: computer electronics, computer system repair, radar systems, electronic communications, and power systems (11/88).

MOS-241F-001

Field Artillery Missile System Repair
Technician, Pershing

241F0

Exhibit Dates: 12/62-2/78. NOTE: Effective 4/78, MOS 241F was discontinued and its functions were incorporated into MOS 214E, Missile System Technician, Pershing. Use the recommendation in the exhibit, MOS-214E-001, and award additional credit on the basis of institutional evaluation.

MOS-250A-001

Communications Security Technician
(Telecommunications Technician)

250A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 290A. May have progressed to MOS 250A from MOS 72E (Tactical Telecommunications Center Operator), 72G (Automatic Data Telecommunications Center Operator), 29F (Fixed Communications Security Equipment Repairer), 29S (Field Communications Security Equipment Repairer), and 29P (Communications Security Maintenance Chief).

Description

Manages and supervises personnel, equipment, and facilities for the operation of mobile and fixed communication center or activities; supervises personnel engaged in transmitting messages and operating communications or data processing equipment; performs systems analysis; organizes communication center activities; assigns work to subordinates; plans, supervises and conducts training; assumes responsibility for accounts; is accountable for procurement, storage, and use of communications equipment; may supervise, inspect and evaluate operations associated with automated message-processing centers and automatic digital switches or terminals; supervises testing, adjusting and repairing of communications security equipment in either fixed locations or in logistic support facilities; may serve as a service school instructor; may serve as an advisor to members of allied armies; may serve as a commodity manager for communications sections, material, and in procurement, research, developmental, tests, and evaluaton activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-250B-001

Tactical Automated Network
Technician

250B0

Exhibit Dates: 9/89–Present.

Career Pattern

May have progressed to Tactical Automated Network Technician from MOS 31F (Mobile Subscriber Equipment Network Switching System Operator), 31W (Mobile Subscriber Equipment Communications Chief), 31Y (Communications Systems Supervisor), 31Z (Communications-Operations Chief), 36L (Transportable Electronic Switching Systems Operator/Maintainer), or 72E (Telecommunications Center Operator).

Description

Manages and supervises the operation of tactical automated network message circuits and data switching systems; plans, conducts and supervises training on automated switching networks; coordinates network troubleshooting and restoration of systems; serves as network manager for Mobile Subscriber Equipment Tactical Communications systems; plans, directs, and manages the deployment, installation, activation and movement of communications facilities comprising the networks; loads and runs systems diagnostics.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/90).

MOS-251A-001

Data Processing Technician

251A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 741A. May have progressed to Data Processing Technican from MOS 74D (Computer/Machine Operator), MOS 74F (Programmer Analyst), or MOS 74Z (Data Processing NCO).

Description

Directs and coordinates production activities of electronic data processing element or unit including functional or machine design applications, programming, or operation of automatic data processing (ADP) equipment; analyzes, plans, and manages the development, test, evaluation, and modification of automatic data processing systems (ADPS); plans and coordinates activities of data processing personnel engaged in programming, wiring, and debugging programs; establishes work standards; supervises coding and machine processing of data and develops training programs; interprets policies, purposes, and goals of ADP activity to subordinates; participates in decisions regarding personnel staffing, allocation of ADP resources, and equipment acquisitions.

Recommendation

In the vocational certificate category, 3 semester hours in data processing principles, 3 in computer fundamentals, 3 in technical report writing, and credit in the appropriate computer languages on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles, 3 in computer fundamentals, 3 in technical report writing, 3 in business communications, 3 in computer operating systems, 3 in computer facility management, 3 in personnel supervision, and additional credit in the appropriate computer languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in computer systems and program design, 3 in personnel management, and 3 in management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (6/78).

MOS-251B-001

Air Defense Missile System Repair
Technician, Nike

251B0

Exhibit Dates: 1/69–3/78. NOTE: Effective 4/78, MOS 251B was discontinued and its functions were incorporated into MOS 222B, Missile Fire Control Technician, Nike. Use the recommendation in exhibit MOS-222B-001, and award additional credit on the basis of institutional evaluation.

MOS-251D-001

Air Defense Missile System Repair
Technician, Improved Hawk

251D0

Exhibit Dates: 10/71–3/78. NOTE: Effective 4/78, MOS 251D was discontinued and its functions were incorporated into MOS 223B, Missile System Technician, Improved Hawk. See exhibit MOS-223B-001.

MOS-252A-001

Test Measurement and Diagnostic
Equipment (TMDE) Technician
(Calibration and Repair Technician)
(Calibration Technician)

252A0

Exhibit Dates: 8/71–Present.

Career Pattern

May have progressed to Calibration Technician from MOS 35H (Calibration Specialist).

Description

Supervises or accomplishes repair and calibration of precision equipment used for the measuring, testing, controlling and indicating of temperature, pressure, vacuum, fluid flow, liquid level, mechanical motion, rotation, humidity, density, acidity, alkalinity, and combustion (equipment may include tools, dial pressure gauges, scales, balances, direction and sighting devices, oscilloscopes, meters, digital test equipment, signal generators, power supplies, and specialized mechanical and electronic testing equipment); maintains equipment within prescribed manufacturer standards and national or international bureau of standards tolerances and ensures that calibration surveillance standards are met; manages activities and personnel engaged in calibration of instruments or system components of all types of Army equipment and weapons; interprets and analyzes measurement data and specifications of equipment, instruments, or guages to conform to specified standards; develops procedures for testing and diagnosing malfunctions or implements established guidance to adjust or repair item requiring calibration; interprets technical data, schematics and transfer standards in the use and operation of this material; supervises testing systems to isolate malfunctions and faulty components; instructs subordinates on the correctional adjustments to obtain special readings or characteristics, such as frequency or inductance; certifies instruments for accuracy; may be assigned chief of section engaged in calibration activities, and may supervise up to 50 calibration technicians; may be employed as a contracting officer's representative to monitor and evaluate the performance of contractor personnel performing maintenance calibration functions for the Army; may be assigned as a service school instructor at U.S. Army or joint service schools, and typically is involved in writing of training materials and teaching of update courses to subordinates; may oversee budget of calibration unit, oversee office, personnel, job placement, employee relations, shipping of equipment, and other essential officer-level duties.

Recommendation

In the vocational certificate category, 3 semester hours in electricity/electronics, 6 in circuits, 6 in troubleshooting techniques, 3 in electronics measurement laboratory, and 3 in technical electives. In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity/electronics, 6 in circuits, 3 in troubleshooting techniques, 3 in electronics measurement laboratory, 3 in personnel supervision and human relations, and 3 in technical writing and report preparation. In the upper-division baccalaureate category, 6 semester hours in management electives and 3 in education electives (8/79).

MOS-256A-001

COMMUNICATIONS-ELECTRONICS REPAIR TECHNICIAN

256A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 286A. May have progressed to Communications-Electronics Equipment Repair Technician from any of the following MOS's: 39C, 29E, 29J, 29M, 29T, 29U, 29W, 29Y, 35L, 35M, 35P, 35R, and 39E.

Description

Manages personnel and equipment in the installation, maintenance, and modification of radio, radar, television, microwave, navigation, avionics, wire communication equipment, and associated tools, tests sets and accessory equipment; receives and inspects equipment; prepares work assignments for subordinates; plans and implements maintenance schedules; develops repair and operating procedures and assures quality control; instructs personnel on test and maintenance procedures; supervises general technical and complex repair of communications-electronic/equipment at all command levels; estimates repair requirements and costs; advises commander or staff officers on communications equipment development, procurement, capabilities, limitations and employment; may serve as service school instructor; may serve as advisor to members of allied armies; may serve with procurement; may serve in research, development, and evaluation activities related to communications equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-257A-001

DATA PROCESSING SYSTEMS REPAIR TECHNICIAN

257A0

Exhibit Dates: 1/88–Present

Career Pattern

NOTE: This MOS was formerly designated 287A. May have progressed to Data Processing Systems Repair Technician from any of the following MOS's: 25L, 29G, 29H, 39D, 39K, and 39Y.

Description

Manages personnel and equipment involved in the installation, operation, repair, maintenance, and modification of punch card, electronic data processing, command and control systems, and ancillary equipment and tools; develops operating procedures; interprets technical data; advises and instructs repair personnel; solves unusually complex problems of diagnosis, repair, and modification; establishes repair priorities; estimates repair requirements and costs; advises commander on use, capability, and limitations of data processing systems; may serve as an instructor in a service school; may serve in research, development, test, and evaluation activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in recordkeeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-260A-001

NUCLEAR WEAPONS TECHNICIAN

260A0

Exhibit Dates: 3/74–12/87. (Effective 1/88, the MOS designator 260A was changed to 911A; see exhibit MOS-911A-002.)

Career Pattern

May have progressed to Nuclear Weapons Technician from MOS 35F (Nuclear Weapons Electronics Specialist) or MOS 55G (Nuclear Weapons Maintenance Specialist).

Description

Supervises the assembly, disassembly, inspection, test, repair, modification, maintenance, security and safety of nuclear warhead subsections, projectiles, munitions, components, and associated trainers; supervises from 8 to 40 personnel engaged in the maintenance calibration of the test and handling equipment associated with nuclear materials and weapons; determines the acceptability of nuclear warhead sections and subassemblies to assure their reliability through close supervision and personal inspection of maintenance operations, including electronic component replacement, nuclear material replacement, and proper storage and handling; ensures that equipment modifications are accomplished as announced; examines, interprets, rewrites, and disseminates technical materials for revised operating procedures, orders, technical publications, new test equipment, and new safety procedures pertinent to nuclear materials and weapons; enforces the compliance with weapons safety rules, OSHA regulations, security regulations, and unique safety requirements; performs emergency disarm and destruction of nuclear weapons, which involves handling nuclear materials and conventional high explosives; supervises all administrative duties associated with repair and maintenance, including requisitions for tools, parts, and supplies; manages personnel assignments; writes reports and maintains records; performs inspections; provides technical guidance and assistance to all support units, operating agencies and company commanders regarding all matters involving nuclear weapons.

Recommendation

In the vocational certificate category, 1 semester hour in electronic circuits, 3 in electronic measurements laboratory, 3 in explosives handling, 6 in nuclear materials handling, and 6 in nuclear security and safety procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic measurements laboratory, 6 in nuclear materials handling, 6 in nuclear security and safety procedures, 3 in personnel supervision and human relations, and 3 in technical writing and report preparation. In the upper-division baccalaureate category, 6 semester hours in management electives and 3 in education electives (8/79).

MOS-271A-001

LAND COMBAT SUPPORT MISSILE SYSTEMS REPAIR TECHNICIAN

271A0

Exhibit Dates: 10/66–12/87. (Effective 1/88, the MOS designator 271A was changed to 912A; see exhibit MOS-912A-001.)

Career Pattern

May have progressed to Land Combat Support Missile Systems Repair Technican from MOS 27B (Land Combat Support Test System Specialist/Lance Repairer), MOS 27D (Lance Missile System Repairman), MOS 27E (Wire-Guided Missile Systems Repairman or TOW/Dragon Repairer), MOS 27H (Shillelagh Repairer), or MOS 27Z (LCSS Missile Maintenance Chief).

Description

Manages supply, equipment, facility, and personnel assets in the maintenance and repair of land combat support missile systems (short or medium-distance guided missile weapon systems), associated system-designed electronic test systems, and training devices; directs the activities of personnel engaged in isolating malfunctions occurring in electronic firing and guiding systems and components; analyzes complex malfunctions; supervises repair of and modifications to systems components, including guidance control systems, optical trackers, modulators, infrared sensors, conduct-of-fire trainers, missiles, and specialized test equipment; oversees supply management and preparation of work reports and maintenance records; forecasts supply requirements; insure that final inspections and checkout procedures are conducted; examines, interprets, and disseminates technical material, including orders, bulletins, and manuals; instructs enlisted specialists in troubleshooting techniques, diagnostic procedures, and the interpretation of tests on system components, circuits, and optical elements; knows techniques and safety procedures for handling explosive components; may serve as instructor at a formal training school.

Recommendation

In the vocational certificate category, 6 semester hours in electronics theory and laboratory and 2 in use of basic hand tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics theory and laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in industrial/human relations, 2 in maintenance management, and 1 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives (3/77).

MOS-281A-001

RADIO REPAIR TECHNICIAN

281A0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 281A was discontinued and its function were incorporated into MOS 286A, Communications-Electronics Equipment Repair Technician. Use exhibit MOS-286A-001.

MOS-282A-001

RADAR REPAIR TECHNICIAN

282A0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 282A was discontinued and its function were incorporated into MOS 286A, Communications-Electronics Equipment Repair Technician. Use exhibit MOS-286A-001.

MOS-285A-001

ELECTRONIC WARFARE/INTERCEPT EQUIPMENT REPAIR TECHNICIAN (INTERCEPT REPAIR TECHNICIAN)

285A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 285A was changed to 353A; see exhibit MOS-353A-001.)

Career Pattern

May have progressed to Electronic Warfare/Intercept Equipment Repair Technician from MOS 26K (Aerial Electronic Warning/Defense Equipment Repairer), or MOS 33S (Electronic Warfare Intercept Systems Repairer).

Description

Manages personnel and equipment involved in installing, maintaining, repairing, and modifying complex electronic warfare, intercept, and related ancillary electronics equipment; applies theory and knowledge of functioning of vacuum tubes, transistors, and other solid-state devices, and digital techniques; applies techniques of circuit analysis and performance measurement; keeps maintenance records; supervises requisitioning of supplies and spare parts; recommends equipment modifications; instructs repair personnel on troubleshooting and repair techniques and on specialized tests and procedures; estimates repair requirements and costs; prepares and implements maintenance schedules; advises commander on use of electronic systems equipment; may serve as a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in recordkeeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-286A-001

COMMUNICATIONS-ELECTRONICS EQUIPMENT REPAIR TECHNICIAN (COMMUNICATIONS-ELECTRONICS REPAIR TECHNICIAN)

286A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 286A was changed to 256A; see exhibit MOS-256A-001.)

Career Pattern

May have progressed to Communications-Electronics Equipment Repair Technician from MOS 24P (Defense Acquisition Radar Mechanic), MOS 26B (Weapons Support Radar Repairman), MOS 26C (Combat Area Surveillance Radar Repairer), MOS 26D (Ground Control Approach Radar Repairer), MOS 26H (Air Defense Radar Repairman), MOS 26L (Tactical Microwave Systems Repairman), MOS 26M (Aerial Surveillance Radar Repairer), MOS 26T (Radio/Television Systems Specialist), MOS 26V (Strategic Microwave Systems Repairman), MOS 26Y (Satellite Communications Ground Station Equipment Repairman), MOS 31B (Field Communications-Electronics Equipment Mechanic), MOS 31E (Field Radio Repairman), MOS 31J (Teletypewriter Repairman), MOS 31L (Multichannel Communications Equipment Repairman), MOS 31W (Tactical Electronics Maintenance Chief), MOS 32E (Fixed Plant Carrier Repairman), MOS 32H (Fixed Station Radio Repairman), MOS 32Z (Fixed Station Chief), MOS 35E (Special Electrical Devices Repairman), MOS 35K (Avionic Mechanic), MOS 35L (Avionic Communications Equipment Repairer), MOS 35M (Avionic Navigation and Flight Control Equipment Repairer), MOS 35P (Avionic Equipment Maintenance Supervisor), MOS 35R (Avionic Special Equipment Repairer), MOS 36G (Manual Central Office Repairman), MOS 36H (Dial Central Office Repairman), or MOS 36L (Electronics Switching Repairman).

Description

Manages personnel and equipment in the installation, maintenance, and modification of radio, radar, television, microwave, navigation, avionics, wire communication equipment, and associated tools, tests sets and accessory equipment; receives and inspects equipment; prepares work assignments for subordinates; plans and implements maintenance schedules; develops repair and operating procedures and assures quality control; instructs personnel on test and maintenance procedures; supervises general technical and complex repair of communications-electronic equipment at all command levels; estimates repair requirements and costs; advises commander or staff officers on communications equipment development, procurement, capabilities, limitations and employment; may serve as service school instructor; may serve as advisor to members of allied armies; may serve with procurement; may serve in research, development, and evaluation activities related to communications equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-287A-001

DATA PROCESSING SYSTEMS REPAIR TECHNICIAN

287A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 287A was changed to 257A; see exhibit MOS-257A-001.)

Career Pattern

May have progressed to Data Processing Systems Repair Technician from MOS 25D (BIRDIE Repairman), MOS 25G (Mobile ADCP Monitor Repairman), MOS 25H (Radar Data Processing Equipment Repairman), MOS 25J (Operations Central Repairman), MOS 25K (AN/TSQ-51 System Repairman/Maintenance Chief), MOS 34B (Tabulating Equipment Repairman), MOS 34E (NCR 500 Computer Repairman), MOS 34F (DSTE Repairman), MOS 34G (Fire Control Computer Repairman), MOS 34H (ADMSE Repairer), MOS 34J (UNIVAC 1004/1005 DCT 9000 System Repairman), MOS 34K (IBM 360 Repairman), or MOS 34Z (ADP Maintenance Supervisor).

Description

Manages personnel and equipment involved in the installation, operation, repair, maintenance, and modification of punch card, electronic data processing, command and control systems, and ancillary equipment and tools; develops operating procedures; interprets technical data; advises and instructs repair personnel; solves unusually complex problems of diagnosis, repair, and modification; establishes repair priorities; estimates repair requirements and costs; advises commander on use, capability, and limitations of data processing systems; may serve as an instructor in a service school; may serve in research, development, test, and evaluation activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in recordkeeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-290A-001

TELECOMMUNICATIONS TECHNICIAN

290A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 290A was changed to 250A; see exhibit MOS-250A-001.)

Career Pattern

May have progressed to Telecommunications Technician from MOS 31S (Field General COMSEC Repairman), MOS 31T (Field Systems COMSEC Reparman, MOS 31U (Tactical COMSEC Maintenance Chief), MOS 32F (Fixed Ciphony Repairman), MOS 32G (Fixed Cryptographic Equipment Repairman), MOS 76D (Material Supplyman), MOS 72E (Telecommunications Center Specialist), or MOS 72G (Data Communications Switching Center Specialist).

Description

Manages and supervises personnel, equipment, and facilities for the operation of mobile and fixed communication center or activities; supervises personnel engaged in transmitting messages and operating communications or data processing equipment; performs systems analysis; organizes communication center activities; assigns work to subordinates; plans, supervises and conducts training; assumes responsibility for accounts; is accountable for procurement, storage, and use of communications equipment; may supervise, inspect and evaluate operations associated with automated message-processing centers and automatic digital switches or terminals; supervises testing, adjusting and repairing of communications security equipment in either fixed locations or in logistic support facilities; may serve as a service school instructor; may serve as an advisor to members of allied armies; may serve as a commodity manager for communications sections, material, and in procurement, research, developmental, tests, and evaluaton activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-301A-001

DATA PROCESSING EQUIPMENT REPAIR TECHNICIAN

301A0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 301A was discontinued and its functions were incorporated into MOS 287A, Data Processing Equipment Repair Technician. Use exhibit MOS-287A-001.

MOS-310A-001

UTILITIES OPERATION AND MAINTENANCE TECHNICIAN
(UTILITIES MAINTENANCE TECHNICIAN)

310A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 310A was changed to 210A; see exhibit MOS-210A-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 521A. May have progressed to Utilities Operation and Maintenance Technician from any MOS in Career Management Field 52 (Power Production), or the following MOS's in career Management Field 51 (General Engineering): MOS 51A (Construction and Utilities Worker), MOS 51B (Carpenter), MOS 51G (Soils Analyst), or any MOS in subfield 512 (Utilities Engineering).

Description

Manages personnel engaged in utilities operation and maintenance; performs administrative, supply management, and quality control functions which insure operation, delivery, and maintenance of utilities for an installation, hospital, or associated activity; manages and knows the fundamentals of installation, operation, and maintenance of water supply, plumbing, heating, sewage, electrical, refrigeration, air conditioning, and fire fighting systems, and power stations; estimates material and personnel requirements for maintenance and repair of utilities plants and systems; reads and interprets blueprints, schematics, and electrical diagrams; knows electrical, electronic, and mechanical theory and applications relevant to electrical power plants using steam, gas, or diesel-powered generating units; knows basic principles of military, civilian, and contractor procedures and personnel management; understands technical publications of operating principles of utilities plants and systems; diagnoses difficulties; plans maintenance and repair schedules and procedures; manages personnel and equipment engaged in the production of electrical power, determines maintenance and repair requirements and establishes work priorities; allocates maintenance and repair resources; establishes shop practices and policies; directs activities of plant and shift supervisors, electricians, mechanics, instrumentation and process control technicians, and health physics specialists; supervises installation and maintenance of high-voltage electrical power transmission lines and substations; establishes operating procedures for power plant operations, maintenance, equipment inspections, and industrial safety programs; supervises preparation of operating, malfunction, and supply reports; directs procurement and distribution of supplies, tools, and equipment, administers appropriate budgets; acts as technical advisor to commanders concerned with utilities operations; may serve as service school instructor; serves as station or power plant superintendent, power system technician, section or team chief; may directly supervise up to 100 persons; may be able to apply occupational skill to specialized features of nuclear power plants or of ballistic missile (Safeguard System) support equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in shop management, 3 in material management, 3 in personnel supervision, 3 in office administration, 3 in record keeping, 3 in technical writing, and 3 in human relations, and credit in ballistic missile support equipment repair and nuclear power on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in management and training, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 6 semester hours for a practicum in education (11/77).

MOS-311A-001

CID SPECIAL AGENT

311A0

Exhibit Dates: 1/88-Present.

Career Pattern

NOTE: This MOS was formerly designated 951A. May have progressed to CID Special Agent from MOS 95D (CID Special Agent).

Description

Conducts investigations and supervises technical and other personnel in the investigation of known or suspected crimes involving government property and individuals subject to military jurisdiction; examines scene of incident and collects and submits all relevant physical evidence (fingerprints, blood stains, suspected narcotics, castings, documents) to crime laboratory; studies and evaluates evidence to determine motives and responsible individuals; develops investigative plans; prepares reports of investigations; apprehends violators or suspects based on probable cause; testifies at courts-martial or other appropriate judiciary tribunals; engages in crime prevention efforts and physical security surveys; performs worldwide protective services for Department of Defense executives, visiting foreign officials, and other designated principals; knows techniques for effective investigation of any type of crime involving U.S. government property and individuals subject to the Uniform Code of Military Justice; knows what constitutes an offense under applicable criminal codes and laws; knows techniques governing search and apprehension; knows rules of evidence and methods of collecting, preserving, and protecting evidence; knows complete procedures for identifying, protecting, and searching a crime scene; knows techniques of surveillance, covert operation, raids, and search and seizure and conducts such activities; applies evidence, records, and laboratory reports to criminal investigations; knows techniques of crime prevention, physical security, and industrial defense surveys; evaluates findings and develops recommendations resulting from such surveys; interviews and interrogates complainants, witnesses, informants, suspects, and other persons considered knowledgeable of or connected with crimes; develops information on suspects concerning habits, associates, aliases, characteristics, and other personal information and uses such information in the investigative process; prepares proper records of information obtained through interviews and interrogations; supervises criminal investigation teams; understands basic techniques for conducting laboratory examinations and the analysis of physical evidence; applies laboratory techniques and procedures to physical evidence; evaluates all information obtained in connection with a specific crime; knows administrative procedures, report writing, correspondence formats, supply channels, and office management; testifies as expert witness concerning application of any standard technique or procedure used in criminal investigation; coordinates with appropriate civil and military agencies involving jurisdictional authority, exchange of information, and similar problems and considerations; may be an operations officer giving direction to other personnel involved in various investigations; may serve as an instructor or supervise instruction of personnel in various crime-related topics; may have foreign language proficiency; has extensive knowledge about narcotics and narcotics trafficking, including clandestine laboratories, drug traffic patterns, drug identification, and drug field testing; conducts drug abuse education programs.

Recommendation

In the vocational certificate category, 6 semester hours in laws/rules of evidence, 3 in report writing, and 3 in criminal investigation. In the lower-division baccalaureate/associate degree category, 6 semester hours in laws/rules of evidence, 4 in introduction to law enforcement, 3 in criminal law, 3 in criminal investigation, 3 in report writing, and 3 in oral communications, and additional credit in a foreign language on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours for field experience in criminology (crime scene and laboratory) and 3 for a practicum in education, and additional credit in foreign language and education on the basis of institutional evaluation (11/77).

MOS-341A-001

CRYPOTOGRAPHIC EQUIPMENT REPAIR TECHNICIAN

341A0

Exhibit Dates: 6/61–3/78. NOTE: Effective 4/78, MOS 341A was discontinued and its functions were incorporated into MOS 290A, Telecommunications Technician. Use exhibit MOS-290A-001.

MOS-350B-001

ALL SOURCE INTELLIGENCE TECHNICIAN (ORDER OF BATTLE TECHNICIAN)

350B0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 964A. May have progressed to MOS 350B from MOS 96B (Intelligence Analyst).

Description

Collects and evaluates tactical and strategic information related to organization, operations, capabilities, and limitations of armed forces; uses the accumulated information to develop order-of-battle data; makes reliability assessments of information through comparison with previously evaluated information; maintains close liaison with other intelligence activities, including counter-intelligence, photo interpretation, interrogation, and language interpretation units; develops and maintains maps and overlays to provide complete and accurate intelligence information relating to friendly and enemy armed forces; interprets maps; prepares written reports; gives briefings and oral reports; maintains current information concerning both friendly and enemy forces to include identification, disposition, personalities, combat efficiency, and history; evaluates the significance of armed forces vulnerability studies for use in predicting probable courses of actions; has a working knowledge of automatic data processing procedures as applied to tactical and strategic intelligence; supervises, commands, or acts as chief of a section, detachment, or team engaged in the development of the data or information required in this area; may serve as a service school instructor.

Recommendation

In the vocational certificate category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in communication skills (oral), and 1 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in oral communication, 3 in personnel supervision, and 1 in map reading. In the upper-division baccalaureate category, 3 semester hours in management problems; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 6 semester hours for a practicum in education (11/77).

MOS-350D-001

IMAGERY INTELLIGENCE TECHNICIAN

350D0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 962A. May have progressed to Image Interpretation Technician from MOS 96D (Imagery Analyst).

Description

Manages activities or performs duties relative to image interpretations; applies techniques and principles of image interpretation, photogrammetry, and topographic drafting; knows and applies basic principles of geology and human and physical geography; understands basic cartography, surveying, geometry, trigonometry, and the metric system; prepares written summaries and gives oral reports; conducts briefings; establishes and maintains files; instructs subordinates in proper work techniques and procedures; directs training; supervises personnel; advises superiors; develops map overlays; may serve as a service school instructor.

Recommendation

In the vocational certificate category, 3 semester hours in map reading, 2 in mechanical drawing, 3 in photogrammetry, 3 in technical writing, 3 in technical mathematics, and 3 in aerial photographic interpretation. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in physical geography, 3 in technical writing, 3 in technical mathematics, 2 in mechanical drawing, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for field experience in management, and 3 in personnel management; if duty assignment was instructor at a formal training facility, 6 additional semester hours for a practicum in education (11/77).

MOS-350L-001

ATTACHE TECHNICIAN

350L0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 961A. May have progressed to Attache Technician from MOS 71L (Administrative Specialist).

Description

Performs general administrative and logistics functions in support of Defense Army Attache office located in an embassy of the United States of America; must know regulations, directives, and procedures necessary for managing and operating administrative and logistics support functions; secures and manages housing accommodations for personnel assigned to the embassy; knows history, political and economic institutions, social customs, and, when possible, the language of the country to which assigned; advises other attache office personnel and visitors regarding matters of protocol, military courtesies, and public affairs; supervises enlisted and civilian support specialists; manages internal activities of the Defense Attache office; compiles and prepares reports and communications; receives, interviews and schedules meetings with U.S. and foreign military and civilian visitors; supervises internal communications; maintains files and administers the record keeping process; types correspondence, messages, forms, and manuscripts; authenticates vouchers; processes and reviews requisitions; may serve as service school instructor; may perform other officer-level duties as required.

Recommendation

In the vocational certificate category, 4 semester hours in typing, 2 in filing, 3 in office practices, 3 in business communications, 3 in records administration, and 1 in business machines. In the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 2 in filing, 3 in office practices, 3 in business communications, 3 in records administration, 1 in business machines, 3 in human relations, 6 for field experience in office management, 6 in social science, 2 in public relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 in real property management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-351B-001

Counterintelligence Special Agent

351B0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 971A. May have progressed to Counterintelligence Technician from MOS 97B (Counterintelligence Agent).

Description

Manages activities or performs duties that provide intelligence information; investigates personnel under U.S. Army jurisdiction to determine their suitability for assignment to sensitive duties; conducts interrogations, briefings, and debriefings; prepares intelligence and investigative reports; analyzes and interprets intelligence and counterintelligence data; works closely with civilian law enforcement officials and investigative agencies; supervises and trains subordinates; knows organization, mission, tactics, and operating methods of friendly and enemy intelligence units and personnel; knows principles and procedures involved in counterintelligence investigations; knows interrogation techniques; knows techniques for conducting effective liaison with local, state, and national investigative and other governmental agencies of friendly and occupied countries; knows operation, characteristics, and regulations governing the use of recording and monitoring equipment; knows techniques and regulations governing investigative surveillance; knows fundamentals of military and civil law, including due process and the application of legal principles to counterintelligence operations; collects evidence admissible for legal action and obtains depositions; knows the culture, custom, history, social, economic, and political structures of the area of operation; conducts security investigations, surveys, and vulnerability studies of installations; knows principles for communications and signal security; processes photographic film; may be a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in U.S. government, 3 in applied psychology, 3 in report writing, 3 in oral communication, 3 in office management, 2 in personnel supervision, and 1 in typing. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations; if the duty assignment was service school instructor, 6 additional semester hours for a practicum in education (11/77).

MOS-351C-001

Area Intelligence Technician

351C0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 972A.

Description

Collects intelligence information on a specific geographic area through the use of human resources; works with a minimum of supervision; uses extremely demanding operational security procedures in a foreign environment; knows culture, customs, history, politics, geography, economics, and social structure of geographic area(s); knows procedures for preparing and forwarding reports; conducts interviews, interrogations, briefings, and debriefings; prepares informational and operational reports; analyzes and interprets information for intelligence implications; reads maps and prepares map overlays; supervises area intelligence units and teams. NOTE: Many of the required duties for this MOS involve highly classified materials, equipment, techniques and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in area studies, 3 in regional geography, 3 in applied psychology, 3 in report writing, 3 in speech, 3 in photography, 1 in electronic systems, 1 in typing, and 1 in human relations. In the upper-division baccalaureate category, 6 semester hours in history electives, 3 in economics electives, 3 in comparative cultures, 3 in applied research, 3 in personnel management, and 3 in international relations; if the duty assignment was service school instructor, 6 semester hours for a practicum in education. In the graduate degree category, 3 semester hours for a seminar in military intelligence strategy and policy and additional credit in international relations on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-351E-001

Interrogation Technician

351E0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 963A. May have progressed to Interrogation Technician from MOS 97E (Interrogator).

Description

Knows history, culture, geography, and current politics and economics of country or countries in area to which assigned; knows techniques and principles of interrogation and document exploitation; knows interrogation reporting procedures; conducts interrogations, in a foreign language, of informants, prisoners of war, and refugees; prepares reports of interrogations and identifies and resolves conflicting information provided by different sources, such as documents; disseminates reports and makes assessments of the validity of information for dissemination to users; summarizes findings; functions as a supervisor, chief, or commander of a team or larger unit; translates technical publications related to recent scientific discoveries and inventions; usually is proficient in reading, writing, speaking, and translating two or more foreign languages.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-352C-001

Traffic Analysis Technician

352C0

Exhibit Dates: 1/81–Present.

Career Pattern

NOTE: This MOS was formerly designated 982A. May have progressed to Traffic Analysis Technician from MOS 98C (Electronic Warfare/Signal Intelligence Analyst).

Description

Manages personnel and technical equipment engaged in intercepting, decoding, and analyzing communication traffic for content of possible intelligence value; establishes priorities of intercept missions for acquisition of desired traffic; plans, organizes, and coordinates activities; reviews data obtained in the traffic intercept process for accuracy and relevance; prepares and transmits information reports; advises commanders and staff officers on matters concerning traffic analysis and use of the data.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in manangement; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-352D-001

Emitter Location/Identification Technician

352D0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 986A. May have progressed to Emitter Location/Identification Technician from MOS 05D (Electronic Warfare/Signal Intelligence Emitter Identifier/Locator).

Description

Manages personnel and technical equipment assets engaged in establishment and employment of Emitter Location/Identification System (ELI) activities in a communications-electronic intelligence environment; supervises maintenance, calibration, adjustment, and testing of equipment; operates or supervises operation of radio (CW, voice, teletype), and cryptographic equipment; ensures that personnel follow established direction-finding communications nets; advises commanders or staff officers on the employment, deployment, and utilization of ELI assets; analyzes collected information and converts to usable intelligence for use of commanders.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic mathematics and 3 in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-352G-001

Voice Intercept Technician

352G0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 988A. May have progressed to Voice Intercept Technician from MOS 98G (Electronic Warfare/Signal Intelligence Voice Interceptor).

Description

Manages and plans personnel and equipment engaged in the intercept and analysis of voice communications; supervises installation of and provides operational direction to voice intercept and electronic warfare activities; supervises the calibration, adjustment, and testing of voice intercept and standard communications equipment; applies knowledge of wave propagation antenna and electronic theory to ensure proper antenna emplacement and orientation; reads, writes, comprehends, transcribes, and translates at least one foreign language; supervises intercept, transcription, and translation of voice communications in a foreign language; advises commanders and staff officers on the employment and utilization of voice intercept and electronic equipment and personnel; conducts training programs for voice intercept and electronic countermeasures personnel; defines and advises the commander on language problem areas.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 6 semester hours for humanities or social science electives, 3 in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management. NOTE: Add credit for the specific foreign language(s) by referring to the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the recommendation on the basis of institutional evaluation (8/77).

MOS-352H-001

Morse Intercept Technician

352H0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 984A. May have progressed to Morse Intercept Technician from MOS 05H (Electronic Warfare/Signal Intelligence Morse Interceptor).

Description

Manages personnel and technical equipment in establishment and employment of Morse intercept and electronic warfare activities; plans, coordinates, and supervises personnel engaged in these operations; may supervise up to several hundred personnel; establishes work schedules and priorities; evaluates performance of subordinates; supervises calibration, adjustment, and testing of Morse intercept equipment; conducts training programs for equipment operators; knows antenna theory and wave propogation characteristics; supervises application of message analysis; supervises cryptanalysis principles and procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-352J-001

Emanations Analysis Technician

352J0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 983A. May have progressed to Emanations Analysis Technician from MOS 98J, Electronic Warfare/Signal Intelligence Noncommunications Interceptor.

Description

Manages personnel and technical equipment assets engaged in intercept and analysis of noncommunications electromagnetic emissions; plans, organizes, and supervises establishment and operation of facilities and units engaged in electronic intelligence activities; selects sites for tactical noncommunications intercept/analysis equipment; ensures that electronic intelligence operators and analysts follow established procedures, techniques, and analytical procedures in the intercept and interpretation of electromagnetic signals; advises operators and analysts; conducts training programs for noncommunications intercept operators/analysts; may serve as a service school instructor; may serve as platoon leader.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 in a management elective; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (9/88).

MOS-352K-001

Non-Morse Intercept Technician

352K0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 985A. May have progressed to Non-Morse Intercept Technician from MOS 05K (Electronic Warfare/Signal Intelligence Non-Morse Interceptor).

Description

Manages personnel and technical equipment in establishment and employment of non-Morse intercept and electronic warfare activities; plans, coordinates, and supervises personnel engaged in these operations; may supervise up to several hundred personnel; establishes work schedules and priorities; evaluates performance of subordinates; supervises calibration, adjustment, and testing of various electronic intercept equipment including radios and printers; conducts training programs for equipment operators; knows antenna theory and wave propagation characteristics; supervises application of message analysis; supervises cryptanalysis principles and procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-353A-001

Intelligence and Electronic Warfare
(IEW) Equipment Technician)

353A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 285A. May have progressed to Intelligence and Electronic Warfare Equipment Technician from andy of the following MOS's: 33M, 33P, 33Q, 33R, 33T, and 33V.

Description

Manages personnel and equipment involved in installing, maintaining, repairing, and modifying complex electronic warfare intercept, and related ancillary electronics equipment; applies theory and knowledge of functioning of vacuum tubes, transistors, and other solid-state devices, and digital techniques; applies techniques of circuit analysis and performance measurement; keeps maintenance records; supervises requisitioning of supplies and spare parts; recommends equipment modifications; instructs repair personnel on troubleshooting and repair techniques and on specialized tests and procedures; estimates repair requirements and costs; prepares and implements maintenance schedules; advises commander on use of electronic systems equipment; may serve as a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in recordkeeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-361A-001

Fire Distribution Systems Repair
Technician

361A0

Exhibit Dates: 9/62–3/78. NOTE: Effective 4/78, MOS 361A was discontinued and its functions were incorporated into MOS 287A, Data Processing Systems Repair Technician. Use exhibit MOS-287A-001.

MOS-401A-001

Airdrop Equipment Technician
(Airdrop Equipment Repair
Technician)
(Aerial Equipment Repair Technician)

401A0

Exhibit Dates: 6/61–12/78. (Effective 1/88, the MOS designator 401A was changed to 921A; see exhibit MOS-921A-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 461A. May have progressed to Airdrop Equipment Technician from MOS 43E (Parachute Rigger).

Description

Supervises preparation of equipment for airdrop, airdrop of supplies and equipment, parachute packing, and repair of parachutes and associated equipment; plans and organizes activities for repair of airdrop equipment and establishes rigging sites to support airborne operations; instructs personnel in airdrop procedures; prescribes procedures used in adjustment, care, and preservation of parachutes and other support equipment tools and machinery; provides technical guidance and serves as liaison to commanders; provides technical assistance to the personnel responsible for life cycle management of items including design, research and development, testing, supply management, and classification; responsible for providing serviceable and safe parachutes and equipment to units engaged in parachute jumping and related airdrop operations; supervises repacking of parachutes in use; coordinates loading of equipment and supplies into aircraft and participates in joint airdrop load inspections; may serve as a service school instructor; knows maintenance record keeping and inventory control procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills (oral). In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management; if duty assignment was platoon leader, additional credit in leadership and supervision on the basis of institutional evaluation (5/78).

MOS-411A-001

Ammunition Technician

411A0

Exhibit Dates: 1/65–12/87. (Effective 1/88, the MOS designator 411A was changed to 910A; see exhibit MOS-910A-001.)

Career Pattern

May have progressed to Ammunition Technician from MOS 55B (Ammunition Specialist), MOS 55D (Explosive Ordnance Disposal Specialist), MOS 55X (Ammunition Inspector), or MOS 55Z (Ammunition Foreman).

Description

Manages personnel, equipment, supply, and facility assets for the receipt, storage, and issue of all classes of ammunition; plans, coordinates and supervises 50-150 personnel engaged in the requisitioning, receipt, inspection, surveillance, testing, maintenance, repair, modification, storage, issue, crating, packaging, transportation, and destruction of ammunition, missiles, rockets, explosive components, and non-nuclear warheads; plans for safe and efficient employment of munition and high explosives; conducts surveillance inspections and determines serviceability of conventional ammunition; monitors handling and storage of special ammunition; knows policies and procedures for technical escort of chemical, biological, and nuclear materials and radioactive wastes; provides technical assistance regarding conventional ammunition to field activities; interprets technical publications and trains enlisted specialists; classifies, evacuates, or determines disposition of captured or damaged ammunition; supervises load testing and calibration and use of ammunition test and handling equipment; participates in the investigation of accidents; prepares and reviews reports, including investigative reports; is familiar with military and civilian tariffs and the logistics of supply and transportation; insures compliance with safety and security regulations pertaining to ammunition and missiles; knows Occupational Safety and Health Act (OSHA) regulations and procedures; knows physiological effects of, protective measures against, and emergency and first aid procedures employed after exposure to toxic chemicals; knows firefighting procedures for conventional and special ammunition; plans and conducts safety programs for personnel handling ammunition and missiles; reports on problem areas related to accidents and changes to procedures for storing and handling hazardous chemicals; establishes and maintains control over ammunition stocks and insures accountability of munitions material; may serve as detachment commander, instructor at a formal service school, advisor to members of allied armies, or advisor to research, development, tests, and evaluation activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 8 semester hours in physical science, 5 in industrial safety, 3 in basic electronics, 3 in personnel supervision, 3 in inventory management, 3 in report writing, 2 in maintenance shop record keeping, 2 in security practices, and additional credit in basic chemistry, chemistry of explosives, basic physics, nuclear physics, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management electives, and 3 in logistics management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-420A-001

Military Personnel Technician

420A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 711A. May have progressed from any enlisted MOS in Career Management Field 71.

Description

Supervises administrative activities related to personnel management, including office organization and operation, counseling of personnel, and personnel records; develops input for and interprets output from automated systems supporting the personnel function; oversees the selection and use of office equipment, including typewriters, calculators, and word processing equipment; supervises military and civilian personnel engaged in specialized administrative and personnel management duties; assists in hiring and evaluating civilian employees; participates in personnel selection, duty assignment, evaluation, and training to assure full utilization of personnel; counsels personnel from a wide variety of backgrounds, assisting them with career and personal decisions; makes referrals of individuals with problems to the chaplain, Judge Advocate General, medical personnel, or other appropriate agency, if necessary; initiates and prepares corespondence, messages, and reports; interprets regulations; makes decisions based on a variety of information sources and requirements; processes changes to manpower documents.

Recommendation

In the vocational certificate category, 3 semester hours in administrative office management, 3 in business communications, 3 in records management, 3 in introduction to computer concepts, and 6 for field experience in management. In the lower-division baccalaureate/associate degree category, 3 semester hours in administrative office management, 3 in business communications, 3 in records management, 3 in introduction to computer concepts, 3 in personnel supervision, and 6 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in counseling; if rank was CW2, 3 additional semester hours for field experience in personnel management and counseling; if rank was CW3, 6 additional semester hours for field experience in personnel management and counseling; if rank was CW4, 9 additional semester hours for field experience in personnel management and counseling; if duty assignment was platoon leader, additional credit in leadership and supervision on the basis of institutional evaluation. In the graduate degree category, credit for an internship in personnel management and counseling on the basis of institutional evaluation (10/77).

MOS-420C-001

BANDMASTER

420C0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 031A. Normally progresses to Bandmaster from an Army enlisted bandsman (currently any MOS in Career Management Field 97, Band, which includes MOS 02B through MOS 02Z), completing from one to three preparatory programs of instruction.

Description

Possesses skill and understanding in applied music ensemble playing basic music theory, planning concerts, conducting, etc.; acquires basic understanding of the techniques of all wind and percussion instruments; has extensive and practical experience in arranging music for bands and jazz ensembles and, in some cases, choral groups; conducts band literature equivalent to that included in upper-division and graduate courses; acquires a thorough grasp of military marching evolutions, commands, and procedure; is responsible for band administration and the supervision of the musical development of band units; directs personnel, administration, supply (uniforms, instruments, and publications), and repair and maintenance activities of band units; has fiscal control of band units; routinely serves as a company commander; may serve as an instructor in the Army element of the School of Music.

Recommendation

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (includes harmony, sight singing, ear training, and keyboard), 8 in applied music, 4 in performing ensemble, 3 in woodwind, brass, and percussion techniques, and 3 in personnel supervision, and additional credit in applied music on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in arranging, 4 in performing ensemble, 6 in conducting, 2 in marching band techniques, and 3 for field experience in management, and additional credit in introduction to management on the basis of institutional evaluation; IF the duty assignment was an instructor in the army element of the school of music, credit in teaching methods in music, education materials, evaluation and testing in education, and for a practicum in education on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management. In the graduate degree category semester hours in conducting, 3 in band administration, and 2 in performing ensemble, and additional credit in educational administration on the basis of institutional evaluation (4/77).

MOS-420D-001

CLUB MANAGER

420D0

Exhibit Dates: 1/88–Present.

Career Pattern

May have progressed to warrant officer Club Manager from enlisted MOS 00J (Club Manager).

Description

Manages the operation of U.S. Army or joint service clubs, club systems, hotels, or similar activities involving up to several thousand members; supervises all business operations of the activities, including financial operations, beverage and food services, membership activities, and social and recreational activities; knows regulations and policies governing financial management and accountability for property and funds, including in-depth knowledge of internal controls, budgeting, credit card operations, and financial statements and reports; knows fundamentals of business law and contractual relationships; knows military and civilian protocol and social customs; monitors operations to insure control of costs, waste, pilferage, inventory rotation, and accountability; has knowledge of appropriate laws, codes, and regulations; supervises purchase, storage, preparation, and service of food and beverages; monitors club operations to insure control of costs, inventory, accountability, and receipts; completes required reports; supervises catering of social functions, parties, and special events; selects and recommends contracting for entertainment groups; enforces safety requirements, club rules of conduct and dress codes; supervises, directs, and trains subordinates and civilian employees.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in report writing, 3 in communication skills (oral), 3 in food and beverage management, 3 in food and labor cost control systems, 3 in personnel supervision, and 3 in office practices. In the upper-division baccalaureate category, 3 semester hours in hotel, motel, or club management, and 3 in personnel management and training; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (11/77).

MOS-421A-001

ARMAMENT REPAIR TECHNICIAN

421A0

Exhibit Dates: 2/48–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 4808. May have progressed to Armament Repair Technician from an enlisted Small Arms Repairman (MOS 45B), Artillery Repairman (MOS 45L), Tank Turret Repairman (MOS 45K), or Armament Maintenance Foreman (MOS 45Z).

Description

Manages activities and personnel engaged in the maintenance and repair of small arms, artillery and armor weapons, and crew-served weapons; oversees the inspection, repair, replacement, and modification of armament materiel; supervises inspections and check-out procedures; directs shop operations including workflow planning, requisitioning parts and supplies, inspecting maintenance procedures, and providing technical assistance to maintenance personnel in artillery or armor units; must know nomenclature design, operation, and employment of the Army's current inventory of field artillery weapons, armor weapons, and small arms; trains enlisted specialists in the use of shop equipment and power tools, in inspection and test procedures, and in the disassembly, repair, and adjustment of armament material; uses technical publications and interprets specifications; must be able to use automated and manual systems for supply of technical publications, tools, repair parts, and related maintenance supplies; must know regulations and procedures pertaining to physical security, accountability, and shipment of weapons; may serve as chief of a team, section, or platoon in field activities; may serve as instructor in a formal training school.

Recommendation

In the vocational certificate category, 3 semester hours in the use and care of hand and power tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in industrial/human relations, 3 in maintenance/shop management and record keeping, 3 in use and care of hand and power tools, and 1 in industrial safety. In the upper-division baccalaureate category, 3 semester hours in personnel management and training (3/77).

MOS-441A-001

REPAIR SHOP TECHNICIAN
(ORDNANCE SHOP TECHNICIAN)

441A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 441A was changed to 914A; see exhibit MOS-914A-001.)

Career Pattern

May have progressed to Repair Shop Technician from MOS 43M (Fabric Repair Specialist), MOS 44B (Metal Worker), MOS 44E (Machinist), MOS 55X (Ammunition Inspector), MOS 55Z (Ammunition Foreman), MOS 63F (Recovery Specialist), MOS 63J (Quartermaster Equipment Repairman), or MOS 63Z (Mechanical Maintenance Supervisor).

Description

Supervises set-up, maintenance, and operation of machine tools used to make or repair metal parts, mechanisms, tools or machinery by application of knowledge of mechanics, shop mathematics, metal properties, and layout machinery procedures; manages service section shop engaged in metalworking, automotive component repair, and the allied trades; supervises personnel who operate general or specialized metalworking machines, such as lathes and turning machines; supervises automotive body repair and painting, glass, plastic, machine, canvas, leather, welding, and wordworking shop activities, and the recovery of all types of wheeled or track vehicles or equipment; controls work quality by instruction of subordinates and inspection of work in progress and completed work; interprets regulation orders, and specifications and demonstrates correct procedures; plans shop layout; conducts training and orientation of personnel in technical procedures and equipment innovations; directs shop operations to include supply, scheduling, workflow and personnel management; uses automated and manual systems in managing supplies of repair parts, tools, fuel, and technical publications; prepares, implements, and maintains standing operating procedures for management of maintenance activities; may be employed as a service school instructor; performs other officer-level duties required by mission of the unit to which assigned.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-461A-001

AERIAL EQUIPMENT REPAIR TECHNICIAN

461A0

See exhibit MOS-401A-001.

MOS-500A-001

MARINE DECK OFFICER

500A0

Exhibit Dates: 6/61-6/87. (Effective 7/87, the MOS designator 500A was changed to 880A; see exhibit MOS-880A-001.)

Career Pattern

May have progressed to Marine Deck Officer from MOS 57H (Terminal Operations Coordinator), MOS 61B (Watercraft Operator), MOS 61D (Amphibian Operator), or MOS 61Z (Marine Senior Sergeant).

Description

Commands Army watercraft vessels on oceans, bays, sounds, lakes, and coastal waters; is responsible for proper operation and safety of the vessel, including discipline of the crew and seaworthiness of the vessel; must know maritime law and have a working knowledge of international and inland rules of the road; is proficient in seamanship and ship handling; operates all deck machinery and equipment, including ground tackle, cargo gear, lifeboat, raft, firefighting and lifesaving equipment, emergency steering systems, and damage control; qualified to control destination of vessel, using all navigational aids, including electronic equipment (radio direction finders, radar, and fathometers); conducts radio and visual communication with government and commercial vessels and and shore stations, including flashing light, semaphore, and flaghoist signalling, using international procedures when required; knows cargo planning and stowage procedures and techniques of loading and securing cargo to insure seaworthiness; is proficient in celestial navigation; uses navigational aids, including charts, compasses, sextants, lighthouse, and light buoys, both at sea and when approaching shore; hold qualifying license for command position, validated by the Marine Qualification Board of the Army; if holding a masters license, must also hold radar operations qualifications.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in record keeping, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours in management electives, 3 in management problems, 3 for field experience in management, and 2 in human relations; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3; 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (9/79).

MOS-510A-001

MARINE ENGINEERING OFFICER

510A0

Exhibit Dates: 6/61-6/87. (Effective 7/87, the MOS designator 510A was changed to 881A; see exhibit MOS-881A-001.)

Career Pattern

May have progressed to Marine Engineering Officer from MOS 61C (Marine Engineer) or MOS 61E (Amphibian Engineer).

Description

Supervises the operation, maintenance, repair and overhaul of marine power plants, propulsion systems, heating and ventilating systems and other mechanical, plumbing, and electrical equipment in ships, docks, and marine-port facilities; inspects ship's machinery to determine compliance with maintenance standards or to determine extent, cost, and nature of repairs required; provides instruction in the proper maintenance and repair of machinery and shipboard equipment; monitors performance on repair contracts for marine repair and overhaul; supervises loading of fuel, water and ballast; maintains and records work performed and prepares maintenance reports; when assigned as Marine Engineering Technician or Marine Inspector, must be able to perform vessel inspections and preparation and processing of repair work orders; may serve as a school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 for field experience in management, 3 in record keeping, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours in management electives, 3 in management problems, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (9/79).

MOS-521A-001

UTILITIES OPERATION AND MAINTENANCE TECHNICIAN
(UTILITIES MAINTENANCE TECHNICIAN)

521A0

See exhibit MOS-310A-001.

MOS-550A-001

LEGAL ADMINISTRATOR

550A0

Exhibit Dates: 1/88-Present.

Career Pattern

NOTE: This MOS was formerly designated 713A. May have progressed to Legal Administrator from MOS 71D Legal Specialist), or MOS 71E (Court Reporter). Clerk) or MOS 71E (Court Reporter).

Description

Performs the duties of a paralegal as well the duties of a legal administrator; manages the office of the Staff Judge Advocate or the headquarters exercising general court-martial jurisdiction; analyses legal and administrative documents, claims, and records of court-martial and non-judicial punishment; drafts documents dealing with civil matters, such as wills, bills of sale, and separation and support agreements; interprets civil statutes and Army regulations governing the administration of military justice, contracts, and the procurement program; provides technical supervision to unit legal personnel and office staff; issues orders appointing members of courts, boards, and committees; receives, processes, and authenticates official technical correspondence and makes referrals to attorneys or to other agencies when required; maintains law and administrative libraries; researches cases and other references to support legal, administrative, or military decisions; maintains statistical information; participates in manpower surveys; acts as office security manager; supervises military and civilian personnel; is directly responsible for office financial and budgetary matters; if qualified as court reporter, records legal proceedings by dictation for later transcription.

Recommendation

In the vocational certificate category, 3 semester hours in legal terminology; if qualified as a court reporter, 8 additional semester hours in machine shorthand, 6 in typewriting, 3 in machine transcription, 3 in introduction to court reporting, and 3 in business communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in principles of financial budgeting, 3 in legal terminology, 3 in law office management, 3 in trial preparation and procedures, 3 in legal research, 3 in paralegalism (duties and responsibilites of the legal assistant, code of ethics, principles of conduct, relationship to the attorney, etc.); if qualified as a court reporter, 8 additional semester hours in machine shorthand, 6 in typewriting, 3 in machine transcription, 3 in introduction to court reporting, and 3 in business communications. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management electives, and 3 in legal environment and processes; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-561B-001

HARBORMASTER/PILOT

561B0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 561B was discontinued and its functions were incorporated into MOS 500A, Marine Deck Officer. Use exhibit MOS-500A-001.

MOS-561C-001

VESSEL MASTER, 750 TON VESSEL

561C0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 561C was discontinued and its functions were incorporated into MOS 500A, Marine Deck Officer. Use exhibit MOS-500A-001.

MOS-561D-001

MASTER, 500 TON VESSEL

561D0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 561D was discontinued and its functions were incorporated into MOS 500A, Marine Deck Officer. Use exhibit MOS-500A-001.

MOS-561E-001

MASTER, 250 TON VESSEL

561E0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 561E was discontinued and its functions were incorporated into MOS 500A, Marine Deck Officer. Use exhibit MOS-500A-001.

MOS-562B-001

CHIEF ENGINEER, UNLIMITED

562B0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 562B was discontinued and its functions were incorporated into MOS 510A, Marine Engineering Officer. Use exhibit MOS-510A-001.

MOS-562C-001

CHIEF ENGINEER, 1800 HORSEPOWER

562C0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 562C was discontinued and its functions were incorporated into MOS 510A, Marine Engineering Officer. Use exhibit MOS-510A-001.

MOS-562D-001

CHIEF ENGINEER, 1250 HORSEPOWER

562D0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 562D was discontinued and its functions were incorporated into MOS 510A, Marine Engineering Officer. Use exhibit MOS-510A-001.

MOS-562E-001

CHIEF ENGINEER, 600 HORSEPOWER

562E0

Exhibit Dates: 6/61-3/78. NOTE: Effective 4/78, MOS 562E was discontinued and its functions were incorporated into MOS 510A, Marine Engineering Officer. Use exhibit MOS-510A-001.

MOS-600A-001

PHYSICIAN ASSISTANT

600A0

Exhibit Dates: 1/88-Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 011A. May have progressed to Physician Assistant from any of the following MOS's: 91B, 91C, 91D, 91F, 91G, 91H, 91J, 91L, 91N, 91P, 91Q, 91S, 91U, 91V, 91W, 91Y, 92B, or 92E; has from 3 to 10 years of clinical experience prior to appointment as a Physician Assistant.

Description

Working under the guidance and supervision of a physician, provides general medical care for the sick and injured; makes diagnoses of diseases, disorders, and injuries; applies preventive, diagnostic, and therapeutic medical and surgical procedures; obtains and records medical data and case histories on prescribed forms; recognizes potential zoonotic and food-borne disease problems. NOTE: Appointment to Warrant Officer as a Physician Assistant is based upon satisfactory completion of the two-year Physician Assistant program of instruction at the Army's Academy of Health Sciences, Fort Sam Houston, Texas. This program consists of 52 weeks of didactic instruction and 52 weeks of clinical practicum. Didactic instruction is provided in human anatomy and physiology, clinical physiology, inorganic chemistry, biological chemistry, community health, mental health, pharmacology, clinical medicine, clinical surgery, pediatrics, pathology and laboratory practices, preventive medicine methods and practices, and medical and surgical procedures. Practica of either four weeks or six weeks duration are taken in the following clinics: obstetrics/gynecology, pediatric, EENT (eye, ear, nose and throat), neuro-psychiatric, dermatology, orthopedic, surgical medicine; clinical practices are also taken in preventive medicine, ambulatory care, and laboratory service.

Recommendation

In the upper-division baccalaureate category, 60 semester hours in physician assisting; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (6/77).

MOS-621A-001

ENGINEER EQUIPMENT REPAIR
TECHNICIAN

621A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 621A was changed to 213A; see exhibit MOS-213A-001.)

Career Pattern

May have progressed to Engineer Equipment Repair Technician from MOS 52C (Power Pack Specialist), MOS 52D (Power Generation Equipment Repairman), MOS 62B (Construction Equipment Repairman), or MOS 62C (Engineer Missile Equipment Specialist).

Description

Supervises personnel engaged in maintenance of engineer equipment; analyzes malfunctions and supervises minor repair and adjustment of engineer equipment utilized for power generation, earthmoving, shaping and compacting, lifting and loading, quarrying and rock crushing, asphalt/concrete mixing and surfacing, water purification, refrigeration and air conditioning, missile systems support, water gap crossing, transfer and engineer electronic application; supervises modification of equipment required by modification work orders; inspects incoming equipment to determine repair requirements; assigns work and inspects out-going equipment; establishes maintenance and repair schedules; establishes internal administrative procedures for procurement, storage, and distribution of tools, parts, and publications.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-630A-001

WHEEL VEHICLE MAINTENANCE TECHNICIAN (AUTOMOTIVE REPAIR TECHNICIAN)

630A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 630A was changed to 915A; see exhibit MOS-915A-001.)

Career Pattern

May have progressed to Automotive Repair Technician from MOS 63F (Recovery Specialist), MOS 63G (Fuel and Electrical Systems Repairman), MOS 63H (Automotive Repairman), MOS 63J (Quartermaster Equipment Repairman), or MOS 63Z (Mechanical Maintenance Supervisor).

Description

Supervises the maintenance and repair of wheel and track vehicles and accessory equipment; inspects vehicles; prepares, implements, and maintains procedures for management of maintenance activities; interprets regulations, technical manuals, and orders pertaining to automotive and accessory equipment maintenance functions; supervises personnel assigned to maintenance sections, motor pools, or similar activities; knows the theory, function, and operation of internal-combustion engines, and the assembly, nomenclature, check-out, inspection procedures, diagnostic tests, tuning, and other adjustments of automotive and nonengineer mechanical equipment, including electrical, mechanical, hydraulic, pneumatic, and hydropneumatic subsystems; knows use of special tools and test equipment; knows emergency maintenance methods including use of salvaged parts, reconditioning of equipment with hand tools, and substitution of parts and minor assemblies; uses automated and manual systems for supply of technical publications, tools, and repair parts; knows unit readiness reporting system; knows the use and functioning of automotive, metal, and tire shop equipment; diagnoses complex malfunctions and instructs personnel on isolation and repair of unusual malfunctions; may serve as a service school instructor; writes technical memoranda and other correspondence.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-630B-001

LIGHT SYSTEMS MAINTENANCE TECHNICIAN

630B0

Exhibit Dates: 9/84–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 630B are comparable to those of MOS 630A. Use the recommendation in exhibit MOS-630A-001.

MOS-630C-001

FIELD ARTILLERY VEHICLE MAINTENANCE TECHNICIAN

630C0

Exhibit Dates: 9/84–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 630C are comparable to those of MOS 630A. Use the recommendation in exhibit MOS-630A-001.

MOS-630D-001

ARMOR CAVALRY MAINTENANCE TECHNICIAN

630D0

Exhibit Dates: 9/84–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 630D are comparable to those of MOS 630A. Use the recommendation in exhibit MOS-630A-001.

MOS-630E-001

SUPPORT/STAFF MAINTENANCE TECHNICIAN

630E0

Exhibit Dates: 9/84–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 630E are comparable to those of MOS 630A. Use the recommendation in exhibit MOS-630A-001.

MOS-631A-001

AUTOMOTIVE MAINTENANCE TECHNICIAN

631A0

Exhibit Dates: 6/61–3/78. NOTE: Effective 4/78, MOS 631A was discontinued and its functions were incorporated into MOS 630A, Automotive Repair Technician. Use exhibit MOS-630A-001.

MOS-632A-001

AUTOMOTIVE REPAIR TECHNICIAN

632A0

Exhibit Dates: 6/61–3/78. NOTE: Effective 4/78, MOS 632A was discontinued and its functions were incorporated into MOS 630A, Automotive Repair Technician. Use exhibit MOS-630A-001.

MOS-640A-001

VETERINARY SERVICES TECHNICIAN

640A0

Exhibit Dates: Pending Evaluation. 1/88–Present.

MOS-670A-001

BIOMEDICAL EQUIPMENT REPAIR TECHNICIAN

670A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 202A. May have progressed to Biomedical Equipment Repair Technician from MOS 35U (Biomedical Equipment Specialist, Advanced).

Description

Organizes, supervises, and manages personnel and organizations responsible for installing, operating, maintaining, and repairing optical, dental, and medical technical diagnostic and treatment equipment; plans and develops detailed procedures for installation of instruments or equipment; develops internal operating procedures and manages allocated resources; anticipates and determines repair requirements, parts, and replacement of equipment; instructs on established maintenance techniques and operating procedures; advises on and supervises use of schematics, tube testing equipment, oscilloscopes, voltmeters, and other test equipment to isolate equipment malfunctions; inspects inoperative equipment, develops cost estimates for repair, and makes appropriate recommendations regarding repair or replacement; maintains records; distributes workload; makes final inspections; develops plans for design and layout of medical laboratory or equipment facilities; prepares drawings, sketches, notes, and materials for installation of equipment; may serve as a service school instructor; may perform duties in support of the procurement or research, development, test, and evaluation of medical equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, 3 in communication skills (oral and written), and 3 in record keeping. In the upper-division baccalaureate category, 6 semester hours in personnel management, 3 for field experience in management, 3 in management problems, 3 in introduction to management, 3 in public speaking, 3 in technical report writing, 3 in records administration, and 3 in office management; IF rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (11/79).

MOS-711A-001

MILITARY PERSONNEL TECHNICIAN
(PERSONNEL TECHNICIAN)
(UNIT PERSONNEL TECHNICIAN)

711A0

Exhibit Dates: 1/63-12/87. (Effective 1/88, the MOS designator 711A was changed to 420A; see exhibit MOS-420A-001.)

Career Pattern

May have progressed from any enlisted MOS in Career Management Field 71 (Administration), subfield 712 (Personnel); or MOS 75B (Personnel Administration Specialist or Unit Clerk), MOS 75C (Personnel Management Specialist), MOS 75D (Personnel Record Specialist), MOS 75E (Personnel Actions Specialist), or MOS 75Z (Personnel Senior Sergeant).

Description

Supervises administrative activities related to personnel management, including office organization and operation, counseling of personnel, and personnel records; develops input for and interprets output from automated systems supporting the personnel function; oversees the selection and use of office equipment, including typewriters, calculators, and word processing equipment; supervises military and civilian personnel engaged in specialized administrative and personnel management duties; assists in hiring and evaluating civilian employees; participates in personnel selection, duty assignment, evaluation, and training to assure full utilization of personnel; counsels personnel from a wide variety of backgrounds, assisting them with career and personal decisions; makes referrals of individuals with problems to the chaplain, Judge Advocate General, medical personnel, or other appropriate agency, if necessary; initiates and prepares corespondence, messages, and reports; interprets regulations; makes decisions based on a variety of information sources and requirements; processes changes to manpower documents.

Recommendation

In the vocational certificate category, 3 semester hours in administrative office management, 3 in business communications, 3 in records management, 3 in introduction to computer concepts, and 6 for field experience in management. In the lower-division baccalaureate/associate degree category, 3 semester hours in administrative office management, 3 in business communications, 3 in records management, 3 in introduction to computer concepts, 3 in personnel supervision, and 6 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in counseling; if rank was CW2, 3 additional semester hours for field experience in personnel management and counseling; if rank was CW3, 6 additional semester hours for field experience in personnel management and counseling; if rank was CW4, 9 additional semester hours for field experience in personnel management and counseling; if duty assignment was platoon leader, additional credit in leadership and supervision on the basis of institutional evaluation. In the graduate degree category, credit for an internship in personnel management and counseling on the basis of institutional evaluation (10/77).

MOS-712A-001

GENERAL STAFF ADMINISTRATIVE TECHNICIAN

712AO

Exhibit Dates: 1/63-6/87. (Effective 3/79, MOS 712A was discontinued and its duties were incorporated into MOS 711A, Personnel Administrative Technician, with SQI 'U'. Those individuals who held MOS 711AU from 3/79 - 8/84 should receive credit for MOS 712A. Effective 9/84, MOS 712A was reinstituted, and SQI 'U' was discontinued; in 7/87, MOS 712A was discontinued again.)

Career Pattern

Normally progresses to General Staff Administrative Technician from Warrant Officer MOS 711A, Personnel Technician, or through demonstration of outstanding skills in stenography in an enlisted MOS.

Description

Performs general and technical administrative duties in an office headed by lieutenant generals or higher; supervises the office clerical staff; develops office procedures; prepares and reviews correspondence; researches and prepares reports, presentations, and speeches; interprets regulations and directives; coordinates with other offices to establish and maintain formal and informal lines of communication; performs some public relations and communication duties, including dealing with news media; acts as protocol officer; when assigned in foreign countries advises command officers on area geography, culture, politics, and other social factors.

Recommendation

In the vocational certificate category, 6 semester hours in public relations, 3 in business communications, 3 in report writing, 3 in office procedures, 3 in human relations skills, 3 in recordkeeping, and 3 in office management; if the duty position requires stenography skills, additional credit in dictation and transcription and typing on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in English communication, 6 in social science, 6 in public relations, 3 in business communications, 3 in report writing, 3 in office procedures, 3 in interpersonal communication skills, 3 in recordkeeping, and 3 in office management; if the duty position requires stenographer skills, additional credit in dictation and transcription and typing on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in social science electives and 3 in protocol. In the graduate degree category, credit in management and in methods of research on the basis of institutional evaluation (10/77).

MOS-713A-001

LEGAL ADMINISTRATOR
(LEGAL ADMINISTRATIVE TECHNICIAN)

713A0

Exhibit Dates: 1/65-12/87. (Effective 1/88, the MOS designator 713A was changed to 550A; see exhibit MOS-550A-001.)

Career Pattern

May have progressed to Legal Administrative Technician from an enlisted legal specialist, MOS 71D (Legal Clerk) or MOS 71E (Court Reporter).

Description

Performs the duties of a paralegal as well the duties of a legal administrator; manages the office of the Staff Judge Advocate or the headquarters exercising general court-martial jurisdiction; analyses legal and administrative documents, claims, and records of court-martial and non-judicial punishment; drafts documents dealing with civil matters, such as wills, bills of sale, and separation and support agreements; interprets civil statutes and Army regulations governing the administration of military justice, contracts, and the procurement program; provides technical supervision to unit legal personnel and office staff; issues orders appointing members of courts, boards, and committees; receives, processes, and authenticates official technical correspondence and makes referrals to attorneys or to other agencies when required; maintains law and administrative libraries; researches cases and other references to support legal, administrative, or military decisions; maintains statistical information; participates in manpower surveys; acts as office security manager; supervises military and civilian personnel; is directly responsible for office financial and budgetary matters; if qualified as court reporter, records legal proceedings by dictation for later transcription.

Recommendation

In the vocational certificate category, 3 semester hours in legal terminology; if qualified as a court reporter, 8 additional semester hours in machine shorthand, 6 in typewriting, 3 in machine transcription, 3 in introduction to court reporting, and 3 in business communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in principles of financial budgeting, 3 in legal terminology, 3 in law office management, 3 in trial preparation and procedures, 3 in legal research, 3 in paralegalism (duties and responsibilites of the legal assistant, code of ethics, principles of conduct, relationship to the attorney, etc.); if qualified as a court reporter, 8 additional semester hours in machine shorthand, 6 in typewriting, 3 in machine transcription, 3 in introduction to court reporting, and 3 in business communications. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management electives, and 3 in legal environment and processes; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-721A-001

TELECOMMUNICATIONS TECHNICIAN

721A0

Exhibit Dates: 9/76-3/78. Effective 4/78, MOS 721A was discontinued and its functions were incorporated into MOS 290A, Telecommunications Technician. Use exhibit MOS-290A-001.

MOS-741A-001

DATA PROCESSING TECHNICIAN

741A0

Exhibit Dates: 6/61-12/87. (Effective 1/88, the MOS designator 741A was changed to

251A; see exhibit MOS-251A-001.)

Career Pattern

May have progressed to Data Processing Technican from MOS 74B (Card and Tape Writer), MOS 74D (ADPS Machine Operations Specialist), MOS 74F (Computer Programmer), or MOS 74Z (Data Processing NCO).

Description

Directs and coordinates production activities of electronic data processing element or unit including functional or machine design applications, programming, or operation of automatic data processing (ADP) equipment; analyzes, plans, and manages the development, test, evaluation, and modification of automatic data processing systems (ADPS); plans and coordinates activities of data processing personnel engaged in programming, wiring, and debugging programs; establishes work standards; supervises coding and machine processing of data and develops training programs; interprets policies, purposes, and goals of ADP activity to subordinates; participates in decisions regarding personnel staffing, allocation of ADP resources, and equipment acquisitions.

Recommendation

In the vocational certificate category, 3 semester hours in data processing principles, 3 in computer fundamentals, 3 in technical report writing, and credit in the appropriate computer languages on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles, 3 in computer fundamentals, 3 in technical report writing, 3 in business communications, 3 in computer operating systems, 3 in computer facility management, 3 in personnel supervision, and additional credit in the appropriate computer languages on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in computer systems and program design, 3 in personnel management, and 3 in management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (6/78).

MOS-741B-001

DATA PROCESSING TECHNICIAN, PCM

741B0

Exhibit Dates: 6/61–8/76. NOTE: In 1974, MOS 741B was discontinued and its functions were incorporated into MOS 741C, Data Processing Technician, ADPS; in 9/76, MOS 741C was incorporated into MOS 741A, Data Processing Technician. Use exhibit MOS-741A-001.

MOS-741C-001

DATA PROCESSING TECHNICIAN, ADPS

741C0

Exhibit Dates: 6/61–8/76. NOTE: Effective 9/76, MOS 741C was discontinued and its functions were incorporated into MOS 741A, Data Processing Technician. Use exhibit MOS-741A-001.

MOS-741D-001

DATA PROCESSING TECHNICIAN
PROGRAMMER

741D0

Exhibit Dates: 6/61–8/76. NOTE: Effective 9/76, MOS 741D was discontinued and its functions were incorporated into MOS 741A, Data Processing Technician. Use exhibit MOS-741A-001.

MOS-761A-001

GENERAL SUPPLY TECHNICIAN
(UNIT SUPPLY TECHNICIAN)

761A0

Exhibit Dates: 1/71–12/87. (Effective 1/88, the MOS designator 761A was changed to 920A; see exhibit MOS-920A-001.)

Career Pattern

May have progressed to General Supply Technician or Unit Supply Technician from any enlisted supply MOS (currently Career Management Field 76, Supply).

Description

Administers and manages the Army supply systems; maintains inventory control; supervises purchasing procedures, inventory handling and storage, recordkeeping, and stock control; is responsible for accounting and management of capital stock for units and installatons; knows manual and automated property-accounting procedures; develops and administers supply budgets for units or installations; forecasts and plans supply requirements; knows how to use automatic data processing in the supply areas; gives technical advice to subordinate unit and activity commanders; establishes procedures for requisitioning, receiving, storing, and issuing supplies; establishes and maintains formal and informal lines of communication with supply control, maintenance, and transportation units; with supported activities, may monitor or evaluate supply contractor's performance; prepares reports and correspondence.

Recommendation

In the vocational certificate category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, and 3 in principles of financial budgeting. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 3 in personnel supervision, 3 in inventory management, 3 in introduction to computer concepts, 3 in warehousing and storage, 3 in recordkeeping, 3 in purchasing, 3 in material handling, 3 in principles of financial budgeting, and 2 in keypunch. In the upper-division baccalaureate category, 3 semester hours in management electives and 3 in personnel management and training; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-762A-001

SUPPORT SUPPLY TECHNICIAN

762A0

Exhibit Dates: 12/71–12/87. (Effective 1/88, the MOS designator 762A was changed to 920B; see exhibit MOS-920B-001.)

Career Pattern

May have progressed to Support Supply Technician from MOS 761A (General Supply Technician or Unit Supply Technician) or from MOS 76D (Material Supplyman), MOS 76J (Medical Supplyman), MOS 76P (Stock Control Supplyman), MOS 76S (Vehicle Material Supply Specialist), MOS 76V (Storage Supplyman), MOS 76W (Petroleum Supply Specialist), MOS 76X (Subsistence Supplyman), MOS 76Y (Unit/Organization Supplyman), or MOS 76Z (Senior Supply Sergeant).

Description

Administers and manages the Army supply system as it applies to maintenance support units, usually at overseas locations; supervises the requisitioning, storage, distribution, and accounting of repair parts and maintenance-related supply items; knows manual and automated property accounting procedures; knows fundamentals of data processing as they apply to inventory management; knows the interrelationship of supply, maintenance, and transportation; knows policies and procedures for and interprets regulations regarding crating, packaging, preserving, shipping, and storing materiel and equipment; uses supply catalogs, technical manuals, bulletins, modification work orders, and cross-reference lists in requisitioning, receiving, storing, issuing, and identifying equipment, supplies, and repair parts; forecasts the requirements of repair parts and maintenance-related supply items; develops and administers supply budgets; inspects supported units to insure that stock levels are adequate and within prescribed limits; makes inventory recommendations; provides technical guidance to supported unit personnel; develops operating procedures and performs administrative duties related to the supply activity; evaluates efficiency and effectiveness of supply operations; prepares correspondence and reports.

Recommendation

In the vocational certificate category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, and 3 in principles of financial budgeting. In the lower-division baccalaureate/associate degree category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, 3 in principles of financial budgeting, and 3 in personnel supervision, and additional credit in traffic management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management electives and 3 in personnel management and training, and additional credit in transportation and physical distribution on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-811A-001

PHOTOMAPPING TECHNICIAN

811A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 811A was changed to 215A; see exhibit MOS-215A-001.)

Career Pattern

May have progressed to Photomapping Technician from MOS 81C, Cartographic Specialist.

Description

Supervises activities and personnel engaged in preparation and revision of military maps, charts, and orthophotographs; supervises technical and specialized photogrammetric and drafting procedures used in the preparation of detailed military maps, mosaics, overlays, and prints; must be proficient in photogrammetric techniques and principles and know topographic drafting operations and procedures; establishes work priorities; assigns duties; solves unusual problems in map making; prepares records and reports; writes technical reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in plant management or office management, 3 in technical report writing, 3 in photogrammetry, and 3 in aerial photographic interpretation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 for management electives, and 3 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (6/78).

MOS-821A-001

SURVEY TECHNICIAN

821A0

Exhibit Dates: 6/61–Present.

Career Pattern

May have progressed to Survey Technician from MOS 82C (Field Artillery Surveyor), MOS 82D (Topographic Surveyor), or MOS 82E (Topographic Computer).

Description

Manages field-surveying activities and personnel in support of map-making and artillery survey requirements; supervises technical and special procedures employed by survey parties; knows land, highway, and topographic surveying procedures; prepares and interprets aerial photographs and topographic maps; knows basic survey methods such as traverse, triangulation, and resection; knows standard survey computing forms; knows methods for determining azimuth by astronomic or other means; uses astronomical publications such as star lists and ephemeris; coordinates the activities of crews engaged in land, highway, and topographic surveys; adapts survey methods to terrain conditions; converts grid and geographical coordinates; uses trigonometry in various calculations; interprets ground maps, aerial photographs, and map substitutes; insures exact location of points, distances, elevations, lines, areas, and contours in map making efforts; keeps accurate records of secured data; oversees proper use of surveying instruments; verifies accuracy of data obtained from surveys; makes appropriate calculations for map making, using reference tables, standard data, and mathematical formulas; establishes work priorities; designates survey parties and teams; solves complex and unusual problems encountered during survey operations; supervises accountability and maintenance of equipment; maintains records and reports of surveying activities; may serve as a service school instructor.

Recommendation

NOTE: Has knowledge of surveying or geodetic science equivalent to an associate degree (30-40 semester hours, depending on the general education requirements) in geometronic technology. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in management problems, 3 in quality control, 3 in records management, 3 in personnel management, 3 in supervision and leadership, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; and additional credit in geodetic or related sciences and cartography on the basis of institutional evaluation (11/77).

MOS-831A-001

MAP REPRODUCTION TECHNICIAN

831A0

Exhibit Dates: 6/61–8/76. NOTE: Effective 9/76, MOS 831A was discontinued and its functions were incorporated into MOS 833A, Reproduction Technician. Use exhibit MOS-833A-001.

MOS-832A-001

PSYOP REPRODUCTION TECHNICIAN

832A0

Exhibit Dates: 6/61–8/76. NOTE: Effective 9/76, MOS 832A was discontinued and its functions were incorporated into MOS 833A, Reproduction Technician. Use exhibit MOS-833A-001.

MOS-833A-001

REPRODUCTION TECHNICIAN

833A0

Exhibit Dates: 6/61–Present.

Career Pattern

May have progressed to Reproduction Technician from MOS 83E (Platemaker) or MOS 83F (Offset Pressman).

Description

Supervises fixed and mobile platoons and teams engaged in the reproduction of maps, related material, or psychological operations material; organizes activities, schedules production, and establishes procedures; oversees maintenance of equipment; supervises reproduction of topographic maps, pictomaps, overlays, and overprints; must know lithogrphic reproduction quality standards and color separation processes; prepares records and reports; writes technical reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in production control, 3 in technical report writing, and 6 for field experience in graphic arts. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management electives, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-841A-001

TERRAIN ANALYSIS TECHNICIAN

841A

Exhibit Dates: 2/80–12/87. (Effective 1/88, the MOS designator 841A was changed to 215D; see exhibit MOS-215D-001).

Career Pattern

May have progressed to Terrain Analysis Technician from MOS 81Q, Terrain Analyst, 81C, Cartographer, 82D, Topographic Surveyor, 93E, Meteorological Observer, or 96B, Intelligence Analyst.

Description

Supervises activities and personnel in identification, analysis, synthesis, production, and dissemination of terrain information; collects data; designs and develops graphics; identifies project needs; analyzes impact of weather; briefs commanders at all levels; develops automated and manual filing systems; supervises use and operation of computer-aided equipment; interacts with other units; understands elements of soils, vegetation, geology, weather hydrology, and their relationship to each other; prepares lengthy reports; presents oral briefings.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in public speaking and 3 in expository writing. In the upper-division baccalaureate category, 3 semester hours in advanced physical geography, 3 in geodesy, 3 in geographic information systems, 3 in human resource management, and 3-6 semester hours for field experience in management (7/88).

MOS-880A-001

MARINE DECK OFFICER

880A0

Exhibit Dates: 7/87–Present.

Career Pattern

NOTE: This MOS was formerly designated 500A. May have progressed to Marine Deck Officer from MOS 88K (Watercraft Operator.)

Description

Commands Army watercraft vessels on oceans, bays, sounds, lakes, and coastal waters; is responsible for proper operation and safety of the vessel, including discipline of the crew and seaworthiness of the vessel; must know maritime law and have a working knowledge of international and inland rules of the road; is proficient in seamanship and ship handling; operates all deck machinery and equipment, including ground tackle, cargo gear, lifeboat, raft, firefighting and lifesaving equipment, emergency steering systems, and damage control; qualified to control destination of vessel, using all navigational aids, including electronic equipment (radio direction finders, radar, and fathometers); conducts radio and visual communication with government and commercial vessels and and shore stations, including flashing light, semaphore, and flaghoist signalling, using international procedures when required; knows cargo planning and stowage procedures and techniques of loading and securing cargo to insure seaworthiness; is proficient in celestial navigation; uses navigational aids, including charts, compasses, sextants, lighthouse, and light buoys, both at sea and when approaching shore; hold qualifying license for command position, validated by the Marine Qualification Board of the Army; if holding a masters license, must also hold radar operations qualifications.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in record keeping, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours in management electives, 3 in management problems, 3 for field experience in management, and 2 in human relations; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (9/79).

MOS-881A-001

Marine Engineering Officer

881A0

Exhibit Dates: 7/87–Present.

Career Pattern

NOTE: This MOS was formerly designated 510A. May have progressed to Marine Engineering Officer from MOS 88L (Watercraft Engineer).

Description

Supervises the operation, maintenance, repair and overhaul of marine power plants, propulsion systems, heating and ventilating systems and other mechanical, plumbing, and electrical equipment in ships, docks, and marine-port facilities; inspects ship's machinery to determine compliance with maintenance standards or to determine extent, cost, and nature of repairs required; provides instruction in the proper maintenance and repair of machinery and shipboard equipment; monitors performance on repair contracts for marine repair and overhaul; supervises loading of fuel, water and ballast; maintains and records work performed and prepares maintenance reports; when assigned as Marine Engineering Technician or Marine Inspector, must be able to perform vessel inspections and preparation and processing of repair work orders; may serve as a school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 for field experience in management, 3 in record keeping, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours in management electives, 3 in management problems, and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (9/79).

MOS-910A-001

Ammunition Technician

910A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 411A. May have progressed to Ammunition Technician from MOS 55B (Ammunition Specialist), MOS 55D (Explosive Ordnance Disposal Specialist), MOS 55G (Nuclear Weapons Specialist), MOS 55R (Ammunition Stock Control and Accounting Specialist), MOS 55X (Ammunition Inspector), or MOS 55Z (Ammunition Supervisor).

Description

Manages personnel, equipment, supply, and facility assets for the receipt, storage, and issue of all classes of ammunition; plans, coordinates and supervises 50-150 personnel engaged in the requisitioning, receipt, inspection, surveillance, testing, maintenance, repair, modification, storage, issue, crating, packaging, transportation, and destruction of ammunition, missiles, rockets, explosive components, and non-nuclear warheads; plans for safe and efficient employment of munition and high explosives; conducts surveillance inspections and determines serviceability of conventional ammunition; monitors handling and storage of special ammunition; knows policies and procedures for technical escort of chemical, biological, and nuclear materials and radioactive wastes; provides technical assistance regarding conventional ammunition to field activities; interprets technical publications and trains enlisted specialists; classifies, evacuates, or determines disposition of captured or damaged ammunition; supervises load testing and calibration and use of ammunition test and handling equipment; participates in the investigation of accidents; prepares and reviews reports, including investigative reports; is familiar with military and civilian tariffs and the logistics of supply and transportation; insures compliance with safety and security regulations pertaining to ammunition and missiles; knows Occupational Safety and Health Act (OSHA) regulations and procedures; knows physiological effects of, protective measures against, and emergency and first aid procedures employed after exposure to toxic chemicals; knows firefighting procedures for conventional and special ammunition; plans and conducts safety programs for personnel handling ammunition and missiles; reports on problem areas related to accidents and changes to procedures for storing and handling hazardous chemicals; establishes and maintains control over ammunition stocks and insures accountability of munitions material; may serve as detachment commander, instructor at a formal service school, advisor to members of allied armies, or advisor to research, development, tests, and evaluation activities.

Recommendation

In the lower-division baccalaureate/associate degree category, 8 semester hours in physical science, 5 in industrial safety, 3 in basic electronics, 3 in personnel supervision, 3 in inventory management, 3 in report writing, 2 in maintenance shop record keeping, 2 in security practices, and additional credit in basic chemistry, chemistry of explosives, basic physics, nuclear physics, and public speaking/communication on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management electives, and 3 in logistics management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was platoon leader, credit in leadership and supervision on the basis of institutional evaluation (5/77).

MOS-911A-001

Military Physician's Assistant

911A0

See exhibit MOS-011A-001.

MOS-911A-002

Nuclear Weapons Technician

911A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 260A. May have progressed to Nuclear Weapons Technician from MOS 55D (Explosive Ordnance Disposal Specialist), MOS 55G (Nuclear Weapons Specialist), or 55Z (Ammunition Supervisor).

Description

Supervises the assembly, disassembly, inspection, test, repair, modification, maintenance, security and safety of nuclear warhead subsections, projectiles, munitions, components, and associated trainers; supervises from 8 to 40 personnel engaged in the maintenance calibration of the test and handling equipment associated with nuclear materials and weapons; determines the acceptability of nuclear warhead sections and subassemblies to assure their reliability through close supervision and personal inspection of maintenance operations, including electronic component replacement, nuclear material replacement, and proper storage and handling; ensures that equipment modifications are accomplished as announced; examines, interprets, rewrites, and disseminates technical materials for revised operating procedures, orders, technical publications, new test equipment, and new safety procedures pertinent to nuclear materials and weapons; enforces the compliance with weapons safety rules, OSHA regulations, security regulations, and unique safety requirements; performs emergency disarm and destruction of nuclear weapons, which involves handling nuclear materials and conventional high explosives; supervises all administrative duties associated with repair and maintenance, including requisitions for tools, parts, and supplies; manages personnel assignments; writes reports and maintains records; performs inspections; provides technical guidance and assistance to all support units, operating agencies and company commanders regarding all matters involving nuclear weapons.

Recommendation

In the vocational certificate category, 1 semester hour in electronic circuits, 3 in electronic measurements laboratory, 3 in explosives handling, 6 in nuclear materials handling, and 6 in nuclear security and safety procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic measurements laboratory, 6 in nuclear materials handling, 6 in nuclear security and safety procedures, 3 in personnel supervision and human relations, and 3 in technical writing and report preparation. In the upper-division baccalaureate category, 6 semester hours in management electives and 3 in education electives (8/79).

MOS-912A-001

Land Combat Support Missile Systems Technician

912A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 271A. May have progressed to Land Combat Support Missile Systems Technican from any of the following MOS's: 27B, 27E, 27F, 27G, 27L, 27M, 27N, and 27Z.

Description

Manages supply, equipment, facility, and personnel assets in the maintenance and repair of land combat support missile systems (short or medium-distance guided missile weapon systems), associated system-designed electronic test systems, and training devices; directs the activities of personnel engaged in isolating malfunctions occurring in electronic firing and guiding systems and components; analyzes complex malfunctions; supervises repair of and modifications to systems components, including guidance control systems, optical trackers, modulators, infrared sensors, conduct-of-fire trainers, missiles, and specialized test equipment; oversees supply management and preparation of work reports and maintenance records; forecasts supply requirements; insure that final inspections and checkout procedures are conducted; examines, interprets, and disseminates technical material, including orders, bulletins, and manuals; instructs enlisted specialists in troubleshooting techniques, diagnostic procedures, and the interpretation of tests on system components, circuits, and optical elements; knows techniques and safety procedures for handling explosive components; may serve as instructor at a formal training school.

Recommendation

In the vocational certificate category, 6 semester hours in electronics theory and laboratory and 2 in use of basic hand tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics theory and laboratory, 3 in personnel supervision, 3 for field experience in management, 3 in industrial/human relations, 2 in maintenance management, and 1 in technical report writing. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 in management electives (3/77).

MOS-913A-001

Armament Repair Technician

913A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 421A. May have progressed to Armament Repair Technician from any of the following MOS's: 41C, 45B, 45D, 45E, 45G, 45K, 45L, 45N, 45T, or 45Z.

Description

Manages activities and personnel engaged in the maintenance and repair of small arms, artillery and armor weapons, and crew-served weapons; oversees the inspection, repair, replacement, and modification of armament materiel; supervises inspections and check-out procedures; directs shop operations including workflow planning, requisitioning parts and supplies, inspecting maintenance procedures, and providing technical assistance to maintenance personnel in artillery or armor units; must know nomenclature design, operation, and employment of the Army's current inventory of field artillery weapons, armor weapons, and small arms; trains enlisted specialists in the use of shop equipment and power tools, in inspection and test procedures, and in the disassembly, repair, and adjustment of armament material; uses technical publications and interprets specifications; must be able to use automated and manual systems for supply of technical publications, tools, repair parts, and related maintenance supplies; must know regulations and procedures pertaining to physical security, accountability, and shipment of weapons; may serve as chief of a team, section, or platoon in field activities; may serve as instructor in a formal training school.

Recommendation

In the vocational certificate category, 3 semester hours in the use and care of hand and power tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 for field experience in management, 3 in industrial/human relations, 3 in maintenance/shop management and record keeping, 3 in use and care of hand and power tools, and 1 in industrial safety. In the upper-division baccalaureate category, 3 semester hours in personnel management and training (3/77).

MOS-914A-001

Allied Trades Technician

914A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 441A, Repair Shop Technician. May have progressed to Allied Trades Technician from MOS 44B (Metal Worker) or MOS 44E (Machinist).

Description

Supervises set-up, maintenance, and operation of machine tools used to make or repair metal parts, mechanisms, tools or machinery by application of knowledge of mechanics, shop mathematics, metal properties, and layout machinery procedures; manages service section shop engaged in metalworking, automotive component repair, and the allied trades; supervises personnel who operate general or specialized metalworking machines, such as lathes and turning machines; supervises automotive body repair and painting, glass, plastic, machine, canvas, leather, welding, and wordworking shop activities, and the recovery of all types of wheeled or track vehicles or equipment; controls work quality by instruction of subordinates and inspection of work in progress and completed work; interprets regulation orders, and specifications and demonstrates correct procedures; plans shop layout; conducts training and orientation of personnel in technical procedures and equipment innovations; directs shop operations to include supply, scheduling, workflow and personnel management; uses automated and manual systems in managing supplies of repair parts, tools, fuel, and technical publications; prepares, implements, and maintains standing operating procedures for management of maintenance activities; may be employed as a service school instructor; performs other officer-level duties required by mission of the unit to which assigned.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-915A-001

Wheel Vehicle Maintenance Technician

630A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 630A. May have progressed from any of the following MOS's: 63B, 63D, 63E, 63F, 63G, 63H, 63N, 63S, 63T, 63Y, 63W, or 63Z.

Description

Supervises the maintenance and repair of wheel and track vehicles and accessory equipment; inspects vehicles; prepares, implements, and maintains procedures for management of maintenance activities; interprets regulations, technical manuals, and orders pertaining to automotive and accessory equipment maintenance functions; supervises personnel assigned to maintenance sections, motor pools, or similar activities; knows the theory, function, and operation of internal-combustion engines, and the assembly, nomenclature, check-out, inspection procedures, diagnostic tests, tuning, and other adjustments of automotive and nonengineer mechanical equipment, including electrical, mechanical, hydraulic, pneumatic, and hydropneumatic subsystems; knows use of special tools and test equipment; knows emergency maintenance methods including use of salvaged parts, reconditioning of equipment with hand tools, and substitution of parts and minor assemblies; uses automated and manual systems for supply of technical publications, tools, and repair parts; knows unit readiness reporting system; knows the use and functioning of automotive, metal, and tire shop equipment; diagnoses complex malfunctions and instructs personnel on isolation and repair of unusual malfunctions; may serve as a service school instructor; writes technical memoranda and other correspondence.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-915B-001

Light Track Systems Maintenance Technician

915B0

Exhibit Dates: 1/88–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 915B are comparable to those of MOS 915A. Use the recommendation in exhibit MOS-915A-001.

MOS-915C-001

Field Artillery Systems Maintenance Technician

915C0

Exhibit Dates: 1/88–Present. NOTE: The skills, competencies, and knowledge required to perform the duties of MOS 915C are comparable to those of MOS 915A. Use the recommendation in exhibit MOS-915A-001.

MOS-915D-001

Armor/Cavalry Systems Maitenance Technician

915D0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 630D. May have progressed from warrant officer MOS 915A (Wheel Vehicle Maintenance Technician), MOS 915B (Light Track Systems Maintenance Technician), or MOS 915C (Field Artillery Systems Maintenance Technician).

Description

Supervises the maintenance and repair of wheel and track vehicles and accessory equipment; inspects vehicles; prepares, implements, and maintains procedures for management of maintenance activities; interprets regulations, technical manuals, and orders pertaining to automotive and accessory equipment maintenance functions; supervises personnel assigned to maintenance sections, motor pools, or similar activities; knows the theory, function, and operation of internal-combustion engines, and the assembly, nomenclature, check-out, inspection procedures, diagnostic tests, tuning, and other adjustments of automotive and nonengineer mechanical equipment, including electrical, mechanical, hydraulic, pneumatic, and hydropneumatic subsystems; knows use of special tools and test equipment; knows emergency maintenance methods including use of salvaged parts, reconditioning of equipment with hand tools, and substitution of parts and minor assemblies; uses automated and manual systems for supply of technical publications, tools, and repair parts; knows unit readiness reporting system; knows the use and functioning of automotive, metal, and tire shop equipment; diagnoses complex malfunctions and instructs personnel on isolation and repair of unusual malfunctions; may serve as a service school instructor; writes technical memoranda and other correspondence.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-915E-001

Support/Staff Maintenance Technician

915E0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 630E. May have progressed from warrant officer MOS 915A (Wheel Vehicle Maintenance Technician), MOS 915B (Light Track Systems Maintenance Technician), MOS 915C (Field Artillery Systems Maintenance Technician), or MOS 915D (Armor/Cavalry Systems Maintenance Technician).

Description

Supervises the maintenance and repair of wheel and track vehicles and accessory equipment; inspects vehicles; prepares, implements, and maintains procedures for management of maintenance activities; interprets regulations, technical manuals, and orders pertaining to automotive and accessory equipment maintenance functions; supervises personnel assigned to maintenance sections, motor pools, or similar activities; knows the theory, function, and operation of internal-combustion engines, and the assembly, nomenclature, check-out, inspection procedures, diagnostic tests, tuning, and other adjustments of automotive and nonengineer mechanical equipment, including electrical, mechanical, hydraulic, pneumatic, and hydropneumatic subsystems; knows use of special tools and test equipment; knows emergency maintenance methods including use of salvaged parts, reconditioning of equipment with hand tools, and substitution of parts and minor assemblies; uses automated and manual systems for supply of technical publications, tools, and repair parts; knows unit readiness reporting system; knows the use and functioning of automotive, metal, and tire shop equipment; diagnoses complex malfunctions and instructs personnel on isolation and repair of unusual malfunctions; may serve as a service school instructor; writes technical memoranda and other correspondence.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in shop management, 3 in maintenance management, 3 in administrative office management, 3 in business communications, 3 in record keeping, 3 in computer and data processing concepts, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 3 for field experience in management, 3 in education electives (instruction and counseling) and additional credit in leadership and supervision on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (5/78).

MOS-920A-001

Property Book Technician

920A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 761A. May have progressed to Property Book Technician from MOS 76J (Medical Supply Specialist) or MOS 76Y (Unit Supply Specialist).

Description

Administers and manages the Army supply systems; maintains inventory control; supervises purchasing procedures, inventory handling and storage, recordkeeping, and stock control; is responsible for accounting and management of capital stock for units and installatons; knows manual and automated property-accounting procedures; develops and administers supply budgets for units or installations; forecasts and plans supply requirements; knows how to use automatic data processing in the supply areas; gives technical advice to subordinate unit and activity commanders; establishes procedures for requisitioning, receiving, storing, and issuing supplies; establishes and maintains formal and informal lines of communication with supply control, maintenance, and transportation units; with supported activities, may monitor or evaluate supply contractor's performance; prepares reports and correspondence.

Recommendation

In the vocational certificate category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, and 3 in principles of financial budgeting. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 3 in personnel supervision, 3 in inventory management, 3 in introduction to computer concepts, 3 in warehousing and storage, 3 in recordkeeping, 3 in purchasing, 3 in material handling, 3 in principles of financial budgeting, and 2 in keypunch. In the upper-division baccalaureate category, 3 semester hours in management electives and 3 in personnel management and training; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-920B-001

REPAIR PARTS TECHNICIAN

920B0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 762A. May have progressed to Repair Parts Technician from MOS 76J (Medical Supply Technician), MOS 76P (Materiel Control and Accounting Specialist), or MOS 76V (Materiel Storage and Handling Specialist).

Description

Administers and manages the Army supply system as it applies to maintenance support units, usually at overseas locations; supervises the requisitioning, storage, distribution, and accounting of repair parts and maintenance-related supply items; knows manual and automated property accounting procedures; knows fundamentals of data processing as they apply to inventory management; knows the interrelationship of supply, maintenance, and transportation; knows policies and procedures for and interprets regulations regarding crating, packaging, preserving, shipping, and storing materiel and equipment; uses supply catalogs, technical manuals, bulletins, modification work orders, and cross-reference lists in requisitioning, receiving, storing, issuing, and identifying equipment, supplies, and repair parts; forecasts the requirements of repair parts and maintenance-related supply items; develops and administers supply budgets; inspects supported units to insure that stock levels are adequate and within prescribed limits; makes inventory recommendations; provides technical guidance to supported unit personnel; develops operating procedures and performs administrative duties related to the supply activity; evaluates efficiency and effectiveness of supply operations; prepares correspondence and reports.

Recommendation

In the vocational certificate category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, and 3 in principles of financial budgeting. In the lower-division baccalaureate/associate degree category, 2 semester hours in keypunch, 3 in recordkeeping, 3 in technical report writing, 3 in inventory management, 3 in warehousing and storage, 3 in introduction to computer concepts, 3 in purchasing, 3 in material handling and safety, 3 in principles of financial budgeting, and 3 in personnel supervision, and additional credit in traffic management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management electives and 3 in personnel management and training, and additional credit in transportation and physical distribution on the basis of institutional evaluation; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management (10/77).

MOS-921A-001

AIRDROP EQUIPMENT TECHNICIAN

921A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated MOS 401A. May have progressed to Airdrop Equipment Technician from MOS 43E (Parachute Rigger).

Description

Supervises preparation of equipment for airdrop, airdrop of supplies and equipment, parachute packing, and repair of parachutes and associated equipment; plans and organizes activities for repair of airdrop equipment and establishes rigging sites to support airborne operations; instructs personnel in airdrop procedures; prescribes procedures used in adjustment, care, and preservation of parachutes and other support equipment tools and machinery; provides technical guidance and serves as liaison to commanders; provides technical assistance to the personnel responsible for life cycle management of items including design, research and development, testing, supply management, and classification; responsible for providing serviceable and safe parachutes and equipment to units engaged in parachute jumping and related airdrop operations; supervises repacking of parachutes in use; coordinates loading of equipment and supplies into aircraft and participates in joint airdrop load inspections; may serve as a service school instructor; knows maintenance record keeping and inventory control procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 2 semester hours in communication skills (oral). In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management; if duty assignment was platoon leader, additional credit in leadership and supervision on the basis of institutional evaluation (5/78).

MOS-922A-001

FOOD SERVICE TECHNICIAN

922A0

Exhibit Dates: 1/88–Present.

Career Pattern

NOTE: This MOS was formerly designated 041A. May have progressed to Food Service Technician from MOS 94B (Food Service Specialist).

Description

Supervises and administers food service activities for installations, commands, or organizations; maintains complete operational control over facilities, personnel, and specialized equipment; supervises the procurement, storage, distribution, and preparation of foods to be served; writes reports; develops procedures for implementing policies from higher authority; uses specialized accounting methods; plans use, layout, and mainenance of food service equipment; in carrying out specialized duties, is required to devote most energies in the technical and human resource areas of food service administration; interprets contracts and monitors contractor's performance; if assigned to hospital food service duties, may be required to perform additional specialized supervisory functions in nutritional and diet therapy areas; may serve as staff advisor to a general officer or provide technical assistance to nonappropriated fund food service activites; may serve as a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in food service management, 3 in principles of management, 3 in personnel supervision, 3 in food service equipment and layout, and 3 in business report writing. In the upper-division baccalaureate category, 3 semester hours in management problems and 2 for field experience in management; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 3 additional semester hours for a practicum in education; if assigned to a hospital as a food service technician, 3 additional semester hours in nutrition or diet therapy (11/77).

MOS-941A-001

FOOD SERVICE ADVISOR

941A0

See exhibit MOS-041A-001.

MOS-951A-001

CID SPECIAL AGENT CRIMINAL INVESTIGATOR

951A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 951A was changed to 311A; see exhibit MOS-311A-001.)

Career Pattern

May have progressed to Criminal Investigator from MOS 95B (Military Police) or MOS 95D (Assistant Special Agent).

Description

Conducts investigations and supervises technical and other personnel in the investigation of known or suspected crimes involving government property and individuals subject to military jurisdiction; examines scene of incident and collects and submits all relevant physical evidence (fingerprints, blood stains, suspected narcotics, castings, documents) to crime laboratory; studies and evaluates evidence to determine motives and responsible individuals; develops investigative plans; prepares reports of investigations; apprehends violators or suspects based on probable cause; testifies at courts-martial or other appropriate judiciary tribunals; engages in crime prevention efforts and physical security surveys; performs worldwide protective services for Department of Defense executives, visiting foreign officials, and other designated principals; knows techniques for effective investigation of any type of crime involving U.S. government property and individuals subject to the Uniform Code of Military Justice; knows what constitutes an offense under applicable criminal codes and laws; knows techniques governing search and apprehension; knows rules of evidence and methods of collecting, preserving, and protecting evidence; knows complete procedures for identifying, protecting, and searching a crime scene; knows techniques of surveillance, covert operation, raids, and search and seizure and conducts such activities; applies evidence, records, and laboratory reports to criminal investigations; knows techniques of crime prevention, physical security, and industrial defense surveys; evaluates findings and develops recommendations resulting from such surveys; interviews and interrogates complainants, witnesses, informants, suspects, and other persons considered knowledgeable of or connected with crimes; develops information on suspects concerning habits, associates, aliases, characteristics, and other personal information and uses such information in the investigative process; prepares proper records of information obtained through interviews and interrogations; supervises criminal investigation teams; understands basic techniques for conducting laboratory examinations and the analysis of physical evidence; applies laboratory techniques and procedures to physical evidence; evaluates all information obtained in connection with a specific crime; knows administrative procedures, report writing, correspondence formats, supply channels, and office management; testifies as expert witness concerning application of any standard technique or procedure used in criminal investigation; coordinates with appropriate civil and military agencies involving jurisdictional authority, exchange of information, and similar problems and considerations; may be an operations officer giving direction to other personnel involved in various investigations; may serve as an instructor or supervise instruction of personnel in various crime-related topics; may have foreign language proficiency; has extensive knowledge about narcotics and narcotics trafficking, including clandestine laboratories, drug traffic patterns, drug identification, and drug field testing; conducts drug abuse education programs.

Recommendation

In the vocational certificate category, 6 semester hours in laws/rules of evidence, 3 in report writing, and 3 in criminal investigation. In the lower-division baccalaureate/associate degree category, 6 semester hours in laws/rules of evidence, 4 in introduction to law enforcement, 3 in criminal law, 3 in criminal investigation, 3 in report writing, and 3 in oral communications, and additional credit in a foreign language on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours for field experience in criminology (crime scene and laboratory) and 3 for a practicum in education, and additional credit in foreign language and education on the basis of institutional evaluation (11/77).

MOS-961A-001

ATTACHE TECHNICIAN
(ARMY ATTACHE ADMINISTRATIVE OFFICER)

961A0

Exhibit Dates: 3/54-12/87. (Effective 1/88, the MOS designator 961A was changed to 350L; see exhibit MOS-350L-001.)

Career Pattern

NOTE: This MOS was formerly designated 2122. May have progressed to Attache Technician from MOS 71L (Administrative Specialist) or MOS 71S (Attache Specialist).

Description

Performs general administrative and logistics functions in support of Defense Army Attache office located in an embassy of the United States of America; must know regulations, directives, and procedures necessary for managing and operating administrative and logistics support functions; secures and manages housing accommodations for personnel assigned to the embassy; knows history, political and economic institutions, social customs, and, when possible, the language of the country to which assigned; advises other attache office personnel and visitors regarding matters of protocol, military courtesies, and public affairs; supervises enlisted and civilian support specialists; manages internal activities of the Defense Attache office; compiles and prepares reports and communications; receives, interviews and schedules meetings with U.S. and foreign military and civilian visitors; supervises internal communications; maintains files and administers the record keeping process; types correspondence, messages, forms, and manuscripts; authenticates vouchers; processes and reviews requisitions; may serve as service school instructor; may perform other officer-level duties as required.

Recommendation

In the vocational certificate category, 4 semester hours in typing, 2 in filing, 3 in office practices, 3 in business communications, 3 in records administration, and 1 in business machines. In the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 2 in filing, 3 in office practices, 3 in business communications, 3 in records administration, 1 in business machines, 3 in human relations, 6 for field experience in office management, 6 in social science, 2 in public relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 in real property management; if rank was CW2, 2 additonal semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-962A-001

IMAGE INTERPRETATION TECHNICIAN

962A0

Exhibit Dates: 1/64-12/87. (Effective 1/88, the MOS designation 962A was changed to 350D; see exhibit MOS-350D-001.)

Career Pattern

May have progressed to Image Interpretation Technician from MOS 96D (Image Interpreter).

Description

Manages activities or performs duties relative to image interpretations; applies techniques and principles of image interpretation, photogrammetry, and topographic drafting; knows and applies basic principles of geology and human and physical geography; understands basic cartography, surveying, geometry, trigonometry, and the metric system; prepares written summaries and gives oral reports; conducts briefings; establishes and maintains files; instructs subordinates in proper work techniques and procedures; directs training; supervises personnel; advises superiors; develops map overlays; may serve as a service school instructor.

Recommendation

In the vocational certificate category, 3 semester hours in map reading, 2 in mechanical drawing, 3 in photogrammetry, 3 in technical writing, 3 in technical mathematics, and 3 in aerial photographic interpretation. In the lower-division baccalaureate/associate degree category, 3 semester hours in map reading, 3 in photogrammetry, 3 in aerial photographic interpretation, 3 in physical geography, 3 in technical writing, 3 in technical mathematics, 2 in mechanical drawing, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for field experience in management, and 3 in personnel management; if duty assignment was instructor at a formal training facility, 6 additional semester hours for a practicum in education (11/77).

MOS-963A-001

INTERROGATION TECHNICIAN

963A0

Exhibit Dates: 7/68-Present.

Career Pattern

May have progressed to Interrogation Technician from MOS 96C (Interrogator).

Description

Knows history, culture, geography, and current politics and economics of country or countries in area to which assigned; knows techniques and principles of interrogation and document exploitation; knows interrogation reporting procedures; conducts interrogations, in a foreign language, of informants, prisoners of war, and refugees; prepares reports of interrogations and identifies and resolves conflicting information provided by different sources, such as documents; disseminates reports and makes assessments of the validity of information for dissemination to users; summarizes findings; functions as a supervisor, chief, or commander of a team or larger unit; translates technical publications related to recent scientific discoveries and inventions; usually is proficient in reading, writing, speaking, and translating two or more foreign languages.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in report writing, 3 in oral communication, and 3 in personnel supervision, and additional credit in area studies on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, and additional credit in area studies on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-964A-001

Order of Battle Technician

964A0

Exhibit Dates: 7/68–12/87. (Effective 1/88 the MOS designator 964A was changed to 350B; see exhibit MOS-350B-001.)

Career Pattern

May have progressed to Order of Battle Technician from MOS 96B (Intelligence Analyst).

Description

Collects and evaluates tactical and strategic information related to organization, operations, capabilities, and limitations of armed forces; uses the accumulated information to develop order-of-battle data; makes reliability assessments of information through comparison with previously evaluated information; maintains close liaison with other intelligence activities, including counter-intelligence, photo interpretation, interrogation, and language interpretation units; develops and maintains maps and overlays to provide complete and accurate intelligence information relating to friendly and enemy armed forces; interprets maps; prepares written reports; gives briefings and oral reports; maintains current information concerning both friendly and enemy forces to include identification, disposition, personalities, combat efficiency, and history; evaluates the significance of armed forces vulnerability studies for use in predicting probable courses of actions; has a working knowledge of automatic data processing procedures as applied to tactical and strategic intelligence; supervises, commands, or acts as chief of a section, detachment, or team engaged in the development of the data or information required in this area; may serve as a service school instructor.

Recommendation

In the vocational certificate category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in communication skills (oral), and 1 in map reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in clerical practices, 3 in records administration, 3 in technical writing, 3 in oral communication, 3 in personnel supervision, and 1 in map reading. In the upper-division baccalaureate category, 3 semester hours in management problems; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 additional semester hours for field experience in management; if duty assignment was service school instructor, 6 semester hours for a practicum in education (11/77).

MOS-971A-001

Counterintelligence Technician
(Intelligence Technician)

971A0

Exhibit Dates: 1/64–12/87. (Effective 1/88, the MOS designator 971A was changed to 351B; see exhibit MOS-351B-001.)

Career Pattern

May have progressed to Counterintelligence Technician from MOS 97B (Counterintelligence Agent) or MOS 97C (Area Intelligence Specialist).

Description

Manages activities or performs duties that provide intelligence information; investigates personnel under U.S. Army jurisdiction to determine their suitability for assignment to sensitive duties; conducts interrogations, briefings, and debriefings; prepares intelligence and investigative reports; analyzes and interprets intelligence and counterintelligence data; works closely with civilian law enforcement officials and investigative agencies; supervises and trains subordinates; knows organization, mission, tactics, and operating methods of friendly and enemy intelligence units and personnel; knows principles and procedures involved in counterintelligence investigations; knows interrogation techniques; knows techniques for conducting effective liaison with local, state, and national investigative and other governmental agencies of friendly and occupied countries; knows operation, characteristics, and regulations governing the use of recording and monitoring equipment; knows techniques and regulations governing investigative surveillance; knows fundamentals of military and civil law, including due process and the application of legal principles to counterintelligence operations; collects evidence admissible for legal action and obtains depositions; knows the culture, custom, history, social, economic, and political structures of the area of operation; conducts security investigations, surveys, and vulnerability studies of installations; knows principles for communications and signal security; processes photographic film; may be a service school instructor.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in social science, 3 in police administration, 3 in industrial security, 3 in U.S. government, 3 in applied psychology, 3 in report writing, 3 in oral communication, 3 in office management, 2 in personnel supervision, and 1 in typing. In the upper-division baccalaureate category, 3 semester hours in political ideologies, 3 in constitutional law, and 3 in public relations; if the duty assignment was service school instructor, 6 additional semester hours for a practicum in education (11/77).

MOS-972A-001

Area Intelligence Technician

972A0

Exhibit Dates: 1/64–12/87. (Effective 1/88, the MOS designator 972A was changed to 351C; see exhibit MOS-351C-001.)

Career Pattern

May have progressed to Area Intelligence Technician from MOS 97B (Counterintelligence Agent) or MOS 97C (Area Intelligence Specialist).

Description

Collects intelligence information on a specific geographic area through the use of human resources; works with a minimum of supervision; uses extremely demanding operational security procedures in a foreign environment; knows culture, customs, history, politics, geography, economics, and social structure of geographic area(s); knows procedures for preparing and forwarding reports; conducts interviews, interrogations, briefings, and debriefings; prepares informational and operational reports; analyzes and interprets information for intelligence implications; reads maps and prepares map overlays; supervises area intelligence units and teams. NOTE: Many of the required duties for this MOS involve highly classified materials, equipment, techniques and activities; therefore, not all the competencies and knowledges associated with the MOS were evaluated.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in area studies, 3 in regional geography, 3 in applied psychology, 3 in report writing, 3 in speech, 3 in photography, 1 in electronic systems, 1 in typing, and 1 in human relations. In the upper-division baccalaureate category, 6 semester hours in history electives, 3 in economics electives, 3 in comparative cultures, 3 in applied research, 3 in personnel management, and 3 in international relations; if the duty assignment was service school instructor, 6 semester hours for a practicum in education. In the graduate degree category, 3 semester hours for a seminar in military intelligence strategy and policy and additional credit in international relations on the basis of institutional evaluation. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (11/77).

MOS-973A-001

Interrogation Technician

973A0

Exhibit Dates: Until 3/79, the MOS designation for Interrogation Technician was 963A. Use exhibit MOS-963A-001.

MOS-982A-001

Traffic Analysis Technician

982A0

Exhibit Dates: 6/61–12/87. (Effective 1/88 the MOS designator 982A was changed to 352C; see exhibit MOS-352C-001.)

Career Pattern

May have progressed to Traffic Analysis Technician from MOS 98B (EW/Cryptologic Cryptanalyst), MOS 98C (EW/Signal Intelligence Analyst) or MOS 98Z (EW/Signal Intelligence Chief).

Description

Manages personnel and technical equipment engaged in intercepting, decoding, and analyzing communication traffic for content of possible intelligence value; establishes priorities of intercept missions for acquisition of desired traffic; plans, organizes, and coordinates activities; reviews data obtained in the traffic intercept process for accuracy and relevance; prepares and transmits information reports; advises commanders and staff officers on matters concerning traffic analysis and use of the data.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in personnel management and training and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in manangement; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-983A-001

EMANATIONS ANALYSIS TECHNICIAN

983A0

Exhibit Dates: 1/66–12/87. (Effective 1/88, the MOS designator 983A was changed to 352J; see exhibit MOS-352J-001).

Career Pattern

May have progressed to Emanations Analysis Technician from MOS 98J, Electronic Warfare/Signal Intelligence Noncommunications Interceptor.

Description

Manages personnel and technical equipment assets engaged in intercept and analysis of noncommunications electromagnetic emissions; plans, organizes, and supervises establishment and operation of facilities and units engaged in electronic intelligence activities; selects sites for tactical noncommunications intercept/analysis equipment; ensures that electronic intelligence operators and analysts follow established procedures, techniques, and analytical procedures in the intercept and interpretation of electromagnetic signals; advises operators and analysts; conducts training programs for noncommunications intercept operators/analysts; may serve as a service school instructor; may serve as platoon leader.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 in a management elective; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (9/88).

MOS-984A-001

MORSE INTERCEPT TECHNICIAN

984A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 984A was changed to 352H; see exhibit MOS-352H-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 051A. May have progressed to Morse Intercept Technician from MOS 05H (EW/Cryptologic Interceptor-Morse) or MOS 05K (EW/Cryptologic Interceptor-Teletypewriter).

Description

Manages personnel and technical equipment in establishment and employment of Morse intercept and electronic warfare activities; plans, coordinates, and supervises personnel engaged in these operations; may supervise up to several hundred personnel; establishes work schedules and priorities; evaluates performance of subordinates; supervises calibration, adjustment, and testing of Morse intercept equipment; conducts training programs for equipment operators; knows antenna theory and wave propogation characteristics; supervises application of message analysis; supervises cryptanalysis principles and procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-985A-001

NON-MORSE INTERCEPT TECHNICIAN

985A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 985A was changed to 352K; see exhibit MOS-352K-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 052A. May have progressed to Non-Morse Intercept Technician from MOS 05F (Radio Teletypewriter Operator), MOS 05K (EW/Cryptologic Interceptor-Teletypewriter), or MOS 98J (EW/Signal Intelligence Noncommunications Interceptor).

Description

Manages personnel and technical equipment in establishment and employment of non-Morse intercept and electronic warfare activities; plans, coordinates, and supervises personnel engaged in these operations; may supervise up to several hundred personnel; establishes work schedules and priorities; evaluates performance of subordinates; supervises calibration, adjustment, and testing of various electronic intercept equipment including radios and printers; conducts training programs for equipment operators; knows antenna theory and wave propagation characteristics; supervises application of message analysis; supervises cryptanalysis principles and procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 additional semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-986A-001

EMITTER LOCATION/IDENTIFICATION TECHNICIAN (SPECIAL IDENTIFICATION TECHNICIAN)

986A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 986A was changed to 352D; see exhibit MOS-352D-001.)

Career Pattern

NOTE: This MOS was formerly designated MOS 053A. May have progressed to Emitter Location/Identification Technician or Special Identification Technician from MOS 05D (EW/Cryptologic Special Identification Operator) or MOS 05H (EW/Cryptologic Interceptor-Morse).

Description

Manages personnel and technical equipment assets engaged in establishment and employment of Emitter Location/Identification System (ELI) activities in a communications-electronic intelligence environment; supervises maintenance, calibration, adjustment, and testing of equipment; operates or supervises operation of radio (CW, voice, teletype), and cryptographic equipment; ensures that personnel follow established direction-finding communications nets; advises commanders or staff officers on the employment, deployment, and utilization of ELI assets; analyzes collected information and converts to usable intelligence for use of commanders.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic mathematics and 3 in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 3 semester hours in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 additional semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management (8/78).

MOS-988A-001

VOICE INTERCEPT TECHNICIAN

988A0

Exhibit Dates: 6/61–12/87. (Effective 1/88, the MOS designator 988A was changed to 352G; see exhibit MOS-352G-001.)

Career Pattern

May have progressed to Voice Intercept Technician from MOS 98G, (EW/Cryptologic Interceptor-Voice) MOS 98Z, (EW/Signal Intelligence Chief), or MOS 05E, (Voice Radio Operator).

Description

Manages and plans personnel and equipment engaged in the intercept and analysis of voice communications; supervises installation of and provides operational direction to voice intercept and electronic warfare activities; supervises the calibration, adjustment, and testing of voice intercept and standard communications equipment; applies knowledge of wave propagation antenna and electronic theory to ensure proper antenna emplacement and orientation; reads, writes, comprehends, transcribes, and translates at least one foreign language; supervises intercept, transcription, and translation of voice communications in a foreign language; advises commanders and staff officers on the employment and utilization of voice intercept and electronic equipment and personnel; conducts training programs for voice intercept and electronic countermeasures personnel; defines and advises the commander on language problem areas.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision; if served as platoon leader, 3 semester hours in principles of administration. In the upper-division baccalaureate category, 6 semester hours for humanities or social science electives, 3 in personnel management and training, 3 in management problems, and 3 for management electives; if rank was CW2, 2 semester hours for field experience in management; if rank was CW3, 4 semester hours for field experience in management; if rank was CW4, 6 semester hours for field experience in management. NOTE: Add credit for the specific foreign language(s) by referring to the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services and modifying the recommendation on the basis of institutional evaluation (8/77).

Appendix A

The Evaluation Systems

The American Council on Education has developed and refined comprehensive procedures and criteria for the evaluation of military learning experiences. This appendix outlines the historical development of the *Guide;* defines which courses can be found in the *Guide;* provides background information on Army enlisted and warrant officer MOS's (military occupational specialties); describes the evaluation systems used to prepare the recommendations for military formal courses and MOS's; and includes definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

BACKGROUND

Early editions of the *Guide to the Evaluation of Educational Experiences in the Armed Services* were prepared in response to specific needs. Immediately after World War II, the consensus in the civilian educational community was that the practice of granting blanket credit to World War I veterans as a reward for length of service was educationally unsound. Educators concluded that military learning experiences applicable to civilian curricula should be asessed by faculty for potential credit. Therefore, in December 1945, at the request of civilian educational institutions and the regional accrediting associations, the American Council on Education established the Commission on Accreditation of Service Experiences—renamed the Commission on Educational Credit and Credentials in 1979—to evaluate military educational programs and to assist institutions in granting credit for such experiences. Accordingly, the first edition of the *Guide* was published to assist educational institutions in evaluating service courses completed by returning veterans.

The extension of the World War II G.I. Bill to include veterans of the Korean conflict, and the subsequent enrollment of many veterans in colleges and universities, created a need for the second edition, published in 1954.

The 1968 edition was prepared in anticipation of the increased enrollment of veterans resulting from the educational assistance provided under the Veterans Readjustment Benefits Act of 1966, and with the expectation that many would apply for educational credit for their learning experiences in the armed services. In addition, technological advances had necessitated major changes in service training, with a resulting need for new or revised educational credit recommendations.

The 1974 edition was prepared primarily to respond to three emerging considerations. First, because of the growth in vocational and technical programs and the emergence of the concept of postsecondary education, there was a need to evaluate courses for possible credit in the vocational and technical categories in addition to the baccalaureate and graduate categories of previous editions. Second, active-duty service men and women were enrolling in increasing numbers in civilian educational programs and were seeking credit for military formal courses soon after completing their service school training. Third, credit recommendations were needed for the many courses initiated or revised by the military since 1968.

The 1974 edition marked the beginning of a new approach to reporting evaluations of formal military training. At its fall 1973 meeting, the Commission approved the concept of an ongoing *Guide* system. Elements of that system include the publication of biennial editions of the *Guide* through computerized composition, continual staff review of courses, and the computerized storage of course information for a more rapid updating of credit recommendations and for an improved ability to respond to inquiries related to course identification and credit recommendations.

Over the years the recommendations contained in the *Guide* have assisted education institutions in granting credit to hundreds of thousands of service men and women. Surveys conducted by The Center showed that most of the nation's colleges and universities use the formal course recommendations in awarding credit to veterans and active-duty service personnel. The recommendations have been widely accepted because military formal courses share certain key elements with traditional postsecondary programs: they are formally approved and administered, are designed for the express purpose of achieving learning outcomes, are conducted by qualified persons with specific subject-matter expertise, and are structured to provide for the reliable and valid assessment of student learning.

Until 1975, however, no mechanism existed for providing recognition for the learning a service man or woman attained through such learning experiences as self-instruction, on-the-job training, and work experience. As a first step in providing recognition for such learning experiences, the Commission in 1975 implemented a program for the evaluation of learning represented by demonstrated proficiency in Army enlisted military occupational

specialties (MOS's). The MOS evaluation procedures were developed, tested, and refined during a feasibility study conducted by the Council and sponsored by the U.S. Department of the Army. Evaluators made recommendations for educational credit and advanced standing in apprentice training programs. Subsequently, the occupational assessment program of the Commission was expanded to include the Navy general rates and ratings, Army warrant officer MOS's, Navy warrant officer and limited duty officer specialties, Coast Guard enlisted ratings and warrant officer specialties, and selected Marine Corps MOS's. A small number of Naval Enlisted Classifications (NECs) have also been evaluated.

The recommendations for advanced standing in apprentice training programs are the result of the cooperative efforts of the American Council on Education and labor and industry. Since the Army programs are now registered with the Bureau of Apprenticeship and Training, recommendations are no longer made for advanced standing in apprenticeship programs.

The recommendations reflect the Commission's belief that it is sound educational practice to give recognition for learning, no matter how or where that learning has been attained, provided that the learning is at the appropriate level, is in the appropriate area, and is applicable to an individual's postsecondary program of study or apprenticeship program.

ARMY ENLISTED MOS's

The following paragraphs include background information on Army enlisted MOS's, a description of the enlisted MOS classification system, and detailed information on the enlisted MOS evaluation score.

The Army Enlisted MOS Classification System

The Army Enlisted Military Occupational Specialty (MOS) Classification System is a comprehensive taxonomy of Army enlisted duty positions. Closely related positions that require similar qualifications and the performance of similar duties are grouped as an MOS under a generic title. The job title *clerk-typist*, for example, encompasses duty assignments such as file clerk, shipping clerk, reports clerk, clerk-typist, and senior clerk-typist.

Soldiers and Army veterans, and Army records usually refer to enlisted occupations using a designation with *at least* five characters (e.g., 71B10, 71B20, 71B30). **Figure 1** shows the elements of an enlisted MOS designation. The first three characters (two numbers and a letter) identify the MOS (e.g., 71B is the designation for clerk-typist). The fourth character, a number from one to five, indicates the type and level of skill within the MOS. As shown in Figure 1, only the skills, competencies, and knowledge represented by the *first four characters* of the MOS designation are evaluated for comparability with civilian learning.

The fifth character is normally zero ("0"); in some cases, a letter is used as a special qualification identifier (SQI) to indicate a soldier's specific duty assignment of special qualifications. In fact, an enlisted soldier's occupation may be expressed by as many as nine characters, but because the last five characters indicate special qualifications that are variable, the learning they represent is not evaluated by ACE. Appendixes B and C provide users with information describing the additional characters that make up the enlisted MOS designation. Enlisted Special Qualification Identifiers (SQIs) are described in Appendix B, and enlisted Additional Skill Identifiers (ASIs) are described in Appendix C. Users may want to conduct an individual assessment and grant credit to recognize the additional learning represented by these characters.

The first three characters, then, represent the MOS, or occupational designation, and the fourth character represents the skill level within the MOS. In accordance with Army practice, *skill levels are referred to in this publication with a neutral fifth character: zero* (i.e., 10, 20, 30, 40,

Skills, Competencies, and Knowledge Evaluated								
1st Character	2nd Character	3rd Character	4th Character	5th Character	6th Character	7th Character	8th Character	9th Character
number 0-9	number 0-9	letter A-Z	number 1-5	"O" letter	letter	number	letter	letter
Military Occupational Specialty (MOS)			Skill Level	Special Qualifications Identifier (SQI)	Additional Skill Identifier (ASI)		Language Identification Code (LIC)	
				See Appendix B	See Appendix C		Normally assigned after completion of Defense Language Institute course or achieving a comparable score on a competency examination. Refer to formal course recommendations.	

Figure 1: *The Enlisted MOS Structure*

and 50). Each enlisted MOS has from one to five skill levels, depending on the types of duty positions encompassed by the MOS. The five skill levels may be broadly characterized as follows:

Skill Level 10 identifies entry-level positions requiring performance of tasks under direct supervision.

Skill Level 20 identifies positions requiring performance of more difficult tasks under general supervision.

Skill Level 30 identifies positions requiring performance of still more difficult tasks under a minimum of supervision, and, in some instances, involving supervision of soldiers in Skill Levels 10 and 20.

Skill Level 40 identifies positions requiring relatively detailed knowledge of all tasks specified for a given MOS and normally involving first-line supervision of soldiers in Skill Levels 10, 20, and 30.

Skill Level 50 identifies managerial and supervisory positions requiring broad knowledge of the tasks performed at all subordinate levels in a given MOS and related MOS's in order to coordinate and give direction to work activities.

Thus, each skill level represents progressively complex duties, increased skills, and greater responsibility; and proficiency in a higher skill level includes the ability to perform the tasks required for the lower skill level(s), as well as additional tasks.

Enlisted MOS's are grouped into 33 career management fields within the enlisted MOS classification system. Each career management field provides opportunities for advancement and career progression among related MOS's. Most career management fields are divided into subfields of closely related MOS's. Brief descriptions of career management fields are provided in Appendix D.

The Enlisted MOS Evaluation System

The Army regularly evaluates each enlisted soldier's MOS proficiency through the Enlisted Evaluation System. Individuals are evaluated to determine whether they have acquired and maintained the necessary MOS skills, competencies, and knowledge, as codified and described in the enlisted MOS classification system. The means used to evaluate soldiers have recently undergone a series of changes.

An individual is awarded an MOS skill level when the skills, competencies, and knowledge for a particular MOS have been acquired. The MOS may be awarded (1) following successful completion of a period of supervised on-the-job training (reflected on the individual's set of orders) or (2) following successful completion of an MOS-producing course (reflected on a Course Completion Certificate).

Subsequently, an individual is periodically evaluated to determine whether he or she has *maintained* the MOS skills, competencies, and knowledge. Until December 1976, the result of this evaluation was an MOS evaluation score; since January 1977, the results are SQT scores and Enlisted Evaluation Reports (EERs) and Senior EERs (SEERs).

- *October 1973–December 1976. **The Enlisted MOS Evaluation Score.*** Until January 1977, the Army's Enlisted Evaluation System comprised a written examination (and in some MOS's, a performance examination such as typing or musical instrument performance) and the supervisor's rating of the soldier's job performance. The written examination was a 125-item, multiple-choice test that covered all major areas of skill-level proficiency. On the supervisor's rating, or EER/SEER, the soldier is rated on a wide range of characteristics and traits. (See Appendix G.)

The score that resulted from the application of the Enlisted Evaluation System was normally a composite score, consisting of the score on the written MOS test, the score from the supervisor's rating of job performance on the Enlisted Efficiency Report (EER), and the score on the performance test, if one was required. Composite MOS evaluation scores ranged from a low of 40 to a high of 160, with the minimum qualification score set at 70.

- *January 1977–July 1983. **The SQTs.*** The Skill Qualification Tests assess the soldier's occupational proficiency through a combination of a hands-on performance evaluation, a written test, and the supervisor's performance certification of specific tasks. Development of the SQTs is based on an analysis of critical skills required for proficiency in a given MOS skill level. The test is used for soldiers to requalify in their assigned skill level. They requalify in their skill level by achieving the verified minimum score for the particular MOS. SQTs have not been developed for pay grades E–8 and E–9.

EER/SEER. Due to the suspension of the use of MOS Evaluation Tests in December 1976 and the gradual phasing-in of SQTs, some soldiers have been evaluated solely on the basis of EER/SEERs. An "EER-only" enlisted MOS evaluation score will not be a composite score and will not include a score from a standardized examination. EERs were formerly given to those in paygrades E–4 and E–5, while E–6 and above received SEERs. Currently, those in paygrades E–5 through E–7 are given SEERs while E–4's, E–8's and E–9's are not evaluated. EERs have been discontinued.

- *August 1983–Present. **An Improved SQT.*** Since August 1983, the procedures for selecting the skills to be measured on each SQT have been standardized and are being applied uniformly to the new test edition. These new procedures produce tests that consistently sample skills that are representative of the MOS and only of the MOS. This standardization overcomes two of The Center's prior concerns: The original SQTs tested general military-specific items (e.g., maintenance of firearms) as well as MOS-specific items; and they used test items in both the skill level being tested as well as those in the next higher skill level. The revised SQT tests only MOS-related competencies and only those at the current skill level.

The SQT is a major component in a soldier's initial MOS certification and in the annual recertification process. Those who fail must retake the test the following year. Failing the test two years in a row results in either losing the MOS or having the skill level reduced.

Passing the SQT is one of several criteria used in promotion decisions. Other factors considered are: training and schooling records, supervisor's ratings (EERs), leadership activities, and awards and citations. The Army has set a score of 60 to indicate that MOS proficiency standards have been met.

- *Supervisor's Ratings.* If SQT score is not available, refer to EERs, SEERs, and NCO Evaluation Reports. (See Step 2 in *How to Find and Use MOS Exhibits.*)

ARMY WARRANT OFFICER MOS's

The following paragraphs provide background information on Army warrant officer MOS's and describe the warrant officer MOS classification system and the procedures used by the Army to select warrant officers and evaluate their MOS skills and knowledge.

The Army Warrant Officer MOS Classification System

Army warrant officers are highly skilled technicians. They are normally assigned to middle management or administrative positions that require highly specialized or technical skills and knowledge, and the supervision of enlisted technical specialists.

The warrant officer MOS classification system currently includes approximately 76 MOS's grouped into 16 career fields. Each warrant officer MOS represents a set of duties and qualifications that are highly consistent from one duty assignment to another.

Warrant officer MOS's are normally identified by *at least* four characters (three numbers and a letter, e.g., 214E). **Figure 2** shows the elements of a warrant officer MOS designation. Unlike enlisted MOS's, warrant officer MOS's consist of four characters, not three, and do not have skill levels.

As shown in the figure, a warrant officer's occupational qualifications may be expressed with as many as nine characters, but because the last five characters indicate special qualifications that are variable, the learning they represent is not evaluated. Only the skills, competencies, and knowledge represented by the *first four characters* are evaluated by ACE. The fifth character, a number or a letter, designates a Special Qualification Identifier (SQI); when a warrant officer has not been awarded an SQI, the fifth character is zero ("0"). The sixth and seventh characters (a number and a letter) are an Additional Skill Identifier (ASI) that relates a specific occupational skill or item of equipment to an MOS. The eighth and ninth characters represent competency in a specific foreign language.

Users may wish to conduct an individual assessment to grant credit for the additional learning represented by the last five characters. Because these additional characters are frequently awarded on the basis of successful completion of formal courses, the user may refer to the appropriate formal course recommendations in the *Guide*. Warrant officer Special Qualification Identifiers are described in Appendix E; Additional Skill Identifiers, in Appendix F. Readers should note that warrant officer SQIs and ASIs are *not* the same as enlisted SQIs and ASIs (described in Appendixes B and C, respectively).

There are four grades of warrant officers: Warrant Officer, W-1 (WO1); Chief Warrant Officer, W-2 (CW2); Chief Warrant Officer, W-3 (CW3); and Chief Warrant Officer, W-4 (CW4). The grades reflect rank and do not signify differences in job duties.

<table>
<tr><td colspan="5">Skills, Competencies, and Knowledge Evaluated</td><td></td><td></td><td></td><td></td></tr>
<tr><td>1st Character</td><td>2nd Character</td><td>3rd Character</td><td>4th Character</td><td>5th Character</td><td>6th Character</td><td>7th Character</td><td>8th Character</td><td>9th Character</td></tr>
<tr><td rowspan="2">number 0-9</td><td rowspan="2">number 0-9</td><td rowspan="2">number 0-9</td><td rowspan="2">letter A-Z</td><td>"O"</td><td rowspan="2">number</td><td rowspan="2">letter</td><td rowspan="2">letter</td><td rowspan="2">letter</td></tr>
<tr><td>number or letter</td></tr>
<tr><td colspan="4">Military Occupational Specialty (MOS)</td><td>Special Qualifications Identifier (SQI)</td><td colspan="2">Additional Skill Identifier (ASI)</td><td colspan="2">Language Identification Code (LIC)</td></tr>
<tr><td colspan="4" rowspan="2"></td><td>See Appendix E</td><td colspan="2">See Appendix F</td><td colspan="2" rowspan="2">Normally assigned after completion of Defense Language Institute course or achieving a comparable score on a competency examination. Refer to formal course recommendations.</td></tr>
<tr><td colspan="3">May be assigned on the basis of successful completion of a formal course. Refer to formal course recommendations.</td></tr>
</table>

Figure 2: *The Warrant Officer MOS Structure*

Warrant Officer Selection and Evaluation

The procedures used in selecting warrant officers and evaluating their MOS skills and knowledge are different from those used for enlisted soldiers.

Selection. Warrant officers are appointed by the Secretary of the Army. Warrant officer vacancies are routinely announced, and interested persons undergo a competitive application process. Most applicants have had Army enlisted service experience, but such experience is not required.

To qualify for appointment, applicants must meet several criteria. For ACE purposes, the relevant criteria are:

1. Achieve a standard score of 110 or higher on the Aptitude Area General Technical Test of the Army Classification Battery or the Army Qualification Battery (this score is also required for commissioned officer applicants).
2. Demonstrate understanding of and proficiency in the English language.
3. Have sufficient education, technical training, and practical experience to ensure outstanding technical ability in the MOS for which application is being made.
4. Be a high school graduate or the equivalent and, when the MOS requires more than a high-school-level education, meet the additional education requirement for the specific MOS. (Two years of college or the equivalent is the desired goal for Regular Army warrant officers.)

Selected candidates must successfully complete a warrant officer candidate course before being appointed.

Evaluation. Under the present evaluation system, the normal procedure is for each warrant officer to be evaluated at least once a year. The evaluation is conducted by officers who serve as a rater and senior rater. Each performs independently. The rater, the warrant officer's immediate supervisor, completes the full evaluation report. The senior rater, the officer who supervises the rater, ensures that the evaluation report has been accurately and properly completed and adds comments and a rating of the rated warrant officer.

Warrant officer evaluations focus on technical competence in the MOS. Raters assign "adjectival" and numerical ratings for each of several important duty areas.

The ratings are recorded on the OER, which also contains a description of the specific functions, duties, and tasks that the rated warrant officer is required to perform during the assignment covered by the OER. Each report provides an appraisal of the rated warrant officer's professional attributes, quality of performance, and potential demonstrated during a specific period while in a particular duty assignment. Complete files of each warrant officer's OERs are maintained at the U.S. Total Army Personnel Command (PERSCOM), where all OERs are reviewed for accuracy and completeness.

ACE OCCUPATION EVALUATION SYSTEM

The ACE evaluation system for MOS's has three major components: the selection of evaluators, the materials required for evaluation, and the procedures and guidelines evaluators use in reaching decisions and making recommendations.

Selection of Evaluators

Nominations for evaluators are requested from postsecondary institutions; professional associations; disciplinary societies; labor unions; trade associations; industry associations; education associations; regional accrediting associations; state departments of education; state credentialing, licensing, and certifying agencies; and the Bureau of Apprenticeship and Training of the U.S. Department of Labor.

The criteria for selection of MOS evaluators are as follows:

1. The area of an evaluator's competency, as evidenced by formal occupational training, knowledge, and experience, will closely approximate the skills, competencies, and knowledge required for proficiency in the MOS.
2. When recommendations were made for apprenticeship programs, preference was given to candidates who were experienced in administration of apprentice training programs when an enlisted MOS was related to an apprenticeable trade.
3. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.
4. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

An evaluator candidate is interviewed by a staff member to determine whether the individual meets the selection criteria.

Evaluations are conducted by teams of at least three specialists. The teams, organized by staff members, use the following guidelines:

1. Subject-matter specialists on an evaluation team should represent a variety of postsecondary institutional types: 1-year/2-year/4-year, public/private, vocational/technical.
2. When ACE conducted evaluations of enlisted MOS's that were related to an apprenticeable trade, two evaluators on the team—one representing labor and one representing management—had experience in the administration of that apprentice training program.

3. Each team of evaluators should represent a variety of persons from within education, labor, government, industry, and business who have had teaching, supervisory, and administrative experiences.

An effort is also made to attain a diverse geographic representation among evaluators. Teams are formed based on the groups of MOS's to be evaluated. Because MOS skills do not always fall neatly into civilian educational and occupational fields and often encompass two or more fields, most MOS evaluation teams include a curriculum generalist. Provision is also made for an evaluation team, when it finds it cannot thoroughly evaluate an MOS, to refer the MOS or a particular skill level to another team or other specialists for further evaluation.

Materials Required for Evaluation

In order to make a recommendation, evaluators must first identify the skills, competencies, and knowledge associated with a given warrant officer or enlisted MOS. The materials relevant to the evaluation of each warrant officer MOS or enlisted MOS skill level are made available to staff members and evaluators by the Army. Materials include the official Army MOS manual which describes the duties and qualifications for each MOS; technical manuals, field manuals, and other publications used by enlisted soldiers and warrant officers in the day-to-day performance of their duties and by enlisted soldiers to prepare for their MOS evaluation tests; enlisted MOS skill-level evaluation tests; and study guides that outline the proficiency requirements for each enlisted MOS skill level. Additional information is obtained by observing and interviewing enlisted soldiers and warrant officers on-the-job during site visits to Army installations.

Evaluation Procedures and Guidelines

Evaluators identify the skills, competencies, and knowledge required of warrant officers who are qualified in a given MOS and enlisted soldiers who are qualified in a given MOS skill level and relate that demonstrated learning to the same attributes acquired by students who have completed a comparable postsecondary course or curriculum. Because the evaluations are based on a comparison of learning outcomes, the amount of time a given enlisted soldier or warrant officer may have spent acquiring MOS proficiency is not taken into consideration. The emphasis is on translating the learning demonstrated through MOS proficiency into terms used in formal civilian postsecondary education systems to recognize the same learning. This reflects the Commission's belief that the value of learning is not dependent on where or how the learning occurs.

Evaluation teams are assigned three tasks in the evaluation of each MOS: (1) to identify the learning represented by proficiency in the MOS by reviewing the pertinent written materials and by observing warrant officers or soldiers performing in the MOS and interviewing them; (2) to prepare a description of the duties, skills, competencies, and knowledge required for each warrant officer or enlisted MOS skill level; and (3) to make recommendations for each warrant officer MOS or enlisted MOS skill level based on discussion and consensus.

Throughout the evaluation process, evaluators are encouraged to exercise professional judgment in applying the evaluative criteria and procedures. This position reflects the Commission's belief that sound educational evaluation is more dependent on professional judgment and expertise than on rigid application of criteria.

The Commission on Educational Credit and Credentials continually reviews its criteria and procedures. Evaluators are encouraged to provide feedback and recommendations for consideration by the Commission.

THE RECOMMENDATIONS

In order to interpret exhibits correctly, readers should become thoroughly familiar with the definitions and guidelines utilized by evaluators in formulating the recommendations. The following paragraphs include definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

Categories of Credit

Educational credit is a concept used by postsecondary institutions to quantify and record a student's successful completion of a unit of study. Postsecondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. ACE evaluators utilize the following categories of educational credit when formulating credit recommendations.

Vocational Certificate. This category describes course work of the type normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied science. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

Lower-Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degree, the traditional transfer associate degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper-Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed a baccalaureate program.

Semester Hours

Credit recommendations for courses are not derived by simple arithmetic conversion. Evaluators exercise professional judgment and consider only those portions of a course that can be equated with civilian postsecondary curricula. Intensive courses offered by the military do not necessarily require as much outside preparation as many regular college courses. Evaluators consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

The MOS recommendations are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in a given enlisted MOS skill level or in a given warrant officer MOS, without reference to how much time elapsed during the learning process. The semester hour is used as a standard to express how many semester hours of appropriate course work a student would normally complete to attain the same learning outcomes or attest to the same level of competency.

Credit recommendations are expressed in semester credit hours. In determining semester hour recommendations, evaluators will be guided by, but not restricted to, the following standard definitions:

1. One semester credit hour for the equivalent of 15 hours of classroom contact plus 30 hours of outside preparation; or

2. One semester credit hour for the equivalent of 30 hours of laboratory work plus necessary outside preparation, normally expected to be 15 hours; or

3. One semester credit hour for the equivalent of not less than 45 hours (contact hours) of shop instruction.

Apprentice Training

Apprentice training is the composite series of progressively more difficult learning experiences in the technology and skills of a tradesman. Apprentice training may be identified in clock hours or years of reasonably continuous on-the-job training and in contact hours of related instruction. On-the-job training and work experience focus on the performance of basic skills under the direct supervision of a journeyman. Related and supplemental instruction is normally closely correlated with on-the-job training, and the subject matter stresses practical application of technology. An *apprentice* is a person who is engaged in learning a trade by working with, and under the direct supervision of, a qualified journeyman in all phases of the trade for a specified period of time. A *journeyman* is a tradesman who has satisfactorily completed an apprentice training program or achieved proficiency in a given industry and who works without direct job supervision.

Evaluations resulting in apprenticeship recommendations have been restricted to enlisted MOS's in the areas of electronics/electricity and mechanical maintenance. Other apprenticeship-related MOS's have been evaluated only for postsecondary educational credit because the Army has already registered several apprenticeship programs with the Bureau of Apprenticeship and Training (BAT), U.S. Department of Labor. Since all apprenticeship programs are currently registered with BAT, MOS's are now evaluated for postsecondary educational credit only.

Clock Hours and Contact Hours

An MOS recommendation for advanced standing in an apprentice training program is stated in clock hours of occupational experience and contact hours of related instruction. *Clock hours* are based on hours worked at a trade; *contact hours* are based on hours spent in the presence of a qualified instructor.

The enlisted MOS recommendations are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in a given MOS skill level, without reference to how much time elapsed during the learning process. Clock hours and contact hours are used to express how much of an apprentice training program an apprentice would normally complete to attain the same learning outcomes or attest to the same level of competency.

Other Recommendations

The Defense Activity for Non-Traditional Education Support (DANTES) maintains the educational records of the service men and women who have completed SSTs, CLEP examinations, and GED Tests.

The results of courses and tests that were taken under the auspices of USAFI (United States Armed Forces Institute, disestablished 1974) which carry academic credit and were submitted prior to June 30, 1974, are available from DANTES Contractor Representative (transcripts), P.O. Box 2879, Princeton, New Jersey 08541. Former and current servicemembers are required to pay a $10.00 fee for USAFI transcripts. Military education personnel can obtain them free of charge.

Results of Subject Standardized Tests and CLEP examinations taken under the auspices of DANTES after

July 1, 1974, are available at a nominal charge from DANTES Contractor Representative (CLEP), Educational Testing Service, P.O. Box 2819, Princeton, New Jersey 08541.

Test reports for GED Tests taken after July 1, 1974, can be obtained from DANTES Contractor Representative (GED), GED Testing Service, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

In addition, credit recommendations for USAFI courses and tests and for DANTES Subject Standardized Tests are available from The Center and are published in the *Handbook to the Guide.*

Appendix B

Enlisted Special Qualifications Identifiers

A Special Qualifications Identifier (SQI) is a letter or number used to indicate special qualifications possessed by an individual. The SQI, when it is used, occupies the fifth character position of the enlisted MOS designation, replacing the zero that normally occupies the position. For example, 12B40 is a skill-level designation for a combat engineer (MOS 12B); 12B4P is the designation for a person who holds 12B40 and is also qualified as a parachutist (SQI P).

Special Qualifications Identifiers are listed alphabetically in this appendix. Each SQI code is accompanied by a title, a brief description, and the effective dates.

A **Technical Intelligence** (10/73–Present)

Identifies persons holding intelligence analyst positions who are able to identify and evaluate foreign materiel, systems, and technological developments.

B **Unit Race Relations Discussion Leader (Unit Interpersonal Relations Worker)** (10/73–9/87)

Identifies persons who have completed the Unit Race Relations Discussion Leaders Course or who have completed equivalent command-sponsored training.

C **NBC (Nuclear, Biological, and Chemical)** (3/88–Present)

Identifies persons who have knowledge of NBC warfare operations and training techniques and who have completed appropriate training in NBC warfare operations and applicable training techniques.

CBR (Chemical, Biological, and Radiological) Warfare Operations (10/73–2/88)

Identifies persons who have knowledge of CBR warfare operations and training techniques and who have completed appropriate training in CBR warfare operations and applicable training techniques.

D **Civil Affairs Operations** (10/73–Present)

Identifies persons qualified to assist in planning, directing, and coordinating activities that pertain to the civil population and its political, social, and economic institutions.

E **Northern Warfare Expert** (10/73–Present)

Identifies persons who have completed prescribed training at the Northern Warfare Training Center or who have received comparable training with a unit operating in an extreme northern environment to qualify them in military skiing, mountaineering, arctic river navigation, and movement and operating on glaciers.

F **Flying Status** (10/73–Present)

Identifies persons who are required to perform frequent and repetitive aerial flights.

G **Ranger** (10/73–Present)

Identifies persons who are Ranger-qualified and who have completed appropriate training at the Infantry School.

H **Instructor** (10/73–Present)

Identifies persons who are qualified to be full-time instructors or training advisers at an Army service school or in other organized training activity.

I **Installer** (10/73–Present)

Identifies persons who are qualified to install nonportable equipment systems or subsystems on a full-time duty basis.

J **SCUBA** (10/73–2/88)

Identifies persons who are trained in skills and safety measures used in diving with self-contained underwater breathing apparatus (SCUBA) and who apply these skills in underwater reconnaissance, maintenance, vehicle recovery, and demolition.

K **Logistics Noncommissioned Officer** (10/73–Present)

Identifies persons who qualify as program members in the Army Logistics Systems.

L **Linguist** (10/73–Present)

Identifies persons who have achieved elementary proficiency in either listening comprehension or reading comprehension in one or more foreign languages.

M **First Sergeant** (3/76–Present)

Identifies persons who are qualified to assist commander in planning, supervising, inspecting, developing, and executing unit policy; to advise commander on enlisted personnel matters; to provide counsel and guidance to subordinate personnel; and to coordinate administration of the unit and support services.

N **Joint Planner** (3/80–Present)

Command of Joint Operations Planning System (JOPS).

White House Communications Agency (10/73–9/76)

Identifies persons assigned to the White House Communications Agency.

O **No Special Qualifications** (10/73–Present)

Identifies positions which do not require the assignment of personnel possessing special qualifications.

P **Parachutist** (10/73–Present)

Identifies persons who are qualified parachutists.

Q **Equal Opportunity Adviser** (9/85–Present)

Identifies persons who have completed training at the Defense Equal Opportunity Management Institute.

Race Relations Instructor (10/73–8/84)

Identifies persons who have completed training in race relations education at the Defense Race Relations Institute.

R **Research, Development, Test, and Evaluation (RDTE)** (10/73–Present)

Identifies persons who are qualified in the design, development, test, or evaluation of military materiel, doctrine, methods, systems, or organization.

S **Special Forces** (10/73–Present)

Identifies qualified parachutists who have completed specialist training by the Special Forces Training Group of the U.S. Army John F. Kennedy Center for Military Assistance, completed similar training, or acquired equivalent qualifying experience.

T **Technical Inspector** (9/90–Present)

Identifies positions which require personnel to perform technical inspections of aircraft, aircraft armament systems, aircraft components, and avionic and flight control systems.

Transition (10/73–9/84)

Identifies persons who have completed transition-type formal training on late-model equipment; this SQI is used in the MOS designation for up to three years following such training.

U **Track Personnel/Cargo Driver** (10/73–8/81)

Identifies persons who are qualified to operate tracked personnel/cargo carrier vehicles.

V **Ranger-Parachutist** (10/73–Present)

Identifies persons who are qualified for the award of both SQI G and SQI P.

W **Psychological Warfare** (10/73–2/85)

Identifies persons qualified in the analysis, development, or implementation of psychological warfare materiel.

X **Drill Sergeant** (3/75–Present)

Identifies persons who complete a Drill Sergeant training course conducted at an Army Training Center.

Experimental (10/73–2/75)

Identifies positions which require personnel to perform duties in connection with the employment or maintenance of new or experimental military equipment or weapons.

Y **Pathfinder** (10/73–9/90)

Identifies qualified parachutists who have completed Pathfinder training at the U.S. Army Infantry School or who have acquired similar qualifications at unit schools with comparable programs of instruction and standards.

Z **Alcohol and Drug Abuse Prevention and Control Program** (10/73–Present)

Identifies persons who have met the following prerequisites: completion of U.S. Army Drug and Alcohol Rehabilitation Training or military or civilian experience in counseling or similar activities in the alcohol, drug abuse, or related fields, and formal recommendation and certification of qualification by a program behavioral scientist (psychiatrist, psychologist, or social worker).

2 **Training Development** (9/81–Present)

Identifies persons in TDA units with missions involving general support of and direct training of personnel associated with Interservice Procedures for Instructional Systems Development (IPISD).

3 **Organizational Effectiveness NCO (OENCO)** (9/81–9/87)

Identifies persons who have completed an organizational effectiveness (OE) course conducted by U.S. Army Organizational Effectiveness Training Center.

4 **Non-Career Recruiter** (3/82–Present)

Identifies non-career recruiter position.

Appendix C

Enlisted Additional Skill Identifiers

An Additional Skill Identifier (ASI) is a two-character code that is used to identify highly specialized skills that are in addition to the skills required for proficiency in a given enlisted MOS. The ASI is identified by a letter and a number, the sixth and seventh characters in the MOS designation. The skills content of each ASI requires a minimum of 10 days of formal training or equivalent on-the-job training.

Additional Skill Identifiers are listed alphanumerically in this appendix. Each ASI code is accompanied by a title, a brief description, and effective dates.

A1 Satellite Communications Control (3/82–3/89) **DSCS SATCOM Controller** (3/76–2/82)
Performance of operational satellite communications controller functions.

A2 Aviation Safety (3/76–Present)
Planning and implementing aviation accident prevention measures.

A3 Forces Development (TAADS) (3/82–Present) **The Army Authorization Document System (TAADS)** (3/76–2/82)
Qualification to use The Army Authorization Document System (TAADS).

A4 International Morse Code (IMC) (3/78–Present)
Receiving IMC by radio at rate of 10 five-letter random code groups per minute without error for 3 consecutive minutes out of 5; transmitting using hand key at 10 five-letter random code groups per minute without error for 2 consecutive minutes out of 3; and handling without error 15 plaindress (normal form) messages averaging 10 five-letter random code groups per hour in field radio net of 2 or more stations through natural interference.

A5 Communications Maintenance (AN/MRC–85) (9/82–2/87) **486L Wide Band Communications O/I Maintenance** (9/80–8/82)
AN/MRC–85 (10/73–8/80)
Maintenance of radio set AN/MRC-85.

A6 Communications Operations/Maintenance (TSEC/CY–104) (3/86–3/89) **Multichannel Ciphony System TSEC/CY–104** (3/79–2/86) **AN/MRC–98** (10/73–2/79)
Maintenance of Multichannel Ciphony System TSEC/CY-104, AN/MRC-98. Maintenance of radio set AN/MRC-98.

A7 Communications Maintenance Supervision AN/TTC 38(V) (9/86–Present) **Communications Maintenance Supervision (TASS–AN/TTC-25, AN/TTC–38)** (3/82–8/86) **TASS–AN/TTC-25, AN/TTC–38** (3/75–2/82) **TASS–AN/TTC–25** (10/73–2/75)
Maintenance of automatic central office equipment TASS-AN/TTC-25 and AN/TTC-38.

A8 Master Gunnery (M1 Tank) (3/82–Present) **XM1 Master Gunner** (9/81–2/82)
Assessment of training and weapons, development of training programs, and conduct of training for XM1 tank master guns.

Meatcutting (10/73–2/78)
Meatcutting. Trimming, cutting, boning, and grinding of meat.

A9 Patrol Dog Handling (10/73–Present)
Use and handling of patrol dogs in detecting and detaining suspected law violators. From 3/84–Present, also includes use and handling of sentry dogs as a means of security (formerly ASI P5).

B1 Rough Terrain Container Handling and Operation (9/84–Present)
Operation of rough terrain cargo handling equipment.

Artillery Calibration (10/73–8/80)
Calibration of field artillery weapons.

B2 Telephone Installation (Key Systems) (3/82–Present) **Telephone Key System Installer** (3/74–2/82)
Installation and organizational maintenance of key telephone systems.

B3 Teletypewriter Maintenance (Specialized Equipment) (9/81–Present) **Specialized Teletypewriter Equipment** (10/73–8/81)
Installation and maintenance of specialized teletypewriter equipment.

B4 Equipment Maintenance (Air Traffic Control/NAVAIDS) (9/81–2/86)
Maintenance of ATC navigation aids communications equipment in both tactical and nontactical Army airfields.

Air Traffic Control/NAVAIDS Equipment Repair (9/76–8/81)
Maintenance of ATC navigation aids communications equipment.

B5 Tactical Army Combat Service Support System/Standard Maintenance System (TACCS/SAMS) (3/86–Present)
Maintenance of TACC/SAM Systems.

AN/PRC–70 Radio Set Maintenance (9/78–2/82)
Maintenance of radio set AN/PRC-70.

B6 Communications Maintenance AN/TSC–38 (3/82–8/86)
AN/TSC–38 (10/73–2/82)
Maintenance of communications central radio set AN/TSC-38.

B7 Aircraft Maintenance (Ejection Seat) (3/82–Present)
Ejection Seat Repairer (3/77–2/82)
Maintenance of MK-J5 ejection seat, 9E2A ejection training device, and survival kits for OV-1 aircraft.

B8 M60A3 Tanker (9/85–Present)
Tank Operation/Organizational Maintenance (M60A3) (3/82–11/84) **M60A3 Tank** (9/81–2/82)
Assessment of training and weapons, development of training programs, and conduct of training for M60A3 tank.

Forensic Crime Lab Specialist (10/73–8/76)
Qualification as a crime laboratory specialist.

B9 Communications Operation (Defense Special Security) (3/82–9/88) **Defense Special Security Communications (DSSCS) Operator** (9/80–2/82)
Operation of Defense Special Security Communications System.

C1 MACOM Band Qualified (9/86–Present)
Qualified to perform as musicians in major commands (MACOM).

Executive Club Manager (9/76–8/82)
Management of a club with gross monthly sales in excess of $50,000.

C2 Dragon Gunnery (9/82–Present)
Dragon (10/73–8/82)
Employment of the XM-47 Medium Antitank Assault Weapon System.

C3 Well Drilling (9/83–Present)
Operation of well-drilling equipment.

Control Data Corporation 6000 Series (10/73–2/78)
Operation of Control Data computer in the 6000 series.

C4 **Communication Technical Evaluation** (3/82–Present) **Technical Evaluation Program (TEP)** (10/73–2/82)
Technical and operational checks on major communications systems within the Army.

C5 **Master Gunnery** (3/82–Present)
Master Gunner (3/78–2/82)
Assessment of training and weapons, development of training programs, and conduct of training for M48A5 and M60A1 tanks.

M551 Master Gunner (10/73–2/78)
Assessment of training and weapons, development of training programs and conduct of training for M551, M60A1/A3 and M60/A2.

C6 **High Power Radio Operator/Maintainer** (9/86–Present)
Maintenance on high power radio equipment.

Countermeasure System Maintenance (AN/TLQ–17) (3/82–2/85)
AN/TLQ–17 Repairer (3/78–2/82)
Maintenance on AN/TLQ–17.

M60A1/A3 Master Gunner (10/73–2/78)
Assessment of training and weapons, development of training programs, and conduct of training for M60A1/A3.

C7 **Countermeasure System Maintenance (AN/MLQ–24)** (3/82–2/85)
AN/MLQ–24 Repairer (3/80–2/82)
Maintenance on the AN/MLQ–24.

M60A2 Master Gunner
Assessment of training and weapons, development of training programs, and conduct of training for M60A2.

C8 **Transcribing/Gisting** (3/82–Present)
Transcriber/Gister (3/77–2/82)
Transcription and summarization of intercepted foreign language transmissions.

C9 **MAGIC MAST Maintenance** (9/87–Present)
Maintenance of MAGIC MAST hydraulic-pneumatic antennas.

Stereocompiler (10/73–2/82)
Compilation and revision of planimetric and topographic maps using stereoscopic plotting instruments.

D1 **Bread Baking** (3/83–Present)
Baking (9/82–2/83)
Ability to bake and to work in field bakeries.

Bread Baking (9/77–8/82)
Ability to bake bread.

D2 **Dermatology Specialty** (3/82–Present) **Dermatology Specialist** (3/79–2/82)
Qualification to assist medical officers with treatment of skin disorders and laboratory procedures.

RCA 301–501 (10/73–8/76)
Operation of RCA computers 301 and 501.

D3 **Bradley Fighting Vehicle System (BFVS)** (3/84–Present) **XM3 Cavalry Fighting Vehicle Operations/Maintenance** (9/83–2/84)
XM3 Cavalry Fighting Vehicle (9/82–8/83)
Operation of Cavalry and Bradley fighting vehicles.

RCA 3301–Spectra (10/73–2/78)
Operation of RCA computers 3301 and Spectra 70.

D4 **Battlefield Deception** (3/89–Present)
Identifies duties and tasks associated with battlefield deception.

Data Acquisition System (AS/GSQ–76) (9/79–2/85)
Maintenance of AN/GSQ–76 components.

IBM 7000 Series (10/73–8/76)
Operation of IBM computer in the 7000 series.

D5 **Area Intelligence Operations** (3/87–Present)
Identifies personnel involved in area intelligence operations.

Ashworth System Maintenance (3/82–8/85) **Ashworth/Becker Systems Maintenance** (9/79–2/85)
Maintenance of the Ashworth/Becker systems.

FORTRAN 2nd Generation (10/73–8/76)
Use of Formula Translation (FORTRAN) 2nd generation machine language in the development of computer programs.

D6 **AN/TRC–170(V) Digital Troposcatter Operations (TRITAC)** (9/85–Present)
Operation and maintenance of the AN/TRC–170(V) digital troposcatter radio terminal.

Lighter Air Cushion Vehicle Maintainer (9/79–2/82)
Maintenance of the LACV–30 aircraft engines.

COBOL 2nd Generation (10/73–8/76)
Use of Common Business Oriented Language (COBOL) 2nd generation machine language in the development of computer programs.

D7 **Secondary Reference Laboratory Maintenance** (9/89–Present)
Performance of duties and tasks associated with secondary reference laboratory maintenance.

Procurement Quality Assurance (9/83–8/86)
Performance of functions involving subsistence quality assurance, defense quality audit, or subsistence item survey.

Common Precision Soldering (3/78–2/82)
Ability to perform common precision soldering techniques.

D8 **Master Gunnery (M60A Tank)** (3/82–Present) **M60A3 Master Gunner** (9/81–2/82)
Assessment of training and weapons, development of training programs, and conduct of training for M60A3 master gunner.

SAAL (10/73–2/78)
Use of SAAL machine language (Single Address Assembly Language) in the development of computer programs.

D9 **Radio Frequency Management (Enlisted)** (3/82–9/90) **Enlisted Frequency Manager** (10/74–2/82)
Coordination, allocation, and assignment of radio frequencies.

E1 **Position Location Reporting System (PLRS)** (3/86–8/88)
Operations and Maintenance of Position Location Reporting System (PLRS).

Propeller Assembly Maintenance (3/77–2/82)
Maintenance of fixed-wing aircraft propellers, including hydraulic, electrical, and mechanical propeller systems.

E2 **LAFAIRE VITE Maintenance (AN/FAQ–91)** (3/82–3/89)
LAFAIRE VITE Maintenance (3/81–2/82)
Completion of the USAISD Mobile Maintenance Training Team Course in LAFAIRE VITE Special Purpose Receiving Facility Maintenance.

Shoe Repair (10/73–2/77)
Inspection and repair of leather footwear, application of authorized prescribed orthopedic devices, and operation of shoe repair equipment.

E3 **AN/USC–28 Satellite Communications Set Operations/Maintenance** (9/83–9/89)
Operation and maintenance of AN/USC–28 Satellite Communications Set.

AN/FRC–113 Radio Set (9/78–8/81)
Operation and/or maintenance of the AN/FRC–113 Radio Set Systems Equipment.

E4 **Instrumental Maintenance Power Station)** (3/86–Present)
Maintenance and calibration of electrical power plant monitoring and control instrumentation equipment, and maintenance of uninterruptible power supply systems.

Attache Administrative Support (3/82–2/86)
Attache Specialist (9/77–2/82)
Performance of general administrative duties in support of Defense Army Attache office located in an embassy of the United States of America.

E5 **Instrument Maintenance (Power Station)** (9/86–Present)
Maintenance and calibration of electrical power plant monitoring and control instrumentation equipment, and unit and intermediate maintenance of uninterruptible power supply systems.

Terrain Analyst (3/77–8/83)
Compilation and dissemination of terrain information to provide data for use in construction, mapping, and other operations.

E6 **Vehicle Operation and Maintenance (Lighter Air Cushion Vehicle)** (3/82–Present) **Lighter Air Cushion Vehicle Operator** (9/79–2/82)
Operation of the lighter air cushion vehicle (LACV-30).

Supply Data Analysis (10/73–8/76)
Analysis of forms, regulatory requirements, source data needs, and workflow pertaining to the supply reporting system.

E7 **Radio Controlled Miniature Aerial Target Operations/Maintenance** (9/82–Present)
Operation and maintenance of radio controlled miniature aerial targets.

COMSEC Equipment Maintenance (10/73–2/78)
Prior experience in communications security equipment maintenance through either MOS 32F (Fixed Ciphony Repair) or MOS 32G (Fixed Cryptographic Equipment Repair).

E8 **ADP Programming and Analysis (WWMCCS)** (3/82–Present)
WWMCCS (9/77–2/82)
ADP programming and analysis for the Worldwide Military Command and Control System (WWMCCS).

E9 **M901 (ITV) Gunner/Crew Training** (9/87–Present) **Improved TOW Vehicle (ITV) Operation** (3/82–8/87) **Improved TOW Vehicle (ITV)** (9/76–2/82)
Operation of the improved TOW vehicle.

Document Storage and Retrieval Equipment (10/73–8/76)
Operation of complex document storage and retrieval equipment related to intelligence data handling systems.

F1 **Operations and Intelligence (Special Forces)** (3/82–Present) **Special Forces Operations** (10/74–2/82) **Intelligence Analyst** (10/73–9/74)
Provision of Special Forces intelligence and operations, preparation and supervision of intelligence training programs, and applications of counterintelligence principles to environmental situations.

F2 **Antenna Installation** (3/84–Present)
Installation of antenna.

Intelligence Photography (10/73–2/82)
Use of standard and special camera equipment in intelligence photography.

F3 **Corps/Installation Supply Operation Automated** (3/82–Present)
Standard Army Intermediate Level Supply Subsystem (SAILS) (9/77–2/82)
Completion of formal training in the Standard Army Intermediate Level Supply (SAILS) subsystem. From 3/82, also includes management of packaged petroleum products.

F4 **Divisions Supply Operations Automated (Property Book)** (3/82–Present) **Automated Property Book and Equipment Status Reporting** (3/75–2/82)
Knowledge of policies, terms, management procedures, and functional operations of automated property book and equipment status reporting system at the division supply level.

F5 **Postal Operations** (3/77–Present)
Handling of U.S. mail, money orders, and international mail.

F6 **Cable Splicer** (3/84–Present)
Splicing of cables in the installation of wire systems.

AN/FSG–21, Electronic Mixer, HLC–1A/TSEC (10/73–2/82)
Maintenance on AN/FSG-21, Electronic Mixer, HLC-1A/TSEC.

F7 **Field Artillery Maintenance (FADAC)** (3/82–8/86) **Field Artillery Digital Automatic Computer (FADAC)** (3/78–2/82)
Maintenance on the FADAC and ancillary equipment.

F8 **Flight Simulator (UH1FS) Console Operations** (3/82–Present) **Flight Simulator (UH1FS) Console Operator** (3/77–2/82)
Operation of the UH1FS flight simulator console and related functions to provide aviators practice in instrument flight techniques.

F9 **Division Supply Operations Automated (Stock Accounting)** (3/82–Present) **Automated Supply Record Keeping and Supply Management** (3/75–2/82)
Use of the appropriate computer system to maintain and update supply accounts.

G1 **Terminal Crane Operations** (9/84–8/88)
Operation of container cranes.

UNIVAC 1004/1005/DCT–9000 (10/73–8/76)
Maintenance and operation of the card processor U-1005 and U-1004/DLT-6.

G2 **Radar Signal Simulator AN/TPG–T1** (3/78–2/88)
Identification of simulator mechanic positions.

G3 **Non-Divisional Supply Operations Automated (NCR 500)** (3/82–2/87)
NCR 500 (10/73–2/82)
Operation of the NCR 500 computer.

G4 **SPACOL Operations** (9/83–Present)
Identification of space collection operations positions.

Radar Engagement Simulator AN/TPQ–21 (3/78–8/80)
Identification of simulator mechanic positions.

G5 **Standard Property Book System (SPBS)** (9/84–Present)
Management of new centralized property book accounting system.

IBM 360 (10/73–2/82)
Operation of the IBM 360 computer.

G6 **Radar Engagement Simulator AN/TPQ–29 Operation/Organizational Maintenance** (3/82–Present) **Radar Engagement Simulator AN/TPQ–29** (3/78–2/82)
Identification of simulator mechanic positions.

G7 **COMSEC Full Maintenance (Field)** (3/86–Present)
Repair of communication security (COMSEC) equipment.

Command and Control System (10/73–2/82)
Operation of command and control systems equipment.

G8 **COMSEC Equipment Full Maintenance (Fixed)** (3/86–Present)
Repair of communication security (COMSEC) equipment.

DAME (10/73–2/82)
Provision of advice concerning Defense Against Methods of Entry (DAME), including locking devices, lock security intrusion, detection devices, and building vault construction.

G9 **Defense Against Sound Equipment (DASE)** (10/73–Present)
Provision of advice concerning Defense Against Sound Equipment (DASE), including specialized electronic equipment and techniques used in detection and location of clandestine listening devices.

H1 **Meteorological Equipment Maintenance** (3/82–Present)
Meteorological Equipment Repairer (3/76–2/82)
Maintenance of field artillery meteorological equipment.

H2 **Personal Property Movement** (3/84–Present)
Movement of household goods.

Non-Morse Code Communications Analysis (10/73–8/80)
Use of specialized analysis techniques pertaining to intercepted non-Morse code communications.

H3 **Physical Security Operations** (10/73–Present)
Planning and implementing physical security measure to control pilferage, espionage, sabotage, and other physical security hazards; to prevent unauthorized entry; and to control entry, exit, and circulation of foot and vehicular traffic.

H4 **Data Communications** (10/73–3/89)
Monitoring, testing, and analysis of the quality operational circuits between Automatic Digital Message Switching Center (ADMSC) and other switching centers; installation, operation and maintenance of overseas Automatic Digital Network (AUTODIN) ADMSC; use of data communications machine language in development of computer programs for AUTODIN.

H5 **Communications Operations and Maintenance (STREAMLINER)** (3/82–Present) **STREAMLINER Communications Systems Operator** (3/78–2/82)
Operation of the STREAMLINER Communications System including IS/100 Control Panel, Optical Character Reader, Disk Storage Unit, Magnetic Tape Unit, and TT Model 40 Keyboard Display and Printer Units.

H6 **Data Analysis (TEMPEST)** (3/82–Present) **TEMPEST Field Analyst** (3/78–2/82) **TEMPEST Test and Analysis** (9/76–2/78) **TEMPEST** (10/73–8/76)
Collection and on-site analyzing of data.

H7 **Petroleum Vehicle Operations** (3/89–Present)
Identifies duties and tasks associated with operation and operator maintenance of petroleum vehicle.

Light Armored Vehicle–25 (LAV–25) System (9/84–8/85)
Tactical operation, deployment, movement, and maintenance of the LAV–25.

Counseling Specialist (9/77–8/81)
Provision of assistance to chaplains in counseling duties.

H8 **Recovery Operations** (3/85–Present)
Performance of vehicle recovery operations.

Music and Drama Specialist (9/77–8/81)
Direction of formal musical and dramatic religious productions.

H9 **System Software Programming/Analysis (ASSIST)** (9/83–Present) **Army System for Standard Intelligence Support Terminal (ASSIST)** (9/79–2/82)
Performance of systems software programming/analysis on PDP 11/45 and 11/70 computers which employ RSX-11D operating system, and IDHSC II communications software system, interfaces with WWMCCS (Honeywell) computers, uses JCL, and WWDMS data management system.

SA 431 Telemetry Analog Production (10/73–8/77)
Use of procedures and techniques of analysis of specific telemetry data.

J1 **Telemetry Collection Operations** (3/82–Present) **Telemetry Identification and Collection** (10/73–2/82)
Use of procedures and techniques of collection and identification of specific telemetry data.

J2 **LEFOX Collection and Processing Systems (AN/FSQ–88(V))** (3/78–Present)
Operation of the AN-FSQ–88(V) processing systems (LEFOX).

J3 **Bradley Infantry Fighting Vehicle (BIFV) System** (3/88–Present) **Bradley Fighting Vehicle Master Gunner** (9/85–2/88)
BRADLEY Infantry Fighting Vehicle System (3/84–8/85)
Gunnery training and maintenance program for the BRADLEY infantry fighting vehicle system.

Advanced Non-Morse Operations (8/77–2/82) **IBM 360 Advanced Non-Morse Operations** (3/77–7/77)
Operation of specialized Non-Morse collection and processing equipment.

SC 260, A232–016 (10/77–2/78)
Operation of the SC 260 computer.

J4 **Nuclear Cannon Assembly** (9/87–Present)
Assembly, inspecting, handling, and storing of nuclear cannon assemblies.

Special Signal Analysis (10/73–8/80)
Analysis of special-type intercepted signal data.

J5 **Technical Escorting** (3/82–Present) **Technical Escort** (10/73–2/82)
Provision of safe and secure escort of shipments of chemical, biological, or etiological material and radioactive waste.

J6 **Reproduction Equipment Repair** (3/81–Present)
Performs maintenance on offset lithographic and reproduction equipment.

Tandem Switch (10/73–8/75)
Maintenance of tandem switching and associated equipment.

J7 **White House Communication Agency (WHCA) Console Control Operator** (3/87–Present)
Identifies personnel involved in WHCA console control operations.

High Speed (International Morse Code) Transmission and Receiving (10/73–2/82)
Receiving International Morse Code by radio at the rate of 22 five-letter random code groups per minute without error for a period of 3 consecutive minutes out of 5 and transmitting at the rate of 18 five-letter random code groups per minute without error for a minimum period of 2 consecutive minutes out of 3.

J8 **Photojournalism** (3/82–Present)
Photojournalist (9/76–2/82)
Completion of the United States Air Force Photojournalist Course at Lowerey Air Force Base, Colorado, or completion of a one-year photo-journalist program at Syracuse University, or the equivalent.

J9 **Equipment Operation/Maintenance Test Set, Guided Missile System (TOW-Ground)** (3/84–Present)
Use of test set, guided missile system.

K1 **MAGIIC Operations and Maintenance** (9/86–Present)
Operation and maintenance of the MAGIIC System.

Firefinder Radar Repairer (3/80–2/82)
Maintenance of firefinder radar at the DS/GS level.

K2 **Non-Morse Analyst (Senior)** (3/82–Present)
Senior Non-Morse Analyst (3/78–2/82)
Use of specialized techniques in the analysis of selected Non-Morse signal data.

K3 **Communications-Electronic Warfare Equipment Operations** (3/87–Present) **Communications Electronic Countermeasures Operations** (9/81–2/87) **Electronic Countermeasures Operations** (10/73–8/81)
Operation of electronic countermeasures equipment and devices.

K4 **Operations/Call Service Attending AN/TTC–39** (9/84–8/87)
Operation of the central office telephone automatic AN/TTC–39.

Mobile Floating Assault Bridge/Ferry (MAB) (10/73–8/81)
Maintenance on the mobile floating assault bridge ferry.

K5 **Weather Forecasting** (3/82–2/87) **Weather Forecaster** (10/73–2/82)
Forecasting weather for meteorological teams.

K6 **Non-Morse Collection/Operations (Senior)** (3/82–Present)
Senior Non-Morse Collector/Controller (9/78–2/82)
Performance of supervisory technical controller, mission controller, and mission coordinator duties.

K7 **Joint Tactical Communications (TRI-TAC) Systems Operation Supervision)** (9/84–Present)
Management and operation of joint tactical communications systems.

Finance Data Analysis (10/73–8/80)
Use of forms, transaction entries, verification procedures, and standardized codes for information processed in the Army's finance and accounting system.

K8 **Communications Maintenance (AN/FTC–31 SEVAC)** (3/82–Present) **AN/FTC–31/SEVAC** (10/73–2/82)
Support of the automatic dial central office (AN/FTC–31) and the secure voice access console (SEVAC).

K9 **Communications Intercept Operations** (3/82–Present) **UHF and VHF Operator** (10/73–2/82)
Operation of specialized very high frequency and ultra high frequency intercept equipment.

L1 **Satellite System Equipment Maintenance (AN/MSC–46)** (3/82–9/88) **AN/MSC–46 SATCOM Equipment System Maintenance** (9/78–2/82)
Maintenance of AN/MSC–46 Satellite System Equipment.

L2 **Mobile Subscriber Equipment (MSE) System Maintenance Management** (3/88–Present)
Identifies personnel involved in MSE systems maintenance management.

QUICKLOOK II Maintenance (3/81–2/85)
Completion of USAISD course 102–F46 (QUICKLOOK II Maintenance).

OV–1D [Mohawk] Infrared Surveillance Repairman (10/73–8/77)
Maintenance of the AN/AAS–24 infrared detecting set.

L3 **Field Artillery (AN/TPS–58B) Radar Operations** (3/87–Present)
Operation and maintenance of field artillery (AN/TPS–58B) radar.

AN/APS–94 (D) SLAR OV–1D AN/AYA–10 Data Annotation System (10/73–8/77)
Maintenance of the data annotator system of the airborne side-looking acquisition radar (SLAR) used on the OV–1D aircraft.

L4 **Ammunition Stock Control and Accounting** (3/76–8/82)
Preparation and maintenance of records associated with receipt, storage and issue of ammunition.

L5 **NBC Reconnaissance Specialty** (3/87–Present)
Identifies personnnel involved in armored NBC reconnaissance operations.

Automatic HFDF Systems Operator (EELPOT) (9/78–8/80)
Operation of the HFDF systems (EELPOT).

Automatic Message Address and Routing Systems (AMARS) (10/73–8/76)
Maintenance of the automatic multiple address routing system and tape.

L6 **Satellite System Equipment Maintenance (AN/TSC–86)** (3/82–9/90) **AN/TSC–86 SATCOM Equipment Systems Maintenance** (9/78–2/82)
Maintenance of the AN/TSC–86 Satellite Communications System equipment.

L7 **Satellite Equipment Maintenance (AN/TSC–54)** (3/82–8/88)
SATCOM Communications Link Terminal AN/TSC–54 (10/73–2/82)
Maintenance of satellite communications link terminal AN/TSC–54.

L8 **Tank Repair (M1)** (3/82–Present)
XM1 Tank Repair (9/81–2/82)
XM1 Turret Repair (3/80–8/80)
Maintenance of the XM1 tank turret.

AN/AAS–24 and AN/APS–94 [OV–1D] Operation (10/73–8/76)
Maintenance of AN/AAS–24 and AN/APS–94 radar equipment.

L9 **SHILLELAGH Repair** (3/85–Present)
Repair of SHILLELAGH missile system.

Controlled Nuclear Surety (9/76–8/78)
Qualification to hold controlled nuclear surety positions.

M1 **Communications Maintenance/Operations (MEECN)** (3/82–Present) **Minimum Essential Emergency Communications Network (MEECN) Repairer** (8/80–2/82)
Maintenance of 487L receivers.

Ship's Electrician (10/73–8/76)
Maintenance of electrical equipment and systems on Army seagoing vessels and in marine repair shops.

M2 **Communications Maintenance (Mode V Subscriber Terminal Equipment)** (3/82–3/89) **Mode V Digital Subscriber Terminal Equipment** (10/73–2/82)
Maintenance of Mode V (teletypewriter) and associated security equipment at a subscriber terminal of a data communications system.

M3 **Dialysis Specialty** (3/82–Present)
Dialysis Technician (10/73–2/82)
Operation of dialysis equipment in treatment of patients with kidney disorders.

M4 **Blood Grouping, Collecting, and Processing** (10/73–Present)
Grouping, collecting, and processing whole blood on a volume basis.

M5 **ABRAMS/BFVS Maintainer** (9/85–Present)
ABRAMS/Bradley Fighting Vehicle (3/84–8/84)
Maintenance of the Abrams tank and the Bradley fighting vehicle.

Nuclear Operations (8″ Howitzer) (10/73–2/82)
Assembly, disassembly, and prefire procedures for the 8-inch nuclear projectile.

M6 **Computer Operations/DAS3 (DAS3/SAAS1; DAS3/DASPS–E/DAMMS; DAS3; DAS3/DS4 Operations)** (9/84–Present)
Operation of hardware and software of one of the systems listed above.

Nuclear Operations (155mm Howitzer) (10/73–2/82)
Assembly, disassembly, and prefire procedures for the 155mm Howitzer.

M7 **Non-Morse Analysis (Intermediate)** (3/82–Present) **Intermediate Non-Morse Analyst** (8/80–2/82)
Completion of course A-232-0060.

Nuclear Operations (Sergeant) (10/73–8/77)
Assembly, disassembly, and prefire procedures for nuclear warhead in Sergeant weapon system.

M8 **Equipment Operation/Maintenance (TENCAP/MAGIIC)** (3/82–9/86)
Project TENCAP (8/80–2/82)
Operation and maintenance of Tactical Exploitation of National Space Program Capabilities and Maintenance of MAGIIC.

Nuclear Operations (LANCE) (10/73–8/77)
Assembly, disassembly, and prefire procedures for nuclear warhead in Lance weapon system.

M9 **Emitter Location and Identification (Senior)** (3/82–Present) **Emitter Location and Identification Techniques** (3/77–2/82)
Use of specialized identification techniques and communications electronics equipment to locate and identify signal emitters.

N1 **Aircraft Crewmember Standardization Instructor** (3/88–Present)
Identifies personnel instructing in aircraft crewmember standardization.

GUARDRAIL V Maintenance (3/81–2/85)
Completion of USAISD course 102–F52 (GUARDRAIL V Maintenance).

Nuclear Operations (Pershing) (10/73–8/77)
Assembly, disassembly, and prefire procedures for nuclear warhead in Pershing weapon system.

N2 **Nondestructive Tester (NDT Tester)** (9/86–Present)
Nondestructive testing of aircraft components.

Forward Area Alerting Radar (FAAR) (10/73–8/81)
Maintenance of the Forward Area Alerting Radar.

N3 Circuit Conditioning (10/73–3/89)
Testing, measurement, and adjustment of lines and circuits to insure high fidelity of communications within the Defense Communications System.

N4 Communications Operations and Maintenance (Emergency Action Console) (3/82–8/88) **Emergency Action Console** (10/73–2/82)
Maintenance and operation of the emergency action console.

N5 IATS Systems Operations and Maintenance (3/82–Present) **IATS Systems Controller** (9/78–2/82)
Operation of the IATS system.

N6 LEFOX Collection and Processing Systems (AN/FSQ-88(V)) Maintenance (9/83–Present) **LEFOX Collection and Processing Systems Maintenance** (9/78–2/82)
Maintenance on the AN/FSQ-88(V) system.

N7 Strategic Debriefing and Interrogation (3/85–Present)
Strategic debriefing and interrogation of civilian defectors, refugees, travelers, and resettlers.

IBM 1401, 1410, 1440, 1460, and 1620 (10/73–2/82)
Operation of IBM computers 1401, 1410, 1440, 1460, and 1620.

N8 Urology Specialty (3/86–Present)
Assisting medical officers in the care of patients with urology disorders and assisting in laboratory procedures to identify various urology diseases.

IATS System Maintenance (9/78–2/82)
Maintenance of the IATS system.

N9 FORTRAN 3rd Generation (10/73–2/82)
Use of Formula Translation (FORTRAN) 3rd generation machine language in development of computer programs.

P1 AN/FSC-78 Satellite Communications Set Operations/Maintenance (3/84–9/89) **AN/FSC-78 Satellite/Communications Ground Station Equipment Maintenance** (9/83–2/84)
Maintenance of AN/FSC-78 Satellite Communications ground station equipment.

COBOL 3rd Generation (10/73–8/76)
Use of Common Business Oriented Language (COBOL) 3rd generation machine language in development of computer programs.

P2 AN/TTC-38 Automatic Telephone Central Office Maintenance (9/85–3/89)
Maintenance of the AN/TTC-38 automatic telephone central office system.

HONEST JOHN Rocket Operations (3/80–2/82)
Used with MOS's 13B and 13Y to identify persons in HONEST JOHN support detachment.

Assembly Language 2nd Generation (10/73–8/76).
Use of Assembly Language 2nd generation machine language in the development of computer programs.

P3 AN/TYC-39 Automatic Message Switching Central Maintenance (9/85–8/87)
Maintenance of the AN/TYC-39 automatic message switching central system.

Assembly Language 3rd Generation (10/73–2/82)
Use of Assembly Language 3rd generation machine language in the development of computer programs.

P4 AN/GSC-49 Satellite Communications Terminal Equipment Maintenance (3/82–Present)
Maintenance of satellite communications terminal equipment.

Heavy Anti-Tank/Assault Weapons System (TOW) (10/73–2/82)
Use of tube-launched optically-tracked wire-guided (TOW) missiles against enemy armored vehicles.

P5 Master Fitness Trainer (3/88–Present)
Identifies personnel serving as master fitness trainers.

Sentry Dog Handling (10/73–8/84)
Use and handling of sentry dogs as a means of security.

P6 Army Community Services (3/81–Present)
Completion of course 5H-F1, Army Community Service or six months' job experience as NCOIC or Asst. NCOIC in ACS section.

Scout Dog Handling (On/Off Leash) (10/73–8/76)
Use and handling of scout dogs trained in on-leash and off-leash obedience and capable of giving early warning of enemy presence or traps.

P7 Narcotics Drug Dog Detector Handling (3/82–Present) **Narcotics Drug Dog Detector** (3/77–2/82) **Contraband Detector Dog Handling** (10/73–2/77)
Training and handling dogs capable of detecting presence of marijuana and its derivatives by scent alone.

P8 Polygraph Operations (3/89–Present)
Identifies duties and tasks associated with polygraph operations.

Clinical Perfusion (3/82–8/85)
Operation of heartlung machines during open heart surgery.

Critical Nuclear Surety (9/76–8/78)
Qualification to hold critical nuclear surety positions.

P9 Organizational Maintenance RPV Mechanic (9/86–Present)
Maintenance of RPV and associated equipment.

Mine/Tunnel Dog Handling (10/73–8/76)
Use and handling of dogs capable of finding mines or traps and ordnance cached in tunnels.

Q1 Ground Mobile Forces (GMF) Controller (9/83–Present)
Identifies persons associated with Ground Mobile Forces and operation and maintenance of AN/MSQ-114.

Welder (3/77–2/82)
Welding of aircraft structure and components using oxyacetylene, electric arc, and inert gas welding equipment.

Q2 Aviation Life Support Equipment (ALSE) (3/81–Present)
Accounting for, inspection of, and maintenance of aviation life support equipment.

Combat Tracker Dog Handling (10/73–8/76)
Use and handling of dogs used in combat tracker teams and capable of basic and advanced tracking.

Q3 Switching Center Supervision (AUTODIN) (3/82–3/89)
AUTODIN Switching Center Chief (3/81–2/82)
Operation of AUTODIN Switching Center.

Tank Turret Maintenance Supervision (10/73–8/77)
Supervision of maintenance of tank turrets.

Q4 Recording Equipment Maintenance (AN/GSR-4) (3/82–2/85)
MINCOM TICOR Recorder (AN/GSR-4) (10/73–2/82)
Maintenance of specialized recording equipment (wideband).

Q5 Special Operations Combat Diving, Medical (9/86–Present)
Performance of special operations combat diving.

Chapel Activities Specialist—Catholic (9/77–2/82) **Chaplain's Assistant** (10/73–8/77)
Knowledge of Catholic religious beliefs and rituals.

Q6 Long Range Surveillance Leader (3/88–Present)
Identifies personnel involved in conducting reconnaissance and surveillance operations.

Chapel Activities Specialist—Protestant (9/77–2/82) **Chaplain's Assistant** (10/73–8/77)
Knowledge of Protestant religious beliefs and rituals.

Q7 **AN/GSC-52(V) Satellite System Equipment Operations and Maintenance** (3/87–9/89)
Operation and maintenance on the AN/GSC-52(V) satellite system.

Chapel Activities Specialist—Jewish (9/77–2/82) **Chaplain's Assistant** (10/73–8/77)
Knowledge of Jewish religious beliefs and rituals.

Q8 **Tactical Air Operations** (9/81–Present)
Expertise in air/ground operations.

Nuclear Operations (HJ) (10/73–8/77)
Assembly, disassembly, and prefire procedures for nuclear warhead in Honest John weapon system.

Q9 **Traffic Accident Investigation** (3/82–Present) **Traffic Accident Investigator** (10/73–2/82)
Reconstruction of traffic accidents from evidence to determine reasons for occurrence, possibility of avoidance, and determination of fault.

R1 **Teletypewriter Maintenance (AN/FGG–158)** (3/82–2/88)
MOD 37D Teletypewriter Maintenance (3/79–2/82)
Maintenance of the MOD 37D Teletypewriter (AN/FGG-158).

R2 **Uninterruptable Power Supply (UPS) Repair** (3/82–Present)
Operation and maintenance of the UPS.

Nuclear Operations (Hercules) (10/73–9/76)
Assembly, disassembly, and prefire procedures for nuclear warhead in Hercules weapons system.

R3 **Tactical Army Combat Service Support Computer System/Standard Installation Division Personnel System (TACCS/SIDPERS) Operations** (3/88–Present)
Identifies personnel involved in working with the TACCS/SIDPERS system.

Nuclear Security (10/73–2/82)
Physical security and emergency destruction of nuclear weapons during movement in storage and in tactical operations.

R4 **Heavy Expanded Mobility Tactical Truck Operator (HEMTT)** (9/84–9/89)
Operation and maintenance of the heavy, expanded mobility tactical truck (HEMTT).

Automated HFDF System Maintenance (EELPOT) (9/78–8/80)
Maintenance of the EELPOT system.

R5 **Inertial Navigation Set Maintenance (AN/ASN–86)** (3/82–Present) **AN/ASN–86 Inertial Navigation Set** (10/73–2/82)
Maintenance of the AN/ASN-86 inertial navigation equipment used on Mohawk aircraft.

R6 **Radio Terminal/Repeater Set Operations/Maintenance** (3/88–Present)
Identifies personnel involved in operation and unit maintenance of the AN/TRC-175 radio terminal set and the TRC-138A radio repeater set.

Redeye Operations (10/73–8/76)
Use of Redeye missile system to engage enemy aircraft.

R7 **Bridge Erection Boat-Shallow Draft** (3/86–Present)
Operation of bridge erection boat-shallow draft.

DSSCS Maintenance (3/79–2/82)
Maintenance of the Defense Special Secure Communications System Message equipment.

R8 **Tank Operation/Unit Maintenance (M551 Sheridan)** (3/88–Present) **Tank Operation/Organizational Maintenance (M551 Sheridan)** (3/82–2/88) **M551 Sheridan** (10/78–2/78)
Operation of M551 Sheridan combat vehicle.

R9 **Communications Maintenance (STRAWHAT)** (3/82–Present) **STRAWHAT Maintenance** (3/79–2/82) **STRAWHAT/DSSCS** (10/73–2/79)
Maintenance of specialized equipment used in the STRAWHAT/defense special secure communications system (DSSCS).

S1 **Electronic Switching Systems Repairer (Intermediate)** (9/85–8/87)
Maintenance of electronic switching systems.

Special Purpose Receiving Equipment (10/73–2/82)
Maintenance of special purpose receiving equipment.

S2 **Mechanical Equipment Maintenance (Power Station)** (3/82–Present) **Power Station Mechanic** (3/78–2/82)
Maintenance of mechanical equipment used in electrical power production.

S3 **Electrical Equipment Maintenance (Power Station)** (3/82–Present) **Power Station Electrician** (3/78–2/82)
Maintenance of electrical equipment used in electric power production.

S4 **Instrument Maintenance (Power Station)** (3/82–9/87) **Power Station Instrument Repairer** (3/78–2/82)
Maintenance and calibration of electrical power plant monitoring and control instrumentation equipment.

S5 **Communications Terminal AN/TSC–109 Repair** (3/87–Present)
Maintenance on the communications terminal AN/TSC-109.

Health Physicist (3/82–9/83)
Power Station Health Physicist (3/78–2/82)
Use of radiological surveys and fluid processing treatment ensuring acceptable levels of radiation.

S6 **Special Operations Combat Diving, Supervision** (3/87–Present)
Supervision of special operations combat diving.

Special Demultiplexer Equipment Maintenance (AN/TCA–4) (3/82–8/85) **Digital Converting Programming Group AN/TC A–4** (10/73–2/82)
Maintenance of specialized demultiplex equipment assemblages.

S7 **Secure Communications Equipment Maintenance (Scope Safe)** (3/82–Present) **Scope Safe System** (10/73–2/82)
Maintenance of specialized equipment in a secure communications system.

S8 **Multiple Launch Rocket System Organizational Maintenance Mechanic** (9/81–Present)
Maintenance of the multiple launch rocket system (MLRS) unit.

M16 Ballistics Computer (10/73–8/76)
Maintenance of M16 ballistics computer.

S9 **Defense Sensor Interpretation and Application Training Program (DSIATP)** (9/84–9/85) **Imagery Exploitation Defense Sensor Interpretation Training Program (DSAITP)** (3/82–8/84)
Defense Sensor Interpretation Training Program (10/73–2/82)
Microscale interpretation, electronic data reporting, storage, retrieval.

T1 **Switching Equipment Maintenance (Overseas AUTOVON)** (3/82–9/89) **Overseas AUTOVON Switch** (10/73–2/82)
Maintenance on switching equipment in the overseas automatic voice network (AUTOVON).

T2 **Teletypewriter Maintenance (MOD 40TTY)** (3/82–Present) **Model 40 Teletypewriter Repair Maintenance** (3/80–2/82)
Maintenance of the Model 40TTY.

Sniper (10/73–8/76)
Highly accurate sharpshooting, usually at long range.

T3 Computer Operations (GE 600/Honeywell 6000) (3/82–Present) **GE 600/Honeywell 6000** (10/73–2/82)
Operation of the General Electric 600 and Honeywell 6000 computers.

T4 TENCAP Operations (9/88–Present) **TENCAP Operations and Maintenance** (9/87–8/88) **Equipment Operation/Maintenance (TENCAP/MAGIIC)** (3/87–8/87) **TENCAP Operations and Maintenance** (3/86–Present)
Operation and Maintenance of TENCAP system.

Nuclear/Conventional Power Plant Chief (3/78–8/79) **Power Plant Chief** (9/79–2/82)
Supervision of electric power production facility.

T5 Patriot Intermediate Level Maintenance (9/84–9/90)
Maintenance of PATRIOT AD system equipment.

Burroughs B–3500 (10/73–8/80)
Operation of data processing computer B–3500 (Burroughs Corporation).

T6 Electroencephalograph Specialty (EEG) (3/82–Present) **Electroencephalograph Operator (EEG)** (9/76–2/82)
Operation of EEG equipment.

T7 Interim Theater ADPE Service Center (ITASC) Repairer (3/86–9/89)
Maintenance of interim theater ADPE service center equipment.

Improved TOW Vehicle (ITV) Turret Mechanic (9/78–8/80)
Maintenance of the ITV turret.

T8 Division Supply Accounting (DS4/Direct Support Unit Standard Supply System) (3/82–Present) **DS4/Direct Support Unit Standard Supply System** (3/79–2/82)
Use of DS4 system to maintain and update supply accounts in divisional units.

T9 Cryptanalysis (3/77–Present)
Analysis of encrypted communications to determine system of encryption and to effect eventual solution.

U1 Enciphered Signals Traffic Analysis (3/82–Present) **Radio Teletype Analysis** (10/73–2/82)
Analysis of intercepted radio teletype signals.

U2 Power Generation Equipment, Unit Maintenance (3/88–Present) **Power Generation Equipment, Organizational Maintenance** (3/84–2/88)
Maintenance of power generation equipment.

Cytotechnology (10/73–8/81)
Staining, mounting, and microscopic examination of cells to detect evidence of cancer and other pathological conditions which must be referred to a pathologist for final interpretation.

U3 Automated Message Media Equipment (AMME) Operator (3/81–Present)
Operation of Automated Message Media (AMME) equipment.

U4 Property Disposal Operations (10/74–8/85)
Property administration or materials segregation and classification.

U5 Commissary Operations (10/74–Present)
Commissary operations such as sales, stock replenishment, and produce, grocery department, or general administration.

U6 FA Weapons Maintenance (3/84–Present)
Maintenance of towed field artillery weapons.

FA Weapons Mechanic (9/76–2/82)
Maintenance of field artillery (FA) weapons.

U7 Economic Crime Investigation (9/85–Present)
Investigation of economic crimes.

Film Library Operations 10/74–2/82)
Cataloging, receiving, and administering audio-visual equipment and material.

Computer Operations (DAS3/PHOENIX) (3/82–Present)
Operation of the DAS3 computer system and PHOENIX software.

U8 Computer Operations (DAS3/PHOENIX) (3/82–Present)
Operation of the DAS3 computer system and PHOENIX software.

DAS3 Operator/DS4 (3/78–2/82)
Operation of the DAS3 computer system/DS4, Direct Support Unit Standard Supply System.

U9 Non-Morse Operations (ICR) (3/82–Present) **ICR Non-Morse Operations** (3/79–2/82)
Collection, analysis, reporting and forwarding of ICR Non-Morse Communications signals; operation of AN/TCA-4 (KINDER) Digital Converting Programming Group and the AN/GNK-9 (FLEXSCOP) collection and processing system.

V1 AMOSIST Specialty (3/82–3/89) **AMOSIST** (9/76–2/82)
Use of the Automated Military Outpatient System (AMOSIST) for triaging patients to acute minor illness clinic, emergency treatment room, or appropriate specialty clinic.

V2 Dial Central Office Equipment Repair (3/86–3/89)
Repair of dial central office equipment.

V3 Remote Sensor System Maintenance (3/81–3/89)
Maintenance of remote sensor systems.

Unattended Ground Sensor Systems Maintenance (9/76–2/81)
Maintenance of unattended ground sensor systems.

V4 Mobile Subscriber Equipment (MSE) Systems Control Center Operator (3/88–9/90)
Identifies personnel involved in MSE system control central operations.

Communications Technical Control Center, AN/TSQ–84 (3/78–2/82)
Maintenance of the AN/TSQ-84 communications center.

V5 Military Police Investigation (10/73–Present)
Investigation of criminal offenses for which the maximum punishment is confinement at hard labor for less than one year and offenses involving larcenies of property valued at less than $250 and involving another major crime.

V6 Spectrometric Oil Analysis (10/73–Present)
Analysis of used oil for wear metal content, using the fluid analysis spectrometer A/E 35U-3 and appropriate analytic and evaluation techniques.

V7 Guidance Counseling (3/82–Present) **Guidance Counselor** (9/81–2/82)
Counsels enlistment applicants regarding specific options available. Matches aptitude, physical qualifications, and applicant's desire to Army requirements and available training.

Honeywell H200 (10/73–8/76)
Operation of the Honeywell H200 computer.

V8 Mobile Subscriber Equipment (MSE) Systems Maintainer (3/88–Present)
Identifies personnel involved in MSE systems maintenance.

UNIVAC 1106/1108 (10/73–2/82)
Operation of the UNIVAC 1106/1108 computer.

V9 Communications Operation and Maintenance (Theater Forces Communications System Terminal) (9/87–9/90) **Communications Operation and Maintenance (Theater Nuclear Forces Communications Systems Terminal)** (3/82–8/87)
Maintenance of TACSATCOM Radio Set, AN/MSC-64 unit.

Control Data CDC 3300 (10/73–2/78)
Operation of the Control Data Corporation CDC 3300 computer.

W1 **Aerial Photoactive Sensor Repair** (3/87–Present)
Maintenance of aerial photoactive sensors.

M60A2 Tank (10/73–2/78)
Operation of the M60A2 tank.

W2 **Hawk Simulator Station Maintenance (AN/TPQ–29)** (3/87–Present)
I-HAWK Simulator Station Maintenance (AN/TPQ–29) (3/82–2/87) **AN/TPQ–29 Repair Simulator Station Repair** (9/76–2/82)
Maintenance of the AN/TPQ–29 Simulator Station.

W3 **Intermediate Level Maintenance of AN/MSM–105(V)1** (9/86–Present)
Maintenance of AN/MSM–105(V)1 equipment.

Video Technical Control Facility (AN/TSQ–85) Repairman (10/73–2/82)
Maintenance of the AN/TSQ–85 video technical control facility.

W4 **Enlarger System Maintenance** (3/87–Present) **Intercept Equipment Maintenance (AN/FLR–9)** (3/82–2/87) **AN/FLR–9 Intercept Equipment Maintenance** (3/76–2/82)
Maintenance of the AN/FLR–9 intercept equipment.

AN/TLR–9 Intercept Equipment (3/74–2/76)
Maintenance of the AN/TLR–9 intercept equipment.

W5 **OH–58D Maintenance** (9/87–Present) **AH–64/OH–58D Maintainer** (9/86–8/87)
Specialized maintenance on the powerplant, powertrain, and electrical systems of the AH–64 and OH–58D helicopters.

Personnel Data Analysis (formerly W6) (9/76–2/82)
Use of forms, transaction entries, verification, procedures, and standardized codes for information processed through SIDPERS.

W6 **Aircraft Survivability Equipment (ASE) Repair** (3/82–Present)
Maintenance of electronic aircraft survivability equipment.

Personnel Data Analysis (10/73–8/76)
Use of forms, transaction entries, verification, procedures, and standardized codes for information processed through SIDPERS.

W7 **Special Forces Underwater Operations** (10/73–Present)
Participation in Special Forces underwater operations.

W8 **Special Forces Military Free Fall Operations** (3/82–Present) **Special Forces Military Free Fall** (8/80–2/82)
Participation in Special Forces military operations requiring free-fall parachuting.

W9 **Special Forces Military Free Fall Operations and Underwater Operations** (3/82–Present) **Special Forces Military Free Fall and Underwater Operations** (8/80–2/82)
Participation in both Special Forces free-fall parachuting and underwater operations.

X1 **AH–64 Maintenance** (9/86–Present)
Maintenance of the AH–64 helicopter.

AH–64A/OH–58D (9/83–2/86)
Maintenance of the AH–64A and OH–58D attack helicopters.

Advanced Attack Helicopter Maintenance (3/83–8/83)
Maintenance of the AH–64 attack helicopter.

Subsistence Procurement Quality Assurance Inspector (3/77–2/80)
Assurance of the quality of procurement.

X2 **Dental Hygiene Specialty** (3/82–Present) **Dental Hygienist** (9/80–2/82)
Performance of oral hygiene prophylactic procedures, implementing individual and group oral disease control programs, and reversible restorative dental procedures.

X3 **TACFIRE Remote Terminal Operation** (9/85–Present)
TACFIRE Operations (3/82–8/85) **TACFIRE Remote Terminal Operator** (9/79–2/82)
Operation of variable format message entry device as part of TACFIRE in FA unit.

X4 **PATRIOT UHF Communications Operator** (9/86–Present)
Operation and maintenance of PATRIOT UHF communications equipment.

Photolocator Operator (9/79–2/82)
Operation of the photolocator in FA survey unit.

X5 **Radar Maintenance (FIREFINDER)** (3/82–Present) **Firefinder Radar Mechanic** (3/80–2/82)
Maintenance of firefinder radar.

X6 **Communications Maintenance (TSEC/KG–45)** (3/82–8/88) **TSEC/KG–45 Repairer** (9/79–2/82)
Maintenance of the TSEC/KG–45 equipment.

X7 **FAAR Organizational Maintenance** (3/81–Present) **AN/MPQ–49 FAAR Radar Mechanic** (9/79–2/81)
Qualification as FAAR radar mechanic.

X8 **COMSEC System Maintenance (SRA)** (3/82–8/86) **COMSEC System Maintenance at SRA** (9/79–2/82)
Maintenance of the COMSEC systems at the specialized repair activity (SRA) level.

X9 **General COMSEC Maintenance at SRA** (9/79–2/82)
General maintenance of the COMSEC systems at the SRA level.

Y1 **Transition** (9/84–Present)
Identification of individuals who have completed transition-type training.

TACFIRE Equipment Repairer (9/79–8/81).
Maintenance on TACFIRE equipment.

Y2 **Transition** (9/84–Present)
Identification of individuals who require transition-type training because of specialty conversion.

Ground Laser Locator Designator (GLLD) Repairer (10/73–8/76)
Maintenance on GLLD equipment.

Y3 **Mobile Subscriber Equipment (MSE) Systems Planner** (3/88–9/90)
Identifies personnel involved in MSE systems planning.

Safeguard (10/73–8/76)
Completion of three-week Safeguard Missile Defense System Orientation course, Fort Bliss, Texas.

Y4 **Signal Search and Development (Advanced Morse)** (3/82–2/88) **Advanced Morse Identification—Signal Search and Development (Morse)** (3/76-2/82) **Morse Search and Development** (10/73–2/76)
Specialized search and development of target for intercept.

Y5 **TEMPEST Inspection** (9/76–Present)
Inspection of TEMPEST systems to assure cryptographic security.

Y6 **Cardiac Catheterization Specialty** (3/82–Present) **Cardiac Catheterization Specialist** (9/76–2/82)
Assistance during specialized invasive cardiac test and examination.

Y7 **Sterile Pharmacy Specialty** (3/82–Present) **Sterile Pharmacy Techniques** (3/74–2/82)
Sterile pharmacy practices leading to the preparation of items such as intravenous additives used to combat infection, restore and maintain electrolyte balance, and meet nutritional requirements.

Y8 **Allergy-Clinical Immunology Specialty** (3/82–Present) **Allergy Specialist** (3/78–2/82)

Qualification to prepare allergan extracts, perform diagnostic tests, and administer parental hyposensitization treatments.

Y9 **Meteorological Data System (MDS) Unit Maintenance AN/TMQ–31** (3/86–Present)

Operation and maintenance of meteorological data system equipment.

STREAMLINER Maintenance Specialist (3/77–2/82)

Maintenance of specialized equipment used in the STREAMLINER communications system.

Z1 **Aerial Scout Observation (Scout)** (3/82–8/87) **Aerial Scout Observer** (9/81–2/82)

Knowledge of aerial scout functions.

Reciprocating Engine Repairman (10/73–8/78)

Maintenance of aircraft reciprocating engines.

Z2 **Automatic Message Switching Center Operations** (9/87–Present) **Mobile Message Switching Center Operations** (9/82–8/87)

Operation of message center, switching, automatic AN/TYC–39.

Blacksmith (10/73–8/76)

Working, forming, and shaping heated metal, using forge, anvil, and hammer.

Z3 **LANCE Organizational Maintenance** (3/82–Present) **LANCE Organizational Maintenance Mechanic** (3/81–2/82)

Completion of LANCE Missile Mechanic course at USAFAS or equivalent OJT.

Pipeline Weld Radiographic Inspection Set (10/73–8/76)

Operation of radiographic inspection set for pipeline welds.

Z4 **Helicopter Avionics Maintenance (Blackhawk UH–60A)** (3/82–Present)

Maintenance of COMSEC Navigation and Flight Control Systems at AVUM level on BLACKHAWK Helicopters.

Inspector General NCO (9/76–2/79)

Completion of orientation course and performance of inspector general duties.

Z5 **Enlisted Aide** (3/86–Present)

Serving as an enlisted aide on general officer personal staff.

Modular Engine Test Stand (METS) (10/73–2/82)

Maintenance on the Modular Engine Test Stand (METS).

Z6 **Explosive Detector Dog Handling** (9/76–Present)

Use and handling of dogs capable of detecting explosives.

Z7 **Telemetry Internals Analysis** (9/83–Present)

Indentifies personnel involved in telemetry internals analysis.

Z8 **Advanced ELINT Collection and Analysis** (9/83–Present)

Identifies personnel performing advanced ELINT collection and analysis.

Depot-Level Maintenance (10/73–8/76)

Depot-level maintenance (disassembly, major repairs and modifications, and inspection) of aircraft.

Z9 **Communications Maintenance (SG–3082 and AN/TTC–38)** (3/82–8/86) **SB–3082 Electronic Cordless Semi-Automatic Switchboard and AN/TTC–38 Ancillary Equipment** (3/74–2/82)

Installation and maintenance of the SB–3082 switchboard and maintenance of AN/TTC–38 ancillary equipment such as telephones and converters.

4A **Reclassification Training** (9/88–Present)

Identifies personnel who have been involuntarily reclassified and require formal training.

Appendix D

Enlisted Career Management Fields

A career management field (CMF) is a grouping of related Army enlisted MOS's that is provided for use in the career development and counseling of enlisted personnel. Each career management field is structured to allow maximum upward mobility and follows a logical progression of related MOS's, ranging from trainee positions to leadership and supervisory positions.

The CMF is represented by a two-digit number and a title. When a CMF has a subfield, a third number is added to identify it. For example, CMF 52 (Power Production) has two subfields: Subfield 521 (Electrical Power Production) and subfield 522 (Nuclear Power Production). Each subfield includes only closely related MOS's.

This appendix provides summaries which outline the duties and qualifications of the CMFs and lists the subfields they contain.

00 Exceptional Management Specialties

A grouping of MOS's that are unrelated and must be considered individually. Qualifications vary considerably according to MOS.

11 Infantry (formerly Maneuver Combat Arms)

A grouping of MOS's that covers positions primarily in infantry units.

—Maneuver Combat Arms. A grouping of MOS's that covers positions primarily in infantry units and armor units. Infantry duties involve use of individual and crew-served weapons and armored vehicles and work in closely coordinated teams. Armor duties involve use of crew-served armor weapons and armored vehicles and work in closely integrated teams. Qualifications include knowledge of fundamental tactics, principles of fire and movement, use of individual light weapons, principles of field sanitation, protection from chemical contamination, map and aerial photo reading, use of compass, first aid, and preparation of rough maps and field sketches.

12 Combat Engineering

A grouping of MOS's that covers positions in engineer combat units. Duties involve construction tasks (roads, temporary shelters, bridges, rafts), laying and clearing of minefields, and conventional and atomic demolitions. Qualifications include ability to use power and hand tools, knowledge of rough carpentry and rigging, ability to identify and handle demolition ammunition, skill in operating small watercraft, and ability to fight in infantry units.

13 Field Artillery (formerly Field Artillery Cannon)

A grouping of MOS's that covers positions in field artillery cannon, missile, and target acquisition units. Duties involve operation, fire direction, and maintenance of field artillery guns and related weapons and working in closely controlled teams. (Prior to 9/76, CMF 13 was limited to MOS's that covered positions in field artillery cannon units only.)

15 Field Artillery Missiles

A grouping of MOS's that covers positions primarily in field artillery missile units. Duties involve emplacement, testing, and operation of field artillery missile systems. Qualifications include knowledge of the functioning, assembly, and testing of a wide variety of complex weapons systems. (Effective 9/76, CMF 15 was eliminated and the MOS's were reclassified under CMF 13, Field Artillery.)

16 Air Defense Artillery (ADA)

A grouping of MOS's that covers positions primarily in air defense units. Duties involve emplacement, assembly, testing, and operation of air defense weapons systems. Qualifications include knowledge of the functioning, assembly, and testing of highly intricate weapons systems.

17 Combat Surveillance and Target Acquisition

A grouping of MOS's that covers positions primarily in artillery units. Duties involve operation of combat surveillance and target acquisition systems. Qualifications include ability to determine locations, distance, direction and elevations from topographic maps; knowledge of artillery plotting procedures; familiarity with the function and operation of combat surveillance and target acquisition systems; and knowledge of basic mathematics. (Effective 9/76, CMF 17 was eliminated; the target acquisition MOS's were reclassified under CMF 13 (Field Artillery) and the combat surveillance MOS's were reclassified under CMF 96, Military Intelligence.)

18 Special Forces (formerly Special Operations)

A grouping of MOS's that covers positions in special operations units and in joint headquarters. Duties involve participation in special operations in one or all of the interrelated fields of unconventional warfare, foreign internal defense, strike operations, strategic reconnaissance, and counterterrorism. Qualifications include exceptional ability for oral communications, analytical ability, number facility, and demanding physical qualifications.

19 Armor

A grouping of MOS's that covers positions in armor combat units and in headquarters of division or higher level. Duties involve mechanized reconnaissance or employment or crew served armor weapons and armored vehicles. Qualifications include knowledge of fundamental combat tactics, ability for effective oral communication, reasoning ability, and number facility.

21 Ballistic Missile Repair

A grouping of MOS's that covers positions in field artillery units and in maintenance units. Duties involve maintenance of missiles and related equipment. Qualifications include knowledge of the functioning, assembly, testing, and maintenance of complex weapons systems. (Effective 9/77, CMF 21 was eliminated and the MOS's were reclassified under CMF 27 (Ballistic/Land Combat Missile and Light Air Defense Weapons Systems Maintenance.))

23 Air Defense System Maintenance (formerly Air Defense Missile Maintenance)

A grouping of MOS's that covers positions in air defense units and in missile maintenance units. Duties involve assembly and testing of air defense weapons and maintenance of missiles, guidance equipment, fire control equipment, fire distribution systems, radar, and computers. Qualifications include knowledge of functioning, assembly, testing and maintenance of Safeguard weapons systems, electromechanical and hydraulic basis of remote antenna positioning, and knowledge of binary system.

25 Visual Information (formerly Audio-Visual)

A grouping of MOS's used for audio-visual activities Army-wide. Duties involve radio and television equipment, still and motion picture photography, audio-visual equipment repair, and graphic illustrator.

26 Non-Integrated Radar Maintenance

A grouping of MOS's that covers positions primarily in signal corps units. Duties involve maintenance of radar equipment. Qualifications include knowledge of fundamentals of electricity/electronics, precautions required in working with high voltage equipment, and use of schematic diagrams and electrical measuring devices. (Effective 3/78, CMF 26 was eliminated and the MOS's were reclassified under CMF 23 and CMF 29.)

27 Land Combat and Air Defense System Direct and General Support Maintenance (formerly Land Combat and Air Defense System Intermediate Maintenance) (formerly Ballistic/Land Combat (LC) Missile and Light Air Defense (LAD) Weapons Systems Maintenance) (formerly Combat Missile Maintenance)

A grouping of MOS's that covers positions primarily in field artillery and maintenance units. Duties involve maintenance of various weapons systems. Qualifications include basic electrical, electronic, mechanical, and mathematical abilities and aptitude.

—Combat Missile Maintenance. A grouping of MOS's that covers positions primarily in field artillery units and maintenance units. Duties involve maintenance and repair of various weapons systems. Qualifications include knowledge of the funcitoning, assembly, testing, maintenance, and calibrations of various complex weapons systems.

28 Aviation Communications Electronics Systems Maintenance (formerly Aviation Communications—Electronics Systems Maintenance)

A grouping of MOS's that covers positions primarily in maintenance, aviation, and signal units. Duties involve maintenance on a variety of photographic, surveillance, and avionic equipment. (Effective 9/89, CMF 28 was eliminated and the MOS's were transferred to CMF 67, Aircraft Maintenance.)

29 Signal Maintenance (formerly Communications-Electronics Maintenance)

A grouping of MOS's that are used in combat arms, aircraft, signal, and maintenance units. Duties involve maintenance for radar, electronics equipment, communications equipment and automatic electronic switching equipment. Qualifications include mechanical, electrical/electronic, reasoning, and verbal abilities.

31 Signal Operations (formerly Communications-Electronics Operations) (formerly Field and Area Communications Maintenance)

A grouping of MOS's used in signal and tactical units. Duties involve operation and operator maintenance on electronics equipment. Qualifications include mechanical, verbal, and reasoning ability.

—Field and Area Communications Maintenance. A grouping of MOS's that covers positions primarily in signal corps units. Duties involve maintenance and repair of various tactical electronics equipment.

32 Fixed Plant Communications Maintenance

A grouping of MOS's that covers positions primarily in U.S. Army Communications Center (USACC) units. Duties involve operation and maintenance of fixed plant communications equipment. Qualifications include knowledge of the theory of operation and repair of fixed station electronic equipment, fundamentals of radio propagation, and precautions when working with high-voltage equipment. (Effective 3/78, CMF 32 was eliminated and the MOS's were reclassified under CMF 29 and CMF 31.)

33 Electronic Warfare/Intercept Systems Maintenance

Duties involve repair, maintenance, or supervision of repair of EW/Intercept systems used in both mobile and fixed sites. Qualifications include knowledge and tools commonly used by electricians and electronic workers, safety precautions required in working with electrical equipment, ability to read wire diagrams and technical manuals, and categories of equipment maintenance.

35 Electronic Maintenance and Calibration (formerly Electrical/Electronic Instrument Maintenance)

A grouping of MOS's that covers positions primarily in maintenance, aircraft, and medical units. Duties involve calibration and performance of all levels of maintenance and repair of various electrical/electronic and mechanical equipment. (Effective 3/78, CMF 35 was eliminated and the MOS's were reclassified under CMF 29 and CMF 91.)

36 Wire, Antenna, and Central Office Maintenance

A grouping of MOS's that covers maintenance positions primarily in signal corps units. Duties involve installation and maintenance of field wire, open wire, and cable communications systems; antenna systems; splicing communications cables; and maintenance on manual and dial telephone exchange equipment. Qualifications include knowledge of fundamentals of electricity and sound transmission, reading and understanding circuit diagrams, and techniques and maintenance involved in the installation and maintenance of wire systems. (Effective 3/78, CMF 36 was eliminated and the MOS's were reclassified under CMF 29 and CMF 31.)

46 Public Affairs

A grouping of MOS's that are used for public affairs Army-wide. Duties involve newspaper, radio and television equipment, and still photography.

51 General Engineering

A grouping of MOS's that covers positions primarily in engineer units. Duties involve use of construction skills (including construction surveying and drafting) for erection and maintenance of buildings, bridges, port facilities, roads, airfields, drainage structures, pipelines, storage tanks, and related facilities.

52 Power Production

A grouping of MOS's that covers positions primarily in nuclear power plants and in other engineer units. Duties involve operation and maintenance of power-generating equipment, transmission systems, and accessory equipment; maintenance of nuclear power plant equipment; and radiological surveys. Effective 3/78, CMF 52 was deleted.

54 Chemical

A grouping of MOS's that covers positions in chemical units, supply and service units, and in headquarters of battalion and higher level. Duties involve operation of flame equipment; decontamination of personnel, materiel, structures, and areas that have been under nuclear, biological, or chemical attack; generation of smoke for concealment and camouflage effect; staff activities relating to operations, training, and intelligence; chemical and physical testing of clothing, food, chemicals, paints, plastics, and similar materials. Qualifications include knowledge of safety precautions for work in contaminated areas and handling of chemical warfare materials, types and purpose of chemical agents, characteristics and uses of smoke, and effect of weather on chemical materials.

55 Ammunition

A grouping of MOS's that covers positions in ammunition support units Army-wide. Dutiesd involve support, supply, inspection, renovation, disposal, and maintenance of conventional, special, and nuclear ammunition. Qualifications include knowledge of the hazards and safety measures involved in handling, storing, transporting, destroying, and neutralizing various types of ammunition, ammunition components, and nuclear weapons.

57 Field Services

A grouping of MOS's that cover positions primarily in supply and service, supply and transportation, and field service units. Duties involve repair and alteration of textile, canvas, and leather supplies and equipment; laundry, bath and impregnation functions; memorial activities; supervising general work details; and general labor services. (Effective 3/77, CMF 57 was eliminated and the MOS's were reclassified under CMF 76, Supply.)

63 Mechanical Maintenance

A grouping of MOS's that covers positions primarily in support maintenance units. Duties involve maintenance of mechanical and electromechanical equipment. Qualifications include knowledge of handtools and metalworking tools, safety precautions, blueprint reading, and technical manuals.

64 Transportation

A grouping of MOS's that covers positions primarily in transportation units. Air operations MOS's cover positions in aviation units; motor transport MOS's cover positions in units Army-wide. (Prior to 3/76, the designation for transportation MOS's was CMF 65.) Duties involve operation and preventive maintenance of light, heavy cargo, and passenger vehicles; operation and maintenance of railway rolling stock and marine harborcraft; air traffic control; and movements control. (Effective 9/87, CMF 64 was deleted and redesignated CMF 88, Transportation.)

65 Transportation

Effective 3/76, CMF 65 was eliminated and the MOS's were reclassified under CMF 64.

67 Aircraft Maintenance (formerly Aviation Maintenance) (formerly Aircraft Maintenance)

A grouping of MOS's that covers positions in all types of aviation units Army-wide. Subfields include: Aircraft Maintenance (671); Aircraft Components Repair (672). Duties involve servicing and maintenance of aircraft, aircraft components, armament subsystems, and target aircraft. Qualifications include ability to use handtools, instruments, and gauges; ability to understand and interpret oral and written technical instructions, plans, blueprints and schematic diagrams; and specific mechanical, electrical, and electromechanical skills.

71 Administration

A grouping of MOS's that covers positions in units Army-wide. Duties involve general administration; personnel, legal, medical, and other specialized administration; postal service; clerical work; fiscal accounting; newspaper, radio, and television communication; and supervision of recreational activities. Qualifications include: basic clerical, typing, bookkeeping, stenography, and communication abilities and knowledge of clerical and administrative procedures, office management, preparation and use of military publications and correspondence, preparation and routing of orders, design and use of filing systems, and record keeping.

72 Telecommunications and Audio Visual

A grouping of MOS's that covers positions in radio, radio-teletype, and communications center facilities Army-wide; audiovisual MOS's cover positions in signal corps units and maintenance units. Duties involve operation of radio, teletype, telephone and data equipment; and transmission, reception, and delivery of Army communications. (Effective 3/77, Subfield 722 was eliminated and the MOS's were reclassified under CMF 84, Public Affairs and Audio Visual.)

74 Automatic Data Processing

A grouping of MOS's that covers data processing positions in units engaged in data processing, personnel, communications, finance, and supply. Operational duties involve systems analysis, programming, computer operations, and coding data for use with punched cards, magnetic tapes, and disks. Maintenance duties involve maintenance on tabulating equipment, automatic data processing equipment, viewer computer systems, and related test equipment. Maintenance MOS's require electronic and mechanical aptitude, number facility to solve formulas used in test computations, ability to make delicate adjustments and repairs, and perceptual speed for reading circuit diagrams and mechanical blueprints.

76 Supply and Services (formerly Supply)

A grouping of MOS's that covers positions in all types of units Army-wide. Duties may involve procurement, receipt, storage, issue, and administrative control of all classes of supplies, spare parts, and materiel (except ammunition, nuclear materials, and petroleum). Qualifications include: knowledge of standard supply records and clerical procedures, standard quantity measurements, color codes used to identify supplies, supply catalogs for identification of supply items, safety precautions involved in moving and storing supplies, and operation of office machines without minimum speed requirement.

77 Petroleum and Water

A grouping of MOS's involved in petroleum supply and storage, water treatment, and laboratory units/activities. Duties involve receipt, storage and distribution of bulk and packaged petroleum products, water storage, distribution and production/purification operations, and standard physical and chemical testing of petroleum products.

79 Recruitment and Reenlistment

Two MOS's primarily concerned with recruiting personnel for Army service and operating the reenlistment system. Duties involve contacting prospective enlistees/reenlistees, counseling concerning job and career opportunities in the Army, and performing administrative functions necessary to accomplish enlistment or reenlistment.

81 Topographic Engineering (formerly Topographic Engineering and Map Reproduction)

A grouping of MOS's that covers positions primarily in engineering units. Duties involve topographic survey, map making, reproduction, and printing; topographic instrument and reproduction equipment repair, terrain analysis, and illustrating and model making.

84 Public Affairs and Audio-Visual

A grouping of MOS's which are used for Public Affairs and audio-visual activities Army-wide. Duties consist of newspaper, radio and television communications, maintenance of radio and television equipment, still and motion picture photography, audio-visual equipment repair, and graphic illustrator. (Effective 3/87, CMF 84 was deleted and divided into CMF 25, Audio Visual and CMF 46, Public Affairs.)

88 Transportation

A grouping of MOS's mostly used in transportation units. All MOS's dealing with railway operations have been designated as Reserve Forces MOS's. Duties involve operation and preventive maintenance of passenger vehicles and light, medium, and heavy cargo vehicles, operation and maintenance of marine lighterage and harborcraft, railway motive power and rolling stock, air traffic control, and movements control.

91 Medical

A grouping of MOS's that covers positions in medical units Army-wide. Duties involve medical care and treatment; medical laboratory testing and analysis, and fabrication and repair of prosthetic appliances. Qualifications include knowledge of the organization and functions of the Army medical service; basic anatomy, physiology, first aid and emergency medical treatment; nomenclature and usage of basic drugs; transporation of sick and wounded; field sanitation; basic nursing techniques; basic principles of disease prevention.

92 Petroleum

A grouping of MOS's that covers positions in petroleum storage and laboratory units. Duties involve receipt, storage, preservation, and distribution of bulk and packaged petroleum products and standard physical and chemical testing of petroleum products. (Effective 3/87, CMF 92 was deleted and redesignated CMF 77, Petroleum and Water.)

93 Aviation Operations

A grouping of MOS's used in Army aviation and air traffic control units worldwide. Duties include visual and radar monitoring of aircraft takeoff, flight, and approach to landing; operations of control towers and preventive maintenance of control tower, radar, and ground control equipment.

94 Food Service

A grouping of MOS's that covers positions in the following areas: company, consolidated, and hospital food service activities; bakeries; meat-cutting plants; food service elements of headquarters; and personal staffs of general officers. Duties involve preparation and cooking of food; food service advisory and administrative activities; and service as enlisted aide or cook on the personal staff of a general officer. Qualifications include knowledge of sanitary standards and safety precautions, subsistence storage principles, and use of food service machinery and equipment.

95 Military Police (formerly Law Enforcement)

A grouping of MOS's that covers law enforcement positions. Duties involved patrolling areas, apprehending violators, controlling traffic, quelling disturbances, protecting security sites, guarding military prisoners and prisoners of war, providing correctional treatment for military prisoners in confinement facilities, criminal investigation, and criminal laboratory analysis.

96 Military Intelligence

A grouping of MOS's that covers positions primarily in military intelligence units and in intelligence staff sections in other units. Duties may involve the collection, analysis, protection, and dissemination of intelligence information through observation, compilation, investigation, survey, language translation and interpretation; electronic listening and sensing; photograph and image interpretation; censorship; technical analysis of enemy equipment; and application of security programs.

97 Band

A grouping of MOS's that covers positions in band units Army-wide. Duties involve playing brass, woodwind, or percussion instruments in marching, concert, dance, stage, and show bands; playing in combos and instrumental ensembles; and singing in vocal groups and writing and arranging music, when assigned. Qualifications include ability to play one or more band instruments; musical memory for playing compositions without sheet music; and ability to perform certain musical scores at sight.

98 Signals Intelligence (SIGINT) Electronic Warfare (EW) Operations (formerly Electronic Warfare (EW) Cryptologic Operations)

A grouping of MOS's that cover positions in fixed and mobile units engaged in support of strategic and tactical operations. Duties involve collection of electromagnetic emissions, analysis of these emissions, security of friendly communications and noncommunications, and electronic warfare operations.

Appendix E

Warrant Officer Special Qualifications Identifiers

Special Qualifications Identifiers are used with warrant officer MOS's to identify special qualifications possessed by an individual. The SQI is either a number or a letter; it occupies the fifth character of an MOS designation, replacing the zero that normally occupies that position.

Award of an SQI other than zero may mean that a person's records will show the title of the SQI rather than the title of the MOS. For example, the title for MOS 951A0 is Criminal Investigator; the title for MOS 951AK will normally appear as Polygraph Examiner.

The Special Qualifications Identifiers listed below are arranged by the numeric codes first, then by the alphabetic codes. Each SQI is accompanied by a title and a brief description.

0 No Special Qualifications

Used as the fifth character of the MOS designation when the position requires no special qualifications.

1 Master of Class A-1 Freight and Towing Vessels upon Coastal and Inland Waters, Mate of Class A-2 Unlimited Motor Vessels upon Oceans, Radar Observer *or* Chief Engineer of Class A-1 Motor Vessels and Assistant Engineer of Class A-2 Unlimited Motor Vessels (formerly Master of Coastal Vessels up to 250 Tons *or* Chief Engineer of Coastal Vessels up to 750 Horsepower)

Identifies persons who have been certified and issued the appropriate license by the U.S. Army Marine Qualifications Board. "Master" or "Mate" used with MOS 500A; "Chief Engineer" used with MOS 510A; currently used with MOS's 880A and 881A.

2 Master of Class A-2 Unlimited Motor Vessels upon Oceans, Radar Observer *or* Chief Engineer of Class A-2 Unlimited Motor Vessels (formerly Master of Coastal Vessels up to 500 Tons *or* Chief Engineer of Coastal Vessels up to 1,200 Horsepower)

Identifies persons who have been certified and issued the appropriate license by the U.S. Army Marine Qualifications Board. "Master" or "Mate" used with MOS 500A; "Chief" or "Assistant Engineer" used with MOS 510A; currently used with MOS's 880A and 881A.

3 Master of Oceans Unlimited Vessels *or* Chief Engineer of Oceans Unlimited Vessels

Identifies persons who have been certified and issued the appropriate license by the U.S. Army Marine Qualifications Board. "Master" or "Mate" used with MOS 500A; "Chief" or "Assistant Engineer" used with MOS 510A.

4 Harbormaster/Pilot *or* Marine Inspector (formerly Research, Development, Test, and Evaluation Technician—see SQI "Z")

Identifies persons who have been certified and issued the appropriate license by the U.S. Army Marine Qualifications Board. Used with MOS 500A and 510A.

5 Power Systems Technician *or* Power Generation Technician (formerly Nuclear Power Plant Superintendent—see below)

Identifies persons who are qualified to supervise operations and maintenance of high-voltage power stations and transmission systems. Currently used with MOS's 210A and 213A.

Nuclear Power Plant Superintendent

Identifies persons who are qualified to supervise operations and maintenance of power plants equipped for nuclear power generation and who have completed the Nuclear Power Plant Operator course at the U.S. Army Engineer School and the Radiological Safety course, at the U.S. Army Ordnance School.

6 Instruction Methods Developer (IMD) (formerly Instrument Flight Examiner—see SQI "F")

Identifies persons who are qualified in design, development, test, management, or evaluation of instructional systems. Used with any MOS.

7 Parachutist

Identifies persons who have completed airborne training.

8 Instructor

Identifies persons qualified as fulltime formal instructors at an Army Service School or other organized training facility. Used with any MOS.

9 Safeguard System Technician (formerly Safeguard)

Identifies persons who have completed the Safeguard Missile Maintenance Technician course or who have completed at least six months work experience with Safeguard system tactical support equipment.

A Air Traffic Control Technician

Identifies persons who are qualified to manage air traffic control operations and procedures and who have completed the Officer/Warrant Officer Air Traffic Control course at the U.S. Army Aviation School. Used with any Aviation MOS.

B Aviation Safety Officer (formerly Flight Safety Technician)

Identifies persons who are qualified to manage aviation unit flight safety programs.

C Instructor Pilot

Identifies persons qualified to instruct student and aviator personnel in the fundamentals of flight, to analyze flight training maneuvers, and to check out aviators on new equipment and aircraft. Used with any Aviator MOS.

D Aeromedical Evacuation Pilot

Identifies persons who are qualified in the procedures and techniques of aeromedical evacuation and who have completed the Army Medical Service Aviator course or have had equivalent experience. Used with any Aviator MOS.

E Aircraft Armament Maintenance Technician (formerly Aircraft Armament Maintenance)

Identifies persons who are qualified to supervise maintenance and repair of aircraft armament systems and who have completed the Aircraft Armament Repair Supervisor course or have equivalent experience. Used with any Aviation MOS.

F Instrument Flight Examiner

Identifies persons who are qualified to conduct written and flight examinations of aviators for award or retention of instrument certificates and who have completed the Instrument Flight Examiner course at the U.S. Army Aviation School. Used with any Aviator MOS.

G Aircraft Maintenance Technician (formerly Investigative Photography—see SQI "N")

Identifies persons who are qualified to supervise maintenance and repair of aircraft and who have completed the Maintenance Resource Management and Maintenance Operations phase of the Aircraft Maintenance Officers course at the U.S. Army Transportation School. Used with any Aviation MOS.

H Aerial Scout (formerly Defense Against Methods of Entry (DAME)—see ASI 9K in the Warrant Officer Additional Skill Identifiers Appendix)

Identifies persons who have performed aerial scout duties for a minimum of 60 days or who have completed the Air Cavalry/Attack Helicopter Commander Training course or the Air Cavalry Qualifications course at the U.S. Army Armor School.

J Engineer Test Pilot (formerly Engineering Test Pilot) (formerly Maintenance Test Pilot—see below)

Identifies persons who have successfully completed the U.S. Naval Test Pilot School.

Maintenance Test Pilot (formerly Defense Against Sound Equipment (DASE)—see ASI 9L in the Warrant Officer Additional Skill Identifiers Appendix)

Identifies persons who are qualified to conduct maintenance and/or functional test flights and who have completed the prescribed course of instruction for aircraft maintenance test pilots at the U.S. Army Transportation School.

K Polygraph Examiner (formerly Certified Polygraph Examiner)

Identifies persons certified to conduct polygraph examinations. Currently used with MOS's 311A, 351B, and 351C.

L COMSEC Logistics Technician (formerly Logisitics Technician)

Identifies persons holding the position of Criminal Investigation Logistics Technician *or* Communications Security (COMSEC) Logistics Technician. Criminal Investigation Logistics Technician is used with MOS 951A (Criminal Investigator) and identifies persons who are qualified to conduct or supervise criminal investigations and crime surveys involving logistical activities and who have completed prescribed courses at the U.S. Army Logistics Management Center. COMSEC Logistics Technician is used with MOS 290A (Telecommunications Technician) and identifies persons who are qualfied to supervise operation of communications security (COMSEC) logistics support activities and who have completed 6 months of experience in an assignment dealing with COMSEC logistics skills.

M Latent Print Examiner (formerly Latent Fingerprint Examiner)

Identifies persons who are qualified as expert latent fingerprint examiners and who have completed the 104-week Latent Fingerprint Examiner course at the U.S. Army Criminal Investigation Laboratory. Currently used with MOS 311A.

N Photographic Forensic Photographer *or* Intelligence Photographer (formerly Forensic Photographer) (formerly Nuclear Power Plant Superintendent—see SQI "5")

Identifies persons holding the position of Forensic Photographer (formerly Investigative Photographer) *or* Intelligence Photographer. Forensic Photographer was formerly used with MOS 951A (Criminal Investigator) and identifies persons who have completed the 104-week Forensic Photographer course at the U.S. Army Criminal Investigation Laboratory. Intelligence Photographer was formerly used with MOS 100B (Utility/Observation Helicopter Pilot), MOS 971A (Counterintelligence Technician), and MOS 972A (Area Intelligence Technician) and identifies persons who have completed the Intelligence Photography course at the U.S. Army Intelligence Agency. Currently used with MOS's 311A, 351B, and 351C.

P Questioned Document Examiner

Identifies persons qualified as expert documents examiners. Currently used with MOS 311A.

Q Standardization Instructor Pilot

See SQI "C."

R Forensic Chemist (formerly Aircraft Repair Technician—see SQI "G")

Identifies persons who have completed the 27-week Forensic Chemist course at the U.S. Army Criminal Investigation Laboratory. Currently used with MOS 311A.

S Firearms and Toolmark Examiner (formerly Aerial Scout—see SQI "H")

Identifies persons who have completed the 104-week Firearms and Toolmark Examiner course at the U.S. Army Criminal Investigation Laboratory. Currently used with MOS 311A.

T Transition

Identifies persons who begin either formal schooling or on-the-job training for cross-training into an existing MOS and/or qualification training for new weapons or equipment.

U General Staff Administrative Technician (formerly Maintenance Test Pilot—see SQI "J")

Identifies persons qualified to supervise the office clerical staff of a lieutenant general and higher. Currently used with MOS 420A.

V Intermediate Maintenance Repair Technician *or* COMSEC Equipment Repair Technician (formerly Support Repair Technician)

Identifies persons holding the position of Depot Support/General Support (DS/GS) Repair Technician *or* Communications Security (COMSEC) Equipment Repair Technician. DS/GS Repair Technician is used with any non-aviation MOS to identify persons who are qualified to conduct or supervise maintenance activities. COMSEC Equipment Repair Technician was formerly used with MOS 290A (Telecommunications Technician) and identifies persons who are qualified to supervise maintenance of communications security equipment. Currently used with any nonaviation MOS.

W ADP Operations Technician

Identifies persons who are qualified to supervise operation of automatic data processing (ADP) machines and ancillary equipment and who have completed the ADP Officers course at the U.S. Army Institute of Administration or have equivalent occupational and educational experience.

X ADP Programmer/Systems Analysis Technician

Identifies persons qualified to perform automatic data processing (ADP) programming and conduct systems analyses.

Y Telecommunication System Analyst (formerly Telecommunications Systems Analyst) (formerly Air Traffic Control Technician—see SQI "A")

Identifies persons who are qualified to supervise or perform analysis of computer-driven telecommunications systems and who have completed the advanced Automatic Data Processing Systems Analysis course or have equivalent training and experience.

Z Research, Development, Test, and Evaluation Technician

Identifies persons qualified in design, development, test or evaluation of military material, doctrine, methods, systems, or organizations. Used with any MOS.

Appendix F

Warrant Officer Additional Skill Identifiers

An Additional Skill Identifier is used with a warrant officer MOS to identify and define specialized skills or equipment. It consists of a number and a letter, and occupies the sixth and seventh positions in an MOS designation. The award of an ASI requires two or more weeks of formal schooling or equivalent work experience.

Each Additional Skill Identifier listed below is accompanied by a title and a brief description.

1A	**OH–58D Pilot (formerly OH–13 Pilot)**	Qualified as OH–58D or OH–13 pilot.
1B	**CH–47D Pilot (formerly OH–47D Pilot) (formerly OH–23 Pilot)**	Qualified as OH–47D or OH–23 pilot.
1C	**OH–6 Scout Pilot (formerly OH–6 Pilot)**	Qualified as OH–6 pilot.
1D	**OH–58A/C Scout Pilot (formerly OH–58A/C Pilot (Scout Configuration)) (formerly OH–58 Pilot) (Scout Configuration)**	Qualified as OH–58A/C or OH–58 pilot.
1E	**UH–1 Pilot**	Qualified as UH–1 pilot.
1F	**Aviation Life Support Equipment Technician (formerly CH–34 Pilot)**	Qualified as aviation life support equipment technician or CH–34 pilot.
1G	**CH–47A/B/C Pilot (formerly CH–47 Pilot)**	Qualified as CH–47A/B/C or CH–47 pilot.
1H	**CH–54 Pilot**	Qualified as CH–54 pilot.
1J	**AH–1G Pilot**	Qualified as AH–1G pilot.
1K	**VH–3A Pilot**	Qualified as VH–3A pilot.
1L	**AH–64 Pilot (formerly CH–37 Pilot)**	Qualified as AH–64 or CH–37 pilot.
1M	**AH–1Q/AH–1S Pilot (formerly AH–1Q [Cobra TOW])**	Qualified as AH–1Q/AH–1S pilot.
1N	**UH–60 Pilot**	Qualified as UH–60 pilot.
1P	**OH–58A/C OBSN Pilot (formerly OH–58A/C Pilot) (formerly OH–58 Pilot)**	Qualified as OH–58A/C or OH–58 pilot.
1U	**EH–1 Pilot**	Qualified as EH–1 pilot.
1Y	**Non-Standard Helicopter Pilot**	Qualified as non-standard helicopter pilot.
1Z	**M–22 Gunner**	Knowledge of the M–22 armament subsystem and the tactical employment of UH–1 helicopters equipped with the M–22 aerial gunnery system.
2A	**O–1; TO–1 Pilot**	Qualified as O–1, TO–1 pilot.
2B	**T–41 Pilot**	Qualified as T–41 pilot.
2C	**U–1 Pilot**	Qualified as U–1 pilot.
2D	**Instruction Pilot (formerly U–6 Pilot; see below)**	Qualified to instruct in the fundamentals of flying, to analyze flight training maneuvers, and to check aviators in new equipment and aircraft.
	U–6 Pilot	Qualified as U–6 pilot.
2E	**U–8 Pilot**	Qualified as U–8 pilot.
2F	**T–42 Pilot**	Qualified as T–42 pilot.
2G	**U–9 Pilot**	Qualified as U–9 pilot.
2H	**U–10 Pilot**	Qualified as U–10 pilot.
2J	**U–21 Pilot**	Qualified as U–21 pilot.
2K	**OV–1/RV–1 Pilot (formerly OV–1)**	Qualified as OV–1, RV–1 pilot.
2L	**P2V Pilot**	Qualified as P2V pilot.
2M	**C–45 Pilot**	Qualified as C–45 pilot.
2N	**C–47 Pilot**	Qualified as C–47 pilot.
2P	**C–12 Pilot**	Qualified as C–12 pilot.
2Q	**CV–2 Pilot**	Qualified as CV–2 pilot.
2R	**RU–21 Pilot**	Qualified as RU–21 pilot.
2S	**UV–18 Pilot**	Qualified as UV–18 pilot.
2V	**RC–12 Pilot**	Qualified as RC–12 pilot.
2Z	**Non-Standard FW Pilot (formerly Non-Standard Fixed-Wing Aircraft Pilot)**	Qualified as non-standard fixed-wing aircraft pilot.
3A	**Avionics and Navigation Equipment Repair Technician**	Repair of avionics and navigation equipment.
3B	**Fixed C–E Equipment Repair Technician**	Repair of fixed communications electronic equipment.
3C	**Tactical C–E Equipment Repair Technician**	Repair of tactical communications electronic equipment.
3D	**Radar Equipment Repair Technician**	Repair of radars and ancillary equipment.
3E	**Satellite Communications System Repair Technician**	Repair of satellite communications terminal equipment.
3F	**Transmission Systems Repair Technician**	Repair of communications transmission equipment and systems.
3H	**Joint Planner**	Qualified for Joint Operations Planning System positions.
3K	**IBM 360/65 Technician**	Repair of the IBM 360/65 data processing equipment.
3L	**IBM 360/30 Technician**	Repair of the IBM 360/30 data processing equipment.
3M	**IBM 360/40 Technician**	Repair of the IBM 360/40 data processing equipment.

3N Army Autodin Systems Technician

Repair of Army autodin systems equipment.

3P AN/TSQ-73 Technician

Repair of the AN/TSQ-73 equipment.

3Q AN/TSQ-51 Technician

Repair of the AN/TSQ-51 equipment.

3R AN/TSQ-38 Technician

Repair of the AN/TSQ-38 equipment.

3S TACFIRE Technician (Litton L350)

Maintenance of tactical automatic data processing equipment and peripheral devices within the division artillery or field artillery brigade.

3T Electronic Switching Systems Technical Manager

Qualified in tactical electronics switching systems.

3U Digital/Automation Maintenance Technician

Repair of digital automation or computer equipment.

3X Cryptanalytic Technician

See ASI 9B.

4A Warrant Officer Senior Course (WOSC) Graduate

Graduates of Warrant Officer Senior Course.

4W Underwater Special Forces (formerly Underwater Special Operations)

Qualified for Underwater Special Forces positions.

4X Military Free Fall Special Forces (formerly Military Free Fall Special Operations)

Qualified for Free Fall Special Forces positions.

4Y Military Free Fall and Underwater Special Forces (formerly Military Free Fall and Underwater Special Operations)

Qualified for Free Fall and Underwater Special Forces positions.

5A Missile System Technician, Basic Hawk

Knowledge of the basic Hawk missile system.

5B Basic Product Improvement Program (PIP) (PIP–I)

Completion of Phase I of the PIP training.

5C Advanced Product Improvement Program (Phase II) (PIP–II)

Completion of Phase II of the PIP training.

5G Special Forces (SF)

Qualified for assignment to Special Forces (SF) positions and units.

5J Technical Escort

Qualified as a technical escort.

5K Critical Nuclear Surety

Qualified to hold critical nuclear surety positions.

5L Controlled Nuclear Surety

Qualified to hold controlled nuclear surety positions.

5V Salvage Diver

Qualivied as marine divers.

5Z Missile System Technician, Sergeant (formerly Field Artillery Missile System, Sergeant)

Knowledge of the Sergeant missile system.

6A M–1 Abrams Tank Maintenance Technician (formerly XM1 Maintenance) (formerly Defense Sensor Interpretation and Application Training Program [DSIATP]—see ASI 9A)

Qualified to perform maintenance and repair of the engine, drive, and chassis components of the M–1 Tank.

—XM1 Maintenance Technician. Qualified to perform maintenance and repair of the engine, drive, and chassis components of the XM1 Tank.

6B General Safety Technician

Qualified for General Safety Technician positions.

6C M2 Bradley Infantry Fighting Vehicle/M3 Cavalry Fighting Vehicle Maintenance Technician (formerly M2 Bradley Infantry Fighting Vehicle Maintenance Technician)

Maintenance of the M2 Bradley Infantry Fighting Vehicle.

6P Master Fitness Trainer

Qualified to perform as a master fitness trainer.

7A Military Pay Technician

Qualified to perform duties involving military pay.

7B Court Reporter

Qualified as court reporter.

7C RCA 301, 501

Operation or repair of RCA 301, 501 equipment.

7D RCA 3301—Spectra 70 Technician

Operation or repair of RC 3301—Spectra 70 equipment.

7E IBM 7000 Series

Operation or repair of IBM 7000 series equipment.

7F IBM 360 Technician

Operation or repair of IBM 360 equipment.

7G GE 600

Operation or repair of GE 600 equipment.

7H Burroughs 3500

Operation or repair of Burroughs 3500 equipment.

7J IBM 1401

Repair of IBM 1401 equipment.

7K UNIVAC 1004, 1005 Technician

Operation or repair of UNIVAC 1004, 1005 equipment.

7L NCR 500 Technician

Operation or repair of NCR 500 equipment.

7M IBM 1410

Operation or repair of IBM 1410 equipment.

7N IBM 1401, 1410, 1440, 1460, 1620

Operation or repair of IBM 1401, 1410, 1440, 1460, 1620 equipment.

7P GE 200 Series Technician

Operation of GE 200 series equipment.

7Q FORTRAN, 2d Generation

Use of Formula Translation (FORTRAN) 2d generation machine language in development of computer programs.

7R COBOL, 2d Generation

Use of Common Business Oriented Language (COBOL) 2d generation machine language in development of computer programs.

7S SAAL

Use of SAAL machine language in the development of computer programs.

7T FORTRAN, 3d Generation

Use of Formula Translation (FORTRAN) 3d generation machine language in development of computer programs.

7U Assembly Language, 2d Generation

Use of Assembly Language 2d generation machine language in development of computer programs.

7V COBOL, 3d Generation

Use of Common Business Oriented Language (COBOL) 3d generation machine language in development of computer programs.

7W Assembly Language, 3d Generation

Use of Assembly Language 3d generation machine language in development of computer programs.

7X Manpower/Force Manager

Knowledge of military and civilian manpower management policies including planning, programming, development, and evaluation of organizational structure, determination of requirements, allocation of resources, position classification, and familiarity with automated systems which support these functions.

7Y Executive Club Manager

Qualified as executive club manager.

7Z **SHAL–A Programming Language Technician (formerly SHAL–A Computer Language)**
Use of SHAL–A machine language in development of computer programs.

9A **Defense Sensor Interpretation and Application Training Program (DSIATP) (formerly ASI 6A)**
Qualified in the Defense Sensor Interpretation and Application Training Program.

9B **Cryptanalytic Technician (formerly ASI 3X)**
Qualified to decipher encrypted intercepted communications.

9C **Tactical Exploitation of National Space Capabilities Operation Technician (TENCAP)**
Qualified in TENCAP.

9D **Economic Crime Investigator**
Identifies Warrant Officers involved with USACIC, Economic Crime Investigator Specialty Program.

9E **Senior Economic Crime Investigator**
Identifies Warrant Officers involved with USACIC, Senior Economic Crime Investigation Specialty Program.

9K **Defense Against Methods of Entry (DAME) Technician (formerly SQI "H")**
Qualified to supervise personnel engaged in activities to defend against surreptitious entry.

9L **Defense Against Sound Equipment (DASE) Technician (formerly SQI "J")**
Qualified to supervise personnel engaged in activities to defend against surreptitious use of sound detection equipment.

9M **Technical Intelligence Technician**
Qualified in the identification, analysis, and evaluation of technological developments or in the operation, employment, or maintenance of enemy or potential enemy systems or materiel.

9N **Strategic Debriefing/Interrogation (formerly Aerial E/W Systems)**
Qualified for Strategic Debriefing/Interrogation positions; or knowledge of sophisticated electronic systems and special electronic mission aircraft.

A1 **OH-58A/C Observation Pilot**
Additional or alternate aircraft qualification on OH-58 A/C observation helicopter.

A2 **OH-58A/C Scout Pilot**
Additional or alternate aircraft qualification on OH-58 A/C scout helicopter.

A3 **OH-58D Scout Pilot**
Additional or alternate aircraft qualification on OH-58D scout helicopter.

A5 **OH-6 Scout Pilot**
Additional or alternate aircraft qualification on OH-6 scout helicopter.

B1 **UH-1 Pilot**
Additional or alternate aircraft qualification on UH-1 helicopter.

B2 **UH-60 Pilot**
Additional or alternate aircraft qualification on UH-60 helicopter.

B4 **EH-1 Pilot**
Additional or alternate aircraft qualification on EH-1 helicopter.

B5 **EH-60 Pilot**
Additional or alternate aircraft qualification on EH-60 helicopter.

C1 **CH-47A/B/C Pilot**
Additional or alternate aircraft qualification on CH-47A/B/C helicopter.

C2 **CH-47D Pilot**
Additional or alternate aircraft qualification on CH-47D helicopter.

C4 **CH-54 Pilot**
Additional or alternate aircraft qualification on CH-54 helicopter.

D1 **AH-1G Pilot**
Additional or alternate aircraft qualification on AH-1G helicopter.

D2 **AH-1Q/S Pilot**
Additional or alternate aircraft qualification on AH-1Q/S helicopter.

D5 **AH-64 Pilot**
Additional or alternate aircraft qualification on AH-64 helicopter.

E1 **U-8 Pilot**
Additional or alternate aircraft qualification on U-8 helicopter.

E2 **T-42 Pilot**
Additional or alternate aircraft qualification on T-42 helicopter.

E4 **U-21 Pilot**
Additional or alternate aircraft qualification on U-21 helicopter.

E5 **C-12 Pilot**
Additional or alternate aircraft qualification on C-12 helicopter.

E9 **UV-18 Pilot**
Additional or alternate aircraft qualification on UV-18 helicopter.

F1 **OV-1/RV-1 Pilot**
Additional or alternate aircraft qualification on OV-1/RV-1 helicopter.

F2 **RU-21 Pilot**
Additional or alternate aircraft qualification on RU-21 helicopter.

F3 **RC-12 Pilot**
Additional or alternate aircraft qualification on RC-12 helicopter.

G1 **Instrument Flight Examiner**
Qualified to conduct written and flight examinations of Army aviators for award or retention of instrument certificates.

G2 **Instructor Pilot**
Qualified to instruct students in fundamentals of flying, to analyze flight training maneuvers, and to check aviators in new equipment and aircraft.

G3 **Nonstandard Fixed Wing Pilot**
Qualified on nonstandard fixed wing aircraft.

G4 **Nonstandard Rotary Wing Pilot**
Qualified on nonstandard rotary wing aircraft.

G5 **Experimental Test Pilot**
Qualified as engineering/experimental test pilot.

G6 **Aircraft Maintenance Technician**
Qualified to supervise maintenance and repair of aircraft and to perform maintenance test pilot functions.

G8 **Aviation Safety Officer**
Qualified to manage unit flight safety programs.

H1 **Aircraft Armament Maintenance Technician**
Qualified to supervise maintenance and repair of aircraft armament systems.

H2 **Aviation Life Support Equipment Technician**
Qualified in the inspection and maintenance of aviation life support equipment.

H4 **Aeromedical Evacuation Pilot**
Qualified in the procedures and techniques of aeromedical qualified evacuation.

H9 **M-22 Gunner**
Knowledge of the M-22 armament subsystem and the tactical employment of UH-1 helicopters equipped with the M-22 aerial gunnery subsystem.

K-4 **Special Operations Aviation**
Qualified in special operations aviation mission and specially modified aircraft.

Appendix G

Sample Records

- DD Form 295 (November 1986) Application for the Evaluation of Learning Experiences During Military Service, page G-2
- DD Form 214 (July 1979) Certificate of Release or Discharge from Active Duty, page G-6
- Sample Order Related to MOS, page G-7
- Sample Course Completion Certificate, page G-8
- DA Form 2-1 (January 1973), page G-9
- DA Form 2166-5 (July 1975) Enlisted Evaluation Report, page G-13
- DA Form 2166-5A (July 1975) Senior Enlisted Evaluation Report, page G-15
- DA Form 2166-6 (October 1981) Enlisted Evaluation Report, page G-17
- DA Form 2166-7 (September 1987) NCO Evaluation Report, page G-19
- DA Form 2166-7-1 (August 1987) NCO Counseling Checklist/Record, page G-21
- Individual Soldier's Report (ISR), page G-25
- DA Form 67-8 (September 1979) U.S. Army Officer Evaluation Report, page G-26
- DA Form 67-8-1 (September 1979) Officer Evaluation Report Support Form, page G-28
- DA Form 4037 (July 1982) Officer Record Brief, page G-30
- DA Form 5454-R (April 1989) Request for Army/American Council on Education Registry Transcript, page G-31
- Army/American Council on Education Registry Transcript, page G-32

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

(Date)

TO: (Name and address of educational institution, agency, or employer)

EVALUATION REQUEST FOR:

(Name of Applicant)

(Social Security Number)

ATTENTION:

Dear Official:

The applicant named above has requested that the attached summary of educational achievements, accomplished while in the Armed Forces of the United States, be forwarded to you for review and evaluation.

The American Council on Education publishes the *Guide to the Evaluation of Educational Experiences in the Armed Services* which includes postsecondary credit evaluations of military learning experiences. The 1954 edition of the *Guide* contains recommendations for formal courses offered by the Armed Services during the period 1941 to 1954. The current edition contains credit recommendations for (1) military training courses offered after 1954; (2) Army military occupational specialties (MOS's) for enlisted personnel and warrant officers; (3) ratings held by Navy and Coast Guard enlisted personnel; and (4) occupational designators held by Navy and Coast Guard warrant officers and Navy limited duty officers. In addition to recommendations for semester hour credits, some Army enlisted MOS's and Navy ratings also have recommendations for advanced standing in apprentice training programs.

The American Council on Education maintains an advisory service to provide credit recommendations for courses and tests, MOS's, ratings, and other occupations evaluated after the publication date of the current *Guide*. Credit recommendations are provided to officials of schools, state departments of education or other educational institutions, employers, apprenticeship training directors, labor union and trade association officials, military education officers and applicants. *Credit recommendations are not provided to officials at the applicant's request.* Authorized persons may write directly to the Military Evaluations Program Office, American Council on Education, One Dupont Circle, N.W., Washington, D.C. 20036-1193.

The evaluation of this applicant's learning experiences, as well as any guidance which you may provide, should be sent directly to the applicant at the address shown in block 6 on page 3. Your interest is genuinely appreciated.

Sincerely,

(Education Officer)

DD Form 295, NOV 86 *Previous editions are obsolete* Page 1 of 4 Pages
1207/330

Privacy Act Statement

AUTHORITY:	5 USC 301 and EO 9397, November 1943 (SSN).
PRINCIPAL PURPOSE:	To permit authorized agencies to evaluate military experience for academic placement and/or employment.
ROUTINE USES:	Used at the request of the individual for the evaluation of military training.
DISCLOSURE:	Voluntary; however, failure to provide requested information impedes the evaluation process by educational institutions or potential employers.

INSTRUCTIONS TO APPLICANT

DD Form 295 is for your convenience in applying for evaluation of your educational experiences during military service. Give as much detailed information as possible. Include additional information on separate sheets, if necessary.

You are encouraged to write a preliminary letter to the school or agency concerned, explaining your interest in its evaluation of your records for the continuance of your education. Training, correspondence study, or special experiences not described on this form, which you believe would be of interest to those reviewing your case, should be included in this letter.

The applicant should:

a. Complete items 1 through 15.

b. If you have attended college or completed any college correspondence courses, ask that college to send a transcript to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY COLLEGE OR UNIVERSITY COURSES ON THIS FORM.

c. If you have completed any college-level standardized examinations for credit, such as USAFI or DANTES Subject Standardized Tests, or CLEP, ask the appropriate agency to send a score report to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY EXAMINATIONS ON THIS FORM.

d. After completion, submit this DD Form 295 to the Certifying Officer.

INSTRUCTIONS TO CERTIFYING OFFICER

(Custodian of Personnel Records)

DD Form 295 is intended to provide factual information that schools and other evaluating agencies require for evaluation of the applicant's educational achievement. CERTIFYING OFFICERS WILL NOT MAKE RECOMMENDATIONS REGARDING CREDIT TO BE AWARDED.

The certifying officer should:

a. Complete items 16 through 18.

b. Insure that the information provided in Section II is documented in the applicant's Service Record. Names of schools or courses should not be abbreviated.

c. Send this DD Form 295 to the Education Officer.

INSTRUCTIONS TO EDUCATION OFFICER

The education officer should:

a. Complete item 19.

b. Counsel the service member.

c. Complete page 1. The name and address of the evaluating agency should be the same as that listed at the top of page 3 of this form.

PAGE 1 IS IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THE LETTER TO BE WRITTEN TO THE EVALUATING AGENCY BY THE APPLICANT.

d. Mail DD Form 295 directly to the designated evaluating agency.

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

TO *(Name and address of educational institution, agency, or employer)*

SECTION I - TO BE COMPLETED BY APPLICANT

1. NAME *(Last, First, Middle Initial)*	2. GRADE/RANK OR RATING	3. SOCIAL SECURITY NO.	4. PREVIOUS SERVICE NUMBER(S)

5. PRESENT BRANCH OF SERVICE *(Includes National Guard and Reserve components)*
☐ a. ARMY ☐ b. NAVY ☐ c. AIR FORCE ☐ d. MARINE CORPS ☐ e. COAST GUARD

6. APPLICANT'S MAILING ADDRESS FOR REPLY FROM EDUCATIONAL INSTITUTION

7. DATE OF BIRTH	8. PERMANENT HOME ADDRESS

CIVILIAN EDUCATION

9. HIGHEST GRADE OF SCHOOL COMPLETED *(X one)*
☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

10. HIGHEST YEAR OF COLLEGE COMPLETED *(X one)*
☐ a. NONE ☐ b. FRESHMAN ☐ c. SOPHOMORE ☐ d. JUNIOR ☐ e. SENIOR

11. COLLEGE DEGREE EARNED *(X if applicable)*
☐ a. ASSOCIATE ☐ b. BACHELOR

12. EDUCATIONAL INSTITUTION LAST ATTENDED

a. NAME	b. MAILING ADDRESS

13. USAFI COURSES COMPLETED IN SERVICE (Prior to 1974)
(The applicant should request a transcript for all courses to be forwarded directly to the evaluating agency.)

a. CATALOG NUMBER AND TITLE OF COURSE *(If no courses were taken, print NONE)*	b. METHOD OF STUDY *(Correspondence, self-teaching, locally conducted classes, etc.)*	c. LOCATION WHERE COMPLETED	d. DATE COURSE COMPLETED
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			

14. MILITARY CORRESPONDENCE COURSE COMPLETED
(The applicant should attach a copy of the course completion letter or certificate.)

a. COURSE NAME *(If no courses were taken, print NONE)*	b. COURSE SPONSOR *(AIPD, MCI, ECI, CGI)*	c. DATE COURSE COMPLETED
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		

15. APPLICANT CERTIFICATION: I have read the Privacy Act Statement on Page 2.

a. SIGNATURE	b. DATE SIGNED

DD Form 295, NOV 86

SECTION II - TO BE COMPLETED BY CERTIFYING OFFICER

(Read Instructions on Page 2 before completing this page)

16. FORMAL SERVICE SCHOOLS ATTENDED (If longer than one week) *(If none, print NONE)*

a COURSE TITLE	b MILITARY COURSE NUMBER	c NAME OF SCHOOL, CITY, STATE	d. DATE ENTERED	e LENGTH[1] *(In weeks)*	f DATE COMPLETED	g FINAL MARK AND/OR CLASS STANDING [2]	**19. ACE GUIDE COURSE OR OCCUPATION IDENTIFICATION NO.** *(To be filled out in Education Center)*
(1)							
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

17. MILITARY OCCUPATIONAL HISTORY

a MILITARY SPEC CODE *(MOS, AFSC, Rate, etc.)* [3]	b MILITARY OCCUPATIONAL TITLE *(Do Not Abbreviate)*	c DATES HELD		d MOS/SQT SCORE *(For Army Enlisted Personnel [4])*	
		From *(Mo/yr)*	To *(Mo/yr)*		
(1)					
(2)					
(3)					

NOTES:

[1] Print **SP** if course length was self paced

[2] If information is available, give grade received. If class standing is shown, give number in class, e.g., 10 in 241

[3] List most recent skill levels or grade.

[4] MOS/SQT Evaluation Score and Date of evaluation.

THIS APPLICATION MUST BE SIGNED BY AN OFFICER OR A DULY AUTHORIZED NONCOMMISSIONED OFFICER.

I certify that the information contained herein has been compared with official records, and that this information is correct.

18. CERTIFYING OFFICER

a. NAME *(Print or Type)*	b. GRADE/RANK	c. MILITARY ADDRESS *(Include ZIP Code)*
d. SIGNATURE	e. DATE SIGNED	

DD Form 295, NOV 86

☆ U.S. Government Printing Office 1988—201-424/70787

CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD SAFEGUARD IT

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

DD FORM 214 1 JUL 79

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY

1. NAME *(Last, first, middle)*

2. DEPARTMENT, COMPONENT AND BRANCH: NAVY - USN

3. SOCIAL SECURITY NO: 189 | 32 | 1767

4a. GRADE, RATE OR RANK: EWCM

4b. PAY GRADE: E9

5. DATE OF BIRTH: 14 AUG 42

6. PLACE OF ENTRY INTO ACTIVE DUTY: San Diego, California

7. LAST DUTY ASSIGNMENT AND MAJOR COMMAND: USS ALBANY (CG-10)

8. STATION WHERE SEPARATED: USS ALBANY (CG-10) at Gaeta, Italy

9. COMMAND TO WHICH TRANSFERRED: Not applicable

10. SGLI COVERAGE AMOUNT $ 20, 000 ☐ NONE

11. PRIMARY SPECIALTY NUMBER, TITLE AND YEARS AND MONTHS IN SPECIALTY *(Additional specialty numbers and titles involving periods of one or more years)*

EW-1774 Electronics Warfare Systems Technician (SLQ-22/24)

12. RECORD OF SERVICE	YEAR(S)	MON(S)	DAY(S)
a. Date Entered AD This Period	74	01	04
b. Separation Date This Period	80	05	13
c. Net Active Service This Period	06	04	10
d. Total Prior Active Service	13	03	22
e. Total Prior Inactive Service	00	00	00
f. Foreign Service	00	00	00
g. Sea Service	03	01	07
h. Effective Date of Pay Grade	79	12	16
i. Reserve Oblig. Term. Date	NA	NA	NA

13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED *(All periods of service)*

Good Conduct Award (FIFTH)
Navy Expeditionary Medal
Armed Forces Expeditionary Medal
National Defense Service Medal
Republic of Viet-Nam Campaign Medal w/device
Viet-Nam Service Medal (7 awards)
Navy Unit Commendation Medal (2 awards)
Joint Service Commendation Medal

14. MILITARY EDUCATION *(Course Title, number weeks, and month and year completed)*

Instructor Basic - 4 weeks - Mar 74
OHS Advanced - 2 weeks - Apr 77
RD "B" School - 32 weeks - Apr 71
CET WLR-1 Series (7107) - 7 weeks - Jul 71
CET AN/ULQ-6 - 8 weeks - Sep 71
ASW Tactical Course - 1 week - Jan 63
Electronics Warfare Operator "C" - 6 weeks - May 71
RD "A" - 24 weeks - Jan 62

15. MEMBER CONTRIBUTED TO POST VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM ☐ YES ☒ NO

16. HIGH SCHOOL GRADUATE OR EQUIVALENT ☒ YES ☐ NO

17. DAYS ACCRUED LEAVE PAID "NONE"

18. REMARKS

Immediate reenlistment, 14 May 1980. This form was administratively issued 14 May 1980
Block 13 continued: Combat Action Ribbon - Navy "E" Ribbon (2 awards).X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X
X X X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X
X X X X X X X X X

19. MAILING ADDRESS AFTER SEPARATION: 404 Twin Oaks Drive, Havertown, PA 19083

20. MEMBER REQUESTS COPY 6 BE SENT TO DIR. OF VET AFFAIRS ☐ YES ☒ NO

21. SIGNATURE OF MEMBER BEING SEPARATED

22. TYPED NAME, GRADE, TITLE AND SIGNATURE OF OFFICIAL AUTHORIZED TO SIGN

Assistant Personnel Officer

S/N 0102-LF-000-2140

MEMBER - 1

****************************** SAMPLE COPY ************************

FOR IMMEDIATE DELIVERY TO:

DEPARTMENT OF THE ARMY
HEADQUARTERS US ARMY ARMOR CENTER AND FORT KNOX
Fort Knox, Kentucky 40121

ORDERS XX-X 4 May 1990

DOE, JOHN 000-00-000 CSM Unit of Assignment (UIC Code) Ft Knox KY 40121

The following MOS action is directed.

Awarded: P19E10B800; S54E100000
Withdrawn: P54E100000
Effective date: 4 May 1990
Reclassification control number: Not applicable
Additional instructions: Authority: Paragraph xx-x, AR xxx-xxx
Format: 310

FOR THE COMMANDER:

GI JOE
LTC, AG
Adjutant General

DISTIRBUTION:
Orders Unit (4)
Indiv (3)
Rec Sec (1)
Unit of Asg (3)

HQPERSCOM (Branch) (1 ea Indiv)

****************************** SAMPLE COPY *********************

DEPARTMENT OF THE ARMY

CERTIFICATE OF TRAINING

This is to certify that

has successfully completed

Given at ______________________ ______________________________

DA FORM 87, 1 OCT 78

1126

1125

Sample Course Completion Certificate

PERSONNEL QUALIFICATION RECORD – PART II

SECTION I – IDENTIFICATION DATA

1 NAME

2 SSN

SECTION II – CLASSIFICATION AND ASSIGNMENT DATA

3 MOS EVALUATION SCORES ☐ CONT

MOSC	YR & MO	SCORE	YR & MO	SCORE	YR & MO	SCORE

4 ASSIGNMENT CONSIDERATIONS ☐ CONT

5 OVERSEA SERVICE ☐ CONT

FROM	THRU	AREA AND COUNTRY	MO	TYPE	NTC	DEPN ARR (S)

SECTION II – CLASSIFICATION AND ASSIGNMENT DATA *(Continued)*

6 MILITARY OCCUPATIONAL SPECIALTIES ☐ CONT

MOSC	TITLE	DATE

7 AVIATION ASI & GUNNERY QUALIFICATION ☐ CONT

AIRCRAFT		INSTR PILOT		GUNNERY SYSTEM	
F/W	R/W	F/W	R/W	TNG	INSTR

8 APTITUDE AREA SCORES ☐ CONT

AREA	SCORE	AREA	SCORE

DATE

PLACE

9 AWARDS, DECORATIONS & CAMPAIGNS ☐ CONT

10 OTHER TESTS ☐ CONT

TEST	DATE	SCORE
MDB		
OCT		
DLAT		
OQT 1		
FAST		
UR		
WOCB		

11 AMERICAN BOARD CERTIFICATION & LICENSES OR CERTIFICATES HELD ☐ CONT

12 LANGUAGE PROFICIENCY

DA FORM 330 SUBMITTED	DATE

DA FORM 2-1, 1 JAN 73

☐

☆U.S. GOVERNMENT PRINTING OFFICE: 1988 206-376

SECTION II – CLASSIFICATION AND ASSIGNMENT DATA *(Continued)*

13 PILOT RATINGS

ORIGINAL	DATE	CURRENT	DATE

14 FLYING STATUS ☐ CONT

INSTRUMENT CERTIFICATION

15 INTERNSHIPS, RESIDENCIES AND FELLOWSHIPS ☐ CONT

HOSPITAL	TYPE OR SERVICE	MONTHS	YEAR

16 HOSPITAL/TEACHING APPOINTMENTS AND PRIVATE PRACTICE ☐ CONT

FROM	THRU	INSTITUTION/LOCATION	TYPE	DURAT

17 CIVILIAN EDUCATION AND MILITARY SCHOOLS ☐ CONT

SCHOOL	MAJOR/COURSE/MOSC	DURAT	COMP	YEAR

SECTION III – SERVICE, TRAINING AND OTHER DATES

18 APPOINTMENTS AND REDUCTIONS ☐ CONT

GRADE	COMP	EFFECTIVE DATE	DATE OF ELIG/RANK

19 SPECIALIZED TRAINING ☐ CONT

SUBJECT	DATE
ATP 21-114 *(BCT)*	
Geneva-Hague Conventions	
Military Justice	
Benefits of Honorable Discharge	

20 BASIC ENLISTED SERVICE DATE *(BESD)*

21 TIME LOST *Sec. 972, Title 10, USC)* ☐ CONT

FROM	THRU	DAYS	REASON

SECTION IV – PERSONAL AND FAMILY DATA

22 PHYSICAL STATUS

HEIGHT	WEIGHT	GLASSES
		☐ YES ☐ NO

DATE OF EXAM

23 PLACE OF BIRTH AND CITIZENSHIP

SELF

SPOUSE

CITIZENSHIP OF SPOUSE

24 NUMBER OF DEPENDENTS

ADULT	CHILDREN

25 HOME OF RECORD/ADDRESS

26 CIVILIAN OCCUPATION

JOB TITLE

DOT CODE	CRITICAL OCCUPATION	NO. MONTHS EMPLOYED	MOSC
	☐ YES ☐ NO		

DUTIES PERFORMED

EMPLOYER

– Fold Here –

SECTION V – MISCELLANEOUS

27 REMARKS

28 ITEM CONTINUATION

ITEM NO	DATA

㉙ DATE DA FORM 20B PREPARED

㉚ DATE DUPLICATE DA FORM 2-1 SUBMITTED

31 REPORT OF CHANGES

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92

SECTION IX – RESERVE COMPONENT DATA

32a READY RESERVE OBLIGATION EXPIRATION DATE

b DA FORM 3726 OR 3726-1 AGREEMENT EXPIRATION DATE

c SERVICE OBLIGATION EXPIRATION DATE

d MANDATORY REMOVAL FROM ACTIVE STATUS

e RETIREMENT YEAR ENDING DATE

33 DATE		34 SIGNATURE
PREPARED	REVIEWED	

DA Form 2-1—page 3 of 4 pages

SECTION VII – CURRENT AND PREVIOUS ASSIGNMENTS

35 RECORD OF ASSIGNMENTS ☐ CONT

EFFECTIVE DATE	DUTY MOSC	PRINCIPAL DUTY	ORGANIZATION AND STATION OR OVERSEA COUNTRY	NON DUTY DAYS BP YR-MO	NON RATED DAYS EP YR-MO	TYPE REPORT

– Fold Here –

ENLISTED EVALUATION REPORT (AR 600-200)

For preparation, see DA Pamphlet 623-1.

C. SSN

0 1 2 3 4 5 6 7 8 9
[redacted]
0 1 2 3 4 5 6 7 8 9
[redacted]
0 1 2 3 4 5 6 7 8 9
[redacted]
0 1 2 3 4 5 6 7 8 9
[redacted]
0 1 2 3 4 5 6 7 8 9

PART I PERSONAL DATA

A. GRADE (ABBR) NAME (LAST) (FIRST) (MI) SSN

B. TYPE OF REPORT

INIT ☐ ANL ☐ CR ☐ SP ☐

OTHER ☐ ______ SPECIFY

D. ORGANIZATION AND STATION

E. PMOSC

F. DMOSC

G. SMOSC

H. PERIOD OF REPORT

BEGIN
MO. JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN ☐ JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC ☐
YR 74 ☐ 75 ☐ 76 ☐ 77 ☐ 78 ☐ 79 ☐ 80 ☐ 81 ☐ 82 ☐ 83 ☐ 84 ☐ 85 ☐

END
MO. JAN ☐ FEB ☐ MAR ☐ APR ☐ MAY ☐ JUN ☐ JUL ☐ AUG ☐ SEP ☐ OCT ☐ NOV ☐ DEC ☐
YR 74 ☐ 75 ☐ 76 ☐ 77 ☐ 78 ☐ 79 ☐ 80 ☐ 81 ☐ 82 ☐ 83 ☐ 84 ☐ 85 ☐

I. NONRATED PERIOD

NO. OF MONTHS ______

REASON CODES ______

J. DUTY POSITION TITLE

AUTH PAY GR

PART II RATINGS

A. BRIEF DESCRIPTION OF DUTIES

B. INDORSER HAS NOT OBSERVED AND CANNOT RATE SOLDIER ☐

C. REPORT BASED ON:

	DAILY CONTACT	FREQ OBSN	INFREQ OBSN	REPT & REC
R	☐	☐	☐	☐
I	☐	☐	☐	☐

D. SOLDIER SUPPORTS THE ARMY'S EQUAL OPPORTUNITY PROGRAM

	YES	NO
R	☐	☐
I	☐	☐

E. DUTY PERFORMANCE TRAITS

DUTY PERFORMANCE TRAITS		RANKS WITH VERY BEST 5	SUPERIOR TO MOST 4		NEEDS IMPROVEMENT Some 1	NEEDS IMPROVEMENT Much 0	SCORE R	SCORE I
1. Is well informed on all phases of assigned duties. (Scope of knowledge about duties)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
2. Carries out orders without constant supervision. (Dependability in performing without supervision)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
3. Shows interest and enthusiasm for duties. (Attitude toward duties)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
4. Demonstrates qualities of leadership. (Exerts positive influence on others)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
5. Seeks out opportunities for self-improvement. (Effort directed toward realization of potential)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
6. Displays ability to initiate action without direction from others. (Aggressive pursuit of methods to improve duty performance)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
7. Is successful in working with others. (Ability to work in harmony with others)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
8. Personal behavior sets a good example for others. (High standards of personal conduct)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
9. Takes pride in dress and appearance. (Neat and military in bearing)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
10. Is physically fit, as required, for MOS/grade during combat. (Physical condition)	R I	☐ ☐	☐ ☐	[redacted]	☐ ☐	☐ ☐		
						TOTALS		

F. DEMONSTRATED OVERALL PERFORMANCE OF ASSIGNED DUTIES

	Ranks With Very Best	Superior to Most		Demonstrates Shortcomings Minor	Demonstrates Shortcomings Major	SCORE
R	☐ ☐	☐ ☐ ☐	[redacted]	☐ ☐ ☐	☐ ☐ ☐	
	44 43	42 38 34		14 10 6	5 3 1	
I	☐ ☐	☐ ☐ ☐		☐ ☐ ☐	☐ ☐ ☐	

G. ADVANCEMENT POTENTIAL

IF I HAD THE AUTHORITY AND RESPONSIBILITY TO DO SO, I WOULD: (DISREGARD TIME IN GRADE REQUIREMENTS)

	Promote Immediately	Promote Ahead of Peers		Not Promote	Deny Continued Active Duty	SCORE
R	☐ ☐	☐ ☐ ☐	[redacted]	☐ ☐ ☐	☐	
	31 30	28 26 24		7 5 3	0	
I	☐ ☐	☐ ☐ ☐		☐ ☐ ☐	☐	

H. SCORE

BLOCKS	RATER	INDORSER
E		
F		
G		

SUM ______ + ______ = ______ ÷ 2 = ______ REPT SCORE

DA Form 2166-5 1 Jul 75 This form, together with DA Form 2166-5A, 1 Jul 75, replaces DA Form 2166-4, 1 Jul 70, which is obsolete.

RATED SOLDIER'S LAST NAME AND SSN

PART II CONTINUED

I. CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)

J. 1. COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS:

- a. BLOCK E SCORE BELOW 10 OR OVER 40, BLOCK F SCORE BELOW 6 OR OVER 42, BLOCK G SCORE BELOW 10 OR OVER 22, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM.
- b. INDORSER WHO CHECKS BLOCK II B.

2. REMARKS OTHERWISE OPTIONAL.

RATER

INDORSER

PART III RATER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT
B. NAME AND GRADE
C. DATE
D. SIGNATURE

PART IV INDORSER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT
B. NAME AND GRADE
C. DATE
D. SIGNATURE

PART V SOLDIER AUTHENTICATION

A. I HAVE SEEN A COPY OF THIS REPORT COMPLETE THROUGH ACTION BY THE INDORSER. I HAVE BEEN COUNSELED CONCERNING THE REPORT.
B. NAME AND GRADE
C. DATE
D. SIGNATURE

PART VI REVIEWER AUTHENTICATION

A. SOLDIER WAS RATED BY CORRECT RATER AND INDORSER. NO FURTHER ACTION REQUIRED. ☐
MY REVIEW RESULTS IN ACTION INDICATED BY INCLOSURES. ☐

B. ORGANIZATION AND DUTY ASSIGNMENT
C. NAME AND GRADE
D. DATE
E. SIGNATURE

PART VII MILPO CERTIFICATION

A. DATE REPORT ENTERED ON DA FM 2-1:
B. SOLDIER'S COPY GIVEN TO SOLDIER ☐ FORWARDED TO SOLDIER ☐
MAILED TO SOLDIER ☐ CERTIFIED MAIL NO ______
C. ______ MILPO SIGNATURE
D. ______ UIC

SENIOR ENLISTED EVALUATION REPORT (AR 600-200)

For preparation, see DA Pamphlet 623-1.

C. SSN: 2 6 5 5 2 6 9 1 5

PART I PERSONAL DATA

A. GRADE (ABBR) NAME (LAST) (FIRST) (MI) SSN

B. TYPE OF REPORT: INIT ☐ ANL ● CR ☐ SP ☐ OTHER ☐ SPECIFY

D. ORGANIZATION AND STATION: HHT, 2d Armd Cav Regt, APO NY 09093

E. PMOSC	F. DMOSC	G. SMOSC
11E50	11E50	11Z50

H. PERIOD OF REPORT
BEGIN: MO SEP ● YR 75 ●
END: MO MAY ● YR 76 ●

I. NONRATED PERIOD
NO. OF MONTHS
REASON CODES

J. DUTY POSITION TITLE: Intelligence Sergeant
AUTH PAY GR E8

PART II RATINGS

A. BRIEF DESCRIPTION OF DUTIES NCOIC of the Regimental S-2 Section, responsible for assisting the S-2 in all regimental level intelligence functions to include combat intelligence, personnel, document, and physical security.

B. INDORSER HAS NOT OBSERVED AND CANNOT RATE SOLDIER ☐

C. REPORT BASED ON: DAILY CONTACT R ● I ● FREQ OBSN ☐ INFREQ OBSN ☐ REPT & REC ☐

D. SOLDIER SUPPORTS THE ARMY'S EQUAL OPPORTUNITY PROGRAM: YES R ● I ●

E. PERFORMANCE QUALITIES

		Ranks with very best 5	Superior to most 4	Exceeds or meets duty requirements 3	2	Needs improvement Some 1	Much 0	Score R	Score I
1. Anticipates requirements and actively pursues methods of improving duty performance (Initiative)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
2. Is physically fit, as required, for MOS grade during combat (Physical Condition)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
3. Takes pride in high standards of dress, grooming, and military manner (Military Bearing)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
4. Behavior on and off duty is in accordance with highest Army standards (Personal Conduct)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
5. Is dependable and conscientious in fulfilling obligations (Responsibility)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
6. Is well informed on the scope of knowledge required for assigned duties (Technical Competence)	R	●	☐	☐	☐	☐	☐	5	5
	I	●	☐	☐	☐	☐	☐		
TOTALS								30	30

F. LEADERSHIP SKILLS

		Ranks with very best 5	Superior to most 4	Exceeds or meets duty requirements 3	Score R	Score I
1. Is clear and to the point in conveying information and in giving directions (Communications)	R	●	☐		5	5
	I	●	☐			
2. Promotes personal and professional growth of subordinates through personal interest in their problems (Counseling)	R	●	☐		5	5
	I	●	☐			
3. Provides effective instruction (formal or informal) to improve the professional competence of subordinates (Training)	R	●	☐		5	5
	I	●	☐			
4. Selects best course of action after weighing the alternatives (Decision Ability)	R	●	☐		5	5
	I	●	☐			
5. Is fair, inspires confidence, accepts guidance, and has earned respect (Relationships with Others)	R	●	☐		5	5
	I	●	☐			
TOTALS					25	25

G. DEMONSTRATED OVERALL PERFORMANCE

	Ranks With Very Best		Superior to Most				Exceeds or Meets Duty Requirements				Demonstrates Shortcomings Minor			Major		SCORE
	40	38	36	33	30	27	23	20	17	14	10	8	6	3	1	
RATER	●	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	40
INDORSER	●	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	40

H. ADVANCEMENT POTENTIAL - If it were possible to do so, I would: (Disregard time in grade requirements)

	Promote Immediately		Promote Ahead of Peers			Promote With Peers			Do Not Promote	Score
	30	28	26	22	18	14	10	6	2	
R	●	☐	☐	☐	☐	☐	☐	☐		30
I	●	☐	☐	☐	☐	☐	☐	☐		30

I.

	BLK E		BLK F		BLK G		BLK H		
R	30	+	25	+	40	+	30		125
I	30	+	25	+	40	+	30		125
							SUM OF SCORES		250

125

DA Form 2166-5A 1 Jul 75 This form, together with DA Form 2166-5, 1 Jul 75, replaces DA Form 2166-4, 1 Jul 70, which is obsolete.

SOLDIER'S LAST NAME AND SSN **PRESTON 265-52-6915**

PART II CONTINUED

CAREER DEVELOPMENT (RECOMMENDATIONS ON SCHOOLING AND ASSIGNMENTS)

	RECOMMEND FOR	
	CSM (E-8 & E-9)	1SG (E-7)
SGM Academy at earliest practical date.	R ☒	R ☐
	I ☒	I ☐

COMMENTS ARE MANDATORY TO JUSTIFY RATINGS IN PART II AS FOLLOWS:
a. BLOCK E SCORE BELOW 6 OR OVER 24, BLOCK F SCORE BELOW 5 OR OVER 20, BLOCK G SCORE BELOW 6 OR OVER 36, BLOCK H SCORE BELOW 6 OR OVER 14, OR BLOCK D IF SOLDIER DOES NOT SUPPORT ARMY'S EQUAL OPPORTUNITY PROGRAM.
b. INDORSER WHO CHECKS BLOCK II B
c. REMARKS OTHERWISE OPTIONAL

RATER: MSG Preston is one of the most conscientious and dedicated soldiers whom I have ever met. He consistently accomplishes his duties in an exemplary manner. Indicative of this was his performance during field training exercises, specifically Reforger 75. He was responsible for receiving, compiling, and forwarding to higher, all battlefield intelligence. His efforts greatly assisted the Regiment in accomplishing its mission in an outstanding manner. MSG Preston possesses drive, initiative, and stamina. He is consistently striving to improve himself by enrolling in college courses during his off-duty time. His military leadership principles, traits, and personal conduct and integrity won him the respect and admiration of his subordinates and superiors. MSG Preston's ability to get the job done places him among those at the top of the NCO Corps.

INDORSER: MSG Preston clearly possesses those characteristics which place him in that select group of truly outstanding NCOs. Placing the needs of the organization first, he accepted reassignment to an area foreign to his previous experience and through personal initiative and enthusiasm rapidly gained the required technical knowledge. Having observed this NCO transition from operations to intelligence with complete ease and total competence, I highly recommend that he be flagged for special consideration in assignments and schooling. An obvious leader, he possesses talents and qualifications far in excess of his contemporaries.

PART III. RATER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT HHT, 2d Armd Cav Regt Asst S2	B. NAME AND GRADE	C. DATE 12 MAY 76
	D. SIGNATURE	

PART IV. INDORSER AUTHENTICATION

A. ORGANIZATION AND DUTY ASSIGNMENT HHT, 3d Armd Cav Regt Regimental S2	B. NAME AND GRADE	C. DATE 12 MAY 76
	D. SIGNATURE	

PART V. SOLDIER AUTHENTICATION

A. I HAVE SEEN A COPY OF THIS REPORT COMPLETE THROUGH REVIEW BY THE INDORSER. I HAVE BEEN COUNSELED CONCERNING THE REPORT.	B. NAME AND GRADE	C. DATE 12 May 76
	D. SIGNATURE	

PART VI. REVIEWER AUTHENTICATION

A. SOLDIER WAS RATED BY CORRECT RATER AND INDORSER. NO FURTHER ACTION REQUIRED ☒
B. REVIEW RESULTS IN ACTION INDICATED BY INCLOSURES ☐

B. ORGANIZATION AND DUTY ASSIGNMENT HHT, 2d Armd Cav Regt Regimental Executive Officer	C. NAME AND GRADE	D. DATE 12 May 76
	E. SIGNATURE	

PART VII. MILPO CERTIFICATION

A. DATE REPORT ENTERED ON DA FM 2-1: 2 JUN 1976
B. SOLDIER'S COPY: GIVEN TO SOLDIER ☐ FORWARDED TO SOLDIER ☒ MAILED TO SOLDIER ☐ CERTIFIED MAIL NO ______

C. TCO Supv, Nbg. RPC TCO
MILPO SIGNATURE

D. FLOAAA
UIC

14 MAY 1985

See Privacy Act Statement in AR 623-205, APPENDIX E.	**ENLISTED EVALUATION REPORT** *(AR 623-205)*	Proponent agency for this form is the US Army Military Personnel Center

PART I. ADMINISTRATIVE DATA

A LAST NAME — FIRST NAME — MIDDLE INITIAL	B SSN 265-52-6915	C RANK (ABBR) CSM	D DATE OF RANK 801102

E PRIMARY MOSC 00Z50	F SECONDARY MOSC 63Z50	G UNIT, ORGANIZATION, STATION, ZIP CODE/APO, MACOM HQ, 1st Armor Training Brigade, Ft Knox, Ky 40121-5250 (TC)

H CODE/TYPE OF REPORT 3 Change of Rater	I PERIOD OF REPORT FROM YEAR 85 MONTH 01 THRU YEAR 85 MONTH 04	J RATED MONTHS 4	K NONRATED MONTHS	L NONRATED CODES

PART II. DUTY DESCRIPTION

A PRINCIPAL DUTY TITLE Brigade Command Sergeant Major

B DUTY MOSC: 00Z50

C DESCRIPTION OF DUTIES Responsible to keep the Commander informed on the morale, esprit and overall condition of the Brigade. Assigns all noncommissioned officers and enlisted personnel assigned to the Brigade. Insures that a viable NCO Development Program is on-going in the Brigade. Helps insure that all units within the Brigade are conducting SQT training. Counsels and provides guidance to enlisted personnel assigned to the Brigade. Acts as advisor to the Commander concerning enlisted matters or any other matters that affect the Brigade mission.

PART III. EVALUATION OF PROFESSIONALISM AND PERFORMANCE

RATER	INDORSER	A PROFESSIONAL COMPETENCE
5	5	1 Demonstrates initiative
5	5	2 Adapts to changes
5	5	3 Seeks self-improvement
5	5	4 Performs under pressure
5	5	5 Attains results
5	5	6 Displays sound judgment
5	5	7 Communicates effectively
5	5	8 Develops subordinates
5	5	9 Demonstrates technical skills
5	5	10 Physical fitness
50	50	SUBTOTALS

SCORING SCALE

(High)
5
4
3
2
1
0
(Low)

RATER	INDORSER	B PROFESSIONAL STANDARDS
5	5	1 Integrity
5	5	2 Loyalty
5	5	3 Moral courage
5	5	4 Self-discipline
5	5	5 Military appearance
5	5	6 Earns respect
5	5	7 Supports EO EEO
35	35	SUBTOTALS

(Add the Rater's SUBTOTALS (A&B) and enter sum in the appropriate box in PART VI, SCORE SUMMARY. Do the same for Indorser.)

C DEMONSTRATED PERFORMANCE OF PRESENT DUTY PASS 8410 66/152 YES

1 Rater's Evaluation performance during his first four months as Brigade Command Sergeant Major has been one of untiring effort and professional, outstanding performance. His initiatives and organizational abilities contributed significantly to the present high standards of appearance in the 1st Armor Training Brigade. He always provides sound and timely advice on a broad range of issues. His recommendations have been well thought out and appropriate. is in top physical condition and his highly visible participation in all aspects of physical training has set the example for the cadre, NCO and officer. His excellent performance is due mainly to his attention to detail in all aspects of his job and his commitment to perfection. is a community oriented soldier, he and his family are actively involved in numerous organizational and helping activities for the Fort Knox community.

2 Indorser's Evaluation

has vigorously stepped forward into the 1st Brigade Command Sergeant Major position and thus far has proven to be well suited for the demanding position. During his short tenure, he has become instrumental in the brigade's daily operation; of particular note is his involvement in the brigade's building refurbishing program. His ability to coordinate post agency support with the work effort of six battalions has been a major undertaking which has been superbly executed. He sets the example in all aspects of soldiering for the 1st Brigade cadre.

DA FORM OCT 81 **2166-6** REPLACES DA FORM 2166-5A, OCT 79, WHICH IS OBSOLETE

PART IV. EVALUATION OF POTENTIAL

a. Rater's Evaluation (Place score in applicable box)

40-38		37-20		19-0		40-0	
☐	Promote ahead of peers.	☐	Promote with peers	☐	Do not promote	40	E9 Soldiers Only

Comments: (potential for higher-level school, assignment, and supervisory responsibility)

is capable of performing as a Command Sergeant Major at any level. Select for division CSM now and the 35 year program as soon as possible.

b. Indorser's Evaluation (Place score in applicable box)

40-38		37-20		19-0		40-0	
☐	Promote ahead of peers.	☐	Promote with peers	☐	Do not promote	40	E9 Soldiers Only

Comments: (potential for higher-level school, assignment, and supervisory responsibility)

Division, Corps CSM potential. A top-notch performer with limitless potential.

PART V. AUTHENTICATION

A. NAME OF RATER (Last, First, MI)	SSN 527-38-4625	SIGNATURE
RANK, ORGANIZATION, AND DUTY ASSIGNMENT HQ, 1st Armor Tng Bde, Ft Knox, Ky 40121-5250 Brigade Commander		DATE 29 Apr 85

Refer to AR 623-205 for requirements to discuss contents of report with the rated soldier

B. NAME OF INDORSER (Last, First, MI)	SSN 020-26-9577	SIGNATURE
RANK, ORGANIZATION, AND DUTY ASSIGNMENT 33 HQ, USAARMS, Ft Knox, Ky Assistant Commandant		DATE 10 May 1985

C. NAME OF RATED SOLDIER (Last, First, MI)		I have verified Administrative Data, PART I, and Duty Description, PART II. I have seen this report as prepared by the Rater and Indorser. I understand that my signature does not constitute agreement nor disagreement with their evaluations.
SSN 255-52-6315	DATE 10 May 85	Signature

D. NAME OF REVIEWER (Last, First, MI)	SSN 020-26-9577	I have reviewed this report in accordance with AR 623-205 on 10 May 1985 (date)
RANK, ORGANIZATION, AND DUTY ASSIGNMENT 33 HQ, USAARMS, Ft Knox, Ky Asst. Commandant		Signature

PART VI. SCORE SUMMARY

PART	RATER SCORE	INDORSER SCORE
III	85	85
IV	40	40
Sum	125	125
REPORT SCORE -		125

PART VII. MILPO CERTIFICATION

A. SOLDIER'S COPY

☐ Given to Soldier ______ (date)

☑ Forwarded to Soldier 17 MAY 1985 (date)

☐ Mailed to Soldier ______ (date)

B. FORWARDING ADDRESS

C. NO. OF INC	D. DATE ENTERED ON DA FORM 2-1	E. MILPO SIGNATURE	F. MILPO
0	17 MAY 1985		TD02

NCO EVALUATION REPORT For use of this form, see AR 623-205, the proponent agency is DCSPER	*SEE PRIVACY ACT STATEMENT IN AR 623-205, APPENDIX E*

PART I - ADMINISTRATIVE DATA

a. NAME *(Last, First, Middle Initial)*	b. SSN	c. RANK	d. DATE OF RANK	e. PMOSC
f. UNIT, ORG., STATION, ZIP CODE OR APO, MAJOR COMMAND			g. REASON FOR SUBMISSION	

h. PERIOD COVERED				i. RATED MONTHS	j. NON-RATED CODES	k. NO. OF ENCL	l. RATED NCO COPY *(Check one and Date)*		m. PSC Initials	n. CMD CODE	o. PSC CODE
FROM		THRU						Date			
YY	MM	YY	MM				☐ 1. Given to NCO				
							☐ 2. Forwarded to NCO				

PART II - AUTHENTICATION

a. NAME OF RATER *(Last, First, Middle Initial)*	SSN	SIGNATURE	
RANK, PMOSC, BRANCH, ORGANIZATION, DUTY ASSIGNMENT			DATE
b. NAME OF SENIOR RATER *(Last, First, Middle Initial)*	SSN	SIGNATURE	
RANK, PMOSC, BRANCH, ORGANIZATION, DUTY ASSIGNMENT			DATE
c. RATED NCO: I understand my signature does not constitute agreement or disagreement with the evaluations of the rater and senior rater. Part I, height/weight and APFT entries are verified. I have seen this report completed through Part V. I am aware of the appeals process of AR 623-205.		SIGNATURE	DATE
d. NAME OF REVIEWER *(Last, First, Middle Initial)*	SSN	SIGNATURE	
RANK, PMOSC, BRANCH, ORGANIZATION, DUTY ASSIGNMENT			DATE

e. ☐ CONCUR WITH RATER AND SENIOR RATER EVALUATIONS ☐ NONCONCUR WITH RATER AND/OR SENIOR RATER EVAL *(See attached comments)*

PART III - DUTY DESCRIPTION (Rater)

a. PRINCIPAL DUTY TITLE	b. DUTY MOSC

c. DAILY DUTIES AND SCOPE *(To include, as appropriate, people, equipment, facilities and dollars)*

d. AREAS OF SPECIAL EMPHASIS

e. APPOINTED DUTIES

f. *Counseling dates from checklist/record*	INITIAL	LATER	LATER	LATER

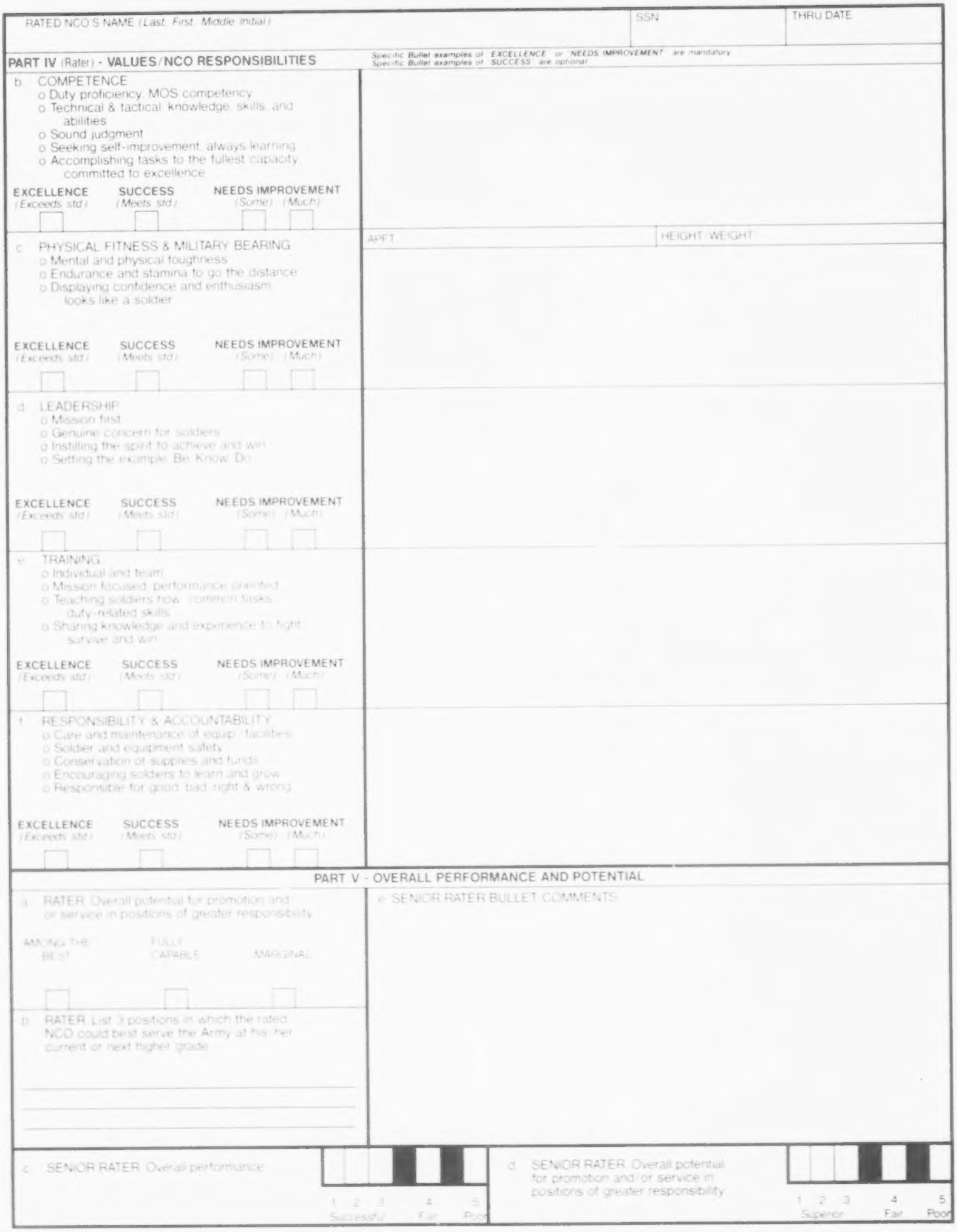
PART IV - VALUES/NCO RESPONSIBILITIES *(Rater)*

a. Complete each question. *(Comments are mandatory for "No" entries; optional for "Yes" entries.)*

			YES	NO
V A L U E S PERSONAL *Commitment* *Competence* *Candor* *Courage* ARMY ETHIC *Loyalty* *Duty* *Selfless Service* *Integrity*	1. Places dedication and commitment to the goals and missions of the Army and nation above personal welfare.	1		
	2. Is committed to and shows a sense of pride in the unit - works as a member of the team.	2		
	3. Is disciplined and obedient to the spirit and letter of a lawful order.	3		
	4. Is honest and truthful in word and deed.	4		
	5. Maintains high standards of personal conduct on and off duty.	5		
	6. Has the courage of convictions and the ability to overcome fear - stands up for and does what's right.	6		
	7. Supports EO/EEO.	7		
	Bullet comments			

DA FORM 2166-7, SEP 87 REPLACES DA FORM 2166-6, OCT 81, WHICH IS OBSOLETE

DA Form 2166-7—page 2 of 2 pages



RATED NCO'S NAME *(Last, First, Middle Initial)*	SSN	THRU DATE

PART IV (Rater) **- VALUES/NCO RESPONSIBILITIES**

Specific Bullet examples of "EXCELLENCE" or "NEEDS IMPROVEMENT" are mandatory
Specific Bullet examples of "SUCCESS" are optional

b. COMPETENCE
- o Duty proficiency; MOS competency
- o Technical & tactical; knowledge, skills, and abilities
- o Sound judgment
- o Seeking self-improvement; always learning
- o Accomplishing tasks to the fullest capacity; committed to excellence

EXCELLENCE *(Exceeds std)*	SUCCESS *(Meets std)*	NEEDS IMPROVEMENT *(Some)*	*(Much)*
☐	☐	☐	☐

c. PHYSICAL FITNESS & MILITARY BEARING
- o Mental and physical toughness
- o Endurance and stamina to go the distance
- o Displaying confidence and enthusiasm; looks like a soldier

APFT	HEIGHT/WEIGHT

EXCELLENCE *(Exceeds std)*	SUCCESS *(Meets std)*	NEEDS IMPROVEMENT *(Some)*	*(Much)*
☐	☐	☐	☐

d. LEADERSHIP
- o Mission first
- o Genuine concern for soldiers
- o Instilling the spirit to achieve and win
- o Setting the example; Be, Know, Do

EXCELLENCE *(Exceeds std)*	SUCCESS *(Meets std)*	NEEDS IMPROVEMENT *(Some)*	*(Much)*
☐	☐	☐	☐

e. TRAINING
- o Individual and team
- o Mission focused; performance oriented
- o Teaching soldiers how; common tasks, duty-related skills
- o Sharing knowledge and experience to fight, survive and win

EXCELLENCE *(Exceeds std)*	SUCCESS *(Meets std)*	NEEDS IMPROVEMENT *(Some)*	*(Much)*
☐	☐	☐	☐

f. RESPONSIBILITY & ACCOUNTABILITY
- o Care and maintenance of equip./facilities
- o Soldier and equipment safety
- o Conservation of supplies and funds
- o Encouraging soldiers to learn and grow
- o Responsible for good, bad, right & wrong

EXCELLENCE *(Exceeds std)*	SUCCESS *(Meets std)*	NEEDS IMPROVEMENT *(Some)*	*(Much)*
☐	☐	☐	☐

PART V - OVERALL PERFORMANCE AND POTENTIAL

a. RATER. Overall potential for promotion and/or service in positions of greater responsibility.

AMONG THE BEST	FULLY CAPABLE	MARGINAL
☐	☐	☐

b. RATER. List 3 positions in which the rated NCO could best serve the Army at his/her current or next higher grade.

____
____
____

e. SENIOR RATER BULLET COMMENTS

c. SENIOR RATER. Overall performance

1	2	3	4	5
☐	☐	☐	☐	☐
Successful			Fair	Poor

d. SENIOR RATER. Overall potential for promotion and/or service in positions of greater responsibility

1	2	3	4	5
☐	☐	☐	☐	☐
Superior			Fair	Poor

NCO COUNSELING CHECKLIST/RECORD

For use of this form, see AR 623-205; the proponent agency MILPERCEN

NAME OF RATED NCO	RANK	DUTY POSITION	UNIT

PURPOSE: The primary purpose of counseling is to improve performance and to professionally develop the rated NCO. The best counseling is always looking forward. It does not dwell on the past and on what was done, rather on the future and what can be done better. Counseling at the end of the rating period is too late since there is no time to improve before evaluation.

RULES:

1. Face-to-face performance counseling is mandatory for all Noncommissioned Officers.
2. This form is for use along with a working copy of the NCO-ER for conducting NCO performance counseling and recording counseling content and dates. Its use is mandatory for counseling all NCOs, CPL thru SFC/PSG, and is optional for counseling other senior NCOs.
3. Active Component. Initial counseling must be conducted within the first 30 days of each rating period, and at least quarterly thereafter. Reserve Components. (ARNG, USAR). Counseling must be conducted at least semiannually. There is no mandatory counseling at the end of the rating period.

CHECKLIST - FIRST COUNSELING SESSION AT THE BEGINNING OF THE RATING PERIOD

PREPARATION

1. Schedule counseling session, notify rated NCO.
2. Get copy of last duty description used for rated NCO's duty position, a blank copy of the NCO-ER, and the names of the new rating chain.
3. Update duty description (see page 2).
4. Fill out rating chain and duty description on working copy of NCO-ER, Parts II and III.
5. Read each of the values/responsibilities in Part IV of NCO-ER and the expanded definitions and examples on page 3 and 4 of this form.
6. Think how each value and responsibility in Part IV of NCO-ER applies to the rated NCO and his/her duty position.

Note: Leadership and training may be more difficult to apply than the other values/responsibilities when the rated NCO has no subordinates. Leadership is simply influencing others in the accomplishment of the mission and that can include peers and superiors. It also can be applied directly to additional duties and other areas of Army community life. Individual training is the responsibility of all NCOs whether or not there are subordinates. Every NCO knows something that can be taught to others and should be involved in some way in a training program.

7. Decide what you consider necessary for success (a meets standards rating) for each value/responsibility. Use the examples listed on pages 3 and 4 of this form as a guide in developing your own standards for success. Some may apply exactly, but you may have to change them or develop new ones that apply to your situation. Be specific so the rated NCO will know what is expected.
8. Make notes in blank spaces in Part IV of NCO-ER to help when counseling.
9. Review counseling tips in FM 22-101.

COUNSELING

1. Make sure rated NCO knows rating chain.
2. Show rated NCO the draft duty description on your working copy of the NCO-ER. Explain all parts. If rated NCO performed in position before, ask for any ideas to make duty description better.
3. Discuss the meaning of each value/responsibility in Part IV of NCO-ER. Use the trigger words on the NCO-ER, and the expanded definitions on pages 3 and 4 of this form to help.
4. Explain how each value/responsibility applies to the specific duty position by showing or telling your standards for success (a meets standards rating). Use examples on pages 3 and 4 of this form as a start point. Be specific so the rated NCO really knows what's expected.
5. When possible, give specific examples of excellence that could apply. This gives the rated NCO something special to strive for. Remember that only a few achieve real excellence and that real excellence always includes specific results and often includes accomplishments of subordinates.
6. Give rated NCO opportunity to ask questions and make suggestions.

AFTER COUNSELING

1. Record rated NCO's name and counseling date on this form.
2. Write key points made in counseling session on this form.
3. Show key points to rated NCO and get his initials.
4. Save NCO-ER with this checklist for next counseling session.

CHECKLIST - LATER COUNSELING SESSIONS DURING THE RATING PERIOD

PREPARATION

1. Schedule counseling session, notify rated NCO, and tell him/her to come prepared to discuss what has been accomplished in each value/responsibility area.
2. Look at working copy of NCO-ER you used during last counseling session.
3. Read and update duty description. Especially note the area of special emphasis; the priorities may have changed.
4. Read again, each of the values/responsibilities in Part IV of NCO-ER and the expanded definitions and examples on pages 3 and 4 of this form; then think again, about your standards for success.
5. Look over the notes you wrote down on page 2 of this form about the last counseling session.
6. Think about what the rated NCO has done so far during this rating period (specifically, observed action, demonstrated behavior, and results).
7. For each value/responsibility area, answer three questions. First, what has happened in response to any discussion you had during the last counseling session? Second, what has been done well?, and Third, what could be done better?
8. Make notes in blank spaces in Part IV of NCO-ER to help focus when counseling. (Use new NCO-ER if old one is full from last counseling session).
9. Review counseling tips in FM 22-101.

DA FORM 2166-7-1, AUG 87

COUNSELING

1. Go over each part of the duty description with rated NCO. Discuss any changes, especially to the area of special emphasis.

2. Tell rated NCO how he/she is doing. Use your success standards as a guide for the discussion (the examples on pages 3 and 4 may help). First, for each value/responsibility, talk about what has happened in response to any discussion you had during the last counseling session (remember, observed action, demonstrated behavior and results). Second, talk about what was done well. Third, talk about how to do better. The goal is to get all NCOs to be successful and meet standards.

3. When possible, give examples of excellence that could apply. This gives the rated NCO something to strive for. REMEMBER, EXCELLENCE IS SPECIAL. ONLY A FEW ACHIEVE IT! Excellence includes results and often involves subordinates.

4. Ask rated NCO for ideas, examples and opinions on what has been done so far and what can be done better. (This step can be done first or last).

AFTER COUNSELING

1. Record counseling date on this form.
2. Write key points made in counseling session on this form.
3. Show key points to rated NCO and get his initials.
4. Save NCO-ER with this checklist for next counseling session. (Notes should make record NCO-ER preparation easy at end of rating period).

COUNSELING RECORD

DATE OF COUNSELING	RATED NCO's INITIALS	KEY POINTS MADE
INITIAL		
LATER		
LATER		
LATER		

DUTY DESCRIPTION (PART III of NCO-ER)

The duty description is essential to performance counseling and evaluation. It is used during the first counseling session to tell rated NCO what the duties are and what needs to be emphasized. It may change somewhat during the rating period. It is used at the end of the rating period to record what was important about the duties.

The five elements of the duty description:

1 & 2. Principal Duty Title and Duty MOS Code. Enter principal duty title and DMOS that most accurately reflects actual duties performed.

3. Daily Duties and Scope. This portion should address the most important routine duties and responsibilities. Ideally, this should include number of people supervised, equipment, facilities, and dollars involved and any other routine duties and responsibilities critical to mission accomplishment.

4. Area of Special Emphasis. This portion is most likely to change somewhat during the rating period. For the first counseling session, it includes those items that require top priority effort at least for the first part of the upcoming rating period. At the end of the rating period, it should include the most important items that applied at any time during the rating period (examples are preparation for REFORGER deployment, combined arms drills training for FTX, preparation for NTC rotation, revision of battalion maintenance SOP, training for tank table qualification, ITEP and company AMTP readiness, related tasks cross-training, reserve components annual training support (AT) and SIDPERS acceptance rate).

5. Appointed Duties. This portion should include those duties that are appointed and are not normally associated with the duty description.

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VALUES/NCO RESPONSIBILITIES (PART IV of NCO-ER)

VALUES: Values are what soldiers, as a profession, judge to be right. They are the moral, ethical, and professional attributes of character. They are the heart and soul of a great Army. Part IVa of the NCO-ER includes some of the most important values. These are: Putting the welfare of the nation, the assigned mission and teamwork before individual interests; Exhibiting absolute honesty and courage to stand up for what is right; Developing a sense of obligation and support between those who are led, those who lead, and those who serve alongside; Maintaining high standards of personal conduct on and off duty; And finally, demonstrating obedience, total adherence to the spirit and letter of a lawful order, discipline, and ability to overcome fear despite difficulty or danger.

Examples of standards for "YES" ratings:

- Put the Army, the mission and subordinates first before own personal interest.
- Meet challenges without compromising integrity.
- Personal conduct, both on and off duty, reflects favorably on NCO corps.
- Obey lawful orders and do what is right without orders.
- Choose the hard right over the easy wrong.
- Exhibit pride in unit, be a team player.
- Demonstrate respect for all soldiers regardless of race, creed, color, sex, or national origin.

COMPETENCE: The knowledge, skills and abilities necessary to be expert in the current duty assignment and to perform adequately in other assignments within the MOS when required. Competence is both technical and tactical and includes reading, writing, speaking and basic mathematics. It also includes sound judgment, ability to weigh alternatives, form objective opinions and make good decisions. Closely allied with competence is the constant desire to be better, to listen and learn more and to do each task completely to the best of one's ability. Learn, grow, set standards, and achieve them, create and innovate, take prudent risks, never settle for less than best. Committed to excellence.

Examples of standards for "Success/Meets Standards" rating:

- Master the knowledge, skills and abilities required for performance in your duty position.
- Meet PMOS SQT standards for your grade.
- Accomplish completely and promptly those tasks assigned or required by duty position.
- Constantly seek ways to learn, grow and improve.

Examples of "Excellence":

- Picked as SSG to be a platoon sergeant over twelve other SSGs.
- Maintained SIDPERS rating of 98% for six months.
- Scored 94% on last SQT.
- Selected best truck master in annual battalion competition.
- Designated Installation Drill Sergeant of Quarter.
- Exceeded recruiting objectives two consecutive quarters.
- Awarded Expert Infantryman Badge (EIB).

PHYSICAL FITNESS AND MILITARY BEARING: Physical fitness is the physical and mental ability to accomplish the mission – combat readiness. Total fitness includes weight control, diet and nutrition, smoking cessation, control of substance abuse, stress management, and physical training. It covers strength, endurance, stamina, flexibility, speed, agility, coordination and balance. NCOs are responsible for their own physical fitness and that of their subordinates. Military Bearing consists of posture, dress, overall appearance, and manner of physical movement. Bearing also includes an outward display of inner-feelings, fears, and overall confidence and enthusiasm. An inherent NCO responsibility is concern with the military bearing of the individual soldier, to include on-the-spot corrections.

Examples of standards for "Success/Meets Standards" rating:

- Maintain weight within Army limits for age and sex.
- Obtain passing score in APFT and participate in a regular exercise program.
- Maintain personal appearance and exhibit enthusiasm to the point of setting an example for junior enlisted soldiers.
- Monitor and encourage improvement in the physical and military bearing of subordinates.

Examples of "Excellence":

- Received Physical Fitness Badge for 292 score on APFT.
- Selected soldier of the month/quarter/year.
- Three of the last four soldiers of the month were from his/her platoon.
- As Master Fitness Trainer, established battalion physical fitness program.
- His entire squad was commended for scoring above 270 on APFT.

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LEADERSHIP: Influencing others to accomplish the mission. It consists of applying leadership attributes (Beliefs, Values, Ethics, Character, Knowledge, and Skills). It includes setting tough, but achievable standards and demanding that they be met; Caring deeply and sincerely for subordinates and their families and welcoming the opportunity to serve them; Conducting counseling; Setting the example by word and act/deed; Can be summarized by BE (Committed to the professional Army ethic and professional traits); KNOW (The factors of leadership, yourself, human nature, your job, and your unit); DO (Provide direction, implement, and motivate). Instill the spirit to achieve and win; Inspire and develop excellence. A soldier cared for today, leads tomorrow.

Examples of standards for "Success/Meets Standards" rating:

- Motivate subordinates to perform to the best of their ability as individuals and together as a disciplined cohesive team to accomplish the mission.
- Demonstrate that you care deeply and sincerely for soldiers and welcome the opportunity to serve them.
- Instill the spirit to achieve and win; Inspire and develop excellence through counseling.
- Set the example: BE, KNOW, DO.

Examples of "Excellence":

- Motivated entire squad to qualify expert with M-16.
- Won last three platoon quad inspections.
- Selected for membership in Sergeant Morales Club.
- Inspired mechanics to maintain operational readiness rating of 95% for two consecutive quarters.
- Led his squad through map orienteering course to win the battalion competition.
- Counseled two marginal soldiers ultimately selected for promotion.

TRAINING: Preparing individuals, units and combined arms teams for duty performance; The teaching of skills and knowledge. NCOs contribute to team training, are often responsible for unit training (Squads, Crews, Sections), but individual training is the most important, exclusive responsibility of the NCO Corps. Quality training bonds units. Leads directly to good discipline; Concentrates on wartime missions; Is tough and demanding without being reckless; Is performance oriented; Sticks to Army doctrine to standardize what is taught to fight, survive, and win, as small units when AirLand battle actions dictate. "Good training means learning from mistakes and allowing plenty of room for professional growth. Sharing knowledge and experience is the greatest legacy one can leave subordinates."

Examples of standards for "Success/Meets Standards" rating:

- Make sure soldiers-
  - a. Can do identified common tasks.
  - b. Are prepared for SQT and Commander's Evaluation.
  - c. Develop and practice skills for duty position.
  - d. Train as a squad/crew/section.
- Identify and recommend subordinates for professional development courses.
- Participate in unit training program.
- Share knowledge and experience with subordinates.

Examples of "Excellence":

- Taught five common tasks resulting in 100% GO on Annual CTT for all soldiers in directorate.
- Trained best howitzer section of the year in battalion.
- Coached subordinates to win consecutive soldier of month competitions.
- Established company Expert Field Medical Badge program resulting in 85% of all eligible soldiers receiving EFMB.
- Distinguished 1 tank and qualified 3 tanks in platoon on first run of tank table VIII.
- Trained platoon to fire honor battery during annual service practice.

RESPONSIBILITY AND ACCOUNTABILITY: The proper care, maintenance, use, handling, and conservation of personnel, equipment, supplies, property, and funds. Maintenance of weapons, vehicles, equipment, conservation of supplies, and funds is a special NCO responsibility because of its links to the success of all missions, especially those on the battlefield. It includes inspecting soldier's equipment often, using manual or checklist; Holding soldiers responsible for repairs and losses; Learning how to use and maintain all the equipment soldiers use; Being among the first to operate new equipment; Keeping up-to-date component lists; Setting aside time for inventories; and Knowing the readiness status of weapons, vehicles, and other equipment. It includes knowing where each soldier is during duty hours; Why he is going on sick call, where he lives, and his family situation; It involves reducing accidental manpower and monetary losses by providing a safe and healthful environment; It includes creating a climate which encourages young soldiers to learn and grow, and, to report serious problems without fear of repercussions. Also, NCOs must accept responsibility for their own actions and for those of their subordinates.

Examples of standards for "Success/Meets Standards" rating:

- Make sure your weapons, equipment, and vehicles are serviceable, maintained and ready for accomplishing the mission.
- Stop waste of supplies and limited funds.
- Be aware of those things that impact on soldier readiness e.g., family affairs, SQT, CTT, PQR, special duty, medical conditions, etc.
- Be responsible for your actions and those of your subordinates.

Examples of "Excellence":

- His emphasis on safety resulted in four tractor trailer drivers logging 10,000 miles accident free.
- Received commendation from CG for organizing post special olympics program.
- Won the installation award for Quarters of the Month.
- His constant instruction on maintenance resulted in six of eight mechanics earning master mechanic badges.
- Commended for no APCs on deadline report for six months.
- His learn and grow climate resulted in best platoon ARTEP results in the battalion.

☆ U.S. GPO 1988-0-201-424/80267

ROUTINE

PT 00092 310/2106Z PAGE 01

* * * * * *

* TC:_____*

CONTROL NR:_________ PROPONENT:______________ INFO: AG DRF * OPR;____*

ARMAG ARMBD ASD CHAPLAIN CPO DOC DEH DOL DOIM DPCA DPTM DRCS * * * * * *

DRM DSEC EEO IG NCOA PAO PCF PMO PROTOCOL RDC-L SGS SJA TNGGP 194BDE

1BDE 4BDE AC CMSDEPT DCD DOES DOTD MAINTDEPT OCOA TSMT WPNSDEPT 12CAV

CID COMSY DENTAC MEDDAC LAO RGKNOX SSG 2ROTC 430RD 902MI USAISC 100DIV

TCC FILE --

RCTUADFN RUCLEJ86800 3090135-UUUU--RUCIBAA.
ZNR UUUUU
R 031758Z NOV 88
FM CDR TNGSPTCEN FT EUSTIS VA //ATIC-ITF //
TO CDRUSAARMC FT KNOX KY//ATZK-DPT-PO-SQT-TSO 085//
BT
UNCLAS
SUBJ: INDIVIDUAL SOLDIER'S REPORT

PERSONAL IN NATURE

*** INDIVIDUAL SOLDIER'S REPORT ***

COMMANDER TSO: 085 TESTED: 27 OCT 88
SCORED: 03 NOV 88
SQT: 11B418800

REPORT ON: SCORE: 97
SSN: 576-62-2945
MOSC: 11B4 INFANTRYMAN

****

THE S Q T INDICATES POTENTIAL TRAINING WEAKNESS ON TASK(S):

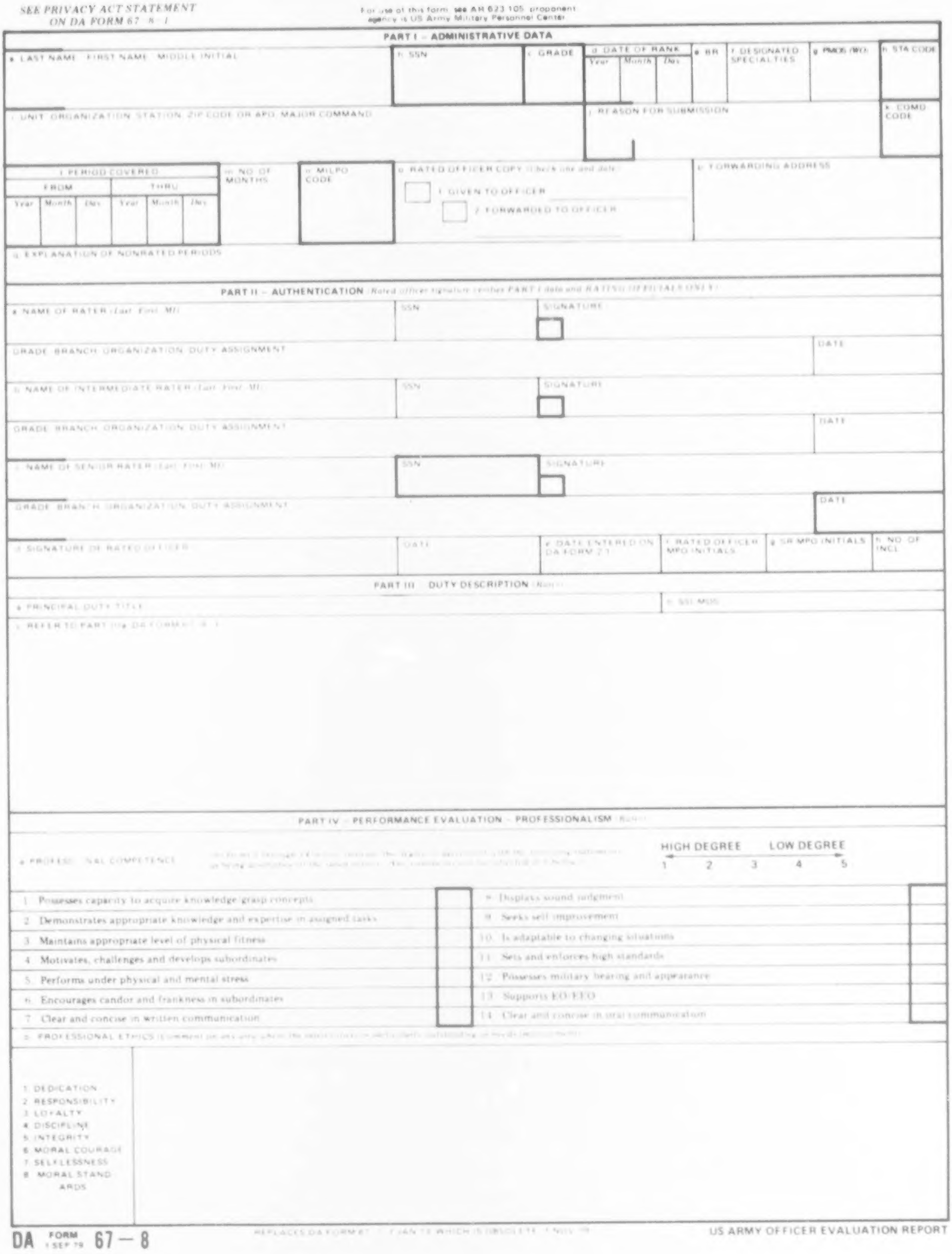
051-192-3032 HASTY MINEFIELD

THE SOLDIER ALSO MISSED QUESTIONS ON TASK(S):

071-326-0543 ORGN SQUAD FOR ATTCK
071-326-5509 CONSOLID/REORG SQUAD
071-326-5630 PLATOON MOVEMENT
071-331-0002 COND LOCAL SECURITY
BT

ROUTINE

G-26 DA Form 67-8—page 1 of 2 pages



SEE PRIVACY ACT STATEMENT ON DA FORM 67-8-1

For use of this form, see AR 623-105; proponent agency is US Army Military Personnel Center

PART I – ADMINISTRATIVE DATA

a. LAST NAME – FIRST NAME – MIDDLE INITIAL

b. SSN

c. GRADE

d. DATE OF RANK (Year / Month / Day)

e. BR

f. DESIGNATED SPECIALTIES

g. PMOS (WO)

h. STA CODE

i. UNIT, ORGANIZATION, STATION, ZIP CODE OR APO, MAJOR COMMAND

j. REASON FOR SUBMISSION

k. COMD CODE

l. PERIOD COVERED

FROM			THRU		
Year	Month	Day	Year	Month	Day

m. NO. OF MONTHS

n. MILPO CODE

o. RATED OFFICER COPY (Check one and date)

☐ 1. GIVEN TO OFFICER

☐ 2. FORWARDED TO OFFICER

p. FORWARDING ADDRESS

q. EXPLANATION OF NONRATED PERIODS

PART II – AUTHENTICATION *(Rated officer signature verifies PART I data and RATING OFFICIALS ONLY)*

a. NAME OF RATER *(Last, First, MI)*

SSN

SIGNATURE

GRADE, BRANCH, ORGANIZATION, DUTY ASSIGNMENT

DATE

b. NAME OF INTERMEDIATE RATER *(Last, First, MI)*

SSN

SIGNATURE

GRADE, BRANCH, ORGANIZATION, DUTY ASSIGNMENT

DATE

c. NAME OF SENIOR RATER *(Last, First, MI)*

SSN

SIGNATURE

GRADE, BRANCH, ORGANIZATION, DUTY ASSIGNMENT

DATE

d. SIGNATURE OF RATED OFFICER

DATE

e. DATE ENTERED ON DA FORM 2-1

f. RATED OFFICER MPO INITIALS

g. SR MPO INITIALS

h. NO. OF INCL

PART III – DUTY DESCRIPTION *(Rater)*

a. PRINCIPAL DUTY TITLE

b. SSI/MOS

c. REFER TO PART IIIa, DA FORM 67-8-1

PART IV – PERFORMANCE EVALUATION – PROFESSIONALISM *(Rater)*

a. PROFESSIONAL COMPETENCE [illegible]

HIGH DEGREE ← → LOW DEGREE
1 2 3 4 5

1. Possesses capacity to acquire knowledge/grasp concepts		8. Displays sound judgment	
2. Demonstrates appropriate knowledge and expertise in assigned tasks		9. Seeks self improvement	
3. Maintains appropriate level of physical fitness		10. Is adaptable to changing situations	
4. Motivates, challenges and develops subordinates		11. Sets and enforces high standards	
5. Performs under physical and mental stress		12. Possesses military bearing and appearance	
6. Encourages candor and frankness in subordinates		13. Supports EO/EEO	
7. Clear and concise in written communication		14. Clear and concise in oral communication	

b. PROFESSIONAL ETHICS [illegible]

1. DEDICATION
2. RESPONSIBILITY
3. LOYALTY
4. DISCIPLINE
5. INTEGRITY
6. MORAL COURAGE
7. SELFLESSNESS
8. MORAL STANDARDS

DA FORM 67-8, 1 SEP 79

REPLACES DA FORM 67-7, 1 JAN 73 WHICH IS OBSOLETE 1 NOV 79

US ARMY OFFICER EVALUATION REPORT

PERIOD COVERED

PART V - PERFORMANCE AND POTENTIAL EVALUATION (Rater)

a. RATED OFFICER'S NAME

SSN

RATED OFFICER IS ASSIGNED IN ONE OF HIS/HER DESIGNATED SPECIALTIES/MOS ☐ YES ☐ NO

b. PERFORMANCE DURING THIS RATING PERIOD. REFER TO PART III, DA FORM 67-8 AND PART Ia, b, c AND d, DA FORM 67-8-1.

☐ ALWAYS EXCEEDED REQUIREMENTS ☐ USUALLY EXCEEDED REQUIREMENTS ☐ MET REQUIREMENTS ☐ OFTEN FAILED REQUIREMENTS ☐ USUALLY FAILED REQUIREMENTS

c. COMMENT ON SPECIFIC ASPECTS OF THE PERFORMANCE. REFER TO PART III, DA FORM 67-8 AND PART Ia, b, c AND d, DA FORM 67-8-1. DO NOT USE FOR COMMENTS ON POTENTIAL!

d. THIS OFFICER'S POTENTIAL FOR PROMOTION TO THE NEXT HIGHER GRADE IS:

☐ PROMOTE AHEAD OF CONTEMPORARIES ☐ PROMOTE WITH CONTEMPORARIES ☐ DO NOT PROMOTE ☐ OTHER (Explain below)

e. COMMENT ON POTENTIAL

PART VI - INTERMEDIATE RATER

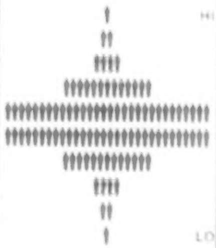
a. COMMENTS

PART VII - SENIOR RATER

a. POTENTIAL EVALUATION (See Chapter 4, AR 623-105)

SR

DA USE ONLY

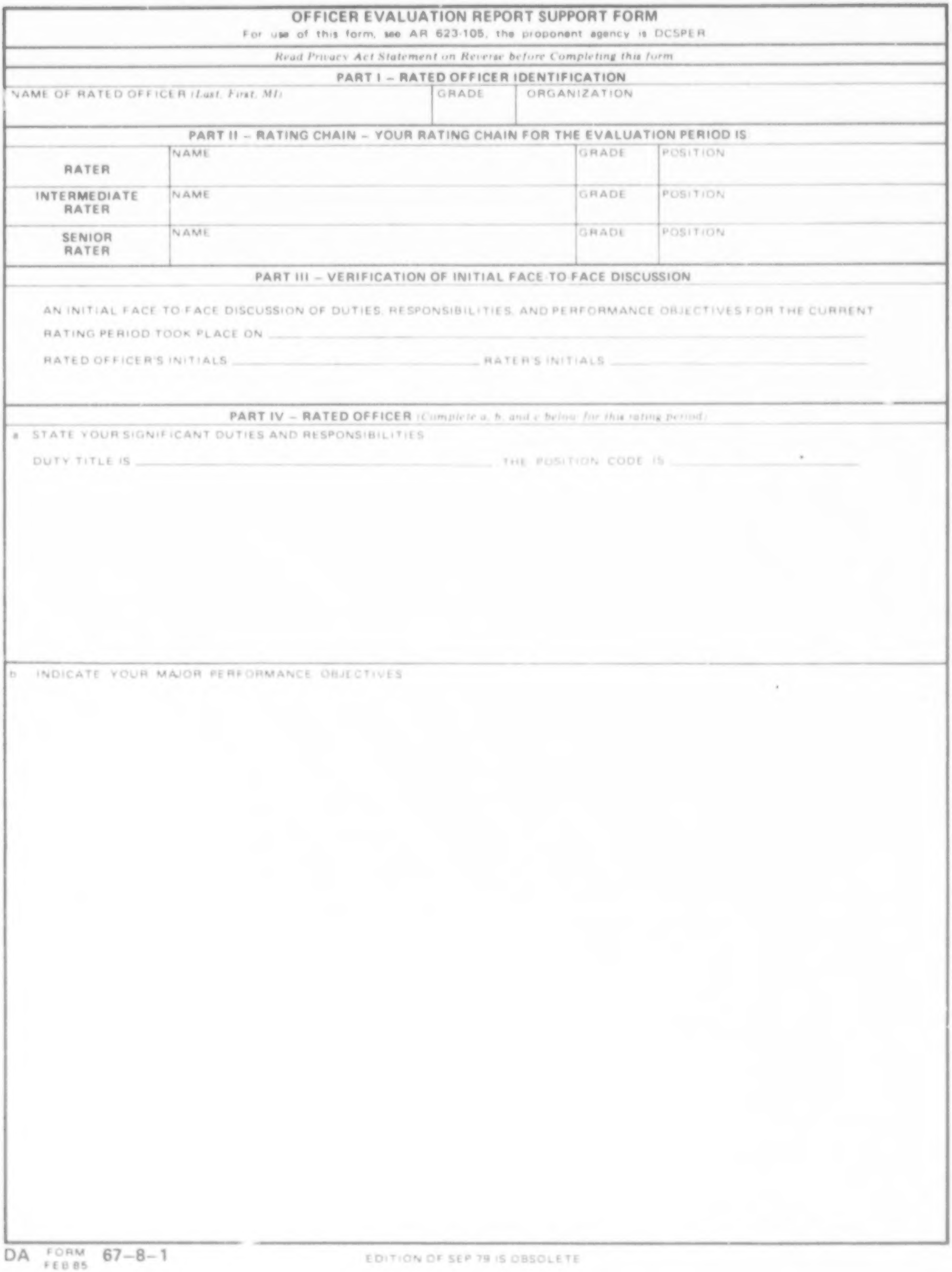


A COMPLETED DA FORM 67-8-1 WAS RECEIVED WITH THIS REPORT AND CONSIDERED IN MY EVALUATION AND REVIEW

☐ YES ☐ NO (Explain in comments)

b. COMMENTS

G-28 DA Form 67-8-1—page 1 of 2 pages



OFFICER EVALUATION REPORT SUPPORT FORM

For use of this form, see AR 623-105, the proponent agency is DCSPER

Read Privacy Act Statement on Reverse before Completing this form

PART I – RATED OFFICER IDENTIFICATION

NAME OF RATED OFFICER *(Last, First, MI)*	GRADE	ORGANIZATION

PART II – RATING CHAIN – YOUR RATING CHAIN FOR THE EVALUATION PERIOD IS

RATER	NAME	GRADE	POSITION
INTERMEDIATE RATER	NAME	GRADE	POSITION
SENIOR RATER	NAME	GRADE	POSITION

PART III – VERIFICATION OF INITIAL FACE-TO-FACE DISCUSSION

AN INITIAL FACE-TO-FACE DISCUSSION OF DUTIES, RESPONSIBILITIES, AND PERFORMANCE OBJECTIVES FOR THE CURRENT RATING PERIOD TOOK PLACE ON ______________________________

RATED OFFICER'S INITIALS ____________________ RATER'S INITIALS ____________________

PART IV – RATED OFFICER *(Complete a, b, and c below for this rating period)*

a. STATE YOUR SIGNIFICANT DUTIES AND RESPONSIBILITIES

DUTY TITLE IS ______________________________ THE POSITION CODE IS ____________________

b. INDICATE YOUR MAJOR PERFORMANCE OBJECTIVES

DA FORM FEB 85 67–8–1 EDITION OF SEP 79 IS OBSOLETE

DA Form 67-8-1—page 2 of 2 pages

c. LIST YOUR SIGNIFICANT CONTRIBUTIONS

SIGNATURE AND DATE

PART V – RATER AND/OR INTERMEDIATE RATER *(Review and comment on Part IVa, b, and c above. Insure remarks are consistent with your performance and potential evaluation on DA Form 67–8.)*

a. RATER COMMENTS *(Optional)*

SIGNATURE AND DATE *(Mandatory)*

b. INTERMEDIATE RATER COMMENTS *(Optional)*

SIGNATURE AND DATE *(Mandatory)*

DATA REQUIRED BY THE PRIVACY ACT OF 1974 *(5 U.S.C. 552a)*

1. **AUTHORITY:** Sec 301 Title 5 USC; Sec 3012 Title 10 USC.

2. **PURPOSE:** DA Form 67–8, Officer Evaluation Report, serves as the primary source of information for officer personnel management decisions. DA Form 67–8–1, Officer Evaluation Support Form, serves as a guide for the rated officer's performance, development of the rated officer, enhances the accomplishment of the organization mission, and provides additional performance information to the rating chain.

3. **ROUTINE USE:** DA Form 67–8 will be maintained in the rated officer's official military Personnel File (OMPF) and Career Management Individual File (CMIF). A copy will be provided to the rated officer either directly or sent to the forwarding address shown in Part I, DA Form 67–8. DA Form 67–8–1 is for organizational use only and will be returned to the rated officer after review by the rating chain.

4. **DISCLOSURE:** Disclosure of the rated officer's SSN (Part I, DA Form 67–8) is voluntary. However, failure to verify the SSN may result in a delayed or erroneous processing of the officer's OER. Disclosure of the information in Part IV, DA Form 67–8–1 is voluntary. However, failure to provide the information requested will result in an evaluation of the rated officer without the benefits of that officer's comments. Should the rated officer use the Privacy Act as a basis not to provide the information requested in Part IV, the Support Form will contain the rated officer's statement to that effect and be forwarded through the rating chain in accordance with AR 623–105.

☆ U.S. Government Printing Office: 1985—491-002/43128

OFFICER RECORD BRIEF (DA Pam 600-8)

CON NO | BRIEF DATE | BASIC CON BR | BR DTL EXPIRES | COMPONENT | SSN | NAME

SECTION I - ASSIGNMENT INFORMATION

OVERSEAS DUTY

YR MO RTN	COUNTRY	MONTHS	TCS	NUMBER OF OS TOURS	
				SHORT	LONG
				DROS	DEROS
				CONUS DEPARTURE DATE	

DATE DEPENDENTS ARRIVED OS

SPECIALTY MOS DATA

ADDITIONAL SD MOS

ASI DATA

SPECIALITIES

PREV DSGNATED SPEC 1

PREV DSGNATED SPEC 2

CONTROL SPECIALTY

PROJECTED SPECIALTY

FAO/GEO AREA

AVIATOR/GUNNERY QUALIFICATIONS

ASI

TYPE AVIATOR

PILOT STATUS		AIRCRAFT	QUAL	AIRCRAFT	QUAL	AIRCRAFT	QUAL	AIRCRAFT	QUAL
INST CERT									
SIT COURSES									
RATING DATE									
	GUNNERY SYSTEMS								

SECTION II - SECURITY DATA

SCTY CLEARANCE

COMPL DATE OF SCTY INVES

TYPE COMD OF SCTY INVES

SECTION V - FOREIGN LANGUAGE

LANGUAGE	READ	LISTEN

QUAL

SECTION VI - MILITARY EDUCATION

COURSE | ME | YEAR

SECTION III - SERVICE DATA

PEBD	CURRENT PPN	EAD CURRENT TOUR
BASIC DATE OF APT	BASIC YR GP	SOURCE OF ORIG APT
MIL DAYS AFCS	MO AFS	TYPE OF ORIG APT
CURR SVC AGRMT EXPR DATE		DATE OF PROJ MAND RET

	2LT W01	1LT CW2	CPT CW3	MAJ CW4
	LTC	COL	BG	MG
			GEN	

SECTION IV - PERSONAL/FAMILY DATA

DATE OF BIRTH	BIRTHPLACE
COUNTRY OF CIT	SEX/RACE
NO. DEPENDENT ADULTS/CHILDREN	RELIGION
MARITAL STATUS	SPOUSE BIRTHPLACE/CIT
PULHES DATE	HEIGHT/WEIGHT

HOME OF RECORD AT EAD

MAILING ADDRESS

SECTION VII - CIVILIAN EDUCATION

CEL

INSTITUTION

ACAD DISC | DEG | YR

INSTITUTION

ACAD DISC | DEG | YR

INSTITUTION

ACAD DISC | DEG | YR

SECTION VIII - AWARDS AND DECORATIONS

SECTION X - REMARKS

SECTION IX - ASSIGNMENT HISTORY

DATE OF AVAILABILITY | DATE OF LAST PCS | DATE OF LAST OER | ORG ZIP CODE

ASGT	FROM DATE	M	SI TA	ORGANIZATION	STATION	CTY	COMD	DUTY TITLE	DMOS
PROJ									
CURRENT									
1ST PREV									
2ND PREV									
3RD PREV									
4TH PREV									
5TH PREV									
6TH PREV									
7TH PREV									
8TH PREV									
9TH PREV									
10TH PREV									
11TH PREV									
12TH PREV									
13TH PREV									
14TH PREV									
15TH PREV									
16TH PREV									
17TH PREV									
18TH PREV									
19TH PREV									

DA FORM 4037, JUL 82 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE For detailed explanations of data items, see Procedure 5-1 DA Pam 600-8.

REQUEST FOR ARMY/AMERICAN COUNCIL ON EDUCATION REGISTRY TRANSCRIPT

For use of this form, see AR 621-5; the proponent agency is DCSPER

DATA REQUIRED BY THE PRIVACY ACT OF 1974

AUTHORITY	10 USC, Section 4302
PRINCIPAL PURPOSE(S)	To enable to Army/American Council on Education Registry Transcript System to access its computerized files, retrieve data, and produce a transcript for forwarding to individual/other addressee designated by the individual. Use of Social Security Number (SSN) is necessary to make positive identification of individual and records.
ROUTINE USES	Upon initiation of individual.
DISCLOSURE	Voluntary. Failure to provide required information will complicate, delay and/or prevent administrative actions needed to produce the transcript and forward it to desired addressee.

ELIGIBLES Soldiers entering active duty on or after 1 October 1981.

MAIL TO AARTS Office, Ft. Leavenworth, KS 66027-5073

SUBMIT SEPARATE REQUEST FOR EACH TRANSCRIPT *(Type or print legibly)*

1. NAME *(Last, First, MI)* *(List other last names used in parenthesis)*

2. RANK	3. DATE OF BIRTH *(Year, Month, Day)*	4. SSN ☐☐☐-☐☐-☐☐☐☐

5. STATUS ☐ ACTIVE DUTY ☐ VETERAN	6. MONTH AND YEAR ENTERED ON ACTIVE DUTY *(Must Be On/After OCT 1981)*

7. Send Transcript To

A. YOUR NAME OR ARMY EDUCATION CENTER OR ADMISSION/REGISTRAR'S OFFICE OR INDIVIDUAL, ETC

B. UNIT ADDRESS OR OFFICE SYMBOL OR NAME OF COLLEGE/UNIVERSITY OR TITLE OF INDIVIDUAL, ETC

C. STREET ADDRESS	D. P.O. BOX NO	E. APT. NO
F. CITY OR APO	G. STATE	H. ZIP CODE

8. Write Your Current Mailing Address ***(If in Block 7A Above Write "Same" Here)***

A. MILITARY UNIT OR OFFICE SYMBOL OR LEAVE BLANK

B. STREET ADDRESS	C. P.O. BOX NO	D. APT. NO
E. CITY OR APO	F. STATE	G. ZIP CODE

9. ETS DATE (Year, Mo., Day)	10. TRANSCRIPT WILL BE USED FOR ☐ COLLEGE CREDITS ☐ PERSONAL ☐ REFERENCE ☐ OTHER *(Specify)*
11. SIGNATURE	

12. *FOR OFFICIAL USE ONLY*

A. DATE ENTERED	B. TRANSCRIBER	C. FICE CODE	D. TRANSCRIPT ID#

DA FORM 5454-R, APR 89

89-4169-POST-30,000-10 July 89

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

07/26/89 ** INSTITUTIONAL COPY **

TRANSCRIPT SENT TO:

AARTS IVY TECH
1234 UNIVERSITY AVENUE
ANYWHERE, USA
99999-0000

NAME: HENSLEY DANIEL EUGENE
SSN: 999-99-9999
RANK:
SPECIALIST 4
MILITARY STATUS:
ACTIVE
TIME IN SERVICE:
7 YEARS, 1 MONTHS
ACADEMIC LEVEL COMPLETED:
HS GRADUATE

89-10010

------------------------ MILITARY COURSE COMPLETIONS ------------------------

COURSE: BASIC MILITARY TRAINING
(RECRUIT TRAINING)

ACE GUIDE ID NUMBER:
AR-2201-0197

ACE CREDIT RECOMMENDATION: IN THE LOWER-DIVISION BACCALAUREATE/ ASSOCIATE DEGREE CATEGORY, 1 SEMESTER HOUR IN OUTDOOR SKILLS PRACTICUM, 1 IN MARKSMANSHIP, 1 IN PERSONAL HEALTH, AND 1 IN PERSONAL PHYSICAL CONDITIONING (9/79).

COURSE: STRATEGIC MICROWAVE SYSTEMS REPAIRER
SIGNAL SCHOOL
FT GORDON, GA

ACE GUIDE ID NUMBER:
AR-1715-0437

DATES TAKEN: 08/15/82-02/15/83 ARMY COURSE NUMBER: 101-26V10

DESCRIPTION: TO PROVIDE TRAINING IN THE INSTALLATION, OPERATION AND REPAIR OF STRATEGIC MICROWAVE RADIO SYSTEMS. AFTER 2/86 SEE AR-1715-0672. THE COURSE INCLUDES COMPREHENSIVE COVERAGE OF BASIC ELECTRONICS: SOLID-STATE CIRCUITRY OF POWER SUPPLIES, AUDIO AMPLIFIERS, PULSE GENERATORS, AM/FM TRANSCEIVERS, AND LOGIC TRAINERS. APPROXIMATELY 50 PERCENT OF COURSE TIME IS DEVOTED TO PRACTICAL OPERATION AND TROUBLESHOOTING OF MILITARY RADIO EQUIPMENT, INCLUDING 76 HOURS IN PRECISION SOLDERING. PREREQUISITES INCLUDE COMPLETION OF A COURSE IN ALGEBRA AND SOME BACKGROUND IN SCIENCE.

ACE CREDIT RECOMMENDATION: IN THE VOCATIONAL CERTIFICATE CATEGORY, 6 SEMESTER HOURS IN BASIC ELECTRONICS, 6 IN TROUBLESHOOTING TECHNIQUES, 2 IN SOLDERING OF PRINTED CIRCUIT BOARD REPAIR (8/79); IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 6 SEMESTER HOURS IN ELECTRICITY OR ELECTRONICS BASICS, 2 IN BASIC ELECTRONIC COMMUNICATIONS, 2 IN DIGITAL CIRCUITS, 2 IN TROUBLESHOOTING TECHNIQUES (8/79); IN THE UPPER-DIVISION BACCALAUREATE, 3 SEMESTER

************************ CONTINUED ON PAGE 2 ************************

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

TRANSCRIPT SENT TO:
AARTS IVY TECH
1234 UNIVERSITY AVENUE
ANYWHERE, USA
99999-0000

NAME: HENSLEY DANIEL EUGENE
SSN: 999-99-9999

------------------------ MILITARY COURSE COMPLETIONS ------------------------

HOURS IN ELECTRICITY OR ELECTRONICS LABORATORY CREDIT BASED ON INSTITUTIONAL EVALUATION (8/79).

COURSE: PRIMARY LEADERSHIP DEVELOPMENT
INFANTRY SCHOOL
FT BENNING, GA

ACE GUIDE ID NUMBER:
AR-2201-0253

DATES TAKEN: 05/29/86-06/27/86 ARMY COURSE NUMBER: 698-3-PLDC

DESCRIPTION: TO PREPARE STUDENTS TO SUPERVISE SUBORDINATES AND TO PERFORM EFFECTIVELY AS LEADERS IN AN ORGANIZATIONAL ENVIRONMENT. LECTURES AND PRACTICAL EXERCISES IN LEADERSHIP, COMMUNICATIONS, RESOURCE MANAGEMENT, TRAINING MANAGEMENT, AND PROFESSIONAL SKILLS, INCLUDING INTRODUCTION TO LEADERSHIP, PRINCIPLES OF LEADERSHIP, HUMAN BEHAVIOR, CHARACTER OF LEADERS, ETHICS, PROBLEM SOLVING, LEADERSHIP STYLES, PRINCIPLES OF MOTIVATION, COUNSELING, AND RESPONSIBILITY OF AUTHORITY.

ACE CREDIT RECOMMENDATION: IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 3 SEMESTER HOURS IN PERSONNEL MANAGEMENT (5/87).

COURSE: CIRCUIT CONDITIONING
SIGNAL SCHOOL
FT GORDON, GA

ACE GUIDE ID NUMBER:
AR-1715-0196

DATES TAKEN: 02/09/88-03/10/88 ARMY COURSE NUMBER: 101-ASIN3

DESCRIPTION: TO TRAIN MICROWAVE SYSTEM, FIXED-PLANT CARRIER, FIXED-CIPHONY, OR DIAL CENTRAL OFFICE REPAIRMEN TO MAINTAIN SIGNAL-CONDITIONING EQUIPMENT. LECTURES AND PRACTICAL EXERCISES IN SIGNAL-CONDITIONING EQUIPMENT MAINTENANCE, INCLUDING CIRCUIT CONDITIONING AND TESTING; TYPES OF CIRCUIT-CONDITIONING TEST EQUIPMENT; ENVELOPE DELAY DISTORTION PRINCIPLES AND EQUALIZERS; COMMUNICATIONS SYSTEMS INTERFACING; AND TROUBLESHOOTING, REPAIR, AND PREVENTIVE MAINTENANCE PROCEDURES.

ACE CREDIT RECOMMENDATION: CREDIT IS NOT RECOMMENDED DUE TO THE

************************ CONTINUED ON PAGE 3 ********************************

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

```
07/26/89                  ** INSTITUTIONAL COPY **                    PAGE  3

     TRANSCRIPT SENT TO:                    NAME: HENSLEY DANIEL EUGENE
     AARTS IVY TECH                          SSN: 999-99-9999
     1234 UNIVERSITY AVENUE
     ANYWHERE, USA
          99999-0000

---------------------- MILITARY COURSE COMPLETIONS ---------------------
   LIMITED, SPECIALIZED NATURE OF THE COURSE (7/85).

--------------------------- TEST SCORES ----------------------------

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - GENERAL

    -    01180       ENGLISH COMPOSITION (NO ESSAY)
    DATE: 04/25/86  SCORE: 655
    ACE RECOMMENDED PASSING SCORE: 530   ACE RECOMMENDED CREDIT: 06 SH
    -    02186       NATURAL SCIENCES
    DATE: 05/05/86  SCORE: 461   BS: 46   PS: 48
    ACE RECOMMENDED PASSING SCORE: 421   ACE RECOMMENDED CREDIT: 06 SH
    -    03182       MATHEMATICS
    DATE: 07/14/86  SCORE: 555   MS: 57   MC: 56
    ACE RECOMMENDED PASSING SCORE: 421   ACE RECOMMENDED CREDIT: 06 SH

                    --------------------------

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) - SUBJECT

    -    T8051       COLLEGE GERMAN LEVELS I AND II
    DATE: 05/06/88  SCORE: 067   SUBTEST 1: 65   SUBTEST 2: 68
    ACE RECOMMENDED PASSING SCORE: 040   ACE RECOMMENDED CREDIT: AS FOLLOWS
            CREDIT BASED ON SCORE
            SCORE 40-47 AWARDS 6 SH; 48 + OVER AWARDS 12 SH
--------------------- MILITARY EXPERIENCE --------------------------

MILITARY OCCUPATIONAL SPECIALTY GROUP: 26V      ACE GUIDE ID NUMBER:
TITLE: STRATEGIC MICROWAVE SYSTEMS REPAIRER        MOS 26V-002

MILITARY OCCUPATIONAL SPECIALTIES HELD: 26V10  PRIMARY
                                        26V10  DUTY

SKILL QUALIFICATION TESTS TAKEN:        26V10  DATE: 09/84   SCORE: 098
                                        26V10  DATE: 04/86   SCORE: 090

   DESCRIPTION OF 26V10: KNOWS MICROWAVE COMMUNICATIONS SYSTEMS,
   TERMINOLOGY AND CIRCUITRY; USES TEST EQUIPMENT TO DETERMINE EQUIPMENT
   CONDITION; OPERATES BASIC MICROWAVE EQUIPMENT; DOES FIRST LINE REPAIR
   AND MAINTENANCE.

   ACE CREDIT RECOMMENDATION FOR 26V10: IN THE VOCATIONAL CERTIFICATE
   CATEGORY OR IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE
```

************************ CONTINUED ON PAGE 4 ********************************

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

07/26/89 ** INSTITUTIONAL COPY ** PAGE 4

TRANSCRIPT SENT TO:
AARTS IVY TECH
1234 UNIVERSITY AVENUE
ANYWHERE, USA
99999-0000

NAME: HENSLEY DANIEL EUGENE
SSN: 999-99-9999

---------------------- MILITARY EXPERIENCE ----------------------

CATEGORY, 3 SEMESTER HOURS IN INTRODUCTION TO ELECTRONICS, 2 IN AC/DC CIRCUITS, 2 IN COMMUNICATIONS PRINCIPLES, 2 IN TROUBLESHOOTING TECHNIQUES, AND 2 IN ACTIVE DEVICES (5/79).

MILITARY OCCUPATIONAL SPECIALTY GROUP: 29V ACE GUIDE ID NUMBER:
TITLE: STRATEGIC MICROWAVE SYSTEMS REPAIRER MOS 29V-001

MILITARY OCCUPATIONAL SPECIALTIES HELD: 29V10 PRIMARY
29V10 DUTY

SKILL QUALIFICATION TESTS TAKEN: NONE

DESCRIPTION OF 29V10: USES TEST EQUIPMENT TO TROUBLESHOOT MICROWAVE COMMUNICATION EQUIPMENT, TERMINALS, AND SYSTEMS; TROUBLESHOOTS AND REPAIRS TO THE COMPONENT LEVEL; OPERATES EQUIPMENT AND COMPLETES PREVENTIVE MAINTENANCE PROCEDURES.

ACE CREDIT RECOMMENDATION FOR 29V10: IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 3 SEMESTER HOURS IN BASIC ELECTRONICS LABORATORY, 2 IN DIGITAL PRINCIPLES, AND 3 IN ELECTRONIC SYSTEMS TROUBLESHOOTING AND MAINTENANCE (6/88).

MILITARY OCCUPATIONAL SPECIALTY GROUP: 76P ACE GUIDE ID NUMBER:
TITLE: MATERIEL CONTROL AND ACCOUNTING SPECIALIST MOS 76P-002

MILITARY OCCUPATIONAL SPECIALTIES HELD: 76P10 DUTY

SKILL QUALIFICATION TESTS TAKEN: NONE

DESCRIPTION OF 76P10: PREPARES STOCK RECORDS AND OTHER DOCUMENTS SUCH AS INVENTORY, STOCK CONTROL, AND ACCOUNTING REPORTS; OPERATES OFFICE MACHINES AND DATA PROCESSING EQUIPMENT; MAINTAINS TECHNICAL REFERENCE LIBRARY; REVIEWS AND PROCESSES SUPPLY REQUESTS; EDITS CATALOG DATA AND DAILY ACTIVITY WORKLOAD; PERFORMS FINANCIAL INVENTORY ACCOUNTING ADMINISTRATION FUNCTIONS; INTERPRETS SUPPLY DOCUMENTS IN AN AUTOMATED ENVIRONMENT FOR INPUT AND OUTPUT PROCESSING; MAY PERFORM ACCOUNTING AND SALES FUNCTIONS IN SELF-SERVICE SUPPLY, REPAIR AND UTILITIES, CLOTHING SALES, AND MILITARY EXCHANGE ACTIVITIES; RECEIVES, STORES, AND ISSUES DIRECT EXCHANGE ITEMS.

************************ CONTINUED ON PAGE 5 ************************

ARMY/AMERICAN COUNCIL ON EDUCATION
REGISTRY TRANSCRIPT

07/26/89 ** INSTITUTIONAL COPY ** PAGE 5

TRANSCRIPT SENT TO:
AARTS IVY TECH
1234 UNIVERSITY AVENUE
ANYWHERE, USA
99999-0000

NAME: HENSLEY DANIEL EUGENE
SSN: 999-99-9999

MILITARY EXPERIENCE

ACE CREDIT RECOMMENDATION FOR 76P10: IN THE VOCATIONAL CERTIFICATE CATEGORY OR IN THE LOWER-DIVISION BACCALAUREATE/ASSOCIATE DEGREE CATEGORY, 2 SEMESTER HOURS IN RECORD KEEPING, 1 IN WAREHOUSE PRACTICES, 2 IN OFFICE MACHINES, 1 IN RETAILING, AND 2 IN COMPUTER OPERATIONS (9/82).

SPECIAL QUALIFICATION IDENTIFIERS:

(L) LINGUIST

ADDITIONAL SKILL IDENTIFIERS:

(N3) CIRCUIT CONDITIONING

OTHER LEARNING EXPERIENCES

THIS SECTION PROVIDES THE ACADEMIC AND BUSINESS COMMUNITIES WITH A RECORD OF THE SOLDIER'S LEARNING EXPERIENCES. COURSES LISTED MAY FALL INTO ONE OF THE FOLLOWING CATEGORIES: THOSE THAT ACE WILL NEVER EVALUATE FOR COLLEGE CREDIT, THOSE THAT ARE PENDING EVALUATION, AND THOSE THAT ARE EVALUATED BUT ARE NOT CURRENTLY COMPUTER COMPATIBLE. EVENTUALLY MOST OF THE LEARNING EXPERIENCES IN THE SECOND AND THIRD CATEGORIES WILL BE INCLUDED IN THE MAIN BODY OF THE TRANSCRIPT. WE RECOMMEND REVIEW OF THE LISTING WITH THE SOLDIER TO DETERMINE THE APPROPRIATENESS OF THE EXPERIENCES TO THE SOLDIER'S PROGRAM OF STUDY OR EMPLOYMENT.

ARMY COURSE NUMBER/ DATES TAKEN	ARMY COURSE TITLE/ COURSE LOCATION
01GM 11/06/86-07/24/87	GERMAN BASIC DLI FOREIGN LANG CENTER PRESIDIO OF SAN FRAN, CA

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*********** LAST ENTRY ******************************** PAGE  5 OF  5 **********
*****        GENERAL INFORMATION ON REVERSE SIDE        ***********************
***** AARTS PHONE: COM (913) 684-4211 OR AVN 552-4211         ****************
***** ACE PHONE: COM (202) 939-9430                     ****************
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ARMY OCCUPATIONAL TITLE INDEX

The following columns cross-reference Army enlisted and warrant officer MOS titles to MOS exhibit ID numbers. Titles are listed alphabetically.

Accounting Specialist	MOS-73D-001 MOS-73D-002
Administrative Specialist	MOS-71L-001 MOS-71L-002
Aerial Electronic Warning Defense Equipment Repairer	MOS-26K-002
Aerial Equipment Repair Technician (Warrant Officer)	MOS-401A-001 MOS-461A-001
Aerial Intelligence Specialist	MOS-96H-002
Aerial Photoactive Sensor Repairer	MOS-26F-001
Aerial Radar Sensor Repairer	MOS-26E-002
Aerial Sensor Specialist (OV-1B/C)	MOS-17L-002
Aerial Sensor Specialist (OV-1D)	MOS-96H-001
Aerial Surveillance Infrared Repairer	MOS-26N-002
Aerial Surveillance Photographic Equipment Repairer	MOS-41G-002
Aerial Surveillance Radar Repairer	MOS-26M-002
Aerial Surveillance Sensor Repairer	MOS-26E-001
Aeroscout Observer	MOS-93B-001
Air Defense Artillery (ADA) Command and Control Maintenance Technician (Warrant Officer)	MOS-225B-001
Air Defense Artillery (ADA) Operations and Intelligence Assistant	MOS-16H-001
Air Defense Artillery (ADA) Senior Sergeant	MOS-16Z-001
Air Defense Missile Fire Control Technician, Nike (Warrant Officer)	MOS-222B-001
Air Defense Missile System Repair Technician, Improved Hawk (Warrant Officer)	MOS-251D-001
Air Defense Missile System Repair Technician, Nike (Warrant Officer)	MOS-251B-001
Air Defense Missile System Technician, Improved Hawk (Warrant Officer)	MOS-223D-001
Air Defense Radar Repairer	MOS-26H-002
Air Defense Radar Repairman	MOS-26H-001
Air Traffic Control (ATC) Operator	MOS-93C-001 MOS-93C-002
Air Traffic Control (ATC) Tower Operator	MOS-93H-001 MOS-93H-002
Air Traffic Control Systems, Subsystems and Equipment Repairer	MOS-93D-001
Air Traffic Control Technician (Warrant Officer)	MOS-150A-001 MOS-150A-002
Airborne Sensor Specialist	MOS-17L-001
Airborne Surveillance Radar Repairman	MOS-26M-001
Airbrake Repairer	MOS-65E-001 MOS-88R-001
Airbrake Repairman	MOS-65E-001
Aircraft Armament Repairman	MOS-45J-001
Aircraft Armament Subsystem Mechanic	MOS-45M-001
Aircraft Armament Technical Inspector	MOS-66J-001
Aircraft Armament/Missile Systems Repairer	MOS-68J-004
Aircraft Components Repair Supervisor	MOS-68K-001
Aircraft Electrician	MOS-68F-001 MOS-68F-002
Aircraft Fire Control Repairer	MOS-68J-002 MOS-68J-003
Aircraft Fire Control Repairman	MOS-35J-001
Aircraft Hydraulics Repairman	MOS-68H-001
Aircraft Maintenance Senior Sergeant	MOS-67Z-001 MOS-67Z-002 MOS-67Z-003
Aircraft Pneudraulics Repairer	MOS-68H-002
Aircraft Powerplant Repairer	MOS-68B-002
Aircraft Powertrain Repairer	MOS-68D-002
Aircraft Powertrain Repairman	MOS-68D-001
Aircraft Quality Control Supervisor	MOS-67W-002
Aircraft Rotor and Propeller Repairman	MOS-68E-001
Aircraft Structural Repairer	MOS-68G-002
Aircraft Turbine Engine Repairman	MOS-68B-001
Aircraft Weapon Systems Repairer	MOS-68M-002 MOS-68M-003
Airdrop Equipment Repair Technician (Warrant Officer)	MOS-401A-001
Airdrop Equipment Technician (Warrant Officer)	MOS-401A-001 MOS-921A-001
Airframe Repairman	MOS-68G-001
Airplane Repairer	MOS-67G-002
Airplane Technical Inspector	MOS-67F-001
All Source Intelligence Technician (Warrant Officer)	MOS-350B-001
Allied Trades Technician (Warrant Officer)	MOS-914A-001
Ammunition Foreman	MOS-55Z-001
Ammunition Inspector	MOS-55X-001
Ammunition Specialist	MOS-55B-002
Ammunition Stock Control and Accounting Specialist	MOS-55R-001
Ammunition Storage and Operations Specialist	MOS-55B-001 MOS-55B-002
Ammunition Supervisor	MOS-55Z-001
Ammunition Technician (Warrant Officer)	MOS-411A-001 MOS-910A-001
Animal Care Specialist	MOS-91T-002
Animal Specialist	MOS-91T-002 MOS-91T-003
Antenna Installer Specialist	MOS-36D-002
Antennaman	MOS-36D-001
Anti-Ballistic Missile Maintenance Specialist	MOS-28M-001
Area Air Defense Artillery Crewman	MOS-16R-002
Area Communications Chief	MOS-31Z-001
Area Intelligence Specialist	MOS-97C-001 MOS-97C-002
Area Intelligence Technician (Warrant Officer)	MOS-351C-001 MOS-972A-001
Armament Maintenance Foreman	MOS-45Z-001

Armament Maintenance Supervisor	MOS-45Z-001
Armament Repair Technician (Warrant Officer)	MOS-421A-001 MOS-913A-001
Armament/Fire Control Maintenance Supervisor	MOS-45Z-002
Armor Cavalry Maintenance Technician (Warrant Officer)	MOS-630D-001
Armor Crewman	MOS-11E-001 MOS-11E-002
Armor Reconnaissance Specialist	MOS-11D-001 MOS-11D-002
Armor Reconnaissance Vehicle Crewman	MOS-19G-001
Armor Reconnaissance Vehicle Driver	MOS-19H-001
Armor Senior Sergeant	MOS-19Z-001
Armor/Cavalry Systems Maitenance Technician (Warrant Officer)	MOS-915D-001
Army Attache Administrative Officer (Warrant Officer)	MOS-961A-001
Artillery Repairer	MOS-45L-001 MOS-45L-002
Artillery Repairman	MOS-45L-001
Artillery Surveyor	MOS-82C-001
Arts and Crafts Specialist	MOS-03D-001
Asphalt Equipment Operator	MOS-62D-001
Assistant Special Agent	MOS-95D-001
Atomic Demolition Munitions (ADM) Specialist	MOS-12E-002
Atomic Demolition Munitions Specialist	MOS-12E-001
Attache Specialist	MOS-71S-001
Attache Technician (Warrant Officer)	MOS-350L-001 MOS-961A-001
Attack Helicopter Pilot (Warrant Officer)	MOS-062E-001 MOS-100E-001
Attack Helicopter Repairer	MOS-67Y-002
Audio Specialist	MOS-84D-001
Audio-Visual Chief	MOS-25Z-001
Audio-Visual Equipment Repairer	MOS-41E-002
Audio-Visual Equipment Repairman	MOS-41E-002
Audio/TV Specialist	MOS-84F-002
Automated Communications Computer Systems Repairer	MOS-39G-001
Automatic Data Telecommunications Center Operator	MOS-72G-003
Automatic Digital Message Switch Equipment (ADMSE) Repairer	MOS-29H-001
Automatic Test Equipment Operator/Maintainer	MOS-39B-001
Automatic Test Equipment Repairer	MOS-35C-001
Automotive Maintenance Technician (Warrant Officer)	MOS-631A-001
Automotive Repair Parts Specialist	MOS-76S-001
Automotive Repair Technician (Warrant Officer)	MOS-630A-001 MOS-632A-001
Automotive Repairer	MOS-63H-003
Automotive Repairman	MOS-63H-001 MOS-63H-002 MOS-63H-003
Aviation Maintenance Technician (Warrant Officer)	MOS-151A-001 MOS-160A-001
Aviation Operations Specialist	MOS-93P-002
Aviation Technician (Warrant Officer)	MOS-103A-001 MOS-160A-001
Avionic Communications Equipment Repairer	MOS-35L-002 MOS-68L-001
Avionic Communications Equipment Repairman	MOS-35L-001
Avionic Equipment Maintenance Supervisor	MOS-35P-001 MOS-35P-002
Avionic Flight Control Equipment Repairman	MOS-35N-001
Avionic Flight Systems Repairer	MOS-68Q-001
Avionic Mechanic	MOS-35K-002 MOS-68N-001
Avionic Navigation and Flight Control Equipment Repairer	MOS-35M-002
Avionic Navigation Equipment Repairman	MOS-35M-001
Avionic Radar Equipment Repairman	MOS-35R-001
Avionic Radar Repairer	MOS-68R-001
Avionic Special Equipment Repairer	MOS-35R-002
Avionics Mechanic	MOS-35K-001
ADA (Air Defense Artillery) Short Range Gunnery Crewman	MOS-16R-002
ADA (Air Defense Artillery) Short Range Missile Crewman	MOS-16P-001
ADMS Peripheral Equipment Repairman	MOS-34L-001
ADMSE Repairman	MOS-34H-001
ADP (Automatic Data Processing) Systems Analyst	MOS-74G-001
ADPS (Automatic Data Processing Systems) Maintenance Supervisor	MOS-34Z-001
ADPS (Automatic Data Processing Systems) Repairman	MOS-34D-001
ADPS Machine Operations Specialist	MOS-74D-001
AH-1 Attack Helicopter Repairer	MOS-67Y-003
AH-1 Attack Helicopter Technical Inspector	MOS-66Y-001
AH-1 Attack Pilot (Warrant Officer)	MOS-152G-001 MOS-152G-002
AH-1G Helicopter Repairman	MOS-67Y-001
AH-64 Attack Helicopter Repairer	MOS-67R-001
AH-64 Attack Helicopter Technical Inspector	MOS-66R-001
AH-64 Attack Pilot (Warrant Officer)	MOS-152F-002
AH-64 Pilot (Warrant Officer)	MOS-152F-001
AN/TSQ-51 System Repairman/Maintenance Chief	MOS-25K-001
AN/TSQ-73 Air Defense Artillery Command and Control System Operator/Repairer	MOS-25L-001
ATC (Air Traffic Control) Radar Controller	MOS-93J-001
Baker	MOS-94D-001
Ballistic Meteorology Crewman	MOS-93F-001
Bandmaster (Warrant Officer)	MOS-031A-001 MOS-420C-001
Bands Senior Sergeant	MOS-02Z-001
Baritone or Euphonium Player	MOS-02C-002 MOS-02C-003
Baritone-Euphonium Player	MOS-02C-001
Bassoon Player	MOS-02K-001 MOS-02K-002 MOS-02K-003
Behavioral Science Specialist	MOS-91G-001 MOS-91G-002
Biological Sciences Assistant	MOS-01H-001 MOS-01H-002
Biomedical Equipment Maintenance Chief	MOS-35U-001 MOS-35U-002
Biomedical Equipment Repair Technician (Warrant Officer)	MOS-202A-001 MOS-670A-001
Biomedical Equipment Repairer	MOS-35G-002
Biomedical Equipment Repairman	MOS-35G-001

Biomedical Equipment Specialist, Advanced MOS-35U-003
Biomedical Equipment Specialist, Basic MOS-35G-003
Brace Specialist MOS-42C-001
Bradley Fighting Vehicle System Mechanic MOS-45T-001
Brass Group Leader MOS-02P-001
Bridge Crewman MOS-12C-002
Bridge Specialist MOS-12C-001
Broadcast Journalist MOS-46R-001
Broadcast Specialist MOS-71R-001
MOS-71R-002
BIRDIE Repairman MOS-25D-001

C-12 Pilot (Warrant Officer) MOS-155E-001
MOS-155E-002
Cable Splicer MOS-36E-001
MOS-36E-002
Calibration and Repair Technician (Warrant Officer) MOS-252A-001
Calibration Specialist MOS-35H-001
MOS-35H-002
MOS-35H-003
Calibration Technician (Warrant Officer) MOS-252A-001
Camera Repairman MOS-41E-001
Camouflage Specialist MOS-51E-001
Cannon Crewman MOS-13B-002
Cannon Crewmember MOS-13B-003
Cannon Fire Direction Specialist MOS-13E-003
MOS-13E-004
Cannon Fire Direction/Fire Support Specialist MOS-13E-002
Cannon/Missile Senior Sergeant MOS-13Y-001
Cannoneer MOS-13A-001
Canvas Repairman MOS-43K-001
Carbon Dioxide-Hydrogen Production Specialist MOS-53C-001
Card and Tape Writer MOS-71U-001
MOS-74B-001
Cardiac Laboratory Specialist MOS-91N-001
Cardiac Specialist MOS-91N-002
Career Counselor MOS-79D-001
Cargo Handler MOS-57H-001
Cargo Helicopter Pilot (Warrant Officer) MOS-062C-001
MOS-100C-001
Cargo Specialist MOS-88H-001
Carpenter MOS-51B-001
MOS-51B-002
Carpentry and Masonry Specialist MOS-51B-002
Cartographer MOS-81C-002
Cartographic Draftsman MOS-81C-001
Cartographic Specialist MOS-81C-001
Cavalry Scout MOS-19D-001
Central Office Operations Operator MOS-72H-002
Central Office Operations Specialist MOS-72H-001
Central Office Switchboard Operator MOS-72C-001
Chaparral Crewman MOS-16P-001
Chaparral Crewmember MOS-16P-002
Chaparral System Mechanic MOS-24N-001
MOS-24N-002
Chaparral/Redeye Repairer MOS-27G-002
Chaparral/Vulcan Air Defense System Repairman MOS-27F-001
Chaparral/Vulcan System Technician (Warrant Officer) MOS-224B-001
Chaparral/Vulcan Systems Technician (Warrant Officer) MOS-140B-001
Chapel Activities Specialist MOS-71M-002
Chaplain Assistant MOS-71M-003
MOS-71M-004
Chaplain's Assistant MOS-71M-001
Chemical Engineering Assistant MOS-01G-001
Chemical Equipment Repairer MOS-54D-002
Chemical Equipment Repairman MOS-54D-001
MOS-54D-002
Chemical Laboratory Specialist MOS-92D-001
MOS-92D-002
Chemical Operations Assistant MOS-54A-001
Chemical Operations Specialist MOS-54B-002
MOS-54E-002
Chemical Senior Sergeant MOS-54Z-001
Chemical Staff Specialist MOS-54E-001
Chief Engineer, Unlimited (Warrant Officer) MOS-562B-001
Chief Engineer, 1250 Horsepower (Warrant Officer) MOS-562D-001
Chief Engineer, 1800 Horsepower (Warrant Officer) MOS-562C-001
Chief Engineer, 600 Horsepower (Warrant Officer) MOS-562E-001
Civil Engineering Assistant MOS-01D-001
Clarinet Player MOS-02J-001
MOS-02J-002
MOS-02J-003
Clerk-Typist MOS-71B-001
Clinical Specialist MOS-91C-001
MOS-91C-002
Club Manager MOS-00J-001
MOS-00J-002
MOS-00J-003
Club Manager (Warrant Officer) MOS-021A-001
MOS-420D-001
Club/Community Activity Manager MOS-00J-003
Combat Area Surveillance Radar Repairer MOS-26C-002
MOS-26C-003
MOS-26C-004
Combat Area Surveillance Radar Repairman MOS-26C-001
Combat Engineer MOS-12B-001
MOS-12B-002
MOS-12B-003
Combat Engineer Senior Sergeant MOS-12Z-001
Combat Engineer Track Vehicle Crewman MOS-12F-001
Combat Engineering Senior Sergeant MOS-12Z-002
Combat Service/Support Fixed Wing Pilot (Warrant Officer) MOS-062Q-001
MOS-100Q-001
Combat Signaler MOS-31K-001
Combat Surveillance and Target Acquisition Crewman MOS-17A-001
Combat Surveillance and Target Acquisition NCO MOS-17Z-001
Combat Surveillance Fixed Wing Pilot (Warrant Officer) MOS-062R-001
MOS-100R-001
Combat Telecommunications Center Operator MOS-72E-003
Command and Control Systems Technician (Warrant Officer) MOS-140A-001
Command Sergeant Major MOS-00Z-001
Communications Center Specialist MOS-72B-001
Communications Equipment Maintenance Chief MOS-29X-001

Communications Maintenance Support Chief MOS-29W-001
Communications Security Maintenance Chief MOS-29P-001
Communications Security Technician (Warrant Officer) MOS-250A-001
Communications Systems Circuit Controller MOS-32D-003
Communications Systems Supervisor MOS-31Y-001
Communications Systems/Circuit Control Supervisor Systems MOS-31X-001
Communications Systems/Circuit Controller MOS-31N-003
Communications-Electronics Equipment Repair Technician (Warrant Officer) MOS-286A-001
Communications-Electronics Maintenance Chief MOS-32Z-002
Communications-Electronics Operations Chief MOS-31Z-002
Communications-Electronics Radio Repairer MOS-29E-001
Communications-Electronics Repair Technician (Warrant Officer) MOS-256A-001
MOS-286A-001
Communications-Operations Chief MOS-31Z-003
Communications/Electronics Chief MOS-29Z-001
Computer Programmer MOS-74F-001
Computer Systems Operator MOS-74E-001
Computer/Machine Operator MOS-74D-002
MOS-74D-003
Computerized Systems Maintenance Chief MOS-39V-001
Concrete and Asphalt Equipment Operator MOS-62H-002
Concrete Paving Equipment Operator MOS-62H-001
Construction and Utilities Worker MOS-51A-001
Construction Draftsman MOS-81B-001
MOS-81B-002
Construction Engineering Supervisor MOS-51H-002
Construction Equipment Repairer MOS-62B-003
Construction Equipment Repairman MOS-62B-002
Construction Equipment Supervisor MOS-62N-002
Construction Foreman MOS-51H-001
MOS-51H-002
Construction Machine Supervisor MOS-62N-001
Construction Surveyor MOS-82B-001
MOS-82B-002
Cornet or Trumpet Player MOS-02B-002
Cornet-Trumpet Player MOS-02B-001
Correctional NCO MOS-95C-002
Correctional Specialist MOS-95C-001
Counterbattery/Countermortar Radar Crewman MOS-17B-001
Counterintelligence Agent MOS-97B-001
MOS-97B-002
MOS-97B-003
Counterintelligence Special Agent (Warrant Officer) MOS-351B-001
Counterintelligence Technician (Warrant Officer) MOS-971A-001
Counterintelligence/Human Intelligence Senior Sergeant MOS-97Z-001
Court Reporter MOS-71E-001
MOS-71E-002
MOS-71E-003
MOS-71E-004
Crane Operator MOS-62F-001
Crawler Tractor Operator MOS-62E-001
Cryptographic Equipment Repair Technician (Warrant Officer) MOS-341A-001
Cryptanalytic Specialist MOS-98B-001
Custodial Systems Technician (Warrant Officer) MOS-140C-001
Cytology Specialist MOS-92E-001
CH-47 Helicopter Repairer MOS-67U-003
CH-47 Helicopter Repairman MOS-67U-001
CH-47 Pilot (Warrant Officer) MOS-154B-002
CH-47A/B/C Pilot (Warrant Officer) MOS-154B-001
CH-47D Pilot (Warrant Officer) MOS-154C-001
MOS-154C-002
CH-54 Helicopter Repairman MOS-67X-001
CH-54 Pilot (Heavy Lift RC only) (Warrant Officer) MOS-154A-002
CH-54 Pilot (Warrant Officer) MOS-154A-001
CID Special Agent MOS-95D-003
CID Special Agent (Warrant Officer) MOS-311A-001
CID Special Agent Criminal Investigator (Warrant Officer) MOS-951A-001

Data Communications Switching Center Specialist MOS-72G-001
MOS-72G-002
Data Communications Terminal Specialist MOS-72F-001
Data Processing Equipment Repair Technician (Warrant Officer) MOS-301A-001
Data Processing NCO MOS-74Z-001
Data Processing Systems Repair Technician (Warrant Officer) MOS-257A-001
MOS-287A-001
Data Processing Technician (Warrant Officer) MOS-251A-001
MOS-741A-001
Data Processing Technician Programmer (Warrant Officer) MOS-741D-001
Data Processing Technician, ADPS (Warrant Officer) MOS-741C-001
Data Processing Technician, PCM (Warrant Officer) MOS-741B-001
Decentralized Automated Service Support System Computer Repairer MOS-34C-001
Decentralized Automated Service Support System MOS-39D-001
Decontamination Specialist MOS-54B-001
Defense Acquisition Radar Crewman MOS-16J-001
Defense Acquisition Radar Mechanic MOS-24P-001
MOS-24P-002
Dental Fixed Prosthetic Specialist MOS-42F-001
Dental Laboratory Specialist MOS-42D-002
Dental Removal Prosthetic Specialist MOS-42D-001
Dental Specialist MOS-91E-001
MOS-91E-002
Dial Central Office Repairman MOS-36H-001
Dial/Manual Central Office Repairer MOS-36H-002
Digital Communications Equipment Repairer MOS-29G-001
Digital Equipment Maintenance Chief MOS-29U-001
Diver MOS-00B-001
MOS-00B-002
Dog Trainer MOS-00C-001
Drill Sergeant MOS-00F-001
DIVAD Gun System Technician (Warrant Officer) MOS-224D-001
DSTE Repairer MOS-34F-001
DSTE Repairman MOS-34F-001

Ear, Nose, and Throat (ENT) Specialist	MOS-91U-002
Ear, Nose, and Throat Specialist	MOS-91U-001
Electric Bass Guitar Player	MOS-02U-001
Electrical-Electronic Engineering Assistant	MOS-01B-001
Electrician	MOS-51R-001 MOS-51R-002
Electronic Biomedical Equipment Repairer	MOS-35S-002
Electronic Biomedical Equipment Repairman	MOS-35S-001
Electronic Instrument Repairer	MOS-35B-003
Electronic Instrument Repairman	MOS-35B-001 MOS-35B-002
Electronic Switching Systems Repairer	MOS-36L-002
Electronic Switching Systems Repairman	MOS-36L-001
Electronic Warfare (EW)/Signal Intelligence Analyst	MOS-98C-003
Electronic Warfare (EW)/Signal Intelligence Chief	MOS-98Z-002
Electronic Warfare (EW)/Signal Intelligence Emitter Identifier/Locator	MOS-05D-003 MOS-98D-003
Electronic Warfare (EW)/Signal Intelligence Morse Interceptor	MOS-05H-003 MOS-98H-003
Electronic Warfare (EW)/Signal Intelligence Non-Morse Interceptor	MOS-05K-003
Electronic Warfare (EW)/Signal Intelligence Noncommunications Interceptor	MOS-98J-003
Electronic Warfare (EW)/Signal Intelligence Voice Interceptor	MOS-98G-003
Electronic Warfare Equipment Repairman	MOS-26K-001
Electronic Warfare/Intercept Aerial Sensor Repairer	MOS-33V-001
Electronic Warfare/Intercept Aviation Systems Repairer	MOS-33R-001
Electronic Warfare/Intercept Equipment Repair Technician (Warrant Officer)	MOS-285A-001
Electronic Warfare/Intercept Strategic Processing/Storage Subsystems Repairer	MOS-33Q-001
Electronic Warfare/Intercept Strategic Receiving Subsystems Repairer	MOS-33P-001
Electronic Warfare/Intercept Strategic Systems Analyst and Command and Control Subsystems Repairer	MOS-33M-001
Electronic Warfare/Intercept Systems Maintenance Supervisor	MOS-33Z-002
Electronic Warfare/Intercept Tactical Systems Repairer	MOS-33T-001
Electronics Equipment Maintenance Chief	MOS-39X-001
Electronics Maintenance Chief	MOS-29Z-001
Emanations Analysis Technician (Warrant Officer)	MOS-352J-001 MOS-983A-001
Emitter Location/Identification Technician (Warrant Officer)	MOS-352D-001 MOS-986A-001
Emitter/Locator Identifier	MOS-98D-001
Engineer Equipment Repair Technician (Warrant Officer)	MOS-213A-001 MOS-621A-001
Engineer Equipment Repairman	MOS-62B-001 MOS-62B-002
Engineer Missile Equipment Specialist	MOS-62C-001
Engineer Tracked Vehicle Crewman	MOS-12F-002
Enlisted Aide	MOS-00H-001
Enlisted Bandleader	MOS-02Z-001
Environmental Health Specialist	MOS-91S-002 MOS-91S-003
Equal Opportunity NCO	MOS-00U-002
Equipment Records and Parts Specialist	MOS-76C-001
Executive Administrative Assistant	MOS-71C-003
Expert Linguist	MOS-04C-001
Explosive Ordance Disposal Specialist	MOS-55D-001
Eye Specialist	MOS-91Y-001 MOS-91Y-002
ECM/DF Systems Repairman	MOS-33G-001
EW/Cryptologic Cryptanalyst	MOS-98B-001
EW/Cryptologic Operations Chief	MOS-98Z-001
EW/Intercept Systems Repairer	MOS-33S-001
EW/Intercept Systems Repairman	MOS-33S-001
EW/Signal Intelligence Analyst	MOS-98C-001 MOS-98C-002
EW/Signal Intelligence Chief	MOS-98Z-001
EW/Signal Intelligence Emitter Identifier/Locator	MOS-05D-001 MOS-05D-002
EW/Signal Intelligence Morse Interceptor	MOS-05H-001 MOS-05H-002
EW/Signal Intelligence Non-Morse Interceptor	MOS-05K-001 MOS-05K-002
EW/Signal Intelligence Noncommunications Interceptor	MOS-98J-001 MOS-98J-002
EW/Signal Intelligence Voice Interceptor	MOS-98G-001 MOS-98G-002
Fabric and Leather Repair Foreman	MOS-43M-001
Fabric Repair Specialist	MOS-43M-003
Fabric Repairman	MOS-43M-002
Field Artillery Basic	MOS-13A-001
Field Artillery Cannon Operations/Fire Direction Assistant	MOS-13E-001
Field Artillery Cannon Senior Sergeant	MOS-13Z-001
Field Artillery Computer Repairer	MOS-34Y-001
Field Artillery Crewman	MOS-13B-001
Field Artillery Digital Systems Repairer	MOS-34L-002 MOS-39L-001
Field Artillery Firefinder Radar Operator	MOS-13R-001 MOS-13R-002
Field Artillery Meteorological Crew Member	MOS-93F-002
Field Artillery Meteorological Crewman	MOS-93F-002
Field Artillery Meteorological Crewmember	MOS-93F-003
Field Artillery Missile System Repair Technician, Pershing (Warrant Officer)	MOS-241F-001
Field Artillery Missile System Technician, Lance (Warrant Officer)	MOS-214G-001
Field Artillery Missile System Technician, Pershing (Warrant Officer)	MOS-214E-001
Field Artillery Missile/Rocket Senior Sergeant	MOS-15Z-001
Field Artillery Radar Crewman	MOS-17B-001 MOS-17B-002
Field Artillery Radar Crewmember	MOS-17B-002
Field Artillery Radar Technician (Warrant Officer)	MOS-211A-001
Field Artillery Senior Sergeant	MOS-13Z-001
Field Artillery Surveyor	MOS-82C-002 MOS-82C-003
Field Artillery Systems Maintenance Technician (Warrant Officer)	MOS-915C-001

Field Artillery Tactical Fire Direction Systems Repairer	MOS-34Y-001 MOS-39Y-001
Field Artillery Target Acquisition Senior Sergeant	MOS-13W-001
Field Artillery Target Acquisition Specialist	MOS-17C-002
Field Artillery Vehicle Maintenance Technician (Warrant Officer)	MOS-630C-001
Field Communications Security Equipment Repairer	MOS-29S-001
Field Communications-Electronics Equipment Mechanic	MOS-31B-001
Field General COMSEC Repairer	MOS-31S-002 MOS-31S-003
Field General COMSEC Repairman	MOS-31S-001
Field Illumination Crewman	MOS-17E-001
Field Radio Mechanic	MOS-31B-001
Field Radio Relay Equipment Repairman	MOS-31L-001
Field Radio Repairer	MOS-31E-002
Field Radio Repairman	MOS-31E-001
Field Systems COMSEC Repairer	MOS-31T-002 MOS-31T-003
Field Systems COMSEC Repairman	MOS-31T-001
Field Wireman	MOS-36K-001
Fighting Vehicle Infantryman	MOS-11M-001 MOS-11M-002
Finance Senior Sergeant	MOS-73Z-001
Finance Specialist	MOS-73C-001 MOS-73C-002
Fire Control Computer Repairer	MOS-34G-001
Fire Control Computer Repairman	MOS-34G-001
Fire Control Instrument Repairer	MOS-41C-002 MOS-41C-003
Fire Control Instrument Repairman	MOS-41C-001 MOS-41C-002
Fire Control System Repairer	MOS-45G-001
Fire Distribution Systems Repair Technician (Warrant Officer)	MOS-361A-001
Fire Support Specialist	MOS-13F-001 MOS-13F-002
Firefighter	MOS-51M-001 MOS-51M-002
Fixed Ciphony Repairer	MOS-32F-002
Fixed Ciphony Repairman	MOS-32F-001
Fixed Communications Security Equipment Repairer	MOS-29F-001
Fixed Cryptographic Equipment Repairer	MOS-32G-002
Fixed Cryptographic Equipment Repairman	MOS-32G-001
Fixed Plant Carrier Repairman	MOS-32E-001
Fixed Station Chief	MOS-32Z-001
Fixed Station Radio Repairer	MOS-32H-002
Fixed Station Radio Repairman	MOS-32H-001
Fixed Station Technical Controller	MOS-32D-001
Fixed Wing Aviator (Aircraft Nonspecific) (Warrant Officer)	MOS-155A-002
Fixed Wing Aviator (Warrant Officer)	MOS-155A-001
Flash Ranging Crewman	MOS-17D-001
Flight Operations Coordinator	MOS-71P-001 MOS-71P-002 MOS-93P-001
Flute or Piccolo Player	MOS-02G-002 MOS-02G-003
Flute-Piccolo Player	MOS-02G-001
Food Advisor, 4114 (Warrant Officer)	MOS-041A-001
Food Inspection Specialist	MOS-91R-001
Food Inspection Technician (Warrant Officer)	MOS-051A-002
Food Service Advisor (Warrant Officer)	MOS-941A-001
Food Service Advisor, 941A0 (Warrant Officer)	MOS-041A-001
Food Service Specialist	MOS-94B-001 MOS-94B-002 MOS-94B-003
Food Service Supervisor	MOS-94Z-001
Food Service Technician (Warrant Officer)	MOS-041A-001 MOS-922A-001
Forward Area Alerting Radar (FAAR) Repairer	MOS-27N-001
Forward Area Alerting Radar Operator	MOS-16J-002
French Horn Player	MOS-02D-001 MOS-02D-002 MOS-02D-003
Fuel and Electrical Systems Repairer	MOS-63G-001 MOS-63G-002
Fuel and Electrical Systems Repairman	MOS-63G-001

General Construction Equipment Operator	MOS-62J-002
General Construction Machine Operator	MOS-62J-001
General Draftsman	MOS-81A-001
General Engineering Supervisor	MOS-51Z-001
General Intercept Equipment Repairman	MOS-33B-001
General Staff Administrative Technician (Warrant Officer)	MOS-712A-001
General Supply Technician (Warrant Officer)	MOS-761A-001
Grader Operator	MOS-62K-001
Graphics Documentation Specialist	MOS-25Q-001
Graves Registration Specialist	MOS-57F-003
Ground Control Approach Radar Repairer	MOS-26D-002
Ground Control Approach Radar Repairman	MOS-26D-001
Ground Surveillance Radar Crewman	MOS-17K-001 MOS-17K-002
Ground Surveillance Systems Operator	MOS-96R-001
Guitar Player	MOS-02T-001 MOS-02T-002 MOS-02T-003

Harbormaster/Pilot (Warrant Officer)	MOS-561B-001
Hawk Continuous Wave Radar Mechanic	MOS-24B-001 MOS-24B-002
Hawk Continuous Wave Radar Repairer	MOS-24K-003 MOS-24K-004
Hawk Continuous Wave Radar Repairman	MOS-23T-001 MOS-23T-002
Hawk Field Maintenance Equipment/Pulse Acquisition Radar Repairer	MOS-27J-001
Hawk Fire Control Crew Member	MOS-16E-001
Hawk Fire Control Crewman	MOS-16E-001
Hawk Fire Control Mechanic	MOS-24E-003 MOS-24F-001
Hawk Fire Control Repairer	MOS-24H-003 MOS-24H-004
Hawk Fire Control Repairman	MOS-23Q-001
Hawk Fire Control/Continuous Wave Radar Repairer	MOS-27K-001
Hawk Firing Section Mechanic	MOS-24C-002

Hawk Firing Section Repairer	MOS-27H-003
Hawk Information Coordination Central Mechanic	MOS-24G-003
Hawk Launcher and Mechanical Systems Repairer	MOS-24L-002
Hawk Maintenance Chief	MOS-23V-001 MOS-23V-002 MOS-24V-003 MOS-27V-001
Hawk Master Mechanic	MOS-24R-001
Hawk Missile and Launcher Repairer	MOS-22K-003
Hawk Missile Crew Member	MOS-16D-001
Hawk Missile Crewman	MOS-16D-001
Hawk Missile System Mechanic	MOS-23R-001
Hawk Missile Systems Technician (Warrant Officer)	MOS-140D-001
Hawk Missile-Launcher Mechanic	MOS-24D-001 MOS-24D-002
Hawk Missile-Launcher Repairman	MOS-22K-001 MOS-22K-002
Hawk Pulse Radar Repairer	MOS-24J-003
Hawk Pulse Radar Repairman	MOS-23S-001
Health Physics Specialist	MOS-91X-001
Heating and Cooling Specialist	MOS-51L-001
Heating and Ventilating Specialist	MOS-51J-001
Heavy Antiarmor Weapons Crewman	MOS-11H-001 MOS-11H-002
Heavy Construction Equipment Operator	MOS-62E-002
Heavy Lift Helicopter Pilot (Warrant Officer)	MOS-062D-001 MOS-100D-001
Heavy Lift Helicopter Repairer	MOS-67X-002 MOS-67X-003
Heavy Lift Helicopter Technical Inspector	MOS-66X-001
Heavy Wheel Vehicle Mechanic	MOS-63S-001
Helicopter Missile Systems Repairer	MOS-68J-001
Helicopter Technical Inspector	MOS-67W-001
Helicopter Weapon System Repairer	MOS-68M-001
Hercules Electronics Mechanic	MOS-24U-001 MOS-24U-002
Hercules Fire Control Crew Member	MOS-16C-001
Hercules Fire Control Crewman	MOS-16C-001
Hercules Missile Crew Member	MOS-16B-002
Hercules Missile Crewman	MOS-16B-001 MOS-16B-002
Honest John Rocket Crew Member	MOS-15F-002
Honest John Rocket Crewman	MOS-15F-001 MOS-15F-002
Hospital Food Service Specialist	MOS-94F-001 MOS-94F-002
Illustrator	MOS-81E-001 MOS-81E-002
Image Interpretation Technician (Warrant Officer)	MOS-962A-001
Image Interpreter	MOS-96D-001 MOS-96D-002
Imagery Analyst	MOS-96D-002 MOS-96D-003
Imagery Intelligence Technician (Warrant Officer)	MOS-350D-001
Improved Hawk Continuous Wave Radar Repairer	MOS-24K-003
Improved Hawk Continuous Wave Radar Repairman	MOS-24K-001 MOS-24K-002
Improved Hawk Fire Control Mechanic	MOS-24E-001 MOS-24E-002 MOS-24E-003
Improved Hawk Fire Control Repairer	MOS-24H-003
Improved Hawk Fire Control Repairman	MOS-24H-001 MOS-24H-002
Improved Hawk Firing Section Mechanic	MOS-24C-001 MOS-24C-002
Improved Hawk Information Coordination Central Mechanic	MOS-24G-001 MOS-24G-002 MOS-24G-003
Improved Hawk Launcher and Mechanical Systems Repairer	MOS-24L-002
Improved Hawk Launcher and Mechanical Systems Repairman	MOS-24L-001
Improved Hawk Maintenance Chief	MOS-24V-001 MOS-24V-002 MOS-24V-003
Improved Hawk Master Mechanic	MOS-24R-001
Improved Hawk Mechanical Systems Repairman	MOS-46D-001
Improved Hawk Pulse Radar Repairer	MOS-24J-003
Improved Hawk Pulse Radar Repairman	MOS-24J-001 MOS-24J-002
Improved TOW Vehicle/Infantry Fighting Vehicle/Cavalry Fighting Vehicle Turret Mechanic	MOS-45T-001
Indirect Fire Infantryman	MOS-11C-001 MOS-11C-002 MOS-11C-003
Industrial Gas Production Specialist	MOS-53B-002
Infantry Senior Sergeant	MOS-11Z-002
Infantryman	MOS-11B-001 MOS-11B-002 MOS-11B-003 MOS-11B-004
Information Specialist	MOS-71Q-001
Intelligence and Electronic Warfare (IEW) Equipment Technician) (Warrant Officer)	MOS-353A-001
Intelligence Analyst	MOS-96B-001 MOS-96B-002
Intelligence Senior Sergeant	MOS-96Z-001
Intelligence Technician (Warrant Officer)	MOS-971A-001
Intercept Demultiplex Systems Repairman	MOS-33F-001
Intercept Receiving Systems Repairman	MOS-33C-001
Intercept Recording Systems Repairman	MOS-33D-001
Intercept Repair Technician (Warrant Officer)	MOS-285A-001
Intercept Systems Maintenance Supervisor	MOS-33Z-001
Interior Electrician	MOS-51R-003
Interrogation Technician (Warrant Officer)	MOS-351E-001 MOS-963A-001 MOS-973A-001
Interrogator	MOS-96C-001 MOS-96C-002 MOS-97E-001 MOS-97E-002
IBM Automatic Data Processing Systems Repairer	MOS-39K-001
IBM 360 Repairer	MOS-34K-001
IBM 360 Repairman	MOS-34K-001
ITV/IFV/CFV System Mechanic	MOS-63T-001

Journalist MOS-46Q-001
MOS-71Q-002

Lance Crewmember MOS-13N-001
Lance Missile Crewman MOS-15D-001
MOS-15D-002
Lance Missile Crewmember MOS-15D-002
Lance Missile System Repairman MOS-27D-001
Lance Missile System Technician (Warrant Officer) MOS-130B-001
Lance System Repairer MOS-27L-001
Lance/Honest John Operations/Fire Direction Assistant MOS-15J-001
Lance/Honest John Operations/Fire Direction Specialist MOS-15J-002
Land Combat Support Missile Systems Repair Technician (Warrant Officer) MOS-271A-001
Land Combat Support Missile Systems Technician (Warrant Officer) MOS-912A-001
Land Combat Support System Test Specialist MOS-27B-001
Land Combat Support System Test Specialist/Lance Repairer MOS-27B-002
Laundry and Bath Specialist MOS-57E-001
MOS-57E-002
Legal Administrative Technician (Warrant Officer) MOS-713A-001
Legal Administrator (Warrant Officer) MOS-550A-001
MOS-713A-001
Legal Clerk MOS-71D-001
MOS-71D-002
Legal Specialist MOS-71D-002
Lifting and Loading Equipment Operator MOS-62F-002
Light Air Defense Artillery Crewman (Reserve Forces) MOS-16F-001
Light Air Defense Artillery Crewmember MOS-16F-002
Light Systems Maintenance Technician (Warrant Officer) MOS-630B-001
Light Track Systems Maintenance Technician (Warrant Officer) MOS-915B-001
Light Weapons Infantryman MOS-11B-001
Light Wheel Vehicle Mechanic MOS-63B-003
Light Wheel Vehicle/Power Generation Mechanic MOS-63B-003
Lineman MOS-36C-001
Locomotive Electrician MOS-65F-001
MOS-88S-001
Locomotive Operator MOS-65H-001
MOS-88U-001
Locomotive Repairer MOS-65B-001
MOS-88P-001
Locomotive Repairman MOS-65B-001
LANCE Repairer MOS-27L-001
LCSS Missile Maintenance Chief MOS-27Z-001

Machinist MOS-44E-001
MOS-44E-002
MOS-44E-003
Maintenance Supervisor MOS-68P-001
Man Portable Air Defense System (MANPADS) or Pedestal Mounted Stiner (PMS) Crewmember MOS-16S-002
Maneuver Combat Arms Sergeant MOS-11Z-001
Manual Central Office Repairman MOS-36G-001
Map Reproduction Technician (Warrant Officer) MOS-831A-001
Marine Deck Officer (Warrant Officer) MOS-500A-001
MOS-880A-001
Marine Engineer MOS-61C-001
Marine Engineering Officer (Warrant Officer) MOS-510A-001
MOS-881A-001
Marine Hull Repairer MOS-61F-001
Marine Hull Repairman MOS-61F-001
Marine Senior Sergeant MOS-61Z-001
MOS-88Y-001
Mason MOS-51D-001
Master, 250 Ton Vessel (Warrant Officer) MOS-561E-001
Master, 500 Ton Vessel (Warrant Officer) MOS-561D-001
Materials Quality Specialist MOS-51G-002
Materiel Control and Accounting Specialist MOS-76P-002
Materiel Storage and Handling Specialist MOS-76V-002
Materiel Supply Specialist MOS-76D-002
Materiel Supplyman MOS-76D-001
Mathematics-Statistics Assistant MOS-01E-001
Mechanical Engineering Assistant MOS-01C-001
Mechanical Maintenance Supervisor MOS-63Z-001
MOS-63Z-002
Medical Corpsman MOS-91A-001
Medical Equipment Repairman MOS-35G-001
Medical Laboratory Specialist MOS-92B-001
MOS-92B-002
Medical NCO MOS-91B-004
Medical Records Specialist MOS-71G-001
Medical Senior Sergeant MOS-91Z-001
Medical Specialist MOS-91A-002
MOS-91B-001
MOS-91B-002
MOS-91B-003
Medical Supplyman MOS-76J-001
MOS-76J-002
Medium Helicopter Repairer MOS-67U-002
MOS-67U-003
Medium Helicopter Technical Inspector MOS-66U-001
Memorial Activities Specialist MOS-57F-001
MOS-57F-002
Metal Body Repairman MOS-44B-001
Metal Worker MOS-44B-002
MOS-44B-003
Meteorological Equipment Repairman MOS-35D-001
Meteorological Observer MOS-93E-001
MOS-93E-002
Meteorology Technician (Warrant Officer) MOS-132A-001
MOS-201A-001
Military Intelligence Coordinator MOS-97D-001
Military Personnel Technician (Warrant Officer) MOS-420A-001
MOS-711A-001
Military Physician's Assistant (Warrant Officer) MOS-011A-001
MOS-911A-001
Military Police MOS-95B-002
MOS-95B-003
MOS-95B-004
Military Policeman MOS-95B-001
Missile Assembly Technician, Nike (Warrant Officer) MOS-221B-001

Missile Fire Control Technician, Nike (Warrant Officer)	MOS-222B-001
Missile Maintenance Technician, Safeguard (Warrant Officer)	MOS-221C-001
Missile System Technician, Hawk (Warrant Officer)	MOS-223B-001
Missile System Technician, Improved Hawk (Warrant Officer)	MOS-223B-001
Missile System Technician, Lance (Warrant Officer)	MOS-214G-001
Missile System Technician, Pershing (Warrant Officer)	MOS-214E-001
Missile System Technician, PATRIOT (Warrant Officer)	MOS-222C-001
Missile Tank Turret Mechanic	MOS-45R-001
Mobile ADCP Monitor Repairman	MOS-25G-001
Mobile Subscriber Equipment Communications Chief	MOS-31W-002
Mobile Subscriber Equipment Network Switching System Operator	MOS-31F-001
Mobile Subscriber Equipment Transmission System Operator	MOS-31D-002
Morse Intercept Technician (Warrant Officer)	MOS-051A-001 MOS-352H-001 MOS-984A-001
Morse Interceptor	MOS-98H-001
Motion Picture Photographer	MOS-84C-001
Motion Picture Specialist	MOS-84C-002
Motor Transport Operator	MOS-64C-001 MOS-64C-002 MOS-88M-001
Multi/Observation Helicopter Pilot (Warrant Officer)	MOS-100B-001
Multichannel Communications Equipment Operator	MOS-31M-002 MOS-31M-003
Multichannel Communications Equipment Repairman	MOS-31L-001
Multiengine Attack Helicopter Pilot (Warrant Officer)	MOS-100K-001
Multiengine Utility Helicopter Pilot (Warrant Officer)	MOS-100A-001
Multiple Launch Rocket System (MLRS) Crewmember	MOS-13M-001 MOS-13M-002
Multiple Launch Rocket System (MLRS) Repairer	MOS-27M-001
Multiple Launch Rocket System/LANCE Operations/Fire Direction Specialist	MOS-13P-001
MANPADS Crewman	MOS-16S-001
MLRS/LANCE Operation/Fire Direction Specialist	MOS-15J-003
M1 ABRAMS Tank System Mechanic	MOS-63E-001
M48-M60A1/A3 Armor Crewman	MOS-19E-001
M60A1/A3 Tank System Mechanic	MOS-63N-001
M60A2 Armor Crewman	MOS-19J-001
M60A2 Tank System Mechanic	MOS-63R-001
Neuropsychiatric Specialist	MOS-91F-001
Nike High Power Radar-Simulator Repairer	MOS-23U-002
Nike High Power Radar-Simulator Repairman	MOS-23U-001
Nike Maintenance Chief	MOS-23W-001 MOS-23W-002
Nike Test Equipment Repairer	MOS-22L-002
Nike Test Equipment Repairman	MOS-22L-001
Nike Track Radar Repairer	MOS-23N-002
Nike Track Radar Repairman	MOS-23N-001
Nike-Hercules Custodial Mechanic	MOS-24U-002
Nike-Hercules Fire Control Mechanic	MOS-24Q-001 MOS-24Q-002
Nike-Hercules Missile Launcher Repairer	MOS-22N-002
Nike-Hercules Missile-Launcher Repairman	MOS-22N-001
Non-Morse Intercept Technician (Warrant Officer)	MOS-052A-001 MOS-352K-001 MOS-985A-001
Non-Morse Interceptor/Analyst	MOS-98K-001
Noncommunications Interceptor/Analyst	MOS-98J-003
Nuclear Medicine Specialist	MOS-91W-001 MOS-91W-002
Nuclear Power Plant Chief	MOS-52M-001
Nuclear Power Plant Electrician or Operator	MOS-52J-001
Nuclear Power Plant Instrumentman or Operator	MOS-52K-001
Nuclear Power Plant Mechanic or Operator	MOS-52H-001
Nuclear Power Plant Process Control Specialist or Operator	MOS-52L-001
Nuclear Weapons Electronics Specialist	MOS-35F-001
Nuclear Weapons Maintenance Specialist	MOS-55G-001
Nuclear Weapons Technician (Warrant Officer)	MOS-260A-001 MOS-911A-002
Nuclear, Biological, and Chemical (NBC) Specialist	MOS-54E-003
NCR 500 Computer Repairer	MOS-34E-001
NCR 500 Computer Repairman	MOS-34E-001
O-1/U-6 Airplane Repairman	MOS-67B-001
Oboe Player	MOS-02H-001 MOS-02H-002 MOS-02H-003
Observation Airplane Repairer	MOS-67H-002 MOS-67H-003
Observation Airplane Technical Inspector	MOS-66H-001
Observation/Scout Helicopter Repairer	MOS-67V-002 MOS-67V-003
Observation/Scout Helicopter Technical Inspector	MOS-66V-001
Occupational Therapy Specialist	MOS-91L-001 MOS-91L-002 MOS-91L-003
Office Machine Repairer	MOS-41J-002
Office Machine Repairman	MOS-41J-001 MOS-41J-002
Offset Pressman	MOS-83F-001
Operating Room Specialist	MOS-91D-001 MOS-91D-002 MOS-91D-003
Operations Central Repairer	MOS-25J-002
Operations Central Repairman	MOS-25J-001
Optical Laboratory Specialist	MOS-42E-001 MOS-42E-002
Order of Battle Technician (Warrant Officer)	MOS-350B-001 MOS-964A-001
Ordnance Shop Technician (Warrant Officer)	MOS-441A-001
Orthopedic Specialist	MOS-91H-001 MOS-91H-002

Orthotic Specialist	MOS-42C-002
Oxygen-Acetylene Production Specialist	MOS-53B-001
OC-CDG Repairman	MOS-25J-001
OH-58A/C Observation Pilot (Warrant Officer)	MOS-153C-001 MOS-153C-002
OH-58A/C Scout Pilot (Warrant Officer)	MOS-152B-001 MOS-152B-002
OH-58D Helicopter Repairer	MOS-67S-001
OH-58D Scout Pilot (Warrant Officer)	MOS-152D-001 MOS-152D-002
OH-6 Scout Pilot (Warrant Officer)	MOS-152C-001 MOS-152C-002
OH-6/OH-58 Helicopter Repairman	MOS-67V-001
OV-1 Airplane Repairman	MOS-67H-001
OV-1/RV-1 Pilot (Warrant Officer)	MOS-156A-001 MOS-156A-002
Parachute Rigger	MOS-43E-001 MOS-43E-002
Patient Administration Specialist	MOS-71G-002
Patient Care Specialist	MOS-91C-002
Patriot Missile Crewmember	MOS-16T-001
Patriot Missile System Technician (Warrant Officer)	MOS-140E-001
Patriot Operator and System Mechanic	MOS-24T-001 MOS-24T-002
Patriot Systems Repairer	MOS-27X-001
Pedestal Mounted Stinger, Line of Sight Rear Air Defense System Repairer	MOS-27T-001
Percussion Group Leader	MOS-02R-001
Percussion Player	MOS-02M-001 MOS-02M-002 MOS-02M-003
Performing Arts Specialist	MOS-03B-001
Pershing Communications Specialist	MOS-31D-001
Pershing Electrical-Mechanical Repairer	MOS-46N-002 MOS-46N-003
Pershing Electrical-Mechanical Repairman	MOS-46N-001
Pershing Electronics Materiel Specialist	MOS-21G-001 MOS-21G-002 MOS-21G-003 MOS-21G-004
Pershing Electronics Repairer	MOS-21L-002
Pershing Electronics Repairman	MOS-21L-001
Pershing Missile Crew Member	MOS-15E-002 MOS-15E-003
Pershing Missile Crewman	MOS-15E-001 MOS-15E-002
Pershing Missile System Technician (Warrant Officer)	MOS-130A-001
Personnel Actions Specialist	MOS-75E-001 MOS-75E-002 MOS-75E-003
Personnel Administration Specialist	MOS-75B-002 MOS-75B-003
Personnel Information System Management Specialist	MOS-75F-001
Personnel Management Specialist	MOS-75C-001 MOS-75C-002 MOS-75C-003
Personnel Records Specialist	MOS-75D-001 MOS-75D-002 MOS-75D-003
Personnel Senior Sergeant	MOS-75Z-001 MOS-75Z-002
Personnel Sergeant	MOS-75Z-003
Personnel Technician (Warrant Officer)	MOS-711A-001
Petroleum Laboratory Specialist	MOS-77L-001 MOS-92C-001 MOS-92C-002
Petroleum Storage Specialist	MOS-76W-001
Petroleum Supply Specialist	MOS-76W-001 MOS-76W-002 MOS-77F-001
Pharmacy Specialist	MOS-91Q-001 MOS-91Q-002 MOS-91Q-003
Photo and Layout Specialist	MOS-83E-002 MOS-83E-003
Photographic Equipment Repair Chief	MOS-41H-001
Photographic Laboratory Specialist	MOS-84G-001
Photolithographer.	MOS-83F-002
Photolithography Chief	MOS-83Z-001
Photomapping Technician (Warrant Officer)	MOS-215A-001 MOS-811A-001
Physical Activities Specialist	MOS-03C-001 MOS-03C-002
Physical Sciences Assistant	MOS-01F-001
Physical Therapy Specialist	MOS-91J-001 MOS-91J-002
Physician Assistant (Warrant Officer)	MOS-600A-001
Piano Player	MOS-02N-001 MOS-02N-002 MOS-02N-003
Pipeline Specialist	MOS-51F-001
Platemaker	MOS-83E-001
Plumber	MOS-51K-001 MOS-51K-002
Postal Clerk	MOS-71F-001
Power Generation Equipment Operator/Mechanic	MOS-52B-001 MOS-52B-002
Power Generation Equipment Repairer	MOS-52D-002 MOS-52D-003
Power Generation Equipment Repairman	MOS-52D-001
Power Pack Specialist	MOS-52C-001
Power Station Operator	MOS-52E-001
Powered Bridge Specialist	MOS-12D-001
Practical Nurse	MOS-91C-003 MOS-91C-004
Preventive Medicine Specialist	MOS-91S-001 MOS-91S-004
Prime Power Production Specialist	MOS-52E-002 MOS-52E-003
Printer's Apprentice	MOS-83A-001
Printing and Bindery Specialist	MOS-83F-002
Process Photographer	MOS-83D-001
Programmer/Analyst	MOS-74F-002 MOS-74F-003
Projector Repairman	MOS-41F-001
Property Book Technician (Warrant Officer)	MOS-920A-001
Psychiatric Specialist	MOS-91F-002
Psychological Operations Specialist	MOS-96F-001
Public Affairs Chief	MOS-46Z-001
Public Affairs/Audio Visual Chief	MOS-84Z-001
Punch Card Machine Repairer	MOS-34B-002
PATRIOT Missile Crewmember	MOS-16T-002

PSYOP Reproduction Technician (Warrant Officer)	MOS-832A-001
Quarrying Specialist	MOS-62G-002
Quarryman	MOS-62G-001
Quartermaster and Chemical Equipment Repairer	MOS-63J-003
Quartermaster Equipment Repairer	MOS-63J-002
Quartermaster Equipment Repairman	MOS-63J-001 MOS-63J-002
Race Relations/Equal Opportunity Specialist	MOS-00U-001
Radar Data Processing Equipment Repairman	MOS-25H-001
Radar Maintenance Supervisor-Inspector	MOS-26W-001
Radar Repair Technician (Warrant Officer)	MOS-282A-001
Radar/Special Electronic Devices Maintenance Chief	MOS-39W-001
Radio Operator	MOS-05B-001 MOS-05B-002
Radio Propagation Specialist	MOS-26P-001
Radio Relay and Carrier Attendant	MOS-31M-001
Radio Repair Technician (Warrant Officer)	MOS-281A-001
Radio Repairer	MOS-29E-001
Radio Teletype Operator	MOS-05C-001 MOS-05C-002
Radio Teletypewriter Operator (Non-Morse)	MOS-05F-001
Radio/Television Systems Specialist	MOS-26T-002
Railway Car Repairer	MOS-65D-001 MOS-88Q-001
Railway Car Repairman	MOS-65D-001
Railway Movement Coordinator	MOS-65K-001 MOS-88W-001
Railway Section Repairer	MOS-65G-001 MOS-88T-001
Railway Section Repairman	MOS-65G-001
Railway Senior Sergeant	MOS-65Z-001 MOS-88X-001
Recovery Specialist	MOS-63F-001
Recruiter	MOS-00E-002
Recruiter and Career Counselor	MOS-00E-001
Recruiter/Retention NCO	MOS-00R-001
Redeye Missile System Repairman	MOS-27G-001
Reenlistment NCO	MOS-79D-001
Remotely Piloted Vehicle Crewmember	MOS-13T-001
Remotely Piloted Vehicle Technician (Warrant Officer)	MOS-131B-001 MOS-212A-001
Repair Parts Technician (Warrant Officer)	MOS-920B-001
Repair Shop Technician (Warrant Officer)	MOS-441A-001
Reproduction Equipment Repair Specialist	MOS-41K-002
Reproduction Equipment Repairman	MOS-41K-001
Reproduction Technician (Warrant Officer)	MOS-215C-001 MOS-833A-001
Respiratory Specialist	MOS-91V-001 MOS-91V-002
Rodman and Tapeman	MOS-82A-001
Rotary Wing Aviator (Aircraft Nonspecific) (Warrant Officer)	MOS-153A-002
Rotary Wing Aviator (Warrant Officer)	MOS-153A-001
Rough Terrain Forklift and Loader Operator	MOS-62M-001
Satellite Communications (SATCOM) Systems Repairer	MOS-29Y-001
Satellite Communications Ground Station Equipment Repairer	MOS-26Y-002
Satellite Communications Ground Station Equipment Repairman	MOS-26Y-001
Satellite/Microwave Communications Chief	MOS-29T-001
Sawyer	MOS-57D-001
Saxophone Player	MOS-02L-001 MOS-02L-002 MOS-02L-003
Scout Helicopter Repairer	MOS-67S-001
Scout Helicopter Technical Inspector	MOS-66S-001
Secretary	MOS-71C-003
Self-Propelled Field Artillery System Mechanic	MOS-63D-001
Self-Propelled Field Artillery Turret Mechanic	MOS-45D-001
Senior Supply Sergeant	MOS-76Z-001 MOS-76Z-002
Sergeant Electrical-Mechanical Repairman	MOS-46L-001
Sergeant Firing Set Repairman	MOS-21R-001
Sergeant Maintenance Chief	MOS-21U-001
Sergeant Missile Crewman	MOS-15B-001 MOS-15B-002
Sergeant Missile Guidance Repairman	MOS-21S-001
Sergeant Test Equipment Repairman	MOS-21T-001
Sgt. York Air Defense Gun System Crewmember	MOS-16L-001
Sgt. York Air Defense Gun System Mechanic	MOS-24W-001
Sgt. York Air Defense Gun System Radar/Electronic Repairer	MOS-27P-001
Sgt. York Air Defense Gun System Test Specialist	MOS-27Q-001
Sgt. York Air Defense Systems Technician (Warrant Officer)	MOS-224D-001
Sheridan Turret Mechanic	MOS-45P-001
Shillelagh Missile System Repairman	MOS-27H-001
Shillelagh Repairer	MOS-27H-002
Short Range Air Defense Artillery Crewman	MOS-16R-002
Short Range Air Defense Systems Technician (Warrant Officer)	MOS-224B-001
Signal Intelligence Operations Chief	MOS-98Z-001
Signal Security Specialist	MOS-05G-001 MOS-05G-002 MOS-97G-001
Signals Intelligence Analyst	MOS-98C-002
Signals Intelligence/Electronic Warfare Chief	MOS-98Z-002
Single-Channel Radio Operator	MOS-31C-001
Small Arms Repairer	MOS-45B-001 MOS-45B-002
Small Arms Repairman	MOS-45B-001
Smoke and Flame Specialist	MOS-54C-001 MOS-54C-002
Smoke Operations Specialist	MOS-54C-003
Social Work/Psychology Specialist	MOS-91G-001
Soils Analyst	MOS-51G-001 MOS-51G-002
Sound Ranging Crewman	MOS-17C-001
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Special Bandsman	MOS-02S-001
Special Bandsperson	MOS-02S-002 MOS-02S-003
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Special Operations Intelligence Sergeant	MOS-18F-001
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Special Operations Senior Sergeant	MOS-18Z-001
Special Operations Technician (Warrant Officer)	MOS-180A-001
Special Operations Weapons Sergeant	MOS-18B-001
Special Purpose Equipment Repairer	MOS-52X-001
Special Services Senior Sergeant	MOS-03Z-001
Station Technical Controller	MOS-32D-002
Stenographer	MOS-71C-001 MOS-71C-002
Still Documentation Specialist	MOS-25S-001
Still Photographer	MOS-84B-001
Still Photographic Specialist	MOS-84B-002
Stock Control Specialist	MOS-76P-002
Stock Control Supplyman	MOS-76P-001
Storage Specialist	MOS-76V-002
Storage Supplyman	MOS-76V-001
Strategic Microwave Systems Repairer	MOS-26V-002 MOS-29V-001
Strategic Microwave Systems Repairman	MOS-26V-001
Strategic Satellite/Microwave System Operator	MOS-26R-001
Structures Specialist	MOS-51C-001 MOS-51C-002
Subsistence Supply Specialist	MOS-76X-002
Subsistence Supplyman	MOS-76X-001
Supplyman	MOS-76A-001
Support Supply Technician (Warrant Officer)	MOS-762A-001
Support/Staff Maintenance Technician (Warrant Officer)	MOS-630E-001 MOS-915E-001
Surveillance Infrared Repairman	MOS-26N-001
Surveillance Photographic Equipment Repairman	MOS-41G-001
Survey Technician (Warrant Officer)	MOS-215B-001 MOS-821A-001
SDS 920 Equipment Repairman	MOS-34M-001
Tabulating Equipment Repairman	MOS-34B-001
Tactical Automated Network Technician (Warrant Officer)	MOS-250B-001
Tactical Circuit Controller	MOS-31N-001 MOS-31N-002

Tactical Communication Chief	MOS-31G-002
Tactical Communications Chief	MOS-31G-001
Tactical Communications Systems Operator/Mechanic	MOS-31V-001
Tactical Computer Systems Repairer	MOS-34T-001 MOS-39T-001
Tactical COMSEC Maintenance Chief	MOS-31U-001
Tactical Electronics Maintenance Chief	MOS-31W-001
Tactical Fire Control System Repairer	MOS-45G-001
Tactical Microwave Systems Repairer	MOS-26L-002
Tactical Microwave Systems Repairman	MOS-26L-001
Tactical Satellite/Microwave Repairer	MOS-29M-001
Tactical Satellite/Microwave Systems Operator	MOS-26Q-001 MOS-31Q-001
Tactical Transport Helicopter Repairer	MOS-67T-001 MOS-67T-002
Tactical Transport Helicopter Technical Inspector	MOS-66T-001
Tactical Wire Operations Specialist	MOS-36K-001 MOS-36K-002
Tank Driver	MOS-19F-001
Tank Turret Mechanic	MOS-45N-001
Tank Turret Repairer	MOS-45K-002 MOS-45K-003
Tank Turret Repairman	MOS-45K-001 MOS-45K-002
Target Acquisition Radar Technician (Warrant Officer)	MOS-131A-001 MOS-211A-001
Target Acquisition/Surveillance Radar Repairer	MOS-26C-004 MOS-39C-001
Technical Drafting Specialist	MOS-81B-003
Technical Engineering Supervisor	MOS-51T-001
Telecommunications Center Operator	MOS-72E-002
Telecommunications Center Specialist	MOS-72E-001
Telecommunications Technician (Warrant Officer)	MOS-250A-001 MOS-290A-001 MOS-721A-001
Telephone Central Office Repairer	MOS-29N-001
Telephone Installer and Lineman	MOS-36C-001
Telephone Switchboard Operator	MOS-72C-001
Teletypewriter Equipment Repairer	MOS-29J-001
Teletypewriter Repairer	MOS-31J-003
Teletypewriter Repairman	MOS-31J-001 MOS-31J-002
Television Equipment Repairman	MOS-26T-001
Terminal Operations Coordinator	MOS-57H-003
Terminal Operations Specialist	MOS-57H-002
Terrain Analysis Technician (Warrant Officer)	MOS-215D-001 MOS-841A-001
Terrain Analyst	MOS-51Q-001 MOS-81Q-002
Terrain Intelligence Analyst	MOS-81Q-001
Test Measurement and Diagnostic Equipment (TMDE) Technician (Warrant Officer)	MOS-252A-001
Textile Repairman	MOS-43J-001
Topographic Computer	MOS-82E-001
Topographic Engineering Supervisor	MOS-81Z-001
Topographic Instrument Repair Specialist	MOS-41B-002
Topographic Instrument Repairman	MOS-41B-001
Topographic Surveyor	MOS-82D-001 MOS-82D-002

Track Vehicle Mechanic	MOS-63C-001 MOS-63C-002 MOS-63Y-001
Track Vehicle Repairer	MOS-63H-004
Traffic Analysis Technician (Warrant Officer)	MOS-352C-001 MOS-982A-001
Traffic Management Coordinator	MOS-71N-001 MOS-88N-001
Train Crew Member	MOS-65J-002 MOS-88V-001
Trainman	MOS-65J-001 MOS-65J-002
Translator-Interpreter	MOS-04B-001
Transmission and Distribution Specialist	MOS-52G-001
Transportable Electronic Switching Systems Operator/Maintainer	MOS-36L-003
Transportable Electronic Switching Systems Repairer	MOS-36L-002 MOS-36L-003
Transportation Senior Sergeant	MOS-64Z-001 MOS-88Z-001
Trombone Player	MOS-02E-001 MOS-02E-002 MOS-02E-003
Trumpet Player	MOS-02B-003
Tuba	MOS-02F-001
Tuba Player	MOS-02F-002 MOS-02F-003
Turbine Engine Driven Generator Repairer	MOS-52F-001
TACFIRE Operations Specialist	MOS-13C-001 MOS-13C-002
TOW/Dragon Repairer	MOS-27E-002
TV Cameraman	MOS-84E-001
TV Production Specialist	MOS-84F-001
TV/Radio Broadcast Operations Chief	MOS-84T-001
U-1A Airplane Repairman	MOS-67C-001
U-21 Pilot (Warrant Officer)	MOS-155D-001 MOS-155D-002
U-8/U-21 Airplane Repairman	MOS-67G-001
Unattended Ground Sensor Specialist	MOS-17M-001 MOS-17M-002
Unattended Ground Sensor Systems Repairman	MOS-26U-001
Unit Clerk	MOS-75B-001
Unit Level Communications Maintainer	MOS-31V-002
Unit Personnel Technician (Warrant Officer)	MOS-711A-001
Unit Supply Specialist	MOS-76Y-002
Unit Supply Technician (Warrant Officer)	MOS-761A-001
Unit/Organization Supplyman	MOS-76Y-001
Utilities Engineering Supervisor	MOS-51P-002
Utilities Equipment Repairer	MOS-52C-002 MOS-52C-003 MOS-52C-004
Utilities Foreman	MOS-51P-001 MOS-51P-002
Utilities Maintenance Technician (Warrant Officer)	MOS-310A-001 MOS-521A-001
Utilities Operation and Maintenance Technician (Warrant Officer)	MOS-210A-001 MOS-310A-001 MOS-521A-001
Utility Airplane Technical Inspector Utility/Cargo Airplane Technical Inspector	MOS-66G-001
Utility Helicopter Repairer	MOS-67N-002
Utility Helicopter Technical Inspector	MOS-66N-001
Utility/Cargo Airplane Repairer	MOS-67G-003
Utility/Observation Helicopter Pilot (Warrant Officer)	MOS-062B-001 MOS-100B-001
UH-1 Helicopter Repairman	MOS-67N-001
UH-1 Pilot (Warrant Officer)	MOS-153B-001 MOS-153B-002
UH-60 Helicopter Repairer	MOS-67T-002
UH-60 Pilot (Warrant Officer)	MOS-153D-001 MOS-153D-002
UNIVAC 1004/1005, DCT-9000 System Repairer	MOS-34J-001
UNIVAC 1004/1005, DCT-9000 System Repairman	MOS-34J-001
Vehicle Materiel Supply Specialist	MOS-76S-001
Vessel Master, 750 Ton Vessel (Warrant Officer)	MOS-561C-001
Veterinary Services Technician (Warrant Officer)	MOS-640A-001
Veterinary Specialist	MOS-91R-002 MOS-91T-001
Visual Information/Audio Documentation Systems Specialist	MOS-25P-001
Visual Information/Audio Equipment Repairer	MOS-25R-001
Voice Intercept Technician (Warrant Officer)	MOS-352G-001 MOS-988A-001
Voice Interceptor	MOS-98G-004
Voice Radio Operator	MOS-05E-001
Vulcan Crewman	MOS-16R-001
Vulcan Crewmember	MOS-16R-003
Vulcan Repairer	MOS-27F-002
Vulcan System Mechanic	MOS-24M-001 MOS-24M-002
Vulcan/FAAR System Mechanic	MOS-24M-002
Water Supply Specialist	MOS-51N-001 MOS-51N-002
Water Treatment and Plumbing Systems Specialist	MOS-51N-002
Water Treatment Specialist	MOS-51N-003 MOS-77W-001
Watercraft Engineer	MOS-61C-002 MOS-88L-001
Watercraft Operator	MOS-61B-001 MOS-61B-002 MOS-88K-001
Weapons Support Radar Repairer	MOS-26B-002
Weapons Support Radar Repairman	MOS-26B-001
Welder	MOS-44C-001
Wheel Vehicle Maintenance Technician (Warrant Officer)	MOS-630A-001 MOS-915A-001
Wheel Vehicle Mechanic	MOS-63B-001 MOS-63B-002
Wheel Vehicle Repairer	MOS-63W-001
Wheeled Tractor Operator	MOS-62L-001
Wire System Installer	MOS-36C-003
Wire Systems Installer	MOS-31L-002

Wire Systems Installer/Operator	MOS-36C-002
Wire Systems Operator	MOS-36M-001
Wire-Guided Missile Systems Repairman	MOS-27E-001
Woodwind Group Leader	MOS-02Q-001
X-Ray Biomedical Equipment Repairer	MOS-35T-002
X-Ray Biomedical Equipment Repairman	MOS-35T-001
X-Ray Specialist	MOS-91P-001 MOS-91P-002 MOS-91P-003
XM1 Armor Crewman	MOS-19K-001
XM1 Tank System Mechanic	MOS-63E-001
XM1 Tank Turret Mechanic	MOS-45E-001

REQUEST FOR ARMY ENLISTED AND WARRANT OFFICER MOS EXHIBITS

Officials should use this form only for requesting exhibits that contain the phrase, "Pending evaluation." As occupations are evaluated, they will be listed in the *Update*. When you want to obtain the recommendation for a newly-evaluated occupation, identify the exhibit you are requesting by using the complete *exhibit I.D. number* (e.g., MOS-45T-001), and the title of the occupation. Include the applicant's name if you would like the name mentioned in the reply. Submit the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, ATTN: Military Evaluations.

Exhibit I.D. Number	MOS Title Please print; do not abbreviate.	Name of Applicant

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SIGNATURE OF OFFICIAL

NAME OF OFFICIAL

TITLE

INSTITUTION OR ORGANIZATION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

Please retain file copies of any occupation recommendations received from the Advisory Service.

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3 Navy

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

1175

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THE CHAIRMAN, JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20318

5 October 1990

Dear Service Member,

I support the DOD policy of providing postsecondary education opportunities for all active duty and Reserve Service members. I strongly advise you to take advantage of the voluntary education program to catch up with your education before you leave the military. The Military Services need well-trained, educated people. Your pursuit of higher education will not only enhance your military job performance and chance for promotion, but will also improve your job opportunities when you return to civilian life.

The Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education, describes how you can receive college credits for your military training and experience and is widely recognized by the colleges and universities that grant credit for this training and experience. This guide is available for your reference at your base or post Education Center.

A number of programs are available through education centers on military installations, including courses taught in the classroom, independent study, testing of all kinds, and education guidance. Take advantage of these resources and educational programs during your military tour, and continue to use educational and Montgomery GI Bill benefits when you return to civilian life.

I wish you good luck and success in pursuit of your educational goals.

Sincerely,

COLIN L. POWELL
Chairman
Joint Chiefs of Staff

3 Navy

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

American Council on Education One Dupont Circle • Washington, D.C. 20036-1193

1177

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Eastern Illinois University

Foreword

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in military life. ACE has worked cooperatively with the Department of Defense and the armed services in assisting hundreds of thousands of service men and women to achieve recognition for their learning. The long-term success of the *Guide* evaluation system for military training has resulted in its serving as a model for the evaluation of programs offered by other noncollegiate organizations, including business, industry, government agencies, voluntary and professional associations, and labor unions. These formalized efforts to evaluate noncollegiate-sponsored programs enable students to combine their extrainstitutional learning with study at postsecondary institutions to achieve degree-related educational objectives. Not only is this sound educational practice, it is also an efficient use of educational resources and an incentive for the persons affected to undertake further study.

Special recognition must be paid to hundreds of individuals who have served as evaluators and the many educational institutions, professional and disciplinary associations, and the apprenticeship training community for their wholehearted cooperation in this endeavor. Without their support and assistance, the *Guide* would not have been possible. We are greatly indebted to them.

Once again, we are pleased to commend this work to you in your continuing work with service men and women and veterans.

ROBERT H. ATWELL
President
American Council on Education

How to Find and Use Course Exhibits

This volume contains recommendations for formal courses offered by the Navy that have been evaluated through June 1990.

The instructions that follow provide a step-by-step procedure for finding and using the exhibits and recommendations. Readers unfamiliar with the ACE evaluation procedures should read Appendix A. Additional information on using the *Guide* and awarding credit is provided in the Questions and Answers section.

Step 1

Have the applicant complete a Request for Course Recommendation form.

A Request for Course Recommendation form appears at the back of this volume. It may be reproduced and should always be filled out by the applicant, using the information provided on official and personal records, as well as the applicant's own knowledge of the service course. *Applicants should not refer to the* ***Guide*** *while completing the form.* (See questions 4 through 7 in Questions and Answers.)

Step 2

Verify course completion from military records.

It is the responsibility of the school official to verify course completion. The following military records are normally used to verify successful completion of course requirements:

1. DD Form 295, Application for the Evaluation of Educational Experiences During Military Service or Application for the Evaluation of Learning Experiences During Military Service—available to active-duty service personnel from military education officers. (Form must be certified by an authorized commissioned officer or his/her designee in order to be official.)
2. DD Form 214, Armed Forces of the United States Report of Transfer or Discharge—available to veterans, together with other in-service training records, from the General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132.
3. Course Completion Certificates—may be used to complement other records or when service courses are not recorded on official records.

(See questions 1, 3 and 16 in Questions and Answers.)

The following steps refer to a course exhibit. See sample course exhibit, page xi.

Step 3

Find the course exhibit by identifying the American Council on Education (ACE) ID number in the Course Number Index or the Keyword Index.

A. *Course Number Index.* All available military course numbers are listed in the Course Number Index in alphanumeric sequence. If the applicant's military course number cannot be located in the Course Number Index, search for the course title in the Keyword Index.

B. *Keyword Index.* Identify all possible keywords within a formal course title. For example, the keywords in the title "Digital, Analog, and Hybrid Computer Fundamentals" are *Digital, Analog, Hybrid,* and *Computer.* Find one or all of those keywords in the Keyword Index and search the listing under the keyword for the course title. *If the title cannot be found under one keyword, search all other possible keywords.*

C. *Identify ACE ID number.* When the title or military course numnber has been located, note the corresponding ACE ID number. This number refers to the course exhibit's location in the *Guide*. The two-letter prefix refers to the specific service, i.e., NV = Navy. ACE ID numbers are presented in numeric sequence. (See question 2 in Questions and Answers.)

Step 4

Match the course-identifying information with the corresponding data in the course exhibit.

Course-identifying information includes the official military title, military course number, length of course, dates of attendance, location, etc., and is provided by the applicant on the Request for Course Recommendation form. When the course exhibit consists of multiple versions, determine which version applies to the applicant's course by considering exhibit dates and course length. It is important to match all items. (See questions 6, 7, 12, 13 and 14 in Questions and Answers.)

Step 5

Read the course description.

Consideration should be given not only to the amount of credit and to the subject area, but also to the course objectives, or learning outcomes, and instruction which are part of the course exhibit. These portions of the exhibit outline the course content and scope and also provide essential information about the nature of the course. This information will help you determine the appropriate placement of credit for each individual student within the requirements and programs at your school. (See questions 10 and 15 in Questions and Answers.)

Step 6

Award credit as appropriate.

Users are free to modify the credit recommendations in accordance with institutional policy and the educational goals of each individual applicant. (See questions 12, 23, 24, 25, 26, 27, 28 and 29 in Questions and Answers.)

Step 7

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

Whenever problems arise and assistance is desired, you may submit a properly completed Request for Course Recommendation form (Questions 5, 6, 7 and 9) to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036–1193
ATTN: Military Evaluations
(202) 939-9470

Sample Course Exhibit

ID Number. A number assigned by ACE to identify each course

NV-1715-1439

Course Version Numbers and Titles. Version 1 is the more recent. If course has only one version, version number is omitted throughout exhibit.

1. Avionics Technician, Class A1
2. Avionics Technician, Class A1

Military Course Number. The number assigned to the course by the military. Listed by version.

Course Number: C-100-2013.

Location. By version. The service school, military installation, state.

Location: Air Technical Training Center, Millington, TN.

Length. By version. The length of the course in weeks, with contact hours in parentheses.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 23 weeks (884 hours).

Exhibit Dates. By version. The start and end dates, by month and year. Date of course materials when the course was first evaluated and, if applicable, when it was eliminated. "Present" denotes publication cutoff for this edition of the *Guide* (6/90).

Exhibit Dates: *Version 1:* 4/89–Present. *Version 2:* 10/86–3/89.

Learning Outcomes. Competencies students acquire during the course. Older courses have *objectives.* (See question 8 in Questions and Answers.)

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to maintain, troubleshoot and operate, under medium supervision, solid state devices, radar systems, electrical and electronic systems. *Version 2:* Upon completion of the course, the student will be able to operate, maintain and troubleshoot communication radar and electrical and electronic systems.

Instruction. Description of instruction, including teaching methods, facilities, equipment, major subject areas covered.

Instruction: *Version 1:* Lecture and practical excercises in mathematics in computer, electrical, electronic, communication and radar systems. Lecture and laboratories in the fundamentals of amplitude and frequency modulated communication systems, study of AM and FM receiver circuits, use of test equipment . . . *Version 2:* Lectures and laboratories in mathematics, computer, electrical, electronic, communication, and radar systems. Included are the fundamentals of amplitude and frequency modulation, receiver circuits, use of test equipment, troubleshooting . . .

Credit Recommendation. By version. Given in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. Expressed in semester hours. (See Appendix A for detailed explanation of credit categories.)

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in shop mathematics (9/89); in the lower-division baccalaureate/associate degree category, 6 semester hours in communications electronics, 4 in computer organization, 4 in microprocessors, 4 in computer systems troubleshooting and maintenance, and 3 in radar systems (9/89). *Version 2:* In the vocational certificate category, 3 semester hours in shop mathematics (9/89); in the lower-division baccalaureate/associate degree category, 6 semester hours in communication electronics, 4 in computer organization, 4 in electronic systems troubleshooting and maintenance, and 4 in computer systems troubleshooting and maintenance (9/89).

Evaluation Date. Date when the credit recommendation was established. Month and year are given in parentheses following each recommendation.

Important: The appropriate course version can be found by using the course title and number, its length, exhibit dates, and location.

How to Find and Use Navy Occupation Exhibits

This volume contains exhibits for Navy occupations evaluated through June 30, 1990.

The following instructions provide a step-by-step procedure for finding and using exhibits for Navy general rates, ratings, warrant officer and limited duty officer specialties. If you are unfamiliar with the Navy enlisted and officer systems—how they are structured and how occupational proficiency is demonstrated—you should read Appendix A. Additional information is provided in the Questions and Answers section.

Step 1

Have the applicant submit official documentation to you.

For NAVY enlisted personnel, occupational history is recorded in NAVPERS 1070/604, Navy Occupation/Training and Awards History. Navy men and women sometimes refer to this form as "the page 4" of the service record. Item 1 lists the sailor's Navy Enlisted Classification (NEC) codes (primary code and secondary code), and the effective date of the NEC. Item 8 contains the following relevant information: the general rate or rating from which advanced or changed, the new general rate or rating, and the effective date of the advancement or change.

As an alternative, Navy enlisted persons may submit DD Form 295, Application for the Evaluation of Educational Experiences During Military Service or Application for the Evaluation of Learning Experiences During Military Service when it includes the necessary occupational information. The April 1975 version of the form, which was not designed to document general rate and rating proficiency, is acceptable when the section Major Service Jobs or Billets includes the following information: (1) the general rate or rating designation, (2) the general rate or rating title, and (3) the date of advancement. The June 1979 and November 1986 versions have a section entitled "Military Occupational History." A person still in active or reserve service may request that DD Form 295 be completed by designated personnel and certified by the personnel officer at the activity maintaining custody of the person's military record.

DD Form 214, Armed Forces of the United States Report of Transfer or Discharge, is also acceptable for documentation. However, it does not contain the occupational history, which you may need.

For warrant officers and limited duty officers refer to NAVPERS 601-4, Navy Occupation/Training and Awards History. Check for the officer designation. Section 5 lists training courses completed and NECs held. Fitness Reports, an objective appraisal of performance by the commanding officer, should also be used.

Navy records must be requested by the individual. Records may be obtained as follows:

Active-duty Navy men and women. Either the Navy unit to which they are assigned or the activity maintaining custody of their military record.

Navy Reservist (nondrilling) or retired personnel. The Naval Reserve Personnel Center (Code 41), 4400 Dauphine Street, New Orleans, Louisiana 70149.

Navy Veteran. The originals of the Navy Occupation/Training and Awards History form and the DD Form 214 are given to the veteran at time of discharge. If the veteran does not have them, duplicate copies may be obtained from General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132. The veteran may request service records by submitting U.S. Government Standard Form 180, which may be obtained from a state's veterans affairs office, the Veterans Administration, or the National Personnel Records Center.

Step 2

By referring to military records, verify each occupational specialty the person has successfully held.

A. Eligibility for the credit recommendation for enlisted general rates and ratings is easily determined. Advancement means that the person is automatically eligible for the general rate or rating recommendation; that is, to be advanced, the person had to demonstrate occupational proficiency by meeting all the requirements for advancement, including passing written and performance tests. (See questions 17, 18, 19 and 20 in Questions and Answers.)

Warrant officers and limited duty officers have normally progressed through the enlisted ranks and are technical specialists in their fields. Determine eligibility for the credit recommendation by consulting the individual's Fitness Report or NAVPERS 601-4.

B. Find the information necessary for locating the correct exhibit(s): occupational designations and the date of advancement to each. (See question 22 in Questions and Answers.)

Step 3

Find the appropriate exhibit in the Guide.

The exhibit can easily be found when the designation is known. Each exhibit is assigned an ACE ID number that has three components. The first component in a Navy rating exhibit is *NER*. This identifies the exhibit as one that pertains to Navy enlisted general rates and ratings. The second component consists of the general rate or rating designation, e.g., SN, QM or AME. The third component, a three-digit, sequentially assigned number, e.g., 001, uniquely identifies the exhibit. The exhibit ID numbers have either eight or nine characters, depending on the rating designation, e.g., NER-QM-001 and NER-AME-001.

The first component of a warrant officer exhibit is *NWO;* for limited duty officer, *LDO*. The second component consists of the four-digit designator, e.g., 641X, 741X. As with the enlisted exhibits, the third component is a three-digit number that uniquely identifies the exhibit. These exhibits have nine characters (NWO-741X-001, LDO-641X-001).

When the title of an occupational specialty is known, the exhibit ID number can be found by referring to the *Occupational Title Index*.

There may be more than one exhibit for some designators. Each time there is a new recommendation or another evaluation is pending, there is a new exhibit. For example, two exhibits appear for the rating AS. The ACE ID numbers for the two exhibits are NER-AS-001 and NER-AS-002. The oldest exhibit for a rating, the first to be evaluated, is assigned -001 as the last three characters. The last exhibit for a rating, the exhibit assigned the highest number, is the most recent. (See questions 22 and 23 in Questions and Answers.)

Step 4

Read the entire exhibit.

In order to apply a given recommendation to the student's program of study at your institution, you must first read the entire exhibit. Each item in the exhibit has been prepared to help you identify or interpret the recommendations. (See the sample exhibit.) Two items, "Career Pattern" and "Description," will be particularly helpful to you.

The descriptions, which are similar to learning outcome statements of postsecondary courses and programs of study, will provide you with essential information about the learning required for proficiency in the occupation. Comparing the "Description" with a description of the course or program of study that the student will pursue will help you

- determine how much of the recommended credit applies to the course or program of study at your institution;
- identify additional areas of possible credit;
- resolve problems with duplication of credit, when the applicant has applied for credit for more than one military learning experience;
- place the student at the appropriate point in the course sequence or program of study.

Step 5

Award credit as appropriate.

The credit recommendations are advisory. They are intended to assist in formally recognizing the learning of Navy men and women and veterans and in placing them in postsecondary programs of study, apprenticeship programs, and jobs. The recommendations may be modified.

When an applicant has applied for credit for more than one military learning experience, you may find that you will have to reduce the total amount of credit recommended to avoid granting duplicate credit. (See questions 24, 25 and 26 in Questions and Answers.)

You may also wish to increase the recommended credit to account for the learning that the applicant may have acquired in other military or nonmilitary settings. (See questions 27 and 28 in Questions and Answers.)

Step 6

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

The Center operates an advisory service to assist education officials, apprenticeship and training officials, and employers in evaluating the learning experiences of military personnel. Publication of the *Guide* is part of that service. However, there are instances when additional assistance is needed.

When requesting an exhibit, complete the Request for Navy Occupation Exhibits form that appears at the back of this volume. *Use the form only to request recommendations for those that are listed as "Pending evaluation."* (See question 23 in Questions and Answers.)

When assistance in interpretation is needed and it appears that official military records will help staff members in responding to an inquiry, copies should be attached to the letter of inquiry. *Do not send original records.*

When an exhibit or assistance in interpretation is needed urgently, you may telephone The Center at (202) 939-9470. Whether inquiring by letter or telephone, you should always obtain information directly from The Center, not the applicant. (See question 9 in Questions and Answers.)

Inquiries concerning Navy occupation exhibits should be addressed to:

The Center for Adult Learning and
Educational Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036-1193
ATTN: Military Evaluations Program

Sample Navy Rating Exhibit

ID Number. A code number assigned by ACE to identify each exhibit.

NER-YN-002

YEOMAN

Title. The official Navy title of the general rate or rating during the period of the exhibit dates.

YN3
YN2
YN1
YNC
YNCS
YNCM

General Rate/Rating Designation. The official Navy system of identifying occupations and their levels, listed in ascending order according to rate. (See question 17 in Questions and Answers for definitions of the Navy identifiers.)

Exhibit Dates. Start and end dates by month and year. The earliest start date is 6/71, the effective date of the Navy manual regulating the general rates and ratings that have been evaluated (start dates may be later than 6/71). The term "Present" indicates that the exhibit is current as of June 1990. "Pending evaluation" means that the general rate or rating is scheduled to be evaluated.

Exhibit Dates: 1/90–Present.

Occupational Field: 15 (Administration).

Occupational Field. Two-digit number and title designating a group of related ratings.

Career Pattern. Path of advancement. Shows prerequisite general rate and subsequent progression in a rating; the designation is provided for each rate, followed by the title and paygrade (in parentheses).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman, Third Class (E-4). *YN2:* Yeoman, Second Class (E-5). *YN1:* Yeoman, First Class (E-6). *YNC:* Chief Yeoman (E-7). *YNCS:* Senior Chief Yeoman (E-8). *YNCM:* Master Chief Yeoman (E-9).

Description

Description. Summary applying to all rates and a separate description of the skills, competencies, and knowledge required for proficiency in each rate.

Summary: Performs general office clerical and administrative duties, including typewriting, office machine operations, office communications, filing and records maintenance. *YN3:* Maintains files; operates duplicating, adding, calculating, and copying machines; serves as paralegal counselor when a legalman is not available; types correspondence, reports, and other communications from rough draft (a straight-copy typing rate of at least 30 words per minute is required). *YN2:* Able to perform the duties required for YN3; organizes and monitors filing and records maintenance, retention, and disposal; maintains officer personnel records, routes correspondence; types records, correspondence, and reports (a straight-copy typing rate of at least 40 words per minute is required); sends, receives, and accounts for official and registered mail; advises personnel of benefits, types of duty, and resolution of personal problems. *YN1:* . . .

Recommendation. By rate. Only the recommendation for the *highest* rate held should be used; the recommendations should *not* be added.

Educational credit is expressed in semester hours and recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

Recommendation, YN3

In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in recordkeeping, 1 in clerical interpersonal communications, and 1 in military legal practices and procedures (3/90). . . .

Recommendation, YN2

In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in recordkeeping, 2 in clerical interpersonal communications, and 1 in military legal practices and procedures (3/90).

Date of Evaluation. By month and year. Appears in parentheses following the recommendation for each rate.

Important: Read entire exhibit before awarding educational credit.

Sample Warrant Officer/Limited Duty Officer Exhibit

ID Number. A code number assigned by ACE to identify each exhibit. The first three digits for warrant officers are "NWO" and for limited duty officers "LDO."

Exhibit Dates. Start and end dates by month and year. The term "Present" indicates that the exhibit is current as of June 1990. "Pending evaluation" means that an evaluation is scheduled.

Career Pattern. Shows the various possible career paths for the warrant officer or LDO. Titles and designators are provided.

Description. The skills, competencies, and knowledge required for proficiency in the officer specialty.

Date of Evaluation. By month and year. Appears in parentheses following the recommendation for each occupation.

NWO-728X-001

ELECTRONICS TECHNICIAN (SUBMARINE)

728X

Exhibit Dates: 1/65–Present.

Career Pattern

May have progressed to Electronics Technician (Submarine) Warrant Officer from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the field of electronics; supervises those persons involved with the installation, operation, and maintenance of electronic systems; plans, organizes and manages the activities of technical personnel; provides leadership necessary to guide personnel and develop individual responsibility; provides technical expertise to lower level personnel; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 for field experience in management, and 4 for field experience in electronics, for a total of 10 semester hours (1/84).

Important: Read entire exhibit before awarding educational credit or advanced standing in an apprentice training program.

Title. The official Navy title during the period of the exhibit dates.

Designation. The official Navy system of identifying warrant officers and limited duty officers. The fourth digit, X, may be a number from 0–9 (see Appendix F).

Recommendation. Educational credit is expressed in semester hours and recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

Questions and Answers

This section is designed to answer questions that may arise about using the Guide and awarding credit.

1

An applicant at my institution has submitted a DD Form 214 that lists abbreviated course titles which I cannot decipher. The form does not contain enough information for me to find the courses in the *Guide*. What should I do?

Military records often provide insufficient information for civilian education officials to properly identify courses. For that reason, The Center has designed the Request for Course Recommendation form, which can be used to supplement records. Applicants for credit should be responsible for interpreting the information on their records and presenting the data in readable form. You may also use course completion certificates and other training records to verify entries on the DD Forms 214 and 295. It is recommended that you automatically require students to complete the Request for Course Recommendation form. Then, if you need help, authorize the form and submit it to The Center. *No abbreviations please.*

2

When an applicant submits information on a number of courses completed, I can usually find exhibits for only some of the courses in the *Guide*. Am I doing something wrong?

The course evaluations done by The Center probably represent about 60 percent of the total number of courses currently offered by the armed services. The remaining 40 percent cannot be evaluated for one reason or another. In general, courses evaluated and published in the *Guide* are those offered on a full-time basis. After 1981 The Center began evaluation of courses that are 45 academic hours in length. Prior to that time, courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the courses had to include a minimum total of sixty contact hours of academic instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours. Another requirement for evaluation is that a course be formal as defined by the services, i.e., offered to meet servicewide training requirements and cited in the formal school listing for the service. This requirement generally excludes locally organized and command-level training programs, as well as courses offered on a one-time basis.

Few Navy correspondence courses have been evaluated. The Navy, with few exceptions, has not established proctored end-of-course examinations, one of The Center's criteria for reviewing correspondence courses.

You will find no courses conducted prior to 1954 listed in this guide. You must always submit a Request for Course Recommendation form to this office for assistance with courses taken from the 1940s through 1954. When in doubt about the availability of any evaluation for any service course, contact the Advisory Service by telephone or by submitting a Request for Course Recommendation form.

Keep in mind that the *Guide* is constantly being updated. New courses evaluated after the publication date may be found in the *Handbook* or you may submit a Request for Course Recommendation form.

3

I understand many military records were destroyed in a fire at the General Services Administration a number of years ago. What should I do if the applicant's military records were among those destroyed?

Many records were reclaimed or reconstructed and are now available. In addition, the applicant's copies of certificates may be used in lieu of records destroyed in the GSA fire.

4

May I submit a Request for Course Recommendation form that the student has filled out with information from the *Guide?*

A form filled out by a student who copies information from the *Guide* cannot be used by the Advisory Service staff for research purposes because that information only duplicates published data. One of the purposes of the Request for Course Recommendation form is to secure information about a course from the students, ideally through official records, but also from their personal knowledge or memory of the course. With this firsthand information, you may find the correct course exhibit in the *Guide*. If you cannot find it, you may send the request form to the Advisory Service.

The Center staff can then use this additional information to search its extensive files for matching information. When students attempt to identify a course taken years ago by extracting *current* titles or course numbers from the *Guide*, they may in fact be identifying a *similar* course but not the one they took. Therefore, a form filled out with material copied from the *Guide* can be misleading and can seriously handicap the research staff. *Only accurate and verified information is to be submitted.*

5

Who should send in the Request for Course Recommendation form?

The form should be completed by the applicant and authorized by you, the institution official or military representative. Credit recommendations will be forwarded to you only when you authorize us to do so. While we do provide credit recommendations to applicants upon receipt of their requests, we encourage them to apply through their schools. We do not normally send a credit recommendation to a college at the request of a student applicant or a military counselor.

6

Why is so much information needed on the Request for Course Recommendation form?

You cannot be sure that you have identified the correct exhibit in the *Guide* unless all the information on the form matches the corresponding items in the course exhibit. The course title, course number, name and location of the service school, and length of the course shown on the form should be identical to the information in the exhibit. In addition, the dates of attendance must fall within the exhibit dates. Credit recommendations are for *specific* courses; therefore, all items must be identical if a positive identification is to be made.

A complete and accurate form will also help the Advisory Service research the course.

7

What do I do when the information on the Request for Course Recommendation form does not exactly match the information in the course exhibit?

Send an authorized form to the Advisory Service. Send the form in yourself; do not give it to the student to submit. If just one item differs from that in the exhibit you have located (for example, "Length"), you should circle the item to bring it to the attention of the research staff. Send *copies* of military records only if you think they will provide useful additional information. If the staff cannot identify the course and supply a credit recommendation, you may still grant credit to the applicant by conducting your own assessment of the applicant's learning. (See question 28 for information about assessment techniques.)

8

I've come across a few exhibits with *Learning Outcomes* instead of *Objectives*. Why the change?

Institutions are increasingly using learning outcomes in their own course descriptions. To make it easier for institutional decision makers to compare competencies acquired in a military course to those competencies acquired in courses offered at their own institutions, the Military Evaluations Program adopted this new format in courses evaluated since 1987.

The Council on Postsecondary Accreditation (COPA) and its Committee on Recognition (the committee which recognizes the various accrediting bodies in this country) are placing more emphasis on the use of learning outcomes. The committee expects recognized accrediting bodies to apply COPA's provision regarding the use of learning outcomes and their assessment.

9

How long does it take to receive a response if I submit a properly completed request form?

About three weeks for most requests, longer for those requiring extensive research. Every effort will be made to respond as quickly as possible. If you wish, you may call in requests; be sure to have all pertinent information (see question 6) available to give to the staff person.

10

How can I get additional information about the courses in the *Guide*? Sometimes the descriptive material in the exhibit is not detailed enough for me to make a decision about granting credit. What do I do then?

With the exception of a few computer-taught or classified courses, The Center has the programs of instruction on file for most courses listed in the *Guide*. When necessary, The Center can provide the topic outline from the military syllabus; and when an entire program of instruction is needed, arrangements can be made to photocopy the complete syllabus. Please note that the credit recommendations are based on more information than that cited in the syllabus.

11

What are USAFI and DANTES? Can I grant credit for the courses and tests listed on an applicant's USAFI or DANTES military test reports?

USAFI was the United States Armed Forces Institute, which offered an extensive educational program to active-duty personnel. USAFI correspondence, seminar, and self-study courses, end-of-course tests, and Subject Standardized Tests (SSTs) were made available to service personnel worldwide until 1974, when USAFI was disestablished. Credit recommendations for USAFI courses and examinations may be found in the *Handbook to the Guide*. (See question 32.)

Subsequently, the Defense Activity for Non-Traditional Education Support (DANTES) was established in 1974, and that agency continued the development and administration of Subject Standardized Tests and other educational services. The Center continues to recommend credit for USAFI offerings and DANTES SSTs. Credit recommendations for DANTES SSTs can be found in the *Handbook to the Guide*. Detailed descriptions may be found in the *Guide to Educational Credit by Examination*, which can be purchased through ACE Publications.

In verifying completion of USAFI or DANTES courses or tests, the military test report should not be considered official. That report is given to all service personnel who have taken a course or test. To obtain official USAFI or DANTES transcripts, refer to the addresses provided in Appendix A, under "Other Recommendations."

12

What is the significance of the date which appears after each credit recommendation?

That date is called the "evaluation date" and represents the month and year the credit recommendation was established. Each time a course or occupation is evaluated, a date is provided to indicate when the course or occupation was last considered for a credit equivalency. The date tells you how recently a recommendation was established so that you can judge the currency of the credit recommended. This information is particularly useful in subject areas where "state of the art" is important in determining the applicability of credit. You can also use the evaluation date when your institution has established a "statute of limitations" for acceptance of transfer credit. The date is provided purely for your information; do not confuse the date with exhibit dates.

13

An applicant completed a course in 1973, but the *Guide* exhibit dates are 5/74 to Present. Should I grant credit based on the *Guide?*

The exhibit dates shown in the *Guide* indicate the time period for which The Center has information on the course. The course may have been offered for several years prior to the exhibit "start" date, but since the service branch did not submit information on the course during that time period, we are not able to backdate the exhibit to cover it. If you can be reasonably sure, from other information provided by the applicant (length, course content description), that their course was the same or similar to the course listed in the *Guide*, then you may want to grant credit based on the *Guide* recommendation. If the applicant's course was a number of weeks longer or shorter than the one covered in the *Guide* exhibit, you may be able to grant credit based on a comparison of the applicant's information with the descriptive information in the *Guide*. The Center encourages you to conduct your own assessment of courses for which no credit recommendation is available. (See question 28 for information about assessment techniques; for information on Navy rating exhibit dates, see questions 22 and 23.) Staff may be able to provide you with military formal school catalog course descriptions for periods of time outside the exhibit dates. This should help you determine whether you might apply the credit listed in the *Guide* exhibit based on your own comparison.

14

I found the correct exhibit in my 1990 *Guide*, but under "Credit Recommendation" it says "Pending evaluation." My student cannot wait for the 1992 *Guide* to find out what credit she might receive. What should I do in such a case?

Staff members regularly schedule site evaluations. We publish a list of military schools and occupations in the office newsletter so that you may be aware of the availability of recommendations. In addition, colleges and military counselors on The Center and military mailing lists should receive updates for the *Handbook to the Guide*. These updates contain credit recommendations for courses and occupations evaluated since the 1990 *Guide*. (See question 32.) When a course or occupation is listed as "Pending evaluation," and does not appear in the *Handbook*, you may call the office to find out if a credit recommendation is available or you may simply send in your authorized Request for Course Recommendation or Request for Navy occupations form. The *Guide* system is constantly growing as courses and occupations are added to the data base.

15

The Keyword Index is somewhat confusing. Can you offer some tips on locating courses by title?

You can generally locate an exhibit by searching in the *Keyword Index* under the main words of the title. Generic terms such as "Repair," "Technician," and "Officer" are not keywords.

Some keywords may consist of two words. For example, "Electronics Technician," "Aviation Electronics," and "Aviation Support" are keywords.

The computer's system of alphabetizing places abbreviations and acronyms at the end of a sequence. Numbers are arranged in the following manner:

Mk 1
Mk 1A
Mk 10
Mk 100
Mk 108
Mk 11
Mk 111
Mk 119
Mk 12

As you can see, Mk 12 appears *after* Mk 100. Letters alphabetize before numbers.

It is important to check under more than just one word if you cannot locate a course right away.

16

One of my students completed a formal military course but does not have a DD Form 295 or DD Form 214 because he was not on active-duty service. Can I grant credit for the course, and how can I verify that he actually completed the course?

We recommend that school officials use the DD 295 or DD 214 whenever it is available to verify successful completion of a service course. This suggestion is not intended to exclude those individuals who do not have access to the forms because the individuals were (1) on reserve status, (2) in the National Guard, or (3) civilians attending military courses. In such cases, we suggest that alternative forms of certification, such as course completion certificates or other acceptable records of training, be used to verify eligibility for credit.

Veterans may use *Request Pertaining to Military Records*, Standard form 180, available from Veterans Administration offices to obtain records of their military training.

17

How can I distinguish among the terms paygrade, general rate, rating, and rate?

A *paygrade* is a position from 1 to 9 on the Navy's pay scale for enlisted personnel; in referring to a paygrade, the letter E (enlisted) precedes the number (E–1, E–2, E–3, E–4, E–5, E–6, E–7, E–8, and E–9). A *general rate* is an apprenticeship that indicates eligibility for entrance into various ratings. A *rating* is an occupation composed of a number of related jobs. A *rate* is an identifying term or title associated with a given paygrade, for example, the rate petty officer third class for paygrade E–4. A rate may also be associated with a specific rating; for example, a petty officer third class (paygrade E–4) whose rating is Air Controlman will usually refer to his or her rate as "Air Controlman Third Class." Navy men and women usually refer to themselves by their rate. Refer to Appendix A for a description of the Navy Enlisted Rating structure.

18

Do all ratings provide paths of advancement and career development for paygrades E–4 through E–9?

Although most ratings begin at paygrade E–4 and terminate at paygrade E–9, there are some exceptions. For example, the Legalman rating consists of paygrades E–5 through E–9. In this case, a person progresses to paygrade E–5 from paygrade E–4 of the Yeoman rating. At the other end of the spectrum, some ratings are structured so that a person holding a rating which consists only of paygrade E–9 (e.g., Master Chief Constructionman) may have progressed from any one of several related ratings that terminate at paygrade E–8. This allows personnel who are assigned to ratings that are low in density and in which occupational content is similar to progress to higher levels and scopes of authority and responsibility. Paths of progression are provided in each exhibit in the "Career Pattern" section.

19

Should persons be granted credit for their Navy general rate (paygrade E–3) as well as rating (paygrades E–4—E–9)?

Yes. Anyone holding a rating is also eligible for the credit recommended in the general rate exhibit. Although the credit recommendations in the rating exhibits are cumulative (i.e., the credit for DP3 is included in DP2), the rating exhibits do not include the general rate recommendation. The item "Career Pattern" in the rating exhibit will indicate the general rate the individual held prior to progressing to the rating. The general rate exhibit should then be located (see Step 3 in "How to Find and Use General Rate and Rating Exhibits"), and the credit recommended considered in conjunction with the credit recommendation for the rating.

20

If the letters PNA (passed-but-not-advanced) appear in item 8 of NAVPERS 1070/604, Navy Occupation/Training and Awards History, or on DD Form 295, Application for the Evaluation of Educational [or Learning] Experiences During Military Service, should I grant the credit recommended for the rating the person holds or for the rating the person would have held if he or she had been advanced?

The latter. Passed-but-not-advanced means that the person has passed the required written and performance examinations and is qualified for advancement. However, time in service, time in rate, and awards received also contribute to a person's total advancement score, which is the basis used in determining who is selected to fill existing openings in a given rate. In other words, PNA persons have demonstrated their occupational proficiency but were not advanced because they had an insufficient number of points from sources other than examinations to compete successfully for the openings in a given rate.

21

A student has asked for credit for an NEC. What are NECs and have they been evaluated?

An NEC (Navy Enlisted Classification) identifies qualifications individuals acquire in addition to skills required in their rating. A majority of the NECs are narrow in scope and have not been evaluated. Several NECs, however, require individuals to work in them full time, rather than in their rating. The following NECs have been evaluated at this time: Career Recruiter, Classification Interviewer, Recruiter Canvasser, Command Career Information Retention Counselor/Coordinator, Certified Navy Drug and Alcoholism Counselor, and Instructor.

NECs are evaluated using the same procedures ACE has used for the evaluation of occupations: a team of subject-matter specialists from colleges and universities use written descriptions provided by the Navy, interview a number of persons holding the NEC, write a description of the on-the-job activities, and determine the credit recommendation. The exhibits appear on page 5-1.

22

If a person held an occupational specialty prior to the start date of the exhibit, can I still use the recommendation?

Probably not. You need to do some additional investigating to help you decide whether to accept or modify the recommendation. The start date established by The Center is based on how far back we can verify that the occupation was the same as it was when our evaluation team evaluated it. The verification is based on official documentation given to us by the Navy. We do not have the means to confirm that an occupation was the same before the start date, but you might. There are two steps you will need to follow in making your decision:

1. Ask the person to provide a copy of the Navy Regulation pertaining to occupational qualifications or standards that were in effect when he or she held the specialty. Use the qualifications or standards to identify the learning outcomes represented by the general rate or rating.

2. Determine how much credit may be granted to the person. (Remember that advancement connotes occupational proficiency.) A careful comparison of the description in the occupation exhibit and the qualifications or standards obtained in step one may reveal whether there was a substantive difference. If not, the credit recommendation in the exhibit may be used. If specific differences are identified, then the recommended credits may need to be modified accordingly. One approach to modifying the credit recommendation is to have faculty members in appropriate subject areas assess the person's learning. In assessing the learning for educational credit, they should identify the discrete learning outcomes achieved by the person and relate them to the educational objectives of their courses and programs of study. Equivalent credit should be granted when the person has demonstrated the achievement of the same learning outcomes for which the faculty members grant credit to their students. (See question 28 for information about assessment techniques.)

23

When a Navy occupation exhibit includes the statement "Pending evaluation," how will I know when the ACE recommendations will be available?

The abbreviated exhibit format was developed to inform you of the evaluation status of the occupations. Such exhibits include only the ACE ID number, the title, the designation(s), and the exhibit dates with the statement "Pending evaluation." When you encounter this statement, two things are certain: (1) the occupation is one that was in use as of the publication cut-off date of June 1990 and (2) that ACE plans to evaluate it. As recommendations become available, they will be announced in the office newsletter. Inquiries about the evaluation status of an occupation should be directed to the Advisory Service. (See Step 6 in How to Find and Use Navy Exhibits.)

24

Why is the number of credits recommended for the occupation I just looked up greater than the number recommended for the course that leads to it?

It is rare for the subject matter covered in a course to perfectly coincide with the learning represented by occupational proficiency. In most cases, there is quite a difference in scope: difference in the subject matter mastered by the learner and, when the subject matter is the same, a difference in the depth and breadth of the learning.

Usually the scope of a course is narrower than that of the job. Most Navy courses are designed to prepare Navy men and women to function on the job or to take on additional tasks. As such, the courses normally provide entry-level occupational skills and competencies. Occupational proficiency is predicated on the additional factor(s) of work experience and/or extensive self-instruction.

In awarding credit for related occupations and courses, you need to be aware of the likelihood of overlapping credit recommendations. The term "overlapping" means that at least part of the learning represented by demonstrated occupational proficiency is the same as that for the course; therefore, some of the credits recommended may duplicate each other. A suggested procedure for resolving duplication is given in the answer to question 25.

25

I have looked up the exhibits for several courses and occupations for one person. Several of the credit recommendations within a given credit category are in the same subject areas. How can I avoid granting too much or duplicate credit to this person?

In this instance, you have an example of overlapping credit recommendations. Awarding a simple total of the recommended credits could result in the award of more credit than the learning merits.

Credit recommendations may overlap between (1) related courses, (2) related occupations, and (3) related courses and occupations.

Course recommendations will overlap when the individual has participated in several military courses in the same subject area and at the same level. Recommendations (both credit and apprenticeship) for occupations will overlap when the individual has advanced to two or more specialties that require related qualifications and the performance of related or similar duties. Course recommendations and occupation recommendations will overlap when the individual has acquired his or her occupational proficiency, or a significant portion of it, through completion of one or more formal service school courses.

In all the instances cited, when the learning outcomes and courses or programs of study in which recommendations are made are the same or very similar, there is overlap, and you should modify the credit recommendations to avoid granting duplicate credit. To reconcile the overlap in the recommendations, compare the descriptions and recommendations and interview the applicant to obtain additional information. To determine how much credit may be awarded without duplication, use the following steps:

1. Identify the appropriate occupations held and/or formal courses completed by the individual from the official military records the individual provides.
2. Locate all pertinent and available occupation exhibits and/or course exhibits in the *Guide*.
3. Locate the appropriate occupation and course exhibits.
4. Read and compare all the descriptions.
5. On the basis of the person's program of study, identify the appropriate recommendations in each exhibit.
6. Read and compare all the pertinent recommendations. It may be helpful to list the amount of credit and the subject areas or programs of study of each recommendation.
7. If necessary, obtain additional information from the individual through interview or further assessment.
8. When the nature and extent of the individual's learning has been identified, refer to all pertinent recommendations and make decisions on how much credit may be awarded without duplication. Credit should be awarded as appropriate to the educational goals of the individual and the policies of the institution.

If you cannot determine whether duplication exists, write the Advisory Service.

26

When credit is recommended in more than one category, what should I do?

Credit has frequently been recommended in more than one category. One reason for multiple-category recommendations is that the scope of a given rating or course reflects learning in several subject fields at different levels of complexity. The learning outcomes acquired in a course or rating in one subject field may apply to courses normally included in lower-division baccalaureate/associate degree programs, while those in another subject field may apply to courses normally included in upper-division baccalaureate programs. Another reason for multiple-category recommendations is that learning in a given subject field can be applied to courses and programs of study encompassed by more than one of the categories. That is, learning in business, for example, may apply to the vocational certificate category and to the upper-division baccalaureate category. A thorough reading of the exhibit will help you to determine which category or catagories is the best for you to apply. You will need to read the exhibit and compare learning outcomes achieved and course objectives and content with those of your own institution.

In the first instance—learning in several subject fields—the recommended credits may be added as long as all the subjects are applicable to the student's program of study at your institution.

> *Example A:*
> In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/75).

In Example A, up to 5 semester hours may be awarded if they apply to the student's program: 1 in communication skills, 1 in principles of management, and 3 in personnel management.

In the second instance—learning in a given subject field that is applied to two or more categories—the recommended credits probably should not be added. You will have to determine how they apply to the student's program of study at your institution.

Example B:

In the vocational certificate category, 15 semester hours in electricity or electronics. In the lower-division baccalaureate/associate degree category, 10 semester hours in electricity or electronics. In the upper-division baccalaureate category, 5 semester hours in electricity or electronics (6/75).

In Example B, to determine how many credits to award, compare the information in the exhibit description with the desired outcomes of electricity or electronics or related courses and programs of study at your institution. Award credit based on comparison of these outcomes.

In the third instance—a combination of Examples A and B—you may combine the credit categories when the subject areas are different, but should not add subject areas with the same titles.

Example C:

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in management (11/75).

The 3 semester hours in office management recommended in the lower-division baccalaureate/associate degree category and the 3 in office management recommended in the upper-division baccalaureate category should not be combined for a total of 6. Eight semester hours might be granted if they apply to the student's program: 3 in typing, 3 in office management, and 2 for field experience in management. The evaluators have described the course content, and using that description from the course exhibit, you must determine the appropriate application of the credit recommendation.

All three examples are from early evaluations. In recent evaluations, evaluators place the credit in a given subject area in the highest appropriate category. If credit is placed in more than one category, specific subjects will be cited. For example, if credit in the lower division is in personnel supervision, credit in the upper division might be in human resource management.

As a general rule, you should read the exhibit description and then award credit as it best applies to the student's program of study, as determined through academic counseling.

Credit may be applied to a student's program in various ways: (1) applied to the major to replace a required course, (2) applied as an optional course within the major, (3) applied as a general elective, (4) applied to meet basic degree requirements, or (5) applied to waive a prerequisite. Credit granted by a postsecondary institution will depend on institutional policies and degree requirements.

For additional help in this area, see the Model Policy on page xxxiii.

27

Do I have to grant credit *exactly* as it appears in the recommendation?

No. You are under no obligation to grant credit, although most colleges do recognize learning that occurs in a military setting. The use of ACE recommendations is the prerogative of education officials and employers. The recommendations are provided to assist you in assessing the applicability of a person's military learning experiences to his or her educational program or occupation. *You may modify the recommendations in accordance with your institution's policies and practices.*

You should keep in mind that the recommendations are advisory and are designed as a tool for use in giving due recognition to an individual for his or her learning experiences in the armed services. You should also keep in mind that the learning of some service personnel may exceed the skills, competencies, and knowledge evaluated for a specific course or occupation. In these cases, you may wish to conduct further assessment. (See question 28 for information about assessment techniques.)

28

May I conduct my own assessment of an applicant's learning?

Yes. In a sense, you are *always* conducting your own assessment, even when you use the recommendations in this book. The *Guide* is one of many tools you can use to assess what an applicant has learned and how that learning can be applied to a specific program of study at your institution. When you cannot find a recommendation in the *Guide* or cannot obtain one from the Advisory Service, we encourage you to use other means to assess what the person has learned.

There is a wide variety of assessment techniques that you can use, e.g., written examinations, oral examinations, faculty committee assessment, evaluation of materials supplied by the applicant, personal interviews, performance tests, and standardized examinations such as CLEP. A combination of several techniques will usually result in a reliable assessment of the person's learning.

You may learn more about assessment techniques through the publications of the Council for Adult and Experiential Learning (CAEL), formerly the Cooperative Assessment of Experiential Learning. Their publications may be purchased from CAEL, 223 West Jackson Blvd. Suite 510, Chicago, IL 60606 (312-922-5909).

The *ACE Guide Series* now comprises this *Guide* and companion volumes, *The National Guide to Educational Credit for Training Programs* (which lists recommendations for courses offered by business and industry, government agencies, professional and voluntary associations, and labor unions), and the *Guide to Educational Credit by Examination* (which provides descriptions and credit recommendations for nationally recognized testing programs). This *Guide* and the *National Guide* may be purchased through Macmillan Professional Books Division, Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022 (800-257-5755). The *Guide to Educational Credit by Examination* may be purchased through the American Council on Education, Publications Department, One Dupont Circle, Washington, D.C. 20036-1193.

29

Should a two-year college use only lower-division credit recommendations? And, should a four-year college use only upper-division credit recommendations?

Not necessarily. Evaluators are instructed to be as general as possible. That is, they place a course recommendation in the category in which it is *generally* taught at most institutions. If your institution teaches a given course at a different level, you are encouraged to grant the credit at that level. Depending on the recommendation, the programs of study available at the institution, and the objectives of the student, all types of institutions can use any or *all* of the four categories used in the *Guide*, namely the vocational certificate category, the lower-division baccalaureate/associate degree category, the upper-division baccalaureate category, and the graduate degree category. Evaluators now place credit recommendations in the highest appropriate credit category. Please see "Categories of Credit" in Appendix A.

30

I am an employer. How will the *Guide* be useful to me?

You may find the exhibits helpful in identifying the skills and knowledge of veterans and placing them in jobs. The recommendations and descriptions enable you to compare a veteran's training and experience with the qualifications and requirements for jobs. The recommendations relate learning to postsecondary courses and curricula and, in some cases, to apprentice training programs.

31

We have received a transcript from a military service school listing semester credits and carrying the statement that the school is accredited by one of the six regional accrediting associations. How do we handle this?

At this time we know of no military schools that are accredited above the certificate level other than the following: Community College of the Air Force, which is accredited at the two-year community college level; Army Command and General Staff College at Fort Leavenworth, Kansas, which is accredited to grant an M.A. degree; Air Force Institute of Technology at Wright-Patterson Air Force Base, which is accredited through the doctoral level; Defense Intelligence College, Washington, DC, accredited to grant an M.A. degree; Naval Postgraduate School, Monterey, CA, accredited through the doctoral level; Uniformed Services University of the Health Sciences School of Medicine, Bethesda, MD accredited through the doctoral level; and the service academies.

We recommend that you handle the certificate-level credit listings in accordance with your institutional policy regarding certificate-level credit.

32

What is the *Handbook to the Guide to the Evaluation of Educational Experiences in the Armed Services?*

The *Handbook to the Guide* was designed to keep institutional and military representatives up to date on the activities of ACE and The Center as well as to provide credit recommendations for courses and occupations evaluated since the latest *Guide* was printed. Revisions are mailed to military education personnel and civilian institutions. Sections most likely to be revised are those on exams, other aids, and evaluation updates.

33

A Navy student I'm counseling has taken an Air Force course. It's not in Volume 4 of the *Guide*. What should I do?

Anyone attending an Air Force school or course can obtain a Community College of the Air Force (CCAF) transcript which documents that training if the school or course is recognized by CCAF for credit. The transcript may be used to request transfer of credit to another institution or otherwise document college credit, since non-not award credit for all Air Force courses, but only those regularly attended by Air Force enlisted personnel and taught by CCAF-affiliated schools.

A CCAF transcript may be obtained by sending a completed AF Form 2099 or a brief letter requesting transcript service to CCAF/RRRA, Maxwell Air Force Base, AL 36112-6655. A certificate of training must accompany the request. DD Form 214 is not acceptable. Specify the type of transcript (personal or official) and the address to which the transcript is to be mailed. Provide full name, social security number, and ensure that the person whose transcript is requested signs the request form. The transcripts are free. Official transcripts will be mailed only to institutions.

34

I've found exhibits for most enlisted occupations, but not for the Air Force and Marine Corps. How come?

The student may write to the Community College of the Air Force (CCAF) to obtain a transcript which will include credit for the AFSCs held, reported as internship. The student should write to CCAF/RRRA Office of the Registrar, Maxwell AFB, AL 36112.

Marine Corps MOS recommendations are included in the 1990 *Guide*. Recent evaluations have been conducted for MOS's in the aircraft maintenance and avionics occurpational fields. The exhibits begin on page 4–1 in volume 4. Refer to How to Find and Use Marine Corps MOS Exhibits and Appendix A (both in volume 4) for information on the Marine Corps MOS system.

If you are not already receiving the newsletter, write to the Editor, Update, The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036–1193.

Awarding Credit for Extrainstitutional Learning

The following statement by the ACE Commission on Educational Credit and Credentials has been approved by the ACE Board of Directors and endorsed by the Council on Postsecondary Accreditation.

The American Council on Education recommends that postsecondary education institutions develop policies and procedures for measuring and awarding credit for learning attained outside their sponsorship.[1]

American society abounds in resources for learning at the postsecondary level. Public, private, and proprietary education institutions exercise the central but not exclusive responsibility for instruction and learning. Associations, business, government, industry, the military, and unions sponsor formal instruction. In addition, independent study and reading, work experiences, the mass media, and social interaction contribute to learning and competency.

Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning:

- Educational credentials have a significant bearing on the economic, professional, and social status of the individual. Thus, social equity requires that equivalent learning, regardless of where and how it is achieved, be incorporated into the system of rewards for learning and competency.
- Recognition encourages learning and contributes to pedagogical effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

In the development of institutional policies and procedures, the American Council on Education recommends the following guidelines and resources.

Guidelines

1.

Reliable and valid evaluation of student achievement is the sine qua non in awarding credit. Experience, whether acquired at work, in social settings, in the library, at home, or in the formal classroom, is in itself an inadequate basis for awarding credit. Increased attention in choosing evaluation procedures and techniques and more thorough evaluation are necessary when learning has been attained without participation in a program of study prescribed by an educational institution and offered by its faculty.

2.

In determining whether it is appropriate to accept a student's extrainstitutional learning for credit, the governing considerations should be its applicability to the student's program of study, including graduation requirements, and the relationship of the learning to the institution's mission, curricula and standards for student achievement. Learning should be articulated, documented and measured in these terms.

3.

Institutions should evaluate extrainstitutional learning only in subject-matter fields in which they have or can arrange for faculty expertise or where they can rely on nationally validated examinations or other procedures for establishing credit equivalencies. Institutions should award credit in these areas only if the quality of learning meets their standards for student achievement. Normally, institutions should evaluate learning and award credit only in subject fields in which they offer courses or curricula. However, if the acquisition of college level learning outcomes has been demonstrated in an area not taught by the institution, but related to the student's program of study, an exception may and ought to be made.

4.

Institutions awarding credit for extrainstitutional learning should develop clearly stated policies regarding administrative responsibility, student eligibility, means of assessment, recording of results on transcripts, storage of documentation, student fees, and maximum number of credits allowable. Information on these and related institutional policies and procedures should be disseminated to students and faculty for maximum awareness and utilization.

5.

Institutional policy should include provision that the institution's policies and procedures for awarding credit for extrainstitutional learning should be subject to periodic reevaluation.

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[1] "Extrainstitutional learning" is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and unions.

Resources

1.

Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education and available from Macmillan Publishing Company.

2.

The National Guide to Educational Credit for Training Programs, published by the American Council on Education and available from Macmillan Publishing Company.

3.

Credentialing Educational Accomplishment, edited by Jerry W. Miller and Olive Mills, published by the American Council on Education and available from Macmillan Publishing Company.

4.

Guide to Educational Credit by Examination, published by the American Council on Education and available from ACE Publications.

5.

Publications of the Council for Adult and Experiential Learning, 223 West Jackson Blvd., Suite 510, Chicago, IL 60606.

Transfer and Award of Credit

The following set of guidelines was developed by the three national associations whose member institutions are directly involved in the transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation. The need for such a statement came from an awareness of the growing complexity of transfer policies and practices, which have been brought about, in part, by the changing contours of postsecondary education. With increasing frequency, students are pursuing their education in a variety of institutional and extrainstitutional settings. Social equity and the intelligent use of resources require that validated learning be recognized wherever it takes place.

The statement is intended to serve as a guide for institutions developing or reviewing policies dealing with transfer and award of credit. The statement is under periodic review by the three associations, and reactions to it would, of course, be welcome. Comments may be directed to Henry Spille, Vice President, ACE, and Director, The Center for Adult Learning and Educational Credentials.

Robert H. Atwell, President

American Council on Education

This statement is directed to institutions of postsecondary education and others concerned with the transfer of academic credit among institutions and award of academic credit for extrainstitutional learning. Basic to this statement is the principle that each institution is responsible for determining its own policies and practices with regard to the transfer and award of credit. Institutions are encouraged to review their policies and practices periodically to assure that they accomplish the institutions' objectives and that they function in a manner that is fair and equitable to students. Any statements, this one or others referred to, should be used as guides, not as substitutes, for institutional policies and practices.

Transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extrainstitutional learning, as well as transfer between institutions and curricula with similar characteristics. As their personal circumstances and educational objectives change, students seek to have their learning, wherever and however attained, recognized by institutions where they enroll for further study. It is important for reasons of social equity and educational effectiveness, as well as the wise use of resources, for all institutions to develop reasonable and definitive policies and procedures for acceptance of transfer credit. Such policies and procedures should provide maximum consideration for the individual student who has changed institutions or objectives. It is the receiving institution's responsibility to provide reasonable and definitive policies and procedures for determining a student's knowledge in required subject areas. All institutions have a responsibility to furnish transcripts and other documents necessary for a receiving institution to judge the quality and quantity of students' work. Institutions also have a responsibility to advise the students that the work **reflected** on the transcript **may or may not** be accepted by a receiving institution.

INTERINSTITUTIONAL TRANSFER OF CREDIT

Transfer of credit from one institution to another involves at least three considerations:

(1) the educational quality of the institution from which the student transfers

(2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution

(3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.

Accredited Institutions

Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Users of accreditation are urged to give careful attention to the accreditation conferred by accrediting bodies recognized by the Council on Postsecondary Accreditation (COPA). COPA has a formal process of recognition which requires that all accrediting bodies so recognized must meet the same standards. Under these standards, COPA has recognized a number of accrediting bodies, including:

(1) regional accrediting commissions (which historically accredited the more traditional colleges and universities but which now accredit proprietary, vocational-technical, and single-purpose institutions as well)

(2) national accrediting bodies that accredit various kinds of specialized institutions

(3) certain professional organizations that accredit free-standing professional schools, in addition to programs within multipurpose institutions (COPA annually publishes a list of recognized accrediting bodies, as well as a directory of institutions accredited by these organizations).

Although accrediting agencies vary in the ways they are organized and in their statements of scope and mission, all accrediting bodies that meet COPA's standards for recognition function to assure that the institutions or programs they accredit have met generally accepted minimum standards for accreditation.

Accreditation affords reason for confidence in an institution's or a program's purposes, in the appropriateness of its resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals, insofar as these things can be judged. Accreditation speaks to the probability, but does not guarantee, that students have met acceptable standards of educational accomplishment.

Comparability and Applicability

Comparability of the nature, content, and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by the receiving institution are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from catalogues and other materials and from direct contact between knowledgeable and experienced faculty and staff at both the receiving and sending institutions. When such considerations as comparability and appropriateness of credit are satisfied, however, the receiving institution should have reasonable confidence that students from accredited institutions are qualified to undertake the receiving institution's educational program.

Admissions and Degree Purposes

At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may accept previous work, place a credit value on it, and enter it on the transcript. However, that previous work, because of its nature and not its inherent quality, may be determined to have no applicability to a specific degree to be pursued by the student.

Institutions have a responsibility to make this distinction, and its implications, clear to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind. Institutions also should make every reasonable effort to reduce the gap between credits accepted and credits applied toward an educational credential.

Unaccredited Institutions

Institutions of postsecondary education that are not accredited by COPA-recognized accrediting bodies may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards. That being the case, students transferring from such institutions may encounter special problems in gaining acceptance and transferring credits to accredited institutions. Institutions admitting students from unaccredited institutions should take special steps to validate credits previously earned.

Foreign Institutions

In most cases, foreign institutions are chartered and authorized by their national governments, usually through a ministry of education. Although this policy provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to voluntary accreditation. The Division of Higher Education of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is engaged in a project to develop international compacts for the acceptance of educational credentials. At the operational level, four organizations—the Council on International Educational Exchange (CIEE), the National Council on the Evaluation of Foreign Student Credentials (CEC), the National Association for Foreign Student Admissions (NAFSA), and the National Liaison Committee on Foreign Student Admissions (NLC)—often can assist institutions by distributing general guidelines on admission and placement of foreign students. Equivalency or placement recommendations are to be evaluated in terms of the programs and policies of the individual receiving institution.

VALIDATION OF EXTRAINSTITUTIONAL AND EXPERIENTIAL LEARNING FOR TRANSFER PURPOSES

Transfer-of-credit policies should encompass educational accomplishment attained in extrainstitutional settings as well as at accredited postsecondary institutions. In deciding on the award of credit for extrainstitutional learning, institutions will find the services of the American Council on Education's Center for Adult Learning and Educational Credentials helpful. One of The Center's functions is to operate and foster programs to determine credit equivalencies for various modes of extrainstitutional learning. The Center maintains evaluation programs for formally structured courses offered by the military, and civilian noncollegiate sponsors such as business, corporations, government agencies, and labor unions. Evaluation services are also available for examination programs, for occupations with validated job proficiency evaluation

systems, and for correspondence courses offered by schools accredited by the National Home Study Council. The results are published in a Guide series. Another resource is the General Education Development (GED) Testing Program, which provides a means for assessing high school equivalency.

For learning that has not been validated through the ACE formal credit recommendations process or through credit-by-examination programs, institutions are urged to explore the Council for Adult and Experiential Learning (CAEL) procedures and processes.

USES OF THIS STATEMENT

This statement has been endorsed by the three national associations most concerned with practices in the area of transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation.

Institutions are encouraged to use this statement as a basis for discussions in developing or reviewing institutional policies with regard to transfer. If the statement reflects an institution's policies, that institution might want to use this publication to inform faculty, staff, and students.

It is recommended that accrediting bodies reflect the essential precepts of this statement in their criteria.

Approved by the Executive Committee, American Association of Collegiate Registrars and Admissions Officers
November 21, 1978 and reaffirmed in 1989.

Approved by the American Council on Education/Commission on Educational Credit and Credentials
December 5, 1978 and reaffirmed in 1989.

Approved by the COPA Board
October 10, 1978

Elements of a Model Policy on Awarding Credit for Extrainstitutional Learning

Extrainstitutional learning is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary education institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military and unions.

I. Example Statement of General Policy

Degree credit shall be awarded for postsecondary-level extrainstitutional learning. Such credit awards shall be made under protocols designed to assure that reliable and valid measures of learning outcomes are or have been applied.

Rationale

Adult students are demanding that their learning acquired in extrainstitutional settings be assessed and that appropriate degree-related credit be awarded. This is a reasonable request and also one in keeping with the national interest. Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning.

American society abounds in resources for learning at the postsecondary level. Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials accordingly have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

Educational credentials have a significant bearing on the economic, professional, and social status of the individual. It follows that social equity requires that equivalent learning regardless of where and how it is achieved be incorporated into the system of rewards for learning and competency. Recognition encourages learning and contributes to teaching effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Through reliable and valid assessment of extrainstitutional learning, more persons can be enabled to enter college and work successfully toward degrees and other academic goals. Many of these individuals are those who have been educationally disadvantaged in the past.

II. Example Policy for Administrative Responsibility

Responsibility for administering policies and procedures for awarding credit for extrainstitutional learning rests with the Academic Vice President (or other designated senior academic official).

Rationale

Awarding credit is an academic matter. Therefore, administrative responsibility for the policies and procedures pertaining to awarding credit for extrainstitutional learning should be assigned to the institution's senior academic official. Policy implementation and application may be delegated to other institutional officials such as deans, department chairpersons, and registrars. However, oversight of their policy implementation and application is performed by a senior academic official.

Example of Application of the Policy

The academic vice president delegates to the institutional registrar the responsibility for transcripting credit awarded on the basis of recommendations in the ACE Guides (the policy was approved through the institution's usual governance procedures) and provides the registrar with guidelines for performing this responsibility. Included in the guidelines are a series of steps to follow in determining how to apply the ACE credit recommended for a course whose title is not the same as the title of any course offered by the institution.

The ACE *Guide* recommends 3 semester hours in automotive maintenance, but the institution's courses are more specific and carry titles such as Tune-Up I, Auto Brakes, and Automatic Transmission I. In accordance with the guidelines, the registrar compares course descriptions in the institution's catalog with the course description in the *Guide*, finds that the learning outcomes acquired through Tune-Up I match very closely the learning outcomes acquired through the military's automotive maintenance course, and transcripts 3 semester hours in Tune-Up I.

III. Example Policy on Learning That Will Be Evaluated and Who Will Conduct the Evaluations

Extrainstitutional learning related to subject areas, courses and programs of study will be evaluated for registered students. Established institutional evaluation procedures will be followed, using one or more of the authorized publications and methods for effecting assessment. Students of any age may apply for credit for extrainstitutional learning at any time during a period of enrollment.

Rationale

The learning that is evaluated must be in subject areas in which faculty expertise is available or in which expertise can be arranged. This expertise is essential for conducting evaluations and making credit-award decisions. If subject-matter experts do not conduct the evaluations and make the decisions, the credibility of the activity is suspect.

While the great majority of students requesting credit for extrainstitutional learning will be of relatively mature years, it is possible that "young students" may have acquired learning in extrainstitutional settings. Providing a student can document the attainment of appropriate learning outcomes, he or she should receive credit regardless of age. While most applications for award of extrainstitutional learning credit will be received at the time of enrollment from new students, it is possible that students already enrolled may realize that they, too, have extrainstitutional learning experiences that might qualify for credit awards. It is also possible that enrolled students, especially those who are employed, will continue to learn in noncollegiate settings, and will want their learning assessed. Student initiatives with respect to extrainstitutional learning assessment shall not be limited or restricted to the initial term of enrollment.

Example of Application of the Policy

A 19-year old student has been enrolled at Local College for two years and is about to enter her junior year. At the time of enrollment, it did not occur to her that the foreign language requirement might be satisfied with a language other than one of those taught at the institution. This student's parents were refugees from Hungary who entered the United States in 1958. The Hungarian language is spoken in the home and the student speaks the language fluently. The student is able to document to the satisfaction of the institution's language faculty, through evaluation done by a person in the community fluent in Hungarian, that she is, indeed, proficient in Hungarian. She received 6 credits in Hungarian that satisfy the foreign language requirement for the bachelor's degree.

IV. Example Policy on Publications and Methods for Use in Awarding Credit for Extrainstitutional Learning

Nine publications and methods are permitted for use in awarding credit for extrainstitutional learning. These publications and methods are: (1) ACE *Guide to the Evaluation of Educational Experiences in the Armed Services*, (2) ACE *National Guide to Educational Credit for Training Programs*, (3) ACE *Guide to Educational Credit by Examination*, (4) New York Regents *Guide to Educational Programs in Noncollegiate Organizations*, (5) College Entrance Examination Board Advanced Placement Program (CEEB/AP), (6) department challenge examinations and/or faculty end-of-course examinations, (7) degree-relevant extrainstitutional learning credit awarded and transcripted by other accredited institutions, as well as that credit transcripted by ACE on the Army/ACE Registry Transcript System (AARTS) and the Registry of Credit Recommendations (ROCR), (8) subject-matter experts who are not members of the institution's faculty but who evaluate extrainstitutional learning at the faculty's request, and (9) individual portfolios using Council for Adult and Experiential Learning (CAEL) or other standardized guidelines.

In addition, advice on using other publications and methods for awarding credit for extrainstitutional learning may be sought from the American Council on Education.

Rationale

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in the military. More recently, the *National Guide to Educational Credit for Training Programs* and the *Guide to Educational Credit by Examination* have attained similar stature. ACE has worked cooperatively with the Department of Defense, the armed services, business, industry, labor unions, other organizations providing education and training, and test publishers, as well as with accredited colleges and universities in developing the credit recommendations presented in the *Guide* series. All recommendations carried are the result of careful and periodic review by evaluation teams that consist of university and college faculty members who are subject-matter experts. All evaluation teams work under policies and procedures approved by the ACE Commission on Educational Credit and Credentials and under protocols and supervision provided by the staff of the ACE Center for Adult Learning and Educational Credentials.

The policies and procedures used to develop the exhibits in the New York Regents *Guide to Educational Programs in Noncollegiate Organizations* are similar to those used by the American Council on Education.

The CEEB/AP program permits high school students to demonstrate the attainment of college-level learning outcomes; the important factor is that learning outcomes are attained, not where the learning took place (in a high school) or who taught the course (usually a high school teacher).

The practice of administering departmental or individual faculty member challenge examinations or end-of-course examinations is long-standing and permits the faculty members to make direct judgements about the equivalence of learning for specific courses.

Credit transcripted on the basis of extrainstitutional learning should be treated the same as that transcripted for courses; in both instances the faculty of the sending institution has attested to the student's attainment of required learning outcomes. Credit transcripted on ACE's Army/ACE Registry Transcript System (AARTS) and Registry of Credit Recommendations (ROCR) for the Army component of the Military Evaluations Program and participants in the Program on Noncollegiate Sponsored Instruction (PONSI) should also be treated as that transcripted for courses; in these instances, teams of fac-

ulty members from accredited colleges and universities have evaluated the learning and judged its equivalence to learning acquired on campuses.

Sometimes the expertise to evaluate extrainstitutional learning is not available on the faculty; in these instances, the faculty can designate an expert to conduct the evaluation. Criteria for selection of "outside" experts should be established.

The portfolio assessment guidelines promulgated by CAEL are widely accepted by faculty assessors and are considered exemplary. The portfolio provides a reliable method for evaluating learning outcomes acquired individually, as opposed to a set of learning outcomes acquired by large numbers of persons, such as through a course offered by the U.S. Army for soldiers.

Example of Application of the Policy

A student (soldier), upon entering Local College, provides an AARTS transcript that confirms completion of a course entitled "Advanced Geodetic Surveyor" at the Engineer School, Ft. Belvoir, Virginia, in October 1981, while holding the rank of sergeant in the U.S. Army. Information on the transcript and in the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services* indicates that the soldier completed this course when it was taught at Ft. Belvoir between January 1977 and November 1983. Its objectives were to train warrant officers and senior noncommissioned officers in advanced geodetic survey techniques. The course was delivered by means of lectures and practical exercises in advanced geodetic surveying techniques including map compiling, vertical and horizontal control surveys, gravity, astronomic observations, and mathematics. The *Guide* recommends that a college or university award 6 semester hours in geodesy at the upper-division baccalaureate level; this recommendation also appears on the AARTS transcript. After review of this recommendation, Local College awards this student 6 semester hours of credit in geodesy toward completion of a planned major in mathematics.

V. Example Policy on Maximum Number of Credits That May Be Awarded for Extrainstitutional Learning

The maximum number of credits that may be awarded for extrainstitutional learning is three-fourths the number required for a degree.

Rationale

Most postsecondary education institutions have a requirement that stipulates that a minimum of one-fourth of the credits required for a degree must be earned in residence. The balance of the required credits could be awarded on the basis of extrainstitutional learning. However, the credits awarded for extrainstitutional learning and those earned in residence would have to satisfy all degree requirements before a degree could be awarded. In the absence of a residency requirement, all degree requirements conceivably could be met through extrainstitutional learning.

Example of Application of the Policy

John Smith is a newly registered student at Local College. He is a financial vice president of a major U.S. corporation, CPA, and licensed realtor; he is fluent in three foreign languages—German, French, and Spanish; he has published seven articles in domestic and foreign journals and has contributed chapters in two books on international economics; he is knowledgeable about foreign countries and cultures as a result of having lived abroad for eleven years; and he is proficient in computer programming (COBOL and FORTRAN).

On the basis of Mr. Smith's demonstrated knowledge, skills, and competencies, the faculty awarded him 106 credits. The college requires 124 credits for a degree and has a 24 credit residency requirement. Therefore, Mr. Smith must earn 24 credits in residence. What courses does he take to earn 24 credits? His academic advisers decided, and Mr. Smith concurred, that he lacked knowledge about the environment, a special focus and thrust of the college's general education requirement. He took courses to satisfy this requirement and was awarded a degree.

VI. Example Policy on Recording Credits Awarded for Extrainstitutional Learning on Transcripts

The credit awarded for extrainstitutional learning shall be transcripted in the same manner as credits awarded for course completions.

Rationale

The faculty members have either evaluated the learning or approved the other means by which credit can be awarded. They have verified that learning has occurred and is equivalent to the learning acquired in their courses and programs. Therefore, special notation or differentiation of courses and credits awarded on the basis of extrainstitutional learning is unnecessary.

Example of the Application of the Policy

Examples of the way in which Mr. Smith's credit was transcripted are:

Accounting 261 —Financial Information Systems—3 semester hours
Accounting 360 —Financial Reporting Theory and Practice—3 semester hours
Computer Science 251 —Principles of Programming—FORTRAN—4 semester hours
Computer Science 252 —Principles of Programming—COBOL—4 semester hours
German 101 —Elementary German—4 semester hours
German 201 —Intermediate German—4 semester hours
German 309 —Advanced Conversation—3 semester hours

VII. Example Policy on Retention of the Documentation of Extrainstitutional Learning

Documents used to verify the award of credit for extrainstitutional learning shall be retained for one calendar year.

Rationale

The length of time documentation for the credits awarded for extrainstitutional learning shall be retained should be consistent with the length of time documentation for credits awarded for classroom learning are retained. Consistency facilitates equitable handling of student documents and represents sound recordkeeping practices.

Example of Application of the Policy

Local College keeps students' final exams on file for one calendar year, after which they are shredded. Mr. Smith's documentation—copies of articles and chapters he authored, copies of his computer programs, notes and summaries of interviews faculty members had with him, etc.—were kept on file for one calendar year and were then shredded.

VIII. Student Fees for Assessing Extrainstitutional Learning

A fee for the assessment of extrainstitutional learning shall be charged.

Rationale

Assessing extrainstitutional learning, transcripting the credits awarded, etc., are valuable services to students. These services require faculty and staff time. Students should therefore pay a fee for these services just as they pay fees for other institutional services.

Example of Application of the Policy

The fee for assessing extrainstitutional learning and transcripting the results at Local College is based on its average hourly salaries for various faculty ranks (assistant professor, professor, etc.) and administrative positions plus the costs for benefits and administrative services which are computed as percentages of salaries. The average hourly salaries are multiplied by the amount of time spent in performing the evaluation and administrative functions, rounded up to the half-hour. The fee for assessing Mr. Smith's extrainstitutional learning and transcripting the results was $880.

IX. Example Policy on Oversight of the "Program"/Activity

An Oversight Committee, broadly representative of the institution's divisions/departments, shall be appointed (by the "program" administrator or through the institution's usual means of appointing committees). The major function of this committee is to review the credit award decisions to assure consistency across the institution.

Rationale

To protect the integrity and credibility of the activity, consistency is absolutely necessary. If either the faculty or the students perceive that credit awards are made capriciously, their confidence in the activity will be lost. When this occurs, the activity will no longer be viable.

Example Application of the Policy

The Oversight Committee detected that, when a faculty evaluation team for portfolio assessment was comprised of three specific faculty members, the credit awards seemed overly "generous." The Oversight Committee recommended to the administrator that these three faculty members not comprise a team. The administrator discussed the credit-award information with the three faculty members, and they agreed with the Oversight Committee's recommendation, which was then implemented.

X. Example Policy on "Program" Evaluation

The "program" for assessing extrainstitutional learning shall be evaluated on an annual basis by the academic vice-president or his designee(s).

Rationale

It is sound administrative practice to evaluate "programs" on a regular basis to determine if "program" objectives are being met. It is especially important to evaluate new "programs" so that problems are detected early on and changes can be made, if necessary. Evaluation should probably be done jointly by "program" staff and the staff of the Office of Institutional Research.

Example of Application of the Policy

At Local College, responsibility for "program" evaluation is assigned to the Office of Institutional Research, but the Office involves the "program" staff. "Program" evaluation includes but is not limited to, an indepth look at the academic performance of students who have received credit for extrainstitutional learning. Recent data showed that their overall performance, in terms of GPA, was higher than that of the student body as a whole; the average number of credits carried each semester was equivalent to the average number carried by the student body as a whole; they were enrolled in all academic departments of the college, etc. Credit awards were examined by age categories and by assessment instrument used. This information was useful to the college faculty and administrators in deciding to continue the "program."

Course Exhibits

NV

NV-0101-0001

Disease Vector and Pest Control Technology

Course Number: B-00-13; B-00-14; B-000-12; B-000-13.
Location: Disease Vector Control Center, Alameda, CA; Disease Vector Control Center, Jacksonville, FL.
Length: 4 weeks (146 hours).
Exhibit Dates: 4/62-5/69.
Objectives: To provide enlisted personnel with a working knowledge of disease vector and pest control.
Instruction: Lectures and practical experience in the basic principles of disease vector and pest control, including basic entomology, operation of various types of insecticide dispersal equipment, control of arthropods and pest vertebrates, effects of weather on pest control, effects of insecticides, and sanitation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in community sanitation and entomology (2/74); in the upper-division baccalaureate category, 2 semester hours in community sanitation (12/68).

NV-0202-0001

Medical Illustration Technician, Class C
(Medical Illustration Technic)

Course Number: B-414-0010; B-414-10.
Location: National Naval Medical Center, Bethesda, MD.
Length: 26 weeks (888 hours).
Exhibit Dates: 1/57-12/71.
Objectives: To train personnel as medical illustrators.
Instruction: Lectures and practical exercises in medical illustration, including graphic arts, microscopic drawing, advanced anatomy, and surgical drawing.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in anatomy, and credit in medical illustration techniques on the basis of institutional evaluation (12/68).

NV-0326-0001

Navy Advanced Management

Course Number: P-00-3307.
Location: Defense Resources Management Center, Monterey, CA; Navy Management Systems Center, Norfolk, VA.
Length: 2 weeks (68 hours).
Exhibit Dates: 6/73-1/88.
Objectives: To acquaint officers with concepts and techniques of quantitative methods of management.
Instruction: Lectures, discussions, and simulations to cover functions of management; quantitative methods; risk and uncertainty; economic principles; model building; production analysis; sampling; planning, programming, and budgeting; and management information systems.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in quantitative methods (6/75).

NV-0326-0002

1. Navy Schools Management
2. School Administration, Class C1, Course "Golf"
3. School Administration, Class C1, Course "Golf"

Course Number: A-7B-0010; A-7B-0011; A-7B-0012; A-7B-010; A-7B-011; A-7B-012.
Location: *Version 1:* Air Technical Training Center, Memphis, TN; Service School Command, San Diego, CA; Service School Command, Great Lakes, IL. *Version 2:* Instructor/Leadership School, Great Lakes, IL; Instructor/Leadership School, San Diego, CA; Instructor/Leadership School, Norfolk, VA. *Version 3:* Instructor/Leadership School, Great Lakes, IL; Instructor/Leadership School, San Diego, CA; Instructor/Leadership School, Norfolk, VA.
Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 2 weeks (60 hours). *Version 3:* 4 weeks (120 hours).
Exhibit Dates: *Version 1:* 1/75-1/88. *Version 2:* 7/70-12/74. *Version 3:* 11/55-6/70.
Objectives: To provide selected personnel with a working knowledge of management and communications principles necessary to manage a Navy school.
Instruction: *All Versions:* Lectures and practical experience in the principles and procedures of school management and administration. Course includes theory and techniques in management, supervision, and evaluation in school administration, including group guidance and in individual guidance and counseling. *Version 3:* Course consists of two phases; instructional procedures and administrative procedures.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management (6/75). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in principles of administration (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (1/74).

NV-0326-0003

Organizational Effectiveness Specialist
(Human Resource Management Specialist)

Course Number: A-500-0045.
Location: Leadership and Organizational Effectiveness School, Millington, Memphis, TN.
Length: 12 weeks (480 hours).
Exhibit Dates: 4/83-Present.
Objectives: To provide graduates with the knowledge and skills necessary to select and apply organizational technologies as a consultant to the U.S. Navy.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) analyze and diagnose organizational problems with attention to organizational culture, values, power, leadership, authority, decision-making, and group process; (2) conduct self-assessment in personal development (3) gather and analyze organizational data using selected (inferential and descriptive) statistics; (4) design and and present a data driven organization effectiveness implementation (5) understand and communicate systemic dimensions of complex organizations (6) design and plan organizational change.
Credit Recommendation: In the graduate degree category, 6 semester hours in organizational development and organizational effectiveness, 3 in practicum in organizational consulting (2/85).

NV-0326-0004

Organizational Effectiveness Advanced Consultant Course

Course Number: None.
Location: Leadership and Organizational Effectiveness School, Millington, TN.
Length: 2 weeks (80 hours).
Exhibit Dates: 12/84-Present.
Objectives: To provide participants with advanced conceptual and skill competence in organizational diagnosis and analysis.
Instruction: The course provides a brief overview of organization theory and addresses standard topics found in the study of organizational effectiveness including systems theory and models, marketing theory and strategy, strategic planning, organizational design and change, and confrontation and negotiation. The student is taught to function as an organizational consultant capable of designing organizational change strategies to enhance the an organization's effectiveness.
Credit Recommendation: In the graduate degree category, 2 semester hours in organizational diagnosis and change (4/85).

NV-0401-0001

Bachelor Quarters Management

Course Number: A-800-0021.
Location: Service School Command, San Diego, CA; Service School Command, Norfolk, VA.
Length: 3 weeks (110-0120 hours).
Exhibit Dates: 4/83-Present.
Learning Outcomes: Upon completion of the course,the student willhave a general knowledge of housekeeping, front office, personnel practices, and accounting in lodging operations.
Instruction: Includes lectures and performance exercises in room assignment, guest relations, personnel management, financial accounting and management, and budgeting.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in hotel (lodging) operations and/or rooms management (2/90).

NV-0401-0002

Public Quarter/Flag Operations

Course Number: A-800-0023.
Location: Service School Command, San Diego, CA.

Length: 1 weeks (40-45 hours).

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will operate a small full service residential facility (bed and breakfast) executive residence.

Instruction: Lecture course emphasizing all aspects of an executive residence to include sevice procedures, equipment maintenance and operations, sanitation, etiquette security, and lodging.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service and lodging and management (2/90).

NV-0419-0001

Officers Embarkation (Basic)

Course Number: None.

Location: Naval Amphibious Base, Norfolk, VA.

Length: 4 weeks (139 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0002

Staff Embarkation

Course Number: None.

Location: Naval Amphibious Base, Norfolk, VA.

Length: 3 weeks (102 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in water transportation (1/74).

NV-0419-0003

Enlisted Basic Amphibious Embarkation

(Enlisted Embarkation (Basic))

Course Number: G-551-4409.

Location: Naval Amphibious Base, Little Creek, Norfolk, VA.

Length: 4 weeks (139-140 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0004

Embarkation for Amphibious Operations

Course Number: G-8B-4403; H-8B-3551.

Location: Naval Amphibious Base, Norfolk, VA; Naval Amphibious Base, San Diego, CA.

Length: 4 weeks (144 hours).

Exhibit Dates: 11/69-1/88.

Objectives: To train U.S. and allied military officers to operate as embarkation officers and combat cargo officers.

Instruction: Lectures in the theory of combat loading for amphibious operations, characteristics of amphibious vessels and vehicles, logistical considerations, and use of the mechanized embarkation data system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0005

Amphibious Transport/Cargo Ship Embarkation

Course Number: G-8B-4418; G-551-4418.

Location: Atlantic Naval Amphibious Base, Little Creek, VA.

Length: 2 weeks (65 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To train personnel in the preparation and execution of plans for the combat loading of the LPA or LKA for an amphibious operation.

Instruction: Lectures and practical exercises on embarkation considerations; ship tour; techniques of combat load-planning; preparation of loading plans; logistic considerations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in transportation or amphibious cargo handling (2/74).

NV-0419-0006

Introduction to Transportation Management

Course Number: None.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 4/71-1/88.

Objectives: To provide military and civilian personnel with the basic principles of distribution and traffic management.

Instruction: Lectures in aspects of the American transportation system; the fundamentals of traffic management; military transportation management; development of transportation regulations; classification, rates, and tariffs; carrier facilities, services, and equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in transportation management (1/74).

NV-0419-0007

Transportation and Storage of Hazardous Material

Course Number: A-8C-0023.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 6/71-1/88.

Objectives: To provide officers, civilians, and enlisted personnel with the knowledge and skills necessary to administer the storage and transportation of ammunition, explosives, and other hazardous material.

Instruction: Lectures in storage and transportation of hazardous materials, including military and commercial carrier operations; national, state, and local transportation regulations; traffic management and terminal service; airlift and sealift procedures; and organization and operation of a naval weapons station.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-0419-0008

1. Transportation Management
2. Freight Transportation and Traffic Management

Course Number: *All Versions:* A-8C-0017.

Location: Naval Supply Center, Oakland, CA.

Length: *Version 1:* 22 weeks (784 hours). *Version 2:* 22-38 weeks (733 hours).

Exhibit Dates: *Version 1:* 10/71-1/88. *Version 2:* 9/55-9/71.

Objectives: To train military officers and civilian personnel to operate as transportation managers.

Instruction: Lectures and practical experience in the fundamentals of transportation management, including warehouse operations management; marine terminal management; military traffic management; materials handling; hazardous materials transportation and storage; preservation and packaging; personal property shipments; shiploading and storage; transportation rules and regulations; classification, rates, and tariffs; rail, air, motor, and pipeline transportation; quantitative aspects of distribution management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in transportation management (1/74). *Version 2:* In the upper-division baccalaureate category, 10 semester hours in transportation operation and management (12/68).

NV-0419-0009

Transportation Management Advanced

Course Number: A-8C-0012.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To provide military and civilian management personnel with advanced instruction in transportation and physical distribution management.

Instruction: An advanced seminar in the concepts and problems of physical distribution management, including the fundamentals of policy and regulation, federal and military transportation policy, procedures before regulatory agencies, the economics of transportation, labor relations, containerization, materials handling and warehousing, simulation flow process charting, queuing theory, and transportation inventory modeling.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (1/74).

NV-0419-0010

Intermediate Transportation Management

Course Number: A-8C-0014.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/71-5/75.

Objectives: To train officers to operate as transportation managers at the intermediate level.

Instruction: Lectures in the legal and economic aspects of highway transportation management; freight classification, rates, and tariffs; handling and shipping of hazardous materials; warehouse operation; carrier modes and services; military traffic management; case study preparation and presentation; current developments in motor transportation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (1/74).

NV-0419-0011

PERSONAL PROPERTY TRAFFIC MANAGEMENT

Course Number: A-8C-0022.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train officer, civilian, and enlisted personnel to ship household goods and other personal property.

Instruction: Lectures and practical exercises in personal property traffic management, including station orders, entitlements, entitlements under permanent and temporary change-of-station orders, management, personal property shipment methods, comprehensive personal property problems, standard military transportation and movement procedures, claims procedures and investigations, and tours.

Credit Recommendation: In the vocational certificate category, 2 semester hours in traffic management, household and personal property (6/74).

NV-0419-0012

MARINE TERMINAL MANAGEMENT

Course Number: A-8C-0011.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train selected enlisted personnel to operate and manage ocean terminals.

Instruction: Lectures and practical exercises in the operation and management of ocean terminals. Course includes marine terminal operations and management, handling of cargo through the terminal, stevedoring and stevedoring contracts, cargo space allocation, stevedoring and terminal cost estimating, and regulations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in water transportation (7/74).

NV-0419-0013

AIR TRAFFIC MANAGEMENT

Course Number: A-8C-0024.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71-4/76.

Objectives: To train officers, civilians, and senior enlisted personnel to manage air traffic operations.

Instruction: Lectures and practical exercises in air traffic management. Course includes the roles and missions of military and commercial carriers, air carrier management, operations and regulations, military air transportation, flight and terminal equipment, and effective utilization of air transportation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in air traffic management (7/74).

NV-0419-0014

INTRODUCTION TO TRAFFIC AND TERMINAL MANAGEMENT

Course Number: None.

Location: Freight Transportation School, Oakland, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train personnel in the fundamentals of transportation, traffic, and terminal management.

Instruction: Lectures and practical exercises in the fundamentals of transportation, traffic, and terminal management, including transportation logistics; economics of transportation; bills of lading; commercial and government air shipments; cargo ships; port terminal facilities; ocean shipping; duties of traffic manager; principles of shiploading; duties of marine terminal superintendent; motor carrier operations; materials-handling methods and equipment; preservation, packaging, packing, and marking of shipments; railroad facilities; mobile support; Navy carrier selection and routing policy; harbors and ports; U.S. Customs procedures; classification of rail and motor freight; state regulations; freight claims and procedures; railroad claim and damage prevention; and shipment of household effects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic operations (8/74); in the upper-division baccalaureate category, 3 semester hours in traffic operations (12/68).

NV-0504-0001

INFORMATION OFFICER

Course Number: None.

Location: Journalists School, Great Lakes, IL.

Length: 4-5 weeks (120-150 hours).

Exhibit Dates: 8/54-12/62.

Objectives: To familiarize officers with the field of public relations so that they may carry out assignments of prime responsibility in the Navy's information program.

Instruction: Lectures and practical exercises in public relations and communication, civil and community relations, newswriting, media and media relations, and information programs. The course includes case studies and practical problems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in journalism (6/76).

NV-0504-0002

RECRUITERS JOURNALISM, CLASS C-1

Course Number: Not available.

Location: Journalist School, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/58-12/68.

Objectives: To train enlisted personnel to promote the armed services.

Instruction: Lectures and practical exercises in promotion techniques and use of media. Course includes study of community-military relations and publicity techniques (including news writing, radio and television production, camera use, film processing and picture printing).

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in journalism (12/68).

NV-0504-0003

JOURNALISTS, CLASS A

Course Number: Not available.

Location: Journalist Class A School, Great Lakes, IL.

Length: 12 weeks (360 hours).

Exhibit Dates: 12/56-12/68.

Objectives: To train enlisted personnel as print news writers, editors, photographers and broadcast news writers.

Instruction: Lectures and practical exercises in writing, photography, and editing, including grammar, journalism fundamentals, news writing (including lead and novelty leads, story organization, captions, features, interview write-ups, advance and follow-up, editorials and copyreading), page layout and design, camera use, film developing and picture printing, radio and television (including background, production techniques, writing, and announcing), and public relations.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in journalism (12/68).

NV-0504-0004

JOURNALISTS, CLASS B

Course Number: Not available.

Location: Journalist Class B School, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 6/61-12/68.

Objectives: To train journalists as public information assistants.

Instruction: Lectures and practical exercises in duties of public information assistants, including basic photography, writing of news and feature stories for print and electronic media, editing, radio and television production, photo story preparation, and public relations (including community relations).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in journalism (7/74); in the upper-division baccalaureate category, 3 semester hours in journalism (12/68).

NV-0505-0001

VERDIN INTEGRATED SUBMARINE AUTOMATED BROADCAST PROCESSING SYSTEM (ISABPS) SHORE COMMUNICATIONS SYSTEM OPERATOR

Course Number: A-260-0035.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/80-Present.

Objectives: To train enlisted personnel to operate an automated submarine broadcast system.

Instruction: Lectures and practical exercises in the operation of the AN/URC-62 digital data system, AN/FRQ-87(V) data processing system and the peripheral equipments in LF/VLF broadcast operations, including the various modes and different conditions, the procedures for handling operating failures and operating malfunctions of the above mentioned equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in broadcast system operations (9/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in broadcast system operations (9/83).

NV-0505-0002

AN/SYQ-7(V)3 NAVAL MODULATED
AUTOMATED COMMUNICATIONS
SYSTEM OPERATOR

Course Number: A-260-0037.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/82-Present.

Objectives: To train personnel to properly operate a particular modular automated communications system.

Instruction: Lectures and practical exercises in system activation including program loading and normal and contingency operating procedures of the AN/SYQ-7(V)3 modular automated communications system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment operation for broadcast communications (9/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic equipment operation for broadcast communications (9/83).

NV-0602-0001

RIVERINE/COASTAL ADVISOR TRAINING

Course Number: H-00-1001; H-000-1001.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 17 weeks (881-921 hours).

Exhibit Dates: 4/70-1/88.

Objectives: To train officers and enlisted personnel to advise in all phases of riverine and coastal warfare units in the Republic of Vietnam.

Instruction: Lectures and practical exercises on overseas internal defense and development, including counterinsurgency, survival, medical indoctrination, weapons, engineering, maintenance, and repair, electronic equipment, communications, riverine/coastal warfare and craft, advanced tactical training, and Vietnamese language.

Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese language on the basis of institutional evaluation (12/68).

NV-0701-0001

MAXILLOFACIAL DENTAL LABORATORY
TECHNICIAN, CLASS C
(Dental Technician, Maxillofacial Prosthetic)
(Dental Technician, Maxillofacial Prosthetic, Class C)

Course Number: B-331-0018; B-331-18.

Location: National Naval Medical Center, Bethesda, MD.

Length: 26 weeks (960 hours).

Exhibit Dates: 1/75-Present.

Objectives: To provide dental laboratory technicians with knowledge and skills in both clinical and laboratory procedures in the area of maxillofacial prosthetics.

Learning Outcomes: Upon completion of the course, the student will be able to: assist the maxillofacial prosthodontist in impression making for intraoral and extraoral prostheses; fabricate intraoral and extraoral maxillofacial prostheses to include auricular, nasal, orbital, combination facial, implant and somato prostheses; fabricate ocular prostheses to include impression making, eye painting,and processing and; fabricate surgical and theraputic prostheses.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in impression making and mold making, 5 in ocular prostheses, 5 in extraoral prostheses and 5 in intraoral, therapeutic and implant prostheses (2/84).

NV-0701-0002

DENTAL OFFICER INDOCTRINATION

Course Number: None.

Location: Naval Schools Command, Newport, RI.

Length: 4 weeks (133 hours).

Exhibit Dates: 6/70-1/88.

Objectives: To provide dental officers with orientation training in essential naval subjects.

Instruction: Lectures and practical exercises in administrative and operational organization; fundamental skills in shipboard operations; procedures of damage control afloat; obligations and responsibilities of naval officers; and defensive driving.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-0701-0003

DENTAL LABORATORY TECHNOLOGY
ADVANCED, CLASS C
(Dental Technician, Prosthetic, Advanced, Class B)
(Dental Technician, Advanced Prosthetic, Class B)

Course Number: B-331-0017; B-331-17.

Location: Naval Medical Center, San Diego, CA; Naval Medical Center, Bethesda, MD.

Length: 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 6/75-12/84. *Version 2:* 6/55-5/75.

Objectives: To train military personnel to perform advanced laboratory techniques and to develop supervisory and managerial skills.

Instruction: For this course after 12/84 seeNV-0701-0011. *Version 1:* Includes construction of complete dentures, removable partial dentures, fixed partial dentures (dental metal crowns, inlays and bridges) and fabrication of dental ceramic prostheses. Additionally, administrative and management essentials, dental laboratory supervision, fiscal and supply functions, and mass casualty management and treatment are also included. *Version 2:* Lectures in the fundamentals of teaching dental technology, including English and speech, personnel management, laboratory and office management, dental facilities administration, fixed and removable partial dentures, and casualty care.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced partial dentures, 3 in advanced fixed partial dentures, 2 in advanced complete dentures, 1 in head and neck anatomy, 4 in advanced fixed partial denture laboratory, 4 in advanced dental ceramics, 3 in advanced partial denture laboratory and 3 in advanced denture laboratory (6/83). *Version 2:* Credit is not recommended because of the limited technical nature of the course (2/74).

NV-0701-0004

DENTAL TECHNICIAN RESEARCH
ASSISTANT, CLASS C

Course Number: B-331-19; B-331-20.

Location: Dental School, Bethesda, MD; Dental Research Institute, Great Lakes, IL.

Length: 52 weeks (1950 hours).

Exhibit Dates: 1/65-6/70.

Objectives: To provide instruction in the basic skills and knowledge of dental research procedures.

Instruction: Lectures and practical exercises in administration, experimental pathology, microbiology, biochemistry, microphotography, experimental surgery, and experimental animal care.

Credit Recommendation: Credit in dental laboratory technology on the basic of institutional evaluation (12/68).

NV-0701-0005

DENTAL ADMINISTRATIVE TECHNICIAN,
CLASS C
(Dental Technician, General, Advanced, Class B)
(Class B General Dental Technician School)
(General Dental Technician School, Class B)
(General Dental Technician Advanced, Class B)

Course Number: B-330-0011; B-330-11.

Location: National Naval Medical Center, San Diego, CA; National Naval Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: *Version 1:* 10/81-12/89. *Version 2:* 6/55-9/81.

Objectives: To provide dental technicians with training in the administrative aspects of dental assisting.

Instruction: For this course after 12/89 see NV-0701-00134. Lectures and practical exercises in the administrative aspects of dental assisting, including communication skills, personnel management, office management, dental facilities administration, financial management, principles of accounting, and use of office machines.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in advanced office and administrative procedures (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (2/74); in the upper-division baccalaureate category, credit in typing and accounting procedures on the basis of institutional evaluation (12/68).

NV-0701-0006

1. DENTAL ASSISTANT, BASIC, CLASS A
2. DENTAL TECHNICIAN, BASIC, CLASS A
3. CLASS A GENERAL DENTAL
TECHNICIAN SCHOOL
(Dental Technician, General, Class A)

Course Number: *Version 1:* B-330-0010. *Version 2:* B-330-10. *Version 3:* None.

Location: *Version 1:* Naval School of Dental Assisting and Technology, San Diego, CA. *Version 2:* Dental Technician's School, San Diego, CA. *Version 3:* National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 12-13 weeks (480-520 hours). *Version 2:* 12 weeks (480 hours). *Version 3:* 16 weeks (557-600 hours).

Exhibit Dates: *Version 1:* 10/80-12/89. *Version 2:* 12/67-9/80. *Version 3:* 3/61-11/67.

Objectives: To train enlisted personnel to assist dental officers and to qualify for the dental technician rating.

Instruction: For this course after 12/89 see NV-0701-0012. *Version 1:* Lecture, individualized instruction and clinical experience in basic dental sciences, preventive dentistry, dental emergencies, general casualty care, radiography, and dental chairside assisting including specialities. *Version 2:*

Lectures and practical experience in basic sciences, preventive dentistry, casualty care, dental administration, radiography, and dental assisting. *Version 3:* Lectures and practical experience in basic sciences, preventive dentistry, casualty care, dental administration, radiography, and dental assisting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental sciences, 3 in chairside assisting, 3 in radiology, 2 in office procedures, and 2 in emergency medical treatment (6/83). *Version 2:* In the vocational certificate category, 4 semester hours in dental assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in dental assisting on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 5 semester hours in dental assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in dental assisting on the basis of institutional evaluation (2/74).

NV-0701-0007

Dental Laboratory Technology
Basic, Class C
(Dental Technician, Prosthetic, Class C)
(Dental Technician, Prosthetic (Class C))
(Dental Prosthetic Technician School, Class C)

Course Number: B-331-0016; B-331-16.

Location: Naval Dental Center, San Diego, CA; Naval Dental Center, Great Lakes, IL; Naval Dental Center, Bainbridge, MD.

Length: 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 6/75-3/85. *Version 2:* 6/55-5/75.

Objectives: To provide enlisted personnel with the basic knowledge and skills to fabricate dental prosthetic appliances.

Instruction: For this course after 3/85 see NV-0701-0010. *Version 1:* Instruction in basic prosthetic procedures and fundamentals including knowledge of basic oral anatomy and physiology, dental materials and prosthetic clerical procedures, construction of complete dentures and denture repair, reconstruction and relining, fabrication of removal partial dentures and an introduction to the fundamentals of fixed partial dentures (crown and bridge procedures). *Version 2:* Lectures and practical experience in the basic principles of denture work, including applied anatomy; dental laboratory procedures; mounting and setting of teeth; construction of casts from impressions; construction of base plates, bite rims, and occlusal planes; and processing, finishing, and polishing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in complete dentures, 1 in removable partial dentures, 1 in crown and bridge work, 2 in first aid/CPR, 14 in complete dentures laboratory and 1 in crown and bridge laboratory (6/83). *Version 2:* In the vocational certificate category, 4 semester hours in basic denture work on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic denture work on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in basic denture work on the basis of institutional evaluation (2/74).

NV-0701-0009

Class B General Dental Technician
(Dental Technician, Advanced General, Class B)

Course Number: None.

Location: National Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: 3/61-10/70.

Objectives: To train enlisted personnel to perform the duties of a dental assistant, with emphasis on office management procedures.

Instruction: Lectures and practical experience in dental office management, including typing, accounting, dental records and reports, clinical supervision, first aid for mass casualties, and administrative procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in dental assisting on the basis of institutional evaluation (2/74).

NV-0701-0010

Dental Laboratory Technology Basic
Class C

Course Number: B-331-0016.

Location: School of Dental Assisting and Technology, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 4/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to fabricate basic dental prosthetic appliances.

Instruction: Lecture, discussion, and clinical practice in complete dentures, removable partial dentures, and fixed partial dentures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in complete dentures, 7 in removable partial dentures and 4 in fixed partial dentures (7/90).

NV-0701-0011

Dental Laboratory Technology
Advanced Class C

Course Number: B-331-0017.

Location: School of Dental Assisting, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform advanced dental fabrication techniques and demonstrate managerial skills.

Instruction: Lecture, Discussion, and clinical practice in advanced complete, removable partial, and fixed partial denture techniques and dental laboratory management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced complete denture techniques, 5 in advanced removable partial decture techniques, 14 in fixed partial denture techniques, and 1 in dental laboratory management (7/90).

NV-0701-0012

Dental Assistant Basic Class A

Course Number: B-330-0010.

Location: School of Dental Assisting and Technology, San Diego, CA.

Length: 12 weeks (479 hours).

Exhibit Dates: 1/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to assist the dentist at the chairside; perform tasks in dental radiology; carry out office procedures; and be proficient in emergency medical treatment.

Instruction: Lectures, individualized instruction and clinical experience in basic dental sciences, preventive dentistry, dental emergency, general casualty care, radiography, and chairside assisting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental sciences, 3 in chairside assisting, 2 in dental radiology, 2 in office procedures, and 2 in emergency medical treatment (7/90).

NV-0701-0013

Dental Administrative Technician
Class C

Course Number: B-330-0011.

Location: School of Dental Assisting and Technology, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 1/90-Present.

Learning Outcomes: Upon completion of the course the student will be able to carry out administrative aspects od dental assisting.

Instruction: Lectures and practical exercises on the administrative aspects of dental assisting, including communications skills, personnel management, office management, dental facilities administration, financial management, principles of accounting, and the use of office machines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in advanced office and administrative procedures (7/90).

NV-0702-0001

Tissue Culture Technician, Class C
(Tissue Culture Technic)

Course Number: B-311-14.

Location: National Naval Medical Center, Bethesda, MD.

Length: 16 weeks (640 hours).

Exhibit Dates: 12/63-12/68.

Objectives: To train enlisted personnel as research assistants in tissue culture biological research.

Instruction: Lectures and practical exercises in tissue culture research assisting, including basic biology and chemistry; preparing, maintaining, and transferring cells; nutrient fluids preparation; short- and long-term tissue culture; replicate culture technique; photomicroscopy; and laboratory apparatus usage and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in histology, 2 in medical laboratory technology, 9 in tissue culture technology, and credit in histologic technology on the basis of institutional evaluation (2/74).

NV-0702-0002

Medical Technology Technician,
Class C
(Medical Technology)
(Medical Technologist Technician, Class C)

Course Number: B-311-24; B-311-0025.

Location: Naval Hospital, Bethesda, MD; Naval Hospital, Great Lakes, IL.

Length: 50-52 weeks (2392 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To train medical technicians to perform and supervise advanced laboratory procedures in all phases of laboratory operations.

Instruction: Lectures and clinical application of diagnostic microbiology, parasitology, mycology, serology, hematology, microscopy, chemistry, quality control, blood banking, pathology techniques, automated procedures, histochemistry, urinalysis, and instrumentation, including analyzers, flame photometers, osmometers, gas chromatographs, electrophoresis apparatus, and sequential multiple analyzers.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in microbiology (including bacteriology, parasitology, and mycology), 10 in hematology, 5 in clinical microscopy and venipuncture, 8 in serology and blood banking, 12 in clinical chemistry, 3 in pathology and histology, and additional credit toward MLT or MT on the basis of national proficiency examination (2/74).

NV-0702-0003

Medical Laboratory Technician Advanced
(Clinical Laboratory Technician, Class C)
(Blood Bank and Clinical Laboratory Technic)

Course Number: B-311-0018; B-311-18; B-311-19.

Location: Health Sciences Education and Training Command, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 52 weeks (2087 hours). *Version 2:* 52 weeks (2087 hours). *Version 3:* 52-60 weeks (2625 hours).

Exhibit Dates: *Version 1:* 9/82-12/89. *Version 2:* 1/76-8/82. *Version 3:* 1/54-12/76.

Objectives: To train personnel to perform advanced laboratory procedures and to assist in all phases of blood bank operations.

Instruction: For this course after 12/89 see NV-0702-0012. *All Versions:* Lectures in bacteriology, serology and blood banking, hematology, parasitology; blood and clinical chemistry, urinalysis and venipuncture techniques. *Version 1:* Includes general chemistry, microbiology, and immunology. *Version 3:* Includes histopathology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in microbiology, 3 in serology/immunology, 6 in blood banking, 6 in hematology, 3 in parasitology, 4 in general chemistry, 6 in clinical chemistry, 2 in urinalysis and 14 in clinical practice (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in urinalysis techniques, 3 in parasitology and 1 in laboratory organization (9/77); in the upper-division baccalaureate category, 12 semester hours in blood banking and serology, 6 in clinical chemistry, 6 in microbiology, and 6 in hematology (9/77). *Version 3:* In the lower-division baccalaureate/associate degree category, 12 semester hours in bacteriology and blood chemistry, 7 in hematology, 12 in serology and blood banking, 7 in pathology and histology, 6 in clinical microscopy and venapuncture, and additional credit towards MLT or MT on the basis of national proficiency examination (2/74); in the upper-division baccalaureate category, 12 semester hours in bacteriology and blood chemistry (12/68).

NV-0702-0004

Urological Technician
(Urologic Technician, Class C)
(Urologic Technic)
(Urological Technician, Class C)
(Urological Technic)

Course Number: B-300-0025; B-300-25; B-300-26; B-300-27; B-300-28.

Location: National Naval Medical Center, Bethesda, MD; Naval Hospital, Oakland, CA; School of Health Science Detachment, Portsmouth, VA; School of Health Science, San Diego, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: *Version 1:* 10/82-4/89. *Version 2:* 1/55-9/82.

Objectives: To train technicians to assist medical officers in the examination and treatment of urological patients.

Instruction: For this course after 4/89 see NV-0702-0011. *All Versions:* Lectures in anatomy, physiology, urological operating room techniques, cytoscopic room techniques, and urological-radiologic procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 3 in operating room technology, 2 in radiography, 2 in clinical urology theory, and 7 in clinical applications (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in urological anatomy and physiology, 15 in operating room techniques (urology), 15 in urological radiology, 5 in clinical laboratory (urology), 13 in clinical urology and endoscopic urology, and 3 in records management, for a total of 55 semester hours (8/77).

NV-0702-0005

Tissue Bank Technician, Class C
(Tissue Bank Technic)

Course Number: Not available.

Location: National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 12/63-12/68. *Version 2:* 1/54-11/63.

Objectives: To train enlisted personnel to be tissue bank technicians.

Instruction: Lectures on administration, anatomy, physiology, histology, bacteriology, chemistry, genetics, and grafting principles; and lectures and practical exercises in tissue bank preservation and tissue culture.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 8 semester hours in biological science, 12 in tissue culture or histology (2/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in biological science, 6 in tissue culture or histology (2/74).

NV-0702-0006

Clinical Chemistry Technician, Class C
(Clinical Chemistry Technic)

Course Number: B-311-15.

Location: National Naval Medical Center, Bethesda, MD.

Length: 12 weeks (480 hours).

Exhibit Dates: 12/63-1/88.

Objectives: To train enlisted personnel to conduct quantitative and qualitative analytical tests on medical laboratory samples.

Instruction: Lectures and practical exercises in mathematics of analytical chemistry, quantitative analysis, instrumentation, organic chemistry, enzyme chemistry, steroid chemistry, toxicology, and preparation of standards and solutions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in medical laboratory technology or chemistry (2/74); in the upper-division baccalaureate category, credit in chemistry on the basis of institutional evaluation (12/68).

NV-0702-0008

Clinical Laboratory Assistant Technic

Course Number: B-311-10; B-311-11; B-311-12; B-311-13.

Location: Naval School, San Diego, CA; Naval School, St. Albans, NY; Naval School, Portsmouth, VA; Naval School, Great Lakes, IL; Naval School, Oakland, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 7/64-1/88.

Objectives: To train enlisted personnel in basic medical laboratory procedures.

Instruction: Lectures and practical exercises in basic medical laboratory procedures, including bacteriology, hematology, blood processing, serology, biochemistry, urinalysis, pathology, and parasitology.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in biology, 2 in chemistry, 2 in bacteriology (7/74).

NV-0702-0009

Cytology Technician
(Cytotechnologist)

Course Number: B-311-0036.

Location: *All Versions:* National Naval Medical Center, Bethesda, MD; *Version 2:* School of Health Sciences, San Diego, CA.

Length: 52 weeks (1938 hours).

Exhibit Dates: *Version 1:* 3/83-Present. *Version 2:* 11/72-2/83.

Objectives: To train individuals to prepare, examine, and evaluate slide presentations of cellular materials for diagnostic purposes.

Instruction: *All Versions:* Lectures, laboratory and clinical practice covering cytology specimen preparation including techniques for collection fixation and preparation of materials; examination and evaluation of cellular materials obtained from a variety of tissue sites and diagnostic determinations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in orientation to cytotechnology, 3 in cellular and human development, 14 in female genital tract, 5 in respiratory tract, 2 in serous body cavities, 2 in cerebrospinal fluids, 2 in oral cavity and gastrointestinal tract, 2 in cytology of the breast, 2 in urinary tract, 2 in fine needle aspiration cytology, 2 in cytopreparatory techniques and 10 in clinical rotation (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in histologic techniques (slide preparation) (8/77); in the upper-division baccalaureate category, 26 semester hours in diagnosis and evaluation of cellular material (8/77).

NV-0702-0010

Transplantation Technician Training

Course Number: B-322-0015.

Location: School of Health Sciences, Bethesda, MD.

Length: 34-35 weeks (1360-1400 hours).

Exhibit Dates: 10/83-Present.

Objectives: To provide enlisted personnel with the basic knowledge required to assist with the clinical transplantation of organs and tissues.

Instruction: Lectures and laboratory instruction in tissue banking, transplantation surgery, blood component support and hemodialysis. Graduates will function as part of a transplantation team and perform specialized skills in tissue procurement, storage and care of experimental animals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in tissue banking, 2 renal dialysis, 3 in anatomy and physiology, 2 in chemistry, 2 in tissue culture, 2 in microbiology, 3 in blood component therapy, 2 in experimental surgery, 4 in basic immunology, 3 in bone marrow transplant and 12 hours in clinical practicum (2/84).

NV-0702-0011

Urology Technician

Course Number: B-300-0025.

Location: School of Health Sciences, Portsmouth, VA; School of Health Sciences, San Diego, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course the student will assist the urologist in examination, medical, and surgical treatment of urology patients.

Instruction: Lectures in anatomy, physiology, urology operating room techniques, cytoscopic room techniques, and urology-radiologic procedures. Course includes 7 units from the operating room technician course.

Credit Recommendation: @ LOW 2 semester hours in anatomy and physiology, 3 in urology surgical procedures, 2 in radiography, 2 in clinical urology, 1 in clinical practice, 1 in introduction to operating room techniques, 1 in introduction to environmental control in the operating room, 2 in surgical supplies and equipment, 1 in operating room circulator activities, 1 in scrub technician activities, and 3 in advanced surgical/anatomy procedures (7/90).

NV-0702-0012

Medical Laboratory Technician, Advanced

Course Number: B-311-0018.

Location: School of Health Sciences, San Diego, CA; School of Health Sciences, Bethesda, MD.

Length: 52 weeks (1948 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform basic and advanced medical laboratory procedures; process blood donors; and perform techniques of blood banking.

Instruction: Lectures, laboratories, and clinical rotation in urinalysis, hematology, clinical chemistry, clinical microbiology, parasitology, serology, and blood banking.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in urinalysis, 8 in hematology, 4 in general chemistry, 6 in clinical chemistry, 4 in parsitology, 3 in serology, 8 in microbiology, 8 in blood bank, and 16 in clinical rotation (7/90).

NV-0703-0001

1. Obstetrics/Gynecology (OB/GYN) Nurse Practitioner
2. Obstetrics/Gynecology (OB/GYN) Nurse Clinician

Course Number: *Version 1:* B-6F-0012. *Version 2:* B-6F-012; B-6F-12.

Location: *Version 1:* Regional Medical Center, Portsmouth, VA. *Version 2:* Selected Naval Hospitals, United States.

Length: *Version 1:* 36–39 weeks (1440–1500 hours). *Version 2:* 24–26 weeks (1040–1100 hours).

Exhibit Dates: *Version 1:* 2/75–1/88. *Version 2:* 11/72–1/75.

Objectives: To train nurse corps officers to assist physicians in obstetrical and gynecological ambulatory health care.

Instruction: Lectures and clinical practice in endocrinology, obstetrics, gynecology, oncology, neonatology, embryology, pharmacology, psychosexual counseling, radiology, medical and legal aspects of obstetrics and gynecology, family planning counseling and techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in embryology, 2 in anatomy and physiology, 8 in obstetrics, 3 in gynecology, 1 in neonatology, 2 in oncology, and 18 in clinical experience and practice in obstetrics and gynecology (6/77). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in endocrinology, 3 in anatomy and physiology, 8 in obstetrics, 5 in gynecology, 1 in oncology, and 13 in clinical experience and practice in obstetrics and gynecology (6/77).

NV-0703-0002

Operating Room Technic and Management

Course Number: None.

Location: Long Beach Hospital, Long Beach, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 8/72–1/88.

Objectives: To prepare nurses as surgical assistants and operating room supervisors.

Instruction: Lectures and clinical experience in surgical environment; sterilization, disinfection, and antiseptics; management of surgical supplies, instruments, and equipment; management techniques in the operating room; and standards and controls in the operating room.

Credit Recommendation: Insufficient data for evaluation (2/74).

NV-0703-0003

Neuropsychiatry Technician, Class C
(Neuropsychiatry Technic)

Course Number: B-302-45; B-302-46; B-302-47.

Location: National Naval Medical Center, Bethesda, MD; Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: 16 weeks (640 hours).

Exhibit Dates: 1/57–12/68.

Objectives: To train enlisted personnel to assist in the care and treatment of neuropsychiatric patients.

Instruction: Lectures in neuropsychiatric problems; practical training in first aid, including injuries of mental patients; ward service; clinical experience; special therapies; and general psychiatric nursing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in psychology, 8 in psychiatric nursing or first aid, 2 in mental health assisting, additional credit in psychiatric nursing on the basis of institutional evaluation (2/74).

NV-0703-0004

Operating Room Technician, Class C
(Operating Room Technic)

Course Number: B-301-0033; B-301-30; B-301-33; B-301-34; B-301-36; B-301-38.

Location: National Naval Medical Center, Bethesda, MD; Naval Regional Medical Center, Oakland, CA; School of Health Sciences Detachment, Portsmouth, VA; School of Health Sciences, San Diego, CA; Naval Hospital, Chelsea, MA; Naval Hospital, Great Lakes, IL.

Length: 26 weeks (960–1040 hours).

Exhibit Dates: *Version 1:* 4/82–4/89. *Version 2:* 3/76–3/82. *Version 3:* 1/54–2/76.

Objectives: To train personnel in the preparation and maintenance of operating rooms for surgery and participation in surgical procedures.

Instruction: For this course after 4/89 see NV-0703-0007. *All Versions:* Lectures and practical clinical experience in preparing supplies and instruments for sterilization, operating room techniques, surgical procedures and supply management. *Version 1:* Topics include anatomy and physiology and medico-legal ethical responsibilities. *Version 2:* Topics include splint techniques and operating room nursing principles. *Version 3:* Topics include splint techniques and operating room nursing principles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 3 in operating room technology and 10 in clinical applications of operating room technology (6/83). *Version 2:* In the vocational certificate category, 3 semester hours in operating room techniques and 16 in clinical application of operating room techniques (8/77). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in biology, 1 in medical laboratory technology, 8 in operating room nursing and procedures, 2 in clinical administration, additional credit in operating room nursing and procedures on the basis of institutional evaluation (2/74).

NV-0703-0005

1. Hospital Corpsman, Basic
2. Hospital Corpsman, Basic
3. Basic Hospital Corps School, Class A
   (Hospital Corpsman, Class A)
4. Basic Hospital Corps School, Class A
5. Basic Hospital Corps School, Class A
6. Basic Hospital Corps School, Class A

Course Number: B-300-0010; B-300-10; B-300-11.

Location: Hospital Corps School, Great Lakes, IL; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 10–12 weeks (400–480 hours). *Version 2:* 10 weeks (400 hours). *Version 3:* 14 weeks (560 hours). *Version 4:* 16 weeks (640 hours). *Version 5:* 12-16 weeks (480–640 hours). *Version 6:* 20 weeks (860 hours).

Exhibit Dates: *Version 1:* 1/80–12/88. *Version 2:* 7/74–12/79. *Version 3:* 3/72–6/74. *Version 4:* 3/72–6/74. *Version 5:* 1/57–2/72. *Version 6:* 1/54–12/56.

Objectives: To train enlisted personnel in the basic principles and techniques of patient care and first aid procedures.

Instruction: For this course after 12/88 see NV-0703-0008. *All Versions:* Lectures and clinical experience in anatomy and physiology; first aid and minor surgery; hygiene and sanitation; pharmacology; toxicology; medical laboratory and patient-care techniques and principles; nuclear, biological, and chemical safety; and trauma management and treatment. *Version 1:* Course includes very limited clinical training. *Version 2:* 10-week course includes limited clinical training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester

hours in anatomy and physiology, 6 in patient care procedures, 3 in emergency care and 1 in drug therapy (6/83). *Version 2:* In the vocational certificate category, 2 semester hours in health and hygiene, 3 in nursing techniques, and 2 in emergency medical techniques (9/77). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 7 in nursing techniques (2/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/97); in the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in hygiene (12/68). *Version 6:* In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 8 in nursing techniques, 3 in medical laboratory technology (2/74); in the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in hygiene (12/68).

NV-0703-0007

OPERATING ROOM TECHNICIAN CLASS C

Course Number: B-301-0033.

Location: School of Health Sciences, Bethesda, MD; School of Health Sciences, Portsmouth, VA; School of Health Sciences, San Diego, CA; School of Health Sciences, Oakland, CA.

Length: 26–27 weeks (1056 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to prepare and maintain operating rooms for surgery; assist with surgical procedures; and maintain an appropriate operating room environment.

Instruction: Lectures, discussions, and clinical experience in operating room preparation and techniques, environmental control, activities of the operating room circulator and scrub technician and advanced surgical anatomy/operative procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 in introduction to operating room techniques, 1 in environmental control in the operating room, 2 in surgical supplies and equipment, 1 in activities of the operating room circulator, 1 in activities of the scrub technician, 3 in advanced surgical anatomy/operative procedures, 1 in preclinical orientation and evaluation, and 15 in clinical rotation (7/90).

NV-0703-0008

HOSPITAL CORPSMAN

Course Number: B-300-0010.

Location: Hospital Corps School, Great Lakes, IL; School of Health Sciences, San Diego, CA.

Length: 14 weeks (470 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform as an entry-level provider of basic and emergency patient care.

Instruction: Lectures in anatomy and physiology, first aid and minor surgery, hygiene and sanitation, pharmacology, toxicology, medical laboratory and patient care techniques and principles, nuclear, biological, and chemical safety, and trauma management and treatment. Course includes very limited clinical training.

Credit Recommendation: In the vocational certificate category, 4 semester hours in emergency care, 7 in basic patient care procedures, and 1 in pharmacology; in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology (7/90).

NV-0704-0001

1. ORTHOPEDIC APPLIANCE TECHNICIAN, CLASS C
   (Orthopedic Appliance Technic)
2. ORTHOPEDIC APPLIANCE TECHNICIAN, CLASS C
   (Orthopedic Appliance Technic)
   (Orthopedic Appliance Mechanics)

Course Number: B-304-52.

Location: Naval Hospital, Oakland, CA.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 52 weeks (1920 hours).

Exhibit Dates: *Version 1:* 11/67–12/68. *Version 2:* 1/55–10/67.

Objectives: To train personnel in the fitting of braces, splint supports, artificial limbs, and other orthopedic appliances.

Instruction: Lectures and practical exercises in anatomy and physiology, prosthetic training and fitting, plastic and plastic construction, above-knee construction, below-knee construction, arm, leather, foot, orthopedic brace construction, painting, and finishing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 2 in machine tools, 2 in industrial arts (12/68). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 3 in anatomy and physiology, 3 in machine tools, 3 in industrial arts (12/68).

NV-0704-0002

1. PHYSICAL AND OCCUPATIONAL THERAPY TECHNICIAN, PHASES I AND II
2. PHYSICAL AND OCCUPATIONAL THERAPY TECHNICIAN, CLASS C
   (Physical and Occupational Therapy Technic)
3. PHYSICAL THERAPY TECHNICIAN, CLASS C
   (Physical Therapy Technic)
4. PHYSICAL THERAPY TECHNICIAN, CLASS C
   (Physical Therapy Technic)

Course Number: *All Versions:* B-303-0050; B-303-0051; B-303-50. *Version 3:* B-303-51. *Version 4:* B-303-51.

Location: (Phase I) U.S. Army Academy of Health Sciences, Ft. Sam Houston, TX; (Phase II) School of Health Sciences, San Diego, CA; National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* (Phase I) 28 weeks (1120 hours); (Phase II) 16 weeks (640 hours). *Version 2:* 28 weeks (1120 hours). *Version 3:* 21 weeks (714 hours). *Version 4:* 26 weeks (880 hours).

Exhibit Dates: *Version 1:* 10/76–1/88. *Version 2:* 3/72–9/76. *Version 3:* 11/67–2/72. *Version 4:* 1/55–10/67.

Objectives: To train enlisted personnel to perform duties as physical and occupational therapy assistants.

Instruction: *All Versions:* Lectures and clinical exercises in anatomy; physiology; physics; psychology and psychiatry; principles of rehabilitation; massage; electrotherapy; radiation therapy; and neurology, hydrotherapy and therapeutic exercise. *Version 1:* Phase I consists of didactic portions of the Army Physical Therapy Specialist and Occupational Therapy Specialist courses at Ft. Sam Houston, TX. Phase II consists of clinical experience in physical and occupational therapy. *Version 2:* Lectures and practical exercises in techniques pf occupational therapy, including leather work, weaving, woodwork, design, color, handprinting, and ceramics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in anatomy and physiology, 3 in general psychology, 13 in physical therapy principles and procedures, and 12 in occupational therapy techniques, for completion of phase I plus 8 semester hours in clinical application of physical therapy techniques and 8 in clinical application of occupational therapy techniques for completion of Phase II for a total of 50 semester hours (9/77); in the upper-division baccalaureate category, credit in anatomy, physiology, and physical and occupational therapy on the basis of institutional evaluation (9/77). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, 2 in physical science, 2 in psychology, and 4 in applied art, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74).

NV-0704-0003

OCCUPATIONAL THERAPY TECHNICIAN, CLASS C
(Occupational Therapy Technic)

Course Number: B-303-48; B-303-49.

Location: *Version 1:* National Naval Medical Center, Bethesda, MD. *Version 2:* Naval Hospital, San Diego, CA.

Length: *Version 1:* 21 weeks (714 hours). *Version 2:* 26 weeks (880 hours).

Exhibit Dates: *Version 1:* 10/67–1/72. *Version 2:* 12/63–9/67.

Objectives: To train enlisted personnel to apply occupational therapy techniques in the treatment of orthopedic, neuropsychiatric, medical, and surgical patients.

Instruction: Lectures and clinical practice in physiology; physics; psychology and psychiatry; principles of occupational therapy; and craft instruction, including textile painting, leatherwork, ceramics, metalwork, weaving, woodwork, and minor crafts.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, 1 in physics, 2 in psychology, 6 in applied arts, and credit in occupational therapy on the basis of institutional evaluation (2/74).

NV-0705-0001

SUBMARINE MEDICAL OFFICER
(CANDIDATES)

Course Number: B-6A-22.

Location: Submarine Medical Center, Groton, CT.

Length: 19 weeks (650 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To provide physicians with advanced specialized training in the administration of medical services to naval submarine personnel.

Instruction: Lectures on radiological physics; personnel dosimetry, including radiation protection standards; radiobiology; safety principles of nuclear reactors; health physics; radiological health administration; lectures and practical exercises in diving medicine; scuba familiarization; submarine medicine; specialized instruction in medical testing.

Credit Recommendation: Baccalaureate credit is not recommended because of the prerequisites and the professional nature of the course (6/75).

NV-0705-0002

1. CLINICAL NUCLEAR MEDICINE TECHNIQUE
2. CLINICAL NUCLEAR MEDICINE TECHNICIAN
   (Clinical Nuclear Medicine Technique)
3. RADIOACTIVE ISOTOPE TECHNICIAN, CLASS C
   (Radioactive Isotope Technic)

Course Number: B-311-0016; B-311-16; B-311-17.

Location: *Version 1:* Phase I, National Naval Medical Center, Bethesda, MD; *Version 1:* Phase II, Naval Medical Center, Oakland, CA. Naval School of Health Sciences, Bethesda, MD; Naval School of Health Sciences, San Diego, CA; Naval School of Health Sciences, Portsmouth, VA. *Version 2:* National Naval Medical Center, Bethesda, MD. *Version 3:* Naval Hospital, San Diego, CA.

Length: *Version 1:* phase I, 16 weeks; phase II, 36 weeks (2020 hours). *Version 2:* 16 weeks (551 hours). *Version 3:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 5/80-Present. *Version 2:* 3/72-4/80. *Version 3:* 1/58-2/72.

Objectives: To train personnel to utilize radioactive materials for nuclear medical diagnostic purposes.

Instruction: *All Versions:* Lectures on mathematics, general chemistry, nuclear physics, radiation safety, radiochemistry, clinical practice,and laboratory procedures. *Version 1:* Includes radiopharmaceuticals.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in mathematics, 2 in chemistry, 2 in nuclear physics, 2 in radio-pharmaceuticals, 2 in radiologic safety, 5 in radiation instrumentation, 4 in nuclear medicine procedures, 2 in imaging procedures, 2 in radiobiology for phase I; 24 semester hours in clinical practice for phase II (2/84). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in algebra, 6 in physics, 6 in physiology, and 3 in hematology (7/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 4 semester hours in general chemistry, 3 in mathematics, 8 in radioisotope technology, 4 in physical science, and additional credit in radioisotope technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in general chemistry (12/68).

NV-0705-0003

1. X-RAY TECHNICIAN
2. X-RAY TECHNICIAN
3. X-RAY TECHNIQUE
   (X-Ray Technician, Class C)
   (X-Ray Technic)

Course Number: B-313-0026; B-313-26; B-313-27; B-313-28; B-313-29; B-313-30; B-313-31; B-313-32; B-313-33; B-313-34.

Location: *All Versions:* School of Health Sciences Detachment, Portsmouth, VA; School of Health Sciences, San Diego, CA. *Version 2:* Naval Hospital, St. Albans, NY; Naval Hospital, Bethesda, MD; Naval Hospital, Cp. Pendleton, CA; Naval Hospital, Chelsea, MA; Naval Hospital, Great Lakes, IL; Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: *Version 1:* 52 weeks (2203 hours). *Version 2:* 52 weeks (1140 hours). *Version 3:* 52 weeks (1080-2087 hours).

Exhibit Dates: *Version 1:* 12/82-12/87. *Version 2:* 9/72-11/82. *Version 3:* 1/54-8/72.

Objectives: To train technicians to operate medical x-ray equipment, to produce and process diagnostic radiographs, and to assist in fluoroscopic examinations.

Instruction: For this course after 12/87 see NV-0705-0007. *All Versions:* Lectures on mathematics and electricity; clinical application of radiologic and fluoroscopic techniques; photodosimetry and radiation safety; film, screen, and darkroom procedures. *Version 1:* Includes physics. *Version 2:* Includes radiation therapy. *Version 3:* Includes radiation therapy.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics, 14 in anatomy and positioning, 5 in radiologic physics, 2 in radiation biology, 3 in introductory radiologic techniques, 1 in alternate imaging systems, 3 in ultrasound, 1 in radiation safety, and 1 in radiologic pathology (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mathematics, 8 in anatomy, 8 in radiation physics and electronics, 8 in radiologic techniques, 3 in radiation safety, 3 in radiation biology, 3 in nuclear medicine technology, 3 in special procedures, 3 in darkroom techniques and 1 in ethics for a total of 43 semester hours (8/77). *Version 3:* In the upper-division baccalaureate category, 12 semester hours in radiologic technology, 2 in radiation therapy, 3 in physical science and mathematics, and additional credit in radiologic technology on the basis of institutional evaluation (2/74).

NV-0705-0004

1. NUCLEAR MEDICINE TECHNICIAN, SURFACE
2. NUCLEAR MEDICINE TECHNICIAN
   (Nuclear Medicine Technic)

Course Number: B-322-0010.

Location: Submarine Medical Center, Groton, CT.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 12 weeks (355-398 hours).

Exhibit Dates: *Version 1:* 5/82-Present. *Version 2:* 1/63-4/82.

Objectives: To train enlisted personnel in radiation monitoring and surveys.

Instruction: *Version 1.* Lectures and practical exercises in the following areas: radiation fundamentals, radiation safety, radiation biology, radiation health physics, and radiation health administration. *Version 2:* Lectures and practical exercises in radiation monitoring and surveys, including radiological administration, mathematics, physics, reactor plant technology, radiobiology, and dosimetry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in radiation fundamentals, 1 in radiation safety, 2 in radiation biology, 3 in radiation health physics and 3 in radiation health administration (6/83). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in algebra, 6 in physics, and credit in nuclear medical technology, radiology, occupational safety and health on the basis of institutional evaluation (7/74).

NV-0705-0005

SUBMARINE TENDER RADIOLOGICAL CONTROLS (ENLISTED)

Course Number: F-000-034.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To train enlisted personnel in submarine tender radiological control theory.

Instruction: Lectures and practical exercises in submarine tender radiological control theory, including types of radiation; units of radiation and radioactivity; radiation detection and shielding; airborne radioactivity surveys; contamination control; decontamination; submarine tender nuclear support facilities and systems; counting statistics and applications; and radiological work practices.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in radiology (12/68).

NV-0705-0006

BASIC X-RAY TECHNICIAN

Course Number: B-313-0025.

Location: Naval Regional Medical Center, Oakland, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/81-Present.

Objectives: To instruct enlisted personnel in the knowledge and skills required to operate basic diagnostic medical x-ray and film processing equipment and other routine medical and administrative procedures.

Instruction: Lectures and clinical experience in darkroom procedures, radiographic positioning, radiation safety, radiographic technique and anatomy.

Credit Recommendation: In the vocational certificate category, 2 semester hours in anatomy, 2 in radiographic techniques, 2 in radiographic positioning, 1 in darkroom procedures and 6 in clinical practice (5/90).

NV-0705-0007

ADVANCED X-RAY TECHNICIAN

Course Number: B-313-0026.

Location: School of Health Sciences, Portsmouth, VA; School of Health Sciences, San Diego, CA.

Length: 52 weeks (1902 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will perform as an x-ray technician who will become ARRT board eligible upon completion of 4,000 procedures in clinical practice.

Instruction: Lectures, laboratories, and/or simulated practice in mathematics, anatomy, positioning, radiologic physics, radiography, ethics, darkroom procedures, radiation biology, alternate imaging, radiation safety, radiologic pathology, ultrasound imaging, computer literacy, and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of mathematics, 6 in radiologic physics, 3 in radiographic techniques, 1 in medical ethics, 2 in darkroom procedures, 2 in alternate imaging, 1 in radiation safety, 2 in radiologic pathology, 6 in ultrasonography, 16 in anatomy and and positioning, and 1 in quality assurance (7/90).

NV-0706-0001

Optician (General) Technician, Class C

Course Number: B-300-20.
Location: National Naval Medical Center, Bethesda, MD.
Length: 24-40 weeks (960 hours).
Exhibit Dates: 1/63-7/70.
Objectives: To train personnel in the fitting, adjusting and dispensing of spectacles.
Instruction: Lectures and practical application of ocular anatomy and physical and geometric optics.
Credit Recommendation: In the upper-division baccalaureate category, 18 semester hours in optical technology (2/74).

NV-0706-0002

Optician Technician, Class C
(Optician Laboratory Technician, Class C)
(Optician Technic Laboratory)

Course Number: *All Versions:* B-311-0023. *Version 2:* B-311-23.
Location: *Version 1:* Ophthalmic Support and Training Activity, Yorktown, VA. *Version 2:* Ophthalmic Support and Training Activity, Williamsburg, VA; Ophthalmic Support and Training Activity, Yorktown, VA. *Version 3:* National Naval Medical Center, Bethesda, MD.
Length: *Version 1:* 24 weeks (847 hours). *Version 2:* 26 weeks (1040 hours). *Version 3:* 7 weeks (280 hours).
Exhibit Dates: *Version 1:* 1/83-5/89. *Version 2:* 3/72-12/82. *Version 3:* 1/63-2/72.
Objectives: To train enlisted personnel to fabricate lenses and to maintain and repair surfacing laboratory equipment.
Instruction: For this course after 5/89 see NV-0706-0005. *Version 1:* Lectures and practical exercises in the principles of optics, ocular anatomy and physiological optics, spectacle fabrication and dispensing, mechanical optics, physical and geometric optics, clinical management and repair and maintenance of laboratory equipment. *Version 2:* Lectures and practical exercises in the principles of optics, ocular anatomy and physiological optics, spectacle fabrication and dispensing, mechanical optics, physical and geometric optics, clinical management, and repair and maintenance of laboratory equipment. *Version 3:* Lectures and practical exercises in the theory and principles of surface grinding of unifocal and multifocal lenses; laboratory procedures for unifocal and multifocal lens production; layout, blocking, marking, roughing, grinding, and polishing of spheres, spherocylinders and prisms; manufacture of safety lenses; and maintenance and repair of surfacing-laboratory equipment.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in optical anatomy, 1 in geometrical optics, 2 in optical mathematics, 2 in ophthalmic design, 5 in mechanical optics, 5 in spectacle fabrication, 2 in equipment repair/maintenance, 3 in ophthalmic dispensing, 2 in clinical practice (2/84). *Version 2:* In the upper-division baccalaureate category, 20 semester hours in optical technology (2/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in optical technology (2/74).

NV-0706-0003

Ocular Technician

Course Number: B-300-0020.
Location: School of Health Sciences, San Diego, CA; National Naval Medical Center, Bethesda, MD.
Length: *Version 1:* 8 weeks (300 hours). *Version 2:* 12 weeks (480 hours).
Exhibit Dates: *Version 1:* 11/82-10/88. *Version 2:* 8/75-10/82.
Objectives: To train personnel to assist an ophthalmologist in treating diseases of the eye.
Instruction: For this course after 10/88 see NV-0706-0006. *All Versions:* Lectures and clinical education in ocular anatomy and physiology; pharmaceuticals and their administration; and visual testing and visual fields. *Version 1:* Topics include signs and symptoms of eye pathology. *Version 2:* Topics include signs, symptomology and eye pathology.The student also learns to assist the optometrist.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in ocular anatomy and physiology, 1 in ocular pharmacology, 2 in ophthalmic optics and 5 in clinical application (6/83). *Version 2:* In the vocational certificate category, 1 semest hour in mathematics (arithmetic) (8/77); the lower-division baccalaureate/associate degree category, 2 semester hours in ocular anatomy and physiology, 1 in pharmacy administration (eye medications), and 10 in ophthalmic assisting (8/77).

NV-0706-0004

Advanced Ocular Technician

Course Number: B-300-0021.
Location: Naval School of Health Sciences, San Diego, CA.
Length: 16 weeks (640 hours).
Exhibit Dates: 11/82-10/88.
Objectives: To train personnel to assist opthalmologists in surgery and other treatment procedures and to assist opthalmologists and optometrists in specialized diagnostic procedures.
Instruction: For this course after 10/88 see NV-0706-0006. Lectures and clinical education in ophthalmic surgical assisting and other specialized diagnostic and therapeutic procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operating room technology, 4 in ophthalmic surgical assisting and 6 in clinical applications (6/83).

NV-0706-0005

Optician Class C

Course Number: B-311-0023.
Location: Ophthalmic Support and Training Center, Yorktown, VA.
Length: 26 weeks (1040 hours).
Exhibit Dates: 6/89-Present.
Learning Outcomes: Upon completion of the course the student will be able to fabricate lenses; maintain and repair surfacing laboratory equipment; screen for common diseases and disorders of the eye; and perform selected clinical procedures.
Instruction: Methods of instruction include lectures, discussions, and clinical practice in the physics of diseases and disorders of the visual system, administration of ocular pharmaceutical agents, geometrical optics, optical math, ophthalmic lens design, mechanical optics, spectacle fabrication, equipment repair and maintenance, clinical procedures, ophthalmic dispensing and administration and clinical management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in physics, 3 in diseases and disorders of the visual system, 1 in the administration of ophthalmic pharmacological agents, 1 in geometric optics, 2 in optical mathematics, 3 in ophthalmic lens design, 3 in mechanical optics, 3 in spectacle fabrication, 3 in equipment repair and maintenance, 1 in clinical procedures, 2 in ophthalmic dispensing, and 1 in administrative course and clinical management (7/90).

NV-0706-0006

Ocular Technician

Course Number: B-300-0021.
Location: School of Health Sciences, San Diego, CA.
Length: 22 weeks (888 hours).
Exhibit Dates: 11/88-Present.
Learning Outcomes: Upon completion of the course the student will assist an ophthalmologist in the diagnosis and medical and surgical treatment of eye diseases and disorders.
Instruction: Lectures, discussions, and clinical practice in diseases and disorders of the visual system, ocular medicine, ophthalmic optics, visual testing procedures, and clinical management. Also includes operating room preparation and techniques, operating room environmental control, surgical supplies and equipment, activities of the operating room circulator and scrub technician, and advanced surgical anatomy/operative procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in diseases and disorders of the visual system, 2 in ocular medicine, 1 in ophthalmic optics, 2 in visual testing procedures, 1 in ophthalmic surgical equipment, 2 in clinical practice, 1 in introduction to operating room techniques, 1 in introduction to environmental control in the operating room, 2 in surgical supplies and equipment, 1 in activities of the operating room circulator, 1 in activities of the scrub technician, and 3 in advanced surgical anatomy/operative procedures (7/90).

NV-0707-0001

1. Preventive Medicine Technician
2. Preventive Medicine Technician, Class C
   (Preventive Medicine Technic)
3. Environmental Sanitation Technic

Course Number: B-322-0012; B-322-12.
Location: Naval Hospital, Oakland, CA.
Length: *Version 1:* 26 weeks (1000 hours). *Version 2:* 20-22 weeks (640-880 hours). *Version 3:* 20 weeks (640 hours).
Exhibit Dates: *Version 1:* 3/83-11/88. *Version 2:* 11/63-5/75. *Version 3:* 2/56-10/63.
Objectives: To train enlisted personnel to assist medical officers in epidemiological and sanitation work.
Instruction: For this course after 11/88 see NV-0707-0002. *All Versions:* Lectures and practical exercises in bacteriology, immunology, mathematics, statistics, epidemiology, entomology, and environmental sanitation. *Version 1:* Topics include parasitology; occupational safety and health; pest control; food sanitation technology; water,

wastewater and solid waste management, and public health administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in public health bacteriology, 3 in water, wastewater and solid waste management, 2 in mathematics, 3 in occupational safety and health, 1 in biostatistics, 1 in community sanitation, 3 in parasitology, 5 in food sanitation technology, 5 in epidemiology of infectious diseases, 2 in health care facility sanitation, 2 in oral communication, 1 in chemical, biological and radiological defense, 8 in medical entomology and pest control and 1 in public health administration (6/83). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74); in the upper-division baccalaureate category, 3 semester hours in community sanitation, 8 in pathogenic bacteriology (12/68).

NV-0707-0002

PREVENTIVE MEDICINE TECHNICIAN CLASS C

Course Number: B-322-0012.

Location: School of Health Sciences, Oakland, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to use basic disease prevention measures and promote public health using techniques in occupational safety and health, environmental microbology, medical entomology, and pest control.

Instruction: Lectures and practical exercises in microbiology, immunology, mathematics, statistics, epidemiology, and environmental sanitation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in public health microbiology, 3 in water/waste water management, 5 in occupational safety and health, 1 in biostatistics, 3 in medical parasitology, 5 in food saniation technology, 5 in epidemiology and communicable diease control, 2 in health care facility sanitation, 2 in lesson development and presentation, 1 in chemical, biological, and radiological medical defense, 8 in medical entomology and pest control, 3 in public health administration, 2 in habitability and related service areas, 2 in mathematics, and 2 in operational saniation (7/90).

NV-0709-0001

1. NUCLEAR SUBMARINE MEDICINE TECHNICIAN
2. NUCLEAR SUBMARINE MEDICINE TECHNIQUE
3. NUCLEAR SUBMARINE MEDICINE TECHNICIAN, CLASS C
   (Nuclear Submarine Medicine Technic)
4. SUBMARINE MEDICINE TECHNICIAN, CLASS C
   (Submarine Medicine Technic)

Course Number: B-300-0012; B-300-012; B-300-12.

Location: Health Sciences Education and Training Center, New London, CT.

Length: *Version 1:* 15 weeks (600 hours). *Version 2:* 30 weeks (1041–1050 hours). *Version 3:* 30 weeks (900–1047 hours). *Version 4:* 20 weeks (365 hours).

Exhibit Dates: *Version 1:* 5/82–Present. *Version 2:* 1/76–4/82. *Version 3:* 1/66–12/75. *Version 4:* 1/55–12/65.

Objectives: To train hospital corpsmen to serve on submarines independent of a medical officer.

Instruction: *Version 1:* This course is a combination of a three-week Basic Submarine course, an eight-week Radiation Health course and a four-week Submarine Medicine course. The main emphasis of the course is in the following areas: radiation fundamentals, radiation safety, radiation biology, radiation physics, radiation health administration and advanced corpsman skills as adapted to the nuclear submarine environment. *Version 2:* This course is a combination of the 12-week Nuclear Medicine Technician course, the 10 week Submarine Medicine Technician course and the 8 week Basic Enlisted Submarine course. Lectures and practical exercises in mathematics, radiological physics, photodosimetry, nuclear reactor safety, nuclear weapons safety, radiobiology, health physics, radiation administration, toxicology, anatomy and physiology, surgery, preventive medicine, diving medicine, and medical diagnosis and treatment. *Version 3:* This course is a combination of the 12-week Nuclear Medicine Technician course, the 10-week Submarine Medicine Technician course, and the 8-week Basic Enlisted Submarine course. Lectures and practical exercises in mathematics, radiological physics, photodosimetry, nuclear reactor safety, nuclear weapons safety, radiobiology, health physics, radiation administration, toxicology, first aid/minor surgery, preventive medicine, diving medicine, and medical diagnosis and treatment. *Version 4:* This course includes the 12-week Submarine Medicine Technician course and the 8-week Basic Enlisted Submarine course. Lectures and practical exercises are in medical diagnostic and treatment procedures, anatomy, physiology, pharmaceutical and laboratory procedures, minor surgery, first aid and hygiene, and sanitation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in radiation fundamentals, 1 in radiation safety, 2 in radiation biology, 3 in radiation health physics, 3 in radiation health administration, 3 in nuclear submarine medical procedures (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics, 3 in radiation health administration, 1 in radiological fundamentals, 2 in radiation biology, 1 in nuclear weapons safety, 3 in health physics, 2 in clinical laboratory, 3 in medical administration, 3 in anatomy and physiology, 2 in atmosphere control, 3 in preventive medicine, 10 in medical diagnosis and treatment and 4 in management of medical and surgical emergencies (6/83). *Version 3:* In the lower-division baccalaureate/associate degree category, 60 semester hours in physician assisting, medical assisting, environmental health, diving medicine, diagnostics, and preventive medicine not to include general education requirements and taking into consideration the completion of mandatory prerequisites: (16 week) Hospital Corpsman, Class A School, (20 week) Hospital Corps Advanced School, and two years required experience in between. Students who do not meet those prerequisites may be granted 6 semester hours in basic mathematics and slide rule as applied to health physics and 6 semester hours in physics (7/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in first aid and hygiene, 3 in nursing, 3 in medical laboratory technology, 12 in health care science, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0003

AEROSPACE MEDICINE TECHNICIAN

(Aerospace Medical Technician, Class C)
(Aviation Medicine Technician, Class C)
(Aviation Medicine Technic)

Course Number: B-300-0017; B-300-17.

Location: Aerospace Medical Institute, Pensacola, FL.

Length: *Version 1:* 10 weeks (350 hours). *Version 2:* 12–16 weeks (480–640 hours). *Version 3:* 12–16 weeks (480–640 hours).

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 1/70–12/78. *Version 3:* 6/63–12/69.

Objectives: To train selected hospital corpsmen in aerospace medicine.

Instruction: Lectures and practical exercises in anatomy and physiology; circulatory and respiratory systems; aviation physiology; psychology; emergency medical procedures; aviation safety and investigation; ophthalmology; and clinical laboratory practice in physical examinations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 1 in optometry, 1 in administrative procedures, 4 in health record administration, 1 clinical procedures, and 1 in first aid (4/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 15 semester hours in anatomy and physiology plus additional credit based on institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, additional credit in first aid on the basis of institutional evaluation (9/71). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in typing, 4 in aviation medicine technology, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0004

AEROSPACE PHYSIOLOGY TECHNICIAN

Course Number: B-322-0011; B-322-11.

Location: Naval Aerospace Medical Institute, Pensacola, FL.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 12–16 weeks (480–640 hours).

Exhibit Dates: *Version 1:* 10/83–Present. *Version 2:* 6/63–12/76

Objectives: To train enlisted personnel to assist in the indoctrination of personnel in aerospace physiology.

Instruction: *Version 1:* Lectures and laboratory experiences in the procedures for inside instructors and observers in hypobaric chambers, the aeromedical aspects of flight, visual problems and spatial orientation in aviation, Naval aviation personal protective and life support equipment, emergency egress systems, aeromedical aspects of ejection, operation and maintenance of aerospace physiology training devices and basic instructor techniques. *Version 2:* Lectures on advanced anatomy of the ear, nose, throat, sinuses, and the circulatory and respiratory systems; orientation in low-pressure chambers; effects of aviation environment upon the circulatory and respiratory systems; practical exercises in ejection seat training devices; instructor training; and acceleration survival and night-vision testing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in aerospace physiology and aviation environment procedures (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 15 semester hours in aerospace physiology or flight surgery assistance, and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 4 semester hours in aerospace physiology or flight surgery assistance, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0005

SPECIAL OPERATIONS TECHNICIAN
(Special Operations Technic)

Course Number: A-431-0021.

Location: Underwater Swimmers School, Key West, FL.

Length: 8 weeks (95 hours).

Exhibit Dates: 12/63-1/88.

Objectives: To provide the hospital corpsmen with an understanding of the effects of pressure on the human body and the treatment of divers' diseases and injuries.

Instruction: Self-paced lectures and practical exercises in diving physics, underwater physiology, accident prevention, use of compression chambers, and decompression and treatment tables.

Credit Recommendation: In the upper-division baccalaureate category, credit in diving medicine on the basis of institutional evaluation (2/74).

NV-0709-0006

CARDIOPULMONARY TECHNICIAN, CLASS C
(Cardiopulmonary Technic)

Course Number: B-300-0018; B-300-18; B-300-19.

Location: National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 52 weeks (2036 hours). *Version 2:* 52 weeks (2036 hours). *Version 3:* 39 weeks (1560 hours). *Version 4:* 26 weeks (1039 hours).

Exhibit Dates: *Version 1:* 2/81-3/89. *Version 2:* 11/67-1/81. *Version 3:* 12/63-10/67. *Version 4:* 3/60-11/63.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to perform as cardiopulmonary technical assistants.

Instruction: For this course after 3/89 see NV-0709-0018. *All Versions:* Lectures and practical exercises in basic cardiopulmonary technical assisting, including anatomy and physiology, physics, electrocardiograph monitoring, pulmonary function procedures, cardiac catheterization procedures, surgical techniques, x-ray techniques, and operation and maintenance of cardiopulmonary machines. *Version 1:* Includes chemistry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in cardio-vascular anatomy and physiology, 5 in pulmonary anatomy and physiology, 2 in introductory mathematics, 2 in chemistry, 6 in non-invasive techniques, 3 in invasive techniques, 4 in radiography, 3 in gas analysis, 4 in respiratory therapy, and 6 in cardiopulmonary laboratory techniques (a practicum is included in each of the above areas) (6/83). *Version 2:* In the vocational certificate category, 2 semester hours in mathematics (arithmetic) and 2 in operating room techniques (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in pulmonary anatomy, 2 in cardiac anatomy, 3 in pulmonary physiology, 3 in cardiac physiology, 3 in biomedical electronics, 12 in cardiopulmonary instrumentation, 5 in clinical chemistry, 12 in non-invasive cardiology techniques, and 6 in invasive cardiology techniques, for a total of 47 semester hours (8/77). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in anatomy or physiology, 2 in physics, 2 in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74).

NV-0709-0008

1. ADVANCED HOSPITAL CORPS
   (Advanced Hospital Corpsman)
2. ADVANCED HOSPITAL CORPSMAN
   (Independent Duty Technician)
3. MEDICAL SERVICES TECHNICIAN, CLASS C
   (Medical Services Technic)
4. ADVANCED HOSPITAL CORPS TECHNICIAN, CLASS B
   (Hospital Corpsman, Advanced)

Course Number: *All Versions:* B-300-15; B-300-16. *Version 1:* B-300-0019. *Version 2:* B-300-0016; B-300-0019.

Location: School of Health Sciences, San Diego, CA; Naval Hospital, Portsmouth, VA.

Length: *Version 1:* 46 weeks (1840 hours). *Version 2:* 40 weeks (1600 hours). *Version 3:* 36 weeks (1350 hours). *Version 4:* 20-26 weeks (800-1040 hours).

Exhibit Dates: *Version 1:* 11/81-12/88. *Version 2:* 4/76-10/81. *Version 3:* 3/72-3/76. *Version 4:* 1/55-2/72.

Objectives: To provide medical service technicians with advanced training in the principles and techniques of medical treatment, including patient care, first aid and emergency procedures, preventive medicine, industrial safety, and administrative duties.

Instruction: For this course after 12/88 see NV-0709-0019. Lectures and clinical experiences in advanced medical and surgical conditions, diagnostics and treatment procedures, material media and toxicology, pharmacology, preventive medicine and industrial safety, nuclear and biological defense, fiscal management, effective speaking, effective teaching methods, personnel management, anatomy and physiology. *Version 1:* Does not include material media, effective speaking, and teaching methods.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 3 in physical diagnosis, 3 in clinical pathology, 4 in pharmacology, 3 in health education (including drugs and alcohol), 8 in management of medical/surgical conditions I, 8 in management of medical/surgical conditions II, 3 in radiation health, 5 in preventive medicine, 2 in health records, and 5 in clinical practice (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 5 in pharmacology and toxicology, 3 in laboratory techniques, 3 in food and water sanitation, 2 in environmental sanitation, 3 in introduction to patient care, 16 in manifestation of diseases, 10 in clinical application, and 3 in health systems administration, for a total of 48 semester hours (8/77). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in first aid, 3 in pharmacology, 1 in clinical laboratory, 7 in business administration, 3 in English, 2 in psychology, and additional credit in nursing or physician assisting on the basis of institutional evaluation (2/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in hygiene, sanitation, and first aid, 5 in nursing, 2 in pharmacology, and 2 in medical laboratory technology (2/74); in the upper-division baccalaureate category, 4 semester hours in hygiene, sanitation, and first aid, and 2 in anatomy and physiology (2/68).

NV-0709-0009

OTOLARYNGOLOGY TECHNICIAN
(Eye, Ear, Nose and Throat Technician, Class C)

Course Number: B-300-0024; B-300-21; B-300-24; B-300-22; B-300-23.

Location: *All Versions:* National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA. *Version 2:* Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: *Version 1:* 16 weeks (587 hours). *Version 2:* 16 weeks (587 hours). *Version 3:* 26 weeks (1040 hours).

Exhibit Dates: *Version 1:* 4/82-12/88. *Version 2:* 5/74-3/82. *Version 3:* 12/60-4/74.

Objectives: To train personnel to assist medical officers in the care and treatment of patients for ear, nose, and throat conditions.

Instruction: For this course after 12/88 see NV-0709-0016. *All Versions:* Lectures and clinical experiences on the medical and surgical conditions of ear, nose and throat; emergency and operating room procedures specific to those conditions and basic audiometry. *Version 2:* Topics also include care and conditions of the eye.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in otolaryngology procedures and techniques and 8 in clinical applications (6/83). *Version 2:* In the vocational certificate category, 4 semester hours in otolaryngology operating room techniques (8/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in otolaryngology anatomy, 1 in otolaryngology physiology, 9 in audiology and audiometry, and 6 in diagnostic and therapeutic techniques (8/77). *Version 3:* In the upper-division baccalaureate category, 12 semester hours in health care technology, 3 in nursing, 3 in anatomy and physiology, and additional credit in health care technology on the basis of institutional evaluation (2/74).

NV-0709-0010

1. ELECTROCARDIOGRAPHY TECHNICIAN, CLASS C
   (Electrocardiography Technique)
2. ELECTROCARDIOGRAPHY AND BASAL METABOLISM TECHNICIAN, CLASS C
   (Electrocardiography and Basal Metabolism Technic)

Course Number: B-311-20; B-311-21; B-311-22.

Location: Naval Hospital, Bethesda, MD; Naval Hospital, Portsmouth, VA; Naval Hospital, San Diego, CA.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 3/72–1/88. *Version 2:* 9/55–2/72.

Objectives: To train enlisted personnel to assist medical officers in electrocardiograph and basal metabolism examinations.

Instruction: Lectures on physiology of circulation, techniques of electrocardiography, principles of metabolism and clinical application of tests, and basal metabolism machines.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electrocardiographic technology, additional credit on the basis of institutional evaluation (2/74). *Version 2:* In the upper-division baccalaureate category, 12 semester hours in anatomy and physiology, or electrocardiographic and respiratory technology, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0011

Electroencephalography Technician, Class C
(Electroencephalography Technic)

Course Number: *Version 1:* B-302-0043. *Version 2:* B-302-0043. *Version 3:* B-302-40; B-302-43; B-302-41; B-302-42; B-302-44..

Location: *All Versions:* National Naval Medical Center, Bethesda, MD. *Version 3:* Naval Hospital, San Diego, CA; Naval Hospital, St. Albans, NY; Naval Hospital, Bethesda, MD; Naval Hospital, Chelsea, MA; Naval Hospital, Oakland, CA.

Length: *Version 1:* 26 weeks (1024 hours). *Version 2:* 26 weeks (1024 hours). *Version 3:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 5/83–Present. *Version 2:* 4/75–4/83. *Version 3:* 1/55–3/75.

Objectives: To train personnel in electroencephalographic technology.

Instruction: *All Versions:* Lectures and clinical application of patient-interviewing and -handling approaches, structure and function of nervous system, clinical neurology, basic electricity and electronics, EEG instrumentation, and clinical electroencephalography. *Version 3:* Includes psychiatry, medicine and neurosurgery.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in neuroanatomy and physiology, 3 in neuropathophysiology, 3 in instrumentation, 3 in wave patterns and 9 in clinical practice (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in neuroanatomy, 2 in neurophysiology, 2 in neuropathophysiology, 3 in EEG electronics, 2 in EEG technique and interpretation and 14 in clinical practice (2/84). *Version 3:* Insufficient data for evaluation (2/74).

NV-0709-0012

Physician's Assistant

Course Number: B-300-0031.

Location: Naval School of Health Sciences, San Diego, CA. Naval School of Health Sciences, Portsmouth, VA.

Length: 52–60 weeks (2080–2400 hours).

Exhibit Dates: 1/79–Present.

Objectives: To provide experienced personnel with the technical knowledge and skills to assist physicians in evaluation, primary care and disposition of patients.

Instruction: Lectures and clinical rotations aimed at developing student abilities to perform complete historical and physical examinations, order and interpret routine radiographic studies, perform minor surgery, provide emergency health care, exercise a degree of independent decisionmaking judgement in treatment and therapy procedures, all under the supervision of a medical officer. The program includes course work in basic and clinical health sciences.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in anatomy and physiology, 3 in biochemistry, 2 in microbiology, 4 in pharmacology, 1 in musculoskeletal/orthopedics, 1 in cardiovascular, 1 in genitourinary and renal, 1 in infectious diseases, 1 in gastrointestinal medicine, 1 in otolaryngology, 1 in pediatrics, 1 pulmonary medicine, 1 in clinical pathological carrelation (CPC), 1 in radiology, 1 in electrocardiography, 2 in emergency medicine and surgical procedures, 2 in human behavior (psychiatry), 4 in clinical assessment (physical diagnosis), 1 in issues in health care, 3 in medical electives (neurology, endocrinology, hematology, oncology, dermatology, obstetrics/gynecology, ophthalmology, substance abuse and communication processes), and 10 in clinical rotations (4/85).

NV-0709-0013

Dermatology Technician, Class C
(Dermatology Technic)

Course Number: B-300-0029; B-300-29.

Location: Naval School of Health Sciences, San Diego,CA; Naval Health Sciences Education and Training Command, Bethesda, MD. *Version 2:* Naval Hospital, Philadelphia, PA.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 16–20 weeks (640 hours).

Exhibit Dates: *Version 1:* 9/80–12/88. *Version 2:* 12/57–8/80.

Objectives: To train enlisted personnel to assist medical officers in the care of patients with skin disorders.

Instruction: For this course after 12/89 see NV-0709-0017. Lectures and laboratories in dermatology assisting, including basic laboratory techniques; basic bacteriology, serology, hematology, pathology, mycology, and parasitology; common dermatoses diagnosis; medical records and reports; operating room techniques; and special dermatologic treatment procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in medical laboratory techniques, 2 in basic dermatology and 7 in clinical applications (6/83). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in epidemiology, 2 in medical laboratory technology, 12 in dermatology technology on the basis of institutional evaluation (2/74).

NV-0709-0015

Field Medical Service Technic, Enlisted
(Field Medical Service Technician)
(Field Medical Service Officer)

Course Number: B-300-13; B-300-14.

Location: Field Medical Service School, Cp. Lejeune, NC; Field Medical Service School, Cp. Pendleton, CA.

Length: 3–7 weeks (120–280 hours).

Exhibit Dates: *Version 1:* 6/77–3/87. *Version 2:* 1/55–5/77.

Objectives: To train medical personnel in combat survival and field medical and dental practices.

Instruction: *All Versions:* Lectures and practical exercises in combat survival and field medical practices. Course includes physical conditioning, the corpsman in the field, field emergency procedures, medical supply in the field, and preventive medicine. *Version 2:* Includes instruction in field dental practices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in field emergency care and 1 in field preventive medicine (6/83). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in first aid (7/74).

NV-0709-0016

Otolaryngology Technician Class C

Course Number: B-300-0024.

Location: School of Health Sciences, San Diego, CA.

Length: 22 weeks (880 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to assist physicians in the medical and surgical care and treatment of patients for ear, nose and throat conditions by demonstrating proficiency in operating room techniques, audiological diagnostic testing and clinical skills.

Instruction: Lectures, laboratory practice, surgical, audiological, and clinical rotation with clinical experiences in medical and surgical procedures of ear, nose and throat. Course contains 7 units of the operating room technican course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in otolaryngology procedures/techniques, 8 in clinical practice, 1 in introduction to operating room techniques, 1 in introduction to environmental control in the operating room, 2 in surgical supplies and equipment, 1 in operating room circulator activities, 1 in scrub technician activities, and 3 in advanced surgical/anatomy procedures (7/90).

NV-0709-0017

Dermatology Technician Class C

Course Number: B-300-0029.

Location: School of Health Sciences, San Diego, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to assist a physician in diagnosing and treating all types of skin diseases and demonstrate proficiency in specific diagnostic methods and procedures.

Instruction: Lectures and laboratories in dermatology assisting, including basic laboratory techniques, basic bacteriology, serology, hematology, pathology, mycology, and parasitology, common dermatoses diagnosis, medical records and reports, operating room techniques, and special treatment procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in medical laboratory techniques, 2 in basic dermatology, and 8 in clinical practice (7/90).

NV-0709-0018

Cardiopulmonary Technician Class C

Course Number: B-300-0018.

Location: School of Health Sciences, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: 52 weeks (2112 hours).

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform noninvasive cardiology, pulmonary function testing, critical care life support, and assist the physician in cardiac catheterization.

Instruction: Lectures, laboratories, and clinical practice in anatomy, cross sectional anatomy, physiology, electrocardiography, pharmacology, respiratory care, blood gas analysis, cardiac catheterization, hemodynamic monitoring, cardiopulmonary radiography, echocardiography, pulmonary function testing, invasive cardiovascular techniques, and ventilatory support.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 in cardiovascular anatomy and physiology, 3 in pulmonary anatomy and physiology, 3 in radiography, 3 in pharmacology, 4 in mechanical ventilation, 3 in blood gas analysis 6 in pulmonary function, 4 in critical care, 8 in cardiology and 12 in cardiac catheterization (7/90).

NV-0709-0019

ADVANCED HOSPITAL CORPSMAN CLASS C

Course Number: B-300-0019.

Location: School of Health Sciences, Portsmouth, VA; School of Health Sciences, San Diego, CA.

Length: 46 weeks (1840 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will perform minor surgery, diagnostic and basic clinical laboratory procedures, emergency care, industrial hygiene and safety, health education services, and related resource dissemination.

Instruction: Lecture, laboratory, and clinical practice in medical and surgical topics, including record management, materials management, education and teaching methods, alcohol and drug abuse, communicable diseases, pest control and sanitation, industrial hygiene and safety, radiation safety and health, anatomy and physiology, physical assessment, pharmacology, clinical laboratory, dental procedures, basic cardiac life support, basic trauma life support, and appropriate standards of care in diagnosis, triage, and treatment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 in anatomy and physiology, 4 in clinical laboratory procedures, 2 in dental procedures, 2 in medical records; in the upper-division baccalaureate category, 4 in physical assessment, 4 in pharmaco-therapetics, 4 in clinical pathology, 8 in clinical practice, 2 in sanitation and hygiene, 2 in prevention and safety, 3 in radiation health, and 10 in clinical management of medical and surgical conditions (7/90).

NV-0799-0001

NAVAL SCHOOL OF HOSPITAL ADMINISTRATION

Course Number: None.

Location: National Naval Medical Center, Bethesda, MD.

Length: 32–40 weeks (940–1337 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To provide advanced instruction in the theory and practice of hospital administration for Medical Service Corps officers.

Instruction: Instruction includes accounting, business mathematics, English, fundamentals of instruction, office management, speech, financial management, food service management, law, maintenance management, personnel management, principles of organization, records management, security management, special services management, and supply management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in general business (6/75); in the upper-division baccalaureate category, 11 semester hours in general business (6/75).

NV-0799-0002

NAVY ALCOHOL SAFETY ACTION PROGRAM (NASAP)

Course Number: None.

Location: Various Naval Training Centers, USA; NASAP Detachment, Subic Bay, Philippines; NASAP Detachment, Rota, Spain; NASAP Detachment, Naples, Italy; NASAP Detachment, Yokosuka, Japan; NASAP Detachment, Okinawa, Japan; NASAP Detachment, Sasebo, Japan; NASAP Command Sponsored Office, U.S.S. Saratoga; NASAP Command Sponsored Office, U.S.S. Howard Gilmore; NASAP Command Sponsored Office, Holy Loch, Scotland; NASAP Command Sponsored Office, U.S.S. Forrestal.

Length: 1–6 weeks (36 hours).

Exhibit Dates: *Version 1:* 9/80–6/83. *Version 2:* 9/74–8/80.

Objectives: To provide instruction on alcoholism, including early identification techniques and preventive alternatives.

Instruction: Through group discussions, lectures, role playing, and media presentations, the following primary topics are covered: an introduction to the severity of alcohol problems with particular emphasis on the drinking driver; a review of Navy regulations on the subject; medical aspects of alcohol and its physical and mental effects; legal implications of driving while intoxicated; symptoms and phases of alcohol use and abuse, attitudes and values related to both alcohol and a drinking problem; support available from other organizations and agencies; the effects of alcohol abuse on family members and friends; and the exploration of the supervisor's job in supporting the Navy Alcohol Prevention Program.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in alcohol/drug education (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in alcohol abuse studies (10/78).

NV-0799-0003

PHARMACY TECHNICIAN
(Pharmacy Technician, Class C)
(Pharmacy Technic)

Course Number: *Version 1:* B-312-0025. *Version 2:* B-312-0025. *Version 3:* B-312-24; B-312-25. *Version 4:* B-312-24; B-312-25.

Location: School of Health Sciences, San Diego, CA; School of Health Sciences Detachment, Portsmouth, VA.

Length: *Version 1:* 23 weeks (805 hours). *Version 2:* 23 weeks (805 hours). *Version 3:* 36 weeks (1360 hours). *Version 4:* 32 weeks (1200 hours).

Exhibit Dates: *Version 1:* 11/82–8/86. *Version 2:* 9/75–10/82. *Version 3:* 3/72–8/75. *Version 4:* 1/61–2/72.

Objectives: To train technicians to assist medical and pharmacy officers in the compounding and dispensing of pharmaceutical preparations.

Instruction: For this course after 8/86 see NV-0799-0008. *All Versions:* Lectures in principles of pharmacy, pharmaceutical calculations; inorganic, organic, and pharmaceutical chemistry; basic pharmacology, drug interaction and toxicology; practical experience in compounding and dispensing pharmacy, and pharmacy administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in pharmaceutical chemistry, 5 in pharmaceutical mathematics, 5 in principles of pharmacy, 2 in intravenous additives, 2 in pharmacy management and computer applications, 14 in pharmacology and toxicology and 3 in dispensing laboratory practice (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in principles of pharmacy, 5 in pharmaceutical mathematics, 3 in chemistry, 18 in pharmacology, 1 in pharmacy management, 5 in dispensing and 1 in intravenous admixtures, for a total of 38 semester hours (8/77). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/7 *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74); in the upper-division baccalaureate category, 5 semester hours in pharmaceutical mathematics, 2 in laboratory techniques (12/68).

NV-0799-0004

DRUG ABUSE EDUCATION SPECIALIST

Course Number: A-000-0053.

Location: Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/73–12/82.

Objectives: To provide instruction in the development, implementation, evaluation, and revision of command drug and alcohol education and action programs.

Instruction: Lectures, discussions, and practical exercises in organization and administration of drug abuse education programs, including history of abuse, behavioral patterns, problem identification, and rehabilitation techniques. Methods of instruction include communications techniques such as group therapy and role playing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in health sciences (8/87).

NV-0799-0005

DRUG AND ALCOHOL PROGRAM ADVISOR

Course Number: A-000-0055.

Location: Training Center, San Diego, CA; Training Center, Charleston, SC; Training Center, Pearl Harbor, HI; Training Center, Rota, Spain; Training Center, Norfolk, VA; Training Center, Treasure Island, CA.

Length: 2 weeks (55 hours).

Exhibit Dates: 9/74–1/88.

Objectives: To train command designated officers and senior petty officers to perform as drug and alcohol program advisors.

Instruction: Lectures and discussions of policies concerning drugs and alcohol; physiological and psychological effects; planning and administering prevention programs; identifying, utilizing, and understanding resources both internal and external to the Navy.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in health sciences (6/75).

NV-0799-0006

Navy Drug Safety Action Program (NDSAP)

Course Number: None.

Location: Various Naval Training Centers, U.S.A.

Length: 2 weeks (36 hours).

Exhibit Dates: 8/81-6/83.

Objectives: To provide individuals with the opportunity to learn about drug effects and to examine their values and attitudes concerning the use and abuse of all mood altering drugs.

Instruction: Lectures and group discussions designed to provide (1) basic facts on drugs (2) educational experiences for individual development (3) intrapersonal experiences aimed at self-awareness (4) practical solutions for every day drug problems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in drug education (2/84).

NV-0799-0007

Navy Substance Abuse Prevention Program

(Navy Alcohol/Drug Safety Action Program (NASAP/NDSAP))

Course Number: None.

Location: Various Naval Training Facilities, Worldwide.

Length: 1-2 weeks (36 hours).

Exhibit Dates: 7/83-Present.

Objectives: To provide instruction on alcoholism and drug abuse with emphasis on personal health and responsibility.

Instruction: Discussions focusing on the implications of alcohol/drug use and abuse, values clarification, decision making, stress management and coping, and personal responsibility for lifestyle choices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in substance abuse prevention and health promotion (7/87).

NV-0799-0008

Pharmacy Technician Class C

Course Number: B-312-0025.

Location: School of Health Sciences, Portsmouth, VA; School of Health Sciences, San Diego, CA.

Length: 23 weeks (815 hours).

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to assist physicians and pharmacists in the compounding, calculation, dispensing, and administration of pharmacological preparations.

Instruction: Lectures, discussions, and clinical practice in the conpounding, pharmacology, administration, calculation, and dispensing of a variety of preparations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in compounding, 12 in pharmacology, 3 in pharmacy administration, 4 in sterile products, 2 in clinical rotations, 3 in dispensing, 3 in computer/typing applications, and 6 in pharmaceutical calculations (7/90).

NV-0801-0001

Nuclear, Biological and Chemical (NBC) Defense (Shipboard)

Course Number: J-2G-420; J-780-420.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To train personnel in hazard detection and decontamination of personnel and material.

Instruction: Lectures and practical exercises in nuclear, biological, and chemical defense afloat, including nature of nuclear radiation, ionization and its effects, fleet radiation detection and measuring equipment, effects of nuclear detonations and minimizing measures, radioactive contamination and decontamination procedures, accidental detonation of nuclear ordnance containing plutonium, and chemical and biological agents, features, effects, defense, and countermeasures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0801-0002

Staff Disaster Preparedness Officer

Course Number: A-7K-0011.

Location: Naval Training Unit, Ft. McClellan, AL.

Length: 6 weeks (124 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To train personnel in nuclear, biological, and chemical defense and accident control.

Instruction: Lectures and practical exercises in disaster preparedness, including biological agents, effects, and defense; biological agent dissemination; biological decontamination; chemical agents, effects, and defense; introduction to chemical warfare; CW dissemination; foreign CB capabilities; decontamination of chemical agents; nuclear weapons and effects; atomic and nuclear principles; characteristics and attentuation of ionizing radiation; and effects of ionizing radiation on personnel.

Credit Recommendation: In the vocational certificate category, 3 semester hours in civil defense, 3 in medical technology (5/74).

NV-0801-0003

Disaster Recovery Training I and II

Course Number: None.

Location: Naval Construction Battalion Center, Port Hueneme, CA; Naval Construction Battalion Center, Davisville, RI; Naval Construction Battalion Center, Gulfport, MS.

Length: 4 weeks.

Exhibit Dates: 6/66-12/68.

Objectives: To train personnel to cope with the effects of a disaster.

Instruction: Lectures and practical exercises on disaster control, including fundamentals of nuclear energy, effects of nuclear weapons, fallout, biological and chemical warfare, nuclear accidents, protective equipment, communications, radiac instruments, biological sampling, chemical detection, radiological surveys and decontamination, biological and chemical decontamination, and first aid.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-0801-0004

Nuclear, Biological and Chemical (NBC) Defense for Petty Officers

Course Number: Not available.

Location: *Version 1:* Damage Control Training Center, Philadelphia, PA. *Version 2:* Damage Control School, Treasure Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To train personnel to perform as advanced damage controlmen strikers.

Instruction: Lectures and practical exercises in nuclear, biological, and chemical defense afloat, including classification, detection, and decontamination of BW/CW agents and nuclear radiation; operation and maintenance of radiac equipment, maintenance of protective clothing and masks; training of personnel in monitoring and decontamination procedures for repair parties; nuclear warfare defense; and NBC warfare defense organization.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0801-0005

Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore)

Course Number: A-7K-011.

Location: Army Chemical School, Ft. McClellan, AL; Schools Command, Treasure Island, CA.

Length: 6 weeks (168-185 hours).

Exhibit Dates: 4/66-1/88.

Objectives: To train officers to perform as disaster control officers for shore establishments.

Instruction: Lectures and practical exercises in disaster control procedures, including organization; nuclear, biological, and chemical agents and effects; nuclear, biological, and chemical warfare defense and accident control; disaster control operation; radiological detection; and decontamination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-0801-0006

Administration, Training and Advisor (ATA)

(Drug Abuse Program Officers)

Course Number: S-501-0001.

Location: Various Naval Training Centers, USA and overseas.

Length: 2 weeks (72 hours).

Exhibit Dates: *Version 1:* 8/83-12/86. *Version 2:* 4/72-7/83.

Objectives: To train selected enlisted personnel to perform as drug abuse program officers.

Instruction: *Version 1:* Lectures, small group discussions and role playing covering such topics as administration and management, alcoholism treatment resources, basic interviewing and listening skills, presentation skills and basic information concerning the effects of alcohol abuse. *Version 2:* Lectures and practical exercises in the duties of a drug abuse program officer. Course includes identification, education, rehabilitation programs, philosophies, methods, and agencies.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in alcohol abuse prevention (8/87). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in health education (7/74).

NV-0801-0007

Navy Drug Abuse Counselor

Course Number: None.

Location: Drug Rehabilitation Center, Miramar, San Diego, CA; Naval Station, Jacksonville, FL.

Length: 8-10 weeks (400-500 hours).

Exhibit Dates: 5/72-12/84.

Objectives: To train para-professional drug abuse counselors in screening and referral, identification and counseling of substance abusers.

Instruction: After 1984 see NV-0801-0011. Lectures, seminars, group growth experiences, observation and supervised practicum covering interviewing, evaluating, counseling, referring, recommending, process-calling and progress note writing; basic psychology and selected aspects of sociology and physiology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to abnormal behavior, 2 in counseling theory and practice, 2 in theories of personality, 2 in managerial skills, and 1 in principles of alcohol abuse, for a total of 12 semester hours (11/77); in the upper-division baccalaureate category, 3 semester hours in group process theory and practice, 2 in psychopharmacology and 3 in practicum (11/77).

NV-0801-0008

Alcoholism Treatment Specialist (ATS)

Course Number: None.

Location: Naval Alcohol Rehabilitation Center, San Diego, CA.

Length: 10-12 weeks (347-448 hours).

Exhibit Dates: 7/75-12/85.

Objectives: To train alcoholism treatment specialists for in-field services in the treatment of alcoholism.

Instruction: Methods of instruction include directed class instruction, group problem solving, structured exercises, practicum, audio-visuals, simulation, role playing, psychodrama, and application. Curriculum areas cover dynamics of human behavior; group processes; introduction to, organization and administration of, and practicum and clinical methods of counseling; social psychology and problems in contemporary society related to substance abuse.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in general psychology, 3 in counseling, 2 in theories of personality and group process, 3 in practicum, 1 in alcohol/drug abuse, and 2 in managerial skills, for a total of 12 semester hours (8/87).

NV-0801-0009

Operational Water Chemistry and Radiological Controls

Course Number: L-4H-0027.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Fleet Ballistic Submarine Training Center, Charleston, SC; Guided Missile School Detachment, Norfolk, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 2/83-Present.

Objectives: To provide training in nuclear propulsion plantwater chemistry and radiological controls with emphasis on the evaluation and solution of operational plant problems.

Instruction: Course covers operational water chemistry control, operational radiological control, and casualty procedures and radiological problems encountered and proposed actions.

Credit Recommendation: In the vocational certificate category, 1 semester hours in chemical technology laboratory (11/85).

NV-0801-0010

Aftercare Program Management

Course Number: S-501-0001.

Location: Naval Training Center, Norfolk, VA; Naval Training Center, Rota, Spain; Naval Training Center, Yokosuka, Japan; Naval Training Center, New London, CT; Naval Training Center, Jacksonville, FL; Naval Training Center, Pearl Harbor, HI; Naval Training Center, Philadelphia, PA; Naval Training Center, Washington D.C.; Naval Drug Rehabilitation Center, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist recovering substance abusers in the process of conforming to aftercare prescription protocols; participate in the conducting of substance abuse education programs; and provide minimal support services to family members.

Instruction: Course introduces student to beginning skills in substance abuse, communication, data management, interviewing and case management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to substance abuse counseling (7/87).

NV-0801-0011

Navy Drug and Alcohol Counselor School

Course Number: S-501-0002.

Location: Naval Drug Rehabilitation Center, San Diego, CA.

Length: 10-11 weeks (400-440 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to screen and evaluate personnel with substance abuse problems and determine appropriate treatment program; conduct counseling sessions; and assist in the management of substance abuse programs.

Instruction: Methods of instruction include lecture, demonstration, video review and group process. Topics include group development, counseling, behavior modification, substance abuse, child/spousal abuse, abnormal psychology, and applied practicum.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to psychology; in the upper-division baccalaureate category, 3 semester hours in abnormal psychology, 3 in counseling theory and practice, 3 in group process-theory and practice, and 3 in substance abuse counseling (7/87).

NV-0802-0001

Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors

Course Number: None.

Location: Damage Control Training Center, Treasure Island, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/62-12/68.

Objectives: To train enlisted personnel to assist officers in organizing and conducting training programs in shipboard defense.

Instruction: Lectures in instructor training and in nuclear, biological, and chemical warfare defense afloat.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in occupational safety (1/74).

NV-0802-0002

Nuclear Weapons Disposal Advanced Refresher

Course Number: A-4E-0024.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 2 weeks (67 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train advanced personnel in the procedures of nuclear ordnance disposal.

Instruction: Lectures and practical exercises in nuclear disposal procedures. Topics include nuclear weapon identification, principles of operation, location of safety devices and components, and packaging and labeling operations for contaminated material and nuclear components.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0003

Surface Explosive Ordnance Disposal (EOD) Advanced Refresher

Course Number: A-4E-0025; A-431-0015.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 3 weeks (165 hours).

Exhibit Dates: 10/70-1/88.

Objectives: To train qualified explosive ordnance disposal personnel in new methods, new equipment, and advanced disposal procedures and safety precautions in explosive ordnance disposal operations.

Instruction: Lectures and practical exercises in explosive ordnance disposal procedures and operations. Topics include explosive hazards, fuses, munitions, and the effects, precautionary measures, and disposal of nuclear and other explosive materials.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0004

Radiographic Safety Officer

Course Number: A-4G-0018.

Location: Welding Class C School, San Diego, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train personnel to perform as radiographic safety officers and to supervise radiographers.

Instruction: Lectures and practical exercises in fundamentals of radiography, including applications to industrial radiography; interaction of radiation with matter; mathematics related to radiography; variation of dose-rate with distance; source identity; radiation control, detection, and measurement; principles of radiation detection; AEC rules and regulations; duties of radiographic safety officers; standards for protection against radiation; and familiarization with nondestructive testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in radiation measurement and nondestructive testing (5/74); in the upper-division baccalaureate category, 2 semester hours in radiation measurement and nondestructive testing (5/74).

NV-0802-0005

CVS/MAUW Shop Nuclear Weapons Technical

Course Number: J-644-0914; J-4E-9142; J-644-9142.

Location: Nuclear Weapons Training Group, Atlantic, Norfolk, VA.

Length: 2 weeks (65 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To train enlisted and officer personnel in special administrative, technical and operational procedures in CVS or MAUW shops with a nuclear weapons capability.

Instruction: Lectures and practical exercises on procedures specific to a CVS or MAUW shop with a nuclear weapons capability, including the effect of nuclear weapons, hazards associated with nuclear weapons, security of classified matter and nuclear weapons, couriers and guards, administrative aspects, weapons familiarization and component description, delivery considerations, inspections and test criteria, CNO-promulgated nuclear weapons system safety rules.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0006

Nuclear Weapons Technical (CVA)

Course Number: J-4E-9122; J-644-9122.

Location: Nuclear Weapons Training Group, Atlantic, Norfolk, VA.

Length: 2 weeks (115 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train W-Division personnel in the special administrative, technical, and operational procedures specific to CVA shops with a nuclear weapons capability.

Instruction: Lectures and practical exercises on administrative and technical operations connected with the nuclear weapons capability of CVA shops, including the effects of nuclear weapons; responsibilities; nuclear physics fundamentals; nuclear weapons safety; hazards associated with nuclear weapons; radiation detection instruments; reliability of nuclear weapons; weapons modernization; technical reports; B43; B57; B28; B6l; stockpile reports; and security of nuclear weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0007

Nuclear Weapons Disposal

Course Number: A-431-0013.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 6 weeks (232 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To train officers and enlisted personnel in nuclear ordnance disposal procedures.

Instruction: Lectures and practical exercises in nuclear ordnance disposal procedures, including weapon identification, elementary principles of operation, location of safety devices and components, radiation hazards and packaging, and personnel decontamination operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0008

Atomic, Biological and Chemical
(ABC) Warfare Defense Afloat

Course Number: Not available.

Location: *Version 1:* Damage Control Training Center, Philadelphia, PA. *Version 2:* Schools Command, Treasure Island, CA.

Length: 5 weeks (173-174 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To train officers in atomic, biological, and chemical warfare defense afloat.

Instruction: Lectures and practical exercises on ABC warfare defense afloat, including atomic, biological, and chemical warfare effects on personnel, ships and equipment; methods used to reduce or negate these effects; casualty minimization; requirements of shipboard ABC-damage control; radiological detection; nuclear weapon accidents; protection and decontamination; disaster recovery; shipboard organization; and anti-personnel biological warfare.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (12/68).

NV-0802-0009

CVA/CVS Air Launched Weapons
Supervisor
(CVA/CVS Air Launched Weapons)

Course Number: C-646-3103.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Mayport, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Alameda, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 8/67-1/88.

Objectives: To train personnel in the complete sequence of air launched weapons handling.

Instruction: Lectures and practical exercises in procedures and safety precautions in receiving, inspection, strikedown, stowage, breakout, assembly, fuzing, and reporting and recording of air-launched weapons. Topics include ammunition, pyrotechnics, aircraft munitions, and guided missiles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives (5/74).

NV-0802-0010

Fallout Shelter Analysis

Course Number: A-4A-0015.

Location: Civil Engineer Corps Officers School, Port Hueneme, CA.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/72-1/88.

Objectives: To provide personnel with an understanding of the strategic nuclear threat and the rationale and importance of a fallout shelter system.

Instruction: Lectures and practical exercises in nuclear energy and the effects of nuclear weapons, fallout radiation shielding, computer applications, and shelter planning and utilization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-0803-0001

Amphibious Reconnaissance

Course Number: G-2E-4610; G-010-4610; H-2E-3923; H-010-3923.

Location: Landing Force Training Command, Norfolk, VA; Naval Amphibious Base, San Diego, CA.

Length: 3-4 weeks (181-191 hours).

Exhibit Dates: 9/69-1/88.

Objectives: To train officers and enlisted personnel to conduct amphibious reconnaissance patrols.

Instruction: Lectures in map reading, scouting and patrolling techniques, hydrography, and underwater skills with emphasis on physical conditioning and swimming.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in physical education and swimming on the basis of institutional evaluation (5/74).

NV-0803-0002

1. Advanced Naval Parachutist, Class C1
2. Advanced Naval Parachutist, NP-II Class C

(Naval Parachutist, Advanced, Class C)

Course Number: C-602-2021.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 3 weeks (120 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/74-1/88. *Version 2:* 5/69-4/74.

Objectives: To provide selected Navy and Marine Corps personnel with knowledge and skills to accomplish delayed stable fall parachute descents utilizing advanced glide surface parachutes and high-altitude oxygen equipment.

Instruction: Lectures and practical exercises to include advanced parachute theory, equipment and parachute operations, precision target accuracy, extended delayed opening descents, safety check of parachutist equipment, and emergency actions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-0902-0001

Management of Marine Corps Clubs

Course Number: S-8E-0013.

Location: Special Services Administrative Activity, Patuxent River, MD.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/77-Present.

Objectives: To train enlisted personnel, civilians and officers to manage officers, NCO, and enlisted clubs.

Instruction: Instruction includes lectures, audio-visual presentations, and practical exercises designed to develop managerial skills needed to successfully operate a Marine Corps club. Included are club regulations, accounting, and cost controls and personnel procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in food and beverage management (7/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to institutional management (7/79).

NV-0902-0002

Recreation Management

Course Number: S-8E-0015.

Location: Special Services Administrative Activity, Patuxent River, MD.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/77–Present.

Objectives: To train Navy, Marine, and civilian personnel to manage Navy/Marine recreational programs and facilities.

Instruction: Instruction includes lectures and practical exercises in the management of recreational facilities and programs. Course includes development of management and administrative abilities in relationship to recreational facilities, personnel management, financial management, accounting, and resource management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in recreational facilities management (7/79); In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to business management (7/79).

NV-1002-0001

BUILDER—TOOL AND EQUIPMENT MAINTENANCE (BU "C")

Course Number: A-712-0010.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA; Construction School, Davisville, RI.

Length: 10–12 weeks (320–360 hours).

Exhibit Dates: 1/72–1/88.

Objectives: To train personnel to maintain, recondition, and repair tools and machinery.

Instruction: Lectures and practical exercises in preventive maintenance, reconditioning and repair of all types of carpenter shop machinery including: all powered hand tools for the builder construction trade; non-powered edged and non-edged hand tools for the construction trade; woodworking and sawmill sharpening equipment; two-man saw mill; splice band; saw blades; and sanding and drive belts, coordinate stocking and procurement.

Credit Recommendation: In the vocational certificate category, 5 semester hours in industrial arts/tool and equipment repair (7/76); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial arts/tool and equipment repair (7/76).

NV-1107-0001

STRATEGIC WEAPONS SYSTEM (SWS) ELECTRONIC MATHEMATICS

Course Number: A-121-0482.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide naval personnel with basic technical mathematics skills needed to perform required duties.

Instruction: Lectures and practical exercises in technical mathematics including whole numbers, fractions, decimals, signed numbers, exponents, roots, radicals, ratios, proportion, percentage, algebraic formula, use of non-programmable calculators, trigonometric functions, Pythagorean theorem, Cartesian coordinates, vectors, complex numbers, plane vectors, vector algebra and algebraic expressions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in technical mathematics (11/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in technical mathematics (11/83).

NV-1107-0002

SHIP'S INERTIAL NAVIGATION SYSTEM (SINS) THEORY AND ANALYSIS

Course Number: A-193-0370.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, WA.

Length: 1-2 weeks (55-56 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a ship's inertial navigation system.

Instruction: Lectures and practical exercises on the subject matter.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/89).

NV-1115-0001

INTERMEDIATE MAINTENANCE LEVEL DATA ANALYSIS, CLASS C

Course Number: None.

Location: Naval School, Norfolk, VA; Naval School, San Diego, CA.

Length: 3 weeks (102 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train officers and enlisted personnel to apply statistical analysis to data collection in accounting and maintenance systems.

Instruction: Lectures in basic applied statistical analysis, including mathematics review, frequency distribution, dispersion, confidence estimation, trends, control charts, man-hour accounting, and computer equipment usage.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in introductory statistics (2/74).

NV-1115-0002

MANAGEMENT ANALYSIS, CLASS C
(Management Analysis, Class O)

Course Number: C-7E-2010.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington,TN.

Length: *Version 1:* 3–4 weeks (120 hours). *Version 2:* 6 weeks (240 hours). *Version 3:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 4/78–12/84. *Version 2:* 5/72–3/78. *Version 3:* 9/68–4/72.

Objectives: To provide naval officers experienced in maintenance management with training in statistical analysis and managerial data analysis.

Instruction: *All Versions:* Lectures and laboratory in statistical methods, inference, data presentation, and management concepts and problems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (2/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (6/75). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (2/74); in the upper-division baccalaureate category, 3 semester hours in managerial statistics (12/68).

NV-1205-0001

MUSIC, CLASS A, BASIC
(Basic Course (Class A))
(Naval School of Music, Class A, Basic)
(Bandsman Basic (Army))
(Band Instrumentalist (Army))

Course Number: A-450-0010; 450-F1.

Location: School of Music, Little Creek, Norfolk, VA.

Length: *Version 1:* 23 weeks (416-602 hours). *Version 2:* 24–36 weeks (618 hours).

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 5/68–12/78.

Objectives: To provide Navy musicians with essential performance skills and with basic knowledge of theory, harmony, and ear training for purposes of instrumental technique improvement.

Instruction: *All Versions:* Fundamental notation; directions for performance and dance band devices; elementary phrase and triad construction; transposition and instruments; dance band notation reading; marching signal recognition; tuning, ensemble, and sight reading; marching position and drills; elements of music: aural and written rhythms and tonal relationships; transposing; self-study discipline and private instruction; indoctrination in history, structure, and procedures of Navy school. *Version 2:* Includes simple four-part writing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary theory/harmony (excluding four part writing), 1 in ear training/sight singing, 2 in jazz theory/ improvisation, 2-4 in applied performance (individual instruction) (2/79); in the upper-division baccalaureate category, 2 semester hours in performing ensembles (2/79) *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in music ensemble, 6 in music theory, 4 in applied music (2/74).

NV-1205-0002

MUSIC ADVANCED, CLASS C-7
(Assistant Bandleader)
(Music, Class B, Advanced)
(Advanced Course Class B)
(Naval School of Music, Class B, Advanced)

Course Number: *Version 1:* A-450-0014. *Version 2:* A-450-0011.

Location: School of Music, Little Creek, Norfolk, VA; School of Music, Amphibious Base, Norfolk, VA.

Length: *Version 1:* 40 weeks (1200 hours). *Version 2:* 52 weeks (2080 hours).

Exhibit Dates: *Version 1:* 1/78–Present. *Version 2:* 1/68–12/77.

Objectives: To train student bandleaders to plan and prepare a Navy unit band for any of its wide variety of commitments, to conduct with skill any engagement performed by a Navy unit band, to effectively administer a Navy unit band, to plan and conduct an effective in-service training program, to apply the correct procedures for supplying a Navy unit band with instruments and accessories, to arrange music for a band and its components, to perform basic fundamentals on all band instruments, and to make minor repairs on all band instruments; and to provide the student bandleader with training in the theories, principles, and mechanics of conducting, the importance and methods of good band administration, the techniques of arranging, and the theories of advanced harmony.

Instruction: *Version 1:* The course comprises block courses in Band Administration, including instruction in band locations and leader billet allowance, organization and instrumentation, regulations, instrument supply, and personnel records; basic repair of wind instruments; Advanced Band Management, including personnel and public relation; Advanced Band Administration, covering rules for ceremonies, reviews, parades, and presentations; Instrument Class, covering performance on percussion, woodwind, and brass instruments; Drum Majoring, covering baton and instrument positioning, and general principles of marching bands; Advanced Arranging, including instruction on notation, melodic and harmonic analysis, instrumentation, principles of scoring and styles, and project completion and analysis; Advanced Ear Training, including instruction in aural recognition, sight-singing of diatonic melodies, scale fingerings, basic keyboard harmony, and solfeggio, melodic and harmonic dictation; Advanced Harmony, covering a review of basic harmony, secondary dominants, chromatically altered chords, and advanced modulation; Advanced Dance Band Rehearsal Techniques, including performance devices, rehearsal techniques, materials, physical setup and transportation, and dance band literature; Advanced Conducting, including rehearsal psychology, choral and accompaniment techniques, complex beat patterns, showmanship, and practical experience conducting from a full score; Rehearsal Planning and Techniques practical application of conducting skills during daily rehearsals; Advanced Leadership and Speech, covering basic leadership skills, public speaking, and military subjects; and Dance Band Rehearsal Techniques, including practical application of all rehearsal techniques. *Version 2:* The course comprises twenty blocks: Band Administration, including instruction in band locations and leader billet allowance, organization and instrumentation, regulations, instrument supply, and personnel records; Advanced Music Survey, covering a complete history of Western music; Advanced Maintenance and Repair, covering repair of wind and string bass instruments; Advanced Band Management, including personnel and public relations; Advanced Band Administration, covering rules for ceremonies, reviews, parades, and presentations; Advanced Form and Analysis, covering phrase, cadence, period and part-form analysis, as well as rondo, sonata, and irregular-form analysis; Advanced Instrument Class, covering performance on percussion, woodwind, and brass instruments; Advanced Music Survey, including a survey of band literature and current trends in popular music; Advanced Drum Majoring, covering baton and instrument positioning, and general principles of marching bands; Advanced Arranging, including instruction on notation, melodic and harmonic analysis, instrumentation, principles of scoring and styles, and project completion and analysis; Advanced Ear Training, including instruction in aural recognition, sight-singing of diatonic melodies, scale fingerings, basic keyboard harmony, and solfeggio, melodic and harmonic dictation; Advanced Harmony, covering a review of basic harmony, secondary dominants, chromatically altered chords, and advanced modulation; Advanced Dance Band Rehearsal Techniques, including performance devices, rehearsal techniques, materials, physical setup and transportation, and dance band literature; Advanced Counterpoint, including species, canonic, three-voice, and invertible counterpoint and fugue; Advanced Conducting II, including rehearsal psychology, choral and accompaniment techniques, complex beat patterns, showmanship, and practical experience conducting from a full score; Conducting I, including basic beat patterns, musical terms and musical markings; Practical Conducting, covering rehearsal planning and techniques; Advanced Conducting III and IV, including advanced band literature and conducting techniques, and practical application of conducting skills during daily rehearsals; Advanced Leadership and Speech, covering basic leadership skills, public speaking, and military subjects; and Dance Band Rehearsal Techniques, including practical application of all rehearsal techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in advanced theory/harmony/ear training, 1 in elementary class piano, 1 in instrument techniques (brass, woodwind and percussion) (2/79); in the upper-division baccalaureate category, 4 semester hours in advanced arranging, 4 in advanced conducting, 3 in dance band techniques, 3 in band management as an elective, 2 in public speaking, 3 in personnel managment as an elective (2/79); in the graduate degree category, 2 semester hours in advanced conducting based on institutional evaluation (2/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in music survey, in the upper-division baccalaureate category, semester hour in maintenance of musical instruments, 15 in music theory, 2 in music performance, 1 in music education, 2 in music ensemble, 2 in basic conducting, 6 in advanced conducting (4/74).

NV-1205-0003

MUSIC INTERMEDIATE, CLASS C-1
(Music Intermediate, Class C)
(Music, Class C, Refresher)
(Naval School of Music, Class C, Refresher)
(Refresher Course (Class C))
(Band Group Leader (Army))

Course Number: A-450-0012; 450-F2.

Location: School of Music, Little Creek, Norfolk, VA.

Length: *Version 1:* 23 weeks (960 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 8/75–Present. *Version 2:* 2/70–7/75.

Objectives: To advance performance skills and to provide student musicians with a refresher course in the proper care of musical instruments, development of effective approaches to tone production and techniques, knowledge of written and sounding ranges of all instruments of the band, transposition of melodies for all instruments of the band, basic mechanics of transcribing and scoring for military marching and dance bands, performance of baton signals and positions, methods of aligning and maneuvering marching bands on fields, techniques of conducting beat patterns at varying dynamic levels, and basic knowledge of music theory, harmony, and sight singing; and to prepare student musicians for leadership of concert, marching, or dance bands.

Instruction: *Version 1:* The course comprises block courses in Individual Instrument Instruction and Individual Practice, including instruction designed to fit the capabilities of each student and technical instruction in embouchure formation, breathing, attack and release, tone, intonation, articulation, flexibility, instrumental and dynamic range, rudiments, and sight reading; Theory, Harmony, Ear Training, covering a review of music theory and analysis, four-part writing, figured bass for dealing with triad inversions, dominant 7th chords, secondary triads, chord progressions, non-harmonic tones, diatonic 7th, higher dominant dischords, simple modulation, and secondary dominant chords; Instrumentation, covering the unique properties and scoring problems of each instrument of the band through discussion of theoretical practice, part and score analysis, and simple scoring for small groups of instruments; Arranging, covering scoring for woodwind choirs, brass choirs, marching bands, and dance bands; Drum Majoring, including baton signals and their use in marching formations; Conducting, including basic beat patterns, preparatory beats, tempo changes, and honors music; Leadership, including principles of leadership, command responsibilities, and special functions of petty officers; Concert Band, including rehearsals of standard and current publications for military and concert bands; Dance Band, including rehearsals of standard and current publications for dance bands. *Version 2:* The course comprises ten blocks: Indoctrination, including instruction in the proper care and maintenance of all musical equipment; Individual Instrumentation Instruction and Individual Practice, including individual instruction designed to fit the capabilities of each student and technical instruction in embouchure formation, breathing, attack and release, tone, intonation, dealing with triad inversions, dominant 7th chords, second triads, chord progressions, non-harmonic tones, diatonic 7th, higher dominant dischords, simple modulation, and secondary dominant chords; Instrumentation, covering the unique properties and scoring problems of each instrument of the band through discussion of theoretical practice, part and score analysis, and simple scoring for small groups of instruments; Arranging, covering scoring for woodwind choirs, brass choirs, marching bands, and dance bands; Drum Majoring, including baton signals and their use in marching formations; Conducting, including basic beat patterns, preparatory beats, tempo changes, and honors music; Leadership, including principles of leadership, command responsibilities, and special functions of petty officers; Concert Band, including rehearsals of standard and current publications for military and concert bands; Dance Band, including rehearsals of standard and current publications for dance bands.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 8 semester hours in intermediate theory/harmony/ear training, 2 in applied music (individual instruction on principle instrument), 1 in applied music: woodwind, percussion or brass (secondary instrument), 2–4 in concert performing ensembles, 2 in marching band (2/79); in the upper-division baccalaureate category, 2–3 semester hours in instrumental arranging, 1 in elementary conducting (2/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in music theory, 6 in music performance, and an additional 3 to 6 semester hours in music performance on the basis of performance audition (4/74).

NV-1303-0001

1. MACHINIST'S MATE, CLASS A1 (600 PSI)
2. MACHINIST'S MATE, (600 PSI) CLASS A1
3. MACHINIST'S MATES, CLASS A
4. MACHINIST'S MATE, CLASS A

Course Number: A-651-0082; A-651-0015.

Location: Service Schools Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 4 weeks (160 hours). *Version 2:* Self-paced 6–8 weeks (336–380 hours). *Version 3:* 11–15 weeks

(455 hours). *Version 4:* 12 weeks (365 hours).

Exhibit Dates: *Version 1:* 9/77-Present. *Version 2:* 1/75-8/77. *Version 3:* 2/68-12/74. *Version 4:* 5/63-1/68.

Objectives: To train personnel in the basic operation of high pressure steam plants and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in the duties of machinist's mates, class A, including refrigeration, auxiliary plant operation, lubrication, and propulsion systems. *Version 1:* Self-paced instruction includes steam turbines, turbo-generators and duties of watch standing. *Version 2:* Self-paced instruction includes nomenclature, operation, systems diagrams, and maintenance of the 600 PSI propulsion system and supporting auxiliary equipment. *Version 3:* Topics include pump maintenance, and pneumatics and hydraulics. Algebra, thermodynamics, trigonometry, and chemistry covered in nuclear option; and refrigeration, distillation, and auxiliary plant operation covered in conventional option. *Version 4:* Topics include basic information; mathematics review and blueprint reading; tools, instruments, and materials; basic principles of steam engineering; temperature and pressure measuring instruments; heating, ventilation, and insulation; valves, pipes, tubing, and fittings; pumps and accessories; principal piping systems; logs, records, sound-powered telephones, and circuits; damage control and survival at sea; and distilling plants.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in steam plant orientation (1/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in steam plant orientation (1/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in automotive or mechanical programs and 6 in steam plant systems maintenance or related programs (9/77). *Version 3:* In the vocational certificate category, 8 semester hours as a technical elective in mechanical maintenance, in the lower-division baccalaureate/associate degree category, 6 semester hours as a technical elective in mechanical maintenance, and 3 additional semester hours in science for students completing the nuclear option (7/74). *Version 4:* In the vocational certificate category, 8 semester hours as a technical elective in mechanical maintenance (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours as a technical elective in mechanical maintenance (7/74).

NV-1303-0002

MACHINIST'S MATE CLASS A1 (1200 PSI)

Course Number: A-651-0053; A-651-0015.

Location: Service School Command, Great Lakes, Il.

Length: *Version 1:* 9 weeks (277 hours) *Version 2:* Self-paced 6-8 weeks (336-380 hours) *Version 3:* Self-paced 6-8 weeks (336-380 hours).

Exhibit Dates: *Version 1:* 7/85-Present. *Version 2:* 9/77-6/85. *Version 3:* 1/75-8/77.

Objectives: To train personnel in the operation of a steam propulsion plant.

Instruction: *Version 1:* Lectures and practical exercises in the principles, operation and maintenance of a high pressure steam propulsion plant including boilers, combustion theory, steam systems, water chemistry, lubricating oil systems, electrical systems and firefighting systems. *Version 2:* Lectures and practical exercises in the operation of a steam propulsion plant including firefighting systems, major components such as pumps, piping, condensers, turbines reduction gearing, lube systems, service and air control systems and auxiliary systems. *Version 3:* Self-paced instruction including nomenclature, operation, systems diagrams and maintenance of the 1200 PSI systems including lubrication and propulsion systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering or 3 in power plant fundamentals (1/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in systems operations or related programs (1/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in automotive or mechanical programs and 6 in steam plant systems maintenance or related programs (1/82).

NV-1304-0001

INTRODUCTION TO OCEAN ENGINEERING

Course Number: A-4A-0025.

Location: Naval School Civil Engineer Corps Officers, Port Hueneme, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/70-1/88.

Objectives: To provide students with a general knowledge of ocean engineering.

Instruction: Lectures in problems and techniques of ocean engineering, including physical and geological oceanography, legal aspects, and diving.

Credit Recommendation: In the vocational certificate category, 2 semester hours in ocean engineering (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 2 semester hours in marine science (12/73).

NV-1304-0002

AIR OCEAN ENVIRONMENT COURSE, CLASS C

Course Number: None.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 4-7 weeks (160-280 hours).

Exhibit Dates: 2/65-1/88.

Objectives: To provide enlisted personnel with a basic understanding of the physics and chemistry of oceans, and the principles of underwater sound.

Instruction: Lectures and practical experiences in the fundamentals of underwater acoustics, physical oceanography, observational equipment and procedure, and environmental analysis and prediction.

Credit Recommendation: In the vocational certificate category, 6 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 6 semester hours in ocean engineering (12/73).

NV-1304-0003

AVIATION ANTISUBMARINE WARFARE (AASW) FOR NAVAL FLIGHT OFFICERS, P3C

Course Number: E-2D-0072; E-2D-072.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2-3 weeks (82-105 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To train naval flight officers to operate in equipped VP squadrons and to teach tactics and weaponry of antisubmarine warfare.

Instruction: Lectures in the procedures for antisubmarine warfare, including oceanography, underwater acoustics, AASW tactical procedures, AASW sensors and associated equipment, current electronic warfare concepts and requirements, and mission procedures. Includes mathematical treatment of acoustic and oceanographic principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in oceanography (4/74); in the upper-division baccalaureate category, 2 semester hours in oceanography (4/74).

NV-1304-0004

AEROGRAPHER'S MATE, CLASS A

Course Number: C-420-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 14-18 weeks (510-717 hours).

Exhibit Dates: 3/56-1/88.

Objectives: To train enlisted personnel to perform as aerographer's mates.

Instruction: Lectures and practical exercises in meteorology, including matter, heat, humidity, and the atmosphere; surface observations of temperature, psychrometric, wind, pressure, precipitation, and sky conditions; upper-air observations; synoptic codes; oceanography; instrumentation, charts, logs; weather map analysis; and basic typing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in weather forecasting or meteorology (5/74).

NV-1304-0005

AEROGRAPHER'S MATE, CLASS B

Course Number: *Version 1:* C-420-2011. *Version 2:* C-420-11.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* 18 weeks (583 hours). *Version 2:* 22-26 weeks (800-1033 hours).

Exhibit Dates: *Version 1:* 8/73-1/88. *Version 2:* 2/56-7/73.

Objectives: To train aerographer's mates in meteorology, air observation, and supervision and preparation of weather and oceanographic forecasts.

Instruction: *All Versions:* Lectures and practical exercises in meteorology, air observation, supervision and preparation of weather and oceanographic forecasts including various chart analyses, satellite meteorology, instruments, oceanography, map analysis, and forecasting under various conditions. *Version 2:* Includes atmospheric conditions, tropical meteorology, numerical weather prediction, management, mathematics, and physics applicable to meteorology, and flight observation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in weather forecasting or meteorology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in weather forecasting or meteorology (5/74); in the upper-division baccalaureate category, 3 semester hours in weather forecasting or meteorology (5/74). *Version 2:* In the vocational certificate category, 12 semester hours in weather forecasting or meteorology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in weather forecasting or meteorology (5/74); in the upper-division baccalaureate category, 6 semester hours in weather forecasting or meteorology (12/68).

NV-1304-0006

Meteorological Satellite, Class C

Course Number: Not available.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 4 weeks (140 hours).
Exhibit Dates: 8/66–12/68.
Objectives: To train aerographer's mates in the operation and use of meteorological satellites.
Instruction: Lectures and practical exercises in the operation of automatic picture transmission terminal ground equipment and the interpretation and application of the received data, including equipment and procedure, operational satellite system, data acquisition and gridding, operation of APT terminal ground equipment, extraction and use of APT data, synoptic application, and operational use of APT equipment.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1304-0007

Ocean Systems Technician Equipment Maintenance

Course Number: A-130-0241.
Location: Fleet Anti-Submarine Warfare Training Center, Atlantic, Norfolk, VA.
Length: 23 weeks (920 hours).
Exhibit Dates: 1/81–Present.
Objectives: To train personnel in the operation, theory, maintenance and troubleshooting of a variety of computer subsystems and peripherals.
Learning Outcomes: Upon completion of this course, the student will be able to: (1) perform diagnostic testing and repair of computer systems, (2) test and repair computer peripherals including terminals, disk drives, printers and multiplexers, (3) perform routine maintenance on computers and peripherals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer system troubleshooting, maintenance and repair, 3 in computer peripheral devices (8/83).

NV-1304-0008

Ocean Systems Operational Procedures Officer

Course Number: S-2G-0405.
Location: Readiness Training Facility, Virginia Beach, VA.
Length: 4 weeks (160 hours).
Exhibit Dates: 1/89–Present.
Learning Outcomes: Upon completion of the course the student will be able to oversee the integrated undersea surveillance system.
Instruction: Lectures and practical exercises on topics specific to the surveillance system including communications, data and signal processing equipment interface, and watch coordination. Only units 1, 5, and 6 were evaluated; the remainder of the course is classified.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1304-0009

Ocean Systems Operational Procedures Enlisted

Course Number: S-210-0400.
Location: Readiness Training Facility, Virginia Beach, VA.
Length: 4 weeks (160 hours).
Exhibit Dates: 1/89–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate a specific undersea suveillance system.
Instruction: Lectures and practical exercises related to the operation of the undersea surveillance system. Topics include signal flow, operations, message receipt and routing, and plot and status board operations. Only units 1, 5, and 6 were evaluated; the remainder of the course is classified.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1304-0010

Ocean Systems Advanced Acoustics

Course Number: S-210-0401.
Location: Readiness Training Facility, Virginia Beach, VA.
Length: 14 weeks (560 hours).
Exhibit Dates: 5/87–Present.
Learning Outcomes: Upon completion of the course the student will be able to tactically deploy signal and data processing equipment and apply basic mathematical models (logarithms and Fourier series) to the analysis of sound wave propagation in sea water.
Instruction: Lectures and practical exercises in mathematics, basic oceanography, equipment signal flow, automated data processing, and acoustic signal analysis. Topics include statistical means, standard deviation, Fourier series, characteristics of sea water, and sound wave propagation in sea water. Only units 1-3 were evaluated. The remaining units were classified.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics; in the upper-division baccalaureate category, 3 semester hours in ocean acoustics (3/90).

NV-1401-0001

Disbursing Clerk (Pay Records Maintenance) Class C

Course Number: A-542-0012.
Location: Naval School Command, Norfolk, VA.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/71–1/82.
Objectives: To provide enlisted personnel with the knowledge and skills involved in the maintenance of pay records.
Instruction: For this course after 1/82 see NV-1401-0004. Lectures and practical exercises in the use of the calculator; computation of pay; items of pay and allowances; types of deductions and collections; and corrections, opening, closing, and transmittal of pay records.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in clerical procedures (2/74).

NV-1401-0002

Disbursing Clerks, Class A

Course Number: A-542-0011.
Location: *Version 1:* Naval Technical Training Center, Meridian, MS; *Version 2:* Naval Schools Command, Newport, RI; Naval Schools, Supply, San Diego, CA.
Length: *Version 1:* Self-paced 8 weeks (318 hours). *Version 2:* 9–11 weeks (330–360 hours).
Exhibit Dates: *Version 1:* 1/82–Present. *Version 2:* 12/59–12/68.
Objectives: To train enlisted personnel to perform the duties of naval disbursing clerks.
Instruction: *All Versions:* Lectures and practical experience in basic naval funds disbursement procedures; accounting; pay and allowances; insurance, income tax, and savings deposits; vouchers; public funds; and typing and correspondence.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in clerical finance, 3 in typing (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in clerical finance and credit in typing on the basis of institutional evaluation (12/68).

NV-1401-0003

Automated Supply and Accounting Systems Afloat (AN/UYK-5(V))

Course Number: A-8B-0019.
Location: Supply Corps School, Athens, GA.
Length: 2 weeks (65 hours).
Exhibit Dates: 7/72–12/81.
Objectives: To train supply officers in automated supply systems afloat.
Instruction: Lectures and practical exercises in automated supply systems afloat, including systems operation, automatic data processing functions not related to supply and accounting, and resources utilization.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1401-0004

Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures

Course Number: A-542-0012.
Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 2/82–Present.
Objectives: Upon completion of the course the student will be able to maintain military pay records to include leave and earnings statements, personnel financial records, and pay entitlements.
Instruction: Lectures and performance tests including the filling-out and maintaining of pay forms and transfers.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/89).

NV-1401-0005

Senior Disbursing Clerk (DK) Enlisted Refresher

Course Number: A-542-0015.
Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.
Length: 5 weeks (240 hours).
Exhibit Dates: 4/84–Present.
Learning Outcomes: Upon completion of the course the student will perform duties of a disbursing clerk in processing travel and payments, disbursing military pay and allowances, processing financial returns, and maintaining the cashbook.

Instruction: Classroom lectures, discussions, workbook exercises, quizzes, and a final exam on the following topics: organization of the Navy pay and accounting system including the supporting publications, public vouchers, foreign currency conversion, financial returns, automated military pay disbursing system, military leave, and travel payments and allowances.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in accounting procedures (military pay and allowances) (12/89).

NV-1402-0001

DATA PROCESSING TECHNICIAN, CLASS C, SYSTEMS ANALYSIS AND DESIGN
(Data Processing Systems Analysis, Class C)

Course Number: A-532-0019; A-532-019.
Location: Service School Command, San Diego, CA.
Length: 4 weeks (110-114 hours).
Exhibit Dates: 12/68-1/88.
Objectives: To provide experienced programmers with basic training in systems analysis and design.
Instruction: Lectures and practical experience in data processing systems analysis, including data communication concepts; data gathering and data analysis; system requirements specification; system design fundamentals; technical and economic feasibility study, manpower planning; system documentation; conversion, evaluation, and maintenance planning; and program evaluation and review techniques.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business systems analysis (2/74).

NV-1402-0002

1. AN/USQ-20 BASIC PROGRAMMING
2. NAVAL TACTICAL DATA SYSTEM (NTDS) BASIC PROGRAMMER (OPERATIONAL)

Course Number: K-2G-1020.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: *Version 1:* 8 weeks (233 hours). *Version 2:* 7 weeks (210 hours).
Exhibit Dates: *Version 1:* 4/68-1/88. *Version 2:* 9/64-3/68.
Objectives: To train personnel in the basic principles of programming and operating the NTDS unit computer.
Instruction: Practical application of principles of programming, basics of digital computers, flowcharting, unit computer assembler programming techniques.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 4 semester hours in computer programming (12/68). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in computer programming (12/68).

NV-1402-0003

NAVAL TACTICAL DATA SYSTEMS (NTDS)—DATA COLLECTION AND DISPLAY (BASIC ENLISTED)

Course Number: J-2G-352; J-221-352.
Location: Fleet Combat Directions Systems Training Center Atlantic, Dam Neck, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 1/73-1/88.
Objectives: To provide enlisted personnel with the fundamental knowledge and skills to perform data input functions.
Instruction: Operational experience in NTDS data links and communication procedures, data input console and program functions, and data display equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1402-0004

NAVAL TACTICAL DATA SYSTEMS (NTDS) INTERMEDIATE PROGRAMMER COURSE (CS-1)

Course Number: K-2G-1026.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 3 weeks (86-90 hours).
Exhibit Dates: 3/66-1/88.
Objectives: To teach military or civilian personnel with previous programming experience the use of CS-1 compiling system language.
Instruction: Lectures and practical exercises on principles and concepts, programming techniques, and data design operations.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (2/74).

NV-1402-0005

NAVAL TACTICAL DATA SYSTEM (NTDS)—DATA UTILIZATION—BASIC
(NTDS Data Utilization)

Course Number: J-2G-0093; K-2G-0038; K-2G-3532; J-221-3532; J-2G-353; J-221-353.
Location: Fleet Combat Training Center Pacific, San Diego, CA; Fleet Combat Training Center Atlantic, Dam Neck, Virginia Beach, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 2/73-1/88.
Objectives: To provide officers and senior enlisted personnel with fundamental knowledge and skills as related to the overall operation of the Naval Tactical Data System, stressing performance on the data user console.
Instruction: Lectures and practical exercises in NTDS fundamentals; data display equipment; data input console functions; data user console functions; data links and communications procedures; operational program functions; related equipment/systems.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/86).

NV-1402-0006

NAVAL TACTICAL DATA SYSTEMS (NTDS) DATA UTILIZATION
(Naval Tactical Data Systems (NTDS) Evaluator/Supervisor)

Course Number: K-2G-1010.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 3-4 weeks (104-136 hours).
Exhibit Dates: 12/68-1/88.
Objectives: To train personnel in the operation of the naval technical data system.
Instruction: Introduction to digital computers; block diagramming; data processing equipment; input, user, and system functions; and operational mock-up.
Credit Recommendation: In the upper-division baccalaureate category, credit in computer principles on the basis of institutional evaluation (12/68).

NV-1402-0007

IBM SYSTEM 360 COMPUTER SYSTEM PROGRAMMING (COBOL LANGUAGE), CLASS C

Course Number: A-532-0015.
Location: Data Processing Technician Class C School, San Diego, CA.
Length: 4 weeks (102 hours).
Exhibit Dates: 7/71-1/88.
Objectives: To teach data processing technicians the concepts and techniques of coding programs in COBOL.
Instruction: Lectures and practical exercises in drawing program flow charts, COBOL language, program structures, and debugging programs.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0008

FLEET DATA PROCESSING OFFICERS TRAINING

Course Number: A-8B-0016.
Location: Naval Supply Corps School, Athens, GA.
Length: 3-4 weeks (120-180 hours).
Exhibit Dates: *Version 1:* 6/83-Present. *Version 2:* 1/72-5/83.
Objectives: To train officers in ADP operations management, analysis, and programming.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) match computer concepts with appropriate computer terminology, (2) develop a flowchart of at least 25 symbols, (3) write a computer program using the BASIC language, (4) manage a computer center including managing resources, supervising personnel and providing services to users. *Version 2:* Lectures and practical exercises in operations management, flow charting, design of programs, and computer language (COBOL).
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (2/74).

NV-1402-0009

CMS-2 PROGRAMMING (CP-642 A&B/USQ-20)

Course Number: J-7E-3772; J-532-3772.
Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.
Length: 4 weeks (140 hours).
Exhibit Dates: 12/71-Present.
Objectives: To train experienced computer programmers to use the CMS-2 compiling system for automatic programming on CP-642 A&B/USQ-20 computers.
Instruction: Lectures and practical exercises in CMS-2 compiler language and operations; CS-1, CMS-2 differences and similarities; and automatic data processing programming.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0010

DD-963 NAVAL TACTICAL DATA SYSTEMS (NTDS) DATA INPUT

Course Number: J-221-0075; K-221-0075.

Location: Fleet Combat Training Center, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.
Length: 2-3 weeks (70-105 hours).
Exhibit Dates: 9/77-Present.
Objectives: To train selected enlisted personnel in the skills related to the data collection area of the DD963 Naval Tactical Data System.
Instruction: Classroom lectures and laboratory exercises in NTDS equipment, input functions, user functions, data links, and mock-up/chalk talk.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/86).

NV-1402-0011

Digital Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.
Location: Electronics Technician School, Great Lakes, IL.
Length: 8 weeks (240 hours).
Exhibit Dates: 10/62-1/78.
Objectives: To train personnel in computer basics.
Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductor logic, analog computer fundamentals, analog components and mathematical applications, analog mechanization, hybrid computer fundamentals, conversion techniques, digital differential analyzer, and algebra.
Credit Recommendation: In the vocational certificate category, 2 in switching circuits, 2 in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 1 in switching circuits, 1 in analog circuits (4/74); in the upper-division baccalaureate category, 3 semester hours in computing science (12/68).

NV-1402-0012

Digital and Analog Computer
Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.
Location: Electronics Technician School, Great Lakes, IL.
Length: 14 weeks (420 hours).
Exhibit Dates: 10/62-12/68.
Objectives: To train personnel in computer basics.
Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductor logic, analog computer fundamentals, analog components and mathematical applications, analog mechanization, algebra, hybrid computer fundamentals, conversion techniques, and digital differential analyzer.
Credit Recommendation: In the vocational certificate category, 3 in switching circuits, 2 in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 2 in switching circuits, 1 in analog circuits (4/74); in the upper-division baccalaureate category, 5 semester hours in computing science (12/68).

NV-1402-0013

Digital, Analog, and Hybrid
Computer Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.
Location: Electronics Technician School, Great Lakes, IL.
Length: 16 weeks (480 hours).
Exhibit Dates: 10/62-12/68.
Objectives: To train personnel in computer basics.
Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductors, logic, analog computer fundamentals, analog components and mathematical applications, algebra, analog mechanization, hybrid computer fundamentals, conversion techniques, and digital differential analyzer.
Credit Recommendation: In the vocational certificate category, In the vocational certificate category, 2 semester hours in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 2 in switching circuits and 1 in analog circuits (4/74); in the upper-division baccalaureate category, 6 semester hours in computing science (12/68).

NV-1402-0014

Computer Programming Orientation

Course Number: K-2G-1021.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 10/65-12/68.
Objectives: To teach military, civilian, and contractor personnel the basic principles of programming the NTDS digital computer, the CS-1 compiling system, and the concepts of modular programming.
Instruction: Lectures on the basics of digital computers; principles of programming; NTDS unit computer; principles of operation and programming techniques; compiling language (CS-1); modular programming.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 2 semester hours in computer management (12/68).

NV-1402-0015

Basic Programming Orientation for
Middle Management

Course Number: K-532-0001.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 2 weeks (56 hours).
Exhibit Dates: 11/71-1/88.
Objectives: To train management personnel in the basic principles of digital computer programming in machine code, direct code, and source language, and in the operational characteristics of the NTDS format computer.
Instruction: Lectures and practical exercises in orientation to programming; arithmetic of programming; programming techniques; program languages and methods of use; equipment; and practical programming.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer programming (2/74).

NV-1402-0016

CP-967/UYK Computer Maintenance
(Electronics Technician, Class
C1)

Course Number: A-150-0081.
Location: Service School Command, San Diego, CA.
Length: 6 weeks (180 hours).
Exhibit Dates: 10/70-1/88.
Objectives: To train electronics technicians familiar with digital principles to maintain and repair the 3-M System's CP-967/UYK computer and be able to operate the system in all modes.
Instruction: Lectures and practical exercises on operation of computer, preventive maintenance, troubleshooting, replacement of malfunctioning components, and circuitry of components.
Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computer maintenance (11/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer maintenance (11/77).

NV-1402-0017

CMS-2 Compiler Language
Programming

Course Number: K-532-0003.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 5 weeks (150 hours).
Exhibit Dates: 11/72-1/88.
Objectives: To train military and civilian personnel to write, execute, and interpret computer programs in assembler- and compiler-level languages.
Instruction: Lectures on assembly and compiler languages, and practical programming procedures and practices.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0018

Data Analysis Class C1
(Data Analysis, Class C)
(Aviation Maintenance Data Analysis,
Class C)

Course Number: *Version 1:* C-516-2011. *Version 2:* None. *Version 3:* None.
Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington, TN.
Length: *Version 1:* 4-6 weeks (174-200 hours). *Version 2:* 6 weeks (232 hours). *Version 3:* 7 weeks (272-280 hours).
Exhibit Dates: *Version 1:* 2/75-Present. *Version 2:* 4/70-1/75. *Version 3:* 9/64-3/70.
Objectives: To train enlisted personnel and officers in the field of maintenance data analysis.
Instruction: *All Versions:* Lectures on graphic presentations, data documentations, descriptive and inferential statistics, control charts, work measurement, linear correlation, and analytical projection. *Version 2:* Includes lectures on maintenance data documentations, data extraction, algebra and time series. *Version 3:* Includes lectures on maintenance data documentations, data extraction, algebra and time series.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business statistics (9/89). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business statistics (2/74). *Version 3:* In the upper-division baccalaure-

ate category, 4 semester hours in managerial statistics (12/68).

NV-1402-0019

Computer Programming AN/USQ-20 Machine Language - Basic

(AN/USQ-20 Machine Language Programming)

Course Number: J-532-0002; K-532-0002.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA; Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 5 weeks (142-175 hours).

Exhibit Dates: *Version 1:* 1/84-Present. *Version 2:* 11/72-12/83.

Objectives: To train military and civilian personnel to write, execute, and interpret computer programs written in either mnemonic or machine-formatted coding.

Instruction: *Version 1:* This is an entry level programming course designed to expose students to the fundamentals of machine language programming. Lectures and laboratory exercises in the arithmetic of computers, programming techniques and machine instruction for a 30-bit word AN/USQ-20 computer. *Version 2:* Lectures and practical exercises in arithmetic of computers; programming techniques; machine instruction for CP-642B, CMS-2 direct codes; hardware; practical programming.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in machine language programming (9/84). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0020

DD-963 Basic Circuit Concepts for Gas Turbine Controls, Class C1

Course Number: A-652-0134.

Location: Service School Command, Great Lakes, IL.

Length: 2-3 weeks (90-106 hours).

Exhibit Dates: *Version 1:* 2/82-8/87. *Version 2:* 1/77-1/82.

Objectives: To provide a basic understanding of devices and logic circuit operations for computer control systems.

Instruction: For this course after 8/87 see NV-1715-1294. *Version 1:* Lectures and practical exercises in devices and logic circuit operations for computer control systems including base conversion, TTL and RDL, logic gates and basic digital circuits. *Version 2:* Major areas of instruction include external circuit analysis to identify analog computer systems components, interpretation of basic logic circuit diagrams in terms of Boolean expressions and Veitch diagrams, testing and troubleshooting basic logic circuits and combinations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer logic (10/83). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in computer logic (1/82).

NV-1402-0021

Basic Programming Concepts, Class C

Course Number: A-532-0012.

Location: Data Processing Technician Class C School, San Diego, CA.

Length: 3 weeks (110 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To train enlisted personnel in the general concepts of digital computers and flow charting.

Instruction: Lectures and practical exercises in data representation, central processing unit design, input/output, and introduction to software, flow charting, and program documentation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in digital computer concepts (3/72).

NV-1402-0022

Data Processing Technician, Class A

Course Number: *Version 1:* A-531-0016. *Version 2:* A-531-016.

Location: Service School Command, San Diego, CA; Service School Command, Bainbridge, MD.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 12-16 weeks (360-380 hours).

Exhibit Dates: *Version 1:* 2/71-1/86. *Version 2:* 1/68-1/71.

Objectives: To train enlisted personnel in the operation of electric accounting machines and AN/UYK-5(v) computers.

Instruction: Lectures and operating experience in data processing equipment, including card punch, sorter, interpreter, reproducing punch, collator, accounting machine, and digital computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (2/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in unit record and computer operation (12/68).

NV-1402-0023

Naval Tactical Data System (NTDS) (Data Utilization)

(DD-963 Naval Tactical Data System (NTDS) Data Utilization)

Course Number: J-2G-0074; K-2G-0074.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.

Length: 2-3 weeks (70-105 hours).

Exhibit Dates: 8/77-Present.

Objectives: To train officers and senior petty officers in the current operating procedures, capabilities, and limitations of the DD963 Naval Tactical Data System.

Instruction: Classroom lectures and laboratory exercises in NTDS equipment, user function, input functions, data links, and mock-up/chalk talk. Includes functional capabilities and front panel controls of the tactical data system and subsystems such as I/O console, monitors, decoders, weapon control panel, and data links. Proper operating procedures are stressed along with the interaction with and responsibilities of other weapon control personnel.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/86).

NV-1402-0024

Central Navigation Computer (CNC) (Processor II)

Course Number: A-193-0337; A-193-0248; F-193-090.

Location: *All Versions:* FBM Submarine Training Center, Charleston, SC. *Version 1:* Submarine School Groton, New London, CT.

Length: 3 weeks (90-119 hours).

Exhibit Dates: *Version 1:* 1/75-Present. *Version 2:* 11/72-12/74.

Objectives: To train navigation electronics technicians to understand and perform advanced maintenance on the CP-890 (CNC) digital computer instruction set implementation logic.

Instruction: *All Versions:* Lectures and practical exercises in circuitry timing considerations and logic analysis on the CP-890 (CNC) computer, including breakpoint feature, keyboard/keyset communication, monitor clock, memory lockout and executive mode features. Logical implementation of interrupts, jumps, program faults, shift instructions, repeat, multiply, divide, square root, and floating-point instructions is also included. *Version 1:* Laboratory exercises include implementation of malfunctions, fault isolation and repair procedures. *Version 2:* Course is highly specialized; however, many of the concepts studied also apply to commercial computers.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in computer organization (instruction set implementation)(3/81). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in computers or computer science (3/74).

NV-1402-0025

Computer CP-890A, B/UYK Processor Maintenance I

(Central Navigation Computer (Processor I))

Course Number: A-193-0336; A-193-0247; F-193-089.

Location: Trident Training Facility, Bangor Bremerton, WA; FBM Submarine Training Center, Charleston, SC; Naval Submarine School Groton, New London, CT.

Length: *Version 1:* 3 weeks (114 hours). *Version 2:* 2 weeks (60 hours).

Exhibit Dates: *Version 1:* 1/75-6/83. *Version 2:* 11/72-12/74.

Objectives: To train navigation electronics technicians to understand, maintain and repair digital navigation computers, processors and memories.

Instruction: For this course after 6/83 see NV-1402-0141. *All Versions:* Lectures and practical exercises in functional operation and circuit analysis of computer power circuitry; functional operation and logic analysis of timing and control, main memory, and NDRO memory circuits; timing considerations and logic analysis of a processor, indirect sequences, and all read-and-store class instructions. *Version 1:* The laboratory exercises include operational and self test features, interpretation of malfunctions and fault isolation and repair procedures. *Version 2:* The course is highly specialized; knowledge acquired by student is applicable only to special-purpose military computers.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in computer organization (CPU and memory) (3/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1402-0026

Central Navigation Computer (CNC) (Input/Output)

Course Number: A-193-0249; F-193-091.

Location: FBM Submarine Training Center, Charleston, SC; Naval Submarine School Groton, New London, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train navigation electronics technicians to understand and maintain CP-890/UYK digital navigation computers input/output sections.

Instruction: Lectures and practical exercises in functions of the CNC input/output controllers and the function of all input/output circuits; essential events and their timing relationships for all input/output operations; and logic circuits for input/output instruction executions. Laboratory exercises cover operational and self-test features, interpretation of malfunctions, fault isolation and repair procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer organization (I/O Channels)(3/81).

NV-1402-0027

DIGITAL PRINCIPLES AND TECHNIQUES (ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-100-0019; A-100-0021.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: Self-paced 2-5 weeks (168-200 hours).

Exhibit Dates: 7/70-1/88.

Objectives: To provide enlisted personnel with training in digital computer fundamentals.

Instruction: Lectures and practical exercises in computer block diagrams; number systems; binary, octal, and hexidecimal arithmetic; Boolean algebra; logic equation simplification; digital counters and registers; input/output devices; storage devices; and Bi-Tran-Six programming.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital principles and techniques and 1 in logic laboratory (11/77).

NV-1402-0028

AN/UYK-5(V) (3-M SYSTEM) OPERATOR, CLASS C

Course Number: A-531-011.

Location: Naval Training Center, San Diego, CA.

Length: 3-6 weeks (90-180 hours).

Exhibit Dates: 12/68-1/88.

Objectives: To train data processing technicians to operate AN/UYK-5(V) computer systems.

Instruction: Lectures and practical exercises in computer concepts, number systems, machine language instruction, system operation, and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in computer operation on the basis of institutional evaluation (12/68).

NV-1402-0029

IOIC MAINTENANCE OFFICER

Course Number: D-7E-010.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To train warrant officers who have backgrounds in digital data systems and electronic data processing to operate and administer the Integrated Operational Intelligence Center (IOIC) and to supervise the maintenance of associated equipment.

Instruction: Lectures and practical exercises in the function, operation, and supervision of the Integrated Operational Intelligence Center, including IOIS systems cross-training, maintenance administration, basic computer concepts, software and basic EDP equipment operation, functions of data systems technicians, and fleet operational briefings.

Credit Recommendation: In the vocational certificate category, 1 semester hour in data processing (4/74); in the lower-division baccalaureate/associate degree category, credit in data processing on the basis of institutional evaluation (4/74).

NV-1402-0030

UNIVAC 1218/418/490-CP-789/UYK-5(V) SYSTEM PROGRAMMING COURSE (COBOL LANGUAGE), CLASS C

Course Number: A-532-0014; A-7E-0014.

Location: Data Processing Technician, Class C School, San Diego, CA.

Length: 4 weeks (96 hours).

Exhibit Dates: 6/71-1/88.

Objectives: To train data processing technicians in program coding concepts and techniques in COBOL for the AN/UYK-5(V) computer system.

Instruction: Lectures and practical exercises in COBOL history, basic elements, program structure and divisions, verbs, and tape programming; data descriptions; procedural verbs; table handling; special tape functions; and programming applications.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (4/74).

NV-1402-0031

PROGRAMMING, NAVAL TACTICAL DATA SYSTEMS (NTDS) OPERATIONAL (OFFICER AND ENLISTED)

Course Number: J-532-0375; J-7E-3752; J-532-3752.

Location: Fleet Combat Training Center, Dam Neck, VA.

Length: 3 weeks (105-120 hours).

Exhibit Dates: *Version 1:* 7/82-Present. *Version 2:* 10/72-6/82.

Objectives: To train experienced programmers in modulator programming techniques.

Instruction: *Version 1:* Lectures and laboratory exercises in the historical development of the navy tactical data system network including modular program formats to interface with the network covering proper data format, data sealing procedures, message structure and I/O procedures. Two thirds of the course is devoted to practical exercises using the CMS-2(Q) compiler language. *Version 2:* Lectures in data design, message handling, automatic sealing, coding rules and documentation, and practical exercises in data design setups, programming, debugging techniques, and module documenting.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in compiler language programming (9/84). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in computer programming (4/74).

NV-1402-0032

NAVAL TACTICAL DATA SYSTEM (NTDS) EVALUATOR/SUPERVISOR (USER) CLASS O/C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (112 hours).

Exhibit Dates: 5/71-12/75.

Objectives: To train officer and enlisted personnel in Naval Tactical Data System (NTDS) operations.

Instruction: Lectures and laboratories in NTDS familiarization; digital computers and programming; system equipment operation; input functions and user functions; mockup training simulation exercises in input, user, and mock warfare; and related systems and functions, including on-line and off-line programming and airborne tactical data system operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1402-0033

PROGRAMMING, DIGITAL COMPUTER CP-642A&B/USQ-20 (MACHINE LANGUAGE AND CS-1 ASSEMBLY LANGUAGE)

Course Number: J-7E-3762; J-532-3762.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 7 weeks (175 hours).

Exhibit Dates: 12/71-1/72.

Objectives: To train officers and enlisted personnel in digital computer programming and NTDS unit computer operational characteristics.

Instruction: Lectures and practical exercises in digital computer programming and operational characteristics, including octal and binary numbering systems, Boolean algebra, programming concepts and techniques, machine language, assembly programming, digital computer operation, external equipment communications, debugging and testing procedures, and practical programming applications.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (4/74).

NV-1402-0034

1. DATA BASE MANAGEMENT—LCC AMPHIBIOUS SUPPORT INFORMATION SYSTEM LANGUAGE—OPERATOR (LCC Amphibious Support Information System Operator)
2. AMPHIBIOUS SUPPORT INFORMATION SYSTEM OPERATOR

Course Number: *Version 1:* K-221-0042; K-000-0042. *Version 2:* K-221-1012.

Location: Fleet Anti Air Warfare Training Center, San Diego, CA.

Length: *Version 1:* 2 weeks (62 hours). *Version 2:* 3 weeks (88 hours).

Exhibit Dates: *Version 1:* 2/75-1/88. *Version 2:* 7/72-1/75.

Objectives: To train personnel to operate and supervise display information systems.

Instruction: Lectures in amphibious support information system operation, block-diagram analysis, data base generation, message structure, QUEST language, command and control mockup demonstrations, and system control operator functions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing principles (6/77). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in data processing principles (4/74).

NV-1402-0035

STORAGE AND RETRIEVAL DATA

PROCESSING (DP) OPERATOR AND PROGRAMMER
(IOIC Storage and Retrieval Operator/Officer Course)

Course Number: D-150-017.

Location: Naval Intelligence Processing System Training Facility, Albany, GA; Reconnaissance Attack Squadron Three, Albany, GA.

Length: 10-11 weeks (385-400 hours).

Exhibit Dates: 1/69-1/88.

Objectives: To train data processing technicians in data base storage, retrieval, and manipulation, and associated equipment utilization.

Instruction: Lectures and practical exercises in computer programs and control panel wiring, electronic data processing equipment operation, electrical accounting machines, file maintenance procedures, basic intelligence and data base, CSDS operations and programming, photographic interpretation and equipment operation, NAR programs, and information retrieval and library maintenance subsystems operation.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in data processing principles (4/74).

NV-1402-0036

AIRBORNE TACTICAL DATA SYSTEM OPERATIONS, CLASS O

Course Number: Not available.

Location: Naval Air Technical Training Center, Glynco, GA.

Length: 12-19 weeks (480-744 hours).

Exhibit Dates: 10/65-12/75.

Objectives: To train officers to operate the airborne tactical data system.

Instruction: Lectures and practical exercises in the operation of the airborne tactical data system, including data link systems, aircraft systems, system sensors, operational systems, operator and team training, and airborne training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1402-0037

NAVAL TACTICAL DATA SYSTEM OPERATIONS, CLASS O

Course Number: C-2G-2018.

Location: Naval Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 4-13 weeks (160-508 hours); *Version 2:* 6 weeks (228 hours).

Exhibit Dates: *Version 1:* 3/69-12/75. *Version 2:* 8/66-2/69.

Objectives: To train officers to operate the Naval Tactical Data System Shipboard Combat Information Center.

Instruction: *All Versions:* Lectures and practical exercises in the operation of the Naval Tactical Data System Shipboard Combat Information Center, including number systems, computer theory; tactics and anti-air warfare; data system display consoles, universal introducers, auxiliary readouts, data links, system-monitoring panel, and associated equipment. *Version 2:* Includes an introduction to computer programming, integrated operations devices, computer instructions, and use of peripheral equipment.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (4/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer principles (4/74); in the upper-division baccalaureate category, 2 semester hours in computer principles (12/68).

NV-1402-0038

BASIC COMPUTER THEORY
(Computer Theory, Basic)

Course Number: A-100-0032.

Location: Naval Submarine School, New London, CT.

Length: Self-paced average 2-3 weeks (60-90 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To present basic computer and digital concepts to individuals who have no prior knowledge in this area.

Instruction: Self-paced multimedia instruction in digital fundamentals and programming, logic gates, symbols, truth tables, Boolean algebra, Venn diagrams, and tracing of logic levels in a circuit. Electronic circuits that produce ATL, TTL, ECL, and MOS logic gates are pictured and functionally described. Number systems and flip-flop operations are presented. Registers, counters, adder/subtractor circuits are shown and their operation and use described. Computer timing concepts and data storage techniques are presented. Basic computer operation and programming concepts, including flow charting and programming a 6-bit computer in machine language, are given. Because there is no laboratory, the course is most suitable for computer science students.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer science (9/77).

NV-1402-0039

NAVIGATION TECHNICIAN TYPE I SSN-593 CLASS
(Mk 2 Mod 1 Ship's Inertial Navigation System (SINS) Maintenance)

Course Number: A-193-0035; F-193-019.

Location: Submarine School, Groton, New London, CT.

Length: 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 1/79-Present. *Version 2:* 1/70-12/78.

Objectives: To train electronics technicians to operate, monitor, evaluate, and maintain the Mk 2 Mod 1 Ship's Inertial Navigation System (SINS).

Instruction: *Version 1:* This is now a pipeline course composed of the following three components: Loran AN/WRN-5 Combined Maintenance (A-193-0054) NV-1715-0913, MK 2 Mod 1 Ships Inertial Navigation System (SINS) Combined Maintenance (A-193-0355) NV-1402-0039 and a one week course which did not meet our minimum length requirement for evaluation. *Version 2:* Lectures and practical exercises in digital computer fundamentals, Verdan computer operation and maintenance, basic inertial theory, and SINS operation and maintenance.

Credit Recommendation: *Version 1:* Please refer to the individual exhibits as noted above for our credit recommendations (3/81). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in data processing principles (3/74).

NV-1402-0040

P-3C CP-901/ASQ-114 COMPUTER ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3578.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train avionics personnel to program and maintain P-3C CP-901/ASQ-114 digital computers.

Instruction: Lectures and practical exercises in CP-901/ASQ-114 P-3C digital computer programming and maintenance, including theory of operation and troubleshooting procedures; basic computer description and repertoire of instructions; and assembler language, including arithmetic, logical, and control commands.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (4/74).

NV-1402-0041

DATA SYSTEMS TECHNICIAN (SHIPBOARD TACTICAL DATA SYSTEMS OFFICER AND SENIOR TECHNICIAN MAINTENANCE) CLASS C
(Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C)
(Shipboard Tactical Data Systems Maintenance)
(Tactical Data Systems Maintenance Officer/Program Officer)

Course Number: A-150-0069; A-4B-0023.

Location: Schools Command, Mare Island, CA.

Length: 26 weeks (780 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train data systems technicians to test, evaluate, and maintain tactical data systems.

Instruction: Lectures and practical exercises in basic programming; Naval Tactical Data System (NTDS) computers; peripheral equipment, data link equipment, and programmed tests; operational program analysis; data processing systems; and administrative procedures, including records and reports and safety precautions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1402-0042

TACTICAL DATA SYSTEMS ANALYSIS

Course Number: K-2G-0008.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (93 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train officers and civilian personnel in applied tactical data systems concepts.

Instruction: Lectures in tactical data systems design and development; real-time introduction; combat directive systems; documentation standards; functional specifications; intercomputer communications, scheduling queues, and simulation; hardware and software; NTDS modular structures; data design; message formats, common routines, tables, library and compiling features; program execution time; and equipment routines and interrupts.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in data processing principles (3/74).

NV-1402-0043

CVA IOIC STORAGE AND RETRIEVAL OFFICER

Course Number: D-3A-012.

Location: Naval Intelligence Processing System Training Facility, Albany, GA.
Length: 8 weeks (280 hours).
Exhibit Dates: 9/71–1/88.
Objectives: To train officers as storage and retrieval officers in the integrated operational intelligence center.
Instruction: Lectures in storage and retrieval area functions and relationship within the integrated operational intelligence center (IOIC); procedures and computer software developed for the storage, maintenance, and query of automated data files; basic data processing; intelligence data base; photographic equipment; CSDS operations and programming; and IOIC management.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in data processing principles (4/74).

NV-1402-0044

RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance

(A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment)

Course Number: C-111-3742.
Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.
Length: 10 weeks (400 hours).
Exhibit Dates: 1/64–1/88.
Objectives: To train enlisted personnel with previous technical training to modify, troubleshoot, and maintain the digital computer portion of the AN/ASB-12 bomb directing set.
Instruction: Lectures and practical exercises in the maintenance of the AN/ASB-12 Verdan and digital test equipment, including digital techniques, numbering systems, digital logic circuits, Boolean algebra, Verdan computer, universal section, shop test equipment familiarization, general-purpose section, DDA section, Verdan inputs/outputs, digital test equipment, and Verdan testing.
Credit Recommendation: In the vocational certificate category, 8 semester hours in digital computer principles (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in digital computer principles (6/74); in the upper-division baccalaureate category, 3 semester hours in digital computer principles (12/68).

NV-1402-0045

Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships)

Course Number: A-551-0050; A-551-0051; A-551-0052; A-551-0053.
Location: Storekeeper Class C School, Norfolk, VA; Storekeeper Class C School, Port Hueneme, CA; Storekeeper Class C School, San Diego, CA; Storekeeper Class C School, Newport, RI.
Length: 3 weeks (90 hours).
Exhibit Dates: 11/71–1/88.
Objectives: To train enlisted personnel to operate the Uniform U-1500 computer supply and fiscal system.
Instruction: Lectures and practical exercises in Uniform U-1500 computer supply and fiscal system operation, including tape and card files, transactions and record document identifiers, card formats, data processing, reports and returns, and returns analysis.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1402-0046

Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic

(AN/UYK-7 CMS-2 (Y) Compiler Language Programming)

Course Number: J-7E-0331; K-7E-0043; K-532-0043.
Location: Fleet Combat Training Center, Dam Neck, VA; Fleet Combat Direction Systems Training Center, San Diego, CA.
Length: 4–6 weeks (140–173 hours).
Exhibit Dates: 7/74–Present.
Objectives: To train students to write, execute, and interpret computer programs using the AN/USQ-7 CMS-2 (Y) programming language.
Instruction: Lectures, homework, and practical exercises in introduction to computers and programming; AN/UYK-7 hardware familiarization; AN/UYK-7 machine code, direct code, and the Ultra assembler language; and AN/UYK-7 CMS-2 (Y) compiler language.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in compiler language programming (9/84).

NV-1402-0047

SSN Central Computer Complex System Level Maintenance and Software

(Central Computer Complex Combined Maintenance and Software)

Course Number: A-150-0144.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 7 weeks (210 hours).
Exhibit Dates: 1/72–1/88.
Objectives: To present the systems approach to maintenance of a computer system.
Instruction: Course includes anaylsis of system programs used to operate and diagnose the computer system. (This is a combination course, consisting of A-150-0105 and A-150-0104-1 plus an additional week of laboratory work on troubleshooting and fault isolation.) Course provides familiarization training in programming and analysis necessary to maintain the Central Computer Complex utilizing data flow and overall subsystem interfacing for fault isolation at a system level.
Credit Recommendation: In the vocational certificate category, 2 semester hours in computer technology (9/77).

NV-1402-0048

Cryptologic Systems Software

Course Number: A-532-0028.
Location: Naval Security Group Activity, Skaggs Island, Sonoma, CA.
Length: 12 weeks (360 hours).
Exhibit Dates: 4/79–Present.
Objectives: To train personnel to operate and program a PDP-11 computer by developing programming skills in FORTRAN, the MACRO-11 assembly languages, and the RSX-11M operating system.
Instruction: The course, which is divided into four areas, includes an introductory section in computer science including number systems, arithmetic operations, computer architecture, peripheral devices, inter-unit communications, logic flow charts and computer languages. The second section is a complete FORTRAN programming course on language syntax, the third section covers PDP-11 assembly language and the last section of the course covers PDP-11 operating systems. 207 hours are devoted to developing programming language skill and computer operating techniques.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operating systems-PDP-11, 3 in introduction to data processing, 3 in FORTRAN programming and 3 in assembly language programming PDP-11 (7/80).

NV-1402-0049

Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer

Course Number: A-532-0010.
Location: Naval Security Group Activity, Skaggs Island, Sonoma, CA.
Length: 16–24 weeks (480–720 hours).
Exhibit Dates: 1/62–Present.
Objectives: The course is designed to provide computer programming training in machine language coding, assembly and compiler languages.
Instruction: Course instruction includes review of numbering systems conversion techniques, flow charting and arithmetic operations, inter-unit communications, functions of peripheral and storage devices with addressing techniques, machine language and assembler programming techniques and applications using prepared and self-written MACRO routines (subset of ALGOL).
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing and 3 in introduction to computer applications (7/80).

NV-1402-0050

Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1

Course Number: A-121-0291.
Location: Fleet Ballistic Missile Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/76–7/81.
Objectives: To train technical personnel in the functional operation, theory and maintenance of a digital control computer interface to a missile system.
Instruction: For this course after 7/81 see NV-1402-0147. Lectures and practical exercises in the theory and functional operation of a digital computer interface including digital inputs and parallel to serial converters.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital computer interface logic (3/81).

NV-1402-0051

Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance

Course Number: A-193-0355.
Location: Naval Submarine School, Groton, New London, CT.
Length: 15 weeks (600 hours).
Exhibit Dates: 1/79–Present.
Objectives: To train electronics technicians to operate, monitor, evaluate and maintain a ship's inertial navigation system.
Instruction: Lectures and practical exercises in the theory, operation, maintenance and repair of an inertial navigation system

and its related mechnical, electrical and component equipment. The course includes synchro, servo, and gyro fundamentals, basic inertial theory, power distribution through relay switch circuits, operation of and signal flow through a reader and data processing computer. Review of logic gates, flip-flops, arithmetic circuits, and memory disks as used in the computer are studied to aid in the understanding of fault isolation, maintenance and repair procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operation (3/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical, mechanical and digital systems (3/81).

NV-1402-0052

Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance

Course Number: A-193-0356.

Location: Naval Submarine School, Groton, New London, CT.

Length: 20 weeks (800 hours).

Exhibit Dates: 1/73–Present.

Objectives: To provide electronic technicians with the knowledge and skills necessary to operate and maintain a digital computer-based inertial navigation system.

Instruction: Classroom and laboratory instruction covering the application of digital computers in navigation, digital logic circuits and computer math, processor organization with drum and core memories, computer programming and peripheral interfaces. Synchros, gyros and fundamental inertial theory is covered as well as computer maintenance and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital logic fundamentals (with laboratory), 2 in machine language instruction and test loops, 2 in computer maintenance and repair laboratory (3/81); in the upper-division baccalaureate category, 2 semester hours in computer organization (3/81).

NV-1402-0053

Digital-to-Digital Converter Advanced Training

Course Number: A-193-0252.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (72 hours).

Exhibit Dates: 4/77–2/84.

Objectives: To teach qualified technicians to service a digital-to-digital converter.

Instruction: For this course after 2/84 see NV-1402-0146. Classroom and laboratory instruction in the functional operation and characteristics of the D/D converter, including serial-to-parallel buffer and digital-to-analog buffer. Half of the course time is devoted to diagnostic test, maintenance and isolation procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment maintenance laboratory (3/81).

NV-1402-0054

AN/USM-449 (V) Intermediate Maintenance

Course Number: C-198-3018.

Location: Naval Air Station, Moffett Field, CA; Naval Air Station, Jacksonville, FL.

Length: 16 weeks (640 hours).

Exhibit Dates: 1/79–Present.

Objectives: To provide experienced technicians with the knowledge and theory to operate, program, troubleshoot and repair electronic systems using the AN/USM-449 (V) computer controlled automatic test set.

Instruction: Lectures, demonstrations and practical exercises in computer organization, programming (using machine and the ATLAS and DETOL languages) interfacing, analyzing circuits, and operation. Programming and interfacing at the peripheral test equipment level for both analog and digital devices is emphasized as well as fault identification in tested systems and the computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer organization and functions, 3 in computer system interface and operation, 2 in computer laboratory (7/81).

NV-1402-0055

P-3A/B TAC/NAV MOD Organizational Maintenance

Course Number: C-102-3569.

Location: Naval Air Station, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/77–Present.

Objectives: To provide maintenance personnel with training in system operation, troubleshooting and component replacement for navigational equipment AN/ASN-124.

Instruction: Lectures and practical exercises in the basic operation of the AN/ASN-124 and AN/AQA-7(V)5 systems including signal processing, analog to digital conversions; system operation and function of subsystems inertial navigation, omega navigation, and power distribution; operational checks including built-in digital computer self-test checks.

Credit Recommendation: In the vocational certificate category, 3 semester hours in operation and repair of analog/digital systems (7/81).

NV-1402-0056

AN/USM-449 (V) Intermediate Operator

Course Number: C-198-3017.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/80–Present.

Objectives: To prepare technicians to operate and program, under limited supervision, the AN/USM-449 (V) test set.

Instruction: Lectures and laboratory exercises in the control and operating procedures for the test set which performs computer controlled testing of analog and digital systems including procedures for loading, editing and running programs and programming techniques using the DETOL language, program structure, instruction format, operations and expressions, error codes and interfacing of the computer to tested systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/81).

NV-1402-0057

Digital Fundamentals

Course Number: C-000-3178.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, Oceana, VA; Naval Air Station, Jacksonville, FL; Naval Air Station, El Toro, CA; Naval Air Station, Beaufort, SC; Naval Air Station, Miramar, CA.

Length: 2 weeks (76 hours).

Exhibit Dates: 7/80–Present.

Objectives: To introduce the concepts of basic digital circuits, number systems and basic logic devices.

Instruction: Lectures cover basic computer concepts, binary, octal and hexidecimal number systems, base conversion, basic logic gates, multivibrators, registers, counters, program concepts and flow charts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronic digital circuits or 1 semester hour in basic digital concepts for electrical engineering majors (3/82).

NV-1402-0058

Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance

Course Number: A-104-0192.

Location: Naval Systems Department, Moorestown, NJ.

Length: 24 weeks (960 hours).

Exhibit Dates: 12/82–12/85.

Objectives: To train technicians to operate and perform maintenance tasks on various fire control systems.

Instruction: For this course after 12/85 see NV-1715-1304. Lectures and practical exercises in the operation and maintenance of the computers controlling a weapons sytem and the operation of a diagnostic computer system including system and equipment function, theory of operation, instruction set, interfaces and computer programs, preventive maintenance, corrective maintenance, fault isolation and fault detection. A review of the radar system supplying data to the computers is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer system analysis/testing/interfacing and 3 in computer maintenance, troubleshooting and repair (7/83).

NV-1402-0059

Aegis Computer Fundamentals

Course Number: A-150-0240.

Location: Naval Systems Department, Moorestown, NJ.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 1/82–11/85.

Objectives: To train personnel on microprocessor and mini-computer architecture, programming, operation and maintenance.

Instruction: For this course after 11/85 see NV-1402-0120. The Heathkit 'Introduction to Microprocessors' home study course, a 36-hour self-paced course with modified laboratory experiments and more extensive student testing than provided by the package, is used as an introduction to this course. It is followed by a review of logic gates, Boolean algebra, DeMorgan's Theorem, flip-flops, registers, multiplexers, decoders, comparators, ALU and IC memories. The student is introduced to a 16-bit mini-computer which uses TTL logic and core memory; internal architecture including CPU, timing, memory, I/O interfaces; practical exercises on assembly language programming, operation and organization level maintenance using a maintenance console as a diagnostic aid and the operation and maintenance of an I/O console and magnetic tape unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in microcomputer architecture and programming (7/83).

NV-1402-0060

Aegis Computer System Operation and Maintenance

Course Number: A-150-0239.

Location: Naval Systems Department, Moorestown, NJ.

Length: 22 weeks (880 hours).

Exhibit Dates: 12/82–12/85.

Objectives: To train experienced personnel to maintain the computer control and signal processing equipment for a radar system.

Instruction: For this course after 12/85 see NV-1402-0121. An indepth systems level course on the operations and maintenance of a computer system used to control complex phase array radar equipment. Topics include the function of each software program, how to load these programs and how to operate the system; system architecture and detailed data flow paths; preventive maintenance and troubleshooting to the card level. Prior knowledge of digital logic, computers, and assembly langauge is assumed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems and operation, 3 in computer maintenance, troubleshooting and repair (7/83).

NV-1402-0061

Trident 1 Backfit MT Tender Technician

Course Number: A-121-0320.

Location: Guided Missiles School, Dam Neck, VA.

Length: 20 weeks (602 hours).

Exhibit Dates: 4/83–1/89.

Objectives: To train electronic technicians in the theory and maintenance of the Trident 1 backfit missile system.

Instruction: Lectures and practical exercises in the theory and maintenance of a fleet ballistic missile weapon systems including the missile handling system, digital missile tactical readiness test set, control systems, tape readers, teletype, hydraulics and missile handling equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital troubleshooting (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced digital circuitry (11/83).

NV-1402-0062

AN/SYR-1 Weapons Direction System (WDS) Mk 14 Maintenance

Course Number: A-150-0230.

Location: Naval Guided Missiles School, Dam Neck, VA; Combat Systems Technical School Command, Mare Island, CA.

Length: 17 weeks (600 hours).

Exhibit Dates: 11/82–Present.

Objectives: To train qualified personnel in the operation and repair of the WDS Mk 14 system and its subsystems.

Instruction: Lectures and practical exercises in the operation, maintenance and repair of the SYR-1 system and related subsystems including number conversions (digital to octal to binary), binary and octal additions, subtraction and complementing procedures, logic functions (AND, OR, XOR, NAND and NOR) and digital flowcharting; programming including addressing (8 bit and 16 bit), formatting, transfer procedures, registers, loop instructions, sub routine calls, indirect addressing, I/O instructions (series and parallel); magtape fundamentals including loading, tape systems, formatting and maintenance procedures; operating instructions, and maintenance and repair procedures using standard electronic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in logic systems, 3 in computer systems and 5 in electronic systems troubleshooting (11/83).

NV-1402-0063

AN/GYK-22 (BITMAN) Maintenance

Course Number: A-102-0115.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 6 weeks (237 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide personnel with training in order to perform preventive and corrective maintenance in the BITMAN computer system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) write and run simple maintenance programs on digital computer systems (2) trace the operations of the various subgroups (control, memory, I/O and peripherals) (3) troubleshoot to the component level by using system trouble indications and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer system maintenance (1/84).

NV-1402-0064

Cryptologic Maintenance Technician Electronic Technology

Course Number: A-102-0234.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 16 weeks (640 hours).

Exhibit Dates: 9/79–Present.

Objectives: To provide technicians with the necessary fundamentals of transistor vacuum tube electronics in order to maintain and repair electronic warfare systems.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) be familiar with the theory and operation of diodes and bipolar and unipolar transistors (2) be familiar with the theory and operation of power supplies, amplifiers, oscillators, detectors, discriminators and other signal receiver components (3) be able to troubleshoot and identify failed components through use of multimeters and oscilloscopes (4) convert between, and perform, arithmetic operations on decimal, hexadecimal, BCD, excess-3, binary and octal numbers (5) use integrated circuits to construct and analyze logic circuits such as adders, subtractors, decoders, encoders, counters, and registers (6) understand the function and architecture of basic computer units i.e. control, ALV, memory and I/O (7) write elementary machine language programs for the MC6800 microprocessor (8) understand memory mapped I/O and simple interfacing exercises (9) understand the operation of video display circuitry (clipping, clamping, multivibrators, sawtooth generators and blocking oscillators).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic devices, 2 in electronic communications, 4 in digital logic and microprocessing, 1 in video display (6/87).

NV-1402-0065

Cryptologic Technician Communications–Communications Systems Operations, Control and Management

Course Number: A-260-0029.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 19 weeks (753 hours).

Exhibit Dates: 11/79–Present.

Objectives: To provide personnel with knowledge and skills in communication systems, operations, control and management.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) comprehend an extensive communication system including radio receiver and transmitter teletype machine, land lines, satellites and digital computers (2) understand the technical basics of radio communications, including modulation, multiplexing, and normal tests and adjustments (3) operate a digital computer including data and program entry from console keyboard or tape/deck drives, (4) interpret error messages and follow appropriate diagnostic procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in communications survey, 1 in computer operation (1/84).

NV-1402-0066

Cryptologic Technician (Technical) ELINT Operator

Course Number: A-231-0028.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 9/83–Present.

Objectives: To provide the student with the knowledge and skill necessary to operate data collection equipment and to evaluate and disseminate the appropriate information.

Learning Outcomes: Upon completion of the program, the student will be able to: (1) intercept 80% of available signals and measure such things as radio frequency, pulse duration, pulse repetition frequency and line of bearing (2) compute radar characteristics such as minimum range, maximum unambiguous range and beam width.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/87).

NV-1402-0067

Cryptologic Technician M–OUTBOARD Maintenance

Course Number: A-102-0208.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 29 weeks (1177 hours).

Exhibit Dates: 11/82–Present.

Objectives: To provide training for preventive and corrective maintenance on a specialized piece of equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1)

perform maintenance, per appropriate manuals, on equipment in the OUTBOARD suite, including the AN/SLR-16, AN/SLR-19, AN/UYQ-23 and associated units (2) comprehend digital computer basics including functions of a microprocessor.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in survey of microprocessor systems, 3 in electronic systems troubleshooting and maintenance (1/84).

NV-1402-0068

CRYPTOLOGIC TECHNICIAN M, WIDEBAND SYSTEM MAINTENANCE

Course Number: A-102-0230.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 26 weeks (1024 hours).

Exhibit Dates: 1/82–Present.

Objectives: To provide technicians with training in preventive and corrective maintenance on a computer controlled wideband receiver signal processor.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) have a knowledge and understanding of a signal digitizer and processor, memory, translator/recorder, display power supplies and a maintenance philosophy of a computerized wideband radio signal processor (2) be able to perform maintenance and troubleshooting, to the component level, using basic knowledge of digital/computer principles and specific knowledge of system operation and subsystems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer controlled digital operating systems (6/87).

NV-1402-0069

CRYPTOLOGIC TECHNICIAN M, UNIVERSAL CRYPTOLOGIC PROCESSOR MAINTENANCE

Course Number: A-102-0290.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/81–Present.

Objectives: To provide technicians with entry level knowledge of PDP-11 digital computer required for entry into specialized DEC equipment maintenance courses.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the architecture, instructions, addressing, timing and operation of the PDP 11-35/40 computer system including control unit, core memory, memory management and interfacing (2) be able to troubleshoot down to the component level using system diagnostics, digital test equipment and standard test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in PDP-11 35/40 system maintenance and troubleshooting (7/87).

NV-1402-0070

CRYPTOLOGIC TECHNICIAN M UNIVERSAL CRYPTOLOGIC PROCESSOR WIDEBAND SUBSYSTEM MAINTENANCE, CLASS C

Course Number: A-102-0291.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/81–Present.

Objectives: To provide technicians with training in preventive and corrective maintenance on the PDP 11 35/40 and associated equipment used in the wideband radio receiving system.

Learning Outcomes: Upon completion of the course, the student will: (1) have a knowledge and understanding of the operation of a PDP 11-34 computer system including extended instruction set, floating point option, core memory, bootstrap loader, asynchronous interface, DEC writer, DMA, interprocessor link, bug repeater, disk system and system diagnostic (2) be able to maintain, troubleshoot and repair the computer, to the component level, using knowledge of system instructions, addressing, timing, architecture and using system diagnostics, digital test equipment and standard test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in digital computer system maintenance and troubleshooting (6/87).

NV-1402-0071

CRYPTOLOGIC TECHNICIAN O, CLASS A

Course Number: A-260-0030.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 9 weeks (360 hours).

Exhibit Dates: 9/79–Present.

Objectives: To provide technicians with the essential knowledge and skills necessary to perform at the apprentice level in radio printer commmunications.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) type up to 35 wpm at 95% accuracy and read teletypewriter tape at 50 wpm (2) extract, format, transmit and route messages in accordance with appropriate Navy cryptographic and other operating procedures (3) operate various cryptographic communication equipment including teletypewriters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic typing skills (7/87).

NV-1402-0072

DIGITAL TRAINING

Course Number: A-102-0235.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (140 hours).

Exhibit Dates: 9/78–Present.

Objectives: To provide students with knowledge of the fundamentals of digital logic and microprocessors.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) convert between, and perform, arithmetic operations on decimal, hexadecimal, BCD, excess-3, binary and octal numbers (2) use integrated circuits to construct and analyze logic circuits such as adders, subtractors, decoders encoders, counters and registers (3) understand the function and architecture of basic computer units, i.e. control, ALV, memory and I/O (4) write elementary machine language programs for the MC6800 microprocessor (5) understand memory mapped I/O and simple interfacing exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in digital logic and microprocessors (7/87).

NV-1402-0073

ELECTRONIC WARFARE TECHNICIAN

Course Number: A-102-0214.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8 weeks (260 hours).

Exhibit Dates: 9/78–Present.

Objectives: To provide the technician training in timing of display circuits, transmission lines, antennas and fundamentals of digital logic and microprocessors.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the operation of video display circuitry (clipping, clamping, multivibrators, sawtooth generators, blocking oscillators) (2) understand antenna systems and RF transmission lines (3) understand operation antenna servo systems (motors, op amps, mag amps) (4) convert between, and perform, arithemetic operations on decimal, hexadecimal, BCD, excess-3, binary and octal numbers (5) use integrated circuits to construct and analyze logic circuits such as adders, subtractors, decoders, encoders, counters and registers (6) understand the function and architecture of basic computer units i.e. control, ALV, memory and I/O (7) write elementary machine language programs for the MC6800 microprocessor (8) understand memory mapped I/O and simple interfacing exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in video display, 2 in antenna systems, 4 in digital logic and microprocessors (7/87).

NV-1402-0074

ELECTRONIC WARFARE TECHNICIAN AN/SLQ-17 EQUIPMENT OPERATIONS

Course Number: A-102-0212.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/83–Present.

Objectives: To teach the operation of a specific piece of military equipment.

Learning Outcomes: Upon completion of the course, the student will be able to perform the following activities as they pertain to the AN/SLQ-17: (1) perform system initialization and power control (2) data augmentation (3) intercept procession (4) response processing (5) environment review and management (6) system and status monitoring.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1402-0075

ELECTRONIC WARFARE TECHNICIAN AN/SLQ-32(V2) ELECTRONIC SURVEILLANCE MEASURES (ESM) MAINTENANCE

Course Number: A-102-0215.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 8/83–Present.

Objectives: To provide training for preventive and corrective maintenance of specific military equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) comprehend complex electronic signal processing systems which include analog and digital signals with digital computer controls (2) troubleshoot equipment malfunctions to the component level (3) utilize test equipment such as oscilloscopes, signal generator and frequency meters for alignment and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 3 semester hours in digital system troubleshooting (7/87).

NV-1402-0076

Submarine Electronic Technician Electronic Warfare Technology

Course Number: A-102-0224.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 20 weeks (800 hours).

Exhibit Dates: 9/78–Present.

Objectives: To provide technicians with fundamentals of transistor/vacuum tube electronics necessary to maintain and repair electronic warfare systems.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) be familiar with the theory and operation of diodes and bipolar and unipolar transistors (2) be familiar with the theory and operation of power supplies, amplifiers, oscillators, detectors, discriminators and other signal receiver components (3) be able to troubleshoot and identify failed components through use of multimeters, function generators, oscilloscopes and power meters (4) convert between, and perform arithemetic operations on decimal, hexadecimal, BCD, excess-3, binary and octal numbers (5) use integrated circuits to construct and analyze logic circuits such as adders, subtractors, decoders, encoders, counters and registers (6) understand the function and architecture of basic computer units; i.e. control, ALV, memory and I/O (7) write elementary machine language programs for the MC6800 microprocessor (8) understand memory mapped I/O and simple interfacing exercises (9) understand the operation of video display circuitry (clipping, clamping, multivibrators, sawtooth generators, blocking oscillators) (10) understand antennae systems and RF transmission lines (11) understand operation antennae servo systems (motors, op amps, mag amps).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic devices, 2 in electronic communications, 4 in digital logic and microprocessors, 2 in antenna systems and 1 in video displays (7/87).

NV-1402-0077

Tactical Electronic Warfare (EW) Support Measures STMAN/SSQ-80(V) Maintenance

Course Number: A-102-0285.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/82–9/86.

Objectives: To train personnel in preventive and corrective maintenance for specific military equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) trace an analog signal and logic flow on a schematic diagram (2) troubleshoot to the module level using the guidelines found in appropriate terminal manuals. See exhibit NV-1715-1251 for the course after 1986.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in system troubleshooting, analog and digital (1/84).

NV-1402-0078

Trident Command and Control System (CCS) Advanced Level III

Course Number: A-150-0202.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 18 weeks (720 hours).

Exhibit Dates: 3/83–5/85.

Objectives: To prepare experienced computer operators/technicians to perform all corrective maintenance on a data processing system and monitoring subsystem.

Instruction: Lectures, demonstrations and laboratory work covering signals, signal flow, modes, input/outputs, coding, timing, sequencing, logic diagrams, circuits and registers, data formats, and power supplies for the: CPU, I/O controllers and adopters, and core and film memory; magnetic tape, paper tape and TTY subassemblies; signal data conversion and conditioning. The student troubleshoots the system, making use of system diagnostics, flow charts and knowledge of the system to identify problems down to the board and component level. After 5/85, see NV-1402-0134.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing system hardware and machine code and 3 in data processing system maintenance (8/84) OR; in the upper-division baccalaureate category, 4 semester hours in data processing system maintenance (8/84).

NV-1402-0079

Computer CP-890A, B/UYK Input/Output Controller Maintenance

Course Number: A-193-0338.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Navy Submarine School, Groton, New London, CT; Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (112 hours).

Exhibit Dates: 4/81–Present.

Objectives: To provide electronic technicians with knowledge and skills necessary to perform maintenance on a navigation computer.

Instruction: Lectures and laboratory exercises covering the functional descriptions of the computer input/output controller, master clock, timing chain and sequencer, master clear circuitry, real time clock and control memory operations, external function/output data operations, input data operations, external interupt operations and the computer input/output controller special operations. Slightly over one third of the course is spent in maintenance and troubleshooting laboratory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer input/output operations and troubleshooting (8/84).

NV-1402-0080

Computer DP-890A and B/UYK Processor Maintenance II

Course Number: A-193-0337.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Navy Submarine School, Groton, New London, CT; Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/80–Present.

Objectives: To provide electronics technicians with the knowledge and skills necessary to perform maintenance on a navigation computer.

Instruction: Lectures and laboratories covering the functional descriptions of the processor add-subtract, non-sequential, interrupt, repeat, shift, complex arithmetic, floating point operations and the processor replace instruction group. Approximately one third of course time is spent in laboratory work on corrective maintenance and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer CPU theory and troubleshooting (8/84).

NV-1402-0081

Digital Interface Unit/Message Interface Unit (DIU/MIU)

Course Number: A-150-0215.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/84–Present.

Objectives: To train submarine radiomen to maintain a digital message interface unit.

Instruction: Lectures and practical exercises on the functional operation of a digital message interface unit. Half the course time is devoted to learning maintenance procedures and troubleshooting programmed faults in a laboratory setting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment troubleshooting laboratory (8/84).

NV-1402-0082

Magnetic Disk File (MDF) Theory and Electrical Maintenance

Course Number: A-121-0428.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/82–Present.

Objectives: To provide personnel training in the operation and maintenance of a disk file system.

Instruction: Lectures and laboratory exercises on the magnetic disk file system including the theory of operation, maintenance and repair.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital disk systems (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in disk memory system laboratory (8/84).

NV-1402-0083

Launcher Control and Monitoring Equipment

(Missile Launcher Control and Monitoring Equipment)

Course Number: A-121-0469.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (116 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance on the Trident Missille Launcher Pressurization System Control, Control and Monitoring Panel, and Ventilation Alarm and Monitoring Panel, describe the functional operation of the systems and explain the systematic fault isolation and the procedures required for disassembly, repair and reassembly of the VAMP, and CAMP.

Instruction: Lecture and laboratory exercises on systems operations, theory and troubleshooting. Troubleshooting makes use of computer aided diagnostics and troubleshooting flow charts to the board level including work on the pneumatic, hydraulic, and digital/computer components subsystems. The ability to use basic digital/computer theory and system knowledge is emphasized.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems troubleshooting (3/89).

NV-1402-0084

Trident Command and Control (CCS)
Operation and Maintenance
Conversion Level I

Course Number: A-150-0200.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 16 weeks (640 hours).

Exhibit Dates: 3/83-2/89.

Objectives: To prepare inexperienced technicians to qualify for operation and maintenance of a command and control system.

Instruction: Lectures and laboratory exercises in the functional operation of a data processing system, a digital data computer, a diskmemory set, an input/output console, a signal data converter and various sensors. For the course after 2/89, see exhibit NV-1402-0135.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital computer system operation, and 3 in digital signal processing (8/84).

NV-1402-0085

Trident Command and Control
System (CCS) Operation and
Maintenance Level II

Course Number: A-150-0201.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 13 weeks (520 hours).

Exhibit Dates: 12/83-Present.

Objectives: To prepare experienced data system technicians to operate and perform selected basic maintenance procedures on a command and control system.

Instruction: Lectures and practical exercises on the command and control system including terminology, types of signals, word formats, major components, controls, indicators, interface, power supplies, alignment/calibration. The course also includes system diagnostics and troubleshooting on a digital data computer, a disk memory set, an input/output console, a signal data converter, a multiplexer and a command and control system. Troubleshooting is to the board level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer system maintenance (8/84).

NV-1402-0086

Trident Defensive Weapons
Subsystem/Command Subsystem
Level I

Course Number: A-130-0227.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 7 weeks (288 hours).

Exhibit Dates: 12/80-6/84.

Objectives: To provide inexperienced electronics technicians with the knowledge and skills necessary to operate and maintain, under supervision, a command and control system.

Instruction: Lectures and laboratory exercises in the basic theory, functions, operation and maintenance of a computer controlled system with multiple inputs and outputs.

Credit Recommendation: In the vocational certificate category, 4 semester hours in operation and maintenance of computer control systems (8/84).

NV-1402-0087

Trident Defensive Weapons
Subsystem/Command Subsystem
Level II

Course Number: A-130-0228.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: *Version 1:* 11 weeks (363 hours). *Version 2:* 8 weeks (323 hours).

Exhibit Dates: *Version 1:* 8/84-Present. *Version 2:* 12/80-7/84.

Objectives: To prepare electronics technicians to perform preventive/corrective maintenance procedures on a computer control system.

Instruction: *Version 1:* See NV-1402-0126 (A-150-0251), NV-1402-0127 (A-150-0216), NV-1402-0128 (A-150-0252), NV-1715-1326 (A-130-0232). This is a pipeline course. *Version 2:* Lectures and laboratory exercises in the theory, operation and troubleshooting of: a) CRT graphics/display including analog, digital, character generation, raster and rector graphics, memory, refresh, timing, computer interface and CRT deflection; b) bi-directional data transfer and signal interfacing between control processor and external systems, including basic operation of the external systems.

Credit Recommendation: *Version 1:* See NV-1402-0126 (A-150-0251), NV-1402-0127 (A-150-0216), NV-1715-1326 (A-130-0232), NV-1402-0128 (A-150-0252). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer-display systems, 1 in computer control/interfacing techniques (8/84).

NV-1402-0088

Trident Defensive Weapons
Subsystem/Command Subsystem
Level III

Course Number: A-130-0229.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: *Version 1:* 5 weeks (124 hours). *Version 2:* 4 weeks (142 hours).

Exhibit Dates: *Version 1:* 9/84-Present. *Version 2:* 12/80-8/84.

Objectives: To prepare experienced electronics technicians to operate and maintain a defensive weapons system.

Instruction: *Version 1:* See NV-1402-0124 (A-130-0233) and NV-1402-0125 (A-130-0231). This is a pipeline course. *Version 2:* Lectures and laboratory exercises in the theory, operation, and troubleshooting of computer controlled digital/analog peripheral equipment. Troubleshooting involves fault isolation down to the board and component level.

Credit Recommendation: *Version 1:* See NV-1402-0124 (A-130-0233) and NV-1402-0125 (A-130-0231) (2/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer control applications, 1 in digital troubleshooting laboratory (8/84).

NV-1402-0089

Missile Test and Readiness Equipment
Mk 7 Mod 4 Advanced Circuitry
(Missile Test and Rediness Equipment
(MTRE) MK7 Mod 4 Advanced
Theory and Maintenance)

Course Number: A-121-0492.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (119 hours).

Exhibit Dates: 6/82-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the basic operation of each of the six functional areas of the Mk-7 Missile test and readiness equipment (MTRE), describe the electromechanical operation of the six functional areas to include basic logic, tape format, signal flow and response evaluation, perform mechanical alignment and adjustment utilizing special tools and test equipment.

Instruction: Lectures and laboratory exercises in the functional operation, to the block diagram level, of specialized missile equipment. Topics include power supplies, display and panel controls, system verification tests, paper tape input and printer operation and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment maintenance (8/84).

NV-1402-0090

Antisubmarine Warfare (ASW)
Module Data Processing
Technician

Course Number: J-531-0373.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 13 weeks (379 hours).

Exhibit Dates: 4/83-Present.

Objectives: To train data processing technicians in the theory, operation and maintenance of automated data processing equipment associated with an ASW system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) use the following data processing equipment: magnetic tape storage units, high speed printer, disk storage units, teletypewriter, input/output operator console; (2) perform limited maintenance, by fault isolation, of problems through system symptom recognition and; (3) use diagnostic programs and system error messages for diagnosis of system faults. Maintenance is limited to operations procedures and determination of system/program faults.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing (9/84).

NV-1402-0091

Antisubmarine Warfare (ASW)
Module Data Systems
Technician

Course Number: J-150-0372.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 15 weeks (525 hours).

Exhibit Dates: 9/83-Present.

Objectives: To train personnel in the theory, operation and maintenance of the automatic data processing and display equipment associated with the ASW module.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the functions of a magnetic tape and disk subsystem; (2) understand the functions of a video display subsystem; (3) perform planned and unplanned maintenance on the data processing system and subsystems; (4) trace electronic signals through all systems and; (5) document maintenance action.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in the operation, maintenance and repair of data processing equipment (9/84).

NV-1402-0092

Antisubmarine Warfare (ASW) Operations Center (ASWOC) Acoustic System

Course Number: J-102-0364.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 14-17 weeks (490-650 hours).
Exhibit Dates: 1/82-Present.
Objectives: To train aviation ASW technicians to operate, maintain and repair the Fast Time Analyzer mainframe and peripheral computer equipment.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) be familiar with the calibration procedures and use of basic test equipment; (2) understand the components, characteristics and operation of computer peripheral equipment including disk drives, tape drives, cassette tape disks, video terminals and printers; (3) interface between computers and between computers and peripheral equipment and; (4) operate, maintain, isolate faults and repair the Fast Time Analyzer mainframe and peripheral equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer peripheral equipment, operation, maintenance and repair (9/84).

NV-1402-0093

Antisubmarine Warfare (ASW) Operations Center (ASWOC) Data Systems

Course Number: J-150-0366.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 16 weeks (560 hours).
Exhibit Dates: 8/83-Present.
Objectives: To train personnel in the theory, operation and maintenance procedures for display and automatic data processing equipment associated with the ASW operations center.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the theory and operation of automatic data processing systems; (2) use basic test equipment and diagnostic procedures to isolate malfunctions in automatic data processing systems; (3) verify proper operation of the ASWOC data system and; (4) operate, maintain, isolate faults and repair ASWOC data systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data system operation, maintenance and repair (9/84).

NV-1402-0094

Computer Programming USQ-20 Compiler Language - Basic

Course Number: J-7E-0330.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 4 weeks (150 hours).
Exhibit Dates: 4/81-Present.
Objectives: To train personnel to write, execute and interpret computer programs written in the CMS-2 compiler language for a 30-bit word AN/USQ-20 computer.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the structure of the CMS-2 compiler language; (2) relate the compiler language instructions to machine code; (3) write programs and subroutines in the CMS-2 compiler language of an AN/USQ-20 computer and; (4) use debug statements and procedures to correct program faults.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in compiler language programming (9/84).

NV-1402-0095

Computer Programming AN/UYK-7 Assembler Language - Basic

Course Number: J-532-0063.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 5 weeks (200 hours).
Exhibit Dates: 8/82-Present.
Objectives: To train personnel to write, execute and interpret computer programs written in the ULTRA/32 assembler language for a 32 bit word AN/UYK-7 computer.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand programming procedures for the AN/UYK-7 computer; (2) understand the structure and use of the ULTRA/32 repetoire of instructions; (3) write practical programs in the ULTRA/32 assembly language and; (4) use the I/O instruction set and hardware to run and debug programs on the AN/UYK-7 computer.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in assembly language programming (9/84).

NV-1402-0096

Computer Programming AN/UYK-20 Assembler Language - Basic

Course Number: J-532-0064.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 5 weeks (175 hours).
Exhibit Dates: 6/81-Present.
Objectives: To train personnel in the language repertoire of instructions to produce operating programs using a mini-computer.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand programming procedures for the UYK-20 computer (2) understand the structure and use of the ULTRA-20 repertoire of instructions (3) write practical programs in the ULTRA/20 assembler language (4) use the I/O instruction set and hardware to run and debug programs on the AN/UYK-20 computer.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in assembler language programming (9/84).

NV-1402-0097

Digital Computer Microprocessor Basics

Course Number: A-100-0069.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (70 hours).
Exhibit Dates: 10/82-Present.
Objectives: To train enlisted personnel in the fundamentals of digital logic and microprocessors.
Instruction: Course covers basic digital concepts, arithmetic techniques, digital codes, digital sequential circuits, analog/digital, digital/analog conversion, integrated circuits, microprocessor fundamentals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital logic and microprocessor theory (11/85).

NV-1402-0098

SSN Central Computer Complex (CCC) Maintenance - Software

Course Number: L-150-0001.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 3 weeks (116-120 hours).
Exhibit Dates: 11/85-Present.
Objectives: To provide training on central computer complex software and maintenance.
Instruction: Provide the programming and analysis background necessary to maintain the central computer complex utilizing data flow and overall subsystem interfacing for fault isolation at a system level.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computer systems (11/85).

NV-1402-0099

Naval Intelligence Processing System (NIPS) System Maintenance

Course Number: D-150-0119; J-150-0988.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.
Length: 38 weeks (1465-1520 hours).
Exhibit Dates: 7/85-Present.
Objectives: To qualify selected data systems technicians in the maintenance and repair of electronic data processing and intelligence display equipment.
Instruction: Lecture and laboratory in the theory of operation, corrective and preventive maintenance, and trouble-shooting procedures of the equipment that comprises the naval intelligence processing system (NIPS) and the interface and support equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computers, 3 in introduction to digital techniques, 1 in introduction to digital techniques laboratory, 3 in introduction to digital circuits, 2 in introduction to digital circuits laboratory, 3 in basic semiconductor circuits, 1 in basic semiconductor circuits laboratory, 4 in computer maintenance (1/86).

NV-1402-0100

Afloat Storage and Retrieval Operator

(Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator)

Course Number: D-150-0002; J-150-0963.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.
Length: 8 weeks (311-320 hours).
Exhibit Dates: 11/84-Present.
Objectives: To train data processing technicians in data base storage, retrieval, and use of associated equipment.
Instruction: Lectures and practical exercises in the operation of an intelligence processing computer, file maintenance procedures, basic intelligence and data bases, message processing systems, generation of output display formats, and the operation of

subsystems to receive, process, and display intelligence data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (1/86).

NV-1402-0101

Landing Helo Auxiliary (LHA)
Intelligence Center (IC) Afloat
Automatic Data Processing
(ADP) Operator

Course Number: D-531-0120; J-531-0971.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/83–Present.

Objectives: To train data processing technicians in data base storage, retrieval, and use of associated equipment.

Instruction: Lectures and practical exercises in the operation of an intelligence processing computer, file maintenance procedures, basic intelligence and data bases, message processing systems, and the operation of subsystems to receive, process, and display intelligence data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (1/86).

NV-1402-0102

AN/TYQ-19(V), Marine Air-Ground
Intelligence System (MAGIS)
Intelligence Analysis Center
(IAC) Computer System,
Automatic Data Processing
(ADP) Communications Operator

Course Number: D-530-0101; J-530-0978.

Location Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 6/85–Present.

Objectives: To train enlisted personnel to operate various types of automatic data processing equipment in support of an intelligence analyst center.

Instruction: Lectures and practical exercises in the start-up of computer equipment, communication integration of the equipment with external sources, operation of computer subsystems such as magnetic tape, disk packs, paper punch/reader, display units, file utilities, system files, and recovery procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (1/86).

NV-1402-0103

AN/TYQ-19(V), Marine Air-Ground
Intelligence System (MAGIS)
Intelligence Analysis Center
(IAC) Computer System
Maintenance

Course Number: D-150-0130; J-150-0992.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 6/85–Present.

Objectives: To Train selected personnel in the operation and maintenance of the AN/TYQ-19(V) computer system.

Instruction: Covers theory of operation and maintenance procedures of the components that comprise the AN/TYQ-19(V) system, and preventive and corrective maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals, 3 in electronic communication systems (1/86).

NV-1402-0104

AN/TYQ-19(V), Marine Air-Ground
Intelligence System (MAGIS)
Intelligence Analysis Center
(IAC) Computer Intelligence
Analyst

Course Number: D-240-0101; J-240-0976.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 6/85–Present.

Objectives: Provides the basic skills needed for the intelligence analyst to operate and utilize the marine air ground intelligence system (MAGIS).

Instruction: Lectures and practical exercise in the operation and usage of the equipment comprising the MAGIS system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronic data processing (1/86).

NV-1402-0105

Mk 152 Data

Course Number: A-113-0105.

Location: Naval Training Center, Great Lakes, IL.

Length: 27 weeks (1080 hours).

Exhibit Dates: 8/84–Present.

Objectives: Provide selected individuals having previous training in electronics and digital computer fundamentals, with the knowledge and skills required to maintain the Mk 152 Digital computer and associated control/displays panels and interfacing units.

Instruction: Lecture and laboratory exercises providing indepth study of a 16 bit computer system using RTL logic and core memory. Study includes computer control section, arithmetic section, logic, timing, language instructions and addressing and circuitry; maintenance, control and bootstrup, operation of core memory, access times, decoding; synchro/digital, digital/synchro other D/A and A/D conversions, multiplexing, timing, interfacting of different logic and signal levels; use of diagnostics and other procedures for troubleshooting down to the board and/or component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer architecture and inter-facing and 2 in computer maintenance and repair (1/86).

NV-1402-0106

AN/UYK-7(V) Data Maintenance
Class C-7

Course Number: A-113-0099.

Location: Naval Training Center, Great Lakes, IL; Fleet Training Center, San Diego, CA; FCTCL, Damneck, VA.

Length: 32 weeks (1280 hours).

Exhibit Dates: 3/85–Present.

Objectives: To provide selected students with the knowledge and skills to maintain a digital computer and its peripheral equipment.

Instruction: This is an indepth diagnostics and repair course on a 32- bit multiprocessor digital computer which uses the DTL logic logic family. Also included are instructions on trouble- shooting and repair of associated and peripheral equipment such as printer supplies, magnetic tape units, signal data transfer buffers, wide display systems, radar signal processors and C/O buffer systems. Extensive use of machine language instruction codes are used to isolate faults to the card or component level by interpreting front panel display and using an oscilloscope to verify the fault. Repairs are made to the card level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in mini computer architecture and interface systems, and 2 in computer maintenance and repair (1/86).

NV-1402-0107

Universal Cryptologic Processor
Training Classic Bowsprit Sail
Maintenance

Course Number: A-102-0303.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4–5 weeks (184 hours).

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventative and corrective maintenance on a minicomputer system and a microprocessor driven system and use diagnostics to troubleshoot the processors, printers, display terminals, other peripherals, controllers and interfaces to the modular level.

Instruction: Lectures, demonstrations, handouts, transparencies and lab exercises are used to teach the student how to service and maintain a minicomputer system including the processor and various peripherals and interfaces. Software and firmware diagnostics are used to teach the troubleshooting of all devices to the modular level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in minicomputer system maintenance (7/87).

NV-1402-0108

Universal Cryptologic Processor
Training PDP-11/70 Maintenance

Course Number: A-102-0293.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 10 weeks (440 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and corrective maintenance on the PDP-11/70 minicomputer and its associated peripherals.

Instruction: Group-paced lecture, practical demonstrations and laboratory work with a PDP-11/70 minicomputer and software diagnostics routines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to minicomputers and 4 in minicomputer maintenance (7/87).

NV 1402-0109

Radio Frequency Distribution
Maintenance C1

Course Number: A-102-0304.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 6 weeks (200 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventative and corrective maintenance procedure on the AN/FRD-10 radio frequency distribution network and associated equipment (CDAA, CU-1382F/FRR, MX-6240/41/42/43, and GO-31).

Instruction: Group-paced lectures using A/V aids, demonstrations and laboratory exercises are used to teach the student the preventative maintenance and corrective maintenance procedures for the RFDN (AN/FRD-10 and associated equipment).

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/87).

NV-1402-0110

Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C

Course Number: A-532-0033.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the operating system RSX-11M for file manipulation, data volume preparation, intrasystem communication and algorithm development. The student will be able to design, code and test FORTRAN-77 programs that will initialize, maintain, sort and print data bases.

Instruction: Lecture and supervised laboratory sessions are used to teach the student use of RSX-11M operating system and FORTRAN-77 computer language for the operation and control of data bases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in FORTRAN programming, 2 in RSX-11 operating system, and 2 in data base management (7/87).

NV-1402-0111

Radio Frequency Switch Matrix System Maintenance C1

Course Number: A-102-0319.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 12 weeks (360 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to service and maintain the computerized system - radio frequency switch matrix. The student will know the theory of operation and maintenance practices of the LSI 11/23 computer and associated disk drives, video terminals and printers.

Instruction: Lectures using transparencies and a combination of demonstration and lab exercises are used to instruct the student in the theory of operation and maintenance procedures of the LSI 11/23 computer, peripherals and the RFSW equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer system maintenance (7/87).

NV-1402-0112

Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance

Course Number: CDP 063F; A-102-0292.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 7 weeks (216 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform board level preventive and corrective maintenance on PDP 11 equipment contained in direction finding subsystems of the AN/FSQ-117 wideband system using knowledge of system instructions, timing architecture and system diagnostics.

Instruction: Group-paced lecture, practical demonstrations and laboratory work using the PDP-11, disk drives, DEC writer printer and video terminal.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in minicomputer maintenance laboratory (7/87).

NV-1402-0113

Multi-User Special Intelligence Communications Maintenance

Course Number: A-102-0287.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform effective, corrective and preventive maintenance on a PDP 11/70 based system, including peripherals consisting of asychronous and synchronous multiplexers, microprocessor, floating point processor, video terminal, Dec Writer II, dual programmable clock, and 'ML11 Megaram' memory.

Instruction: Classroom instruction and laboratory exercises involving troubleshooting to the module level. Student is required, using open book, notes manual, etc., to determine status of peripherals, and faults, using self tests, computer diagnostics, register bits, base addresses, syndromes in RAM error identification, and knowledge of system functions and operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer system maintenance and repair (7/87).

NV-1402-0114

Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance

Course Number: A-113-0099.

Location: Fleet Training Center, San Diego, CA; Service School Command, Great Lakes, IL; Fleet Combat Training Center, Dam Neck, VA.

Length: 31 weeks (814 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, troubleshoot, and repair a general purpose computer and peripherals and special purpose operator display consoles.

Instruction: Instruction includes an in-depth diagnostics and repair course on a 32-bit multiprocessor digital computer which uses the DTL logic family. Also included are instructions on troubleshooting and repair of associated and peripheral equipment such as printer supplies, magnetic tape units, signal data transfer buffers, wide display systems, radar signal processors and C/O buffer systems. Extensive use of machine language instruction codes are used to isolate faults to the card or component level by interpreting front panel display and using an oscilloscope to verify the fault. Repairs are made to the card level. For previous versions see NV-1402-0106.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in minicomputer architecture, 3 in computer systems troubleshooting, and 3 in electronic systems troubleshooting (7/87).

NV-1402-0115

Machinery Systems Console Maintenance

Course Number: A-623-0112.

Location: Service Schools Command, Great Lakes, IL.

Length: 27 weeks (1080 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and perform scheduled preventive maintenance and corrective maintenance for shipboard propulsion engineering control consoles.

Instruction: Multimedia presentation and practical exercises designed to provide interior electrician's mates with the knowledge and skills to troubleshoot and maintain shipboard control consoles and automatic control systems. Topics covered: review of math, electronic test equipment, AC/DC electricity, solid state devices, operational amplifiers, digital logic, microprocessors, memory, sensors, AD/DA converters, elementary physics, basic pneumatics, multiplexing, introduction to propulsion plants, diesel propulsion plant operating systems, damage control systems, diesel-driven electrical generating systems, steam-driven electrical generating systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer control systems maintenance, 1 in electric power generation (6/88); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity/electronics, 3 in introduction to digital devices, and 3 in basic electronics laboratory (6/88).

NV-1402-0116

Computer/Microprocessor Fundamentals

Course Number: A-121-0546.

Location: Service Schools Command, Great Lakes, IL.

Length: 3 weeks (116–117 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate understanding and application of number systems, digital codes, 6800 architecture, instruction set, addressing modes, memory tapes, basic algorithm development, address decoding, basic I/O interfacing and the 6821 PIA chip.

Instruction: Classroom instruction and laboratory exercises using Heathkit ETW 3400 Microprocessor training covering the following topics: instruction set, number systems, addressing modes, architecture, interfacing techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in microprocessors (6/88).

NV-1402-0117

OCEAN SURVEILLANCE INFORMATION SYSTEM (OSIS) BASELINE UPGRADE COMPUTER USER

Course Number: J-243-0995.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the Ocean Surveillance Information System (OSIS) Baseline Upgrade (OBU) computer.

Instruction: Lectures, discussions, visual aids, and extensive student practical exercises covering these topics: OBU functional capabilities; OBU system components; computational analysis; data base management; message processing; and simulated ocean surveillance scenarios.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing and 1 in computer operations (7/88).

NV-1402-0118

PROTOTYPE OCEAN SURVEILLANCE TERMINAL USER

Course Number: J-243-0940.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 1 week (45 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the Prototype Ocean Surveillance Terminal (POST) microcomputer system.

Instruction: Lectures, discussions, visual aids, and laboratory covering these topics: System reports; editing messages; correlating data; data base functions; analysis functions; plot configuration; and system configuration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer applications (7/88).

NV-1402-0119

OCEAN SURVEILLANCE INFORMATION SYSTEM (OSIS) BASELINE UPGRADE SYSTEM MANAGEMENT

Course Number: J-243-0991.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 9 weeks (368 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage the operation of the Ocean Surveillance Information System (OSIS) Baseline Upgrade (OBU).

Instruction: Lectures, discussions, visual aids, and extensive student practical exercises covering these topics: Introduction to Naval intelligence; OBU system capabilities; OBU system operational software programs; OBU system malfunctions; configuration and reconfiguration techniques; fault monitoring capabilities; maintenance coordination; security management, and data base management functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data base management systems, 2 in data processing, and 2 in computer operations (7/88).

NV-1402-0120

AEGIS FUNDAMENTALS

Course Number: S-150-0240; A-150-0240.

Location: Aegis Training Center, Dahlgren, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the behavior of basic logic elements, such as gates, memory, encoders/decoders, analog-to-digital/ digital-to-analog conversion, and multiplexers; and comprehend concepts of digital computer organization and programming.

Instruction: For this course before 12/85 see NV-1402-0059. Course contains a brief overview of digital logic and computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in digital principles (12/88).

NV-1402-0121

FC-1114 COMBAT SYSTEM COMPUTER SYSTEM MAINTENANCE TECHNICIAN

Course Number: A-150-0239; S-150-0239.

Location: Aegis Training Center, Dahlgren, VA.

Length: 20 weeks (776 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course the student will be familiar with the operational maintenance of a computer system used to control a complex phased-array radar system. Student will be able to perform preventive maintenance and troubleshoot to the circuit card level, load software and operate the system.

Instruction: An in-depth study of a system-level course on the operation and maintenance of computer control and signal processing equipment for a radar system. The course is approximately 50% lecture and 50% practical application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer systems and organization and 4 in computer systems troubleshooting and maintenance (12/88).

NV-1402-0122

MAGNETIC DISK FILE THEORY AND MECHANICAL MAINTENANCE FCS MK MOD 0

Course Number: A-121-0429.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (49 hours).

Exhibit Dates: 6/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all corrective maintenance on the magnetic disk file subsystem.

Instruction: Lecture and laboratory on the theory, operation, and maintenance of disk pack, mechanical drive, hydraulic actuator, and carriage assembly of a magnetic disk file subsystem. Instruction also included on special tools and test equipment to align, adjust, and calibrate the magnetic disk file subsystem.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer repair technology (2/89).

NV-1402-0123

TRIDENT DEFENSIVE WEAPONS SUBSYSTEM/COMMAND SUBSYSTEM (DWS/CS) LEVEL I

Course Number: A-130-0227.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 11 weeks (322 hours).

Exhibit Dates: 7/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain, under supervision, a command and control system.

Instruction: Lectures and laboratory exercises in the basic theory, functions, operation and maintenance of a computer-controlled system with multiple inputs and outputs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in the operation and maintenance of computer control system (2/89).

NV-1402-0124

MK 118 FIRE CONTROL SYSTEM ADVANCED MAINTENANCE

Course Number: A-130-0233.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (81 hours).

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain advanced maintenance procedures for the Mk 118 Fire Control System.

Instruction: Lectures and laboratory exercises in the theory, operation, and maintenance of power supplies, I/O control and test circuits of fire control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer control applications laboratory (2/89).

NV-1402-0125

ADVANCED DEFENSIVE WEAPONS SUBSYSTEM COMMAND SUBSYSTEM OPERATOR

Course Number: A-130-0231.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (52 hours).

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to qualify as a console operator by demonstrating the advanced operating procedures for the battle stations fire control party.

Instruction: Lectures and laboratory exercises on the theory, operation, and maintenance of defensive weapons subsystems. Topics include sonar displays, radar displays, and controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer control applications laboratory (2/89).

NV-1402-0126

DISPLAY CONSOLE OJ-326(V)/UYK AND DIGITAL DISPLAY INDICATOR IR-1181/UYK MAINTENANCE PHASE II

Course Number: A-150-0251.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (88 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform corrective maintenance of the memory and display functional areas of display console.

Instruction: Lectures and laboratory on the theory, operation, and maintenance of display consoles. Topics also covered on test equipment to perform alignment, adjustment, and calibration procedures on digital display indicators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems (2/89).

NV-1402-0127

Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I

Course Number: A-150-0216.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (105 hours).

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide corrective maintenance of power/cooling and interface functions of the display console.

Instruction: Lectures on the theory, operation, and maintenance of display console with topics on logic levels, memory size and accuracy, inputs and outputs, and data multiplexing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer display systems (2/89).

NV-1402-0128

Display Console OJ-326(V)/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase III

Course Number: A-150-0252.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (48 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform corrective maintenance of the analog functions of a display console.

Instruction: Lecture and laboratory activities on the operation and maintenance of display console with coverage inputs, outputs, data multiplexing, and display controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in A/D and D/A conversions (2/89).

NV-1402-0129

Target Data Processing (TDP) Maintenance Class C

Course Number: J-130-0296.

Location: Fleet Anti-Submarine Training Center, Norfolk, VA.

Length: 19–20 weeks (790 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a specific computer and its peripherals.

Instruction: Lectures and practical exercises related to the theory of operation and troubleshooting procedures for a computer, magnetic tape unit, keyset, display, printer, and plotter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer troubleshooting and maintenance and 2 in computer systems and organization (3/89).

NV-1402-0130

Automatic Data Processing Maintenance

Course Number: J-130-0298.

Location: Fleet Anti-Submarine Warfare Training Center, Norfolk, VA.

Length: 13–14 weeks (503 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a specific computer system and its peripherals.

Instruction: Lectures and practical exercises related to the theory of operation and troubleshooting procedures for a computer, printer, disk drive, video display terminal, and multiplexer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization and 3 in computer systems troubleshooting and maintenance (3/89).

NV-1402-0131

Shipboard Non-Tactical Automatic Data Processing (ADP) Program II (SNAP II) AN/UYK-62(V) Maintenance

Course Number: A-150-0255.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3–4 weeks (145 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain specific shipboard data processing systems, including tape units, disk storage, keyboard, video terminal, printer, paper tape reader/punch, and power supply.

Instruction: Lecture and practical exercises in operation and corrective/preventive maintenance of data processing systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems troubleshooting and maintenance (3/89).

NV-1402-0132

Integrated Submarine Automated Broadcast Processing System

Course Number: A-101-0140.

Location: Fleet Training Center, Norfolk, VA.

Length: 15 weeks (597 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain the equipment in a submarine automated broadcast processing system.

Instruction: Lectures and practical exercises on operation, troubleshooting and repair of communications equipment and a computer system and its peripherals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems and organization and 3 in computer systems troubleshooting and maintenance (3/89).

NV-1402-0133

AN/WSC-6(V) Operator

Course Number: A-260-0046.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific satellite communications set modem (data link).

Instruction: Lectures and practical exercises in operation of the communication set modem.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/89).

NV-1402-0134

Command and Control System (CCS) Advanced Level III

Course Number: A-150-0202.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 5 weeks (134 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the trainee will be able to describe the types of signals, signal flow, inputs and output, coding, timing relationships, sequential operation, circuits and registers found in the Digital Data Computer CPU. Trainee will be able to perform standard and non standard operational test to support maintenance at the board level.

Instruction: Lecture and laboratory exercises on the following subsystems of the AN/UYK-7(V) Digital Data Computer: 1. Power supply 2. CPU 3. I/O Control Unit 4. Care Memeory Unit 5. Film Memeory Unit 6. Operator Control Unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer maintenance/operations (3/89).

NV-1402-0135

Trident Command and Control System Level One

Course Number: A-150-200.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 16 weeks (640 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon successful completion of this course the trainee will be able to state the purpose of the Trident Command and Control System, define the abbreviations, terms and symbols used with the CCS, describe all major and associated subsystems of the CCS and the location of each.

Instruction: Laboratory and lecture on the following subsystems that comprise the CCS: 1) Sonar, 2) Interior/Exterior Communications, 3) Ship Control, 4) Data Processing, 5) Passive RF Monitoring, 6) Defensive Weapon/Command Subsystem, 7) Tactical Navigation, and 8) Monitoring Subsystem.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital computer system operation, and 3 in digital signal processing (3/89).

NV-1402-0136

Trident Command and Control System Level 2

Course Number: A-150-0201.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (115 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon successful completion of this course the trainee will be able to define the abbreviations, terms and symbols used with the AN/UYK-7(V) to support basic corrective maintenance, describe all major and associated components of the Digital Data Computer (DDC), describe the organization, control and use of all technical docomentation necessary for basic corrective maintenance.

Instruction: Lecture and laboratory exercises on the following subsystems of the AN/UYK-7(V) Digital Data Computer: 1) Power Supply, 2 (Control Processor, 3) I/O Controller Unit, 4) Core Memory, 5) Film Memory Unit, and 6) Operator Control Unit.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operations (3/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer maintenance laboratory (3/89).

NV-1402-0137

Fire Control System Mk 98 Mod 0 Advanced Technician

Course Number: A-121-0525.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to define terms, abbreviations and symbols associated with the Mk 98 Fire Control System (FCS), perform operational/fault isolation and repair on the FCS, described and use special tools and test equipment required for resolder and wire wrap connections while on patrol.

Instruction: Lecture and laboratory exercise on the functional operation and mechanization of the following FCS Subsystems: 1. Power 2. Data Communications Processor 3. Master Clock and Timing 4. Keyboard and display 5. Printer 6. Data Conversion and 7. Magnetic taper.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in Data Acquisition laboratory (3/89).

NV-1402-0138

Digital-to-Digital Converter CV-2342 B/UYK Maintenance

Course Number: A-193-0339.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (76 hours).

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe in detail all major and associated components of th the CV-2343B/UYK Digiatal to Digital Inverter. Describe in detail th physical interface(s) between the DID converter and all associated equipment. Perform all authorized fault isolation and repair procedures with respect to the CV-2342B/UYK DID Converter.

Instruction: Lecture and laboratory exercises in the theory and operation of DID converters supporting corrective maintenance procedures on the CV-2342B/UKY converter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems maintenance laboratory (3/89).

NV-1402-0139

Flat Panel Display Terminal Maintenance

Course Number: A-193-0361.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the functional operation and procedures necessary to support corrective maintenance of the Flat Panel Display Terminal (FPDT). Perform all authorized fault isolation and repair procedures on the FPDT.

Instruction: Lecture and laboratory exercise supporting corrective maintenance procedures on the Flat Panel Display Terminal including detailed circuit analysis, inputs, outputs, and turning relationships of signals.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/89).

NV-1402-0140

Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0

Course Number: A-121-0428.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (79 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and authorized fault isolation/repair procedures on the Magnetic Disk file Subsystem (MDFSS).

Instruction: Lecture and Laboratory exercise in support of preventive and corrective maintenance of the Magnetic Disk File Subsystem.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/89).

NV-1402-0141

Computer CP-890 A&B/UYK Processor Maintenance 1

Course Number: A-193-0336.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, WA.

Length: 3 weeks (112 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to work problems in Boolean algebra, work with memories, I/O devices, clock circuits, registers, and other components of a basic computer; operate associated power supplies, and perform maintenance on the equipment.

Instruction: Lectures and laboratories on the maintenance of digital computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance (10/89).

NV-1402-0142

Radio Navigation Set AN/BRN-3B Data Processor Maintenance

Course Number: A-193-0260.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.

Length: 2 weeks (71 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a special purpose computer associated with a radio navigation set.

Instruction: Lectures and practical exercises on the maintenance of the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems troubleshooting and maintenance (10/89).

NV-1402-0143

Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1

Course Number: A-121-0290.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.

Length: 2 weeks (80 hours.)

Exhibit Dates: 4/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform diagnostic checks, operate, and maintain the keyboard/intercomputer link including printer and tape reader of a special purpose computer.

Instruction: Lectures and practical exercises on the computer and its peripherals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems troubleshooting and maintenance (10/89).

NV-1402-0144

Combat Control Subsystems Mk 1 Mod 0 Pipeline Maintenance

Course Number: A-113-0132.

Location: Submarine School, Groton/New London, CT.

Length: 23 weeks (1272 hours).

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the component parts of the digital computer including arithmetic logic unit, address registers, disk processor, controllers and drivers, input/output circuits, data bit storage, buffers, and displays. Student is able to maintain, troubleshoot and repair a digital computer system including fault isolation and logic tests, and is able to align, adjust, and calibrate computer equipment.

Instruction: Lectures and practical exercises with emphasis on computer organization and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization and 3 in computer systems troubleshooting and maintenance (10/89).

NV-1402-0145

AN/UYK-20(V) Basic Maintenance

Course Number: A-150-0267.

Location: Submarine School, Groton/New London, CT.

Length: 2 weeks (79 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, maintain, troubleshoot and repair basic data processing equipment using common and specialized test equipment.

Instruction: Lectures and practical exercises including signal flow, input/output devices, registers, processors, power supplies and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category,

gory, 2 semester hours in computer systems troubleshooting and maintenance (10/89).

NV-1402-0146

Digital to Digital Converter CV-2342/UYK Maintenance

Course Number: A-193-0252.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.

Length: 2 weeks (76 hours).

Exhibit Dates: 3/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a digital-to-digital converter.

Instruction: Lectures and laboratory exercises on the characteristics and maintenance of a digital-to-digital converter, including serial-to-parallel buffer and digital-to-analog buffer. Instruction provided on testing, isolating faults, and repairing the digital to digital converter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89).

NV-1402-0147

Digital Control Computer Missile Interface FCS Mk 88 Mod 1

Course Number: A-121-0291.

Location: Submarine Training Facility, Charleston, SC; Submarine School, Groton/New London, CT.

Length: 2-3 weeks (104 hours).

Exhibit Dates: 8/81–Present.

Objectives: Upon completion of the course the student will be able to operate, maintain, and troubleshoot the interface circuits for a digital control computer missile.

Instruction: Theory and practical exercises in the circuitry for operation and repair of the interface circuits of the system including digital inputs and parallel-to-serial converters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1402-0148

Digital Combat Systems Common Core

Course Number: A-113-0113.

Location: Submarine School, Groton/New London, CT.

Length: 18 weeks (604 hours).

Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair an electronic control system and general purpose computer and describe general computer architecture and data and signal flow.

Instruction: Lectures and practical exercises in computer organization, troubleshooting and corrective maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems troubleshooting and maintenance (10/89).

NV-1402-0149

1. Shipboard Uniform Automated Data Processing System- Real Time Operations and Management
2. Shipboard Uniform Automated Data Processing System (SUADPS) 207/AV207

Course Number: A-551-0085.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 1/90–Present. *Version 2:* 9/83–12/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to supervise and operate the processes associated with an on-line real-time computer system supporting all aspects of the shipboard function of maintenance, supply, financial, and personnel administration. *Version 2:* Upon completion of the course the student will be able to supervise and operate the processes associated with a batch-based minicomputer which handles the ship's support functions: supply, maintenance, financial, and personnel administration.

Instruction: *Version 1:* Lectures, demonstrations, assignments and examinations. Topics covered include system design, flow, element-level design and description and internal and external interfaces to support activity for procurement, material receipt, storage, disbursement, financial reporting, and reconciliation to higher level accounting systems. *Version 2:* Lectures, demostrations, assignments and examinations. Topics include processing inventory system activity for procurement, material receipt, storage, disbursement, inventory, parts master files, financial reports, and reconciliation to higher level accounting systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automated data processing operations and 3 in automated data processing systems (12/89). *Version 2:* 3 semester hours in automated data processing systems (12/89).

NV-1402-0150

Shipboard Non-Tactical Automatic Data Processing (SNAP I) System Enlisted Supervisor/Operator

Course Number: A-532-0029.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3 weeks (116 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the operation of an automatic data processing system. This computer-based system is designed to provide for on-line, real-time interactive support of the ship's maintenance, supply, financial, and administrative functions.

Instruction: Methods of instruction use include lectures and practical exercises in the operation and use of the computer in the support functions of the ship. Topics include the supply system, computer hardware and software, computer operations, and operation of the various support subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automated data processing (12/89).

NV-1402-0151

Shipboard Non-Tactical Automatic Data Processing (SNAP) II System Coordinator

Course Number: A-551-0018.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA; Fleet Training Group, Pearl Harbor, HI; Trident Training Center, Bangor, WA; Submarine School, Groton/New London, CT; Trident Training Facility, Kings Bay, GA; Fleet Mine Warfare Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise and operate a computer-based system designed to provide for on-line, real-time interactive support of the ship's maintenance, supply, financial, and administrative function.

Instruction: Methods of instruction include lectures and practical exercises in operation and use of the computer in the support functions of the ship. Topics covered include the supply system, the computer hardware and software, computer operations, and operation of the various support subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing operations (12/89).

NV-1402-0152

Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat

Course Number: A-551-0093.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific nontactical minicomputer system. The student will be able to operate the computer to satisfy a diverse range of administrative and managerial support requirements.

Instruction: Classroom lectures, discussion, hands-on equipment exercises, in-class assignments, and examinations are the instructional methodologies. Topics include basic operation of a line printer, card reader, paper tape reader/punch, keyboard video display terminal; basic operation of the ship's nontactical computer system and the following subsystems: supply and financial management, supply control, inventory, requirements and requirement processing, receipt processing, material expenditures, integrated logistics management, and reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations and 3 in inventory control procedures (12/89).

NV-1402-0153

Shipboard Non-Tactical Automatic Data Processing (SNAP) 3-M Coordinator/Inspector

Course Number: J-500-0029.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC; Fleet Training Group, Pearl Harbor, HI; Submarine School, Groton/New London, CT; Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the principles and solve the problems and resolve situations encountered in duties as a maintenance, material, management coordinator as applied to a specific minicomputer system. The student will operate the system and control maintenance inventory.

Instruction: Lectures, classroom discussions, exercises, equipment operation, and examinations. Topics include concepts of a planned maintenance system, computer operation, maintenance management, maintenance data accounting, and inventory control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations and 1 in inventory control procedures (12/89).

NV-1402-0154

NAVAL AVIATION LOGISTICS DATA ANALYSIS (NALDA)

Course Number: None.

Location: Various locations, Continental U.S.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/82–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe general data base concepts and write commands and programs to extract data from the data base.

Instruction: Lectures and practical exercises focused on the query of a naval logistics data base. Topics include records, fields, keys, indexes, access time considerations, boolean algebra, and query methods.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in data base programming (6/90).

NV-1403-0001

NEUROPSYCHIATRIC CLERICAL TECHNIC

Course Number: Not available.

Location: Naval Hospital, Bethesda, MD.

Length: 16 weeks (640 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train enlisted personnel as neuropsychiatric clerical technicians.

Instruction: Lectures and practical exercises in neuropsychiatric terminology and nomenclature, special regulations, vital statistics, and consultation and clinical management.

Credit Recommendation: In the upper-division baccalaureate category, credit in medical record administration, social work, or hospital administration on the basis of institutional evaluation (7/74).

NV-1404-0001

POSTAL CLERK, CLASS A

Course Number: None.

Location: Service School Command, San Diego, CA; Service School Command, Bainbridge, MD.

Length: 3–5 weeks (90–150 hours).

Exhibit Dates: 9/62–1/88.

Objectives: To provide enlisted personnel with the technical training necessary to perform duties in the Naval postal service.

Instruction: Lectures and practical exercises in typing, operation of postal procedures; and on-the-job training in the operation of the Navy post office.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1404-0002

INTERNATIONAL MORSE CODE OPERATOR (Intermediate Morse Code Operator, Class C)

Course Number: A-580-0015; A-201-0021; A-201-0022; A-580-0019.

Location: Training Center, San Diego, CA; Radioman School, Bainbridge, MD.

Length: Self-paced 1–12 weeks (280–360 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train enlisted personnel to receive and transmit international Morse code.

Instruction: Lectures and practical exercises in receiving and transmitting international Morse code, radiotelegraph messages, prosign and operating signals, call signs and address groups, circuit operation, and distress communications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1404-0003

COMMUNICATION OFFICER FLEET (Communication Officer Afloat)

Course Number: A-4C-0010.

Location: Naval Education and Training Center, Newport, RI.

Length: 8–12 weeks (233–367 hours).

Exhibit Dates: 1/67–1/88.

Objectives: To train commissioned officers to perform as fleet communications officers.

Instruction: Lectures and practical exercises in fleet communications. Topics include communications procedures, equipment and systems, cryptographic operations, and registered publications systems. A limited amount of instruction is given in electronics in support of the primary goal and objective of the course.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

NV-1404-0004

COMMUNICATIONS TECHNICIAN T AND R BASIC PREPARATORY, CLASS A

Course Number: A-230-011.

Location: Communications Training Center, Pensacola, FL.

Length: 10 weeks (350 hours).

Exhibit Dates: 9/69–1/88.

Objectives: To train enlisted personnel to perform as communications operators.

Instruction: Lectures and practical exercises in the duties of communications operators. Course includes Morse code reception (13 words/minute), intensive practice on touch-typing (25 words/minute), and the principles of communication and radio equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74).

NV-1404-0005

COMMUNICATIONS OFFICER (SHORT COURSE)

Course Number: Not available.

Location: Communication Officer School, Newport, RI.

Length: 8 weeks (246 hours).

Exhibit Dates: 7/57–12/68.

Objectives: To train officers in communications procedures.

Instruction: Lectures and practical exercises in communications procedures, including message preparation, message types and formats, communications systems, electronic communications equipment, administration procedures, broadcasts, circuits, watch requirements, special communications situations and conditions, electronic warfare, cryptography and special codes, postal services, commercial communications, and security and censoring procedures in communications.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1404-0006

NAVAL AMPHIBIOUS COMMUNICATIONS

Course Number: H-4C-5215.

Location: Amphibious School, Coronado, CA.

Length: 2 weeks (74 hours).

Exhibit Dates: 3/72–1/88.

Objectives: To provide background and knowledge in communication practices, techniques, and requirements unique to amphibious operation.

Instruction: Lectures and practical exercises in communications, administration, amphibious concepts and organization, operations order, communication equipment and systems, and security.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1404-0007

DYNALEC AUTOMATIC TELEPHONE SYSTEM MAINTENANCE, CLASS C1

Course Number: A-623-0047.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 8/76–1/88.

Objectives: To train telephone system technicians in the operation, adjustment, and maintenance of the 100/150 line automatic dial telephone system.

Instruction: Instruction in subsystems related to an automatic dial telephone system including automatic switchboards, crossbar switching, manual switchboard, and troubleshooting and maintenance techniques for the telephone system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone system operation (9/77).

NV-1404-0008

RADIOMAN CLASS A SHORE DUTY

Course Number: A-202-0027.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (56 hours).

Exhibit Dates: 2/82–Present.

Objectives: To train personnel in shore radio operating practices.

Instruction: Lectures and operating practice in shore radio communications including communication organization, message preparation, use of tape cutters, use of teletypes, video terminals and communications practice.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (5/82).

NV-1404-0009

RADIOMAN CLASS A SEA DUTY

Course Number: A-202-0026.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 2/81-Present.

Objectives: To train personnel in shipboard radio operating practice.

Instruction: Operating practice in shipboard radio communications including communications equipment orientation, patch panels, operations and communications practice.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication equipment operations laboratory (5/82).

NV-1404-0010

DYNALEC 200/700 LINE AUTOMATIC TELEPHONE MAINTENANCE

Course Number: A-623-0100.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/83-Present.

Objectives: To train personnel in the theory of operation, repair and troubleshooting of an electronic automatic dial telephone system.

Instruction: Lectures and practical exercises in the theory and operation of an electronic automatic line telephone system including system operating procedures, calls and the switching matrix, dial tone, call completion, manual switchboard, cut-in, restricted line, ring generators, alarms and related power supplies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic telephone systems, 1 in electronic system troubleshooting (10/83).

NV-1404-0011

SUBMARINE DIGITAL TELETYPE COMBINED MAINTENANCE

Course Number: A-101-0251.

Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (162 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the functions of components of radio teletype transceivers and operate, troubleshoot, and repair them.

Instruction: Lectures and practical exercises on the teletype equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio teletype operation and maintenance (10/89).

NV-1404-0012

ADVANCED INTERNATIONAL MORSE CODE OPERATOR

Course Number: F-201-0210.

Location: Submarine School, Groton/New London, CT; Fleet Mine Warfare Training Center, Charleston, SC; Trident Training Facility, Kings Bay, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to transmit and receive international Morse Code.

Instruction: Lectures and practical exercises designed for student proficiency in Morse code.

Credit Recommendation: In the vocational certificate category, 3 semester hours in Morse code (10/89).

NV-1405-0001

SHIP'S SERVICEMAN CLASS A
(Ship's Servicemen Recordskeeper)

Course Number: A-823-0012; A-823-0010; A-823-0011.

Location: Naval Technical Training Center, Meridian, MS; Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 7/83-Present. *Version 2:* 12/71-6/83.

Objectives: To train enlisted personnel to perform as ship's store recordskeepers.

Instruction: *All Versions:* Lectures on procurement and receipt of ship's store stock, inventory control, and records and returns. *Version 1:* Emphasizes retailing skills for ship's store operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to retailing (6/84) *Version 2:* Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1405-0002

STOREKEEPER SUPPLY AFLOAT (DEPENDENT DUTY) CLASS C

Course Number: A-551-0069; A-551-0070.

Location: Naval Schools Command, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 12/71-1/88.

Objectives: To train students to function as ship's storekeepers under the direction of supply corps officers.

Instruction: Lectures on supply department publications; administration of supply organization afloat; procedures for receiving, storing, procuring, and inventory; records and files; and preparation of reports.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1405-0003

SHOP STORES PROCEDURES, CLASS C

Course Number: A-610-0012.

Location: Construction Training Center, Port Hueneme, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/65-1/88.

Objectives: To train enlisted personnel to serve as shop storesmen of supply items needed locally by construction battalions for current repair, maintenance, or general use.

Instruction: Lectures and practical exercises in federal supply catalogs; bureau of yards and docks catalogs and material; cross-reference systems; commercial catalogs and parts lists; identification of parts and materials; and shop store organization and administration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in supply management (7/74).

NV-1405-0004

AVIATION STOREKEEPER, CLASS A

Course Number: C-551-2010.

Location: Naval Technical Training Center, Meridian, MS; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: Self-paced 7-11 weeks (255-480 hours).

Exhibit Dates: 10/57-Present.

Objectives: To train enlisted personnel to perform as entrance-level aviation storekeepers.

Instruction: Lectures and practical exercises in entrance-level aviation storekeeping, including operation of adding machines, calculators, and typewriters; finance and accounting procedures; materials handling and storage; correspondence; receipt and issue procedures; and item identification.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in inventory supervision (6/84).

NV-1405-0005

NAVY PURCHASE

Course Number: Not available.

Location: Bureau of Supplies and Accounts, Washington, DC.

Length: 4 weeks (114 hours).

Exhibit Dates: 2/61-12/68.

Objectives: To train enlisted personnel to handle the duties of a purchaser of goods and services.

Instruction: Lectures in purchasing practices and procedures. Course includes formal advertising, negotiation, contract administration, office administration, and future trends in purchasing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in purchasing (6/74); in the upper-division baccalaureate category, 2 semester hours in principles of procurement (12/68).

NV-1405-0006

LINE OFFICER SUPPLY (LOS)

Course Number: A-8B-0013.

Location: Mine Warfare School, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/71-1/88.

Objectives: To train line officers to perform as supply officers aboard minesweepers.

Instruction: Lectures and practical exercises on inventory management, financial management, and food service management, including duties of naval supply officer, organization and functions of supply department aboard minesweeper, material identification and classification, coordinated shipboard allowance list, supply operations and assistance program, military standard requisitioning and issue procedures, purchase and receipt of materials and services, and organization and administration of food services.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (6/74).

NV-1405-0007

MARINE AVIATION SUPPLY (MECHANIZED), CLASS C

Course Number: C-551-2012.

Location: *Version 1:* Naval Technical Training Center, Meridian, MS. *Version 2:* Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 10 weeks (380 hours). *Version 2:* 4 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/76-Present. *Version 2:* 9/71-4/76.

Objectives: To train enlisted personnel in the performance of aviation supply duties.

Instruction: *All Versions:* Lectures and practical exercises in the fundamentals of aviation supply support including introduction to aviation supply, documents, equipment, management, Shipboard Uniform Automated Data Processing System (SUADPS), functions of GASSC under SUADPS, systems output, DUADPS operating procedures within GASSC, group aviation supply support center in operation, and electronic accounting machine and communications equipment. *Version 1:* Includes instruction in computer-oriented aviation supply support. *Version 2:* Includes instruction in mechanized supply support.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer-oriented materials management (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74).

NV-1405-0008

MARINE AVIATION SUPPLY, CLASS C

Course Number: Not available.

Location: *Version 1:* Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Memphis, TN. *Version 3:* Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 10 weeks (384 hours). *Version 3:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 8/70-1/88. *Version 2:* 11/65-7/70. *Version 3:* 10/57-10/65.

Objectives: To train enlisted personnel in aviation supply procedures.

Instruction: *All Versions:* Lectures and practical exercises in aviation supply procedures, including correspondence, typing, material classification and cataloguing, technical publications, allowance lists, requisitioning, stock records and transactions, supply organization, mechanized procedures, management reports, and procurement procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in property accounting (6/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in property accounting (6/74); in the upper-division baccalaureate category, credit in typing and property accounting on the basis of institutional evaluation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in property accounting (6/74); in the upper-division baccalaureate category, credit in property accounting on the basis of institutional evaluation (12/68).

NV-1405-0009

JOINT AVIATION SUPPLY AND MAINTENANCE MATERIAL MANAGEMENT

Course Number: A-8B-0020.

Location: Naval Supply Corps School, Athens, GA.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/72-Present.

Objectives: To train commissioned officers in aviation material management.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) define the most commonly used maintenance/material and supply terms, acronyms or abbreviations relating to naval aviation, (2) select from a list of those activities directly involved in aviation logistic support and match each with its specific functional maintenance and/or supply responsibility, (3) describe the principles and procedures for maintenance and utilization of aviation stock control and procurement records, files, regulations and directives in terms of their application to the supply activity, (4) select from a list of supply support procedures, timely issue of material, control of repairable components, preparation and flow of documentation and reconciliation of records and requirements, (5) describe the wholesale/retail concept for the management of system supply stock.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in inventory management (7/83).

NV-1405-0010

AVIATION ORDNANCE OFFICERS (MANAGEMENT), CLASS O (AOM(O))

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To train limited-duty, line, and aviation ordnance officers in ordnance management.

Instruction: Lectures and practical exercises in the duties of aviation ordnance officers, including aviation ordnance management, supply, standard Navy maintenance and material management system, safety and security, procurement and control management, and maintenance data collection and processing.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

NV-1405-0011

SUPPLY ASHORE REFRESHER

Course Number: A-8B-0025.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To train reserve officers to operate and manage supply activities ashore.

Instruction: Lectures and practical exercises in the operation and management of supply activities ashore. Course includes supply ashore operations and management, supply procurement, inventory control and warehousing, financial management, and distribution management within the military system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1405-0012

SUPPLY CORPS OFFICER BASIC QUALIFICATION - AVIATION MANAGEMENT

Course Number: A-8B-0044.

Location: Naval Supply Corps School, Athens, GA.

Length: 5 weeks (145 hours).

Exhibit Dates: 4/81-Present.

Objectives: To train officers in the management of aviation supplies.

Instruction: Lectures and discussion in basic aviation supply maintenance and material management including aviation storage procedures, aeronautical supply distribution systems and the management of high priority requisitions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in material management (7/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in material management (7/83).

NV-1405-0013

1. STOREKEEPERS (REPAIR PARTS), CLASS C
2. STOREKEEPERS (REPAIR PARTS), CLASS C

(Supply Storekeepers (Repair Parts), Class C-1)

Course Number: Not available.

Location: Storekeepers Class C School, Newport, RI.

Length: *Version 1:* 3 weeks (90 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 12/66-12/68. *Version 2:* 8/60-11/66.

Objectives: To train enlisted personnel to be storekeepers.

Instruction: Lectures and practical exercises in storekeeping, including appropriations, accounting, supplies procurement, storage inventory control, ordnance supply system, yards and docks supply system, electronic supply system, and introduction to ships machinery and repair parts supply system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74).

NV-1405-0014

BASIC QUALIFICATION COURSE OF THE SUPPLY CORPS

Course Number: A-8B-0012.

Location: Supply Corps School, Athens, GA.

Length: *Version 1:* 24-28 weeks (1,032-1,204 hours). *Version 2:* 26 weeks (650 hours). *Version 3:* 26 weeks (650-780 hours).

Exhibit Dates: *Version 1:* 10/72-12/74. *Version 2:* 8/67-9/72. *Version 3:* 6/57-7/67.

Objectives: To qualify officers to assume the duties normally associated with supply and disbursing in the U.S. Navy.

Instruction: Course covers supply management, personnel management, food service operations, retail operations, disbursing afloat, and computer operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in supply management and 1 in personnel administration (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management and 2 in personnel administration (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management and 3 in personnel administration (12/68).

NV-1405-0015

BASIC QUALIFICATION COURSE OF THE SUPPLY CORPS

Course Number: A-8B-0012.

Location: Supply Corps School, Athens, GA.

Length: 14-16 weeks (400-560 hours).

Exhibit Dates: 6/57-12/74.

Objectives: To train selected officers to assume the duties normally associated with supply and disbursing officers in the U.S. Navy.

Instruction: Course covers supply management, personnel administration, food service, retail operations, disbursing afloat, and computer operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management and 2 in personnel administration (12/68).

NV-1405-0016

BASIC QUALIFICATION COURSE OF THE SUPPLY CORPS

Course Number: A-8B-0012.

Location: Supply Corps School, Athens, GA.

Length: 10 weeks (350 hours).

Exhibit Dates: 8/67-12/74.

Objectives: To prepare newly commissioned women officers to assume supply and disbursing duties during a period of mobilization.

Instruction: Lectures and practical exercises in supply management, personnel administration, food service, retail operations, disbursing afloat, and computer operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management and credit in personnel administration on the basis of institutional evaluation (12/68).

NV-1405-0017

STOREKEEPER SUPPLY AFLOAT (INDEPENDENT DUTY), CLASS C

(Storekeepers (Independent Duty), Class C)

Course Number: A-551-0010; A-551-0011.

Location: *All Versions:* School Command, Norfolk, VA; School Command, San Diego, CA; *Version 2:* School Command, Newport, RI.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 8/77-Present. *Version 2:* 4/64-7/77.

Objectives: To train selected enlisted personnel as storekeepers aboard ship.

Instruction: *All Versions:* Training in the use of technical and administrative publications, catalogs, and allowance lists; acquisition, control, and issue of stores; financial accounting, stores storage and security, requirements determination; stores management organization; pricing and profit policies; inventory procedures; food service sales, controls, and records.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management, 1 in food service records management (5/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (8/74).

NV-1405-0018

CARRIER GASOLINE AND INERT GAS SYSTEMS, CLASS C

Course Number: Not available.

Location: Air Material Center, Philadelphia, PA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/56-12/68.

Objectives: To train personnel in the operation and maintenance of carrier gasoline and inert gas systems.

Instruction: Lectures and practical exercises in carrier gasoline system operation and maintenance; carrier inert gas system operation and maintenance; and high capacity aviation fuel system operation and maintenance. Course covers: receiving and dispensing bulk quantities of liquid and gaseous materials; measuring liquid flow; and operating principles of inert gas storage systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in materials handling (7/74).

NV-1405-0019

SUPPLY CORPS OFFICER-BASIC QUALIFICATION

Course Number: A-8B-0012.

Location: Navy Supply Corps School, Athens, GA.

Length: 26-27 weeks (720-810 hours).

Exhibit Dates: 5/77-Present.

Objectives: To qualify officers to assume duties normally associated with supply and disbursing in the Navy.

Learning Outcomes: Upon completion of the course the student will be able to: (1) describe the integrated supply system and follow materiel management procedures for requisitioning, receiving and inventory management, (2) determine pay entitlements for Naval personnel; determine the cash requirements and follow proper accounting procedures for operating a disbursing office, (3) follow the procedures for procurement, receipt, pricing and sales of merchandise for a retail operator, and know the procedures for proper accounting and cash control, (4) perform quantitative analysis to include constructing a random sample of sufficient size for the degree of accuracy desired, and the computation and use of standard statistical measures. Also, design the input and output segments of an information processing system for a given situation, (5) know the procedures for operating food service activities and be able to audit the required documentation, (6) identify the nature and causes of problems in leadership and personnel management, list alternative solutions and justify the selected course of action.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in retail management, 2 in food service management, 2 in introduction to statistical methods, 1 in materiels management, 1 in accounting (8/83); in the upper-division baccalaureate category, 3 semester hours in industrial management, industrial psychology, leadership development or a management elective (8/83).

NV-1405-0020

AVIATION STOREKEEPER ADVANCED TRAINING CLASS C

Course Number: C-551-2016.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 11/79-Present.

Objectives: To provide aviation storekeepers with advanced training as related to repairables management.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) prepare material requisitions, daily status reports, budget reports, logs, transmittal reports; (2) maintain control records and status reports; (3) validate visual information control boards against status reports; (4) perform inventory and tool control actions, and accounting and budgeting activities; (5) manage all repairable items given required documentation and; (6) demonstrate knowledge of special procedures and standard supply procedure.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in material and/or property control recordkeeping (12/89).

NV-1405-0021

UNACCOMPANIED PERSONNEL HOUSING MANAGEMENT, CLASS C

Course Number: A-800-0021.

Location: Naval Air Technical Training Center, Millington, TN.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/83-Present.

Objectives: To train mess management specialists to manage housing in accordance with Navy policies.

Learning Outcomes: Upon completion of the course, the student will be able to manage, supervise and administer an unaccompanied personnel housing billet including such functions as central assignment and records desk operations, funding and budgeting procedures, controlling supplies, maintenance and custodial requirements, recreation, vending, security and the inspection of facilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in property management (3/85).

NV-1405-0022

INTEGRATED SHIPBOARD MAINTENANCE SUPPORT

Course Number: J-500-0041.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 1-2 weeks (64 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe an inventory control and maintenance system including referencing inventory control lists and microfiche, requisitioning parts, inventory control of all parts for receipt, disbursement, and correction; and adjustment to the system for errors or parts list modification.

Instruction: Classroom instruction via lectures and projects including completion of appropriate inventory receipt, disbursement and adjustment forms, calculation of inventory allowance amounts based on usage, and accessing information from various parts manuals and microfiche.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (12/89).

NV-1405-0023

SHIP'S STORE AFLOAT RESALE OPERATION MANAGEMENT SYSTEM USER

Course Number: A-823-0017.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the operation of the Ship's Store Afloat Resale Operation Management (ROM) system and be able to operate the system.

Instruction: Methods of instruction include lectures and laboratory exercises in which the computer is set up and inputs prepared and entered. Topics include computer operation and handling of items, payments and records in the system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply procedures (12/89).

NV-1406-0001

INSTRUCTOR TRAINING, CLASS C
(Instructor Training School Class C)

Course Number: C-012-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 8/57-1/88.

Objectives: To train military personnel in the basic principles of teaching in order to qualify them as instructors.

Instruction: Lectures and practical experience in the basic principles of teaching, including lesson planning, teaching situations and methods, training aids, testing and grading, and supervised practice teaching.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0002

TRADEVMAN I (INSTRUCTOR) CLASS A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: 14 weeks (560 hours).

Exhibit Dates: 1/54-7/65.

Objectives: To train enlisted personnel to teach basic physics and electricity.

Instruction: Lectures and practical experience in the fundamentals of physics and electricity, special electrical devices, basic equipment, operational procedures for instrument flight, basic teaching principles, and supervised practice teaching.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods, 3 in physical sciences, 3 in aviation (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods, and credit in electricity on the basis of institutional evaluation (12/68).

NV-1406-0003

ACADEMIC INSTRUCTOR TRAINING

Course Number: Q-2A-0065.

Location: Naval Aviation Schools Command, Pensacola, FL.

Length: 4 weeks (159-163 hours).

Exhibit Dates: 8/64-10/69.

Objectives: To prepare officers to be academic instructors of aviation training.

Instruction: Lectures in educational principles and methods, tests and measurements, leadership training, communication skills, and programmed instruction.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0004

1. INSTRUCTOR, CLASS C (CAREER INFORMATION AND COUNSELING)
2. PERSONNELMAN, CLASS C (CAREER INFORMATION AND COUNSELING)

Course Number: *All Versions:* A-500-011; A-500-012.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 6/70-12/88. *Version 2:* 3/56-5/70.

Objectives: To train petty officers to perform as career counselors.

Instruction: Lectures in Navy career opportunities and benefits, civilian career opportunities, interviewing and counseling techniques, administrative procedures, human relations, and public speaking.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in counseling and personnel classification (1/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in counseling and personnel classification (1/74); in the upper-division baccalaureate category, 3 semester hours in personnel classification (12/68).

NV-1406-0005

INSTRUCTIONAL PROGRAMMERS (CLASS C)

Course Number: C-570-2010.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: 3 weeks (104 hours).

Exhibit Dates: 4/67-12/68.

Objectives: To provide enlisted personnel with a working knowledge of the basic principles of program writing.

Instruction: Lectures and laboratory experiences in basic principles of programming, learning objectives, the programmed instructional process, editing, and supervised program writing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in programmed instruction techniques (12/68).

NV-1406-0006

INDIVIDUALIZED INSTRUCTION TECHNIQUES
(Programmed Instruction Writer)
(Programmed Instruction Techniques)

Course Number: A-012-0036; A-570-0014; A-570-0015; A-570-0016.

Location: Naval Training School, Great Lakes, IL; Naval Training School, San Diego, CA; Naval Training School, Norfolk, VA; Naval Training School, Millington, TN.

Length: 3 weeks (90-120 hours).

Exhibit Dates: *Version 1:* 5/77-Present. *Version 2:* 11/63-4/77.

Objectives: To train military and civilian personnel in the development and use of programmed instructional materials.

Instruction: *Version 1:* Lectures and demonstrations introducing the student to the basic principles of programmed instruction emphasizing objectives, application, materials development and evaluation. *Version 2:* Lectures in basic principles of programmed instruction, task analysis, developing and writing training objectives, writing linear programs, and reviewing and editing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in programmed instruction techniques (3/82). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in programmed instruction techniques (12/68).

NV-1406-0007

TELEVISION INSTRUCTORS

Course Number: A-012-0025.

Location: Naval School, Washington, DC.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/65-1/88.

Objectives: To train instructors in the basic principles of television teaching.

Instruction: Lectures in application and contribution of closed-circuit television, television systems and characteristics, equipment and technical personnel requirements, methods and techniques of television teaching, and preparation and demonstration of practice television lessons.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in television instruction (12/68).

NV-1406-0008

INSTRUCTOR BASIC
(Instructor, Class 1, Course "Alfa")

Course Number: *Version 1:* A-012-0011; A-012-0012; A-012-0013. *Version 2:* None.

Location: Instructor Training School, Newport, RI; Instructor Training School, Great Lakes, IL; Instructor Training School, Memphis, TN; Instructor Training School, San Diego, CA; Instructor Training School, New London, CT; Instructor Training School, Norfolk, VA; Instructor Training School, Bangor, WA. Instructor Training School, Pearl Harbor, HI. Instructor Training School, Dam Neck, VA. Instructor Training School, Charleston, SC. Instructor Training School, Groton, CT. Instructor Training School, Millington, TN.

Length: *Version 1:* 3-5 weeks (100-150 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 1/69-1/87. *Version 2:* 1/54-12/68.

Objectives: To train enlisted personnel as Naval training instructors.

Instruction: For this course after 1/87 see NV-1406-0018. Lectures in counseling, methods and techniques of instruction, training aids, lesson planning, test construction, evaluation of students, and practice teaching under simulated conditions.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in instructional methods (3/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0009

OFFICER INSTRUCTOR INDOCTRINATION

Course Number: F-00-0014.

Location: Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (86 hours).

Exhibit Dates: 12/79-Present.

Objectives: To train selected officers as instructors for Naval training.

Instruction: Lectures and practical demonstrations in instructional methods. The course provides an overview of learning objectives, methods and techniques of teaching, use of media and evaluation techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in methods of instruction (3/82).

NV-1406-0010

RECRUIT PROCUREMENT, CLASS C

Course Number: A-501-0010; A-501-0011; A-000-026; A-000-027.

Location: Personnel Men, Class C School, Bainbridge, MD; Personnel Men, Class C School, San Diego, CA.

Length: *Version 1:* 7 weeks (210 hours). *Version 2:* 6 weeks (175 hours). *Version 3:* 6 weeks (175 hours).

Exhibit Dates: *Version 1:* 6/66-1/88. *Version 2:* 10/63-5/66. *Version 3:* 5/54-9/63.

Objectives: To train selected noncommissioned officers for assignment to general recruiting duty.

Instruction: Lectures in administrative procedures; recruiting directives, techniques, methods, and approaches; interviewing and public speaking; fundamentals of typewriting; and techniques of fingerprinting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in public speaking and additional credit in typing on the basis of institutional evaluation (6/75). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in communication skills, 2 in personnel procurement (2/74); in the upper-division baccalaureate category, credit in oral and written communication on the basis of institutional evaluation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in public speaking, 2 in personnel procurement (2/74); in the upper-division baccalaureate category, credit in oral and written communication on the basis of institutional evaluation (12/68).

NV-1406-0011

SUPERVISION AND MANAGEMENT, CLASS C

Course Number: C-012-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/67-12/73.

Objectives: To provide training supervisors with basic instruction in the principles and techniques of supervision and in the methods used to improve and evaluate training and instruction.

Instruction: Lectures in the basic principles and techniques of supervision and in basic instruction-evaluation methods, including a survey of learning processes, programmed instruction, conference leadership, fundamentals of instructional supervision, management functions, and observation and counseling of trainees.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in training or supervision (2/74).

NV-1406-0012

1. MANAGEMENT ENGINEERING
2. WORK STUDY ANALYST
   (Fleet Work Study)

Course Number: S-500-0029; A-500-029; A-7C-015.

Location: Manpower and Material Analysis Center, Atlantic, Norfolk, VA.

Length: *Version 1:* 8 weeks (256 hours). *Version 2:* 6 weeks (173 hours).

Exhibit Dates: *Version 1:* 3/73-1/88. *Version 2:* 1/70-2/73.

Objectives: To train officer, enlisted, and civilian personnel in method study and work measurement.

Instruction: Lectures and practical exercises on method study and work measurement, including introduction to work and method study; process charting; introduction to the critical examination sheet, pert and network scheduling, operational sequence diagrams, and work measurement; time study; rating; activity sampling; synthesis data and analytical estimating; multiple-activity charting; and methods-time measurement.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in work study analysis (6/75). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in work study analysis (6/74).

NV-1406-0013

SHIPBOARD INSTRUCTOR

Course Number: A-012-0023.

Location: Fleet Training Center, Pearl Harbor, HI. Fleet Training Center, Norfolk, VA. Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (65 hours).

Exhibit Dates: 6/81-Present.

Objectives: To train fleet personnel in instructional methods and use of materials for Naval training.

Instruction: Lectures and practical exercises in instructional techniques including use of instructional media materials, learning objectives and evaluation of student performance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in methods and materials of instruction (3/82).

NV-1406-0014

CURRICULUM DEVELOPMENT FOR SUBMARINE SYSTEMS TRAINING PROGRAM (AND INTRODUCTION TO SUBMARINE SYSTEMS TRAINING PROGRAM)

Course Number: A-012-0044; A-012-0038.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Service School Command, Great Lakes, IL: Guided Missile School, Dam Neck, VA; Service School Command, San Diego, CA; Naval Air Training Center, Memphis, TN; Submarine Training Facility, San Diego, CA; Trident Training Facility, Bangor, Bremerton ,WA; Fleet Ballistic Missile Submarine School, Charleston, SC.

Length: 1-3 weeks (16-82 hours).

Exhibit Dates: 2/84-Present.

Objectives: To provide the instructor with all the information needed to prepare for, and instruct in, the topics which have been assigned; upon successful completion of this course, the trainer will be able to apply the principles, rules, and concepts to solve specific problems associated with the submarine systems training program.

Instruction: This course is conducted through lecture and laboratory; it presents instruction in the preparation of instructor lesson plans, overhead transparencies, and other teaching aids. The trainee will be able to state the purpose of a task analysis and task inventory. Credit is recommended for A-012-0038 (Introduction to Submarine Systems Training Program) only when it is taken in conjunction with A-012-0044 (Curriculum Development for Submarine Systems Training Program).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in methods of education for A-012-0044 (Curriculum Development for Submarine Systems Training) and, for those students completing A-012-0038 (Introduction to Submarine Systems Training Program), an additional 1 semester hour in methods of education. Credit may be granted (2 semester hours in methods of education) for A-012-0044 alone, but credit is not recommended for students completing only A-012-0038 (7/85).

NV-1406-0015

PERSONNEL MEN SCHOOL, CLASS C-1, ENLISTED CLASSIFICATION

Course Number: Not available.

Location: Personnelman Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/56-12/68.

Objectives: To train enlisted personnel to be personnel administrators.

Instruction: Lectures and practical exercises in personnel administration, including naval classification system, interviewing principles, testing and evaluating work experiences, communications, naval occupational analysis, and organizational planning and work simplification.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel administration (12/68).

NV-1406-0016

NAVY RECRUITING ORIENTATION
(Recruiter Canvasser)

Course Number: None.

Location: Navy Recruiting Orientation Unit, Orlando, FL.

Length: 5 weeks (180 hours).

Exhibit Dates: 1/79-Present.

Objectives: To prepare the student to enter the sales field with a thorough knowledge of the fundamentals of selling.

Instruction: Lectures, discussion and role-playing activities in the fundamentals of selling including the standard procedures of community research, prospect qualifying, product and/or service information and closing a sale. Visuals and audio visuals are used extensively in presentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in salesmanship (3/83).

NV-1406-0018

1. INTERVIEWING AND CLASSIFICATION
2. PERSONNELMAN, CLASS C-1, INTERVIEWING AND CLASSIFICATION

Course Number: *All Versions:* A-500-0013.

Location: Personnelman Class C School, San Diego, CA.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 8-10 weeks (240 hours).

Exhibit Dates: *Version 1:* 4/67-1/87. *Version 2:* 5/54-3/67.

Objectives: To provide enlisted naval personnel with the technical knowledge required to perform duties as job classifiers and interviewers.

Instruction: Course covers vocational counseling and testing, survey of occupational titles, recording work experience, public speaking, and interviewing techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in job evaluation (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in job evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in personnel classification (12/68).

NV-1406-0019

Group-Paced Instructor

Course Number: A-012-0011.
Location: Naval installations, Worldwide.
Length: 4 weeks (128 hours).
Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to deliver lectures employing effective questioning, chalkboard, and communications techniques; deliver instruction employing demonstrative strategies; operate an overhead projector and video cassette system; demonstrate knowledge of instructor guides, workbooks, computerized reporting systems, evaluation, and participant materials; and develop learning outcomes for a topic.

Instruction: Participants practice constructing and delivering instruction. Lectures provide procedures and general information which is then applied in the laboratory sessions. Emphasis is placed on the instructional strategies of lecture/demonstration. An overview is provided for administrative processes, evaluation, and counseling.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in training and development (instructional methods) (9/89).

NV-1406-0020

Command Career Counselor

Course Number: A-501-0011.
Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to counsel personnel on all facets of career planning: assignments, advancement, retirement, and survivor benefits.

Instruction: Methods of instruction include lecture, laboratory exercises, and examinations. Topics covered include communication skills for the counselor, counseling methods and techniques, and the entire range of career issues. These issues include pay, health benefits, advancement opportunities, reassignment, survivor benefits and annuities, and educational benefits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel counseling (12/89).

NV-1407-0001

Yeoman School, Class B
(Class B Yeoman School)

Course Number: None.
Location: Service Schools Command, Bainbridge, MD; Service Schools Command, San Diego, CA.
Length: 13–14 weeks (390–420 hours).
Exhibit Dates: 9/56–12/68.

Objectives: To train enlisted personnel to meet the professional qualifications for advancement to yeoman first class and chief yeoman.

Instruction: Practical exercises in typing, shorthand, personnel accounting, and secretarial practice.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 6 in shorthand (3/74).

NV-1407-0002

Legal Clerk and Court Reporting

Course Number: A-512-010.
Location: Naval Justice School, Newport, RI.
Length: 5–7 weeks (170–239 hours).
Exhibit Dates: 1/69–1/88.

Objectives: To provide enlisted personnel with training in court reporting and legal clerkship.

Instruction: Practical experience in military justice documentation and recording, closed-microphone court reporting, and transcription.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1407-0003

Stenography, Class C

Course Number: Not available.
Location: Yeoman Class C School, Bainbridge, MD.
Length: 6 weeks (210 hours).
Exhibit Dates: 1/61–12/68.

Objectives: To train petty officers in high-speed shorthand and touch-typing.

Instruction: Lectures and practical exercises in stenography and typewriting, including vocabulary and speed exercises in Gregg shorthand, high-speed dictation, oral and written transcription, oral reporting equipment, mechanics of English, and typing.

Credit Recommendation: In the vocational certificate category, 6 semester hours in stenography and typing (7/74); in the lower-division baccalaureate/associate degree category, credit in stenography and typing on the basis of institutional examination (12/68).

NV-1408-0001

Disbursing Clerk Financial Returns
(Disbursing Clerk Financial Returns Class C)
(Disbursing Clerk, Class C (Financial Returns))

Course Number: A-542-0014.
Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.
Length: 2 weeks (60–80 hours).
Exhibit Dates: 11/71–Present.

Objectives: To train rated and nonrated disbursing clerks to prepare Navy and DoD reports and financial returns.

Instruction: Lectures and practical exercises in the preparation of collection and disbursement vouchers; reports of disbursement and collections; foreign currency reports; and deposit schedules.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/89).

NV-1408-0002

Disbursing Clerk Travel Payments
(Disbursing Clerk, Class C (Travel Payments))

Course Number: A-542-0013.
Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 2 weeks (60–80 hours).
Exhibit Dates: 11/71–Present.

Objectives: To train disbursing clerks to master the intricacies of the Navy travel payment procedures.

Instruction: Lectures on travel regulations, orders, and vouchers; travel advance and allowance; dependent travel entitlement; and dislocation allowance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/89).

NV-1408-0004

Station Management Systems

Course Number: None.
Location: Naval Postgraduate School, Monterey, CA.
Length: 4 weeks (84 hours).
Exhibit Dates: 4/70–12/71.

Objectives: To train naval officers in the principles and methods of shore station management.

Instruction: Lectures in general management theory, quantitative reasoning, statistics, economics, systems analysis and cost analysis, and resources management systems implementation and operation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in principles of management (12/68).

NV-1408-0005

Data Analysis (Ship's 3-M System)
Class C

Course Number: A-500-0017.
Location: Naval Schools Command, Norfolk, VA.
Length: 5 weeks (173 hours).
Exhibit Dates: 2/72–1/88.

Objectives: To train officers and petty officers to perform statistical analysis of machine generated data and to present their findings in a report designed to facilitate management decision making.

Instruction: Lectures in statistical analysis and its application to management organizations, including frequency, probability, and sampling distributions; hypothesis testing; dispersion; trend analysis; and linear correlation and regression.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in introductory statistics (2/74).

NV-1408-0006

Seabee Chief Petty Officer Management
(Group VIII E8/E9 Advanced Management)
(Group VIII E-6/E-7 Management)

Course Number: A-710-0016; A-710-0021.
Location: Civil Engineer Corps Officers School, Port Hueneme, CA.
Length: 6–7 weeks (167 hours).
Exhibit Dates: 5/72–1/88.

Objectives: To provide enlisted personnel with advanced training in naval engineering management and administration.

Instruction: Lectures on public works management principles, including facilities, utilities, personnel and housing; construction and labor/management relations; planning, scheduling and networking; military budgeting activities; and field exercises in construction project planning.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in construction management or technology (3/76).

NV-1408-0007

Management and Supervision of Naval Personnel

Course Number: K-012-2068; A-012-0028; A-012-0029; A-012-0030; C-012-2012.

Location: Fleet Training Group, Pearl Harbor, HI; Fleet Training Center, Norfolk, VA; Service School Command, Great Lakes, IL; Service School Command, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To provide petty officers and junior officers with a knowledge of modern management methods.

Instruction: Lectures on management of communications processes, motivation and human behavior, personnel management, and leadership.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision or management (6/75).

NV-1408-0008

Instructor, Class C-1 Administration and Counseling

Course Number: A-7C-013; A-7C-014.

Location: Instructor Class C-1 School, Norfolk, VA; Instructor Class C-1 School, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To train officers to manage shipboard operations.

Instruction: Lectures in human relations, counseling techniques, personnel management, personal financial management, drug abuse counseling, and responsibilities of division management personnel.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in personnel administration (2/74).

NV-1408-0009

Construction Contract Administration and Management

(Contract Administration—Accelerated)

Course Number: A-4A-0032.

Location: Civil Engineer Corps Officers' School, Port Hueneme, CA.

Length: 2 weeks (66 hours).

Exhibit Dates: 2/74-1/88.

Objectives: To prepare officers to perform as assistant resident officer in charge or independent officer in charge of construction or for staff officer positions in contract administration in the engineering field division of Naval facilities.

Instruction: Subjects emphasize the formation and daily administration of typical construction contracts. Topics include Naval facilities contract organization, pertinent laws and regulations, plans and specifications, the construction industry, contract types, formal advertising/competitive bidding and negotiated procurement; government/contractor relations, contractor quality control, correspondence preparation, contract general clauses, payment, changes, government estimate preparation, and negotiation techniques. Methods of instruction include lectures, workshops, seminars, case study discussions, and student role playing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in contract administration (7/78).

NV-1408-0010

Commissary Store Management

Course Number: A-8B-0029.

Location: Navy Supply Corps School, Athens, GA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/80-Present.

Objectives: To train officers in the management of a commissary.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) determine the inventory and stock levels to be maintained, (2) establish a display that will successfully promote a given product, (3) describe the financial records to be maintained by a retail store and know the procedures for completing these records, (4) complete the necessary forms for ordering, receiving and warehousing goods to be sold in order that a sufficient stock level be maintained, (5) describe sanitation regulations and safety rules essential in the operation of a retail food store.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in retail management (7/83).

NV-1408-0011

Warrant Officer Indoctrination

(Surface Warrant Officer Indoctrination)

Course Number: A-00-0047.

Location: Officer Indoctrination School, Newport, RI.

Length: 5-7 weeks (163-245 hours).

Exhibit Dates: 2/72-12/73.

Objectives: To instruct the newly appointed, surface-designated warrant officer in the responsibilities of his role as an officer.

Instruction: Lectures and practical exercises in the duties of a surface-designated warrant officer, including military law, management unit objectives, orientation and indoctrination, tactical objectives, technological objectives, management by objective, division organization, aids to navigation, and BUTTERCUP drill.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in administration or management (5/74).

NV-1408-0012

Engineering Aid, Class C, Planning and Estimating

(EA "C" Planning and Estimating)

(Planning and Estimating Construction Group Ratings, Class C)

Course Number: A-412-0012.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 8 weeks (240-243 hours).

Exhibit Dates: 10/64-1/88.

Objectives: To train petty officers to plan and estimate construction projects.

Instruction: Lectures and practical exercises in mathematics, blueprint reading, specifications, resource publications, drafting, estimating procedures, estimating various trades, material procurement, and project planning and scheduling.

Credit Recommendation: In the vocational certificate category, 8 semester hours in planning and estimating construction projects (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in planning and estimating construction projects (7/76); in the upper-division baccalaureate category, 3 semester hours in planning and estimating construction projects (7/76).

NV-1408-0013

Civil Engineer Corps Officer Basic—Contract Administration Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0012. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 7-9 weeks (238-270 hours).

Exhibit Dates: *Version 1:* 7/75-1/88. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform contract administration duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public works administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in contracts administration including procedures, documents, field administration and construction management. *Version 2:* Lectures in contract administration, including fundamentals of finance management, principles of budgeting, fund control, financing for activity public works, facilities management, finance problems, public works administration, transportation management, introduction to contracts and labor, contract procedure and labor law enforcement, disaster control engineering, and contract specifications and field administration.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in contract administration or construction management (3/76). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in contract administration (12/68).

NV-1408-0014

Civil Engineer Corps Officer Basic—Public Works Management Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0011. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 8-9 weeks (245-270 hours).

Exhibit Dates: *Version 1:* 7/75-1/88. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform public works management duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public work administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in facilities management, including financial, maintenance, and equipment management, utilities and energy management, housing, and special topics including an extensive simulation exercise. *Version 2:* Lectures in public works management, including fundamentals of financial management, principles of budgeting, financing for activity public works, fund control, facilities management, and finance problems; maintenance, utilities, and transportation management; and introduction to contract and labor, contract procedures, specifications, and administration.

engineering management, and industrial relations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in public works administration or facilities management (3/76). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in public works engineering (12/68).

NV-1408-0015

Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0013. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 8-11 weeks (233-394 hours).

Exhibit Dates: *Version 1:* 7/75-1/88. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform construction administration duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public works administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in planning, directing, and controlling construction activities, including concern for labor, materials, equipment, scheduling, and materials control, with emphasis on leadership. *Version 2:* Lectures in construction administration, including fundamentals of financial management, principles of budgeting, financing for activity public works, control of funds, facilities management, finance problems, construction battalion development and organization, and mobile construction battalion administration, personnel, operations and logistics, and engineering management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in construction project management (3/76). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in construction engineering (12/68).

NV-1408-0016

Personnelman, Class C, Naval Management Analysis

Course Number: Not available.

Location: Personnelman, Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/65-12/68.

Objectives: To train personnel in naval management analysis.

Instruction: Lectures and practical exercises in the technical elements of recruiting, classification and interviewing, enlisted classification, management analysis, and career information and counseling, including introduction to manpower utilization, naval occupational analysis, work simplification and improvement, management/manpower survey methods, navy shipboard manpower surveys, reports and written communication, and source data automation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in management and manpower analysis (12/68).

NV-1408-0017

Shore Facilities Planning

Course Number: A-4A-0017.

Location: Naval Construction Battalion Center, Port Hueneme, CA.

Length: 2 weeks (63 hours).

Exhibit Dates: 2/64-12/68.

Objectives: To train personnel in shore facilities planning and administration.

Instruction: Lectures and practical exercises in shore facilities planning and administration, including environmental enhancement, financing facilities projects, military construction program, capital resources management, influence of nuclear weapons on facilities planning and design, organization, planning and operations, planning considerations and criteria, and applications.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1408-0018

Methods Engineering

Course Number: None.

Location: Bureau of Supplies and Accounts, Washington, DC.

Length: 7 weeks (280 hours).

Exhibit Dates: 8/59-12/68.

Objectives: To provide officers and civilian personnel with training in modern industrial engineering techniques.

Instruction: Lectures and practical exercises in process charting, motion study, operational analysis, layout study, methods-time measurement, work sampling, and engineered time standards.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in methods engineering (2/74).

NV-1408-0019

Aviation Storekeeper, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 10 weeks (400 hours).

Exhibit Dates: 9/71-1/88.

Objectives: To train enlisted personnel to be aviation storekeepers.

Instruction: Lectures and practical exercises in supervision fundamentals, personnel administration, procurement office administration, correspondence and filing, automatic data processing, inventory management, aviation accounting and finance, and aviation maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in office administration (7/74); in the upper-division baccalaureate category, 3 semester hours in office administration (7/74).

NV-1408-0020

Chaplain School Advanced

Course Number: A-5G-0011.

Location: Naval Education and Training Center, Newport, RI.

Length: 37-39 weeks (859-1246 hours).

Exhibit Dates: 4/72-6/84.

Objectives: To train senior chaplains to perform supervisory and managerial roles.

Instruction: Lectures and practical exercises in the supervisory and managerial responsibilities of chaplains in the armed services. Course includes managerial behavior, organizational behavior, styles of management, supervisory skills, organizational analysis, current theological trends, oral communication, religious education, pastoral counseling, and contemporary ministry.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in managerial behavior, 10 in organizational behavior, 2 in speech communication, 16 in theology (8/74).

NV-1408-0021

Medical Administrative Technician, Class C

(Medical Administrative Technician, Dental, Class C)

(Medical Administrative Technic)

(Medical Administrative Technic, Dental)

Course Number: B-513-0010; B-513-0011; B-513-0012; B-513-0013.

Location: Hospital Corps School, San Diego, CA; Naval Hospital, Portsmouth, VA.

Length: 30-42 weeks (1,125-1,319 hours).

Exhibit Dates: 6/55-12/71.

Objectives: To train personnel to prepare, maintain, and account for medical supplies, equipment, and staff and patient personnel records.

Instruction: Lectures and practical exercises in personnel management, leadership, clerical procedures, food service, business English composition, effective speaking, office management, accounting principles, and material management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 3 in typing, 3 in business English, 3 in office management, 3 in speech, and 3 in principles of accounting (7/74); in the upper-division baccalaureate category, 15 semester hours in institutional management, and credit in typing, speech and instructional methods on the basis of institutional evaluation (12/68).

NV-1408-0022

Basic Submarine Officer

(Submarine Officer Basic)

Course Number: F-00-014; A-2E-0028.

Location: Submarine School, Groton, CT.

Length: 24 weeks (936-938 hours).

Exhibit Dates: 1/66-1/88.

Objectives: To qualify selected officers and enlisted personnel for the designation, "Qualified in Submarines."

Instruction: Lectures and practical exercises to teach the student the duties and responsibilities of an officer of the deck of a submarine; the principles and procedures of submerged ship control so that he will be able to perform as a diving officer; navigation; submarine damage control; principles of submarine design, construction, and operation; weapons; fire control maintenance; FBM weapon systems; submarine tactics; and engineering.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in management (8/74); in the upper-division baccalaureate category, 2 semester hours in naval engineering and 2 in engineering management (12/68).

NV-1408-0023

Navy Exchange Management

Course Number: A-8F-010.

Location: Naval Supply School, Athens, GA; U.S. Navy Ship's Store Office, Brooklyn, NY.

Length: 5-6 weeks (100-154 hours).

Exhibit Dates: *Version 1:* 7/80-Present. *Version 2:* 1/69-6/80.

Objectives: To train officers in the management of Navy exchanges.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) describe the management responsibilities of a retail store manager, including duties related to personnel, (2) list procedural steps for ordering, receiving and warehousing merchandise for a retail operation, (3) establish a display that will promote a given product, (4) describe financial and accounting responsibilities essential for the operation of a retail business and give examples of various daily records which are kept. *Version 2:* Lectures and practical exercises in principles of personnel, retailing and services management, retail display, accounting, and financial methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in retail management (7/83). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in business management (2/74).

NV-1408-0024

Marine Corps Aviation Supply Officer Qualification

Course Number: A-8B-0031.

Location: Navy Supply Corps School, Athens, GA.

Length: 15 weeks (505 hours).

Exhibit Dates: 1/79-Present.

Objectives: To provide the basic officer with the skills required to be a supply officer within the Marine aircraft group.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) determine the stores account, type of material and inventory manager of any item when provided with the cognizance symbol, (2) apply problem analysis theory to a given problem situation, (3) identify appropriate statistical measures and perform the related calculations necessary to problem analysis, (4) use a program flowchart to process test data through a system, (5) define the most commonly used aviation maintenance/supply terms, acronyms or abbreviations relating to naval aviation, (6) select from a list all required local support procedures for repairables including communication of requirements, timely issue of material, control of repairable components, preparation and flow of documentation and reconciliation of records and requirements, (7) identify the uses of Automated Data Processing System for supply management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in materials management, 2 in introduction to statistical methods (7/83).

NV-1408-0025

Uniform Automated Data Processing (ADP) System-Stock Points

Course Number: A-8B-0027.

Location: Naval Supply Corps School, Athens, GA; Various worldwide locations.

Length: 3 weeks (85 hours).

Exhibit Dates: 12/78-Present.

Objectives: To provide the student with a knowledge of the supply and financial environment within which a stock point manager operates.

Instruction: Topics include the overall supply and financial organizational structure; the documentation and file maintenance for the automatic data processing system; the use of the system for inventory control; and related financial accounting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management or elective credit (7/83).

NV-1408-0026

Supply Indoctrination for Line Officers

Course Number: A-8B-0045.

Location: Naval Supply Corps School, Athens, GA.

Length: 5 weeks (150 hours).

Exhibit Dates: 9/82-Present.

Objectives: To familiarize line officers with the broad areas of Naval supply encountered at their respective commands.

Instruction: Topics include disbursing, material management, food service management afloat, and management of a retail ship's store.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in materials management, 1 in food service management (7/83).

NV-1408-0027

Navy Exchange/Commissary Store Middle Management, Class C

Course Number: A-823-0016.

Location: Naval Technical Training Center, Meridian, MS.

Length: 4 weeks (145 hours).

Exhibit Dates: 10/80-Present.

Objectives: To provide the student with the knowledge and skills to be able to manage a commissary store or Navy exchange.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) perform administrative duties required in operating commissary stores including procurement and receiving/warehousing; (2) manage floor sales, meat and produce departments, cash collections and inventory systems; (3) apply navy regulations as required in the performance of the above duties and; (4) plan and implement promotional merchandising techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to marketing and retailing operations (6/84).

NV-1408-0028

Yeoman Flagwriter, Class C

Course Number: A-511-0015.

Location: Naval Technical Training Center, Meridian, MS.

Length: 15 weeks (596 hours).

Exhibit Dates: 1/81-Present.

Objectives: To provide intensive training to experienced yeoman personnel to take shorthand dictation.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) take shorthand dictation at 80-100 words per minute; (2) demonstrate a high level of English grammar usage and; (3) demonstrate skill in social and naval protocol.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those students holding NEC 2514, 6 semester hours in shorthand; for those students holding NEC 2512, 3 semester hours in shorthand and for both groups of students, 2 semester hours in business English (6/84).

NV-1408-0029

Limited Duty Officer (LDO) and Chief Warrant Officer (CWO) Indoctrination Training

Course Number: Q-9B-0023.

Location: Naval Air Station, Pensacola, FL.

Length: 4 weeks (153 hours).

Exhibit Dates: 5/82-Present.

Objectives: To train the newly commissioned limited duty officers and chief warrant officers in the communication and administrative skills, leadership, military law and customs necessary to be an effective naval officer.

Instruction: Lectures and practical exercises in written communication, oral communication, naval correspondence, naval administration, military law, military customs, naval history subjects and role of the U.S. Navy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business/technical communications (3/86).

NV-1408-0030

Automated Telecommunications Systems Technician, Class C7

Course Number: A-260-0045.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon successful completion of the course, the student will be able to operate/supervise an automatic central office telecommunications system.

Instruction: Group paced lectures, practical demonstration and laboratory work. Subjects covered include: introduction to computer systems, peripherals and interfacing; message handling, routing, origination, correcting, retrieval, tracing and journalling; software files, halts and aborts, and contingency procedures; and administrative details.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in telecommunications office systems management (7/87).

NV-1408-0031

Ship's Store Afloat Resale Operation Management (ROM) System Supervisor

Course Number: A-823-0015.

Location: Fleet Training Center, Norfolk, Va; Service School Command, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the functions associated with a retail operation including stock control, ordering, receiving, return to stock, return to vendor etc.; and assume responsibility for other auxiliary retail enterprises such as barber shop and laundry.

Instruction: Classroom lecture, laboratory exercises, and examinations develop an understanding of the retail process including operation of computer equipment for inventory control, cash register equipment, space planning and security, customer service, cash control and staffing, preparation of balance sheet and profit and loss statements.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in retail operations and management (12/89).

NV-1408-0032

CHAPLAIN SCHOOL ADVANCED COURSE

Course Number: P-00-4300.

Location: Naval Chaplain School, Newport, RI.

Length: 39 weeks, (975 weeks).

Exhibit Dates: 7/84–Present.

Learning Outcomes: Upon completion of the advanced course curriculum, experienced, mid-career chaplain will be prepared to assume staff and supervisory functions in the Chaplain Corps. Specific competencies will be: understanding the management of large, complex organizations; strengthening communications skills; learning the principles of effective personnel management; developing leadership skills; and developing skills in strategic planning and management of programs.

Instruction: Lecture, discussions, case studies, simulations, directed reading, independent research, and multi-media student presentations in the supervisory and managerial responsibilities of chaplains in the sea services. Curriculum includes studies in communications, ethics, ministry/pastoral case, organizational psychology, management, planning and administration, and religion and society.

Credit Recommendation: In the graduate degree category, 3 semester hours in communications, 3 in ethics, 3 in ministry/pastoral care, 3 in organizational psychology, 3 in management, 3 in planning and administration, and 3 in religion and society (3/89).

NV-1409-0001

PERSONNELMAN, CLASS A

Course Number: A-500-0014; A-500-0015; A-500-0026.

Location: Service School Command, Bainbridge, MD; Service School Command, San Diego, CA; Naval Training Center, Orlando, FL; Naval Training Center, Meridian, MS.

Length: *Version 1:* Self-paced 7 weeks (303 hours). *Version 2:* Self-paced 6–8 weeks (240–320 hours). *Version 3:* 10 weeks (400 hours).

Exhibit Dates: *Version 1:* 9/78–Present. *Version 2:* 8/69–8/78. *Version 3:* 10/55–7/69.

Objectives: To train enlisted personnel as personnel strikers.

Instruction: *All Versions:* Lectures and practical exercises in correspondence, typing, filing, manpower utilization and personnel testing. NOTE: Instruction is self-paced beginning 1975. Typing instruction is provided only for students who enter the course as nonqualified typists. Emphasis is on manual records and forms.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in business communications (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing for students entering the course as nonqualified typists (3/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (3/74) and 2 in personnel administration (3/74).

NV-1409-0002

YEOMAN, CLASS A

Course Number: A-510-0012.

Location: Naval School, Bainbridge, MD; Naval School, Meridian, MS; Naval School, San Diego, CA; Naval School, Orlando, FL.

Length: *Version 1:* Self-paced 7 weeks (280 hours). *Version 2:* Self-paced 6–8 weeks (180–240 hours). *Version 3:* 5–8 weeks (150-240 hours).

Exhibit Dates: *Version 1:* 11/77–Present. *Version 2:* 8/69–10/77. *Version 3:* 7/56–7/69.

Objectives: To train enlisted personnel to perform as yeomen.

Instruction: *All Versions:* Lectures and practical exercises in the duties of a yeoman striker, including fundamentals of typewriting, advanced typewriting, office etiquette and efficiency, publications, classified material, filing, correspondance, personnel accounting, officer records, captain's office, executive officer's office, enlisted service record, shipboard department offices and associated records, and legal records and procedures. NOTE: Instruction is self-paced beginning 1975. Instruction in typing is provided for students who enter the course as nonqualified typists. Emphasis is on manual records and forms.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications, 2 in typing (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing for students entering course as nonqualified typists (6/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing and 2 in office administration (6/74).

NV-1409-0003

AVIATION MAINTENANCE
ADMINISTRATIONMAN, CLASS A
(Aviation Maintenance Administration, Class A)

Course Number: C-555-2010; C-516-2010.

Location: *All Versions:* Air Technical Training Center, Meridian, MS. *Version 2:* Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington, TN.

Length: *Version 1:* 5 weeks (193 hours). *Version 2:* 6–8 weeks (240-304 hours).

Exhibit Dates: *Version 1:* 9/82–Present. *Version 2:* 5/66–8/82.

Objectives: To provide enlisted Navy and Marine Corps personnel with training in clerical and administrative procedures.

Instruction: *All Versions:* Lectures and practical exercises in office procedures, aeronautical publications, naval maintenance and materiel management systems, aircraft and equipment accounting, aircraft logs and records, and maintenance administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in clerical recordkeeping (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing (2/74).

NV-1409-0004

AIRBORNE COMMUNICATOR

Course Number: E-201-0010; E-201-10.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/72–1/88.

Objectives: To train personnel to perform as airborne communicators.

Instruction: Lectures and practical exercises in airborne communications, including message format and drafting, standard naval communication procedures, naval communications publications, emergency communication procedures, radio telephone procedures, airborne teletype operation and procedures, fleet air broadcast procedures, encoding/decoding, authentication procedures, teletype preflight message and operating procedures, and relay procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in typing on the basis of institutional evaluation (6/74).

NV-1409-0005

MARINE AVIATION SUPPLY (MANUAL),
CLASS C

Course Number: C-551-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/72–1/88.

Objectives: To train personnel in aviation supply.

Instruction: Lectures and practical exercises on marine aviation supply including fundamentals of the squadron material control unit, typing and correspondence, item identification and management codes, material identification, allowance lists, procurement, fundamentals of the group supply department, organization of group supply, functions of the SRS and CCS/SSS, and aviation supply in operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (6/74).

NV-1409-0006

STOREKEEPER, CLASS A

Course Number: A-551-0014.

Location: *Version 1:* Naval Technical Training Center Meridian, MS. *Version 2:* Storekeeper, Class A School, Newport, RI; Storekeeper, Class A School, San Diego, CA.

Length: *Version 1:* Self-paced 6 weeks (240 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 11/76–Present. *Version 2:* 7/56–12/68.

Objectives: To train enlisted personnel to be storekeepers.

Instruction: *Version 1:* This self-paced course includes the following subject areas: typing, stock records and files, receipt and issue of materials, transfer and shipping of materials, inventory control, correspondence, and customer service. *Version 2:* Lectures and practical exercises in typing and processing naval storeroom records.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in supply management and 1 in human relations (6/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing (7/74).

NV-1409-0007

COMMUNICATIONS YEOMAN, CLASS A

Course Number: A-580-013.

Location: Communications Yeoman, Class A School, Norfolk, VA; Radioman, Class A School, Bainbridge, MD.

Length: 6 weeks (178-179 hours).

Exhibit Dates: 7/64-12/68.

Objectives: To train enlisted personnel to perform clerical, voice operator, and teletypewriter operator duties.

Instruction: Lectures and practical exercises in the performance of clerical, voice operator, and teletypewriter operator duties, including defense communication systems, Navy communication, communication security, equipment, teletypewriter procedure, voice procedure, maintenance and material management, and communication watch standing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in typing on the basis of institutional evaluation (12/68).

NV-1409-0008

MARINE AVIATION OPERATIONS CLERICAL, CLASS C

Course Number: C-517-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 5-6 weeks (188-240 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/68-1/88. *Version 2:* 4/64-4/68.

Objectives: To train enlisted personnel as aviation operations clerks.

Instruction: *All Versions:* Lectures and practical exercises in aviation operations, including airfield operations, squadron operations, office methods, and operational tasks. *Version 2:* Topics include basic typing, flight records and reports, aviator's individual flight log, records and reports, aviation pay records and reports, security of classified information, aircraft mishap reporting procedures, organization and standards of an airfield, flight information planning publications, NOTAMS, weather sequence reports, aircraft clearance, standard directives system, operation and care of office machines, reproduction of directives, and correspondence.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in typing (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in typing on the basis of institutional evaluation (12/68).

NV-1511-0001

COUNTERINSURGENCY/SELF-PROTECTION/SERE

Course Number: H-00-5222; H-000-5222.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel in Pacific area country orientation, survival, weapons, and counterinsurgency operations.

Instruction: Lectures and practical exercises in the history of insurgent movements; counterinsurgency fundamentals; communist ideology, organization, and goals; guerilla and counterguerilla operations; psychological operations, area cultures, and political orientations; basic language training; field techniques and tactics; and weapons training.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in political science (5/74).

NV-1511-0002

1. COLLEGE OF NAVAL WARFARE
2. SCHOOL OF NAVAL WARFARE
3. SCHOOL OF NAVAL WARFARE (Naval Warfare Course)
4. NAVAL WARFARE COURSE

Course Number: P-00-1101.

Location: Naval War College, Newport, RI.

Length: *Version 1:* 43 weeks. *Version 2:* 43 weeks. *Version 3:* 43 weeks. *Version 4:* 43-86 weeks.

Exhibit Dates: *Version 1:* 8/72-1/88. *Version 2:* 8/69-7/72. *Version 3:* 8/58-7/69. *Version 4:* 8/54-7/58.

Objectives: To develop understanding in the science of naval warfare, international relations, and interservice operations, with emphasis on applications to future naval warfare, in order to prepare officers for higher command positions.

Instruction: *Version 1:* Lectures, seminars, and extensive reading and writing in the science of naval warfare, international relations, and interservice operations, including applications to future naval warfare, strategy, economics, nineteenth- and twentieth-century diplomatic history, political science, management and business administration, and tactics. *Version 2:* Lectures, readings, and student research in the science of naval warfare, international relations, and interservice operations, including sea power and maritime strategy and their relationship to the political, economic, social, and military factors affecting national security; international affairs, including international law, organizations, and relations; and the planning and conduct of naval, joint, and combined operations, including management procedures. *Version 3:* Lectures, readings, and student research in the science of naval warfare, international relations and interservice operations, including orientation to armed services and State Department organization; fundamentals of logical analysis; fundamentals of warfare and maritime strategy; international law and its relation to command functions; strategy study, including international relations, factors influencing U.S. national objectives and policy, relations between the U.S. and the free world, the U.S.S.R. and the Soviet bloc, and U.S. and U.S.S.R. interests, objectives, and basic undertakings; organization and interrelationship of offices, departments, and agencies involved in formulation and implementation of national security policy; strategic planning study, including joint strategic, operational, intelligence and logistic planning at various command levels, national military strategy and war plans, contingency concepts of operation under conditions of cold, limited, and general war; naval warfare study, including military planning processes and major weapon systems (both existing and planned), the integrated use and national support of weapon systems in all services, and global strategy; and counterinsurgency, including history of insurgency, causes and effects of successful and unsuccessful insurgent movements, factors influencing conditions where insurgency is a problem, and policies and programs of U.S. governmental agencies charged with assisting underdeveloped areas of the world. *Version 4:* Lectures, readings, and student research in the fundamentals of warfare, international relations, and interservice operations, including applications to future naval warfare. The course is offered in two parts, each one academic year in length. Instruction in the first year includes introduction to the current world situation, nuclear weapons orientation, international relations, operational planning, weapons and weapons systems, logistic support systems, communications systems, concepts for the integrated employment of elements of naval power, the nature of strategy, planning and solution of operational problems at various levels, and characteristics of major strategic areas. Instruction in the second year includes introduction to the current world situation, nuclear weapons orientation, factors affecting areas of the world, planning systems and problems of various levels of command, varied aspects of sea power and national interests, and national policy.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 15 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (8/74); in the graduate degree category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum, 12 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum, and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (3/76). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 30 semester hours; a suggested assignment of credit is as follows: 6 semester hours in international relations, 3 in international law, 3 in evolution of strategic theory (advanced military history), 3 in introductory economics, 3 in management, 3 in study of sea power, 3 in study of military strategy, 3 as an elective, 3 in research training (8/74); in the graduate degree category, 6 semester hours in international relations and law, 2 in evolution of strategic theory (advanced military history), 2 in economics, 2 in management, 0-6 in research training thesis (8/74). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business administration, 6 in political science—including international relations—and credit in international law on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, for each year, 9 semester hours in business organization and management, and additional credit in political science and international law on the basis of institutional evaluation (12/68). NOTE: During this period, the Naval Warfare course was offered in two parts, each one academic year in length. Personnel could take either one or both years of the course.

NV-1511-0003

1. College of Naval Command and Staff
2. School of Naval Command and Staff
3. School of Naval Command and Staff

(Command and Staff)

Course Number: P-00-1201.

Location: Naval War College, Newport, RI.

Length: 43 weeks.

Exhibit Dates: *Version 1:* 8/73–1/88. *Version 2:* 8/69–7/73. *Version 3:* 8/54–7/69.

Objectives: To develop understanding in the fundamentals of warfare, international relations, and interservice operations in order to prepare officers for higher command positions.

Instruction: *Version 1:* Lectures, seminars, and extensive reading and writing in the science of naval warfare, international relations, and interservice operations, including applications to future naval warfare, strategy, economics, nineteenth- and twentieth-century diplomatic history, political science, management and business administration, and tactics. *Version 2:* Lectures, readings, and student research and discussions in the science of naval warfare, international relations, and interservice operations, including international relations and law, evolution of strategic theory (advanced military history), economics, military and naval decision-making and planning procedures, tactics, management, and political, legal, social, and economic factors influencing naval operations and policy decisions. *Version 3:* Lectures, readings, and student research and discussions in the fundamentals of naval warfare, international relations, and interservice operations, including fundamentals of logical analysis and group procedures, international law and its effects upon the military establishment; national strategy, including factors influencing national objectives and policies of both the U.S. and the U.S.S.R., alliance systems of both major powers, international organizations and strategic areas of interest, and national security policy for both major powers; counterinsurgency, including history of insurgency, causes and effects of successful and unsuccessful insurgent movements, and policies and programs of preventing and/or countering insurgency; fundamentals of warfare and maritime strategy, including their relation to national security; strategic planning study, including joint strategic, operational, intelligence and logistic planning at various command levels, war planning and contingency concepts of operation for military strategy under conditions of cold, limited, and general war; naval warfare study, including organization and planning for support of operations by naval and marine forces, limitations of the forces and their use in integrated operations on the national level, major weapons systems (both existing and planned), doctrines and concepts of operations, determination of force requirements, and factors influencing conduct of operations in selected geographical areas; and global strategy.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum; 15 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (8/74). Students complete all cirricula; in the graduate degree category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum; 12 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (3/76). Students complete all curricula. It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 21 semester hours (A suggested assignment of credit is as follows: 6 semester hours in international relations and law, 3 in evolution of strategic theory or advanced military history, 3 in introductory economics, 3 in management, 3 as an elective, and 3 in research training) (8/74); in the graduate degree category, 4 semester hours in international relations and law, 2 in evolution of strategic theory (advanced military history), 2 in economics, 2 in management, 0–6 in research training and thesis (8/74). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Credit granted for thesis should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business administration, and credit in international law and political science—including international relations—on the basis of institutional evaluation (12/68).

NV-1511-0004

Naval War College Correspondence Course in Strategy and Policy

Course Number: None.

Location: Through the Center for Continuing Education, Newport, RI.

Length: *Version 1:* 249 hours. *Version 2:* 300 hours.

Exhibit Dates: *Version 1:* 9/77–12/85. *Version 2:* 9/73–8/77.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: *All Versions:* The course involves questions of international politics, civilian-military relations, the uses of military forces, the development of national strategies and concepts of national interest, diplomacy, etc. The method used in the course is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond and involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history, and, to some degree, economics. For each of the seven topics or blocks of work, the student is assigned a core set of readings and a list of recommended supplementary materials. Required reading for Version 1 totals at least 3700 pages for the course. On the basis of a study of these, the student prepares one or more analytical papers on a topic or topics chosen from a prescribed list. The basic instructional technique is a detailed three or four page critique of each essay prepared by a member of the faculty. By the completion of the Version 1 course, each student will have written between 45 and 90 pages for submission. An integrative examination is given as the final exercise in the course. *Version 2:* Reading required totals at least 6000 pages for the course. Students will write between 200 and 250 pages.

Credit Recommendation: *Version 1:* In the graduate degree category, 6 semester hours in a combination of history, international relations, and political science (to be apportioned by the receiving institution) for students completing the course with a grade of B or higher (5/78). *Version 2:* In the graduate degree category, 9 semester hours in a combination of history, international relations, and political science (to be determined by the receiving institution) for those students completing the course with a grade of B or higher (3/76).

NV-1511-0005

Naval War College Correspondence Course in Defense Economics and Decision Making

Course Number: None.

Location: Through the Center for Continuing Education, Newport, RI.

Length: *Version 1:* 270 hours. *Version 2:* 300 hours.

Exhibit Dates: *Version 1:* 11/77–6/87. *Version 2:* 1/74–10/77.

Objectives: To further the students' awareness of the importance of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: *All Versions:* The course is divided into five major parts embracing microeconomic analysis and the analytical techniques useful in decision making; the behavioral problems that must be considered in the decision-making process; and the management principles and techniques useful in decision making in the public and private sectors. Assigned readings for Version 1 exceed 1900 pages; additional recommended readings are considerably more. Students are required to submit a number of written reports which are critiqued by the faculty in detail. Written submissions for component parts of this Version 1 course total approximately 150 pages. An integrative examination is given as the final exercise in the course. *Version 2:* Required readings exceed 3000 pages; written submissions range between 200 and 250 pages.

Credit Recommendation: *Version 1:* In the graduate degree category, 2 semester hours in quantitative economic analysis, 2 in behavorial analysis in decision making, and 2 in management principles, public and private, for those students completing the course with a grade of B or higher (5/78). *Version 2:* In the graduate degree category, 3 semester hours in quantitative economic analysis, 2 in behavioral analysis in decision making, and 3 in management principles, public and private, for those students completing the course with a grade of B or higher (3/76).

NV-1511-0006

Defense Economics and Decision Making Off-Campus Graduate Seminar

Course Number: None.

Location: Naval War College Off-Campus Location, Pensacola, FL; Naval War College Off-Campus Location, Corpus Christi, TX; Naval War College Off-Campus Location, Norfolk, VA; Naval War College Off-Campus Location, San Diego, CA: Naval War College Off-Campus Location, U. S. Naval Academy, Annapolis, MD: Naval War College Off-Campus Location, Washington, DC.

Length: 40 weeks (92 resident hours).

Exhibit Dates: 9/76–1/88.

Objectives: This course is designed to further the students' awareness of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: The course embraces microeconomic analysis and the analytical techniques useful in decision making; the behavioral problems involved in the decision-making process; and the management principles and techniques useful in decision making in the public and private sectors. There are 40 weekly seminar meetings; one mid-term and a final examination; oral reports; and 5 written reports. Assigned readings exceed 2300 pages; additional recommended readings are considerably more. Examinations and papers are read by the seminar instructors and by the faculty at the Naval War College.

Credit Recommendation: In the graduate degree category, it is recommended that the following graduate credit be given for the following components of this course graded B or better: Quantitative Economic Analysis (3 semester hours); Behavioral Analysis in Decision Making (2 semester hours); Management Principles, Public and Private (3 semester hours) (3/77).

NV-1511-0007

Strategy and Policy Off-Campus Graduate Seminar

Course Number: None.

Location: Naval War College Off-Campus Location, Pensacola, Fl; Naval War College Off-Campus Location, Corpus Christi, TX; Naval War College Off-Campus Location, Norfolk, VA; Naval War College Off-Campus Location, San Diego, CA; Naval War College Off-Campus Location, U.S. Naval Academy, Annapolis, MD; Naval War College Off-Campus Location, Washington, DC.

Length: Once weekly for 38 weeks (76 hours).

Exhibit Dates: 9/74–1/88.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: The seminar program is offered on a once-weekly basis. The course involves questions of international politics, civilian-military relations, the uses of military forces,the development of national strategies and concepts of national interest, diplomacy, etc. The method used is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond. The course involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history and, to some degree, economics. For each of the seven topics or blocks of work the student is assigned a core set of readings and a list of recommended supplementary materials. The student is evaluated on formal oral presentations, two examinations and seven required papers which generally average a total of 50 pages.

Credit Recommendation: In the graduate degree category, 2 semester hours in history, 2 in international relations, and 2 in political science for students completing the course with a grade of B or higher (4/76).

NV-1511-0008

Defense Economics and Decision Making Self-Administered Seminar (Naval War College)

Course Number: None.

Location: Naval War College Nonresident Location Jacksonville, FL. Naval War College Nonresident Location Norfolk, VA.

Length: 32 weeks (64 hours).

Exhibit Dates: 9/77–1/80.

Objectives: To further the students'awareness of the importance of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: The self-administered seminar (SAS) is administered by the students themselves without an instructor present. Close faculty supervision is provided, however, through faculty staff visits, guest lectures, the use of audio and audio- visual tapes of lectures at the Naval War College, by telephone with college faculty as well as the defense economics and decision making seminar instructor in Washington, D.C. being available for consultation, and through the use of conference telephone calls wherein college faculty can provide guidance and respond to questions during the actual seminar meetings. The course is divided into five major parts embracing microeconomic analysis and the analytic techniques useful in decision making; the behavioral problems that must be considered in the decision making process; and the management principles and techniques useful in decision making in the public and private sectors. Assigned readings exceed 1879 pages; additional recommended readings are considerably more. Students are required to submit a number of written reports which are critiqued by the faculty. Written submissions for component parts of this course range between 46 and 73 pages. An integrative examination is given as the final exercise in the course.

Credit Recommendation: In the graduate degree category, 2 semester hours in quantitative economic analysis, 2 in behavioral analysis in decision making and 2 in management principles, public and private for students completing the course with a grade of B or higher. (5/78).

NV-1511-0009

Strategy and Policy Self-Administered Seminar (Naval War College)

Course Number: None.

Location: Naval War College Nonresident Location, Jacksonville,FL; Naval War College Nonresident Location, Norfolk, VA.

Length: 32 weeks (64 hours).

Exhibit Dates: 9/77–1/80.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: The self-administered seminar (SAS) is administered by the students themselves without an instructor present. Close faculty supervision is provided, however, through faculty staff visits, guest lectures, the use of audio and audio-visual tapes of lectures at the Naval War College, by telephone with College faculty as well as the Strategy and Policy seminar instructor in Washington, D.C. being available for consultation, and through the use of conference telephone calls wherein College faculty can provide guidance and respond to questions during the actual seminar meetings. The course involves questions of international politics, civilian-military relations, the uses of military forces, the development of national strategies and concepts of national interest, diplomacy, etc. The method used is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond. The course involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history and, to some degree, economics. For each of the seven topics or blocks of work, the student is assigned a core set of readings and a list of recommended supplementary materials. Required reading totals at least 4500 pages for the course. On the basis of a study of these, the student prepares 5 five-to-ten page analytical papers on topics chosen from a prescribed list. The basic instructional technique is a detailed three-or-four-page critique of each essay prepared by a member of the faculty. Students are also required to give three ten or fifteen minute oral critiques of essays written by other seminar members. An integrative examination is given as the final exercise in the course.

Credit Recommendation: In the graduate degree category, 6 semester hours in a combination of history, international relations, and political science (to be apportioned by the receiving institution) for students completing the course with a grade of B or higher (5/78).

NV-1511-0010

NAVAL WAR COLLEGE CORRESPONDENCE COURSE IN NATIONAL SECURITY DECISION MAKING

Course Number: None.
Location: Naval War College, Newport, RI.
Length: Maximum 52 weeks.
Exhibit Dates: 7/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to utilize analytical skills with respect to decisions involving complex, resource-constrained national security issues. They will develop competence in major behavioral and management control techniques that influence national security.
Instruction: The course is divided into three units: the force planning component focuses on themes valuable in selecting military forces for the future; the defense analysis segment emphasizes the decision process for dealing with complex problems of resource allocation within the Department of Defense; and the policy making and implementation unit treats political organizational and behavioral phenomena relevant to national security decision making. Written responses to guidance questions related to the readings are utilized. Extensive critical evaluation by the faculty of the written work is provided. A proctored final examination is administered.
Credit Recommendation: In the graduate degree category, 3 semester hours in national security planning or defense analysis or policy making and implementation (9/87).

NV-1511-0011

NAVAL WAR COLLEGE CORRESPONDENCE COURSE IN STRATEGY AND POLICY

Course Number: None.
Location: Naval War College, Newport, RI.
Length: Maximum 52 weeks.
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course, the student will have the analytical skills to deal systematically with broad strategic questions at a high level of generality and abstraction. Closely related to this objective, the course will provide the students with a broad historical perspective on strategic questions against which to view and analyze contemporary issues. Throughout, the student will be introduced to the ambiguities in the process of framing grand strategy.
Instruction: Instruction in this course involves heavy reading in the basic professional literature in the areas of military history, international relations, and strategy, focusing upon a series of about seven case studies. The student prepares one or more analytical papers on a topic pertaining to the case study; a detailed three to four page critique is prepared by a member of the faculty. A final, three-hour, closed-book written examination is administered in a proctored environment.
Credit Recommendation: In the graduate degree category, 3 semester hours in history, international relations, or military studies (9/87).

NV-1511-0012

STRATEGY AND POLICY (COLLEGE OF NAVAL WARFARE/NAVAL COMMAND COLLEGE)

Course Number: None.
Location: Naval War College, Newport, RI.
Length: 14 weeks (126 hours).
Exhibit Dates: 11/87–Present.
Learning Outcomes: Upon completion of the course, the junior and senior student officers will have the analytical skills to deal systematically with broad strategic questions at a high level of generality and abstraction. Closely related to this objective, the course will make students aware of the broad range of considerations which such strategic thinking entails: economics, geographic, cultural, political, resource, etc., and their complex interrelationships. In addition, the course will provide for the students a broad historical perspective on strategic questions and strategic thinking, against which to view and analyze contemporary issues of this sort. Throughout, the students will be introduced to the ambiguities in the process of framing grand strategy.
Instruction: Instruction in the course involves extensive inhouse as well as external lectures, contact-heavy faculty student relations, directed and simulated seminar discussion, and heavy reading in the basic professional literature in the areas of military history, international relations, and strategy, all based upon approximately a dozen case studies. Emphasis is placed upon the relationships between a nation's political interests and goals, and the way military force has been deployed to serve those interests and goals, major themes include service coordination, the role of allies, policy-strategy match, military-civil relations, force-strategy match, and nonmilitary factors that affect national policy making.
Credit Recommendation: In the graduate degree category, 3 semester hours in history, 3 in international relations, and 3 in military studies (9/87).

NV-1511-0013

STRATEGY AND POLICY (COLLEGE OF NAVAL COMMAND AND STAFF)

Course Number: None.
Location: Naval War College, Newport, RI.
Length: 12 weeks (108 hours).
Exhibit Dates: 8/87–Present.
Learning Outcomes: Upon completion of the course, the junior/senior student officers will have the analytical skills to deal systematically with broad strategic questions at a high level of generality and abstraction. Closely related to this objective, the course will make students aware of the broad range of considerations which such strategic thinking entails: economic, geographic, cultural, political, resource, etc., and their complex interrelationships. In addition, the course will provide for the students a broad historical perspective on strategic questions and strategic thinking, against which to view and analyze contemporary issues of this sort. Throughout, the students will be introduced to the ambiquities in the process of framing grand strategy.
Instruction: Instruction in this course involves extensive inhouse as well as external lectures, contact-heavy faculty student relations, directed and stimulated seminar discussion, and heavy reading in the basic professional literature in the areas of military history, international relations, and strategy, all based upon approximately a dozen case studies. Emphasis is placed upon the relationships between a nation's political interests and goals, and the way military force has been deployed to serve those interests and goals; major themes include service coordination, the role of allies, policy-strategy match, military-civil relations, force-strategy match, and nonmilitary factors that affect national policy making.
Credit Recommendation: In the graduate degree category, 3 semester hours in history, 3 in international relations, and 3 in military studies (9/87).

NV-1511-0014

NATIONAL SECURITY DECISION MAKING FOR COLLEGE OF NAVAL WARFARE AND NAVAL COMMAND COLLEGE

Course Number: None.
Location: Naval War College, Newport, RI.
Length: 13 weeks (156–157 hours).
Exhibit Dates: 8/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to utilize multi-disciplinary tools of analysis in decision making and implementation situations. The student will be trained to deal with complex issues within the national security arena. Skills in areas such as resource allocation, force planning and management control will be developed.
Instruction: The course is divided into three units: the force planning component focuses on themes valuable in selecting military forces for the future; the defense analysis segment emphasizes the decision process for dealing with complex problems of resource allocation within the Department of Defense; and the policy making and implemenation unit treats political, organizational and behavioral phenomena relevant to national security decision making. Lectures, seminars, extensive reading and case preparation are the primary learning methods, oral and written reports are required. Final examinations follow the completion of each unit.
Credit Recommendation: In the graduate degree category, 3 semester hours in national security planning, 3 in defense analysis, and 2 in policy making and implementation (9/87).

NV-1511-0015

NATIONAL SECURITY DECISION MAKING FOR COLLEGE OF NAVAL COMMAND AND STAFF

Course Number: None.
Location: Naval War College, Newport, RI.
Length: 13 weeks (146–147 hours).
Exhibit Dates: 3/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to utilize multi-disciplinary tools of analysis in decision making and implementation situations. The student will be trained to deal with complex issues within the national security arena. Skills in areas such as resource allocation, force planning and management control will be developed.
Instruction: The course is divided into three units: the force planning component focuses on themes valuable in selecting military forces for the future, the defense analysis segment emphasizes the decision process for dealing with complex problems of resource allocation within the Department of Defense, and the policy making and implementation unit treats political, organizational and behavioral phenomena relevant to national security decision making. Lectures, seminars, extensive reading and case preparation are the primary learning methods. Oral and written reports are required. Final examinations follow the completion of each unit.

Credit Recommendation: In the graduate degree category, 3 semester hours in national security planning, 3 in defense analysis, and 2 in policy making and implementation (9/87).

NV-1511-0016

Basic Intelligence Training Subjects

Course Number: J-3A-0950.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA. Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (77 hours).

Exhibit Dates: 3/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to read maps and charts, understand introductory electronic warfare and basic operations of the Soviet military.

Instruction: Lectures, exams, laboratory experience, and group exercises in briefing, use of maps and charts, electronic warfare, intelligence collection and photography, Soviet military studies, and Third World characteristics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to Soviet studies (12/87).

NV-1511-0017

Intelligence Specialist Class A

Course Number: J-242-0010.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 11 weeks (434 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze intelligence reports; interpret national estimates; read, interpret and prepare maps and charts; perform basic data processing; assess technical means of gathering intelligence; and interpret aerial photographs.

Instruction: Lectures, examinations, laboratory experience, use of basic library and related sources of intelligence information.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to Soviet studies and 3 in introduction to geopolitics (12/87).

NV-1511-0018

Marine Air Ground Task Force
Intelligence Officer

Course Number: G-243-4210.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 11 weeks (366 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to utilize the current data base of combat intelligence information; manage the intelligence collection effort; manage the intelligence section; advise superior officers in intelligence aspects of unit operations; manage intelligence training; function as a target intelligence officer; serve as a unit assistant security manager; supervise unit counterintelligence effort and the administration of the intelligence section; understand the operation of intelligence gathering and interpretation, prepare national estimates, and apply geopolitical concepts.

Instruction: Lectures, examinations, laboratory, and field activities that provide instruction in: Fleet Marine Force organization; Naval Intelligence Processing System; Marine Air-Ground Intelligence System; intelligence reports and documents; intelligence collection agencies; amphibious intelligence planning and targeting; counterintelligence; electronic warfare support measures; Tactical Exploitation of National Capabilities planning; and tasking documents and management principles. Includes a command post exercise during which students participate as members of the intelligence section of a landing force being employed in an amphibious assault.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in Soviet studies and 3 in management problems (12/87).

NV-1511-0019

Marine Air/Ground Task Force
Intelligence Specialist Entry

Course Number: J-243-4207.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 8 weeks (401 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to utilize current data base of combat intelligence information; assist in the management of intelligence collection; assist in the processing of intelligence information; assist in the use of intelligence information for identifying targets; assist in the management of the administration of an intelligence unit; analyze intelligence reports; interpret national estimates; and read and interpret maps.

Instruction: Lectures, examinations, laboratory, and field activities that provide instruction in: map reading; collection, production and dissemination of intelligence; intelligence activities during each phase of an amphibious operation; organization of the Fleet Marine Force; intelligence sources and documents; order of battle; beach and helicopter landing zone intelligence; security; naval communications procedures; reconnaissance agencies; and basic correspondence and filing techniques. Includes a command post exercise during which students participate as members of the intelligence section of a Marine Air/Ground Task Force being employed in an amphibious assault.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to Soviet studies and 3 in introduction to technical communications (12/87).

NV-1511-0020

Marine Air/Ground Task Force
Intelligence Specialist
Intermediate

Course Number: J-243-4208.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 10 weeks (388 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to utilize current data base of combat intelligence information; assist and participate in the management of the intelligence collection effort, intelligence training, administration of the intelligence section, intelligence personnel and career development program; understand the operation of intelligence gathering and interpretation; prepare national estimates, and apply basic geopolitical concepts.

Instruction: Lectures, examinations, laboratory, and field activities that provide instruction in: Fleet Marine Force and Marine Air-Ground Task Force organization; Naval Intelligence Processing System; Marine Air Ground Intelligence System; intelligence publications, documents and records; intelligence collection agencies; intelligence planning; target intelligence; counterintelligence; electronic warfare; intelligence collection planning at the national levels; intelligence collection management principles; and security education and training. Includes a command post exercise during which students participate as members of the intelligence section of a landing force.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in Soviet studies and 3 in management problems (12/87).

NV-1511-0021

Shipboard Intelligence Analyst

Course Number: J-243-0969.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA. Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 3 weeks (109 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify foreign ships (naval and merchant marine), conduct briefings about sightings and the threat they may pose, maintain a library, and relate immediate circumstances to larger threat considerations.

Instruction: Lectures and practical exercises in conducting briefings; effectively using library resources; Soviet, East Europe, Cuban, and Iranian naval and merchant ships and their relationship to the general threat posed; and specific identification of foreign ships.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in Soviet studies (12/87).

NV-1511-0022

Naval Intelligence Officer

Course Number: J-3A-0010.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 21 weeks (827 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to solve intelligence problems, prepare and present intelligence briefings, and function effectively as a member of an intelligence team.

Instruction: Through lecture, laboratory, and practical exercises, the junior Navy officer will review security and intelligence operations; apply basic map reading and image interpretation skills; study U.S. and enemy weapons; understand mission planning; and apply special intelligence techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in geopolitics and 3 in Soviet studies (12/87).

NV-1511-0023

Basic Reserve Intelligence Training -
Enlisted

Course Number: J-242-0010.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 12 weeks (456 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze intelligence reports; interpret national estimates; read, interpret, and prepare maps and charts; perform basic data processing; assess technical means of gathering intelligence; and interpret aerial photographs.

Instruction: Lectures, examinations, laboratory experience, and use of basic library and related sources of intelligence information.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in introduction to Soviet studies (7/88).

NV-1511-0024

OPERATIONAL INTELLIGENCE ANALYSIS

Course Number: J-243-0972.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 5 weeks (193 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify foreign ships and their operational characteristics and other friendly naval merchant ships; conduct briefings about sightings and the threat that they pose; maintain a technical data base; relate in immediate circumstances to the larger threat considerations.

Instruction: Instruction consists of lectures, visual aids, student briefings, and extensive practical exercises encompassing: operational intelligence sensor systems, U.S. and foreign weapons systems performance and capabilities; U.S., Soviet, and Third World maritime warfare missions, operations, tactics, and command and control; operational intelligence briefings; preparing operational intelligence summary and advisory reports; security procedures; principles of operational intelligence analysis and reporting and message drafting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in a physical science elective and 1 in technical communications (12/87).

NV-1511-0025

STRATEGY AND POLICY NONRESIDENT SEMINAR

Course Number: None.

Location: Annapolis, MD; Corpus Christi, TX; Dahlgren, VA; Newport, RI; Norfolk, VA; Patuxent, MD; Pensacola, FL; San Diego, CA; San Francisco, CA; Seattle, WA; Washington, D.C.; White Oak, MD.

Length: 36 weeks (72 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will have the analytical skills to deal systematically with broad strategic questions. Closely related to this objective, the course will make the students aware of the complexity as well as ambiguity of the broad range of course directions which such strategic thinking entails. In addition, the course will provide for the students a broad historical perspective on strategic questions and thinking against which to view and analyze contemporary issues of this sort.

Instruction: Instruction in the course involves one lecture per case study, a simulated seminar discussion, and extensive reading in the basic professional literature in the areas of military history, international relations, and strategy, all based upon about nine case studies. Five papers (5–10 pages each), three critiques and two, 2-hour examinations are assigned.

Credit Recommendation: In the graduate degree category, 2 semester hours in history, 2 in international relations, and 2 in military studies (3/88).

NV-1511-0026

NATIONAL SECURITY DECISION MAKING NONRESIDENT SEMINAR

Course Number: None.

Location: Annapolis, MD; Corpus Christi, TX; Dahlgren, VA; Newport, RI; Norfolk, VA; Patuxent, MD; Pensacola, FL; San Diego, CA; San Francisco, CA; Seattle, WA; Washington, D.C.; White Oak, MD.

Length: 36 weeks (90 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to utilized multi-disciplinary tools of analysis in decision making and implementation situations. They will be trained to deal with complex issues within the national security arena. Skills in areas such as resource allocation, force planning and management control will be developed.

Instruction: The course is divided into three units: the force planning component focuses on themes valuable in selecting military forces for the future; the defense analysis segment emphasizes the decision process for dealing with complex problems of resource allocation within the Department of Defense; and the policy making and implementation units political, organizational and behavioral phenomena relevant to national security decision making. Lectures, seminars, extensive reading and case preparation are the primary learning methods. Mid-term and final examinations are required.

Credit Recommendation: In the graduate degree category, 3 semester hours in national security planning and defense analysis and 2 in policy-making and implementation (3/88).

NV-1511-0027

BASIC NAVY OPERATIONAL INTELLIGENCE

Course Number: J-3A-0030.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the fundamentals of operational intelligence and the ocean surveillance information system.

Instruction: Instruction includes lectures, readings, field trips, and a substantial practical exercise. Topics include fleet intelligence operation, messages and reports, electronic warfare, defense analysis, and Soviet naval command, control, and communications.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in Soviet studies (7/88).

NV-1511-0028

MARINE AIR-GROUND TASK FORCE COUNTERINTELLIGENCE

Course Number: J-244-0944.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 14–15 weeks (608 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a member of a counterintelligence team at the headquarters level.

Instruction: Includes classroom instruction, self-paced texts and practical exercises in the field. Major topics include national, Department of Defense, and Marine Corps intelligence assets, applications of counterintelligence, terrorism, tactical functions, security services, communications, human intelligence operations and interrogation techniques. The 14–15 weeks of training includes weekends.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of investigation, 3 in security techniques, 3 in technical communications, 3 in interviewing and interrogations, and 3 in legal principles (7/88); in the upper-division baccalaureate category, 3 semester hour in political science (major foreign powers) and 3–6 in physical security practicum on the basis of institutional evaluation (7/88).

NV-1511-0029

MARINE AIR-GROUND TASK FORCE INTELLIGENCE OFFICER RESERVE (PHASES 1 AND 2)

Course Number: J-3A-4334; J-3A-4214.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze and interpret intelligence reports, use military intelligence libraries and sources of information, employ and understand the vocabulary of intelligence, handle classified materials properly, and apply basic concepts of military strategy.

Instruction: Instruction includes lectures, practical exercises, presentation of an oral briefing, participation in a team project, and course examinations. Topics include a description of the intelligence community, intelligence definitions, preparing and interpreting intelligence estimates, using maps, terrorism, geographical factors in intelligence operations, targeting, and considerations of personal security.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in political science (national security) and 1 in an advanced physical geography elective (7/88).

NV-1511-0030

MARINE AIR GROUND TASK FORCE INTELLIGENCE SPECIALIST RESERVE (PHASES 1 AND 2)

Course Number: J-243-4213 (Phase 1); J-243-4223 (Phase 2).

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/79–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze and interpret intelligence reports; use military intelligence libraries and sources of information; and handle classified materials properly.

Instruction: Lectures, practical exercises, presentation of an oral briefing, team projects, and examinations covering the intelligence community, the use of maps, the study of terrorism, and analysis of geographical factors in intelligence operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in political science (introduction to national security) and 1 in a physical geography elective (7/88).

NV-1511-0031

Intelligence Officer Refresher

Course Number: J-3A-0952.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/78-Present.

Learning Outcomes: Upon completion of the course, the student will be able to deal with general national security considerations and the basics of geopolitics and naval strategy, and understand major characteristics of sensors and electronic intelligence.

Instruction: Lectures, readings, and exams in maritime strategy, geographic areas of naval operations, methods and types of electronic intelligence (ELINT).

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in political science (national security) and 1 in an advanced physical geography elective (7/88).

NV-1511-0032

Intelligence Specialist Class A - Operational Intelligence Reserve (Phases 1 and 2)

Course Number: J-242-2014.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2-3 weeks (96 hours).

Exhibit Dates: 9/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to deal with general national security considerations and the basics of electromagnetic radiation, types of intelligence gathering techniques, and sensor characteristics analysis.

Instruction: Lectures, discussion, examinations, and practical exercises covering the following topics: Sensor characteristics; principles of electronic intelligence; automated intelligence data processing and data bases; U.S. and foreign naval strategic forces; intelligence reporting and communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in political science (introduction to national security) and 1 in technical communications (7/88).

NV-1511-0033

Naval Intelligence Mid-Career

Course Number: J-3A-0998.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2-3 weeks (88-99 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to judge high-level intelligence and national security questions, including evaluation of the Soviet Union in particular, and analyze U.S. maritime strategy and multi-dimensional aspects of command, control, communications, and intelligence.

Instruction: Lectures by major figures in the U.S. intelligence community and experienced practitioners of U.S. Naval Intelligence, as well as required readings and extensive class discussion. Topics include: How U.S. naval strategy supports U.S. policy; capabilities and strategy of the Soviet Navy; changing political developments in the Soviet Union; questions of security and counterintelligence; terrorism; managing resources; and practical shipboard applications of broad general intelligence guidelines.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in political science (national security) (7/88).

NV-1511-0034

Naval Staff College

Course Number: None.

Location: Naval War College, Newport, RI.

Length: 23 weeks (460 hours).

Exhibit Dates: 1/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand fundamentals of foreign policy and military (naval) strategy; principles of managing a defense organization; methods for optimizing employment or naval forces in peacetime and general conventional war deployments; how to make sound defense-related decisions.

Instruction: Lectures, discussion sections, case studies, gaming, a research paper, written examinations. Topics covered are: policy and strategy, employment of naval forces, international law and ocean affairs, and national security decision making.

Credit Recommendation: In the graduate degree category, 3 semester hours in military studies, 3 in history, and 2 in management decision making/defense analysis OR 6 semester hours in military studies and 2 in management decision making/defense analysis (8/88).

NV-1512-0001

Intercultural Relations—Race Relations Specialist Training

Course Number: A-00-0117.

Location: Naval Amphibious School, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To train race relations specialists.

Instruction: Lectures and practical exercises in race relations. Course includes classroom presentations, discussions, field projects, and practical exercises which enable the student to demonstrate his ability to facilitate discussions on racial issues.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in human relations or basic psychology (8/74).

NV-1512-0002

High Impact Personnel Overseas Duty Training

(Intercultural Relations—Overseas Duty Training)

Course Number: A-00-0115.

Location: Naval Amphibious School, Coronado, San Diego, CA; Naval Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To train enlisted personnel to fulfill diplomatic missions overseas.

Instruction: Lectures and practical exercises in diplomatic missions overseas. Course includes frameworks for analysis of cultures, knowledge of specific cultures, intercultural communications skills, cultural value and ideology, and dynamics of change.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in human relations or basic psychology (8/74).

NV-1512-0003

Intercultural Relations—Facilitator Training

Course Number: A-SK-0011.

Location: Naval Amphibious School, San Diego, CA.

Length: 18 weeks (720 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To train enlisted personnel to facilitate intercultural relations programs.

Instruction: Lectures and practical exercises in intercultural programs. Course includes leadership skills, team building processes, cultural awareness, course familiarization, communications skills, dynamics of change, and supervised teaching.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations or basic psychology. In the upper-division baccalaureate category, 3 semester hours in group dynamics, and, on the basis of institutional evaluation, 6 in supervised teaching (8/74).

NV-1512-0004

Intercultural Relations—Human Resources Development

Course Number: A-00-0116.

Location: Naval Amphibious School, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To train enlisted personnel in intercultural training.

Instruction: Lectures and practical exercises in intercultural training. Course includes leadership skills, administrative concerns, cultural awareness, communications skills, project management, and dynamics of change.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in human relations or basic psychology; in the upper-division baccalaureate category, 1 semester hour in speech communications, and 5 in management training or group dynamics (8/74).

NV-1512-0005

Human Resource Management Specialist

Course Number: A-7C-0019.

Location: Human Resource Management School, Naval Air Station, Memphis, Millington, TN.

Length: 12 weeks (400 hours).

Exhibit Dates: 6/75-3/83.

Objectives: To prepare students in the application of interventive techniques to assist organizations in a more effective use of human resources.

Instruction: The course utilizes lectures, simulations, role playing and field experiences (practica). The first six weeks cover a system overview which includes the human resource management support system, communications, group dynamics, racism, sexism awareness, and drug and alcohol awareness. The second six weeks cover instructional systems design and facilitation techniques, data guided development, equal opportunity, the Overseas Diplomacy Mission Element (ODME), and drug and alcohol action programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory sociology/social work and 2 in methods in education (6/77); in the upper-division baccalaureate category, 2 semester hours in principles of management and 2 in advanced level sociology/social work (6/77); in the graduate degree category, 1 semester hour in psychology/social work and 3 in survey research methods (6/77).

NV-1512-0006

Human Resource Management
Instructor

Course Number: A-7C-0019.
Location: Human Resource Management School, Naval Air Station, Memphis, Millington, TN.
Length: 12 weeks (400 hours).
Exhibit Dates: 6/75-1/88.
Objectives: To prepare students to be instructors with a knowledge and understanding of learning, course development, instructional techniques and evaluation in the field of human resource management.
Instruction: The course utilizes lecture, simulation, role play and field experiences (practica). The first six weeks cover a system overview which includes the human resource management support system, communications, group dynamics, racism, sexism awareness, and drug and alcohol awareness. The second six weeks consist of course design/redesign and evaluation, dynamics of learning, and applied teaching techniques.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory sociology/social work and 1 in methods in education (6/77); in the upper-division baccalaureate category, 2 semester hours in principles of management and 4 in education (6/77); in the graduate degree category, 1 semester hour in psychology/social work (6/77).

NV-1513-0001

Naval Staff Advisor

Course Number: A-011-0012; A-011-0013.
Location: Naval Amphibious School, San Diego, CA.
Length: 20-61 weeks.
Exhibit Dates: 11/72-12/76.
Objectives: To train enlisted personnel to advise Vietnamese on staff organization and procedures.
Instruction: Lectures and practical exercises in human response training; group dynamics; human relations and behavior; language training, and cultural, ethnic, and economic value systems of U.S.A. and Southeast Asia.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in introduction to psychology or human relations, 3 in social sciences (7/74).

NV-1513-0002

Naval Advisor

Course Number: A-2G-0019.
Location: Amphibious School, San Diego, CA.
Length: 15 weeks (507 hours).
Exhibit Dates: 11/72-12/76.
Objectives: To train enlisted personnel to serve in advisory positions in Vietnam.
Instruction: Lectures and practical exercises in the duties and responsibilities of an advisor in Vietnam. Course includes human response training course (group dynamics, human relations, and human behavior); cultural, ethnic, and economic value system of Southeast Asia; and language training.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to psychology or human relations, 3 in social science, and credit in basic Vietnamese on the basis of institutional evaluation (7/74).

NV-1513-0003

Intercultural Relations—Vietnam
Advisor Training

Course Number: A-2G-0020.
Location: Naval Amphibious School, San Diego, CA.
Length: 6 weeks (198 hours).
Exhibit Dates: 7/72-12/76.
Objectives: To train enlisted personnel to function effectively as advisors in the Republic of Vietnam.
Instruction: Lectures and practical exercises in the duties and responsibilities of an advisor in Vietnam. Course includes administration concerns and procedures, self-awareness and interpersonal and intergroup relations, personal and group values, nature of prejudice, management, culture, Vietnamese culture, personal action programs, and materials, equipment, and publications.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in human relations or group dynamics (7/74).

NV-1513-0004

Chaplain School Basic

Course Number: A-5G-0010.
Location: Naval Education and Training Center, Newport, RI.
Length: 8 weeks (280 hours).
Exhibit Dates: 4/72-1/88.
Objectives: To train chaplains to serve the personal religious needs of military personnel.
Instruction: Lectures and practical exercises in the duties of a chaplain in the military. Course includes supervision, guidance, and counseling; drug abuse; discipline; minority group advisement; human growth and development; counseling techniques; group processes and interactions; and leadership skills.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in guidance and counseling, 3 in group dynamics (8/74).

NV-1601-0001

Compressed Gases Cryogenerator
Maintenance, Class C

Course Number: A-750-0012.
Location: Compressed Gases Class C School, Portsmouth, VA.
Length: 3 weeks (100 hours).
Exhibit Dates: 7/72-1/88.
Objectives: To train personnel to operate and maintain the mechanical portions of the Model 'B' cryogenerator.
Instruction: Lectures and practical exercises on the operation and maintenance of the mechanical portion of the model 'B' nitrogen cryogenerator, including the system and component data; theory of operation and process familiarization of the model 'B' cryogenerator; description, function, and principles of operation of components and systems; corrective maintenance, tracing leaks; critical parts and tolerances; and electrical and mechanical troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in mechanical technology (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical technology (6/74).

NV-1601-0002

Electrolytic Oxygen Generator 7L16

Course Number: F-652-015.
Location: Submarine School, Groton, New London, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 11/67-5/80.
Objectives: To train enginemen and machinist mates in the maintenance of the 7L16 oxygen generator.
Instruction: Lectures and practical exercises in the operation and maintenance of the 7L16 electrolytic oxygen generator, including maintenance and material management system, introduction to the electrolytic generator, familiarization with the installed oxygen generator, familiarization with electrolytic cell, flow diagram, pneumatic controls, operating procedures, practical operation and maintenance, annunciation panel and read-out drawer, familiarization with gas analyzers, and purge procedures.
Credit Recommendation: In the vocational certificate category, certificate in mechanical technology (6/74).

NV-1601-0003

Engineering Aid, Class A1 (EA "A")

Course Number: A-412-0010; A-412-0013.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.
Length: 11-16 weeks (347-437 hours).
Exhibit Dates: 1/63-1/88.
Objectives: To train enlisted personnel to be engineering aides.
Instruction: Lectures and practical exercises in concrete, and soil quality control tests; drafting construction drawings; completing topographic and engineering surveys; and mathematical problem solving associated with surveys.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in civil engineering aid (7/76); in the upper-division baccalaureate category, 3 semester hours in drafting, and 3 in construction survey (7/76).

NV-1601-0004

Equipment Operators, Water Well
Drilling and Development,
Class C
(EO "C" Water Well Drilling and Development)

Course Number: A-730-0014; A-730-014; A-730-0015; A-730-015; A-730-0016; A-730-016.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.
Length: 4 weeks (120 hours).
Exhibit Dates: 11/65-1/88.
Objectives: To train enlisted personnel in water well drilling and development operations.
Instruction: Lectures and practical exercises in water well drilling and development, including ground water supply, safety precautions in well drilling, rotary drilling machines, drilling machines maintenance, air operated drills, pumps, testing wells for yield and drawdown, and testing for residual chlorine.
Credit Recommendation: In the vocational certificate category, 2 semester hours in water well drilling (7/76).

NV-1601-0005

Oxygen Generator (Mechanical)

Course Number: L-652-012.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 3-4 weeks (93 hours).

Exhibit Dates: 10/66-1/88.

Objectives: To train enlisted personnel to operate and maintain oxygen generation equipment.

Instruction: Lectures and practical exercises in the operation of an oxygen generation system. Course includes electrolytic cell, valve nomenclature, nitrogen system, distilled water system, oxygen system, cooling system, gas analyzer systems, annunciator panel, pneumatic system and controls, pneumatic control calibration, operating and purge procedures, spotting troubles, maintenance and clean-up, generator pressure test, introduction to the electrical system, and generator operation and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in chemical technology elective (5/74).

NV-1601-0006

Oxygen Generator Mechanical Model 6L16 (Enlisted)

Course Number: F-652-044.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To train enlisted personnel to maintain and operate the 6L16 electrolytic oxygen generator under normal and emergency conditions.

Instruction: Lectures and practical exercises on the operation and maintenance of the 6L16 electrolytic oxygen generator. Course includes function of flow systems and electronic control systems, normal and emergency operations, basic hydraulic principles, valves transducers, hydraulic flow components, electrolytic cell, calibration, preventive maintenance, check-out and test procedure, safety precautions, and system troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

NV-1601-0007

Oxygen Equipment Class C

Course Number: Not available.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 14 weeks (560 hours).

Exhibit Dates: 4/56-12/68.

Objectives: To train personnel in the maintenance, testing, and repair of oxygen equipment.

Instruction: Lectures and practical exercises in the maintenance, testing, and repair of the aircraft oxygen equipment, including regulators, full-pressure units, oxygen regulator test stand, pressure breathing regulators, liquid oxygen test stands and conversion units, and ready-room and flight-line procedures.

Credit Recommendation: In the vocational certificate category, 5 semester hours in oxygen equipment (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in aeronautical technology (5/74).

NV-1601-0008

Electrolytic Oxygen Generator Operators

Course Number: A-652-0057.

Location: Submarine Training Center, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train personnel to operate and maintain the 6L16 oxygen generator.

Instruction: Lectures and practical exercises in the maintenance and operation of the 6L16 oxygen generator, including detailed analysis and troubleshooting of all mechanical components, purging of the oxygen generator, valve nomenclature, cell construction and insulation, cell jumpering and electrolyte refill of cell, basic flow path, transducers, electrical systems and annunciation panel, start-up, normal operation, and shut-downs, cleaning and degreasing, and gas analyzers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-1601-0009

6L16 Oxygen Generator Technician

Course Number: A-623-0034; F-623-044.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 3/70-12/79.

Objectives: To train personnel to perform as 6L16 oxygen generator technicians.

Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the 6L16 oxygen generator, including maintenance and material management system; electrolysis and the electrolytic cell; functional analysis of flow systems and the electrical control system; electrolysis power supply description, analysis, operation, calibration, and troubleshooting; electronic control system power supplies and description; pressure controller circuit analysis; gas analyzer; and system troubleshooting and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in chemical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

NV-1601-0010

Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant

(Cryogenics, Class C)

(Compressed Gases, Class C)

Course Number: A-750-0010.

Location: Norfolk Naval Shipyard, Portsmouth, VA.

Length: 14 weeks (436-452 hours).

Exhibit Dates: 10/61-1/88.

Objectives: To train enlisted personnel to operate and maintain high-pressure liquid oxygen/nitrogen generating plants and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of high-pressure liquid oxygen/nitrogen generating plants and associated equipment, including physics and chemistry of cryogenics, air liquification, cryogenic storage, transfer and handling equipment, high-pressure air compressors and vacuum pumps, refrigeration, recondenser components and repair, and operation of specific generating plant equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1601-0011

Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance

Course Number: A-123-0132; K-123-592.

Location: Service Schools Command, Orlando, FL; Fleet Training Group, Pearl Harbor, HI.

Length: 15 weeks (420-450 hours).

Exhibit Dates: 2/68-1/78.

Objectives: To train torpedomen and strikers to operate and maintain the Mk 16 torpedoes and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of Mk 16 torpedoes and associated test equipment, including functional operations, overhaul and repair, disassembly and assembly, and maintenance and preservation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial or mechanical technology (8/74).

NV-1601-0012

Self-Noise Determination and Classification

Course Number: F-210-013.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel in submarine noise reduction, mechanical vibration and measurement, and use of sound measurement equipment.

Instruction: Lectures and practical exercises in submarine noise reduction, mechanical vibration and measurement, and use of sound measurement equipment. Course includes fundamentals of sound, mathematics, flow noise and damping, noise surveys, balancing, and use of installed equipment for noise monitoring.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in noise control or sound control (8/74).

NV-1601-0013

Engineering Control and Surveillance System Operator, Class C1

Course Number: A-652-0074.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/76-1/88.

Objectives: To provide technical knowledge and skills in the performance of duties and supervision of personnel involved in the operation of engineering control and surveillance systems of the DD963 class destroyer.

Instruction: Areas of instruction include a working knowledge of the operation and maintenance of the following systems: electrical plant control equipment, propulsion and auxiliary machinery control equipment, propulsion and auxiliary machinery information systems equipment, propulsion local operating equipment and central information system equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance of engineering instrumentation or mechanical control systems (9/77).

NV-1601-0014

Engineering Control and Surveillance System Maintenance, Class C1

Course Number: A-652-0075.

Location: Service School Command, Great Lakes, IL.

Length: 10-12 weeks (400-480 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To train qualified electricians in the duties and supervision of the engineering control and surveillance systems of the DD963 class destroyer.

Instruction: Areas of instruction cover the following systems: electrical plant control equipment, propulsion and auxiliary machinery control equipment, propulsion local operating equipment, propulsion and auxiliary machinery information system equipment and ship's control equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations and 5 in an electrical technology elective (9/77).

NV-1601-0015

DD-963 Centralized Damage Control/Fuel Control System Operator
(DD-963 Centralized Damage Control Console Operator, Class C1)

Course Number: A-652-0079.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/77-Present.

Objectives: To train enlisted personnel to operate the damage control/fuel control consoles for the DD963 class destroyer.

Instruction: Areas of instruction include the following subsystems: hazard detection panel, fire-main control panel, fuel oil fill and transfer panel, JP-5 control panel, fuel oil and JP-5 local control panels.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/83).

NV-1601-0016

DD-963 Centralized Damage Control System Console Maintenance, Class C1

Course Number: A-652-0081.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/77-10/79.

Objectives: To train personnel to operate and maintain the damage control/fuel control console for the DD963 class destroyer.

Instruction: Areas of instruction include energizing, lining up, securing, monitoring, recognizing and acknowledging simulated fault and hazard conditions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instrumentation or systems controls (9/77).

NV-1601-0017

SSM Automatic Degaussing Equipment Maintenance for the DD-963
(SSM Degaussing System for DD-963 Class Destroyer, Class C1)

Course Number: A-690-0022.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/76-Present.

Objectives: To train personnel to operate and maintain the degaussing system.

Instruction: Instruction in the theory of degaussing, the operation of the degaussing control systems, adjustment, maintenance and troubleshooting associated electrical equipment related to the degaussing systems for ships.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/83).

NV-1601-0018

Oxygen Generator 6L16 Operator
(Treadwell Oxygen Generator Operation/Maintenance 6L16)
(Oxygen Generator Operator 6L16)

Course Number: A-652-0050.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA; Naval Submarine Training Center, Pearl Harbor, HI; Naval Submarine Training Center, San Diego, CA; Naval Submarine Training Center, Groton, CT; Naval Submarine Training Center, New London, CT.

Length: 3 weeks (115-120 hours).

Exhibit Dates: 2/80-Present.

Objectives: To provide students with the essential knowledge necessary to operate, repair and maintain the 7L16 oxygen generator.

Instruction: Lectures and practical exercises in the theory and actual operation, maintenance and troubleshooting of the oxygen generator and its various systems.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/89).

NV-1601-0019

Oxygen Generator Operator/Mechanical Technician

Course Number: A-652-0051.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine Training Center, Pearl Harbor, HI; Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 3 weeks (109 hours).

Exhibit Dates: 6/80-Present.

Objectives: To train enlisted personnel to operate, maintain and repair the 7L16 oxygen generator.

Instruction: Lectures and practical exercises in the operation, repair and troubleshooting of the 7L16 generator including the theory of liquid and gas systems, functions of all pneumatic control system components and the use of dial indicators, torque wrenches and gas calibration equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/81).

NV-1601-0020

Engineering Principles and Practices

Course Number: A-651-0066.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (57 hours).

Exhibit Dates: 8/80-Present.

Objectives: To train personnel to perform maintenance on basic mechanical components.

Instruction: Lectures and practical exercises in maintenance of basic mechanical components including sensing instruments, mechanical fasteners and locking devices, static and dynamic fluid seals, lubrication, bearings and flexible couplings.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical systems maintenance (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical systems laboratory (5/82).

NV-1601-0021

Air Compressors and Compressed Air Systems Component Maintenance

Course Number: A-651-0070.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (93 hours).

Exhibit Dates: 8/80-8/86.

Objectives: To train personnel in the maintenance of air compressors and compressed air systems.

Instruction: For this course after 8/86 see NV-1601-0029. Lectures and practical exercises in the maintenance of air compressors and compressed air systems including low and high pressure compressors, air dryers/dehydrators, maintenance principles and record keeping and spare part procurement.

Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery repair (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechancial systems laboratory (5/82).

NV-1601-0022

Boiler Water/Feed Water Test and Treatment Instructor Certification

Course Number: A-651-0103.

Location: Surface Warfare Officers School Command, Newport, RI.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/79-Present.

Objectives: To prepare officer and enlisted naval personnel in boiler water testing and treatment.

Instruction: Classroom instruction and practical exercises in boiler water conditioning including: basic mathematics, algebra exponents, scientific notation, logarithms and proportions; water chemistry including atomic structure, the periodic table, equations, stoichiometry, acid-base reactions, PH concept, electrolysis, chemical testing and corrosion control in Idle 8 operational high pressure steam generators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic mathematics and 2 in basic chemistry (11/82).

NV-1601-0023

FFG-7 PCO/PXO Gas Turbine Engineering

Course Number: A-4H-0061.

Location: Surface Warfare Officers School Command, Newport, RI.

Length: 2 weeks (68 hours).

Exhibit Dates: 3/79-Present

Objectives: To provide prospective commanding and executive officers with an overall knowledge of the FFG-7 ship's engineering system including administrative and managerial duties.

Instruction: The course is technical in content and deals specifically with marine gas turbine plant engineering. Major topics include the unique-power train and its control system, the generation distribution and control system of the ship's electrical plant; auxiliary systems and their respective controls and monitoring requirements. Additionally, related managerial and administrative responsibilities are reviewed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (11/82).

NV-1601-0024

DD-963 PCO/PXO GAS TURBINE ENGINEERING

Course Number: A-4H-0043.
Location: Surface Warfare Officers School Command, Newport, RI.
Length: 2-3 weeks (72-80 hours).
Exhibit Dates: 10/77-Present.
Objectives: To provide prospective commanding and executive officers with a general knowledge of the engineering system installed in a DD963 destroyer including administrative and managerial responsibilities.
Instruction: The course gives the officer a general overview of the marine gas turbine plant including the power train and its control system, the generation distribution and control system of the ship's electrical plant and the auxiliary system. In addition, administrative and managerial responsibilities are covered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (11/82).

NV-1601-0025

DD-963 SHIP SERVICE GAS TURBINE GENERATOR SET OPERATOR AND WASTE HEAT BOILER OPERATOR

Course Number: A-652-0225.
Location: Service School Command, Great Lakes, IL.
Length: 2 weeks (80 hours).
Exhibit Dates: 4/81-Present.
Objectives: To train personnel in the operation of the Model 104 gas turbine generator set and waste water heater.
Instruction: Lectures and practical exercises on the operation of the gas turbine including turbine assembly, coaling systems, intake, exhaust, reduction gears, ignition systems, starting systems, fuel systems, fire fighting detectors and waste heat boiler system and operation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine theory and operation, 1 in gas turbine operation laboratory (10/83).

NV-1601-0026

FFG-7 CLASS DEGAUSSING SYSTEM MAINTENANCE

Course Number: A-690-0078.
Location: Service School Command, Great Lakes, IL.
Length: 2 weeks (80 hours).
Exhibit Dates: 6/83-Present.
Objectives: To train personnel to operate and maintain a degaussing system.
Instruction: Lectures and laboratory exercises in the theory of degaussing, the operation of the degaussing control systems, and adjustment, maintenance and troubleshooting of the electrical equipment related to the degaussing system.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/83).

NV-1601-0027

MAIN ENGINE AND LUBE OIL PURIFIER

Course Number: A-651-0078.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 1-2 weeks (76 hours).
Exhibit Dates: 9/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to disassemble, inspect, and measure steam turbines and lube oil purifiers.
Instruction: Classroom and practical instruction on steam turbines and lube oil purifiers. Includes selection of parts and procedures for procurement of replacement parts.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in manufacturing processes (3/89).

NV-1601-0028

VAPOR COMPRESSION DISTILLER MAINTENANCE AND OPERATION

Course Number: J-651-0488.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to operate, test, service, and repair vapor compression distillers.
Instruction: Classroom and practical instruction on vapor compression distillers.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in distillation mechanical systems (3/89).

NV-1601-0029

AIR COMPRESSOR AND COMPRESSED AIR SYSTEM COMPONENT MAINTENANCE

Course Number: A-651-0070.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 2-3 weeks (100 hours).
Exhibit Dates: 9/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to operate and maintain air compressor systems.
Instruction: Classroom and practical instruction in the operation and maintenance of air compressors and compressed air systems including low and high pressure compressors, air dryers/dehydrators and maintenance principles.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in mechanical compressor systems (3/89).

NV-1601-0030

I/R HIGH PRESSURE AIR COMPRESSOR COMBINED MAINTENANCE

Course Number: A-652-0100.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Charleston, SC.
Length: 1-2 weeks (52 hours).
Exhibit Dates: 9/84-Present.
Learning Outcomes: Upon completion of the course the student will be able to describe the theory, operation, maintenance of high pressure air compressors and to perform maintenance and repair procedures.
Instruction: Lectures and laboratory instruction on high pressure air compressors.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in mechanical systems (air compressors) (10/89).

NV-1606-0001

INTELLIGENCE ADVISOR VIETNAM

Course Number: A-3A-0023.
Location: Naval Amphibious School, Coronado, San Diego, CA.
Length: 2 weeks (87 hours).
Exhibit Dates: 5/72-12/76.
Objectives: To train intelligence officers as operators and advisors in Vietnam by providing thorough study of intelligence processes, functions, and skills.
Instruction: Study of U.S. and Vietnamese intelligence organizations; specialized intelligence activities.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0002

IOIC SUPERVISOR

Course Number: D-3A-013.
Location: Reconnaissance Attack Squadron Three, Albany, GA.
Length: 5 weeks (200 hours).
Exhibit Dates: 5/69-1/88.
Objectives: To train the student in the processing of electronically acquired intelligence information.
Instruction: Electronic data processing methods; photographic processing; storage; programming; compatible interfacing; maintenance procedure.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic data processing, 3 in basic photography (2/74).

NV-1606-0003

INTELLIGENCE OFFICER, VIETNAM

(Naval Field Intelligence Officer, Vietnam)

Course Number: H-3A-5516.
Location: Amphibious School, Coronado, San Diego, CA.
Length: 13 weeks (811 hours).
Exhibit Dates: 4/67-12/76.
Objectives: To provide commissioned officers with functional training in the organizational development of intelligence communities, with emphasis on the Vietnamese community, language, and culture.
Instruction: Political history of Southeast Asia; comparative religions and cultures; intelligence methods; Vietnamese language; geopolitical concepts.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in Far Eastern language and literature, 3 in political science (2/74).

NV-1606-0004

AMPHIBIOUS INTELLIGENCE STAFF OFFICER

Course Number: H-3A-5515.
Location: Naval Amphibious School, San Diego, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/70-3/71.
Objectives: To train commissioned and warrant officers in amphibious intelligence operations, concepts, and principles.
Instruction: Collection, processing, and dissemination of intelligence; intelligence briefing techniques; counterinsurgency

methods and principles; communications theory; principles of counterintelligence.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in information and communications, 1 in business administration (2/74).

NV-1606-0005

Marine Enlisted Basic Combat Intelligence

Course Number: G-243-4212.

Location: Amphibious School, Little Creek, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train enlisted Marines in basic amphibious combat intelligence functions and procedures.

Instruction: Map and aerial photograph reading, counterintelligence, and reconnaissance methods; beach studies; battalion organization; collection, production, and dissemination of information and military intelligence data.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in photomapping, 1 in industrial security, 1 in public administration (2/74).

NV-1606-0006

Intelligence Man (Air/Ground)

Course Number: H-243-3167.

Location: Naval Amphibious Base, San Diego, CA.

Length: 3 weeks (100 hours).

Exhibit Dates: 11/71-1/88.

Objectives: To train enlisted personnel for intelligence duty as assistants in the collection of military material in combat situations.

Instruction: Map instruction; collection, production, and dissemination of intelligence; organizational methods; naval communications procedures; automated intelligence, basic correspondence and filing techniques; combat situations analysis and information collection and reporting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in topography on the basis of institutional evaluation (2/74).

NV-1606-0007

1. Basic Underwater Demolition/SEAL Training
   (Basic Underwater Demolition/Seal Team Training)
2. Underwater Demolition Training (Officer)
   (Underwater Demolition Training (Enlisted))
3. Underwater Demolition Training

Course Number: *Version 1:* A-4E-0047; A-431-0024; H-2E-5311; H-431-5311. *Version 2:* G-2E-6244; G-431-6244. *Version 3:* H-2E-5311; H-431-5311.

Location: Amphibious School, San Diego, CA; Amphibious School, Norfolk, VA.

Length: *Version 1:* 20-23 weeks (1223 hours). *Version 2:* 16 weeks (961 hours). *Version 3:* 18 weeks (1082 hours).

Exhibit Dates: *Version 1:* 7/69-1/88. *Version 2:* 4/68-6/69. *Version 3:* 9/66-3/68.

Objectives: To train officers and enlisted personnel in the principles and physics of scuba diving.

Instruction: Basics of scuba diving and proper use of scuba diving apparatus.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in marine science technology (12/73). *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/73). *Version 3:* Credit is not recommended because of the military-specific nature of the course (12/68).

NV-1606-0008

Diver First Class

Course Number: A-433-0025; A-433-018.

Location: Naval Diving and Salvage Training Center, Panama City, FL; Diving and Salvage School, Washington, DC.

Length: 14-26 weeks (465-858 hours).

Exhibit Dates: *Version 1:* 1/83-Present. *Version 2:* 10/66-12/82

Objectives: To train enlisted personnel in advanced diving, salvage, and rescue operations.

Instruction: *Version 1:* Lectures and practical experience in advanced deep air and mixed gas surface supplied diving, use of hyperbaric chambers, submarine rescue, underwater cutting and welding salvage techniques, administration, supervision and certification of diving systems and a review of diving physics and medicine. *Version 2:* Lectures and practical experience in advanced ship salvage and submarine rescue methods, helium-oxygen techniques, scuba techniques, underwater welding, and a review of diving physics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in advanced diving technology (4/83); in the upper-division baccalaureate category, 1 semester hour in diving supervision and administration (4/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in marine science or oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in ocean engineering (12/73).

NV-1606-0009

Deep Sea Helium-Oxygen Diving Officer

Course Number: A-4N-0014.

Location: Naval Diving and Salvage Training Center, Panama City, FL; Diving and Salvage School, Washington, DC.

Length: *Version 1:* 9 weeks (368 hours) *Version 2:* 7 weeks (224 hours).

Exhibit Dates: *Version 1:* 1/83-Present. *Version 2:* 12/68-12/82.

Objectives: To train diving officers in the use of helium-oxygen deep diving techniques.

Instruction: *All Versions:* Lectures and practical experience in principles and problems of deep diving and use of helium-oxygen mixtures. *Version 1:* Includes the use of the submarine rescue chamber and an orientation to experimental diving.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced diving technology (4/83); in the upper-division baccalaureate category, 1 semester hour in diving supervision and administration (4/83). *Version 2:* Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1606-0010

Navy Diver Second Class
(EOD Diver Candidates)

Course Number: A-433-0022.

Location: *Version 1:* Naval Diving and Salvage Training Center, Panama City, FL; Naval Amphibious School, Coronado, CA; Harbor Clearance Unit Two, Little Creek, VA; Fleet Training Center-Pacific, Pearl Harbor, HI. *Version 2:* Naval School, Key West, FL; Naval School, Norfolk, VA; Naval School, San Diego, CA; Naval School, Guam, Marianas Island; Naval School, Pearl Harbor, HI; Naval School, Subic Bay, RPI.

Length: *Version 1:* 12 weeks (488 hours). *Version 2:* 7-10 weeks (230-365 hours).

Exhibit Dates: *Version 1:* 6/80-Present. *Version 2:* 1/62-5/80.

Objectives: To train enlisted personnel in the basic aspects of scuba diving and underwater practices.

Instruction: *Version 1:* Lectures and practical exercises in the physics and medical aspects of diving, open circuit SCUBA, surface supplied air, underwater power tools, welding and related practices. *Version 2:* Lectures and practical experience in the physics and medical aspects of diving, swimming and underwater swimming, buoyant ascent training, underwater search and inspection, communications, photography, demolition, use and maintenance of deep sea and lightweight diving equipment, and methods of underwater cutting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in marine diving technology (4/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine diving technology (4/83); in the upper-division baccalaureate category, 1 semester hour in marine diving physiology (4/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in ocean engineering (1/74).

NV-1606-0011

Scuba Diver

Course Number: A-433-0023.

Location: Naval School, New London, CT; Naval School, Pearl Harbor, HI; Naval Amphibious School, Coronado, CA; Naval School Explosive Ordnance Disposal, Indian Head, MD; Mobile Diving Salvage Unit Two, Little Creek, VA; Naval Diving and Salvage Training Center, Panama City, FL; Naval School, San Diego, CA; Naval School, Key West, FL.

Length: *Version 1:* 5 weeks (200 hours). *Version 2:* 4 weeks (125-145 hours).

Exhibit Dates: *Version 1:* 1/83-Present. *Version 2:* 1/62-12/82.

Objectives: To train enlisted personnel in the basic aspects of scuba diving and underwater operations.

Instruction: *Version 1:* Lectures and practical experiences in the physics and medical aspects of diving, decompression theory, open-circuit theory, maintenance and repair, underwater hull inspection, underwater mechanical work techniques, escape training techniques and diving administration. *Version 2:* Lectures and practical experience in the physics and medical aspects of diving; swimming and underwater swimming; buoyant ascent training; underwater search and inspection; communications; photography; demolition; use, maintenance, and repair of deep sea and lightweight diving equipment; methods of underwater cutting and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in marine technology (4/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in scuba diving (4/83). *Version 2:* In the vocational certificate category, 4 semester hours in marine science technology (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ocean engineering (1/74).

NV-1606-0012

Closed and Semiclosed Scuba

Course Number: None.
Location: Naval School, Key West, FL.
Length: 4 weeks (125 hours).
Exhibit Dates: 1/62–12/68.
Objectives: To train enlisted personnel in all aspects of mixed-gas scuba diving and underwater practices.
Instruction: Lectures and practical experience in mixed-gas scuba diving, diving medicine and physics, equipment use and maintenance, and underwater search and inspection.
Credit Recommendation: In the vocational certificate category, 4 semester hours in marine science technology (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ocean engineering (1/74).

NV-1606-0013

Underwater Photographer/Scuba Diver

Course Number: None.
Location: Naval School, Key West, FL.
Length: 5 weeks (138 hours).
Exhibit Dates: 1/62–12/68.
Objectives: To train enlisted personnel in the basic principles of scuba diving and underwater photography.
Instruction: Lectures and practical experience in the physics and medical aspects of diving; swimming and underwater swimming; buoyant ascent training; underwater search and inspection; communications; demolition; underwater photography, including the use of still and motion picture cameras, processing, and problems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in marine science technology (1/74).

NV-1606-0014

Medical Deep Sea Diving Technician
(Medical Deep Sea Diving Technic)
(Deep Sea Divers)

Course Number: A-433-0020.
Location: Naval Diving and Salvage Training Center, Panama City, FL; Deep Sea Divers School, Washington, DC.
Length: *All Versions:* 21–26 weeks (735–960 hours).
Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 6/57–12/82.
Objectives: To train hospital personnel in the physiological effects of diving, and in diving techniques.
Instruction: *Version 1:* Lectures and practical exercises in diving physics and physiology as applied to the treatment of compressed-gas illness, including deep air, mixed gas and salvage surface supported diving. *Version 2:* Lectures and practical experience in diving physics and physiology as applied to the treatment of compressed-gas illness, accident prevention, mixed-gas diving, and the use of decompression and treatment tables.
Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in marine diving technology (4/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine diving technology and 4 in advanced diving technology (4/83); in the upper-division baccalaureate category, 1 semester hour in marine diving physiology and 2 in medical diving physiology (4/83). Please Note: This course is comprised of two courses: Navy Diver, 2nd Class (NV-1606-0010) and Medical Technician. We have included the credit recommendation for Navy Diver, 2nd Class in this exhibit. *Version 2:* In the vocational certificate category, 6 semester hours in paramedical programs or ocean engineering (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine science technology (12/73); in the upper-division baccalaureate category, 4 semester hours in marine sciences (12/73).

NV-1606-0015

Ship Salvage Diving Officer

Course Number: A-4N-0011.
Location: Naval Diving and Salvage Training Center, Panama City, FL; Diving and Salvage School, Washington, DC.
Length: *Version 1:* 18–19 weeks (700 hours). *Version 2:* 14 weeks (445 hours).
Exhibit Dates: *Version 1:* 1/80–1/83. *Version 2:* 11/68–12/79.
Objectives: To train officers in the use of diving equipment and to provide the training to perform salvage diving operations.
Instruction: *All Versions:* Diving with deep-sea, light-weight, and Scuba equipment; diving physiology and first aid; and underwater engineering as applied to salvage operations.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in marine diving technology and 2 in marine salvage technology (4/83); in the upper-division baccalaureate category, 2 semester hours in diving supervision and administration and 1 in marine diving physiology (4/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in ocean engineering (12/73); in the upper-division baccalaureate category, 4 semester hours in ocean engineering (12/73).

NV-1606-0016

Master Diver Evaluation
(Master Diver Qualification)

Course Number: A-433-0019; A-433-019.
Location: Naval Diving and Salvage Training Center, Panama City, FL; Deep Sea Divers School, Washington, DC.
Length: 5 weeks (160 hours).
Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 3/69–12/82.
Objectives: To prepare experienced divers to meet the eligibility requirements for the title, Master Diver.
Instruction: *All Versions:* Lectures and practical experience as refresher training in diving equipment, techniques, and safety, with emphasis on supervisory training.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diving technology (4/83); in the upper-division baccalaureate category, 2 semester hours in diving administration and supervision (4/83). *Version 2:* In the vocational certificate category, 4 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in marine engineering (12/73).

NV-1606-0017

Medical Department Diving Officers

Course Number: A-6N-0010; A-6A-0010.
Location: Naval Diving and Salvage Training Center, Panama City, FL; Diving and Salvage School, Washington, DC.
Length: 8–9 weeks (256–360 hours).
Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 7/69–12/82.
Objectives: To provide medical officers with instruction in diving techniques with the emphasis on the physiological aspects of diving.
Instruction: *All Versions:* Familiarization with deep sea, lightweight, and helium diving; operational use of SCUBA; limited training in underwater mechanics, and diving techniques with emphasis on the physiological aspects of diving.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in SCUBA diving (4/83); in the upper-division baccalaureate category, 4 semester hours in hyperbaric physiology (4/83). *Version 2:* Baccalaureate credit is not recommended because course participation is limited to medical doctors (6/75).

NV-1606-0018

Basic Prop Flight Instructor

Course Number: Q-2A-0060.
Location: Naval Air Station, Corpus Christi, TX.
Length: 3 weeks (117 hours).
Exhibit Dates: 7/73–1/88.
Objectives: To train pilots as flight instructors for basic prop aircraft.
Instruction: Lectures and in-flight training in teaching prop-aircraft flight procedures, including the synthetic instrument trainer, instrument simulator, radio instrument simulator, safety procedures, night flight procedures, and aircraft preflight and takeoff procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0019

Flight Instructor Training

Course Number: None.
Location: Naval Aviation Schools Command, Pensacola, FL.
Length: *Version 1:* 2 weeks (71–78 hours). *Version 2:* 3 weeks (90 hours).
Exhibit Dates: *Version 1:* 8/68–10/69. *Version 2:* 8/66–7/68.
Objectives: To train qualified pilots to be instructor pilots.
Instruction: Lectures include the basic principles of education, orientation for the instructor pilot, applied aerodynamics, safety procedures, oral communications, and leadership training.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aerodynamics, 1 in education (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aerodynamics, 1 in education (2/74).

NV-1606-0020

Prospective Prop Flight Instructor

(Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft))
(Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft))

Course Number: Q-2A-0061.
Location: Air Advanced Training Command, Corpus Christi, TX.
Length: 9 weeks (67-94 hours).
Exhibit Dates: 5/63-1/88.
Objectives: To train pilots as flight instructors for prop aircraft.
Instruction: Lectures in flight rules and regulations, instrument navigation, aerodynamics, meteorology, operational navigation, in-flight procedures, takeoff and landing techniques, emergency procedures, aircraft engine familiarization, and military tactics.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0021

Prospective TA-4J Flight Instructor

Course Number: Not available.
Location: Naval Air Station, Corpus Christi, TX.
Length: 10 weeks (73 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train pilots as flight instructors for the TA-4J aircraft.
Instruction: Flight training, including instrument navigation, operational navigation, and air-to-ground and air-to-air weapons; and lectures and practical exercises in flight rules and regulations, aerodynamics, and engineering.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in training as an instructor pilot (2/74).

NV-1606-0022

RA-5C Aircraft Familiarization (Pilot/RAN)

(RA-5C Aircraft Familiarization)

Course Number: C-2A-3742.
Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.
Length: 2 weeks (77-84 hours).
Exhibit Dates: 2/67-1/88.
Objectives: To provide pilots and reconnaissance attack navigators with training in the operation of RA-5C aircraft and systems.
Instruction: Lectures and practical exercises in RA-5C aircraft and systems functions and operation, including electrical, hydraulic, power plant, fuel, and flight control systems operation; and air data computer, master flight reference, approach power compensator, survival, and environmental systems functions and operating procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (3/74).

NV-1606-0023

Basic Jet Navigation, Class O

Course Number: None.
Location: Air Technical Training Center, Glynco, GA.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/66-12/68.
Objectives: To train naval flight officers in basic jet aircraft navigation.
Instruction: Lectures in jet aircraft navigation theory; aircraft equipment; flight safety and survival; flight planning; dead-reckoning, low-level, and radar navigation; and practical experience in navigation operations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (2/74); in the upper-division baccalaureate category, credit in navigation on the basis of institutional evaluation (12/68).

NV-1606-0024

Command Intelligence Officer (CIO)

Course Number: K-3A-5005.
Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.
Length: 2 weeks (68 hours).
Exhibit Dates: 10/73-1/88.
Objectives: To provide basic instruction in the specific functions and responsibilities of the collateral duty command intelligence officer.
Instruction: Instruction includes collection and dissemination of intelligence information and recognition and capabilities of foreign weapon systems. Methods involve classroom lectures and briefings on intelligence aids and techniques and practical exercises on organizing, preparing, and presenting intelligence briefs.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

NV-1606-0025

TA-4J Advanced Jet

Course Number: None.
Location: Naval Air Station, Corpus Christi, TX.
Length: 20 weeks (115-129 hours).
Exhibit Dates: 2/70-1/88.
Objectives: To qualify student aviators as jet pilots.
Instruction: Flight training and lectures and practical exercises in aerodynamics, engineering, flight regulations, navigation, and meteorology.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight experience, 6 in theory of flight (2/74).

NV-1606-0026

SSBN Navigation Officer

Course Number: A-2G-0011.
Location: Guided Missiles School, Dam Neck, VA.
Length: 10 weeks (362 hours).
Exhibit Dates: 11/72-12/80.
Objectives: To train officers to manage the operation of the navigation subsystem of the fleet ballistic missile weapons system.
Instruction: Lectures and practical exercises in the management of the navigational subsystem of the fleet ballistic missile weapons system, including administrative procedures, inertial theory and principles of SINS operation, navigation subsystem equipment operation and calibration procedures, calibration theory, and conventional navigation and piloting.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1606-0027

Rawin-Radiosonde Set Operator, Class C

Course Number: C-420-2013.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 6-7 weeks (240-279 hours).
Exhibit Dates: 4/65-1/88.
Objectives: To train enlisted personnel to operate radiosonde and rawinsonde upper-air equipment.
Instruction: Lectures and practical exercise in radiosonde and rawinsonde upper-air equipment operation, upper-air data evaluation, winds-aloft computation, radiosonde recorders preventive maintenance and calibration procedures, flight preparation and launching of radiosonde equipment, radiosonde transmitter principles, and meteorological data evaluation procedures.
Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (4/74).

NV-1606-0028

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C

Course Number: E-2D-070.
Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.
Length: 3 weeks (91 hours).
Exhibit Dates: 8/72-1/88.
Objectives: To train pilots in air anti-submarine warfare in P3C (land-based ASW) aircraft.
Instruction: Lectures and practical exercises in air anti-submarine warfare in P3C (land-based ASW) aircraft. Topics include oceanography and underwater acoustics, tactical maneuvering of aircraft engaged in ASW, AASW sensors and related equipment, and electronic warfare concepts.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1606-0029

Rawin Set Operator, Class C

Course Number: Not available.
Location: Air Technical Training Unit, Lakehurst, NJ.
Length: 5 weeks (200 hours).
Exhibit Dates: 3/55-12/68.
Objectives: To train aerographer's mates and enlisted personnel with radiosonde experience to operate and maintain aerometeorological equipment and to evaluate meteorological data.
Instruction: Lectures and practical exercises in radiosonde data evaluation, rawin set theory and associated equipment operation, preflight ground equipment check, radiosonde assembly launching procedures, and data evaluation.
Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (12/68).

NV-1606-0030

Photographic Intelligenceman (PT)

(Photographic Interpretation/Radar Target Analysis)

Course Number: A-242-0010.
Location: Intelligence School, Washington, DC.
Length: 14-16 weeks (420-480 hours).
Exhibit Dates: 8/57-12/68.
Objectives: To train enlisted personnel in air intelligence, photographic interpretation, and radar target analysis.
Instruction: Lectures and practical exercises in photography and photographic interpretation, charts, metrics, target analysis,

radar and radar target analysis, and operational and intelligence planning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in photographic interpretation (5/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (5/74).

NV-1606-0031

Advanced Navigation Training (Student Naval Flight Officer)

Course Number: Q-2D-0023.

Location: Aviation Training Center, Pensacola, FL.

Length: 9 weeks (311 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train personnel in advanced navigation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, night-flight, patrol-flight and extended-flight procedures; briefs, debriefs, and flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (6/74).

NV-1606-0032

Advanced Navigation Training (Postgraduate Naval Aviator)

Course Number: None.

Location: Aviation Training Center, Pensacola, FL.

Length: 6 weeks (178 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train personnel in advanced navigation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, night-flight, patrol-flight and extended-flight procedures; briefs; debriefs; flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation (6/74).

NV-1606-0033

Advanced Navigation Training (Postgraduate Coast Guard Aviator)

Course Number: None.

Location: Aviation Training Center, Pensacola, FL.

Length: 8 weeks (261 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train personnel in advanced navigation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, patrol-flight, and extended-flight procedures; briefs, debriefs, and flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation (6/74).

NV-1606-0034

Pilots C-121 Simulator and Advanced Flight

Course Number: D-2B-012.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 6 weeks (180 hours).

Exhibit Dates: 12/66-12/68.

Objectives: To train prospective C-121 pilots and plane commanders in ground and flight techniques.

Instruction: Lectures and practical exercises in C-121 ground and flight techniques, including use of the operational flight simulator and normal and emergency flight procedures and instruments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1606-0035

Pilots C-121 Simulator and Basic Flight

Course Number: D-2B-013.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66-12/68.

Objectives: To train prospective C-121 pilots in basic C-121 ground and flight procedures.

Instruction: Lectures and practical exercises in basic C-121 ground and flight procedures, including use of the C-121 operational flight simulator, ground handling characteristics, and normal and emergency flight procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1606-0036

Fleet Replacement Radar Navigator (Bombardier Navigator)

Course Number: Not available.

Location: Naval Air Station, Whidbey Island, WA.

Length: 16-20 weeks (552-698 hours).

Exhibit Dates: 1/63-1/88.

Objectives: To train commissioned officers as fleet replacement radar navigators.

Instruction: Lectures and practical exercises in the duties of fleet replacement radar navigators. Course includes radar navigation, communications, navigation equipment, celestial navigation, sextant usage, flight patterns, and electronic warfare.

Credit Recommendation: In the vocational certificate category, 8 semester hours in navigation (7/74); in the upper-division baccalaureate category, 5 semester hours in navigation (12/68).

NV-1606-0037

Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 10 weeks (129 hours).

Exhibit Dates: 8/63-12/68.

Objectives: To train pilots as tactical flight instructors in TF/AF-9J aircraft.

Instruction: Lectures and practical exercises in the duties of a tactical flight instructor. Course includes instruments, navigation, formation, night operations, weapons, and carrier qualifications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0038

Prospective Advanced Navigation Flight Instructor

Course Number: Q-2D-0064.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 11-16 weeks (95-151 hours).

Exhibit Dates: 9/63-12/68.

Objectives: To train naval aviators and observers as flight instructors.

Instruction: Lectures and practical exercises in flight instructor training, including navigation training, instruments familiarization, flight training, flight rules and regulations, meteorology, engineering, and synthetic instrument training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0039

Prospective TF/TAF-9J Flight Instructor

Course Number: Not available.

Location: Naval Air Station, Corpus Christi, TX.

Length: 10 weeks (167-190 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To train flight instructors in TF/TAF-9J aircraft.

Instruction: Lectures and practical exercises in TF/TAF-9J aircraft, including basic instruments, instrument navigation, formation, night flight, operational navigation, air-to-ground weapons, tactics, and carrier qualification.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0040

Prospective VA (Prop) Tactical Flight Instructor

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 12 weeks (267 hours).

Exhibit Dates: 1/65-12/68.

Objectives: To train flight instructors in VA (Prop) tactical flight training.

Instruction: Lectures and practical exercises in VA (Prop) flight training, including formation, tactics, weapons, and navigation on the T-28 and A-1H aircraft.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0041

Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 10 weeks (72 hours).

Exhibit Dates: 12/63-12/68.

Objectives: To train flight instructors in F9J/F11A jet aircraft.

Instruction: Lectures and practical exercises in flight procedures for F9J/F11A aircraft, including formation, tactics, air-to-air weapons, ground-controlled intercept procedures, night flying, instrumentation, and high-altitude navigation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0042

Flight Instructor Indoctrination
Group

Course Number: Not available.

Location: Air Basic Training Command, Pensacola, FL.

Length: 3 weeks (91 hours).

Exhibit Dates: 7/64–12/68.

Objectives: To train aviators as flight instructors.

Instruction: Lectures and practical exercises in flight instruction procedures, including instructional methods, learning principles, testing methods and score interpretation, flight psychology, counseling, oral communications; and applied aerodynamics (basic physics, various theories and equations, spins and stalls, helicopter flight, jet engine theory and components, reciprocating engines, various curves, take-off and landing problems, stability, and control systems).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional methods (12/68).

NV-1606-0043

P-3C Tactical Coordinator Positional
Training for Naval Flight
Officers

Course Number: E-2D-0075.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To provide P3C flight officers with tactical training in antisubmarine warfare.

Instruction: Lectures and practical exercises on P3C aircraft tactical coordinator positional training, including armament/ordnance hardware; flight station review, TACCO station hardware and software; TACCO station familiarization, recovery, tactical navigation, steering/splash points, audio control, sensor processing, initialization, and multipurpose display; switch functions; specific laboratory; and practice trainer brief and debrief.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0044

1. Naval Flight Officer Training
   (Flight, Academic, Flight
   Support)
2. Naval Flight Officer Training
   (Flight, Academic, Flight
   Support)
3. Basic Naval Aviation Officer
4. Basic Naval Aviation Officer
5. Aviation Limited Duty Officer
   (LDO) Indoctrination

Course Number: *All Versions:* Not available.

Location: Air Station, Pensacola, FL.

Length: *Version 1:* 18–20 weeks (587–619 hours). *Version 2:* 16 weeks (640 hours). *Version 3:* 16 weeks (640 hours). *Version 4:* 8 weeks (195–236 hours). *Version 5:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 7/72–1/88. *Version 2:* 9/67–6/72. *Version 3:* 7/64–8/67. *Version 4:* 6/61–6/64. *Version 5:* 1/61–5/61.

Objectives: To provide personnel with naval flight training.

Instruction: *All Versions:* Lectures and practical exercises in naval flight training, including aircraft orientation, electronic systems, navigation, and fleet orientation. *Version 1:* Topics include avionics, navigation, operations, ground simulation, programmed instruction, flight, and NATOPS and safety. *Version 2:* Topics include technical fundamentals branch, electricity, electronics, radar fundamentals, computer systems, electronic warfare, advanced systems, navigation branch, flight preparation navigation, airways navigation, dead-reckoning navigation, training device problems, fleet air operations, and air intelligence and recognition. *Version 3:* Topics include electricity and electronics, radar fundamentals, computer systems, aircraft communications, air intelligence and recognition, advanced systems and ASW devices, navigation procedures, meteorology, and flight support. *Version 4:* Topics include navigation, communications, special weapons recognition, fleet operations, air intelligence, and aviation electronics familiarization. *Version 5:* Topics include finance, fleet and tactical organization, personnel administration and organization, and aviation organization.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation on the basis of institutional evaluation (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 4 semester hours in navigation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in navigation, 1 in communications (12/68). *Version 4:* In the upper-division baccalaureate category, 1 semester hour in navigation, 1 in communications (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-1606-0045

Navigation Flight Training, Naval
Aviator and Naval Flight
Officer
(Navigation Flight Training, Pilot and
Naval Aviation Officer (Navigator))

Course Number: None.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 3–4 weeks (55–80 hours).

Exhibit Dates: 5/63–1/88.

Objectives: To train pilots and flight officers to perform the duties of aerial navigators.

Instruction: Lectures and practical exercises in the duties of an aerial navigator. Course includes radio navigation, celestial navigation, dead reckoning, plotting, antisubmarine warfare navigation, radar navigation, and flight planning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in navigation (8/74).

NV-1606-0046

1. Flight Preparation, Naval
   Aviation Cadet and Aviation
   Officer Candidate
   (Pre-flight, Naval Aviation Cadets and
   Aviation Officer Candidates)
2. Pre-flight, Naval Aviation Cadets
   and Aviation Officer Candidates

Course Number: *All Versions:* None.

Location: Air Basic Training Command, Pensacola, FL.

Length: 14–16 weeks (543–582 hours).

Exhibit Dates: *Version 1:* 1/63–1/68. *Version 2:* 1/56–12/62.

Objectives: To train enlisted personnel in aviation and aircraft fundamentals.

Instruction: *All Versions:* Lectures and practical exercises in aviation and aircraft fundamentals, including mathematics, physics, night vision, elementary physiology, human behavior fundamentals, leadership training, naval history, military justice, physical fitness, survival training, and principles of flight. *Version 2:* Instruction includes navigation, air intelligence, and personnel administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation, 1 in aeronautics (8/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation (8/74).

NV-1606-0047

1. Flight Systems
   (Flight Preparation, Officer)
   (Pre-flight, Officer)
2. Pre-flight, Officer

Course Number: *All Versions:* None.

Location: Air Basic Training Command, Pensacola, FL.

Length: 4–10 weeks (130–375 hours).

Exhibit Dates: *Version 1:* 1/63–1/88. *Version 2:* 1/56–12/62.

Objectives: To train personnel in aviation and aircraft fundamentals.

Instruction: *All Versions:* Lectures and practical exercises in aviation and aircraft fundamentals, including mathematics, physics, night vision, elementary physiology, human behavior fundamentals, leadership training, naval history, military justice, physical fitness, survival training, and principles of flight. *Version 2:* Instruction includes navigation, air intelligence, and personnel administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation, 1 in aeronautics (8/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation (8/74).

NV-1606-0048

Primary Phase, Basic Pilot Training

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: 8–9 weeks (42–56 hours).

Exhibit Dates: 1/60–1/88.

Objectives: To train basic aviators to fly T-34 aircraft.

Instruction: Lectures and practical exercises in T-34 aircraft flight training, including basic pilot training, maneuvers, flight rules, aerobatics, stalls, spins, and emergency procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aeronautics (8/74).

NV-1606-0049

Basic Phase, Pilot Training

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: 23–32 weeks (232–794 hours).

Exhibit Dates: *Version 1:* 1/60–1/88. *Version 2:* 1/54–12/59.

Objectives: To train personnel who have completed primary pilot training to fly high-performance aircraft.

Instruction: Lectures and practical exercises in high-performance aircraft flight training, including flight maneuvers, basic instrument flight, radio navigation, formation flight, aerodynamics, communications, aircraft systems, flight rules, meteorology, navigation, and weapons system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in aeronautics, 2 in navigation, 1 in communications, 1 in aeroengineering (8/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aeronautics, 2 in navigation, 1 in communications, 1 in aeroengineering (8/74).

NV-1606-0050

Advanced Phase, Pilot Training

Course Number: None.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 10-23 weeks (223-953 hours).

Exhibit Dates: 1/54-1/88.

Objectives: To train pilots to be fully qualified fleet pilots.

Instruction: Lectures and practical exercises in engineering, flight tactics, advanced navigation, weapons and warfare, instrument flight, aerodynamics, meteorology, and combat operations.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in aeronautics, 1 in navigation, 1 in aeroengineering (8/74).

NV-1606-0051

Aviation Fleet Preparatory Course I and II, Class P

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 4-6 weeks (193-240 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To provide enlisted personnel with training in fleet aviation operations.

Instruction: Lectures and practical exercises in aviation operations, including organization and familiarization; aircraft squadrons; aircraft carriers; air department division; survival and emergency equipment; personnel and aircraft survival; fire fighting and crash rescue; handtools and hardware; aviation maintenance procedures; aircraft familiarization; basic aircraft systems; aircraft handling; and aircraft maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1606-0052

Radiosonde Set Operator, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train aerographer's mates and enlisted personnel to operate and maintain balloon-carried radiosonde transmitters and to interpret meteorological data.

Instruction: Lectures in radiosonde ground equipment components operation, alignment, and calibration procedures; flight equipment principles of operation, maintenance, alignment, and calibration; aerological data evaluation; and in-flight, release, and data-forwarding procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (12/68).

NV-1606-0053

E-1B Aircraft Pilot Training

Course Number: D-2B-0016.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 16 weeks (160 hours).

Exhibit Dates: 2/74-1/88.

Objectives: To train aviators to pilot the E-1B aircraft.

Instruction: Lectures and flight exercises in formation flying, instrument familiarization, and carrier operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0054

E-2B Aircraft Pilot Training

Course Number: D-2B-0015.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 16 weeks (425 hours).

Exhibit Dates: 2/74-1/88.

Objectives: To train aviators to pilot the E-2B aircraft.

Instruction: Lectures and flight exercises in formation flying, instrument familiarization, and carrier operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0055

Reserve Air Intelligence (RAI)

Course Number: J-3A-0955; K-3A-5011; K-3A-527.

Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (100 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To provide reserve officers with training in the fundamentals of air intelligence.

Instruction: Specialized training and practical exercises in the air intelligence environment; identification of foreign weapon systems; methods of collecting and reporting intelligence data; and related topics such as electronic warfare, aerial maps, etc.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1606-0056

Reserve Basic Intelligence Training Subjects (BITCS)

Course Number: K-3A-5010; K-3A-526.

Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To provide entry-level training to commissioned or reserve officers in the area of intelligence.

Instruction: Instruction includes discussions on the intelligence environment; intelligence methods; photographic intelligence, including imagery interpretation; and other related topics such as security, naval messages, operation plans and orders, and electronics countermeasures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in intelligence or public security (6/75).

NV-1606-0057

S-3A Copilot Avionics

Course Number: E-2A-1718; E-2A-0018.

Location: Fleet Aviation Specialized Operational Training Group, North Island, CA.

Length: 6 weeks (187 hours).

Exhibit Dates: 5/74-1/88.

Objectives: To prepare copilots for S-3A mission training in the replacement squadron (VS-41).

Instruction: Lectures and practical exercises in navigation systems, communications, and electronic surveillance measures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0058

Aviation Fleet Preparatory Course I and II

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 4-6 weeks (193-240 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To provide enlisted personnel with training in fleet aviation operations.

Instruction: Lectures and practical exercises in aviation operations, including organization and familiarization; aircraft squadrons; aircraft carriers; air department divisions; survival and emergency equipment; personnel and aircraft survival; fire fighting and crash rescue; handtools and hardware; aviation maintenance procedures; aircraft familiarization; basic aircraft systems; aircraft handling; and aircraft maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1606-0059

Amphibious Staff Intelligence Officer (ASIO)

Course Number: K-3A-5006.

Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To provide training in amphibious operations and amphibious staff intelligence functions.

Instruction: Topics include amphibious orientation, with emphasis on an overall view of composition and organization; intelligence planning and characteristics of the area of amphibious operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

NV-1606-0060

Operations Specialist, Class A1

Course Number: A-221-0011.

Location: Fleet Combat Training Center, Dam Neck, VA; Service School Command, Great Lakes, IL.

Length: 12-17 weeks (480 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train personnel to perform duties required in a combat information center.

Instruction: Lectures and practical exercises in procedures used in message communications, radar navigation, radar course plotting, and vector plotting in the operation of radar systems and data interpretation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in navigation practices and 1 in navigation laboratory (9/84).

NV-1606-0061

Airborne Systems

Course Number: None.
Location: Test Pilot School, Patuxent River, MD.
Length: 48 weeks (442-476 hours).
Exhibit Dates: 1/75-Present.
Objectives: To train experienced pilots, Naval Flight Officers, and engineers to become qualified engineering test pilots, test flight officers, and test project engineers.
Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and flight projects including aircraft performance, aerodynamics, propulsion, stability and control, flight testing, and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in aircraft performance, 2 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and control, 3 in flight testing, and 3 in airborne systems, for a total of 16 hours (7/79).

NV-1606-0062

Fixed Wing Flight Mechanics

Course Number: None.
Location: Test Pilot School, Patuxent River, MD.
Length: 48 weeks (429-434 hours).
Exhibit Dates: 1/73-Present.
Objectives: To train experienced aviators and engineers to become qualified engineering test pilots and test project engineers.
Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and test flying assignments including performance, aerodynamics, propulsion, stability and control, flight testing and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aircraft performance, 2 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and control, and 4 in flight testing, for a total of 15 hours (7/79).

NV-1606-0063

Rotary Wing Flight Mechanics

Course Number: None.
Location: Test Pilot School, Patuxent River, MD.
Length: 48 weeks (439-445 hours).
Exhibit Dates: 1/73-Present.
Objectives: To train experienced aviators and engineers to become qualified engineering test pilots and test project engineers.
Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and test flying assignments, including aircraft performance, aerodynamics, propulsion, stability and control, flight testing, and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in aircraft performance, 1 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and control, and 4 in flight testing, for a total of 15 hours (7/79).

NV-1606-0064

Basic Diving Officer

Course Number: A-4N-0024.
Location: Naval Diving and Salvage Training Center, Panama City, FL.
Length: 13 weeks (488 hours).
Exhibit Dates: 1/83-Present.
Objectives: To train officer personnel to manage and perform operational diving duties requiring SCUBA or surface-supplied diving equipment.
Instruction: Lectures and practical exercises in operational diving knowledge including diving physics and medicine, advanced hyperbaric medicine, inspection and maintenance of open-circuit SCUBA equipment, dive planning, use of underwater power tools, Mk 12 diving equipment, underwater work techniques, underwater cutting and welding, salvage/diving administration and salvage demolition procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine diving technology (4/83); in the upper-division baccalaureate category, 1 semester hour in diving supervision and administration and 1 in marine diving physiology (4/83).

NV-1606-0065

Ship Salvage Diving Officer

Course Number: A-4N-0026.
Location: Naval Diving and Salvage Training Center, Panama City, FL.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/83-Present.
Objectives: To provide officers with the training necessary to perform salvage diving operations and the associated administrative procedures.
Instruction: Lectures and practical exercises in engineering calculations such as stability studies and buoyancy computations, and applications of underwater engineering as applied to salvage diving operations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marine salvage technology (4/83); in the upper-division baccalaureate category, 1 semester hour in diving supervision and administration (4/83).

NV-1606-0066

VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer

Course Number: C-2D-3815.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/83-Present.
Objectives: To provide the student with the basic skills and background knowledge required to begin operational training for mission commander or navigator.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) create an area order of battle from appropriate publications and message traffic (2) determine threat envelopes from reported signal activity by associating signal to system to threat to weapon range and altitude data (3) relay an assessment of the environment in accordance with the communication plan (4) adjust missing plan for the actual environment to accomplish the basic ESM and ECM objectives.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1606-0067

Strike Warfare Operational Intelligence (OPINTEL) Analyst

Course Number: D-150-0015; J-150-0962.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA. Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.
Length: 5 weeks (200 hrs).
Exhibit Dates: 10/84-Present.
Objectives: To provide the student with a comprehensive understanding of the capabilities and use of Naval intelligence processing aboard ships.
Instruction: Qualifies students to operate and utilize a variety of computerized assisted intelligence equipment, to evaluate and disseminate information, and to utilize and maintain intelligence resources.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/86).

NV-1606-0068

Senior Afloat Intelligence Officer

Course Number: D-3A-0113; J-3A-0956.
Location: Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.
Length: 2 weeks (76 hours).
Exhibit Dates: 7/84-1/87.
Objectives: To acquaint officers with the role of the naval intelligence processing system intelligence center, and the equipment and personnel required to complete all tasks.
Instruction: Introduces and reviews electronic data processing, photo interpretation equipment, products, and procedures, photographic processing and equipment, electronic and photographic maintenance, supply and logistics functions.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/86).

NV-1606-0069

Junior Afloat Intelligence Officer

Course Number: D-3A-0110; J-3A-0961.
Location: Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.
Length: 5 weeks (175 hours).
Exhibit Dates: 7/84-1/87.
Objectives: Provides officers with a comprehensive understanding of the Naval Intelligence Processing System, (NIPS) with emphasis on tactical reconnaissance and the function and operation of computer storage and retrieval.
Instruction: Topics include management of various aspects of intelligence gathering, storage, and retrevial using computers, and methods and procedures to share this information with other data bases, products, and individuals.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/86).

NV-1606-0070

Landing Helo Auxiliary (LHA)/CVN Afloat Intelligence Specialist

(Landing Helo Auxiliary (LHA) Afloat Intelligence Specialist)

Course Number: D-243-0120; J-243-0968.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Air Station, Norfolk, VA; Naval In-

telligence Processing System Training Facility, Key West, FL.

Length: 5-7 weeks (184-280 hours).

Exhibit Dates: 6/83-Present.

Objectives: To provide the student with a comprehensive understanding of the capabilities of the naval intelligence processing system aboard small ships.

Instruction: Topics include basic instruction necessary to operate and utilize a variety of electronic and computer assisted intelligence resources.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications (1/86).

NV-1606-0071

AIR NAVIGATION BY CORRESPONDENCE

Course Number: NAV AIR 00-80V-49; AFM-51-40.

Location: Development Center, Pensacola, FL.

Length: Maximum 40 weeks.

Exhibit Dates: 3/83-Present.

Objectives: To provide personnel with a working knowledge and skills needed to navigate in the air worldwide and within the air space of the United States.

Instruction: Course provides instruction in maps and charts, dead reckoning, lines of position, fixes, navaids, radar, time, altitude and true azimuth computation, star identification, plotting, sextants and errors of observation, grid navigation, overwater aids, low level, celestial advanced navigation and systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air navigation (11/86).

NV-1606-0072

BASIC SHIPBOARD INTELLIGENCE

Course Number: J-243-0981.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to fulfill needs in basic planning, collecting, processing, and disseminating intelligence data under limited supervision.

Instruction: This is a fundamental lecture survey course on basic intelligence, designed for officers and enlisted personnel.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/87).

NV-1606-0073

INTELLIGENCE SPECIALIST CLASS A OPERATIONAL INTELLIGENCE

Course Number: J-242-0994.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 5 weeks (191 hours).

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to assist naval intelligence officer in operational assignments ashore and afloat.

Instruction: Fundamental intelligence training through lecture and practical exercises covering: organizing, processing, safeguarding information; image interpretation; remote sensing; report writing; naval warfare; administration; correspondence preparation; and briefing fundamentals and research.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications (12/87).

NV-1606-0074

IMAGERY INTERPRETATION (IIC)

Course Number: J-3A-0954.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the fundamentals of basic imagery intelligence, reconnaissance systems, mission planning, and interpretation of resulting imagery.

Instruction: Lectures and extensive student practical exercises in the following areas: Aerial imagery; mensuration; imagery interpretation and plotting; map reading; report writing; and physical security of imagery interpretation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/88).

NV-1606-0075

INTELLIGENCE SPECIALIST A - RESERVE (ISA-RES)

Course Number: J-242-0030.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the fundamentals of basic imagery intelligence, reconnaissance systems, mission planning, and interpretation of the resulting imagery.

Instruction: Instruction is offered through lectures and extensive student practical exercises. Topics include aerial imagery, mensuration, imagery interpretation and plotting, map reading, report writing, and physical security of imagery interpretation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/88).

NV-1701-0001

P-3 AIR CONDITIONING, PRESSURIZATION AND UTILITIES SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-603-3532.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 2 weeks (64-80 hours).

Exhibit Dates: *Version 1:* 10/80-Present. *Version 2:* 9/70-9/80.

Objectives: To train enlisted personnel to service and maintain aircraft air-conditioning, pressurization, and utility systems.

Instruction: Lectures and practical exercises in the maintenance of aircraft air-conditioning, pressurization, and utility systems. Topics include aircraft air conditioning with high-pressure air and components and ground air conditioning and ventilation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in aircraft air conditioning (7/81). *Version 2:* In the vocational certificate category, 2 semester hours in aircraft air conditioning (6/74).

NV-1701-0002

LITHIUM BROMIDE AIR CONDITIONING PLANT OPERATOR

(Lithium Bromide Air Conditioning)

Course Number: A-720-0028; F-652-041.

Location: *Version 1:* Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Submarine Training Center, Charleston, SC; Submarine Training School, Groton, CT. *Version 2:* Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, Groton, CT.

Length: 1-2 weeks (24-60 hours).

Exhibit Dates: *Version 1:* 11/85-Present. *Version 2:* 11/72-10/85.

Objectives: To train enlisted personnel to perform basic maintenance procedures on a lithium bromide air-conditioning unit.

Instruction: Lectures and practical exercises in the operation and maintenance of lithium bromide absorption systems. Course includes a study of the construction and operation of components, leak testing, purge system operation, and preventive maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in air conditioning theory and operation (lithium bromide) (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in operation and maintenance of a lithium bromide air-conditioning unit (5/74).

NV-1701-0003

E-2B AND C-2A ENVIRONMENTAL SYSTEMS ORGANIZATIONAL MAINTENANCE

(E-2A Environmental Systems Organizational Maintenance)

Course Number: C-602-3472.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60-75 hours).

Exhibit Dates: 1/69-1/88.

Objectives: To train enlisted personnel to operate and maintain aircraft air-conditioning systems.

Instruction: Lectures and practical exercises in the maintenance of aircraft environmental systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft air conditioning (5/74).

NV-1701-0004

R-11 CENTRIFUGAL 110 TON AIR CONDITIONING COMBINED MAINTENANCE

(110 Ton R11 Centrifugal Air Conditioning Unit (York))

Course Number: A-652-0111; F-652-032.

Location: Submarine School, Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/72-Present.

Objectives: To train enlisted personnel to operate and perform mechanical maintenance on a centrifugal refrigeration system.

Instruction: Lectures and practical exercises in the maintenance of a centrifugal refrigeration system. Topics include centrifugal compressor and capacity control mechanism construction and operation, and the maintenance procedures involved in the use of the air-purging system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical maintenance of a centrifugal refrigeration unit (6/81).

NV-1701-0005

Air Conditioning and Refrigeration Operation and Maintenance
(Air Conditioning and Refrigeration, Class C)
(Air Conditioning and Refrigeration, Class C-1)

Course Number: A-720-010; A-720-011.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 7-8 weeks (280-300 hours). *Version 2:* 8 weeks (240-247 hours).

Exhibit Dates: *Version 1:* 8/76-Present. *Version 2:* 7/58-7/76.

Objectives: To train enlisted personnel to operate, test, maintain, and repair air-conditioning and refrigeration equipment and systems.

Instruction: *All Versions:* Lectures and practical exercises in the operation, testing, maintenance, and repair of air-conditioning and refrigeration equipment and systems, including refrigeration unit components, accessories, and controls; refrigeration fundamentals; electrical systems in refrigeration; compressors and condensers; air-cooled equipment; water coolers; ice makers; refrigeration and air-conditioning plant operations; ventilation and air purification. *Version 1:* Includes basic thermodynamic nomenclature. *Version 2:* Includes basic mathematics, psychrometrics and their application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic refrigeration and air conditioning and 2 in refrigeration and air conditioning laboratory (3/89). *Version 2:* In the vocational certificate category, 20 semester hours in basic refrigeration (6/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in basic refrigeration (6/74).

NV-1701-0006

Centrifugal Air Conditioning Plant Operation and Maintenance, Class C1
(Centrifugal Air Conditioning Plant Operation and Maintenance)

Course Number: A-720-0025.

Location: Service School Command, San Diego, CA; Development and Training Center, San Diego, CA.

Length: 2 weeks (60-80 hours).

Exhibit Dates: *Version 1:* 1/80-12/87. *Version 2:* 9/73-12/79.

Objectives: To train personnel to operate and maintain centrifugal refrigeration and air conditioning equipment.

Instruction: For this course after 12/87 see NV-1701-0006. Classroom and practical instruction in the operational characteristics and procedures for centrifugal refrigeration systems, including operation, adjustment, control, and service/repair of centrifugal units and accessory centrifugal equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in centrifugal refrigeration plant operation and maintenance (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in plant operation and maintenance (6/75).

NV-1701-0007

Lithium Bromide Plant Maintenance

Course Number: A-652-0224.

Location: Fleet Ballistic Missile Center, Charleston, SC; Naval Submarine Training Center, Pearl Harbor, HI; Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 2 weeks (78 hours).

Exhibit Dates: 11/80-6/86.

Objectives: To train enlisted personnel to operate, test and maintain lithium bromide air conditioning units.

Instruction: For this course after 6/86 see NV-1730-0010. Lectures and practical exercises in the operation, performance testing, and maintenance of lithium bromide air conditioning systems including the study of system components, component interfaces, operating criteria, leak testing, purge system operation and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in operation and maintenance of air conditioning units (6/81).

NV-1701-0008

Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance

Course Number: C-602-3241.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/79-Present.

Objectives: To train maintenance personnel to maintain and operate a mobile air conditioning unit.

Instruction: Lectures and practical exercises in the maintenance, troubleshooting and operation of a mobile air conditioning unit including electrical system analysis, refrigerant analysis, fault troubleshooting, operational checks and removal and replacement procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in air conditioning (3/82).

NV-1701-0009

R-114 Air Conditioning System York 150 Ton

Course Number: A-652-0229.

Location: Submarine School, Groton, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (46 hours).

Exhibit Dates: 10/80-Present.

Objectives: Upon successful completion of this course the student will possess the knowledge and skill required to properly operate and perform required repairs and preventive maintenance on the York 150 ton centrifugal air conditioning plant.

Instruction: This course provides lecture and laboratory instruction in basic refrigeration theory, as well as the operation and maintenance of an air conditioning system at the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air conditioning (11/85).

NV-1701-0010

Submarine Ships Stores Refrigeration R-12 Combined Maintenance

Course Number: A-652-0204.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (45 hours).

Exhibit Dates: 9/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all operational procedures with supervision on an R-12 refrigeration system, and troubleshoot and repair refrigeration system faults.

Instruction: Lecture and laboratory exercises in the construction, theory of operation, and maintenance of an R-12 refrigeration system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration technology (2/89). The credits listed here do not duplicate those listed for NV-1701-0011.

NV-1701-0011

Trident Refrigeration Systems Supervisor

Course Number: A-652-0265.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (44 hours).

Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, troubleshoot, and maintain hermetically sealed refrigeration units, and troubleshoot and maintain R-12 refrigeration systems.

Instruction: Lecture and laboratory exercises in the (advanced) theory of R-12 refrigeration systems and construction, operation, and maintenance of hermetically sealed refrigeration units.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in refrigeration technology (2/89). The credit listed does not duplicate that listed for exhibit NV-1701-0010.

NV-1701-0012

R-114 York 200 Ton Air Conditioning Technician

Course Number: A-652-0205.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform operational procedures on R-114 A/C systems, preventive maintenance on R-114 A/C systems, and troubleshoot and repair R-114 A/C systems faults.

Instruction: Lecture and laboratory exercises on function, operation and maintenance of R-114 A/C systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in air conditioning technology laboratory (2/89).

NV-1701-0013

Centrifugal Air Conditioning System Operation and Maintenance

Course Number: A-720-0025.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, lubricate, disassemble, and maintain a centrifugal air conditioning system.

Instruction: Lectures and practical exercises on the subject matter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in air conditioning and refrigeration (3/89).

NV-1702-0001

Cascadex 100 Pound Washer/Extractor Maintenance, Class C

Course Number: A-690-0017.

Location: Technical Training Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train personnel to perform corrective maintenance on the Cascadex 100-pound combination washing and extracting machine.

Instruction: Lectures and practical exercises on the maintenance and repair of the assemblies and systems of the Cascadex 100-pound combination washing and extracting machine, including a general description of the washing and extracting machine, manual operation of the washer/extractor, formula card programming, formula operation of the washer/extractor, electrical controls, description of the fill and drain circuit, and electrical troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in appliance repair (5/74).

NV-1703-0001

Construction Mechanic/Automotive Electrical Maintenance, Class C

(CM"C" Automotive Electrical Maintenance)

Course Number: A-610-0026.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 1/72–1/88.

Objectives: To train enlisted personnel to maintain and repair automotive and construction equipment electrical systems.

Instruction: Lectures and practical exercises in the maintenance and repair of automotive and construction equipment electrical systems, including electrical fundamentals, electrical test equipment, storage battery operation, cranking motors and switches, ignition systems, direct current charging systems, semiconductors, and alternating-current charging systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automobile electricity (7/76).

NV-1703-0002

Enginemen, Gas Turbine Engines, Class C

Course Number: Not available.

Location: Engineman School, Great Lakes, IL.

Length: 7–8 weeks (215–250 hours).

Exhibit Dates: 6/63–12/68.

Objectives: To train enginemen to supervise turbine engine operators.

Instruction: Lectures and practical exercises in basic gas turbine engine principles, operation, and construction; component systems; and specific gas turbine engines operation, adjustment, troubleshooting, components, and accessories.

Credit Recommendation: In the vocational certificate category, 6 semester hours in gas turbines (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical or automotive technology (5/74).

NV-1703-0003

Construction Mechanic/Automatic Transmissions, Class C

(CM"C" Auto Trans)

Course Number: A-610-0021.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 5 weeks (160 hours).

Exhibit Dates: *Version 1:* 12/69–1/88. *Version 2:* 4/65–11/69.

Objectives: To train enlisted personnel to test, adjust, and repair automatic transmissions on automotive and construction equipment.

Instruction: *All Versions:* Lectures and practical exercises in hydraulics, torque converters, planetary gear systems, and automatic transmission control systems theory and principles; theory, operation, disassembly, inspection, repair, assembly, and troubleshooting of powerglide, Ford C-4 Cruise-O-Matic, Allison torqmatic, and International-Hough torque converters and powershift transmissions. *Version 2:* Instruction includes Fordomatic two-speed, hydramatic dual range, Allison MT series, and Caterpillar powershift transmissions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in automotive or heavy equipment (7/76); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (7/76). *Version 2:* In the vocational certificate category, 5 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive or heavy equipment (5/74).

NV-1703-0004

General Motors Engines (16-278A)

Course Number: F-652-018.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train enlisted personnel to repair and maintain General Motors Engines.

Instruction: Lectures and practical exercises in the repair and maintenance of General Motors engines, including major engine components and systems; camshafts, timing gears and engine timing procedures; disassembly, cleaning, inspection, reassembly, and testing of the air blower, cylinder unit, governor and unit injector.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive repair (5/74).

NV-1703-0005

Introduction to Diesel Engines and Associated Systems

(Mine Warfare Engineman Basic)

(Engineman Basic)

Course Number: J-652-0474; A-652-0038.

Location: Mine Warfare School, Charleston, SC.

Length: 2–3 weeks (60–90 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 11/71–12/79.

Objectives: To train petty officers in diesel engine theory as it relates to the operation and maintenance of diesel engines and associated systems.

Instruction: *All Versions:* Lectures and demonstrations in diesel operation and construction, precision measurements, fuel properties, fuel systems, intake and exhaust systems, and piping and valves. *Version 1:* Includes concepts in the physical sciences and mathematics as they relate to various systems and components.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive, heavy equipment, diesel or mechanical technology (11/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive technology and heavy equipment (7/74);

NV-1703-0006

Aviation Support Equipment Gasoline Engine Intermediate Maintenance

Course Number: C-602-3214.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/71–1/88.

Objectives: To train enlisted personnel to maintain gasoline engines.

Instruction: Lectures and practical exercises in gasoline engine maintenance, including principles of internal-combustion engines; engine disassembly, inspection, repair, and reassembly; and repair of engine-related subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in engine repair laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in engine repair laboratory (7/74).

NV-1703-0007

LST 1182 Propulsion Technician, Class C1

Course Number: A-652-0054.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 9 weeks (350 hours). *Version 2:* 7 weeks (270 hours).

Exhibit Dates: *Version 1:* 3/80–Present. *Version 2:* 6/77–2/80.

Objectives: To train personnel to operate and maintain the propulsion systems (ALCO 251-C) installed in the 1182 LST.

Instruction: This course is a combination of A-652-0055, LST 1179-1182 Class Controllable Pitch Propeller and Propulsion Control System (NV-1710-0023) and A-652-0056, ALCO 251-C Diesel Engine (NV-1712-0010). Topics cover the operation, troubleshooting and maintenance of the specified equipment. *Version 1:* Includes the addition of course A-652-0019, Basic Engineman Class C1 (NV-1712-0015).

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in diesel technology and 2 as electives in automotive/mechanical technology (1/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel technology and 2 as electives in automative/mechanical technology (9/77).

NV-1703-0008

LM2500 GAS TURBINE MODULE MAINTENANCE, CLASS C1

Course Number: A-652-0072.

Location: Service School Command, Great Lakes, IL.

Length: 5 weeks (187 hours).

Exhibit Dates: 1/76-6/81.

Objectives: To train personnel in the maintenance of the LM2500 gas turbine.

Instruction: Areas of instruction include the LM2500 gas turbine assembly, fuel speed governing systems, lubrication system, electrical system integration, starting system, airflow fundamentals, maintenance and safety practices, servicing, troubleshooting, installing and aligning turbines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive/mechanical technology (9/77).

NV-1703-0009

MODEL 104 GAS TURBINE GENERATOR SET MAINTENANCE

(Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1)

Course Number: A-652-0076.

Location: Service School Command, Great Lakes, IL.

Length: 3-5 weeks (120-200 hours).

Exhibit Dates: 12/76-Present.

Objectives: To provide specific instruction in gas turbine engine operation, inspection and maintenance related to the DD963 class destroyer.

Instruction: Areas of instruction include gas turbine engine operation, construction, cooling, lubrication, trouble identification, inspection and maintenance; gear reduction; generator operation and control; and use of specific inspection equipment and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in gas turbine engine inspection, operation and maintenance (1/82).

NV-1703-0010

AVIATION SUPPORT EQUIPMENT AUTOMATIC TRANSMISSION INTERMEDIATE MAINTENANCE

Course Number: C-602-3236.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/74-Present.

Objectives: To train enlisted personnel in aviation support equipment operation, repairs and training on automatic transmissions.

Instruction: Lectures and laboratory exercises in the operation, troubleshooting, and component repair of automatic transmissions using tools, test equipment and technical manuals related to particular transmission systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in automotive maintenance on the basis of institutional evaluation (3/82).

NV-1703-0011

GROUND SUPPORT EQUIPMENT GTC-85 INTERMEDIATE MAINTENANCE

Course Number: C-602-3211.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/77-Present.

Objectives: To train maintenance personnel in repair and maintenance procedures of a ground support GTC-85 turbine engine.

Instruction: Lecture and practical exercises in the maintenance and overhaul of a turbine engine including break down accessories, oil systems, electrical systems, fuel systems, air systems, removal and repair of said systems and replacement of equipment using the manufacturers maintenance manuals, special tools and safety procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in ground operational equipment maintenance (3/82).

NV-1703-0012

FFG-7 CENTRAL CONTROL STATION OPERATION, CLASS C1

Course Number: A-652-0156.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/79-Present.

Objectives: To provide personnel with the knowledge required to operate, under limited supervision, a FFG-7 class ship's central control station equipment.

Instruction: Lectures and practical experience in the operation of the central control station equipment of a gas turbine unit, including operation of the propulsion control console, the propulsion local operating panel, the electric control console and the auxiliary control console.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/82).

NV-1703-0013

LM2500 ENGINE CHANGEOUT

Course Number: A-652-0072.

Location: Service School Command, Great Lakes, IL.

Length: 2-3 weeks (80 hours).

Exhibit Dates: 7/81-Present.

Objectives: To provide personnel with the skills necessary to changeout major components of the LM2500 gas turbine engine.

Instruction: Lectures and laboratory exercises on the changeout procedures for components, accessories and major assemblies of the LM2500 gas turbine.

Credit Recommendation: In the vocational certificate category, 1 semester hour in gas turbine maintenance laboratory (10/83).

NV-1703-0014

AVIATION MACHINIST'S MATE CLASS A (S-3A) POWER PLANT SYSTEMS

Course Number: C-601-3860.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/83-Present.

Objectives: To provide enlisted personnel with a basic knowledge of turbine engine theory, operation, maintenance and safety.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) solve basic math, fluid power and hydraulic problems; (2) understand basic theory and operation of a turbine engine; (3) select and use proper hand tools associated with inspection and disassembly of turbine engines and; (4) understand documentation and supply logistics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in basic physics, and 1 in basic turbine engine theory (4/85).

NV-1703-0015

AVIATION SUPPORT EQUIPMENT A/S32A-33 AIRCRAFT TOWING TRACTOR INTERMEDIATE MAINTENANCE

Course Number: C-602-3229.

Location: Naval Air Station, North Island, San Diego, CA; Naval Air Station, Jacksonville, Fl.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/83-Present.

Objectives: To train enlisted personnel in the operation and maintenance of an aircraft towing tractor.

Learning Outcomes: Upon completion of the course, the the student will be able to identify, troubleshoot, and maintain an engine and its associated systems, main and auxiliary hydraulic systems and the electrical lifting linkage of the A/S-32A-33 aircraft towing tractor.

Credit Recommendation: In the vocational certificate category, 1 semester hour in automotive repair (4/85).

NV-1703-0016

AVIATION SUPPORT EQUIPMENT A/S 32P-16 FIRE FIGHTING TRUCK INTERMEDIATE MAINTENANCE

Course Number: C-602-3242.

Location: Naval Air Station, North Island, San Diego, CA; Naval Air Station, Jacksonville, Fl.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/83-Present.

Objectives: To train enlisted personnel in the maintenance, troubleshooting and repair of a fire fighting truck.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain and repair the following systems: electrical, including the master switch, and fire fighting electrical system; hydraulic, including the fire pump drive and assembly; and firefighting systems including the check and reset valve and L-W pump rating.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive repair and maintenance (4/85).

NV-1703-0017

AVIATION SUPPORT EQUIPMENT LHA-1 PALLET TRANSPORTER INTERMEDIATE MAINTENANCE

Course Number: C-602-3239.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/79-Present.

Objectives: To train enlisted personnel to operate, troubleshoot and repair a pallet transporter.

Learning Outcomes: Upon completion of the course, the student will be able to understand the capabilities of the equipment and be able to repair, maintain and troubleshoot the following: the engine, the hydraulics system, the electrical system, steering and axle, the brakes and the auxiliary equipment of the LHA-1 pallet transporter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in automobile repair (4/85).

NV-1704-0001

Air Intercept Control, Class O

Course Number: C-2D-2014.

Location: Air Technical Training Center, Glynco, GA.

Length: 6-7 weeks (240-264 hours).

Exhibit Dates: 3/65-1/88.

Objectives: To provide commissioned officer, noncommissioned officer, and enlisted radar personnel with training in air intercept control.

Instruction: Lectures and practical exercises in air intercept control procedures, communications, and equipment use.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1704-0002

Air Intercept Controller

Course Number: K-2G-0007; K-2G-362.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 4-5 weeks (116-158 hours).

Exhibit Dates: 6/67-1/88.

Objectives: To train officers and enlisted personnel to control fleet interceptor aircraft in airborne combat situations.

Instruction: Lectures and practical demonstrations in fleet interceptor aircraft operations, including air weapons systems, navigation aids, communications procedures and vocabulary, radar indicator equipment, search and rescue procedures, and intercept control methods and techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1704-0003

Air Traffic Control Officers, Class C2

(Air Traffic Control Officers, Class O)

Course Number: C-2G-2014.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 6 weeks (230 hours). *Version 2:* 9-10 weeks (360-392 hours).

Exhibit Dates: *Version 1:* 1/81-1/84. *Version 2:* 8/66-12/80.

Objectives: To train officers to perform as air traffic controllers and control center officers.

Instruction: *All Versions:* Lectures and practical exercises in navigational aids, FAA regulations, air traffic control radar procedures, air traffic control terminal procedures, instrument procedures, and aviation meteorology. *Version 1:* Instruction includes basic drafting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic control, 2 in basic drafting (2/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (3/74).

NV-1704-0004

Air Traffic Controller Class A1

(Air Traffic Control Class A)

(Air Traffic Controller Class A)

(Air Controlman, Class A)

Course Number: C-222-2010.

Location: *Version 1:* Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Olathe, KS; Air Technical Training Center, Glynco, GA.

Length: 10-16 weeks (400-640 hours).

Exhibit Dates: *Version 1:* 2/75-Present. *Version 2:* 3/66-1/75.

Objectives: To qualify enlisted personnel for FAA certification in control tower operations.

Instruction: Lectures and practical exercises in basic air navigation and navigational aids; aviation meteorology; airport traffic control; and air traffic rules and regulations, communication procedures, and radar use.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control or 5 semester hours in private pilot ground school (9/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (3/74).

NV-1704-0005

Air Intercept Controller Supervisor

Course Number: K-2G-363.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (108-117 hours).

Exhibit Dates: 6/67-1/88.

Objectives: To train air intercept controllers to instruct and supervise personnel in intercept control procedures.

Instruction: Lectures and practical exercises in intercept procedures and functions, supervisory techniques, emergency procedures, and interceptors and associated equipment usage.

Credit Recommendation: In the vocational certificate category, 1 semester hour in air traffic control; in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/74).

NV-1704-0006

SH-3 Automatic Stabilization Equipment Organizational Maintenance

Course Number: C-602-3399.

Location: Naval Air Station, North Island, CA; Naval Air Station, Jacksonville, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/81-Present.

Objectives: To provide personnel with sufficient knowledge of the theory of operation of a SH-3 helicopter's automatic stabilization equipment to perform, under close supervision, organizational level maintenance.

Instruction: Instruction and practical exercises in the operation of the SH-3 helicopter's stabilization equipment including the operation and testing of the power destribution system, the operation and testing of the yaw, pitch and roll systems and the troubleshooting procedures for the systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance (3/82).

NV-1704-0007

Air Controlman, Class B

Course Number: None.

Location: *Version 1:* Air Technical Training Center, Glynco, GA. *Version 2:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 9-11 weeks (372-456 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 10/65-1/88. *Version 2:* 9/54-9/65.

Objectives: To provide control tower operators with advanced training in air traffic control and in personnel management.

Instruction: Lectures and practical exercises in advanced air traffic control techniques and procedures; instrument approaches; air navigation; meteorology; and organizational, personnel, and administrative management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervision and management, 1 in air navigation, 15 in air traffic contol, 1 in aviation meteorology (3/74). *Version 2:* credit is not recommended—course material obsolete (3/74).

NV-1704-0008

Air Controlman T (Tower), Class A

Course Number: None.

Location: Air Technical Training Unit, Olathe, KS.

Length: 10 weeks (400 hours).

Exhibit Dates: 6/56-2/66.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to qualify for FAA certification as air traffic control tower operators.

Instruction: Lectures and practical exercises in air traffic control, aerial meteorology, control tower communications, aircraft characteristics, and FAA regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation meteorology, 4 in air navigation, 18 in air traffic control (3/74); in the upper-division baccalaureate category, credit in air control tower operations on the basis of institutional evaluation (12/68).

NV-1704-0009

Air Controlman W (Early Warning), Class A

Course Number: None.

Location: Naval Air Station, Glynco, GA.

Length: 12 weeks (480 hours).

Exhibit Dates: 11/56-2/66.

Objectives: To train enlisted personnel in air traffic control and radar surveillance techniques.

Instruction: Lectures and practical exercises in air traffic control and radar surveillance techniques, including air navigation, electronic fundamentals applicable to radar operations, and communications techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in electronics, 12 in air traffic control, 2 in navigation (3/74); in the upper-division baccalaureate category, credit in air control tower operations on the basis of institutional evaluation (12/68).

NV-1704-0010

Air Controlman (Radar), Class A

Course Number: None.

Location: Air Technical Training Unit, Olathe, KS.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/56-2/66.

Objectives: To provide enlisted personnel with training in radar operations applicable to air traffic control.

Instruction: Lectures and practical exercises in air traffic control fundamentals, air navigation, air traffic communications, aircraft characteristics, and radar theory and applications to air traffic control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air navigation, 3 in air traffic control (3/74).

NV-1704-0011

AIR CONTROL, CLASS O

Course Number: None.

Location: Naval Air Station, Glynco, GA.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/56-12/68.

Objectives: To provide chief petty officers and officer personnel with training in all phases of air control.

Instruction: Lectures and practical exercises in anti-submarine air operations, offensive and defensive aircraft operations, jet aircraft familiarization, air control data collection equipment usage, and basic air control procedures and techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0012

CARRIER AIR TRAFFIC CONTROL CENTER
CONTROLLER CLASS C/O

Course Number: C-2G-2016.

Location: Air Technical Training Center, Glynco, GA.

Length: 3-6 weeks (160-264 hours).

Exhibit Dates: 3/65-1/88.

Objectives: To provide officers and air controlmen with training in carrier air traffic control center operations.

Instruction: Lectures and practical exercises in carrier air traffic control center equipment and operating procedures, carrier controlled approach, and Naval Tactical Data System (NTDS) console training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0013

A-7E HYDRAULIC, PNEUMATIC AND
AIRFRAME SYSTEMS
ORGANIZATIONAL MAINTENANCE
(A-7E Hydraulic and Pneumatic Systems Organizational Maintenance)

Course Number: C-602-3793.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 9/72-12/80.

Objectives: To train maintenance personnel in the operation, maintenance and servicing procedures applicable to A-7E aircraft control systems.

Instruction: Practical experience in troubleshooting, maintenance and servicing of structures, and hydraulic, pneumatic, primary flight control and auxiliary systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic and pneumatic systems laboratory (3/82). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in hydraulic and pneumatic systems on the basis of institutional evaluation (3/74).

NV-1704-0014

KC-130F T-56-A-16 ENGINE
INTERMEDIATE
MAINTENANCE/COMPLETE ENGINE
REPAIR

Course Number: C-601-3507.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/71-1/88.

Objectives: To train fleet personnel in the maintenance of KC-130F aircraft engines.

Instruction: Practical experience in planned maintenance systems, general specifications of engines, and disassembly, cleaning, and engine inspection and preservation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in aircraft engine maintenance on the basis of institutional evaluation (3/74).

NV-1704-0015

A-4 AUTOMATIC FLIGHT CONTROL SYSTEM
INTERMEDIATE MAINTENANCE

Course Number: C-602-3735.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to maintain the A-4 aircraft's flight control systems.

Instruction: Practical experience in troubleshooting, circuit analysis, testing, publications procedures, and intermediate maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance electronics (12/68).

NV-1704-0016

TF30-P-8/408 ENGINE INTERMEDIATE
MAINTENANCE/COMPLETE ENGINE
REPAIR
(TF30-P-8 Intermediate Maintenance/Complete Engine Repair)

Course Number: C-601-3132.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/68-Present.

Objectives: To provide maintenance personnel with instruction in TF30-P-8/408 aircraft engine maintenance.

Instruction: Lectures and practical exercises in TF30-P-8/408 aircraft engine maintenance, including engine components inspection and repair; engine systems operation; and engine assembly, disassembly, and testing procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine laboratory (3/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine laboratory (3/82).

NV-1704-0017

P-3 T56-A-10W ENGINE AND RELATED
SYSTEMS MAINTENANCE, NO. 56

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To provide maintenance personnel with training in P-3 aircraft power plant and related systems maintenance.

Instruction: Lectures and practical exercises in P-3 aircraft power plant and related systems maintenance, including engine organizational and intermediate maintenance procedures, operating principles, and theory; propeller and related systems maintenance, installation, inspection, and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in power plant organizational maintenance; in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance, 1 in power plant intermediate maintenance (3/74).

NV-1704-0018

UH-1E T53-L-11 ENGINE
ORGANIZATIONAL MAINTENANCE

Course Number: C-601-3341.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train maintenance personnel to maintain and repair T53-L-11 aircraft turbine engine systems.

Instruction: Lectures and practical exercises in T53-L-11 turbine engine system operation and maintenance, including inspection, line-servicing, troubleshooting, testing, adjusting, and repairing all engine systems and components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in T53-L-11 turbine engine organizational maintenance on the basis of institutional evaluation (3/74).

NV-1704-0019

P-3 T56-A-10/14 ENGINE AND RELATED
SYSTEMS ORGANIZATIONAL
MAINTENANCE
(P-3 T-56-A-14 Engine and Related Systems Maintenance)

Course Number: C-601-3533.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; , Air Maintenance Training Detachment, Jacksonville, FL.

Length: 4-5 weeks (158-200 hours).

Exhibit Dates: *Version 1:* 5/70-Present. *Version 2:* 1/68-4/70.

Objectives: To train maintenance personnel to repair P-3 aircraft power plants and related systems.

Instruction: Lectures and practical exercises in P-3 aircraft power plant and related systems maintenance, including T56-A-14 power plant system maintenance and service, engine diagnosis and troubleshooting, jet engine theory, test equipment operation, and propeller and related systems operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in general turboshaft engines and related systems maintenance. Additional credit may be granted on the basis of institutional evaluation (7/81). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in T56-A-14 engines and related systems maintenance on the basis of institutional evaluation (3/74).

NV-1704-0020

T58-GE-8F ENGINE INTERMEDIATE
MAINTENANCE/COMPLETE ENGINE
REPAIR

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa

Anna, CA; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71–1/88.

Objectives: To train maintenance personnel to maintain and repair T58-GE-8F turbine engines.

Instruction: Lectures and practical exercises in T58-GE-8F maintenance, including engine systems repair and testing; engine construction familiarization; special tools operation; and engine inspection, disassembly, complete repair, and reassembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0021

T58-GE-8B ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3133.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Lakehurst, NJ.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/71–1/88.

Objectives: To train maintenance personnel to repair T58-GE-8B turbine engines.

Instruction: Lectures and practical exercises in T58-GE-8B intermediate maintenance, including engine systems familiarization, and engine inspection, disassembly, testing, repair, and reassembly techniques and procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0022

A-6A AUTOMATIC FLIGHT CONTROL SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: None.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain, test, and troubleshoot the A-6A automatic flight control system at the organizational maintenance level.

Instruction: Lectures and practical exercises in A-6A automatic flight control system organizational maintenance, including air data computer operation, general aircraft familiarization, introduction to automatic flight, automatic flight control actuators and signal flow location and functional operation, interlocks and line equipment check-out procedures, and system testing and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automatic flight control maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automatic flight control maintenance (3/74).

NV-1704-0023

A-4E/F/TA-4F AIRCRAFT MECHANIC ORGANIZATIONAL MAINTENANCE

Course Number: C-600-3719.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/73–1/88.

Objectives: To train fleet maintenance personnel in A-4E/F/TA-4F aircraft organizational maintenance.

Instruction: Lectures and practical exercises in A-4E/F/TA-4F aircraft maintenance, including aircraft systems familiarization; component replacement procedures; support equipment use; and systems operation, inspection, maintenance, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft organizational maintenance (3/74).

NV-1704-0024

J52-P408 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3138.

Location: Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/73–1/88.

Objectives: To train fleet maintenance personnel to maintain and repair J52-P408 turbine engines.

Instruction: Lectures and practical exercises in turbine engine systems and inspection, disassembly, cleaning, repair, reassembly, and testing of all engine systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in J52-P408 turbine engine maintenance and repair on the basis of institutional evaluation (3/74).

NV-1704-0025

UH-1E T-53-L-11 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: None.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/70–1/88.

Objectives: To train enlisted personnel to repair T53-L-ll shaft turbine engines.

Instruction: Lectures and practical exercises in engine disassembly, reassembly, inspection, and repair, and use of special tools.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine familiarization laboratory (3/74).

NV-1704-0026

J85-GE-4 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: None.

Location: Air Maintenance Training Detachment, Meridian, MS.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train aviation maintenance personnel to maintain and repair J85-GE-4 engine systems.

Instruction: Lectures and practical exercises in J85-GE-4 engine systems, and support equipment familiarization; components; servicing; replacement; engine dismantling; and engine assembly.

Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine familiarization laboratory (3/74).

NV-1704-0027

T-58 ENGINES FIRST DEGREE INTERMEDIATE MAINTENANCE T58-GE-10 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3131.

Location: Air Maintenance Training Detachment, North Island, San Diego, CA; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, New River, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train maintenance personnel to maintain and repair T58-GE-10 engines.

Instruction: Practical training in the intermediate maintenance, disassembly, inspection, replacement, assembly, and testing of aircraft turbine engines.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (4/85).

NV-1704-0028

GROUND SUPPORT EQUIPMENT TOW TRACTOR CHARGING, STARTING AND IGNITION SYSTEMS INTERMEDIATE MAINTENANCE

Course Number: C-602-3238.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 9/77–Present.

Objectives: To provide training in maintenance, troubleshooting and repair of internal combustion engine starting, charging and ignition systems.

Instruction: Lectures and practical exercises in the maintenance and repair of internal combustion engine charging, starting and ignition systems including battery analysis; basic theory; analysis, troubleshooting and repair of generators, regulators alternators, starters and ignition systems using special test equipment such as a dwell meter, growler, and oscilloscope.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in automotive or aircraft electrical systems and 1 in automotive or aircraft electrical laboratory for nonelectrical engineering students (3/82).

NV-1704-0029

T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance

(T56-A-8/8A Engine and A6441FN-248 Propeller)

Course Number: C-601-3134; C-601-74.

Location: *Version 1:* Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 12/74–1/88. *Version 2:* 4/68–11/74.

Objectives: To provide maintenance personnel with the knowledge and skill to perform intermediate maintenance on turboprop engine and propeller systems of E2/C2 type aircraft.

Instruction: *All Versions:* Lectures and practical exercises in intermediate levels of maintenance including engine disassembly/reassembly; propeller and propeller systems maintenance and rigging using E2/C2 type aircraft as training aids. *Version 1:* This version does not include instruction regarding propellers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in aviation maintenance technology or power mechanics. Additional credit may be granted on the basis of institutional evaluation (7/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced airframe/powerplant technician training (6/75).

NV-1704-0030

F/RF-4B/J Hydraulic Organizational Maintenance

Course Number: C-602-3837.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/71–1/88.

Objectives: To train maintenance personnel in the servicing and maintenance of F/RF-4B/J aircraft hydraulic systems.

Instruction: Practical experience in maintenance and servicing of hydraulics and pneumatics, landing gear, and related systems; and utility, flight, and surface systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic and pneumatic systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic and pneumatic systems (3/74).

NV-1704-0031

SH-3 Electrical Components Intermediate Maintenance

Course Number: C-602-3398.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/81–Present.

Objectives: To provide aviation electricians with the theory of operation and the maintenance procedures for the SH-3 helicopter electrical system and the automatic stabilization equipment to the intermediate repair level.

Instruction: Lectures and practical exercises in the operation and maintenance of a helicopter electrical system and automatic stabilization system including the voltage regulator supervisory panel, temperature controller, loading gear controls, altitude demodulator, ASE circuitry, and cyclic coupler analysis and adjustment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter system maintenance for non-electrical engineering students (3/82).

NV-1704-0032

CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: C-601-3444.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/70–1/88.

Objectives: To provide maintenance personnel with the latest information on modifications, servicing procedures, and maintenance applicable to the CH-53 T-64-GE-413 engine.

Instruction: Lectures and practical exercises in engine familiarization, engine maintenance and complete engine repair, and equipment and applicable maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in helicopter engine repair on the basis of institutional evaluation (3/74).

NV-1704-0033

TF30-P-6 Intermediate Maintenance/Complete Engine Repair

Course Number: None.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/68–1/88.

Objectives: To train maintenance personnel in the techniques, modifications, and complete engine repairs applicable to the TF30-P-6 power plant.

Instruction: Lectures and practical exercises in power plant sections, engine disassembly, engine assembly, and complete engine repairs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine repair (3/74).

NV-1704-0034

E-1B MH-67 Automatic Flight Control System Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/68–1/88.

Objectives: To train maintenance personnel in the procedures for maintaining, repairing, and functionally testing the MH-67 automatic flight control system.

Instruction: Lectures and practical exercises in MH-67 autopilots, intermediate maintenance of components and circuitry, testing, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in autopilot electronics familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in autopilot electronics familiarization laboratory (3/74).

NV-1704-0035

A-4 Automatic Flight Control System Organizational Maintenance

Course Number: C-602-3724.

Location: Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/72–1/88.

Objectives: To train enlisted personnel to repair the automatic flight control system of the A-4 aircraft.

Instruction: Lectures and practical exercises including the theory of operations of automatic flight control system components and control circuits, line testing, and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in A-4 automatic flight control system organizational maintenance on the basis of institutional evaluation (2/74).

NV-1704-0036

E-2A Flight Technician Organizational Level Maintenance, No. 4

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train radar operators in the utilization of equipment to assess performance, isolate faults, and perform in-flight adjustments and maintenance on radar systems.

Instruction: Lectures and practical exercises in radar detection subsystems, navigation subsystems, communication subsystems, and control and display subsystems of E-2A aircraft.

Credit Recommendation: In the vocational certificate category, 5 semester hours in in-flight maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in in-flight maintenance (3/74).

NV-1704-0037

J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: Not available.

Location: Air Maintenance Training Detachment, Meridian, MS.

Length: 2 weeks (64 hours).

Exhibit Dates: 1/71–1/88.

Objectives: To provide maintenance personnel with instruction in complete engine repair procedures for the J60-P-3A/6 engine.

Instruction: Lectures and practical exercises in basic engine and systems familiarization; engine inspection repair procedures, including disassembly, inspection, and assembly techniques; and care of inactive engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in jet engine intermediate maintenance/repair on the basis of institutional evaluation (3/74).

NV-1704-0038

RA-5C Avionics Officers/Supervisors Familiarization

Course Number: None.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/72-1/88.
Objectives: To train senior noncommissioned officers in the various avionics systems associated with the RA-5C weapons system.
Instruction: Lectures and practical exercises in location, general operating characteristics, and maintenance requirements for RA-5C electrical and indicating systems; flight and instrumentation electronics; fire control systems; electronics and electronic countermeasures systems; and reconnaissance systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in avionics/electronics familiarization on the basis of institutional evaluation (3/74).

NV-1704-0039

P-3 Aircraft Familiarization, No. 2
(P-3 Aircraft Familiarization (Pilots))

Course Number: C-2A-3531.
Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.
Length: 3 weeks (112 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To familiarize pilots with the operation and systems function of multiengine turboprop aircraft.
Instruction: Lectures and practical experience in power plant, airframes, furnishings, electrical and emergency systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (3/74).

NV-1704-0040

1. RA-5C Survival and Environmental Systems Organizational Maintenance
2. RA-5C Survival and Environmental Systems

Course Number: None.
Location: *Version 1:* Air Maintenance Training Detachment, Albany, GA. *Version 2:* Air Maintenance Training Detachment, Sanford, FL.
Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 5 weeks (200 hours).
Exhibit Dates: *Version 1:* 3/71-1/88. *Version 2:* 1/68-2/71.
Objectives: To train maintenance personnel to maintain and repair RA-5C survival and environmental systems.
Instruction: Practical experience in operation, maintenance, and servicing of RA-5C canopy, ejection seat, oxygen and heating/ventilating systems.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in survival and environmental systems maintenance (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in survival and environmental systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in survival and environmental systems maintenance (3/74).

NV-1704-0041

RA-5C Structures and Hydraulic Subsystems Organizational Maintenance
(RA-5C Structures and Hydraulic Subsystems)

Course Number: None.
Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.
Length: 5-7 weeks (200-280 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train maintenance personnel to inspect and repair RA-5C aircraft structures and hydraulic systems.
Instruction: Practical training in inspection, troubleshooting, and repair of RA-5C structures and hydraulic power, landing gear, arresting gear, wing, tail, folding, pneumatic power, and lift control systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in RA-5C structures and hydraulic system maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in RA-5C structures and hydraulic system maintenance (3/74).

NV-1704-0042

Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A
(Aviation Boatswain's Mate E (Equipments), Class A)

Course Number: C-680-2012.
Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Center, Philadelphia, PA.
Length: 10 weeks (380-384 hours).
Exhibit Dates: 6/65-1/88.
Objectives: To train enlisted personnel in the operation of aircraft launch and recovery equipment aboard aircraft carriers.
Instruction: Lectures and practical exercises in aviation fundamentals, aircraft carrier fire fighting, hydropneumatic catapults, and arresting gear, barrier, and optical systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0043

UH-1E Airframe and Related Systems Organizational Maintenance
(UH-1E Airframe and Related Systems Intermediate Maintenance)

Course Number: C-600-3341.
Location: Air Maintenance Training Detachment, Ellyson Field, FL; Air Maintenance Training Detachment, Cp. Pendleton, CA.
Length: 2-4 weeks (80-160 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train enlisted personnel in the operation, inspection, and repair of airframe and related systems of the UH-1E aircraft.
Instruction: Practical training in maintenance and repair of airframe, landing gear, power train, flight control, rotor, hydraulic and utility systems, and design, construction, furnishings and assembly of utility systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft specialized familiarization (3/74).

NV-1704-0044

Target Drone, Class C

Course Number: None.
Location: Air Technical Training Unit, El Centro, CA.
Length: 9 weeks (360 hours).
Exhibit Dates: 1/55-12/68.
Objectives: To train enlisted personnel in the operation, maintenance, overhaul, and repair of drone aircraft.
Instruction: Practical experience in flight operations, safety procedures, power plant and electronic maintenance, and fueling.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0045

RA-5C Power Plants and Related Systems Organizational Maintenance
(RA-5C Power Plants and Related Systems)

Course Number: C-601-3741.
Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.
Length: 3-4 weeks (120-160 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train fleet maintenance personnel to inspect, test, and repair RA-5C power plants and related systems.
Instruction: Lectures and practical exercises in the basic J-79 engine, aircraft fuel systems, power plants and component systems; inspections, tests, rigging procedures, and maintenance of RA-5C power plants and systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant systems maintenance (3/74).

NV-1704-0046

Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance

Course Number: C-602-3013.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.
Length: 3 weeks (120 hours).
Exhibit Dates: 7/70-Present.
Objectives: To train maintenance personnel to maintain and repair Douglas and Sargent-Fletcher air refueling stores.
Instruction: Lectures and practical exercises in inspection, disassembly, cleaning, repair, and reassembly of the Douglas Model D-704 and Sargent-Fletcher Model 31-300 air refueling stores systems, components, and equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in air refueling stores maintenance on the basis of institutional evaluation (3/82).

NV-1704-0047

SH-3 Airframes and Hydraulic Systems Organizational Maintenance

Course Number: C-602-3396.

Location: *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA. Air Maintenance Training Detachment, Quonset Point, RI; *Version 2:* Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (109-144 hours).

Exhibit Dates: *Version 1:* 12/79-Present. *Version 2:* 1/73-11/79.

Objectives: To train maintenance personnel to maintain and repair SH-3 helicopter airframe and hydraulic systems.

Instruction: *All Versions:* Lectures and practical exercises in removal, replacement, adjustment, and testing of components, and troubleshooting and repair of airframe and hydraulic systems. *Version 1:* Includes trimming and alignment of track blades.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, assembly and rigging (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in airframe and hydraulic maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe and hydraulic maintenance (3/74).

NV-1704-0048

P-3 Flight Engineers System
(P-3 Flight Engineer System, No. 6)

Course Number: C-050-3531.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 9/70-Present. *Version 2:* 1/68-8/70.

Objectives: To train flight crews in P-3 system and subsystem operations, in-flight maintenance, and procedures.

Instruction: Lectures and practical exercises in aircraft and electrical systems; power plant and related systems; hydraulic, structure, and pressurization systems; radio and navigation aids; autopilot; and emergency systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in engineering. Additional credit may be granted on the basis of institutional evaluation (7/81). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in P-3 flight engineering on the basis of institutional evaluation (3/74).

NV-1704-0049

H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/68-1/88.

Objectives: To train maintenance personnel to maintain and repair T-64-GE-6 engines at the intermediate level.

Instruction: Lectures and practical exercises in engine familiarization, including torque, compressor, combustion, turbine, and exhaust frame accessory sections; engine related systems, including air flow utilization, lubrication, fuel system, and electrical systems; and engine maintenance and repair.

Credit Recommendation: In the vocational certificate category, 2 semester hours in intermediate maintenance/complete engine repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in intermediate maintenance/complete engine repair (3/74).

NV-1704-0050

P-3 Hydraulics and Flight Controls System Maintenance, No. 10

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and repair P-3 aircraft hydraulic and flight control systems at the intermediate and organizational levels.

Instruction: Lectures and practical exercises in diagnosis, troubleshooting, maintenance, and servicing of the P-3 hydraulic power, auxiliary power, landing gear systems, nosewheel steering, brake systems, primary flight controls, flap systems, and tab booster and rudder boost systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in P-3 hydraulic and flight control system maintenance on the basis of institutional evaluation (3/74).

NV-1704-0051

QH-50C Airframe and Related Systems Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (128 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and repair QH-50C airframes and related systems.

Instruction: Lectures and practical exercises in QH-50C aircraft maintenance, including airframe and engine familiarization; avionics and target control; handling and special support equipment maintenance; and airframe, power plant, and related systems inspection, maintenance, repair, and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in aircraft maintenance on the basis of institutional evaluation (3/74).

NV-1704-0052

QH-50D Airframe, Power Plant and Related Systems Organizational Maintenance
(QH-50D Airframe and Related System Intermediate Maintenance)

Course Number: None.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (128-136 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and repair QH-50D drone airframes and related systems.

Instruction: Lectures and practical exercises in theory of flight, QH-50D helicopter fundamentals, DASH weapon system operation, aviation publications and forms familiarization, deck handling and special support equipment operation and maintenance, safety procedures, and QH-50D aircraft airframe and engine maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and related systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and related systems maintenance (3/74).

NV-1704-0053

P-3 Second Mechanics Systems

Course Number: C-601-3534.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 5 weeks (200 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train P-3 flight crew second mechanics to repair and service aircraft systems and subsystems.

Instruction: Lectures and practical exercises in electrical and related systems, power plant and related systems, and airframe systems of the P-3 aircraft.

Credit Recommendation: In the vocational certificate category, 3 semester hours in airframe and power plant systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe and power plant systems (3/74).

NV-1704-0054

E-2A Aircraft Familiarization (Pilots)

Course Number: C-00-3471.

Location: Air Maintenance Training Detachment, San Diego, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To familiarize pilots and prospective pilots with the E-2A aircraft, and the function and operation of its systems.

Instruction: Lectures on, and practical exercises with, E-2A aircraft, including power plant and related systems, and airframe, hydraulics, environmental, and avionic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in light aircraft familiarization (2/74).

NV-1704-0055

J79-GE-8/10 Engine Intermediate Maintenance
(J79-GE-8/10 Intermediate Maintenance)

Course Number: C-601-3129.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/67-1/88.

Objectives: To train technicians to repair J-79 turbine engines.

Instruction: Practical experience in disassembly, repair, assembly, and testing of J-7[illegible] turbine engines.

Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine repair (2/74); in the lower-division baccalaureate/associate degree category-ry, 2 semester hours in turbine engine repair (2/74).

NV-1704-0056

F-4B/J AIRFRAME AND HYDRAULIC SYSTEMS ORGANIZATIONAL MAINTENANCE

(F-4B/J Airframe and Hydraulic Systems Maintenance)

Course Number: C-602-3807.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3-4 weeks (120-136 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train maintenance personnel to repair F-4B/J aircraft.

Instruction: Lectures and practical exercises in F-4B/J maintenance procedures, including airframe construction, corrosion control, hydraulic and high-pressure pneumatic systems maintenance, and utility hydraulic subsystems and primary surface controls maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and hydraulic systems maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and hydraulic systems maintenance (2/74).

NV-1704-0057

UH-2C AIRFRAMES, HYDRAULIC, FLIGHT CONTROLS AND ROTOR SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3386.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/71-1/88.

Objectives: To train maintenance personnel in the operation, maintenance, and servicing of UH-2C aircraft subsystems.

Instruction: Lectures and practical exercises in functional and operational theory of UH-2C airframes, hydraulics, flight control and rotor systems; and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance (2/74).

NV-1704-0058

HH-2D/SH-2D AIRFRAMES, HYDRAULIC, FLIGHT CONTROLS, AND ROTOR SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3393.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train enlisted personnel to operate, maintain, and service HH-2D/SH-2D airframe, hydraulic, and flight control systems.

Instruction: Troubleshooting, repairing, and servicing of HH-2D/SH-2D systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter systems maintenance and repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter systems maintenance and repair (2/74).

NV-1704-0059

BASIC HELICOPTER, CLASS A

(Basic Helicopter, Class C)

Course Number: C-600-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 5-8 weeks (197-312 hours).

Exhibit Dates: 10/65-5/83.

Objectives: To train selected Navy and Marine Corps enlisted personnel to repair helicopters.

Instruction: Lectures and practical experience in basic helicopter flight, turboshaft power plant and transmission, flight control systems, preflight and postflight inspections, troubleshooting, safety regulations, single- and tandem-rotor helicopters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter theory and maintenance (2/81).

NV-1704-0060

CH-46A ROTORS AND RELATED SYSTEMS MAINTENANCE

Course Number: None.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel in the mechanics of rotor systems.

Instruction: Lectures and practical exercises in organizational maintenance, troubleshooting, flight control, and maintenance of utility systems and components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in rotor systems maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in rotor systems maintenance (2/74).

NV-1704-0061

UH2-A/B POWER PLANT, TRANSMISSION, FUEL, ROTOR AND RELATED SYSTEMS MAINTENANCE

Course Number: None.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To provide maintenance personnel with training in the latest servicing and repair procedures for T-58 helicopters.

Instruction: Lectures and practical exercises in the maintenance of helicopter power plant, transmission, fuel, rotor, and related systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in rotorcraft turbine engine maintenance and repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in rotorcraft turbine engine maintenance and repair (2/74).

NV-1704-0062

H-53 ROTOR AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-601-3441.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to repair the H-53 rotor system and its components.

Instruction: Lectures and practical exercises in rotor system management and maintenance management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in helicopter organizational maintenance (2/74).

NV-1704-0063

H-53 HYDRAULIC SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel in the latest maintenance and service procedures for H-53 hydraulic systems.

Instruction: Lectures and practical exercises in the fundamentals of operation and maintenance of the basic hydraulic, utility hydraulic, flight control hydraulic, rotor brake, rotor damper, cargo winch, and engine start systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in CH-53 hydraulic system organizational maintenance on the basis of institutional evaluation (2/74).

NV-1704-0064

UH34D AIRFRAME, HYDRAULICS AND FLIGHT CONTROLS

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to repair and service UH34D helicopter airframe, hydraulics, and flight control systems.

Instruction: Lectures and practical exercises in the maintenance, repair, and troubleshooting of air frame structure and power-transmission, hydraulic, and flight control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in aircraft, hydraulic, and flight control system maintenance on the basis of institutional evaluation (2/74).

NV-1704-0065

A-4M AIRCRAFT MECHANICS

Course Number: C-600-3718.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To train aircraft maintenance personnel to perform organizational maintenance on the A-4M aircraft.

Instruction: Lectures and practical exercises in the maintenance of A-4M aircraft, including airframe systems, power plants and related systems; engine trim and inspection procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic aircraft maintenance (2/74).

NV-1704-0066

S-2D/E AIRFRAMES AND HYDRAULICS SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/67-1/88.

Objectives: To provide maintenance personnel with instruction on the maintenance of S-2D/E airframes and hydraulics systems.

Instruction: Lectures and practical exercises on the operation of hydraulic power units, alighting gear, hydraulically operated flight controls, accessory systems, maintenance of airframes, and inspection procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and hydraulic fundamentals laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and hydraulic fundamentals laboratory (3/74).

NV-1704-0067

P-3 FLIGHT ENGINEERS OPERATIONAL MAINTENANCE, NO. 5

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train flight crewmen in total systems and subsystems operation and in-flight maintenance procedures.

Instruction: Practical experience in operation and maintenance of electrical, autopilot, navigational, airframe structures, hydraulic, flight control, air conditioning and pressurization, utility, power plant, armament, and electronic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in P-3 flight engineering on the basis of institutional evaluation (3/74).

NV-1704-0068

1. AVIATION ELECTRICIAN'S MATE, CLASS A
2. AVIATION ELECTRICIAN'S MATE, CLASS A
3. AVIATION ELECTRICIAN'S MATE, CLASS A
   (Aviation Electrician's Mate I (Instrument), Class A)
4. AVIATION ELECTRICIAN'S MATE I (INSTRUMENT), CLASS A
   (Aviation Electrician Conversion)

Course Number: C-602-2012.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 9-12 weeks (356 hours). *Version 2:* 15-16 weeks (478 hours). *Version 3:* 22 weeks (872-880 hours). *Version 4:* 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 2/76-11/88. *Version 2:* 4/74-1/76. *Version 3:* 9/59-3/74. *Version 4:* 4/57-8/59.

Objectives: To train enlisted personnel in the maintenance of aircraft instruments and electrical systems.

Instruction: For this course after 11/88 see NV-1714-0051. *All Versions:* Lectures and practical exercises in DC and AC circuits, vacuum tubes, rectifiers, filters, amplifiers, basic test instruments, electrical indicating systems, fuel quantity systems, compasses, automatic pilots, instrument checks and troubleshooting. *Version 3:* Includes basic mathematics, hand tools for circuit fabrication, synchros, basic transistor theory, computer fundamentals, AC voltage regulators, AC power distribution, inverters, ignition systems, and auxiliary power plants.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in aircraft electrical/instrumentation systems (2/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics (2/81). *Version 2:* In the vocational certificate category, 5 semester hours in electronics or electrical circuit theory and 2 in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or electrical circuit theory (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or electrical circuit theory, 1 in electronics laboratory (6/75); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-engineering students (6/75). *Version 3:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1704-0069

RA-5C ELECTRICAL AND INDICATING SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3745.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69-Present.

Objectives: To train maintenance personnel to repair aircraft electrical and indicating systems.

Instruction: Lectures and practical exercises in the organizational maintenance of aircraft electrical and indicating systems, including electrical power systems, lighting and radome fold systems, engine instruments and control systems, and hydraulic and pneumatic power systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74).

NV-1704-0070

AVIATION ELECTRICIAN'S MATE M (ELECTRICIAN), CLASS A
(Aviation Electrician Conversion)

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 22 weeks (880 hours). *Version 2:* 15-19 weeks (600-732 hours).

Exhibit Dates: *Version 1:* 1/59-12/68. *Version 2:* 4/57-12/58.

Objectives: To train enlisted personnel to inspect, test, and repair aircraft instruments, and electrical systems.

Instruction: *All Versions:* Lectures and practical exercises in fundamentals of AC and DC circuits, vacuum tubes, rectifiers, filters, amplifiers, basic test instruments, DC and AC machinery and systems, electrical tests and troubleshooting, electrical components, wiring diagrams, and lighting circuits. *Version 1:* Includes airman training, basic math and physics, and hand tools and soldering.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity for electronics majors, 4 for nonmajors (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity, and credit in electrical laboratory on the basis of institutional examination (12/68). *Version 2:* In the vocational certificate category, 9 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity for electronics majors, 6 for nonmajors (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1704-0071

KC-130F ELECTRICAL SYSTEMS ORGANIZATIONAL MAINTENANCE
(KC-130F Electrical Systems and Circuits Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and operate the KC-130F aircraft's electrical and instrument systems.

Instruction: Lectures and practical exercises in the maintenance of electrical and instrument systems applicable to the KC-130F aircraft, including AC and DC power distribution, electrical system, utility circuits, components, power plant and propeller circuits, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems (3/74).

NV-1704-0072

P-3 ELECTRICAL COMPONENTS INTERMEDIATE MAINTENANCE
(P-3 Electrical Systems Intermediate Maintenance)

Course Number: C-102-3560.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: *Version 1:* 5 weeks (200 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 3/81-Present. *Version 2:* 3/73-2/81.

Objectives: To train enlisted personnel to maintain, operate, and service P-3 aircraft electrical systems at the intermediate level.

Instruction: *Version 1:* Lectures and practical exercises in the maintenance of the P-3 aircraft electrical systems including lighting, the propeller syncrophasing system, generators, voltage regulators, signal light controls, AOA and TAS indicators and troubleshooting with an oscilloscope. *Version 2:* Lectures and practical exercises in the maintenance of the P-3 aircraft electrical systems, including, lighting, indicators, propeller synchrophasing system, generators, voltage regulators, oscilloscope, and controls.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in avionics (7/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in avionics technology or electronics technology (7/81). *Version 2:* In the vocational certificate category, 3 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1704-0073

P-3 Electrical System Organizational Maintenance

(P-3 Electrical System Maintenance, No. 12)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to operate, maintain, and service aircraft electrical systems.

Instruction: Lectures and practical exercises in aircraft electrical systems operation, maintenance, and servicing, including power supplies, power distribution, lighting, starters, hydraulic controls, instruments, and flight controls circuit analysis and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1704-0074

F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 6 weeks (160 hours).

Exhibit Dates: 8/70-Present.

Objectives: To train maintenance personnel to perform line maintenance on F-4J CNI systems.

Instruction: Lectures and laboratories in system familiarization, communications, navigation systems, use of associated test equipment, and line maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0075

RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/68-1/88.

Objectives: To train fleet maintenance personnel to maintain CNI and DECM systems and related test sets.

Instruction: Lectures and practical exercises in communication, navigation, and identification systems familiarization; CNI organizational maintenance; and DECM organizational maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0076

F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train maintenance personnel to operate and maintain the F-4B CNI line systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the F-4B CNI line systems, including block-diagram analysis, components, power supply, transceiver, navigation set components and navigational computer, basic IFF/SIF theory, associated transponder and altimeter sets, introduction to line maintenance applications, and system check-out.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0077

CH-46A Electrical and Instrument Systems

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to operate and maintain the CH-46A electrical and instrument systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the CH-46A electrical and instrument systems, including main generating system, auxiliary and DC systems of electrical power supply, starting and control systems, utility electric systems (light, fire extinguisher, wipers, pedal, heating and ventilation, brake, hydraulic, and ice protection), and instruments and indication systems analyses.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0078

A-6A Maintenance Supervisors Familiarization

Course Number: C-000-3763.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To familiarize supervisory personnel with the systems of the A-6A aircraft.

Instruction: Lectures and practical exercises in the operation of the A-6A aircraft, including system familiarization, analysis of hydraulic power and distribution, power plant and fuel systems, environmental system, general avionics systems, and navigational and attack systems; and planned maintenance techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0079

A-7A/B Electrical and Instrument Systems Organizational Maintenance

(A-7 Electrical and Instrument Systems Organizational Maintenance)

Course Number: C-602-3781.

Location: Air Maintenance Training Detachment, Cecil Field, Fl. *Version 2:* Air Maintenance Training Detachment, Lemoore, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 4/75-Present. *Version 2:* 1/71-3/75.

Objectives: To train maintenance personnel to maintain and operate the electrical and instrument systems of the A-7 aircraft.

Instruction: Lectures and practical exercises in the maintenance and operation of the electrical and instrument systems of the A-7 aircraft, including power supply and distribution, engine and related circuitry, aircraft fuel circuits, electrically controlled hydraulic systems, lighting circuits, approach-attitude indication and compensation, air data computer, and instrumentation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation electricity, 1 in electrical laboratory for non-electrical engineering students (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

NV-1704-0080

A-7E Electrical and Instrument Systems Organizational Maintenance

Course Number: C-602-3791.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/76-Present. *Version 2:* 7/70-4/76.

Objectives: To train maintenance personnel to operate and maintain the electrical and instrument systems of the A-7E aircraft.

Instruction: Lectures in aircraft power distribution and electrical power supplies, aircraft instrument and lighting systems, electrohydraulic and utility systems, and power plant related systems.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

NV-1704-0081

E-2A Aviation Electrician Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train aviation electricians to troubleshoot, repair, and maintain the electrical systems of E-2A aircraft.

Instruction: Lectures and practical exercises in the troubleshooting, repair, and maintenance of the electrical systems of E-2A aircraft, including AC and DC power distribution systems, motors and generators, limited electronic circuit theory, utility and environmental systems, flight control systems, engine electric systems, automatic flight control system operation, pitch feel system, maximum rudder system, air data computer, and compass and inertial navigation systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1704-0082

SP-2H SYSTEMS FAMILIARIZATION, PLANE CAPTAINS

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (192 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train plane captains to operate SP-2H aircraft systems.

Instruction: Lectures and practical exercises in the operation of SP-2H aircraft systems, including DC electrical distribution system, power plants and related systems assemblies and components, engine analysis of specific equipment, hydraulics and airframes, flight control, AC systems, engine starter and fire detection, propeller control system, and armament systems operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0083

SH-3A ELECTRICAL SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and service the electrical systems of the SH-3A helicopter.

Instruction: Lectures and practical exercises in the maintenance of the electrical systems of the SH-3A helicopter, including AC and DC power systems components and analysis, power plant systems, hydraulic systems, blade fold system, fuel systems, utility systems, and miscellaneous systems operation and testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0084

A-7A/B ARMAMENT SYSTEM ORGANIZATIONAL MAINTENANCE (A-7 Armament Systems Maintenance)

Course Number: C-646-3781.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68-1/79.

Objectives: To train maintenance personnel to operate and maintain the A-7 armament system.

Instruction: Lectures and practical exercises in the operation and maintenance of the A-7 armament system, including fuselage stations, mechanical and electrical instruction, wing pylons and associated equipment assembly and installation, armament systems control and sequencing, electrical fuzing system, internal gun system components, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0085

A-6A ENVIRONMENTAL, ESCAPE AND SURVIVAL SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3763.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to operate and maintain the environmental, escape, and survival systems of the A-6A aircraft.

Instruction: Lectures and practical exercises in general aircraft familiarization; inspections, trouble shooting procedures, and maintenance of escape and survival systems, environmental control systems, and oxygen systems; and use of special tools and ground support equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0086

S-2D/E ELECTRICAL AND INSTRUMENTS MAINTENANCE, NO. 6

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train maintenance personnel to maintain and operate electrical and instrument systems of S-2D/E equipment.

Instruction: Lectures and practical exercises in the maintenance and operation of electrical and instrument systems of S-2D/E equipment, including components, operation, and troubleshooting of power supply, engine controls and accessories, structural control, heating and de-icing, fuel control, and light and instrument systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0087

AVIATION STRUCTURAL MECHANIC H (HYDRAULICS), CLASS B

Course Number: C-602-2018.

Location: Air Technical Training Center, Memphis, Millington, TN.

Length: 12-13 weeks (488-504 hours).

Exhibit Dates: 10/65-1/88.

Objectives: To train personnel to perform as aviation hydraulic systems mechanics.

Instruction: Lectures and practical exercises in aircraft repair, including utilization and interpretation of schematic drawings, fundamentals of electricity, technical publications, maintenance management, inspection procedures, corrosion control, aircraft hydraulics, and related maintenance.

Credit Recommendation: In the vocational certificate category, 10 semester hours in aircraft hydraulic systems mechanics (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft hydraulic systems mechanics (6/75).

NV-1704-0088

A-6A ELECTRICAL SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel with knowledge of transistors to test, troubleshoot and repair electrical and instrument systems of A-6A aircraft.

Instruction: Lectures and practical exercises in the testing, troubleshooting and repair of electrical and instrument systems of A-6A aircraft, including description, operation and components of AC power supply and control, AC/DC power distribution, emergency electrical power, constant speed drive/starter and engine control, fuel, auxiliary instrument, lighting, and remote indication compass systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or electronics laboratory (4/74).

NV-1704-0089

P-3C INTEGRATED ELECTRICAL SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3571.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 7-8 weeks (280-320 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train maintenance personnel who are familiar with P-3 aircraft systems to inspect, operate, repair, and replace the assemblies and units of the P-3C electrical systems, ASN-84 inertial navigational system, and ASW-31 autopilot.

Instruction: Lectures and practical exercises in the inspection, operation, repair, and replacement of the assemblies and units of the P-3C electrical systems, ASN-84 inertial navigation system, and ASW-31 autopilot, including electrical power, lighting, and engine controls; fuel, oil, propeller, and fire detection systems; instruments, hydraulics; landing gear; ice control systems and miscellaneous circuits; and specific equipment description and component analysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (7/81).

NV-1704-0090

UH-2C Electrical System
Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 8/68-1/88.

Objectives: To train maintenance personnel to maintain and service electrical systems and components of UH-2 helicopters.

Instruction: Lectures and practical exercises in the maintenance of electrical systems and components of UH-2 helicopters, including components and operation of DC and AC power supply, lighting systems, power plant systems, utility system, and engine and flight instruments; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0091

UH-2A/B Electrical System
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Lakehurst, NJ.

Length: 3 weeks (100-104 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train fleet maintenance personnel who have aviation electrical experience and knowledge of transistors to operate and maintain the electrical components of the UH-2A/B helicopter.

Instruction: Lectures and practical exercises in the operation and maintenance of the electrical components of the UH-2A/B helicopter, including AC and DC power supply, lighting systems, related power plant systems components and troubleshooting, utility systems operation, engine and flight instruments, and miscellaneous systems analyses.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0092

F-4B Electrical Systems
Organizational Maintenance
(F-4B Aircraft Electrical System Organizational Maintenance)

Course Number: C-602-3808.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 7-8 weeks (280-320 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train enlisted personnel to operate and maintain F-4B aircraft electrical systems.

Instruction: Lectures and practical exercises in the operation and maintenance of F-4B aircraft electrical systems, including functional analysis, systems integration, analysis and components of the automatic flight control system, air data computer set, loft bomb release computer set, power-generating system, approach power compensator system, fuel system, and test equipment for electrical and instrument systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0093

E-2A Electrical and Instruments
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train aviation electricians to troubleshoot, repair, and maintain E-2A aircraft electrical and instrument systems.

Instruction: Lectures and practical exercises in the troubleshooting, repair, and maintenance of the electrical and instrument systems incorporated in E-2A aircraft, including AC and DC power systems; utility, environmental, instruments, and miscellaneous systems components and operation; flight controls and related systems; and engine electrical and related systems and subsystems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0094

F-4J Electrical Systems
Organizational Maintenance
(F-4J Aircraft Electrical System Organizational Maintenance)

Course Number: C-602-3815.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 7-9 weeks (280-376 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train enlisted personnel to maintain the electrical systems in the F-4J aircraft.

Instruction: Lectures and practical exercises in the maintenance of the electrical systems in the F-4J aircraft, including functional analysis, operation, systems integration and planned maintenance procedures on the electrical and instrument systems, automatic flight control system, air data computer set, vertical flight reference set, attitude reference bombing computer set, power generating system, approach power compensator system, and data link system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0095

OV-10A Electrical Systems
Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/68-1/88.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain electrical systems of the OV-10A aircraft.

Instruction: Lectures and practical exercises in the operation, troubleshooting, and maintenance of the electrical systems of the OV-10A aircraft, including DC and AC power systems (sources and distribution), lighting systems, instrumentation, power plant electrical systems, hydraulic and control surface systems, and miscellaneous electrical systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0096

SH-3 Automatic Stabilization
Equipment Organizational
Maintenance

Course Number: C-601-3398.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI.

Length: 3 weeks (104-120 hours).

Exhibit Dates: 9/69-1/88.

Objectives: To train maintenance personnel to maintain the SH-3 helicopter's automatic stabilization equipment.

Instruction: Lectures and practical exercises in the maintenance of the SH-3 helicopter's automatic stabilization equipment, including flight theory, flight controls, primary and auxiliary hydraulic systems and servos, power control, pitch channel (signal path, vertical gyros, monitor panel, lag-amplifier, and line test set), yaw channel and synchronizer, collective channel, hover indicator, cyclic and collective coupler system and components, and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0097

A-6/KA-6D Electrical Power Systems
Intermediate Maintenance

Course Number: C-602-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train maintenance personnel to test and repair the electrical power generating system of the A-6A/KA-6D aircraft.

Instruction: Lectures and practical exercises in the testing and repair of the electrical power generating system of the A-6A/KA-6D aircraft, including review of electrical theory, operation of AC power supply and control system components, emergency electrical power system, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0098

A-4E Bombing System AN/AJB-3A and
Remote Standby Indicator
System (Organizational)

Course Number: C-602-0050.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train maintenance personnel who are familiar with A-4 systems and transistor fundamentals to operate and maintain the AN/AJB-3A bombing system and the remote standby attitude-indicating systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AJB-3A bombing system and the remote standby attitude-indicating systems, including operation of the displacement gyroscope, attitude-direction indicator, compass adapter, bomb release computer, and power supply; system analysis (circuits and channels), boresighting and compass swinging, line testing and troubleshooting procedures, and operation and testing of the remote standby indicating system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0099

RA-5C Electrical and Indicating
Systems (Intermediate
Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/67-1/88.

Objectives: To train maintenance personnel who are familiar with RA-5C aircraft systems to operate and maintain the RA-5C electrical and indicating systems at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C aircraft electrical and indicating systems, including power control; generators; transformers; DC power supply; emergency power; lighting and radome fold system components; engine instruments and control systems; fuel, hydraulic, and pneumatic power systems; heating and vent operation; and pressurization and air-conditioning systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0100

A-6A Electrical Systems
Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/70-1/88.

Objectives: To train maintenance personnel who have backgrounds in basic transistors to maintain, test, and troubleshoot the A-6A electrical, instrument, and automatic flight control systems.

Instruction: Lectures and practical exercises in the maintenance, testing, and troubleshooting of the A-6A electrical, instrument, and automatic flight control systems, including power supply and control system components and operation (AC and DC systems), fuel management and indicating system; auxiliary systems components, operation and testing; aircraft instrument, environmental control, and compass systems; automatic flight principles, air data computer block diagram and operation, signal flow, interlocks and check-out procedures, and use of test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0101

P-3A/B Integrated Electrical System
Organizational Maintenance
(P-3 Integrated Electrical System Organizational Maintenance)

Course Number: C-602-3535.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 6-7 weeks (264-280 hours).

Exhibit Dates: *Version 1:* 6/81-Present. *Version 2:* 11/72-5/81.

Objectives: To train maintenance personnel who are familiar with P-3 aircraft systems and transistor fundamentals to operate, test, and maintain the P-3 integrated electrical system.

Instruction: Lectures and practical exercises in the operation, testing, and maintenance of the P-3 integrated electrical system, including power generation and distribution, control panel, automatic flight control system, attitude-heading reference system, navigational computer operation, instruments and hydraulics, fuel, oil, and propeller systems, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electrical laboratory (7/81). *Version 2:* In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0102

A-4M Electrical Systems
Organizational Maintenance

Course Number: C-602-3737.

Location: Air Maintenance Training Detachment, Beaufort, SC.

Length: 7 weeks (280 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train maintenance personnel to test and maintain the A-4M aircraft.

Instruction: Lectures and practical exercises in the testing and maintenance of the A-4M aircraft, including electrical and instrument systems, automatic flight control system components and theory of operation, navigational computer components and theory of operation, electrical power system, utility circuits, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1704-0103

OV-10A Flight Control and
Hydraulic Systems
Organizational Maintenance

Course Number: C-602-3521.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/69-1/88.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain the flight control and hydraulic systems of specific equipment.

Instruction: Lectures and practical exercises in the operation, troubleshooting, and maintenance of the flight control and hydraulic systems of specific equipment, including various control systems operation and rigging, hydraulic power control, wheel brake system, and aircraft corrosion control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1704-0104

F/RF-4B Aircraft Electrical Systems
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to operate, test, and repair F-4 aircraft electrical systems.

Instruction: Lectures and practical exercises in the operation, testing, and repair of F-4 aircraft electrical systems, including AC and DC electrical generation systems, power control, circuit analysis, flight controls, fuel and oxygen quantity gauging systems, air induction system, test equipment, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0105

AH-1J Electrical Organizational
Maintenance

Course Number: C-602-3353.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel to repair, check, and maintain the AH-1J electrical system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AH-1J electrical system, including DC electrical systems, AC power supply, fuel system and instruments, warning and detection circuits, lighting circuits, and environmental control system.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0106

F-4B/J Egress and Environmental
Control Systems Organizational
Maintenance
(F-4B/J Egress and Environmental Control Systems Maintenance)

Course Number: C-602-3806.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train maintenance personnel to maintain and service the egress and environmental control systems of the F-4B/J aircraft at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the egress and environmental control systems of the F-

4B/J aircraft, including corrosion control, specific ejection equipment, components and operation of the basic pneumatic and canopy system, equipment installation, bleed air systems, pressurization and air-conditioning systems components and operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0107

SP-2E Systems Familiarization, Plane Captains

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (192 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train plane captains to operate the SP-2E aircraft systems.

Instruction: Lectures and practical exercises in the operation of the SP-2E aircraft systems, including power plants and related systems breakdowns, hydraulics and airframes, power systems and components, flight control systems, electrical systems (including AC and DC power distribution and generator systems), propeller operation, aircraft instrumentation, armament system, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0108

A-6A Electrical Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/70–1/88.

Objectives: To train maintenance personnel who have had previous training in transistor fundamentals to test, troubleshoot, and repair electrical and instrument systems of the A-6A aircraft at the intermediate level.

Instruction: Lectures and practical exercises in the testing, troubleshooting, and repair of the electrical and instrument systems of the A-6A aircraft, including electrical power systems, auxiliary electrical systems, constant speed drive/starter system operation, MA-1 compass system, and approach power compensator system operation and components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0109

Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance

(Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance)

Course Number: C-602-3212.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: *Version 1:* 7/73–Present. *Version 2:* 9/70–6/73.

Objectives: To train aviation support technicians to maintain GTCP-100 engines.

Instruction: *All Versions:* Lectures and practical exercises in GTCP-100 engine maintenance, including engine description, cold-section theory, hot-section theory, lubrication system, electrical system, fuel system, air control system, and test equipment operation. *Version 1:* Includes disassembly, inspection and repair of the GTCP-100 engine.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in ground operational equipment (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity/electrical laboratory (3/82). *Version 2:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0111

Aviation Support Equipment Technician, Class A (Electrical Specialty)

Course Number: C-602-2019.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 7–10 weeks (304 hours). *Version 2:* 9–12 weeks (376–496 hours). *Version 3:* 11–12 weeks (437–464 hours).

Exhibit Dates: *Version 1:* 6/75–7/89. *Version 2:* 1/70–5/75. *Version 3:* 5/66–12/69.

Objectives: To train enlisted personnel to maintain and repair aircraft support equipment.

Instruction: *All Versions:* Lectures and practical exercises in aircraft support equipment maintenance and repair, including aviation support equipment introduction, electrical and electronic fundamentals, generator and motor fundamentals, and electrical maintenance on aircraft support vehicles. *Version 1:* Instruction includes air-conditioning systems maintenance. *Version 2:* Instruction includes air-conditioning systems maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in troubleshooting electrical control systems (2/81). *Version 2:* In the vocational certificate category, 6 semester hours in aircraft support, 4 in aircraft support equipment maintenance (4/74). *Version 3:* In the vocational certificate category, 1 semester hour in physics, 2 in electricity or electronics, 4 in aircraft support equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical technology (4/74).

NV-1704-0112

Aviation Support Equipment Technician, Class A (Hydraulic Specialty)

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9–12 weeks (376–464 hours).

Exhibit Dates: 5/66–1/88.

Objectives: To train enlisted personnel as aviation support equipment technicians.

Instruction: Lectures and practical exercises in aviation support equipment operation and maintenance, reciprocating engines and associated equipment, tune-up and inspection techniques, diesel engines and related auxiliary equipment, and compressor operation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft support (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology, 3 in mechanical technology (5/74).

NV-1704-0113

Aviation Support Equipment Technician, Class A (Mechanical Speciality)

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9–12 weeks (376–464 hours).

Exhibit Dates: 5/66–2/77.

Objectives: To train enlisted personnel to maintain aviation support equipment.

Instruction: Lectures and practical exercises in aviation support equipment maintenance and administration, including chassis maintenance and metal repair; frames, axles, and similar components; metal working; welding and painting; fluidic systems and brake systems maintenance; and pneumatic and cryogenic systems maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft support (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology, 3 as an elective in mechanical technology (5/74).

NV-1704-0114

SH-3 Electrical Systems Organizational Maintenance

(SH-3A/D Electrical Systems Organizational Maintenance)

Course Number: C-602-3397.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4–5 weeks (144–160 hours).

Exhibit Dates: *Version 1:* 9/81–Present. *Version 2:* 8/71–8/81.

Objectives: To train maintenance personnel to maintain the electrical systems of SH-3 helicopters.

Instruction: Lectures and practical exercises in the maintenance and repair of the electrical systems of SH-3 helicopters, including power supply system, power plant/main gearbox and related systems, miscellaneous and utility systems, rotor-actuating systems, fuselage fuel system, vertical-gyro operation, hydraulic systems, and automatic bladefold system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electricity and electrical laboratory (3/82). *Version 2:* In the vocational certificate category, 2 semester hours in electricity and electrical laboratory (6/74); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (6/74).

NV-1704-0115

Air Intercept Control (Requalification), Class O/C

Course Number: C-2G-2022; C-221-2013.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/71–1/88.

Objectives: To requalify line officers and senior radarmen as air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control procedures and techniques, including R/T procedures and brevity code, intercept theory, TACAN and broadcast control intercepts, Mk 10 IFF, SIF and AIMS system, lead collision intercept, local operating procedures, SAR, air control system, airborne weapons systems, forward quarter conversion intercept, lead pursuit intercept, actual air control, lead collision reattack intercept, and pattern intercepts.

Credit Recommendation: In the vocational certificate category, 6 semester hours in air traffic control (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic control (6/74).

NV-1704-0116

Aviation Structural Mechanic E (Safety Equipment) Class C7
(Aviation Structural Mechanic E (Safety Equipment), Class B)

Course Number: C-602-2016.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 10-14 weeks (404-420 hours).

Exhibit Dates: 10/65-12/84.

Objectives: To train personnel to perform as aviation safety equipment mechanics.

Instruction: Lectures and practical exercises in aircraft repair, including utilization and interpretation of schematic drawings, fundamentals of electricity; technical publications, maintenance management, inspection procedures, corrosion control, aircraft pressurization, air conditioning, and associated systems; oxygen, fire extinguishing, and life raft release systems; and egress systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft safety equipment mechanics (2/81).

NV-1704-0117

Air Intercept Control (Supervisor), Class C/O

Course Number: C-2G-2021.

Location: Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/71-1/88.

Objectives: To train line officers and radarmen as air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control procedures and techniques, including air intercept control procedures and communications, aircraft operations and weapons systems, practical application of air intercept control procedures, synthetic air intercept control, actual air intercept control, supervision and instruction of air intercept controllers.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1704-0118

A-6 Plane Captain

Course Number: C-600-3761.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/71-1/88.

Objectives: To train enlisted personnel to inspect, service, and maintain A-6 aircraft.

Instruction: Lectures and practical exercises in maintenance and operation of A-6 aircraft. Course includes power plant and aircraft systems; electrical, hydraulic, and flight control systems, and armament systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation maintenance (6/74).

NV-1704-0119

J52-P6A/8A Engine Intermediate Maintenance/Complete Engine Repair

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To train fleet maintenance personnel in J52 intermediate maintenance and complete engine repair.

Instruction: Lectures and practical exercises on J52 intermediate maintenance, including basic engine familiarization; engine disassembly, inspection and repair; assembly; testing; repair and preparation for storage; engine component systems; and cleaning and inspection methods.

Credit Recommendation: In the vocational certificate category, 4 semester hours in turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine maintenance (6/74).

NV-1704-0120

F-8 Airframes/Hydraulic Systems Organizational Maintenance

Course Number: C-602-3855.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/69-1/88.

Objectives: To train structural mechanics to perform organizational maintenance on the F-8 aircraft's structures, hydraulic systems, and related equipment.

Instruction: Lectures and practical exercises in the organizational maintenance of the F-8 aircraft's structure, hydraulic systems, and related equipment, including airframes maintenance; maintenance manuals; aircraft description; structural materials used in F-8 construction; corrosion control; power control hydraulic and surface control systems; and utility hydraulic and pneumatic systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft hydraulic systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft hydraulic systems maintenance (6/74).

NV-1704-0121

C-2A Aircraft Familiarization (Pilots)

Course Number: C-00-3491.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To familiarize aircraft pilots with the C-2A aircraft.

Instruction: Lectures and practical exercises on the C-2A aircraft, including power plant and related systems; airframe, hydraulic, and environmental systems; flight controls; electrical systems; and avionics systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (6/74).

NV-1704-0122

F/RF-4B Structures and Hydraulics Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to maintain and repair the structures and hydraulic systems of the F/RF-4B aircraft at the organizational and intermediate maintenance levels.

Instruction: Lectures and practical exercises in the servicing and maintenance of the structures and hydraulic systems of the F/RF-4B aircraft, including aircraft systems familiarization; corrosion control; pneumatics, hydraulics, and structures; landing gear and related systems; miscellaneous utility hydraulic subsystems; and flight and surface control systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in structures and hydraulic maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in structures and hydraulic maintenance (6/74).

NV-1704-0123

T-41-A-2 Engine Intermediate Maintenance/Complete Engine Repair
(TF41-A-2 Engine Intermediate Maintenance/Complete Engine Repair)

Course Number: C-601-3136.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/71-Present.

Objectives: To train fleet maintenance personnel to maintain and repair a specific engine.

Instruction: Lectures and practical exercises in TF41-A-2 engine intermediate maintenance, including engine familiarization, systems, and horizontal maintenance; vertical engine disassembly; inspections, disassembly, and assembly of subassemblies; and vertical engine assembly, final test, and preparation for service and storage.

Credit Recommendation: In the vocational certificate category, 6 semester hours in intermediate engine maintenance (3/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in intermediate engine maintenance (3/82).

NV-1704-0124

SH-3 Airframe and Hydraulic Systems Maintenance

Course Number: D-603-0570.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/67-1/88.

Objectives: To train personnel in SH-3 airframe and hydraulic systems maintenance.

Instruction: Lectures and practical exercises in SH-3 airframe and hydraulic systems maintenance, including SH-3 familiarization, utility hydraulic system, flight controls, auxiliary hydraulic system, preventive maintenance and ground handling, and corrosion control.

Credit Recommendation: In the vocational certificate category, 4 semester hours in helicopter hydraulic system maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicoper hydraulic system maintenance (6/74).

NV-1704-0125

KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
(KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (96 hours).

Exhibit Dates: 6/66-1/88.

Objectives: To train maintenance personnel to repair T-56 turboprop engines and related systems.

Instruction: Lectures and practical exercises in the latest maintenance techniques, modifications, operation of systems, and servicing procedures applicable to the T-56 and related systems of the GV-1 aircraft, including T-56 turboprop engine and related systems, theory, basic power plant, gas turbine compressor, and electrical control circuit of the GTC.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turboprop engine familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turboprop engine familiarization (6/74).

NV-1704-0126

F-4B/J Maintenance Supervisor Familiarization

Course Number: C-000-3807.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (72-80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To familiarize fleet- and shore-based maintenance supervisors with the F-4B/J aircraft and related systems.

Instruction: Lectures and practical exercises on the F-4B/J aircraft and related systems, including airframe, hydraulic, pneumatic, egress and environmental control systems; missile control systems and related safety information; CNI, ECM, fuel, power plant, and related systems; electrical systems; missile and armament control systems; and introduction to air launched weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft and systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft and systems maintenance (6/74).

NV-1704-0127

C-2A Power Plant and Related Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120-128 hours).

Exhibit Dates: 11/67-1/88.

Objectives: To train enlisted personnel to maintain and repair C2A power plants and related systems.

Instruction: Lectures and practical exercises in the organizational maintenance of the C2A power plant and related systems, including the T-56-A-8/8A engine; functions, operation, and maintenance of the C2A fuel system; and the A6441FN-248 propeller system and components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft and propeller maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft and propeller maintenance (6/74).

NV-1704-0128

Aviation Structural Mechanic (Hydraulic) Class A1
(Aviation Structural Mechanic H (Hydraulics), Class A)

Course Number: C-602-2017.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 7-10 weeks (280-400 hours).

Exhibit Dates: 5/56-Present.

Objectives: To train maintenance technicians to repair aircraft hydraulic structural systems.

Instruction: Lectures and practical exercises in aircraft hydraulic structural systems repair, including hydraulic principles, tubes and fittings, flexible hose and fittings, power system components, brakes, struts, shimmy dampers, valves, actuators, publications and forms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in hydraulics structural repair (9/89).

NV-1704-0129

A-6A Hydraulics and Flight Controls Organizational Maintenance
(A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to maintain and repair hydraulic and flight control systems of the A-6A aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the hydraulic and flight control system of the A-6A aircraft, including the requirements for daily, preflight, postflight, and periodic inspections and maintenance techniques; removal, installation, and troubleshooting of major components required for organizational maintenance, including aircraft familiarization; hydraulic, flight control, alighting gear and related systems; and ground handling.

Credit Recommendation: In the vocational certificate category, 6 semester hours in systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance (6/74).

NV-1704-0130

Aviation Structural Mechanic E (Safety Equipment), Class A

Course Number: C-602-2015.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 9-11 weeks (348-368 hours).

Exhibit Dates: 9/65-9/86.

Objectives: To train enlisted personnel to perform as aviation structural mechanics.

Instruction: For this course after 9/86 see NV-1704-0325. Lectures and practical exercises in the functions of aviation structural mechanics, including fundamentals, familiarization, schematic interpretation, application of the maintenance and material management system, gaseous oxygen systems, typical aircraft system, liquid oxygen systems, aircraft pressurization and air-conditioning systems, operations and line maintenance, egress systems, and auxiliary bleed air systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft safety equipment mechanics (2/81).

NV-1704-0131

Marine Mechanical School, Class P

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train personnel in basic mechanical maintenance techniques.

Instruction: Lectures and practical exercises in mechanical maintenance, including aviation qualifications, aviation personnel survival, Marine aviation orientation, aircraft familiarization, general administration, aeronautical publications, basic manual skills, aircraft hardware, general mathematics, physics, and electricity.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic aircraft mechanical shop (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic aircraft mechanical shop (6/74).

NV-1704-0132

Aviation Structural Mechanic (Structures) Class A1
(Aviation Structural Mechanic S (Structures), Class A)

Course Number: C-603-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 8-11 weeks (320-368 hours). *Version 2:* 9 weeks (360 hours). *Version 3:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 7/69-Present. *Version 2:* 9/65-6/69. *Version 3:* 7/56-8/65.

Objectives: To train enlisted Navy and Marine Corps personnel with previous technical experience to perform as aviation structural mechanics S (structures), third class.

Instruction: Lectures and practical exercises in the duties of aviation structural mechanic S (structures), third class, including fundamentals, aircraft structural repair, welding, nonmetallic materials, airframes and operational maintenance, and aircraft sheet metal.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft structures shop (9/89). *Version 2:* In the vocational certificate category, 7 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft structures shop (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft structures shop (6/74).

NV-1704-0133

H-53 Automatic Flight Control System Organizational Maintenance

Course Number: C-602-3443.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To train maintenance personnel to maintain the H-53 automatic flight control system at the organizational maintenance level.

Instruction: Lectures and practical exercises in the organizational maintenance of the H-53 automatic flight control system, including AFCS maintenance, hydraulic control, stick trim system, power distribution and relay sequence, attitude-indicating system, block-diagram analysis, and line maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in flight control system maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight control system maintenance (6/74).

NV-1704-0134

SH-3A Power Plants and Related Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/67–12/68.

Objectives: To train maintenance personnel to maintain and repair SH-3A helicopter power plants and related systems.

Instruction: Lectures and practical exercises on SH-3A power plants and related systems maintenance, including general information; familiarization; T58 engine; construction; systems; engine-related systems; engine installation; operation and maintenance; fuel system; main gear box; rotary rudder drive; rotor-actuating mechanisms; main rotor head assembly; and rotary rudder assembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant maintenance laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant maintenance laboratory (6/74).

NV-1704-0135

A-7B/TA-7C Power Plant and Related Systems Organizational Maintenance

(A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance)

(A-7A/B Power Plant and Related Systems Organizational Maintenance)

Course Number: C-601-3781.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (72-80 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train experienced maintenance personnel in the maintenance, operation, and servicing of A-7A/B power plants and related systems.

Instruction: Lectures and practical exercises in A-7A/B power plants and related systems organizational maintenance, including aircraft fuel systems, engine construction and systems, and propulsion system maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant systems maintenance (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant systems maintenance (3/82).

NV-1704-0136

H-46 Stabilization Systems Intermediate Maintenance

Course Number: C-601-3417.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train experienced maintenance personnel in maintenance and servicing of H-46 stabilization systems at the intermediate level.

Instruction: Lectures and practical exercises in intermediate maintenance and servicing of H-46 stabilization systems, including stability augmentation system; automatic stabilization equipment; automatic speed trim system; and complete intermediate maintenance, troubleshooting, testing and repair.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical and electromechanical systems (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical and electromechanical systems (6/74).

NV-1704-0137

OV-10A T-76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance

Course Number: C-601-3522.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 3 weeks (136 hours).

Exhibit Dates: 8/69–1/88.

Objectives: To train experienced personnel to repair the T76-G-10/12 engine.

Instruction: Lectures and practical exercises on the T76-G-10/12 engine, including intermediate/complete engine repair, engine systems, power management, propeller maintenance, torque-sensing system, engine anti-icing system, fuel system, electrical system, propeller disassembly and assembly, propeller balancing, and inspection and testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in turboprop engine and propeller maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turboprop engine and propeller maintenance (6/74).

NV-1704-0138

Aviation Support Equipment Technician Hydraulics and Structures, Class A

Course Number: C-602-2023.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington, TN.

Length: 9 weeks (313-376 hours).

Exhibit Dates: 1/71–11/80.

Objectives: To train enlisted personnel with previous technical experience to perform as aviation support equipment technicians (hydraulics and structures).

Instruction: Lectures and practical exercises in aviation support equipment maintenance (hydraulics and structures), including publications and maintenance organization, aviation support equipment fundamentals, materials, troubleshooting, chassis and brake maintenance, metalwork skills, welding, corrosion control, maintenance of fluidic systems, servicing equipment, and line maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in chassis and metalworking shop, 3 in hydraulics and liquified-gas laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in chassis and metalworking shop, 2 in hydraulics and liquified-gas laboratory (6/74).

NV-1704-0139

SH-3 Power Plants and Related Systems Organizational Maintenance

(SH-3D/H Power Plants and Related Systems Organizational Maintenance Course)

Course Number: C-601-3399.

Location: Air Maintenance Training Detachment, North Island, San Diego, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train maintenance personnel to maintain SH-3D and SH-3H aircraft power plants and related systems, including scheduled and unscheduled inspections; system servicing, repair, troubleshooting, and schematic analysis; and specific support equipment.

Instruction: Lectures and practical exercises in maintenance of SH-3D and SH-3H aircraft power plants and related systems. Topics include general information and theory of helicopter flight, power plant systems, rotors and related systems, inspections, and functional testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (4/85).

NV-1704-0140

A-7E POWER PLANT AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-601-3782.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 3 weeks (103 hours). *Version 2:* 4 weeks (144-180 hours).

Exhibit Dates: *Version 1:* 12/78-Present. *Version 2:* 9/72-11/78.

Objectives: To train enlisted personnel to maintain and repair the A-7E power plant and related systems.

Instruction: Lectures and practical exercises in the maintenance, operation, and servicing of the A-7E power plant and related systems; use of tools and special maintenance and test equipment related to organizational maintenance, including aircraft fuel system, engine description and systems, propulsion system maintenance, operating maintenance, and practical training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in power plant organizational maintenance (6/74).

NV-1704-0141

UH-2C, HH-2C AND HH-2D POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-601-3386.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train maintenance personnel to maintain helicopter power plants and related systems.

Instruction: Lectures and practical exercises in maintenance of UH-2C, HH-2C and HH-2D power plants and related systems. Topics include familiarization with power plants and related systems; removal, inspection, and installation of power plants; and organizational maintenance of transmissions and drive shafts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter power plant laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter power plant laboratory (6/74).

NV-1704-0142

AIRCRAFT MAINTENANCE OFFICERS, CLASS O

Course Number: C-4D-2010.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington, TN.

Length: *Version 1:* 12-16 weeks (480 hours). *Version 2:* 16 weeks (634-640 hours). *Version 3:* 16 weeks (640 hours). *Version 4:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 8/77-Present. *Version 2:* 2/70-7/77. *Version 3:* 6/65-1/70. *Version 4:* 1/57-5/65.

Objectives: To train prospective squadron maintenance officers to organize, supervise and administer aircraft maintenance departments.

Instruction: *All Versions:* Lectures and practical exercises on organization, supervision and administration of aircraft maintenance departments, including avionics equipment and systems, maintenance and material management administration, airframe equipment and systems, publications, and maintenance organization management. *Version 4:* Topics include armament equipment and systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in statistics, 2 in introduction to data processing, 2 in industrial safety, 3 in introduction to management, 2 in supervisional management, 1 in office procedures and 1 in quality control (2/81). *Version 2:* In the vocational certificate category, 12 semester hours in aircraft maintenance management, 12 in aircraft systems (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance management, 6 in aircraft systems (6/74); in the upper-division baccalaureate category, 3 semester hours in aircraft maintenance management (6/74). *Version 3:* In the vocational certificate category, 12 semester hours in maintenance management, 12 in electricity, electronics, or electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in maintenance management (6/74), 3 in electricity, electronics, or electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours in maintenance management (6/74). *Version 4:* In the vocational certificate category, 8 semester hours in maintenance management, 8 in electricity, electronics, or electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in maintenance management (6/74), 3 in electricity, electronics, or electrical laboratory (12/68); in the upper-division baccalaureate category, 2 semester hours in maintenance management (6/74).

NV-1704-0143

C-2A HYDRAULICS/AIRFRAMES SYSTEM ORGANIZATIONAL MAINTENANCE
(C-2A Hydraulics/Airframes System Maintenance)

Course Number: C-602-3494.

Location: Naval Air Station, Miramar, CA; Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (109-120 hours).

Exhibit Dates: 9/67-1/88.

Objectives: To train maintenance personnel to maintain C-2A hydraulic and airframe systems at the organizational level.

Instruction: Lectures and practical exercises in maintenance of C-2A hydraulic and airframe systems. Course includes flight- and combined-systems power sections and power control systems, utility systems, alighting gear, flight controls and structures operation, line maintenance, troubleshooting, servicing, and ground handling.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft systems maintenance (6/74).

NV-1704-0144

SH-3A POWER PLANTS AND RELATED SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/67-1/88.

Objectives: To train maintenance personnel in SH-3A power plants and related systems organizational maintenance.

Instruction: Lectures and practical exercises in the maintenance of SH-3A power plants and related systems. Topics include familiarization with power plants and systems, details of T58 engines, engine-related systems, transmissions, and rotor-actuating mechanisms.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0145

AVIATION SUPPORT EQUIPMENT TECHNICIAN MECHANICAL, CLASS A

Course Number: C-602-2024.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 9 weeks (313-376 hours).

Exhibit Dates: 1/71-11/80.

Objectives: To train ground service support technicians to maintain various types of ground support equipment.

Instruction: Lectures and practical exercises in the maintenance of ground support equipment. Topics include technical publications and directives; records and reports; theory of operation of and principles applicable to fluid, heat and electricity; safety precautions; hand tools; shop equipment and test equipment; fuels and lubricants; corrosion control; servicing; inspections; and gasoline, diesel and turbine engine maintenance.

Credit Recommendation: In the vocational certificate category, 8 semester hours in aviation ground support equipment maintenance (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aviation ground support equipment maintenance (6/74).

NV-1704-0146

SH-3A/G POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL LEVEL MAINTENANCE

Course Number: C-601-3396.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To train enlisted personnel to maintain SH-3A/G aircraft power plants and related systems.

Instruction: Lectures and practical exercises in the troubleshooting, maintenance, and repair of the SH-3A/G aircraft power plant and related systems. Course includes general information and theory of helicopter flight, power plant systems, rotors and related systems, inspection requirements, and functional testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0147

H-53 Helicopter Maintenance

Course Number: C-601-3445.

Location: Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/72-1/88.

Objectives: To train maintenance technicians to maintain H-53 helicopters.

Instruction: Lectures and practical exercises in the maintenance of H-53 helicopters, including rotors and related systems, power plant, auxiliary power plant, and fuel systems maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance fundamentals (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter maintenance fundamentals (6/74).

NV-1704-0148

Aviation Machinist's Mate (AD) Class A1

(Aviation Machinist's Mate J (Jet Engine), Class A)

(Aviation Machinist's Mate J (Turbo-Jet), (Class A))

Course Number: C-601-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 5 weeks (180 hours). *Version 2:* 7-8 weeks (264-304 hours).

Exhibit Dates: *Version 1:* 3/77-6/88. *Version 2:* 5/56-2/77.

Objectives: To train enlisted personnel with previous technical experience to perform as jet engine mechanics.

Instruction: For this course after 6/88 see NV-1704-0324. Lectures and practical exercises in jet engine repair, including AD rating and training, jet propulsion principles, power plant familiarization (general), typical axial-flow power plant, centrifugal-flow power plant familiarization, periodic inspections, power plant replacement, jet aircraft line operations, and fuel systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in theory of turbine (jet) engines (2/81). *Version 2:* In the vocational certificate category, 4 semester hours in theory of turbine (jet) engines (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in theory of turbine (jet) engines (6/74).

NV-1704-0149

Aviation Machinist's Mate R (Reciprocating), Class A

Course Number: *Version 1:* C-601-2012. *Version 2:* Not available.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 7-8 weeks (309-336 hours). *Version 2:* 9 weeks (344 hours).

Exhibit Dates: *Version 1:* 9/65-8/79. *Version 2:* 12/56-8/65.

Objectives: To train enlisted personnel with previous technical experience to repair reciprocating-engine aircraft.

Instruction: Lectures and practical exercises in reciprocating-engine repair, including fundamentals, power plants and line operations, power plant accessories, line operations and power plant maintenance, fuel metering, ignition, propellers, periodic inspections, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic reciprocating-engine overhaul (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic reciprocating-engine overhaul (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in basic reciprocating-engine overhaul (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in advanced reciprocating-engine overhaul (6/74).

NV-1704-0150

T-53-L-13 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: C-601-3343.

Location: Air Maintenance Training Detachment, Ellyson Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train maintenance personnel in the intermediate maintenance and complete engine repair of the T53-L-13 shaft-turbine engine.

Instruction: Lectures and practical exercises on the intermediate maintenance and complete engine repair of the T53-L-13 shaft-turbine engine, including engine disassembly and inspection; engine repair and reassembly; repair and installation of inlet guide vane and compressor; and gas producer and accessory repair and installation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft turbine engine maintenance (6/74).

NV-1704-0151

E-2A Power Plant and Related Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120-128 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to maintain and operate turboprop engines and related systems, including fuel and propeller systems and components.

Instruction: Lectures and practical exercises in operation and maintenance of turboprop engines. Course includes power plant organizational maintenance, troubleshooting, repair, component replacement and specific test equipment use.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turboprop organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turboprop organizational maintenance (6/74).

NV-1704-0152

E-2A Power Plant and Related Systems Maintenance No. 8

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel in the maintenance of turboprop engines, including fuel systems, propeller systems, electrical systems, and components.

Instruction: Lectures and practical exercises in maintenance of turboprop engines and related systems. Topics include intermediate and organizational maintenance on power plant and related systems; troubleshooting, repair, and replacement of equipment; and test equipment utilization.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory, 4 in turboprop power plant laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory, 3 in turboprop power plant laboratory (6/74).

NV-1704-0153

AH-1J Powertrain and Rotors Organizational Maintenance

Course Number: C-600-3351.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To train maintenance personnel to locate, operate, troubleshoot, and maintain the helicopter power trains and rotor systems.

Instruction: Lectures and practical exercises in maintenance, operation, and servicing of helicopter power trains and rotor systems of AH-1J helicopters. Course includes information on nomenclature, location, operation, removal, inspection, and installation of components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in organizational maintenance (6/74).

NV-1704-0154

H-46 Rotors and Related Systems Organizational Maintenance Course

Course Number: Not available.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 6/68-1/88.

Objectives: To train maintenance personnel to maintain the rotors and related systems of the H-46 helicopter.

Instruction: Lectures of practical exercises in the maintenance of the rotor, drive, flight control, and utility systems of the H-46 helicopter, including drive system and rotor system maintenance, flight control system maintenance, and utility systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in rotorcraft systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in rotorcraft systems maintenance (6/74).

NV-1704-0155

E-2A Hydraulics/Airframes Systems Organizational Maintenance

(E-2A Hydraulics/Airframes System Maintenance)

Course Number: Not available.

Location: Naval Air Station, Miramar, CA; Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (107-120 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train personnel in E-2A hydraulics/airframes system maintenance.

Instruction: Lectures and practical exercises on the latest maintenance procedures for organizational maintenance on the E-2A hydraulics, alighting gear, and airframes systems, including flight and combined-system power sections, flight control systems, utility systems, alighting gear, longitudinal control system, directional controls, lateral controls, flap and aileron droop system, rigging, ground handling, and structures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic/airframe systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic/airframe systems maintenance (6/74).

NV-1704-0156

1. Aircraft Maintenance Nondestructive Inspection School, Class C
2. Aircraft Maintenance Nondestructive Inspection School, Class C
   (Aircraft Maintenance Radiography School, Class C)

Course Number: C-603-3191.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 8 weeks (312-320 hours).

Exhibit Dates: *Version 1:* 11/69-1/88. *Version 2:* 11/65-10/69.

Objectives: To train military and federal civil service personnel in aircraft maintenance radiography, nondestructive aircraft maintenance inspection, and eddy current and ultrasonic procedures and interpretation.

Instruction: Lectures and practical exercises in aircraft maintenance radiography and maintenance nondestructive inspection, including radiography and related subjects, radiographic equipment, film processing, laboratory and aircraft line radiography, and ultrasonic and eddy current inspection.

Credit Recommendation: *Version 1:* In the vocational certificate category, 14 semester hours in aircraft maintenance nondestructive inspection (6/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in aircraft maintenance nondestructive inspection (6/74). *Version 2:* In the vocational certificate category, 12 semester hours in aircraft maintenance nondestructive inspection (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance nondestructive inspection (6/74).

NV-1704-0157

1. Enlisted Basic Aviation Training
   (Aviation Fundamentals Class AP)
2. Aviation Mechanical Fundamentals, Class P
   (Aviation Mechanical Fundamentals, Class A)

Course Number: *Version 1:* C-000-2010. *Version 2:* Not available.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* Self-paced 2 weeks (65 hours). *Version 2:* 3-4 weeks (120-160 hours).

Exhibit Dates: *Version 1:* 1/78-10/88. *Version 2:* 9/65-12/77.

Objectives: To train personnel in aviation mechanical fundamentals.

Instruction: *Version 1:* Self-paced instruction with practical exercises in aviation mechanical fundamentals, including general information, use of hand tools, torquing, safetying aircraft hardware and general mathematics. *Version 2:* Lectures and practical exercises in aviation mechanical fundamentals, including general information, hand tools and aircraft hardware, general mathematics, physics, electricity, magnetic theory, and parallel circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fundamentals or maintenance technician (2/81). *Version 2:* In the vocational certificate category, 2 semester hours in aircraft fundamentals (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fundamentals (6/74).

NV-1704-0158

Aviation Machinist's Mate R (Reciprocating), Class B

Course Number: C-601-2013.

Location: Air Technical Training Center, Memphis, TN.

Length: 13-14 weeks (540-576 hours).

Exhibit Dates: 6/66-12/84.

Objectives: To provide aviation machinist's mates with advanced training in reciprocating-engine repair.

Instruction: Lectures and practical exercises on aircraft reciprocating power plants and related systems, including aircraft maintenance program, reciprocating power plants, ignition, fuel metering, propellers, material control, maintenance management, quality control, magnetism, induction, circuit troubleshooting, supervision and maintenance, engine analyzers, and reversing hydromatic propeller and systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in maintenance management and reciprocating power plants (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in maintenance management and reciprocating power plants (6/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1704-0159

1. Aviation Machinist's Mate J (Jet Engine), Class C7
2. Aviation Machinist's Mate J (Jet Engine), Class B

Course Number: C-601-2011.

Location: Air Technical Training School, Memphis, TN; Millington, TN, Memphis, TN.

Length: *Version 1:* 13-18 weeks (536-544 hours). *Version 2:* 13-14 weeks (536-544 hours).

Exhibit Dates: *Version 1:* 9/72-12/82. *Version 2:* 10/65-8/72.

Objectives: To provide aviation machinist's mates with advanced training in jet engine maintenance.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of aircraft turbine-type power plants and related systems, including advanced power plant fundamentals and auxiliary equipment, advanced turbojet power plants, advanced turbofan power plant, advanced turboprop power plant, naval aircraft maintenance program, J57 power plant, T56 power plant, and J79 power plant orientation. *Version 1:* Includes basic electricity.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in turbine engine maintenance and 1 in basic electricity (2/81); in the upper-division baccalaureate category, 2 semester hours in maintenance management (2/81). *Version 2:* In the vocational certificate category, 8 semester hours in turbine engine maintenance management (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in turbine engine maintenance management (6/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1704-0160

P-3 Ordnance Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/70-1/88.

Objectives: To train maintenance personnel to maintain and service P-3 aircraft armament systems.

Instruction: Lectures and practical exercises in maintenance of P-3 aircraft armament systems. Course includes bomb bay and wing stores systems, pneumatic systems, launcher systems, sonobuoy systems, underwater sound signal systems, photographic systems, jettison systems, intervalometer ordnance and rocket sight systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in ordnance systems technology (6/74).

NV-1704-0161

P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance

Course Number: E-602-1030.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To train maintenance personnel to service and maintain hydraulic systems, flight controls, and structures of P-3 aircraft.

Instruction: Lectures and practical exercises in maintenance of hydraulic systems, flight controls, and structures of P-3 aircraft. Course includes plumbing, power, auxiliary landing gear, brake, windshield wiper, flap, and primary control systems; booster assembly; A/C structures; and windows, doors and emergency exits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems (6/74).

NV-1704-0162

AH-1J Power Plant and Related Systems Organizational Maintenance

Course Number: C-601-3351.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/71-1/88.

Objectives: To train maintenance personnel to maintain AH-1J/T400 CP-400 power plant systems.

Instruction: Lectures and practical exercises in AH-1J/T400 CP-400 power plant systems maintenance. Course includes turbine engine removal and installation; engine alignment; engine control systems; rigging; and fuel and oil systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in jet engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in jet engine maintenance (6/74).

NV-1704-0163

F-8 J57-P-16/20 INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

(F-8 J57-P-16/20 Intermediate Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 3 weeks (112 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train fleet aircraft maintenance personnel in J57-P-16/20 intermediate maintenance and complete engine repair.

Instruction: Lectures and practical exercises in J57-P-16/20 intermediate maintenance and complete engine repair, including disassembly, cleaning, inspection, minor repair, engine testing and trimming procedures and techniques, and assembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine maintenance (6/74).

NV-1704-0164

A-6A POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL LEVEL MAINTENANCE

Course Number: E-601-0610.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel in A-6A aircraft power plants and related systems organizational maintenance.

Instruction: Lectures and practical exercises in A-6A power plants and related systems organizational maintenance, including aircraft general description, periodic maintenance requirements program, power plants, engine operating limits and procedures, engine removal and installation, engine trim procedure, constant speed drive/starter unit familiarization, and fuel system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbojet organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbojet organizational maintenance (6/74).

NV-1704-0165

A-6 MAINTENANCE SUPERVISORS FAMILIARIZATION

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train supervisory personnel in the A6 weapons system.

Instruction: Lectures and practical exercises on the A6 weapons system, including A6 maintenance familiarization, hydraulic power and distribution, general electrical and electronics systems, A6 weapons system familiarization, general avionics equipment and maintenance, power plants and fuel systems, and environmental system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft systems laboratory (6/74).

NV-1704-0166

RA-5C ARMAMENT INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train enlisted personnel to maintain the RA-5C armament system and its components.

Instruction: Lectures and practical exercises in the maintenance of the RA-5C armament system and its components. Course includes controls and indicators, external pylons, electrical systems, delivery modes, and bomb control monitoring systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1704-0167

A-6A ARMAMENT SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: E-646-0640.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain and operate A-6A armament systems.

Instruction: Lectures and practical exercises in maintenance and operation of A-6A armament systems. Course includes the components and applicable support equipment for A-6A systems; inspection and safety procedures; shop repairs; adjustments; and test and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/74).

NV-1704-0168

H-53 POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To train maintenance personnel to maintain T-64-GE-6/6A engines and engine systems, aircraft fuel systems, and T-62T-12 engines and engine systems at the organizational level.

Instruction: Lectures and practical exercises in maintenance of T-64-GE-6/6A engines and engine systems, aircraft fuel systems, and T-62T-12 engines and engine systems. Course includes overall system operation, system troubleshooting, and use of special support equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0169

T-2C POWER PLANTS AND RELATED SYSTEMS MAINTENANCE

Course Number: C-601-3877; C-601-094.

Location: Air Maintenance Training Detachment, Meridian, MS.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/70–1/88.

Objectives: To train maintenance personnel to maintain and repair T2C aircraft fuel systems and J85-GE-4 engines and related systems.

Instruction: Lectures and practical exercises in maintenance and repair of T2C aircraft fuel and related systems. Course includes inspection techniques, troubleshooting, engine limits and adjustments, and T2C system installation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0170

A-4(J52-P-6A/8A) POWER PLANT AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-601-3717.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/73–1/88.

Objectives: To train maintenance personnel to test, maintain, and repair the A-4 power plant and related systems.

Instruction: Lectures and practical exercises on the A-4 power plant and related systems, including power plant system, J52 engine description, power plant maintenance, aircraft fuel system, and engine maintenance and operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0171

S-2D/E POWER PLANT AND RELATED SYSTEMS MAINTENANCE

Course Number: C-601-3611.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train maintenance personnel to maintain the power plant and related systems of the S-2D/E aircraft at the intermediate and organizational maintenance levels.

Instruction: Lectures and practical exercises on the power plant and related systems of the S-2D/E aircraft at the intermediate and organizational maintenance levels, including R1820-82A aircraft engine; field maintenance and minor repair; engine change, removal, and installation; external oil system maintenance; propeller maintenance; fuel system; Bendix Stromberg carburetor; ignition system and field maintenance; and inspections and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0172

SH-2F POWER PLANTS, RELATED SYSTEMS AND ROTOR SYSTEMS ORGANIZATIONAL MAINTENANCE

(SH/HH-2D Power Plant and Related Systems Organizational Maintenance)

Course Number: C-601-3387.

Location: *Version 1:* Naval Air Station, North Island, San Diego, CA; Naval Air Station, Norfolk, VA. *Version 2:* Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 6/81–Present. *Version 2:* 4/73–5/81.

Objectives: To train maintenance personnel to maintain power plant, transmission and fuel systems at the organizational level.

Instruction: Lectures and practical exercises in power plant, transmission and fuel systems maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (4/85). *Version 2:* In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0173

A-7E ARMAMENT SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-646-3787.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to operate and maintain the A-7E armament system at the organizational level.

Instruction: Lectures and practical exercises in the maintenance and operation of the A-7E armament system. Course includes weapons release stations; release and control systems; and systems checks and circuit analysis, use of specific test equipment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical or electronic systems (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or electronic systems (3/82).

NV-1704-0174

ENGINEMAN CLASS C, CONTROLLABLE PITCH PROPELLER

(Controllable Pitch Propeller, Class C)

Course Number: A-652-0028.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (126 hours).

Exhibit Dates: 11/65–4/76.

Objectives: To train enginemen and petty officers third class and above to test, adjust, diagnose, and correct malfunctions in controllable-pitch propeller systems.

Instruction: Lectures and practical exercises in testing, diagnosing, and correcting controllable-pitch propeller systems. Course includes advanced principles of hydraulics; installation, adjustment and prestart checks; operation, maintenance, and troubleshooting controllable-pitch propeller systems; servomotor controls; electrohydraulic, electromechanical and pneumatic-hydraulic controls; principles of operation of pumps, valves, gages; and associated piping and tubing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical technology (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical technology (6/74).

NV-1704-0175

UH-1N POWERTRAIN AND ROTORS ORGANIZATIONAL MAINTENANCE

Course Number: C-600-3355.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train personnel in the components and assemblies of power train/rotor systems.

Instruction: Lectures and practical exercises on the components and assemblies of power train/rotor systems, including nomenclature, location, operation, removal, and installation; organizational maintenance; rotor systems; mast and transmission assembly; drive shafts; gear boxes; and flight control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power train and rotor organizational maintenance (6/74).

NV-1704-0176

UH-2C POWER PLANTS, FUEL, TRANSMISSIONS AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/68–1/88.

Objectives: To train maintenance personnel to maintain, operate, and service the UH-2C T58-GE-8B power plant, fuel, transmission, and related systems at the organizational level.

Instruction: Lectures and practical exercises in the maintenance, operation, and servicing of the UH-2C T58-GE-8B power plant, fuel, transmission, and related systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0177

AVIATION STRUCTURAL MECHANIC S (STRUCTURES), CLASS C7

(Aviation Structural Mechanic S (Structures, Class B)

Course Number: C-603-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 13–14 weeks (540–556 hours).

Exhibit Dates: 10/65–12/84.

Objectives: To train personnel to perform as aviation structural mechanics.

Instruction: Lectures and practical exercises in aviation structural repair, including introduction to electricity, circuits, and magnetism; orthographic and isometric drawings; sectional drawings; reading electrical system schematics; procurement of aircraft parts; maintenance and materiel control; introduction to aviation maintenance management; planned maintenance system; theory of corrosion and aircraft cleaning; aircraft rib repairs; and testing of metals.

Credit Recommendation: In the vocational certificate category, 10 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft structures shop (6/74).

NV-1704-0178

C-121 ELECTRICAL SYSTEMS

Course Number: D-600-010.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train aviation electricians to troubleshoot and repair the electrical systems of C-121 aircraft.

Instruction: Lectures and practical exercises in the electrical systems of C-121 aircraft, including AC and DC power systems, air conditioning and pressurization, fuel and oil systems, miscellaneous systems, Hamilton Standard propeller system, and Sperry engine analyzer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0179

C-121 ELECTRONIC SYSTEMS

Course Number: D-600-011.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train aviation electronics technicians in basic electronic components and systems in C-121 aircraft.

Instruction: Lectures and practical exercises in basic electronic components and systems in C-121 aircraft, including communication, navigation, and AN/APS-42 radar systems in the C-121J transport; communications, navigation, radar, IFF, and other associated equipment in EC-121K systems and special EC-121 electronics configurations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0180

F-8 POWER PLANTS AND RELATED SYSTEMS

Course Number: E-601-1910.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train maintenance personnel to operate, service, and maintain F-8 power plants and related systems.

Instruction: Lectures and practical exercises in F-8 power plant and related systems operation, servicing, and maintenance, including fuel system components and location, venting and pressurization, aircraft refueling and defueling, and gaging operations; fuel cell removal and installation; power plants, principles of jet propulsion; compressor section, combustion, turbine exhaust, air system flow control and utilization, lubrication, constant speed drive, ignition, fuel pump, fuel control, and rigging and adjusting; engine removal and installation of afterburners, periodic inspections, preservation and depreservation, and corrosion control; aircraft checks; and pneumatic and starting systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0181

J52-P6/6A/8A INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/67–1/88.

Objectives: To train enlisted personnel to maintain the J52 jet engine.

Instruction: Lectures and practical exercises in J52 jet engine maintenance and repair, including engine introduction; repair and replacement of engine components; cold section disassembly for complete repair activities; hot section disassembly; lubrication system; engine fuel system; electrical, ignition, and air systems cleaning, inspection and repair; and assembly, test, and installation procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0182

F/RF-4B/J POWER PLANT AND RELATED SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (104 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train maintenance personnel to maintain and service J-79-GE-8/10 power plant systems and F/RF-4B/J fuel systems.

Instruction: Lectures and practical exercises in J-79-GE-8/10 power plant systems and the F/RF-4B/J fuel systems maintenance, troubleshooting, and servicing, including personnel, aircraft, and equipment safety; system description and operation; fuel system maintenance; power plant, engine description, fuel system, nozzle system, ignition, lubrication, air induction, and forward cockpit; and aircraft and engine-related systems components description, maintenance, and trouble analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0183

AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT MAINTENANCE OFFICER (C-7/11 CATAPULT), CLASS O

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (368 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train selected commissioned officers to operate, inspect, and maintain the C-7/11 catapults and Mark 7 arresting gear and barricades, and to familiarize the student with the visual landing aids (including the Fresnel lens optical landing system, manually operated visual landing aid system, and the pilot landing aid television system).

Instruction: Lectures and practical exercises in the operation, maintenance, and inspection of the C-7/11 catapults and Mark 7 arresting gear and barricades. Topics include fundamentals, description of aircraft launching equipment and aircraft recovery equipment, and aircraft launching and recovery procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0184

AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT, CLASS O

Course Number: C-2G-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train officers in aircraft launch and recovery operations and procedures.

Instruction: Lectures and practical exercises in aircraft launch and recovery operations and procedures, including equipment familiarization, operations, aircraft launch and recovery equipment, catapults and arresting gear, steam catapults, and associated equipment, arresting gear, aircraft launch and recovery procedures, aircraft launching bulletins, launching procedures, recovery operations, and functions of V-2 division officer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0185

A-4 INTEGRATED ELECTRICAL SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3728.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 6 weeks (248 hours).

Exhibit Dates: 2/73–1/88.

Objectives: To train enlisted personnel to maintain A-4 aircraft electrical systems.

Instruction: Lectures and practical exercises in the maintenance of A-4 aircraft electrical systems, including electrical and instrument systems, system integration, functional analysis, all-attitude and low-altitude bombing system, remote standby attitude indication system, automatic flight control system, navigational computer, and planned maintenance procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0186

AVIATION FUEL SYSTEMS, CLASS C

Course Number: C-821-2011.

Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Center, Philadelphia, PA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/65–1/88.

Objectives: To train selected enlisted personnel to operate and maintain aviation fuel systems.

Instruction: Lectures and practical exercises in aviation fuel systems operation and maintenance, including fuel quality control and portable equipment, store-based refueling equipment, low-capacity gasoline system and inert-gas producer, and the JP-5 fuel system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation technology (7/74).

NV-1704-0187

AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT (C-13 AND C-13 MOD 1 CATAPULTS), CLASS C

(Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C))

Course Number: C-680-2011.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (352 hours).

Exhibit Dates: 8/70–1/73.

Objectives: To train personnel in the operation, inspection, and maintenance of C-13 catapults and related equipment; Mark 7 Mods 1, 2, and 3 arresting gear and barricades; and shore-based arresting gear.

Instruction: Lectures and practical exercises in aircraft launch and recovery equipment (C-13 and C-13 Mod 1 catapults), class C, including basic information relating to catapult and arresting gear, specific aircraft launching equipment, basic information relative to all-steam catapults, steam system, launching engine system, retraction engine system, bridle-tensioning system, control system, associated equipment, bridle-arrestor system, and operation of catapult, aircraft recovery equipment, and shore-based arresting gear.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0188

F/RF-4B/J J79-GE-8/10 POWER PLANT ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 7/71–1/88.

Objectives: To train maintenance personnel in the latest maintenance procedures required to maintain J79-GE-8/10 power plants of F/RF-4B/J aircraft at the organizational level.

Instruction: Lectures and practical exercises in J79-GE-8/10 power plant organizational maintenance, including aircraft familiarization, engine maintenance and inspection procedures, general safety, and publications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0189

F-4B/J POWER GENERATING SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-602-3819.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry

Point, NC; Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (64-75 hours).
Exhibit Dates: 3/70-1/88.
Objectives: To train maintenance personnel to service and maintain power-generating systems in the F-4 aircraft.
Instruction: Lectures and practical exercises in the service and maintenance of the power-generating systems in the F-4 aircraft. Course includes electric generators and related components, constant-speed drive systems repair, voltage regulators, and AC systems test procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1704-0190

A-7A/B Structures, Hydraulics and Pneumatic Systems Maintenance
(A-7A/B Hydraulic and Pneumatic Systems Organizational Maintenance)

Course Number: C-602-3785.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 3 weeks (120 hours).
Exhibit Dates: 3/71-Present.
Objectives: To train maintenance personnel to maintain and service A-7A/B structures and hydraulic, pneumatic, and primary and auxiliary flight control systems.
Instruction: Lectures and practical exercises in the maintenance and servicing of A-7A/B structures and hydraulic, pneumatic, and primary and auxiliary flight control systems. Course includes hydraulic and pneumatic principles, fuel cells, and hydraulic power control.
Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic and pneumatic laboratory (3/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic and pneumatic laboratory (3/82).

NV-1704-0191

KC-130F Airframes and Hydraulics Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train maintenance personnel to maintain and repair the KC-130F aircraft's airframe and hydraulic systems.
Instruction: Lectures and practical exercises in the maintenance and repair of the KC-130F aircraft's airframe and hydraulic systems, including structural repairs, flight controls, landing gear, and steering systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft structural repair and hydraulics (7/74).

NV-1704-0192

F/RF-4B/J Aircraft Mechanics Organizational Maintenance

Course Number: C-600-3831.
Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 6/72-1/88.
Objectives: To train maintenance personnel to maintain F/RF-4B/J aircraft and J79-GE-8/10 engines at the organizational level.
Instruction: Lectures and practical exercises in the maintenance of R/RF-4B/J aircraft and J79-GE-8/10 engines, including electrical, armament, hydraulics and airframes, fuel and refuel, and pressurization and vent systems; survival equipment; fuel transfer; basic engine description; power plants and related systems; and inspection and installation procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance (7/74).

NV-1704-0193

KC-130F Propeller Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (64 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train maintenance personnel to operate, test, maintain, and repair the propeller of the KC-130 aircraft.
Instruction: Lectures and practical exercises in the operation, testing, maintenance, and repair of the propeller of the KC-130 aircraft, including component assembly and disassembly for the Hamilton Standard 54-H-60 propeller, electrical control system, pressure and other testing procedures, and installation and adjustment procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0194

H-46 Hydraulic System Organizational Maintenance

Course Number: C-602-3416.
Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.
Length: 2 weeks (64-80 hours).
Exhibit Dates: 8/70-1/88.
Objectives: To train maintenance personnel to maintain H-46 hydraulic systems.
Instruction: Lectures and practical exercises in the maintenance of H-46 hydraulic systems, including wheel brake, flight control, and utility hydraulic systems components and operation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulics laboratory (6/75).

NV-1704-0195

E-1B Airframe and Hydraulic Systems Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 10/68-1/88.
Objectives: To train maintenance personnel to operate and maintain the airframe and hydraulic systems of the E-1B aircraft.
Instruction: Lectures and practical exercises in the operation and maintenance of the airframe and hydraulic systems of the E-1B aircraft, including power system and sources, emergency hydraulic system, alighting gear components and systems, hydraulically operated flight controls and accessory systems, various flight controls and surfaces, airframe mechanisms, and inspection and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in hydraulic laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic laboratory (7/74).

NV-1704-0196

Senior Officers Orientation
(Senior Officer Helicopter Training)

Course Number: Not available.
Location: Air Basic Training Command, Pensacola, FL.
Length: 5 weeks (58 hours).
Exhibit Dates: 7/64-12/68.
Objectives: To train senior officers in helicopter flight characteristics.
Instruction: Lectures and practical exercises in helicopter flight characteristics, including aerodynamics and flight characteristics of the H-33 helicopter; preflight inspection procedures; engine starting procedures; vertical takeoff; hovering; vertical landing; engine shutdown, postflight inspection; various maneuvers; and night training.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0197

Naval Aviation Observer (Controller), Class O

Course Number: Not available.
Location: Naval Air Station, Glynco, GA.
Length: 5 weeks (192 hours).
Exhibit Dates: 6/57-12/68.
Objectives: To train officers to be aviation observers with the airborne combat information center.
Instruction: Lectures and practical exercises in basic electronics, air navigation, airborne combat information center equipment usage, and combat information center tactics.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0198

A-3 S-5 Auto Pilot Maintenance

Course Number: C-602-3704.
Location: Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 3 weeks (120 hours).
Exhibit Dates: 3/68-1/88.
Objectives: To train maintenance personnel to operate and maintain the S-5 autopilot.
Instruction: Lectures and practical exercises in S-5 autopilot operation and maintenance, including theory of operation, maintenance procedures, autopilot system familiarization, troubleshooting and field maintenance, and components description.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0199

Aviation Fuel Systems, Class C

Course Number: Not available.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 5 weeks (192 hours).
Exhibit Dates: 4/70-1/88.
Objectives: To train personnel to operate and maintain aviation fueling systems.
Instruction: Lectures and practical exercises in the operation and maintenance of

aviation fueling systems, including shore-based refueling equipment, fuel quality control and portable equipment, aviation gasoline/JP-5 fuel systems, operation of the aviation fuel systems, administrative and safety precautions, pumps and filters, and purifiers and fueling stations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0200

Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (368 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train selected officers to operate, inspect, and maintain the C-13 catapults and Mark 7 arresting gear and barricades.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of the C-13 catapults and the Mark 7 arresting gear and barricades. Course includes the fundamentals of launch and recovery, aircraft launching and recovery equipment, and aircraft launching and recovery procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-1704-0201

F/RF-4B J79-GE-8/8A Cold Section Repair

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train maintenance personnel in intermediate cold-section repair.

Instruction: Lectures and practical exercises in cold-section repair. Course includes inspection, disassembly, cleaning, minor repair, and assembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0202

F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train maintenance personnel to maintain the F/RF-4B J79-GE-8/8A hot section and related systems.

Instruction: Lectures and practical exercises in the maintenance of the F/RF-4B J79-GE-8/8A hot section and related systems. Course includes inspection, disassembly, cleaning, minor repair, and assembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0203

A-7E C-8185 Armament Station Control Unit Intermediate Maintenance

Course Number: C-646-3788.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/72–1/88.

Objectives: To train enlisted personnel to maintain equipment on C-8185 armament station control units.

Instruction: Lectures and practical exercises in the maintenance of equipment on C-8185 armament station control units, including inspection, disassembly, repair, troubleshooting, and reassembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0204

UH-1N Power Package Organizational Maintenance

Course Number: C-600-3357.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train fleet maintenance personnel to maintain the UH-1N power package.

Instruction: Lectures and practical exercises in the maintenance of the UH-1N power package. Course includes power package removal; installation and alignment; Hg control system; Nf control system; and the fuel and oil system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in industrial or mechanical technology program (6/74).

NV-1704-0205

HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance

Course Number: C-602-3391.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (92 hours).

Exhibit Dates: 8/73–1/88.

Objectives: To train enlisted personnel to maintain and test the automatic stabilization equipment in HH-2D/SH-2D helicopters.

Instruction: Theoretical and practical training on gyro, accelerometer, synchro, amplifier, mod-demod, and synchronizer subsystems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electronic maintenance laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electronic maintenance laboratory (6/75).

NV-1704-0206

P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance

Course Number: C-603-3531.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 3–4 weeks (120 hours).

Exhibit Dates: 5/73–Present.

Objectives: To provide training in maintenance and servicing procedures for the hydraulics and flight control systems on P-3 aircraft.

Instruction: Theoretical and practical training in hydraulics, electro-mechanical units, flight control system operation, and assembly and rigging.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic and general maintenance (7/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic and general maintenance (7/81).

NV-1704-0207

UH-1N Electrical Systems Organizational Maintenance

Course Number: C-602-3354.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/73–1/88.

Objectives: To train enlisted personnel in the maintenance and repair of the UH-1N helicopter electrical system.

Instruction: Instruction in DC power distribution, AC power systems, batteries, wiring diagrams, and warning circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical maintenance (6/75).

NV-1704-0208

Aircrew Survival Equipmentman, Class C7

(Advanced Aircrew Survival Equipmentman)

(Aircrew Survival Equipmentman School, Class B)

Course Number: C-602-2011.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: Self-paced 11–13 weeks (260–512 hours).

Exhibit Dates: 6/68–1/88.

Objectives: To provide personnel with the comprehensive theoretical, practical, and administrative background necessary to perform duties in operating squadrons.

Instruction: Lectures and practical exercises in aircraft maintenance and material management; major and minor repairs on sewing machines; liquid oxygen; rigid seat survival seats and oxygen systems test stands; oxygen regulators; and advanced parachutes.

Credit Recommendation: In the vocational certificate category, 5 semester hours in aerotechnology, and 1 in sewing machine repair and operation (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management and 3 in aerotechnology (5/74).

NV-1704-0209

F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance

Course Number: C-602-3898.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (175 hours).

Exhibit Dates: 9/73–1/88.

Objectives: To train technicians as supervisory personnel in the maintenance and operation of F-14 aircraft environmental/escape systems.

Instruction: Instruction in pneumatics, pressurization, air conditioning and refrigeration, high pressure air and liquid principles, liquid oxygen phenomena, and pressure suit operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75).

NV-1704-0210

F-14A ENVIRONMENTAL AND ESCAPE SYSTEMS TECHNICIAN (CREW MEMBER) ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3899.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3-4 weeks (140 hours).

Exhibit Dates: 4/73-1/88.

Objectives: To train technicians in the maintenance and operation of F-14 aircraft environmental/escape systems.

Instruction: Instruction in pneumatics, pyrotechnic components, pressurization systems, air conditioning, liquid oxygen handling, and servicing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft pressurization and air conditioning systems maintenance (6/75).

NV-1704-0211

F-14A ORGANIZATIONAL MAINTENANCE SUPERVISOR'S FAMILIARIZATION

Course Number: C-000-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/73-1/88.

Objectives: To train supervisory personnel in the evaluation and assignment of maintenance tasks relating to the F-14 aircraft.

Instruction: Limited instruction on basic aircraft topics including electrical, hydraulic, flight control, power plant, avionics, and weapon control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in general aircraft maintenance (6/75).

NV-1704-0212

F-14A POWER PLANT AND RELATED SYSTEM ORGANIZATIONAL MAINTENANCE TECHNICIAN (CREW MEMBER)

Course Number: C-601-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/73-1/88.

Objectives: To train enlisted personnel to perform organizational level maintenance on the F-14 aircraft fuel system and power plant components.

Instruction: Instruction in fuel systems, including tanks, plumbing, pumps, vents, pressurization, electrical caution and warning systems; and in power plant topics including starting and ignition systems, lubrication, control rigging, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft fuel systems and turbine engine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fuel systems and turbine engine maintenance (6/75).

NV-1704-0213

FIRST TOUR PILOT P-3C COMMUNICATIONS OPERATOR

Course Number: D-2D-0011.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 2 weeks (67 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train first tour pilots to qualify as airborne communications operators.

Instruction: Classroom instruction in basic communications, message preparation, theory of radio wave propagation and antenna characteristics, and operation of aircraft communications systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications (6/75).

NV-1704-0214

F-14 WEAPONS SYSTEM TECHNICIAN ORGANIZATIONAL MAINTENANCE

Course Number: C-112-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 6-7 weeks (259 hours).

Exhibit Dates: 11/73-1/88.

Objectives: To train enlisted personnel to maintain specific weapons systems on the F-14 aircraft.

Instruction: Instruction in system functional operation, checkout procedures, test equipment utilization, and safety procedures. Emphasis is placed on data processing, data links, transmitters, receivers, pulse techniques, and missile guidance fundamentals.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation electronics laboratory (6/75).

NV-1704-0215

F-14A AIRFRAME AND HYDRAULIC SYSTEMS SPECIALIST (CREW LEADER) ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3900.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3-4 weeks (140 hours).

Exhibit Dates: 9/73-1/88.

Objectives: To train personnel in the operation and maintenance of the F-14 aircraft hydraulic system and related subsystems.

Instruction: Instruction in hydraulic principles and equipment and specific training in systems peculiar to the F-14 aircraft.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems maintenance (6/75).

NV-1704-0216

F-14A AIRFRAME AND HYDRAULIC SYSTEMS TECHNICIAN (CREW MEMBER) ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3901.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (122 hours).

Exhibit Dates: 7/73-1/88.

Objectives: To train enlisted personnel in the operation and maintenance of the F-14 hydraulic systems and related subsystems.

Instruction: Instruction in hydraulic system components; rigid and flexible hydraulic lines; fittings; detailed coverage of systems such as spoiler, radome, refueling probe, ram air door, and gun drive air inlet; and maintenance of landing gear and brake systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulics maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulics maintenance (6/75).

NV-1704-0217

F-14A COMMUNICATIONS, NAVIGATION/DISPLAYS, ELECTRONIC WARFARE ORGANIZATIONAL MAINTENANCE TECHNICIAN

Course Number: C-102-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 5 weeks (196 hours).

Exhibit Dates: 11/73-1/88.

Objectives: To train enlisted personnel in the maintenance of the communications, navigation, and electronic warfare systems on the F-14 aircraft.

Instruction: Specialized instruction on radar beacon systems, UHF communications, navigation subsystems, and electronic warfare systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft electronic and navigation equipment maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft electronic and navigation equipment maintenance (6/75).

NV-1704-0218

F-14A ELECTRICAL SYSTEMS TECHNICIAN (CREW MEMBER) ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3897.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3-4 weeks (140 hours).

Exhibit Dates: 8/73-1/88.

Objectives: To train enlisted personnel in the maintenance of electrical systems on the F-14 aircraft.

Instruction: Lectures and practical exercises on applicable test equipment, publications, and safety procedures. Specific topics include circuit theory of power supply, lighting, safety, armament, and control assemblies.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft electrical repair and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical repair and maintenance (6/75).

NV-1704-0219

NAVAL FLIGHT OFFICER P-3C COMMUNICATIONS OPERATOR

Course Number: D-2D-0012.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (134 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train flight officers (non-pilots) to be airborne communications officers.

Instruction: Lectures and practical exercises in basic communications, teletype operation, message preparation, theory of radio wave propagation and antenna characteristics, and operation of aircraft communications systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications (6/75).

NV-1704-0220

Air Controlman-Carrier Air Traffic Control Center Utilization Operator

Course Number: K-222-0051.

Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.

Length: 5 weeks (140 hours).

Exhibit Dates: 7/74-1/88.

Objectives: To train personnel to perform various aircraft operations duties aboard aircraft carriers.

Instruction: Lectures and practical exercises in aircraft carrier organization and administration; shipboard aircraft handling; and shipboard flight operations and associated electronic equipment, including IFF, radar, and TACAN.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0221

F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance

Course Number: C-646-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/73-1/88.

Objectives: To train enlisted personnel in the loading, servicing, and maintenance of the F-14 weapons system.

Instruction: Practical exercises in weapons loading, safety procedures, and use of specialized equipment peculiar to the F-14 weapons system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0222

EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance

Course Number: C-601-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/73-1/88.

Objectives: To train enlisted personnel in the servicing and maintenance of the EA-6B aircraft power plants.

Instruction: Practical exercises using test-analyzing equipment, engine performance test criteria, and fuel system malfunction analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft power plant maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft power plant maintenance (6/75).

NV-1704-0223

EA-6B Hydraulics and Flight Control Organizational Maintenance

Course Number: C-602-3779.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/73-1/88.

Objectives: To train enlisted personnel to maintain the hydraulic system on the EA-6B aircraft.

Instruction: Lectures and practical exercises in the maintenance of all hydraulic systems and components of the EA-6B aircraft including the use of test equipment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems maintenance (6/75).

NV-1704-0224

E-2B/C-2A Aviation Electrician Organizational Maintenance

Course Number: C-602-3479.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (118 hours).

Exhibit Dates: 5/73-1/88.

Objectives: To train enlisted personnel to maintain the electrical system on the E-2B/C-2A aircraft.

Instruction: Lectures and practical exercises in AC/DC power systems, de-icing, pressurization, air conditioning, and instrument and automatic flight control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical maintenance (6/75).

NV-1704-0225

E-2B ATDS Operator (Naval Flight Officer)
(E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer))

Course Number: D-2D-0016.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 16 weeks (173 hours).

Exhibit Dates: 2/74-1/88.

Objectives: To provide advanced training for flight officers (non-pilots) in the airborne tactical data system incorporated in the E-2B aircraft.

Instruction: Instruction includes ground training on weapon system operation and flight training in the utilization of the weapon system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0226

E-2B Airborne Tactical Data Systems
(E-2B Naval Flight Officer)

Course Number: E-2D-0201.

Location: Carrier Airborne Early Warning Training Squadron 110, North Island, CA.

Length: 20-30 weeks.

Exhibit Dates: 1/73-1/88.

Objectives: To prepare flight officers (non-pilots) and student flight officers for duty in the E-2B airborne tactical data system.

Instruction: Student flight officers complete 10 weeks of air intercept control training and are designated as Air Intercept Controllers before entering the final 20 weeks of training. Classroom and flight training includes laboratory and exercise simulation in tactical data system operations, antisubmarine tactics, equipment operation, electronic theory, air intelligence, communications, and target identification and intercept.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1704-0227

E-1B Power Plants and Related Systems Organizational Maintenance

Course Number: C-601-3456; C-601-14.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/68-1/88.

Objectives: To train enlisted personnel in the maintenance procedures for the R1820-82A reciprocating engine.

Instruction: Theory and practical exercises in maintenance techniques used on reciprocating engines, including removal and installation, operational checks, troubleshooting, and related systems (external oil, propeller, fuel, carburetor, ignition) maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft power plant and reciprocating engine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft power plant and reciprocating engine maintenance (6/75).

NV-1704-0228

Avionics Repairman, Class C

Course Number: C-100-2014.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 5 weeks (167 hours).

Exhibit Dates: 11/73-12/80.

Objectives: To provide basic avionics/electronics organizational maintenance training to selected Marine Corps personnel so that they may assume the duties of an Avionics Repairman in an Organizational Maintenance Activity (OMA).

Instruction: Lectures and practical exercises to include instruction in aircraft electronic systems, soldering, cable fabrication, test equipment, electrical systems, electrical/electronic components, electrical and electronic fundamentals, and procedures and techniques required to service and repair avionics systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic avionics/electronics (6/75).

NV-1704-0229

AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)

Course Number: C-104-3784; C-150-3785.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 12-13 weeks (480-520 hours). *Version 2:* 12 weeks (480 hours).
Exhibit Dates: *Version 1:* 10/78-Present. *Version 2:* 7/73-9/78.
Objectives: To provide instruction in the calibration, troubleshooting, repair and maintenance of a specific electronic test set.
Instruction: *Version 1:* Lectures and practical exercises in troubleshooting, circuit analysis and repair, maintenance and calibration of the AN/AVM-11 (V) HUD test set. Instruction covers power supply, magnetic tape unit, command bus and data transmission, display control and specific circuit troubleshooting analysis. *Version 2:* Lectures and practical exercises in troubleshooting, circuit analysis and repair, maintenance, and calibration of the AN/AVM-11 (V) HUD test set. Instruction covers service unit analysis, control unit analysis, line switch unit, and general and special purpose functional test units.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic maintenance and 3 in electronic maintenance laboratory (3/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic laboratory troubleshooting and 1 in electronic troubleshooting theory for non-electrical engineering majors (3/82). *Version 2:* In the vocational certificate category, 6 semester hours in advanced avionics maintenance (6/75).

NV-1704-0230

AN/ASH-20 (V) FLIGHT RECORDER-LOCATOR SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3601.
Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Jacksonville, FL.
Length: 3 weeks (104-120 hours).
Exhibit Dates: 9/73-Present.
Objectives: To provide instruction in the maintenance of flight recorder-locator systems to include analysis of the system, subsystems, and repairable components.
Instruction: Practical application of learned procedures for checkout, adjustment, troubleshooting, and repair of the flight recorder/locator system and circuits, including radio beacon, battery charger, signal data-sound recorder, digital/analog converters, encoders, and microphone amplifiers.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic flight recorder maintenance (7/81).

NV-1704-0231

F-4J AN/AWG-10 MISSILE CONTROL SYSTEM (ENLISTED) FAMILIARIZATION

Course Number: C-121-012.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 2 weeks (80 hours).
Exhibit Dates: 12/69-1/88.
Objectives: To provide enlisted personnel with familiarization with the F-4J missile control system.
Instruction: Lectures and practical exercises in the operation and testing of an aircraft missile control system.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1704-0232

E-2B WEAPON SYSTEM TRAINER (WST)

Course Number: E-2D-0202.
Location: Carrier Airborne Early Warning Training Squadron 110, Miramar, CA.
Length: 5 weeks (152 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train personnel to utilize the full capabilities of the E-2B weapon system.
Instruction: Lectures and practical exercises in introduction to simulator; use of laboratory instruments including scope controls, data entry systems and intercept control displays; and interpretation of intercept and tracking displays.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

NV-1704-0233

E-1B NAVAL FLIGHT OFFICER AND AIRCREWMAN

Course Number: D-2D-0017; D-221-0016.
Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.
Length: 16 weeks (200 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train personnel to operate and maintain the APS-82 radar and associated systems and to perform any E-1B mission.
Instruction: Lectures and practical exercises to include E-1B avionics systems and general missions, and maintenance and troubleshooting procedures on specialized electronic systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (6/75).

NV-1704-0234

1. AIRCREW SURVIVAL EQUIPMENTMAN, CLASS A1 (BASIC AIRCREW SURVIVAL EQUIPMENTMAN)
   (Aircrew Survival Equipmentman, Class A)
   (Parachute Rigger, Class A)
2. PARACHUTE RIGGER (MAINTENANCE), CLASS A

Course Number: *Version 1:* C-602-2010. *Version 2:* None.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: *Version 1:* Self-paced 10-18 weeks (300 hours). *Version 2:* 7 weeks (280 hours).
Exhibit Dates: *Version 1:* 8/65-1/88. *Version 2:* 3/56-7/65.
Objectives: To provide the basic skills and knowledge necessary to maintain survival equipment and associated machinery.
Instruction: *All Versions:* Classroom instruction in the operation and maintenance of aircraft, oxygen, and carbon dioxide systems and survival equipment. *Version 1:* Topics include aviation fundamentals; basic and advanced parachute skills and techniques; and sewing machine and fabric work involving machine operation, fabric layout, and sewing projects.
Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in aeronautical technology and 2 in sewing and machinery (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology (5/74). *Version 2:* In the vocational certificate category, 3 semester hours in oxygen/carbon dioxide equipment and pressure suits (5/74).

NV-1704-0235

H-53 ELECTRICAL AND INSTRUMENT SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3444.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/70-1/88.
Objectives: To provide instruction in the maintenance of electrical and instrument systems of the H-53 aircraft.
Instruction: Practical application of H-53 systems familiarization topics and transistor fundamentals in the operation, maintenance, and servicing of the aircraft electrical and instrument systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical and instrument systems maintenance (6/75).

NV-1704-0236

H-53 ELECTRICAL AND INSTRUMENTS INTERMEDIATE MAINTENANCE

Course Number: C-602-3441.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/70-1/88.
Objectives: To train personnel in the operating, servicing, and maintenance of the H-53 aircraft instruments system.
Instruction: Lectures and practical exercises in the application of transistor fundamentals to power systems, light systems, instruments, heaters, and controllers. Topics include block diagram description and troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical and instrument maintenance (6/75).

NV-1704-0237

C-130 AIRCRAFT MECHANIC ORGANIZATIONAL MAINTENANCE

Course Number: C-600-3502.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 8/73-1/88.
Objectives: To provide instruction in the organizational level maintenance of the Lockheed C-130 turbo-prop (heavy transport) aircraft.
Instruction: Classroom and practical instruction in the latest maintenance techniques, modifications and alterations, systems operation, and servicing of the aircraft.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced aircraft maintenance and repair (6/75).

NV-1704-0238

AVIATION MACHINIST'S MATE H (HELICOPTER), CLASS A

Course Number: Not available.
Location: Air Technical Training Center, Memphis, TN.
Length: 12 weeks (464 hours).
Exhibit Dates: 10/56-12/68.
Objectives: To train selected Marine Corps personnel to maintain helicopters.

Instruction: Lectures and practical exercises in the maintenance and mechanics of helicopters, to include power plant and line operation principles; fuel metering, ignition, rotor transmission, and flight control familiarization, function, operation, replacement, inspection, and servicing.

Credit Recommendation: In the vocational certificate category, 18 semester hours in helicopter mechanics (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in helicopter mechanics (6/74).

NV-1704-0239

Aviation Structural Mechanic, Class B

Course Number: None.

Location: Air Technical Training Center, Memphis, Millington, TN.

Length: 24-26 weeks (960-1040 hours).

Exhibit Dates: 9/57-9/65.

Objectives: To train personnel to perform as aviation structural mechanics.

Instruction: Lectures and practical exercises in fundamentals of mathematics and electricity, publications and reports, utilization and interpretation of schematic drawings, aircraft metals, welding, non-metallic materials, aircraft hydraulics, and airframes and operational maintenance.

Credit Recommendation: In the vocational certificate category, 18 semester hours in aircraft structural mechanics (6/76); in the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft structural mechanics (6/76).

NV-1704-0240

A-6A, KA-6D, A-6E Electrical Systems Organizational Maintenance

Course Number: C-602-3766.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (224 hours).

Exhibit Dates: 4/76-Present.

Objectives: To provide fleet maintenance personnel with instruction in the organization and maintenance of electrical instruments and automatic flight control equipment found on three types of naval aircraft.

Instruction: The student learns the operation of aircraft power supplies, fuel systems, auxiliary electrical systems, environmental controls, automatic flight controls to the block-diagram level for the purpose of maintaining and repairing the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance (7/80).

NV-1704-0241

AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance

Course Number: C-602-3015.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.; Naval Air Maintenance Training Detachment, Oceana, VA.; Naval Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/75-Present.

Objectives: To train experienced personnel to maintain, test, and troubleshoot an aircraft automatic flight control system.

Instruction: Lectures and laboratory instruction in the operation and capabilities of each automatic flight control subsystem. The aircraft automatic flight control system is studied in order to perform corrective maintenance as required.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft systems maintenance (7/80).

NV-1704-0242

EA-6B Electrical Systems Organizational Maintenance

Course Number: C-602-3771.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (128 hours).

Exhibit Dates: 1/73-Present.

Objectives: To provide trained personnel with instruction in the theory, operation, and maintenance of aviation electrical systems.

Instruction: Lectures and laboratory assignments in electrical, navigation, and environmental systems, including automatic flight control, fuel and auxiliary systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft maintenance (7/80); in the lower-division baccalaureate/associate degree category, 6 semester hours in aviation technology (7/80).

NV-1704-0243

Air Traffic Control Equipment Maintenance Interrogator Set AN/TPX-42A(V)5 Class C1

Course Number: C-103-2028.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 5 weeks (200 hours).

Exhibit Dates: 6/79-2/87.

Objectives: To train electronics technicians in the preventive and corrective maintenance of the AN/TPX-42A(V)5 Interrogator set.

Instruction: For this course after 2/87 see NV-1715-1433. Lectures and practical exercises in the operation, maintenance and troubleshooting of the AN/TPX-42A radar digital data processing and video presentation circuits and systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in the maintenance of digital data processing and video presentation (2/81).

NV-1704-0244

Terminal Radar Approach Control Class C1

(Radar Air Traffic Control Facility Operations Class C1)

Course Number: C-222-2011.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 6 weeks (240-276 hours).

Exhibit Dates: 4/78-Present.

Objectives: To train air traffic control personnel, Marine Corps and radar personnel in the use of radar equipment for instrument and visual approaches and departures.

Instruction: Lectures, laboratories and operational exercises in radar air traffic control including simulated surveillance control, instrument approach and departure systems and operation of complex computer data terminals and displays presenting information in graphic forms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic control (9/89).

NV-1704-0245

Carrier Air Traffic Control Center Operations Class C1

Course Number: C-222-2012.

Location: Naval Air Techinical Training Center, Memphis, TN.

Length: 5-6 weeks (205-236 hours).

Exhibit Dates: 5/80-Present.

Objectives: To train personnel in air traffic control procedures aboard aircraft carriers.

Instruction: Lectures and practical exercises in specialized air traffic control systems utilized aboard aircraft carriers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in military science (9/89).

NV-1704-0246

Aviation Support Equipment Technician (Mechanical) Class A

Course Number: C-602-2025.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: *Version 1:* 17 weeks (680 hours). *Version 2:* 14-16 weeks (536-575 hours).

Exhibit Dates: *Version 1:* 3/84-7/89. *Version 2:* 3/77-2/84.

Objectives: To train enlisted personnel in the maintenance, operation and repair of aircraft support vehicles and equipment.

Instruction: *Version 1:* Lectures and laboratory instruction in the repair, overhaul and troubleshooting of gasoline and diesel engines, electrical systems and related hydraulic systems. Instruction and shop practices in gas and arc welding. *Version 2:* Lectures and laboratory experiences in the maintenance and repair of gasoline, diesel and turbine mechanical power units and related support systems and techniques such as welding, hydraulics and basic electricity.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in gasoline engines, 1 in diesel engines, 2 in basic electricity, 1 in basic hydraulic systems, 1 in oxyacetylene welding, 1 in electric-arc welding (2/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive mechanics (gasoline), 1 in diesel engines, 1 turbine engines, 1 in welding, 1 in hydraulics and 1 in basic electricity (2/81).

NV-1704-0247

Submarine 3000 PSI Hydraulics Combined Maintenance

Course Number: A-652-0103.

Location: Fleet Ballistic Missile Center, Charleston, SC; Naval Submarine Training Center Pacific, Pearl Harbor, HI; Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/80-Present.

Objectives: To train enlisted personnel to operate, service and maintain hydraulic systems.

Instruction: Lectures and practical demonstrations in the malfunction analysis and maintenance of hydraulic systems including description and interfacing of components, theory of operation, maintenance and servicing of hydraulic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical or aviation technology (6/81).

NV-1704-0248

54H60-77 Propeller Intermediate Maintenance

Course Number: C-602-3536.

Location: Naval Air Station, Patuxent River, MD; Naval Air Station, Moffett Field, CA; Naval Air Station, Jacksonville, FL.

Length: 2 weeks (60 hours).

Exhibit Dates: 12/74–Present.

Objectives: To provide maintenance personnel with the knowledge and skills necessary to perform maintenance on the Hamilton Standard model 54H60-77 propeller and propeller controls.

Instruction: Lectures and practical exercises in the inspection, troubleshooting and test procedures of the Hamilton Standard model 54H60-77 propeller including disassembling, inspection, cleaning and reassembling of the propeller and propeller controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance and repair of hydromatic propellers (7/81).

NV-1704-0249

AD "A" (A7) Power Plant System

Course Number: C-601-3153.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, LeMoore, CA.

Length: 3 weeks (116 hours).

Exhibit Dates: 10/80–Present.

Objectives: Enlisted personnel are introduced to basic aviation maintenance and safety.

Instruction: An introductory course to familiarize newly indoctrinated personnel to basic math and physics, aircraft nomenclature and theory of flight, theory of jet propulsion and factors affecting thrust, aircraft hardware and basic hand tools, fuels, lube, and hydraulic fluid, aircraft corrosion, preservation and depreservation, gas turbine power plant fundamentals and the Naval Aviation Maintenance Program.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to aviation maintenance (3/82).

NV-1704-0250

A-7E Communication, Navigation, Identification and Countermeasures Organizational Maintenance

Course Number: C-102-3783.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, LeMoore, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/80–Present.

Objectives: To provide experienced avaiation electronics technicians with training in the maintenance of the communication, navigation, identification and countermeasures systems utilized in a A7E aircraft.

Instruction: Lectures in the operation, maintenance and repair of an A7E aircraft navigation, communication, and identification system including a specific UHF communication set (AN/ARC-159), a navigational set (AN/ARN-52), a radar altimeter set (AN/APN-194), a radar beacon and transponder set and electronic countermeasures equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation electronics maintenance (3/82).

NV-1704-0251

A-7A/B AN/APQ-116 Radar Set Organizational Maintenance

Course Number: C-104-3781.

Location: Naval Air Station, Cecil Field, FL.

Length: 4 weeks (152 hours).

Exhibit Dates: 4/75–Present.

Objectives: To provide maintenance personnel with instruction in the theory of operation, servicing and maintenance procedures of the radar set AN/APQ-116.

Instruction: Lectures include the theory of operation, servicing and maintenance procedures for the AN/APQ-116 radar set. Practical exercises in the alignment and testing of the AN/APKQ-116 set including the antenna drive system, the power supply/ programmer, the receiver/transmitter, and the command computer.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aviation electronics laboratory (3/82).

NV-1704-0252

A-7E Integrated Weapons Systems Technician Organizational Level Maintenance

Course Number: C-102-3795.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, LeMoore, CA.

Length: 6 weeks (220 hours).

Exhibit Dates: 1/81–Present.

Objectives: To train maintenance personnel in the operation, maintenance, troubleshooting and testing of an A-7E aircraft integrated weapons system.

Instruction: Lectures and practical experience in the operation and maintenance of the A-7E aircraft integrated weapon system, including block diagram analysis, equipment testing, troubleshooting and adjustment of a tactical computer system, an inertial navigation system and several onboard radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation electronics for non-electrical engineering students (3/82).

NV-1704-0253

AN/AVQ-7A/B Head Up Display Set Intermediate Maintenance

Course Number: C-104-3783.

Location: Naval Air Station, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/80–Present.

Objectives: To provide maintenance personnel with training in the maintenance and repair of a head-up display set (AN/AVQ-7A/B).

Instruction: Lectures in the theory, operation and maintenance of a head-up display set (AN/AVQ-7A/B), including the utilization of computer controlled diagnostic procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation electronics maintenance laboratory (3/82).

NV-1704-0254

A-7E Weapons System Specialist Organizational Maintenance

Course Number: C-102-3799.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, LeMoore, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/77–Present.

Objectives: To train naval electronic technicians in the operation and maintenance of a specific integrated weapon system for the A-7E aircraft.

Instruction: Lectures and laboratory exercises in the operation and maintenance of the A-7E aircraft integrated weapon system, including block diagram analysis, equipment testing, troubleshooting and adjustment of sensory input systems, output/display systems, inertial navigation systems and special weapons systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuits theory for non-electrical engineering majors (3/82).

NV-1704-0255

Aviation Support Equipment Cryogenic Intermediate Maintenance

Course Number: C-602-3240.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/78–Present.

Objectives: To train maintenance personnel in servicing procedures on liquid and gaseous oxygen portable servicing trailers in accordance with applicable publications.

Instruction: Lectures and practical exercises in the troubleshooting, servicing and operation of an oxygen pressure regulator. Also included is the servicing of oxygen and nitrogen units (trailer), handling of liquid oxygen and the use of the proper tools, test equipment and publications to service the above mentioned equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft servicing (3/82).

NV-1704-0256

Aviation Support Equipment SDID Aircraft Spotting Dolly Intermediate Maintenance

Course Number: C-602-3229.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/79–Present.

Objectives: To provide aviation support equipment operation and repair training on the AS 32A38 spotting dolly.

Instruction: Lectures and laboratory training in the operation, troubleshooting and repair of various mechanical systems, use of tools and test equipment, and technical manuals related to the SDID A/S 32-A-38 spotting dolly.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/82).

NV-1704-0257

Denison Electrical and Electronics Control Maintenance and Controls for Logic Elevators

Course Number: A-690-0029.

Location: Naval Technical Training Center, Treasure Island, San Francisco, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/76–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze simple series/parallel circuits using OHMs and Kirchoffs Laws; troubleshoot the Cutler Hammer Logic Control Elevator

System down to the circuit board level; test, align, troubleshoot an make repairs on denison hydraulic systems in accordance with standard Navy procedures.

Instruction: Lectures and practical exercises in basic electricity, solid state devices, electronic circuitry, hydraulic theory and maintenance and troubleshooting of a specific piece of equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in industrial technology laboratory (8/89).

NV-1704-0258

Cargo Weapons Elevator Maintenance

Course Number: A-690-0082.

Location: Naval Technical Training Center, Treasure Island, San Francisco, CA.

Length: 2 weeks (76 hours).

Exhibit Dates: 12/80–7/84.

Objectives: To train enlisted personnel to maintain, troubleshoot and repair cargo/weapon elevators mechanical, electrical and hydraulic systems with minimum supervision.

Instruction: Lectures and practical exercises in electrical, mechanical and hydraulic and safety devices (for personnel and equipment) used on ships elevators.

Credit Recommendation: In the vocational certificate category, 1 semester hour in component operation, repair and maintenance (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or mechanical technology laboratory (11/81).

NV-1704-0259

ASROC Weapons Handling System Maintenance

Course Number: A-121-0490.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/81–Present.

Objectives: To train personnel in the maintenance of the ASROC weapons handling system.

Instruction: Lectures and practical exercises in the operation and maintenance of power distribution systems, control and firing circuits, power drives, amplifiers, mechanical linkages and hydraulic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1704-0260

FFG-7 Engineering System Maintenance Management, Mechanical, Class C1

Course Number: A-652-0153.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/79–Present.

Objectives: To train senior enlisted personnel to manage the mechanical systems of the engineering plant on a FFG-7 class ship.

Instruction: Lectures and practical exercises pertaining to the level of maintenance and responsibility of modular changout, piece part repair, preventive and corrective maintenance and progressive overhaul of gas turbine power plants.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in power plant management (1/82).

NV-1704-0261

FFG-7 Fuel Systems, Mechanical, Class C1

Course Number: A-652-0165.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/79–Present.

Objectives: To provide knowledge and skills necessary to operate and maintain the FFG-7 class fuel system and the JP-5 subsystem.

Instruction: Lectures and practical exercises in the operation and maintenance of the FFG-7 class fuel system and JP-5 subsystem. To perform required on-board testing of fuels and main propulsion lubricants, to identify and comply with off-ship testing requirements and procedures for submission of fuel and oil samples, to perform administrative duties relating to safe handling, storage and testing of fuels, to identify and comply with environmental protective directives and regulations concerning the overboard discharge of oil waste contaminents.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fuel and lubricants handling systems (1/82).

NV-1704-0262

FFG-7 Introduction to Engineering Maintenance Management, Class C1

Course Number: A-652-0152.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (105-120 hours).

Exhibit Dates: 5/79–Present.

Objectives: To provide skills necessary to understand and monitor power plant operations.

Instruction: Lectures and practical exercises to provide the skills necessary to monitor the operation of a power plant. Included are the use of technical manuals, maintenance concepts of gas turbine systems, support systems, diesel generator systems, power distribution and conversion equipment, air conditioning and refrigeration systems, seawater-freshwater systems, fuel systems, compressed air systems, mechanical handling systems, and environmental pollution control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic power plant operation (10/83).

NV-1704-0263

Propulsion Engineering Basics, Class AP

Course Number: A-651-0010.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 4 weeks (176 hours). *Version 2:* Self-paced 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 6/83–Present. *Version 2:* 1/75–5/83.

Objectives: To train personnel in basic propulsion auxiliary equipment.

Instruction: *All Versions:* Instruction and practical exercises in basic propulsion engineering including maintenance and introduction to auxiliary equipment such as pumps, heat exchangers, bearings, centrifugers, air compressors, valves, power transfer equipment and measuring devices. *Version 1:* Lectures and practical exercises in lubrication systems fire fighting equipment and proper watch standing procedures. *Version 2:* An individualized computer assisted course of instruction.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant auxiliary equipment, 1 in equipment maintenance and 1 in power plant operation laboratory (10/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in power plant auxiliary equipment, 1 in equipment maintenance (1/82).

NV-1704-0264

Basic Hydraulic Systems and Components

Course Number: K-652-2146.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/82–Present.

Objectives: To train personnel in the basic theory of hydraulic systems and components.

Instruction: Lectures and practical exercises in the basic theory of static hydraulic systems and components including basic static fluid physics, reservoirs, filters, strainer, control valves, accumulators, packing seals, positive, non-positive and variable displacement pumps and hydraulic system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery hydraulics (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics (fluid static) (5/82).

NV-1704-0265

DD-963 Auxiliary Systems Technician

Course Number: K-652-2167.

Location: Fleet Training Center, San Diego, CA.

Length: 6 weeks (190 hours).

Exhibit Dates: 3/82–Present.

Objectives: To train personnel in the operation and maintenance of shipboard auxiliary systems.

Instruction: Classroom instruction and practical exercises in the operation and maintenance of shipboard auxiliary systems including submerged tube and flash type distilling plants for making fresh water, water testing and treatment, salinity alarms, thermodynamic nomenclature, hydraulic systems, modified vacuum incinerator sewage disposal system and vibration and noise analysis for preventive maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery hydraulics, 2 in machinery maintenance (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics (fluid statics), 1 in mechanical systems laboratory or, in lieu of the above, 3 semester hours in marine auxiliary systems (5/82).

NV-1704-0266

Machinist's Mate Advanced Maintenance

Course Number: A-651-0063.

Location: Fleet Training Center, San Diego, CA.

Length: 15 weeks (517 hours).

Exhibit Dates: 8/80–8/87.

Objectives: To train personnel to perform preventive and corrective maintenance on steam propulsion and auxiliary machine systems.

Instruction: For this course after 8/87 see NV-1704-0319. Lectures and practical exercises in preventive and corrective maintenance including engineering maintenance administration, valve and steam trap maintenance, engineering maintenance principles, pump maintenance, auxiliary turbine maintenance, auxiliary machinery controls, governors and regulators, air compressors and compressed air systems, distilling plant, condenser and heat exchanger maintenance, ships service turbogenerator maintenance, main engine and lube purifier maintenance.

Credit Recommendation: In the vocational certificate category, 15 semester hours in high pressure steam plant machinery maintenance and repair (5/82); in the lower-division baccalaureate/associate degree category, 4 semester hours in high pressure steam plant machinery operation and maintenance (5/82).

NV-1704-0267

DD-963 Engineering Department Division Officer
(DD-963 Main Propulsion Assistant)

Course Number: A-4H-0055.

Location: Surface Warfare Officers School Command, Newport, RI.

Length: *Version 1:* 10 weeks (380 hours); *Version 2:* 6 weeks (157 hours).

Exhibit Dates: *Version 1:* 8/81–Present. *Version 2:* 5/80–7/81.

Objectives: To provide the engineering division officer with a knowledge of the engineering systems installed in the DD963 class destroyer.

Instruction: *All Versions:* The course emphasizes the gas turbine main propulsion, electrical and auxiliary systems as well as the administrative and management programs in effect on the DD-963. Main topic areas include the marine gas turbine and its power train, the gas turbine generator and electric systems, auxiliary systems and the control systems for the foregoing equipment. *Version 1:* Extensive casualty control training is done in the propulsion plant trainer.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in gas turbine systems(11/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine systems, 2 in maintenance management and 2 in marine engineering systems laboratory (11/82). *Version 2:* In the vocational certificate category, 4 semester hours in gas turbine systems (11/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine systems and 2 in maintenance management (11/82).

NV-1704-0268

FFG-7 Engineer Division Officer
(FFG-7 Main Propulsion Assistant)

Course Number: A-4H-0058.

Location: Surface Warfare Officers School Command, Newport, RI.

Length: *Version 1:* 5 weeks (198 hours). *Version 2:* 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 8/80–12/82.

Objectives: To provide the engineering division officer with a knowledge of the engineering systems installed in the FFG-7 class frigate.

Instruction: *All Versions:* The course emphasizes the operation and maintenance of gas turbine main propulsion and electrical and auxiliary systems found on the FFG-7 ship. Main topic areas include the marine gas turbine and its power train, the diesel generator and electrical systems, the auxiliary systems and the control systems for the foregoing equipment and systems. *Version 1:* Extensive casualty control training is provided in the propulsion plant trainer.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in gas turbine systems (11/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine systems, 2 in maintenance management and 2 in marine engineering systems laboratory (11/82). *Version 2:* In the vocational certificate category, 4 semester hours in gas turbine systems (11/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine systems and 2 in maintenance management (11/82).

NV-1704-0269

Basic Hydraulics

Course Number: A-652-0164.

Location: Service School Command, Great Lakes, IL.

Length: 2–4 weeks (80–145 hours).

Exhibit Dates: 9/80–Present.

Objectives: To train personnel in the operation and maintenance of hydraulic systems on the FFG-7 class ships.

Instruction: Lectures and practical exercises in the basic theory of static hydraulic systems and components including basic static fluid physics, reservoirs, filters, strainers, control valves, accumulators, packing seals, positive, non-positive and variable displacement pumps and hydraulic system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery hydraulics (1/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in hydraulics (fluid statics) (1/86).

NV-1704-0270

FFG-7 Auxiliary Mechanical Subsystem Technician

Course Number: A-652-0233.

Location: Service School Command, Great Lakes, IL.

Length: 14 weeks (560 hours).

Exhibit Dates: 10/83–Present.

Objectives: To train personnel to operate and perform corrective and preventive maintenance on mechanical auxiliary subsystem components installed on a FFG-7 ship.

Instruction: This is a pipeline course consisting of the following courses: NV-1712-0015, NV-1715-1073, NV-1704-0269, NV-1712-0023 and NV-1704-0262.

Credit Recommendation: Please refer to the above listed exhibits for our credit recommendations.

NV-1704-0271

FFG-7 Auxiliary Mechanical System Technician

Course Number: A-652-0159.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (72 hours).

Exhibit Dates: 2/81–Present.

Objectives: To train enginemen to operate and maintain certain auxiliary mechanical systems.

Instruction: Lectures and practical exercises that provide the knowledge and skills necessary to operate and maintain the mechanical components of the oil waste separator, the pallet elevator and auxiliary propulsion devices.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/83).

NV-1704-0272

Fundamental Hydraulic Component Maintenance

Course Number: J-651-0450.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/82–Present.

Objectives: To train personnel in the basic theory of hydraulic systems and components.

Instruction: Lectures and practical exercises in the basic theory of static hydraulic systems and components including basic static fluid physics, reservoirs, filters, strainers, control valves, accumulators, packing seals, positive, non-positive and variable displacement pumps and hydraulic system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery hydraulics; in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics (fluid static) (3/89).

NV-1704-0273

UH-1N Electrical/Instrument Systems Organizational Maintenance

Course Number: D-602-2050.

Location: Helicopter Combat Support Squadron Sixteen, Pensacola, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/80–Present.

Objectives: To train enlisted personnel in the maintenance and repair of the UH-1N helicopter electrical and instrument systems.

Instruction: Instruction in DC power distribution, AC power systems, batteries, wiring diagrams and warning circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical maintenance (3/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical maintenance (3/84).

NV-1704-0274

UH-1N Communication/Navigation Systems Organizational Maintenance

Course Number: D-102-2020.

Location: Helicopter Combat Support Squadron, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/80–Present.

Objectives: To train fleet maintenance personnel to perform maintenance on communication and navigation systems.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, troubleshoot and adjust an avionics system aboard the UH-1N including ICS, VHF-FM, HF, UHF, TACAN, ADF, IFF and a radar altimeter.

Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics equipment repair (3/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in avionics (3/84).

NV-1704-0275

Trident Countermeasures O/M

Course Number: A-123-0179.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/84–Present.

Objectives: To prepare students to operate and maintain specialized electromechanical and hydraulic systems.

Instruction: Lectures and practical exercises in the operation and maintenance of a countermeasures system including applications of electromechanical, pneumatic and fluid equipment to a marine vessel simulator.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical and hydraulic system applications (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical and fluid equipment laboratory (8/84).

NV-1704-0276

Trident Defensive Weapons Ordnance Subsystem O/M

Course Number: A-123-0178.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 5 weeks (184 hours).

Exhibit Dates: 1/84–Present.

Objectives: To prepare students to operate and maintain torpedo and torpedo handling equipment.

Instruction: Lectures and practical exercises in torpedo system operation including applications of mechanical, pneumatic and fluid equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical systems applications (8/84), in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical and fluid system applications laboratory (8/84).

NV-1704-0277

Trident Torpedoman's Mate Replacement

Course Number: A-123-0176.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 10 weeks (383 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide students with training in the operation and preventive and corrective maintenance of the mechanical and hydraulic portions of weapons systems.

Instruction: Lectures and practical exercises in in the operation and maintenance of mechanical, hydraulic and pneumatic systems included in the launching systems, marine vessel simulators, and Mk 48 torpedo.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical and hydraulic systems applications (8/84); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical and fluid systems application laboratory (8/84).

NV-1704-0278

EC-130 Airfame and Hydraulic Systems Maintenance

Course Number: D-602-0481.

Location: Naval Air Station, Patuxent River, MD.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/83–Present.

Objectives: To provide personnel with the knowledge and skills necessary to maintain airframes and aircraft hydraulic systems.

Instruction: Lectures and laboratory applications in hydraulic systems, booster and auxiliary hydraulic systems, primary flight flight controls, wing flap and trim tab systems; main and nose wheel landing gear systems; brake and anti-skid systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic hydraulic components and aircraft familiarization (11/84); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic hydraulics and systems (11/84).

NV-1704-0279

EC-130 Environmental Systems Maintenance

Course Number: D-602-0461.

Location: Naval Air Station, Patuxent River, MD.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/83–Present.

Objectives: To provide personnel with the knowledge and skills to maintain an environmental system.

Instruction: Lectures and practical exercises in the operation and testing of the following: pneumatic anti-icing, fire extinguishing, oxygen systems and their descriptions. Inspection and prevention for corrosion and control as well as safety precautions are also covered.

Credit Recommendation: In the vocational certificate category, 2 semester hours in the familiarization of environmental system corrosion control maintenance (11/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in environmental systems (11/84).

NV-1704-0280

EC-130 Power Plant and Related Systems Maintenance

Course Number: D-601-0411.

Location: Naval Air Station, Patuxent River, MD.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/83–Present.

Objectives: To provide personnel with the knowledge and skills necessary to maintain aircraft gas turbine powerplants, related systems and auxiliary powerplant systems.

Instruction: Lectures and laboratory applications in aircraft fuel systems, safety procedures, turboprop engines and related systems, including oil, fuel, starting, temperature indicators, engine controls; propeller and associated systems including anti-icing and de-icing, fire detection and extinguishing systems, gas turbine auxiliary power and related systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in familiarization of turboprop engines and auxiliary power units (11/84); in the lower-division baccalaureate/associate degree category, 3 semester hours in powerplant sytems, turboprop and related systems (11/84).

NV-1704-0281

OE-159 Reel Operator/Maintenance

Course Number: D-104-0452.

Location: Naval Air Station, Patuxent River, MD.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/84–Present.

Objectives: To train personnel to effectively operate and perform maintenance on the OE-159 antenna system.

Instruction: Lectures and laboratory applications in electrical systems familiarization, reel panel familiarization (antenna); hydraulic principles as related to antenna components; safety principles; electrical system proficiency in reading and understanding electrical circuits for antenna reel systems with emphasis on troubleshooting. Also covered are computer fundamentals, related test equipment and maintenance, record and inspection procedures.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (11/84).

NV-1704-0282

AN/TPX-42A(V)10 RATCF DAIR, Class C1

Course Number: C-103-2035.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: 7 weeks (280 hours).

Exhibit Dates: 7/83–3/88.

Objectives: To train experienced electrical technicians to perform preventive and corrective maintenance on an air traffic control radar system.

Instruction: For this course after 3/88 see NV-1715-1435. Lectures and practical exercises in the operation and maintenance of selected functions of an air traffic control radar system including basic computer components, power supplies, sweep generator circuits, and data processing components. Students use block diagrams, system performance analysis and testing, troubleshooting, and the alignment of electronic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic maintenance laboratory and repair, 1 in computer fundamentals (2/85).

NV-1704-0283

Basic Helicopter (H-1) Class A1

Course Number: C-600-2011.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: 3 weeks (116 hours).

Exhibit Dates: 12/82–8/83.

Objectives: To provide the basic skills required to operate and maintain the H-1 helicopter.

Instruction: Lectures and practical exercises in the operation and maintenance of an H-1 helicopter including safety, corrosion control, electrical and engine familiarization, fuel and oil systems, power control, power drive systems, tail rotor drive, gear box operation, dual hydraulic control, blade tracking and inspection and operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic helicopter principles (2/85).

NV-1704-0284

Basic Helicopter (H-46) Class A1

Course Number: C-600-2010.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/83–8/83.

Objectives: To provide personnel with the skills required to operate and maintain the H-46 helicopter.

Instruction: Lectures and practical exercises in the operation and maintenance of the H-46 helicopter including airframe description, safety, corrosion control and prevention, ground handling and taxiing, basic electrical and engine familiarization, engine power plant and related systems to include engine controls, auxiliary powerplant, power drive systems, blade tracking, utility hydraulic-hydraulic flight boost control system, and line maintenance and operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic helicopter principles (2/85).

NV-1704-0285

Basic Helicopter (H-53) Class A1

Course Number: C-600-2012.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/82-8/83.

Objectives: To provide the skills required to operate and maintain the H-53 helicopter.

Instruction: Lectures and practical exercises in the maintenance and operation of the H-53 helicopter including basic helicopter principles, safety procedures, ground handling and taxiing, engine powerplant and control system, hydraulics, flight control system, blade tracking, main and tail rotor systems, and aircraft inspection.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic helicopter principles (2/85).

NV-1704-0287

S-3A Power Plant and Related
Systems Organizational
Maintenance

Course Number: C-601-3676.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/82-Present.

Objectives: To train enlisted personnel in the theory and knowledge of the propulsion, fuel and auxiliary power systems of the S-3A aircraft.

Learning Outcomes: Upon completion of the course, the student will be able to identify and operate the S-3A fuel system, power plant, auxiliary power unit and ground support equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in jet engine familiarization (4/85).

NV-1704-0288

S-3A Structure, Hydraulic and
Flight Control Systems
Organizational Maintenance

Course Number: C-603-3676.

Location: Naval Air Station, North Island, San Diego, CA; Naval Air Station, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/83-Present.

Objectives: To train enlisted personnel in the theory, knowledge and troubleshooting techniques of the S-3A flight control systems.

Learning Outcomes: Upon completion of the course, the student will be able to understand and troubleshoot the following systems of the S-3A aircraft: the hydraulic, landing gear, brakes, nose wheel steering, arresting hook, auxiliary power unit, wing fold, trim control and flight control systems of the aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft system maintenance (4/85).

NV-1704-0289

SH-2 Aviation Machinist's Mate
Power Plant System

Course Number: C-601-3378.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/81-Present.

Objectives: To provide newly enlisted personnel the skills to understand and maintain the aircraft power plant and related systems.

Learning Outcomes: Upon completion of the course, the student will be able to understand, and maintain the power plant and related systems of the SH-2F aircraft including the electrical and gas turbine systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine maintenance (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in the theory of turbine (jet) engines (4/85).

NV-1704-0290

SH-2F Airframes, Hydraulics and
Flight Control Organizational
Maintenance

Course Number: C-602-3394.

Location: Naval Air Station, North Island, San Diego, CA; Naval Air Station, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train enlisted personnel in the basic maintenance of the hydraulic and flight control systems of the SH-2 helicopter.

Learning Outcomes: Upon completion of the course the student will be able to: (1) troubleshoot and maintain the hydraulic system, landing gear system, wheel brake system, rotor brake system, rescue hoist, and utility system and; (2) check, rig and maintain automatic stabilization systems and flight control systems of the helicopter.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter hydraulics and flight control systems repair and maintenance (4/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicopter hydraulics and flight control systems theory (4/85).

NV-1704-0291

SH-2F Automatic Stabilization

Course Number: C-602-3386.

Location: Naval Air Station, Norfolk, VA; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/81-Present.

Objectives: To train technicians in the functional maintenance of automatic stabilization equipment for a helicopter.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, at the functional block level, helicopter automatic stabilization equipment, including gyro systems, accelerometers, trim controls, and various electromechanical servo systems that control roll, yaw, pitch, air speed and altitude.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter stabilization system maintenance (4/85).

NV-1704-0292

SH-60B Airframes and Related
Systems Organizational
Maintenance

Course Number: C-603-4406.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (126 hours).

Exhibit Dates: 1/83-Present.

Objectives: To provide enlisted personnel with the skills necessary to maintain, troubleshoot and repair airframes and related systems.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, troubleshoot and repair the following systems of the SH-60B helicopter: the composite structure, doors, cockpit enclosures, hydraulics, flight control systems, landing gear, environmental controls, main and tail rotor and utility and weapons systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft structural repair (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft structural maintenance (4/85).

NV-1704-0293

SH-60B Power Plant and Related
Systems Organizational
Maintenance

Course Number: C-601-4406.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (135 hours).

Exhibit Dates: 7/85-Present.

Objectives: To train enlisted personnel in the basic inspection and maintenance of a gas turbine engine and the related helicopter drive systems.

Learning Outcomes: Upon completion of the course, the student will be able to remove, install and maintain engine and auxiliary power unit components of the T700 GE-401 gas turbine engine; troubleshoot and maintain fire extinguishing systems, fuel systems and rotor drive systems of the helicopter.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter turbine engine overhaul (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine theory (4/85).

NV-1704-0294

T-700-GE 401 Intermediate
Maintenance First Degree

Course Number: C-601-4408.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 11/84-Present.

Objectives: To train enlisted personnel in the inspection, troubleshooting, disassembly and buildup of an aircraft engine.

Learning Outcomes: Upon completion of the course, the student will be able to understand and troubleshoot the T-700-GE aircraft engine system, including engine teardown, inspection and buildup; and be familiar with engine borescope inspection.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft turbine engine maintenance (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft turbine engine theory (4/85).

NV-1704-0295

TF-34 First Degree Intermediate Maintenance

Course Number: C-601-3677.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/83–Present.

Objectives: To train personnel in the inspection, diassembly, repair and reassembly of a turbine engine.

Learning Outcomes: Upon completion of the course, the student will be able to disassemble, inspect and reassemble the TF-34 turbofan engine including the fuel, electrical and lubrication systems as well as the borescope inspection.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine repair and maintenance (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine maintenance (4/85).

NV-1704-0296

WR-27 Auxiliary Power Unit Intermediate Maintenance

Course Number: C-601-3679.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/81–Present.

Objectives: To train personnel in the inspection, disassembly and buildup of an auxiliary power unit.

Learning Outcomes: Upon completion of the course, the student will be able to assemble/disassemble, inspect and troubleshoot the WR-27 auxiliary power unit using appropriate test equipment and special tools.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/85).

NV-1704-0297

SH-3 Aviation Machinist's Mate Class A Power Plant Systems

Course Number: C-601-4396.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/82–Present.

Objectives: To provide personnel the skills to maintain a turbine engine power plant and its related systems.

Learning Outcomes: Upon completion of the course, the student will be able: (1) to understand and maintain a turbine engine power plant and its related systems at a very basic level and; (2) be familiar with the hydraulics, electricity, jet propulsion theory and gas turbine power plant operation of the SH-3 aircraft.

Credit Recommendation: In the vocational certificate category, 1 semester hour in jet engine laboratory (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine (jet) engine theory (4/85).

NV-1704-0298

Machinist's Mate Maintenance Skills

Course Number: A-652-0228.

Location: Naval Submarine Training Center, Pacific, Pearl Harbor, HI; Naval Submarine School, Groton, CT; Fleet Ballistic Submarine Training Center, Charleston, SC; Trident Training Facility, Bangor, Bremerton, WA; Guided Missile School Detachment, Norfolk, VA; Submarine Training Facility, San Diego, CA; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (82 hours).

Exhibit Dates: 1/82–11/87.

Objectives: For this course after 11/87 see NV-1704-0332. To provide general technical skills for engineering personnel necessary for the operation, preventive and corrective maintenance of engineering components.

Instruction: Course provides an introduction to engineering safety; introduction to and basic operation of handtools; also covered are theory of operation, construction, preventive and corrective maintenance and the documentation associated with maintenance procedures on engineering piping.

Credit Recommendation: In the vocational certificate category, 2 semester hours in engineering safety and hand tool operation, 2 hours in operation, maintenance of engineering piping (11/85).

NV-1704-0299

FFG-7 Propulsion Systems Monitor

Course Number: A-652-0247.

Location: Naval Training Center, Great Lakes, IL.

Length: 10 weeks (280 hours).

Exhibit Dates: 3/84–3/86.

Objectives: To train personnel on how to operate and perform operational maintenance on the FFG-7 gas turbine power plant.

Instruction: Lectures and practical exercises in the operation and maintenance of the gas turbine power plant for an FFG-7 including fixed fire fighting systems, gas turbine engines, exhaust systems, lubricating oil systems, air intake systems, air start systems, fuel oil service systems, reduction gears, controllable pitch propeller, and watch standing procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in engineering orientation and 1 in fire fighting (1/86).

NV-1704-0300

Aircraft Launch and Recovery Equipment Officer

Course Number: C-2G-2010.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 2–3 weeks (95 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to direct aircraft launch and recovery operations.

Instruction: Includes lectures and performance exercises to direct operations of aircraft launch and recovery.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/87).

NV-1704-0301

Aviation Boatswain's Mate Handling, Class C1, Sea Track

Course Number: C-822-2014.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise personnel in shipboard aircraft handling and crash salvage procedures.

Instruction: Includes lectures and performance exercises in aircraft ground handling, crash and fire damage control, first aid, and fire fighting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in administration (correspondence and filing), 1 in industrial safety, and 2 in supervision of aircraft emergency operations (crash/fire/rescue) (6/87).

NV-1704-0302

Aviation Boatswain's Mate Equipment, Class A1, C13 Track

Course Number: C-604-2019.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply entry-level skills to operate aircraft launch and restraint equipment under supervision.

Instruction: Includes lectures with limited performance exercises in C-13 catapult equipment and accessories for aircraft launch and restraint.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fluid power system theory in an industrial maintenance technology program (6/87).

NV-1704-0303

Aircrew Survival Equipmentman, Class C1

Course Number: C-602-2011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 12 weeks (452 hours).

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish and supervise a maintenance organization which is capable of supporting aircrew survival equipment inspection, service, and repair.

Instruction: Lectures and hands-on experience in theory and practical application relating to maintenance and material management of items of equipment used for aircrew survival. Detailed study of industrial-grade sewing machines, gaseous and liquid oxygen support systems and equipment, and related aviation survival equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in industrial sewing machine repair and service (6/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in general science laboratory, 1 in aircraft environmental control systems, and 1 in maintenance systems planning (6/87).

NV-1704-0304

Aircrew Survival Equipmentman, Class A1

Course Number: C-602-2010.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 11 weeks (368 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to work with minimum supervision in the area of equipment inspection, repair and operation. This equipment is essential to support flying safety and pilot survival in an emergency.

Instruction: Classroom instruction is balanced with hands-on practical exposure with approximately 1:3 ratio. Major topics included are parachute assembly, packing and inspection, survival clothing, oxygen masks, and exposure equipment, sewing machine use, maintenance and repair of fabrics, interpretation and application of technical requirements and documents.

Credit Recommendation: In the vocational certificate category, 2 semester hours in sewing machine operation, service and maintenance, and 2 in parachute packing and inspection (6/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation safety equipment repair and maintenance.

NV-1704-0305

Aircraft Launch and Recovery Equipment, Class C1, C13 Mod O Track

Course Number: C-604-2011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 8 weeks (310 hours).

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, operate and maintain C-13 catapults and related equipment, Mk-7 Mods 1, 2, and 3 arresting gear, barriers, and share-based arresting gear.

Instruction: Lecture and practical experiences in aircraft launch and recovery equipment, C13 and C13-Mod 1.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fluid power principles (6/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in fluid power maintenance and troubleshooting, and 1 in industrial safety (6/87).

NV-1704-0306

Aviation Boatswain's Mate Fuels, Class A1

Course Number: C-821-2010.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4-5 weeks (167 hours).

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform entry level duties of aircraft refueling and maintenance of refueling equipment.

Instruction: Includes lectures and performance exercises in aircraft refueling, maintenance and repair of refueling systems, and fuel quality verification.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft ground operations and servicing (6/87).

NV-1704-0307

Aviation Boatswain's Mate Equipment, Class C1, C113 Mod 1 Track

Course Number: C-604-2014.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 8 weeks (300 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to fully understand and maintain Type C Mark 13 Mod 1 catapult and Mark 7 Mod 3 arresting gear equipment for aircraft launch and restraint.

Instruction: Includes lectures and performance exercises relative to catapult and restraint systems to include servicing, repair, troubleshooting, inspection, and rigging procedures as well as minimum technical knowledge and guidance to perform as a work center supervisor.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulic and pneumatic system principles in an industrial maintenance technology program 3 in industrial equipment maintenance, and 1 in principles of industrial maintenance supervision (6/87).

NV-1704-0308

Aircraft Launch and Recovery Equipment Maintenance Officers

Course Number: C-2G-2011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 8 weeks (320 hours).

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise aircraft launch and recovery equipment maintenance, troubleshooting, and quality assurance.

Instruction: Includes lectures and performance exercises in recordkeeping, file documentation, researching technical publications, troubleshooting, and returning to service launch and recovery equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fluid system maintenance, 3 in industrial equipment maintenance, and 2 in technical report writing (6/87).

NV-1704-0309

Aviation Fuel Systems, Class C1

Course Number: C-821-2011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 5 weeks (193 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise aviation fueling operations and the troubleshooting and repairing of the refueling system components.

Instruction: Includes lectures and performance exercises on refueling equipment for aircraft refueling operations to include operation of contamination detection equipment, pump maintenance and repair, indicator system refueling system maintenance and troubleshooting, and aircraft refueling procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft ground operations and servicing and 1 in chemistry laboratory (6/87).

NV-1704-0310

Aviation Boatswain's Mate Equipment, Class A1 Common Core
(Aviation Boatswain's Mate E Launching and Recovery Equipment, Class A1 Common Core)

Course Number: C-604-2012.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist in operating and maintaining shipboard arresting gear.

Instruction: Includes lectures and performance exercises on arresting gear including corrosion control, basic hydraulics, and gear maintenance, servicing, and operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial equipment maintenance (in industrial maintenance technology curriculum) (6/87).

NV-1704-0311

Aviation Boatswain's Mate Equipment, Class A1, C7/C11 Track

Course Number: C-604-2018.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (133 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply entry level skills to operate aircraft launch and restraint equipment under supervision.

Instruction: Includes lectures with limited performance exercises in Mark 7 and Mark 11 steam catapult equipment and accessories for aircraft launch and restraint.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fluid power system theory in industrial maintenance technology (6/87).

NV-1704-0315

Guided Missile Launcher System Mk 26

Course Number: A-121-0011.

Location: Service Schools Command, Great Lakes, IL.

Length: 22 weeks (880 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the Gunner's Mate will have developed the fundamental electro-mechanical-hydraulic skills and knowledge to operate and maintain a computer controlled guided missile launching system. The student will be able to trace, analyze, isolate and repair down to card level using electrical-hydraulic interconnection and internal wiring diagrams.

Instruction: Classroom instruction and laboratory exercises covering the following topics: launching systems control, power distribution, troubleshooting and reference diagrams, system control interface, launcher load/unload, electronic servo control unit, hydraulic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hydraulic systems troubleshooting and maintenance (6/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in electro mechanical systems troubleshooting and maintenance (6/88).

NV-1704-0316

Trident Submarine Hydraulic Combined Maintenance

Course Number: A-652-0143.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all operational procedures, troubleshooting, and repair on ship's service, stern diving, and external hydraulic systems.

Instruction: Lecture and laboratory exercises in the theory of hydraulics, and the construction operation and maintenance of submarine hydraulic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulic machinery (2/89).

NV-1704-0317

TRIDENT PNEUMATIC SUBSYSTEM MAINTENANCE

Course Number: A-652-0145.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (90 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all operational procedures with respect to high and low-pressure air compressors, troubleshoot and repair pneumatic systems, including air compressors, dehydrators, and air manifolds.

Instruction: Lecture and laboratory exercises in air compressor construction, operation and maintenance, and related pneumatic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in facilities engineering (pneumatic systems) (2/89).

NV-1704-0318

TRIDENT SUBMARINE AUXILIARY EQUIPMENT TECHNICIAN LEVEL II

Course Number: A-652-0141.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 6 weeks (350 hours).

Exhibit Dates: 9/84–Present.

Learning Outcomes: See individual exhibits for learning outcomes. This is a pipeline course.

Instruction: See exhibits NV-1704-0316 (A-652-0143), NV-1704-0317 (A-652-0145), NV-1731-0001 (A-652-0146), NV-1712-0028 (A-652-0150), and NV-1701-0010 (A-652-0204).

Credit Recommendation: See individual exhibits for credit recommendation (2/89).

NV-1704-0319

MACHINIST'S MATE STEAM PROPULSION MAINTENANCE SUPERVISOR

Course Number: A-651-0063.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 17–18 weeks (740 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to organize, perform and supervise preventive and corrective maintenance, and troubleshoot the mechanical systems associated with steam power generation systems except for the systems directly associated with the steam generation facility.

Instruction: For this course before 9/87 see NV-1704-0266. This is a pipeline course made up of A-651-0064, Engineering Maintenance Principles, Practices, and Administration; A-651-0065, Valve Maintenance; A-651-0067, Pump Maintenance; A-652-0069, Governor and Regulator Maintenance; A-651-0068, Auxiliary Turbine Maintenance; A-651-0077, Ship Service Turbo Generator Maintenance; A-651-0078, Main Engine and Lube Oil Purifier Maintenance; and A-651-0070, Air Compressor Maintenance. A-651-0071, Distilling Plant Condenser and Heat Exchanger Maintenance, was too brief for evaluation.

Credit Recommendation: For credit recommendation please see the individual courses listed above (3/89).

NV-1704-0320

SHIP SERVICE TURBO GENERATOR MAINTENANCE

Course Number: A-651-0077.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 1–2 weeks (51 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to use technical references to establish appropriate maintenance requirements and perform maintenance on steam turbines and the mechanical auxiliaries associated with turboelectric generators.

Instruction: Classroom instruction, demonstrations, and practical exercises on the subject matter including recordkeeping procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in machinery maintenance (3/89).

NV-1704-0321

AUXILIARY MACHINERY TURBINE MAINTENANCE

Course Number: A-651-0068.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 1–2 weeks (53 hours).

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform engineering maintenance on auxiliary steam turbines.

Instruction: Classroom and practical instruction on instrumentation, inspection, and maintenance of turbine machinery.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in turbine machinery maintenance laboratory (3/89).

NV-1704-0323

CARGO WEAPONS ELEVATOR MAINTENANCE

Course Number: A-690-0082.

Location: Naval Technical Training Center, Treasure Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use the technical documentation provided for use with the Standard Electronic Module (SEM) cargo/weapons controller; describe the functional operation of the SEM controller, including signal fow, loop operation and time sequence; perform preventative and corrective maintenance on the SEM controller in accordance wth standard Navy check list procedures.

Instruction: Lecture and practical exercises in electrical, mechanical and hydraulic and safety devices (for personnel and equipment) used on ships elevators.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electro/mechanical technology laboratory (8/89).

NV-1704-0324

AVIATION MACHINIST'S MATE, CLASS A1

Course Number: C-601-2010.

Location: Naval Air Technical Training School, Memphis, Millington, TN.

Length: 8–9 weeks (334 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform aircraft maintenance and jet engine mechanics.

Instruction: Lectures and practical exercises in jet engine repair, including AD rating and training, theory of general aircraft maintenance, corrosion control, tool inventory, jet propulsion principles, power plant familiarization, typical axial and centrifugal flow power plant familiarization, inspections, powerplant replacement, jet aircraft line operations, and fuel systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in turbine engine theory (9/89).

NV-1704-0325

AVIATION STRUCTURAL MECHANIC (SAFETY EQUIPMENT), CLASS A1

Course Number: C-601-2015.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 10 weeks (400 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform in the capacity of an aviation systems mechanic.

Instruction: Lectures and laboratories in the functions of aviation structural mechanics, including fundamentals, schematic interpretation, application of maintenance and materiel management system, gaseous systems, typical aircraft systems, liquid oxygen systems, aircraft pressurization and air conditioning system, operation and line maintenance, egress systems, and auxilliary bleed air systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in pressure and air conditioning systems and 3 in gaseous systems (oxygen and liquid oxygen) (9/89).

NV-1704-0326

AVIATION SUPPORT EQUIPMENT TECHNICIAN, CLASS A1

Course Number: C-602-2026.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 16–17 weeks (605 hours).

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course the student will perform maintenance and administrative duties.

Instruction: Lectures and laboratories in hand tools, hardware, composite materials, publications and forms, basic electricity, including Ohm's law, test equipment, magnetism, capacitors, semiconductors, troubleshooting, power generating equipment, charging, ignition systems, diesel engines, hydraulic accessories, air conditioning, gas turbine compressors, and corrosion control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulic systems operation, 4 in DC circuits, and 2 in automotive fundamentals (9/89).

NV-1704-0327

BASIC HELICOPTER (H-1), CLASS A1

Course Number: C-600-2011.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 3–4 weeks (132 hours).
Exhibit Dates: 9/83–Present.
Learning Outcomes: Upon completion of the course the student will serve as apprentice helicopter mechanic at the organizational level under appropriate supervision.
Instruction: Lectures and laboratories in hand tools, aircraft hardware, safety procedures, forms and records, aircraft ground handling and taxiing, and aircraft systems, including the electrical and fuel systems, powerplant and drive system flight control system, rotor system, hydraulic system, and line operation and inspection.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (9/89). Note: This credit duplicates that credit recommended for C-600-2010 and C-600-2012.

NV-1704-0328

BASIC HELICOPTER (H-53), CLASS A1

Course Number: C-600-2011.
Location: Naval Air Technical Training Center, Memphis, Millington, TN.
Length: 3–4 weeks (156 hours).
Exhibit Dates: 9/83–Present.
Learning Outcomes: Upon completion of the course the student will serve as apprentice helicopter mechanic at the organizational level under appropriate supervision.
Instruction: Lectures and laboratories in hand tools, aircraft hardware, safety procedures, forms and records, aircraft ground handling and taxiing, and aircraft systems, including the electrical and fuel systems, powerplant and drive system flight control system, rotor system, hydraulic system, and line operation and inspection.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (9/89). Note: This credit duplicates that credit recommended for C-600-2010 and C-600-2011.

NV-1704-0329

BASIC HELICOPTER (H-46), CLASS A1

Course Number: C-600-2010.
Location: Naval Air Technical Training Center, Memphis, Millington, TN.
Length: 3–4 weeks (132 hours).
Exhibit Dates: 9/83–Present.
Learning Outcomes: Upon completion of the course the student will serve as apprentice helicopter mechanic at the organizational level under appropriate supervision.
Instruction: Lectures and laboratories in hand tools, aircraft hardware, safety procedures, forms and records, aircraft ground handling and taxiing, and aircraft systems, including the electrical and fuel systems, powerplant and drive system flight control system, rotor system, hydraulic system, and line operation and inspection.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in helicopter maintenance (9/89). Note: This credit duplicates that credit recommended for C-600-2011 and C-600-2012.

NV-1704-0330

MARINE AIR TRAFFIC CONTROL ADVANCED TECHNICIAN, CLASS C1

Course Number: C-103-2047.
Location: Naval Air Technical Training Center, Memphis, Millington, TN.
Length: 17 weeks (680 hours).
Exhibit Dates: 4/88–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, install and repair advanced electronics systems and equipment and be able to train others in electronics maintenance mangement.
Instruction: Lectures and laboratories in maintenance management including maintenance procedures, supply, inspection, publications, safety, and resource management concepts. Topics included are logic gates, shift registers, memory devices, microprocessors, and programming. Also included: maintenance on communications equipment, radar equipment, and navigation equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in computer systems and organization, and 2 in electronic systems troubleshooting and maintenance (9/89).

NV-1704-0332

GENERAL MECHANICAL MAINTENANCE SKILLS

Course Number: A-652-0228.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Submarine Training Facility, San Diego, CA; Guided Missile School Detachment, Dam Neck, VA; Trident Training Facility, Bangor, WA.
Length: 2 weeks (80 hours).
Exhibit Dates: 12/87–Present.
Learning Outcomes: Upon completion of the course the student will be able to maintain, repair, and test piping, gauges, and heat exchangers and perform pump-motor alignment and bearing inspection.
Instruction: Lectures on the use of hand tools, gauges, measuring instruments, safety, documentation, lubrication, bearings, and precision instruments. Laboratory exercises on the use of hand tools, precision instruments, weight handling equipment, locking devices, and bearing inspection. Also includes disassembly, inspection, repair, assembly, and testing of mechanical components and systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in hand tools and safety procedures and 2 in maintenance of piping systems and mechanical instruments (10/89).

NV-1704-0333

OCEAN SYSTEMS TECHNICIAN ANALYST, CLASS A

Course Number: J-210-0011.
Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA.
Length: 13–14 weeks (532 hours).
Exhibit Dates: 10/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to analyze acoustic signature displays of signals received from sonar detectors; identify ships/boats by their acoustic signature displays; describe general shipboard propulsion systems and machinery.
Instruction: Classroom lectures and practical exercises for each topic. Emphasis is on analyzing acoustic signatures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in survey of marine propulsion machinery; in the upper-division baccalaureate category, 3 semester hours in ocean acoustics (3/90).

NV-1706-0001

CALCULATOR REPAIR CLASS C (Instrumentman (Calculator Repair), Class C)

Course Number: A-670-013.
Location: Service Schools Command, Great Lakes, IL.
Length: 18 weeks (555 hours).
Exhibit Dates: 2/70–6/80.
Objectives: To train petty officers to test, repair, overhaul, and maintain Friden, Marchant, and Monroe calculators.
Instruction: Lectures and practical exercises in the testing, repair, overhaul, and maintenance of Friden, Marchant, and Monroe calculators.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in instrument repair (8/74).

NV-1706-0002

TELETYPEWRITER TT-299 B/UG WATCHSTANDERS REFRESHER MAINTENANCE

Course Number: L-160-011.
Location: Fleet Submarine Training Facility, Pearl Harbor, HI.
Length: 3 weeks (90 hours).
Exhibit Dates: 12/69–1/88.
Objectives: To train enlisted personnel to maintain and repair the TT-299 B/UG teletypewriter set.
Instruction: Lectures and practical exercises in the maintenance and repair of the TT-299 B/UG teletypewriter set. Course includes a detailed study of the electrical and mechanical features of the TT-299 B/UG teletypewriter and comprehensive coverage of typewriter maintenance.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typewriter repair (8/74).

NV-1706-0003

ADVANCED OFFICE MACHINE REPAIR, CLASS C

Course Number: A-670-0027.
Location: Instrumentman Class C School, Great Lakes, IL.
Length: 25 weeks (780 hours).
Exhibit Dates: 6/72–6/77.
Objectives: To train personnel to maintain and repair office machines.
Instruction: Lectures and practical exercises in identifying, testing, diagnosing, repairing, overhauling, and adjusting specific types of adding machines, electric typewriters, and calculators.
Credit Recommendation: In the vocational certificate category, 10 semester hours in office machine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in office machine maintenance (6/75).

NV-1708-0001

RIVER ASSAULT CRAFT TRAINING

Course Number: H-00-1500; H-000-1500.
Location: Inshore Operations Training Center, Vallejo, CA.
Length: 11 weeks (805 hours).
Exhibit Dates: 4/69–1/88.
Objectives: To provide officers and enlisted personnel with the knowledge and skills necessary to perform river assault craft operations.
Instruction: Lectures and practical exercises in river assault craft operations, in-

cluding navigation, boat-handling techniques, damage control and salvage, swimming, in-water survival training, gunnery and small arms operation, tactics, and counterinsurgency.

Credit Recommendation: In the vocational certificate category, 4 semester hours in transportation (2/74).

NV-1708-0002

LANDING CRAFT BEACH AND SURF SALVAGE

Course Number: G-2E-6310; H-2E-5318; H-000-5318.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To provide naval personnel qualified as second class swimmers with specialized training in the techniques and procedures of amphibious boat salvage operations.

Instruction: Lectures and practical work in light-tow and heavy salvage boats; performance of salvage operations on broached and stranded boats in and beyond the surf line; emergency ramp-raising procedures; minor repair techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation or salvage operations (2/74).

NV-1708-0003

ADVANCED SUBMARINE QUARTERMASTER SCHOOL

Course Number: F-772-011.

Location: Submarine School, Groton, CT.

Length: 3 weeks (100 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To teach rated quartermasters with a minimum of one year in rate the classroom elements of the professional requirements of submarine piloting and navigation.

Instruction: Consists of piloting and anchoring techniques; determination of Loran lines; familiarity with compass, including causes, kinds, significance of, and compensation for, compass error; computation of sunrise, sunset, moonrise, and moonset; determination of lines of position by celestial observaton.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (2/74).

NV-1708-0004

BASIC QUARTERMASTER, ENLISTED

Course Number: J-772-620.

Location: Fleet Training Center, Newport, RI.

Length: 5 weeks (163 hours).

Exhibit Dates: 7/68-1/88.

Objectives: To train enlisted personnel in the basic principles and techniques of water navigation.

Instruction: Lectures and practical exercises in shipboard duties of the quartermaster and in navigation fundamentals, including nautical charts and chart projections; fundamentals of plotting; operation of magnetic and gyro compasses; the lateral buoy system; operation of various navigational instruments; and tides, currents, and weather.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation (2/74).

NV-1708-0005

BASIC QUARTERMASTER

Course Number: K-772-2101.

Location: Fleet Training Center, San Diego, CA.

Length: 4 weeks (115 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To provide enlisted personnel with the knowledge of navigation required to qualify them to perform as quartermasters of the watch.

Instruction: Lectures and practical exercises in basic navigation, including nautical charts, navigation publications, tides and currents, time, weather, plotting application and instrument use, and various navigational aids.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation (2/74).

NV-1708-0006

ASSAULT BOAT COXSWAIN

Course Number: H-813-5316; G-062-6358; G-813-6358.

Location: Naval Amphibious School, San Diego, CA; Naval Amphibious School, Norfolk, VA.

Length: 3 weeks (106-121 hours).

Exhibit Dates: 1/67-1/88.

Objectives: To provide enlisted personnel with a basic knowledge of boat handling and assault boat operations.

Instruction: Lectures and practical demonstrations in basic boat-handling procedures, landing craft operations, assault boat operations, tactics and hand signals, ship-to-shore communications, and navigational aids.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1708-0007

SHIPLOADING AND STOWAGE

Course Number: A-8C-0013.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train enlisted personnel to load, stow, and discharge cargo and to supervise others engaged in this activity.

Instruction: Lectures and practical exercises in the techniques of loading, stowing, and discharging cargo and in the supervision of such activities. Course includes cargo stowage, stevedoring, safety in cargo operations, stability in shiploading, and preplanning ship's cargo.

Credit Recommendation: In the vocational certificate category, 2 semester hours in shiploading and stowage (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in shiploading and stowage (7/74).

NV-1709-0001

1. PHOTOGRAPHER'S MATE SCHOOL, CLASS A
2. PHOTOGRAPHER'S MATE SCHOOL, CLASS A, BASIC
3. PHOTOGRAPHER'S MATE SCHOOL, CLASS A
4. PHOTOGRAPHER'S MATE A (AERIAL CAMERAMAN) (Photographer's Mate G (Cameraman))

Course Number: *Version 1:* C-400-2011. *Version 2:* C-400-2011. *Version 3:* C-400-10. *Version 4:* None.

Location: Naval Technical Training Center, Pensacola, FL.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* Self-paced 11-12 weeks (440 hours). *Version 3:* 15-18 weeks (614-720 hours). *Version 4:* 8-9 weeks (320-360 hours).

Exhibit Dates: *Version 1:* 2/82-Present. *Version 2:* 11/74-1/82. *Version 3:* 8/65-10/74. *Version 4:* 2/56-7/65.

Objectives: To provide personnel with a basic knowledge of the photographic work performed in the Navy, including photographic principles, camera operation, black and white and color film processing and printing, motion picture study, aerial photography, and camera maintenance.

Instruction: *All Versions:* An intensive study in the basics of photography and photographic principles, plus two weeks of military-oriented training; lectures and practical experiences with photographic theory, camera operation, lab operation, lab orientation, photo techniques, aerial photography, public affairs photography, small-format photography, color print photography, and motion picture photography. *Version 2:* Course uses modular, self-paced, individualized instruction as the primary instructional method with heavy emphasis on performance. Specific topics include exposure factors and controls, photographic materials, camera techniques, quality control, flash photography, studio photography, information and release photography, motion picture photography, color photography, and aerial photographic laboratory support.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in photography (3/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in photography (1/77). *Version 3:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68). *Version 4:* In the vocational certificate category, 3 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68).

NV-1709-0002

PHOTOGRAPHIC OFFICERS CLASS O

Course Number: None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: 21 weeks (810 hours).

Exhibit Dates: 10/57-12/68.

Objectives: To provide selected officers with a knowledge of and skills in basic photography, including military-oriented air/sea applications.

Instruction: Basic integrated subjects, including administrative records, files, reports, and a study of electricity; general photography, including exposure, camera operation, photographic chemistry, and laboratory procedures; motion picture photography, including exposure, camera operation, and laboratory procedures; aerial photography, including aerial techniques, camera operation, laboratory operations; color photography, including techniques for both color prints and color transparencies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in

photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0003

1. Photographer's Mate School Class B
2. Photographer's Mate School Class B
   (Advanced Photographer's Mate School Class B)

Course Number: *Version 1:* C-400-11. *Version 2:* None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: *Version 1:* 24 weeks (960 hours). *Version 2:* 21-22 weeks (840-896 hours).

Exhibit Dates: *Version 1:* 2/71-10/76. *Version 2:* 10/57-1/71.

Objectives: To provide selected enlisted trainees with the knowledge and skills necessary to perform the duties of senior photographers, including operation and maintenance of service-type still, aerial, and motion picture cameras and related equipment, and production of photographs for public information purposes.

Instruction: Lectures and practical experiences in general photography, including administration and organization of Navy photography; orientation to scientific principles of photographic film and chemistry; applied photography in small, medium, and large format cameras; color slide and print photography; public affairs photography; aerial photography, including operation, reproduction, planning, and utilization of military-oriented missions; motion picture photography, including fundamentals, techniques, and equipment orientation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/73). *Version 2:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0004

1. Photographic Reconnaissance Officers, Class O
2. Photographic Reconnaissance Officers, Class O
3. Photographic Reconnaissance Officers, Class O
4. Photographic Reconnaissance Class O

Course Number: *Version 1:* C-2B-10. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: *Version 1:* 3 weeks (116 hours). *Version 2:* 2 weeks (98 hours). *Version 3:* 4 weeks (152 hours). *Version 4:* 21 weeks (840 hours).

Exhibit Dates: *Version 1:* 6/71-12/71. *Version 2:* 1/69-5/71. *Version 3:* 11/63-12/68. *Version 4:* 10/57-10/63.

Objectives: To provide selected aviators, observers, or officers with an understanding of aerial photographic reconnaissance.

Instruction: *All Versions:* Principles of aerial photography; aerial photographic techniques; photographic intelligence. *Version 1:* Basic photography, including camera components, exposure, laboratory orientation, film processing, and printing. *Version 4:* Advanced photography.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in photography (12/73). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in photography (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in photography (12/68). *Version 4:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0005

Special Photographic Course for Non-Photographic Personnel, Class C

Course Number: None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/66-12/68.

Objectives: To provide trainees with the knowledge and skills of basic photography, including the operation of selected cameras, darkroom layout, and photoprocessing and exposure techniques.

Instruction: To accomplish the objectives the trainee must develop skills in the use of the Leica camera and its accessories, acquire an understanding of the principles of physics and chemistry as related to photography, have a working knowledge of exposures for natural and artificial light using black and white and color film, and apply skillfully the processing techniques for small negatives, and black and white and color reversal film. Studies also include darkroom layout, equipment planning, negative filing, and captioning. Special studies in aerial cameras for the production of oblique and vertical photographs, stereotriplets, and overlapping single- and multi-strip mosaics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photography (12/68).

NV-1709-0006

IOIC Photo Interpretation Officer

Course Number: D-3A-010.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 5 weeks (200 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To provide officers with an understanding of the capabilities of the Integrated Operational Intelligence Center (IOIC), and to qualify them to interpret, analyze, and report aerial photographic missions through the use of a computer-oriented photographic station within the IOIC area aboard attack aircraft carriers.

Instruction: IOIC concepts; multisensor capabilities of the RA-5C aircraft; basic intelligence-gathering concepts; photographic interpretation station; computer programs related to photographic interpretation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in photographic interpretation (12/73).

NV-1709-0007

IOIC Photo Interpretation Operator

Course Number: D-150-015.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 9 weeks (348 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To provide personnel with an understanding of the capabilities of the Integrated Operational Intelligence Center (IOIC), and to qualify them to interpret, analyze, and report aerial photographic missions through the use of a computer-oriented photographic station within the IOIC area aboard attack aircraft carriers.

Instruction: IOIC concepts; multisensor capabilities of the RA-5C aircraft; basic intelligence-gathering concepts; operation of the computer-oriented photographic station; computer programs related to photographic interpretation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in photographic interpretation (12/73); in the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0008

IOIC Photographic Processing/Maintenance

Course Number: D-150-014.

Location: Naval Intelligence Processing System Training Facility, Albany, GA.

Length: 5 weeks (175 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To provide enlisted personnel with specialized training which will enable them to efficiently process and reproduce photographic intelligence collected by RA-5C aircraft.

Instruction: Familiarization with current fleet photographic operations and procedures; basic photographic quality control techniques; operation and maintenance of continuous processors, printers, and related equipment; tone reproduction techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1709-0009

1. Cinema/Television (TV) Production Specialist C1
2. Motion Picture School, Class C
   (Motion Picture Cameraman)
3. Motion Picture School, Class C

Course Number: *All Versions:* C-400-2010. *Version 2:* C-400-12.

Location: Naval Technical Training Center, Pensacola, FL.

Length: *Version 1:* Self-paced 15 weeks (576 hours). *Version 2:* Self-paced 11-12 weeks (440 hours). *Version 3:* 10-11 weeks (424-464 hours).

Exhibit Dates: *Version 1:* 10/80-12/84. *Version 2:* 10/76-9/80. *Version 3:* 11/65-9/76.

Objectives: To provide students with the skills of motion picture filming and editing, as well as an understanding of the theory and practice of processing, printing, and sound-recording for motion picture film; and to familiarize the student with aerial and underwater motion picture photography, and television applications.

Instruction: *Version 1:* Course uses modular, self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision, advanced motion picture photography, advanced motion picture shooting techniques, studio production, double system sound, sound documentary production and television production. For the course after 1984, see NV-1709-0027. *Version 2:* Course uses modular, self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision, advanced motion picture photography, advanced motion picture shooting techniques, studio production, double system sound, sound documentary production, and television production. *Version 3:* Phase I: Studies in basic film craft will be a product of experiences in film continuity, composition, film assembly and editing techniques, special effects, and screen direction; studies in camera mechanism, optics, and maintenance, as well as film exposure, lens setting, filter theory, and reversal film usage. Phase II: In addition to Phase I, experience with Arriflex and Mitchell cameras will be applied to advanced lighting techniques, story development, script writing, production planning, and negative-positive editing, as well as color film techniques and theory. Phase III: Studies in high-speed, underwater, and aerial photography, as well as sound theory for single and double system production.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in photo departmental operations (3/84); in the upper-division baccalaureate category, 4 semester hours in cinematography or motion picture photography (3/84). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in cinematography or motion picture photography (1/77). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in motion picture photography (12/68).

NV-1709-0010

Still Documentary Photography C1

Course Number: C-400-2022.

Location: Naval Technical Training Center, Pensacola, FL.

Length: Self-paced 5–6 weeks (218 hours).

Exhibit Dates: *Version 1:* 4/78–Present. *Version 2:* 10/76–3/78.

Objectives: To provide training or updating of skills in producing photo stories and written presentations for media release and the development of audio visual presentations.

Instruction: *All Versions:* The course uses modular self-paced individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; documentary news photography, including caption writing, feature picture, basic news writing, spot news, layout and page makeup, picture story, and picture essay; and media selection, including presentation objectives analysis, audience analysis, content outline development, presentation method, storyboard development, master script, visual and narrative production, assembly and programming, general interest slide show, and multi-media presentation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in photo department operations (3/84); in the upper-division baccalaureate category, 2 semester hours in documentary news photography, 2 in media selection (3/84). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in photojournalism or audio-visual techniques (1/77).

NV-1709-0011

Tactical Photographic Interpretation

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 11 weeks (312 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs for military purposes.

Instruction: Lectures and practical exercises in tactical photographic interpretation. Course includes required orientation of cameras and other equipment, mathematics, map and chart reading, and identification exercises of tactical or military items on aerial photographs.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0012

Strategic Photographic Interpretation

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 10 weeks (238 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs.

Instruction: Lectures and practical exercises in strategic photographic interpretation. Course includes photogeometrics and measurement, related mathematics, stereo comparagraph, and more extensive analysis and interpretation of aerial photographs for targeting purposes.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0013

IOIC Photographic Processing Officer

Course Number: D-7F-010.

Location: Reconnaisance Attack Squadron Three, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/69–1/88.

Objectives: To train officers to supervise a photographic laboratory.

Instruction: Lectures and practical exercises in IOIC photographic system orientation; photographic processing control, including sensitometry and desitometry; processing and support equipment; printers; equipment maintenance; and applications to fleet operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photographic processing or photofinishing on the basis of institutional evaluation (7/74).

NV-1709-0014

Metrical Photographic Interpretation

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 14 weeks (401 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs.

Instruction: Lectures and practical exercises in aerial photographic interpretation, including map orientation, appropriate mathematics, position determination, reconnaissance surveying, map and chart projections, photogeometrics, stereocomparagraph, cartography, and trimetrogon mapping.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (12/68).

NV-1709-0015

Radar (Target) Intelligence

Course Number: Not available.

Location: Photographic Interpretation Center, Washington, DC.

Length: 11 weeks (440 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to interpret radar scope images and aerial photographs.

Instruction: Lectures and practical exercises in photograph analyzing for building density, height, types of structures; principles of radar reflection, distortion, and interpretation; and radar scope photographic intrepretation and plotting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (12/68).

NV-1709-0016

Medical Photography Technic

(Medical Photography Technician, Class C)

Course Number: B-400-0010; B-400-10.

Location: Naval Medical School, Bethesda, MD.

Length: *Version 1:* 30 weeks (1200 hours). *Version 2:* 24–26 weeks (900–1120 hours).

Exhibit Dates: *Version 1:* 6/83-Present. *Version 2:* 1/55–5/83.

Objectives: To train enlisted personnel to take, process, and print black and white and color still and motion pictures relating to scientific, clinical, surgical, and pathological fields.

Instruction: *All Versions:* Lectures and practical exercises in medical photography, including basic principles of photography, camera operation, optics, light meters, filters, film processing and darkroom procedures for both black and white and color films, photo copying, slide duplication and mounting, slide projection, medical-related photographic techniques,and motion picture projection. *Version 1:* Includes forensic photography, audio visual and TV production. *Version 2:* Includes infrared and ultraviolet photo techniques, photomicrography and cinematography.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in still photography, 4 in black and white photography, 5 in color photography, 7 in medical photography, 3 in public affairs photography, 1 in forensic photography and 1 in audiovisual techniques (2/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in medical photography (7/74); in the upper-division baccalaureate category, 4 semester hours in photography, 12 in medical photography (12/68).

NV-1709-0017

Illustrative Photography C1

Course Number: C-400-2021.

Location: Naval Technical Training Center, Pensacola, FL.

Length: Self-paced 4–6 weeks (182–212 hours).

Exhibit Dates: 10/76–Present.

Objectives: To provide training or skill updating in the areas of slide production and illustrative, architectural, and portrait photography.

Instruction: The course uses modular self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; illustrative photography, including the Kodak Ektamatic print processor, macrophotography, composition, and architectural photography; and studio lighting/portraiture.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photo department operations (3/84); in the upper-division baccalaureate category, 2 semester hours in photography (studio/architectural/portraiture) (3/84).

NV-1709-0018

Photographic Laboratory Technician C1

Course Number: C-400-2020.

Location: Naval Technical Training Center, Pensacola, FL.

Length: Self-paced 6 weeks (213 hours).

Exhibit Dates: *Version 1:* 4/78–Present. *Version 2:* 10/76–3/78.

Objectives: To provide students training and skills in color printing and processing, photofinishing equipment operation, and chemical process quality control.

Instruction: The course uses modular self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; laboratory support equipment familiarization, including sensitometry, film speed, process effects and uniformity, chemical monitoring and process control, replenishment rates, statistical and sensitometric evaluation, gamma and tone reproduction; and color processing, including the master print, basket processing, visual evaluations, off-easel and on-easel spot evaluations, and calibration and indexing of color analyzer.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in photo department operations (3/84); in the upper-division baccalaureate category, 2 semester hours in photography or photographic technician training (3/84). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in photography or photographic technician training (1/77).

NV-1709-0019

Photographic Equipment Preventive/Operational Maintenance

Course Number: C-670-2016.

Location: Naval Technical Training Center, Pensacola, FL.

Length: 5-6 weeks (213 contact hours).

Exhibit Dates: 1/83–9/84.

Objectives: To provide photographer's mates with the skills required to install, operate and maintain general photographic equipment.

Instruction: Lectures and practical exercises in the concepts of mechanical and electro-mechanical devices commonly found in shore and fleet photography laboratories. For the course after 1984, see exhibit NV-1709-0028.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in photo-finishing, 1 in photo department operations (3/84).

NV-1709-0020

Periscope Photography

Course Number: A-400-0010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (61 hours).

Exhibit Dates: 10/73–Present

Objectives: Upon successful completion of this course, the trainee will be able to state the purpose and capabilities, characteristics, limitations and requirements of the KS-93A camera. The trainee will also be able to perform tasks required for normal operation of the ET-109 A/B film processor.

Instruction: Lectures and laboratory instruction in the theory of operation and mainenance of a KS-93A camera and ET-109 A/B film processor.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

NV-1709-0021

AN/SXQ-8(V)2 Secure Closed Circuit Television System Maintenance

Course Number: D-150-0101; J-150-0989.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 12/82–Present.

Objectives: To provide technical knowledge and skills needed to perform preventive and corrective maintenance actions for the AN/SXQ-8(V)2 secure closed circuit television system.

Instruction: Covers block diagram analysis of CCTV system with waveform analysis, and the correlation of special test equipment to the over-all signal block diagram. The course is broken into major segments covering the specific equipment in the input, sync, switching, and monitor blocks.

Credit Recommendation: In the vocational certificate category, 6 semester hours in closed circuit television maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in a technical elective (electronics) (1/86).

NV-1709-0022

EH-73 Photographic Quality Control Maintenance (Kodak Ektachrome RT Processor Quality Control Maintenance)

Course Number: C-400-0101; D-400-0101.

Location: Naval Technical Training Center, Pensacola, FL; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/83–1/87.

Objectives: To provide a selected number of students with specialized training in the operation and maintenance of a color film processor and related equipment.

Instruction: Topics include recommended procedures for application to color photography; operation and maintainance of roller processors, printers, and related equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in photographic darkroom procedures (1/86).

NV-1709-0023

EH-38D Photographic Quality Control/Maintenance

Course Number: C-150-0014; D-150-0014.

Location: Naval Technical Training Center, Pensacola, FL; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/83–1/87.

Objectives: To provide students with specialized training in the operation and maintenance of film processors and related equipment, and to start and maintain a quality control program.

Instruction: Topics include the operation and maintenance of data processing equipment and darkroom procedures including chemical preparation and mixing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in photographic techniques (1/86).

NV-1709-0024

Modular Image Interpretation System and Analytical Photogrammetric Positioning System Maintenance

Course Number: D-150-0105, J-150-0990.

Location: Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/83–Present.

Objectives: Trains selected data systems technicians in corrective and preventive maintenance of the Modular Image Interpretation System (MIIS) AS-27A and the Analytical Photogrammetric Positioning System (APPS) AN/UYK-48.

Instruction: Topics include the purpose, capabilities, and operation of the over-all system; lab portion covers troubleshooting and corrective maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (1/86).

NV-1709-0025

Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer

Course Number: C-3A-0117; D-3A-0117.

Location: Naval Technical Training Center, Pensacola, FL; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/82–1/87.

Objectives: To provide detailed familiarization in the operation and management of the photographic section of a naval intelligence processing system and reconnaissance mission planning.

Instruction: Familiarization with photographic processing, aircraft photographic equipment, performance procedures, overall operation of the intelligence center, coordination efforts, and quality production.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/86).

NV-1709-0026

Afloat Tactical Reconnaissance Intelligence (TACRECCE) Analyst

Course Number: D-150-0016; J-150-0987.

Location: Naval Air Station, Norfolk, VA; Naval Intelligence Processing System Training Facility, Key West, FL.

Length: 8 weeks (320 hours).
Exhibit Dates: 10/84–2/87.

Objectives: To provide intelligence specialists with the technical ability to understand the capabilities of the Naval Intelligence Processing System (NIPS) afloat.

Instruction: Teaches the skills necessary to operate an image interpretation system, a photogrammetric positioning system, and to perform tactical reconnaissance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester credits in technical mathematics (1/86); in the upper-division baccalaureate category, 3 semester hours in photogrammetry (1/86).

NV-1709-0027

Cinema Television/Production Specialist

Course Number: C-400-2010.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 17–18 weeks (696 hours).
Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to script cinema/television productions, operate professional cinema/television cameras and be able to apply standard cinema/television techniques for training, documentation, news and public information genres.

Instruction: Includes lectures, demonstrations and laboratory work in basic cinema and television techniques, scripting, camera work, editing and sound for training, documentary, news and public information genres.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in cinema productions and 3 in television production (7/87).

NV-1709-0028

Photographic Equipment Preventive/Operational Maintenance

Course Number: C-670-2016.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 6 weeks (240 hours).
Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, maintain and provide minor repairs to general photographic equipment.

Instruction: Includes lectures, laboratories, demonstrations and exercises covering the mechanical, electrical, and electro-mechanical devices commonly found in Navy photographic laboratories.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in photographic finishing (7/87).

NV-1709-0029

Photographic Equipment Repair, Class C-1

Course Number: C-670-2012.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 13 weeks (520 hours).
Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance on representative mechanical, electro-mechanical and electronic photographic equipment.

Instruction: Includes lectures, demonstrations and laboratory work on the procedures of preventive maintenance on representative mechanical, electro-mechanical and electronic photographic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in photography equipment repair (7/87).

NV-1709-0030

Advanced Photography Training

Course Number: C-400-2030.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 14 weeks (560 hours).
Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate knowledge and skills in the areas of photographic lab administration, quality control, color photography, illustrative photography, portraiture, photojournalism, motion picture and aerial photography.

Instruction: Includes lectures, demonstrations, and laboratory work in the areas of photographic lab administration, quality control, color photography, illustrative photography, portraiture, photojournalism, motion picture and aerial photography.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photographic lab administration, 1 in quality control, 2 in color photography, 2 in illustrative photography, 1 in portraiture, 2 in photojournalism, 2 in motion picture photography, and 1 in aerial photography (7/87).

NV-1709-0031

Still Documentary Photography

Course Number: C-400-2028.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 2–3 weeks (88 hours).
Exhibit Dates: 6/84–9/87.

Learning Outcomes: Upon completion of the course, the student will be able to function as a still photography journalist including caption writing, basic news writing, layout and page make-up, produce photographs for features, picture stories, and picture groups.

Instruction: Includes lectures, laboratories, demonstrations and exercises covering caption writing, the feature picture, basic news writing, rapid access photography, layout and page make-up, the picture story, and the picture group.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in photographic journalism (7/87).

NV-1709-0032

Illustrative/Architectural Photography

Course Number: C-400-2026.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 6/84–9/87.

Learning Outcomes: Upon completion of the course, the student will be able to use a variety of lighting techniques to enhance shape, tone and texture of various subjects, and be able to light large interiors. The student will be able to use all of the corrective features of a 4x5 view camera for architectural photography.

Instruction: Includes lectures, demonstrations and laboratory work in lighting techniques and corrective view camera functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in illustrative/architectural photography (corrective) (7/87).

NV-1709-0033

Photographic Quality Control

Course Number: C-400-2024.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 6 weeks (242 hours).
Exhibit Dates: 6/84–9/87.

Learning Outcomes: Upon completion of the course, the student will be able to monitor photographic processes and utilize statistical and sensitometric evaluation to maintain quality control.

Instruction: Includes lectures, laboratories, demonstrations and exercises covering photographic chemistry, sensitometry and photographic process quality control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photographic process quality control (7/87).

NV-1709-0034

Portraiture

Course Number: C-400-2027.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 1–2 weeks (52 hours).
Exhibit Dates: 6/84–9/87.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate knowledge and skills in the area of portrait photography including head and shoulders, three-quarter length, executive, group and profile portraits and the correct use of lighting and props.

Instruction: Includes lectures, demonstrations and laboratory work in portrait studio equipment operation, head and shoulders portraits, three-quarter length portraits, executive portraits, group portraits and specialized portraits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in portraiture (7/87).

NV-1709-0035

Color Photography C1

Course Number: C-400-2012.
Location: Naval School of Photography, Corry Station, Pensacola, FL.
Length: 2 weeks (73 hours).
Exhibit Dates: 6/84–9/87.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate knowledge and skills in the area of color photography including color photography theory, quality control and corrective color printing.

Instruction: Includes lectures, demonstrations and laboratory work in color negative processing and printing and color processing quality control including process mounting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in color photography (7/87).

NV-1709-0036

Audio-Visual Managers

Course Number: C-7F-216.
Location: Naval School of Photography, Corry Station, Pensacola, FL.

Length: 2 weeks (68 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to successfully manage an audio-visual facility.

Instruction: Includes lectures, demonstrations, covering the organization of naval audio-visual services.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in audio-visual facility management (7/87).

NV-1709-0037

Photographer's Mate School Class A

Course Number: C-400-2011.

Location: Naval School of Photography, Corry Station, Pensacola, FL.

Length: 9–10 weeks (372 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide, with minimal supervision, routine black and white still photographs including basic electronic flash photography, basic studio photography, and basic documentary photography.

Instruction: Includes lectures, laboratories, demonstrations and exercises in B & W photography process control, basic camera and exposure meter operation, electronic flash operation, sensitometry, studio photography and documentary photography.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in basic black and white photography, and 3 in materials and processes of photography (7/87).

NV-1709-0038

Intelligence Photography

Course Number: J-243-0974.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA. Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 1 week (40 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a 35 mm camera; understand fundamental photographic theory and techniques, develop and print photographs using standard basic techniques, and maintain a photo log.

Instruction: Lectures and group-paced practical exercises in the operation and maintenance of a basic 35 mm SLR camera; limited darkroom and laboratory techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic photography ((12/87).

NV-1709-0039

Intelligence Specialist Class A
Imagery Interpretation

Course Number: J-242-0993.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 15 weeks (592 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform arithmetic and photogrammetric calculations with mechanical and electronic calculators; identify, measure, classify, and determine junction of various physical and cultural ground features through black and white, color, infrared, and radar imagery; initiate research and write reports; prepare photo mosaics; and plan work assignments.

Instruction: Through lectures, laboratory assignments and practical exercises students receive intensive instruction on all skills related to the interpretation of all-source imagery.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics and 3 in technical writing (12/87); in the upper-division baccalaureate category, 3 semester hours in photogrammetry and 3 in aerial photo interpretation (12/87).

NV-1709-0040

Automated Tactical Reconnaissance Systems (TACRECCE) Support Afloat

Course Number: J-150-0987.

Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.

Length: 4 weeks (150 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate an image interpretation system, a photogrammetic positioning system, and perform tactical reconnaissance procedures.

Instruction: Teaches the skills necessary to operate an image interpretation system, a photogrammetric positioning system, and to perform tactical reconnaissance procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photogrammetry (12/87).

NV-1710-0001

1. Boiler Technician, Class A1 (600 PSI)
2. Boilermen, Class A

Course Number: A-651-0010.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 7–8 weeks (364 hours). *Version 2:* 10–15 weeks (310–456 hours).

Exhibit Dates: *Version 1:* 1/74–1/88. *Version 2:* 5/63–12/73.

Objectives: To train enlisted personnel to operate, maintain, and repair marine boilers, pumps, and associated machinery.

Instruction: *All Versions:* Lectures and practical exercises in boiler maintenance and repair; distilling plant operation; fuel oil and auxiliary equipment operation; fireroom operations; maintenance, and materiel management. Instruction includes basic mathematics, tools and materials, valves, and basic steam plant principles. *Version 1:* Instruction is self-paced.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in automotive and mechanical programs and 5 in systems maintenance or a related program (9/77). *Version 2:* Credit is not recommended because of the military specific nature of the course (4/74).

NV-1710-0002

Boilerman Enlisted Maintenance

Course Number: A-651-017.

Location: Destroyer School, Newport, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: 12/69–1/88.

Objectives: To train enlisted personnel to operate, inspect, and repair boilers.

Instruction: Lectures and practical exercises in the operation, inspection, and repair of boilers, including cleaning and overhaul procedures, steam cycle and theory, safety valves, fuel oil service pump, forced-draft blowers, burners and air registers, regulators and indicators, pumps and blowers, calibration, patching, and packing and gaskets.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1710-0003

Pressure Fired Boiler Operator, Class C
(Pressure Fired Steam Generator Console Operator)

Course Number: A-651-0014.

Location: Propulsion Engineering School, Great Lakes, IL; Boilerman School, Philadelphia, PA.

Length: Self-paced 4–6 weeks (160–180 hours).

Exhibit Dates: 11/72–Present.

Objectives: To augment the training of boiler operators to operate super charged boilers.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of pressure-fired boilers, including boiler design and components, supercharger and feed system, automatic combustion and feed controls, component calibration, boiler steaming and operation, and local control of boilers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boiler operation and repair on the basis of institutional evaluation (1/82).

NV-1710-0005

Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C
(Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk 7 Arresting Gear), Class C)

Course Number: Not available.

Location: *Version 1:* Air Technical Training Center, Lakehurst, NJ. *Version 2:* Air Technical Training Unit, Philadelphia, PA.

Length: 9 weeks (352-360 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train personnel in the operation, inspection, and maintenance of C-7 and C-11 catapults and related equipment, Mk-7 arresting gear and barricades; visual landing aids (Fresnel Lens OLS Mk VI and Manual Meatball); and shore-based arresting gear.

Instruction: Lectures and practical exercises in operation, inspection, and maintenance of C-7 and C-11 catapults and related equipment; basic information relating to catapults, arresting gear and visual landing aids; steam catapults; steam system, C7/11 Mod 1; launching engine; retraction and tensioning engine; bridle tension system; control system; bridle arrestor engine and associated equipment; miscellaneous information and safety precautions; shore-based arresting gear; and Mk-7 arresting gear, Fresnel Lens Mk VI and Manual Meatball.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as a general elective in mechanical programs (7/74).

NV-1710-0006

Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
(Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C)

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Unit, Philadelphia, PA.

Length: 9 weeks (352–360 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train enlisted personnel to operate, inspect, and maintain C-13 catapults and related equipment, Mk-7 arresting gear and barricades, visual landing aids, and shore-based arresting gear.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of C-13 catapults and related equipment, Mk-7 arresting gear and barricade, visual landing aids, and shore-based arresting gear, including fundamentals of catapult operation and design, launching and recovery procedures and description, nomenclature, and component operation of steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0007

CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Philadelphia, PA.

Length: 5 weeks (192 hours).

Exhibit Dates: 10/65–12/68.

Objectives: To train enlisted personnel to operate, inspect, and maintain H-8 catapults and related equipment, Mk 5 arresting gear and barricades, Mk 1 Mod 1 and Mk 6 Mod 1 visual landing aids, and shore-based arresting gear.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of H-8 catapults and related equipment, Mk 5 arresting gear and barricades, Mk 1 Mod 1 and Mk 6 Mod 1 visual landing aids, and shore-based arresting gear, including principles and design of catapults, component operations, launching and recovery systems, control panel operation, and description and nomenclature of hydropneumatic and steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0008

CVA Catapult Steam and Drain System, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 3 weeks (112 hours).

Exhibit Dates: 8/68–1/88.

Objectives: To train enlisted personnel to operate, inspect, and maintain the CVA catapult's steam and drain systems and related components.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of CVA catapult's steam and drain systems and related components, including fundamentals of steam catapults, types of steam catapults, system components, and operational procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0009

Catapult and Arresting Gear, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Philadelphia, PA.

Length: 11 weeks (440 hours).

Exhibit Dates: 9/56–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair H-4, H-8, and C-11 catapults and related equipment, and the Mk 5 and Mk 7 arresting gear, barriers, and barricades.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of H-4, H-5, and C-11 catapults and related equipment, and Mk 5 and Mk 7 arresting gear, barriers, and barricades, including history and design of catapults, and description, nomenclature, operation, and preventive maintenance of hydropneumatic and steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0010

CVA Catapult Electrician, Class C

Course Number: C-680-2013.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/71–1/88.

Objectives: To train enlisted personnel who have backgrounds in electronics to operate and maintain CVA catapult electrical systems and related components.

Instruction: Lectures and practical exercises in the operation and maintenance of CVA catapult electrical systems and related components, including engine systems, retract and tension system, and control system; launching and retraction of steam catapults; circuits and electrical components in catapult control (motor, relays, synchros, indicators, sequence of operation); valve control; and catapult maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1710-0011

Aircraft Launch and Recovery Equipment, Class C1, C7/C11 Track

Course Number: C-604-2010.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 8 weeks (314 hours).

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, inspect, and maintain C-7/11 catapults and related equipment, and serve as a work center supervisor.

Instruction: Lectures and practical exercises in the basic fundamentals, description, operation, function, and location of the C7/C11 catapults; Mk-7 Mod 3 arresting gear barricade components and systems including the steam system, mechanical system, hydraulic system, and control system; instruction includes familiarization, operation, replacement, servicing, repair, and inspection.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fluid power principles (6/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in fluid power maintenance and troubleshooting, and 1 in industrial safety (6/87).

NV-1710-0012

Engineering Watch Officer

Course Number: G-4H-6191; G-651-6191.

Location: Amphibious Base, Little Creek, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train officers to be engineering watch officers on amphibious ships.

Instruction: Lectures on the operation of steam and diesel boilers, AC-DC generator systems, switchboard controls, electrical safety precautions, electromechanical systems operation, auxiliary equipment operation, and engineering administration.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0013

Prospective Engineering Officer Orientation

Course Number: A-4H-0024.

Location: Development and Training Center, San Diego, CA.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train officers to operate and maintain steam-powered ship engine room equipment.

Instruction: Lectures and practical exercises in boilers and associated equipment operation and maintenance, including steam systems, turbines, electrical systems, evaporators, refrigeration, water pumps and valves, boiler controls, feed pump controls, recirculation systems, hydraulics, governors, and casualty control operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0014

Marine Corps Short Airfield For Tactical Support, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/65–1/88.

Objectives: To train enlisted personnel to install, inspect, operate, and maintain SATS launching and recovery equipment.

Instruction: Lectures and practical exercises in installation, inspection, operation, and maintenance of support equipment, including runway matting, generators, air compressors, cranes, fork lifts, anchors, and special tools, recovery equipment, including arresting gear and SATS barricades; launch equipment, including catapult systems, and control systems; and operational procedures and field operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0015

Standard Tensioned Replenishment Alongside Methods (STREAM) Operator

(Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing)

(UNREP Rigging Procedures)

Course Number: A-060-0025; A-551-0025.

Location: Naval Schools Command, Treasure Island, CA.

Length: 2–3 weeks (70–105 hours).

Exhibit Dates: 1/70–4/82.

Objectives: To train enlisted personnel to operate a raw-tensioned, high-level sending system.

Instruction: Lectures and practical exercises in raw-tensioned, high-line system operation, including standard methods of replenishment at sea, preventive maintenance of station components, safety precautions, and emergency breakaway procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in rigging (11/81).

NV-1710-0016

Underway Replenishment Mechanical and Hydraulic Component Maintenance
(UNREP Hydraulic and Mechanical Component Maintenance (Sending Units))

Course Number: A-690-0028; A-551-0027.

Location: Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 5 weeks (197 hours). *Version 2:* 10 weeks (300 hours).

Exhibit Dates: *Version 1:* 8/80-5/84. *Version 2:* 1/70-7/80.

Objectives: To train enlisted personnel to maintain the shipboard UNREP system's hydraulic and mechanical components.

Instruction: Lectures and practical exercises in basic electricity; basic hydraulics; winches; circuit analysis; sealing materials and gauges; circulatory systems, actuators, pumps, valves, and controls; hydraulic power unit, transfer head ram tensioner, multidirectional fork trunk, and sealed transmissions operation; cargo and personnel transfer equipment operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical or industrial technology (11/81). *Version 2:* In the vocational certificate category, 3 semester hours as an elective in industrial or mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial or mechanical technology (4/74).

NV-1710-0017

Equipment Operators, Class A
(EO "A")

Course Number: *All Versions:* A-730-0010. *Version 2:* A-730-0012.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI.

Length: *Version 1:* 9 weeks (261 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 11/74-1/88. *Version 2:* 11/67-10/74.

Objectives: To train enlisted personnel to operate, adjust, and service heavy construction equipment.

Instruction: Lectures and practical exercises in automotive vehicle, front-end loader, forklift, grader, and crawler tractor operation, adjustment, and servicing, including internal-combustion engine basic principles; fuels and lubricants; earthwork fundamentals; equipment production; hauling, loading, and lifting equipment adjustment, operation, and servicing; and soil compactors, crawler tractors, and tractor-drawn scrapers operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in heavy construction equipment (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction/civil technology (7/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction program, 3 in civil technology program (4/74).

NV-1710-0018

1. Equipment Operator, Class J (EO "J")
2. Equipment Operator, Class B (EO "B")

Course Number: A-730-0011.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: *Version 1:* 16 weeks (489 hours). *Version 2:* 16-18 weeks (480-540 hours).

Exhibit Dates: *Version 1:* 9/75-1/88. *Version 2:* 11/59-8/75.

Objectives: To train equipment operators to supervise personnel in construction, earth moving, road building, rock crushing, and asphalt mixing and paving operations.

Instruction: *Version 1:* Instruction includes soil identification; earthwork computations; operation of rock crushers; asphalt plants and pavers; operation and maintenance of cranes, crawlers, wheel tractors, and scrapers; and roadway foundations. *Version 2:* Lectures and practical exercises in instructional techniques, job planning, dispatching, records and reports; and earth moving, road building, rock crushing, and asphalt mixing and paving equipment nomenclature, lubrication, preventive maintenance, safety procedures, adjustments, and repairs; and graders, crawlers, tractors, scrapers, and cranes.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in highway construction or civil technology (7/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction and heavy equipment (4/74).

NV-1710-0019

Marine Expeditionary Airfield Equipment

Course Number: C-604-2015.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 6 weeks (216 hours).

Exhibit Dates: 11/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, maintain, inspect and test the M-21 arresting gear, Mk-8 Frensel Lens Optical Landing System, AM-2 matting and accessories, airfield lighting, anchoring systems, shore-based emergency arresting gear and perform cardiopulminary resuscitation as a member of a team.

Instruction: Lectures and practical exercises in movement and use of required equipment for the construction, installation, maintenance, and operation of a marine expeditionary airfield, including but not limited to portable matting, vertical/short take-off and landing, Frensel Lens Optical Landing System, M-21 arresting gear and E-28 emergency aircraft shore-based arresting gear, and the E-51 emergency arresting gear. Instruction in use and handling of explosives, as well as completion of records and maintenance reports.

Credit Recommendation: In the vocational certificate category, 1 semester hour in small engine maintenance (6/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in power-plant operational theory, and 2 in safety and first aid (6/87).

NV-1710-0020

1. CV/CVN (Class) Air Compressor
2. CV Class Ship Air Compressor Maintenance, Class F

Course Number: A-652-0239.

Location: *Version 1:* Fleet Training Center Cryogenics School, Portsmouth, VA. *Version 2:* Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: *Version 1:* 2 weeks (79 hours). *Version 2:* 2-3 weeks (80 hours).

Exhibit Dates: *Version 1:* 4/84-Present. *Version 2:* 3/83-3/84.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to operate and maintain high and low pressure centrifugal air compressors. *Version 2:* Upon completion of the course, the student will be able to perform organizational level maintenance on the low pressure and high pressure air compressors.

Instruction: *Version 1:* Classroom and practical instruction on air compressors including operation and maintenance. *Version 2:* Instruction includes group-paced instruction including both lecture and laboratory activities on air compressor theory, operation, maintenance, and repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 in laboratory in mechanical compression systems (3/89). *Version 2:* In the vocational certificate category, 1 semester hour in air compressor theory and 3 in air compressor maintenance and repair (7/87).

NV-1710-0021

1200 PSI Boiler Technician (BT) Orientation/Operation

Course Number: A-651-0037.

Location: Boilerman School, San Diego, CA.

Length: 3-4 weeks (106-140 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to operate shipboard boilers and associated equipment.

Instruction: Lectures and practical exercises in shipboard boiler construction and operation, fireroom procedures, damage control, lighting off and securing main boilers, and underway watch standing and casualty control.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in building maintenance (4/74).

NV-1710-0022

Boiler Repair Technician

Course Number: K-651-0109.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform operational tasks, preventive maintenance, and repair on the propulsion boiler.

Instruction: Instruction includes lecture and laboratory instruction on the propulsion boiler system including theory of operation, inspection, maintenance and repair.

Credit Recommendation: In the vocational certificate category, 2 semester hours in boiler operational theory and 3 in boiler maintenance and repair (7/87).

NV-1710-0023

1. LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1
2. Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System

Course Number: A-652-0055.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: *Version 1:* 4 weeks (150 hours). *Version 2:* 3 weeks (102 hours).

Exhibit Dates: *Version 1:* 6/77-6/83. *Version 2:* 5/73-5/77.

Objectives: To train enlisted personnel who have taken a basic engineman course to operate, maintain, and troubleshoot variable-pitch ship propellers and associated control equipment.

Instruction: For this course after 6/83 see NV-1710-0106. Lectures and practical exercises in the operation, maintenance, and troubleshooting of variable-pitch ship propellers and associated control equipment, including introduction to hydraulics and pneumatics, analysis of various circuits, component assembly, and operation of specific variable-pitch propellers and associated controls.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in automotive/mechanical technology (9/77). *Version 2:* In the vocational certificate category, 2 semester hours as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical technology (4/74).

NV-1710-0024

Steam Components (Enlisted)

Course Number: F-000-035.

Location: Naval Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to operate and maintain steam components.

Instruction: Lectures and practical exercises in the operation and maintenance of steam components, including instruction on steam reducing valves, steam traps, flexatallic gaskets, manual valves, hotwell level control systems, steam generator relief and pilot automatic drain valves, hydrostatic testing, feed water control valves, steam generator cutout valve, condenser repair, steam root valve manifold, and steam generator sight glasses.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in building maintenance (4/74).

NV-1710-0025

Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted

Course Number: F-652-026.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to operate, maintain, and repair low-pressure and vapor compression distilling units.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of low-pressure and vapor pressure distilling units, including operation and troubleshooting of low-pressure distilling steam systems, valves and meters, pumps, traps, condensers, gages, and compressors, and similar components of the vapor pressure distilling system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0026

Ordnance Handling Equipment Intermediate Maintenance

Course Number: C-646-3119.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Alameda, CA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/71-1/88.

Objectives: To train enlisted personnel to maintain ordnance-handling equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of ordnance-handling equipment, including operation, servicing, and inspection of specific skids, bomb hoists, and bomb trucks.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0027

Utilitiesman, Shore Based Boiler Controls, Class C

Course Number: A-720-0022.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: 7 weeks (222 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To provide the enlisted technician with advanced technical skills and knowledge in electrical and pneumatic controller systems components, safety switches, and testing meters to troubleshoot, repair, operate, and maintain steam heating boilers.

Instruction: Lectures and practical exercises in boiler equipment fittings and controls, basic electricity, electrical circuits, automatic and pneumatic controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 2 in electrical circuitry, and 1 in boiler controls (7/76).

NV-1710-0029

Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear)

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (176 hours).

Exhibit Dates: 11/68-1/88.

Objectives: To train enlisted personnel to operate, inspect, and maintain H-8 catapults and related equipment, Mk-5 arresting gear and barricades, and specific visual landing aids and shore-based arresting gear.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of H-8 catapults and related equipment, Mk-5 arresting gear and barricades, and specific visual landing aids and shore-based arresting gear, including catapult principles and design, nomenclature, hydraulic principles, and assembly, components, and analysis of specific equipment and systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0030

Launcher Technician (Tender)

Course Number: A-733-0017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train launcher technicians in the operation and maintenance of fleet ballistic missile submarine tenders, and missile-handling equipment.

Instruction: Lectures and practical exercises on the operation and maintenance of the missile-handling equipment found on fleet ballistic missile submarine tenders, including basic theory of handling equipment Mks 4 and 5, description of the mechanical and electrical characteristics of handling equipment components, preventive and corrective maintenance procedures, advanced theory of handling equipment Mks 4 and 5, logic elements used for control and sequencing of events for the Westinghouse moist units (Mks 1 and 2), and their functional operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0031

600 PSI Boiler Technician (BT) Maintenance

Course Number: A-651-0023.

Location: Development and Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train personnel to perform as boiler technicians.

Instruction: Lectures and practical exercises in the repair and maintenance of 600-PSI boilers and associated auxiliary machinery and equipment, including precision measurement instruments, boiler tube work, boiler refractory, boiler safety valves, single-element feed regulators, forced-draft blowers, fuel oil service pump turbine, Leslie C/P governor, fuel oil service pump, reciprocating pumps, and hydrostatic tests.

Credit Recommendation: In the vocational certificate category, 2 semester hours in building engineering or building maintenance (5/74).

NV-1710-0032

1200 PSI BT Maintenance (Boilerman)

Course Number: A-651-0031.

Location: Boilerman School, San Diego, CA.

Length: 8 weeks (280 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train rated boiler technicians to maintain the 1200 PSI boilers and associated auxiliary machinery.

Instruction: Lectures and detailed practical instruction in the operational principles, construction, maintenance, and repair of the 1200 PSI steam generator and supporting auxiliary fireroom machinery, including boiler casings, boiler refractories, blueprints, precision measuring instruments, fire pump, boiler safety valves, distillate conversion, fuel oil service pump, Worthington main feed pump, forced-draft blower (carrier), governors and reducing valves, and forced-draft blower (Hardie-Tynes).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in industrial technology, or 5 in building maintenance or building engineer (5/74).

NV-1710-0033

Boilerman, Class B

Course Number: A-651-0011; A-651-011.
Location: Boilerman School, Philadelphia, PA.
Length: 15–22 weeks (450–660 hours).
Exhibit Dates: 1/54–1/88.
Objectives: To train personnel to perform as boiler technicians.
Instruction: Lectures and practical exercises in the operation and maintenance of marine boilers and associated equipment, including operation and maintenance of the 1200-psi steam generating plant; operation and maintenance of the automatic combustion control boards; operation, adjustment, maintenance, and minor repair of hydraulic, pneumatic, and electrical equipment used with automatic combustion control boards; transfer, test, and inventory of fuels and water; and maintenance and repair of boilers, pumps, and associated machinery.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in building engineering, building maintenance, or industrial technology (5/74).

NV-1710-0034

Builder/Heavy Construction
Technician, Class C
(BU "C" Heavy Construction)

Course Number: A-710-0018.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI.
Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 7 weeks (208 hours).
Exhibit Dates: *Version 1:* 2/75–1/88. *Version 2:* 11/72–1/75.
Objectives: To train enlisted personnel in heavy construction.
Instruction: *Version 1:* Lectures and practical exercises in heavy construction, including tools, piles, and pile-driving methods; waterfront structures; trestle construction; railroad-track maintenance and repair; wood towers; and planning and estimating. *Version 2:* Topics also cover lumbering and sawmill operation.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy construction (7/76). *Version 2:* In the vocational certificate category, 5 semester hours in heavy construction (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in heavy construction (5/74); in the upper-division baccalaureate category, 2 semester hours in heavy construction (5/74).

NV-1710-0035

Construction Mechanic, Class A1
(CM"A")

Course Number: A-610-0022.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 13–14 weeks (391–421 hours).
Exhibit Dates: 8/63–1/88.
Objectives: To train enlisted personnel to operate and maintain internal-combustion engines in construction equipment.
Instruction: Lectures and practical exercises in construction equipment internal-combustion engines operation and maintenance, including internal-combustion engine principles, electrical systems, automotive power trains, malfunction diagnosis and adjustment, and safety procedures.
Credit Recommendation: In the vocational certificate category, 9 semester hours in construction equipment motor operation and maintenance (7/76); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment motor operation and maintenance (7/76).

NV-1710-0036

Utilitiesman, Class J (UT"J")
(Utilitiesman, Class B)

Course Number: A-720-0013.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 14–15 weeks (420–450 hours).
Exhibit Dates: 11/60–1/88.
Objectives: To train enlisted personnel to repair and maintain utility systems.
Instruction: Lectures and practical exercises in utility systems maintenance and repair, including plumbing, sewage disposal, blueprint reading, boilers, refrigeration, pumps, compressors, air conditioning, water supply, and water treatment.
Credit Recommendation: In the vocational certificate category, 9 semester hours in utilities maintenance and repair (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in utilities maintenance and repair (7/76); in the upper-division baccalaureate category, 2 semester hours in utilities maintenance and repair (7/76).

NV-1710-0037

Equipment Operators Gradework,
Class C
(EO "C" Gradework)

Course Number: A-710-0019.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 6 weeks (180 hours).
Exhibit Dates: 10/71–1/88.
Objectives: To train noncommissioned officers to supervise earthwork operations according to specifications, mass diagrams, and construction schedules, and to prepare estimates.
Instruction: Lectures and practical exercises in earth supervision, including gradework principles, surveys, maps, mass-diagram preparation, drainage, soil compaction and stabilization, estimating, planning, equipment operation, and field projects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in civil technology (7/76); in the upper-division baccalaureate category, 2 semester hours in civil or construction engineering (7/76).

NV-1710-0038

Builder/Masonry, Class C
(BU "C" Masonry)

Course Number: A-710-0017.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 5 weeks (154 hours).
Exhibit Dates: 1/72–1/88.
Objectives: To train noncommissioned officers in masonry techniques and in supervision and training of masonry crews.
Instruction: Lectures and practical exercises in masonry and masonry crew training and supervision, including properties and preparation of mortars, brick and block laying and properties, stone and tiles setting, plastering, design and sketch preparation, planning, and manpower and materials estimating.
Credit Recommendation: In the vocational certificate category, 3 semester hours in masonry construction (7/76).

NV-1710-0039

Shipboard Thermal Insulation
(Lagging)

Course Number: F-000-0076; F-000-076.
Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC.
Length: 2–3 weeks (76–90 hours).
Exhibit Dates: 9/71–1/88.
Objectives: To train personnel to remove, repair and install shipboard insulation and lagging.
Instruction: Lectures and practical exercises in shipboard insulation and lagging installation, including heat insulation materials; types of insulation and lagging materials used in nuclear and non-nuclear systems; and installation of insulation on piping components, ducts, and hulls.
Credit Recommendation: In the vocational certificate category, 2 semester hours in thermal insulation (5/74).

NV-1710-0040

Builder/Concrete, Class C
(BU "C" Concrete)

Course Number: A-730-0020.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 7 weeks (216 hours).
Exhibit Dates: 10/71–1/88.
Objectives: To train noncommissioned officers to use, mix, and handle concrete.
Instruction: Lectures and practical exercises in concrete use, mixing, and handling, including applied mathematics; plans and specifications; concrete ingredients; design and control of concrete mix; precast concrete; reinforcement, joints and batch plants; placing, finishing and curing concrete; decorative concrete; road and airfield paving; concrete-block and pipe plants; gunite and estimating.
Credit Recommendation: In the vocational certificate category, 5 semester hours in concrete mixing, placing, and use (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in concrete mixing, placing, and use (7/76).

NV-1710-0041

Shipfitters, Class A (Pipefitters)

Course Number: Not available.
Location: Training Center, San Diego, CA.
Length: 12 weeks (360 hours).
Exhibit Dates: 5/63–12/68.
Objectives: To train enlisted personnel to be pipefitters.
Instruction: Lectures and practical exercises in pipefitting, including shipfitter responsibilities, mathematics, blueprint reading, shipfitters working drawings and symbols, tools and materials, metallurgy, welding, brazing and soldering, coppersmithing, and pipefitting.

Credit Recommendation: In the vocational certificate category, 8 semester hours in pipefitting (5/74).

NV-1710-0042

Builder, Class J (BU "J")
(Builder, Class B)

Course Number: A-710-0011; A-710-0014.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.
Length: 16–17 weeks (480–511 hours).
Exhibit Dates: 10/70–1/88.
Objectives: To train petty officers to supervise builders.
Instruction: Lectures and practical exercises in builder supervision, including mathematics, shop machinery, foremanship, light frame construction, concrete, masonry, plastering, ceramic tile, advance-base and waterfront structures, and project planning.
Credit Recommendation: In the vocational certificate category, 30 semester hours in general contracting (7/76); in the lower-division baccalaureate/associate degree category, 5 semester hours in general contracting (7/76).

NV-1710-0043

Equipment Operators/Crushing and Screening Plant Operations, Class C
(EO "C" Crushing and Screening Operations)

Course Number: A-730-0018.
Location: Construction Training Center, Port Hueneme, CA.
Length: 2 weeks (63 hours).
Exhibit Dates: 1/72–1/88.
Objectives: To train enlisted personnel to operate, adjust, and service portable rock-crushing and -screening equipment.
Instruction: Lectures and practical exercises in rock-crushing and rock-screening equipment operation, adjustment, and servicing, including site selection procedures; assembling and operating the plant; and lubrication, maintenance, and adjustments necessary for production of different sizes of aggregates as required for construction projects.
Credit Recommendation: In the vocational certificate category, 1 semester hour in construction, rock crushing and screening operator (5/74).

NV-1710-0044

Basic Welding, Class C
(Plate Welders, Class C)

Course Number: A-701-0025.
Location: Service School Command, San Diego, CA. *Version 1:* Naval Shipyard, Norfolk, VA.
Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 10 weeks (300 hours).
Exhibit Dates: *Version 1:* 3/82–Present. *Version 2:* 7/70–2/82.
Objectives: To train enlisted personnel to weld various structures and hulls.
Instruction: Lectures and practical exercises in welding, including manual metal arc welds on steel alloy plate, metal inert-gas welds on aluminum plate, both types of welds on ferrous and nonferrous metal plate, gas tungsten-arc welding, and use of a variety of electrodes in both overhead and vertical positions.
Credit Recommendation: In the vocational certificate category, 3 semester hours in welding (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding (5/82).

NV-1710-0045

Stainless Steel Welding Requalification—Phase I (Enlisted)

Course Number: F-701-015.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 7/67–12/68.
Objectives: To train stainless steel welders to make limited emergency welds on reactor plant systems.
Instruction: Lectures and practical exercises in welding of reactor plant systems, including fillet welds on paddle wheel, carbon steel and specialty pipe welding in horizontal and vertical positions, and identification of welding defects using liquid dye penetrant methods of inspection.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0046

Nuclear Propulsion Plant Operators Welding
(Welding for Nuclear Power Plant Operators, Course V)

Course Number: F-701-010; A-701-014; A-701-015; A-701-0015.
Location: Submarine School, San Diego, CA; Welding School, Class C, San Diego, CA; Naval Submarine School, Groton, New London, CT.
Length: 12–16 weeks (420 hours).
Exhibit Dates: 1/63–3/80.
Objectives: To provide enlisted personnel with training in arc and oxyacetylene welding.
Instruction: For this course after 3/80 see NV-1710-0114. Lectures and practical exercises in welding for use by nuclear power plant operators. Topics include principles of manually shielded metal and arc welding; arc welding of the root pass in welding grooves using "EB" inserts; shielded metal arc welding using W-1 and W-7A electrodes; materials and processes used in nuclear power plant welding; preparation and inspection of welded joints; seal welding joints; pipe welding in fixed position, restricted access in confined spaces; and oxyacetylene torch brazing and cutting.
Credit Recommendation: In the vocational certificate category, 6 semester hours in arc welding (6/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding (6/81).

NV-1710-0047

Stainless Steel Welding (Requalification)
(Maintenance of Welding Qualifications)

Course Number: L-701-0014; L-701-014.
Location: Fleet Submarine Training Facility, Pearl Harbor, HI; Fleet Submarine Training Facility, Groton, CT.
Length: 3–4 weeks (84–160 hours).
Exhibit Dates: 12/69–1/88.
Objectives: To train enlisted personnel to perform as stainless steel welders.
Instruction: Lectures and practical exercises in stainless-steel welding. Course includes preparation and inspection of welded joints; manually shielded metal arc welding using the W-1 and W-7A coated electrodes; manual inert-gas tungsten-arc welding of the root pass in welding grooves using a consumable insert; and a qualifications test.
Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (5/74).

NV-1710-0048

Stainless Steel Welding Requalification—Phase III (Enlisted)

Course Number: F-701-016.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 1/67–12/68.
Objectives: To requalify enlisted personnel who were once qualified as stainless steel welders to work in a limited capacity on welds in a reactor plant system.
Instruction: Lectures and practical exercises in stainless steel welding. Topics include fillet welds on paddle wheel and curved surfaces; welding using the manual arc process in horizontal, vertical, and restricted fixed positions; welding, inspecting, and grinding carbon steel rockets, sleeves, and tees; and identifying welding defects using liquid dye penetrant methods of inspection.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0049

Pressure Hull Welders

Course Number: A-701-0029.
Location: Service School Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/70–1/88.
Objectives: To train enlisted personnel to perform manual metal arc welds on steel alloy or austenitic steel plate.
Instruction: Lectures and practical exercises in the metal arc welding of steel alloy and austenitic steel hull plate in fixed-overhead and vertical positions, and the general properties and characteristics of hull plate.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0050

1. General Maintenance Welder, Class C1
2. Pipe Welders

Course Number: A-701-0026.
Location: Service School Command, San Diego, CA; Naval Shipyard, Norfolk, VA.
Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 4 weeks (120 hours).
Exhibit Dates: *Version 1:* 5/78–Present. *Version 2:* 7/70–4/78.
Objectives: To train enlisted personnel to perform manual welding on carbon steel or copper-nickle pipe.
Instruction: *Version 1:* Lectures and practical exercises in manual arc welds on carbon steel pipe in fixed-restricted vertical and horizontal positions and brazing of copper-nickel pipe. *Version 2:* Lectures and practical exercises in manual metal arc welds on carbon steel pipe in fixed-restricted vertical and horizontal positions and in manual metal arc welds on copper-nickel pipe using copper-nickel electrodes in fixed-restricted vertical and horizontal positions.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in welding (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (5/82). *Version 2:* In the vocational certificate category, 1 semester hour in pipe welding (5/74).

NV-1710-0051

1. Non-Nuclear Component Welding
2. High Pressure Pipe Welders

Course Number: A-701-0027.

Location: Service School Command, San Diego, CA; Naval Shipyard, Norfolk, VA.

Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 10/78–Present. *Version 2:* 8/70–9/78.

Objectives: To train enlisted personnel to perform manual metal arc welds on carbon-molybdenum high-pressure piping systems.

Instruction: Lectures and practical exercises in high-pressure pipe welding. Course includes manual metal arc welding of steel pipe with carbon-molybdenum electrodes; manual metal arc welding of steel pipe with chrome-molybdenum electrodes; and gas tungsten-arc welding of carbon steel pipe with root inserts.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in pipe welding (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in pipe welding (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in pipe welding (5/74).

NV-1710-0052

Fuel Gas Welders

Course Number: A-701-0024.

Location: Welding Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/70–1/88.

Objectives: To train enlisted personnel to perform silver brazing of ferrous and nonferrous piping systems and structural braze welding and fuel-gas welding in ferrous and nonferrous metals.

Instruction: Lectures and practical exercises in specialty skills developed in fuel-gas welding of mild steel in the flat position; fuel gas welding and brazing with brass; hard-surfacing mild steel by the fuel-gas process; silver brazing by the fuel-gas process using bronze fittings and couplings with copper, copper-nickel, brass, and steel pipe in fixed-restricted horizontal and vertical positions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in pipe welding (5/74).

NV-1710-0053

Steelworker/Welding Certification, Class C
(SW Welding Certification)

Course Number: A-701-0038.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/62–1/88.

Objectives: To provide enlisted personnel with training in arc and gas welding.

Instruction: Lectures and practical exercises in welding procedures. Course includes welding safety policies and attitudes; flat and vertical welding positions; theories and techniques of welding fixed-position pipe; oxyacetylene welding theory and techniques in vertical and overhead positions; theory and techniques of inert gas-shielded metal arc welding in vertical and overhead positions with aluminum.

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (7/76); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (7/76).

NV-1710-0054

Intermediate Welding
(Welding Course I)

Course Number: Not available.

Location: Welding School, Class C, San Diego, CA.

Length: 12 weeks (360–390 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train enlisted personnel to weld and braze ship structures and piping.

Instruction: Lectures and practical exercises in welding. Course includes introduction to oxyacetylene welding; oxyacetylene welding of mild steel; brazing; hard surfacing; tungsten inert-gas arc welding (T.I.G.); shielded inert-gas metal-arc welding of aluminum (M.I.G.); introduction to shielded metal-arc welding; arc welding with mild steel electrode, with MIL-7018 low-hydrogen electrodes, and with MIL-310 15/16 chromium-nickel steel electrodes; and hand-surfacing mild steel by the metal-arc process.

Credit Recommendation: In the vocational certificate category, 6 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in welding (5/74).

NV-1710-0055

Advanced Welding
(Welding Course II)

Course Number: Not available.

Location: Welding School, Class C, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train enlisted personnel as welders.

Instruction: Lectures and practical exercises in advanced welding techniques. Course includes welding steel pipe with carbon-molybdenam electrodes; welding steel pipe with chrome-molybdenum electrodes; introduction to hull welding; welding high-tensile steel hull plate with low-hydrogen electrodes; welding heavy hull plate with low-hydrogen electrodes; air-arc gouging; welding austenite-chromium electrodes; welding copper-nickel alloy (70-30) with copper-nickel electrodes; and shielded inert-gas metal-arc welding of aluminum (M.I.G.).

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding/metallurgy (5/74); in the upper-division baccalaureate category, 1 semester hour in welding/metallurgy (5/74).

NV-1710-0056

Automated Propulsion System Operator, Class C

Course Number: A-651-0036.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (180 hours).

Exhibit Dates: 1/71–1/88.

Objectives: To train enlisted personnel in automated propulsion system controls and in engineering plant concepts, with particular emphasis on burner management, throttle control, and plant surveillance.

Instruction: Lectures and practical exercises in automated propulsion system controls and in engineering plant concepts. Course includes analog systems, pneumatic analog system functions, digital systems, Bailey 760 system, input and output control signals and devices, practical use of schematics and flow charts, central operations system design, engine room console, bridge console, and plant operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective in mechanical maintenance (7/74).

NV-1710-0057

1. Propulsion Shaft Components Combined Maintenance
2. Propulsion Shaft Components

Course Number: A-651-0061; F-000-040; L-661-020.

Location: *Version 1:* Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Submarine Training Center, Charleston, SC. *Version 2:* Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Fleet Submarine Training Facility, Pearl Harbor, HI; Naval Submarine School, Groton, CT.

Length: *Version 1:* 1 week (36 hours). *Version 2:* 2-3 weeks (60–105 hours).

Exhibit Dates: *Version 1:* 1/81–Present. *Version 2:* 11/66–12/80.

Objectives: To train enlisted personnel to maintain the propulsion shaft components found on nuclear-powered submarines.

Instruction: Lectures and practical exercises in the maintenance of propulsion shaft components. Course includes principles of operation, theory of construction, and practical training in the repair of propulsion shaft components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in marine machinist (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical or industrial programs (7/74).

NV-1710-0058

Officer Damage Control

Course Number: Not available.

Location: Damage Control Training Center, Philadelphia, PA; Naval Schools Command, Treasure Island, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/65–12/68.

Objectives: To train enlisted personnel to perform as damage control assistants.

Instruction: Lectures and practical exercises in the duties and skills necessary to perform as a damage control assistant. Course includes hull design and construction, emergency communication systems, damage identification and control, and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1710-0059

Engineer Officer (Amphibious Ship)

Course Number: G-4H-6190.

Location: Amphibious School, Norfolk, VA.

Length: 4–6 weeks (160–240 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train officers as amphibious ship engineering officers.

Instruction: Lectures and practical exercises in the duties of amphibious ship engineering officers, including boiler maintenance, steam and diesel propulsion, ship engineering organization, auxiliary machinery, electrical power distribution and equipment, and basic electrical principles and applications to shipboard equipment.

Credit Recommendation: Credit is not recommended because of the technical nature of the course (7/74).

NV-1710-0060

MACHINIST'S MATE ENLISTED MAINTENANCE

Course Number: A-651-016.
Location: Destroyer School, Newport, RI.
Length: 4 weeks (120 hours).
Exhibit Dates: 12/69–1/88.
Objectives: To train enlisted personnel to perform as machinist's mates.
Instruction: Lectures and practical exercises in the duties and skills necessary to perform as machinist's mates. Course includes hand tools, precision tools, steam theory and cycle, main feed booster pump and system, main pump and system, and boiler construction and operation.
Credit Recommendation: Insufficient data for evaluation (7/74).

NV-1710-0061

MARINE AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT, CLASS A

Course Number: C-680-2015.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 8 weeks (320 hours).
Exhibit Dates: 11/72–1/88.
Objectives: To train enlisted personnel to operate and maintain aircraft launching and recovery equipment.
Instruction: Lectures and practical exercises in aircraft launching and recovery equipment operation and maintenance, including survival and emergency equipment, heavy equipment, and arresting gear.
Credit Recommendation: In the vocational certificate category, 6 semester hours in heavy equipment technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment technology (7/74).

NV-1710-0062

EQUIPMENT OPERATORS/ASPHALT PAVING AND PLANT OPERATION, CLASS C
(EO "C" Asphalt)

Course Number: A-730-0017.
Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.
Length: 7 weeks (210 hours).
Exhibit Dates: 2/72–1/88.
Objectives: To train personnel in the operating techniques and supervisory skills required for asphalt paving and plant operation.
Instruction: Lectures and practical exercises in asphalt paving and plant operation, including plant components, plant disassembly, plant erection, asphalt construction materials, designing hot asphalt mix, production equipment, placement equipment, protective coatings, producing and laying asphalt, and pavement failure and repair.
Credit Recommendation: In the vocational certificate category, 4 semester hours in asphalt paving construction (7/76); in the lower-division baccalaureate/associate degree category, 1 semester hour in asphalt paving construction (7/76).

NV-1710-0063

BUILDERS, CLASS A (BU "A")

Course Number: A-710-0010.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction Training Center, Davisville, RI.
Length: 9–12 weeks (280–370 hours).
Exhibit Dates: 3/60–1/88.
Objectives: To train personnel as builders.
Instruction: Lectures and practical exercises in the duties of builders, including hand tools and portable machinery, construction materials, construction rigging, blueprint reading, woodworking and mill work, construction carpentry, concrete, concrete finishing and masonry construction, roofing, painting, glazing and composition tile, and field and waterfront structures.
Credit Recommendation: In the vocational certificate category, 8 semester hours in construction technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction technology (7/76).

NV-1710-0064

EQUIPMENT OPERATORS/BLASTING AND QUARRY OPERATIONS, CLASS C
(EO "C" Blasting and Quarry Operations)

Course Number: A-730-0019; A-710-012.
Location: Construction Training Center, Port Hueneme, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/65–1/88.
Objectives: To train enlisted personnel to supervise quarry operations.
Instruction: Lectures and practical exercises in drilling, placing charges, detonation procedures, construction blasting, quarry layout, development and operation of a quarry, and rock-crushing plant operation.
Credit Recommendation: In the vocational certificate category, 3 semester hours in quarry foremanship (7/74).

NV-1710-0065

CONSTRUCTION MECHANIC, CLASS J (CM"J")
(Construction Mechanic, Class B)

Course Number: A-610-0011; A-610-0015.
Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.
Length: 14–15 weeks (420–450 hours).
Exhibit Dates: 2/65–1/88.
Objectives: To train enlisted personnel in the maintenance, repair, and overhaul of automotive materials and parts.
Instruction: Lectures and practical exercises in the repair and maintenance of construction vehicles and parts, including foremanship training, basic mathematics, instruments, internal-combustion engines, electrical systems, adjustment and troubleshooting procedures; Caterpillar, International, General Motors, and Cummins engines; multifuel engines; construction equipment power trains and chassis units; and automotive chassis and power trains.
Credit Recommendation: In the vocational certificate category, 9 semester hours in construction equipment repair foremanship (7/76).

NV-1710-0066

1. MARINE GAS TURBINE BASIC, CLASS C1
2. ENGINEMEN, CLASS C, MARINE GAS TURBINE BASIC

Course Number: A-652-0027.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: *Version 1:* 6 weeks (213 hours). *Version 2:* 4 weeks (120 hours).
Exhibit Dates: *Version 1:* 8/77–10/78. *Version 2:* 8/73–7/77.
Objectives: To provide the required technical background and skills for entry into specific gas turbine system courses.
Instruction: Lectures and practical exercises in the theory, operation, and characteristics of gas turbine engines, assemblies, sub-assemblies, and component parts.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in gas turbine engines (9/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in gas turbine engines (6/75).

NV-1710-0067

SOLAR T-10205-11A SATURN ENGINE, CLASS C1
(Enginemen, Class C, Solar T-10205-11A Saturn Engine)

Course Number: A-652-0068.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (85 hours).
Exhibit Dates: 8/73–10/78.
Objectives: To upgrade the knowledge and skills of petty officers with Gas Turbine System Technician ratings for more effective performance of duties.
Instruction: Lectures and practical exercises in operating, testing, adjusting, and diagnosing and repairing malfunctions in the Solar Saturn gas turbine engine.
Credit Recommendation: Credit is not recommended because of the refresher nature of the course (9/77).

NV-1710-0068

STEELWORKER, MAINTENANCE WELDING TECHNIQUES, CLASS C
(SW Maintenance Welding)

Course Number: A-701-0037.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 4–5 weeks (120–150 hours).
Exhibit Dates: 7/73–1/88.
Objectives: To provide instruction in the repair of machinery by welding.
Instruction: Lectures and practical exercises in welding consumables; applied welding, metallurgy, and general and high strength brazing of steel; heat treatment of metals and silver brazing of steel; welding processes and silver brazing of stainless steel; welding consumable selection and silver brazing of brass, stress analysis, and cast iron and aluminum welding; welding processes and torch soldering; techniques of arc welding in maintenance; and wearfacing in maintenance welding and gas tungsten arc in maintenance welding.
Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced welding (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced welding (7/76).

NV-1710-0069

NUCLEAR POWER PLANT COMPONENTS WELDER, CLASS C1

Course Number: A-701-0028.
Location: Service School Command, San Diego, CA.
Length: 14 weeks (447–560 hours).
Exhibit Dates: 10/73–Present.

Objectives: To train personnel to weld reactor coolant and associated systems in a nuclear power plant.

Instruction: Topics include introduction to nuclear power plant components welding, welding consumable material, pipe butt and socket type joints, and upper seal weld of a beveled canopy.

Credit Recommendation: In the vocational certificate category, 6 semester hours in advanced or specialized welding (5/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced or specialized welding (5/82).

NV-1710-0070

General Pump Maintenance

Course Number: F-000-0045; F-000-045.

Location: Submarine School, Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2-3 weeks (60-105 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To train personnel to recognize, operate, maintain, and repair various types of liquid pumps and their components.

Instruction: Lectures and practical exercises in pump classification and application and shaft seals, couplings, valves, and other pump components and their maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in construction equipment (pump maintenance) (5/74).

NV-1710-0071

Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C

Course Number: None.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (352 hours).

Exhibit Dates: 10/70-10/85.

Objectives: To train selected personnel in the operation, inspection, and maintenance of C-7/11 catapults and related equipment.

Instruction: Lectures and practical exercises in the basic fundamentals, description, operation, function, and location of the C-7/11 catapults; Mk-7 arresting gear barricade components, and systems to include the steam system, mechanical system, hydraulic system, control system familiarization, operation, replacement, servicing, and repair and inspection.

Credit Recommendation: In the vocational certificate category, 14 semester hours in steam systems and hydromechanical systems (6/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in steam systems and hydromechanical systems (6/74).

NV-1710-0072

General Regulator Automatic Boiler Control Maintenance

(Steam Plant Automatic Controls Maintenance (General Regulator))

Course Number: A-651-0039; A-651-0040.

Location: *Version 1:* Fleet Training Center, San Diego, CA. *Version 2:* Development and Training Center, Norfolk, VA; Boiler Technician School, San Diego, CA; Boiler Technician School, Philadelphia, PA.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 11/72-12/80.

Objectives: To train personnel to perform their duties in the operation and calibration of the General Regulator automatic boiler control system.

Instruction: *Version 1:* Instruction and practical exercises in the operation and calibration of the General Regulator automatic boiler control system including air and fuel regulation, multi-element feed water regulators, feed pump controllers, systems and component calibration and troubleshooting procedures. *Version 2:* Classroom and practical instruction in the operation of high pressure steam systems using General Regulator Automatic Control systems, including safety controls and feed controls.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automatic control or high pressure boiler operation (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in automatic control instrumentation laboratory (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0073

Hagan Automatic Boiler Control Maintenance

(Steam Plant Automatic Controls Maintenance (Hagan))

Course Number: A-651-0041; A-651-0042.

Location: *Version 1:* Fleet Training Center, San Diego, CA. *Version 2:* Boiler School, Norfolk, VA; Development and Training Center, Philadelphia, PA; Development and Training Center, San Diego, CA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 9/80-Present. *Version 2:* 10/72-8/80.

Objectives: To train personnel to perform their duties in the operation and calibration of the Hagan automatic boiler control system.

Instruction: *Version 1:* Classroom instruction and practical exercises in the operation and calibration of the Hagan boiler control system including air and fuel regulation, multi-element feedwater regulators, feed pump controllers, systems and component calibration and troubleshooting procedures. *Version 2:* Instruction includes the operation of high pressure steam systems using the Hagan Automatic Control system, including safety controls and feed controls.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automatic control or high pressure boiler operation (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in automatic control instrumentation laboratory (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0074

Bailey Automatic Boiler Control Maintenance

(Steam Plant Automatic Controls Maintenance (Bailey Meter))

Course Number: A-651-0043; A-651-0044.

Location: *Version 1:* Fleet Training Center, San Diego, CA. *Version 2:* Boiler Technician School, Philadelphia, PA; Development and Training Center, San Diego, CA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 6 weeks (180 hours).

Exhibit Dates: *Version 1:* 3/81-Present. *Version 2:* 12/72-2/81.

Objectives: To train personnel to perform their duties in the operation and calibration of the Bailey automatic combustion control systems.

Instruction: *Version 1:* Instruction and practical exercises in the operation and calibration of the Bailey automatic combustion control systems including air and fuel regulation, multi-element feed water regulators, feed pump controls, system and component calibration and troubleshooting procedures. *Version 2:* Instruction includes the operation of high pressure steam systems using the Bailey Meter Automatic Control system, including safety controls and feed controls.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automatic combustion control or high pressure boiler operation (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in automatic controls instrumentation laboratory (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0075

1200 PSI Steam Generating Plant Operator

Course Number: A-651-0038.

Location: Boiler Technician School, Philadelphia, PA.

Length: 3 weeks (106 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train boiler technicians in the operation of the 1200 PSI boilers and associated auxiliary machinery.

Instruction: Classroom and practical instruction in the principles of high pressure steam systems including start-up, operation, and control of steam plants and steam plant accessories.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in plant operation and maintenance (6/75).

NV-1710-0076

Repair Party Leader

Course Number: A-495-0040.

Location: Naval Technical Training Center, Treasure Island, San Francisco, CA; Navy Damage Control Training Center, Philadelphia, PA.

Length: Self-paced 3 weeks (120 hours).

Exhibit Dates: 7/80-Present.

Objectives: Designed to train enlisted personnel in advanced damage control theory and techniques, to fill repair party leader billets, to facilitate the proper management of repair party personnel in casualty situations under all shipboard readiness conditions.

Instruction: The course covers damage control theory, systems and watchstations including nuclear detection, calculations, effects, countermeasures and accidents.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course.

NV-1710-0077

Three Winch Controller Using Standard Electronic Modules (SEM) and Controls for Logic Elevators

Course Number: A-690-0030.

Location: Naval Technical Training Center, Treasure Island, San Francisco, CA.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/81-7/81.
Objectives: Provides experienced personnel with technical knowledge and skills to maintain and repair a three winch controller.
Instruction: Lectures and practical exercises covering the maintenance and repair of a three winch controller using standard electronic modules; sliding block controls; marine elevator electronics control systems, and safety devices. Topics include solid state and logic theory review; hauling winch systems, control stations systems; Denison Vickers, Cutler-Hammer, and General Electric elevator electronics controller systems, as well as elevator power supplies.
Credit Recommendation: In the vocational certificate category, 6 semester hours in elevator repairs (11/81).

NV-1710-0078

Hagan Automatic Boiler Control Console (ACC) Operator

Course Number: A-651-0049.
Location: Fleet and Mine Warfare Training Center, Charleston, SC; Fleet Training Center, Norfolk, VA; Fleet Training Center, Mayport, FL; Fleet Training Center, San Diego, CA; Fleet Training Group, Pearl Harbor, HI; Surface Warfare Officer School, Newport, RI.
Length: 2-3 weeks (84 hours).
Exhibit Dates: 10/77-Present.
Objectives: This course trains enlisted personnel and others possessing boiler operator skills to operate a Hagan Automatic Boiler Control Console.
Instruction: This course covers automatic boiler control theory and a typical automatic combustion control system. Lectures in the principles of feedwater control, feed pump differential pressure control, feedback recirculation controls and air locks. Lecture and practical experience in automatic boiler control console operation and procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in a technical elective in manufacturing technology, mechanical technology or engineering technology (11/81).

NV-1710-0079

General Regulator Automatic Boiler Control Console Operator

Course Number: A-651-0046.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, Mayport, FL; Fleet and Mine Warfare Training Center, Charleston, SC; Fleet Training Center, San Diego, CA; Fleet Training Center, Pearl Harbor, HI.
Length: 2-3 weeks (84 hours).
Exhibit Dates: 11/77-Present.
Objectives: The course trains enlisted personnel and others possessing boiler operator skills to operate a General Regulator automatic boiler control console.
Instruction: This course covers automatic boiler control theory and a typical automatic combustion control system. Lectures in the principles of feedwater control, feedpump differential pressure control, feedback recirculation controls and air locks. Lectures and practical experience in automatic boiler control console operation and procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in a technical elective in manufacturing technology, mechanical technology, or engineering technology (11/81).

NV-1710-0080

Boiler Technician Six Year Obligator (BT6YO) Advanced Operator

(Boiler Technician 6 Year Option (6YO) Operator Advanced Class A1)

Course Number: A-651-0079.
Location: Service School Command, Great Lakes, IL.
Length: 9 weeks (360 hours).
Exhibit Dates: 10/78-5/86.
Objectives: To train personnel in the operation of a high pressure boiler.
Instruction: For this course after 5/86 see NV-1710-0104. Lectures and practical exercises in the operation of a high pressure boiler including firing, feed water systems, feed control, feed deairation, chemical feed systems, blow down systems, fuel oil systems, combination control, boiler water chemistry and a basic understanding of engine room systems with associated equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in boiler operation, 1 in boiler operation laboratory (10/83).

NV-1710-0081

Boiler Technician/Maintenance Management Six Year Option

(Boiler Technician 6 Year Option (6YO) Advanced Maintenance) Phase 3 Class C1

Course Number: A-651-0080.
Location: Service School Command, Great Lakes, IL.
Length: 4 weeks (160 hours).
Exhibit Dates: 8/78-Present.
Objectives: To train personnel to perform preventive and corrective maintenance on basic steam propulsion system components.
Instruction: Lectures and practical exercises to provide boiler technicians with knowledge and skills concerning the use of marine engineering technical documentation, preparation of Planned Maintenance System (PMS) forms and supply requisitions, maintenance principles and practices for mechanical fasteners, static and dynamic seals, sliding and rolling contact hearings ship board lubrication management, and scheduled and corrective maintenance of manually-operated valves.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (6/88).

NV-1710-0082

Gas Turbine Systems Technician Fundamentals Class A1

Course Number: A-652-0176.
Location: Service School Command, Great Lakes, IL.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/80-2/84.
Objectives: To train personnel in the basic contruction and principles of marine gas turbines.
Instruction: Lectures in basic gas turbine theory, construction, and operation including single and split shaft type engines, fuel systems, propulsion shafting, reduction gears, controllable pitch propellers, corrosion control performance computation, operating procedures, and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine principles (1/82).

NV-1710-0083

Gas Turbine Systems Technician Mechanical Class A1

Course Number: A-652-0177.
Location: Service School Command, Great Lakes, IL.
Length: 10 weeks (400 hours).
Exhibit Dates: 10/78-2/84.
Objectives: To provide personnel with the knowledge and skills required to maintain hydraulic, electrical power distribution, and other related systems of the LM2500 gas turbine module.
Instruction: Lectures and practical exercises in maintaining hydraulic systems, air-fuel systems and start systems including hydraulic fluids, seals, hoses, reservoirs, filters, pumps, actuators, accumulators, valves, symbols and schematics. Also included are electrical distribution systems, connectors, circuit breakers, switch gear, batteries, thermocouples, photoelectric cells, and multimeters use.
Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electrical service (1/82); in the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic technology (1/82).

NV-1710-0084

Boiler Technician (1200 PSI), Class A1

Course Number: A-651-0052; A-651-0010.
Location: Service School Command, Great Lakes, Il.
Length: *Version 1:* Self-paced 7 weeks (280 hours). *Version 2:* Self-paced 8 weeks (320 hours).
Exhibit Dates: *Version 1:* 9/77-Present. *Version 2:* 1/74-8/77.
Objectives: To train personnel in the operation of components/systems of steam propulsion plants.
Instruction: *Version 1:* Individualized-computer managed instruction in the operation of components and systems in the fire room steam propulsion plants. Instruction includes fire-fighting systems, mainstream systems, boilers, water level indicator and chemical feed systems, auxiliary steam systems, combustion air systems, exhaust systems and service and control systems. *Version 2:* Self-paced instruction in boiler maintenance and repair; distilling plant operation; fuel oil and auxiliary equipment operation and fireroom operations, maintenance and materiel management. Instruction also includes basic mathematics, tools and materials, valves and basic steam plant principles.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in systems operations or related programs (1/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as a technical elective in automotive and mechanical programs and 7 in systems maintenance or related programs (9/77).

NV-1710-0085

Bailey Automatic Boiler Control Console Operator

Course Number: A-651-0050.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Pearl Harbor, HI.
Length: 3 weeks (84-105 hours).
Exhibit Dates: 4/78-Present.
Objectives: To train enlisted personnel and others possessing boiler operator skills to operate a Bailey automatic boiler console.
Instruction: Lectures and laboratory exercises in automatic boiler control theory and a typical automatic combustion control system including principles of feedwater control, feed pump differential pressure control, feedwater recirculation controls, air locks, boiler control console operation and procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in a technical elective in manufacturing technology or mechanical technology or engineering technology (5/82).

NV-1710-0086

Auxiliary Machinery Controls, Governors and Regulators Maintenance

Course Number: A-651-0069.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 2-3 weeks (83 hours).
Exhibit Dates: 8/80-Present.
Objectives: To train personnel in the maintenance of machinery controls, governors and regulators.
Instruction: Classroom instruction and practical exercise in troubleshooting, disassembly, inspection, measurement, repair, reassembly and testing of machinery controls, governors and regulators including speed control devices, air pilot diaphragm control devices, pressure control devices, and safety shutdown devices.
Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery controls, governors and regulators maintenance; in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical systems laboratory (3/89).

NV-1710-0087

Forced Draft Blower Maintenance

Course Number: A-651-0074.
Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 2 weeks (64 hours).
Exhibit Dates: 8/80-8/87.
Objectives: To train personnel in forced draft blower maintenance.
Instruction: For this course after 8/87 see NV-1710-0110. Classroom instruction and practical experience in forced draft blower component maintenance including steam turbine drives, lubricating systems and fans; maintenance principles and recordkeeping, and spare part procurement.
Credit Recommendation: In the vocational certificate category, 2 semester hours in machinery repair (5/82).

NV-1710-0088

Boiler Technician Advanced Maintenance

Course Number: A-651-0083.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 20 weeks (701 hours).
Exhibit Dates: 8/80-8/87.
Objectives: To train personnel to perform preventive and corrective maintenance on steam propulsion and auxiliary machine system components.
Instruction: For this course after 8/87 see NV-1710-0109. Classroom instruction and practical experience in preventive and corrective maintenance including engineering maintenance administration; valve and steam trap maintenance; engineering maintenance principles and practices; pump maintenance; auxiliary turbine maintenance; auxiliary machinery controls, governors and regulators maintenance; forced draft blower maintenance and steam generator maintenance.
Credit Recommendation: In the vocational certificate category, 20 semester hours in high pressure steam plant machinery maintenance and repair (5/82); in the lower-division baccalaureate/associate degree category, 6 semester hours in high pressure steam plant machinery operation and maintenance (5/82).

NV-1710-0089

Propulsion Alarm and Indicating Systems Maintenance

Course Number: A-651-0047.
Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/75-Present.
Objectives: To train personnel in preventive and corrective maintenance of propulsion plant remote alarm and indicating systems.
Instruction: Lectures and practical exercises in calibration, troubleshooting and preventive maintenance procedures for pressure, temperature alarm panels and switchboards, salinity indicating systems and boiler water level indicating/ alarm systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance of remote indicating devices (5/82).

NV-1710-0090

Automated Propulsion System Maintenance

Course Number: A-651-0045.
Location: Service School Command, San Diego, CA.
Length: 10 weeks (400 hours).
Exhibit Dates: 12/81-Present.
Objectives: To train personnel in preventive and corrective maintenance of propulsion system indicating and control components and systems.
Instruction: Lectures and laboratory exercises in calibration, troubleshooting, and preventive maintenance procedures in propulsion system remote indicating and control components for boiler burner controls, temperature and pressure indicating systems and printer output units.
Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance of remote and indicating devices and 1 in printer output devices (5/82).

NV-1710-0091

Pump Maintenance

Course Number: A-651-0067.
Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 2 weeks (70-76 hours).
Exhibit Dates: 8/80-Present.
Objectives: To train personnel in the proper inspection and maintenance of pumps.
Instruction: Classroom instruction and practical exercise in pump inspection and maintenance including centrifugal, reciprocating, and rotory type pumps, external and internal inspection, troubleshooting, disassembly, repair, reassembly, test maintenance, recordkeeping and spare part procurement.
Credit Recommendation: In the vocational certificate category, 3 semester hours in machinery pump repair; in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical systems laboratory (3/89).

NV-1710-0092

Damage Control Assistant

Course Number: A-4G-0020.
Location: Surface Warfare Officers School Command, Newport, RI.
Length: 8 weeks (320 hours).
Exhibit Dates: 5/82-Present.
Objectives: To provide an officer with the knowledge necessary to perform as a damage control assistant and electrical officer.
Instruction: The course includes a detailed study into the area of damage control equipment, systems and administration including equipment and maintenance procedures, stability, buoyancy, battle damage evaluation and containment techniques.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in shipboard repair orientation (11/82).

NV-1710-0093

Surface Warfare Officer Specialty Course Steam Main Propulsion Assistant

Course Number: A-4H-0021.
Location: Surface Warfare Officers School Command, Newport, RI.
Length: 12 weeks (480 hours).
Exhibit Dates: 6/79-Present.
Objectives: To train officers to operate 1200 PSI steam propulsion plants.
Instruction: Lectures and practical exercises in power plant operations and maintenance including the following systems: main feed and condensate, lubricating oil, fuel oil, main steam, auxiliary steam and propulsion systems. Subjects covered include air compressors, valves, pumps, gauges, distilling plants, pollution control, brazing and soldering.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering or 3 in power plant operations or 2 in high pressure boilers and 2 in marine engineering laboratory (11/82).

NV-1710-0094

Boiler Technician/Maintenance Management Six Year Option
(Machinist's Mate Advanced Maintenance)

Course Number: A-651-0114.
Location: Service School Command, Great Lakes, IL.
Length: 4 weeks (160 hours).
Exhibit Dates: 6/78-Present.
Objectives: To train personnel to perform preventive and corrective maintenance on basic steam propulsion system components.

Instruction: Lectures and practical exercises to provide machinist mates with knowledge and skills concerning the use of marine engineering technical documentation, preparation of Planned Maintenance System (PMS) forms and supply requisition, maintenance principles and practices for mechanical fasteners, static and dynamic seals, sliding and rolling contact hearings, shipboard lubrication management, and scheduled and corrective maintenance of manually-operated valves.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance management (6/88).

NV-1710-0095

Solar T-1020S-100B Gas Turbine Generator Set Operator and Maintenance

Course Number: A-652-0226.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify component/systems of the gas turbine generator by function; operate generator; perform operational checks; perform scheduled maintenance; and take appropriate corrective maintenance on generator set.

Instruction: Lectures and practical exercises in gas turbine operation including lubrication, cooling, water and fuel systems; starting procedures, combustion air systems, safety procedures, inspection and maintenance of gas turbines and bore scope, cleaning and adjusting turbine control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in gas turbine technology (6/88).

NV-1710-0096

Machinist's Mate Six Year Obligator (MM6YO) Advanced

Course Number: A-651-0105.

Location: Service School Command, Great Lakes, IL.

Length: 9 weeks (360 hours).

Exhibit Dates: 10/78–5/86.

Objectives: To train personnel in the operation of a high pressure boiler.

Instruction: For this course after 5/86 see NV-1710-0105. Lectures and practical exercises in the operation of a high pressure boiler including firing, feed water systems, feed control, feed deairation, chemical feed systems, blow down systems, fuel oil systems, combination control, boiler water chemistry and a basic understanding of engine room systems with associated equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in boiler operation, 1 in boiler operation laboratory (11/83).

NV-1710-0097

Gas Turbine Fundamentals

Course Number: A-652-0244.

Location: Naval Training Center, Great Lakes, IL.

Length: 9 weeks (360 hours).

Exhibit Dates: 3/84–Present.

Objectives: To teach students the basic construction and qualitative theory of operation and maintenance of an LM 2500 marine gas turbine propulsion system.

Instruction: Lectures and practical exercises in basic pneumatic, hydraulics, AC and DC theory and devices and gas turbine theory, specific instruction and exercises in the operating theory, construction and maintenance of LM 2500 gas turbine propulsion systems including fresh water, fuel and lube oil, pumps and heat exchangers, and fire fighting systems, and instruction in occupational safety including bearing loss, electric safety and heat stress.

Credit Recommendation: In the vocational certificate category, 3 semester hours in gas turbine power systems or 2 in basic AC/DC theory, 1 in hydraulic principles, and 1 in gas turbine construction (1/86).

NV-1710-0098

FFG-7/Auxiliary Systems Operations GS

Course Number: A-652-0246.

Location: Naval Training Center, Great Lakes, IL.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/84–4/86.

Objectives: To train personnel how to operate and perform operational maintenance on the FFG-7 Gas Turbine Auxiliary Plant.

Instruction: Classroom lectures and practical exercises in the operation and operational maintenance on an FFG-7 Gas Turbine Auxiliary Plant including fixed fire fighting systems, ventilation systems, fuel oil transfer and waste systems, ballast systems, low and high pressure compressed air systems, distilling plant electrical generating equipment, and the line up and starting of these systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in marine engineering orientation (1/86).

NV-1710-0099

FFG-7 Electric Plant Operations G5

Course Number: A-652-0245.

Location: Naval Training Center, Great Lakes, IL.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/84–8/86.

Objectives: To train personnel how to operate and perform operational maintenance on the FFG-7 Gas turbine Auxiliary Plant.

Instruction: Classroom lectures and practical exercises in the operation and operational maintenance on an FFG-7 Gas Turbine Auxiliary Plant including, fixed fire fighting systems, ventilation systems, fuel oil transfer and waste systems, ballast systems, low and high pressure compressed air systems, distilling plant electrical generating equipment, and the line up and starting of these systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in marine engineering orientation orientation (1/86).

NV-1710-0100

Damage Control/Fuel Control Console Operator Course

Course Number: A-652-0079.

Location: Naval Training Center, Great Lakes, IL.

Length: 1 week (40 hours).

Exhibit Dates: 6/84–Present.

Objectives: Train students to operate the Damage Control/Fuel Control Console of a marine power plant.

Instruction: Lectures and practical experience in operating control consoles.

Credit Recommendation: Credit is not recommended because of the limited, specific nature of the course (1/86).

NV-1710-0101

FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators

Course Number: A-652-0254.

Location: Naval Training Center, Great Lakes, IL.

Length: 10 weeks (280 hours).

Exhibit Dates: 4/84–3/86.

Objectives: To train student as a supervisory operator of a FFG-7 gas turbine power plant.

Instruction: Lectures and practical experience in gas turbine power plant systems and operations including intersystem influence. Covers topics for fire fighting, ventilation, fuel oil, lube oil, pnematic, power transfer, auxiliary, electrical and gas turbine systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine systems orientation (1/86).

NV-1710-0102

Gas Turbine Electrical, Class A

Course Number: A-652-0299.

Location: Service Schools Command, Great Lakes, IL.

Length: 25–26 weeks (1050 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will understand basic principles of the engineering sciences–thermodynamics, heat transfer, fluid mechanics, electricity and electronics; identify components/systems of a gas turbine propusion unit by function; perform basic functions in the operation of a gas turbine; recognize interrelationship of components in a gas turbine power plant; diagnose malfunctions in plant operation.

Instruction: Engineering fundamentals, basic fluid mechanics, basic thermodynamics and heat transfer, engineering materials and methods, gas turbine theory, gas turbine construction, gas turbine operations, basic AC/DC circuits, basic electric devices, introduction to electrical machinery, 760 hours of classroom instruction and 284 hours of laboratory work including 4 weeks of gas turbine plant operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in gas turbine plant operations (6/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in thermo/hydraulic technology, 3 in gas turbine technology, 4 in basic electricity and electronics (6/88).

NV-1710-0103

Gas Turbine Mechanical, Class A

Course Number: A-652-298.

Location: Service Schools Command, Great Lakes, IL.

Length: 15–16 weeks (764 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basis principles of the engineering sciences–thermodynamics, heat transfer, fluid mechanics, and electricity; identify components/systems of a gas turbine propulsion plant by function; perform basic functions in operating a gas turbine power plant, and diagnose malfunctions based on observation of operating parameters.

Instruction: Engineering fundamentals, basic fluid mechanics, basic thermodynamics and heat transfer, engineering materials and methods, gas turbine theory, gas turbine construction, gas turbine operations, basic AC/DC circuits, electrical maintenance techniques, 530 hours of classroom instruction and 226 hours of laboratory work including 4 weeks of gas turbine plant operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in gas turbine plant operation (6/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in thermo/hydraulic technology, 3 in gas turbine technology, and 2 in basic electricity (6/88).

NV-1710-0104

BOILER TECHNICIAN SIX YEAR OBLIGATOR (BT 6YO) ADVANCED OPERATOR COURSE

Course Number: A-652-0079.

Location: Service Schools Command, Great Lakes, IL.

Length: 8 weeks (269 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify steam power plant components by function, operate the following steam power plant systems: steam generators, main feed and condensate, sea water cooling, air-removal, lubricating oil service, auxiliary steam, and electrical distribution systems. Stand appropriate 1200 psi steam power plant watches with special emphasis on automatic boiler control (ABC) systems, and practice high standard of steam power plant and industrial safety.

Instruction: Approximately equal time emphasis and classroom presentation and laboratory work. Testing is both written and oral. Emphasis on knowledge base, facts, and terminology. Topics include: safety, metrology, steam power plant systems, basic thermodynamic calculations, basic power plant system function and interconnection and operating procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in steam power plant operation and 1 in industrial safety (6/88).

NV-1710-0105

MACHINIST'S MATE SIX-YEAR OBLIGATOR (MM6YO)

Course Number: A-651-0105.

Location: Service Schools Command, Great Lakes, IL.

Length: 8 weeks (275 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify steam powerplant components by function; operate the following steam powerplant systems: steam generators, main feed and condensate, sea water cooling, air removal, lubricator oil service, auxiliary steam, and electrical distribution systems; stand appropriate 1200 PSI steam powerplant watches with special emphasis on ship's service generator operations and flash type distilling plant operations; practice high standards of steam powerplant and industrial safety.

Instruction: Approximately equal time emphasis on classroom presentations and laboratory work; testing is both written and oral, emphasis on knowledge base, facts, and terminology. Topics include: safety, metrology, steam powerplant systems, basic thermodynamic calculations, basic powerplant system function and interconnections and operating procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in steam power plant operations, 1 in industrial safety (6/88).

NV-1710-0106

KAMEWA CONTROLLABLE PITCH PROPELLER MAINTENANCE

Course Number: A-652-0055.

Location: Service Schools Command, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to train enginemen to operate, maintain and troubleshoot variable-pitch ship propellers and associated control equipment.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting of variable-pitch ship propellers and associated control equipment including applications of hydraulics and pneumatics, analysis of electrical control circuits, and mechanical components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in pneumatic/hydraulic control systems maintenance (6/88).

NV-1710-0107

MISSILE TUBE SUPPORT EQUIPMENT (MECHANICAL)

Course Number: A-121-0470.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (56 hours).

Exhibit Dates: 12/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform operational procedures with respect to the missile launcher pressurization system and missile tube hydraulic, perform preventive and corrective maintenance on missile tube heating and cooling, dehumidifying, and hydraulic systems and missile launcher pressurization system.

Instruction: Lecture and laboratory exercises on the mechanical subsystems (pneumatic, hydraulic, heating, cooling, and dehumidifying) related to submarine missile launching tubes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical engineering technology laboratory (2/89).

NV-1710-0108

ENGINEERING MAINTENANCE PRINCIPLES, PRACTICES, AND ADMINISTRATION

Course Number: A-651-0064.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (97 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform and administer general mechanical maintenance.

Instruction: Classroom and practical exercises on instrumentation of machinery, mechanical fasteners, mechanical seals, lubrication, bearings, and couplings. Course includes administrative procedures for performing maintenance on mechanical systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in machinery maintenance (3/89).

NV-1710-0109

BOILER TECHNICIAN STEAM PROPULSION MAINTENANCE SUPERVISOR

Course Number: A-651-0083.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 17–18 weeks (675 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to organize, perform and supervise preventive and corrective maintenance, and troubleshoot the mechanical systems associated with steam power generation systems not including main steam turbines and high pressure compressors.

Instruction: This is a pipeline course made up of the following courses: A-651-0064 Engineering Maintenance Principles, Practices, and Administration; A-651-0065 Valve Maintenance; A-651-0067 Pump Maintenance; A-651-0069 Governor and Regulator Maintenance; A651-0068 Auxiliary Turbine Maintenance; A-651-0074 Forced Draft Blower Maintenance; A-651-0075 Steam Generator Maintenance. (A-651-0071 Distilling Plant Condensor and Heat Exchanger Maintenance was too brief for evaluation.) For descriptions please see the individual courses.

Credit Recommendation: For credit recommendations please see the individual courses (3/89).

NV-1710-0110

FORCED DRAFT BLOWER MAINTENANCE

Course Number: A-651-0074.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 1–2 weeks (56 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform forced draft blower component maintenance including steam turbine drives, lubricating systems and fans.

Instruction: Classroom instruction, demonstrations and practical experience.

Credit Recommendation: In the vocational certificate category, 1 semester hour in steam power systems maintenance or repair (3/89).

NV-1710-0111

THREE WINCH CONTROLLER USING STANDARD ELECTRONIC MODULES (SEM) AND CONTROLS FOR LOGIC ELEVATORS

Course Number: A-690-0030.

Location: Naval Technical Training Center, Treasure Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/81–Present.

Learning Outcomes: Upon completion of the course, the student wil be able to describe the operation of multivibrators, power supplies and operational amplifiers; troubleshoot the logic elevator simulator to the circuit board level in accordance with standard Navy procedures; describe the hydraulic operation of the 3rd generation Western Gear Sealed transmissions; state the function and designation of the pressure control; check pilot-operated, solenoid-operated and servo-operated valves.

Instruction: Lecture and Laboratory exercises covering the maintenance and repair of a three winch controller.

Credit Recommendation: In the vocational certificate category, 6 semester hours in elevator repair (8/89).

NV-1710-0112

STANDARD TENSIONAL REPLENISHMENT ALONGSIDE METHODS (STREAM) OPERATOR

Course Number: A-060-0025.

Location: Naval Technical Training Center, Treasure Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to safely perform procedures utilizing standard tensioned replenishment alongside methods (STREAM).

Instruction: Lecture and practical exercises in raw-tensioned, high-line system operation, including standard methods of replenishment at sea, preventive maintenance of station components, safety precautions, and emergency breakway procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in national science (cargo operations) (8/89).

NV-1710-0113

UNDERWAY REPLENISHMENT MECHANICAL AND HYDRAULIC COMPONENT MAINTENANCE

Course Number: A-690-0028.

Location: Naval Technical Training Center, Treasure Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to relate principles of hydraulics to construction, operation and maintenance of mechanical/hydraulic machinery such as pumps, actuators, accumulators etc., associated with the standard tensioned replenishment alongside methods (STREAM).

Instruction: Lecture and labs concerning principles of hydraulics, construction, operation and maintenance of hydraulic equipment and interpretation of hydraulic system drawings, and troubleshooting techniques for mechanical hydraulic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in mechanical technology (hydraulic), and 2 in hydraulic laboratory (8/89).

NV-1710-0114

NUCLEAR POWER PLANT WELDER

Course Number: A-701-0015.

Location: Submarine School, Groton/New London, CT; Service School Command, San Diego, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 4/80–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform basic welding functions and take intermediate and advanced welding or welding supervisor instruction to ASME pressure vessel and nuclear code standards.

Instruction: Lectures on safety, welding and silver brazing processes, and nondestructive testing processes. Laboratory sessions are used to bring the student to a reasonable level of proficiency in welding (or brazing) pipe or plate. Repairs to welds and braze joints are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours lecture and 3 semester hours laboratory in welding processes, brazing processes, and nondestructive testing processes (10/89). Note: this course duplicates A-701-0031. Credit should not be awarded for both.

NV-1710-0115

SHIELDED METAL ARC WELDING

Course Number: A-701-0053.

Location: Submarine School, Groton/New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform metal arc welding on ferrous materials. The student will be able to position the work, set up the equipment, select welding rod, weld, remove slag, visually inspect, and make repairs to the work.

Instruction: Lectures and practical exercises on safety precautions, equipment setup, equipment operation, welding techniques, and visual inspection and acceptance standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic welding (shielded metal arc) (10/89).

NV-1710-0116

FUEL GAS WELDING, BRAZING, AND CUTTING

Course Number: A-701-0054.

Location: Submarine School, Groton/New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to weld, braze, cut, and solder using fuel gases such as acetylene and propane. The student will be able to describe theory, equipment charcteristics and safety precautions involved with the welding. Student will be able to position the work, set up the equipment, perform the work, visually inspect it, and make repairs.

Instruction: Lectures and extensive practical exercises on the above subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic gas welding, brazing, soldering, and cutting (10/89).

NV-1712-0001

WAUKESHA DIESEL ENGINE

Course Number: A-652-0037; J-651-0473; J-651-0477.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: *Version 1:* 4 weeks (135 hours). *Version 2:* 5 weeks (145 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 7/73–12/79.

Objectives: To train enginemen to operate and maintain specific diesel engines and distilling plant and engineering plant systems.

Instruction: *Version 1:* A limited amount of lecture material on the design, construction and operating theory of a specific diesel engine is complimented by a major part of the course which is student centered practical laboratory exercises in the disassembly, diagnosis and assembly of a specific diesel engine. Troubleshooting and adjustment techniques are also taught in a practical laboratory situation. *Version 2:* Lectures and practical exercises in the operation and maintenance of specific diesel engines and distilling plant and engineering plant systems, including diesel engine construction, pump, and components; diesel engine systems, disassembly and reassembly procedure, alignment and troubleshooting; theory of distillation; principles, systems, and components of equipment; troubleshooting techniques; and engineering plant system, clutches and couplings, reduction gears, propellers and shafting, engine alignment, and main propulsion system operating procedure.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours of technical elective credit in automotive, diesel or heavy equipment technology (11/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in mechanical technology (4/74); in the upper-division baccalaureate category, 2 semester hours in diesel engines (4/74).

NV-1712-0002

1. DIESEL ENGINE/FAIRBANKS MORSE MAINTENANCE TECHNICIAN
2. SSN/SSBN DIESEL ENGINE (FAIRBANKS-MORSE) MAINTENANCE

Course Number: A-652-0046.

Location: *All Versions:* Submarine School Groton, New London, CT. *Version 1:* Fleet Ballistic Training Center, Charleston, SC; Naval Submarine Training Center, Pearl Harbor, HI; Submarine Training Facility, San Diego, CA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 12/71–12/79.

Objectives: To train enlisted personnel to maintain and repair the Fairbanks-Morse diesel engine.

Instruction: Lectures and practical exercises in Fairbanks-Morse diesel engine maintenance and repair, including diesel engine principles, components familiarization and maintenance procedures, engine fluid systems, scavenging blower, camshaft drive and bearings, tappet assemblies, fuel injection, engine timing, governor, engine control linkage, snorkel systems, and troubleshooting and corrective maintenance procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology (6/81). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in diesel engines (4/74).

NV-1712-0003

FAIRBANKS-MORSE 38F5 1/4 DIESEL ENGINE

Course Number: F-652-020.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/70–1/88.

Objectives: To train enlisted personnel to maintain and repair the Fairbanks-Morse diesel engine.

Instruction: Lectures and practical exercises in Fairbanks-Morse diesel engine maintenance and repair, including diesel engine characteristics, component parts, fresh and salt water systems, lube oil system, vertical drive assembly, blower, starting air system, camshaft, timing and pump drive, fuel system, governor, fuel injection system, and troubleshooting and repair procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in diesel engines (4/74).

NV-1712-0004

Mine Warfare Waukesha Diesel Engineman, Class C

Course Number: Not available.
Location: Mine Warfare Class C School, Charleston, SC.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/69–6/73.
Objectives: To train enlisted personnel to maintain the Waukesha diesel engine.
Instruction: Lectures and practical exercises in Waukesha diesel engine maintenance, including engine system introduction; components familiarization; disassembly and reassembly procedures; turbocharger, water pumps, cooler, and fuel injector maintenance; and alignment, break-in, and troubleshooting procedures.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in diesel engines (4/74).

NV-1712-0005

GM-16-278A Diesel Engine Maintenance, Class C1
(Enginemen, Class C, General Motors 16-278A Diesel Engine)

Course Number: A-652-0021.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 2–3 weeks (90–100 hours).
Exhibit Dates: 5/73–Present.
Objectives: To train petty officers to perform the maintenance and repair of the GM 16-278A diesel engine.
Instruction: Lectures and practical exercises in GM 16-278A diesel engine maintenance and repair, including component parts operation, gear trains, engine timing, air intake and exhaust systems, centrifugal pumps and cooling systems, lubrication system, governor, speed control device, air starting and operating and troubleshooting procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine,automotive or heavy equipment technology (1/82).

NV-1712-0006

GM-12-567E/645E Diesel Engine Maintenance, Class C1
(Enginemen, Class C, General Motors 12-567E Diesel Engine)

Course Number: A-652-0022.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 2–3 weeks (90–92 hours).
Exhibit Dates: 6/73–Present.
Objectives: To train personnel in the maintenance and repair of the GM 12-567E diesel engine.
Instruction: Lectures and practical exercises in GM 12-567E diesel engine maintenance and repair, including component parts operation, engine timing, blowers, air intake and exhaust systems, centrifugal pumps and cooling systems, lubrication system, fuel system, governor, starting system operation, reversing reduction gear and clutch, maintenance procedures, starting, operating and troubleshooting procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine, automotive or heavy equipment technology (1/82).

NV-1712-0007

GM8-268A Diesel Engine Maintenance, Class C1
(Engineman Class C, General Motors 8-268A Diesel Engine)

Course Number: A-652-0020.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 2–3 weeks (90–120 hours).
Exhibit Dates: 5/73–Present.
Objectives: To train petty officers in the maintenance and repair of the GM 8-268A diesel engine.
Instruction: Lectures and practical exercises in GM 8-268A diesel engine maintenance and repair, including component parts operation, gear trains, engine timing, air intake and exhaust system, centrifugal pumps and cooling system, lubrication system, fuel system, governor, maintenance procedures, starting, operating and troubleshooting procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology, automotive or heavy equipment technology (1/82).

NV-1712-0008

Engineering Officer
(Engineer Officer)

Course Number: K-4H-2008; A-4H-0022.
Location: Fleet Training Center, San Diego, CA.
Length: 12–13 weeks (360–417 hours).
Exhibit Dates: 9/70–1/88.
Objectives: To train junior officers to perform as engineering officers in diesel- and steam-powered ships.
Instruction: Lectures and practical exercises in the operation of diesel- and steam-powered ships, including engineering department management, shipboard fire fighting, damage control; nuclear, biological, and chemical warfare defense; shipboard electrical systems; diesel propulsion principles; specific boiler operations; auxiliary machinery and steam propulsion machinery; officer administration; fuel oil system and cooling system; gauges and calibration; and operation of vertical, forced-draft blowers.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1712-0009

Assault Boat Engineer

Course Number: G-652-6160.
Location: Amphibious School, Little Creek, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 1/67–1/88.
Objectives: To train enlisted personnel in diesel engine and assault boat operation and maintenance.
Instruction: Lectures on diesel engine operation, component nomenclature, lubricating system, cooling system, fuel system, blowers, governors, fuel injection, hydraulic reverse gear, V drive, transmission, electrical systems, ramp winch, and overhaul and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment or diesel technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment or diesel technology (4/74).

NV-1712-0010

American Locomotive (ALCO 251C) Diesel Engine, Class C1
(Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine)

Course Number: A-652-0056.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (99–120 hours).
Exhibit Dates: *Version 1:* 9/76–Present. *Version 2:* 4/73–8/76.
Objectives: To train petty officers to supervise the operation, maintenance, and repair of diesel engines.
Instruction: Lectures in diesel engine introduction; construction; turbocharger, intake, and exhaust systems; starting air systems; lubrication, fuel, and cooling systems; governors and instrumentation; PMS requirements; and engine operation and troubleshooting procedures.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel technology (10/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel technology (9/77).

NV-1712-0011

Engineman, Class A1

Course Number: A-652-0018.
Location: Service School Command, Great Lakes, IL.
Length: *Version 1:* 9 weeks (360 hours) *Version 2:* 6 weeks (240 hours) *Version 3:* Self-paced 3–4 weeks (160 hours). *Version 4:* Self-paced 5–6 weeks (236 hours). *Version 5:* 15 weeks (455 hours). *Version 6:* 12 weeks (373 hours).
Exhibit Dates: *Version 1:* 3/86–4/87. *Version 2:* 6/85–2/86 *Version 3:* 9/78–5/85. *Version 4:* 1/74–8/78. *Version 5:* 2/68–12/73. *Version 6:* 7/63–1/68.
Objectives: To train enlisted personnel to operate diesel-powered ship engines.
Instruction: For this course after 4/87 see NV-1712-0024. *All Versions:* Lectures and practical exercises in engine introduction; portable pumps; internal-combustion engine; lubrication, cooling, fuel, electrical, and transmission systems; diesel engines; auxiliary boilers; plants; and oil purification operation. *Version 1:* includes air-conditioning, refrigeration, fire-fighting systems, valve maintenance, and pump maintenance. *Version 3:* Instruction is self-paced and includes propulsion shafting. *Version 4:* Instruction is self-paced and includes hydraulic steering, refrigeration and distilling plants. *Version 5:* Instruction includes maintenance, materiel management, hydraulic steering, refrigeration and distilling plants. *Version 6:* Instruction includes mathematics, blueprint reading, tools and materials familiarization, temperature and measuring instruments, valves and pumps, gas turbine engines, damage control, fire fighting, hydraulic steering, refrigeration and distilling plants.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesels and plant auxiliaries, 2 in diesel laboratory (1/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesels and plant auxilliaries, and 1 in diesel laboratory (1/86). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in marine diesel engine and power train or automotive and heavy equipment technology (1/82). *Version 4:* In the lower-division

baccalaureate/associate degree category, 3 semester hours in diesel mechanics and 2 as a technical elective in automotive and mechanical programs (9/77). *Version 5:* In the lower-division baccalaureate/associate degree category, 5 semester hours in diesel mechanics, and credit in automotive technology on the basis of institutional evaluation (4/74). *Version 6:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel mechanics, and credit in automotive technology on the basis of institutional evaluation (4/74).

NV-1712-0012

Mine Warfare Packard Diesel Engineman (Class C)

Course Number: J-651-0475; A-652-039.

Location: Naval Schools, Charleston, SC.

Length: *Version 1:* 4 weeks (120 hours). *Version 2:* 2-3 weeks (69-90 hours).

Exhibit Dates: *Version 1:* 9/81-Present. *Version 2:* 9/70-8/81.

Objectives: To train enlisted personnel who have completed an introductory course in diesel engine fundamentals to a more advanced competency in the diagnosis, troubleshooting and repair of diesel engines.

Instruction: Lectures, demonstrations and practical exercises in diesel engine operation, maintenance, diagnosis, and overhaul, including turbosuperchargers, instruments, and controls; operating and construction data; cooling, lubrication, air intake, exhaust and fuel systems; engine maintenance and overhaul procedures; and engine timing, troubleshooting, testing, and starting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive or diesel technology, heavy equipment or a technical elective (11/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel technology or heavy equipment (11/81).

NV-1712-0013

Depot Level Boat Repairman (Engineman)

Course Number: H-652-0060.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enginemen to operate, maintain, troubleshoot, and repair typical diesel marine engines.

Instruction: Lectures and practical exercises in the operation, maintenance, troubleshooting, and repair of typical diesel marine engines, including tune-up fundamentals, servicing and operation principles for camshafts, gear train and flywheel housings, pistons, rods and cylinder heads, air intake and exhaust systems, fuel oil systems, lubricating systems, and cooling systems and governors.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in automotive or diesel technology (4/74).

NV-1712-0014

FM38D8 1/8 DR Diesel Engine, Class C1
(Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine)

Course Number: A-652-0023.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: 2-3 weeks (65-120 hours).

Exhibit Dates: 6/73-Present.

Objectives: To train petty officers in diesel engine operation, maintenance, diagnosis, and repair.

Instruction: Lectures and practical exercises in diesel engine operation, maintenance, diagnosis, and repair, including engine construction, control and vertical drive, timing, lubrication system, fuel system, cooling system, air starting system, blowers, intake and exhaust system, governor, and planned maintenance and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel, automotive or heavy equipment technology (1/82).

NV-1712-0015

Basic Engineman, Class C1
(Enginemen Class C Basic Enginemen)

Course Number: A-652-0019.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 5/73-Present.

Objectives: To train enlisted personnel to operate diesel engines and to supervise engine room operations.

Instruction: Lectures and practical exercises in the operation of diesel engines and engine rooms, including fundamentals of diesel engines, instrumentation, diesel engine systems analysis, and construction and inspection of diesel engines and ancillary equipment, shafts, and gearing. Prior to 1979 the course included administration of engineering systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology (10/83).

NV-1712-0016

Assault Boat Engineer

Course Number: H-652-5317.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (105-113 hours).

Exhibit Dates: 7/66-1/88.

Objectives: To train personnel as assault boat engineers.

Instruction: Lectures and practical exercises in model 64HN9 and 6121-T diesel engines installed in landing craft, and in the operation and maintenance of ramp and steering machinery installed in LCVP's and LCM's, including basic diesel engine construction and operation, General Motors 64HN9 diesel engine familiarization, cylinder block and cylinder head overhaul, engine pump overhaul, engine disassembly and assembly, engine timing and adjustments, transmission, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in diesel engines (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology (5/74).

NV-1712-0017

Enginemen, Diesel Engine, Class C

Course Number: Not available.

Location: Engineman Class C School, Great Lakes, IL.

Length: 6 weeks (185-190 hours).

Exhibit Dates: 7/63-12/68.

Objectives: To train enlisted personnel to maintain and repair fleet diesel engines.

Instruction: Lectures and practical exercises in the maintenance, repair, and operation of fleet diesel engines. Topics include diesel engine construction and operation, fuel systems, and individual units of instruction on specific power plants.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engine laboratory and lecture (7/74); in the upper-division baccalaureate category, 5 semester hours in diesel engine laboratory and lecture (7/74).

NV-1712-0018

Patrol Gunboat/PG/Engineering Systems Operator and Maintenance

Course Number: A-652-0032.

Location: Development and Training Center, San Diego, CA.

Length: 10 weeks (343 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To provide personnel with the necessary skills and related knowledge to enable them to operate and perform shipboard maintenance on patrol gunboat engineering systems.

Instruction: Lectures and practical exercises in the principles of operation, maintenance, and repair of gas turbines, diesel engines and generators, reduction gears, controllable pitch propellers, air control systems, engineering subsystems, generators, and switchboards.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boat mechanics (5/74).

NV-1712-0019

Detroit Diesel V71 Series Engine Maintenance, Class C1

Course Number: A-652-0080.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To train selected petty officers to supervise performance of scheduled and unscheduled maintenance, diagnosis and repair of the Detroit Diesel V71 engine.

Instruction: Areas of instruction include engine construction, fuel systems, lubrication, cooling, governors, tune up and maintenance procedures, starting, operating procedures and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine operation, repair and maintenance (9/77).

NV-1712-0020

Diesel Engine Technician, Class C1

Course Number: A-652-0035; A-652-0020; A-652-0021; A-652-0022.

Location: Service School Command, Great Lakes, IL.

Length: 9 weeks (300 hours).

Exhibit Dates: 5/73-1/88.

Objectives: To train selected petty officers to supervise the maintenance and repair of diesel engines.

Instruction: This course is a combination of A-652-0020, GM 268A Diesel Engine, Class C1 (NV-1712-0007), A-652-0021, GM-12-278A Diesel Engine, Class C1 (NV-1712-0005), and A-652-0022, GM-12-567E/645E Diesel Engine, Class C1 (NV-

1712-0006). Topics cover the maintenance and repair of the specified diesel engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engine technology (9/77).

NV-1712-0021

Aviation Support Equipment Detroit Series 53 Diesel Intermediate Maintenance

(Aviation Support Equipment UD-282 and Detroit Series 53 Diesel Engines Intermediate Maintenance)

Course Number: C-602-3213.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2-3 weeks (96 hours).

Exhibit Dates: *Version 1:* 7/83-Present *Version 2:* 7/80-6/83.

Objectives: To train support equipment technicians in maintenance and repair of diesel engines.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance, repair and troubleshooting of diesel engines including system analysis using applicable publications, test equipment, special tools and safety precautions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in automotive shop (4/85); in the lower-division baccalaureate/associate degree category, 1 semester in diesel engine maintenance (4/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine maintenance (3/82).

NV-1712-0022

Caterpillar D-399 Diesel Engine Maintenance

Course Number: A-652-0173.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/81-Present.

Objectives: To provide enginemen and equipment operators with specific knowledge and skills to operate and maintain the Caterpillar D-399 diesel engine.

Instruction: Lectures and practical exercises in the maintenance and operation of the Caterpillar D-399 diesel engine, including lubrication, coating water, fuel, intake and exhaust (turbo charges) and governor systems. Troubleshooting with specialized testing equipment is also done.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine maintenance and repair (1/82).

NV-1712-0023

Detroit Diesel Allison 16V149TI Ships Service Diesel Generator Maintenance

(Model 114 Ship Service Diesel Generator Set Maintenance Class C1)

Course Number: A-652-0166.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/75-Present.

Objectives: To train personnel to operate and perform general maintenance on the 16V-149TI GM diesel engine.

Instruction: Lectures and practical exercises in the routine operation of the 16V-149TI GM diesel engine, including cooling, fuel, lubrication, air intake and exhaust systems. Start and perform routine maintenance and minor adjustments.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel maintenance (10/83).

NV-1712-0024

Engineman Class A, Class A1

Course Number: A-652-0018.

Location: Service Schools Command, Great Lakes, IL.

Length: 9 weeks (344 hours).

Exhibit Dates: 5/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as an entry level diesel engine operator and perform basic maintenance and repair functions on diesel engines and auxiliary systems.

Instruction: Lectures and practical exercises in engines including portable pumps, internal combustion engines, diesel engines and lubrication, cooling, fuel, electrical and transmission systems, and auxiliary boilers. The course includes air conditioning, refrigeration, fire-fighting systems and valve and pump maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engines and power plant auxiliaries and 2 in diesel engine laboratory (6/88).

NV-1712-0025

1182 Propulsion System Technician

Course Number: A-652-0054.

Location: Service Schools Command, Great Lakes, IL.

Length: 19 weeks (760 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, overhaul and repair medium speed, marine diesel engines of various manufacture; and operate, maintain and troubleshoot a KAMEWA controllable pitch propeller.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting of variable-pitch ship propellers and associated control equipment including applications of hydraulics and pneumatics, analysis of electrical control circuits, and mechanical components.

Credit Recommendation: In the vocational certificate category, 5 semester hours in diesel engine maintenance and 3 in pneumatic/hydraulic control systems maintenance (6/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in diesel engine technology (6/88).

NV-1712-0026

Master Marine Diesel Mechanic Maintenance

Course Number: A-652-0305.

Location: Service Schools Command, Great Lakes, IL.

Length: 15 weeks (600 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon successful completion of the course, the student will be able to operate, maintain, overhaul and repair medium speed Marine diesel engines.

Instruction: Lectures and practical exercises in diesel engine construction, operation, maintenance, overhaul and repair as it applies to a wide variety of medium speed Marine diesel engines. Topics include: construction, turbocharging, diesel auxiliary systems and control systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in diesel engine maintenance (6/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in diesel engine technology (6/88).

NV-1712-0027

FFG-7 Auxiliary 16V149TI Diesel Engine Maintenance

Course Number: A-652-0306.

Location: Service Schools Command, Great Lakes, IL.

Length: 5 weeks (180 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify components and explain fundamental operating principles of 2-stroke and 4-stroke diesel engines, perform designated scheduled maintenance on components and systems of diesel engines in general, and perform designated scheduled maintenance, troubleshoot and perform limited corrective maintenance on the DDA 16V149TI diesel engine.

Instruction: Classroom and practical exercises in diesel engine maintenance covering the following topics: diesel engine construction and operating principles, shaft alignment principles and practices, diesel engine systems, diesel engine troubleshooting, detailed construction, maintenance, timing operation and troubleshooting of DDA 16V149TI diesel engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel engine technology and 1 in diesel engine operation and maintenance (6/88).

NV-1712-0028

Trident Submarine Diesel Engine Maintenance

Course Number: A-652-0150.

Location: Submarine Training Facility, Kings Bay, GA; Submarine Training Facility, Charleston, SC; Submarine Training Facility, San Diego, CA; Submarine School, Groton/New London, CT; Submarine Training Center Pacific, Pearl Harbor, HI; Submarine Training Facility, Norfolk, VA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (79 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform standard preventive maintenance procedures on a medium speed diesel engine, troubleshoot and repair diesel engine faults.

Instruction: Lecture and laboratory exercises in the construction, operation, and maintenance of auxiliary diesel engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology. Credit listed in this course does not duplicate credit for Trident Diesel Engine Supervisor, A-652-0267 (NV-1712-0029) (2/89).

NV-1712-0029

Trident Diesel Engine Supervisor

Course Number: A-652-0267.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (53 hours).

Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair diesel engine faults.

Instruction: Lecture and laboratory exercises in the theory of operation, construction, and maintenance of auxiliary diesel engines. Emphasis on lubrication and governor systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in diesel engine technology. Credit listed for this course is not duplicated in Trident Submarine Diesel Engine Maintenance, A-652-0150 (NV-1712-0028) (2/89).

NV-1712-0030

Trident Submarine Auxiliary
Equipment Technician Level III

Course Number: A-652-0142.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (97 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: See individual exhibits for learning outcomes. This is a pipeline course.

Instruction: See exhibits NV-1712-0029 (A-652-0267) and NV-1701-0011 (A-652-0265).

Credit Recommendation: See individual exhibits for credit recommendation (2/89).

NV-1712-0031

Fairbanks-Morse 38F 5 1/4 Diesel
Maintenance Technician

Course Number: A-652-0236.

Location: Submarine School, Groton/New London, CT.

Length: 1–2 weeks (65 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe diesel operation and maintenance. Student will be able to operate, troubleshoot and perform maintenance on diesel engines.

Instruction: Lectures and laboratory in diesel operation and maintenance subjects including construction and assembly of components, fuel injection systems, governors, turbochargers, lubrication, and timing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 in laboratory in diesel engine technology (10/89). (May be applied to an automotive technology program.)

NV-1713-0001

Engineering Aids, Class B
(EA "J")

Course Number: A-412-0015.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 15–16 weeks (450–480 hours).

Exhibit Dates: 5/64–1/88.

Objectives: To train petty officers to be civil technicians.

Instruction: Lectures and practical exercises in foremanship, mathematics, construction, drafting, construction surveys, triangulation and field astronomy, map projections, planning and estimating, advance-base planning, soils testing, bituminous materials and concrete testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in construction surveying and drafting (5/74); in the upper-division baccalaureate category, 6 semester hours in construction surveying, 3 in drafting (12/68).

NV-1713-0002

Illustrator Draftsman, Class A

Course Number: Not available.

Location: Construction School, Port Hueneme, CA.

Length: 15 weeks (450 hours).

Exhibit Dates: 5/63–12/68.

Objectives: To train enlisted personnel to be draftsmen.

Instruction: Lectures and practical exercises in mathematics, basic drafting, machine drafting, ship and aircraft structural drafting, electrical and electronic drafting, media, visual aids, methods of reproduction, and screen processes reproduction.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic drafting (5/74); in the upper-division baccalaureate category, 3 semester hours in basic drafting (12/68).

NV-1714-0001

EC-130Q Electrical Systems and
Circuits Organizational
Maintenance

Course Number: None.

Location: Naval Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/70–1/88.

Objectives: To train maintenance personnel to maintain, service, and functionally test the EC-130Q electrical systems and circuits at the organizational maintenance level.

Instruction: Electrical power supplies, circuits, and miscellaneous electrical systems; utility and fuel systems; power plants and propeller systems as they pertain specifically to the EC-130Q.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0002

Electrician's Mate Enlisted
Maintenance

Course Number: A-662-018.

Location: Naval Destroyer School, Newport, RI.

Length: 4 weeks (117 hours).

Exhibit Dates: 12/69–1/88.

Objectives: To provide a knowledge of basic electrical theories and systems and to inculcate necessary basic repair and maintenance skills.

Instruction: Basic electrical theory and application; equipment familiarization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0003

Electrician's Mate Maintenance,
Class C1
(Electrician's Mate Maintenance, Class P)

Course Number: A-651-0025.

Location: Fleet Training Center, San Diego, CA; Naval Development and Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 11/76–Present. *Version 2:* 11/72–12/75.

Objectives: To provide electrician-supervisors with practical training in maintenance and repair procedure of ship's electrical installations.

Instruction: *Version 1:* Lectures and laboratory exercises in electrical machine operation, safety and maintenance including electric motor theory, motor controllers, alternators, regulators (including solid state regulators), basic magnetism, magnetic amplifiers, degaussing, cathodic equipment, lead and batteries, starter motors, battery charge systems and their application to shipboard systems. *Version 2:* Engineering department administration; electrical systems operations and safety precaution; disassembly, adjustment, and reassembly of electrical rotating equipment, measuring instruments, motors, motor controllers, voltage regulators, magnetic amplifiers, static exciters, gyros, and small-boat electrical systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical machine systems and controls (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electrical technology (11/73).

NV-1714-0004

Missile Launcher System Mk 24
Maintenance - Electrical

Course Number: A-121-0267.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (96 hours).

Exhibit Dates: 8/78–Present.

Objectives: To provide missile technicians with skills needed to maintain and repair electrical portions of the Mk 24 missile launcher system.

Instruction: Lectures and laboratory exercises in the electrical and electro mechanical components of the Mk 24 missile launcher system including maintenance and repair philosophy and techniques; safety procedures, flow diagrams, circuit breakers, and alignment tool and calibration.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical and electro mechanical system maintenance (3/81).

NV-1714-0005

1. Electrical Distribution and
   Control Equipment Combined
   Maintenance
2. Electrical Distribution and
   Control

Course Number: A-662-0025; F-662-011.

Location: Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (60–72 hours).

Exhibit Dates: *Version 1:* 4/73–Present. *Version 2:* 11/72–3/73.

Objectives: To train students to inspect, maintain, adjust, and repair electrical distribution and control equipment installed in nuclear submarines.

Instruction: *Version 1:* Lectures and exercises in electrical switchboards, circuit breakers and circuit breaker control circuitry, AC controllers, coolent pump controllers and DC starters. *Version 2:* Includes electrical switchboards; air, motor-operated, and arc-quenching circuit breakers; coolant pump control circuitry, AC controllers and DC starters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical distribution and maintenance (6/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0006

Aviation Ordnanceman (Utility),
Class A

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain aviation ordnance.

Instruction: Lectures and practical exercises in basic electricity, aircraft munitions, bomb- and torpedo-handling equipment, weapons, and munitions handling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0007

Aviation Ordnanceman (Turret),
Class A

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 3/57-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain aviation ordnance and to perform maintenance on aircraft turrets.

Instruction: Lectures and practical exercises in basic electricity, aircraft munitions, bomb- and torpedo-handling equipment, weapons, munitions handling, and aircraft turrets.

Credit Recommendation: In the vocational certificate category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0008

Construction Electrician, Class A
(CE "A")

Course Number: *Version 1:* A-721-0018. *Version 2:* A-721-0018; A-721-018; A-721-0021; A-721-021. *Version 3:* None.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI. *Version 3:* Construction School, Davisville, RI.

Length: *Version 1:* 8 weeks (241 hours). *Version 2:* 14 weeks (420 hours). *Version 3:* 14 weeks (420-432 hours).

Exhibit Dates: *Version 1:* 12/74-1/88. *Version 2:* 10/69-11/74. *Version 3:* 7/58-9/69.

Objectives: To train enlisted personnel to perform as electricians and linemen.

Instruction: Lectures and practical experience in basic electrical theory, telephone communication, interior wiring, pole line construction, motors and generators, mathematics review, and electrical blueprint reading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in power generation and distribution and 2 in residential house wiring (7/76). *Version 2:* In the vocational certificate category, 7 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 7 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0009

1. Basic Electricity and Electronics, (Modules 1-14)
2. Basic Electricity and Electronics, Class AP (Modules 0-25)
3. Basic Electricity and Electronics, Class P
   (Basic Electricity Phase of Class A Electronics Technician School)

Course Number: *All Versions:* A-100-0010; A-100-010. *Version 2:* A-100-011.

Location: Basic Electricity/Electronics School, Great Lakes, IL; Basic Electricity/Electronics School, Millington, TN; Basic Electricity/Electronics School, Memphis, TN; Basic Electricity/Electronics School, Treasure Island, CA; Basic Electricity/Electronics School, Orlando, FL; Basic Electricity/Electronics School, San Diego, CA.

Length: *Version 1:* Self-paced average 2-6 weeks (132 hours). *Version 2:* Self-paced average 1-8 weeks (150-264 hours). *Version 3:* 4-8 weeks (162-215 hours).

Exhibit Dates: *Version 1:* 7/78-Present. *Version 2:* 6/75-6/78. *Version 3:* 4/55-5/75.

Objectives: To provide enlisted personnel with training in basic electricity/electric circuits.

Instruction: *All Versions:* Lectures and laboratories in magnetism, field patterns, domain theory, Coulomb's law; AC generator operation; DC circuits, including resistor characteristics, voltage dividers, power calculations, and Kirchhoff's laws; AC circuits, including average, effective, and peak values, and phasor use; inductance and capacitance, including basic properties, types, universal time constant, reactance, and phase relationship; transformer introduction; and AC circuits impedance, phasor solutions, band width, filters, and resonance in series. *Version 1:* A self-paced course that does not include magnetism, field patterns, domain theory, AC generator operation and Coulomb's law. *Version 2:* Also includes self-paced modules in basic electronics maintenance, basic circuit assembly and repair, troubleshooting simple amplifiers, power supply circuits, simple transistor circuitry, oscillator, multivibrator circuits, wave shaping circuitry, and some special solid state devices.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electric circuits. *Version 2:* In the lower-division baccalaureate/associate degree category. For gunner's mates (GM), torpedoman's mates (TM), construction electrician's (CE), and enginemen (EN), 3 semester hours in basic electronics; for all other ratings, 6 semester hours in basic electronics (9/77). *Version 3:* In the vocational certificate category, 3 semester hours in basic electricity (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-engineering majors (3/74).

NV-1714-0010

Construction Electrician, Class J (CE "J")
(Construction Electrician, Class B)

Course Number: *Version 1:* A-721-0019, A-721-0022. *Version 2:* Not available.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: *Version 1:* 17 weeks (510 hours). *Version 2:* 15-16 weeks (450-480 hours).

Exhibit Dates: *Version 1:* 7/70-1/88. *Version 2:* 3/64-6/70.

Objectives: To train enlisted personnel to be construction electricians.

Instruction: *All Versions:* Lectures and practical exercises in basic electrical theory, power distribution, interior wiring, local and common battery telephone, interoffice communication systems, cable splicing and fault location, and AC motors. *Version 1:* Instruction includes electric power plant operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in electricity (7/76); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (7/76). *Version 2:* In the vocational certificate category, 8 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0011

H-46 Electrical and Instrument
Systems Organizational
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/68-1/88.

Objectives: To train maintenance personnel to maintain a specific electrical and instrument system.

Instruction: Lectures and practical exercises in the maintenance of the H-46 electrical and instrument system, including elements of power distribution, electrical power supply, starting and control systems, utility electric systems, and instruments and indicating systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1714-0012

1. Electrician's Mate, Class A
2. Electrician's Mate, Class A1
3. Electrician's Mate, Class A1
4. Electrician's Mates, Class A
   (Electrician's Mates, Class A, Part II Power and Lighting Equipment)

Course Number: *All Versions:* A-662-0016. *Version 2:* A-662-0015.

Location: Service School Command, Great Lakes, IL. *Version 2:* Service School Command, San Diego, CA.

Length: *Version 1:* 10 weeks (408 hours). *Version 2:* 6-7 weeks (240 hours). *Version 3:* 8-9 weeks (258 hours). *Version 4:* 13-14 weeks (387-420 hours).

Exhibit Dates: *Version 1:* 4/84-6/87. *Version 2:* 2/79-3/84. *Version 3:* 3/76-1/79. *Version 4:* 6/62-2/76.

Objectives: To train enlisted personnel to operate, maintain, and repair electrical equipment.

Instruction: For this course after 6/87 see NV-1714-0044. *All Versions:* Lectures and practical exercises in electrical equipment operation, maintenance, and repair, including safety precautions and first aid, rotating-machinery introduction, AC and DC generators, rotary and magnetic amplifiers, handtools operation, maintenance and materiel management, single-phase motors, degaussing, AC and DC controllers, electrohydraulics and electropneumatics, and small-craft electrical systems. *Version 1:* Instruction includes power panels, power distribution networks, lighting distribution, three phase motors and generators, heating and refrigeration systems, solid state controllers and emergency power distribution. *Version 2:* Instruction includes three phase motors and generators and solid state controls. *Version 3:* Instruction includes three phase motors and generators and solid state controls. *Version 4:* Instruction includes solid-state controls of motors.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in motors, generators, and power distribution systems operation and maintenance (1/86); In the lower-division baccalaureate/associate degree category, 3 semester hours AC/DC generator motors and controllers and 1 in motor/generator laboratory (1/86). *Version 2:* In the vocational certificate category, 5 semester hours in motors, generators and power systems operation and maintenance (1/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in motors, generators and power systems laboratory (1/82). *Version 3:* In the vocational certificate category, 5 semester hours in electricity and electrical laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (9/77). *Version 4:* In the vocational certificate category, 6 semester hours in electricity and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours in industrial education (3/74).

NV-1714-0013

E-1B ELECTRICAL AND INSTRUMENT SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/68–1/88.

Objectives: To train maintenance personnel to operate and maintain the electrical and instrument systems of the E-1B aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the electrical and instrument systems of the E-1B aircraft, including power supplies, power plant and accessories, controls, various circuits, structural control systems, heating and de-ice systems, fuel and oxygen systems, lighting systems, various electrical instruments, and Pitot and static instruments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1714-0014

KA-3A/KA-3B ELECTRICAL AND INSTRUMENTS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3702; C-602-43.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (64 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train maintenance personnel to operate and maintain electrical equipment and instruments at the organizational level.

Instruction: Lectures and practical exercises in the operation and maintenance of electrical equipment and instruments, including DC and AC power, power plant accessories, actuators, lighting, heater and safety equipment, fuel quantity, light maintenance, various circuits, engine instruments, and the position-indicating, Hytrol anti-skid brake, air conditioning, and pressurization systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74)).

NV-1714-0015

CONSTRUCTION ELECTRICIAN—POWER AND COMMUNICATIONS CABLE SPLICING

(Construction Electrician Cable Splicer (Class C))

(CE "C" Cable Splicing)

Course Number: A-721-0023.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 11-13 weeks (345–406 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train construction electricians to perform as cable-splicing technicians for telephone and power cable systems.

Instruction: Lectures and practical exercises in the installation and repair of telephone and power cables, including cable types, splicing techniques, and installation of telephone and high-voltage cables, cable termination, project planning, electrical properties of power cable insulation, and troubleshooting techniques and test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical equipment maintenance (7/76); in the lower-division baccalaureate/associate degree category, credit in electrical equipment maintenance on the basis of institutional evaluation (7/76).

~NV-1714-0016

ELECTRIC MOTOR REWIND, CLASS C

Course Number: A-662-0021.

Location: Fleet Training Center, Norfolk, VA; Naval Training Center, San Diego, CA.

Length: 5 weeks (150-160 hours).

Exhibit Dates: *Version 1:* 9/75–1/88. *Version 2:* 8/73–8/75.

Objectives: To train enlisted personnel in the techniques and procedures used in winding AC and DC motors.

Instruction: Lectures and practical exercises in the recording of data; construction of wiring diagrams; rewinding, assembling, and testing of DC motors, single-phase AC motors, and three-phase AC motors.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electric motor repair laboratory, 1 in electric motor repair (5/82). *Version 2:* in the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC motors (6/75).

NV-1714-0017

7L16 OXYGEN GENERATOR TECHNICIAN

(7L16 Oxygen Generator Electrical Support Technician)

Course Number: A-623-0035.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 2 weeks (72-80 hours).

Exhibit Dates: 12/71–Present.

Objectives: To provide enlisted personnel training in electrical troubleshooting and repair of an oxygen generator.

Instruction: Lectures and practical exercises in the operation, service and maintenance of the electrical components of the Treadwell 7L16 oxygen generator including basic theory of components controlled by electrical devices.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/89).

NV-1714-0018

VARIABLE SPEED CONTROLLERS COMBINED MAINTENANCE

Course Number: A-662-0040.

Location: Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT; Naval Submarine School, Charleston, SC; Naval Submarine School, Pearl Harbor, HI.

Length: 1-2 weeks (33–80 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train students in the theory, operation and maintenance of four types of variable speed AC motor controllers.

Instruction: Lectures and practical exercises in four types of variable speed AC motor controllers including functional characteristics, modes of operation and controls. Theory to the component level, corrective maintenance using schematics,signal flow and operating sequence is also covered. The student learns to interpret malfunctions, isolate faults tothe component level, and repair, align, adjust and calibrate the controllers. The course includes a basic semiconductor review and in depth theory, operation, and the corrective and preventive maintenance of variable voltage-variable frequency controller at the component level. Equipment studied includes the McCarr SIX-SCR variable voltage controller, the G.E. variable voltage/frequency controller, the G.E. variable frequency controller and the Cutler Hammer variable voltage/frequency controller.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical machinery controllers (11/85).

NV-1714-0019

AVIATION SUPPORT EQUIPMENT TECHNICIAN ELECTRICAL

Course Number: C-000-3263.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 12/78–Present.

Objectives: To provide non-electrical maintenance personnel with electrical and electronic familiarization, and electrical safety procedures and practices.

Instruction: Lectures and practical exercises in basic electricity including DC circuits, magnetism, transformers, generators, transistors, electrical safety, soldering and troubleshooting principles and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical fundamentals for non-electrical engineering students (3/82).

NV-1714-0020

BASIC ELECTRICITY AND ELECTRONICS - MODULES 15-25

Course Number: A-100-0010.

Location: Service School Command, San Diego, CA; Service School Command, Orlando, FL; Service School Command, Great Lakes, IL.

Length: Self-paced 5-12 weeks (200-480 hours).

Exhibit Dates: 4/77-Present.

Objectives: To provide enlisted personnel with training in electronic equipment theory and maintenance.

Instruction: Programmed instruction and laboratory exercises in soldering techniques, technical manuals, oscilloscope operation, basic troubleshooting of RF, IF, AF and power amplifiers, solid state power supplies, electron tube power supplies, basic transistor theory, oscillators, multivibrators, wave shaping circuits, unijunction transistors and SCR's.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics (1/82).

NV-1714-0021

BASIC ELECTRICITY AND ELECTRONICS - MODULES 30-34

Course Number: A-100-0010.

Location: Service School Command, San Diego, CA; Service School Command, Orlando, FL; Service School Command, Great Lakes, IL.

Length: Self-paced 3 weeks (120 hours).

Exhibit Dates: 7/80-Present.

Objectives: To provide basic technical knowledge and skills in electrical and electronic theory and application as a prerequisite for additional training.

Instruction: Individualized instruction at a nonmathematical level and laboratory troubleshooting experience on regulated and nonregulated power supplies including SCR power supplies; RF, IF and video amplifiers; oscillators both electronic and crystal controlled; delay lines; optical electronic devices; and linear integrated operational amplifiers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic devices (1/82).

NV-1714-0022

FFG-7 AUXILIARY ELECTRICAL SUBSYSTEM MAINTENANCE CLASS C1

Course Number: A-652-0172.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 7/81-8/87. *Version 2:* 3/80-6/81.

Objectives: To train electricians in the maintenance of auxiliary electrical subsystems.

Instruction: For this course after 8/87 see NV-1714-0043. Lectures and practical exercises in the operation, maintenance and troubleshooting of incinerator, air compressor, palet elevator, cooling water, propulsion, air conditioning and oil-water separation electrical control systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical controls maintenance laboratory (10/83). *Version 2:* In the vocational certificate category, 2 semester hours in electrical controls maintenance (1/82).

NV-1714-0023

FFG-7 ENGINEERING SYSTEM MAINTENANCE MANAGEMENT, ELECTRICAL, CLASS C1

Course Number: A-652-0154.

Location: Service School Command, Great Lakes, IL.

Length: 7 weeks (280 hours).

Exhibit Dates: 7/79-Present.

Objectives: To train mechanical technicians in the theory of operation and maintenance management of shipboard electrical control systems.

Instruction: Group lectures and individual practice in the theory of operations, capabilities, limitations and management of shipboard electrical control systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course.

NV-1714-0024

GAS TURBINE SYSTEMS TECHNICIAN ELECTRICAL CLASS A1

Course Number: A-652-0178.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train technicians to maintain gas turbine electrical systems.

Instruction: Lectures, demonstrations and exercises in DVM's, oscilloscope, lead acid storage batteries, blueprint reading, transformers, motors, 3 phase AC motor controllers, AC generators, magnetic amplifiers, number systems, BCD code, logic symbols, Boolean algebra, and digital circuits.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electric generator plant maintenance (1/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic (1/82).

NV-1714-0025

400 HZ MOTOR GENERATOR ELECTRICAL SYSTEM MAINTENANCE

Course Number: A-662-0023.

Location: Service School Command, Norfolk, VA; Service School Command, San Diego, CA.

Length: 6 weeks (228 hours).

Exhibit Dates: 7/74-Present.

Objectives: To train personnel in the preventive and corrective maintenance of 400 HZ motor generator systems.

Instruction: Lectures and practical demonstrations in the preventive and corrective maintenance of 400 HZ motor generator systems including basic electronics, motor-generator maintenance and repair, power supply and transistor and magnetic amplifiers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 1 in basic electricity laboratory (5/82).

NV-1714-0026

INTERIOR COMMUNICATIONS (IC) ELECTRICIAN CLASS A

Course Number: A-623-0105.

Location: Service School Command, San Diego, CA.

Length: Self-paced 7 weeks (245 hours).

Exhibit Dates: 10/80-Present.

Objectives: To provide personnel with technical knowledge and skills to maintain, at the organizational level, interior communication equipment.

Instruction: Self-paced instruction with A/V laboratory demonstrations and practical laboratory applications covering: digital logic, hardware and number systems; motor/generator/rectifier maintenance; telephone, switchboard, announcing and alarm systems/equipment; and different types of transducers and transmitters including syncro devices and systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital fundamentals, 1 in syncro systems, 1 in telephone systems (5/82).

NV-1714-0027

MINESWEEPING ELECTRICIAN'S MATE

Course Number: J-647-0019.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 8 weeks (280 hours).

Exhibit Dates: 1/72-Present.

Objectives: To train foreign and U.S. Navai personnel to operate and maintain minesweeping equipment found on board minesweeping vessels.

Instruction: Lectures and laboratory instruction in installing, operating, maintaining and repairing degaussing and and minesweeping ships and equipment utilizing the principles of magnetism and electricity. Laboratory includes the use of equipment such as meters, generators, M.G. sets, VTVM, oscilloscopes, magnometers, signal amplifiers and fault logic amplifiers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical theory (3/83).

NV-1714-0028

MINEMAN CLASS A

Course Number: J-647-0016.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 12 weeks (520 hours).

Exhibit Dates: 8/81-Present.

Objectives: To provide designated personnel with the necessary skills and related knowledge to perform final preparation, upgrading maintenance and safety for the assurance of reliable mine warfare weapons.

Instruction: Lectures and laboratory instruction in identifying, handling, maintaining and repairing equipment utilizing equipment, manuals and directives that meet all safety and quality assurance requirements needed to produce reliable mine warfare weapons and support equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/83).

NV-1714-0029

FFG-7/DD-963 60/40 HZ STATIC FREQUENCY CONVERTER MAINTENANCE

Course Number: A-652-0243.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/82-Present.

Objectives: To train personnel in maintenance and troubleshooting procedures for a 60 to 400 Hz converter.

Instruction: Lectures and practical exercises in the theory of operation, component function, and maintenance and troubleshooting procedures for a converter including rectifier circuits and digital control circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical control systems troubleshooting laboratory (10/83).

NV-1714-0030

FFG-7 Class Ship Auxiliary
Electrical Subsystem Technician

Course Number: A-662-0120.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (400 hours).

Exhibit Dates: 2/81–Present.

Objectives: To train personnel to operate and perform corrective maintenance on electrical auxiliary subsystem components installed in FFG-7 class ships.

Instruction: This is a pipeline course consisting of the following courses: NV-1402-0020, NV-1714-0022 and NV-1704-0262.

Credit Recommendation: Please refer to the above listed exhibits for our credit recommendations (11/83).

NV-1714-0031

FFG-7 Auxiliary Electrical Systems
Maintenance

Course Number: A-652-0215.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/81–Present.

Objectives: To train electricians in the maintenance of shipboard auxiliary electrical systems.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting of auxiliary electrical systems including a diesel generator static exciter, electric distribution switchboards and 400 Hz line voltage regulators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical controls maintenance; 1 semester hour if this course is taken in conjunction with other courses cited in exhibit NV-1732-0010 (A-662-0121).

NV-1714-0032

AN/USM-403 Electrical System
Equipment Test Set
Intermediate Maintenance

Course Number: C-198-3678.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 11 weeks (440 hours).

Exhibit Dates: 4/85–Present.

Objectives: to provide electronic maintenance personnel training in the maintenance and repair of an electrical equipment test set.

Learning Outcomes: Upon completion of this course the student will be able to perform the following tasks: computer functional checkout, operator interface circuit card analysis, diagnosis of program system procedures, circuit board analysis of various circuits including use of AC/DC power supply, function generator, sampling measurement system, and frequency standard and test station troubleshooting at the board or component level.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer maintenance and repair laboratory (4/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer maintenance laboratory, 1 semester hour in computer systems applications (4/85).

NV-1714-0033

S-3A Electrical Systems
Organizational Maintenance

Course Number: C-602-3676.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/84–Present.

Objectives: To familiarize enlisted personnel with aircraft electrical and instrument systems.

Learning Outcomes: Upon completion of the course, the student will have a basic understanding of the following S-3A aircraft systems: electrical power generation and distribution systems, electronic control systems, electromechanically operated systems, flight and navigation instrument systems and will be familiar with troubleshooting procedures using limited test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft electrical systems (4/85).

NV-1714-0034

S-3A Electrical System Intermediate
Maintenance

Course Number: C-602-3680.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 4/83–Present.

Objectives: To train personnel in the maintenance and repair, to the component level, of an automatic flight control system.

Learning Outcomes: Upon completion of the course, the student, will maintain and repair the following avionic components, assemblies and procedures: pressure temperature testing, automatic altitude encoders and test sets, pitch trim activators, angle of attack systems, liquid quantity gaging systems, antiskid wheel speed transducer, control logic assembly and an automatic flight control system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in aviation maintenance systems (4/85).

NV-1714-0035

SH-2F Electrical Component
Intermediate Maintenance

Course Number: C-602-4386.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/85–Present.

Objectives: To train aviation technicians in the principles of operation, repair and maintenance of the aircraft's electrical system.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, repair and maintain to the component level the following electrical components of a military helicopter: search and landing lights, fuel control activators, blade tracking activator controllers and fuel quantity bridge amplifiers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical laboratory (4/85).

NV-1714-0036

SH-2F Electrical System
Organizational Maintenance

Course Number: C-602-3395.

Location: Naval Air Station, Norfolk, VA; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (77 hours).

Exhibit Dates: 6/80–Present.

Objectives: To train aviation technicians to analyze, troubleshoot, repair and maintain the electrical systems of the SH-2F helicopter.

Learning Outcomes: Upon completion of the course, the student will be able to service and maintain the following components of a helicopter: AC/DC power supplies, the lighting system, flight instrumentation, landing gear electrical circuits, cockpit blade tracking, rescue hoist, heating/ventilation, defogging, and miscellaneous utility systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical maintenance (4/85).

NV-1714-0037

SH-60B Electrical System
Organizational Maintenance

Course Number: C-602-4406.

Location: Naval Air Station, Mayport, FL; Naval Air Station, North Island, San Diego, CA.

Length: 4 weeks (174 hours).

Exhibit Dates: 2/84–Present.

Objectives: To train aviation electricians in the theory of operation, troubleshooting, repair and maintenance of the electrical systems of a helicopter.

Learning Outcomes: Upon completion of the course, the student will be able to test, troubleshoot, repair and maintain, to the block diagram level, the following aspects of the SH-60B helicopter: the AC/DC power system, caution advisory system, hydraulic power system, engine electric system, as well as the fuel, fire protection, power train, blade/pylon fold, de-ice/anti-ice, interior/exterior lighting and landing gear.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft systems maintenance laboratory, 1 in electromechanical laboratory (4/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft systems maintenance (4/85).

NV-1714-0038

MMG-1A Mobile Electric Power
Plant Intermediate
Maintenance

Course Number: C-602-3237.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/84–Present.

Objectives: To train aviation electrical technicians to repair and maintain a mobile electrical power plant.

Learning Outcomes: Upon completion of the course, the student will be able to operate, troubleshoot, repair and maintain the following elements of a mobile electric power plant to the component level: AC/DC control circuits, AC/DC voltage regulation, frequency regulation and protection circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electric power laboratory (4/85).

NV-1714-0039

FFG-7 Electrical Plant Control Console Operator Electrical Maintenance

Course Number: A-652-0249.

Location: Naval Training Center, Great Lakes, IL.

Length: 5 weeks (200 hours).

Exhibit Dates: 7/84–Present.

Objectives: To qualify personnel for electric power plant control panel operation.

Instruction: Lecture and practical exercises in engine room and electric power plant operations. The student learns about systems operation and intersystem influences. The student learns operating procedures and operats an electric power plant simulator. General instruction on fuel oil quality assurance, and personal hearing and heating stress physiology and prevention programs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electric power plant operation laboratory and 1 in occupational safety (1/86).

NV-1714-0040

FFG-7 Electrical Plant Control Console Operator Mechanical Maintenance

Course Number: A-652-0251.

Location: Naval Training Center, Great Lakes, IL.

Length: 5 weeks (200 hours).

Exhibit Dates: 7/84–Present.

Objectives: To qualify personnel for electric power plant control panel operation.

Instruction: Lecture and practical exercises in engine room and electric power plant operations. The student learns about systems operation and intersystem influences, operating procedures and operates an electric power plant simulator. General instruction on fuel oil quality assurance and personal hearing and heat stress physiology and prevention programs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electric power plant operation laboratory and 1 in occupational safety (1/86).

NV-1714-0041

FFG-7 Electrical Systems Maintenance

Course Number: A-652-0253.

Location: Naval Training Center, Great Lakes, IL.

Length: 5 weeks (200 hours).

Exhibit Dates: 2/84–Present.

Objectives: To train personnel in the operation and maintenance of data acquisition equipment for the FFG-7 Gas Turbine Power Plant.

Instruction: Lectures and laboratory exercises in operation, calibration and maintenance of analog and digital circuits used to monitor and control gas turbine power plants.

Credit Recommendation: In the vocational certificate category, 3 semester hours in operation and maintenance of electronic monitoring and control equipment (1/86).

NV-1714-0042

CV Catapult Electrician

Course Number: C-604-2013.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (156 hours).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain and repair catapult electrical systems and associated equipment.

Instruction: Lectures and practical exercises in control sequence, safety in hazardous conditions and environments, operation, maintenance and repair of electrical systems and related components including engine system, launching recovery systems and tension systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical system maintenance, 2 in electrical systems troubleshooting and schematic interpretation (6/87).

NV-1714-0043

FFG-7 Class Ship Auxiliary Electrical Subsystems

Course Number: A-652-0172.

Location: Service Schools Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot common malfunctions in unidynamic 1211-1 pallet elevator control systems, incinerator control systems, auxiliary propulsion unit control systems, and air conditioning fan coil unit control systems.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting of incinerator, air compressor, pallet elevator, cooling water, propulsion, air conditioning and oil-water separator electrical control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical control systems maintenance (6/88).

NV-1714-0044

Electrician's Mate Class 'A'

Course Number: A-662-0016.

Location: Service Schools Command, Great Lakes, IL.

Length: 21 weeks (840 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will have a fundamental understanding of basic electricity and electronics, solid state devices, digital logic, switchgear, single and multiphase motors, motor starter and controller circuits, AC/DC generators, soldering techniques and first aid. The student is taught how to interpret logic and schematic diagrams and the use of electronic test equipment in identifying and correcting problems related to shipboard electrical machinery and galley equipment. The student is given instruction on how to plan and conduct a preventive maintenance program.

Instruction: Lecture and practical laboratories in magnetism, inductive and capacitive circuits, power factor, phase angles, motors and generators, DC circuits, voltage dividers, power calculations, and Kirchhoff's Laws, AC and DC generators, single and multiphase motors, motor control circuits, solid state theory, digital logic theory, maintenance and material management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics and 2 in technical mathematics (6/88); in the lower-division baccalaureate/associate degree category, 4 semester hours in DC circuits, 4 in AC circuits, and 3 in AC/DC motors, generators, and controllers (6/88).

NV-1714-0045

SD/P Elevator System Maintenance Technician

Course Number: A-690-0079.

Location: Service Schools Command, Great Lakes, IL.

Length: 1 week (40 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to interpret control system drawings for FFG-7 pallet elevators; troubleshoot common malfunctions of control system; and perform preventive and corrective maintenance on pallet elevator controls.

Instruction: Classroom and practical exercises covering the nomenclature, physical construction, and automatic electrical control system and including operation, maintenance and repair of a pallet elevator.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical control systems maintenance (6/88).

NV-1714-0046

500 KW 60 HZ Motor Generator Set Electrical Maintenanece

Course Number: A-662-0125.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (48 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform electrical preventive maintenance procedures with supervision on ships service motor generator (SSMG) set.

Instruction: Lecture and laboratory exercises in construction, maintenance and theory of operation of DC/AC motor generator sets. Emphasis on controllers and electrical troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical technology laboratory (2/89).

NV-1714-0047

500 KW 60 HZ Motor Generator Set Mechanical Maintenance

Course Number: A-662-0102.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (64 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform mechanical preventive maintenance with supervision on ships service motor generator set, troubleshoot and repair ships service motor generator for mechanical faults.

Instruction: Lecture and laboratory exercises in construction, maintenance and theory of operation of DC/AC motor generator set. Emphasis on mechanical features and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 2 semester hours in electromechanical technology laboratory (2/89).

NV-1714-0048

LAMPS Mk 3 Horizon Reference Set Maintenance,

Course Number: K-652-2203.
Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.
Length: 1-2 weeks (62 hours).
Exhibit Dates: 8/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to perform electrical maintenance, troubleshoot, and repair the horizontal reference system (a subsystem of a helicopter shipboard landing system) and its components.
Instruction: Lectures and practical exercises on the subject matter.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical control systems (3/89).

NV-1714-0049

400 Hertz Maintenance

Course Number: J-662-0023.
Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.
Length: 5-6 weeks (232 hours).
Exhibit Dates: 11/84-Present.
Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain 400 Hz motor generators and voltage and frequency regulators under shipboard conditions.
Instruction: Instructional methods include lectures and supporting laboratories in analyzing, locating and repairing faults in 400Hz voltage and frequency regulators.
Credit Recommendation: In the vocational certificate category, 3 semester hours in industrial electricity (3/89).

NV-1714-0050

Electrical Control Devices

Course Number: J-662-0044.
Location: Fleet Training Center, Norfolk, VA.
Length: 3-4 weeks (144 hours).
Exhibit Dates: 11/79-Present.
Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain AC relay motor controllers, small craft electrical systems and charging systems.
Instruction: Lectures and laboratory exercises to demonstrate operational theory, troubleshooting techniques, and safety practices with relay-operated controllers.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical control systems troubleshooting and maintenance (3/89).

NV-1714-0051

Aviation Electrican's Mate, Class A1

Course Number: C-601-2012.
Location: Naval Air Technical Training Center, Memphis, Millington, TN.
Length: 21-22 weeks (869 hours).
Exhibit Dates: 12/88-Present.
Learning Outcomes: Upon completion of the course the student will be able to maintain aircraft electrical, electronic, and engine instrument systems.
Instruction: Lectures and practical exercises in DC and AC circuits, vacuum tubes, rectifiers, filters, amplifiers, basic test instruments, electrical indicating systems, fuel quality systems, compasses, automatic pilots, instrument checks and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits, 4 in aircraft electrical systems, 3 in aircraft electronic systems and 2 in aircraft instrumentation systems (9/89).

NV-1714-0052

Aviation Electrician's Mate Intermediate, Class C7

Course Number: C-602-2014.
Location: Naval Air Technical Training Center, Memphis, Millington, TN.
Length: 26-27 weeks (1049 hours).
Exhibit Dates: 10/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to use standard and specialized test equipment to effect detailed preventive and corrective maintenance of electrical and electronic circuitry on common avionics weapons systems.
Instruction: Lectures and practical exercises including technical mathematics, technical physics, AC circuit analysis, solid state electronics, operational amplifiers, analog and digital computers, DC theory, and avionics.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in technical mathematics, 2 in physics, 4 in solid state electronics, 5 in AC circuits, 4 in introduction to computers, 1 in introduction to avionics, and 3 in operational amplifiers (9/89).

NV-1714-0053

Submarine Main Power Generating Equipment

Course Number: A-662-0137.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Guided Missile School Detachment, Dam Neck, VA; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (80 hours).
Exhibit Dates: 2/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to describe magnetic amplifiers and AC and DC power generation, regulation and control and will be able to repair, troubleshoot and maintain magnetic amplifiers and controllers.
Instruction: Lectures, demonstrations, and laboratory exercises in electric power generation, regulation and control.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in electric power generation and regulation (10/89).

NV-1714-0054

Submarine Electrical Control and Distribution Equipment Combined Maintenance

Course Number: A-662-0136.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Guided Missile School Detachment, Dam Neck, VA; Submarine Training Center, San Diego, CA.
Length: 2 weeks (77 hours).
Exhibit Dates: 2/87-Present.
Learning Outcomes: Upon completion of the course the student will be able to describe electrical control and distribution equipment and operate and maintain circuit protection and motor control.
Instruction: Lectures and laboratory instruction in electrical control and distribution equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electric power systems control (10/89).

NV-1715-0001

Basic Electronics (MA-40)

Course Number: R-100-6209.
Location: Naval Air Reserve Training Command, U.S.A.
Length: 6 weeks (240 hours).
Exhibit Dates: 9/68-2/69.
Objectives: To provide selected reserve personnel (on active duty) of the Naval Air Reserve Training Command with the opportunity to become familiar with basic theoretical knowledge, safety, and alignment/troubleshooting procedures of the superheterodyne receiver and basic transmitter.
Instruction: Applied mathematics and essentials of electronics; series/parallel circuitry and magnetism; measuring devices; introduction to AC theory; AC circuits and resonance; electron principles and the diode; vacuum tube theory; amplifier circuits and systems; transmitters; receiver theory; transmission line, antenna, and wave-propagation theory; and semiconductor theory.
Credit Recommendation: In the vocational certificate category, 10 semester hours in electronics (11/73); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of demonstrated skills and/or institutional evaluation (11/73).

NV-1715-0002

Airborne Electronic Warfare, Class O

Course Number: None.
Location: Naval Air Technical Training Center, Glynco, GA.
Length: 8 weeks (304 hours).
Exhibit Dates: 5/68-1/88.
Objectives: To train fleet personnel in electronic warfare principles and systems.
Instruction: Electronic countermeasures principles and systems; processing procedures; electronic countermeasures aircraft systems; electronic emissions; and electronic warfare.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0003

ELINT Evaluation Operator/Officer

Course Number: D-150-016.
Location: Reconnaissance Attack Squadron Three, Naval Air Station, Albany, GA.
Length: 11 weeks (430 hours).
Exhibit Dates: 5/69-1/88.
Objectives: To train officer and enlisted personnel to efficiently process and evaluate electronic intelligence data collected by RA-5C aircraft.
Instruction: IOIS Systems Cross-Training; basic ELINT intelligence; data display; ELINT evaluation; dissemination; maintenance consideration; operational problems; fleet operations; electronic data processing;

photo interpretation; electronic countermeasures; teletype; digital plotter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0004

AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0047.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (119-120 hours).

Exhibit Dates: 5/71-1/88.

Objectives: To provide selected trainees with the skills and related knowledge necessary to operate and maintain the AN/UPR-2 Oblique Ionospheric Sounder.

Instruction: Operation and system maintenance, including transmitted wave form and functional block diagram; technical maintenance, including frequency standard, master timing and programming, filter switching, frequency synthesizer, and digital code filter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (11/77).

NV-1715-0005

Electronic Test Equipment Operation/Operational Use

Course Number: J-100-0700.

Location: Fleet Training Center, Mayport, FL.

Length: 2 weeks (57 hours).

Exhibit Dates: 11/71-1/88.

Objectives: To train shipboard electronics maintenance and repair personnel in the correct methods of operation and application of electronic test equipment.

Instruction: Equipment theory of operation; equipment operational methods and techniques; successful utilization of electronic test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (11/73).

NV-1715-0006

Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance

Course Number: A-104-0050; A-104-0131.

Location: Naval Schools Command, Norfolk, VA; Naval Schools Command, San Diego, CA.

Length: 8 weeks (231-240 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/SPS-40A, and to operate and use associated test equipment.

Instruction: Power conversion; AN/SPS-40A radar set operation; and functional analysis of maintenance units and subunits such as antenna, air pressure and cooling systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0007

Electronics Technician, Class C, Electronics Material Officer

Course Number: A-4B-019.

Location: Naval School, Norfolk, VA.

Length: 4 weeks (97 hours).

Exhibit Dates: 7/70-1/88.

Objectives: To provide selected officers with the necessary knowledge and skill to enable them to direct the administration of the electronics division aboard their ship.

Instruction: Administration; maintenance and materiel management systems; preventive and corrective maintenance; publications; field changes; electronic navigation, radar, communication, and electronic countermeasures systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0008

Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance

Course Number: A-100-0022; A-100-0030.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/SSM-5 monitor test set.

Instruction: Test set operation; basic operation of tape reader and line printer; power distribution; tape format and sequence; logic symbols and special circuits; test control block-diagram analysis; tape reader; parity and coincidence control; tape drive control; sequence counter and control; stimuli control; analog-to-frequency converter; decision comparator; digital data line printer; associated test equipment; preventive maintenance; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0009

AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0022; A-101-022; A-101-023.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60-80 hours).

Exhibit Dates: *Version 1:* 2/80-Present. *Version 2:* 1/70-1/80.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/UCC-1, 1C, and 1D telegraph terminals, and to operate and use associated test equipment to the extent required for maintenance of the telegraph terminals.

Instruction: Operational characteristics and system configurations; location and identification of major units and subunits; test sets; operating procedures; AC and DC power distribution; frequency shift keyers; control attenuators; frequency shift converters; block and schematic diagram analysis; system troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0010

AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0029.

Location: Service School Command, San Diego, CA; Fleet Training Group, Pearl Harbor, HI.

Length: 2 weeks (59-60 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/WRC-1 radio set.

Instruction: Operation and familiarization; functional block diagram; radio receiver technical maintenance; frequency standard assembly; R-F amplifier; translator-synthesizer assembly; mode selector; I-F assemblies; chassis and main frame; troubleshooting; operation and maintenance of radio transmitter; FSK tone generator; audio amplifier; mode selector; I-F amplifier; antenna coupler operation and maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications systems (11/77).

NV-1715-0011

AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1)

(Electronics Technician Class C, AN/WRT-2 and AN/WRR-2)

Course Number: A-101-0031; A-101-0033; A-101-0032.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA; Naval Technical Training Command, San Francisco, CA.

Length: 3-4 weeks (90-110 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/WRT-2 radio transmitting set.

Instruction: Operation of and familiarization with AN/WRT-2; AC/DC power distribution; modulator functional section-amplifier/power supply; RF amplifier and tuner functional section, RF amplifier; transmitter troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications systems (11/77).

NV-1715-0012

Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance

Course Number: A-101-0035; A-101-0050.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (60 hours).

Exhibit Dates: 5/71-1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/UXH-2B and CV-1066B/UX, and to operate and use associated test equipment.

Instruction: Maintenance and material management; introduction to AN/UXH-2B and CV-1066B/UX; operating procedures and safety; converter analysis and maintenance; recorder set analysis; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0013

Electronics Technician, Indicator Group AN/SPA-40, Class C

Course Number: A-104-019; A-104-020.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/69–1/88.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/SPA-40 range/height indicator, and to operate and use associated test equipment.

Instruction: Familiarization and operation, including location and identification of units, assemblies, and subassemblies; technical maintenance, including AC power distribution, auto zero correction, DC power supplies, timing, height line cursor generation and servomechanism, range sweep deflection, height sweep deflection, marker generation and video amplifier, and intensity control; system maintenance and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0014

Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance

Course Number: A-193-025.

Location: Naval School, Norfolk, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train students to operate and maintain ship's navigation and aircraft inertial alignment systems (SNAIAS).

Instruction: Familiarization and operation, including SNAIAS functional block diagram, equipment, modes of operation, and alarms; technical maintenance, including block diagrams, data distribution, intercommunications system, test sets, troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0015

AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1)

Course Number: A-102-0080; A-102-0085.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/71–1/88.

Objectives: To train students to operate and maintain the AN/SPN-40 radio navigation set.

Instruction: Equipment operation and familiarization; technical maintenance, including Loran A receiver and vertical deflection, oscillator-AFC section, framing section, divider section, rate selector and reset generator section, basic pulse repetition rate (BPRR), specific pulse repetition rate (SPRR), square wave generator, pedestal generator, deflection section, attenuator and gain control, and system troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0016

Electronics Technician Class C, AN/VCC-2 Shipboard System

Course Number: None.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (96 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To provide selected trainees with the skills and related knowledge necessary to maintain the AN/VCC-2 shipboard communications system.

Instruction: Maintenance and material management system; operation of and familiarization with the RT-524/VRC radio transmitter-receiver; functional analysis and maintenance of the receiver transmitter, including AC/DC power distribution and control circuits, VHF tuner and squelch assembly, modulator assembly, master oscillator and buffer amplifier, transmitter driver and power amplifier, power supply, and transistor adapter; functional analysis of the AN/VCC-2 telephone-telegraph terminal; functional analysis of the AN/SRA-60(V) antenna coupler, including RF, four-channel combiner, operational control section, monitoring and protection section, and power supply.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0017

Basic Electronic Warfare (EW) Equipment Operator

Course Number: K-233-0025; K-233-281.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 2 weeks (59 hours).

Exhibit Dates: 5/71–1/88.

Objectives: To train enlisted personnel in the fundamentals and techniques of electronic warfare (EW) and EW equipment operation.

Instruction: Fundamentals of electronic warfare; electronic warfare support measures; signal recognition; analysis and evaluation; electronic countermeasures; equipment theory and operation; electronic intelligence collection procedures and ESM reporting procedures; basic electronic counter-countermeasures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0018

Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance

Course Number: A-104-0124.

Location: Naval School, Norfolk, VA.

Length: 3 weeks (80 hours).

Exhibit Dates: 7/70–1/88.

Objectives: To train technicians to operate and maintain the AN/SPA-41 Shipboard Range/Height Indicator and associated test equipment.

Instruction: System familiarization and operational characteristics; location and identification of units, assemblies, and subassemblies; operating procedures; technical maintenance, including AC power distribution, auto zero correction, DC power supplies, timing, height line cursor generation and servomechanism, range and height computing section, range and height time share networks and sweep deflection, and range calibration, marking, and intensity; system troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0019

Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer

Course Number: A-101-0048.

Location: Naval School, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 11/72–6/77.

Objectives: To train students to maintain and program teletypewriter routing sets, the Inktronic page printer, and associated test equipment.

Instruction: Teletypewriter familiarization; message format; introduction to AN/FGC-73 system; logic fundamentals; core memories; TS-2723/FG-73 printed circuit board test; MX-8173/FGC format stripper; AN/UGR-14 Inktronic Page Printer; system maintenance and packaging of reparables.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0020

Electronic Warfare for Nonacoustic Operator, P3A/B(D)

Course Number: E-210-48.

Location: Fleet Aviation Specialized Operational Training Group, Pacific Fleet, Moffett Field, CA.

Length: 2 weeks (63 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train antisubmarine warfare operators in electronic warfare intercept procedures, terminology, applications, and the skills of signal evaluation.

Instruction: Introduction to and definition of electronic warfare; ESM fundamentals; radar scans and types; passive receiver system AN-ALD-2B; pulse analyzer AN-ULA-2; pulse analyzer cameras; tactical voice procedures; electronic warfare logs; intercept procedures; electronic warfare; and signal identification.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0021

Electronic Warfare Intelligence Operator

Course Number: E-221-34.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 4 weeks (132 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train aircrew members in the fundamentals, techniques, and terminology of electronic warfare (EW), and in the operation of EW equipment.

Instruction: History of electronic warfare; radar fundamentals; EW equipment and operation; electronic intelligence (ELINT) operator procedures; logging; signal identification; ELINT publications familiarization; special intercept techniques; plotting; tactical missions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0022

Electronic Warfare Officers and Supervisors Course

Course Number: K-2G-0013.

Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.

Length: 2 weeks (58 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To train junior officers and senior enlisted radarmen in the fundamentals and techniques of electronic warfare (EW) and electronic intelligence (ELINT).

Instruction: Concepts of electronic warfare; duties and responsibilities of the EWO and supervisor; characteristics of electronic emissions; rapid and thorough evaluation of intercepted electronic emissions; threat radars and IFF systems; EW capabilities and ELINT.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0023

OFFICER ELECTRONIC WARFARE OPERATIONS

Course Number: K-2G-0026.

Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.

Length: 4 weeks (117 hours).

Exhibit Dates: 5/72-1/88.

Objectives: To train officers in the fundamentals and techniques of electronic warfare.

Instruction: Fundamentals of electronic warfare; fundamentals of electromagnetic radiation; electronic systems theory; friendly use of the electromagnetic spectrum; intelligence in support of electronic warfare; electronic warfare management; electronic warfare in support of military operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0024

ELECTRONICS TECHNICIAN, CLASS C, AN/SPS-29 RADAR SET

Course Number: A-104-0031.

Location: Naval Technical Training, Treasure Island, San Francisco, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To provide selected trainees with the skills and related knowledge necessary to maintain the AN/SPS-29 radar set.

Instruction: System operation; AC and DC power distribution; trigger generator and monitor function; transmitting channel; antenna function; receiving channel; AN/SPS-29 radar set maintenance and troubleshooting.

Credit Recommendation: Credit is not recommended due to the limited, technical nature of the course (11/73).

NV-1715-0025

ELECTRICAL COMPONENT MAINTENANCE (UNREP)

(UNREP Electrical Component Maintenance United Controls)

Course Number: A-551-0026; A-551-0030.

Location: UNREP Schools Division of the Naval Schools Command, Treasure Island, San Francisco, CA.

Length: 10 weeks (294 hours).

Exhibit Dates: 12/68-1/88.

Objectives: To train electricians and interior communications specialists to maintain the electronic and electronic-hydraulic components of highline-tensioned inhaul and outhaul winches, sliding blocks, transfer heads, and ram tensioners.

Instruction: Basic electricity; basic electronics; hydraulic interface with electric/electronic controls for UNREP winches; maintenance of power supplies; drive systems and control systems for sliding blocks; transfer heads, Drexel & Western gear multi-directional missile-handling trucks; maintenance of Cutler-Hammer and General Electric static logic controllers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (11/73); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (11/73).

NV-1715-0026

ELECTRONICS TECHNICIAN CLASS C, DATA TRANSMISSION GROUP, TRANSMISSION EQUIPMENT MAINTENANCE

Course Number: A-101-042.

Location: Naval School, Mare Island, Vallejo, CA.

Length: 14 weeks (411 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train students with a background in electronics and communications theory to operate and maintain electronic data transmission equipment of the Naval Tactical Data System.

Instruction: Introduction and orientation to data transmission equipment; general troubleshooting; indoctrination and orientation to data transmission procedures; radio sets; antenna couplers; communications central equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (11/73).

NV-1715-0027

ELECTRONICS TECHNICIAN CLASS C, HIGH POWER INDEPENDENT SINGLE SIDEBAND TRANSMITTER (AN/FRT-39; AN/URT-19; AN/URA-30)

Course Number: A-101-0038.

Location: Electronics Technician Class C Naval Training Center, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/72-7/74.

Objectives: To train students with electronic communications backgrounds to operate and maintain the AN/FRT-39 transmitting set and auxiliary equipment.

Instruction: Characteristics of teletype signals; multichannel telegraph; transmission test set; audio distribution and patching; DC signal distribution; telephone terminal equipment; single-sideband fundamentals; multiplexing; spectrum analyzer; AN/FRT-39B transmitter; independent sideband receivers; AN/URA-30 modulator oscillator; system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (11/73).

NV-1715-0028

ELECTRONICS TECHNICIAN CLASS C, R-1524(P)/WRR COUNTERMEASURES RECEIVER MAINTENANCE

Course Number: A-102-0098; A-102-0108.

Location: Naval Technical Training Schools, San Diego, CA; Naval Technical Training Schools, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To train students with electronics and communications backgrounds to operate and maintain the R-1524(P)/WRR countermeasures receiver and its associated tuning and test equipment.

Instruction: Familiarization with and operation of R-1524(P)/WRR countermeasures receiver; functional analysis and maintenance, including AC and DC power distribution, RF tuning units, IF amplifiers; isolation amplifier, AFC/AGC/squelch/video, and audio amplifier circuitry; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0029

1. AN/SPA-25/-25(B) RADAR INDICATOR AND SB-1505 SWITCHBOARD MAINTENANCE
2. RADAR REPEATER SYSTEMS MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C)

Course Number: A-104-0129; A-104-0130.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 3 weeks (90 hours). *Version 2:* 10 weeks (220-235 hours).

Exhibit Dates: *Version 1:* 10/77-Present. *Version 2:* 1/71-9/77.

Objectives: To provide training for the operation and maintenance of a radar distribution switchboard and radar display system.

Instruction: *Version 1:* Operation and familiarization of a signal distribution switchboard and a radar indicator including power supply, display circuits and troubleshooting techniques. *Version 2:* Operation and system maintenance of switchboards, indicator groups, radar trainers, and signal data converters; circuit analysis; calibration; troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronics (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (11/73).

NV-1715-0030

IOIC INTELLIGENCE DATA SYSTEM (STORAGE AND RETRIEVAL) MAINTENANCE

Course Number: D-150-011.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 15 weeks (600 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To train data systems technicians to perform center equipment maintenance and repair.

Instruction: Lectures and practical exercises in digital plotting systems and logic design; system timing; printers display equipment and position encoders; paper tape reader and punch; stereo comparison viewer, functions, logic, electromechanisms, and optics testing and maintenance; code matrix reader circuit analysis, logic, alignment, and maintenance; and system peripheral equipment maintenance and testing.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74).

NV-1715-0031

RD-293/UYK-5 CARD READER PUNCH MAINTENANCE

Course Number: A-150-0049.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/79-Present.

Objectives: To provide data systems technicians with the theory of operation and maintenance of a card reader/punch unit.

Instruction: Lectures and practical exercises covering the theory of operation and the maintenance of a computer input/output card reader/punch including the mechanical operations, power distribution, memory operation, block diagram analysis and electronic circuit fault analysis and repair.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer I/O equipment operation and repair (11/81).

NV-1715-0032

RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–12/68.

Objectives: To train maintenance personnel to repair RA-5C signal data converter group test equipment.

Instruction: Lectures and practical exercises in operation, maintenance, and servicing of data converter and viewfinder test equipment and digital data system test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in signal data converter group test equipment maintenance on the basis of institutional evaluation (3/74).

NV-1715-0033

Mk XII IFF Systems, Class C

Course Number: Not available.

Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 11 weeks (330 hours).

Exhibit Dates: 3/72–1/88.

Objectives: To train enlisted personnel to maintain Mk XII IFF electronic systems.

Instruction: Lectures and practical exercises in Mk XII operation, malfunctioning components troubleshooting procedures and test equipment usage, preventive maintenance procedures, and electronic circuits and mechanical assemblies alignment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems, 1 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic systems (3/74).

NV-1715-0034

H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train maintenance personnel to maintain and service AN/APX-6B and AN/APA-89 electronics systems.

Instruction: Lectures and practical exercises in AN/APX-6B and AN/APA-89 electronic systems analysis, maintenance procedures, alignment, circuit and circuit-component repair, servicing techniques, and diagnosis and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems, 1 in electrical laboratory (3/74).

NV-1715-0035

Integrated Avionics Radar System Technician

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 9/71–1/88.

Objectives: To train enlisted personnel in integrated avionics radar system operational theory, functional capability, and maintenance and servicing techniques.

Instruction: Lectures include avionics system theory, radar theory, altimeters, Doppler systems and power supplies; air data and tactical computer operation; air navigation computation analysis; malfunction isolation techniques; electrical systems circuit analysis and block diagrams; mathematics flow diagramming; inertial measurement; weapons systems release switchology and armament control; associated test equipment; and maintenance, servicing, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0036

KC-130F AN/APN-59 Radar Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train enlisted personnel to maintain the AN/APN-59 radar set and associated test equipment.

Instruction: Lectures in AN/APN-59 radar set maintenance, including block diagrams, functional operation of radar set controls, analysis of transmitter unit, power supplies, phantastron oscillator, gate and sweep generator, various circuits operation, antennas, amplifiers, and troubleshooting and alignment techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74).

NV-1715-0037

1. Marine Air Traffic Control Navigational Aids Repairman, Class C
2. Marine Air Traffic Control Navigational Aids Maintenance

Course Number: C-103-2020.

Location: *Version 1:* Air Technical Training Center, 'Millington,TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 8-16 weeks (267–480 hours). *Version 2:* 13 weeks (520 hours).

Exhibit Dates: *Version 1:* 5/73–12/83. *Version 2:* 3/71–4/73.

Objectives: To train electronic technicians to install, inspect, test, maintain, and repair air control navigation equipment.

Instruction: Lectures and laboratories in radio direction-finding techniques; logic circuit techniques; and familiarization and maintenance of AN/GRD-11A direction-finding sets, AN/TRN-29 beacon-transponder sets, and radio beacon sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in aviation electronics (2/81). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0038

Marine Air Traffic Control Unit Radar Repairman, Class C
(Marine Air Traffic Control Unit Radar Maintenance, Class C)

Course Number: C-103-2021.

Location: *Version 1:* Air Technical Training Center, Memphis, TN; Air Technical Training Center, Millington, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 8 weeks (267–320 hours). *Version 2:* 17 weeks (680 hours).

Exhibit Dates: *Version 1:* 5/73–12/83. *Version 2:* 9/72–4/73.

Objectives: To train electronic technicians to site, install, inspect, test, maintain, and repair specific air control navigational equipment.

Instruction: Lectures and practical exercises in air control navigational equipment operation and maintenance, including AN/TPN-8A precision approach radar and AN/UPS-1 radar set maintenance, power distribution and supplies, antenna control, transmitter, radio frequency system, receiver operation and maintenance, and system analysis and alignment; and C-4150 control indicator and AN/APA-125 surveillance approach indicator circuitry, amplifiers, search servo system, and system alignment and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications (2/81). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0039

1. Marine Air Traffic Control Unit Maintenance Management, Class C
   (Marine Air Traffic Control Unit Maintenance Management, Class O)
2. Marine Air Traffic Control Unit Equipment Maintenance, Class C
3. Marine Air Traffic Control Unit Equipment Maintenance, Class C

Course Number: *Version 1:* C-103-2019; C-2G-2023.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 15 weeks (600 hours). *Version 3:* 18 weeks (720 hours).

Exhibit Dates: *Version 1:* 7/71–12/83. *Version 2:* 2/69–6/71. *Version 3:* 2/66–1/69.

Objectives: To train radar technicians to operate and maintain air traffic control systems.

Instruction: *Version 1:* Lectures and practical exercises in air traffic control principles and in the supervision of the installation, maintenance, and repair of air traffic systems, navigational aids, and communication systems and associated equipment. *Version 2:* Lectures in installation, maintenance, testing, and repair of specific radar sets, including basic electronics review, transistor fundamentals review, and basic radar and test equipment review and components circuit analysis. *Version 3:* Lectures in installation, maintenance, testing, and repair of specific radar sets, including basic electronics review, transistor fundamentals review, and basic radar and test equipment review and components circuit analysis.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (2/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, 3 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0040

SUBMARINE SONAR TECHNICIAN A-1

Course Number: A-130-0029; J-130-0515; K-130-1007.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.

Length: *Version 1:* 10-12 weeks (400-480 hours). *Version 2:* 16-18 weeks (640-720 hours).

Exhibit Dates: *Version 1:* 8/77-1/88. *Version 2:* 4/70-7/77.

Objectives: To train enlisted personnel to operate and maintain specific submarine sonar systems and auxiliary equipment.

Instruction: *All Versions:* Lectures and laboratory in basic mathematics, vacuum tube and semiconductor devices, physics of sound, and specific sonar systems operation and maintenance techniques. *Version 1:* Emphasis is placed on sonar fundamentals and operation of specific sonar equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic communications and 1 in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0041

KC-130F AN/APN-59B RADAR INTERMEDIATE MAINTENANCE

Course Number: C-102-3501.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/69-1/88.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/APN-59B radar set at the intermediate maintenance level.

Instruction: Lectures and practical exercises in AN/APN-59B radar set maintenance, testing and repair, including radar set operation and circuitry, block diagrams, cabling, oscillators, transmitters, indicator and power supply, antenna circuits, accessory equipment, and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronics laboratory (3/74).

NV-1715-0042

BASIC SONARMAN
(Sonarman, Class A)

Course Number: 560.

Location: Fleet Sonar School, Key West, FL; Fleet Antisubmarine Warfare School, San Diego, CA.

Length: 24-30 weeks (931-1161 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train personnel to operate and perform preventive and corrective maintenance on sonar and allied equipment.

Instruction: The course consists of an operational phase and a maintenance phase. Maintenance phase includes fundamentals of AC and DC, DC series and parallel circuits, DC generators and motors, AC circuits, inductance and capacitance, transformers and alternators, power supplies, rectifiers, amplifiers, vacuum tubes, oscillators, transmitters, receivers, synchros, multivibrators, sonar and auxiliary equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0043

DATA SYSTEMS TECHNICIAN SCHOOL, CLASS A (PHASE A-2)—PART I, CP-789

Course Number: A-150-0026.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train enlisted personnel to troubleshoot the CP-789(V)/UYK computer.

Instruction: Lectures and practical exercises in troubleshooting the control, arithmetic, memory, and input/output sections of the CP-789(V)/UYK computer. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited, technical nature of the course (3/74).

NV-1715-0044

DATA SYSTEMS TECHNICIAN, CLASS A (PHASE A-2)—PART II, CP-642A/642B/USQ-20(V) DIGITAL DATA COMPUTER MAINTENANCE
(Data Systems Technician, Class A(A-2), Part II CP-642B)

Course Number: A-150-0026; A-150-0066.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To teach enlisted personnel to operate and repair digital data computers.

Instruction: Lectures and practical exercises in electronic and logical analysis of the control, arithmetic, memory, and input/output sections; and maintenance and repair procedures for digital data computers. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0045

DATA SYSTEMS TECHNICIANS, CLASS A, (PHASE A-2)—PART III, CP-642A

Course Number: A-150-0026.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train enlisted personnel who have some knowledge of digital computer fundamentals to operate, troubleshoot, and repair the CP-642A computer.

Instruction: Lectures and practical exercises in CP-642A computer operation; computer maintenance programming; and computer and peripheral equipment operation, maintenance, and repair. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0046

E-2A COMPUTER INDICATOR (AN/ASA-27) INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 22 weeks (880 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to perform shop maintenance on computer indicators.

Instruction: Lectures and practical exercises in operation, function, and shop maintenance of computer indicators, including computer system fundamentals and timing, intercept computer operations, programming, and in-flight navigation computer operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0047

DATA SYSTEMS TECHNICIAN—PERIPHERAL EQUIPMENT MAINTENANCE, CLASS C

Course Number: A-150-0051.

Location: Naval Schools Command, Mare Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train qualified computer technicians in the operation and maintenance of peripheral equipment.

Instruction: Practical experience in the operation and maintenance of RD-231/USQ-20(V) paper tape units, modified teletypewriter sets, and system-monitoring panels; and identification and use of management tools, including maintenance requirement cards.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0048

DATA SYSTEMS TECHNICIAN, CLASS C, MK 11, MOD 2/4 SYSTEMS GROUP MAINTENANCE

Course Number: A-150-060.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train NTDS conversion equipment repairmen to maintain and repair NTDS/WDS Mark 11 systems.

Instruction: Practical experience in missile, gun, and weapon systems; maintenance and material management; functional analysis; logical description; and system switching and testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0049

Avionics Fundamentals, Class A

Course Number: Not available.

Location: Air Reserve Electronics Training Unit, Los Alamitos, CA.

Length: 12 weeks (520 hours).

Exhibit Dates: 6/64–12/68.

Objectives: To provide selected enlisted personnel with a basic understanding of electronic circuitry and test equipment.

Instruction: Lectures and practical experience in the fundamentals of radio, transmitter, transistor, and radar electronics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in electronic circuits (12/68).

NV-1715-0050

Digital and Electronics Training

Course Number: K-130-0271.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 1/86–Present.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to interpret, analyze, and troubleshoot electronic equipment.

Instruction: Course covers, at a basic level, algebra, trigonomotry, scientific notation, construction techniques, basic electricity and electronic theory, AC/DC circuit analysis, semiconductor theory, basic AM/FM theory, basic servo principles, Boolean algebra, binary, octel, hexadecimal number systems, computer architecture, digital logic circuits, and computer troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in AC/DC circuits, 3 in solid state electronics, 3 in digital fundamentals, 1 in introduction to computers and 1 in synchros (7/86).

NV-1715-0051

Sonar Communications Set AN/WQC-5 Basic Maintenance

Course Number: K-130-0234.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA; Fleet Anti-Submarine Warfare Training Center, Yokosuka, Japan.

Length: 2 weeks (63 hours).

Exhibit Dates: 11/79–9/86.

Objectives: To train personnel to operate and perform maintenance on a sonar communication system.

Instruction: Includes only routine maintenance and operating characteristics of the sonar communication set.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (7/86).

NV-1715-0052

1. AN/ALQ-99 Tracking Receivers Control Modulators, Exciters with AN/ALM-109C Tracking Receiver Test Station and TS 3517/ALM RF Oscillator Rom Linearizer Test Set Intermediate Maintenance
2. AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance

Course Number: C-102-3944.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 7 weeks (280 hours).

Exhibit Dates: *Version 1:* 3/80–Present. *Version 2:* 4/73–2/80.

Objectives: To train enlisted personnel to operate, test, maintain, and repair radio receivers.

Instruction: *Version 1:* Lectures and laboratory instruction at the block diagram level in control data registers, Boolean logic, digital modulation and driver circuits, rate and dwell circuitry and voltage controlled RF oscillators. Emphasis is placed on publication interpretation and troubleshooting of specialized equipment. *Version 2:* Lectures and practical exercises in digital integrated circuits, and circuit analysis and maintenance procedures for functional circuitry of radio receivers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in systems maintenance laboratory (7/80). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0053

AN/ALQ-99 Jamming Transmitters and AN/ALM-107B Countermeasures Test Station Intermediate Maintenance

(AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance)

Course Number: C-102-3946.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 11–12 weeks (440-480 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and functional testing procedures for special-purpose radio transmitters.

Instruction: Lectures and practical exercises in troubleshooting, repair, power distribution and control, countermeasures, power supply modules, RF source, traveling wave, tube testing and block and signal flow analysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 3 in electronic communications laboratory (7/80).

NV-1715-0054

1. AN/ALM-108 Surveillance Receiver Test Station AN/ALQ-99 Surveillance Receivers Intermediate Maintenance
2. AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance

Course Number: C-102-3945.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 3/80–Present. *Version 2:* 4/73–2/80.

Objectives: To train enlisted personnel in the maintenance, repair, and testing of specific radio receivers.

Instruction: *Version 1:* Lectures and practical exercises in the operational theory, voltage levels and signal flow in each subsystem of a surveillance receiver. The subsystems include power supplies, power distribution, local oscillators, radio and intermediate frequency amplifiers, video amplifiers, video to digital converters and mixer circuits. Practical work is done in troubleshooting using oscilloscopes, frequency counters and digital voltmeters. *Version 2:* Lectures and practical experience in functional analysis and power generation, surveillance receivers, fault isolation, and circuit analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in the theory and repair of communications systems (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic technology communication laboratory or 3 semester hours in general technical elective for nonelectronic technology students (7/80). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 3 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0055

AN/ALQ-92 Countermeasures Set Intermediate Maintenance

Course Number: C-102-3708.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train enlisted personnel to test, maintain, and repair specific electronic systems.

Instruction: Discussions and practical experience in basic digital logic, circuit analysis, and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0056

AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1)

(AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C)

Course Number: A-101-0049; A-101-0051.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: *Version 1:* 4 weeks (144 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 6/81–Present. *Version 2:* 4/72–5/81.

Objectives: To train enlisted personnel in the operation and maintenance of specific radio transmitter sets.

Instruction: *Version 1:* Practical training in the operation and maintenance of an AN/URT series radio transmitter using single sideband CUI, amplitude modulated, independent sideband and frequency shift keying. The student uses general purpose test equipment and troubleshoots defective radio equipment. *Version 2:* Practical and theoretical instruction in the operation and preventive and corrective maintenance of a single sideband transmitter.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radio transmitter operation, maintenance and troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics or communications (11/77).

NV-1715-0057

AN/ALQ-76 Intermediate Maintenance

Course Number: C-102-3069.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train enlisted personnel in the maintenance, repair, and troubleshooting of specific radio transmitters.

Instruction: Practical experience in alignment, troubleshooting, and repair of radio transmitters.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 2 in electronic communications laboratory (3/74).

NV-1715-0058

AN/ARC-161 HF Radio Set Intermediate Maintenance

(AN/ARC-142 HF Communications System Intermediate Maintenance)

Course Number: C-102-3582.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train enlisted personnel in the maintenance and repair of a specific transmitter-receiver.

Instruction: Practical experience in introduction to radio sets; system description; bench check-out; power distribution, including block-diagram and functional analyses; band selection; and fixed-frequency generation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0059

1. AN/ARC-143 and AN/ARC-143A UHF Radio Set Intermediate Maintenance
2. AN/ARC-143 Communications System Intermediate Maintenance

Course Number: C-102-3581.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: *Version 1:* 8/76-Present. *Version 2:* 2/73-7/76.

Objectives: To train enlisted personnel in the maintenance, repair, and functional testing of a specific UHF radio set.

Instruction: *Version 1:* Lectures and practical exercises in the operation of a UHF radio set including block diagram analysis, signal tracing, maintenance, troubleshooting and repair procedures. The operation of the UHF radio test set is also covered. *Version 2:* Lectures and practical experience in communications system theory of operation, UHF radio test sets, system description, radio set control, and functional analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (7/81). *Version 2:* In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (7/74).

NV-1715-0060

AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance

Course Number: C-102-3072.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train enlisted personnel to maintain and repair tuners.

Instruction: Practical experience in tuner operation, check-out, alignment and trouble analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0061

Submarine Radar Maintenance (Enlisted)

Course Number: F-104-010.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train submarine force electronics technicians to maintain and repair AN/BPS-13 radar sets.

Instruction: Lectures and practical exercises in AN/BPS-13 operation theory, maintenance procedures, standard submarine test equipment, and safety precautions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0062

1. Submarine Gyrocompass Mk 19 Mod 3 Combined Maintenance
2. Submarine Gyrocompass Mk 19 Mod 3 (Sperry Mk XIX Mod III Gyrocompass)

Course Number: A-670-0042; F-623-015.

Location: *All Versions:* Submarine School, Groton, New London, CT; Fleet Ballistic Missile School, Charleston, SC. *Version 1:* Naval Submarine Pacific, Pearl Harbor, HI.

Length: 3-4 weeks (90-120 hours).

Exhibit Dates: *Version 1:* 8/79-Present. *Version 2:* 8/67-7/79.

Objectives: To train students to operate and maintain specific submarine gyrocompasses.

Instruction: *Version 1:* Lectures and practical exercises in the theory of operation of the gyrocompass to the component level including alignment, adjustment, fault isolation and repair of the equipment. *Version 2:* Lectures and practical exercises in a review of trigonometry, electronics, transistors, and magnetic amplifiers; gyroscopic principles; and operation and preventive maintenance of the Sperry Mk 19 Mod 3A and 3R gyrocompasses.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in servo amplifier control system troubleshooting (6/81). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0063

Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance

Course Number: A-193-034.

Location: Electronics Technician School, Dam Neck, VA.

Length: 26 weeks (910 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train electronic technicians to operate and maintain environmental detector systems, frequency-time standards, Loran C receiving sets, radio navigation sets, and sonar sounding sets.

Instruction: Lectures and practical exercises in the operation of navigational subsystems of fleet ballistic missile submarines, including equipment familiarization and operation, technical maintenance, subsystem tie-in, and utilization of test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0064

Electronics Technician, Class C, SSBN Navigation Aids, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance

Course Number: A-193-0037.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72-12/74.

Objectives: To train electronic technicians to maintain navigational aids equipment.

Instruction: Lectures and laboratories in digital module test sets, sonar test sets, Loran-C switching units, electronic circuit plug-in units, and signal simulators, ancillary commercial test equipment; and advanced soldering and wire-wrapping techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0065

Fleet Ballistic Missile Tender Navigation Maintenance Ship's Inertial Navigation System

(Fleet Ballistic Missile (FBM) Tender Navigation Maintenance)

(Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance)

Course Number: A-193-0036.

Location: Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 6-8 weeks (240-248 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 3/80-Present. *Version 2:* 11/72-2/80.

Objectives: To train electronics technicians to maintain inertial navigation systems.

Instruction: *Version 1:* Lectures and practical exercises in the operation, maintenance and repair of an inertial navigation subsystem and its support equipment including specialized test sets and equipment (VOH meters, oscilloscopes, wave analyzers, destortion analyzers, and signal generators); optical equipment alignment and maintenance; selectric typewriter maintenance and theory, and paper tape unit operation and repair. *Version 2:* Lectures and laboratories in digital module test sets, Loran-C test systems, NAVDAC test sets, sonar test sets, SDC test sets, synchro/resolver test sets, and type 11 servo amplifier test sets; advanced soldering and wire-wrapping techniques; and ancillary commercial test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in typewriter maintenance, 1 in optical equipment maintenance/alignment techniques; In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics maintenance laboratory (6/89). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluations (3/74).

NV-1715-0066

Ships Inertial Navigation System (SINS) Technician Poseidon Replacement
(Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician)

Course Number: A-193-0026.

Location: Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 25 weeks (1000 hours). *Version 2:* 23 weeks (805 hours).

Exhibit Dates: *Version 1:* 8/82-1/89. *Version 2:* 11/72-7/82.

Objectives: To train electronics technicians to operate, maintain and repair a ships inertial navigation systems, and associated subsystems.

Instruction: *All Versions:* Lectures and practical exercises in equipment familiarization and operation, technical maintenance, subsystem tie-in, and utilization of test equipment. *Version 1:* Includes maintenance of paper tape readers, selectric typewriters and some optical equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics maintenance laboratory (11/83). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0067

A-6 AN/ASQ-61A Ballistics Computer Theory

Course Number: C-150-3766.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/71-1/88.

Objectives: To train maintenance personnel in the operation of AN/ASQ ballistics computer sets.

Instruction: Lectures and practical exercises in flip-flops, computer organization, logic circuits, adders, and ballistics computer sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems (3/74).

NV-1715-0068

A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance
(A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance)

Course Number: C-150-3763.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2-7 weeks (280-560 hours).

Exhibit Dates: 6/68-1/88.

Objectives: To train maintenance personnel in the operation of AN/ASQ-61A ballistics computer sets.

Instruction: Lectures and practical exercises in ballistics computer sets, flip-flops, computer organization, logic circuits, and adders.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems (3/74).

NV-1715-0069

AN/AJM-32(V) Special Support Equipment Intermediate Maintenance
(AN/AJM-32(V) Intermediate Maintenance)

Course Number: C-150-3784.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 3 weeks (112 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 12/78–Present. *Version 2:* 11/72–11/78.

Objectives: To train personnel in maintenance techniques, including the testing, calibration and troubleshooting of digital electronic equipment.

Instruction: *Version 1:* Lectures and practical exercises in operational theory, safety procedures, maintenance and troubleshooting, and repair of digital electronic equipment. *Version 2:* Lectures and practical exercises in operational theory, maintenance and troubleshooting, and automatic and semiautomatic testing procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital electronics control systems or 2 semester hours in digital electronics for electrical engineering majors (3/82). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0070

A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance

Course Number: C-102-3784.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/71-6/81.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair the AN/ASN-91 computer, special support equipment, and loader-verifier.

Instruction: Lectures and practical exercises in the AN/ASN-91 computer system, including programming and data flow, computer circuit analysis, test benches, and loader-verifier units.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0071

A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance

Course Number: C-150-3769.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/70-1/88.

Objectives: To train maintenance personnel to operate and maintain AN/ASM-316 (XN-1) memory drum test consoles and card and module testers.

Instruction: Lectures and practical exercises in the theory of operation, maintenance, reliability testing, and repair of the memory drum test consoles, card and module testers, and ballistics computer sets.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0072

Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0

Course Number: A-121-0096; A-121-0097.

Location: Guided Missiles School, Dam Neck, VA; Training Center, Mare Island, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72-12/80.

Objectives: To train fleet Tartar systems supervisors to conduct a defense system operational test (DSOT), analyze the results, and initiate corrective actions.

Instruction: Lectures and practical exercises in DSOT analysis, including introduction to DSOT, DSOT and ADSOT procedures, DSOT practical, system casualty analysis, systems tests, specific radar test set, specific systems dynamic tester, and specific missile simulators.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1715-0073

AN/ALH-6 Recorder/Reproducer Intermediate Maintenance

Course Number: C-102-3073.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel to maintain, operate, and service AN/ALH-6 recorder/reproducer systems.

Instruction: Lectures and practical exercises in A/D converters, digitizers, AN/ALH-6 systems, troubleshooting techniques, and test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0074

A-6A Programmer, Semi-Automatic
Test Equipment Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 14 weeks (560 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train maintenance personnel to maintain the programming test group equipment.

Instruction: Lectures and practical exercises in programming test groups, programming analyzer test benches, and GT-1 programming test stations.

Credit Recommendation: In the vocational certificate category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0075

1. Plotting System MK NC-2 Mod 1A
   Maintenance
2. Mk NC-2 Plotter Mod 1A (Sperry)
   Maintenance, Class C

Course Number: A-623-0020; A-623-0021.

Location: *All Versions:* Technical Training Command, Norfolk, VA; *Version 2:* Technical Training Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 3/80–Present. *Version 2:* 5/72–2/80.

Objectives: To train enlisted personnel to maintain, troubleshoot, and repair the Mk NC-2 Mod 1A plotting systems.

Instruction: *Version 1:* Lectures and practical exercises in the review of basic electronics and servo systems; complete coverage of an eletromechanical system including plotting table, data converter, dead reckoning indicator and troubleshooting. *Version 2:* Lectures and practical exercises in review of basic electronics, synchro/servo systems, solid-state devices, plotting systems and tables, transistors, and voltage networks.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electromechanical systems (9/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical systems (9/83). *Version 2:* In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0076

Plotting System Mk NC-2 Mod 2/2A
Maintenance
(Mk NC-2 Plotter Mod 2/2A Maintenance, Class C)

Course Number: A-623-0015; A-623-0016.

Location: Interior Communications School, San Diego, CA; Electrical Schools, Norfolk, VA.

Length: *Version 1:* 5 weeks (190 hours). *Version 2:* 4 weeks (160 hours). *Version 3:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 5/82–10/84. *Version 2:* 8/71–4/82. *Version 3:* 4/69–7/71.

Objectives: To train interior communications electricians to maintain, troubleshoot, and repair the Mk NC-2 Mod 2/2A plotting system and the dead-reckoning analyzer-indicator Mk 9 Mod 2.

Instruction: For this course after 10/84 see NV-1715-1339. *All Versions:* Lectures and laboratories in solid-state devices, voltage networks, transistors, synchro/servo systems, dead-reckoning analyzer-indicator, plotting tables, and troubleshooting procedures. *Version 1:* Includes use of stepper motors.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems, 1 in electronics systems laboratory and 1 in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74). *Version 3:* In the vocational certificate category, 2 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0077

AN/ARC-101 Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train enlisted personnel to repair and maintain specific radio transceivers.

Instruction: Practical experience in VHF receivers, circuit analysis, oscillators, transmitters, and power supplies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0078

Ground Controlled Approach
Electronics Technician, Radar
Set AN/MPN-1B, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Olathe, KS.

Length: 15 weeks (600 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train electronics technicians to operate and maintain ground control approach installations.

Instruction: Lectures and laboratories in review of basic electronics and radar circuits, advanced radar circuit theory, communications equipment, search radar systems, and precision radar systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0079

Ground Controlled Approach
Electronics Maintenance, Radar
Set AN/CPN-4A, Class C

Course Number: *Version 1:* C-103-1013. *Version 2:* C-103-13.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 4 weeks (147 hours). *Version 2:* 17–18 weeks (696–712 hours).

Exhibit Dates: *Version 1:* 3/73–12/75. *Version 2:* 3/66–2/73.

Objectives: To train electronic technicians to maintain and operate complete ground control approach installations.

Instruction: *All Versions:* Lectures and laboratories in radar circuit theory, synchroscopes, search radar systems, precision radar systems, and communications equipment. *Version 2:* Includes a complete introduction to basic radar circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0080

1. Ground Controlled Approach
   Electronics Maintenance, Radar
   Set AN/MPN-5, Class C
2. Ground Controlled Approach
   Electronics Technician,
   AN/MPN-5, Class C

Course Number: *All Versions:* Not available.

Location: *Version 1:* Air Technical Training Center, Glynco, GA. *Version 2:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 17 weeks (696 hours). *Version 2:* 18 weeks (720 hours).

Exhibit Dates: *Version 1:* 4/66–12/68. *Version 2:* 11/54–3/66.

Objectives: To train electronics technicians to operate and maintain ground controlled approach installations.

Instruction: *All Versions:* Lectures and laboratories in radar circuit theory, search radar, precision radar, search and precision antennas and indicators, radar systems measurements and auxiliary equipment, and a review of basic radar circuits, including LCR, limiters, oscillators, multivibrators, and sweep and bootstrap circuits. *Version 2:* Includes basic AC and DC circuits and electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0081

1. Ground Controlled Approach Maintenance (Engineman), Class C
2. Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
3. Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C

(Ground Controlled Approach Engineman, Class C, AN/MPN-5)

Course Number: *All Versions:* Not available.

Location: Air Technical Training Center, Glynco, GA. *Version 3:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 8 weeks (320 hours). *Version 3:* 10 weeks (400 hours).

Exhibit Dates: *Version 1:* 7/68–1/88. *Version 2:* 5/67–6/68. *Version 3:* 10/55–4/67.

Objectives: To train enginemen to operate and maintain all GCA power, air conditioning, heating, and air distribution equipment.

Instruction: Lectures and laboratories in the theory, operation, and maintenance of alternators, voltage regulators, lighting systems, batteries, and cable connections.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0082

1. Plotting System Mk NC-2 Mod 0 Maintenance
2. Mk NC-2 Plotter Mod 0 Maintenance, Class C

Course Number: A-623-0018; A-623-0019.

Location: *All Versions:* Service Schools Training Division, Norfolk, VA; *Version 2:* Service Schools Training Division, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 9/83–Present. *Version 2:* 8/71–8/83.

Objectives: To train enlisted personnel to maintain, troubleshoot, and repair Mk NC-2 Mod 0 plotting systems.

Instruction: Lectures and practical exercises in a review of basic electronics and servo systems and complete coverage of an electromechanical system including plotting table,data converter, dead reckoning indicator and troubleshooting. *Version 2:* Lectures and laboratories in solid-state devices, servo systems, voltage networks, transistors, plotting tables, data converters, dead-reckoning indicators, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical systems (9/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical systems (9/83). *Version 2:* In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0083

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C

Course Number: A-150-0057.

Location: Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 10/72–1/79.

Objectives: To train data systems technicians to maintain and repair data conversion group equipment.

Instruction: Lectures and practical exercises in data systems theory and maintenance procedures, including digital data converter fundamentals, dynamic synchro data source equipment maintenance, radar azimuth converter maintenance, sonar azimuth converter fundamentals, video signals simulator theory of operation and computer message formats, signal data converter equipment maintenance, and beacon video processor system fundamentals and troubleshooting procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0084

IOIC Systems Maintenance

Course Number: D-150-019.

Location: Intelligence Processing System Training Facility, Albany, GA.

Length: 28 weeks (1160 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train maintenance personnel to maintain and repair EDP and intelligence display equipment.

Instruction: Lectures and practical exercises in EDP familiarization, theory of operation and maintenance procedures for input/output adapter, control signal converter, controller, program request panel, Itek viewer/printer, film titler, and Mitran copy camera; mechanical alignment procedures and troubleshooting techniques; input/output drawer and keyboard, pneumatics, power supply, and memory operation; and video, TV monitor sections, and electronics logic circuitry theory of operation, maintenance, repair and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer science (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer science (3/74).

NV-1715-0085

Central Navigation Computer (CNC) Technician

(Electronics Technician, Class C, SSBN CNC Technician Maintenance)

Course Number: A-193-0028.

Location: Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 20 weeks (800 hours). *Version 2:* 32 weeks (1116 hours).

Exhibit Dates: *Version 1:* 10/82–1/89. *Version 2:* 6/70–9/82.

Objectives: To train electronics technicians to operate, maintain, and repair central navigation computers and related equipment.

Instruction: *All Versions:* Lectures and laboratories in familiarization, operation, and technical maintenance of central navigation computers, navigation control consoles, magnetic tape equipment, D/D and D/A converters, data processing subsystems, and navigation subsystems. *Version 1:* Includes an xy plotter and teleprinters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in computer troubleshooting and maintenance (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine language programming (11/83). *Version 2:* In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics areas (3/74).

NV-1715-0086

Computer Mk 1A Maintenance

Course Number: J-113-0138; J-113-1382.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 6/72–1/88.

Objectives: To train shipboard fire control technicians to test and maintain MK 1 and MK 1A computers.

Instruction: Lectures and practical exercises in basic theory of operation of MK 1A computers and MK 1 Star Shell computers, testing and casualty analysis, and preventive and corrective maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0087

Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance

Course Number: A-150-0042.

Location: Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 11/71–1/88.

Objectives: To train data system technicians to operate, maintain, and repair computer peripheral equipment.

Instruction: Lectures and practical exercises in theory of operation, system maintenance, and troubleshooting of digital data recorder-reproducers, card reader-punch, data processing line printers, input-output keyboard printers, and motor generator/controllers.

Credit Recommendation: In the vocational certificate category, 8 semester hours in computer science (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer science (3/74).

NV-1715-0088

AN/SRC-20, AN/SRC-21 RADIO SETS MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS 1)

(Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance)

(Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance)

Course Number: A-101-0015; A-101-0016; A-101-015; A-101-016; A-101-017; A-101-011.

Location: Electronics Technician, Class C School, San Diego, CA; Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, Pearl Harbor, HI; Electronics Technician, Class C School, Treasure Island, CA.

Length: 3-4 weeks (90-160 hours).

Exhibit Dates: *Version 1:* 7/78-Present. *Version 2:* 5/69-6/78.

Objectives: To train enlisted personnel to operate, maintain, and repair the AN/SRC-20/21 radio sets and associated test equipment.

Instruction: Lectures and laboratories in AN/SRC-20/21 radio set function during broadband, normal, retransmit, and tone modes of operation; radio set power requirements, frequency range, frequency selection, and output data; receiver, modulator, transmitter, channel selection, and antenna coupler signal characteristics and signal tracing by use of block diagrams; and radio set alignment, operational checks, and maintenance testing procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation electronics laboratory and 1 semester hour in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics or communications (11/77).

NV-1715-0089

TRANSCEIVER AN/SRC-20 COMBINED MAINTENANCE

(AN/SRC-20 Radio Transceiver)

(AN/SRC-20, Operation and Maintenance, Enlisted)

(Radio Transceiver AN/SRC-20 Maintenance)

Course Number: A-101-0103; L-101-0015; F-101-016.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 3 weeks (80-90 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To train submarine radiomen and electronics technicians to operate, maintain, and repair the AN/SRC-20 radio transceiver.

Instruction: Lectures and laboratories in AN/SRC-20 operation principles, audio and modulator circuits, squelch circuits, frequency multiplier oscillator, power distribution and amplification, block diagram usage, voltage measurements, maintenance procedures, and basic and advanced troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications and 1 in electronic communications laboratory (9/77).

NV-1715-0090

TELETYPEWRITER AN/UGC-20B/25 COMBINED MAINTENANCE

(AN/UGC-20A/25A Teletypewriter Set Maintenance)

(AN/UGC-20/25 Teletypewriter Set Maintenance)

Course Number: A-160-0064; A-160-0065; A-160-0066; F-160-0064; F-160-011.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 5-7 weeks (150-264 hours).

Exhibit Dates: 10/68-Present.

Objectives: To train submarine radiomen and submarine tender personnel to perform maintenance and repair on the AN/UGC-20/25 teletype machine.

Instruction: Lectures and practical exercises in AN/UGC-20/25 teletype machine fundamentals and operating procedures for each section of the machine, fault isolation and repair to major subassemblies of the electrical and mechanical systems, routine maintenance, cleaning, and material usage.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical repair, 1 in electromechanical laboratory (3/81).

NV-1715-0091

DATA SYSTEMS TECHNICIAN, CLASS C, DATA TRANSMISSION GROUP, DATA TERMINAL

Course Number: A-150-017.

Location: Naval Schools Command, Mare Island, CA.

Length: 14 weeks (420 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel who have backgrounds in electronics and digital theory to operate and maintain data transmission equipment.

Instruction: Lectures and laboratories in data transmission equipment operation and block-diagram analysis, with emphasis on testing, maintenance, and repair of transmitter, receiver, and control sections.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics or computers; in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics or computer subjects (3/74).

NV-1715-0093

AN/AQH-4 SOUND RECORDER/REPRODUCER SET INTERMEDIATE MAINTENANCE

Course Number: C-102-3596.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73-Present.

Objectives: To train fleet maintenance personnel to maintain AN/AQH-4 sound recorder/reproducer sets at the computer level.

Instruction: Lectures and practical exercises in circuit analysis, alignment, adjustment, and troubleshooting of sound recording and reproducing equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in audio electronic equipment maintenance and repair (7/81).

NV-1715-0094

AN/ARC-38A SINGLE SIDE BAND TRANSCEIVER INTERMEDIATE MAINTENANCE

Course Number: C-102-3022.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/69-1/88.

Objectives: To train maintenance personnel to maintain, repair, and test SSB transceiver sets.

Instruction: Lectures and practical exercises in theory of operation and maintenance procedures, including block-diagram and circuit analysis, bench testing, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0095

ELECTRONICS TECHNICIAN (CLASS C) AN/URC-58, AN/VRC-46 RADIO SETS MAINTENANCE

Course Number: A-101-0036.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/72-1/88.

Objectives: To train enlisted personnel to align, maintain, and repair AN/URC-58 and AN/VRC-46 radio transceiver sets.

Instruction: Lectures and practical exercises in maintenance procedures, block-diagram analysis, and troubleshooting procedures for AN/URC-58 and AN/VRC-46 transceivers.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0096

P-3A/B COMMUNICATIONS NAVIGATION (COMM/NAV) ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3545.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train experienced technicians to maintain and repair radio navigation equipment.

Instruction: Lectures and practical exercises in radio navigation system operation; communication system organizational maintenance; and radio navigation equipment, including direction finders, radio altimeters, Loran receiver, TACAN, and marker beacon maintenance and repair.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0097

Aviation Electronics Technician N (Navigation), Class A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 9-10 weeks (360-384 hours). *Version 2:* 22 weeks (880 hours).

Exhibit Dates: *Version 1:* 12/58-12/68. *Version 2:* 5/56-11/58.

Objectives: To train enlisted personnel in communications equipment maintenance and repair.

Instruction: *All Versions:* Lectures and laboratories in communications equipment maintenance and repair, including UHF and HF transceiver circuits, test equipment, and troubleshooting procedures; and radio/radar navigational systems operation, test equipment, and troubleshooting procedures. *Version 2:* Includes additional material on AC and DC circuits, pulse circuits and techniques, and basic amplifiers and receivers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics, 1 in electrical laboratory (3/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 3 in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0098

AN/ARC-54 VHF Communication Set Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/69-1/88.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ARC VHF communication sets.

Instruction: Lectures and practical exercises in the operation, circuitry, maintenance, and utilization of test equipment in troubleshooting and bench testing AN/ARC-54 VHF communication sets.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0099

AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1)
(Electronics Technician, Class C, AN/SRN-9 Radio Navigation Set)

Course Number: A-102-0081; A-102-0087.

Location: Service School Command, San Diego, CA; Technical Training Center, Memphis, TN; Fleet Training Center, Norfolk, VA.

Length: 5-6 weeks (160-180 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train technicians with experience in digital techniques to maintain AN/SRN-9 radio navigation sets.

Instruction: Lectures and practical experience in the operation, practical and corrective maintenance of a navigation receiver and antenna.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electronic communications (11/77).

NV-1715-0100

AN/ARC-94 Radio Transceiver Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC.

Length: 3 weeks (114 hours).

Exhibit Dates: 4/69-1/88.

Objectives: To train enlisted personnel to maintain and repair AN/ARC-94 radio transceivers.

Instruction: Lectures and laboratories in AN/ARC-94 radio transceiver maintenance and repair, including single-sideband transmission and reception, and specific transmitter and receiver circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0101

CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance

Course Number: C-102-3441.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train enlisted personnel to repair helicopter electronic systems.

Instruction: Lectures and practical exercises in identification, assembly, organizational maintenance, and troubleshooting of CH-53 helicopter electronic systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0102

1. Avionics Intermediate, Class C7
2. Avionics Intermediate, Class B
3. Avionics Intermediate, Class B
(Intermediate Avionics, Class B)

Course Number: C-100-2012; C-102-2012; C-111-2012; C-112-2012.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 31-32 weeks (1110 hours). *Version 2:* 28-29 weeks (950-1120 hours). *Version 3:* 32-33 weeks (1264-1336 hours).

Exhibit Dates: *Version 1:* 1/79-9/86. *Version 2:* 6/71-12/78. *Version 3:* 10/65-5/71.

Objectives: To train enlisted personnel to perform complex circuit analysis and avionics maintenance procedures.

Instruction: For this course after 9/86 see NV-1715-1438. *All Versions:* Lectures and practical exercises in mathematics and physics, airborne radar principles, systems analysis, and aviation maintenance and material management procedures. *Version 1:* Includes lectures and practical exercises in electronic devices and systems, digital and digital computer principles, servomechanisms, test equipment operations, communication and microwave principles. *Version 2:* Includes instruction in electronics principles, digital and analog computers, test equipment operation, and transmission and reception principles. *Version 3:* Includes instruction in electronics principles, digital and analog computers and test equipment operation and transmission and reception principles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in electronics devices and systems, 4 in electricity, 3 in servomechanisms, 3 in digital principles, 3 in communications, 3 in microwave and radar and 2 in physics (mechanics) (2/81); in the upper-division baccalaureate category, 3 semester hours in digital computers (2/81). *Version 2:* In the vocational certificate category, certificate credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electricity or electronics, 4 in computer technology, 4 in mathematics (3/74); in the upper-division baccalaureate category, 5 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, certificate credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electricity or electronics, 4 in computer technology, 4 in mathematics (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0103

1. Solid State Theory and Digital Electronics
2. Solid State Theory for Electronic Equipment
(Solid State Theory)
(Electronics Technician, Class C, Solid State Fundamentals)

Course Number: K-113-2067.

Location: *All Versions:* Fleet Training Center, San Diego, CA. *Version 1:* Fleet Training Center, Pearl Harbor, HI; Fleet Training Center, Yokasuka, Japan. *Version 2:* Electronics Technician, Class C School, Treasure Island, CA.

Length: 2-3 weeks (60-95 hours).

Exhibit Dates: *Version 1:* 1/82-Present. *Version 2:* 3/63-12/81.

Objectives: To provide electronics technicians with training in semiconductor and solid-state technology.

Instruction: *Version 1:* Lectures and laboratory exercises in solid state devices including diodes, bi-polar and field effect transistors, op. amps, thyristors; digital circuits including logic gates, flip flops, shift regulators, counters, combinational circuits, arithmetic elements and Rom and Ram memories, amplifiers and oscillators. *Version 2:* Lectures and practical exercises in transistor and transistor amplifiers, single and multijunction semiconductors, sine wave oscillators operation and theory; switching, gating, and pulsing circuits; and troubleshooting and servicing transistor circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital electronic devices and 1 semester hour in digital electronic laboratory for electrical engineering majors (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0104

1. Electrician's Mate, Class C7
2. Electrician's Mate, Class C7
3. Electrician's Mate, Class B
4. Electrician's Mate, Class B

Course Number: A-662-0017.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 18-20 weeks (720-800 hours). *Version 2:* 26 weeks (850 hours). *Version 3:* 30 weeks (900 hours). *Version 4:* 23 weeks (690 hours).

Exhibit Dates: *Version 1:* 10/79-5/87. *Version 2:* 12/76-9/79. *Version 3:* 6/72-11/76. *Version 4:* 10/64-5/72.

Objectives: To train electrician's mates to repair electrical systems with electronic controls.

Instruction: For this course after 5/87 see NV-1715-1295. *All Versions:* Lectures and laboratories in AC and DC circuits, semiconductors, digital logic and logic circuits, controllers operation and troubleshooting procedures, degaussing systems operation and testing, voltage regulators, and AC and DC motors and generators operation and maintenance. *Version 1:* Includes magnetics, AC and DC servo systems, synchros, and elevator repair. *Version 2:* Includes trigonometry, vacuum tubes and AC and DC drive systems. *Version 3:* Includes trigonometry, vacuum tubes and AC and DC drive systems. *Version 4:* Includes trigonometry, vacuum tubes and AC and DC drive systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in AC/DC circuits, 2 in digital logic and 3 in electromechancial systems (1/82). *Version 2:* In the vocational certificate category, 7 semester hours in electricity and electronics, 2 in computer technology and 7 in electricity and electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 2 in computer technology and 1 in electronics laboratory (9/77). *Version 3:* In the vocational certificate category, 14 semester hours in electricity and electronics, 4 in computer technology, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 2 in computer technology, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 1 semester hour in digital logic, 1 in rotating machines, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68).

NV-1715-0105

Communications Systems Technician, Class C

Course Number: A-202-0013; A-580-0014.

Location: Service School Command, San Diego, CA; Communication Station, Washington, DC.

Length: 12 weeks (420–480 hours).

Exhibit Dates: *Version 1:* 2/82–Present. *Version 2:* 12/71–1/82.

Objectives: To train enlisted personnel to operate specific types of communications equipment.

Instruction: *All Versions:* Lectures and laboratories in SSB receiver operation, UHF and microwaves, multiplexing techniques, and the use and interpretation of wavemeter readings. *Version 1:* Includes teletype devices and modems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications, 1 in communication systems laboratory (5/82). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/75).

NV-1715-0106

AN/GRC-27A Maintenance

(AN/GRC-27A Radio Equipment Maintenance)

Course Number: K-102-276.

Location: Training Command, Pacific, Pearl Harbor, HI; School Command, Treasure Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/64–1/88.

Objectives: To train maintenance personnel who have backgrounds in basic electronic theory to maintain AN/GRC-27A radio equipment.

Instruction: Lectures on AN/GRC-27A radio components theory of operation, receiver and transmitter electrical and mechanical alignment procedures, modulator power supply adjustments, and troubleshooting and repair of all major components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electrical laboratory (3/74).

NV-1715-0107

AN/UGA-3A Maintenance

Course Number: F-160-010.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train technicians who have completed basic electronics training to maintain and troubleshoot the AN/UGA-3A code converter.

Instruction: Lectures and laboratories in AN/UGA-3A code converter maintenance and troubleshooting procedures, including equipment familiarization; maintenance and material management introduction; logic diagram analysis; digital logic circuits analysis and troubleshooting; and special circuits, output oscillator, demodulator, and power supply operation and maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in digital circuits (3/74).

NV-1715-0108

Data Systems Technician Class C Data Display Group Maintenance

Course Number: A-150-018.

Location: Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel with a background in electronics and digital theory to operate, maintain, and repair data display group equipment.

Instruction: Lectures and practical exercises in operation and maintenance of display consoles, display readouts, symbol generators, radar data switchboards, plug-in module test sets, pulse amplifiers, and communications systems of AN/SYA-4(V) and AN/UYA-4(V) data display groups.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0109

A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To train enlisted personnel to maintain and operate universal encoder test consoles.

Instruction: Lectures and practical exercises in test console description and operation, testing procedures, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0110

Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C

Course Number: A-150-0073.

Location: Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/71–1/88.

Objectives: To train enlisted personnel with a background in electronics and digital theory to operate, maintain, and repair RD-294/UYK magnetic tape units.

Instruction: Lectures and laboratories in RD-294/UYK magnetic tape unit basics, operational control logic, magnetic tape operations, and system maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0111

ASA-27 Computer Detector and ASM-76 Test Console Intermediate Maintenance

(Computer Detector (CP-413/ASA-27) Intermediate Maintenance)

Course Number: C-150-3487; C-150-16.

Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA North Island, CA.

Length: 8–9 weeks (320–360 hours).

Exhibit Dates: *Version 1:* 9/78-Present. *Version 2:* 1/68–12/72.

Objectives: To train enlisted personnel who are familiar with digital fundamentals and avionics systems to operate, test, and repair computer detectors.

Instruction: Lectures and practical exercises in computer detector operation, function, and theory, including system power supply, block diagram, drum servo system, and timing generator operation; target detection, including radar magnetic drum, quantizers, density detectors, and IFF decoder and density detector; data acquisition, including data control and counting, servos and translators; target computation, including programmer, drum memory, height coordinate computer, and arithmetic and transfer logic; and test circuits and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic/digital systems, 1 in electronics laboratory (5/85). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0112

AN/APN-70B Loran System
Intermediate Maintenance

(P-3 AN/APN-70 Loran System Intermediate Maintenance)

Course Number: C-102-3539.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: *Version 1:* 7/77–Present. *Version 2:* 10/70–6/77.

Objectives: To train maintenance personnel who have backgrounds in transistor theory to operate and maintain the AN/APN-70 Loran navigational system.

Instruction: *All Versions:* Lectures on the AN/APN-70 Loran navigational system components and equipment familiarization, including circuit analysis, block-diagram analysis, radar introduction, low-voltage power supplies, oscillators, and antennas; calibration and alignment adjustment procedures; bench setup troubleshooting Loran equipment and associated test equipment usage; and equipment malfunction isolation and repair procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in avionics or marine electronics (7/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0113

Communications Officer Ashore

Course Number: A-4C-0016.

Location: Education and Training Center, Newport, RI.

Length: 3–5 weeks (87–120 hours).

Exhibit Dates: 12/71–1/88.

Objectives: To provide officers with instruction in communications procedures, cryptography, care and custody of registered publications, security, and operational communications.

Instruction: Lectures and practical exercises in communications procedures, cryptographic operations, and registered publications system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0114

P-3 Radar and IFF Systems
Organizational Maintenance

Course Number: C-104-3531.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 4/70–1/88.

Objectives: To train maintenance personnel to maintain, calibrate, align, and maintain P-3 radar and IFF systems.

Instruction: Lectures and practical exercises in radar and IFF systems, components, and equipment; organizational maintenance; and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0115

P-3 AN/ASA-16 Indicator Group
Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/70–1/88.

Objectives: To train fleet maintenance personnel to operate, calibrate, align, and maintain AN/ASA-16 indicator groups.

Instruction: Lectures and practical exercises in indicator group components and equipment, organizational maintenance, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0116

F-8 AN/APR-30(V) Radar Set
Intermediate Maintenance

Course Number: C-102-3858.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/69–1/88.

Objectives: To train fleet maintenance personnel on the radar homing and warning sets.

Instruction: Lectures and practical exercises in theory of operation of radar homing and warning sets, test equipment, circuit analysis, and intermediate maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0117

P-3 PT-396/AS and OA-1768A/ASA-13
Plotter Group Intermediate
Maintenance

Course Number: C-102-3555.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/70–1/88.

Objectives: To train enlisted personnel to operate, maintain, and isolate malfunctions in PT-396/AS and OA-1768A/ASA-13 plotter groups.

Instruction: Lectures and practical exercises in plotting group maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0118

P-3 AN/APX-6 Radar Identification
System Intermediate
Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–1/88.

Objectives: To train maintenance personnel to operate, calibrate, align, and maintain AN/APX-6 radar identification systems.

Instruction: Lectures and practical exercises in radar identification system components and equipment, maintenance, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0119

Underwater Fire Control Group Mk
111 Maintenance

Course Number: K-130-0056; A-130-0056.

Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA.

Length: 18–23 weeks (540–920 hours).

Exhibit Dates: 3/76–Present.

Objectives: To provide selected sonar technicians with the necessary skills to maintain the specified fire control equipment.

Instruction: Lectures and practical exercises in the preventive and corrective maintenance of sonar based fire control equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic digital troubleshooting (7/86).

NV-1715-0120

P-3 AN/AQA-1 Sono Indicator System
Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 12/70–1/88.

Objectives: To train maintenance personnel to operate, calibrate, align, repair, and maintain AN/AQA-1 sono indicator systems.

Instruction: Lectures and practical exercises in AN/AQA-1 components and equipment familiarization, maintenance procedures, use of test equipment, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0121

P-3 AN/AQA-5 Sonar Data Recording
System Maintenance, No. 46

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel in the latest maintenance, modification, and operating procedures for AN/AQA-5 sonar data recording systems.

Instruction: Lectures and practical exercises in AN/AQA-5 sonar data recording system special circuits, functional block diagrams, various circuit analyses, system switching, and power supply operation and maintenance techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0122

Ground Controlled Approach Operator, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Olathe, KS.

Length: 8 weeks (320 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel and officers to operate ground controlled approach equipment.

Instruction: Lectures and practical exercises in AN/CPN-4 and AN/MPN-5 radar sets, search radio/telephone procedures, precision radio/telephone procedures, and operational training, including normal approaches, hooded approaches, emergency approaches, and in-flight training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0123

1. Air Traffic Control Facility Management/TERPS, Class C1
2. Ground Controlled Approach Controller, Class C

Course Number: C-222-2013.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: 5-6 weeks (190-240 hours).

Exhibit Dates: *Version 1:* 3/78-4/85. *Version 2:* 3/65-2/78.

Objectives: To train air controlmen, Marine Corps personnel, and radarmen in ground-controlled approach procedures and equipment.

Instruction: Lectures and practical exercises in ground-controlled approach basic operating procedures, ATC radar familiarization, surveillance control training, precision control procedures, and radar air traffic control facility organization and operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic drafting (2/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0124

AN/BQS-8 (Series) Sonar Maintenance

Course Number: K-130-1025.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 6/72-8/77.

Objectives: To train sonar technicians to operate and maintain AN/BQS-8 (Series) sonar detecting-ranging sets.

Instruction: Lectures and practical exercises in theory and principles of continuous transmission, frequency modulated sonars; preventive and corrective maintenance of AN/BQS-8 (Series) Sonar; and the 3-M system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0125

Basic Navigation Watchstander
(Navigational Technician Watchstander (Enlisted))

Course Number: F-193-076.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/69-1/88.

Objectives: To train enlisted personnel to operate and monitor navigational center equipment.

Instruction: Lectures and practical exercises in operation of navigation subsystems primary power and data flow requirements of navigation subsystem equipment, and monitoring navigation centers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0126

General Submarine Sonar Maintenance

Course Number: A-130-0027; K-130-567; K-130-1009.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 6-17 weeks (240-595 hours).

Exhibit Dates: 8/70-6/79.

Objectives: To train sonar technicians to operate and maintain all sonar equipment found aboard conventional, skate, skipjack, and SSBN-type submarines.

Instruction: Lectures and practical exercises in preventive and corrective maintenance of auxiliary and major sonar equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/77).

NV-1715-0127

Gun Fire Control Radar Mk 25 Mod 3 Maintenance

Course Number: J-113-0118; J-113-1181; J-113-1182.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA; Fleet Combat Direction Systems Training Center, Atlantic, Newport, RI.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To teach shipboard personnel to perform required tests, adjustments, troubleshooting, casualty analysis, repairs, and maintenance of Mk 25 Mod 3 radar equipment.

Instruction: Lectures and practical exercises in capabilities and limitations of gun fire control radar systems, including special circuits, power distribution circuits, transmitter and receiver sections theory and operation, automatic tracking and range determination systems circuits and operation, planned maintenance, and radar signal processing equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0128

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance

Course Number: A-193-0259; F-193-088.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To provide navigation electronics technicians with advanced training in the operation and maintenance of Mk 1 and Mod 1 navigation operational checkout consoles theory.

Instruction: Lectures in NOCC circuitry review and Loran C signal simulator functional description; encoder test set; internal NOCC simulator; and troubleshooting, maintenance, and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0129

Radar Mk 25 Mod 3 Maintenance

Course Number: K-113-2024.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train fire control technicians and strikers to maintain and repair Mk 25 and Mod 3 radar systems.

Instruction: Lectures and practical exercises in Mk 25 and Mod 3 radar familiarization, AC power distribution, power supplies, transmission and receiving systems, indication system, automatic tracking and synchronizing systems, and radar systems maintenance and adjustments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0130

Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician

Course Number: A-193-015.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (910 hours).

Exhibit Dates: 11/72-7/82.

Objectives: To train electronic technicians to operate and maintain ship's inertial navigation systems multispeed repeaters, sonar sounding sets, navigation operational checkout consoles, and navigation subsystem switchboards.

Instruction: Lectures and practical exercises in inertial navigation equipment familiarization, operation, theory of operation, technical maintenance, and subsystem tie-in, and use of associated test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0131

Loran Receiving Set AN/WPN-5 Operation and Maintenance
(Loran Receiving Sets AN/SPN-38 and AN/WPN-5 Operation, Maintenance and Functional Checkout)

Course Number: L-193-026; F-102-015.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI; Submarine School Groton, New London, CT.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/66-1/88.

Objectives: To train enlisted personnel who have electronics backgrounds to operate and maintain AN/SPN-38 and AN/WPN-5 Loran C receiving sets.

Instruction: Lectures in Loran C receiving sets operation theory and logic analysis; logic fundamentals; binary mathematics; Boolean algebra; and Loran C navigation principles, block-diagram and circuit analysis, generation system and generator logic analysis, voltage-controlled reference oscillator circuit analysis, strobe control and strobe pulse logic analysis, power supply, maintenance standards, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0132

Antenna Coupler CU-1441 Combined Maintenance
(Coupler, Antenna CU-1441/BRR Checkout and Maintenance)
(Antenna Series (CU-1441/BRR Multicoupler))

Course Number: A-101-0107; F-101-024; L-101-0031.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60-65 hours).

Exhibit Dates: 5/67-9/77.

Objectives: To train rated electronics technicians and designated strikers to operate and maintain the CU-1441/BRR antenna multicoupler.

Instruction: Lectures in symbolic integrated maintenance system familiarization; technical manual analysis; circuit analysis; and operational, technical, and preventive maintenance alignment, adjustment and calibration on the CU-1441/BRR antenna multicoupler.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0133

Underwater Fire Control Group Mk 114 Maintenance

Course Number: *Version 1:* K-130-0057. *Version 2:* A-130-0057; A-130-0058.

Location: *Version 1:* Fleet Anti-Submarine Warfare Training Center, San Diego, CA. *Version 2:* Fleet Sonar School, Key West, FL; Fleet Anti-Submarine Warfare Training Center, Pacific, San Diego, CA.

Length: *Version 1:* 15 weeks (600 hours). *Version 2:* 12-14 weeks (360-420 hours).

Exhibit Dates: *Version 1:* 7/82-Present. *Version 2:* 11/71-6/82.

Objectives: To train enlisted personnel to perform maintenance on the specified fire control system.

Instruction: Lectures and practical exercises in Mark 114 fire control system maintenance, including introduction to weapons, basic maintenance techniques, relay transmitter and position indicator operation, input data flow and stabilization computer maintenance, and attack console operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in systems troubleshooting (7/86). *Version 2:* In the vocational certificate category, 1 semester hour in synchro-resolver systems (9/77).

NV-1715-0134

1. Aviation Electrician's Mate, Class B (Advanced)
2. Aviation Electrician's Mate, Class B

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 33 weeks (1320 hours).

Exhibit Dates: *Version 1:* 10/65-12/68. *Version 2:* 8/56-9/65.

Objectives: To provide aviation electrician's mates with advanced technical training in electricity and electronics.

Instruction: Lectures and practical exercises in advanced principles of DC theory, AC theory, and electronics; aviation electrical and electronic equipment, including motors, generators, aircraft compasses, navigational equipment, flight control equipment, and analog and digital computers; troubleshooting procedures; principles of leadership and management; and supply and maintenance functions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 9 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0135

1. Aviation Electrician's Mate Intermediate, Class C7
2. Aviation Electrician's Mate, Class B (Intermediate)
3. Aviation Electrician's Mate, Class B (Intermediate)

Course Number: C-602-2014.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 28 weeks (1089 hours). *Version 2:* 20 weeks (833 hours). *Version 3:* 23 weeks (936 hours).

Exhibit Dates: *Version 1:* 1/78-9/86. *Version 2:* 6/74-12/77. *Version 3:* 10/65-5/74.

Objectives: To provide aviation electrician's mates with advanced technical training in electricity and electronics.

Instruction: For this course after 9/86 see NV-1714-0052. *All Versions:* Lectures and practical exercises in advanced principles of DC theory, AC theory, and electronics; aviation electrical and electronic equipment, including motors, generators, aircraft compasses, navigational equipment, flight control equipment, and analog and digital computers; troubleshooting procedures; principles of supervision and management. *Version 1:* Instruction includes digital and digital computer principles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in aircraft electrical systems (2/81); in the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 4 in electricity, 6 in electronics devices and systems, 3 in electrical machinery technology, 3 in digital principles, and 2 in physics (mechanical) (2/81); in the upper-division baccalaureate category, 3 semester hours in digital computers (2/81). *Version 2:* In the vocational certificate category, 15 semester hours in electricity or electronics (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic technology, 3 in computer technology, and 3 in machinery technology (6/75). *Version 3:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0136

Mk 152 Computer Common Core

Course Number: A-113-0068.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (296 hours).

Exhibit Dates: 1/75-1/88.

Objectives: To train personnel in corrective and preventive maintenance of the Mk 152 computer and its I/O console and motor generator set.

Instruction: Topics include the recognition of normal and abnormal operation and the use of diagnostic programs to identify malfunction during maintenance of the Mk 152 computer and associated I/O console. Also includes preventive maintenance and repair of the Mk 9 motor generator set.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer systems and 3 in computer systems laboratory (9/77).

NV-1715-0137

1. Avionics Advanced, Class C7
   (Avionics Advanced, Class B)
2. Avionics Advanced, Class B
   (Avionics, Class B)
   (Aviation Electronics Technician/Aviation Fire Control Technician, Advanced Class B)
3. Aviation Electronics Technician, Class B

Course Number: C-100-2011; C-102-2011; C-111-2011; C-112-2011.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: *Version 1:* 26 weeks (866-1040 hours). *Version 2:* 31-32 weeks (1256-1280 hours). *Version 3:* 40 weeks (1600 hours).

Exhibit Dates: *Version 1:* 6/71-1/88. *Version 2:* 4/59-5/71. *Version 3:* 4/55-3/59.

Objectives: To train noncommissioned officers to maintain and supervise the maintenance of avionics systems.

Instruction: *All Versions:* Lectures and practical exercises in algebra, trigonometry, electricity and magnetism, AC and DC circuits, basic electronics, small-signal and power amplifier analysis, synchros, servos, transmission lines, antennas, and modulation techniques. *Version 1:* Instruction includes semiconductors, rectifiers, power supplies, amplifiers, oscillators, limiters, clampers, multivibrators, counters, CRTs, and analog computers. *Version 2:* Instruction includes analytical geometry, calculus, limits, differentiation, integration, integrals, transcendental functions, partials, double integrals, infinite series, differential equations, atomic physics, and digital computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics, 3 in physics, and 9 in electricity (6/75). *Version 2:* In the vocational certificate category, 20 semester hours in mathematics, physics, and electrical engineering (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in mathematics, 3 in physics, 10 in electricity or electronics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 5 in physics, 5 in electrical engineering (12/68). *Version 3:* In the vocational certificate category, 25 semester hours in physics and electrical engineering (3/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in physics and electrical engineering (3/74); in the upper-division baccalaureate category, 6 semester hours in physics (electricity), 12 in electrical engineering (12/68).

NV-1715-0138

Aviation Fire Control Technician (F) Conversion (Class C)

Course Number: None.
Location: Air Weapons Systems School, Jacksonville, FL.
Length: 27 weeks (1080 hours).
Exhibit Dates: 8/57–12/68.
Objectives: To train enlisted personnel to inspect, test, and repair aircraft armament systems.
Instruction: Lectures and practical experience in AC and DC circuit fundamentals and the inspection, testing, and repair of communication circuits, gyroscopes, vacuum tubes, radar, accelerometers, optics, and servomechanisms.
Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0139

Aviation Fire Control Technician (B) Conversion (Class C)

Course Number: Not available.
Location: Air Weapons Systems School, Jacksonville, FL.
Length: 27 weeks (1080 hours).
Exhibit Dates: 8/57–12/68.
Objectives: To train Navy and Marine Corps enlisted personnel to inspect, test, troubleshoot, and repair aircraft armament control systems.
Instruction: Lectures and practical experience in aircraft armament control systems inspection, testing, troubleshooting, and repair, including AC and DC circuits fundamentals, gyroscopes, accelerometers, optics, vacuum tubes, radar, servomechanisms, and communication circuits.
Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0140

Aviation Fire Control Technician F (Armament Control), Class A

Course Number: Not available.
Location: Air Technical Training Center, Memphis, TN.
Length: 24 weeks (960 hours).
Exhibit Dates: 6/56–12/68.
Objectives: To train Navy and Marine Corps enlisted personnel to isolate electrical and mechanical malfunctions in fire control systems.
Instruction: Lectures and practical exercises in aviation fire control systems, AC circuits, resonance, vacuum tubes, audio amplifiers, radio receivers and transmitters, servomechanisms, and troubleshooting and maintenance procedures.
Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0141

Aviation Fire Control Technician B (Bomb Director), Class A

Course Number: Not available.
Location: Air Technical Training Center, Memphis, TN.
Length: 24 weeks (960 hours).
Exhibit Dates: 6/56–12/68.
Objectives: To train Navy and Marine Corps enlisted personnel to isolate and troubleshoot electronic and mechanical malfunctions in fire control equipment.
Instruction: Lectures and practical experience in AC circuit fundamentals; series and parallel resonant circuits; vacuum tube characteristics, including diodes, triodes, tetrodes, and pentodes; full- and half-wave rectifiers and filter circuits; audio frequency amplifier basics, including R-C, impedance, and transformer coupled amplifiers; power amplifiers; receiver alignment and troubleshooting; and radio receiver theory, including amplifiers, detectors, superheterodyne systems, and I-F systems.
Credit Recommendation: In the vocational certificate category, 9 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-engineering majors (3/74).

NV-1715-0142

F-4 Basic Electrical Systems Organizational Maintenance

Course Number: C-602-3821.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.
Length: 4 weeks (160 hours).
Exhibit Dates: 4/73–1/88.
Objectives: To train enlisted personnel to repair F-4 aircraft electrical systems.
Instruction: Lectures and practical exercises in F-4 aircraft AC and DC electrical generation systems; power distribution; transformers; and hydraulic, pneumatic, fuel, attitude reference, and flight control systems maintenance.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics or electronics laboratory, 2 in hydraulics and fluids (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or electronics laboratory, 1 in hydraulics and fluids (3/74).

NV-1715-0143

RA-5C Panoramic Camera Shop Maintenance

Course Number: C-100-3745.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/68–1/88.
Objectives: To train maintenance personnel to maintain and service electronic camera systems.
Instruction: Lectures and practical exercises in an introduction to panoramic cameras, test equipment, panoramic camera control electronics and automatic exposure control, mounts and mount electronics, and maintenance of panoramic cameras.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0144

AN/APN-120 Electronic Altimeter Intermediate Maintenance

Course Number: C-102-3742.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 4 weeks (160 hours).
Exhibit Dates: 4/68–1/88.
Objectives: To train electronic repairmen to maintain electronic altimeters.
Instruction: Lectures and practical exercises in altimeter principles; low- and high-altitude systems theory, control circuits, power supply, amplifiers, modulators, oscillators, and test equipment maintenance; and electronic countermeasures equipment, operation, maintenance, and testing procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics and electrical laboratory (3/74).

NV-1715-0145

RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance

Course Number: C-102-3741.
Location: Air Maintenance Training Detachment, Albany, GA.
Length: 7 weeks (280 hours).
Exhibit Dates: 5/68–1/88.
Objectives: To train maintenance personnel to repair integrated electronic airborne systems.
Instruction: Lectures and practical exercises in UHF communications repair, tactical air navigation system principles, pulse coding and decoding techniques, and antenna and intercommunication system theory and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74).

NV-1715-0146

A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance

Course Number: C-102-3798.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6-7 weeks (240-260 hours).

Exhibit Dates: *Version 1:* 6/77-Present. *Version 2:* 11/72-5/77.

Objectives: To train maintenance personnel to repair inertial measurement system test sets.

Instruction: *All Versions:* Lectures and practical exercises in inertial measurement system theory and maintenance techniques, including digital fundamentals, logic functions and trace signal flow. *Version 1:* Includes fault isolation. *Version 2:* Includes power supplies, switching units, and programming.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics fundamentals or 1 semester hour in digital electronics fundamentals for electrical engineering majors (3/82). *Version 2:* In the vocational certificate category, 4 semester hours in digital computer fundamentals (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer fundamentals (3/74).

NV-1715-0147

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount

Course Number: K-041-2051.

Location: Fleet Training Center, San Diego, CA.

Length: *Version 1:* 3 weeks (90 hours). *Version 2:* 2 weeks (60 hours).

Exhibit Dates: *Version 1:* 10/78-Present. *Version 2:* 10/72-9/78.

Objectives: To train enlisted personnel to perform preventive and corrective maintenance and casualty analysis on the 3'/50 Mk 35 power drive rapid-fire gun mount.

Instruction: *All Versions:* Lectures and practical exercises in Mk 35 power drive description, function, and operation; power control, gun mount control, and motor field control circuits; and inspection, testing, and preventive and corrective maintenance procedures. *Version 1:* Includes basic electrical theory including AC/DC circuits and circuit theory.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical theory (5/82). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0148

CHAFFROC Mk 28 Mod 1 Launcher Systems Maintenance

Course Number: K-041-2010.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train enlisted personnel who have experience in basic hydraulics and electricity to operate, load, and launch decoys.

Instruction: Lectures in basic electrical review, including Ohm's law, magnetism, conductors, resistors, insulators, circuits, meters, and batteries; hydraulics principles, including Pascal's law, Bernoulli's law, and hydraulic pumps; and launch operation, including electrical firing circuits, applied hydraulics, and local and remote control techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0149

Solid State Circuit Troubleshooting Techniques

Course Number: C-000-3189.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train maintenance personnel to troubleshoot and repair solid-state electronic circuits.

Instruction: Lectures and practical exercises in solid-state circuits and troubleshooting, including diode limiters, rectifiers, detector circuits, silicon controlled rectifier circuits, basic types of transistor circuits, multivibrators and oscillators, DC and operational amplifiers, and test equipment for troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0150

C-2A Electrical and Instruments Organizational Maintenance

Course Number: C-602-3491.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/67-1/88.

Objectives: To train aviation electricians to repair, maintain, and troubleshoot aircraft electrical and instrument systems.

Instruction: Lectures and practical exercises in aircraft AC and DC power systems operation, circuit analysis, maintenance, and repair; and aircraft utility, environmental, instrumental, and electrical systems maintenance, repair, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0151

F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance

Course Number: C-602-3825.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train fleet maintenance personnel to maintain power generating systems and loft bomb release computer systems on F-4B aircraft.

Instruction: Lectures and practical exercises in circuit analysis and organizational maintenance of power generating and loft bomb release computer systems, use of test equipment, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0152

RA-5C Photographic Electronics Fundamentals

Course Number: C-602-3748.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To teach maintenance personnel the fundamentals of electrical systems, electronics, and transistors in preparation for camera shop maintenance instruction.

Instruction: Lectures and practical exercises in basic electronics and solid-state electronics, including resistance, inductance, capacitance, circuits, conductors, transistors, power supplies, semiconductor devices, and test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics and electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and electronics laboratory (3/74).

NV-1715-0153

F-4B/J Advanced Electrical Organizational Maintenance

Course Number: C-602-3822.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To train fleet maintenance personnel to maintain F-4B/J power-generating, air data computer, and automatic flight control groups.

Instruction: Lectures and practical exercises in power-generating systems, air data computer sets and related systems, automatic flight control groups, circuit analysis, and organizational maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0154

1. Aviation Antisubmarine Warfare (AASW) Technician, Class A (Aviation Electronics Technician S (Antisubmarine), Class A)
2. Aviation Electronics Technician S (Antisubmarine), Class A

Course Number: Not available.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: *Version 1:* 9-11 weeks (342-360 hours). *Version 2:* 22 weeks (880 hours).

Exhibit Dates: *Version 1:* 12/58-12/68. *Version 2:* 5/56-11/58.

Objectives: To train enlisted personnel to maintain and repair antisubmarine warfare equipment.

Instruction: *All Versions:* Lectures and practical exercises in antisubmarine warfare equipment repair, including airborne sonar, special detecting systems, sonobuoy systems, magnetic airborne detection systems, and dipping sonar equipment. *Version 1:* Instruction includes integrated display systems repair. *Version 2:* Instruction includes electronic fundamentals; UHF and VHF; transmitter theory and radar electronics, including amplification, rectification, power amplifiers, AC fundamentals, and series-parallel resonance.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (3/74). *Version 2:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics, 3 in electronic circuits, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0155

Fire Control Technician, Class A
(Phases I and II)

Course Number: A-113-0010; A-113-0012; A-113-0019; A-113-0021.

Location: Service School Command, Bainbridge, MD; Service School Command, Great Lakes, IL; Service School Command, Mare Island, CA.

Length: *Version 1:* 26 weeks (910 hours). *Version 2:* Phase I, 11 weeks; Phase II, 12-13 weeks weeks (Phase I, 410 hours; Phase II, 427 hours). *Version 3:* Phase I, 11 weeks; Phase II, 13 weeks (Phase I, 330 hours; Phase II, 390 hours). *Version 4:* Phase I, 18 weeks; Phase II, 14 weeks (Phase I, 520 hours; Phase II, 440 hours). *Version 5:* 31 weeks (930 hours).

Exhibit Dates: *Version 1:* 5/83-Present. *Version 2:* 1/77-4/83. *Version 3:* 7/75-12/76. *Version 4:* 1/68-6/75. *Version 5:* 1/56-12/67.

Objectives: To train enlisted personnel with prior electrical experience in complex weapons guidance and control systems.

Instruction: *Version 1:* The full 26 week course content is the same as described in version 2 of this exhibit. *Version 2:* Phase I: The course content is the same as described below in version 3. Phase II: Lectures and laboratory exercises on microwave tubes, wave guides, video amplifier, antennas, radar principles, numbering systems and arithmetic, logic blocks, Boolean expressions and realization, adders, counters, digital computers, I/O systems, converters (AD and DA), programming, analog computer fundamentals, encoders, decoders, core memory, and fire control radar systems. *Version 3:* Phase I: Lectures and practical exercises in the use of fire control equipment and all related equipment needed to keep the fire control system operational including test equipment, transmitters, receivers, motor-generators, gyros, syncros, resolvers, servo system fundamentals, oscilloscope operation, amplifiers, oscillators, and wave forming circuitry without a rigorous mathematical treatment. Phase II: Lectures and laboratory exercises in numbering systems and arithmetic, logic blocks, Boolean expressions and realizations, adders, counters, digital computers, I/O systems, converters (AD and DA), analog computer fundamentals, encoders, decoders, core memory, and fire control radar systems. *Version 4:* Lectures and practical exercises in theory, operation, maintenance and repair of weapons guidance and control systems, including mathematics, magnetic amplifiers, gyroscopes, mathematical analysis of electronic circuits, theory and construction of computers, solution types of analog and digital computing devices, A-D and D-A conversion, Boolean algebra, binary and actual number systems, logic circuitry and diagrams, programming methods and troubleshooting procedures, test equipment theory and usage, solid-state electronics. *Version 5:* Topics include basic electricity, synchros, servos, and basic and advanced electronics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in solid state electronics, 3 in electromechanical systems, 3 in digital circuits, 2 in microwave fundamentals, 1 in electronics laboratory, 1 in digital laboratory, and 1 in radar maintenance (1/86). *Version 2:* In the vocational certificate category, 3 semester hours in electronics laboratory, 3 in electromechanical laboratory for phase I and 3 semester hours in radar electronic maintenance for phase II; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fundamentals, 3 in electromechanical systems for phase I and 3 semester hours in digital logic, 2 in microwave fundamentals and 2 in digital computer machine language programming for phase II (1/82). *Version 3:* In the vocational certificate category, 3 semester hours in basic electronics, 2 in electromechanical systems operation, and 2 in electronics laboratory for Phase I (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronic fundamentals for Phase I and 5 semester hours in digital and radar electronics and 2 in digital and radar electronics laboratory for Phase II (9/77). *Version 4:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, radio, or electronics for Phase I and 3 in electricity, radio, or electronics for Phase II (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 5:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0156

Miniature Component Repair

Course Number: C-000-3182.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73-1/86.

Objectives: To train maintenance personnel to repair printed circuit boards.

Instruction: Lectures and laboratory exercises in the selection and use of handtools for maintenance and soldering of printed circuits, terminals, and conductor pins, and the latest methods on conformed coating and component removal from printed circuit boards; repair of circuit boards, runs, and eyelets; techniques of soldering on printed circuit boards, for making connections to turret terminals, hook and eyelet terminals, and bifurcated terminals; and inspection and evaluation of soldered electrical connections.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0157

Microminiature Component Repair
Intermediate Maintenance

Course Number: C-000-3187.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train maintenance personnel to repair microminiature printed circuits.

Instruction: Lectures and laboratory exercises in the selection and use of the proper hand tools for repair and soldering of microminiature printed circuits, digital encoders, and solderable connectors; methods of microminiature disassembly, circuit board laminate and conductor repair, electronic soldering, correct splicing of electrical wire, electroplating electronic circuits, repairing plastic edge-lighted panels, and maintenance of microminiature repair stations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0158

Sonar Technician, Class B
(Advanced Sonarman)

Course Number: C-570; K-130-570.

Location: Fleet Antisubmarine Warfare School, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 33-44 weeks (989-1232 hours).

Exhibit Dates: 1/64-5/78.

Objectives: To train enlisted personnel in electronics and physics fundamentals applicable to sonar equipment and systems.

Instruction: Lectures and practical exercises in mathematics, including basic trigonometry; AC and DC circuit fundamentals; network theorems; transistors, power supplies, amplifiers, and oscillators; pulse and switching circuits; amplitude and frequency modulation and detection; analog and digital computer principles; and servomechanisms.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics (3/74).

NV-1715-0159

1. AN/AVA-1 Vertical Display Indicator Group Intermediate Maintenance
2. A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance

Course Number: C-198-3761.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: *Version 1:* 5 weeks (216 hours). *Version 2:* 11 weeks (440 hours).

Exhibit Dates: *Version 1:* 8/76–Present. *Version 2:* 1/70–7/76.

Objectives: To train technicians to troubleshoot, maintain and repair a radar vertical display system.

Instruction: *Version 1:* Lectures and laboratory instruction in basic electronic theory including flip-flops, logic devices and Schmitt triggers. Also included are basic television, power supplies, video amplifiers and saw tooth generators as found in the display indicator both at the block and schematic level. Approximately half the course is devoted to video circuit theory and the remainder to practical application and laboratory work. *Version 2:* Lectures and practical exercises in basic electronic theory, including diodes, transistors, and cathode ray tubes; radar review; emphasis on radar and video receiver circuit purpose, location, and block diagram description; semiautomatic check-out equipment familiarization and application to troubleshooting the video display and radar receiving system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic technology, 3 in electronics laboratory (7/80); in the lower-division baccalaureate/associate degree category, 4 semester hours in engineering electronic technology (7/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0160

1. Photographic Equipment Maintenance and Repair, Class C
2. Photographic Equipment Maintenance
3. Photographic Equipment Repair, Class C

Course Number: *All Versions:* C-670-2012; *Version 3:* C-670-12.

Location: Naval Technical Training Center, Pensacola, FL.

Length: *Version 1:* Self-paced 15 weeks (573 hours). *Version 2:* Self-paced 15 weeks (530 hours). *Version 3:* 14–15 weeks (556–600 hours).

Exhibit Dates: *Version 1:* 1/83–12/84. *Version 2:* 8/75–12/82. *Version 3:* 10/63–7/75.

Objectives: To train photographer's mates to repair standard mechanical photographic equipment used in naval photography.

Instruction: *Version 1:* Course uses modular, self-paced individualized instruction as the primary instructional method with a heavy emphasis on performance. It includes eight modules and a five-day performance laboratory. There is an optional nine-day aerial cameras and systems module which some students elect to take instead of the eight modules. NOTE: Students who attend only the nine-day aerial cameras and systems module are not elegible for credit. The eight modules are: photographic laboratory supervision, mechanical application skills, basic camera components, basic DC electricity, SLR and rangefinder camera, applied DC electricity, basic AC electricity, and applied AC electricity. For the course after 1984, see exhibit NV-1709-0029. *Version 2:* Course uses modular, self-paced individualized instruction as the primary instructional method with a heavy emphasis on performance. It includes eight modules and a five-day performance laboratory. There is an optional nine-day aerial cameras and systems module which some students elect to take instead of the eight modules. NOTE: Students who attend only the nine-day aerial cameras and systems module are not eligible for credit. The eight modules are: photographic laboratory supervision, mechanical application skills, basic camera components, basic DC electricity, SLR and rangefinder camera, applied DC electricity, basic AC electricity, and applied AC electricity. *Version 3:* Lectures and laboratories in photographic equipment repair, including DC circuit fundamentals, electron theory, and hand tools usage. Instruction emphasizes aerial camera components and principles, motion picture systems, (CMY-5, CMY-2a, and KF-9) and still ground cameras (Graflex); multimeters and soldering techniques; twin lens reflex cameras (Mamiyaflex C-3), dual-curtain focal plane camera (KE-28), and mechanical Rapidyne shutters; and photographic laboratory film processing equipment, advanced aerial equipment, and Navy camera control systems repair procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in photo department operations, 8 in camera repair or photographic equipment repair and additional credit in electricity and electronics on the basis of demonstrated skills and/or institutional evaluation (see note above)(3/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in camera repair or photographic equipment repair and additional credit in electricity and electronics on the basis of demonstrated skills and/or institutional evaluation (see note above) (1/77). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, and credit in photography on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, and credit in photography on the basis of institutional evaluation (4/74).

NV-1715-0161

Antenna Multicoupler AN/BRA-16 Combined Maintenance
(Antenna Group AN/BRA-16 Functional Check-Out and Maintenance)

Course Number: A-101-0104; F-101-019.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To provide the theory and skills to operate, maintain, troubleshoot and repair the AN/BRA-16 submarine antenna.

Instruction: Lectures and practical exercises in AN/BRA-16 antenna components operation, troubleshooting, and repair, including power supply, control panels, test equipment, maintenance charts, antenna circuitry, navigation output phasing, and mast preamplifier circuitry.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0162

AN/ASN-99(V) Projected Map Display Set Intermediate Maintenance
(AN/ASN-99 Projected Map Display Set Intermediate Maintenance)

Course Number: C-102-3787.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 10/77–Present. *Version 2:* 9/72–9/77.

Objectives: To train qualified electronics technicians to operate, maintain, and troubleshoot the AN/ASN-99 projected map display set.

Instruction: *All Versions:* Lectures and practical exercises in AN/ASN-99 projected map display set operation, maintenance, and troubleshooting, including servomechanisms, block-diagram analysis, and maintenance and fault isolation procedures. *Version 2:* Includes digital logic review, maintenance procedures and training on model equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuit analysis, 1 in electronic troubleshooting laboratory for non-electrical engineering majors (3/82). *Version 2:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0163

Continuous Wave Illuminator (CWI) Common Core

Course Number: A-113-0070.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (108 hours).

Exhibit Dates: 11/74–1/88.

Objectives: To train selected personnel to perform circuit-level fault isolation and planned maintenance on a continuous-wave illuminator.

Instruction: Instruction includes use of instruments to isolate and repair the continuous-wave illuminator radar system; operating procedures; and regular maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radar systems laboratory (9/77).

NV-1715-0164

E-1B AN/ASN-28 Central Gyro Reference System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel with backgrounds in electronics to maintain, troubleshoot, and repair the AN/ASN-28 central gyro reference system.

Instruction: Lectures and practical exercises in central gyro reference system maintenance and repair, including in-depth functional and circuit-level descriptions of components, power systems, and control circuits; circuit card and card components troubleshooting; electronic control amplifier, including azimuth, pitch and roll servo signal processing, logic, relay, and power circuitry, and resolver excitation and accelerometer restoring amplifier; navigational computer amplifiers, relay control circuits, power supply, gyroscope assembly control, signal data converter, and environmental controls; and extensive alignment, troubleshooting and bench-testing experience.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics or aviation on the basis of institutional evaluation (4/74).

NV-1715-0165

Advanced Transistor Theory

Course Number: F-000-023.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–1/88.

Objectives: To train electronics technicians to operate, troubleshoot, and repair semiconductor devices.

Instruction: Lectures and laboratories in transistor and circuit theory; energy diagrams; physics and chemistry of crystals; transistor amplification and power gain; contruction and basic principles of Zeners, thermistors, and photo and tunnel diodes; AC and DC circuits review, including network theorems and mesh equation solutions using determinants; circuit analysis of CE, CB, and CC amplifier configurations using graphical and small signal, h-parameter equivalent circuits; interstage coupling methods, including gain, frequency response, and feedback circuits; transistor applications in digital circuits, high-frequency equivalent circuits, and FET properties; bias equations, stability, and noise design considerations; and unijunction transistors and SCR properties.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, 2 semester hours in electronic engineering on the basis of institutional evaluation (4/74).

NV-1715-0166

Sonar Communications Set AN/WQC-2/2A Operation and Maintenance (Surface)
(Sonar Communications Set AN/WQC-2/2A Operation and Maintenance)

Course Number: A-130-0213; K-130-0213.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA; Fleet Anti-Submarine Warfare Training Center-Atlantic, Norfolk, VA.

Length: 1–2 weeks (42 hours).

Exhibit Dates: 3/78–Present.

Objectives: To instruct personnel in the operation and routine maintenance of a sonar communications set.

Instruction: Instruction in routine operation and maintenance of the sonar communication set.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/89).

NV-1715-0167

Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 34 weeks (1360 hours).

Exhibit Dates: 1/63–1/88.

Objectives: To provide aviation antisubmarine warfare technicians with supplemental training in electronics theory and antisubmarine warfare equipment maintenance and repair.

Instruction: Lectures and practical experience in mathematics through trigonometry; electronics, including AC and DC fundamentals, tubes, transistors, power supplies, voltage regulators, video and magnetic amplifiers, oscillators, servomechanisms, mixing and frequency conversion; and analog and digital computer principles.

Credit Recommendation: In the vocational certificate category, 20 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 5 in physics, 5 in engineering electronics (12/68).

NV-1715-0168

Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance

Course Number: A-193-0039.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To provide electronics technicians with supplemental training in ballistic-missile submarine systems maintenance and repair.

Instruction: Laboratory in calibration, testing, and repair of ballistic missile submarine systems equipment, including SDC test systems, servo amplifier, synchro/resolver, and NAVDAC test sets, and NAVDAC magnetic drum loader operation, maintenance, troubleshooting, and repair; advanced soldering and wire-wrapping techniques; and ancillary commercial test equipments, including oscilloscope, signal generator, electronic counter, differential voltmeter, megohmeter, ratio transformer, RMS voltmeter, and electronic voltmeter.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0169

Electronics Specialized Training

Course Number: A-100-0031.

Location: Amphibious School Coronado, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train electronics technicians to operate, maintain, and repair radio, radar, and cryptographic equipment.

Instruction: Lectures include radar, SSB transmission, radio frequency interference, and teletype review; waterproofing equipment usage; antenna theory and wave propagation review. Emphasis is on circuit analysis, operation, and preventive maintenance procedures for specific radio, radar, and cryptographic equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0170

Avionics Officers, Class O

Course Number: C-4B-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 40 weeks (1600 hours).

Exhibit Dates: *Version 1:* 9/71–1/88. *Version 2:* 11/69–8/71. *Version 3:* 1/69–10/69. *Version 4:* 9/68–12/68.

Objectives: To train officers to be avionics officers.

Instruction: Lectures and practical exercises in algebra, trigonometry, differential and integral calculus, and differential equations; calculus-based physics, both traditional and modern; AC and DC circuits, circuit analysis, measurements and standards, electromagnetic wave theory, microwave devices and principles; and digital and analog computers.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in mathematics, 6 in physics, 3 in maintenance management, and 14 in engineering electronics (6/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 12 in engineering electronics (12/68). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 14 in engineering electronics (12/68). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 15 in engineering electronics (12/68).

NV-1715-0171

Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician)

Course Number: A-140-0010.

Location: Defense Atomic Support Agency, Albuquerque,NM.

Length: 12 weeks (472 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train electronics technicians to operate, maintain, and calibrate air and surface nuclear weapons test equipment.

Instruction: Lectures and practical exercises in electrical and electronic fundamentals, and tester maintenance and calibration, including circuit symbols and diagrams, repair procedures, commercial test equipment, performance tests, basic metrology, electrical indicating meters and multimeters, electronic voltmeters, pressure concepts and pressure gauge theory and specifications, and torque tools and testers. Electrical and electronic fundamentals are reviewed extensively. Emphasis throughout the remainder of the course is on operation and maintenance of specific test sets.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0172

P-3 AN/APA-125A Indicator Group Intermediate Maintenance
(P-3 AN/APA-125A Indicator Maintenance, No. 48)

Course Number: C-102-3535.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Training Detachment, Jacksonville, FL; Air

Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: *Version 1:* 5/75–Present. *Version 2:* 1/68–4/75.

Objectives: To train maintenance personnel with a knowledge of electronics and transistor theory to operate, calibrate, align, and maintain an aircraft radar indicator display.

Instruction: *All Versions:* Lectures and practical exercises in theory, maintenance, and operation of the AN/APA-125A radar indicator, including low- and high-voltage power supplies, range gate generators, video amplifiers and mixers, indicator control circuits, sweep circuits, and servo systems. *Version 2:* Includes multivibrators.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic radar theory and operation (7/81). *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0173

INTERIOR COMMUNICATIONS (IC), CLASS A, PART II (INTERIOR COMMUNICATIONS EQUIPMENT)

Course Number: A-623-0011.

Location: IC Electricians, Class A School, Great Lakes, IL; IC Electricians, Class A School, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 12/57–12/68.

Objectives: To provide enlisted personnel with a basic understanding of electricity and electronic principles.

Instruction: Lectures and laboratories in basic concepts of electricity, including circuit diagrams, symbols, familiarization with cables, resistors, capacitors, inductors, tubes and transformers; use of electrician's hand tools and soldering techniques; construction of simple circuits using bells and push buttons; basic electrical metering equipment, principles of vacuum tube amplifiers, RC coupling, frequency response, ideal transformer coupling, push-pull amplifier, and power amplifiers.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electrical laboratory on the basis of institutional evaluation; in the lower-division baccalaureate/associate degree category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0174

AN/AWM-55(V) ARMAMENT STATION CONTROL UNIT TEST SET INTERMEDIATE MAINTENANCE

Course Number: C-198-3781.

Location: Air Mantenance Training Detachment, Lemoore, CA; Air Mantenance Training Detachment, Cecil Field, FL.

Length: 5 weeks (176 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair AN/AWM-55(V) armament station control unit test sets.

Instruction: Lectures and practical exercises in armament station control test sets, test set peculiarities, and fault control and fault data display.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0175

AN/SRN-15 TACAN DISTANCE AZIMUTH MEASURING EQUIPMENT (DAME) MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-102-0124.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (90–120 hours).

Exhibit Dates: *Version 1:* 5/81–Present. *Version 2:* 3/73–4/81.

Objectives: To train electronics technicians to operate, align, and repair AN/SRN-15 TACAN azimuth-measuring equipment.

Instruction: Lectures and laboratory exercises in circuit analysis and block diagrams of receivers and transmitters, logic sections, RF and control sections, power supplies and antennas; and utilization of test equipment for troubleshooting and repairing the specified equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems maintenance laboratory (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (11/77); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (11/77).

NV-1715-0176

RA-5C SEMI-AUTOMATIC TEST EQUIPMENT, PROGRAMMER, SYSTEM ANALYZER AND COUNTERMEASURES TEST BENCH AN/ULM-1 INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 12/70–1/88.

Objectives: To train maintenance personnel who have backgrounds in advanced electronics to operate, maintain, and repair RA-5C aircraft electronics system semiautomatic test equipment.

Instruction: Lectures in semiautomatic test equipment, programmer, and system analyzer, and countermeasure test bench operation, maintenance, and repair, including equipment introduction, control panel, power distribution, tape programmer, self-test procedures, signal relay assembly, decoder and matrix circuitry, tape reader monitor logic, adapter control and programming unit control signal generation, and various testing and maintenance routines and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0177

A-6 SHIP AND SHORE INERTIAL PLATFORM TEST STATION INTERMEDIATE MAINTENANCE

Course Number: C-102-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train experienced electronics maintenance personnel to maintain, operate and repair the inertial platform test station.

Instruction: Lectures in accelerometer theory, assembly, and operation; Litton gyroscope construction and operation; amplifiers, modulators, and demodulators associated with azimuth theory of operation and power sources; elevation and roll test loops; four-gimbal platform operation; and test station overall operation and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0178

AN/ASQ-10 MAGNETIC ANOMALY DETECTOR INTERMEDIATE MAINTENANCE

(AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance)

(P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No 42)

Course Number: C-102-3059.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (80–104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain, calibrate, align, troubleshoot, and repair magnetic anomaly-detecting systems.

Instruction: Lectures in magnetic anomaly detector block diagrams, theory of operation, maintenance, calibration, alignment, troubleshooting and repair; and subsystems maintenance, including power supplies, detecting head, magnetometer oscillator and amplifier, band-pass and pen amplifier, test circuits, and error voltage controls.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/81).

NV-1715-0179

GUN MAINTENANCE 5"/54 CALIBER RAPID FIRE MK 42

Course Number: J-041-0123; J-113-123.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train gunnery personnel to operate and maintain the 5"/54 (RF) gun mount.

Instruction: Lectures and practical exercises in operation of 5"/54 (RF) gun mount, safety precautions, gun loading system tests and adjustments, corrective and preventive maintenance, and troubleshooting techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0180

5"/54 GUN MOUNT MK 42 MOD 7/9 DIFFERENCES

Course Number: A-113-0028.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (170 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train gunner's mates to maintain, adjust, and operate 5"/54 gun mounts.

Instruction: Lectures and practical exercises in system control circuits, lower accumulation systems, loaders and lower hoists, upper-gun loading systems, fuze setters, train and elevation power drives, firing circuits, and gun mount controls.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0181

F-8 Armament System Organizational Maintenance

Course Number: C-646-3851, C-646-12.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/69–1/88.

Objectives: To train fleet maintenance personnel to operate and maintain the F-8H/J armament system.

Instruction: Lectures and practical exercises in the maintenance and testing of the F-8H/J aircraft armament system, including instruction in system components, the gunnery system, fuselage stores system, wing pylon stores system and associated equipment, corrosion control and radiation hazards.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0182

Fleet Ballistic Missile (FBM) Tender Navigation Maintenance Computer

(Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance)

Course Number: A-193-0038.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 3 weeks (104 hours). *Version 2:* 7 weeks (210 hours).

Exhibit Dates: *Version 1:* 6/80–2/88. *Version 2:* 9/70–5/80.

Objectives: To train electronics technicians to maintain and repair the submarine central navigation system and support equipment.

Instruction: For this course after 2/88 see NV-1715-1402. *Version 1:* Lectures and practical exercises in the operation, maintenance and repair of a paper tape punch unit, a gear train test set and an X-Y plotter. *Version 2:* Lectures and practical exercises in the maintenance of the central navigation computer, the digital module test set, and the gear train test set, including test equipment procedures, calibration and fault analysis, computer logic, circuit analysis, analog/digital conversion, and magnetic tape storage units maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electro mechanical maintenance laboratory (11/83). *Version 2:* In the vocational certificate category, 4 semester hours in digital computers, 2 in digital computer laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computers, 1 in digital computer laboratory (3/74).

NV-1715-0183

F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train electrical maintenance personnel to maintain selected aircraft instruments and electrical and flight stabilization systems.

Instruction: Lectures and practical exercises in the maintenance of the F8A/J, including systems components and test equipment, electricity fundamentals, generator systems, power distribution, circuit analysis, fuel systems, and stabilization.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, 1 in electrical laboratory (3/74).

NV-1715-0184

KY-532A/KY-533A IFF Transponder Intermediate Maintenance

Course Number: C-102-3078.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/73–1/88.

Objectives: To train maintenance personnel to test, repair, and maintain the KY-532A/KY-533A IFF transponder at the intermediate level.

Instruction: Lectures and practical exercises in IFF transponder repair, including theory, components, various modes of operation, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0185

Fire Control Technician, Class B

Course Number: A-113-0015.

Location: Service Schools Command, Great Lakes, IL.

Length: 29 weeks (870 hours).

Exhibit Dates: 2/68–10/73.

Objectives: To train senior fire control technicians to operate and maintain complex weapons guidance and control systems.

Instruction: Lectures and practical exercises in the maintenance of complex weapons guidance and control systems, including mathematics at the college algebra level, DC and AC circuits, basic electronic circuits, including vacuum tubes and transistors, communication circuits, industrial or control circuits, pulse and digital circuits, instrumentation, magnetic amplifiers, synchros, and alignment and test equipment.

Credit Recommendation: In the vocational certificate category, certificate in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0186

Electronics Technician, Class C, Microwave Fundamentals

Course Number: Not available.

Location: Electronics Technician, Class C School, Treasure Island, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 3/63–12/68.

Objectives: To train electronics technicians to maintain electronic equipment and systems utilizing microwave components and devices.

Instruction: Lectures and practical exercises in the maintenance of electronics equipment and systems using microwave components and devices, including basic transmission line theory, use of the Smith chart, transmission line measurements, microwave amplifiers and oscillators, antennas and antenna systems, measurement methods and test equipment, and circuit components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in microwaves (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in microwave laboratory, and credit in microwaves on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in microwave measurements laboratory on the basis of institutional evaluation (3/74).

NV-1715-0187

AN/ALQ-51A Countermeasures Internal Set Maintenance

Course Number: C-102-225.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67–1/88.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair a specific countermeasures system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-51A countermeasures system, including circuitry, components, assembly, power supply, and system checks and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications (3/74).

NV-1715-0188

AN/ARC-131 Receiver Transmitter Intermediate Maintenance

Course Number: C-102-3016.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/ARC-131 receiver-transmitter at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/ARC-131 receiver-transmitter, including a brief introduction to FM systems, circuitry, block diagrams, amplifiers, and operation of test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in

electronic communications laboratory (3/74).

NV-1715-0189

Closed Circuit TV Maintenance, Class C1

Course Number: A-198-0020; A-198-020.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 18 weeks (636 hours). *Version 2:* 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 10/75–1/88. *Version 2:* 12/66–9/75.

Objectives: To train communications electricians to operate, maintain, and repair closed-circuit television and pilot-LSO landing aid television systems.

Instruction: Lectures and practical exercises in the maintenance and repair of black and white and color closed-circuit television and pilot-LSO landing aid television systems, including circuit inputs, outputs, and changes of wave shapes; receiver fundamentals; cameras; video tape recorders; and inspection, calibration and testing of television systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in TV systems and 5 in TV systems laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in TV systems (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electronic communications, 5 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0190

E-2A AN/ARC-80 Radio Set Intermediate Maintenance

(E-2A Radio Set AN/ARC-80 Intermediate Maintenance)

Course Number: C-150-3477.

Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA. North Island, CA.

Length: 4–6 weeks (160–240 hours).

Exhibit Dates: *Version 1:* 11/81–Present. *Version 2:* 3/68–10/81.

Objectives: To train fleet maintenance personnel to maintain the E-2A AN/ARC-80 SSB transmitter and receiver and associated test equipment.

Instruction: Lectures and practical exercises in SSB transmitter and receiver circuit analysis; operating principles; section theory; radio frequency amplifier, antenna coupler, and trailing-wire antenna units operation and maintenance; amplifier control; high-voltage circuits; control indicator; set control operation and maintenance; and AN/ASM 228 test bench and test procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications systems and 1 in electronic communications laboratory (5/85). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1715-0191

AN/AQH-1 Tape Recorder/Reproducer Set Intermediate Maintenance

Course Number: C-102-3534.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/73–Present. *Version 2:* 9/70–4/73.

Objectives: To train intermediate maintenance personnel to operate, maintain, and modify the AN/AQH-1 recorder/playback device.

Instruction: Lectures and practical exercises in basic tape recorder principles; head circuits; motor and control circuits; power supply, FM, and direct-channel theory of operation; and precision plate assembly maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory (7/81). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0192

EA-6B Course Attitude Data Transmitter Intermediate Maintenance

(T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B))

Course Number: C-602-3775.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (72 hours).

Exhibit Dates: 12/72–1/88.

Objectives: To train maintenance personnel to maintain and repair the EA-6B attitude data transmitter.

Instruction: Lectures and practical exercises in EA-6B attitude data transmitter maintenance and repair, including system equipment and analysis, calibration, alignment, testing, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0193

AN/URN-20 Radio Set Maintenance

(AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1)

(Electronics Technician AN/URN-20 Radio Set Class C Maintenance)

Course Number: A-102-0034; A-102-034; A-102-035.

Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 2/82–Present. *Version 2:* 3/69–1/82.

Objectives: To train enlisted personnel to operate and maintain the AN/URN-20 radio receiver-transmitter.

Instruction: *Version 1:* Lectures and practical exercises in AN/URN-20 radio receiver transmitter operation including basic air navigation systems, power distribution, antenna system, receiver, keyer, coder and transmitter; maintenance, test equipment operation and troubleshooting techniques are also included. *Version 2:* Lectures and practical exercises in AN/URN-20 radio receiver-transmitter familiarization and operation, and in technical maintenance, including receiver block diagram, test equipment operation, and logical troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in navigation electronics systems and 1 in electronic troubleshooting or, for non-electrical engineering majors, 3 semester hours in electronics systems theory and 1 in electronics laboratory (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications systems and 2 in electronics laboratory (11/77).

NV-1715-0194

Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment

Course Number: A-101-0040.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/72–7/74.

Objectives: To train enlisted personnel who have completed the electronic technician shipboard course to maintain a specific multiplex voice-telegraph system.

Instruction: Lectures and practical exercises in communications system and terminal fundamentals, transmitter and receiver fundamentals, system operation, and telephone and telegraph terminal devices maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in telephony, 1 in telephony laboratory (3/74).

NV-1715-0195

E-1B ARC-97 Radio Repeater System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train maintenance personnel to operate and maintain the E-1B ARC-97 radio repeater set.

Instruction: Lectures and practical exercises in E-1B ARC-97 radio repeater operation and maintenance, including transistors and special-purpose tubes; component numbering system; theory of operation; and bench check, alignment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0196

AN/ALQ Countermeasures Set Intermediate Maintenance

(AN/ALQ-81/100 Countermeasures Set Maintenance)

Course Number: C-102-3074.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Miramar, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/67–1/88.

Objectives: To train fleet maintenance personnel to operate, modify, and troubleshoot the AN/ALQ-100 and AN/ALQ-81/100 electronic countermeasures systems.

Instruction: Lectures and practical exercises in AN/ALQ-100 and AN/ALQ-81/100 countermeasures set operation, modification, and troubleshooting, including low-band block diagram, video assembly, modulator, and program assembly; high-band block diagram, video control, modulator, driver SMT assembly, and destruct unit and hydraulic package; systems power control and power supplies; and systems maintenance and testing procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0197

TACAN Maintenance, Class C1
(Electronics Technician, Class C, TACAN Maintenance)

Course Number: A-102-0044; A-102-0045.

Location: Electronics Technician, Class C School, Treasure Island, CA; Electronics Technician, Class C School, Great Lakes, IL.

Length: 7 weeks (210 hours).

Exhibit Dates: 3/63–1/88.

Objectives: To train electronics technicians to operate and maintain TACAN navigation equipment.

Instruction: Lectures and practical exercises in TACAN navigation system equipment components circuit analysis, including beacon electronics, test equipment, antennas, control circuits, and radio frequency monitors; and 3-M system maintenance and material management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in microwave and pulse electronics and 1 in microwave and pulse electronics laboratory (9/77).

NV-1715-0198

EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance

Course Number: C-102-3942.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/73–1/88.

Objectives: To train maintenance personnel to maintain a specific ECM system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ALQ-76/86 ECM system, including components, troubleshooting, and use of associated test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0199

AN/SPS-T3 Radar Trainer Class C Maintenance

Course Number: A-104-0048; A-104-0049.

Location: Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/67–1/88.

Objectives: To train electronics technicians to operate and maintain specific radar trainer systems.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/SPS-T3 radar trainer, including use of associated test equipment, components of the system, signal simulation, and system troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0200

AN/APN-190(V) Doppler Radar Navigation System Intermediate Maintenance
(A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance)

Course Number: C-102-3785.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6–7 weeks (240–264 hours).

Exhibit Dates: *Version 1:* 9/79–Present. *Version 2:* 8/71–8/79.

Objectives: To train enlisted personnel to maintain, operate and repair a Doppler radar system.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the AN/APN-190 Doppler radar navigation system, including block-diagram analysis and receiver, transmitter, antenna, and control indicator analysis. *Version 1:* Includes troubleshooting techniques and repair procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aviation electronics and 1 in aviation electronics laboratory for non-electrical engineering students or 1 semester hour in electronics laboratory for electrical engineering majors (3/82). *Version 2:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0201

Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance

Course Number: A-102-0077; A-102-0086.

Location: Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 5/71–3/74.

Objectives: To train electronics technicians to operate and maintain the AN/SRN-12 Omega receiving set and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SRN-12 Omega receiving set (a long-range surface navigation aid) and test equipment, including components, circuitry, and preventive maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0202

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Calibration

Course Number: A-193-0300.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/77–Present.

Objectives: To provide an advanced knowledge of the theory of operation and calibration of the specified navigation system.

Instruction: Lectures and laboratories in monitor gyro mechanization, monitor gyro error analysis, use of current procedures for performing calibration and evaluation of data; VM bias, DEACON, PAD/PAP/HAP calibrations are performed on an operational system.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/81).

NV-1715-0203

Fire Control System (FCS) Technician Mk 88 Conversion (Mod 0 to Mod 1)

Course Number: A-121-0178.

Location: Guided Missiles School, Dam Neck, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/72–12/83.

Objectives: To train Mk 84 fire control system technicians to operate and maintain a specific fire control system and associated nontactical equipment.

Instruction: Lectures and practical exercises in the theory, operation, and maintenance of the Mk 88 fire control system (Mod 1), including changes introduced from the Mod 0 system; digital and analog circuitry associated with the digital read-in and control and display subsystems, and the digital fire control test equipment; and rate compensation electronics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0204

F-8 AN/ARN-52 TACAN Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain and operate the AN/ARN-52 TACAN system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARN-52 TACAN system, including specialized treatment of the specific equipment components and circuitry.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0205

Fire Control System (FCS) Technician Mk 88 Mod 1 Tender Maintenance

Course Number: A-121-0190.

Location: Guided Missiles School, Dam Neck, VA.

Length: 14 weeks (220 hours).

Exhibit Dates: 1/71–12/80.

Objectives: To train enlisted personnel to operate and maintain the electromechanical teleprinter, the computer tape reader, and the optical alignment group of the Fleet Ballistic Missile Weapons System.

Instruction: Lectures and practical exercises in the maintenance of the electromechanical teleprinter, the computer tape reader, and the optical alignment group, including computer logic and instruction in theory, calibration, components, optical principles, electro-servo components, and diagnosis of malfunctions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computers (3/74); in the lower-division baccalaureate/associate degree category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0206

F8 AN/APQ-83A RADAR INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train enlisted personnel to operate and maintain the AN/APQ-83A radar set and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-83A radar set, including amplifiers, circuits, transmitters and power supply, range tracker, antennas, systems and test set alignment, and radiation hazards. Areas are covered in general terms with relation to the specified equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0207

GUN FIRE CONTROL SYSTEM (GFCS) MK 56 MAINTENANCE

Course Number: J-113-0116; J-113-1161; J-113-1162; K-113-2072.

Location: Fleet Combat Direction Systems Training Center, Dam Neck, VA; Fleet Combat Direction Systems Training Center, Newport, RI; Fleet Combat Direction Systems Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train enlisted personnel to maintain a shipboard ground fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 56 ground fire control system, including use of PMS and MDCS, power distribution, AC and DC, power and mode control switching, power supplies, director control circuits, specific radar and rate-computation circuits, system servo loops, and computer power supply and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0208

GUN FIRE CONTROL SYSTEM (GFCS) MK 68 MOD 4 MAINTENANCE

Course Number: K-113-2075.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train fire control technicians to maintain a shipboard ground fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 ground fire system, including analysis of the system and subsystems, power distribution and drive, control switching, free gyroscopes, circuits, electromechanical computing elements, information flow, tests, and test analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0209

F/RF-4B AIR DATA COMPUTER SET MAINTENANCE

Course Number: C-602-3834; C-602-181.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train maintenance personnel to test and maintain the F/RF-4B aircraft's air data computer.

Instruction: Lectures and practical exercises in the maintenance of the F/RF-4B aircraft air data computer, including computer compensator module operation and organizational level test equipment and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0210

GUN FIRE CONTROL SYSTEM (GFCS) MK 37 MAINTENANCE (LESS MK 25 MOD 3 RADAR)

(Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance)

Course Number: K-113-2071; K-113-180.

Location: Fleet Training Center, San Diego, CA; Fleet Training Group, Pearl Harbor, HI.

Length: 2–3 weeks (60–90 hours).

Exhibit Dates: 11/65–1/88.

Objectives: To train enlisted personnel to operate and maintain the Mk-37 GFCS ground fire control system.

Instruction: Lectures and training in Mk-37 GFCS ground fire control system operation and maintenance, including components familiarization, mechanical and electrical systems theory of operation, alignment procedures and system checks, and system computer components operation and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0211

FIRE CONTROL SYSTEM (FCS) TECHNICIAN MK 80

(Fire Control System (FCS) Technician Mk 80 Replacement)

Course Number: A-121-0244; A-121-0013.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 20–27 weeks (630–945 hours).

Exhibit Dates: 1/61–12/83.

Objectives: To train enlisted personnel to operate and maintain the Mk 80 fire control system.

Instruction: Lectures and practical exercises in the functional operation to block diagram level of a fleet ballistic missile fire control system on the 598 or 608 class SSBN submarine. Topics include meters, oscilloscope and hand tools to perform routine preventive maintenance, equipment alignment and repair, safety procedures, troubleshooting techniques to recognize and interpret malfunctions, basic corrective maintenance to the subsystem level following documented procedures for systematic fault isolation, and the removal and replacement of faulty modules.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (9/77).

NV-1715-0212

FIRE CONTROL TECHNICIAN CLASS C, TARGET DESIGNATION SYSTEM (TDS) MK 5

Course Number: A-121-0095; A-121-095.

Location: *Version 1:* Service Schools Command, Great Lakes, IL. Service Schools Command, Bainbridge, MD.

Length: *Version 1:* 9–10 weeks (255–300 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 4/67–12/73. *Version 2:* 2/65–3/67.

Objectives: To train fire control technicians to operate and maintain the Mk 5 target designation system at an advanced level.

Instruction: Lectures and practical exercises in the maintenance of the Mk 5 designation indicator, including instruction in electronics and circuitry used in radar and television, mathematical analysis of circuits; theory, construction, and operation of the designation indicator and associated equipment; testing and calibration; alignment data computation; and adjustment and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic communications laboratory (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0213

FIRE CONTROL TECHNICIAN CLASS C, TARGET DESIGNATION SYSTEM MK 6

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 2/68–1/88.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 6 target designation system.

Instruction: Lectures and practical exercises in the maintenance of a specific target designation system, including instruction in electronics and circuitry used in radar and television, mathematical analysis of circuits; theory, construction, and operation of the designation indicator and associated equipment; testing and calibration, alignment data computation, and adjustment and repair.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0214

F-8 AN/APQ-83B RADAR INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train enlisted personnel with a knowledge of transistors to maintain and repair the AN/APQ-83B radar system at an intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APQ-83B radar set group, including theory of operation of the power supply circuit; receiver and transmitter circuits; use of oscilloscope, range tracker, antenna, and various computers; and alignment and troubleshooting of the radar and associated equipment using pertinent test equipment. Course is specialized.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0215

Advanced Airborne ELINT Evaluator

Course Number: E-2D-074.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train officers to evaluate, locate, and analyze threat and non-threat radar emitters and to apply the concepts of electronic surveillance measures (ESM).

Instruction: Lectures and practical exercises in concepts, intercept procedures, and applications of electronic surveillance systems, including review of electronic warfare principles, review of radar and ESM equipment fundamentals, aircraft and equipment capabilities and limitations, methods and procedures of data collection, and the evaluation of mission results.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0216

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 and Target Designation System Mk 5

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL; Service Schools Command, Bainbridge, MD.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 56 gun fire control system and the Mk 5 target designation system.

Instruction: Lectures and practical exercises in the operation and maintenance of the integrated Mk 56 gun fire control system and the Mk 5 target designation system, including theory, components, and operation of the specific equipment; operation of gyroscopes; operation of analog computers; computation of alignment data; and mathematical analysis of electronic circuits for power supplies, radar, and antennas.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical/electronics laboratory on the basis of institutional evaluation (12/68).

NV-1715-0217

Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C

Course Number: C-103-2016.

Location: *Version 1:* Air Technical Training Center, Millington, TN; Air Techical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 2-3 weeks (100-120 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 3/74-12/83. *Version 2:* 6/71-2/74.

Objectives: To train electronics technicians to operate and maintain an AN/FPN-36 radar installation.

Instruction: Lectures and practical exercises in the operation and maintenance of a complete AN/FPN-36 radar installation, including the antenna system, transmitter and receiver group, remoting equipment, indicator group and quadradar siting, control systems, amplifiers, power requirements, generators, radar positioning and runway survey, and testing and adjustment.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (2/81). *Version 2:* In the vocational certificate category, 3 semester hours in circuit analysis and troubleshooting (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in circuit analysis and troubleshooting (3/74).

NV-1715-0218

1. Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1
2. Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56

Course Number: *All Versions:* A-113-0014. *Version 2:* A-113-0025.

Location: Service School Command, Bainbridge, MD; Service School Command, Great Lakes, IL.

Length: *Version 1:* 18 weeks (540 hours). *Version 2:* 12 weeks (236-360 hours).

Exhibit Dates: *Version 1:* 5/77-1/88. *Version 2:* 2/68-4/77.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 56 gun fire control systems equipment.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the Mk 56 gun fire control system and associated equipment, including components, gyroscopes; testing, calibration, adjustment, and repair of systems equipment; and mechanical, electrical, electronic, and electromechanical computing devices and circuitry for associated system computers. *Version 2:* Topics include mathematical analysis of circuitry.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic systems maintenance (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in circuitry and 1 in electrical laboratory (6/75).

NV-1715-0219

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68

Course Number: A-113-0016.

Location: Service Schools Command, Great Lakes, IL.

Length: 21-23 weeks (690-725 hours).

Exhibit Dates: 1/65-1/88.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 68 gun fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 gun fire control system and associated equipment, including mathematical analysis of electronic circuits for power supplies; radars; antennas; gyroscopic principles; calibration; casualty analysis and repair; and components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in analog computers and 3 in radar (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in analog computers and 1 in radar (6/75).

NV-1715-0220

Gun Fire Control System (GFCS) Mk 68 Maintenance

Course Number: J-113-0105; J-113-1052.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train fire control technicians to operate and maintain the Mk 68 gun fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 gun fire control system, including components, preventive maintenance, test equipment, adjustments, use of the system dynamic tester and error recorder, and operation of specific subsystems and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0221

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1

(Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5)

Course Number: A-113-0024; A-113-024; A-113-0036; A-113-036.

Location: Service School Command, Great Lakes, IL; Service School Command, Bainbridge, MD.

Length: 23-25 weeks (690-781 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train fire control technicians to operate, maintain, and repair the integrated Mk 37 gun fire control system and the Mk 5 target designation system.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 37 gun fire control system and the Mk 5 target designation system, including components, testing and repair procedures, and theory of operation of director, radar, and computer equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems maintenance (9/77).

NV-1715-0222

RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance

Course Number: C-102-3747.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/69-1/88.

Objectives: To train enlisted personnel to operate and maintain the AN/AAS-21 infrared detecting set.

Instruction: Lectures and practical exercises in infrared fundamentals, Stefan-Boltzman law, IR receiver and recorder theory and design; video-synchronizer-spike detector circuits operation and purpose; recorder data flow, filters and optics circuits, self-test and power control circuits; receiver video-synchronization-filter circuits; recorder section design and theory of video and film speed circuits; and laboratory techniques for alignment and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the institutional evaluation (3/74).

NV-1715-0223

RF-4B AN/APN-159 Radar Altimeter
Maintenance

Course Number: C-102-3837; C-102-199.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70–1/88.

Objectives: To train maintenance personnel to service, maintain, and troubleshoot the AN/APN-159 radar altimeter system.

Instruction: Lectures and practical exercises in AN/APN-159 radar altimeter system theory of operation; frequency-generating circuits; receiving, computing, and special circuits; and maintenance, troubleshooting, bench check-out, trouble analysis, alignment, and safety precautions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0224

RA-5C Electronic Reconnaissance
Organizational Maintenance

Course Number: C-102-3743; C-102-294.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 4/69–1/88.

Objectives: To train naval fleet maintenance personnel to analyze, maintain, and troubleshoot the AN/AAS-21 infrared detecting set, AN/APD-7 side-looking radar (SLR), and AN/AYA-1 signal data converter group systems.

Instruction: Lectures and practical exercises in infrared detecting set, side-looking radar, and signal data converter group systems analysis, maintenance, and troubleshooting, including signal data converter group, data converter, and data translator systems introduction; accessories and test equipment, video amplifiers, and optics system description; infrared detecting set, including infrared principles, major components, and operation and testing procedures; and side-looking radar set block-diagram analysis, antenna system, cooling and pressurization, fuel circuitry, and operation and testing procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0225

RF-4B AN/AAS-18 Infrared
Reconnaissance Mapping System
Intermediate Maintenance

Course Number: C-100-3834.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/71–1/88.

Objectives: To train maintenance personnel to maintain, service, and troubleshoot the AN/AAS-18 infrared reconnaissance mapping system.

Instruction: Lectures in infrared systems introduction; system functional block diagram; optical and cooler systems; self-test and correction circuits, and circuit analysis of video, sweep, and servo, and film drive circuits; and bench checks, alignment, and trouble analysis of infrared reconnaissance mapping system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (3/74).

NV-1715-0226

AN/ASB-1A Radar Sub-System
Intermediate Maintenance

Course Number: C-111-3702.

Location: Air Maintenance Training Detachment, Alameda, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/73–1/88.

Objectives: To train naval fleet maintenance personnel to maintain, troubleshoot, and repair the AN/ASB-1A radar subsystem.

Instruction: Lectures in radar system components, symbols, and specifications; radar presentations; gyroscope assembly; antenna; block analysis of tunable radar; transmitter timing, modulation, RF, and tuning; receiver section RF and AFC networks; IF and video circuits; servo control amplifiers and display circuits; power supply, antenna, and synchronizer circuits maintenance; and radar system preventive and corrective maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0227

1. AN/AYK-2 Navigation Computer Group and OA-1768A Plotter Board Group Intermediate Maintenance
2. SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance
(SH-3 AN/AYK-2 Navigation System Intermediate Maintenance)

Course Number: C-102-3397.

Location: *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island CA. *Version 2:* Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.

Length: 4 weeks (152–160 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 9/67–12/79.

Objectives: To train naval maintenance personnel with backgrounds in electronics to operate, calibrate, test, align, and maintain the SH-3 (SH-3A/D) helicopter's automatic navigation system at the intermediate level.

Instruction: *All Versions:* Lectures and practical exercises in automatic navigation system introduction; AN/AYK-2 computer group theory and maintenance; DA-1768A display plotting board group, theory of operation and maintenance; and operation and maintenance procedures for memory and indicator groups. Instruction includes synchro fundamentals review and computer inputs. *Version 1:* Instruction includes aerial navigation, synchro fundamentals review and computer inputs relating to plotter operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in synchro and differential generators, 1 in aircraft electrical navigation equipment (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical control systems (3/82). *Version 2:* Credit is not recommended because of the military specific nature of the course (3/74).

NV-1715-0228

RF-4B AN/ASN-46/56 Navigational
Computer and Inertial
Navigation System Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to troubleshoot, maintain, and repair AN/ASN-46/56 navigational computer and inertial navigation systems.

Instruction: Lectures and laboratories in ASN-46 systems and operating procedures; introduction to trigonometry and resolver theory; test bench procedures, system hookup, and component test procedures; theory of operation and purpose of navigational computers; platform test sets, gyro tests, and bias procedures; and theory of operation and purpose of inertial navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0229

Transceiver AN/URC-32 Maintenance
(Enlisted)

Course Number: F-101-013.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/67–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair AN/URC-32 transceiver sets.

Instruction: Lectures and laboratories in an introduction to single-sideband theory; power supplies and distribution; functional block diagram of SSB transmit circuits, audio and control units, sideband generators, and power amplifiers; tuning and AM transmitting circuit analysis; CW transmit-and-receive mode of operation; FSK transmit-and-receive mode analysis; and transceiver malfunctions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0230

Carrier Air Traffic Control Center
Equipment Maintenance
AN/SPN-41, Class C1

Course Number: C-103-2023.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 7–9 weeks (280 hours).

Exhibit Dates: 6/72–6/83.

Objectives: To train electronics technicians to operate and maintain the AN/SPN-41 radar transmitting set.

Instruction: Lectures and practical exercises in AN/SPN-41 radar transmitting set operation and maintenance, including system block analysis; power distribution; elevation stabilization; azimuth stabilization; solid-state devices; integrated circuits and logic symbols and circuits; elevation drive, coding, and transmitting; fault circuitry; azimuth drive, coding, and transmitting; RF and test set monitors; and system alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems repair (2/81).

NV-1715-0231

SH-3A AN/AQS-10 Sonar Intermediate Maintenance
(SH-3A AN/AQS-10 Sonar Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to service and maintain the AN/AQS-10 sonar and to understand its function and operation.

Instruction: Lectures and practical exercises in sonar fundamentals; AN/AQS-10 introduction; bench and line test equipment, including counters, oscilloscopes, and transducers; block-diagram and circuit analysis of transmitter, projector, converter, and AGE systems; power supply and distribution system operation; transmitting and receiving sections, including sweep generator, timing circuits, special-purpose cable, transducer, converter, IF and AGC amplifiers, and phase comparators; display section, including video and audio circuits, synchros and resolvers; electrostatic cathode ray tube operation; and cable control, calibration, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0232

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance I
(Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory)

Course Number: A-193-0296; A-193-0262; F-193-086.

Location: *All Versions:* Submarine Training Center, Charleston, SC. *Version 1:* Naval Submarine School Groton, New London, CT.

Length: 2 weeks (60-80 hours).

Exhibit Dates: *Version 1:* 2/78-Present. *Version 2:* 11/72-1/78.

Objectives: To train navigation electronics technicians to operate and maintain the Mk 2 Mod 6 ships inertial navigation system (SINS).

Instruction: Lectures in the sequencing, development, and distribution of the Mk 2 Mod 6 SINS equipment power, and in the functional operation and detailed circuit analysis of data transmission loops, binnacle circuitry, temperature controls, mode selection circuitry, PAD/PAP mode control circuitry, diagnostic electronics, tape reader, gyro torquing electronics, and system alarm circuitry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical maintenance and repair laboratory (3/81). *Version 2:* In the vocational certificate category, 1 semester hour in electricity and electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0233

1. 3D Radar Search AN/SPG-39A
2. AN/SPS-39A Radar Operation and Maintenance (AN/SPS-39 Radar Maintenance)
3. AN/SPS-39 Radar Set (AN/SPS-39A Radar Set)

Course Number: A-104-0103; A-104-098.

Location: Guided Missiles School, Dam Neck, VA; Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: *Version 1:* 21 weeks (786 hours). *Version 2:* 15-20 weeks (600-622 hours). *Version 3:* 20 weeks (600 hours).

Exhibit Dates: *Version 1:* 11/83-6/88. *Version 2:* 3/69-10/83. *Version 3:* 1/68-2/69.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-39A radar system.

Instruction: For this course after 6/88 see NV-1715-1390. *All Versions:* Lectures and practical exercises in AN/SPS-39A radar system operation and detailed functional description, including power distribution, synchronization function, transmitter, receiver, antenna and antenna positioning, slant range converter, plan position indicator, range height indicator, and stabilization converter. *Version 1:* Includes troubleshooting of equipment using analog and digital circuitry, discrete semiconductor, programmable operational amplifier, TTL circuitry and bipolar memories (256 bit).

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital troubleshooting laboratory, 3 in microwave troubleshooting laboratory, 3 in electronic troubleshooting laboratory (11/83). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0234

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44, Class C1

Course Number: C-103-2024.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/72-1/84.

Objectives: To train electronics technicians to maintain and operate AN/SPN-44 radar sets.

Instruction: For this course after 1/84 see NV-1715-1431. Lectures and practical exercises in introduction to radar sets, safety precautions, receivers/transmitters, power supplies and distribution, Doppler processors, servo systems, communications and indicators, recorders, performance monitors, and maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (2/81).

NV-1715-0235

Surface Sonar AN/SQS-56 Operations

Course Number: K-130-0214.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/85-Present.

Objectives: To train personnel in the operation of a sonar detecting and ranging set.

Instruction: Course includes a study of the controls, indicators, and functional description of the sonar system. Includes power up and power down procedures, use of displays, system operation under emergency conditions, and operator maintenance.

Credit Recommendation: Credit is not recommended because of the miltary specific nature of the course (7/86).

NV-1715-0236

Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C

Course Number: C-103-2014.

Location: *Version 1:* Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: 6-8 weeks (200-240 hours).

Exhibit Dates: *Version 1:* 9/74-1/87. *Version 2:* 2/69-8/74.

Objectives: To train electronics technicians to operate and maintain AN/SPN-43 radar sets.

Instruction: For this course after 1/87 see NV-1715-1430. Lectures and laboratories in transmitters/modulators, including control circuits, power supplies, timing generators, trigger shapers and modulators, sensor and AFC circuits, wave-guide systems, cooling systems; receiver circuits, including mixer and local oscillators, parametric amplifiers, AFC circuits, high-frequency amplifiers, IF filters, video amplifiers, and power supplies; antenna stabilization and train systems; and maintenance and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in troubleshooting communications circuits (2/81). *Version 2:* in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0237

SH-3A AN/APN-130 Doppler Radar Navigation Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to operate and maintain the APN-130 Doppler navigation radar as used in SH-3A helicopters.

Instruction: Lectures and practical exercises in familiarization with the APN-130 radar, including receiver-transmitter units, power supply, data converters, and maintenance and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0238

RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance

Course Number: C-100-3741.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/67–12/68.

Objectives: To train maintenance personnel to repair semiautomatic test equipment.

Instruction: Lectures and laboratories in operation of system analyzers; familiarization with control panels, power distribution and air conditioning, test procedures, signal relay assembly, test number readout, comparators, ADC comparison, counter timers, printer electronics, and test point monitors; and line maintenance, field repairs, tests, and adjustments on semiautomatic test equipment.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0239

Radar Set AN/SPG-53F With AN/SPG-53A Differences Maintenance C1
(Mk 68 Gun Director and AN/SPG-53F Radar Maintenance)

Course Number: A-113-0072.

Location: Service School Command, Great Lakes, IL.

Length: 16–20 weeks (450 hours).

Exhibit Dates: 3/75–Present.

Objectives: To train students with prior electronics training to perform fault isolation and maintenance on specific radar equipment, using appropriate test sets.

Instruction: Instruction in the operation, troubleshooting, maintenance and alignment of the AN/SPG-53F radar system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems laboratory (1/82).

NV-1715-0240

RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance

Course Number: C-102-3835.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train maintenance personnel to maintain and repair the AN/ASQ-90 airborne data annotation system.

Instruction: Lectures and practical exercises in a review of binary and logic symbols; operating procedures, block-diagram analysis, power supplies, multivibrators, servo systems, shaft position encoders, latch generators, D/A converters, electronic counters, data display indicators, parity generators, and retrace control as applied to the airborne data annotation system; and troubleshooting and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0241

SH-3 AN/ASA-13A Navigation System Intermediate Maintenance
(SH-3A AN/ASA-13A Navigation System Mantenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/69–1/88.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ASA-13A navigation systems at the intermediate maintenance level.

Instruction: Lectures and practical exercises in SH-3 navigation systems; functional block diagrams; functional operation and maintenance of computer groups, plotter groups, and memory and indicator groups; and system test and adjustment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0242

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1
(SSBN Naval Data Assimilation Computer (NAVDAC) Mk 2 Mod 4, SDC Mk 2 Mod 1)

Course Number: A-193-016.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (805 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train electronics technicians to operate, maintain, and repair navigation data assimilation computers, navigation control consoles, stabilization data computers, and optical star tracker periscopes.

Instruction: Lectures and practical exercises in celestial navigation; pneumatic, oil, and hydraulic systems; periscope optical systems; complex servomechanism theory; relay-controlled sequencing systems; optical monitoring and error determination techniques; general computer principles and techniques; circuit block-diagram analysis; fault isolation techniques; series, parallel, and analog input techniques; special-purpose, digital-to-analog output theory; serial digital output theory; and serial input/output and display devices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0243

S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance

Course Number: C-102-3611.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/70–1/88.

Objectives: To train maintenance personnel to operate, maintain, troubleshoot, and align AN/AKT-19A multichannel Jezebel relay systems.

Instruction: Lectures and laboratories in multichannel Jezebel relay systems; circuit analysis of subassemblies, antenna couplers, control indicators, and multiplexer-transmitters; test and alignment procedures; and fault isolation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0244

S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To provide maintenance personnel with an overall knowledge of AN/ARC-94 high-frequency transceivers.

Instruction: Lectures and laboratories in theory of operation and troubleshooting of AM/audio amplifier modules, IF and RF translator modules, auto-tune systems, power amplifier modules, electronic control amplifiers, RF oscillators, frequency divider modules, frequency stabilizer modules, power supply, mode selectors, and chassis circuitry as applied to the AN/ARC-94 high-frequency transceiver.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0245

Guidance System, Mk 3 Mod 0, Operation and Maintenance

Course Number: F-121-061.

Location: Submarine Training Center, Charleston, SC.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train enlisted personnel to operate and maintain the Mk 3 Mod 0 guidance system.

Instruction: Lectures and practical exercises in organization, content, and use of Mk 3 Mod 0 guidance system technical documentation; signal interface between seven tactical subsystems; detailed functional description of each subsystem, including circuit analysis and logic flow; special tools and test equipment functional operation; and system maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0246

Sonar AN/SQS-23 D-L Series Maintenance

Course Number: K-130-0139.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.

Length: 18 weeks (428 hours).

Exhibit Dates: 9/85–11/87.

Objectives: To train personnel as maintenance technicians to perform preventive and corrective maintenance on a sonar set.

Instruction: General instruction in principles of DC and AC circuits, uses of capacitors, inductors and semiconductor diodes and transistors, associated circuits and servo systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and 3 in basic electronics (7/86).

NV-1715-0247

Introduction to the Airborne Loran AN/ARN-81 Maintenance
(AN/ARN-81 Loran Intermediate Maintenance)
(C-2A AN/ARN-81 Loran Intermediate Maintenance)

Course Number: C-102-3043.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to maintain and service the AN/ARN-81 long-range (Loran) navigation system.

Instruction: Lectures and laboratories in Loran system theory, timing circuits, display circuits, troubleshooting, and alignment of a military Loran receiver.

Credit Recommendation: In the vocational certificate category, 3 semester hours in avionics or marine electronics (7/81).

NV-1715-0248

AN/APD-7 Side Looking Radar Intermediate Maintenance
(RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance)
(RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance)

Course Number: C-100-3747.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train fleet maintenance personnel to troubleshoot, repair, and maintain AN/APD-7 side-looking radar systems.

Instruction: Lectures and practical exercises in operation and maintenance of transmitters, receivers, recorder systems, and associated systems and circuitry of the side-looking radar system; and use of dual-trace oscilloscopes, multimeters, and associated test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0249

AN/VRC-46 and RT-46 Transceiver System Maintenance
(AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System)

Course Number: A-101-0063.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 8/80-Present. *Version 2:* 2/74-7/80.

Objectives: To train enlisted personnel to maintain AN/VCC-2, AN/VRC-46 telephone equipment.

Instruction: *Version 1:* Lectures and laboratory exercises in a radio transceiver system including operation, maintenance, alignment and troubleshooting. *Version 2:* Lectures and laboratories in maintenance and material management, and in AN/VCC-2, AN/VRC-46, and AN/SRA-60 telephone-telegraph communication system familiarization, operation, functional analysis, and maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in electronics laboratory (11/77).

NV-1715-0250

Transmitter AN/WRT-4 Combined Maintenance
(Special Communications Equipment AN/WRT-4 Maintenance)

Course Number: A-101-0106; L-101-028; F-101-0021.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 4-5 weeks (120-150 hours).

Exhibit Dates: 5/67-1/88.

Objectives: To train enlisted personnel to operate and maintain AN/WRT-4 communications equipment.

Instruction: Lectures and practical exercises in AN/WRT-4 communications equipment maintenance, including principles of operation; descriptive treatment of components, including block-diagram analysis, power supply operation, circuits, oscillator, generator, and output divider; and equipment troubleshooting and maintenance techniques. Troubleshooting of vacuum tube and transistor subsystems is taken to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory (9/77).

NV-1715-0251

AN/WRA-3 Combined Maintenance
(Special Communications Equipment AN/WRA-3 Maintenance)

Course Number: A-101-0105; L-101-029.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4-5 weeks (120-150 hours).

Exhibit Dates: 5/67-1/88.

Objectives: To train maintenance personnel to operate and maintain AN/WRA-3 communications equipment.

Instruction: Lectures and practical exercises in AN/WRA-3 operation and maintenance, including descriptive treatment of components, block-diagram analysis, and maintenance and troubleshooting procedures. Equipment serviced is vacuum tube or tube/transistor hybrid. Extensive troubleshooting techniques are taught using noise generators, oscilloscopes, VTVM, frequency counters and frequency generators to repair the equipment to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory (9/77).

NV-1715-0252

CONALOG Maintenance Norden (Enlisted)

Course Number: A-623-0032; F-623-025.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train enlisted personnel to maintain and calibrate the CONALOG system and associated test and auxiliary equipment.

Instruction: Lectures and practical exercises in the maintenance of the CONALOG system and associated test and auxiliary equipment, including block diagram of closed-circuit television systems, introduction to AN/USM-105A oscilloscopes, primary power distribution and low-voltage power supply, circuit analysis of display generation systems and circuits, system overhaul, video processor circuits, and course-computing and control circuits; roll, trim, and servo data flow; depth computation and control circuits; and alarm circuits data flow.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0253

CONALOG (Norden) Refresher Maintenance and Troubleshooting

Course Number: L-191-011.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/68-1/88.

Objectives: To train interior communications electricians to operate and repair the Norden CONALOG system on FBM submarines.

Instruction: Lectures and practical exercises in the operation and repair of the Norden CONALOG system on FBM submarines, including use of the Tektronic 545 B oscilloscope, function of the John Fluke meter, circuit tracing, operation and alignment of the CONALOG system equipment, and troubleshooting procedures. Course designed to update previous training and skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0254

AN/ACQ-2/2A Data Communications Systems and Associated Test Set Equipment Intermediate Maintenance
(E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance)

Course Number: C-150-3478.

Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA. North Island, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 6/80-Present. *Version 2:* 1/68-5/80.

Objectives: To train maintenance personnel to operate and troubleshoot the AN/ACQ-2 data terminal set and the AN/ASM-228 and AN/USM-145 test benches.

Instruction: Lectures and practical exercises in the maintenance of the AN/ACQ-2 data terminal set and the AN/ASM-228 and AN/USM-145 test benches, including data terminal system familiarization, logic circuits, code generation, Doppler and synchronization circuits, code recognition circuits, control circuits, oscilloscope, counter, signal generator, wave analyzer, distortion analyzer, and operation of specialized test benches.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications, 1 in digital communications laboratory (5/85). *Version 2:* In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0255

F-4B COMMUNICATION, NAVIGATION, IDENTIFICATION (CNI) ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3814.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/73–1/88.

Objectives: To train maintenance personnel to operate and maintain the F-4B CNI systems at the organizational maintenance level.

Instruction: Lectures and practical exercises in the maintenance of the F-4B CNI systems, including naval aviation maintenance program, compact wire bundle identification, safety, communications system, intercom, power supply, UHF transceiver, navigation system, TACAN system, navigational computer, identification of unknown aircraft, IFF system, transponder set, radar beacon, armament interface system, and data link and instrument landing systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0256

P-3C SENSOR STATION ONE AND TWO (ACOUSTIC SYSTEMS TECHNICIAN) ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3590.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: *Version 1:* 3/76–Present. *Version 2:* 6/71–2/76.

Objectives: To train enlisted personnel to maintain the acoustic systems of the P-3C aircraft to the module level.

Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the acoustic systems of the P-3C aircraft, including operation and components of the sonobuoy receiver system, the bathythermograph recorder, the TD-900/AS time code generator-decoder, the AN/AQH-4 sound recorder-reproducer system, the sonar computer recorder group, and procedures of organizational-level maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in marine electronics (7/81). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0257

F-4B AN/APA-157 RADAR SET GROUP INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/APA-157 radar set group at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/APA-157 radar set group, including illumination and missile-tuning circuits, functional analysis equipment operation, missile-firing group, various component functions, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0258

S-2G AN/AQA-7(V)3 SONAR COMPUTER RECORDER GROUP ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3623.

Location: Air Maintenance Training Detachment, Quonset Point, RI.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train fleet maintenance personnel to maintain and repair the S-2G AN/AQA-7(V)3 sonar computer-recorder group system.

Instruction: Lectures and practical exercises in the maintenance of the S-2G AN/AQA-7(V)3 sonar computer-recorder group system, including history of sonobuoy system, principles of operation, Lofar and Difar operation, signal data recorder, bearing frequency controls, digital memory unit function, various operational modes, range search and analysis of frequency bands, test modes, and alignment and adjustment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electrical or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0259

TALOS WEAPON DIRECTION SYSTEM MK 6 (WDE MK 2) CLASS C

Course Number: A-121-0036.

Location: Guided Missiles School, Dam Neck, VA; Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68–12/78.

Objectives: To train enlisted personnel to maintain and repair the Talos weapon director system.

Instruction: Lectures and practical exercises in the maintenance of the Talos weapon director system, including radar signal generator; basic digital computer concepts, programming techniques, number systems, and binary functions; Mk 128 computer function, input functions, and buffer unit; power distribution and display equipment; special radar circuits, power supplies, multivibrators, differential amplifiers; radar signal simulator; symbol generator; tracking, elevation, and target director consoles; Talos and Tartar launcher and assignment consoles; and auxiliary equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0260

AN/APQ-126 (V) RADAR SET INTERMEDIATE MAINTENANCE

(A-7E AN/APQ-126 Radar Set Intermediate Maintenance)

Course Number: *Version 1:* C-102-3785. *Version 2:* C-102-3789. *Version 3:* Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 5-6 weeks (207–240 hours). *Version 2:* 6 weeks (180 hours). *Version 3:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 3/77–Present. *Version 2:* 12/72–2/77. *Version 3:* 1/71–11/72.

Objectives: To train aviation fire control technicians to maintain, operate, troubleshoot, and align AN/APQ-126 radar sets, utilizing test sets.

Instruction: *All Versions:* Lectures and practical exercises in the operation, troubleshooting and alignment of the AN/APQ-126 radar set, including power supply programmers, transmitter/modulators, antenna/receivers, air navigation computers, sweep generators, fault locators, indicator-multiple displays and test sets. *Version 2:* Includes assembly test and troubleshooting and the operation of antenna boresight test sets. *Version 3:* Includes the operation of antenna boresight test sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic maintenance, 1 in electronic maintenance laboratory (3/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting laboratory (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 2 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0261

SONAR RECEIVING SET AN/BQG PUFS MAINTENANCE

(Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance)

Course Number: A-130-0026; K-130-1008

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.
Length: 18 weeks (655-665 hours).
Exhibit Dates: 6/69-1/88.
Objectives: To train sonar (submarine) technicians to operate, adjust, and maintain the AN/BQG-4 sonar receiver.
Instruction: Lectures and practical exercises in the troubleshooting and maintenance of AN/BQG-4 sonar receiver equipment, including generation and synchronization of system timing, hydrophone amplifier subsystem, delay line time compressors, relock amplifiers, high-speed counters, input buffer and shift register, post integrator and timing circuits, information display units, pulse generators, range and bearing computers, and power distribution.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0262

P-3 AN/ARN-52 TACAN Maintenance, No. 30

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 3 weeks (136 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train enlisted personnel with knowledge of basic transistors to operate and maintain the AN/ARN-52 (V) TACAN system at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the AN/ARN-52 (V) TACAN system, including power supply and distribution network, channel servo operation, generation of RF, frequency multipliers and RF amplifiers, decoders, AGC circuits, video circuits, bearing circuitry, range circuits, and the antenna system.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0263

A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train maintenance personnel to maintain and repair CP-66A/ASB-1 bombing data computers.
Instruction: Lectures and practical exercises in the maintenance of the CP-66A/ASB-1 bombing data computer, including bombing problems, mechanical and electrical computing devices and systems, shafts and gears, mathematics, trigonometry, synchros, servomotors, tracking computer subsystems, gearshifts, heading-range-azimuth systems, wind resolvers and true-air-speed systems, bomb release computing systems altitude, time-of-fall and ground speed systems, test equipment, alignment, and mechanical and electrical maintenance of the ASB-1 system.
Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0264

Target Designation System Mk 5 Maintenance

Course Number: K-113-2073.
Location: Fleet Training Center, San Diego, CA.
Length: 3 weeks (90 hours).
Exhibit Dates: 10/72-1/88.
Objectives: To train fire control technicians to maintain a shipboard target designation system Mk 5.
Instruction: Lectures and practical exercises in the maintenance of the Mk 5 shipboard target designation system using associated test equipment, including instruction in video generator, designation indicator, coordinate converter and remote indicators, power distribution within system, sweep generation circuits, timing circuits, external circuitry, casualty analysis, and alignment of equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0265

Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance

Course Number: A-130-0160.
Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/72-12/77.
Objectives: to provide the theory and skills required to operate and maintain a sonar receiving set.
Instruction: A basic course on operational characteristics, safety and security, and signal flow, all on the block-diagram level. Instruction includes maintenance, adjustment, and troubleshooting of the receiver.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0266

Integrated Avionics Weapons System Specialist

Course Number: Not available.
Location: Air Maintenance Training Detachment, Lemoore, CA.
Length: 12 weeks (482 hours).
Exhibit Dates: 7/71-1/88.
Objectives: To train electronics maintenance personnel to operate and maintain the complex integrated avionics weapons and navigation systems.
Instruction: Lectures and practical exercises in the maintenance of the complex integrated avionics weapons and navigation systems, including system and radar theory, tactical computers, weapons and electrical systems, circuit analysis, block diagrams, navigation and weapons control systems, computer mathematics, power supply and distribution systems, antenna operation, testing, associated equipment, weapon delivery, video display, applicable computer instruction, and test equipment.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0267

Integrated Avionics Weapons System Technician

Course Number: Not available.
Location: Air Maintenance Training Detachment, Lemoore, CA.
Length: 8 weeks (320 hours).
Exhibit Dates: 1/71-1/88.
Objectives: To train electronics maintenance personnel to operate and maintain integrated avionics weapon delivery and navigation systems.
Instruction: Lectures and practical exercises in maintenance of the complex integrated avionics weapon delivery and navigation system, including radar theory, digital and analog computers, optics, refraction of light, fiber optics applications, weapons control systems, navigation systems, data links, descriptive mathematics, tactical computers, inertial measurement, detailed circuit analysis, block diagrams, altimeters, Doppler radar theory, weapons release systems, malfunction isolation and associated test equipment.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0268

Mk 116 MOD 4 Underwater Fire Control System (FCS) Maintenance

Course Number: K-130-0247.
Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.
Length: 31 weeks (1240 hours).
Exhibit Dates: 5/85-Present.
Objectives: To provide personnel with the skills and knowledge necessary to perform maintenance and repair on a specific underwater fire control system.
Instruction: Lectures and practical exercises on numbering systems, digital logic, torpedo maintenance, general computer architecture and theory, and the AN/UYK-7 computer set and peripherals. In computer architecture topics covered include functional operation of digital computers, processors, memories, input/output, microprocessors, machine and assembly language programming and mapping. A detailed study of the AN/UYK-7 computer including CPU, main memory, power supply and peripheral tape units are included, as well as troubleshooting procedures, circuit measurements, diagnostic software and systems level maintenance procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital fundamentals, 3 in computer architecture and 6 in computer system maintenance and repair (7/86).

NV-1715-0269

RA-5C Shoehorn Organizational Maintenance

Course Number: C-102-3744.
Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4–5 weeks (160–200 hours).
Exhibit Dates: 9/70–1/88.
Objectives: To train maintenance personnel to operate and maintain the RA-5C electronic warfare systems.
Instruction: Lectures and practical exercises in the maintenance of the RA-5C electronic warfare systems, including various countermeasures systems, warning systems, system locations, and test, maintenance, and operation of countermeasure and self-destruct systems.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0270

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D)

Course Number: E-2D-0064; E-2D-064.
Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.
Length: 3-4 weeks (107–126 hours).
Exhibit Dates: 10/72–1/88.
Objectives: To train aviators for an initial aviation antisubmarine warfare (AASW) tour.
Instruction: Lectures and practical exercises in the operation of aviation antisubmarine warfare, including oceanography and underwater acoustics, the P3A/B(D) aircraft AASW sensors, current AASW tactics, use of radar in antisubmarine warfare, location tactics, submarine targets, and current submarine operations and tactics.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0271

Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance

Course Number: A-113-0073.
Location: Service School Command, Great Lakes, IL.
Length: 15 weeks (450 hours).
Exhibit Dates: 11/75–1/88.
Objectives: To train students in the operation, preventive maintenance, and repair of a gun fire control system.
Instruction: Instruction in the safe operation of the Director and the Director drive system, and in troubleshooting the Director control, computers, stable element, and system interface.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer maintenance and 6 in electromechanical drive systems (9/77).

NV-1715-0272

Surface Sonar Set AN/SQS-56 Maintenance

Course Number: K-130-0202.
Location: Fleet Ant-Submarine Warfare Training Center, San Diego, CA.
Length: 13 weeks (440 hours).
Exhibit Dates: 12/79–Present.
Objectives: To train technicians to perform preventive and corrective maintenance on a sonar system under limited supervision.
Instruction: Lectures and practical exercises in computer number systems, schematics of units and subassemblies, computer logic, input/output systems, and laboratory practice in computer logic flow diagrams.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer logic and 2 in computer maintenance laboratory (7/86).

NV-1715-0273

Naval Tactical Data Systems (NTDS) Data Transmission Group Maintenance

Course Number: Not available.
Location: Tactical Data Systems Maintenance Class C School, Mare Island, CA.
Length: 20 weeks (600 hours).
Exhibit Dates: 5/64–12/68.
Objectives: To train enlisted personnel with training in Boolean algebra, logic, number systems, electronics, transistors, semiconductors, and vacuum tube theory to operate and maintain NTDS data transmission equipment.
Instruction: Lectures and practical exercises in the maintenance of NTDS data transmission equipment, including control and channeling equipment, modes of operation, control timing generator, transmit sequence control and generator, transmit program control, control code generator and recognition, computer control, frequency synthesizer, Doppler correction unit, frequency and phase demultiplexing, synchronization, fundamentals of single sideband, communications patching switchboard and converter indicator, R.F. amplifiers, multicouplers, and the audio patching adapter unit.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0274

Naval Tactical Data Systems Maintenance (NTDS)

Course Number: Not available.
Location: Tactical Data Systems Maintenance School, Mare Island, CA.
Length: 20 weeks (588 hours).
Exhibit Dates: 1/65–12/68.
Objectives: To train enlisted personnel to maintain the USQ-20 Naval Tactical Data System (NTDS).
Instruction: Lectures and practical exercises in the maintenance of the USQ-20 Naval Tactical Data System (NTDS), including digital computer functions, AN/SYA data display group, specific channeling equipment, high-capacity communication system, introduction to keyset complex, USQ-20 components and input/output timing chain, various console operations, and introduction to NTDS A link.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0275

Fundamental Analysis Techniques (P-3)

Course Number: E-210-55.
Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 10/72–1/88.
Objectives: To train transitioning VP antisubmarine warfare operators to analyze Jezebel equipment at a basic level.
Instruction: Lectures and practical exercises in the analysis of Jezebel equipment, including basic procedures, intelligence, and interpretation.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0276

Bright Radar Indicator Tower Equipment Maintenance, Class C

Course Number: Not available.
Location: Air Technical Training Center, Glynco, GA.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/71–1/88.
Objectives: To train electronics technicians to operate and maintain television indicator equipment.
Instruction: Lectures and practical exercises in a descriptive treatment of television principles, cameras, and display units; plan-position indicators; and review of solid-state devices.
Credit Recommendation: In the vocational certificate category, 3 semester hours in television technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in television technology, and credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0277

AN/SQS-23, 23A, 23B, 23C Maintenance and ASPECT

Course Number: Not available.
Location: Fleet Sonar School, Key West, FL; Fleet Sonar School, San Diego, CA.
Length: 12 weeks (480 hours).
Exhibit Dates: 1/68–1/88.
Objectives: To train enlisted personnel to maintain and repair the AN/SQS-23 series sonar set.
Instruction: Lectures and practical exercises in the maintenance of the AN/SQS-23 series sonar set, including systems components and power supply, circuitry, generator operation, introductory transistor principles, extensive treatment of applicable electronic circuits (vacuum tube), and beam receiver and control circuits.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0278

Talos Radar AN/SPW-2B, Class C

Course Number: Not available.
Location: Naval Schools Command, Mare Island, CA.
Length: 16 weeks (480 hours).
Exhibit Dates: 1/68–12/78.
Objectives: To train fire control technicians and engineers to maintain and operate the Talos radar system.
Instruction: Lectures and practical exercises in the maintenance of the Talos radar system, including system components, data flow and maintenance procedures, range data and pulse transmitter output instruction, and power distribution and mode switching circuits for specific equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in advanced circuits laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate

category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0279

A-3 Related Avionics System (AT/AQ)
Organizational Maintenance
(A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance)

Course Number: C-102-3706.

Location: Air Maintenance Training Detachment, Alameda, CA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel to maintain specific aircraft electronic systems.

Instruction: Lectures, demonstrations, and practical exercises in A-3 (AT/AQ) aircraft familiarization; avionics system organizational maintenance; general-purpose line test equipment, operating procedures and safety precautions; radar systems components maintenance and troubleshooting; and various radio sets and navigation systems components, operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0280

A-4C/E/F AN/APG-53A Radar
Intermediate Maintenance
(A-4C/E AN/APG-53A Radar Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and service the AN/APG-53A radar.

Instruction: Lectures and practical exercises in AN/APG-53A radar maintenance, including system familiarization; components operation; power supply, transmitter, RF plumbing and duplexer theory of operation; and receiver, transmitter, indicator, power supply, and altitude computer alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0281

A-3B AN/ASB-1A System Maintenance
(Less Computer CP-66A)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (240 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain the AN/ASB-1A bomb director set on an intermediate level.

Instruction: Lectures and practical exercises in the maintenance of AN/ASB-1A director sets, including operating procedures, stabilization subsystem assembly and functions, optical subsystems analysis, tunable radar system function and circuits, emergency and SLAM system, and malfunction and error analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0282

Talos Radar AN/SPG-49B, Class C

Course Number: A-104-0086.

Location: Naval Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68-12/78.

Objectives: To train fire control technicians to maintain a specific radar set.

Instruction: Lectures and practical exercises in the maintenance of the Talos radar AN/SPG-49B, including operation, data flow, circuit information, test methods and equipment, and various component maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0283

AN/SPG-53A Radar Maintenance

Course Number: K-113-2027.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train fire control technicians and designated strikers to maintain the AN/SPG-53A radar.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPG-53A radar, including power distribution, synchronizing system, transmitting system, acquisition system, ranging and angle error systems, and adjustment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0284

AUTODIN/DSTE/DSSCS/Mode V
Maintenance, Class C1

Course Number: A-101-0056.

Location: Service School Command, Great Lakes, IL.

Length: 11 weeks (420 hours).

Exhibit Dates: 5/75-5/80.

Objectives: To train selected personnel to maintain the AUTODIN system.

Instruction: Instruction covers the operation and maintenance of the AUTODIN system including peripheral equipment, logic elements, memory control, input-output, paper tape readers and punches, card readers, data terminals, and line printers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems and 5 in computer equipment laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer hardware (9/77).

NV-1715-0285

AN/ALQ-108 Countermeasure Set
Intermediate Maintenance

Course Number: C-102-3076.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train fleet maintenance personnel to maintain and repair the AN/ALQ-108 countermeasures set at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-108 countermeasures set, including basic system concepts, system component functions and description, synchronization and code generation, timing, various subsystems, control indicator and power supplies, and testing and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0286

1. Automatic Carrier Landing
System Equipment Maintenance
AN/SPN-4 A, Class C1
(Carrier Air Traffic Control Center
Maintenance ACLS AN/SPN-42A)
2. All Weather Carrier Landing
System Equipment Maintenance,
AN/SPN-42, Class C
(Automatic Carrier Landing System
Equipment Maintenance AN/SPN-42
(ET), Class C)

Course Number: C-103-2013.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 22 weeks (800 hours). *Version 2:* 11-15 weeks (440-600 hours).

Exhibit Dates: *Version 1:* 11/78-12/82. *Version 2:* 8/68-10/78.

Objectives: To train electronic technicians to operate and maintain the AN/SPN-42 all-weather carrier-landing system, including Univac 1219 computers.

Instruction: For this course after 12/82 see NV-1715-1429. *All Versions:* Lectures and laboratories in basic concepts, and power control of the all-weather carrier-landing systems; radar subsystems; data stabilization subsystems, control and monitoring equipment; input and output buffers; Naval Tactical Data System (NTDS) buffers, data link monitors, and system analysis; and maintenance procedures. *Version 1:* Instruction includes digital computer logic and programming. *Version 2:* Instruction includes a review of computer technology.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in digital computer organization, 4 in assembler language programming and 4 in hardware laboratory (2/81). *Version 2:* in the lower-division baccalaureate/associate degree category, credit in computer technology and electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0287

AN/APS-82 Radar System
Intermediate Maintenance
(E-1B AN/APS-82 Radar System Maintenance)

Course Number: C-102-3460; C-102-19.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 6/66-1/88.

Objectives: To train maintenance personnel to operate and maintain AN/APS-82 radar systems.

Instruction: Lectures and practical exercises in the maintenance of the AN/APS-82 radar system, including analysis of control circuits, power supply and RF circuits, block-diagram analysis, receiver and video distribution circuits, auxiliary equipment (antenna and PPI indicator circuits; computer, height indicator, and synchronizer circuits), and system troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0288

A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain and operate the AN/ARN-52 navigational TACAN radio system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARN-52 navigational TACAN radio system, including theory of operation, bearing-measuring circuitry, power supply and distribution, and components; range-measuring circuitry, antenna selector circuits, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0289

Aviation Electronics Technician, Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9 weeks (352 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel with a knowledge of avionics fundamentals to operate and maintain aircraft electronics systems.

Instruction: Lectures and practical exercises in the maintenance of a wide variety of aircraft electronics systems, including theory of operation; block-diagram analysis; tube and solid-state electronic circuit fundamentals; electronic concepts required for the maintenance of airborne search radar and identification, navigation, and communication equipments; TACAN theory and application; navigational computer fundamentals; and auxiliary systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics systems (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (4/74).

NV-1715-0290

AN/SQQ-14 Maintenance Enlisted

Course Number: A-130-0014.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: *Version 1:* 8 weeks (217 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 7/79–Present. *Version 2:* 3/73–6/79.

Objectives: To train enlisted personnel with knowledge of solid-state electronics theory to employ troubleshooting procedures and to perform corrective and/or preventive maintenance on the AN/SQQ-14 sonar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/SQQ-14 sonar system, including primary power distribution, test equipment, hoist assembly and function, servo systems, master timing, transmitters and receivers, various timing systems; and preventive and/or corrective maintenance of systems and subsystems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours of technical elective credit in electrical or electronic associate degree programs(11/81). *Version 2:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0291

Terrier Radar AN/SPQ-5A

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68–12/75.

Objectives: To train enlisted personnel to maintain a specific radar system.

Instruction: Lectures and practical exercises in the maintenance of the Terrier weapon system and associated radar equipment, including system components, operation, data flow of track radar, capture and guidance radar, and primary and low-voltage power; special test equipment, receiver and transmitter circuits, analysis and operation of various circuits, operation of beacon receivers and missile loops, and tests and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0292

Air Traffic Control Equipment Maintenance Management

Course Number: C-103-2025.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/72–1/88.

Objectives: To train officers and senior enlisted personnel to perform as ground electronic maintenance managers and to supervise the maintenance and installation of air traffic control systems.

Instruction: Lectures in the management of air traffic control systems associated with air traffic control facilities, including equipment operation; radar, radio, and navigational principles; records, supply, and safety; maintenance policies; and system siting and flight inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aerospace technology (4/74).

NV-1715-0293

Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (104 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train electronics technicians to operate the AN/SPN-6 radar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPN-6 radar system, including operation, components, transmitter and receiver circuits, antenna stabilization, system standards and troubleshooting, and alignment and adjustment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0294

A-4 AN/AJB-3/3A Organizational Maintenance

Course Number: C-602-3723.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train maintenance personnel to maintain and operate the AN/AJB-3/3A and the remote standby attitude-indicating systems.

Instruction: Lectures and practical exercises in the maintenance of the AN/AJB-3/3A and the remote standby attitude-indicating systems, including theory of operation, internal computer systems, components, power supply, system analysis, testing procedures and troubleshooting, and the attitude indicator system components, operation, and testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0295

Aviation Electronics Technician R (Radar), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 8–11 weeks (320–440 hours). *Version 2:* 21 weeks (840 hours).

Exhibit Dates: *Version 1:* 12/58–7/67. *Version 2:* 5/56–11/58.

Objectives: To train enlisted Navy and Marine Corps personnel to qualify as aviation electronics technicians.

Instruction: *All Versions:* Lectures and laboratory exercises in electronic systems theory and operation, including radar search, identification, navigation, and EMC systems; communications and control systems; extensive text study and equipment maintenance and troubleshooting. *Version 1:* Instruction includes reduced hours but strong coverage of electronic systems. *Version 2:* Instruction includes more extensive training in electronic systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in aviation electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics, 3 in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 10 semester hours in aviation electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 4 semester hours in radar systems (3/74).

NV-1715-0296

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance

Course Number: A-102-0101.

Location: Naval Schools Command, San Francisco, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 1/72–1/88.
Objectives: To train electronic warfare technicians to maintain and repair the AN/SPH-2 radar data recorder-reproducer and associated equipment, and the 15-E-27 video recorder-reproducer.
Instruction: Lectures and practical exercises in the maintenance of the AN/SPH-2 radar data recorder-reproducer and associated attachments, and the 15-E-27 video recorder-reproducer, including digital logic review, search radar, displays, and distribution systems, operation procedures, video and data channel recording and reproduction, power distribution, and magnetic tape recorder operation.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0297

A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance

Course Number: C-102-3774.
Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/71–1/88.
Objectives: To train maintenance personnel to maintain the AN/APQ-92 search radar system.
Instruction: Lectures and practical exercises in AN/APQ-92 search radar system maintenance, including azimuth/elevation range indicator, azimuth/range indicator, and PHD/DVRI test set theory of operation, including functions, circuit analysis, block-diagram analysis, purpose, and equipment breakdown; detailed test, maintenance, shop, and check-out procedures; and equipment safety and repair procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0298

Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group
(Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group)

Course Number: A-104-0051.
Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 9 weeks (270 hours).
Exhibit Dates: 6/71–1/88.
Objectives: To train electronics technicians who have some knowledge of radar to maintain the AN/SPS-37, 37A radar systems and the AN/SPA-63 countermeasures receiving group.
Instruction: Lectures and practical exercises in the maintenance of the AN/SPS-37, 37A radar systems and the AN/SPA-63 countermeasures receiving group, including components, transmitter and receiver channel circuits, ancillary equipment (antennas, range indicator, oscilloscopes), and systems operation, troubleshooting, technical maintenance, and repair.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0299

AN/APN-187 DVARS Intermediate Maintenance

Course Number: C-102-3574.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/73–Present.
Objectives: To train fleet maintenance personnel to maintain the AN/APN-187 DVARS radar system.
Instruction: Lectures and practical exercises in the maintenance of the AN/APN-187 DVARS radar system (consisting of a specific receiver-transmitter-antenna, a computer frequency tracker, and a control indicator), including operation, circuit analysis, alignment, and test procedures, and use of special test equipment and repair techniques.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic radar theory and operation (7/81).

NV-1715-0300

AN/SQS-26 AXR Electronic Maintenance

Course Number: J-130-0835.
Location: Fleet Sonar School, Key West, FL.
Length: 24 weeks (960 hours).
Exhibit Dates: 1/70–1/88.
Objectives: To train enlisted personnel to test and maintain the AN/SQS-26 sonar system.
Instruction: Lectures and practical exercises in maintenance and testing procedures for the AN/SQS-26 sonar system and subsystems, including system operation, auxiliary equipment, components, signal processing, range and bearing, and set maintenance. Includes brief presentation of underwater sound principles and brief introduction to binary arithmetic and logic symbols.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0301

60/400 Hz Power Converter Maintenance, Class C1

Course Number: A-652-0077.
Location: Service School Command, Great Lakes, IL.
Length: 2 weeks (80 hours).
Exhibit Dates: 3/77–1/88.
Objectives: To train personnel in the operation and maintenance of the 60/400 Hz power converter.
Instruction: Lectures and practical exercises in troubleshooting and repair of faulty electrical circuits and the cooling system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0302

A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance

Course Number: C-104-3761.
Location: Air Maintenance Training Detachment, Oceana, VA.
Length: 10 weeks (400 hours).
Exhibit Dates: 2/68–1/88.
Objectives: To train enlisted personnel to repair and maintain specific radar equipment.
Instruction: Lectures and practical exercises in the maintenance and repair of specific radar equipment, including track radar theory and components.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0303

AN/BQS-4 Sonar Maintenance

Course Number: F-130-010.
Location: Submarine School, Groton, CT.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/69–1/88.
Objectives: To train sonar technicians to maintain AN/BQS-4 series sonar systems.
Instruction: Lectures and laboratories in review of mathematics oriented toward decibel calculations, system function and description, and test and maintenance procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0304

AN/SPS-48 Radar Set

Course Number: None.
Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.
Length: 31 weeks (930 hours).
Exhibit Dates: 1/68–6/78.
Objectives: To provide enlisted personnel with advanced training in the operation and maintenance of AN/SPS-48 radar sets.
Instruction: Lectures and laboratories in review of mathematics, including trigonometry, multiple unit functions, numbering systems, radix conversions, Boolean algebra, and logic symbol expression conversion; semiconductor theory; application and use of test equipment, including oscilloscopes, pulse generators, and electronic counters, and description and maintenance of AN/SPS-48 radar sets.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0305

Electronics Technician, Class C, AN/SPS-8 Radar Maintenance

Course Number: Not available.
Location: Electronic Technician, Class C School, Treasure Island, CA.
Length: 5 weeks (150 hours).
Exhibit Dates: 10/64–12/68.
Objectives: To train electronics personnel to operate and maintain AN/SPS-8 radar equipment and associated test equipment.
Instruction: Lectures and laboratories in introduction and familiarization with radar systems; transmitting systems and magnetron care and handling; power distribution; receiving systems; antenna control systems; VL-1 repeaters; video indicators; preventive maintenance; and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0306

AN/SPG-50 Maintenance

Course Number: K-113-2026.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train fire control technicians and strikers to maintain and repair AN/SPG-50 radar sets.

Instruction: Lectures and practical exercises in radar set familiarization; power distribution; synchronizing, transmitting, receiving, presentation, ranging, and angle error systems; radar set adjustments; and radar set maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0307

AN/BQQ-3A Sonar Maintenance

Course Number: F-130-016.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel with a background in transistor theory to test and maintain AN/BQQ-3A sonar systems.

Instruction: Lectures and practical exercises in basic theory of operation, and routine preventive and technical corrective maintenance procedures for sonar systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0308

F-4J Weapon System Specialist
Organizational Maintenance

Course Number: C-112-3810.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 9 weeks (360 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train fleet maintenance personnel to maintain the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of the AN/AWG-10 missile system, including system description and function, system components, check-out, troubleshooting and repair of system and components, power distribution, missile control, pulse radar and display systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0309

F-4B/J KY-532A/ASQ IFF Transponder
Intermediate Maintenance

Course Number: C-112-23.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train enlisted personnel to maintain and repair the KY-532A/ASQ IFF transponder at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance and repair of the KY-532A/ASQ IFF transponder, including theory of operation, block-diagram analysis, component description and function, and testing and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0310

Electronics Technician, AN/SPA-34
Indicator Group, Class C

Course Number: A-104-0016; A-104-0018.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train enlisted personnel who have completed training in basic radar to maintain the AN/SPA-34 indicator group.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPA-34 indicator group, including operation of the maintenance and material management system, operation and functional block-diagram analysis of equipment, sweep gate and cursor gate generators, sweep generator and amplifier, off-centering, range ring and strobe generators, servoamplifiers, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0311

EA-6B Communications, Navigation
and Radar System
Organizational Maintenance

Course Number: C-102-3943.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/73-1/88.

Objectives: To train fleet maintenance personnel who have backgrounds in electronics to maintain communications, navigation, and radar equipment.

Instruction: Lectures and practical exercises in the maintenance of communications, navigation, and radar equipment, including communication and navigation equipment components and functions, integrated electronic central equipment, the TACAN system, search radar components and function, vertical display indicator group analysis, and systems troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0312

1. Radar AN/BPS-12, 13, 14 Combined Maintenance
2. AN/BPS-13 Radar Maintenance (AN/BPS-12, 13, 14 Radar System Maintenance)

Course Number: *All Versions:* A-104-0165. *Version 2:* L-104-0010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 5/73-1/89. *Version 2:* 1/70-4/73.

Objectives: To provide the theory and skills to perform operational and maintenance procedures on Naval radar systems.

Instruction: For this course after 1/89 see NV-1715-1459. *Version 1:* Topics cover basic radar principles at the quantitative and block diagram levels including sweep generators, PPI amplifiers, video marker strobes, CRTs, and synchros; and fault isolation and maintenance procedures. *Version 2:* Lectures and practical exercises in AN/BPS-12, -13, and -14 radar systems operation and preventive and corrective maintenance, including system theory of operation; echo box, frequency power meter, and range calibrator operation; and maneuvering board operation for computations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic technician training (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technician training (9/77). *Version 2:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0313

Underwater Fire Control Systems
Technician (Mk 113 Mod 9)
(Underwater Fire Control Systems(FCS)
Technician (Target Motion Analysis
Subsystem))

Course Number: A-113-0047.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (163 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To train experienced fire control technicians to maintain analyzer fire control systems.

Instruction: Lectures and laboratories in analyzer fire control system maintenance, including digital computer, D/A and A/D converters, data storage, interfacing, and cathode ray tube operation and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (4/74).

NV-1715-0314

490T-1/1A Antenna Coupler
Intermediate Maintenance

Course Number: C-102-3012.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train fleet maintenance personnel to maintain the 490T-1/1A antenna coupler.

Instruction: Lectures and practical exercises in 490T-1/1A antenna coupler maintenance, including circuit analysis, test equipment usage, publications usage, and couplers and modules testing and repairing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio communications systems (7/81).

NV-1715-0315

Target Designation System Mk 5 Shipboard Maintenance

Course Number: J-113-0129; J-113-1291; J-113-1292.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train fire control technicians to test, adjust, and maintain the Mk 5 target designation system.

Instruction: Lectures and practical exercises in Mk 5 target designation system maintenance, including system power distribution and power supplies, multivibrators, servo loops, timing and deflection circuits, pulse generators, and amplifiers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer science (4/74).

NV-1715-0316

Submarine Radioman Electricity and Electronics

Course Number: A-101-0053.

Location: Submarine School, Groton, CT.

Length: 16 weeks (480 hours).

Exhibit Dates: 11/70-1/88.

Objectives: To train enlisted personnel to become submarine radiomen.

Instruction: Lectures and laboratories in electrical and electronic theory; basic and advanced transistor theory; basic arithmetic and algebra; physics; elementary computer principles; various instruments and testers operation; biasing procedures; and elementary circuits, resonance, vacuum tubes, amplifiers, and transistors operation.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (4/74); in the upper-division baccalaureate category, 1 semester hour in electronics for electrical engineering majors, 3 for nonmajors (4/74).

NV-1715-0317

1. Radioman, Class C7
2. Radioman, Class C7
   (Radioman, Class B)
3. Radioman, Class B
   (Class B, Radiomen)

Course Number: A-202-0033; A-201-0019.

Location: Service Schools Command, San Diego, CA; Service Schools Command, Bainbridge, MD.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 18 weeks (540 hours). *Version 3:* 30-37 weeks (900-1110 hours).

Exhibit Dates: *Version 1:* 11/78-Present. *Version 2:* 5/72-10/78. *Version 3:* 1/55-4/72.

Objectives: To train radiomen in electricity and electronics and in management skills.

Instruction: *Version 1:* Lectures and practical exercises in management theory and techniques including: self development, goal setting, management by objectives, accountability, control, evaluation and other management tools and various applications as they apply to Navy security, organization and maintenance management systems. The course also covers basic electricity and circuits, AM, FM, SSB radio systems, antenna transmitter/receivers, modulation/demodulation, digital logic and devices and transmission lines. The student does functional analysis of, and has laboratory experience with test equipment, teletype equipment and other communication equipment. *Version 2:* Lectures and practical exercises in basic electricity and electronics, basic transistor theory and applications, troubleshooting a practical communications superheterodyne receiver, test equipment operation and special circuits, various transmitters and receivers equipment operation and troubleshooting, radio teletype terminal set and frequency shift keyer and converter equipment operation and troubleshooting, and electronics administration. *Version 3:* Lectures and practical exercises in basic electricity, and electronics, basic transistor theory and applications, troubeshooting a practical communications superheterodyne receiver, test equipment operation and special circuits, various transmitters and receivers equipment operation and troubleshooting, radio teletype terminal set and frequency shift keyer and converter equipment operation and troubleshooting, and electronics administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in management, 3 in electronic communications and 1 in radio operations laboratory for non-electronics majors (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering students, 2 in electronic laboratory for engineering students (3/74).

NV-1715-0318

OA-3732/ASM-76 Computer Indicator Intermediate Maintenance

(E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance)

Course Number: C-150-3479;; C-150-15.

Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA North Island, CA.

Length: *Version 1:* 11 weeks (440 hours) *Version 2:* 11 weeks (440 hours). *Version 3:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 4/84-Present. *Version 2:* 6/70-3/84. *Version 3:* 7/66-5/70.

Objectives: To train enlisted personnel who have backgrounds in digital and transistor fundamentals to operate and troubleshoot the computer indicator test console.

Instruction: *All Versions:* Lectures and practical exercises in computer indicator test console operation and maintenance, including logic circuits, interconnection of logic elements and flip-flops; programming console operation, components, and maintenance; and logic testing procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer systems, 1 in digital computer systems laboratory, 1 semester hour in analog systems, 1 in analog systems laboratory (5/85). *Version 2:* In the vocational certificate category, 5 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (3/74).

NV-1715-0319

System AN/WIC-2(V) Combined Maintenance

(Integrated Announcing System AN/WIC-2 Combined Maintenance)

Course Number: A-623-0051; F-623-014.

Location: Submarine School Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2-3 weeks (60-90 hours).

Exhibit Dates: *Version 1:* 12/79-9/83. *Version 2:* 4/68-11/79.

Objectives: To train maintenance personnel to operate, troubleshoot, and repair shipboard interior communication equipment.

Instruction: For this course after 9/83 see NV-1715-1472. *All Versions:* Lectures in shipboard interior communications equipment operation, troubleshooting, and repair, including block-diagram analysis; circuit theory; components description; alarm generator circuitry and test panel; maintenance and material management system; electrical safety precautions; power supply, generation, and distribution systems; color code and circuit tree construction. *Version 1:* Emphasis is placed on fault isolation and repair to the component level.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in public address and electronic talkback system maintenance and repair (6/81). *Version 2:* In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0320

Sonar AN/SQS-54B/SKR-4 Maintenance

(Sonar AN/SQS-54B Organizational Maintenance)

(AN/SQS-54B and AN/SKR-4 (LAVA) Maintenance)

(LAVA SQS-54 Maintenance)

Course Number: A-130-0109; K-130-1060.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2-3 weeks (70-94 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To train technicians to maintain data links, telemetric receiving sets, and SQS-54 equipment.

Instruction: Lectures and practical exercises in systems operation and maintenance, modular makeup of telemetric equipment, calibration and troubleshooting procedures and the operation and maintenance of spectrum analyzers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in advanced instrumentation (8/77).

NV-1715-0321

Special Technology (Enlisted)

Course Number: F-000-014.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 12/69-1/88.

Objectives: To provide submarine radiomen and sonarmen with training in electronic fundamentals.

Instruction: Lectures and laboratories in DC and AC electrical networks, vacuum tubes, amplifiers, transmitters and receivers, and transmitter electronics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics for non-engineering majors (3/74).

NV-1715-0322

P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71–1/88.

Objectives: To train fleet maintenance personnel to maintain P-3 synchrophasers, true airspeed computers, and signal lights controls at the intermediate maintenance level.

Instruction: Lectures and practical exercises in normal operation of systems components, operation of general and special test equipment, operation of synchroscopes, and waveform analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer maintenance (3/74).

NV-1715-0323

E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To provide avionics personnel with training in the operation, circuitry, and maintenance of inertial navigation systems adapters and encoder test consoles.

Instruction: Lectures and laboratories in test console familiarization, inertial navigation hardware, encoders and servos, and programming and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0324

P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to diagnose, troubleshoot, maintain, and service P-3 navigational computer sets.

Instruction: Lectures and laboratories in gyroscope theory and assembly, basic block-diagram analysis and signal flow, electronic circuitry analysis, navigational computers and related components, signal data converters and related components, power supplies, and maintenance and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0325

AN/FRT-83, 84 and 85 Radio Transmitters Maintenance, Class C1

Course Number: A-101-0052.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 13 weeks (390 hours). *Version 2:* 10 weeks (300 hours).

Exhibit Dates: *Version 1:* 1/82–Present. *Version 2:* 3/74–12/81.

Objectives: To train personnel to maintain, operate, troubleshoot, and adjust the AN/FRT-83 and AN/FSQ-98 radio transmitter series.

Instruction: *All Versions:* Areas of instruction include the use of the oscilloscope, harmonic analyzer, RF generators, and other equipment to troubleshoot radio transmitting equipment, servo-amplifiers and associated relay systems. *Version 1:* Includes the use of schematics, timing diagrams, flow charts and digital remote controlled radio transmitting equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radio electronics circuit maintenance (1/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in radio electronics laboratory and 1 in radio electronics circuits (1/82). *Version 2:* In the vocational certificate category, 5 semester hours in radio electronics and 2 in radio laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio electronics (9/77).

NV-1715-0326

AN/ASA-13A Navigational Computer Group Intermediate Maintenance

(UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance)

Course Number: C-602-3379.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/68–1/88.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ASA-13A navigational computer groups at the intermediate maintenance level.

Instruction: Lectures and practical exercises in operation, circuitry, calibration and adjustment, troubleshooting, and bench testing of navigational computer groups.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer maintenance (3/74).

NV-1715-0327

1. P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance
2. P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16

Course Number: *Version 1:* C-602-3533. *Version 2:* Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: *Version 1:* 10-14 weeks (400-560 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 10/68–1/88. *Version 2:* 1/68–9/68.

Objectives: To train maintenance personnel to diagnose, troubleshoot, maintain, and service P-3 navigational computer sets.

Instruction: Lectures and laboratories in system components and operation, gyros, Doppler tie-in and Doppler decoupler, power supplies, electronics of navigation computers, servos, calibration and alignment, and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 7 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0328

Terrier Fire Control and Missile Officer

Course Number: A-2F-0014.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (420 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To provide officers with instruction in the duties of the Terrier weapons, fire control, and missile battery officers.

Instruction: Lectures and laboratories in operation, capabilities, and characteristics of weapon system components; system alignment; telemetering flight analysis and logistics; and familiarization with missile search radar systems and fire control systems. Emphasis is on weapons system employment, electromagnetic compatability, tactical firing considerations, and weapons system management techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0329

P-3C Integrated Avionics System Technician

Course Number: C-102-3575.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: *Version 1:* 16-17 weeks (632 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 9/79–Present. *Version 2:* 4/73–8/79.

Objectives: To train experienced fleet personnel to maintain in-flight P-C3 integrated avionics systems.

Instruction: *Version 1:* Lectures and laboratory exercises at the block diagram level in data handling systems, magnetic tape transport and data processing, display systems, a radar system and navigation/communication systems. Approximately half of the student's time is devoted to practical laboratory exercises. *Version 2:* Lectures and laboratories in logic, data displays, radar scan systems, television, pulse generators, and radio.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in computer organization and function and 3 in electronics laboratory (7/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in avionics technology, 3 in micro/miniature computer functions and organization and 2 in computer laboratory (7/81). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0330

P-3C DIGITAL DATA HANDLING ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3599.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 13 weeks (520 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train avionics personnel to maintain P-3C data-handling systems.

Instruction: Lectures and laboratories in basic computer components, data flow in computers, diagnostics, addressing and instruction codes, input/output operations, and system maintenance.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronics or computers (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or computers (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or computers laboratory (3/74).

NV-1715-0331

S-2D/E AN/ASN-30 NAVIGATIONAL COMPUTER DISPLAY UNIT AND AN/ASQ-80 COORDINATE DATA SET SYSTEM MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to operate and maintain the AN/ASN-30 navigational computer display unit and the AN/ASQ-80 coordinate data set system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASN-30 navigational computer display unit and the AN/ASQ-80 coordinate data set system, including power distribution, synchronization, linear transformers, servo test sets, system operations and components, review of rotary concepts, block-diagram and circuit analysis, and system alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0332

INTELLIGENCE/ELECTRONIC WARFARE OFFICER

Course Number: F-4B-011.

Location: Submarine School, Groton, CT.

Length: 2 weeks (68 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train submarine intelligence/electronic warfare officers to supervise intelligence collection, reporting, and assessment, and to operate submarine electronics sensors.

Instruction: Lectures and practical exercises in the collection, reporting, and assessment of intelligence and in the operation of submarine electronics sensors, including principles of receivers, transmitters, and radar; physics of electromagnetic radiation; Soviet missile systems; radio wave propagation; periscope electronics; signal analysis; ASW equipment, watchstanding procedures; and mission planning.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0333

SH-3A AN/ASA-13A NAVIGATIONAL COMPUTER MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train enlisted personnel with knowledge of Doppler radar navigation maintenance to operate and maintain the ASA-13A navigational computer, the specialized plotting board, and the memory and indicator groups used in automatic navigation systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the ASA-13A navigational computer, specialized plotting board, and memory and indicator groups, including theory of operation, circuit analysis, systems tests, and alignment and adjustment.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0334

1. TERRIER COMPUTER MK 119 MOD 5 (FLEET INPUTS)
2. TERRIER COMPUTER MK 119 MOD 5 (Terrier Computer Mk 119 Mods 3 and 4)

Course Number: A-150-0031; A-150-0032.

Location: *All Versions:* Guided Missiles School, Dam Neck, VA. *Version 2:* Naval Schools Command, Mare Island, CA.

Length: *Version 1:* 10 weeks (295 hours). *Version 2:* 20 weeks (600–603 hours).

Exhibit Dates: *Version 1:* 10/72–12/75. *Version 2:* 2/68–9/72.

Objectives: To teach maintenance personnel the circuitry, signal flow, and characteristics of missile fire control computer groups.

Instruction: *All Versions:* Lectures and laboratories in Terrier weapons system familiarization; missile fire control problems; maintenance and material management systems; maintenance turn-on, power distribution, and power supplies; and block diagram, circuitry, and signal flows. *Version 2:* Additional time is spent on modified systems and their differences.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronics or missile systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or missile systems (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or missile systems (3/74). *Version 2:* In the vocational certificate category, 5 semester hours in electronics or missile systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or missile systems (3/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-engineering majors (3/74).

NV-1715-0335

A-6 RIGHT HAND UNIT ALIGNMENT TEST SET, AND ENCODER TAPE DIAL TEST SET INTERMEDIATE MAINTENANCE

Course Number: C-102-3765.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train maintenance personnel who have had training in digital fundamentals to operate and maintain the right-hand unit alignment test set and the encoder tape dial test set associated with the ballistics computer set.

Instruction: Lectures and practical exercises in the maintenance and operation of the right-hand unit alignment test set and the encoder tape dial test set, including logic circuits, servo amplifiers, pulse generators, power supplies, block-diagram and circuit analysis, and testing procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0336

A-6 CARD MODULE ANALYZER TEST CONSOLE, AN/ASM-118, INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/68–1/88.

Objectives: To train maintenance personnel to operate and maintain card module analyzer test consoles and to test, maintain, and repair modules and cards associated with ballistics computer sets.

Instruction: Lectures and practical exercises in digital numbering systems, logic circuits, counters, power supplies, and maintenance procedures for module analyzers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0337

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 11/69–1/88. *Version 2:* 4/65–10/69.

Objectives: To train electronic technicians to operate and maintain automatic carrier landing systems and auxiliary equipment.

Instruction: Lectures and practical exercises in analog and digital computer basics, servo systems, power supplies, operational amplifiers, resolvers, transducers, and systems maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electronics for non-electrical-engineering majors (3/74). *Version 2:* In the vocational certificate category, 10 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0338

Loran Maintenance Enlisted

Course Number: J-102-600.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 9/72–1/88.

Objectives: To train enlisted personnel with backgrounds in basic electronics theory to maintain the AN/UPN-12 and AN/UPN-15 Loran receivers, utilizing the Forecast concept of troubleshooting.

Instruction: Lectures and practical exercises in the maintenance of the AN/UPN-12 and AN/UPN-15 Loran receivers, including block-diagram analysis, waveform comparison problems, component troubleshooting, operating theory, and alignment and calibration.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0339

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Operations (Enlisted)

Course Number: F-193-082.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 8/69–1/88.

Objectives: To train enlisted personnel to operate and monitor the Mk 3 Mod 6 Ships Inertial Navigation System (SINS).

Instruction: Lectures and practical exercises in the operation and monitoring of automated navigation equipment (SINS Mk 3 Mod 6), including gyro principles, digital filtering, circuit analysis, basic inertial navigation, components, MINDAC Micrologic and characteristics, computer layout and initialization, data interpretation and monitoring, and operation modes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or navigation (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or navigation laboratory (3/74).

NV-1715-0340

E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance

Course Number: C-150-3480; C-150-36.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 2/68–6/74.

Objectives: To train enlisted personnel who have backgrounds or aptitude in avionics and digital fundamentals to operate and maintain computers used in conjunction with target detection systems.

Instruction: Lectures and practical exercises in the maintenance of computer detectors and computer detector test consoles, including system fundamentals and timing, digital circuits, IFF detection, target computation, confidence testing, and data acquisition.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics or computers (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or computers (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or computer laboratory (3/74).

NV-1715-0341

Fire Control System (FCS) Technician Mk 88 Mod 1 Replacement (Fire Control Technician Mk 88 Replacement)

Course Number: A-121-0245; A-121-0136.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 25 weeks (900 hours). *Version 2:* 18 weeks (398 hours).

Exhibit Dates: *Version 1:* 10/74–2/88. *Version 2:* 10/72–9/74.

Objectives: To train enlisted personnel to operate and maintain a fire control system and associated nontactical equipment.

Instruction: For this course after 2/88 see NV-1715-1385. *All Versions:* Lectures and practical exercises in the operation and maintenance of fleet ballistic missile weapons system, Mk 88 fire control system, digital geoballistic computer, digital transmitter-receiver, magnetic disk, taper, reader, including theory of operation, inertial guidance components, digital-to-analog/analog-to-digital conversion, component analysis, and data flow.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electro-mechanical maintenance (11/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems, 3 in digital equipment troubleshooting and 3 in data processing equipment maintenance (11/83). *Version 2:* In the vocational certificate category, 7 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0342

A-6 Ballistics Computer Test Console Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain ballistics computer test consoles at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of ballistics computer test consoles, including electronic circuitry, block-diagram analysis and signal flow, digital logic circuitry, coding, check-out equipment, timing controls, order and information registers, practical applications, and aircraft replaceable assembly check-out.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-electronics majors (3/74).

NV-1715-0343

Tartar Computer Mk 118 Mod 0 (Tartar Computer Mk 118)

Course Number: A-150-0028.

Location: Guided Missiles School, Dam Neck, VA.

Length: 14–15 weeks (399–420 hours).

Exhibit Dates: 1/68–12/77.

Objectives: To train technicians to maintain, align, adjust, and preserve Tartar Mk 118 computers.

Instruction: Lectures and laboratories in computer operation, analog and digital devices, electromechanical devices, voltage regulators, power supplies, computer interface, and systems testing and maintenance.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics and controls (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and controls (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics and controls (3/74).

NV-1715-0344

Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1

Course Number: A-623-0028; A-623-0029.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3–4 weeks (90–114 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train maintenance personnel to operate and repair dead-reckoning analyzer-indicators and tracers.

Instruction: Lectures and practical exercises in the operation and repair of the Mk 9 Mod 4 dead-reckoning analyzer-indicator and the Mk 6 Mod 4B dead-reckoning tracer, including review of the 3-M system, digital fundamentals, electronics, synchros, control transformers, resolvers, servo loops, and test equipment, operation of the specified equipment, components and functional analysis of circuits, block-diagram analysis, and troubleshooting and preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical systems, 1 in electronic troubleshooting (5/82).

NV-1715-0345

Electronics Technical Officer, Class O

Course Number: None.
Location: Air Technical Training Center, Memphis, TN.
Length: 52 weeks (2,080 hours).
Exhibit Dates: 9/57–12/68.
Objectives: To provide a basic engineering education to career Naval officers with extensive high-level Technician backgrounds.
Instruction: Course covers the basic mathematics, physics, and electricity required for an understanding of electrical or mechanical engineering.
Credit Recommendation: In the vocational certificate category, 9 semester hours in mathematics, and 3 in basic science; in the lower-division baccalaureate/associate degree category, 9 semester hours in electronic circuit theory, 6 in mathematics, 6 in physics, 6 in basic electrical theory, and 3 in electricity and electronics laboratory (7/74); in the upper-division baccalaureate category, 4 semester hours in mathematics, 4 in physics, 2 in technical writing, and 15 as an elective in engineering (12/68).

NV-1715-0346

P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 2 weeks (96 hours).
Exhibit Dates: 1/68–1/88.
Objectives: To train maintenance personnel who have completed a course in transistor fundamentals to maintain the AN/ARC-52 UHF communicatons system of the P-3 aircraft.
Instruction: Lectures and practical exercises in the maintenance of the AN/ARC-52 UHF communication system of the P-3 aircraft, including power circuits, control system, components and operation, and troubleshooting procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0347

E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance

Course Number: C-150-3473.
Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA; North Island, CA.
Length: 3-4 weeks (120-160 hours).
Exhibit Dates: *Version 1:* 1/81–Present. *Version 2:* 1/68–12/80.
Objectives: To train maintenance personnel who have had previous training in basic avionics and digital fundamentals to maintain the E-2A digital data communication system (AN/ASW-14A).
Instruction: Lectures and practical exercises in the latest maintenance procedures for the AN/ASW-14A digital data communication system, including special equipment; theory of operation; circuit analysis; programming, power supply; reply input, data storage, and output; radio receiver and transmitter components; and troubleshooting procedures.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic laboratory (5/85). *Version 2:* Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0348

E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance

Course Number: C-150-3474.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 9 weeks (360 hours).
Exhibit Dates: 1/68–1/88.
Objectives: To train enlisted personnel who have backgrounds in digital fundamentals to maintain the programming test console.
Instruction: Lectures and practical exercises in the maintenance and operation of the programming test console, including theory of operation, block diagrams of components, programming routines, programming test group theory, power distribution, analysis of specialized equipment components, various logic systems, timers, programmer-analyzer components and function, and module test sets.
Credit Recommendation: In the vocational certificate category, credit in computers on the basis of institutional evaluation (3/74).

NV-1715-0349

E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/68–1/88.
Objectives: To train enlisted personnel who have had previous training or experience in avionics, computer detector maintenance, and digital fundamentals to operate computer detector semiautomatic check-out equipment.
Instruction: Lectures and practical exercises in the operation and theory of the computer detector semiautomatic check-out equipment, including equipment functions, basic components, power supply, timing and message registers, confidence tests and switching, and troubleshooting procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0350

AN/AWG-10 Receiver, Intermediate Maintenance
(F-4J AN/AWG-10 Receiver Intermediate Maintenance)

Course Number: C-102-3812.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.
Length: 5-6 weeks (200-240 hours).
Exhibit Dates: 7/68–1/88.
Objectives: To train maintenance personnel to maintain the receiver portion of AN/AWG-10 missile control systems.
Instruction: Lectures and practical exercises in receiver circuitry, receiver waveguides, IF amplifiers, clearance trackers, signal computers, test sets, and maintenance procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0351

AN/ARC-27 UHF Radio Set Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 2 weeks (64 hours).
Exhibit Dates: 6/70–1/88.
Objectives: To train maintenance personnel to operate and maintain the AN/ARC-27 UHF radio set.
Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARC-27 UHF radio set, including theory of operation, various circuits, power distribution, alignment, and troubleshooting.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0352

Electrical/Electronics Fundamentals, Class P

Course Number: None.
Location: Class P Aviation Fundamentals School, Norman, OK; Class P Aviation Fundamentals School, Jacksonville, FL.
Length: 4-6 weeks (162-240 hours).
Exhibit Dates: 6/56–6/59.
Objectives: To teach nonrated naval aviation personnel and some fleet personnel the fundamentals of electricity and electronics.
Instruction: Lectures and practical exercises in the fundamentals of electricity and electronics, including basic mathematics to elementary trigonometry, basic physics, AC and DC electrical theory, basic magnetism, and instruments.
Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics (3/74).

NV-1715-0353

Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer

Course Number: A-121-0288; F-121-083.
Location: FBM Submarine Training Center, Charleston, SC; Naval Submarine School Groton, New London, CT.
Length: 3-4 weeks (117-120 hours).
Exhibit Dates: *Version 1:* 9/79–Present. *Version 2:* 1/70–8/79.
Objectives: To train enlisted personnel to operate the Mk 88 digital control computer.
Instruction: *Version 1:* The course covers the functional description of a mini-computer. Topics covered include the instruction set, word format and control sequences, the functional description of subsystems such as the master clock, registers, core memory, arithmetic unit, memory logic, buffers and interrupt operations. *Version 2:* Lectures and practical exercises in the operation and maintenance of the Mk 88 digital control computer, including memory, arithmetic, control, and input/output sections (covered at a detailed logic level); and machine lan-

guage, programs, subroutines, and preventive maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in minicomputers (3/81). *Version 2:* In the vocational certificate category, 2 semester hours in computer laboratory (3/74); in the upper-division baccalaureate category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0354

1. Photographic Electronics Systems, Class C
2. Photographic Electronics Systems, Class C (Camera Repair, Class C)

Course Number: *All Versions:* C-670-2011.

Location: Air Technical Training Center, Pensacola, FL.

Length: *Version 1:* 9-12 weeks (376-476 hours). *Version 2:* 15-19 weeks (600-760 hours).

Exhibit Dates: *Version 1:* 11/68-1/88. *Version 2:* 6/57-10/68.

Objectives: To train photographer's mates to operate, test, and maintain electronically operated photographic equipment.

Instruction: Lectures and practical exercises in analysis of circuits and systems in photographic equipment, including basic mathematics, DC and AC circuits, electromechanical equipment, vacuum tubes, transistors, test equipment, photographic laboratory equipment, basic camera control equipment, and aerial camera control equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74).

NV-1715-0356

Communications Receiver Site Systems Maintenance, Class C1

Course Number: A-101-0070.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 4/74-7/81.

Objectives: To train personnel to operate, maintain, troubleshoot and repair specific communications equipment.

Instruction: Areas of instruction include the use of special test equipment (spectrum analyzer, RF and AF generators and other equipment) to test, align and repair multiplexed communications hardware including telephone, radio and microwave channels.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio electronics (9/77).

NV-1715-0357

RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance

Course Number: C-102-3841.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train maintenance personnel to maintain specific electronic/radio equipment in the RF-4B aircraft.

Instruction: Lectures and practical exercises in the maintenance of electronic and radio equipment in the RF-4B aircraft system, including analysis of operation; communications systems components; navigation and identification equipment; integration of aircraft, CNI, and electronic systems; and practical applications of line maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0358

P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance

Course Number: C-102-3597.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train maintenance personnel to operate, calibrate, and maintain the AN/AXR-13 low-light-level television camera.

Instruction: Lectures and practical exercises in the operation, calibration, and maintenance of the AN/AXR-13 low-light-level television camera, including block-diagram analysis, test equipment, system circuit analysis, components, power supply, and assembly.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0359

AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance

Course Number: C-102-3036.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel to service and maintain the AN/APN radar altimeters.

Instruction: Lectures and practical exercises in pulse radar maintenance procedures, including theory and analysis of various circuits and working components of the AN/APN radar altimeter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0360

AN/APM 341 (V) Doppler Test Set Intermediate Maintenance

Course Number: C-104-3786; C-102-3800.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 10/80-Present. *Version 2:* 12/72-9/80.

Objectives: To train selected personnel to operate, maintain, and troubleshoot the AN/APM 341 (V) Doppler test set.

Instruction: Lecture and practical exercises in maintenance procedures for the AN/APM 341 (V) Doppler test set, including instruction on logic concepts, radar signal simulator and spectrum analyzer, microwave converter and digital readout monitor, standing-wave ratio meter, and quick-replaceable assemblies.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation electronics/electronic circuit analysis and 1 semester hour in electronic circuits laboratory for non-electrical engineering students (3/82). *Version 2:* Credit is not recommended because of the limited, specialized nature of the course (4/74).

NV-1715-0361

EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/69-1/88.

Objectives: To train electronics maintenance personnel to maintain and operate the AN/ALQ-92 electronic countermeasures set.

Instruction: Lectures and laboratories in AN/ALQ-92 countermeasures set operation, including transmitter, receiver modulator, relay assembly, and display unit; and laboratory procedures, including performance test, trouble analysis, functional checkout and alignment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0362

F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance

Course Number: C-112-3611; C-112-3809; C-112-12.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 5-9 weeks (200-360 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and service Aero 1-A airborne control systems.

Instruction: Lectures and practical exercises in systems familiarization, test equipment, and maintenance procedures, including instruction on AN/APQ-72 low-voltage power supplies, transmitters, electrical frequency controls, receiver and automatic gain controls, range tracking system, transmitter and synchronizer harmonization, vertical reference system, antenna, power supply, indicators, and guns; AN/APM-32 and AN/UPM-32 radar test sets; and AN/APA-157 block-diagram analysis, transmitter, modulator, steering functions, and launch functions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0363

A-3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to maintain ASB-7 radar, stabilization, and auxiliary systems.

Instruction: Lectures and practical exercises in operational procedures; bombing and navigational problems; stabilization subsystems and associated servo loops; optics, periscopes, and photography; radar theory and application; and maintenance and systematic troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0364

Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance

Course Number: A-102-0083.

Location: Electronics Technician, Class C School, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 8/71-1/88.

Objectives: To train enlisted personnel to operate and maintain the AN/SPN-38 Loran receiver.

Instruction: Lectures and laboratories in Loran receiver principles, controls, operation, and maintenance, including AC and DC power distribution and control circuits; circuit and block-diagram analysis; slave trigger, strobe-pulse, and gross-delay generators operation; logic control section and logic analysis; and alarm, indicator, and self-check sections operation and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0365

F-8 AN/APQ-94 Radar Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel who have completed a course in transistor fundamentals to maintain the AN/APQ-94 radar system and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-94 radar system and associated equipment, including power supplies, block diagrams of systems, theory of operation, test set operation, component analysis, various computer subsystems, antenna and antenna control and instrumentation, and system alignment, hazards, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0366

RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance

Course Number: C-102-3746.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69-1/88.

Objectives: To train maintenance personnel to operate and maintain the AN/ALQ-61 passive electronics countermeasures set.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/ALQ-61 passive electronics countermeasures set, including antennas and receivers at various bands, frequency and direction encoders, pulse measurement, programmer, power distribution, circuits, and associated test sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0367

RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance

Course Number: C-102-3745.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to operate, maintain, and service AN/ALQ-61 passive electronic countermeasures sets and to perform shop maintenance.

Instruction: Lectures and laboratories in the operation and maintenance of receivers, frequency encoders, direction encoders, programmers, coded-pulse detectors, and signal data recorders.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0368

RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to maintain, troubleshoot, and repair AN/ARC-105 high-frequency communications systems and RO-254/ASQ sound recorders.

Instruction: Lectures and laboratories in theory of operation and maintenance procedures for receivers and transmitters, antenna coupler systems, and sound recorders; circuit analysis; block diagrams; and signal flow.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0369

RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance

Course Number: C-102-3026.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/71-Present.

Objectives: To train maintenance personnel to maintain and repair a single side band transceiver (RT-648/698) to the component level.

Instruction: Lectures and laboratories in single-sideband characteristics, power supply, system block-diagram analysis, circuit analysis, operating procedures, performance testing, system alignment, system troubleshooting, and component repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in HF electronics (7/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in HF communications (7/81).

NV-1715-0370

A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance

(A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance)

Course Number: C-102-3766; C-102-228.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7 weeks (280-320 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to operate, maintain, and test AN/ASQ-57 integrated electronic central and AN/AIC-14 intercommunications systems.

Instruction: Lectures and practical exercises in system familiarization, power supplies, amplifiers, transceiver electronics, alignment procedures, shop testing, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0371

F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train maintenance personnel to operate and maintain the electronic counter-countermeasures circuitry of AN/AWG-10 missile control systems.

Instruction: Lectures and laboratories in pulse Doppler circuitry, radar circuitry, antenna control, waveform and voltage analysis, system familiarization, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0372

RADIO AIDS UNIT (DEVICE 1-D-5), CLASS C

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 5 weeks (200 hours).

Exhibit Dates: 12/55–12/68.

Objectives: To train enlisted personnel to operate, maintain, and instruct other personnel on radio aids units.

Instruction: Lectures and practical exercises in theory, operation, maintenance, and troubleshooting of radio aids units.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0373

RT 648/698 (AN/ARC-94/102/105/119/120) HF TRANSCEIVER INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To train maintenance personnel to maintain RT 648/698 HF transceivers at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of RT 648/698 HF transceivers, including principles of single-sideband communications, system and subsystem components, test equipment, various translator modules, circuit analysis, and system alignment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in circuit analysis or electronics (3/74).

NV-1715-0374

P-3 AN/ARC-94 COMMUNICATIONS SYSTEM MAINTENANCE, NO. 19

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain the AN/ARC-94 transceiver in the P-3 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARC-94 transceiver in the P-3 aircraft, including block-diagram and circuit analysis, various translator modules within the system, stabilizers, power supplies, antenna operation, and associated test sets.

Credit Recommendation: In the vocational certificate category, 2 semester hours in circuit analysis or electronics (3/74).

NV-1715-0375

E-2A AN/ASQ-58 INTEGRATED ELECTRONIC CENTRAL TACAN—RT-541/ASQ AND KY-309/ASQ POWER SUPPLY—AM-2310/ASQ INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train maintenance personnel to maintain and troubleshoot the E-2A integrated electronic central TACAN and related power supply equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the E-2A integrated electronic central TACAN and related power supply equipment, including theory of operation, circuit analysis, system components, and instruction in amplifiers, receivers, three-phase bridge rectifier circuits, AC power distribution, modulation, and transmitter circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0376

E-2A INTEGRATED ELECTRONIC CENTRAL (AN/ASQ-58) INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain E-2A integrated electronic controls (AN/ASQ-58).

Instruction: Lectures and practical exercises in the maintenance of E-2A integrated electronic controls (AN/ASQ-58), including system components, theory of operation; receiver, transmitter, power distribution, coder, and relay module circuit analysis; TACAN principles of operation and circuit analysis, specific IFF interrogator equipment analysis, and relations between systems equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0377

E-2A AN/ASQ-58 INTEGRATED ELECTRONIC CENTRAL IFF—KY-308/ASQ AND POWER SUPPLY—AM-2310/ASQ INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train maintenance personnel to maintain the E-2A IFF KY-308/ASQ integrated electronic central and the AM-2310/ASQ power supply at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of E-2A IFF KY-308/ASQ integrated electronic central and AM-2310/ASQ power supply, including theory of operation, system components, power supply, receiver, power distribution, transmitter, and decoder circuits, and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0378

RADIO TRANSMITTING SET AN/URT-23 (V) MAINTENANCE (ENLISTED)

Course Number: F-101-025.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–1/88.

Objectives: To train maintenance personnel to operate and maintain the AN/URT-23 (V) radio transmitting set and the AN/URA-38 antenna coupler group.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/URT-23 (V) radio transmitting set and the AN/URA-38 antenna coupler group, including circuit analysis, block diagram and signal flow, amplifiers, oscillators, keying circuits, power supplies, theory of operation, power distribution, review of specific radio equipment, and transmitting set alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0379

E-2A MULTI-PURPOSE COMMUNICATIONS SYSTEM (AN/ASQ-52) INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel with knowledge of or aptitude in avionics to operate and maintain the AN/ASQ-52 multipurpose communications system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASQ-52 multipurpose communications system, including instruction in electronic controls in the transceiver, power supply, electronic radio frequency circuits, control section, Doppler and synchronization circuits, IFPM circuits, servo controls, and associated test sets.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronics or radio (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or radio (3/74).

NV-1715-0380

1. AVIONICS TECHNICIAN CLASS A1, MODULES 1–9
2. AVIONICS TECHNICIAN (AV), CLASS A
3. AVIONICS TECHNICIAN, CLASS A
4. AVIONICS FUNDAMENTALS, CLASS A
5. AVIONICS FUNDAMENTALS, CLASS A
6. AVIATION ELECTRONICS FUNDAMENTALS, CLASS A

Course Number: C-100-2013.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* Self-paced 10–16 weeks (485 hours). *Version 2:* 10–20 weeks (800 hours). *Version 3:* 20 weeks (800 hours). *Version 4:* 14–16 weeks (560–640 hours).

Version 5: 19 weeks (760 hours). *Version 6:* 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 1/78–9/86. *Version 2:* 6/72–12/77. *Version 3:* 7/69–5/72. *Version 4:* 6/65–6/69. *Version 5:* 3/60–5/65. *Version 6:* 5/58–2/60.

Objectives: To provide enlisted Navy and Marine Corps personnel with training in electronic communications fundamentals.

Instruction: For this corse after 9/86 see NV-1715-1439. *All Versions:* Lectures and laboratories in analog and digital computer fundamentals, and maintenance publications and procedures. *Version 1:* Lectures and laboratories in fundamentals of amplitude and frequency modulated communications systems; study of AM receiver circuits, use of test equipment, isolating malfunctioning modules and troubleshooting to the circuit and component level. Topics covered include RF, IF and audio amplifiers, mixers, oscillators, detectors, modulations and power supplies. Introduction to basic digital logic, principles and circuits as well as to the organization, programming and troubleshooting of basic digital computers. *Version 2:* Primarily transistor electronics, including block-diagram and circuit analysis, DC and AC electrical fundamentals, semiconductor theory and circuit applications. There was a 'Rapid Learner Section' (fast track) offered as an accelerated program. Course content was condensed into 10 weeks. *Version 3:* Instruction also includes AC and DC electrical fundamentals, semiconductor theory and circuit applications as well as shifts from vacuum tube to solid-state circuitry. *Version 4:* Instruction includes AC and DC electrical fundamentals, semiconductor theory and circuit applications with a primary emphasis on vacuum tube electronics. *Version 5:* Instruction includes AC and DC electrical fundamentals, semiconductor theory and circuit applications with a primary emphasis on vacuum tube electronics. *Version 6:* Instruction includes AC and DC electrical fundamentals, semiconductor theory and circuit applications with a primary emphasis on vacuum tube electronics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in communications fundamentals and 4 in digital and computer fundamentals for those students holding the AT, AQ, or AX rating and completing the 16 week version of this course. 4 semester hours in communications fundamentals, 4 in digital and computer fundamentals for those students holding a TD rating and completing the 10–11 week version of this course. *Version 2:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in electronics and electronic circuits (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 4 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 4:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 5:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 4 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 6:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74).

NV-1715-0381

CONTROL PANEL MK 309 MOD 0
OPERATION AND MAINTENANCE

Course Number: A-130-0099.

Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 5/77–Present.

Objectives: To train selected personnel to operate and maintain the control panel aboard Coast Guard and Naval units.

Instruction: Lectures and laboratories in introduction to the Mk 309 Mod 0 control panel, its operation, functional and detailed description, preventive and corrective maintenance, and alignment and adjustment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (6/78).

NV-1715-0382

E-2A AN/ASQ-52 DATA COMMUNICATION
SYSTEM SPECIAL SUPPORT
EQUIPMENT INTERMEDIATE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To provide maintenance personnel who have completed an intermediate data communications maintenance course with training in data communications system special support equipment, including theory of operation, alignment, and operational procedures.

Instruction: Lectures and practical exercises in functions, block diagrams, modes of operation, power supplies, and preventive maintenance of signal data convertors; functions, block diagrams, radio transmitters and receivers block diagram and circuits, logic elements, message generation, data modulation, tone level and audio adjustments, frequency synthesizers, response and analysis modules, RC correlation, and comparison and control modules of line test sets; and maintenance and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0383

A-4F/L/TA-4F COMMUNICATION,
NAVIGATION, IDENTIFICATION
(CNI)/WEAPONS SYSTEMS
ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3718.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/73–1/88.

Objectives: To train maintenance personnel to troubleshoot and maintain Communication Navigation Identification (CNI)/weapons systems.

Instruction: Lectures and practical exercises in CNI systems used on A-4F aircraft; intercom systems and UHF communication system hardware; navigation systems, radar altimeters, and Doppler radar; high-altitude radar identification (IFF) systems; and troubleshooting, calibration, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0384

ADVANCED FIRE CONTROL SYSTEM (FCS)
MK 106 MOD 5

Course Number: A-113-0037.

Location: Submarine School, Groton, CT.

Length: 5 weeks (165 hours).

Exhibit Dates: 9/70–1/88.

Objectives: To train fire control technicians to maintain Mk 106 Mod 5 fire control systems and associated equipment.

Instruction: Lectures and practical exercises in troubleshooting and maintenance techniques for torpedo data computer, sound bearing computers, target designation systems, and depth, enabling, and station control circuits.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0385

DATA SYSTEMS TECHNICIAN, CLASS C,
WEAPON DIRECTION SYSTEM MK XI
MOD 0/1 MAINTENANCE TRAINING

Course Number: A-150-0059.

Location: Naval Schools Command, Mare Island, CA.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 7/71–1/79. *Version 2:* 11/70–6/71.

Objectives: To train enlisted personnel to operate and maintain weapon direction systems.

Instruction: Lectures and laboratories in system familiarization, isolation and repair of malfunctions, and utilization of tools and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in troubleshooting and hand skills (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in troubleshooting and hand skills (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0387

COMMUNICATIONS TRANSMITTER SITE
SYSTEMS MAINTENANCE, CLASS C1

Course Number: A-101-0069.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 10/73–1/88.

Objectives: To train personnel to operate and maintain specific communications systems.

Instruction: Lectures and practical exercises in the operation and maintenance of equipment including microwave radio assemblies, transmitter fundamentals, microwave multiplexing, telephone terminals, telegraph terminals, and multichannel telegraph.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications equipment troubleshooting (9/77).

NV-1715-0388

AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
(A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance)

Course Number: C-102-3788.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 3 weeks (120-136 hours). *Version 2:* 4 weeks (152-160 hours).

Exhibit Dates: *Version 1:* 11/76-Present. *Version 2:* 9/71-10/76.

Objectives: To train enlisted personnel who have had previous training in digital fundamentals and electronics to maintain, assemble, and troubleshoot inertial measurement equipment, using semiautomatic and automatic testing procedures.

Instruction: *All Versions:* Lectures and practical exercises in functional operation of AN/ASN-90 inertial measurement sets, controllers, adapter/power assemblies, and inertial measurement units; test and calibration procedures; and fault isolation techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics system maintenance (3/82). *Version 2:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0389

Relay Transmitter Mk 60 Maintenance
(Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9-12)

Course Number: K-130-0060; A-130-0060.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 2-3 weeks (80-105 hours).

Exhibit Dates: 4/68-Present.

Objectives: To train enlisted personnel to operate and maintain Mk 60 Mod 0 relay transmitters.

Instruction: Lectures and laboratories in block-diagram and circuit analysis and system operation and maintenance procedures, with emphasis on system test functions. This is a highly specialized equipment course.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/86).

NV-1715-0390

AN/WPN-4 Maintenance

Course Number: F-102-014.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train enlisted personnel to operate and maintain the AN/WPN-4 Loran C receiving set.

Instruction: Lectures and laboratories in AN/WPN-4 Loran C receiver fundamentals; system components and operation, including data flow, indicator subassembly, delay switches and network pulse delay, pulse generator, and cycle, envelope and amplitude, and guard and signal-monitoring channels; use of schematics and technical manuals; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74).

NV-1715-0391

Terrier Mk 152 Computer Complex

Course Number: A-150-0085.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 19-20 weeks (760-800 hours). *Version 2:* 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 5/75-10/88. *Version 2:* 11/72-4/75.

Objectives: To train enlisted personnel to operate and maintain missile fire control equipment and electronic test equipment.

Instruction: For this course after 10/88 see NV-1715-1382. *Version 1:* Lectures and practical exercises in the operation and maintenance of the Mk 152 computer system including its power supplies, memories, clock, I/O instructions and operations and complete machine on/gauge instruction set; computer turn ON/OFF, computer programming, data conversion, data terminal, motor generator set, and loading programs via magnetic or paper tapes. *Version 2:* Lectures in fire control system functions and characteristics; fire control computer turn-on, load, and turn-off procedures; interface requirements and word formats; digital data recorder, master clock, and digital control; logic flow of writing operations and data flow of read operations; input/output control and operation; signal data conversion; A/D and D/A converters; dual-trace oscilloscopes operation; magnetic tape storage elements; and operation and use of digital clocks, digital voltmeters, AC/DC differential voltmeters, VOMs, VTMs, and electronic counters.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic troubleshooting, 3 in machine language programming (11/83). *Version 2:* In the vocational certificate category, 4 semester hours in electronics, digital logic, and electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, digital logic, and electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electronics, digital logic, and electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0392

Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1

Course Number: A-690-0018.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (67 hours).

Exhibit Dates: 7/77-1/88.

Objectives: To familiarize trained personnel in the operation and troubleshooting techniques needed for a computer controlled elevator system.

Instruction: Instruction includes the operation of the elevator control system, troubleshooting techniques in a digital PDP-14 computer and component replacement in the computer.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer servicing (9/77).

NV-1715-0393

F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance

Course Number: C-102-3071.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train fleet maintenance personnel to operate, troubleshoot, and repair the F-4B/J-RF-4B AN/ALQ-88 countermeasures set.

Instruction: Lectures and practical exercises in AN/ALQ-88 countermeasures set operation, troubleshooting, and repair, including logic review, DECM principles and techniques, theory of operation, block diagram, power control and power supply, various components assembly procedures, hydraulic cooling unit operation, and test equipment usage.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0394

F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To train enlisted personnel who have backgrounds in electronics to troubleshoot, maintain, and repair TACAN aircraft navigation equipment.

Instruction: Lectures and practical exercises in TACAN system introduction, principles of operation, block-diagram analysis, and frequency selector control system operation; pulse decoder operation, decoding procedures, and circuits; and TACAN maintenance, circuit troubleshooting, and bench check-out procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0395

F-4J Shoehorn Organizational Maintenance

Course Number: C-102-3819.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3-5 weeks (120-200 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To train fleet maintenance personnel to install, remove, and service aircraft electronic countermeasures equipment.

Instruction: Lectures and practical exercises in F-4J Shoehorn electronic countermeasures equipment installation, removal, and servicing, including radar homing and warning equipment and power sources, ALQ-51/100 and ALQ-91A countermeasures sets and associated circuits, aircraft ECM systems locations and operational checks, and system maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0396

Tartar Radar Test Set Mk 474 Mod 2

Course Number: A-104-0112; A-104-0113.
Location: Guided Missiles School, Dam Neck, VA; Guided Missiles School, Mare Island, CA.
Length: 3 weeks (74 hours).
Exhibit Dates: 11/72-12/77.
Objectives: To train enlisted personnel to operate the Mk 474 test set.
Instruction: Lectures and practical exercises in Mk 474 test set operation, including functional block diagram; systems dynamic tester introduction; angle error circuits, pulse delay network, target modulator, and countermeasures signal simulator operation; and system flow diagram review, tuning, and adjustment procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0397

Cable Tester Alfred Model 9500
Intermediate Maintenance

Course Number: C-102-3058.
Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Miramar, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 10/72-1/88.
Objectives: To train fleet maintenance personnel to maintain and repair the Alfred Model 9500 cable tester.
Instruction: Lectures and practical exercises in basic transmission principles: cable tester circuit analysis; and system maintenance procedures, including testing, alignment and troubleshooting.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0398

Terrier Computer Mk 100 Mod 2

Course Number: Not available.
Location: Service Schools Command, Great Lakes, IL.
Length: 20 weeks (600 hours).
Exhibit Dates: 2/68-12/75.
Objectives: To train enlisted personnel to maintain the Mk 100 Mod 2 Terrier missile weapon system.
Instruction: Lectures and practical exercises in the maintenance of the Mk 100 Mod 2 Terrier missile system, including fire control system function, operational sequence of launching system, control computer, power distribution circuits, computer amplifiers, controls and indicators, test equipment use, basics of analog computers, servomechanisms, summing operation in analog computer, associated equipment in deck-tilt and radar position modes, shipboard and shore fire control, and troubleshooting of computer and weapons director circuits.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0399

RF-4B AN/APQ-102 Side Looking
Radar Intermediate
Maintenance

Course Number: C-100-3831.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 6 weeks (240 hours).
Exhibit Dates: *Version 1:* 8/70-1/88. *Version 2:* 1/68-7/70.
Objectives: To train maintenance personnel to maintain, service, and troubleshoot AN/APQ-102 (A) side-looking radar.
Instruction: *All Versions:* Lectures and practical exercises in side-looking radar system introduction; subsystems operation; synchronizer block-diagram analysis, receiver block-diagram analysis, and RF and IF circuits theory; video and AGC circuits; antenna system theory of operation; practical applications, maintenance, and troubleshooting procedures. *Version 1:* Instruction includes recorder operation and built-in test and power supply theory and analysis.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0400

Cryptologic Technician A
(Administration)—Class A
(Communications Technician Administration Branch Class A)

Course Number: A-510-0015.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: *Version 1:* 11 weeks (417 hours). *Version 2:* Self-paced 8 weeks (Average 259 hours).
Exhibit Dates: *Version 1:* 9/79-Present. *Version 2:* 4/75-8/79
Objectives: To provide the basic knowledge of job skills and professional qualifications required for performance in the administrative and personnel fields.
Learning Outcomes: @1 Upon completion of the course, the student will be able to: (1) type 30 wpm with no more than 4 errors; (2) understand and complete standard naval control forms; (3) understand procedures and formats involved in the communications process and; (4) exhibit competency in handling classified information. *Version 2:* This is a self-paced individualized learning system course which includes the following: knowledge of security for classified matter, safeguards and procedures; understanding of the Organization for National Security, Naval Establishment, Naval Communications, Naval Security Group Command; instruction in typing to a speed of at least 30 net words per minute, general clerical duties, operation of office machines and related functions necessary to perform in an administration, personnel, facilities, operation, and communications environment.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in beginning typing (7/87). *Version 2:* In the vocational certificate category, 3 semester hours in office practice and 2 in typewriting (9/78); In the lower-division baccalaureate/associate degree category, 1 semester hour in written communication (9/78).

NV-1715-0401

Radarman, Class A, Basic Preventive
Maintenance and Operators

Course Number: Not available.
Location: Class A Radarman School, Great Lakes, IL; Class A Radarman School, Norfolk, VA.
Length: 24 weeks (960 hours).
Exhibit Dates: 9/56-12/68.
Objectives: To train enlisted personnel to maintain and determine the operational readiness of, radar equipment.
Instruction: Lectures and practical exercises in the maintenance of radar equipment, including combat information center functions, surface search radar and associated remote repeaters, air search and altitude-determining radars and associated remote repeaters, operational procedures of information friend-or-foe (IFF) equipment, shipboard radar countermeasures equipment, airborne early warning radar equipment, internal communications, air plotting, relative motion and the maneuvering board, formation plotting and tactics, radar navigation and remote repeater operation and plotting.
Credit Recommendation: In the vocational certificate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0402

Radar Signal Processing Equipment
(RSPE) Maintenance

Course Number: K-113-2033.
Location: Fleet Training Center, San Diego, CA.
Length: 4 weeks (114-120 hours).
Exhibit Dates: 10/72-1/88.
Objectives: To train fire control technicians to maintain the radar signal-processing equipment associated with specific radar systems.
Instruction: Lectures and practical exercises in the maintenance of radar signal-processing equipment, including operating modes of the equipment, IF detection and amplification, video processing, jamming detection, automatic range acquisition and tracking, logic circuits, systems readiness checks, adjustments and fault isolation.
Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0403

Radar Signal Processing Equipment
(RSPE) Maintenance Mk 1 and
Mods 1-5

Course Number: J-113-0111; J-113-1112.
Location: Fleet Combat Training Center, Dam Neck, VA.
Length: *Version 1:* 5 weeks (175 hours). *Version 2:* 7 weeks (245 hours).
Exhibit Dates: *Version 1:* 10/80-Present. *Version 2:* 10/72-9/80.
Objectives: To train fire control technicians to operate and maintain specific radar signal processing equipment (RSPE).
Instruction: *Version 1:* Lectures and practical exercises in the principles of operation and the development of knowledge and skills necessary to perform shipboard maintenance of video, display and radar signal processing equipment including the practical application of identification of the inter-

relationship and function of the system components, casualty analysis, troubleshooting and the performance of tests and adjustments. *Version 2:* Lectures and practical exercises in the operation and maintenance of radar signal processing equipment Mk-I and Mods, including fundamentals of solid-state diodes, transistors, and logic theory; RSPE operating modes; IF detection and amplification; jamming detection, automatic range and angle acquisition and tracking, electronic counter-countermeasures, system interfacing, system readiness, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance (9/84). *Version 2:* In the vocational certificate category, 1 semester hour in electricity or electronics, and credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0404

SONAR AN/SQS-38 MAINTENANCE
(USCG)

Course Number: A-130-0071.

Location: Fleet Anti-submarine Warfare Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 10 weeks (388-400 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To train Coast Guard sonarmen to maintain, calibrate, and operate the AN/SQS-38 sonar, the WQC2 underwater telephone, and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-38 sonar set, WQC2 underwater telephone, and built-in test equipment, including special circuits, power supplies and distribution, transmission signal development; transmitter modules, transducers, and transducer switching; and receiving subsystem, including classification, position-indicator system timing and deflection circuitry, primary cursor generation, and servos.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0405

SONAR AN/SQS-26CX AND AN/SQS-53
MAINTENANCE
(Sonar AN/SQS-26CX Maintenance)
(Sonar Detecting-Ranging Set AN/SQS-26CX)

Course Number: A-130-0102; A-130-0047; A-130-0048; J-130-0865.

Location: Fleet Sonar School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 24-30 weeks (798-900 hours).

Exhibit Dates: 1/69-1/88.

Objectives: To train enlisted personnel to operate, maintain, troubleshoot, and repair the specified sonar detecting-ranging equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-26CX and, beginning February 1977, the AN/SQS-53 sonar detecting-ranging set, including binary mathematics and logic, test equipment, modes of operation, sound propagation, primary power distribution, sonar monitor, block diagrams, fault-locating monitor, mode selection and generation, simulated targets and target control, surface duct programmer and transmitter, B-scan receiver and display, various circuits, variable depression components, range measuring and servos.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0406

A-6 ASSOCIATED RADAR TEST EQUIPMENT
INTERMEDIATE LEVEL
MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 5/70-1/88.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain search radars and associated test equipment.

Instruction: Lectures and laboratories in theory of operation and system functions of radar set controls, azimuth/elevation/range indicators, search radar antenna/receivers, and data processing units.

Credit Recommendation: In the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0407

CLOSED CIRCUIT TELEVISION
MAINTENANCE, CLASS C1

Course Number: A-198-0025.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/74-1/88.

Objectives: To provide detailed instruction in the components of closed circuit television and to train personnel in operation and corrective maintenance.

Instruction: Demonstrations in parts identification and operation of the closed circuit television system utilizing a small amount of test procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in closed circuit television (9/77).

NV-1715-0408

A-7 AN/APQ-116 RADAR SET
INTERMEDIATE MAINTENANCE

Course Number: C-104-3782.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 6/79-Present. *Version 2:* 9/68-5/79.

Objectives: To train maintenance personnel to operate, maintain, service, and repair AN/APQ-116 radar sets.

Instruction: *All Versions:* Lectures and laboratories in AN/APQ-116 radar set familiarization, security, radiation hazards, and special circuits; transmitter circuit analysis, power supplies, antenna systems, and transmitter modules; general component theory; receiver circuit analysis, antenna receivers, command computers, and alarm monitors; display analysis, sweep generators, and indicator systems; and system maintenance, troubleshooting procedures, and performance testing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic high frequency circuits, 1 in high frequency circuits laboratory for non-electrical engineering majors (3/82). *Version 2:* In the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0409

F-4J AN/ARN-86 TACAN INTERMEDIATE
MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/69-1/88.

Objectives: To train fleet maintenance personnel to operate, troubleshoot, maintain, repair, and modify AN/ARN-86 TACAN navigation systems.

Instruction: Lectures and laboratories in introduction to AN/ARN-86 systems, including power supplies and distribution, block-diagram analysis, transmit-receive RF operations, IF amplifiers, and channel servo operations; video decoders, AGC and ID tone circuits, and 15-cycle and 135-cycle bearing circuits; interrogation, reference, and reply circuitry; and intermediate maintenance, range and antenna circuitry, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0410

WEAPON SYSTEM SPECIALIST (CREW
LEADER) MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train crew members to maintain aircraft weapon control systems.

Instruction: Lectures and practical exercises in weapon control systems functional analysis, including data transmission, power subsystems, radar and infrared systems, and computer controls and display systems; weapons and avionics functional analysis; modes analysis, including tactical programs, navigation, air-to-air and air-to-ground modes analysis, data links, and in-flight training; and radar, IP computer, and display maintenance, armament controlling maintenance, and calendar inspection.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0411

WEAPONS SYSTEMS TECHNICIAN (CREW
MEMBER) ORGANIZATIONAL
MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 10 weeks (380 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train fleet maintenance personnel to test, troubleshoot, and maintain F-14 weapons systems.

Instruction: Lectures and laboratories in operating modes and functional design of *the F-14 system: power, radar, and infrared* operation, control displays, and description; computer controls and displays; weapons control system maintenance and calendar inspection and procedures; and aircraft maintenance, weapons systems, and weapon checklists.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0412

Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)

Course Number: A-113-0060.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (758 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train enlisted personnel to operate, maintain, and test underwater fire control systems.

Instruction: Lectures and laboratories in introduction to Mk 113 Mod 7 underwater fire control systems, terminology, data flow, and power distribution; analog computational devices, synchros, and resolvers; attack directors; attack control consoles; target motion analysis; torpedo control consoles and tone signal generators; weapons simulators and monitor panels; firing and monitoring systems; systems maintenance and operational procedures, target motion subsystems; target motion computers and signal data convertors, and digital interconnecting boxes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0413

Weapons Direction System (WDS) Mk 7 Mod 3 (Career)

Course Number: A-121-0032.

Location: Guided Missiles School, Dam Neck, VA.

Length: 15 weeks (553 hours).

Exhibit Dates: 11/72-12/78.

Objectives: To train fire control technicians in the maintenance and repair of Mk 7 Mod 3 weapons direction systems.

Instruction: Lectures and practical exercises in weapons direction equipment and related power, simulating, sweep generation, video, display, tracking, symbol, data converting, and automatic height-tracking systems; utilization of dual-trace scope, AC/DC differential voltmeters, and digital voltmeters; and system maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0414

Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligator)

Course Number: A-121-0032.

Location: Guided Missiles School, Dam Neck, VA.

Length: 20 weeks (759 hours).

Exhibit Dates: 11/70-12/78.

Objectives: To train fire control technicians to maintain and repair Mk 7 Mod 3 weapons direction systems.

Instruction: Lectures and practical exercises in weapons direction equipment and related power, simulating, sweep, video, display, tracking, symbol, and data converting systems; introduction to Terrier weapon systems, computer, radar sets, launching systems, and maintenance procedures; and utilization of dual-trace scope, AC/DC differential voltmeter, and digital voltmeter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0415

RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance

Course Number: C-112-126; C-100-3832.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6-8 weeks (240-320 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel who have had previous training in transistor and digital computer fundamentals to maintain AN/APQ-99 forward looking radar (FLR) through the intermediate level of maintenance.

Instruction: Lectures and practical exercises in theory of operation and bench procedures for AN/APQ-99 systems; block-diagram analysis of transmitter, receiver, and antenna systems; power supply programmers; radar set control, indicators; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0416

SSN/CVA Special Technology (Enlisted)

Course Number: F-193-072.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/68-4/71.

Objectives: To provide electronics technicians with initial training in the theory and operation of basic components of inertial navigation systems, and to prepare them for advanced studies in digital computer and navigation systems repair.

Instruction: Lectures and laboratories in testing and repair, test equipment, transistor fundamentals, and basic module repair; digital mathematics, numbering systems, arithmetic operations, and coding systems; digital circuits, symbology, switching circuits, gating circuits, computer components, digital counters, timing-shelf registers, adders and subtractors, storage devices, and input/output devices; programming, scaling, coding and addressing, and flow charts; and navigation theory, physics of motion, and inertial navigation system components and synchros.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory (3/74).

NV-1715-0417

QH-50D Target Control System AN/SRW-4B Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, Mare Island, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain and service AN/SRW-4B target control systems at the intermediate maintenance level.

Instruction: Lectures and practical exercises in target control system familiarization, rotary wing components, and radio transmitting set operation and functional analysis; organizational maintenance utilizing test sets, frequency counters, oscilloscopes, and frequency analyzers; and intermediate maintenance of target control systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0418

QH-50C Target Control System AN/SRW-4B Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain AN/SRW-4B target control system support equipment.

Instruction: Lectures and practical exercises in target control system familiarization; description, location, and operation of transmitter controls; demonstration of radio transmitting sets; functional analysis of amplifier modulators, amplifier frequency multipliers, coders, and power supplies; and intermediate maintenance of target control system test sets, transmitter controllers, and transmitting sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74).

NV-1715-0419

Talos Computer Mk 111 Mod 1, Class C

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 16 weeks (465 hours).

Exhibit Dates: 1/68-12/78.

Objectives: To train enlisted personnel to maintain Talos computers.

Instruction: Lectures and practical exercises in Talos weapon systems familiarization; basics of analog computers; and Mk 111 Mod 1 computer components and circuitry, system functioning, physical description, data flow maintenance, intercept display, and evaluation displays.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0420

Sonar AN/SQS-26 Series Sonar
Operator Basic
(Sonar AN/SQS-26 AX(R) and CX Operations Basic)
(AN/SQS-26 AXR & CX Operator)

Course Number: A-130-0086; J-130-0875.

Location: Fleet Anti-submarine Warfare Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 3 weeks (91-94 hours).

Exhibit Dates: 7/69-1/88.

Objectives: To train sonar technicians to operate AN/SQS-26AX(R) & CX sonars.

Instruction: Lectures and practical exercises in system description, modes of operation, performance prediction, and search procedures, and deep-water sound transmission, including physical properties of sea water, acoustic ray theory, reverberations, measurement of sound, and propagation losses.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

NV-1715-0421

Tartar Radar AN/SPG-51B or Radar
AN/SPG-51C, Class C

Course Number: A-104-0127.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 2/68-12/79.

Objectives: To train fire control technicians to maintain AN/SPG-51B/C radars.

Instruction: Lectures and practical exercises in Tartar weapons system familiarization, fire control systems, search radar, launching systems, and countermeasures; equipment safety and radar test sets; track radar, block diagrams, Doppler effect, track radar transmitters, power supplies, modulators, power amplifiers, and klystron theory; receiver circuits, spectrum analyzers, and tuning and adjustment of transmitter and receivers; data converters; radar set consoles; casualty analysis specialized test set operation; and Tartar missile guidance systems.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0422

S-2D/E AN/APN-122 Doppler Radar
Navigation System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to maintain, troubleshoot, and repair AN/APN-122 Doppler radar navigation systems.

Instruction: Lectures and practical exercises in Doppler radar theory; power distribution; signal data converters; conversion of beam coordinates to ground speed and drift angles; ground speed computers; vertical reference systems; signal loops; drift angles; location and replacement of malfunctioning components; special test equipment; and system troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0423

1. Sonar Surface Technican Class A
2. Basic Surface Sonar Technician,
Class A Core Phase
(Sonar Technician Class A-1 (Surface))
(Surface Sonar Technician, Class A)

Course Number: *Version 1:* K-130-0037. *Version 2:* A-130-0037; A-130-0038; J-130-0505.

Location: *Version 1:* Fleet Anti-Submarine Warfare Training Center, San Diego, CA. *Version 2:* Fleet Antisubmarine Warfare School, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: *Version 1:* 11-12 weeks (357 hours). *Version 2:* 6-12 weeks (141-228 hours).

Exhibit Dates: *Version 1:* 6/86-Present. *Version 2:* 7/72-5/86.

Objectives: To give enlisted personnel an introduction to sonar principles, fire control systems, underwater sound equipment, general purpose electronic test equipment, and aural classification techniques.

Instruction: *Version 1:* Lectures and practical exercises in the physics of underwater sound propagation, the components of active and passive sonar systems, operation of fire control systems, operation of auxiliary underwater equipment, aural familiarization and classification of underwater sounds, use of voltmeters, multimeters, oscillators, counters and oscilloscopes. *Version 2:* Lectures and practical exercises in operation and maintenance of underwater fire control systems, including dials and operating controls, input data sources, attack director outputs, functional switches, control panels, stabilization computers, firing panels, relay transmitters, remote repeaters, and underwater fire control systems ancillary equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in the physics of underwater acoustics and 1 in basic electronic test equipment (7/86). *Version 2:* In the vocational certificate category, 1 semester hour in basic electronic test equipment (8/77).

NV-1715-0424

RA-5C AN/AYA-1 Signal Data
Converter Group Intermediate
Maintenance

Course Number: C-100-3746.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to operate, maintain, and service RA-5C signal data converter groups at the intermediate maintenance level and to utilize naval air maintenance training units and appropriate general and special support equipment.

Instruction: Lectures and practical exercises in theory of operation and maintenance of signal data converters, data translators, photo channel data processing, translator tape channels, recording head amplifiers, and optical viewfinders.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0425

AN/UQN-4 Sonar Sounding Set
Maintenance
(AN/UQN-4 Echo Sounder Maintenance)
(Sonar Sounding Set AN/UQN-4)

Course Number: A-130-0074; F-130-018.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA; Submarine School, Groton, CT.

Length: 2-3 weeks (60-90 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel with knowledge of sonar and solid-state theory to operate and maintain the AN/UQN-4 sonar sounding set.

Instruction: Lectures and practical exercises in the maintenance of the AN/UQN-4 sonar sounding set, including the 3-M system; computer mathematics and logic; solid-state devices; power supplies; frequency generation and selection circuits; recorder panel assembly and drive motor control; keying and transmitter circuits; pulse generator; remote indicator; keel reference counter, decoder, and clearing control; digital readout, countdown, and storage control circuits; receiver circuits; and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0426

SSN Mk 3 Mod 6 Ship's Inertial
Navigation System (SINS)
Maintenance
(Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance)
(Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted))

Course Number: A-193-0032; F-193-032; F-193-080.

Location: Submarine School, Groton, CT.

Length: 19-25 weeks (570-750 hours).

Exhibit Dates: *Version 1:* 1/77-Present. *Version 2:* 4/69-12/76.

Objectives: To train electronics technicians to operate, evaluate, and maintain the Mk 3 Mod 6 ship's inertial navigation system.

Instruction: *Version 1:* This is a pipeline course that is composed of the following courses: A-102-0131 (does not meet our minimum length for evaluation); A-102-0168 (NV-1715-0492) and A-193-0357 (NV-1715-0985). *Version 2:* Lectures and practical exercises in tracing electrical and mechanical loops, performing specified checks and tests, Mk 3 Mod 6 systems malfunctions isolation and repair, MINDAC computer familiarization; transistor theory review, analog system components, oscilloscope operation, and computer mathematics.

Credit Recommendation: *Version 1:* Please refer to the exhibits cited in the instruction section of this exhibit for the credit recommendations. *Version 2:* In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0427

SSBN Navigation Data Assimilation
Computer Mk 2 Mod 4,
Stabilization Data Computer Mk
3 Mod 1

Course Number: A-193-017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (805 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train electronics technicians to operate and maintain type 11 periscope systems, Mk 3 Mod 1 stabilization data computer (SDC), and specific navigation data assimilation computers and control consoles.

Instruction: Lectures and practical exercises in the maintenance of specific periscope systems, stabilization data computers, navigation data assimilation computers and control consoles, including celestial navigation, hydraulic systems, periscope optical system, relay controlled sequencing, complex servomechanism theory, optical monitoring and error determination, general computer principles and programming, circuit analysis, various input and output theories and techniques, and fault isolation.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0428

AN/APQ-124A Radar Set
Intermediate Maintenance
(F-8 AN/APQ-124 Radar Intermediate Maintenance)

Course Number: C-102-3855.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 5-6 weeks (200-240 hours).
Exhibit Dates: 9/69-1/88.
Objectives: To train fleet maintenance personnel who have had previous training in electronics to maintain the AN/APQ-124A radar set.
Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-124A radar set, including review of basic electronics and circuit analysis and troubleshooting of components; power systems; transmitter; receiver; tracker system; display system; antenna system; and computer system.
Credit Recommendation: In the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0429

A-6A Track Radar and Module
Analyzer Test Console
Intermediate Maintenance
(A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance))

Course Number: C-150-31.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 10-12 weeks (400-480 hours).
Exhibit Dates: 2/68-1/88.
Objectives: To train maintenance personnel to maintain, troubleshoot, and repair modules of the AN/APQ-112 track radar, the AN/APM-225 module analyzer test bench, and the OA-3735/ASM-77 track radar test consoles.
Instruction: Lectures and laboratories in APQ-112 track radar, control and power circuits, receiving and video processing, servo amplifiers and antenna control, module analyzer test console (MATC) circuits, critical-signal generators, data processors, module maintenance, SACE module theory and maintenance, and gyro control and stabilization.
Credit Recommendation: In the upper-division baccalaureate category, credit in electronics and electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0430

F-4B AN/APQ-72 Radar Set
Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Miramar, CA.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train maintenance personnel who have knowledge of airborne missile control systems to maintain the AN/APQ-72 radar set at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-72 radar set, including circuit analysis of low-voltage power supply, transmitter, and electrical frequency control; operational analysis of the equipment; circuit analysis of the receiver; automatic gain control, range track, and relay functions; and troubleshooting of the synchronizer, antenna, and indicating systems control.
Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0431

A-6A AN/APQ-92 Search Radar and
Module Analyzer Test Bench
Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 13 weeks (520 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train maintenance personnel who have had previous training in basic electronics, transistor fundamentals, and subminiature repair to operate and maintain the AN/APQ-92 search radar and associated search radar and module analyzer test consoles.
Instruction: Lectures and practical exercises in the maintenance and operation of the AN/APQ-92 search radar and associated test consoles, including search radar displays, systems operation; analysis of the control, electrical synchronizer, video processor, azimuth/range/elevation indicator, azimuth/range indicator, and data processor unit; servo electronics unit; transmit circuit; antenna/receiver; terrain clearance processor; and module theory of operation.
Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0433

Clutter Suppressor and Automatic
Alarm for the AN/SPS-10

Course Number: A-104-0132.
Location: Naval Schools Command, San Francisco, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/72-1/88.
Objectives: To train electronics technicians who have had previous training or experience in AN/SPS-10 radars, transistor theory, integrated circuit theory, and circuit board repair to maintain the clutter suppressor and automatic alarm units and associated equipment of the AN/SPS-10 radar system.
Instruction: Lectures and practical exercises in the maintenance of the clutter suppressor and automatic alarm units of the AN/SPS-10 radar system and associated equipment, including basic operation, signal flow; functional, module and circuit analysis of the equipment; and functional troubleshooting.
Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0434

AN/APX-76A Air/Air IFF
Interrogator Set Intermediate
Maintenance

Course Number: C-102-3066.
Location: *All Versions:* Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC. *Version 1:* Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 3-4 weeks (120-144 hours).
Exhibit Dates: *Version 1:* 9/73-Present. *Version 2:* 8/70-8/73.
Objectives: To train fleet maintenance personnel who have backgrounds in IFF systems and digital fundamentals to operate and maintain the AN/APX-76A interrogator set at the intermediate level.
Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of the AN/APX-76A interrogator set, including block-diagram analysis of the transmit and receiver section and performance monitor, and analysis of various circuits. *Version 1:* Includes troubleshooting of various circuits such as transceivers/receivers video display and controls.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory (7/81). *Version 2:* In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0435

A-6A AN/APQ-112 Track Radar Test
Console and Detailed Radar
Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 11 weeks (440 hours).
Exhibit Dates: 1/70-1/88.
Objectives: To train maintenance personnel who have had previous training in basic electronics and transistor fundamentals to operate and maintain AN/APQ-112 track radars and associated test consoles.
Instruction: Lectures and practical exercises in the operation and maintenance of AN/APQ-112 track radars and associated test consoles, including block-diagram analysis, control and power circuits, receiving and video processing, servo amplifier, antenna control, test console analysis, and repair procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0436

Tartar Weapon Direction System
(WDS) Mk 4, Class C

Course Number: A-121-0029; A-121-0030.
Location: Guided Missile School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 14 weeks (420 hours).
Exhibit Dates: 1/68-8/73.
Objectives: To train fire control technicians to maintain the weapon direction system.
Instruction: Lectures and practical exercises in the maintenance of the weapon direction system, including an introduction to the Tartar weapon control system, power system, simulation, sweep generation, sweep deflection, display system, tracking and target evaluation, WDE MK 1 adjustments, designation data converting system, and weapon assignment system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0437

Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C

Course Number: A-121-0029; A-121-0030.
Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.
Length: 20 weeks (549 hours).
Exhibit Dates: 1/68-8/73.
Objectives: To train enlisted personnel to maintain the Mk 4 Mod 0 weapons direction system.
Instruction: Lectures and practical exercises in the maintenance of the Mk 4 Mod 0 weapons direction system, including equipment operation, target selection and tracking console CRT, director and weapon assignment display and switching circuits, power circuits, and ancillary equipment use.
Credit Recommendation: In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0438

S-2D/E AN/APS-88/88A Radar Set Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train enlisted personnel to maintain the APS-88/88A radar systems at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance of the APS-88/88A radar systems, including system operation, synchronizer (trigger generator, gate, sweep generator, and sweep amplifier), receiver-transmitter assembly (modulator transmitter, microwave assembly, and automatic frequency control), azimuth range indicator, power system, antenna reflector, azimuth drive system, vertical stabilization system, and practical maintenance.
Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0439

RA-5C Still Picture Camera Shop Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/68-1/88.
Objectives: To train maintenance personnel who have had previous training in electronic circuits and transistor fundamentals to operate and maintain the RA-5C still-picture, aerial reconnaissance camera system.
Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C still-picture, aerial reconnaissance camera system, including photographic control panels and associated circuits, IMC and shutter control assembly, various modules, still-picture camera mounts, operation and assembly of specific camera equipment, and flasher system components and operation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in physics, 4 in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in physics, 2 in electronics (3/74).

NV-1715-0440

SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician

Course Number: A-193-014.
Location: Guided Missiles School, Dam Neck, VA.
Length: 25 weeks (840 hours).
Exhibit Dates: 11/72-1/88.
Objectives: To train electronics technicians who have backgrounds in Polaris or fleet ballistic missile electronics to operate and maintain specific ship's inertial navigation systems, multispeed repeaters, sonar sounding sets, and interconnecting boxes.
Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 2 Mod 4 ship's inertial navigation system, the Mk 3 Mod 3 multispeed repeater, the AN/BQN-3 sonar sounding set, and the Mk 6 Mod 1 interconnecting box, including subsystem tie-in and associated test equipment operation, fleet ballistic missile weapons system operation, analysis of the sonar sounding set, and repair procedures.
Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics and electronics laboratory (4/74).

NV-1715-0441

AN/SRN-9A, Radio Navigation Set, Operation and Maintenance

Course Number: F-193-0072.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 5/71-1/88.
Objectives: To train submarine electronics technicians to operate the navigation satellite system and to operate and maintain the AN/SRN-9A radio navigation set.
Instruction: Lectures and practical exercises in the operation and maintenance of the navigation satellite system and the AN/SRN-9A radio navigation set, including specialized treatment of equipment and systems, modulation, logic circuits, test signal generator, symbolic integrated maintenance, receiver and message demodulator, digital processing unit, power supply, electrothermal teleprinter, and software.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0442

Terrier Weapons System Missile Fire Control System (MFCS) Mk 73

Course Number: Not available.
Location: Service Schools Command, Great Lakes, IL.
Length: 6 weeks (180 hours).
Exhibit Dates: 2/68-12/75.
Objectives: To train senior petty officers to supervise Terrier missile weapons system technical operations.
Instruction: Lectures and practical exercises in the operation of Terrier weapons systems, including system data flow, specific system description, target detection, selection, and tracking, director assignment, target designation and control system, acquisition and tracking using special equipment, circuit analysis of equipment components, and computation of missile and launcher orders using computers, signals and weapon assignment, and testing and maintenance procedures.
Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0443

Terrier Weapons System Mk 76 Mod 9 (Terrier Weapons System Missile Fire Control System (MFCS) Mk 76)

Course Number: A-121-0473.
Location: Naval Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.
Length: 10-11 weeks (300-440 hours).
Exhibit Dates: 2/68-Present.
Objectives: To train senior petty officers to supervise Terrier missile weapons systems technical operations.
Instruction: Lectures and practical exercises in the operation of Terrier missile weapons systems, including basic systems operation and equipment, target detection, missile selection and WDE tracking, FCS assignment and target tracking, and fire control problem computation using computers, missile firing and guidance, data reduction, and test and alignment procedures.
Credit Recommendation: Credit is not recommended because of the military specific nature of the course (11/83).

NV-1715-0444

Talos Weapons System Mk 77 Mod 2 (Class C)

Course Number: Not available.
Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.
Length: 10 weeks (300 hours).
Exhibit Dates: 2/68-12/78.
Objectives: To train fire control technicians to lead Talos missile weapons systems technical operations.
Instruction: Lectures and practical exercises in the operation of Talos missile weapons systems, including cruiser weapons systems, search radar sets, test equipment, target detection, identification, entry and tracking, evaluation, and acquisition; associated missile operation and servicing, weapon control and data system, the 3M system, and system testing and alignment procedures.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0445

AN/BRQ-1, AN/WYQ-1 Operator (AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1)

Course Number: A-233-0029.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 3 weeks (90-118 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train an individual to operate a surveillance receiver and digital display unit.

Instruction: Course trains the individual to operate three pieces of equipment (two receivers and a display unit) and includes basic theory, physical description, and function of all controls, indicators, displays, and interface connections.

Credit Recommendation: Credit is not recommended because of military-specific nature of the course (10/89).

NV-1715-0446

AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/67–1/88.

Objectives: To train enlisted personnel to maintain and operate the Sparrow III missile and associated test equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the Sparrow III and associated test equipment, including check-out procedures, test set analysis and components, calibration and testing, and troubleshooting and repair procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0447

Mardan Computer Theory and Maintenance I

Course Number: A-193-0285.

Location: Trident Training Facility, Bangor, Bremerton, WA; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine School, New London, CT; Naval Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (60–128 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide theory of operation of specific military equipment and to train in fault isolation and repair of the equipment.

Instruction: Lectures and laboratories in the theory of equipment operation, including power supply sequencing, relay logic, and alarm systems and in fault isolation and repair of the equipment to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems troubleshooting and maintenance (10/89).

NV-1715-0448

Mardan Computer Theory and Maintenance II

Course Number: A-193-0289.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Trident Training Facility, Bangor, WA; Naval Submarine School, New London, CT; Naval Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 1–2 weeks (60–64 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide theory of operation of specific equipment and to train to perform fault isolation and repairs on the equipment.

Instruction: Lectures and laboratories on monitoring circuits, relay logic synchro loops, digital motor-control closed loops; the use of diagnostics to determine fault isolation and to make repairs on specific equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical repair (10/89).

NV-1715-0449

AN/BRD-7 Radio Direction Finder Set Combined Operator/Maintenance
(AN/BRD-7 Combined Maintenance, Class C1)

Course Number: A-102-0127.

Location: Submarine School, Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train the technician to operate and maintain a digitally controlled communication receiver that automatically processes the received information.

Instruction: This course covers a multiband receiver system that digitizes the input signal information and processes this data to optimize the antenna configuration and directional finder receivers to determine bearing information. This information is recorded in a digital memory system and on a mechanical printer. Subsystems studied include power supplies; operational amplifiers; passive filters; audio, video, and logrithmic amplifiers; several superheterodyne receivers in the low-to-high-communication bands; limiters; logic controlled amplifiers; random access memory units; comparitor circuitry; and TTL and ECL logic subsystems. The student covers the physical description of the equipment, all operating modes, block-diagram description of the signal flow, and data control information; schematic diagrams of each circuit board identifying test points and correct signal levels; preventive maintenance; troubleshooting to isolate fault to the IC board and in most cases to the actual component, using 4-trace oscilloscopes, AM-FM signal generators, frequency counters, spectrum analyzer, time domain reflectometer, digital voltmeters, differential voltmeters, and special test equipment for this system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronic engineering technology (9/77).

NV-1715-0450

A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance

Course Number: C-102-3794.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 3 weeks (104 hours). *Version 2:* 6 weeks (224 hours).

Exhibit Dates: *Version 1:* 6/74–Present. *Version 2:* 10/72–5/74.

Objectives: To train fleet maintenance personnel to troubleshoot and perform operational checks on the A-7A/B aircraft weapons system.

Instruction: Lectures and practical exercises in troubleshooting and operational checks on the A-7A/B aircraft weapons system including ordnance familiarization, associated equipment and weaponry, integrated flight instruments system components and circuitry, gyroscopic principles, air data equipment, delivery and release systems, weapons release computer, and associated radar set components and operation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/82).

NV-1715-0451

A-6 Electronic Module Test Console Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train enlisted personnel who have backgrounds in avionics and transistor fundamentals to operate and maintain the AN/ASM-175 (XN-1) electronic module test console.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASM-175 (XN-1) electronic module test console, including transistor theory, AC and DC power distribution, logic circuits, test equipment, oscilloscope, and programming and testing of various components and modules.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0452

A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance

Course Number: C-102-3724.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train fleet maintenance personnel to maintain the communications, navigation, identification, and weapons systems of the A-4E Douglas Skyhawk aircraft.

Instruction: Lectures and practical exercises in flight-line maintenance of the A-4E Douglas Skyhawk aircraft communications, navigation, identification, and weapons systems, including system analysis, transmitters, radar fundamentals, digital computer principles, specific UHF equipment, Shrike improved display system, and system operation and analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0453

RA-5C Flight Control Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train maintenance personnel with knowledge of basic hydraulics and electricity to operate and maintain flight control systems at an intermediate level.

Instruction: Lectures and practical exercises in the maintenance of flight control systems, including directional, lateral, latitudinal, and flight control system components and operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0454

RA-5C Air Data and Flight Reference Systems Organizational Maintenance
(RA-5C Air Data and Flight Reference Systems)

Course Number: C-602-3749.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 4/68-3/73.

Objectives: To train maintenance personnel to maintain and service air data and flight reference systems.

Instruction: Lectures and practical exercises in RA-5C air data and flight reference systems operation and maintenance procedures, circuit analysis, troubleshooting, and utilization of test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0455

RA-5C Flight Control System Organizational Maintenance

Course Number: C-602-3744.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 3/69-1/88.

Objectives: To train maintenance personnel to operate and maintain the RA-5C flight control system.

Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C flight control system, including hydraulic systems, primary and secondary airflow systems, and directional control, lateral control, longitudinal control, and automatic flight control systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0456

Fleet Ballistic Missile (FBM) Navigation Officer

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (630 hours).

Exhibit Dates: 3/65-12/68.

Objectives: To train officers as fleet ballistic missile navigation officers.

Instruction: Lectures and practical exercises in the functions of fleet ballistic missile navigation officers, including inertial navigation, transmission systems, electronics and transistors, computers, ship's inertial navigation system and hardware description, marine differential analyzer computer, system calibration techniques, navigational aids, administrative aspects of the F.B.M. program and Navsubsystem operational laboratory.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in data processing (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74); in the upper-division baccalaureate category, 2 semester hours in data processing (4/74).

NV-1715-0457

F-4B Shoehorn Organizational Maintenance

Course Number: C-102-3809.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To provide fleet maintenance personnel with training on Shoehorn systems, including equipment, location, installation and removal, power distribution, interface, and use of line-test equipment.

Instruction: Lectures and laboratories in Shoehorn systems, components, locations, and maintenance procedures; preflight, postflight, and periodic inspections; and system line maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0458

A-6A Shoehorn Organizational Maintenance

Course Number: C-102-3761.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69-1/88.

Objectives: To train fleet organizational maintenance personnel to maintain A-6A/E Shoehorn electronic countermeasures systems.

Instruction: Lectures and laboratories in A-6 electronic countermeasures systems operation, interface, and RF-cable and system line maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0459

E-2A Weapon System Specialist
(E-2A Weapon System Special, No. 5)

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 8-10 weeks (320-400 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train avionics technicians to maintain complete E-2A avionics systems and to use line-test equipment.

Instruction: Lectures and laboratories in introduction to E-2A aircraft, ground equipment, in-flight performance monitor test sets, airborne tactical data systems, and allied electronics.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0460

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel who have had previous training in transistor fundamentals to operate and maintain automatic flight control systems and air data computers.

Instruction: Lectures and practical exercises in automatic flight control system operation, calibration, and maintenance; air data computer operation and maintenance; servo systems; utilization of test equipment; and maximum rudder and pitch feel system operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0461

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance

Course Number: C-602-3492.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 9/69-1/88. *Version 2:* 3/68-8/69.

Objectives: To train enlisted personnel who have backgrounds in transistors to operate and maintain automatic flight control systems and air data computers.

Instruction: Lectures and practical exercises in the operation, circuitry, and maintenance of automatic flight control systems and air data computers; utilization of trainer panels and associated test equipment; maximum rudder and pitch feel systems; and servo systems and amplifiers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (6/75). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0462

P-3 PB-20N Autopilot System Intermediate Maintenance

Course Number: C-602-3532.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 8/81-Present. *Version 2:* 3/71-7/81.

Objectives: To provide electrical maintenance personnel with training in intermediate-level maintenance, circuit analysis, operation, and test procedures for a specific flight control system.

Instruction: *Version 1:* Lectures and practical exercises providing the student with sufficient knowledge/theory to operate and troubleshoot an automatic flight control system including power supplies, amplifiers, bench testing and troubleshooting techniques. *Version 2:* Lectures and practical exercises in theory of operation of autopilot systems, power supplies, amplifiers, test equipment, bench testing, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in avionics laboratory (7/81). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0463

P-3 AN/ASA-16 DISPLAY SYSTEM INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/70–1/88.

Objectives: To train enlisted personnel to maintain and align ASA-16 display groups at the intermediate-maintenance level.

Instruction: Lectures and practical exercises in display system operation and maintenance, amplifiers, servo systems, and basic digital computers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0464

UH-2A/B AUTOMATIC STABILIZATION EQUIPMENT ORGANIZATIONAL MAINTENANCE
(UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance)
(UH-2A/B Automatic Stabilization Equipment Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3-5 weeks (112-200 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to operate, service, and maintain the UH-2A/B's automatic stabilization equipment.

Instruction: Lectures and practical exercises in automatic stabilization equipment familiarization, troubleshooting procedures, and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0465

RF-4B AN/ASN-46/74 NAVIGATION COMPUTER AND INERTIAL NAVIGATION SYSTEM INTERMEDIATE MAINTENANCE
(RF-4B Inertial Navigation System Intermediate Maintenance)

Course Number: C-102-3839.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6-9 weeks (240-360 hours).

Exhibit Dates: 1/71–1/88.

Objectives: To train maintenance personnel to test and repair AN/ASN-46A and AN/ASN-74 inertial navigation system components.

Instruction: Lectures and practical exercises in inertial navigation system circuit analysis, troubleshooting, and component repair, and utilization of applicable test equipment, publications, and procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0466

TARTAR WEAPONS CONTROL SYSTEM

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 2/68–12/83.

Objectives: To train officers, warrant officers, and enlisted personnel to operate, maintain, test, adjust, align, and preserve Tartar weapon systems.

Instruction: Lectures and practical exercises in Tartar weapon control systems, missile, and launcher, data flow block diagrams, missile fire control systems, weapon direction equipment, and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0467

TERRIER/TARTAR GUIDED MISSILE AND GUIDED MISSILE TEST SET MAINTENANCE

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 23 weeks (690 hours).

Exhibit Dates: 2/68–12/78.

Objectives: To train enlisted personnel to test and maintain Terrier and Tartar guided missiles, and to operate and maintain Terrier and Tartar guided missile test sets and associated test equipment.

Instruction: Lectures and laboratories in physical description and capabilities of Terrier and Tartar missile control systems, guidance radar, signal comparators, guided missile test sets, and radar test sets; casualty analysis and repair; and operation and maintenance of ground stations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0468

RF-4B AN/ASN-55 ATTITUDE HEADING REFERENCE SYSTEM MAINTENANCE

Course Number: C-102-3834.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train maintenance personnel to maintain and service AN/ASN-55 back-up and attitude reference systems.

Instruction: Lectures and laboratories in theory of operation and maintenance procedures for attitude-heading reference systems.

Credit Recommendation. Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0469

ELECTRONIC SURVEILLANCE MEASURES (ESM) AN/WLR-8(V)2 COMBINED OPERATOR MAINTENANCE

Course Number: A-233-0040.

Location: Submarine School, Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 10–12 weeks (304–420 hours).

Exhibit Dates: *Version 1:* 6/77–Present. *Version 2:* 12/76–5/77.

Objectives: To train technicians with a basic computer background in the theory of operation and actual maintenance of a complex multichannel digital controlled receiver and digital data processor computer system.

Instruction: *All Versions:* Course includes analog-to-digital and digital-to-analog conversion, multiplexing, demultiplexing, ALU units, RF digital tuner control circuits, and displays. The student learns to perform fault isolation, alignment, adjustment, and calibration and to make repairs at the component level. *Version 1:* Includes diagnostic and maintenance procedures for small computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in digital computer maintenance and repair practices and laboratory, 1 in electronics maintenance and repair laboratory (3/81); in the upper-division baccalaureate category, 1 semester hour in computer organization (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics or computer technology (9/77).

NV-1715-0470

MISSILE TECHNICIAN POSEIDON LOGISTICS

Course Number: A-121-0140.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (836 hours).

Exhibit Dates: 10/72–7/78.

Objectives: To train enlisted personnel to perform as missile technicians on board Poseidon FBM submarine tenders.

Instruction: Lectures and laboratories in Poseidon missiles, missile guidance, missile test and readiness equipment, guidance system test sets, associated test equipment, basic electronics, digital techniques, and operational amplifiers.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74).

NV-1715-0471

E-2A AN/ASM-33A IN-FLIGHT PERFORMANCE MONITOR MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67–1/88.

Objectives: To train enlisted personnel to maintain the E-2A AN/ASM-33A In-Flight

Performance Monitor at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the E-2A inflight performance monitor AN/ASM-33A, including component analysis, oscilloscope components and operation, multimeter usage and associated circuits and power supply, and analysis of associated equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0472

S-2D/E MH-67 Auto Pilot System Maintenance, No. 7

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train maintenance personnel to maintain the MH-67 A.F.C.S. autopilot system.

Instruction: Lectures and practical exercises in the maintenance of the MH-67 A.F.C.S. autopilot system, including basic gyroscopes, transistors, amplifiers and flight principles; equipment components and circuitry; synchronization and stabilization; and testing and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0473

Terrier Weapon Direction System Mk 7 (WDE Mk 8)

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68-12/78.

Objectives: To train enlisted personnel to inspect and maintain the Mk 7 weapons direction system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 7 weapons direction system, including Terrier weapons system theory and fundamentals, power supplies, radar fundamentals, simulation, sweep generation, video systems, target selection and assignment, symbol systems, data conversion, weapons systems differences, and associated test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0474

A-6 Avionics Systems Organizational Level Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 8-9 weeks (320-360 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train avionics maintenance personnel to maintain and service the A-6 aircraft's avionics systems.

Instruction: Lectures and practical exercises in aircraft familiarization, search radar, track radar, inertial navigation systems, digital fundamentals, computer familiarization, computer line maintenance, system operation and troubleshooting, and organizational test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0475

A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7-8 weeks (280-320 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel to maintain inertial navigation systems and to service inertial navigation test consoles.

Instruction: Lectures and practical exercises in basic physics, analog and digital signal flows, power supplies and distribution, inertial test equipment, and system operation and maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, 4 in physics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 2 in physics (4/74).

NV-1715-0476

A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel to test and maintain the AN/ASN-31 inertial navigation system of the A-6 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the AN/ASN-31 inertial navigation system of the A-6 aircraft, including general aircraft systems, theory and components of inertial navigation systems, air navigation, gyroscopes, accelerometers, analog computers, velocity information, test equipment, and line maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0477

P-3 ASA-16 System Maintenance, No. 50

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train maintenance personnel who have completed courses in transistor fundamentals and P-3 aircraft familiarization to maintain the ASA-16 display group of the P-3 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the ASA-16 display group of the P-3 aircraft, including block-diagram analysis, components, circuit analysis, servomechanisms, radar set adapter, electronic gate generator, various subassemblies, range and bearing functions, power distribution, alignment procedures, and basic computer elements of the system.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0478

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train enlisted personnel who have background in avionics, automatic flight control systems, and air data computers to operate and maintain the programming test console and check-out equipment of the E-2A aircraft's automatic flight control system.

Instruction: Lectures and practical exercises in the operation and maintenance of the programming test console and check-out equipment of the E-2A aircraft's automatic flight control system, including operation of various adapters; power supplies; amplifiers; block-diagram and component analysis; and associated test sets.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0479

RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train electronics maintenance personnel to operate and maintain the AN/APN-120 electronic altimeter and associated semiautomatic test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APN electronic altimeter and associated semiautomatic test equipment, including transmitters and receivers, amplifiers, radar fundamentals, power supplies, FM and AM review, low- and high-altitude systems components and circuit analysis, and test equipment function and components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0480

Basic Electronics Orientation

Course Number: D-100-015.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA; Fleet Airborne Electronic Training Unit Detachment, Jacksonville, FL.

Length: 6 weeks (180 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train maintenance personnel in basic electronics.

Instruction: Lectures in AC and DC circuit theory; mathematics review; physics of atomic structure; vacuum tube and transistor theory; and special test equipment usage, including meters, signal generators, and oscilloscopes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68).

NV-1715-0481

1. BASIC AIRBORNE RADIO COMMUNICATIONS OPERATOR
2. AIRBORNE RADIO COMMUNICATIONS OPERATOR (ARCO)

Course Number: *Version 1:* D-201-0010. *Version 2:* D-201-010.

Location: Fleet Airborne Electronics Training Unit, Jacksonville, FL; Fleet Airborne Electronics Training Unit, Brunswick, ME.

Length: *Version 1:* 5 weeks (175 hours). *Version 2:* 12 weeks (320 hours).

Exhibit Dates: *Version 1:* 1/70-1/88. *Version 2:* 1/66-12/69.

Objectives: To train enlisted personnel to be airborne radio communications operators.

Instruction: Lectures and laboratories in international Morse code, communications publications, naval communications procedures, electronic equipment safety precautions, naval patrol aircraft power supply and communications systems operation and in-flight maintenance procedures, and teletypewriter and radiotelephone operating procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radio operation or two-way communications (6/75). *Version 2:* In the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0482

AN/SPN-10 OPERATOR

Course Number: D-2G-010; D-222-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA; Naval Air Station, Patuxent River, MD.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train enlisted personnel to operate automatic carrier landing system equipment.

Instruction: Lectures and practical exercises in AN/SPN-10 automatic, carrier landing system equipment operational capabilities and limitations, aircraft equipment requirements, subsystems and associated support equipment introduction, preoperative procedures and subsystem checks, operator maintenance, emergency procedures and safety precautions, and operational training on the AN/MPN-T1 console and subsystems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0483

AN/APN-122 MAINTENANCE TRAINING
(AN/APN-122 Doppler Navigation System Maintenance)

Course Number: D-102-014.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/63-12/68.

Objectives: To train maintenance personnel to conduct preventive and corrective maintenance on AN/APN-122 Doppler radar navigation equipment.

Instruction: Lectures in AN/APN-122 Doppler radar navigational equipment, including theory of operation; block diagram and circuit analysis; troubleshooting and maintenance techniques; test equipment usage; pre-amp, signal data converter, and ground speed computer alignment; and trouble analysis, isolation and repair.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0484

AN/APS-20E MAINTENANCE TRAINING
(AN/APS-20E Radar System Maintenance)

Course Number: D-102-015.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 6 weeks (180 hours).

Exhibit Dates: 11/63-12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/APS-20E radar.

Instruction: Lectures on AN/APS-20E radar, including theory of operation, system description, low-voltage power supply, synchronizer, modulator, transmitter, duplexer, radar receiver, antenna, and operator indicators; and practical applications, including equipment operation, alignment, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0485

AN/APS-38B MAINTENANCE TRAINING
(AN/APS-38B Radar System Maintenance)

Course Number: D-102-016.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/63-12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/APS-38B radar.

Instruction: Lectures and practical exercises in AN/APS-38B radar system operation, including description and function of equipment, circuit analysis, and operating procedures and techniques; and practical applications, including equipment operation, alignment, component location, associated test equipment usage, and trouble location.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0486

AN/ARC-38A MAINTENANCE TRAINING
(AN/ARC-38A SSB Transceiver Maintenance)

Course Number: D-102-021.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/64-12/68.

Objectives: To train electronics maintenance personnel to maintain AN/ARC-38A radio navigation equipment.

Instruction: Lectures and practical exercises in AN/ARC-38A radio navigation equipment operation, including receiver-transmitter, antenna coupler, teletype, and signal data converter; and practical applications, including equipment operation, component location, test equipment usage, alignment procedures, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0487

AN/ARN-21D TACAN NAVIGATION SET MAINTENANCE
(AN/ARN-21D Maintenance Training)
(AN/ARN-21D TACAN Receiver Maintenance)

Course Number: D-102-024.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train maintenance personnel to operate, adjust, and troubleshoot AN/ARN-21D navigational radio equipment.

Instruction: Lectures and practical experience in AN/ARN-21D navigational radio equipment operation, basic electronics and circuit theory, component failure, system analysis, and system adjustment and alignment procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0488

AN/ASA-16 DATA DISPLAY GROUP MAINTENANCE TRAINING

Course Number: D-102-026.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/64-12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/ASA-16 data display group.

Instruction: Lectures and practical exercises in AN/ASA-16 data display group theory of operation, including block-diagram and circuit analysis; equipment operation, calibration, and component location; special test equipment usage; and trouble location.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0489

AN/ARC-94 SINGLE SIDE BAND TRANSCEIVER MAINTENANCE

Course Number: D-102-030.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/ARC-94 system.

Instruction: Lectures in AN/ARC-94 operation, associated test equipment usage, and alignment and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0490

Alternating Current Power Systems

Course Number: D-602-011.

Location: Fleet Airborne Electronics Training Unit Detachment, Jacksonville, FL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train aviation electricians to maintain, analyze, and isolate malfunctions in aircraft electrical systems.

Instruction: Lectures and practical exercises in alternating current theory, power systems, components, electron and magnetic principles review, DC current theory review, various types of reactance, transformers, and description, components, and troubleshooting procedures for brush, brushless, and emergency generator systems.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0491

AN/BPS-15 Radar Combined Maintenance

Course Number: A-102-0199.

Location: Submarine Training Facility, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School Groton, New London, CT.

Length: 3-4 weeks (90-120 hours).

Exhibit Dates: *Version 1:* 1/77-Present. *Version 2:* 3/72-12/76.

Objectives: To provide instruction on the operation and maintenance of an installed submarine radar system.

Instruction: *Version 1:* Lectures and laboratory exercises in the operation of a radar system including the antenna hydraulic system, radar receiver and the signal display unit from a block diagram and signal flow approach. Preventive and corrective maintenance, alignment adjustments and calibration procedures are covered as well as test procedures for microwave cubes and their replacement. *Version 2:* Course includes lecture on basic radar theory, including AC/DC power distribution, transmitter/receiver theory, video and control circuits. Course also covers troubleshooting and performance checking. Student learns principles of radar, technical theory of operation, routine preventive and corrective maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technology (9/77).

NV-1715-0492

Satellite Receiver AN/SRN-9A Combined Maintenance

(Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1)

Course Number: A-102-0168.

Location: Submarine School Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60-80 hours).

Exhibit Dates: 12/70-11/84.

Objectives: To provide the necessary theory and skills to operate and maintain a navigation satellite receiver.

Instruction: For this course after 11/84 see NV-1715-1476. This is a block-diagram-level course emphasizing physical, functional, and interface description as well as the basic maintenance of a radio receiver. Course provides introduction to digital mathematics and digital circuits, and basic operation of integrated circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (3/81).

NV-1715-0493

AN/APN-171(V) Radar Altimeter (Low Level) and AN/APQ-107 Radar Altimeter Warning Set Intermediate Maintenance

(AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance)

Course Number: C-102-3050.

Location: Air Maintenance Training Detachment, North Island, San Diego, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (96-104 hours).

Exhibit Dates: *Version 1:* 7/73-Present. *Version 2:* 3/71-6/73.

Objectives: To train maintenance personnel to operate and maintain the AN/APN-171(V) radar altimeter system.

Instruction: *Version 1:* Upon completion of the course, the student will be able to operate, test, maintain and troubleshoot an aircraft radar altimeter and altimeter warning system to the circuit board level; the student uses a differential voltmeter, power meter, standing wave indicator, RF signal generator and phase angle meter. *Version 2:* Lectures and practical exercises in the maintenance and operation of the AN/APN-171(V) radar altimeter system, including block-diagram analysis; transmitter, receiver, and range detection; output circuits; and testing and alignment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic instrumentation and 1 in electronics troubleshooting laboratory (4/85). *Version 2:* In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0494

Electronic Surveillance Measures (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance

(AN/WYQ-1 and AN/BRQ-1 Combined Maintenance Class C-1)

Course Number: A-102-0128.

Location: Submarine School, Groton, New London, CT; Submarine Training Center Pacific Pearl Harbor, HI.

Length: 5 weeks (150 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To teach the maintenance of a digital display unit and a specialized surveillance receiver.

Instruction: Course covers the maintenance of a data display unit and a surveillance receiver. This equipment is made with transistors and IC logic boards. The course includes physical and functional characteristics and the operation, alignment, adjustment, calibration, preventive maintenance, and troubleshooting to isolate faults to the IC board and component level and to make repairs. Subsystems maintained are control display unit, printer recorder, magnetic tape transport, digital processor, power supply, superheterodyne receiver, timing module, and interfacing module.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics technology (9/77).

NV-1715-0495

Tradevman R (Repairman) Class A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: 17 weeks (680 hours).

Exhibit Dates: 6/56-7/65.

Objectives: To train enlisted personnel to install, operate, maintain and repair training devices used in gunnery, aviation, and electronics instruction.

Instruction: Lectures and practical exercises in training devices operation, maintenance, and repair, including AC fundamentals, resonance circuits, vacuum tubes, audio amplifiers, rectifiers, regulators, radio receiver theory, time constants, pulse and wave-shaping circuits, audio transducers, optical and electromechanical devices, synchros fundamentals, servomechanisms, vacuum and mechanical systems (Link trainer 1-CA-1), and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0496

Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1

Course Number: A-623-0048.

Location: Submarine School, Groton, New London, CT; Fleet Ballistic Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90-99 hours).

Exhibit Dates: *Version 1:* 5/85-Present. *Version 2:* 9/77-4/85.

Objectives: To provide theory and skills necessary to perform normal/casualty operational tasks and preventative/corrective maintenance on an atmosphere analyzer.

Instruction: Course is largely descriptive, involving operation and maintenance of the above-mentioned equipment. Includes readout module, diagnostic module, coanalyzer module, MS analyzer model, low voltage power supply module, ion pump power supply module, and an AC control module.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in environmental laboratory techniques (11/85). *Version 2:* Credit is not recommended because of the limited, specialized nature of the course (6/81).

NV-1715-0497

1. Tradevman, Class A
2. Tradevman, Class A
3. Tradevman School, Class A
4. Class A Tradevman School

Course Number: C-191-2010; C-191-10.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 4-6 weeks (165 hours). *Version 2:* 6 weeks (274 hours). *Version 3:* 7 weeks (312 hours). *Version 4:* 20 weeks (800 hours).

Exhibit Dates: *Version 1:* 10/75-3/84. *Version 2:* 6/72-9/75. *Version 3:* 8/65-5/72. *Version 4:* 1/55-7/65.

Objectives: To train enlisted personnel to install, operate, maintain, and repair training devices used in gunnery, aviation, and electronics instruction.

Instruction: *All Versions:* Lectures and practical exercises in training devices fundamentals, including applied physics introduction, analog computer basics, flight theory and performance introduction, basic jet instrument training, basic navigation principles, radio aids to navigation, and flight simulator maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in test equipment familiarization, vacuum tube amplifiers and power supplies and an introduction to synchos and servos (2/81). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68).

NV-1715-0498

E-1B Electronic Systems Organizational Maintenance
(E-1B Integrated Electrical System Organizational Maintenance)

Course Number: C-600-3457; C-602-3457.

Location: Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train fleet maintenance personnel to maintain and operate the E-1B radar, communication, and navigation electronic systems.

Instruction: Lectures and practical exercises in the maintenance and operation of the E-1B radar, communication, and navigation electronic systems, including theory of radar principles; block-diagram analysis of transmitters, RF circuits, and computer and control circuits; radar system associated equipment; and IFF systems operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar or HF circuits (4/74).

NV-1715-0499

F-4J Data Link System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/70-1/88.

Objectives: To train maintenance personnel who have completed courses in transistor and digital fundamentals to maintain and operate the F-4J data link system.

Instruction: Lectures and practical exercises in the operation and maintenance of the F-4J data link system, including review of digital mathematics, logic circuits and functions; system evaluation by functional block description; descriptive theory of system components; message generator and display; discrete indicators; and radar indicator.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0500

AN/WLR-6(V)4 Tactical Operator
(Electronic Surveillance Measures (ESM) AN/WLR-6 Basic Operator)

Course Number: A-233-0042.

Location: Submarine School, Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To present the tasks required for four of the five operator positions required to handle a complex submarine surveillance receiver.

Instruction: Course offers general physical description, equipment interface, basic theory, and function of a complex receiver systems and signal processor. Major emphasis is on learning to operate this equipment at four of the five operator positions of this equipment. These tasks include knowing the function of all controls and connector terminals; the RF receivers; audio, video, and auxiliary equipment and correct patch plug interconnections.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0501

Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance

Course Number: A-233-0041.

Location: Submarine School Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: *Version 1:* 16-21 weeks (480-800 hours). *Version 2:* 16 weeks (480 hours).

Exhibit Dates: *Version 1:* 10/76-Present. *Version 2:* 9/69-9/76.

Objectives: Course is designed to train technicians to operate and maintain a complex manually operated multichannel signal reception and processor radio receiver that can handle any type of transmitted signal.

Instruction: *All Versions:* Through lectures and laboratories, the student learns the functional description, block-diagram signal flow and operating modes of the ESM system. Subjects covered are a multiple antenna system and its coupling and antenna switching circuits, a VHF panoramic manual receiver and its subsystems, basic digital concepts using resistor diode logic and transistor flip-flops, knowledge and application of db and noise figure, video and audio amplifiers, video and audio tape recorders, video and audio distribution panels, power supplies, power distribution system, characteristics and operation of traveling wave tubes and klystrons, UHF preamplifiers, relay switching circuits, signal spectrum display unit, FM multiplexers and demultiplexers. Student learns to calibrate, align, adjust, and do performance tests on all this equipment. *Version 1:* Includes basic digital concepts including number systems, codes and flip-flop operation using discrete logic circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronics (3/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in general technical elective for non-electronic technology students, 2 in electronic maintenance and repair laboratory (3/81). *Version 2:* In the vocational certificate category, 10 semester hours in electronics (9/77).

NV-1715-0502

AN/BQH-5(V) Series Combined Maintenance
(Data Gathering Set AN/BQH-5(V)2 Basic Maintenance)

Course Number: A-130-0176.

Location: Submarine School Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2-3 weeks (60-84 hours).

Exhibit Dates: 8/75-Present.

Objectives: Course provide system-level approach to maintenance of data-gathering equipment.

Instruction: Course includes familiarization with the FR 1300 tape recorder and console as well as other highly specialized pieces of equipment. Most of the course is laboratory oriented.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (10/89).

NV-1715-0503

Sonar Classification Set AN/BQH-2D/E Combined Maintenance

Course Number: A-130-0161.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/74-11/85.

Objectives: To provide the necessary theory and skills required to operate and maintain a sonar classification set.

Instruction: Course offers basic training of a highly specialized nature. Course presents field effect transistors, integrated circuits, and logic circuits; also teaches specifics of this equipment and includes operation of DC power supplies, a signal data recorder, a hydrophone amplifier, and a spectrum analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technician (9/77).

NV-1715-0504

AVIATION ELECTRONICS INTELLIGENCE, CLASS O/C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 12/65–12/68.

Objectives: To train flight officers and enlisted personnel qualified as aircrewmen to operate electronics countermeasures and electronic counter-countermeasures systems.

Instruction: Lectures and practical exercises in the operational functions associated with electronic countermeasures and electronic counter-countermeasures and associated systems, including general electronic warfare information, ECM equipment, radar processing procedures, in-flight training, basic receiver and oscilloscope principles, and operation of associated equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0505

EKA-3B AN/ASN-66B NAVIGATIONAL COMPUTER SET INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/68–1/88.

Objectives: To train maintenance personnel to operate and maintain the AN/ASN-66B navigational computer set.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASN-66B navigational computer set, including introduction to dead-reckoning navigation; operational analysis; autosyn theory; great-circle solutions using spherical trigonometry; introductory solid-state circuitry; amplifiers; logic and compensation circuits; air speed analysis; synchro theory; use of multimeters, phase angle voltmeter, oscilloscope, and digital voltmeter; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in physics and electrical laboratory (4/74); in the upper-division baccalaureate category, credit in physics and electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0507

AN/APN-153(V) DOPPLER RADAR NAVIGATION SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3041.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Quonset Point, RI.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 8/69–Present.

Objectives: To train fleet maintenance personnel who have backgrounds in electronics and digital fundamentals to maintain the AN/APN-153(V) Doppler radar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/APN-153(V) Doppler radar system, including circuit analysis of microwave transmitters, logic systems, modulator assemblies, high-voltage power supplies, automatic frequency control assembly, antenna indicators; use of oscilloscopes, frequency counters, VTVM, sweep generator, audio oscillator, and RF signal generator; and repair techniques for system subassemblies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in microwave circuits and electronic technology (7/80).

NV-1715-0508

E-2B OA-8206/ASA-27A DIFFERENCE ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3–4 weeks (120–176 hours).

Exhibit Dates: 9/70–1/88.

Objectives: To train E-2A weapons system specialists to operate and maintain OA-8206/ASA-27A computers.

Instruction: Lectures and practical exercises in general-purpose computers, system elements, power distribution, processor and input/output operations, timing circuits, control units, displays, navigation interfaces, maintenance procedures, magnetic tape handling procedures, logic circuits and mechanization.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1715-0509

INACTIVE DUTY RESERVE COMBAT INFORMATION CENTER (CIC) CLASS—BASIC, SUPERVISORY AND OFFICER TEAM TRAINING

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (112 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train reserve personnel to operate shipboard combat information centers.

Instruction: Lectures and practical exercises in the operation of shipboard combat information centers, including introductory electronics, electronic warfare, search and rescue, communications, ASW operations, surface tactics, anti-air warfare, relative and geographic plots, and naval combat operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0510

ELECTRONICS TECHNICIAN AN/SPA-25 INDICATOR GROUP CLASS C MAINTENANCE

Course Number: A-104-014; A-104-015.

Location: Electronics Technician, Class C School, San Diego, CA; Electronics Technician, Class C School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train enlisted personnel to operate and maintain the AN/SPA-25 indicator group and to use associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPA-25 indicator group and the use of associated test equipment, including location and identification of units, assemblies, and subassemblies; timing system, sweep circuit, servo system, gear train, power supply, and intensity modulator circuit analyses; and planned maintenance and maintenance data collection systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical maintenance laboratory on the basis of institutional evaluation (4/74).

NV-1715-0511

AN/APX-7 RADAR RECOGNITION SYSTEM INTERMEDIATE MAINTENANCE
(P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance)

Course Number: C-102-3538.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/70–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/APX-7 radar recognition system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APX-7 radar recognition system, including functional block diagrams, circuit analysis, transmitting system, subassemblies, video systems power monitor and supplies, set control, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/81).

NV-1715-0512

1. TARTAR RADAR AN/SPG-51C DIGITAL
2. TARTAR RADAR SET AN/SPG-51C AND DIRECTOR MK 73 MOD 1

Course Number: A-104-0136; A-104-0119.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 23–25 weeks (800–920 hours). *Version 2:* 26 weeks (763 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 1/70–12/79.

Objectives: To train fire control technicians to operate and maintain the AN/SPG-51C radar set and associated equipment.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance and operation of the AN/SPG-51C radar set, including use of specialized test equipment, AC and DC power supplies, digital theory, block diagrams of track radar components, various circuits, data flow, missile guidance, signal comparator, and alignment, calibration, troubleshooting, and repair techniques. *Version 1:* The course is heavily weighted toward troubleshooting and repair techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic troubleshooting techniques (6/89). *Version 2:* In the vocational certificate category, 6 semester hours in basic electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory

(4/74); in the upper-division baccalaureate category, 1 semester hour in basic electrical laboratory (4/74).

NV-1715-0513

AN/APQ-126(V) Radar Set Special Support Equipment Intermediate Maintenance

(AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance)

Course Number: C-102-3797.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: *Version 1:* 6/78–Present. *Version 2:* 4/73–5/78.

Objectives: To train radar maintenance personnel to operate and maintain the AN/APQ-126 radar set special support equipment at the intermediate level.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of the AN/APQ-126 radar set special support equipment, including introduction to, and circuit analysis of, the interconnecting power supply; control indicator; relay; assembly and adapter boxes; circuit analysis of various generators; circuit analysis of module, antenna/receiver, and antenna boresight test sets; and alignment, troubleshooting, and check-out procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic maintenance theory and 2 in electronics maintenance laboratory (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in electronic test equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic test equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0514

A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance

Course Number: C-102-3773.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To train maintenance personnel who have backgrounds in general electronics and maintenance of specific search radar systems to maintain and repair the AN/APQ-92 search radar antenna/receiver and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-92 search radar antenna/receiver and associated equipment, including use of block diagrams and signal tracing in system fault diagnosis and correction, function and analysis of terrain clearance, microwave and radiating, search receiving, and AFC and local oscillator groups; test set operation and components, and search receiver check-out and repair.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0515

AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/68–1/88.

Objectives: To train maintenance personnel to maintain and repair the AN/ASQ-17B integrated electronics central.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/ASQ-17B integrated electronics central, including operation of IFF systems, transmitter and receiver operation, power supply and distribution, automatic radio direction finder, associated coders, and troubleshooting and adjustment procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, and additional credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0516

AN/APS-115(B) Search Radar System Intermediate Maintenance

(AN/APS-115 Search Radar System Intermediate Maintenance)

Course Number: C-100-3571.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 12/76–Present. *Version 2:* 2/73–11/76.

Objectives: To train fleet maintenance personnel to operate and maintain the AN/APS-115 radar system.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of the AN/APS-115 radar system, including introduction to related integrated circuits and logic devices; block-diagram analysis; components; detailed operation of control boxes, antenna, and receiver-transmitter; and alignment and trouble isolation procedures. *Version 1:* Includes repair of the AN/APS-115(B) radar system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic radar theory and operation (7/81). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0517

VS AW Sensor Operator S-2G

Course Number: D-210-0010.

Location: Fleet Aviation Specialized Operational Training Group, Quonset Point, RI.

Length: 6 weeks (210 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train flight personnel to operate the passive and active equipment in the AW S2G aircraft.

Instruction: Lectures and practical exercises in the operation of ASW equipment carried in the S2G aircraft, including MAD fundamentals, operation, and signal interpretation; radar fundamentals; target interpretation; air navigation computer; ESM equipment and tactics; introductory oceanography; Jezebel operations background; passive listening techniques and equipment; active acoustical equipment; and signature interpretation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0518

AN/ARN-21B/D TACAN Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train maintenance personnel to operate and maintain the AN/ARN-21B/D TACAN receiver at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-21B/D TACAN receiver, including theory of operation, special test equipment and circuit analysis of system components, block diagrams, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0519

AN/ARN-52(V) TACAN Receiver Intermediate Maintenance

Course Number: C-102-3034.

Location: Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/68–12/80.

Objectives: To train maintenance personnel with backgrounds in transistor fundamentals to operate and maintain the AN/ARN-52(V) TACAN receiver.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-52(V) TACAN receiver, including theory of operation, circuit analysis and block diagrams of system components, channel servo operation, power supply, range-measuring and bearing-measuring circuitry, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0520

5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1
(Gun Mount 5"/54 Mk 42 Mods 7 and 8)

Course Number: A-113-0029.

Location: Service School Command, Great Lakes, IL.

Length: 19 weeks (570 hours).

Exhibit Dates: 1/67–12/78.

Objectives: To train gunner's mates to maintain advanced gun systems.

Instruction: Lectures and practical exercises in the maintenance of advanced gun systems, including electrical and hydraulic circuits, rapid fire gun mount and controlling system characteristics, specific gun mount operation, power supplies, test equipment, related electronic amplifiers, and maintenance management and logistics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical laboratory (9/77).

NV-1715-0521

A-5A RA-5C AN/ASB-12 Line and Shop Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to service and maintain the AN/ASB-12 bomb-directing set.

Instruction: Lectures and practical exercises in the servicing, maintenance and modification of the AN/ASB-12 bomb-directing set, including introductory navigation and auto navigation techniques and systems components, video scanners, radar techniques, tie-in equipment, bombing computer elements, all-weather and visual modes, and overall system analysis.

Credit Recommendation: In the vocational certificate category, 5 semester hours in aircraft navigation systems (4/74).

NV-1715-0522

Aviation Electronics Officers, Class O

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 40 weeks (1420 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To train aviation ground officers or aviators and warrant officers to supervise electrical and electronic maintenance activities.

Instruction: Lectures and practical exercises in the supervision of electrical and electronic maintenance activities, including basic electricity and electronic theory, introduction to radar, avionic systems operation, administrative procedures, and automatic flight control and special systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in electronics, 3 in electronic systems, 6 in electronic systems laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 5 in engineering electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, 3 in electronics laboratory (4/74).

NV-1715-0523

Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver

Course Number: A-101-039.

Location: Naval Training Center, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/68–12/68.

Objectives: To train electronic technicians and radiomen to operate and maintain the AN/FRR-60(V) model DDR-5M synthesized independent sideband receiver and ancillary equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/FRR-60(V) model DDR-5M synthesized independent sideband receiver and ancillary equipment, including introduction to communications systems, receiver equipment, circuit analysis, the 3M system, component analysis, and power supplies.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0524

AN/SPS-52 Radar Set

Course Number: Not available.

Location: Naval Schools Command, Mare Island, CA.

Length: 28 weeks (840 hours).

Exhibit Dates: 2/68–9/82.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-52 radar set.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPS-52 radar set, including system capabilities and function, block-diagram analysis, digital computer troubleshooting procedures, power distribution system, major units of the Tartar weapons system, other radar and missile systems operations, detailed description of mathematics, operation of test equipment, and functional description of the digital-to-analog converter.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital logic (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0525

A-3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train fleet personnel to maintain the AN/ALQ-35 electronics countermeasures system and associated special support equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-35 electronic countermeasures system and associated special support equipment, including brief review of radar and electronic countermeasures, functional description of the system and all component subsystems, use of standard and specialized electronic test equipment, and alignment, troubleshooting, and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74).

NV-1715-0526

Terrier Radar Set AN/SPG-55B Mod 5

Course Number: A-104-0091; A-104-0092.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 30 weeks (900–1073 hours).

Exhibit Dates: 2/68–12/76.

Objectives: To train fire control technicians to maintain the AN/SPG-55B radar system and to use associated test equipment for evaluation of system performance.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPG-55B radar system and the use of associated test equipment for evaluation of system performance, including organization of radar systems, general radar principles and circuits, analysis of system components, track radiation, track receiver, range and angle tracking, pulsed radar monitoring, signal flow, electronic counter-countermeasures, and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and 2 additional credits in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0527

E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67–1/88.

Objectives: To train electronics technicians who have backgrounds in the maintenance of data communications systems to operate and maintain the AN/ASQ-52 data communications system's special support equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASQ-52 data communications system's special support equipment, including block- and logic-diagram analysis of data communications system test equipment, modes of operation, power supply, flight-line test set components and operation, various module analyses, and testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital communication equipment (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital communication equipment on the basis of institutional evaluation (4/74).

NV-1715-0528

AN/ALQ-51A Countermeasures Set

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Sanford, FL; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67-1/88.

Objectives: To train fleet maintenance personnel in AN/ALQ-51A countermeasures set theory and maintenance procedures.

Instruction: Lectures and practical exercises in AN/ALQ-51A countermeasures set introduction; block-diagram analysis; programmer, video delay, electronic gate, system blanking, modulation control, interim scan/final scan, and output and helix modulator assemblies; low-, intermediate-, and high-voltage power supplies; control circuits location, use, and theory; and intermediate maintenance procedures, including line checks, power supply checks, module checks, and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance (4/74).

NV-1715-0529

AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance

Course Number: C-150-3783.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 4/73-Present. *Version 2:* 9/72-3/73.

Objectives: To train electronics maintenance personnel to service AN/ASM-398 projected map display sets.

Instruction: *All Versions:* Lectures in AN/ASM-398 projected map display set servicing, including analog and digital circuit theory and operation, basic logic theory and microcircuitry, test programming description and procedures, self-test fault isolation, test set calibration, and associated test equipment operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuit analysis or 1 semester hour in digital systems for electrical engineering majors (3/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer hardware, and additional credit in digital computer hardware on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in digital computer hardware on the basis of institutional evaluation (4/74).

NV-1715-0530

A-6 Search Radar Module Analyzer Test Console

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 10 weeks (400 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train maintenance personnel to operate and maintain circuit/system module-level test and repair facilities for search radar sets.

Instruction: Lectures and practical exercises in circuit and functional analysis of search radar system modules, including a variety of circuit types and modes of operation, and troubleshooting, maintenance, and repair procedures using standard and specialized electronic test equipment.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0531

Radio Transceiver AN/WRC-1 Family Equipment
(AN/URT-23(V) Radio Transmitter Maintenance)

Course Number: A-101-0109; F-101-0027; L-101-0039.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train electronics technicians and radiomen to operate and maintain the AN/URT-23(V) transmitter.

Instruction: Lectures and practical exercises in the operation function and location of test points and subassemblies including block diagrams and schematics for signal tracing analysis of RF, IF, audio and power amplifiers, balance modulator, oscillators, keying circuits, power supplies, power distribution, and monitoring circuits. Preventive maintenance, alignment, troubleshooting and corrective maintenance procedures to replace defective vacuum tubes are given. NOTE: In April 1975 course was modified to include the AN/WRC-1 radio receiver and power amplifier subsystem.

Credit Recommendation: In the vocational certificate category, 2 semester hours in transmitter repair and maintenance (9/77).

NV-1715-0532

Basic Electricity and Electronics for Torpedoman's Mate

Course Number: K-123-571.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 5/64-12/68.

Objectives: To train enlisted personnel to use and understand electricity, electronic devices, and standard test equipment.

Instruction: Lectures and practical exercises in the use of electricity, electronic devices, and standard test equipment, including basic electricity principles, vacuum tube electronics, introduction to transmitters, receivers, and component subsystems; and electronic test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity and electronics on the basis of institutional evaluation (4/74).

NV-1715-0533

P-3C Communication/Navigation Organizational Maintenance

Course Number: C-102-3591.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 8-9 weeks (320-360 hours).

Exhibit Dates: *Version 1:* 1/80-Present. *Version 2:* 11/72-12/79.

Objectives: To train fleet maintenance personnel who have had previous training in basic electronics to operate, test, and troubleshoot the P-3C communications and navigation systems.

Instruction: *All Versions:* Lectures and practical exercises in the operation, testing, and troubleshooting of the P-3C communications and navigation radar, radar altimeters, radio navigation systems, teletype teleprinter, digital data link, and computer general information.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in communications and systems maintenance (7/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in avionics technology (7/81). *Version 2:* In the vocational certificate category, 6 semester hours in communications and systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in communications and systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0534

AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance

Course Number: C-602-3010.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (56-80 hours).

Exhibit Dates: 9/70-Present.

Objectives: To train electrical maintenance personnel to operate and maintain the attitude-heading reference system.

Instruction: Lectures and practical exercises in the operation and maintenance of the attitude-heading reference system, including special and general test equipment, component operation, and testing and repair procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics on the basis of institutional evaluation (7/81).

NV-1715-0535

Mk 84 Fire Control System (FCS) Technician

Course Number: A-121-0015.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26-28 weeks (901-945 hours).

Exhibit Dates: 1/66-1/88.

Objectives: To train maintenance personnel to maintain missile fire control systems.

Instruction: Lectures and practical experience in fire control systems maintenance, including digital system operation and functional analysis, software and hardware, naval operations with Mk 84 fire control systems, and operational and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in digital computer fundamentals, 4 in electronic system maintenance (4/74); in the upper-division baccalaureate category, 3 semester hours in digital computer fundamentals (4/74).

NV-1715-0536

Aviation Antisubmarine Warfare (AASW) Operator, Class A

Course Number: C-210-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 9–12 weeks (367 hours). *Version 2:* 12 weeks (383–460 hours). *Version 3:* 16–17 weeks (636–668 hours).

Exhibit Dates: *Version 1:* 7/75–4/85. *Version 2:* 4/72–6/75. *Version 3:* 11/68–3/72.

Objectives: To provide enlisted personnel with training in the fundamentals of antisubmarine warfare.

Instruction: For this course after 4/85 see NV-1715-1436. *Version 1:* Lectures and practical exercises in block diagram analysis of ASW systems and use, maintenance and repair of ASW equipment. *Version 2:* Lectures and practical exercises in electricity and electronics, AC and DC fundamentals, block-diagram analysis of ASW systems and use, maintenance and repair of ASW equipment. *Version 3:* Lectures and practical exercises in electricity and electronics, AC and DC fundamentals, block-diagram analysis of ASW systems, and use, maintenance, and repair of ASW equipment. Electronic devices and systems is also included.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (2/81). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 3 semester hours in electricity or electronics, 2 in electrical laboratory (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0537

Aviation Fire Control Technician, Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 11 weeks (440 hours).

Exhibit Dates: 6/66–12/68.

Objectives: To train graduates of the Avionics Fundamentals School to operate fire control equipment.

Instruction: Lectures and practical exercises in weapon system radar fundamentals, including alignment and troubleshooting techniques, basic test equipment, synchros and servos; gyroscopes, magnetic amplifiers, and accelerometers; transmitters, receivers, antenna, and power supplies; analog and digital computers operation and maintenance; and airborne weapon system radars, maintenance, bomb director systems, and safety precautions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar principles (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in radar principles, 1 in analog computers, 1 in digital computer fundamentals, and, on the basis of institutional evaluation, additional credit in radar principles (4/74).

NV-1715-0538

AN/AKT-22(V) Telemetric Data Transmitting Set and AN/UKM-2A Telemetric Data Test Set Intermediate Maintenance

Course Number: C-102-3400.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/77–Present.

Objectives: To train aviation anti-submarine warfare technicians in the operation, troubleshooting and repair of a telemetric data transmitting set (AN/AKT-22(V)) and its related test set (AN/UKM-2A) at the intermediate level.

Instruction: Lectures and practical exercises in the operation, troubleshooting and repair, to the element level, of a telemetric data set and its related test set including a introduction to basic telemetry, transmitter operation and repair, antenna coupling and circuitry repair, and use of related test and repair equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory, 1 in electronics (telemetry) for non-electrical engineering students (3/82).

NV-1715-0539

AN/AQM-18(V)1 Thru (V)5 Sonar Computer Recorder Group Test Central and AN/AQM-20 Computer Group Power Systems Test Set Intermediate Maintenance

Course Number: C-102-3111.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/78–Present.

Objectives: To train aviation maintenance personnel in the operation, maintenance and repair of a sonar computer recorder group test central (AN/AQM-18(V)1 thru 5) and the computer group power system test set (AN/AQM-20) at the intermediate level.

Instruction: Lectures and practical exercises in the operation, maintenance and repair of a sonar computer recorder test set and its related computer group power system test set including circuit and signal flow analysis, individual subsystem analysis, fault isolation and repair procedures utilizing standard electronic equipment, and computer related automatic testing procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics maintenance procedures, 2 in electronics maintenance laboratory for non-electrical engineering students (3/82).

NV-1715-0540

AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 9/67–1/88.

Objectives: To train maintenance personnel to operate and maintain AN/ASQ-56A integrated electronic control systems.

Instruction: Lectures and practical exercises in AN/ASQ-56A electronic control equipment operation and maintenance, including UHF transmitters, receivers, amplifiers, servos, antennas, and controls; IFF/SIF systems; power supply operation; TACAN system operation and maintenance, AGC and video circuits; block-diagram and circuit analysis; and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic equipment, and credit in maintenance laboratory on the basis of institutional evaluation (4/74).

NV-1715-0541

Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 2/68–1/88.

Objectives: To train military personnel to maintain mobile electric power plants and control systems.

Instruction: Lectures and practical exercises in DC generator system, including maintenance publications, component repair, power system circuit analysis, and inspection and troubleshooting procedures; AC generator system, including power system circuit analysis, transformer-rectifier power supply, component repair, and inspection and troubleshooting procedures; and AC transistorized generator system, including control circuit components, circuit analysis, power supply, component repair, and inspection and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power generator maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power generator maintenance, and additional credit in power generator maintenance on the basis of institutional evaluation (4/74).

NV-1715-0542

RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance

Course Number: C-100-3743.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/67–12/68.

Objectives: To train maintenance personnel to operate, calibrate, and maintain RA-5C semiautomatic air data, flight reference, and flight control equipment.

Instruction: Lectures in flight control test bench introduction, flight parameter simulator, pressure and vacuum group and flight parameter simulator testing, flight reference analyzers testing, flight control simulator and control panel test bench, control and guidance test set group introduction, and flight control analyzer testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in flight control and simulator (4/74).

NV-1715-0543

RA-5C Photo Systems Electronics

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/65–12/68.

Objectives: To provide maintenance personnel with training in basic electricity and electronics.

Instruction: Lectures and practical exercises in basic electricity, including Ohm's law, Simpson 260 multimeter operation, series and parallel circuits, relay principles, and schematic reading; basic electronics, including resistors, inductance, capacitance, electron tubes introduction, power supplies filtering and regulation, amplifiers, oscillators, and coupling and tuned circuits; and transistors, including junction transistors, basic transistor circuitry, semiconductors, circuits schematic tracing, special maintenance considerations, and test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in basic electricity and electronics, and additional credit in basic electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0544

Communications Technician (M), Class A

Course Number: Not available.

Location: Naval School, Treasure Island, CA; Naval School, Great Lakes, IL.

Length: 28 weeks (980 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to maintain naval electronic equipment.

Instruction: Lectures and practical exercises in AC and DC fundamentals and analysis; oscilloscope applications; pulse techniques; microwave techniques and control equipment; and electronic devices, including tubes and solid state, communication transmitters and receivers, teletype terminal and single-sideband equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 16 semester hours in basic electricity or radio electronics; in the upper-division baccalaureate category, 6 semester hours in radio electronics and 1 in electricity (12/68).

NV-1715-0545

RADIAC Instrument Maintenance

Course Number: A-670-0020.

Location: Naval Schools Command, Treasure Island, CA.

Length: 4–5 weeks (180–190 hours).

Exhibit Dates: *Version 1:* 8/70–Present. *Version 2:* 1/66–7/70.

Objectives: To train enlisted personnel to operate and maintain RADIAC instruments.

Instruction: *All Versions:* Lectures and practical exercises in operation, maintenance, and repair of radiation related equipment, including dosage hazards; radiological monitoring and decontamination; basic nuclear physics; radiac computer indicator, detector, and calibrator maintenance; radioactive sources leak testing; atomic energy commission license requirements; electronics review; and standard test equipment operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radiation equipment maintenance (11/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in radiation equipment maintenance, and credit in physics laboratory on the basis of institutional evaluation (11/81); *Version 2:* in the lower-division baccalaureate/associate degree category, 1 semester hour in radiation equipment maintenance, and credit in physics laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0546

Automatic Telephones, Class C

Course Number: A-623-0014.

Location: Training Center, Great Lakes, IL.

Length: 11 weeks (385 hours).

Exhibit Dates: 1/72–1/75.

Objectives: To train interior communication electricians to operate, maintain, and repair automatic telephone systems.

Instruction: Lectures and practical exercises in automatic telephone system operation, maintenance, and repair, including troubleshooting line circuits, multilined systems installation and troubleshooting, telephone circuits, circuit tracing, wiring, line finder and finder controls analysis, connector trouble analysis and test set operation, various line dial telephone systems operation, power equipment, and switches and relays.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in telephone repair, installation, and maintenance, and additional credit in telephone repair, installation, and maintenance on the basis of institutional evaluation (4/74).

NV-1715-0547

RA-5C Semi-Automatic Test Equipment Bomb Director

Course Number: C-100-3742.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/67–1/88.

Objectives: To train maintenance personnel to operate, service, maintain, and calibrate a bomb director test group and test set for guidance control systems.

Instruction: Lectures and practical exercises in bomb director test group equipment testing and operation, including digital signal simulator and navigation aids analysis, radar and TV test equipment introduction, navigational equipment testing, and bomb director test set operation and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in general equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in general equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0548

OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance

Course Number: C-150-3767.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/73–1/88.

Objectives: To train maintenance personnel with knowledge of ballistics computer theory to maintain the ballistics computer test console at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of semiautomatic ballistics computer test consoles, including block-diagram analysis, testing programs, theory of operation, ARA testing, equipment timing controls, order and information registers, and special operating procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0549

F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71–1/88.

Objectives: To train maintenance personnel with knowledge of transistors and miniature component repair to maintain and repair the loft bomb computer and vertical flight reference system of the F-4J aircraft.

Instruction: Lectures and practical exercises in the maintenance and repair of the loft bomb computer and the vertical flight reference system of the F-4J aircraft, including circuits and gyro control system and functional testing of components for the two systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0550

AN/AQS-13B Sonar Intermediate Maintenance

Course Number: C-130-3399.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/80–Present.

Objectives: To provide training for avionics personnel in the maintenance and repair of the AN/AQS-13B sonar detecting ranging set and of the AN/AQM-24 test control set.

Instruction: Lectures and practical exercises in the operation and maintenance of a sonar system and its related test set including familiarization with basic sonar operation, logic gates, decoders, block diagram analysis, power supplies and distribution, timer, data, mixers, CRT beam positioning, audio, and integrated circuit analysis and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics maintenance laboratory (3/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics circuit analysis, 1 in electronics laboratory for non-electrical engineering students (3/82).

NV-1715-0551

Mk V Atmosphere Analyzers

Course Number: F-623-031.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/71–1/88.

Objectives: To train electricians and shipyard instrument technicians to operate, maintain, troubleshoot, and repair Mk V atmosphere analyzers.

Instruction: Lectures and practical exercises in the operation and maintenance of Mk V atmosphere analyzers, including equipment components and flow systems, the 3M System, theory of operation, electronic block diagrams, the strip chart recorder, and alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0552

F-4B/J Air Data Computer Set Intermediate Maintenance

Course Number: C-602-3810.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 2–3 weeks (80–96 hours).

Exhibit Dates: 3/70–1/88.

Objectives: To provide maintenance personnel with knowledge of transistors and miniature component repair to maintain the air data computer set on the F-4B/J aircraft.

Instruction: Lectures and practical exercises in the maintenance of the air data computer set on the F-4B/J aircraft, including components and functional analysis of the computer compensator, test equipment, and component repair and calibration.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0553

AN/APN-130 Radar Navigation Set Intermediate Maintenance

Course Number: C-102-3032.

Location: Naval Air Station, North Island, CA; Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3–4 weeks (132–160 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train personnel to maintain the APN-130 radar navigational system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the APN-130 radar navigational system, including Doppler theory and system operation, power supply and test set operation, signal data converter (hover and navigate modes), modulation, summation circuits, and system alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0554

Electronics Technician (ET) Senior Conversion

Course Number: Not available.

Location: Electronics Technician, Class A School, Treasure Island, CA; Electricity and Electronics, Class P School, Great Lakes, IL; Electrician's Mate, Class A School, San Diego, CA; IC Electrician, Class A School, San Diego, CA.

Length: 48 weeks (1440 hours).

Exhibit Dates: 1/55–10/68.

Objectives: To train enlisted personnel to be electronics technicians.

Instruction: Lectures and practical exercises in AC and DC fundamentals; series-parallel circuits and machinery; vacuum tubes; power supplies; audio, video, RF, and magnetic amplifiers; transmitter, receiver, oscillator, and TRF circuits; sonar and radar equipment maintenance; Loran equipment maintenance; teletypewriter terminal equipment maintenance; and electronics administration.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 6 semester hours in physics, 12 in engineering electronics (12/68).

NV-1715-0555

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)

Course Number: E-2D-066.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 7 weeks (245 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train flight officers in the techniques of airborne antisubmarine warfare (AASW).

Instruction: Lectures and practical exercises in the operation of airborne antisubmarine warfare equipment and in AASW tactics, including oceanography and underwater acoustics principles, electronic warfare tactics, and equipment capabilities, limitations, and applications to submarine force missions.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0556

Advanced First Term Avionics, Class A1
(Advanced First Term Avionics, Class B (AFTA))

Course Number: C-100-2010; C-111-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 20–27 weeks (800 hours). *Version 2:* 26 weeks (1040 hours).

Exhibit Dates: *Version 1:* 1/76–3/89. *Version 2:* 11/69–12/75.

Objectives: To train graduates of avionics technician courses to troubleshoot, test, and maintain navigation and radar systems.

Instruction: *All Versions:* Lectures and practical exercises in simple DC and AC circuits, resonance, time constant, decibels, and ideal transistors; transistor theory, including biasing, load line analysis; equivalent circuits, RC, transformers, direct coupled amplifiers, feedback amplifiers, video amplifiers, and power amplifiers; power supplies, regulators, wave-shaping circuits, and oscillators; fundamentals of computer logic and systems, with emphasis on maintenance of equipment; microwave principles, including characteristics of transmission lines, wave-guides, cavities, antennas, microwave tubes and circuits; fundamentals of AM, FM, and SSB; and block diagrams and functional operation of navigation and radar systems, with emphasis on maintenance and repair. *Version 1:* Instruction includes a brief review of mathematics in the fundamentals of algebra, linear and quadratic equations, ratios, angles, trigonometric fundamentals, vectors, vector algebra and use of slide rules. Also offered is an introduction to solid state physics and semiconductors. *Version 2:* Instruction includes exercises in mathematics including fundamentals of algebra, linear and quadratic equations, ratios, angles, trigonometric fundamentals, vectors, vector algebra and the use of the slide rule. Also, there is an introduction to physics including theory of matter, heat, light, sound and cryogenics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in AC circuits, 4 in active devices and circuits, 3 in computer principles and maintenance and 3 in communications systems (2/81). *Version 2:* In the vocational certificate category, 12 semester hours in mathematics and electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in mathematics, 6 in engineering electronics (12/68).

NV-1715-0557

AN/SPS-40 Radar System
(Electronics Technician AN/SPS-40 Radar Set Maintenance)

Course Number: A-104-0040; A-104-0041.

Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 8 weeks (240 hours).

Exhibit Dates: 7/72–9/77.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-40 radar set and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPS-40 radar set and associated test equipment, including detailed operation and troubleshooting procedures for power, hydraulic, antenna, timing, frequency generation, transmitter, receiver, moving-target indicator, and video distribution subsystems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0558

RO-358/AQS-13A Multipurpose Recorder Intermediate Maintenance

Course Number: C-102-3401.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/79–Present.

Objectives: To train technicians in the intermediate maintenance of a multipurpose chart recorder (RO-358/AQS-13A) including theory, maintenance and troubleshooting.

Instruction: Lectures and practical exercises in the operation, maintenance and repair of a multipurpose chart recorder including the unregulated and regulated power supply description, stylus and chart drive circuits, performance standards, and alignment procedures. Laboratory includes troubleshooting defective equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic instrumentation or 1 in electronic troubleshooting laboratory for non-electrical engineering students (3/82).

NV-1715-0559

AN/ASQ-81(V) Magnetic Anomaly Detection Set Intermediate Maintenance

Course Number: C-102-3109.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 9/76-Present.

Objectives: To train maintenance personnel in the operation, troubleshooting and repair of a magnetic anomaly detection set (AN/ASQ-81(V)) at an intermediate level.

Instruction: Lectures and practical exercises in the operation, troubleshooting and intermediate repair of a magetic anomaly detection set (AN/ASQ-81(V)) including basic magnetic theory, troubleshooting procedures to the bad element level and block diagram analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics maintenance laboratory (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical motor controls laboratory for non-electrical engineering students (3/82).

NV-1715-0560

Oxygen Generator Electrical Model 6L16 (Enlisted)

Course Number: F-623-029.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train enlisted personnel who have backgrounds in electronics and electricity, magnetic amplifiers, and transistor theory to maintain and operate the 6L16 electrolytic oxygen generator.

Instruction: Lectures and practical exercises in the operation and maintenance of the 6L16 electrolytic oxygen generator, including the electrolytic process of producing oxygen; flow system analysis; functions of electronic control system; hydraulic flow components; electrolytic cells; power supplies and troubleshooting; annunciators (contact and magnetic amplifier types); pressure controller system function (operation and analysis); calibration; and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory or technical elective on the basis of institutional evaluation (4/74).

NV-1715-0561

S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance

Course Number: C-102-3617; C-102-135.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/66-1/88.

Objectives: To train maintenance personnel to operate, test, and maintain the AN/AQA-4(V) indicator group system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AQA-4(V) indicator group system, including circuit analysis of the lofar chain, the reference signal generator, the codar chain, and power supplies; overall and subsystem block-diagram analysis; and troubleshooting and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0562

RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director

Course Number: C-102-195.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train maintenance personnel to service and maintain the TACAN portion of AN/ASQ-88 CNI systems and flight director groups.

Instruction: Lectures and practical exercises in the functional analysis of transceivers, pulse decoders, and flight director computers, with emphasis on troubleshooting and servicing procedures. This course is highly specialized and has limited educational value.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0563

AN/APX-64(V) IFF Transponder Set Intermediate Maintenance

Course Number: C-102-3065.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Meridian, MS.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train electronic maintenance personnel to maintain, service, troubleshoot, and align AN/APX-64(V) IFF transponder sets.

Instruction: Lectures and practical exercises in basic IFF characteristics, block-diagram analysis, detailed logic and circuit theory, and maintenance and operating procedures for IFF transponders.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0564

Meteorological/Oceanographic Equipment Maintenance, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 17 weeks (680 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To train aviation and electronics technicians to operate and maintain meteorological and oceanographic equipment.

Instruction: Lectures and practical exercises in atom and electron theory; semiconductors, diodes, and transistors; amplifiers, bias and bias stabilization; practical transistor amplifiers; sine wave oscillators; switching, gating, and pulse circuits; weather radar operation and troubleshooting; facsimile transmission theory, operation, and troubleshooting; weathervision TV cameras, transmitters, receivers, and video monitors; sound systems and relays; upper-air sounding equipment, sensors, transducers, transmitters, and receivers analysis and troubleshooting; transmissometer and RVR converter; and oceanographic elements, thermometric devices, bathythermographs, and buoys.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics and electrical laboratory (4/74).

NV-1715-0565

1. Electricity, Electronics and Hydraulics Class AP
2. Electricity, Electronics and Hydraulics, Class P (E, E & H. Class P)

Course Number: A-041-0012.

Location: Service Schools Command, Great Lakes, IL.

Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 14 weeks (420 hours).

Exhibit Dates: *Version 1:* 8/81-Present. *Version 2:* 2/68-1/74.

Objectives: To provide enlisted personnel with basic training in the maintenance of missile-launching and gun systems.

Instruction: *Version 1:* Lectures and practical exercises in the theory and practice of AC/DC motors and generators; solid state power supplies; number systems, logic gates, digital arithmetic and circuits, counters, registers; synchro servos and hydraulic controls. *Version 2:* Lectures and practical exercises in hydraulics, AC and DC circuits, synchro-servo systems, basic electronics, magnetic amplifiers, and circuit analysis.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical controls, 2 in digital logic (1/82). *Version 2:* In the vocational certificate category, 15 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0566

Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C

Course Number: C-103-2028.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 14-19 weeks (560 hours).

Exhibit Dates: 3/73-5/79.

Objectives: To train electronics technicians who have had previous training in number systems, Boolean algebra, digital fundamentals, and solid-state theory to maintain an AN/TPX-42(V) type 5 radar system installation and to use associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of AN/TPX-42(V) type 5 radar system installations and the use of associated test equipment, including review of transistor theory, integrated circuits, basic logic elements, gates, adders, multivibrators, flip-flops, counters, multiplexers, shift registers, AC and DC conversion devices, interrogator set alignment and trouble analysis; and test equipment, interference blanker, video signal processor, indicator data processor, and indicator assembly, components, operation, and trouble analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics maintenance and repair, 1 in digital logic (2/81).

NV-1715-0567

AN/AQA-7(V)6/7 Sonar Computer Recorder Group Difference Data Intermediate Maintenance

Course Number: C-130-3571.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 5 weeks (240 hours).

Exhibit Dates: 3/80–Present.

Objectives: To train experienced technicians in the maintenance and repair of a particular piece of anti-submarine warfare equipment at the intermediate level.

Instruction: Instruction and practical exercises in the operation, troubleshooting and repair of a particular piece of anti-submarine warfare equipment (AN/AQA-7(V)6/7) including differences from other versions of the equipment, built-in test procedures, circuit analysis and fault isolation, power supply repair, signal flow analysis and computer fault isolation and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital system maintenance, 2 in electronics laboratory for non-electrical engineering students (3/82).

NV-1715-0568

QH-50C Weapons System Intermediate Electronics Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain Dash weapon systems and to use special support equipment.

Instruction: Lectures and practical exercises in maintenance and troubleshooting procedures for target control systems and QH-50C drone avionic systems, and use of standard and special support equipment. The course is extremely specialized and has very little technical information.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical and electronics laboratory (4/74).

NV-1715-0569

Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase

Course Number: Not available.

Location: Naval Air Station, Corpus Christi, TX.

Length: 8–9 weeks (146–160 hours).

Exhibit Dates: 3/73–1/88.

Objectives: To provide officers with basic knowledge and skills prerequisite to operational training in electronic warfare replacement training squadrons.

Instruction: Lectures and practical exercises in basic electronics theory, electronic support measures, electronic countermeasures operator techniques, planning and analysis procedures, and electronic warfare evaluation procedures. The material presented in this course is at a very basic survey level.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0570

Basic Point Defense Officer

Course Number: A-2F-0035.

Location: Guided Missiles School, Mare Island, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train junior officers to perform and supervise the maintenance of the basic point defense surface missile system.

Instruction: Lectures and practical exercises in the maintenance and maintenance management of the basic point defense surface missile system, including block diagrams, module and component identification, the 3M system, planned maintenance system, specific missile equipment, ancillary equipment and fire control system, launching system, tactical operations, alignment and adjustments, and electromagnetic interference and support.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0571

Strike Armament Intermediate Maintenance Repair

Course Number: C-646-3118.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 8 weeks (299 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel to inspect, test, assemble and repair aviation armament equipment.

Instruction: Lectures and practical exercises in the inspection, testing, and repair of assembly aviation armament equipment (VA-VF type), including the 3M system, operation of airborne missile launchers, suspension and releasing equipment analysis, rocket and flare dispensers, specific aircraft gun components and operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/85).

NV-1715-0572

Tartar Officer Advanced
(Tartar Weapons Officer)

Course Number: A-2F-0037.

Location: Guided Missiles School, Dam Neck, VA.

Length: 4–6 weeks (160–179 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers with previous gunnery experience to operate and maintain missile equipment on DDG-2 ships.

Instruction: Lectures and practical exercises in the operation and maintenance of missile equipment on the DDG-2 ships, including Tartar overview, search radar, specific radar equipment, cooling and dry air systems, system interface, target detection and identification, selection and tracking, controls and indicators for the master control panel, target evaluation, air ready mode, designation modes, FCS acquisition-to-track sequences, specific track modes, launching system, firing circuits, data flow, logistics, and administration procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/89).

NV-1715-0573

Strategic Weapons System (SWS) Command Polaris
(SSBN Command Weapons System Orientation—Polaris)

Course Number: A-2F-0023.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 7 weeks (230–245 hours).

Exhibit Dates: 11/72–12/80.

Objectives: To train officers with submarine experience to operate the fleet ballistic weapons system.

Instruction: Lectures and practical exercises in the operation of fleet ballistic weapons systems, using a block diagram approach and includes principles of digital computers, data transmission systems and inertial instruments, operation and administration of subsystem equipment, tactical applications, weapons subsystem equipment, and re-entry system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0574

Missile Technician Polaris
(Missile Technician Polaris, 598/608 Class)
(Missile Technician, Class C (1), Polaris)
(MTC1 Polaris Missile Technician Maintenance, Class C)

Course Number: A-121-0249; A-121-0016.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 21–22 weeks (770–834 hours).

Exhibit Dates: 1/64–12/80.

Objectives: To study the theory of operation, fault isolation, and to make repairs on a Polaris missile system.

Instruction: A study of the operation and schematic analysis of a missile system including circuit and logic diagrams for control, sequential operations, displays, alarms, and power supplies; environmental systems using pneumatic displays, electronic monitoring equipment and electrical controls utilizing relay logic. Perform fault isolation, make adjustments, calibrate, troubleshoot, and repair missile systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics technology (9/77).

NV-1715-0575

Missile Launcher Mk 21 Mod 2 Theory and Operation

Course Number: F-633-013.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To provide fleet ballistic missile officers and enlisted personnel with advanced refresher training in theory and operation of Polaris launching systems.

Instruction: Lectures and practical exercises in operation, capabilities and limitations, and systematic evaluation of problems for the Mk 21 Mod 2 Polaris launching systems, components, and support systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0576

Poseidon Missile Technician Conversion (A-2/A-3 to C-3)

Course Number: A-121-0139.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 12 weeks (400 hours). *Version 2:* 13 weeks (446 hours).

Exhibit Dates: *Version 1:* 11/83-Present. *Version 2:* 11/72-10/83.

Objectives: To train Polaris missile technicians to maintain and test Poseidon missiles.

Instruction: *Version 1:* Lectures and laboratory exercises in the maintenance and repair of the Poseidon including a review of hydraulic, pneumatic, electro mechanical and hydraulic launch and support systems. The Poseidon missile and its accompanying computer is studied in-depth with troubleshooting down to the module level. *Version 2:* Lectures and laboratories in flight control systems, Poseidon missile launching systems, fire control systems, Poseidon guidance computers, inertial components, temperature-monitoring and control groups, missile test and readiness equipment, electronic counters, electronic voltmeters, oscilloscopes, and digital computer fundamentals.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in hydraulics (11/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in electro mechanical maintenance, 3 in computer/control systems troubleshooting (11/83). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0577

SSBN Mk 84 Polaris Weapons Officer

Course Number: A-2F-0034.

Location: Guided Missiles School, Dam Neck, VA.

Length: 10 weeks (350 hours).

Exhibit Dates: 2/72-1/88.

Objectives: To familiarize officers with the capabilities and limitations of fleet ballistic missile system equipment.

Instruction: Lectures and practical exercises in capabilities, functions, and principles of operation of the subsystems and components of fleet ballistic missile systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0578

Sonar Technician Class A-2 (Intermediate Electronics)

Course Number: J-130-052; K-130-559.

Location: Fleet Anti-Submarine Warfare School, Key West, FL; San Diego, CA.

Length: 14 weeks (420 hours).

Exhibit Dates: 6/68-2/79.

Objectives: To provide enlisted personnel with a basic review of mathematics and electricity, and advanced training in DC and AC circuit theory, electronics, and servos.

Instruction: Lectures and practical exercises in basic mathematics and electricity; AC circuit theory, including inductance, capacitance, and resonance; electronics, including vacuum tubes, transistors, amplifiers, oscillators, and servos; and digital and analog computer fundamentals.

Credit Recommendation: In the vocational certificate category, 16 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74).

NV-1715-0579

RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance

Course Number: C-111-3743.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train maintenance personnel to operate and maintain AN/ASB-12 bomb-directing sets.

Instruction: Lectures and practical exercises in bombing computer systems, television systems, and system testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (4/74).

NV-1715-0580

Sonar Technician Class A-1 (Basic Electronics)

Course Number: K-130-560.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 6/68-3/75.

Objectives: To provide enlisted personnel with training in basic electrical and electronic fundamentals.

Instruction: Lectures and practical exercises in basic AC and DC electrical fundamentals and circuit theory; basic electronics, including vacuum tubes, power supplies, synchros, and servos; use of common hand tools; basic motors; and electronic maintenance procedures. Note: This evaluation is based only on 4 weeks of the 10-week course; the remaining 6 weeks are apparently classified for military security reasons.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electricity and electronics and additional credit on the basis of institutional evaluation (see Note above) (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics and additional credit on the basis of institutional evaluation (see Note above) (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (see Note above) (4/74).

NV-1715-0581

IOIC Electronic Data Processing Maintenance

Course Number: D-150-010.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 19 weeks (760 hours).

Exhibit Dates: 1/69-1/88.

Objectives: To train data systems technicians to troubleshoot and repair electronic data processing equipment.

Instruction: Lectures and practical exercises in Integrated Operational Intelligence Center (IOIC) systems cross-training; operation and maintenance of magnetic tape processors, interface equipment, digital computers, and high-speed line printers; and use of test equipment for troubleshooting and repair.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer electronics, 2 in computer electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer electronics, 1 in computer electronics laboratory (4/74).

NV-1715-0582

AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance

Course Number: C-102-3554.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train fleet maintenance personnel to maintain the AN/ASA-47 Doppler air mass navigational computer system.

Instruction: Lectures and practical exercises in the maintenance of the AN/ASA-47 Doppler air mass navigational computer system, including circuit analysis of components (position indicator, computer, and latitude-longitude indicator), operation of special support equipment, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0583

AN/APN-182(V) Radar Navigational Set Intermediate Maintenance

Course Number: C-102-3398.

Location: *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Imperial Beach, CA. *Version 2:* Air Maintenance Training Detachment, Quonset Point, RI.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 10/74-Present. *Version 2:* 2/73-9/74.

Objectives: To train maintenance personnel to maintain the AN/APN-182(V) radar navigation set at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/APN-182(V) radar navigation set, including a brief discussion of Doppler theory, logic circuits, digital circuits, integrated circuits, specific equipment component breakdown, test set operation, power supply and receiver transmitter unit, clock circuits and tracker, digital scaler, summing amplifiers, demodulator, function board, and troubleshooting and alignment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radar electronics (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics, 1 in electronics theory for nonelectrical engineering majors (3/82). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics; 3 in electronics laboratory (4/74).

NV-1715-0584

AN/APN-154(V) Radar Beacon Intermediate Maintenance

Course Number: C-102-3031.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train maintenance personnel to maintain the AN/APN-154(V) radar beacon at the intermediate level and to use associated test equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APN-154(V) radar beacon and the use of associated test equipment, including controls and indicators, block diagrams and signal flow, component characteristics, electrical characteristics, and alignment and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aviation electronic instrumentation laboratory for non-electrical engineering majors (3/82).

NV-1715-0585

Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88)

Course Number: A-121-0137.

Location: Guided Missiles School, Dam Neck, VA.

Length: 16 weeks (490 hours).

Exhibit Dates: 10/72–11/83.

Objectives: To train fire control system technicians to operate and maintain the Mk 88 fire control system and associated nontactical equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 88 fire control system and associated nontactical equipment, including system components; weapon system orientation (Poseidon missile operation, circuit analysis, guidance computer, inertial guidance components, power distribution, launching system, and data flow interface); digital geoballistic computer arithmetic, memory, program control, input/output devices, and loading; digital transmitter-receiver core memory and list processor; magnetic disk file memory and programming, and the subsystems of the Mk 88 system.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0586

Mk 152 Computer and Peripheral Equipment/Common Core

Course Number: A-150-0083; A-150-0084.

Location: Guided Missiles School, Mare Island, CA; Guided Missiles School, Dam Neck, VA.

Length: 12 weeks (324 hours).

Exhibit Dates: 6/71–12/78.

Objectives: To train fire control technicians to operate, adjust, and maintain the Mk 152 computer and peripheral equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 152 computer and peripheral equipment, including block diagram of computer complex, review of computer number systems, manual operation, instruction word analysis and operation, computer logic operations, sequence analysis, control instruction analysis, logical and arithmetic instruction analysis, and diagnostic routines for the specific computer equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer electronics, 1 in computer electronics laboratory (4/74).

NV-1715-0587

Gyrocompass Technician Electrical, Class C1

(Electrical Gyrocompass Operation Maintenance Technician, Class C)

(Gyrocompass Technician—Electrical, Class C)

Course Number: *Version 1:* A-670-0021. *Version 2:* A-670-021.

Location: Interior Communications Class C School, Great Lakes, IL.

Length: *Version 1:* 9 weeks (253–270 hours). *Version 2:* 12 weeks (320 hours).

Exhibit Dates: *Version 1:* 11/72–1/88. *Version 2:* 1/68–10/72.

Objectives: To train communications electricians to operate and repair Mk 23 and Mk 19 gyrocompasses.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of Mk 23 and Mk 19 gyrocompasses, including theory of operation, special test equipment, electrical checks, servo and follow-up loop adjustment, AC and DC power supplies, various circuits, auxiliary operating modes, and various component and subsystem analyses. *Version 2:* Includes corrective maintenance procedures and tender systems tests.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electromechanical systems and 2 in electromechanical laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0588

AN/BST-1 Tender Maintenance

Course Number: F-623-035.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train communications electricians or electronics technicians to maintain and operate the AN/BST-1 system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/BST-1 system, including system power supplies, special transistors, launch control subsystem circuitry and arming, monitor circuits, signal unit, launch control test set, detonator resistance and electrical cable test set, pressure switch test set, buoy subsystem, electrical control system, programmer and associated test set, transmitters, handling and rigging procedures, and voltage regulator for the subsystem.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0589

Air Launched Weapons Guided Missile Intermediate Maintenance

Course Number: C-122-3111.

Location: Air Maintenance Training Detachment, Mayport, FL; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2-4 weeks (80–160 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train maintenance personnel to operate and maintain air-launched guided missiles.

Instruction: Lectures and practical exercises in the operation and maintenance of air-launched guided missiles, including operation, testing, and components of specific air-to-air and air-to-surface guided missiles.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/85).

NV-1715-0590

Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C

Course Number: A-102-0088.

Location: Electronics Technician Class C School, Norfolk, VA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train enlisted personnel to operate and maintain AN/SRN-14 Omega receiving sets.

Instruction: Lectures and laboratories in the operation, maintenance, and repair of Omega receivers; system circuit analysis; and use of tools and test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0591

AN/APX-72 Radar Identification System Intermediate Maintenance

Course Number: Not available.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL. *Version 1:* Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Cherry Point, NC. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 9/74-Present. *Version 2:* 10/68-8/74.

Objectives: To train maintenance personnel to maintain, repair and test the AN/APX-72 radar identification systems to the component level.

Instruction: *All Versions:* Lectures and practical exercises in block-diagram analysis of radar identification systems, and use of prescribed test equipment in troubleshooting, repairing, bench testing, and aligning radar identification systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic radar theory and operations (7/81). *Version 2:* In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0592

QH-50D OPERATIONAL TELEMETRY MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train electronics technicians who have experience in Dash weapons systems maintenance to maintain and service Dash operational telemetry systems.

Instruction: Lectures and practical exercises in the block-diagram analysis, circuit operational analysis, systems maintenance, and repair of QH-50D telemetry systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0593

1. RADARMAN, CLASS B, OPERATIONAL PHASE
2. RADARMAN, CLASS B, MAINTENANCE PHASE

(Radarman, Class B)

Course Number: *Version 1:* A-221-012. *Version 2:* Not available.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA; Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 9 weeks (264 hours). *Version 2:* 33-42 weeks (1350 hours).

Exhibit Dates: *Version 1:* 3/69-1/88. *Version 2:* 1/56-2/69.

Objectives: To train radarmen to operate Combat Information Centers and to train CIC personnel to analyze radar circuit operation and repair equipment.

Instruction: *Version 1:* Lectures and practical exercises in the operation of Combat Information Centers and training of CIC personnel, including electronic warfare principles, navigation and plotting, communications procedures, naval tactics, and training methods. *Version 2:* Lectures and practical exercises in radar circuit operation and equipment repair, including basic electricity and electronics, radar system components, overall system functions, field maintenance, and maintenance supervision.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity, 7 in radio/electronics, 2 in equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 9 in radio/electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity, 7 in radio or electronics (4/74).

NV-1715-0594

F-4J AN/AWG-10 TRANSMITTER AND ANTENNA POSITIONING INTERMEDIATE MAINTENANCE

Course Number: C-602-3817.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/69-1/88.

Objectives: To train maintenance personnel familiar with AN/AWG-10 equipment and component repair to maintain, at the intermediate level, transmitter and antenna-positioning portions of the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of transmitter and antenna-positioning portions of the AN/AWG-10 missile control system, including block-diagram and circuit analysis of specialized radar equipment, power supplies, pulse circuitry, timing, antenna control and scan pattern generator, velocity signal computer and antenna servo, antenna operation, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0595

RADIOMAN, CLASS A

Course Number: *Version 1:* A-201-0014; A-202-0014. *Version 2:* A-201-013; A-201-014; A-202-014. *Version 3:* Not available. *Version 4:* Not available.

Location: Service School Command, San Diego, CA; Service School Command, Bainbridge, MD.

Length: *Version 1:* Self-paced 8 weeks (284 hours). *Version 2:* 14 weeks (560 hours). *Version 3:* 14 weeks (412 hours). *Version 4:* 24 weeks (720 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 7/72-12/80. *Version 3:* 1/67-6/72. *Version 4:* 8/56-12/66.

Objectives: To train enlisted personnel as radio communications operators.

Instruction: *Version 1:* Self paced instruction and practical exercises in the operation of teletypewriter equipment and procedures, message processing, security procedures and operation of specific communications equipment. *Version 2:* Lectures and practical exercises in the operation of radio communications systems, including teletypewriter equipment and procedures, radio principles, message processing, circuit drill and operation, receivers and transmitters, security procedures and operation of specific communications equipment. The course also includes maintenance procedures, ancillary equipment, emergency communications. *Version 3:* Lectures and practical exercises in the operation of radio communications systems including teletypewriter equipment and procedures, radio principles, message processing, circuit drill and operation, receivers and transmitters, security procedures, and operation of specific communications equipment. The course also includes voice circuits and voice relay equipment, basic frequency theory, block diagrams, telegraph use, administration, and function of teletypewriter units and associated equipment. *Version 4:* Lectures and practical exercises in the operation of radio communications systems, including teletypewriter equipment and procedures, radio principles, message processing, circuit drill and operation, receivers and transmitters, security procedures and operation of specific communications equipment. The course also includes sound power and radiotelephone procedures, basic electricity and electronics, block diagrams, telegraph use, function of teletypewriter units and associated equipment, test equipment and adjustment, equipment components, and preventive and operational maintenance procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in radio operation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74). *Version 4:* In the vocational certificate category, 4 semester hours in electricity or electronics, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68), and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0596

A-6 AN/APQ-92 SEARCH RADAR AND ASSOCIATED TEST EQUIPMENT INTERMEDIATE MAINTENANCE

Course Number: *Version 1:* C-111-3761. *Version 2:* Not available. *Version 3:* Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: *Version 1:* 13 weeks (520 hours). *Version 2:* 12 weeks (480 hours). *Version 3:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 9/71-1/88. *Version 2:* 1/70-8/71. *Version 3:* 2/68-12/69.

Objectives: To train enlisted personnel to operate, troubleshoot, and maintain the AN/APQ-92 search radar and associated test console.

Instruction: *All Versions:* Lectures and practical exercises in the operation, troubleshooting, and maintenance of the AN/APQ-92 search radar and associated test console, including various radar displays, block-diagram analysis, components, and assembly of the electrical synchronizer, transmission chain circuits, servo electronics unit, antenna/receiver, and related circuits. *Version 1:* Includes control signals, additional circuit analyses, bombardier/navigator control box operation, video processor, and terrain clearance equipment. *Version 2:* Includes control signals, additional circuit analyses, bombardier/navigator control box operation, video processor, and terrain clearance equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 4 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74).

NV-1715-0597

Terrier Radar Set AN/SPG-55B Mod 5
(Fleet Input)

Course Number: A-104-0143; A-104-0144.

Location: Guided Missiles School, Dam Neck, VA; Combat Systems Technical School Command, Mare Island, CA.

Length: 19 weeks (651-690 hours).

Exhibit Dates: 11/72-12/76.

Objectives: To train fire control technicians to operate, maintain, and repair AN/SPG-55B Mod 5 radar set.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of AN/SPG-55B Mod 5 radar set, including use of electronic testing equipment (oscilloscopes, multimeters, and signal generators). Terrier weapons system description, various modes of operation, power supplies, synchronizer, timing circuits, electronic countermeasures, various circuit analyses, frequency monitoring, operation of various channels, range and beacon tracking, alignment and systems tests, and radiation and monitoring information.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electronic equipment usage (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic maintenance equipment usage on the basis of institutional evaluation (4/74).

NV-1715-0598

Tradevman, Class C7
(Tradevman School, Class B)

Course Number: *Version 1:* C-191-2011. *Version 2:* Not available. *Version 3:* Not available. *Version 4:* Not available. *Version 5:* Not available.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 28 weeks (1120 hours). *Version 2:* 21-22 weeks (850-874 hours). *Version 3:* 23 weeks (920 hours). *Version 4:* 35 weeks (1412 hours). *Version 5:* 35-36 weeks (1416-1440 hours).

Exhibit Dates: *Version 1:* 9/80-12/84. *Version 2:* 6/72-8/80. *Version 3:* 10/71-5/72. *Version 4:* 7/68-9/71. *Version 5:* 5/56-6/68.

Objectives: To train tradevmen to operate and maintain training equipment.

Instruction: *All Versions:* Lectures and practical experience in mathematics, basic electricity, amplifiers, power supplies, test equipment, video tape recorders, avionics physics, digital computer circuits, programming, device simulation, air conditioning, and closed-circuit television operation and maintenance. *Version 4:* Instruction includes communications circuits and analog computers. *Version 5:* Instruction includes communications circuits and analog computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in electronics devices and systems, 3 in digital principles, 2 in CCTV systems and 2 in physics (mechanics) (2/81); in the upper-division baccalaureate category, 4 semester hours in digital computer fundamentals (2/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics, 1 in television principles (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 3 in introduction to digital computers, 2 in computer laboratory, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics on the basis of institutional evaluation, 2 in television principles on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 3 in introduction to digital computers, 2 in computer laboratory, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics on the basis of institutional evaluation, 2 in television principles on the basis of institutional evaluation, and (4/74); in the upper-division baccalaureate category, 3 semester hours in basic electricity, 3 in electronics, 3 in receiver and transmitter circuitry, 3 in introduction to analog computers, 3 in introduction to digital computers, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, 1 semester hour in basic mathematics, 2 in television principles (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in basic electricity, 5 in electronics, 3 in receiver and transmitter circuits, 2 in introduction to digital computers, 1 in introduction to analog computers, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74).

NV-1715-0599

Airborne Early Warning/Electronics
Countermeasures Evaluator,
Class O

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (272 hours).

Exhibit Dates: 10/65-12/68.

Objectives: To train junior line officers to operate airborne early warning and electronic countermeasures equipment.

Instruction: Lectures and practical exercises in the operation of airborne early warning and electronic countermeasures equipment, including associated electronics equipment components and operation, signal evaluation, airborne navigation fundamentals, communications, control, weather and reporting, early warning tactics, and radar navigation fundamentals.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0600

P-3 PB-20N Automatic Flight Control
System Maintenance, No. 13

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train electrical maintenance personnel familiar with P-3 aircraft systems to maintain and operate the PB20N automatic flight control system.

Instruction: Lectures and practical exercises in the maintenance and operation of the PB20N automatic flight control system as installed in the P-3 aircraft, including system components, power supply and monitor, hydraulic booster assembly, trim circuits, gyro systems, controls, amplifier and computer, signal chain and channel, test sets, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0601

RA-5C Flight Control and Electrical
Systems Electronics
Intermediate Maintenance

Course Number: C-602-3750; C-602-223.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/69-1/88.

Objectives: To train maintenance personnel who have experience on transistorized equipment and RA-5C flight control systems to operate and test the electronic equipment in the flight control and electrical systems of RA-5C aircraft.

Instruction: Lectures and practical exercises in the operation and testing of the electronic equipment in the flight control and electrical systems of RA-5C aircraft, including system electronics; various amplifier, balancer, and compensator components and operations; and electrical systems electronics maintenance and operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0602

Talos Gunner's (Missile) Handling

Course Number: Not available.

Location: Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68-12/78.

Objectives: To train gunner's mates to assemble, disassemble, and replace modules of the Talos guided missile and to test and service the missile using specialized equipment.

Instruction: Lectures and practical exercises in the assembly, disassembly, and replacement of modules and the testing and servicing of Talos guided missiles, including aerodynamics, input power and major assemblies of test equipment, receiving and pretest inspection, preventive maintenance, and component handling.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0603

Terrier/Tartar Gunner's Mate

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68-12/75.

Objectives: To train gunner's mates to maintain and repair Terrier and Tartar guided missile test equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of Terrier and Tartar guided missiles, including assembly, disassembly, and replacement of faulty modules; hydraulic fill, bleeding, and testing; internal configuration and block diagrams; containers; special tools; test set operation; flight sequences; ordnance components of homing missiles and beam-riding missiles; and beam-riding and homing principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0604

Poseidon Missile Technician

Course Number: A-121-0138.

Location: Guided Missiles School, Dam Neck, VA.

Length: 18 weeks (557 hours).

Exhibit Dates: 11/72-6/76.

Objectives: To train graduates of the Polaris Electronics School to perform as Poseidon missile technicians.

Instruction: Lectures and practical exercises in the operation and maintenance of Poseidon missile equipment, including ballistic missile flight, capabilities and limitations, missile construction, symbology, propulsion system, ordnance system, power generation and distribution, missile flight sequence, instrumentation, missile testing and results analysis, missile transfer equipment and procedures, external test equipment and simulators, individual package testing, special-purpose digital computers, and radiation and detection equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0605

Terrier Weapons

Course Number: A-2F-0039.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (192 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train officers who are graduates of Naval Gunnery School and who possess previous weapons/gunnery department experience to operate and maintain Terrier weapons systems on DLG-16 class ships.

Instruction: Lectures and practical exercises in the operation and maintenance of the Terrier weapons systems equipment on DLG-16 class ships, including weapons control, guided missile fire control system, search radar, missiles, guided missile launching systems, weapon system maintenance, flight analysis and system testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0606

Strategic Weapons System (SWS)
Weapons Officer Polaris
(Mk 80 Weapons Officer)

Course Number: A-2F-0022.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 8-10 weeks (248-350 hours).

Exhibit Dates: 1/70-12/83.

Objectives: To train officers to supervise the operation and maintenance of fleet ballistic missiles.

Instruction: Topics cover terms, abbreviations, symbols, and diagrams used in electronics, servo systems, gyros, digital systems, and the physics of motion, light and fluids. Major emphasis is on practical exercises in the operation and maintenance of fleet ballistic missiles on 598 or 608 class SSBN submarines, including functional aspects of specific systems and subsystems, and emphasizing data flow, control and indications, switching, patching, casualty recognition, and readiness testing; and operation and monitoring of various system components and devices.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (9/77).

NV-1715-0607

Missile Technician Mk 84 Polaris (A-3)

Course Number: A-121-017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (967 hours).

Exhibit Dates: 11/72-11/83.

Objectives: To train enlisted personnel to operate, test, and maintain missile equipment on Polaris FBM submarines.

Instruction: Lectures and practical exercises in the operation, testing, and maintenance of missile equipment on Polaris FBM submarines, including weapons system orientation, Polaris missile components, electrical subsystem, guidance subsystem characteristics and circuitry, guidance computer, timing, telemetry, fire control interface and timing, missile test and readiness equipment, specific module operation test set equipment, and radiation and detection equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0608

Talos Officers
(Talos Weapons/Fire Control/Missile Battery)

Course Number: A-2F-0013.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/72-12/78.

Objectives: To train junior officers to supervise the maintenance of the Talos weapons system.

Instruction: Lectures and practical exercises in the maintenance and maintenance management of the Talos weapons system, including Talos system operation, search radar introduction, weapon direction system; specific equipment components; transmitter and microwave; receivers and ranging circuits; servos; associated computer equipment and logic introduction; launching system; Talos missile flight termination, propulsion, hydraulic, electrical, control, steering-intelligence, and anti-ship systems; target processing; telemetry; flight analysis; and system testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in missiles (4/74).

NV-1715-0609

Optical Landing Systems
Maintenance, Class C

Course Number: C-670-2010.

Location: Technical Training Center, Lakehurst, NJ; Air Technical Training Unit, Philadelphia, PA.

Length: 6 weeks (240 hours).

Exhibit Dates: 4/66-1/88.

Objectives: To train communications electricians to troubleshoot and maintain the Fresnel Lens Optical Landing System Mk 6 Mod 1 and the manually operated visual landing aid system Mk I Mod 1, 2, and 3, or Mk II.

Instruction: Lectures and practical exercises in the troubleshooting and maintenance of the Fresnel Lens Optical Landing System Mk 6 Mod 1 and the manually operated visual landing aid system Mk I Mod 1, 2, and 3, or Mk II, including electrical and solid-state devices, component identification, test equipment, indicator assembly stabilization, stabilization control equipment, reference lighting circuits, and lighting assembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0610

UH-2C, HH-2C, HH-2D Automatic
Stabilization Equipment
Intermediate Maintenance
(UH-2C Automatic Stabilization Equipment Intermediate Maintenance)

Course Number: C-602-3388.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2-4 weeks (72-160 hours).

Exhibit Dates: 12/68-1/88.

Objectives: To train maintenance personnel to test, maintain, and repair automatic stabilization equipment in UH-2C, HH-2C, and HH-2D helicopters.

Instruction: Lectures and practical exercises in the testing, maintenance, and repair of automatic stabilization equipment in UH-2C, HH-2C, and HH-2D helicopters, including operation of power supply circuitry, synchronization loop, amplifier-demodulator circuitry, roll channel, test sets, sensor unit, vertical gyro, accelerometer, actuators, and pitch, yaw, and collective channels.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0611

F-4J AN/AWG-10 Antenna Control
and Missile Control
Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/68-1/88.

Objectives: To train maintenance personnel familiar with miniature component repair and AN/AWG-10 equipment to maintain the antenna control and missile control portions of the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of the antenna control and missile control portions of the AN/AWG-10 missile control system, including antenna control operation, scan pattern generator operation, velocity signal computer and antenna servo operation, specific missile auxiliary signal generator equipment analysis, missile drive tuners, launch signal and pilot command signal computers, circuits, and alignment and malfunction isolation procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0612

F-4J COMMUNICATION, NAVIGATION, IDENTIFICATION (CNI) ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3815.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To train maintenance personnel to operate and maintain the F-4J CNI systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the F-4J CNI systems, including compact wire bundle identification, communication equipment components, UHF communication and intercommunication systems, TACAN navigational set, navigational computer, radar altimeter, IFF transponder set, air-to-air identification, dar beacon, data link and instrument landing systems analysis, and check-out and trouble analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0613

F/RF-4B/J AUTOMATIC FLIGHT CONTROL SYSTEMS INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To train maintenance personnel who have completed courses in transistor and digital fundamentals to maintain the automatic flight control systems of the F-4B aircraft.

Instruction: Lectures and practical exercises in the maintenance of the automatic flight control systems of the F-4B aircraft (with and without data link), including component functions, surface control and flight control systems, block-diagram analysis, power supply and switching circuits, signal circuit analysis, automatic pilot coupler analysis, and test equipment operation and components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0614

RF-4B INERTIAL NAVIGATION SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3838.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel who have completed courses in digital and transistor fundamentals to operate and troubleshoot the AN/ASN-46A and the AN/ASN-74 inertial navigation systems.

Instruction: Lectures and practical exercises in the operation and troubleshooting of the AN/ASN-46A and the AN/ASN-74 inertial navigation systems, including navigational principles, terms and vectors; heading, attitude, and cockpit displays, block-diagram analysis, synchros, Boolean algebra, gyroscope principles, logic circuits, accelerometers and integrators, and alignment and testing procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0615

A-4C/E BOMBING SYSTEM AN/AJB-3 AND REMOTE STANDBY ATTITUDE INDICATOR

Course Number: C-602-0057.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train maintenance personnel who have completed courses in transistor fundamentals and A-4 systems to operate and maintain the AN/AJB-3 and remote-standby, attitude-indicator systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AJB-3 and remote-standby, attitude-indicator systems, including displacement gyro, compass adapter, bomb release computer, all-attitude indicator, and associated components of specific equipment; power supply and system analysis; and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0616

SH-3A AUTOMATIC STABILIZATION EQUIPMENT MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to maintain the SH-3A helicopter's automatic stabilization equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the SH-3A helicopter's automatic stabilization equipment, including flight theory, stabilization problems, system functions, circuit analysis of control channels, test equipment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0617

A-7 AN/ASW-26/30 AUTOMATIC FLIGHT CONTROL SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-602-3782; C-602-162.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (64 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 9/68-12/80.

Objectives: To train fleet maintenance personnel who have backgrounds in A-7 aircraft systems to operate, test, troubleshoot and maintain specific automatic flight control systems equipment at the intermediate level.

Instruction: *All Versions:* Lectures and practical exercises in the operation, testing, troubleshooting, and maintenance of the AN/ASW-26 and AN/ASW-30 automatic flight control systems, including component theory, various module analyses, circuit analysis, modes of operation, yaw stabilization and control augmentation, trim theory, and specific component testing procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in autopilot electronics maintenance (3/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0618

GUNNER'S MATE CLASS C ROCKET LAUNCHER MK 108

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 2/68-6/75.

Objectives: To train gunner's mates to operate, maintain, and repair the Mk 108 rocket launcher and associated components and support equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of the Mk 108 rocket launcher and associated components and support equipment, including electrical control circuits, synchros, amplifiers, hydraulic control systems, launcher power drives, assembly and disassembly procedures, and test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0619

Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance

Course Number: C-122-3109.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/73-1/88.

Objectives: To train enlisted personnel to operate, calibrate, and maintain air-launched guided missile test equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation, calibration, and maintenance of air-launched guided missile test equipment, including principles of modulation, Doppler principles, and Sparrow III, Sidewinder, Shrike, and Walleye block-diagram analysis, data flow, test set operation and components, circuits, signal generation, electronic theory, power supplies, and detailed calibration procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory (4/74).

NV-1715-0620

Gunner's Mate Class C Guided Missile Launching System (GMLS)

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 24 weeks (620 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train gunner's mates to operate, maintain, and repair missile-launching systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of missile-launching systems, including configuration, characteristics, and performance of guided missiles; electrical and servo system input and output; power drive, testing of magnetic and electronic amplifiers, synchro servo systems, and hydraulic mechanical components; power supplies; electronic and hydraulic circuits; AC and DC amplifiers; oscilloscopes; modulator and demodulator units; fire-fighting equipment operation; and maintenance management.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0621

SH-3 Automatic Stabilization Equipment Intermediate Maintenance

Course Number: C-602-3398.

Location: Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 5/68-9/81.

Objectives: To train maintenance personnel to maintain the SH-3 helicopter's automatic stabilization equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the SH-3 helicopter's automatic stabilization equipment, including flight theory, controls, hydraulic systems and servos, pitch channel and vertical gyro operation, various signal paths and circuits, modulators and demodulators, monitor panel, test set operation, yaw channel familiarization, collective channel operation, cyclic coupler system components, and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0622

Talos Guided Missile and Guided Missile Test Set Maintenance

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 23 weeks (690 hours).

Exhibit Dates: 2/68-12/78.

Objectives: To train enlisted personnel to test and maintain Talos guided missiles, and to operate and maintain associated test sets and equipment.

Instruction: Lectures and practical exercises in the testing and maintenance of Talos guided missiles, and in the operation and maintenance of associated test sets and equipment, including description of the electrical, control, steering intelligence, mid-course guidance, terminal guidance and airborne flight evaluation systems; components and operation of specific guided missile test sets and fuze test equipment; and components of specific combined-unit telemeter ground stations and the Talos weapon systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0623

Launcher Technician Mk 88 Fire Control Conversion

Course Number: A-633-0015.

Location: Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (63 hours).

Exhibit Dates: 1/70-5/76.

Objectives: To train enlisted personnel who have had training on the Polaris missile-launching system to operate and maintain mechanical and electrical subsystems of the Poseidon missile-launching systems.

Instruction: Lectures and practical exercises in the operation and maintenance of mechanical and electrical subsystems of Poseidon missile-launching systems, including principles of inertial guidance and flight control, warhead configuration, and deployment, principles of hydraulics and pneumatics, repair of the launch tube, missile ejector group and missile suspension system components; dissassembly and assembly of gas piston-operated pneumatic valves, advanced theory of specific valves, detailed logic and analysis of the solid-state integrated circuitry, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0624

Gunnery Officers (Relative Rate)

Course Number: J-2E-101.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/72-1/88.

Objectives: To train junior officers from ships with specific gun mount and relative rate fire control systems to perform as gunnery officers.

Instruction: Lectures and practical exercises in fundamentals of gunnery, including target designation and acquisition, ammunition, magazines, small arms, target tracking, velocity computations, fire control principles, and alignment and repair of various systems and equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0625

Gunnery Officers—Weapons Department Officers

Course Number: J-2E-0100, J-2E-1002.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 5/72-1/88.

Objectives: To train junior officers to perform as gunnery or fire control division officers.

Instruction: Lectures and practical exercises in the fundamentals of gunnery, including anti-air warfare and fire control principles, ammunition, ballistics, magazines, administrative procedures, small arms, gunfire analysis, target tracking, missile systems, and operation repair, and alignment of specific equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0626

Gunner's Mate Class C ASROC Launching Group

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 15 weeks (450 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train gunner's mates to operate, maintain, and repair advanced rocket-launching systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of advanced rocket-launching systems, including power supplies, electronic and hydraulic systems, control circuitry, launching machinery construction and operation, testing and monitoring of signal inputs, management procedures, and logistics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0627

AN/ARW-77 Bullpup Guidance Control System

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train maintenance personnel who have backgrounds in transistor fundamentals to maintain and operate the AN/ARW-77 Bullpup transmitter.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/ARW-77 Bullpup transmitter, including operational analysis, circuit analysis and block diagrams of the transmitter, amplifiers, control units, generator and mixer and command board, and testing, alignment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0628

AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance

(Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Miramar, CA.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: 7/67–1/88.

Objectives: To train enlisted personnel to troubleshoot and maintain the Sparrow III missile and associated test equipment.

Instruction: Lectures and practical exercises in the troubleshooting and maintenance of the Sparrow III missile and the calibration and maintenance of associated test equipment, including check-out procedures, missile and test set, components, subassemblies, data flow, power supply block analyses, and test set repair procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0629

Class A Aviation Guided Missileman

Course Number: Not available.

Location: Aviation Guided Missileman School, Memphis, TN.

Length: *Version 1:* 27 weeks (1080 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 1/57–6/58.

Objectives: To teach enlisted personnel basic electronics and operation of electronic test equipment, and to train them to operate air-launched guided missiles.

Instruction: *All Versions:* Lectures and practical exercises in electronics fundamentals and operation of electronic test equipment, including AC and DC principles, radar electronics fundamentals, transmitter theory, transistors, amplifiers, vacuum tubes, various circuits, and receiver theory. *Version 1:* Includes receiver alignment and troubleshooting and antenna systems. *Version 2:* Includes gyros, synchros, and servos; guided missile components; and missile system testing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 2 in electronic circuits (12/68).

NV-1715-0630

ASROC Missile Assembly and Maintenance

Course Number: K-121-1021.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/72–6/87.

Objectives: To train weapons and torpedo officers and designated strikers to assemble and maintain the Asroc missile.

Instruction: Lectures and practical exercises in the assembly and maintenance of the ASROC missile, including system components, testing, packaging, and safety, and specific-equipment test, repair, and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0631

A-4 Armament System Organizational Maintenance

Course Number: C-646-3716.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (74 hours).

Exhibit Dates: 2/73–1/88.

Objectives: To train maintenance personnel with knowledge of the A-4 series aircraft and aviation or munitions fundamentals to maintain and operate the A-4 armament system.

Instruction: Lectures and practical exercises in the operation and maintenance of the A-4 armament system, including basic control analysis, alternate controls, gun control system, circuit analysis, fuze-arming system components, missile system components and launcher and tester, special weapons, and suspension and accessory equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0632

F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance

(F-4B/J Armament, Missile and Weapons Control System Maintenance)

Course Number: C-646-3806.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel with knowledge of electrical fundamentals to operate and maintain armament, missile, and weapon control systems equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of armament, missile, and weapon control systems equipment, including F-4B/J equipment, configuration, and control panels; specific guided missile launcher equipment circuitry, test sets, and operation; wing missile pylon operation; centerline system and wing fuel tank pylon operation and components, fuze function control system, multiple weapons system electrical operation, and miscellaneous systems and test sets.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0633

QH-50D Weapons System Electronic Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 6–8 weeks (200–320 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To train maintenance personnel to maintain the DASH weapons system electronic system.

Instruction: Lectures and practical exercises in DASH avionics system maintenance and troubleshooting procedures, including radio receiver and decoder functional analysis; automatic flight control system power distribution, gyroscope theory, directional gyroscope operation, barometric altimeter, and circuitry; radio receiving set organizational maintenance, flight control test set maintenance, and special support equipment maintenance; and functional check-out and system troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0635

Airborne Radar Intercept Operator

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 9–10 weeks (352–392 hours).

Exhibit Dates: 10/65–1/88.

Objectives: To train enlisted personnel to perform as airborne radar intercept operators.

Instruction: Lectures and practical exercises in airborne radar intercept operations, including communications and navigation equipment, flight line procedures, survival equipment, jet operation, general aircraft systems, meteorology, cruise control, approaches, computer-based solutions, navigation procedures, voice procedures, intercept procedures and tactics, radar fundamentals, path analysis, and Sidewinder intercepts.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0636

CONALOG II Maintenance (SPERRY)

Course Number: A-623-0033; F-623-027.

Location: Submarine School, Groton, CT.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/67–1/88.

Objectives: To train enlisted personnel to operate and maintain the submarine pictorial display and control system (CONALOG).

Instruction: Lectures and practical exercises in the operation and maintenance of the submarine pictorial display and control system, including functional block analysis, data flow within systems, power supplies, and test set and associated testing procedures for the specific equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0637

S-2D/E AN/ARN-52(V) NAVIGATIONAL TACAN MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/66-12/68.

Objectives: To train enlisted personnel who have had training in basic transistors to operate and maintain the AN/ARN-52 navigational TACAN.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-52 navigational TACAN, including theory of operation, power supply, analysis of various circuits, and block-diagram analysis for range- and bearing-measuring circuitry.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0638

1. ELECTRONICS TECHNICIAN, CLASS A, PHASE SEIR (SHIPBOARD EQUIPMENT INDOCTRINATION, RADAR)
2. ELECTRONICS TECHNICIAN, CLASS C, SHIPBOARD EQUIPMENT INDOCTRINATION (RADAR)

Course Number: *Version 1:* A-104-0012. *Version 2:* A-104-012; A-104-013.

Location: Service School Command, Treasure Island, CA; Service School Command, Great Lakes, IL.

Length: *Version 1:* 8 weeks (290 hours). *Version 2:* 12 weeks (472 hours).

Exhibit Dates: *Version 1:* 7/74-9/77. *Version 2:* 4/68-6/74.

Objectives: To train graduates of basic electronics courses to operate, maintain, and repair electronic equipment in shipboard radar systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment in shipboard radar systems, including basic theory of radar repeaters and identification systems, repair and replacement of modular assemblies, logical troubleshooting procedures, and operation and analysis of various components in specific indicator group equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0639

1. ELECTRONICS TECHNICIAN, CLASS A, PHASE SEIN (SHIPBOARD EQUIPMENT INDOCTRINATION, COMMUNICATIONS)
2. ELECTRONICS TECHNICIAN, CLASS C SHIPBOARD EQUIPMENT INDOCTRINATION (COMMUNICATIONS)

Course Number: A-102-0012; A-102-012; A-102-013.

Location: Service School Command, Treasure Island, CA; Service School Command, Great Lakes, IL.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 12 weeks (357 hours).

Exhibit Dates: *Version 1:* 7/74-9/77. *Version 2:* 3/68-6/74.

Objectives: To train electronics technicians to operate, maintain, and repair shipboard electronics communications equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of shipboard electronics communications equipment, including principles and operation of transmitters, oscillators, and antennas; circuit diagrams for major components; transceiver and telegraph terminal equipment; telecommunications fundamentals; controls; and testing and installation procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in communications equipment (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0640

1. P-3C SENSOR STATION THREE (RADAR/DISPLAY)TECHNICIAN ORGANIZATION MAINTENANCE
2. P-3C SENSOR STATION THREE (RADAR/DISPLAY TECHNICIAN) ORGANIZATIONAL MAINTENANCE
3. P-3C SENSOR STATION THREE (RADAR/DISPLAYS) INTEGRATED SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3593.

Location: Naval Air Maintenance Training, Jacksonville, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 12 weeks (480 hours). *Version 3:* 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 8/79-Present. *Version 2:* 11/72-7/79. *Version 3:* 1/72-10/72.

Objectives: To train fleet maintenance personnel to operate and maintain the P-3C Sensor Station Three radar/display systems at the block diagram level.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of P-3C Sensor Station Three radar/display systems, including specific equipment components, block diagrams, trouble analysis, and adjustment; radar and IFF systems and a magnetic anomaly detection system. *Version 1:* Includes functions of logic units for specific display equipment and infrared detection. *Version 2:* Includes functions of logic units for specific display equipment and a low-light-level television system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance (7/81). *Version 2:* In the vocational certificate category, 8 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0641

S-2D/E AVIONICS SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3611.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train maintenance personnel to maintain S-2D/E avionics systems.

Instruction: Lectures and practical exercises in the maintenance of S-2D/E avionics systems, including block diagrams of various electronic systems, use of specialized test equipment, intercommunications equipment operation and troubleshooting, IFF equipment, Doppler navigation equipment operation, and components and testing of specific subsystems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems maintenance (4/74).

NV-1715-0642

SUBMARINE INTERIOR COMMUNICATIONS (IC) SYSTEMS

Course Number: F-623-016.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To train submarine personnel to operate and maintain shipboard communications systems and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of shipboard communications systems and associated equipment, including theory of operation, component parts, introductory mathematics, basic electricity and electronics, transformer theory, and analysis of motor-generator controls, ship speed monitors, hydrogen detectors, synchro systems, announcing systems, and talkback and electrical control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity (4/74).

NV-1715-0643

1. RADARMAN, CLASS A
2. CLASS A RADARMAN SCHOOL (OPERATIONAL COURSE)

Course Number: Not available.

Location: Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 20 weeks (600 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 9/58-12/68. *Version 2:* 10/56-8/58.

Objectives: To train enlisted personnel to perform as on-board radar repairmen.

Instruction: *All Versions:* Lectures and practical exercises in the functions of on-board radar repairmen, including operation and maintenance procedures for specific radar equipment, air and surface search and height-finding radar sets and associated remote repeaters, air plotting and maneuvering, tactics and radar navigation, communications equipment, and test sets. *Version 1:* Includes basic electricity and electronics and special radar circuits. *Version 2:* Includes countermeasures equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electricity or electronics, 5 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0644

F/RF-8 Shoehorn Organizational Maintenance

Course Number: C-102-3851.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3–4 weeks (100–160 hours).

Exhibit Dates: 6/71–1/88.

Objectives: To train fleet maintenance personnel to operate and maintain a Shoehorn electronic countermeasures system.

Instruction: Lectures and practical exercises in the operation and maintenance of a Shoehorn electronic countermeasures system, including basic principles of sound, logic, and radar; introduction to electronic countermeasures; Shoehorn system and component block diagram and locations; peripheral equipment; testing procedures; and hard line and connector repair.

Credit Recommendation: In the vocational certificate category, 1 semester hour in equipment maintenance on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0645

AN/SPA-62 Countermeasures Receiving Group, Class C

Course Number: A-104-025.

Location: Electronics Technician, Class C School, Treasure Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/68–1/88.

Objectives: To train personnel with prior technical training in the operation, maintenance, and repair of the AN/SPA-62 countermeasures receiving group.

Instruction: Lectures and practical exercises on the operation, maintenance, and repair of the AN/SPA-62 countermeasures receiving group, including maintenance and material management, special circuits and semiconductor devices used in the AN/SPA-62, system block diagram, operating procedures, printed circuit board repair techniques, radar set modifications, receiver, trigger and gate generator, normal and ECCM video realignment, power supplies, and control monitor.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance techniques (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic maintenance techniques on the basis of institutional evaluation (4/74).

NV-1715-0646

Intermediate Aviation Fire Control Technician, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 34 weeks (1360 hours).

Exhibit Dates: 4/59–12/68.

Objectives: To provide aviation fire control technicians with supplemental training in electronics maintenance.

Instruction: Lectures and practical exercises in the intermediate maintenance of aviation fire control equipment, including electricity and mathematics, principles of electronics, advanced electronics, and essentials of fire control; supervisory training; and supply procedures.

Credit Recommendation: In the vocational certificate category, 5 in electronic circuits, 1 in analog computers, 1 in digital computers, 4 in electronics laboratory, 1 in maintenance supervision, and 1 in maintenance coordination (4/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in basic electric circuits, 5 in electronic circuits on the basis of institutional evaluation, 1 in analog computers on the basis of institutional evaluation, 1 in digital computers on the basis of institutional evaluation, 2 in electronic laboratory on the basis of institutional evaluation, credit in maintenance supervision on the basis of institutional evaluation, and, for non-science majors, 1 in maintenance coordination (4/74).

NV-1715-0647

Class A Guided Missileman

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA.

Length: 24 weeks (725 hours).

Exhibit Dates: 6/59–12/68.

Objectives: To train personnel to perform as junior guided missilemen.

Instruction: Lectures and practical exercises on the basic electronics and circuits of guided missiles, including magnetic amplifiers, oscillators, transmitters, transmission lines, TRF receivers, superheterodyne receiver, transistors, radar special circuits, and principles of guided missiles and nuclear weapons.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electricity, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics or electricity (12/68); in the upper-division baccalaureate category, 1 semester hour as an elective in electronics or electricity, 1 in electrical laboratory (4/74).

NV-1715-0648

Aviation Ordnanceman, Class A

Course Number: C-646-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 8–10 weeks (257–400 hours). *Version 2:* 9 weeks (297 hours). *Version 3:* 13–18 weeks (505–720 hours).

Exhibit Dates: *Version 1:* 1/78–9/88. *Version 2:* 6/74–12/77. *Version 3:* 5/63–5/74.

Objectives: To train enlisted personnel to perform as aviation ordnancemen.

Instruction: For this course after 9/88 see NV-1715-1437. *All Versions:* Lectures and practical exercises in the functions of aviation ordnancemen, including aircraft ordnance and electrical armament circuits, assembly and disassembly of guided missiles, aircraft machine gun and small arms repair, ammunition handling, pyrotechnics, underwater munitions and special weapons, ordnance administration, and test units for specific equipment. *Version 2:* Instruction includes elementary algebra and mathematics, physics, electrical and electronic fundamentals. *Version 3:* Instruction includes elementary algebra and mathematics, physics, electrical and electronic fundamentals.

Credit Recommendation: *Version 1:* Credit is not recommended due to the limited, specialized nature of the course (2/81). *Version 2:* In the vocational certificate category, 1 semester hour in mathematics (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (6/75). *Version 3:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0649

Terrier Weapon Direction System Mk 3 (DE Mk 9)

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68–12/75.

Objectives: To train enlisted personnel to maintain and repair weapons direction systems.

Instruction: Lectures and practical exercises in the maintenance and repair of weapons direction systems, including Terrier weapon system fundamentals; analysis of weapons direction systems, including power supplies, simulating system, sweep generation and deflection, video and tracking systems, symbol generation and display, target evaluation, director-channel switching, designation data converting system, weapons assignment, and casualty analysis; and related computer and systems equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electronics (4/74).

NV-1715-0651

Communications Technician (M) Class A

Course Number: None.

Location: Naval School, Treasure Island, CA; Naval School, Great Lakes, IL.

Length: 38 weeks (1330 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to maintain naval electronic communications and radar equipment.

Instruction: Lectures and practical exercises in naval electronic communications and radar equipment maintenance, including AC and DC fundamentals and analysis, oscilloscope applications, pulse techniques, microwave techniques and control equipment, electronic devices operation, and radar equipment fundamentals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 22 semester hours in physics (electricity) and engineering electronics and additional credit based on examination or on institutional evaluation (4/74); in the upper-division baccalaureate category, 18 semester hours in physics (electricity) and engineering electronics (12/68).

NV-1715-0652

1. Gunner's Mate, Class A1, Phase I
2. Gunner's Mate, Class A1
3. Gunner's Mate Class A, Phase I (A-1)

Course Number: A-041-0010.

Location: Service Schools Command, Great Lakes, Il.

Length: *Version 1:* 5 weeks (175 hours). *Version 2:* 12 weeks (400 hours). *Version 3:* 16 weeks (447 hours).

Exhibit Dates: *Version 1:* 8/81-Present. *Version 2:* 2/74-7/81. *Version 3:* 2/68-1/74.

Objectives: To train enlisted personnel to operate and maintain gun mount and missile launching systems.

Instruction: *Version 1:* Lectures and exercises in hand tools, ordnance identification, missile systems and small arms. *Version 2:* Lectures and practical exercises in AC and DC motors, generators, gearing systems, servos, basic vacuum tube and transistor electronics, fundamental fluid mechanics, munitions, small arms and fire control systems. *Version 3:* Lectures and practical exercises in electrical fundamentals, including elements, matter, electron theory, magnetism, AC and DC theory and circuitry, and application of circuits including transformers; equipment and machinery construction and operation, including gun mounts, and surface-to-air and surface-to-underwater missile launching systems; control systems fundamentals, and standard and digital computers used for solving control problems; hand tools usage; small arms operation; explosives characteristics; hydraulics; and synchro-servo systems troubleshooting and alignment.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (1/82). *Version 2:* In the vocational certificate category, 3 semester hours in electricity and electronics laboratory and 1 in munitions laboratory (9/77). *Version 3:* In the vocational certificate category, 4 semester hours in electricity (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (6/75).

NV-1715-0653

Gunner's Mate Class A, Phase II (A-2)

Course Number: A-041-0011.

Location: Service Schools Command, Great Lakes, IL.

Length: 7 weeks (163 hours).

Exhibit Dates: 2/68-12/73.

Objectives: To train gunner's mates to operate the electronics systems contained in missile launching systems.

Instruction: Lectures and practical exercises in the operation of the electronics systems in missile launching systems, including theory of operation and construction of vacuum tube, solid-state circuits, and magnetic amplifiers; circuit analysis techniques; weapons department organization; and troubleshooting of electronic circuitry.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronic fundamentals (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fundamentals and 1 in electronic laboratory (6/75).

NV-1715-0654

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance

Course Number: K-041-2060.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to operate, maintain, and repair the Mk 9 and Mk 10 Ford power drives and indicator-receiver regulators.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of the Mk 9 and Mk 10 Ford power drives and indicator-receiver regulators, including elementary hydraulics, electric circuits, control systems, disassembly and assembly, and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0655

3"/50 Rapid Fire Twin Mount Power Drive and Gun Maintenance
(3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35))

Course Number: J-113-1202.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, Virginia Beach,VA.

Length: 3-4 weeks (105-120 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train gunnery personnel to test, adjust, and maintain the 3"/50 caliber rapid fire gun mount and control system.

Instruction: Lectures and practical exercises in the testing, adjustment, and maintenance of the 3"/50 caliber rapid fire gun mount, including gun and motor field control circuits; parallax system operation; elevation and train receiver regulators; amplifier cabinet components; gun mechanism; loader drive operation, main cam shaft operation; feeding and shifting mechanism; timing; brake system; and lubrication procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (9/84).

NV-1715-0656

Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance

Course Number: A-150-0067.

Location: Naval Schools Command, Mare Island, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 4/70-1/88.

Objectives: To train enlisted personnel to operate and maintain a recorder-reproducer magnetic disk RD-281/UYK.

Instruction: Lectures and practical exercises in disk file familiarization, programming considerations, disk file adjustment and maintenance, instruction set familiarization, and malfunctions isolation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0657

Mardan/Verdan Computer Theory

Course Number: F-193-084.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train the navigation electronics technician to operate the MARDAN or VERDAN computer and to understand its theory of operation.

Instruction: Lectures in MARDAN or VERDAN computer operation, including Boolean algebra review, computer program loading, power sequencing and protective circuitry, GP arithmetic operations, digital differential analyzer operation and mechanization, input/output operation, and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0658

Terrier Weapons System Mk 76 Mod 8
(Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS))

Course Number: A-121-0180.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 10-11 weeks (400-470 hours).

Exhibit Dates: *Version 1:* 1/83-Present. *Version 2:* 10/72-12/82.

Objectives: To train enlisted personnel to operate and maintain the Terrier digital fire control weapons system and to supervise its operation, maintenance, and testing.

Instruction: *All Versions:* Lectures and practical exercises in Terrier weapons system introduction; ship sensors and search radars, including three-dimensional ones; fire control systems, including gunfire and underwater fire; power distribution and control circuits; tactical data systems; weapons direction system; guided missile fire control system data flow and interface; launching system and Terrier missile; and weapons system testing and alignment procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic troubleshooting procedures (11/83). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (3/74).

NV-1715-0659

P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/71-1/88.

Objectives: To train maintenance personnel to test, troubleshoot, and repair the P-3 generator, supervisory panel, buss transfer relay, deicer timer, and a specific searchlight.

Instruction: Lectures and practical exercises in the testing, troubleshooting, and repair of the P-3 generator, supervisory panel, buss transfer relay, deicer timer, and the AVQ-2C searchlight, including use of oscilloscope and multimeter in the troubleshooting, operation, and repair of the various components of the power-generating system, and searchlight components, operation, test and repair procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in electricity (5/74).

NV-1715-0660

MOTION PICTURE PROJECTION SYSTEM MAINTENANCE, CLASS C

Course Number: A-690-0014; A-690-0015.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train projectionists to maintain, troubleshoot, and repair JAN 16mm sound motion picture projectors.

Instruction: Lectures and practical exercises in JAN 16mm sound motion picture projector maintenance, troubleshooting, and repair, including mechanical and electrical components, power supply and vacuum tube amplifier theory, and audio system troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in media, 3 in audio-visual equipment repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in media, 1 in audio-visual technology, 1 as an elective in electrical technology, 1 as an elective in electromechanical technology (3/74).

NV-1715-0661

STROMBERG CARLSON AUTOMATIC TELEPHONE XY SWITCHING SYSTEM MAINTENANCE, CLASS C1

Course Number: A-623-0043.

Location: Service School Command, Great Lakes, IL.

Length: 7 weeks (220 hours).

Exhibit Dates: 12/74–1/88.

Objectives: To train personnel in the maintenance, repair and checkout of automatic electric telephone systems.

Instruction: Areas of instruction include the Stromberg Carlson automatic telephone system, relaying fundamentals, analysis of system design, priorities and faults.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone switch gear (9/77).

NV-1715-0662

MODEL 28 ASR TELETYPE MAINTENANCE

Course Number: A-160-0023.

Location: Teletype Maintenance Class C School, Pearl Harbor, HI. Teletype Maintenance Class C School, Norfolk, VA. Teletype Maintenance Class C School, San Diego, CA.

Length: 9–10 weeks (270–328 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To train personnel to install, maintain, and repair Mod 28 automatic send and receive teletypes (AN/UGC-6K, AN/UGC-20 and AN/UGC-6K modified for low-level keying), and in methods for planned maintenance system implementation.

Instruction: Lectures and practical exercises in the installation, maintenance, and repair of Mod 28 automatic send and receive teletypes and in the implementation of maintenance data collection systems, including introductions to AN/UGC-6K, automatic typer, keyboard, perforator and reperforator, and transmitter distributor; operation of electrical components; troubleshooting of the AN/UGC-6K; introduction to the AN/UGC-20 and to various teletype equipment; and introduction to low-level keying.

Credit Recommendation: In the vocational certificate category, 6 semester hours in teletypewriter maintenance (9/83); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electrical technology, mechanical technology, or electromechanical technology (9/83).

NV-1715-0663

TELETYPE MAINTENANCE, CLASS C, LOW LEVEL KEYING TELETYPE MAINTENANCE

Course Number: A-160-0052; A-160-0053.

Location: Naval Schools Command, Norfolk, VA; Fleet Training Center, Pearl Harbor, HI; Service School Command, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train enlisted personnel to install low-level modification kits and to adjust, maintain, and repair the Mod 28 teletypwriter.

Instruction: Lectures and practical exercises in the installation, adjustment, maintenance, and repair of MOD 28 teletypewriter equipment modified for low-level keying, including electrical orientation; semiconductor fundamentals; radio frequency and electromagnetic interference; purpose and construction of MK-1088/UG modification kit; modes of operation; circuit symbols, electrical service assemblies, and options; test equipment; circuit card analysis; modification kit installation; adjustments; converter; repair; and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype maintenance (9/83); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical, electrical, or electromechanical technology (9/83).

NV-1715-0664

1. TELETYPE REPERFORATOR TT-253/UGC COMBINED MAINTENANCE
2. TELETYPEWRITER REPERFORATOR TT-253/UG SERIES AND TELETYPEWRITER DISTRIBUTOR TT187/UG SERIES
   (Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines)
   (Teletypewriter Reperforator TT-253/UG)

Course Number: A-160-0076; L-160-0012; L-160-012.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4–5 weeks (120–150 hours).

Exhibit Dates: *Version 1:* 4/74–1/88. *Version 2:* 7/69–3/74.

Objectives: To train rated personnel to operate and maintain TT-253/UG teletypewriter reperforators, TT-187/UG distributor transmitters, and associated equipment.

Instruction: Lectures and practical exercises on the operation and maintenance of TT-253/UG teletypewriter reperforators and TT-187/UG distributor transmitters, including general system information; theory of system operation; and service and repair of these distributor-transmitters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electromechanical technician training (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in teletypewriter reperforation (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in electro-mechanical technology (5/74).

NV-1715-0665

TELETYPEWRITER SYSTEM (AFLOAT) MAINTENANCE MODELS TT70A/UG AND AN/UGC-5 TT-252 TYPING PERFORATOR

Course Number: K-160-262.

Location: Fleet Training Group, Pearl Harbor, HI.

Length: 6 weeks (180 hours).

Exhibit Dates: 4/66–12/68.

Objectives: To train enlisted personnel on TT-70A teletypewriters and on AN/UGC-5 perforators.

Instruction: Lectures and practical exercises on the operation and preventive maintenance of TT-70A/UG teletypewriters and the operation of the typing perforator TT-252/UG, including teletypewriter introduction, Mod 28 component parts, keyboard and adjustments, automatic typer and adjustments, theory of perforator operation, the TT-252/UG typing perforator, and punching, tape feed, printing operation, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in teletypewriter operation and repair (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in electromechanical technology (5/74).

NV-1715-0666

1. TT-264/AG TELETYPEWRITER GROUP INTERMEDIATE MAINTENANCE
2. P-3TT-264/AG TELETYPEWRITER GROUP MAINTENANCE, NO. 20

Course Number: C-102-3550.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 9/74–Present. *Version 2:* 3/68–8/74.

Objectives: To train maintenance personnel to repair specific teletypewriters.

Instruction: *Version 1:* The course includes instruction in the alignment, troubleshooting and repair of the teletypewriter by utilizing schematic circuits, block diagrams and standard electronic maintenance equipment. *Version 2:* Lectures and practical exercises in the servicing and maintenance of a teletypewriter. Course includes all elements of the teletypewriter ribbon-feed group, printer breakdown, motor servicing, magnetic selector, selector clutch-release system, the printing system, character advance and carriage return, advance prevention, print-prevention system, and general troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical maintenance procedures (7/81). *Version 2:* In the vocational certificate category, 2 semester hours in electromechanical technology (5/74).

NV-1715-0667

5"/54 RAPID FIRE MOUNT FUZESETTER, TRAIN AND ELEVATION (SERVO AMPLIFIER SYSTEM)

Course Number: K-041-2029.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/69–1/88.

Objectives: To train enlisted personnel to operate and maintain a specific artillery fuzesetter and fire control equipment.

Instruction: Lectures and practical exercises on a specific artillery fuzesetter and fire control equipment. Course includes power supplies and servo units, signal tracing, sequence control circuits, use of schematics, and the operation and maintenance of AC and DC amplifiers.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in electronics (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electronics (5/74).

NV-1715-0668

5"/54 Mount Rapid Fire Mk 42 Mod 7
Operation and Maintenance

Course Number: J-041-0128, K-041-2056.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To train enlisted personnel to operate and maintain a gun mount.

Instruction: Lectures and practical exercises in the operation and maintenance of a gun mount. Course includes basic electricity, electrical control systems, and the general operation of a 5-inch gun mount.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electricity (5/74).

NV-1715-0669

Marine Air Traffic Control Unit
Auxiliary Equipment
Maintenance, Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train enlisted personnel to operate, maintain, and repair specific AC generators and air conditioners.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of auxiliary equipment. Course includes simple DC circuits, conductors, insulators, resistors, inductance, capacitance, basic electrical indicating instruments, AC generators, transformers, AC motors, semiconductor fundamentals, rectifiers, starting currents, fault currents, battery charging circuits, and air conditioning fundamentals.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical and air conditioning fundamentals (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and air conditioning fundamentals (3/74).

NV-1715-0670

1. Air Traffic Control Electronics
   Maintenance Officers, Class O
2. Ground Controlled
   Approach/Radar Air Traffic
   Control Center Electronics
   Maintenance Officers, Class O

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 4 weeks (144 hours). *Version 2:* 4 weeks (152 hours).

Exhibit Dates: *Version 1:* 6/70–1/88. *Version 2:* 8/65–5/70.

Objectives: To train electronics maintenance officers to supervise the installation, maintenance, and repair of air traffic control systems associated with ground-controlled approach units and air traffic control centers.

Instruction: *All Versions:* Lectures and practical exercises in the installation, maintenance, and repair of air traffic control systems associated with ground-controlled approach units and air traffic control centers, including organization and installation requirements, air traffic control system complexes, principles and characteristics of air traffic control systems, test equipment and inspections, communications, supply and maintenance procedures, and flight testing. *Version 1:* Includes system siting, radar and radio principles and navigational aids.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1715-0671

SP-2 AN/APS-20B/E Radar Set
Intermediate Maintenance
Course

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train maintenance personnel in the maintenance, repair, and functional testing of the AN/APS-20B/E radar set at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance, repair, and functional testing of the AN/APS-20B/E radar set, including theory of operation of the AN/APS-20B/E; radar set control C-1449/APS-20B/E; low-voltage power supply PP-347/APS-20B/E; electrical synchronizer SN-55/APS-20B/E; transmitter T-467/APS-20B/E; high-voltage control; radar IF amplifiers; receiver R-251/APS-20B/E and duplexer; and indicator IP-414-A/APA-125.

Credit Recommendation: In the vocational certificate category, credit in radar on the basis of institutional evaluation (6/74).

NV-1715-0672

E-2A AN/APS-96 Search Radar
Intermediate Maintenance

Course Number: C-102-3471.

Location: Air Maintenance Training Detachment, Air Maintenance Training Detachment, Miramar, CA, North Island, CA.

Length: *Version 1:* 5 weeks (200 hours). *Version 2:* 7–8 weeks (280–320 hours).

Exhibit Dates: *Version 1:* 12/84–Present. *Version 2:* 3/68–11/84.

Objectives: To train maintenance personnel to maintain the AN/APS-96 search radar set at the intermediate and organizational levels.

Instruction: Lectures and practical exercises in the intermediate maintenance of the AN/APS-96 search radar, including transmit operation; receive operation; miscellaneous equipments functional description; introduction to pulse compression techniques; functional theory; trigger timer and synchronizer theory; theory of operation of specific delay line, radio frequency oscillator, radar receiver, radar modulator, and trigger pulse amplifier; power supplies; and control circuits, system emergency mode, and test operations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radar circuits and systems, 1 in radar laboratory (5/85). *Version 2:* In the vocational certificate category, credit in radar on the basis of institutional evaluation (6/74).

NV-1715-0673

Naval Tactical Data System (NTDS)
Tracker/Supervisor

Course Number: K-221-0039; K-221-1010.

Location: Fleet Combat Training Center, Pacific, San Diego, CA; Fleet Combat Training Center, Atlantic, Dam Neck, Virginia Beach, VA.

Length: 3 weeks (98–120 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To train enlisted personnel in the skills related to tactical data collection systems, execution procedures, and interpretation of information unique to the mode of operation.

Instruction: Lectures and practical exercises on the Naval Tactical Data System (NTDS) including introduction to NTDS, NTDS block-diagram analysis, data display equipment, manual air tracking, surface tracking, tracking considerations, identification, IFF/SIF/PIF, track supervisor, system tracking, NTDS communications, universal keyset, navigation keyset, utility mode, data links, beacon video processor, ECM supervisor, ECM keyset, height/size, and communication security and user overview.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

NV-1715-0674

Air Intercept Controller Naval
Tactical Data Systems (NTDS)
Qualification

(Basic Naval Tactical Data System
(NTDS) Air Intercept Controller)

Course Number: K-2G-0027; K-221-0027.

Location: Fleet Combat Training Center, Dam Neck, VA; Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 6 weeks (173–240 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train officers and radarmen to perform as basic NTDS air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control, including fleet anti-air warfare, threat intelligence, interceptor aircraft characteristics and air-to-air weapons systems, air navigation aids, communications equipment, intercept control communications procedures and vocabulary, radar indicator equipment, identification equipment, and preparation and procedures for NTDS control.

Credit Recommendation: In the vocational certificate category, credit in aircraft traffic control operation on the basis of institutional evaluation (6/86).

NV-1715-0676

Acoustic Anti-Submarine Operator
Transition

Course Number: E-210-53.

Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.

Length: 3 weeks (98 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train the acoustic AW in DIFAR equipment operation.

Instruction: Lectures and practical exercises on DIFAR equipment operation, including acoustic sensor signal generator and listening devices, sonobuoy receiver system, AN/AQA-7 systems analysis, signal flow, frequency spectrum, nondirectional modes of operation, range mode of operation, acoustic recorder/reproducer, time code generator, and capabilities of sensor station 1 and 2.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0677

SH-3 AN/AQS-13 SONAR MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/67-12/68.

Objectives: To train enlisted personnel to operate and maintain sonar systems.

Instruction: Lectures and practical exercises in the maintenance of a specific sonar system. Topics include sonar fundamentals, semiconductor theory and circuits, cathode ray tube (CRT) operation, power supply elements and operation and use of test equipment, and discussion of transmitters, receivers, transducers, display devices, amplifiers, resolvers, and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in communications systems on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in communications on the basis of institutional evaluation (6/74).

NV-1715-0678

RADAR/MAD FOR NONACOUSTIC
OPERATOR P3A/B(D)

Course Number: E-210-45.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train VP antisubmarine warfare sensor operators in the operation of nonacoustic sensors.

Instruction: Lectures and practical exercises in nonacoustic sensors, including magnetic environment, equipment familiarization and procedures, magnetic compensation equipment and procedures, MAD signal interpretation, AN/AIC-22 intercommunication system, navigation plotter familiarization and application of navigation principles, radar fundamentals, radar equipment components and operating procedures, airborne recognition equipment and preflight procedures, and radar tactical employment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0679

NONACOUSTIC ANTISUBMARINE OPERATOR
TRANSITION P-3C
(Nonacoustic Operator Transition)

Course Number: E-210-54.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 4 weeks (126 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train the nonacoustic AW operator in P3C procedures.

Instruction: Lectures and practical exercises in P3C procedures, including sensor station; search and localization sensors, radar principles; radar navigation principles; magnetic environment principles; electronic warfare principles; electronic intelligence recognition; sensor data display system; intercommunication system; radar scan converter system; MAD signal interpretation; emitter scan characteristics; threat signal identification; and 14B40 trainer laboratory.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0680

DENTAL EQUIPMENT REPAIR
TECHNOLOGY, CLASS C
(Basic Dental Repair Technician)
(Dental Technician Repair, Class C)
(Dental Repair Technician, Basic)

Course Number: B-198-0013; B-670-10.

Location: Naval Medical Center, San Diego, CA; National Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: *Version 1:* 1/78-12/89. *Version 2:* 6/55-12/77.

Objectives: To train personnel to perform as basic dental repair technicians.

Instruction: For this course after 12/89 see NV-1715-1511. *Version 1:* Lectures and practical exercises in the installation, maintenance and repair of dental operating room and prosthetic laboratory equipment, including the use of hand and power tools, a basic understanding of electricity, water systems and hydraulic systems, and a familiarization with common dental equipment such as electro/mechanical operating chairs, oral evacuation systems and X-ray equipment. *Version 2:* Lectures and practical exercises in the maintenance and repair of dental operating room and prosthetic laboratory equipment, including applied physics, repair of dental operating room equipment, repair of dental prosthetic laboratory equipment, instructor training, and petty officer leadership training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in mechanical shop practices and 3 in troubleshooting and maintenance of electromechanical equipment (6/83). *Version 2:* In the vocational certificate category, 2 semester hours in machine shop (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in machine shop on the basis of institutional evaluation (6/74).

NV-1715-0681

TARTAR WEAPONS SYSTEM MISSILE FIRE
CONTROL SYSTEM (MFCS) MK 74
MOD 0

Course Number: A-121-0023; A-121-0024.

Location: Guided Missiles School, Dam Neck, VA; Training Center, Mare Island, CA.

Length: 11 weeks (323 hours).

Exhibit Dates: 10/72-12/75.

Objectives: To train senior petty officers on the Tartar missile weapons system.

Instruction: Lectures and practical exercises on Tartar weapons system missile fire control system Mk 74 Mod 0, including supplemental reports, introduction to OP3472, DDG weapons system, Tartar weapons system, system functional diagrams, system testing and casualty analysis, standard missile (MR), DDG battery alignment, ECM/ECCM, shipboard practices and exercises, and UHF TM system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1715-0682

F/RF-4B POWER GENERATING SYSTEM
MAINTENANCE

Course Number: C-602-182.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train strikers to maintain the power generating system of the F/RF-4B aircraft at the intermediate and organizational level.

Instruction: Lectures and practical exercises in F/RF-4B power generating system maintenance, including familiarization and circuit analysis of power generating system, circuit analysis, troubleshooting procedures and test equipment, electrical power generating system, alternating current generators, specific electrical power test set, testing of the frequency and load control box and the generator control panel, and saturable current potential transformer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0683

UH-2C, HH-2C, HH-2D AUTOMATIC
STABILIZATION EQUIPMENT
ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3389.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4 weeks (112 hours).

Exhibit Dates: 2/72-1/88.

Objectives: To train maintenance personnel to maintain and repair the automatic stabilization equipment installed on UH-2C, HH-2C, and HH-2D helicopters.

Instruction: Lectures and practical exercises in the organizational maintenance of UH-2C, HH-2C, and HH-2D automatic stabilization equipment, including introduction and theory of the automatic stabilization equipment system; operation and maintenance of the ASE channels; roll, pitch, and yaw channels; collective channel; and review and testing of the ASE system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter control systems on the basis of institutional evaluation (6/74).

NV-1715-0684

SHIPBOARD DECOY SYSTEM (CHAFFROC)
LAUNCHER OPERATION AND
MAINTENANCE MK 28 MOD 1-5

Course Number: J-113-0103; J-041-1032; J-113-1032.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel to operate and maintain a rocket launching system, including loading, unloading, preventive maintenance, casualty analysis, and corrective maintenance.

Instruction: Lectures and practical exercises in the operation and maintenance of a rocket launching system. Topics include basic electricity, basic hydraulics, hydraulic pumps and valves, and information pertaining to specific equipment. Coverage of the topics is very limited.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical laboratory (6/74).

NV-1715-0685

Advanced Sonar Maintenance, 561 (Class B Sonarman)

Course Number: 561.

Location: Fleet Sonar School, San Diego, CA.

Length: 18 weeks (596 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to repair sonar and associated equipment.

Instruction: Lectures and practical exercises in advanced sonar maintenance, including fundamental mathematics, electricity and electronics theory, vacuum tube fundamentals, basic electronic circuits, basic servo systems, and circuit analysis and troubleshooting sonar equipment.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics, 4 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0686

RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 8/67-12/68.

Objectives: To train enlisted personnel to operate, maintain, and service specific countermeasures equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ALQ-61 countermeasures set, including line test, shop test, and calibration procedures for the countermeasures test sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/74).

NV-1715-0687

RA-5C AN/ALQ-55 DECM System

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 8 weeks (320 hours).

Exhibit Dates: 2/67-12/68.

Objectives: To train fleet maintenance personnel to service and maintain specific electronic equipment.

Instruction: Lectures and practical exercises in the service and maintenance procedures for specific electronic equipment. Topics include system functional analysis, preamplifier and multicoupler, RF circuitry, synchronizer, receivers, high-resolution module, jam frequency generators, and an introduction to logic. Foundation material in digital fundamentals and circuitry is included in the course.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electrical laboratory (12/68).

NV-1715-0688

F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance

Course Number: C-102-3859; C-102-306.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (60-80 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train maintenance personnel to handle operational data flow and to maintain the F-8 aircraft's communications, navigation, and identification systems.

Instruction: Lectures and practical exercises in the organizational maintenance of the F-8 aircraft's communications, navigation, and identification systems, including integration electronics systems, automatic radio direction finders, radar altimeter, block-diagram analysis of the TACAN system, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (6/74).

NV-1715-0689

Submarine Sonar Subjective Analysis (SSSA)

Course Number: A-130-0020; F-130-020.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 4-5 weeks (120-150 hours).

Exhibit Dates: 12/69-4/87.

Objectives: To provide sonar technicians with advanced training in the analysis and classification of underwater sonar information.

Instruction: Lectures and practical exercises in the analysis and classification of underwater sonar information, including security, acoustic intercept, use of filters, tone-finding techniques, diesel submarines, patrol craft, warships, analysis of target and non-target noise, and principles of magnetic tape recording.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

NV-1715-0690

Communications Quality Monitoring System Operator

Course Number: A-201-0020.

Location: Service Schools Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/71-1/88.

Objectives: To train enlisted personnel to monitor the performance of operational communication systems.

Instruction: Lectures and practical exercises in the duties and skills necessary to perform as communications quality monitoring systems operators, including fundamentals of communications, teletype terminology, audio techniques, quality control methods, and systems application.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/74).

NV-1715-0691

A-6A Weapons System Specialist Organizational Maintenance

Course Number: C-102-3954; C-000-3764.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 10-12 weeks (400-480 hours).

Exhibit Dates: 9/71-1/88.

Objectives: To train enlisted personnel to maintain the A-6A aircraft.

Instruction: Lectures and practical exercises in the maintenance of the A-6A weapons system, including aircraft systems familiarization, ballistics computer, radar systems, DIANE system operation and tie-in, diagnostics, and troubleshooting procedures. Course provides good introduction to digital systems and basic digital computer theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals and systems, 1 in computer systems laboratory (6/74).

NV-1715-0692

Advanced Sonar, 567

Course Number: 567.

Location: Fleet Sonar School, Key West, FL.

Length: 14 weeks (558 hours).

Exhibit Dates: 10/57-12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair specific sonar and ancillary equipment.

Instruction: Lectures and practical exercises in sonar maintenance at the advanced level. Course includes brief and basic coverage of electricity, special electronic circuits, and meter theory.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (6/74).

NV-1715-0693

Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT)

Course Number: A-104-0135.

Location: Guided Missiles School, Dam Neck, VA.

Length: 8 weeks (309 hours).

Exhibit Dates: 10/72-12/80.

Objectives: To train enlisted personnel to maintain and troubleshoot a specific radar set.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/SPG-55B radar set and specialized electronic test equipment, including differential voltmeters, pulse generators, VSWR indicators, spectrum analyzers, digital voltmeters and counters, square-wave generators, and continous-wave radio frequency analyzers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

NV-1715-0694

Advanced Sonar, 557

Course Number: 557.

Location: Fleet Sonar School, Key West, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 7/57-12/68.

Objectives: To train enlisted personnel to operate and learn advanced sonar techniques.

Instruction: Lectures and practical exercises in the operation of sonar at an advanced level. Topics include basic mathematics, basic fire control, elementary wiring diagrams, and testing, calibration, and maintenance of fire control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (12/68).

NV-1715-0695

P-3 AN/APS-80 SEARCH RADAR SYSTEM MAINTENANCE, 49

Course Number: C-102-3536.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River, MD.

Length: 3 weeks (96-136 hours).

Exhibit Dates: *Version 1:* 5/77-Present. *Version 2:* 1/70-4/77.

Objectives: To train experienced technicians to maintain the AN/APS-80 search radar at the module and component levels.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance and alignment procedures for the AN/APS-80 search radar system, including introduction to the P-3 search radar system; dual radar installation in the P-3; antenna azimuth and tilt systems; dual installation switching arrangement; P-3 radar system alignment; modulator power supply, electronic synchronizer; AC power distribution; and TR tube and associated circuitry. *Version 1:* Includes the radar magnatron and DC power distribution.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic radar systems and 1 in radar system laboratory (7/81). *Version 2:* In the vocational certificate category, 1 semester hour in electronics, 1 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

NV-1715-0696

AVIATION ANTISUBMARINE WARFARE (AASW) SENSOR STATION THREE OPERATOR, P-3C

(Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C)

Course Number: E-210-0050; E-210-050.

Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.

Length: 3-4 weeks (105-126 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train VP antisubmarine warfare operators in the operation of nonacoustic equipment.

Instruction: Lectures and practical exercises in nonacoustic equipment, including operation; intercept procedures; terminology; and applications and skills of scope interpretation, including sensor station duties and techniques, equipment operation, search and localization sensors, radar principles, radar navigation principles, magnetic environment principles, electronic warfare principles, and electronic intelligence recognition.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0697

SH-2D LIGHT AIRBORNE MULTIPURPOSE SYSTEMS (LAMPS) AVIONIC EQUIPMENT ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3376.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To train fleet maintenance personnel in the maintenance of SH-2D avionics equipment.

Instruction: Lectures and practical exercises in the maintenance of SH-2D avionics equipment, including LAMPS organizational maintenance, radar/ESM, antisubmarine warfare, communications/navigation equipment, systems operation and analysis, troubleshooting and repair, use of test equipment, publications, and safety procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics maintenance (6/74).

NV-1715-0698

AVIATION SUPPORT EQUIPMENT NC-10B/C MOBILE ELECTRIC POWER PLANT SYSTEMS INTERMEDIATE MAINTENANCE

(Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance)

Course Number: C-602-3228.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 1/80-Present. *Version 2:* 2/70-12/79.

Objectives: To train aviation support equipment technicians to perform intermediate maintenance on the systems of the NC-10B and the NC-10B/C electric power plant.

Instruction: Lectures and practical exercises in the maintenance of NC-10B and NC-10B/C electric power plants, including mechanical systems, maintenance, electrical systems, component removal and replacement, and troubleshooting and adjustments.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in AC/DC generator operation and repair (3/82). *Version 2:* In the vocational certificate category, 1 semester hour in support equipment maintenance (6/74).

NV-1715-0699

A-6A AUTOMATIC FLIGHT CONTROL SYSTEM INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train maintenance personnel to maintain, test, and troubleshoot the AN/ASW-16 automatic flight control system and the flight control test console at the intermediate maintenance level.

Instruction: Lectures and practical exercises in the AN/ASW-16 automatic flight control system and the flight control test console, including introduction to semiautomatic check-out equipment, operation and maintenance of the air data computer, operational theory of the air navigation computer and related components, and maintenance of the automatic flight control system.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electrical and electronic systems (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electrical and electronic systems (6/74).

NV-1715-0700

AVIATION SUPPORT EQUIPMENT NC-2A MOBILE ELECTRIC POWER PLANT INTERMEDIATE MAINTENANCE

Course Number: C-602-3226.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/71-Present.

Objectives: To train aviation support equipment technicians to perform maintenance on the NC-2A mobile electric power plant.

Instruction: Lectures and practical exercises in the maintenance of the NC-2A mobile electric power plant, including introduction to the NC-2A; NC-2A familiarization; NC-2A electrical description and theory of operation, drive motor operation and regulation; line troubleshooting; and bench test, repair, and adjustment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in AC/DC generator operation and repair (3/82).

NV-1715-0701

F-4J RT-793/ASQ UHF TRANSCEIVER INTERMEDIATE MAINTENANCE

Course Number: C-102-218.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/70-1/88.

Objectives: To train personnel in the intermediate maintenance of the RT-793/ASQ UHF transceiver.

Instruction: Lectures and practical exercises in the intermediate maintenance of the RT-793/ASQ UHF transceiver, including theory of operation, and laboratory and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance technology (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in avionics maintenance technology (6/74).

NV-1715-0702

SPARROW III, SIDEWINDER, SHRIKE, AND WALLEYE GUIDED MISSILE TEST EQUIPMENT, INTERMEDIATE MAINTENANCE (SHORE)

Course Number: C-122-3110.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 4/73–1/88.

Objectives: To train enlisted personnel to operate, maintain, and calibrate air launched guided missile test equipment.

Instruction: Lectures and practical exercises in the theory, operation, maintenance, and calibration of air launched guided missile equipment, including the Sparrow, Sidewinder, Shrike, and Walleye systems.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics, 6 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 3 in electronics laboratory (6/74); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

NV-1715-0703

Tartar Fire Control and Missile Officer

Course Number: A-2F-0010.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (331 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train commissioned officers to maintain, operate, and handle logistics for Tartar shipboard missile systems.

Instruction: Lectures and practical exercises in the maintenance and operation of Tartar missile systems. Course includes the capabilities and characteristics of the Tartar missile systems, with strong emphasis on weapons system employment, firing considerations, and operation of various radar systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical systems (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems (6/74).

NV-1715-0704

DIFAR Training for Acoustic Operators P-3A/B(D) and P3C (Jezebel Gram Analysis for AW's P-3A/B (DIFAR Retrofit))

Course Number: E-210-42.

Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.

Length: 6 weeks (203–224 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To train enlisted personnel in acoustic detection techniques for qualification as a sensor station operator aboard P3A/B (DIFAR Retrofit) aircraft.

Instruction: Lectures and practical exercises in acoustic detection techniques for qualification as a sensor station operator aboard P3A/B (DIFAR Retrofit) aircraft. Course includes Jezebel fundamental analysis procedures, aural listening techniques, acoustic listening devices, and specialized test equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0705

Strategic Weapons (SWS) System Electronic A School (Polaris Electronics, Class A)

Course Number: A-121-0142; A-121-142; A-000-037.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 16–18 weeks (480–543 hours). *Version 2:* 26 weeks (910 hours). *Version 3:* 22 weeks (703 hours).

Exhibit Dates: *Version 1:* 5/76–2/88. *Version 2:* 4/67–4/76. *Version 3:* 1/66–3/67.

Objectives: To provide strategic weapsons systems technicians with training in electricity/electronics fundamentals.

Instruction: For this course after 2/88 see NV-1715-1400. *Version 1:* Lectures and practical exercises in basic electricity and electronics including safety, introduction to matter, magnetism, electricity, series circuits, parallel circuits, combination circuits, meters, induction, capacitance, time constants, series and parallel reactive circuits, relays, transformers, motors, servos, scopes, transistor-diode theory, CRT, clamp-limitor circuits, FETS, amplifier types, SCRs, power supplies and filters, voltage regulation, zeners, amplifier coupling, UJT, oscillators, multivibrators, superheterodyne receivers and associated circuitry, video amplifiers, tuned circuit alignment, troubleshooting practice, accelerometers, mechanics of motion, gyroscopes, binary math, codes, gates, ALUs, data transmission, logic diagrams, programming, and digital troubleshooting. *Version 2:* Lectures and practical exercises in Polaris missile technology, including basic electrical theory, transistor circuit analysis, modern digital computer circuits and logic operations, inertial guidance theory, radar, sonar and communications fire control. *Version 3:* Lectures and practical exercises in Polaris missile technology, including basic electrical theory, transistor circuit analysis, modern digital computer circuits and logic operations, inertial guidance theory, radar, sonar, and communications fire control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 2 in basic electronics, 2 in semiconductors, 2 in electronic circuits, 2 in data processing, 3 in digital computer fundamentals, all non-calculus based (11/83). *Version 2:* In the vocational certificate category, 25 semester hours in electronics or computer technology (6/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electronics or computer technology (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in digital computer fundamentals, or electrical or electronics laboratory (6/74). *Version 3:* In the vocational certificate category, 20 semester hours in electronics or computer technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical or electronics laboratory (6/74).

NV-1715-0706

F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance

Course Number: C-602-3818.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 1/71–1/88.

Objectives: To train personnel to maintain the AN/AWG-10 missile control display and built-in test.

Instruction: Lectures and practical exercises in the maintenance of the AN/AWG-10 missile control display and built-in test. Course includes inspection techniques, troubleshooting procedures, the missile auxiliary generator, and topics on basic computer control of servo systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic computers and/or servo laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic computers and/or servo laboratory (6/74).

NV-1715-0707

APA-56 Indicator Assembly

Course Number: D-100-012.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train enlisted personnel to operate, maintain, adjust, and troubleshoot the APA-56 indicator and associated test equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, adjustment, and troubleshooting of the APA-56 indicator and associated test equipment, including power supplies, circuit analysis, signal distributor, console indicator, relay priority system, camera PPI and grid map converter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0708

Central Gyro Reference System (AN/AJA-2), Class C

Course Number: D-602-017.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train aviation electricians to operate, maintain, and troubleshoot the AN/AJA-2 central gyro reference system.

Instruction: Lectures and practical exercises in the operation, maintenance, and troubleshooting of the AN/AJA-2 central gyro reference system, including review of basic electronics and electricity pertaining to the central gyro reference system, definition of terms and descriptions of equipment, three-gyro stable platform, timing and functional operations, detailed circuit analysis and preflight procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0709

E-2A Inertial Navigation System AN/ASN-36 Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/68–1/88.

Objectives: To train enlisted personnel to maintain the ASN-36 inertial navigation system.

Instruction: Lectures and practical exercises in the maintenance of the ASN-36 inertial navigation system. Topics include gyroscopes, accelerometers, servos, platform stabilization, control servos, control and navigation computer, analog-to-digital encoders, and analog and digital computations (functional approach only).

Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical and/or mechanical technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and/or mechanical technology (7/74); in the upper-division baccalaureate category, 1 semester hour in electrical and/or mechanical technology on the basis of institutional evaluation (7/74).

NV-1715-0710

AN/ARC-51, 51A, 51AX, 51B, RT-793/ASQ and RT-1010/ASQ-140 Communication Systems Intermediate Maintenance (AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance)

(P-3 AN/ARC-51A Communication Systems Maintenance, No. 22)

Course Number: C-102-3014.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80–96 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain, operate, and troubleshoot the AN/ARC-51, 51A and 51AX communication systems.

Instruction: Lectures and practical exercises in the maintenance, operation, and troubleshooting of the AN/ARC-51, 51A, and 51AX communication systems, including block-diagram analysis of transceivers. Specific topics include frequency frequency synthesis, AC/DC power supplies, RF and power amplifiers, transmitters and related circuitry.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/81).

NV-1715-0711

Advanced Sonar Course 566

Course Number: 566.

Location: Fleet Sonar School, Key West, FL.

Length: 5–6 weeks (225 hours).

Exhibit Dates: 10/57–12/68.

Objectives: To train enlisted personnel to maintain, calibrate, and operate sonar equipment.

Instruction: Lectures and practical exercises in the maintenance, calibration, and operation of sonar equipment at the advanced level. Course includes a review of mathematics, electricity, receivers, transmitters, and circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (7/74).

NV-1715-0712

Missile Technician, Class B
(Class B Guided Missileman)

Course Number: Not available.

Location: Guided Missile School, Dam Neck, VA.

Length: 38–41 weeks (1,140–1,435 hours).

Exhibit Dates: 3/61–12/83.

Objectives: To provide the student with the technical background in mathematics, physics, and electronics necessary to analyze the operational capabilities and limitations of a complex missile weapon system.

Instruction: Lectures and practical exercises in technical mathematics, physics, and electronics. The mathematics instruction covers algebra, trigonometry, and basic calculus. Physics topics include mechanics, with emphasis on missile trajectories and the properties of matter, heat, light, sound, electricity, and magnetism. In the electronics section, DC and AC circuits, vacuum tubes, semiconductors, amplifiers, amplitude, frequency, phase, and pulse modulation are studied. In addition, computer fundamentals are presented. A significant part of the program is devoted to inertial components and weapon systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in mathematics, 4 in electronics, 3 in electricity, and, on the basis of institutional evaluation, additional credit in electronics laboratory (8/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in mathematics, 4 in physics, 3 in electricity or electronics, and, on the basis of institutional evaluation, additional credit in electrical laboratory (12/68).

NV-1715-0713

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C

(Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C)

Course Number: C-103-2012.

Location: *Version 1:* Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: 8–10 weeks (300–360 hours).

Exhibit Dates: *Version 1:* 8/77–8/82. *Version 2:* 10/65–7/77.

Objectives: To train graduates of electronics technicians school, class A, in the operation and maintenance of the AN/SPN-35A and AN/SPN-35 radar sets and associated auxiliary electronic equipment.

Instruction: *All Versions:* Lectures and practical exercises in operation and maintenance of specific radar sets and associated electronic equipment, including radar circuit theory, radar transmitters, receivers, antenna stabilization, indicators, system alignment, AN/SPN-35 modifications, and differences between AN/SPN-35A and AN/SPN-35 radar sets.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and repair of radar systems (2/81). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (7/74); in the upper-division baccalaureate category, 3 semester hours in electronics laboratory (7/74).

NV-1715-0714

Basic Propulsion Engineering, Class A

Course Number: A-650-010.

Location: Naval Training Center, Great Lakes, IL.

Length: *Version 1:* 5 weeks (152 hours). *Version 2:* 9 weeks (275 hours).

Exhibit Dates: *Version 1:* 6/70–12/73. *Version 2:* 1/67–5/70.

Objectives: To train personnel in basic propulsion engineering, class A.

Instruction: *All Versions:* Lectures and practical exercises in basic propulsion engineering, class A, including introduction to marine power plants, introduction to boilers, combustion principles, internal-combustion engines, measuring and control devices, electrical theory, blueprints and telephones, pumps, power transfer equipment, valves, piping, and fittings. *Version 1:* Topics include power transfer equipment, handtools, instruments, and materials. *Version 2:* Topics include mathematics review, mechanical theory, metallurgy, fluid theory, heat theory, and logs.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic engineering theory, 2 in electronics laboratory (7/74).

NV-1715-0715

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/65–12/68.

Objectives: To train selected electronics technicians to operate AN/SPN-6 and AN/SPN-12 (XN-4) air traffic control electronic equipment.

Instruction: Lectures and practical exercises in operation of air traffic control electronic equipment. Course includes transmitters and receivers, antenna stabilization, and air speed radar operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (7/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (7/74).

NV-1715-0716

Basic Undersea Weapons Circuits

Course Number: A-123-0130; A-123-119.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 8 weeks (283 hours).

Exhibit Dates: 1/70–6/87.

Objectives: To train enlisted personnel in basic undersea weapons circuits.

Instruction: Lectures and practical exercises in basic undersea weapons circuits, including introduction, direct current and Ohm's law, alternating current, synchros, introduction to electronics, basic amplifier circuits theory, principles of receiver operation, and transmitters and transducers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical and electronic laboratory for non-electrical-engineering students (6/74).

NV-1715-0717

Advanced Undersea Weapons Circuits

Course Number: A-123-0131.

Location: Advanced Undersea Weapons School, Orlando, FL; Fleet Anti-Submarine Warfare School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 12 weeks (420 hours).

Exhibit Dates: 6/70–6/87.

Objectives: To train enlisted personnel in advanced undersea weapons circuits.

Instruction: Lectures and practical exercises in advanced undersea weapons circuits, including basic mathematics, test equipment, undersea weapons power systems, undersea weapon circuits, undersea weapons systems sections, synchro-servo system principles, gyroscopic concepts, transistors and printed circuits, and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic laboratory for engineering students, or 2 as a technical elective for non-engineering students (6/74).

NV-1715-0718

Torpedoman's Mate, Class A
(Torpedoman's Mate, Class A, Intermediate Maintenance Prerequisite)

Course Number: A-123-0129.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 5 weeks (155 hours).

Exhibit Dates: 6/70–6/87.

Objectives: To train torpedoman's mates in intermediate electronics maintenance.

Instruction: Lectures and practical exercises in electronics maintenance, including basic principles of synchros, basic amplifier circuits, principles of receiver operation, transmitters and transducers, theory of vacuum tube operation, methods of biasing vacuum tubes, troubleshooting amplifiers, detector circuits, electronic test equipment, troubleshooting power supplies, oscillator circuits, basic transmitter circuitry, and principles of transducer operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electrical-engineering students (6/74).

NV-1715-0719

Torpedoman's Mate Surface Operator Special
(Torpedoman's Mate, Class A)
(Torpedoman's Mate, Class A, Surface)

Course Number: A-123-0171; A-123-0128.

Location: Service School Command, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 4–5 weeks (142–175 hours).

Exhibit Dates: 6/70–6/87.

Objectives: To train torpedoman's mates in surface weapons.

Instruction: Lectures and practical exercises in surface weapons, including torpedo explosives, specific torpedos, stand-off weapons, specific torpedo tubes, firing craft procedures for specific torpedos, and associated equipment. The course includes instruction in steam, mechanical and wire-guided torpedos, standoff weapons and depth charges.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/83).

NV-1715-0720

Torpedoman's Mate Submarine Operator Special
(Torpedoman's Mate, Class A)
(Torpedoman's Mate, Class A, Submarine)

Course Number: A-123-0169; A-123-0127.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 4–6 weeks (160–257 hours).

Exhibit Dates: 6/70–6/87.

Objectives: To train enlisted personnel as torpedoman's mates.

Instruction: Lectures and practical exercises in submarine weapons, including introduction to explosives, specific torpedos, introduction to SUBROC missile, specific submerged torpedo tubes, and torpedo tube loading procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/83).

NV-1715-0721

Electronics Officers Administrative

Course Number: Not available.

Location: Electronics Officers School, Great Lakes, IL.

Length: 14 weeks (420 hours).

Exhibit Dates: 9/57–12/58.

Objectives: To train junior officers to maintain and repair sonar, radar, and loran equipment; to administer the operation of electronics installations; and to conduct training programs for ET strikers.

Instruction: Lectures and practical exercises in the maintenance and repair of loran, sonar, radar, and other miscellaneous electronic equipment. Course includes fundamentals of electricity and vacuum-tube electronics as well as a description of radar, loran and sonar systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

NV-1715-0722

Electronics Technician, Class A—A-1
(Electronic Fundamentals)

Course Number: A-100-0012.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School, Treasure Island, CA.

Length: *Version 1:* 10 weeks (364 hours). *Version 2:* 13–14 weeks (390–420 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel who are graduates of a basic electricity and electronics course to perform as electronics technicians.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment, including electronic circuits, basic meters, basic oscilloscopes, power supplies, electron tube and half/full wave rectifier circuits, electrical wiring techniques, filter circuits, mounting and soldering techniques, voltage regulators, transmitting circuits, modulator unit, RC coupled amplifiers, use of the tube tester, multigrid vacuum tube amplifiers, and audio power amplifiers. *Version 1:* Also covers electron tubes and solid state receivers and devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity and electronics and 2 in electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory, or 2 in introduction to electronics for non-engineering students (6/74).

NV-1715-0723

Electronics Technician, Class A—A-2
(Electronic Circuit Applications)

Course Number: *All Versions:* A-100-0014. *Version 2:* A-100-014; A-100-015.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School, Treasure Island, CA.

Length: *Version 1:* 7 weeks (255 hours). *Version 2:* 9–12 weeks (270–368 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel who are graduates of a basic electricity and electronics course to perform as electronics technicians.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of radar-related electronic equipment, including pulse circuits, timing circuits, multivibrators, clippers and counters, cathode followers, transistor printed-circuit training device, oscilloscope circuits, microwave circuits, and radar timers and modulators. *Version 1:* Also covers control systems, magnetic amplifiers, Boolean algebra and simplified digital circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in radar systems (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory for engineers or physical science majors, or 2 in applied electronics for non-engineering students (6/74).

NV-1715-0724

ELECTRONICS TECHNICIAN, CLASS A—A-3 (COMMUNICATIONS)

Course Number: *All Versions:* A-102-0010. *Version 2:* A-102-010; A-102-011.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School, Treasure Island, CA.

Length: *Version 1:* 5 weeks (172 hours). *Version 2:* 5–8 weeks (150–240 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel to perform as electronics technicians.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment, including introduction to communications; HF communication receivers; UHF communications equipment; and specific radio receivers, radio transmitters, special circuits, power supplies, and audio circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in communications equipment (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in communications laboratory (9/77). *Version 2:* In the vocational certificate category, 4 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in radio laboratory (6/74).

NV-1715-0725

ELECTRONICS TECHNICIAN, CLASS A—A-3 (RADAR)

Course Number: *All Versions:* A-104-0010; A-104-0011. *Version 2:* A-104-010, A-104-011.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: *Version 1:* 3 weeks (110 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel to perform as electronics technicians.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of radar-related electronic equipment, including types of radar and moving-target indicators; review of special circuits; and specific radar set, antenna, synchro, R-F system, receiver, transmitter, and modulator.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radar electronics (9/77). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory (6/74).

NV-1715-0726

U-1700 MAINTENANCE

Course Number: A-150-0108.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/77–Present.

Objectives: To train data systems technicians in the operation and maintenance of a UNIVAC 1701 keypunch unit.

Instruction: Lectures and practical exercises in the theory of operation and the maintenance procedures for a UNIVAC card keypunch unit including the mechanical systems, the keyboard, the core memory unit, the block diagrams and the troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer I/O equipment operation and repair (11/81).

NV-1715-0727

ELECTRONICS TECHNICIAN, CLASS A (COMMUNICATIONS, RADAR AND SONAR SPECIALTIES)

Course Number: None.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: 24–26 weeks (720–780 hours).

Exhibit Dates: 1/54–5/62.

Objectives: To train electronic technicians to operate and repair complex communications systems, including radar and sonar systems.

Instruction: Lectures and practical exercises in operation and maintenance of complex communications systems. Course includes basic electrical and electronic circuit theory, block-diagram analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 18 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in electronics (6/74); in the upper-division baccalaureate category, 3 semester hours in basic electronics, 1 in electrical laboratory as technical electives for non-electrical-engineering majors, or 2 semester hours in electronic instrumentation or radio laboratory for electrical engineering students (6/74).

NV-1715-0728

GUN FIRE CONTROL SYSTEM (GFCS), MK 37, MK 68, MK 56 RADAR SIGNAL PROCESSING EQUIPMENT (RSPE) MAINTENANCE

Course Number: K-113-158.

Location: Fleet Training Center, San Diego, CA.

Length: 6 weeks (180 hours).

Exhibit Dates: 6/71–1/88.

Objectives: To train technicians and designated strikers to operate and maintain radar gun control systems, including GFCS Mk 37, Mk 68, and Mk 56.

Instruction: Lectures and practical exercises in the operation and maintenance of radar gun control systems. Course includes review of basic transistor electronics, primary radar circuitry including IF detection and amplification; automatic target range acquisition and tracking; and logic circuitry.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory (6/74).

NV-1715-0729

INTERIOR COMMUNICATIONS (IC) ELECTRICIANS, CLASS A (A-1)

Course Number: A-632-0012.

Location: Interior Communication Electricians, Class A School, San Diego, CA; Interior Communication Electricians, Class A School, Great Lakes, IL.

Length: 18 weeks (510 hours).

Exhibit Dates: 11/65–12/68.

Objectives: To train technicians to operate, maintain and repair shipboard interior communications equipment.

Instruction: Lectures and practical exercises in operation, maintenance, and repair of shipboard interior communications systems and equipment. Course includes DC/AC electrical theory, audio amplifiers, magnetic amplifiers and gyroscopic equipment, block diagrams, signal tracing, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics instrumentation for non-electrical-engineering majors, or 2 in electrical or electronics laboratory for non-electrical-engineering majors, and 1 in electrical laboratory (6/74).

NV-1715-0730

ELECTRONICS TECHNICIAN, CLASS A (COMMUNICATIONS)

Course Number: Not available.

Location: Electronics Technician, Class A Schools, Great Lakes, IL; Electronics Technician, Class A Schools, Treasure Island, CA.

Length: 38 weeks (1140 hours).

Exhibit Dates: 6/62–4/66.

Objectives: To train personnel to maintain a variety of Naval electronic equipment.

Instruction: Lectures and practical exercises in the maintenance of Naval electronic equipment, including electronic fundamentals, electronic circuit fundamentals, transmitter applications, receiver applications, pulse techniques, control systems, microwave techniques, electronic equipments, communication receivers and transmitters, teletype terminal equipment, and single-sideband equipment.

Credit Recommendation: In the vocational certificate category, 28 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering majors, 3 as a technical elective in electrical or electronic laboratory for non-electrical-engineering students, 1 in instrumentation laboratory for electrical engineering students (6/74).

NV-1715-0731

ELECTRONICS TECHNICIAN, CLASS A (RADAR)

Course Number: Not available.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: 38 weeks (1140 hours).

Exhibit Dates: 6/62-4/66.
Objectives: To train personnel to maintain electronic equipment.
Instruction: Lectures and practical exercises in the maintenance of electronic equipment, including radar equipment fundamentals, multivibrators, synchronization, oscillators, magnetrons, klystrons, clampers, limiters, and clippers; introduction to radar equipment; primary power distribution; modulator; transmitter; RF system and duplexer; receiver and adapter indicator; radar set control; antenna and synchro systems; equipment review; and block diagram of a specific radar set.
Credit Recommendation: In the vocational certificate category, 28 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering students, 3 as a technical elective for non-electrical-engineering students, 1 in instrumentation laboratory for electrical engineers (6/74).

NV-1715-0732

RA-5C Flight Control System Electronics (Intermediate Maintenance)

Course Number: Not available.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 6 weeks (240 hours).
Exhibit Dates: 9/67-1/88.
Objectives: To train maintenance personnel to maintain and service the RA-5C flight control system.
Instruction: Lectures and practical exercises in the maintenance of the RA-5C flight control system. Course includes hydraulic and airflow systems., directional control systems, flight control systems, and use of training units, meters, and oscilloscopes.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (7/74).

NV-1715-0733

A-4 Walleye Weapon Delivery System

Course Number: Not available.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 11/67-1/88.
Objectives: To train enlisted personnel to maintain and repair the Walleye weapons system.
Instruction: Lectures and practical exercises in the maintenance and repair of the Walleye weapons system. Course includes logic systems, power generators, instrumentation usage, system familiarization, and troubleshooting procedures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0734

TT-299B/UG Teletypewriter Set Maintenance (Enlisted)

Course Number: F-101-018.
Location: Submarine School, Groton, CT.
Length: 4 weeks (120 hours).
Exhibit Dates: 8/67-12/68.
Objectives: To train submarine radiomen and submarine tender personnel to repair the TT-299B/UG teletypewriter set.
Instruction: Lectures and practical exercises in planned and corrective maintenance of a specific teletypewriter set, including introduction to specific teletypewriter set; mechanical function of the keyboard; nomenclature; analysis of the printer main shaft; electromechanical function of the magnetic selector; functional purpose of the start clutch and range selector; mechanical functions of the printing mechanism and the print-and-advance prevent mechanism; mechanical operations of specific functions; and preparation for adjustments and tool kit inventory.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0735

Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1

Course Number: A-623-0044.
Location: Service School Command, Great Lakes, IL.
Length: 6 weeks (173 hours).
Exhibit Dates: 12/74-8/79.
Objectives: To train personnel in the maintenance, repair and checkout of automatic electric telephone systems.
Instruction: Areas of instruction include the Strowger Switch telephone system, relaying fundamentals, analysis of system design, priorities and faults.
Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone switch gear (9/77).

NV-1715-0736

KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/68-1/88.
Objectives: To train enlisted personnel to repair and maintain the automatic pilot installed in the KC-130F aircraft.
Instruction: Lectures and practical exercises in the repair and maintenance of the automatic pilot installed in KC-130F aircraft. Course includes MA-1 compass operation (electronics), and the operation of the SA-5 automatic pilot.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0737

F-8 Automatic Flight Control System Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/70-1/88.
Objectives: To train maintenance personnel to troubleshoot and repair F-8 automatic flight control systems.
Instruction: Lectures and practical exercises in the maintenance and repair of F-8 automatic flight control systems. Course includes a review of vacuum tube theory, transistor theory, aerodynamics, and test equipment operation.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (7/74).

NV-1715-0738

H-53 Automatic Flight Controls Systems Intermediate Maintenance

Course Number: C-602-3442.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/70-1/88.
Objectives: To train enlisted personnel who have had previous training in transistor fundamentals to operate and maintain at the intermediate level the automatic flight control system installed in H-53 aircraft.
Instruction: Lectures and practical exercises in the operation and maintenance of the automatic flight control system installed in the H-53 aircraft, including attitude-indicating system components, stick trim system, amplifier circuit analysis, synchronizer circuits, control box wiring, detailed analysis of circuits, test procedures and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0739

P-3 Communication/Navigation Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/70-1/88.
Objectives: To train fleet maintenance personnel to operate and maintain P-3 communication/navigation systems.
Instruction: Lectures and practical exercises in the operation and maintenance of P-3 communication/navigation systems, including high-, very-high-, and ultra-high-frequency communications circuits; recorders and teletypewriter group components and maintenance; radio navigation electronic circuitry (automatic direction finder, radar altimeter, Loran and TACAN equipment, beacon receiving set, and various indicator groups); and navigation systems, including computer groups.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0740

Mine Detection Sonar Technical Maintenance

Course Number: C-570.
Location: Fleet Sonar School, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 4/55-12/63.
Objectives: To train enlisted personnel who have electronics backgrounds to operate, test, and repair mine detection sonar.
Instruction: Lectures and practical exercises in the operation, testing, and repair of mine detection sonar, including test equipment (meters, tube testers, oscilloscopes, signal generators, and C & R bridges), special circuits (power supplies, diodes and triodes, multivibrators, synchros, and DC

generators), specific equipment components, AC and DC power, troubleshooting procedures, receiver and transmitter functions, servo systems, and calibration and alignment procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (7/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (7/74).

NV-1715-0741

Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance

Course Number: C-602-3496.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/72–1/88.

Objectives: To train electricians to maintain and repair C-2A aircraft air data computers.

Instruction: Lectures and practical exercises in C-2A aircraft air data computer maintenance and repair, including flight controls, components description and operation, system operation, and preflight checks.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0742

Marine Air Traffic Control Maintenance Supervisor Training, Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To train electronics technicians to supervise the installation, maintenance, and repair of air traffic control systems.

Instruction: Lectures and practical exercises in air traffic control systems installation, maintenance, and repair, including system characteristics, system siting, flight inspections, maintenance policies, naval supply system, and maintenance funds administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0743

Naval Air Weapons Systems Orientation, Class O

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train enlisted personnel to supervise naval air weapons systems maintenance in operational aircraft squadrons.

Instruction: Lectures and practical exercises in naval air weapons systems maintenance, including aircraft armament control systems, air-launched guided missiles, electronic circuitry, fire control systems, all-weather aero-armament control system, missile systems introduction, and maintenance administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0744

Aviation Ordnance Officers, Class O

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/53–12/68.

Objectives: To train officers to be aviation ordnance officers.

Instruction: Lectures and practical exercises in electricity and electronics, aviation fire control systems, aircraft munitions, turrets, machine guns, and torpedoes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (7/74).

NV-1715-0745

AN/SPS-40B/C/D Radar Set Difference Maintenance (Electronics Technician, Class C1)

Course Number: A-104-0164.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/76–1/88.

Objectives: To provide the skills and knowledge necessary to maintain the AN/SPS-40B/C/D radar set.

Instruction: Course teaches maintenance of the AN/SPS-40B/C/D radar set; power control and distribution, air system, cooling system, antenna system, timing and trigger generation, frequency generation, low- and high-power transmitting group, receiver system, and test functions.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communication system, 1 in electronics laboratory (11/77).

NV-1715-0746

E-2A AN/ASQ-58 Integrated Electronic Central UHF RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance

Course Number: C-102-3473.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train maintenance personnel to maintain UHF equipment and power supplies.

Instruction: Lectures and practical exercises in the maintenance of UHF equipment and power supplies, including transceiver block diagrams, circuit analysis, theory of operation, power distribution, and automatic equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0747

SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance

Course Number: C-130-3396.

Location: Air Maintenance Training Detachment, North Island, San Diego, CA; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 10/76–Present. *Version 2:* 11/72–9/76.

Objectives: To train fleet maintenance personnel in the maintenance of the AN/AQS-13A sonar system.

Instruction: *Version 1:* Upon completion of the course, the student will be able to troubleshoot, repair and maintain the following components of a specific sonar system at the board or component level: system timers, transmitter/receiver, power supply circuit, transducer circuit, underwater voice communication circuit, and minimum performance testing and alignment. *Version 2:* Lectures and practical exercises in the maintenance of a specific sonar system, including introduction, associated test equipment, power supply, transmit and receive circuitry, video display, reeling machine and associated circuit analysis, minimum performance standards test, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in marine electronics repair and maintenance, 1 in electronics laboratory (4/85). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74).

NV-1715-0748

RA-5C Photo Reconnaissance System Organizational Maintenance (RA-5C Photo Reconnaissance Line Maintenance)

Course Number: C-100-3748.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 4 weeks (152–160 hours).

Exhibit Dates: 9/67–1/88.

Objectives: To train selected enlisted personnel to maintain and repair the RA-5C photographic reconnaissance system.

Instruction: Lectures and practical exercises in the maintenance and repair of the RA-5C photographic reconnaissance system. Course includes knowledge of camera-system parts, function and control; familiarity of appropriate cameras designed to work with the system; and malfunction detection.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0749

AN/SPS-29E Radar Set Maintenance (Electronics Technician, Class C1)

Course Number: A-104-0151.

Location: Service School Command, San Diego, CA.

Length: 9 weeks (272–360 hours).

Exhibit Dates: *Version 1:* 5/79–Present. *Version 2:* 9/75–4/79.

Objectives: To provide the skills and knowledge necessary to maintain the AN/SPS-29E radar set.

Instruction: Topics include operation and maintenance of the AN/SPS-29E radar set and the AN/SPA-62 receiver; AC and DC distribution, cooling and air pressurization function, monitoring function, trigger generating function, transmitter group, antenna function, normal realignment group, canceller, and integrator groups.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit and pneumatic system troubleshooting (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in communications systems, 2 in electronics laboratory (11/77).

NV-1715-0750

RF-4B Camera Control System
Organizational Maintenance

Course Number: C-198-3831.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71-1/88.

Objectives: To train enlisted personnel in RF-4B aircraft camera control system maintenance.

Instruction: Lectures and practical exercises in RF-4B aircraft camera control system maintenance, including preflight procedures, camera control system components, reconnaissance camera loading, installation and removal of cameras and associated equipment, and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0751

RF-4B Photographic Film Correlator-Processor Set ES-55A
Intermediate Maintenance

Course Number: C-198-3833.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train maintenance personnel to maintain the ES-55A correlator-processor.

Instruction: Lectures and practical exercises in ES-55A correlator-processor set maintenance, including side-looking radar (SLR) fundamentals, optical and electrical system functions, maintenance procedures, and troubleshooting and calibration procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0752

RF-4B Camera Control System
Intermediate Maintenance

Course Number: C-198-3832.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train experienced maintenance personnel to operate, troubleshoot, repair, and maintain the RF-4B camera control system at the intermediate level.

Instruction: Lectures and practical exercises in the operation, troubleshooting, repair, and maintenance of the RF-4B camera control system, including basic electronics review, camera control panels, photographic system power, optical viewfinder, aircraft parameter control, still-picture camera equipment, low- and high-altitude panoramic camera components, aircraft camera mount set, test equipment, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0753

1. Data Systems Technician, Class A
2. Data Systems Technician, Class A, Phase A-1
3. Data Systems Technician, Class A (DS "A")

Course Number: A-150-0025.

Location: *All Versions:* Naval School, Mare Island, CA. *Version 2:* Naval School, Great Lakes, IL.

Length: *Version 1:* 22 weeks (925 hours). *Version 2:* 18 weeks (720 hours). *Version 3:* 38 weeks (1140 hours).

Exhibit Dates: *Version 1:* 4/79-9/86. *Version 2:* 1/70-3/79. *Version 3:* 6/62-12/69.

Objectives: To train enlisted personnel to maintain data processing equipment.

Instruction: *Version 1:* Lectures and practical exercises in basic digital concepts and computer systems troubleshooting and operation. The course includes whole number system conversions, arithmetic operations in base 2, 8, 10, 16, one's and two's compliment arithmetic, operation of simple logic gates in terms of truth tables and Boolean expressions, deriving Boolean expressions of logic circuits with Karneough maps simplification techniques, FF and basic register operation, counters, shift registers, data transfer methods, arithmetic circuits, computer timing circuits, Core memory systems, DA, AD and synchro-servo input/output systems operation, machine language programming and troubleshooting of a COMTRAN 10 digital trainer followed by similar training on a 16-bit computer. *Version 2:* Lectures and practical exercises in vacuum tube and transistor circuits, Boolean algebra, logic equation reduction, number systems, counters and registers, input/output devices, storage devices, and computer programming using the CP-788/GYK. The programming taught in this course is not directly applicable to commercial machines. (See NV-1715-0043, NV-1715-0044 and NV-1715-0045 for Phase A-2, Parts I, II, and III respectively.) *Version 3:* Part 1 of this course consists of the first 28 weeks of the Electronics Technician, Class A program (NV-1715-0730 or NV-1715-0731). Part 2 (10 weeks) includes data processing system functions, digital computer mathematics, digital computer programming, symbolic logic and Boolean algebra, data storage, input/output devices, digital control concepts, operation and application of dual-trace oscilloscope to digital computer maintenance, printed circuit board repair, and analog-to-digital conversion.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in basic digital electronics, 3 in computer organization and architecture and 2 in computer systems laboratory (1/82). *Version 2:* In the vocational certificate category, 12 semester hours in computers (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in computers (3/74). *Version 3:* In the vocational certificate category, 28 semester hours in electricity and electronics, 2 in digital computer programming, and 4 in digital computer repair and digital laboratory (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68), 1 in digital computer programmming, and 2 in digital computer repair laboratory (7/74); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics, 3 as a technical elective in electronics, 1 in introduction to digital computers, and 1 in digital computer laboratory (7/74).

NV-1715-0754

Electronics Technician, Class C7
(Electronics Technician, Class B)
(ET,B)

Course Number: A-100-0016, A-100-0017.

Location: Service School Command, San Diego, CA. Electronics Technician, Class B School, Treasure Island, CA. Electronics Technician, Class B School, Great Lakes, IL.

Length: *Version 1:* 28 weeks (1120 hours). *Version 2:* 27 weeks (810 hours). *Version 3:* 39 weeks (1170 hours). *Version 4:* 45 weeks (1350 hours). *Version 5:* 46 weeks (1380 hours).

Exhibit Dates: *Version 1:* 1/82-Present. *Version 2:* 1/75-12/81. *Version 3:* 12/71-12/74. *Version 4:* 7/69-11/71. *Version 5:* 6/62-6/69.

Objectives: To provide the basic theory necessary in the training of electronics technicians.

Instruction: *Version 1:* Lectures and practical exercises in basic mathematics, including simple right angle trigonometry, logarithms, complex numbers, Boolean algebra, all pertaining to electronics theory. Technical topics include AC/DC circuit theory and theorems, transients, solid state devices, signal and power amplifiers, power supplies, communication circuits, transmission lines, antenna, microwave devices and radar systems, navigation systems, digital devices, computer fundamentals, soldering techniques and training in supervision and management. *Version 2:* Lectures in basic mathematics including trigonometry, logarithms, complex numbers, Boolean algebra, as they pertain to electronics theory. Technical topics include AC/DC theory, transients, solid state devices, coupled circuits, synchros, servos, navigation and radar systems, and training in supervision and management. *Version 3:* Topics include direct current analysis, review mathematics for electronics, analysis of transient responses, vacuum tubes, solid-state devices, coupled circuits, multivibrators, time-base generators, synchros and servos, computers, communications, test equipment, communications system testing, continuous- and pulsed-wave radar systems, radar special circuits, navigation systems, and supervision and management. *Version 4:* Topics include review mathematics, circuits, basic algebra, matrix algebra, mathematics, applied technical mathematics, semiconductors, capacitance, inductance, circuit analysis, transient analysis, resonance, coupled circuits, vacuum tubes, power supplies, limiters, tuned power amplifiers, oscillators and frequency generation, communications test procedures, propagation, antennas, microwave devices, and computer logic circuits. *Version 5:* Topics include applied mathematics, electronic fundamentals and advanced fundamentals, calculus, inductance, capacity, resonance, transient analysis, vacuum and gas tubes, semiconductor devices, coupled circuits, graphical and small signal analysis, circuit applications, power supplies, multivibrators, voltage and current time-base generators, oscillators, communications systems, antenna theory, waveguides, transmission lines, propagation, radar systems and basic computers, klystrons and magnetrons, synchro and servo systems, radar principles, Boolean algebra, navigational and identification system, digital and analog computers, electronic countermeasures, and electronic administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in technical algebra, 6 in AC/DC circuit analysis, 6 in electronic devices and systems, 1 in operational amplifier theory, 3 in electronic communication, 3 in radar and microwave theory, 4 in digital and computer fundamentals and 1 in soldering laboratory (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 20 semester hours in electronics technician training and 2 in humanities (industrial relations) (11/77). *Version 3:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management, 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in mathematics, 5 in electronics (7/74). *Version 4:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in mathematics, 6 in electronics (7/74). *Version 5:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in engineering electronics, 4 in mathematics (12/68); in the upper-division baccalaureate category, 3 semester hours in mathematics, 5 in electronics (7/74).

NV-1715-0755

Interior Communications (IC) Electrician, Class C7
(Interior Communications (IC) Electrician, Class B)

Course Number: A-623-0013.

Location: Naval Training Center, Great Lakes, IL.

Length: *Version 1:* 20 weeks (700 hours). *Version 2:* 26 weeks (850 hours). *Version 3:* 30 weeks (900 hours). *Version 4:* 24 weeks (746 hours). *Version 5:* 34 weeks (1,020 hours).

Exhibit Dates: *Version 1:* 10/80–5/87. *Version 2:* 12/77–9/80. *Version 3:* 4/71–11/77. *Version 4:* 9/69–3/71. *Version 5:* 7/63–8/69.

Objectives: To train students in the basic electrical and electronic skills necessary to maintain, troubleshoot, repair, align, and calibrate the electrical equipment found aboard a ship.

Instruction: For this course after 5/87 see NV-1715-1296. *Version 1:* Lectures and practical exercises in AC and DC circuits, magnetics, semi-conductors, digital logic and logic circuits, static control devices, syncros and mechanical devices, and repair, calibration, troubleshooting and aligning of electrical, electronic and mechanical systems used in the operation of a ship. *Version 2:* Lectures and practical exercises in AC and DC circuits, semiconductors, digital logic and logic circuits, static control devices, syncros and mechanical devices, and repair, calibration, troubleshooting and aligning of electrical, electronic and mechanical systems used in the operation of a ship. *Version 3:* Lectures and practical exercises in the repair, calibration, troubleshooting, and aligning of numerous electrical and electronic systems used in the operation of a ship. *Version 4:* Covers review of algebra; DC and AC series and parallel circuits; principles of magnetism; use of basic meters and the oscilloscope; RL, RC, and RLC circuits; transformer theory; electron tubes and semiconductors; operating characteristics of tube-type power supplies, audio, push-pull, and feedback amplifiers and cathode followers, solid-state power supplies, amplifiers, regulators, pulse-shaping circuits, and oscillators; basic logic operations; diode gate and DCTL circuit equivalents; inverters, clocks counters, half and full adders, and memory devices. *Version 5:* Topics include those in version 2, with considerable effort devoted to shipboard electrical and electronic systems, including motors, sound systems, syncros, magnetic amplifiers, monitoring systems, and power switchgear. There is much less emphasis on transistor circuits and digital logic.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in AC/DC circuits, 2 in digital logic and 3 in electromechanical systems (1/82). *Version 2:* In the vocational certificate category, 2 semester hours in computer technology, 7 in electricity and electronics, and 7 in electrical and electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 in electricity and electronics and 1 in electronics laboratory (9/77). *Version 3:* In the vocational certificate category, 8 semester hours in electronics laboratory (7/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 4:* In the vocational certificate category, 8 semester hours in electricity and electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 5:* In the vocational certificate category, 6 semester hours in electricity and electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74).

NV-1715-0756

AN/SPS-29C Radar Set Maintenance
(Electronics Technician, Class C1)

Course Number: A-104-0150.

Location: Service School Command, San Diego, CA.

Length: 9 weeks (272 hours).

Exhibit Dates: 3/75–1/88.

Objectives: To train selected personnel to maintain a radar system in a high degree of readiness.

Instruction: Course concentrates on familiarization and operation of a radar set and on the functional analysis and maintenance of that set. Includes AC/DC power distribution, cooling modulation, transmitting/receiving, ranging, tuning, and countermeasures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (11/77).

NV-1715-0757

E-2B Weapon System Specialist Organizational Maintenance

Course Number: C-150-3482.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 9–12 weeks (384 hours).

Exhibit Dates: 5/71–1/88.

Objectives: To train technicians to isolate, maintain, and repair the E-2B weapon system.

Instruction: Lectures and practical exercises in the isolation, maintenance, and repair of the E-2B weapon system. Course includes general avionics, IFPM, ATDS communications and navigation, ATDS detection, and control and display.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in instrument repair (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in instrument repair (8/74).

NV-1715-0758

Surface Missile Systems, Officer

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 11 weeks (330 hours).

Exhibit Dates: 2/68–12/78.

Objectives: To train enlisted personnel to operate fire control, missile battery, and surface missile systems.

Instruction: Lectures and practical exercises in the operation of surface missile weapons systems. Course includes equipment engineering, systems engineering, and weapon system management.

Credit Recommendation: Insufficient data for evaluation (8/74).

NV-1715-0759

Disturbed Line of Sight Gunfire Control System Maintenance

Course Number: J-113-1062.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train enlisted personnel to maintain and adjust disturbed-line-of-sight gunfire control systems.

Instruction: Lectures and practical exercises in disturbed-line-of-sight gunfire control systems maintenance and adjustment, including use of schematic prints and diagrams, concept and application of planned maintenance system, system data flow, power distribution, lead-computing gunsights, antenna-positioning system, gun order computations, and radar functional description, testing, adjustment, and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in electricity or electronics (8/74).

NV-1715-0760

Mk 113 Mod 7 Fire Control System (FCS) Maintenance
(Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7)

Course Number: A-113-0045; A-113-0017; A-113-0038.

Location: Guided Missiles School, Dam Neck, VA.

Length: 17–19 weeks (541–595 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train enlisted personnel to operate and maintain underwater fire control systems.

Instruction: Lectures and practical exercises in the operation and maintenance of underwater fire control systems, including analog computations, digital equipment, and system casualty analysis.

Credit Recommendation: elective in computer science (8/74). In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics, 3 as an elective in computer science (8/74).

NV-1715-0761

UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/66–12/68.

Objectives: To train maintenance personnel to maintain and troubleshoot the AN/ARN-52 tactical air navigation (TACAN) trainer.

Instruction: Lectures and practical exercises in the operation, maintenance, and servicing of the AN/ARN-52 TACAN trainer, including circuitry procedures, power distribution and supply, block-diagram analysis, channel-servo operation, video decoder, and range circuits theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electricity or electronics (8/74).

NV-1715-0762

Mk 27 Gyrocompass Maintenance, Class C

Course Number: A-670-0026.

Location: Development and Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/74–1/88.

Objectives: To train personnel with previous electrical training to maintain the MK 27 gyrocompass.

Instruction: Lectures and practical exercises in the principles, maintenance, and repair of the MK 27 gyrocompass and instruction on the use of required test and monitoring equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in small equipment repair (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic instrumentation (6/75).

NV-1715-0763

Launcher Technician

Course Number: A-633-0016.

Location: Guided Missiles School, Dam Neck, VA.

Length: 11 weeks (384 hours).

Exhibit Dates: 2/71–5/76.

Objectives: To provide training in all weapon systems in use aboard Fleet Ballistic Missile (FBM) submarines.

Instruction: Classroom and laboratory instruction in submarine subsystems, including hydraulics, pneumatics, electric power generation, and engineering power plant; navigational subsystems; fire control; rockets and missiles; missile guidance and flight control; mechanical and electrical launcher subsystems; and electrical, power, and hydraulic test and calibration equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic, pneumatic, or electrical systems (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic, pneumatic, or electrical systems (6/75); in the upper-division baccalaureate category, 4 semester hours in hydraulic, pneumatic, or electrical systems (6/75).

NV-1715-0764

DLG 6-16 Combat System

Course Number: A-121-0189.

Location: Guided Missiles School, Dam Neck, VA.

Length: 10 weeks (330 hours).

Exhibit Dates: 10/72–12/81.

Objectives: To provide instruction for senior maintenance supervisors in the integration of the DLG 6-16 Combat System.

Instruction: Lectures and practical exercises in the operation and interface of the various subsystems of the DLG 6-16 Combat System.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0765

RF-4B Shoehorn Organizational Maintenance

Course Number: C-102-3831; C-102-0242.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/69–1/88.

Objectives: To train fleet maintenance personnel to maintain the Shoehorn aircraft radar system.

Instruction: Lectures and practical exercises in the Shoehorn aircraft radar system, including radar review, logic symbology, corrosion control, introduction to planned maintenance, and decibels; and purpose, components, operational block diagrams, and interface and test equipment of the radar homing and warning system, the radar receiver, the countermeasures set, the countermeasures receiver and transmitter, the tagging and blanking unit, and the countermeasures chaff dispenser set.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0766

Electronics Maintenance (Officers) (Electronics Officers (Maintenance))

Course Number: Not available.

Location: Electronics Officers School, Great Lakes, IL.

Length: *Version 1:* 48 weeks (1440 hours). *Version 2:* 52 weeks (1620 hours).

Exhibit Dates: *Version 1:* 12/63–12/68. *Version 2:* 1/58–11/63.

Objectives: To provide officers who have electronics backgrounds with advanced training in electronics and management skills.

Instruction: *All Versions:* Lectures and practical exercises in mathematics, including algebra and trigonometry; basic electricity and electronics, including circuit analysis, motors, generators, power supplies, vacuum tubes, amplifiers, and oscillators; and modulation and detection, energy transmission, servomechanisms, and test equipment operation. *Version 1:* Instruction includes calculus, physics, digital numbers, and Boolean algebra, and semiconductors. *Version 2:* Instruction emphasizes special equipment operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 24 semester hours in electricity or electronics, 9 in mathematics, 8 in physics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 3 in physics, 10 in engineering electronics (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 15 semester hours in electricity or electronics, 6 in mathematics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 3 in physics, 10 in engineering electronics (12/68).

NV-1715-0767

Light Airborne Multi-Purpose System (LAMPS) Sensor Operator

Course Number: D-210-0020.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks (182 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train antisubmarine airborne crewmembers in the operation of electronic sensor equipment.

Instruction: Lectures and laboratory exercises in the operation of electronic sensor equipment, characteristics of underwater sound signals, analysis of target signals, radar fundamentals and operation, and active and passive acoustics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0768

Tactical Electronic Warfare

Course Number: D-00-0032.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks (200 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train pilots and flight officers in the concepts, planning, and techniques of electronic warfare.

Instruction: Classroom and practical training in active and passive electronic warfare policies and tactics and operation of various electronic warfare systems and equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (6/75).

NV-1715-0769

E-2B Detection System Organizational Maintenance

Course Number: C-104-3471.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/73–1/88.

Objectives: To train electronics technicians in the maintenance of the E-2B detection system.

Instruction: Instruction in radar principles, data acquisition, encoding, troubleshooting, and test instrument usage.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0770

ASROC Launching Group Mk 16 Maintenance, Class C1 (ASROC Launching Group Mk 16)

Course Number: A-121-0010.

Location: Gunner's Mate Class C, Great Lakes, IL.

Length: *Version 1:* 13 weeks (520 hours). *Version 2:* 10 weeks (450 hours).

Exhibit Dates: *Version 1:* 4/80–Present. *Version 2:* 10/69–4/76.

Objectives: To provide gunner's mates with training in the maintenance, adjustment, and operation of the Launching Group Mk 16.

Instruction: Lectures and practical exercises in ASROC weapon system, launching group Mk 16, administration and supply, stand Mk 107 and carriage Mk 7, relay transmitters, power train, power drive amplifier, elevation power drive, launcher and missile simulator and checkout, hydraulic and electronic systems, and hydraulic and pneumatic devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electro-mechanical maintenance (1/82). *Version 2:* In the vocational certificate category, 4 semester hours in electro-mechanical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electro-mechanical laboratory (6/75).

NV-1715-0771

AIR TRAFFIC CONTROL CENTER
EQUIPMENT MAINTENANCE
AN/TRN-28, CLASS C

Course Number: C-103-2027.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 5–7 weeks (200 hours).

Exhibit Dates: 4/73–12/83.

Objectives: To train technicians to maintain specific electronic air traffic control equipment.

Instruction: Lectures and practical exercises in block diagram analysis, troubleshooting techniques, electronic circuitry, encoding, transmission and system alignment, and drive development on the AN/TRN-28 system.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems repair (2/81).

NV-1715-0772

INDEPENDENT VARIABLE DEPTH SONAR
HOIST AN/SQA-13 MAINTENANCE
(AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance)

Course Number: *Version 1:* K-041-2019. *Version 2:* K-041-124.

Location: Fleet Training Center, San Diego, CA.

Length: *Version 1:* 4 weeks (120 hours). *Version 2:* 2 weeks (60 hours). *Version 3:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 1/81–Present. *Version 2:* 1/74–12/80. *Version 3:* 6/71–12/73.

Objectives: To train personnel to operate, maintain, and repair a variable depth sonar hoist mechanism.

Instruction: *All Versions:* Lectures and practical exercises in basic hydraulics and specialized subassemblies related to a military sonar hoist mechanism. *Version 1:* Includes principles of hydraulics, static hydraulic components, hydraulic pumps, control devices and accessories. *Version 2:* Includes basic electricity.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in machinery hydraulics (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulics (fluid statics) (5/82). *Version 2:* Credit is not recommended because of the limited technical nature of the course (6/75). *Version 3:* In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/75).

NV-1715-0773

AN/ARC-52 RADIO SET INTERMEDIATE
MAINTENANCE

Course Number: C-102-3019.

Location: *All Versions:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 12/70–12/79.

Objectives: To provide maintenance personnel with the technical knowledge necessary to maintain a specific military radio set.

Instruction: Lectures and practical exercises in the operation of the AN/ARC-52 radio receiver and transmitter with instruction in diagnosis, troubleshooting, maintenance, and repair of specific subsections of the equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronics laboratory (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in aviation radio/transceiver repair or 1 semester hour in aviation radio communication repair (3/82). *Version 2:* In the vocational certificate category, 2 semester hours in basic communications laboratory (6/75).

NV-1715-0774

1. AN/AQA-7(V) 1,2 AND 3 SONAR COMPUTER RECORDER GROUP AND AN/ASA-76 GENERATOR-TRANSMITTER GROUP INTERMEDIATE MAINTENANCE
2. AN/AQA-7 (V) SONAR COMPUTER-RECORDER GROUP INTERMEDIATE MAINTENANCE

Course Number: C-102-3075.

Location: *All Versions:* Air Maintenance Training Detachment, Moffett Field, CA. *Version 1:* Air Maintenance Training Detachment, Jacksonville, FL. *Version 2:* Air Maintenance Training Detachment, Patuxent River MD; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 15 weeks (600 hours). *Version 2:* 11 weeks (440 hours).

Exhibit Dates: *Version 1:* 11/78–Present. *Version 2:* 2/74–10/78.

Objectives: To train experienced personnel in the maintenance and repair procedures for a sonar computer-recorder and the specialized test equipment at the component level.

Instruction: Lectures and practical exercises in the theory, operation, and maintenance of a sonar computer-recorder, including demultiplexer, frequency, multiplier storer, spectrum analyzer-quantizer, and digital memory units to include fault localization, fault isolation, component replacement, disassembly, interchange, reassembly, alignment/adjustment, and safety precautions and checkout procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory and 3 in communications electronics (7/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital/analog system operations (7/81). *Version 2:* In the vocational certificate category, 3 semester hours in communications electives; in the lower-division baccalaureate/associate degree category, 1 semester hour in communications laboratory (6/75).

NV-1715-0775

AN/ALR-54 COUNTERMEASURES
RECEIVING SET INTERMEDIATE
MAINTENANCE

Course Number: C-102-3389.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/72–1/88.

Objectives: To provide instruction in the maintenance of electronic countermeasures receiving equipment.

Instruction: Instruction covers theory and practical applications of specific circuits, RF detection, video display, power supplies, logic boards, and filters, and practical exercises in circuit analysis, troubleshooting, and repair.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (6/75).

NV-1715-0776

E-2B ELECTRONIC SYSTEMS
ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3479.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 1/81–Present. *Version 2:* 11/73–12/80.

Objectives: To provide maintenance technicians with overall knowledge of a specialized electronics system.

Instruction: *Version 1:* Lectures and laboratory in organizational maintenance of an integrated system incorporating communication, navigation, detection, data link and computer and display equipment. The student will understand electronic and digital circuit operation and perform troubleshooting down to the functional unit level. *Version 2:* Lectures and practical exercises to include block diagram and functional description of communications/navigations system, detection system and data links; system interface; basic operation and troubleshooting; removal and replacement of Weapons Replaceable Assemblies (WRAs); installation procedures; and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in integrated electronic/computer systems operation (1/86); In the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits, 1 in communication/radar circuits, and 1 in electronic circuits (1/86). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0777

E-2B AIRBORNE TACTICAL DATA SYSTEMS (ATDS) OPERATOR TRAINING

Course Number: D-102-0001.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 15 weeks (523 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To provide personnel with basic skills to operate, maintain, and troubleshoot the specialized aircraft tactical data system of the E-2B aircraft.

Instruction: Lectures and practical exercises in block diagram description and troubleshooting procedures for detection; computer, communication, and navigation subsystems; and the aircraft communication and navigation system, with emphasis on test equipment, fault isolation, and basic deployment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (6/75).

NV-1715-0778

BASIC POINT DEFENSE SURFACE MISSILE SYSTEM

Course Number: A-121-0122.

Location: Combat Systems Technical School Command, Mare Island, CA.

Length: *Version 1:* 14 weeks (560 hours). *Version 2:* 20 weeks (700 hours).

Exhibit Dates: *Version 1:* 3/77–Present. *Version 2:* 9/71–2/77.

Objectives: To train personnel in the operation, maintenance, troubleshooting, and repair of a missile fire control system.

Instruction: *Version 1:* Lectures and practical exercises in the functional understanding of a missile fire control and launcher system. Analysis of circuit diagrams with a general review of amplitude modulation and detection for the purpose of tracing signal paths to isolate system faults using test equipment and schematics. *Version 2:* Lectures and practical exercises in the principles of amplitude modulation and detection, analysis of specialized electronic systems, and maintenance and trouble isolation procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electronic test and maintenance (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical test and maintenance (11/81). *Version 2:* In the vocational certificate category, 7 semester hours in electrical test and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical test and maintenance (6/75).

NV-1715-0779

1. ELECTRONIC WARFARE TECHNICIAN
   CLASS A, PREVENTIVE
   MAINTENANCE TECHNOLOGY
   (Basic Electronic Technology Training)
2. ELECTRONIC WARFARE
   FUNDAMENTALS AND PREVENTIVE
   MAINTENANCE TECHNOLOGY
   (Electronic Warfare
   Fundamentals/Technology, Class A1)
3. ELECTRONIC WARFARE
   FUNDAMENTALS AND PREVENTIVE
   MAINTENANCE TECHNOLOGY
4. ELECTRONIC WARFARE TECHNICIAN,
   CLASS A (A-1),
   FUNDAMENTALS/BASIC OPERATOR
   (Electronic Warfare Technician, Class
   A (A-1), Fundamentals)

Course Number: *All Versions:* A-102-0093. *Version 1:* A-102-0209. *Version 2:* A-102-0209; A-102-0214. *Version 3:* A-102-0154.

Location: *Version 1:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 2:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 3:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 4:* Schools Command, Treasure Island, CA.

Length: *Version 1:* 17–19 weeks (680–760 hours). *Version 2:* 17–19 weeks (680–760 hours). *Version 3:* 17–19 weeks (680–760 hours). *Version 4:* 17–21 weeks (595–721 hours).

Exhibit Dates: *Version 1:* 9/78–1/86. *Version 2:* 2/77–8/78. *Version 3:* 4/75–1/77. *Version 4:* 3/72–3/74.

Objectives: To provide technicians with the fundamentals of transistor/vacuum tube electronics necessary to maintain and repair electronic warfare systems.

Instruction: *All Versions:* Classroom and laboratory instruction in electronic circuit theory including linear and nonlinear circuits, motors, antennas, power supplies, receiver principles, pulse and video display circuits, deception repeaters, transmission systems, electromagnetic devices, and electronic systems maintenance. *Version 1:* Upon completion of the course, the student will be able to: (1) be familiar with the theory and operation of diodes and bipolar and unipolar transistors (2) be familiar with the theory and operation of power supplies, amplifiers, oscillators, detectors, discriminators, and other signal receiver components (3) be able to troubleshoot and identify failed components through use of multimeters, function generators, oscilloscopes and power meters. *Version 2:* Includes instruction in digital techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic devices, 2 in electronic communications (1/84). *Version 2:* In the vocational certificate category, 3 semester hours in semiconductor devices, 3 in digital techniques, 3 in communications circuits, and 3 in UHF systems (1/77); in the lower-division baccalaureate/associate degree category, credit in semiconductor devices and basic digital systems on the basis of institutional evaluation (1/77). *Version 3:* In the vocational certificate category, 3 semester hours in semiconductor devices, 3 in UHF systems, and 3 in communications circuits (1/77); in the lower-division baccalaureate/associate degree category, credit in semiconductor devices on the basis of institutional evaluation (1/77). *Version 4:* In the vocational certificate category, 3 semester hours in fundamentals of electronic circuit theory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in fundamentals of electronic circuit theory (6/75); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0780

ELECTRONIC WARFARE ELECTRONIC SUPPORT MEASURES SYSTEM MAINTENANCE, CLASS A

(Electronic Warfare Technician AN/WLR-1 Electronic Support Measures System Maintenance)
(Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance)

Course Number: A-102-0094; A-102-0221.

Location: *All Versions:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 2:* Schools Command, Treasure Island, CA.

Length: *Version 1:* 7–12 weeks (280–480 hours). *Version 2:* 12–14 weeks (360–420 hours).

Exhibit Dates: *Version 1:* 1/77–Present. *Version 2:* 3/72–12/76.

Objectives: To provide electronics technicians with instruction in the operation, maintenance, and repair of electronic countermeasures systems.

Instruction: *Version 1:* Upon completion of the course the student will be able to describe the theory and operation of the system, calibrate, align and make performance tests on the equipment, and troubleshoot and repair the following components and circuitry as found on the AN/WLR-1 ESM system: receivers, omni directional antenna, video system, mechanical components, power supplies, signal generators, interconnects, servos and resolvers, tuners, and other signal processing circuits. *Version 2:* Classroom and laboratory instruction in the use of specialized test equipment and the operation and maintenance of complex electronic circuitry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in UHF receiver systems, 3 in troubleshooting and maintenance (7/87). *Version 2:* In the vocational certificate category, 4 semester hours in maintenance and repair of electronic systems (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0781

ELECTRONIC WARFARE DECEPTION REPEATER SYSTEMS MAINTENANCE, AN/SLQ-22B(V)1

(Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2)
(Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance)
(Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance)

Course Number: A-102-0236; A-102-0219; A-102-0095.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL; Schools Command, Treasure Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/72–10/77.

Objectives: To train technicians in the operation and repair of electronic countermeasures systems.

Instruction: Classroom and laboratory instruction in block diagram theory, circuit analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in UHF electronics maintenance (1/77).

NV-1715-0782

Electronic Warfare Technician, Class A (A-4), Tactical Operations

Course Number: A-102-0096.

Location: Schools Command, Treasure Island, CA.

Length: 10 weeks (350 hours).

Exhibit Dates: 3/72-1/88.

Objectives: To train technicians in the principles of electronic warfare systems.

Instruction: Classroom and laboratory instruction in electronic warfare analysis and specific hardware systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems repair laboratory techniques (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems repair laboratory techniques (6/75).

NV-1715-0783

Sonar AN/SQS-39 Through 46 and Aspect Maintenance

Course Number: A-130-0043.

Location: Fleet Sonar School, Key West, FL.

Length: 10 weeks (330 hours).

Exhibit Dates: 8/69-1/88.

Objectives: To train personnel to service and maintain a specific military sonar system.

Instruction: Lectures and practical exercises in the operation of a specific sonar system to include troubleshooting, calibration, DC power supply circuits, AC power distribution, time base generators, and other related sonar circuitry.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics (6/75).

NV-1715-0784

Torpedoman's Mate, Class A, Submarine and Surface Prerequisite

Course Number: A-123-0148.

Location: Naval Training Center, Orlando, FL.

Length: 2 weeks (67 hours).

Exhibit Dates: 6/70-1/88.

Objectives: To provide personnel with basic skill-level training in hand tools and electrical measurement devices prerequisite to entry in the Torpedoman's Mate, Class A program.

Instruction: Classroom and practical instruction in common hand tools, basic electricity, VOM's, megohmmeters, and soldering techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic test equipment (6/75).

NV-1715-0785

Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance

Course Number: A-123-0145.

Location: Service Schools Command, Orlando, FL.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To provide personnel with knowledge of introductory operational and maintenance procedures for torpedoes.

Instruction: Instruction includes physical and operational characteristics and firing craft procedures for the surface/craft-fired antisubmarine warfare weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0786

Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance

Course Number: A-123-0137.

Location: Service Schools Command, Orlando, FL.

Length: 7 weeks (210 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train personnel in the use and maintenance of torpedo test equipment.

Instruction: Instruction and practical experience in the maintenance of various test sets, including preparation for use, component replacement and adjustment, performance tests, troubleshooting, and operational checks.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0787

Torpedo Mk 37 Mods 0, 1, 2, and 3 Organizational Maintenance

Course Number: A-123-0143.

Location: Service Schools Command, Orlando, FL.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To provide personnel with introductory training in the maintenance of torpedoes aboard operating submarines.

Instruction: Instruction includes physical and operational characteristics of the torpedo; pre-loading and unloading procedures; patrol maintenance, emergency, and post-fire procedures; and film analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0788

Torpedo Mk 37 Mods 2 and 3 Test Equipment Intermediate Maintenance

(Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance)

Course Number: A-123-0134.

Location: Service School Command, Orlando, FL.

Length: 7 weeks (200-210 hours).

Exhibit Dates: *Version 1:* 3/77-Present. *Version 2:* 1/70-2/77.

Objectives: To train technicians in test procedures for torpedo test equipment.

Instruction: *Version 1:* Lectures and practical exercises in the use, maintenance and troubleshooting of torpedo test equipment. *Version 2:* Instruction and practical training in the use and maintenance of torpedo test equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting (4/83). *Version 2:* Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0789

Torpedo Mk 37 Mods 2 and 3 Intermediate Maintenance

(Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance)

Course Number: A-123-0133.

Location: Service Schools Command, Orlando, FL.

Length: 14 weeks (424 hours).

Exhibit Dates: *Version 1:* 9/77-Present. *Version 2:* 1/70-8/77.

Objectives: To train personnel in the maintenance of torpedo control systems.

Instruction: *All Versions:* Instruction and practical training in the maintenance of electrical control systems for torpedoes, including troubleshooting procedures and functions of basic control system components.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in system troubleshooting or as a technical elective (4/83). *Version 2:* Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1715-0790

AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1)

(AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences)

Course Number: A-104-0149.

Location: Service School Command, San Diego, CA.

Length: 11 weeks (330-440 hours).

Exhibit Dates: *Version 1:* 9/80-Present. *Version 2:* 11/77-8/80.

Objectives: To train electronics technicians in radar and ECM to operate, maintain, and calibrate specified radar sets and the AN/SPA-63 countermeasures receiver.

Instruction: Lectures and practical exercises on the operation, maintenance and calibration of the AN/SPS-37/37A, AN/SPS-43/43A radar sets and the AN/SPA-63 ECM receiver. Includes system parameters, power supplies and distribution, pulse generators and exciters, modulators and power amplifiers, power monitor and vswr circuits, antenna and auto-tune system, receiver circuits, test equipment usage, generators, frequency counters, and oscilloscopes and dvms.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems, 2 in radar systems laboratory and 1 in electronic troubleshooting (5/82). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in radar systems and measurements (11/77).

NV-1715-0791

Telemetering Ground Station AN/SKQ-2

Course Number: A-121-0113.

Location: Guided Missiles School, Mare Island, CA.

Length: 4 weeks (100 hours).

Exhibit Dates: 1/70-12/78.

Objectives: To provide technicians with practical training in the operation, adjustment, and maintenance of telemetry systems.

Instruction: Instruction includes electronic circuitry, block diagram analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment laboratory (6/75).

NV-1715-0792

Tartar Mk 152 Computer Complex

Course Number: A-150-0079; A-150-0080.

Location: Guided Missiles School, Mare Island, CA; Guided Missiles School, Dam Neck, VA.

Length: 9 weeks (283 hours).

Exhibit Dates: 6/71–3/75.

Objectives: To train personnel in the maintenance of computer systems, digital computer interfaces, and signal converters associated with fire control computers.

Instruction: Instruction and practical experience in the operation and maintenance of interface and signal conversion equipment for computer systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer interface circuits (6/75).

NV-1715-0793

Talos Radar AN/SPW-2B

Course Number: A-104-0085.

Location: Naval Schools Command, Mare Island, CA.

Length: 16–18 weeks (534–590 hours).

Exhibit Dates: 3/71–12/78.

Objectives: To train personnel in the operation, maintenance, troubleshooting, and repair of specialized radar equipment.

Instruction: Practical training in operational principles of general purpose test equipment, including oscilloscopes, power and frequency meters, and specialized military equipment. Topics also include circuit analysis and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics maintenance (6/75).

NV-1715-0794

SUBROC Missile Mk 28 Mod 1
Intermediate Maintenance

Course Number: A-121-0144.

Location: Service Schools Command, Orlando, FL.

Length: 7–12 weeks (326–420 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train personnel to test, assemble, disassemble, and perform intermediate maintenance on the SUBROC guided missile.

Instruction: Lectures and practical exercises in identification and assembly of parts, including mechanical handling, installation of fittings, and test monitoring.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/83).

NV-1715-0795

SUBROC Missile Mk 28 Mod 1 Test
Equipment Intermediate
Maintenance
(SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance)

Course Number: A-121-0145.

Location: Service School Command, Orlando, FL.

Length: 20 weeks (632 hours).

Exhibit Dates: 4/66–Present.

Objectives: To train personnel to use the circuit schematics of the SUBROC missile and to operate test equipment for trouble analysis.

Instruction: Lectures and practical exercises in checkout and assembly of the SUBROC missile to cover circuitry and circuit tracing; operation of electronic test equipment including differential voltmeter, oscilloscope, counters and test equipment calibration; trouble isolation and operational checks fundamentals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic test equipment, 3 in electronic troubleshooting (4/83).

NV-1715-0796

RT-736 and KY-531 Tactical Air
Navigation (TACAN)
Intermediate Maintenance

Course Number: C-102-3098.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/74–1/88.

Objectives: To provide avionics maintenance personnel with instruction in the maintenance of the TACAN system.

Instruction: Lectures and practical exercises in TACAN theory, pulse decoder, block diagram analysis, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electronics (6/75).

NV-1715-0797

RT-541/ASQ Receiver/Transmitter
and KY-309/ASQ Pulse Decoder
and RT-547/ASQ-19
Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder
Intermediate Maintenance

Course Number: C-102-3094.

Location: Air Maintenance Training Group, Whidbey Island, WA; Air Maintenance Training Group, Oceana, VA; Air Maintenance Training Group, Miramar, CA; Air Maintenance Training Group, El Toro, CA; Air Maintenance Training Group, Cherry Point, NC; Air Maintenance Training Group, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/73–Present.

Objectives: To provide maintenance personnel with knowledge of theory of operation, testing, and system troubleshooting procedures for a military communications system.

Instruction: Lectures and practical exercises to include maintenance procedures, pulse decoder circuits, block diagrams, and an introduction to receiver/transmitter theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hour in electronics laboratory (5/85).

NV-1715-0798

OA-3731/ASM-76 Computer Detector
Test Console Intermediate
Maintenance

Course Number: C-150-3486.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 2/74–1/88.

Objectives: To train personnel in the maintenance of a specific computer detector test console.

Instruction: Instruction in adapter components; signal generators, including power supplies and timing generators; and testing theory of military computer detection systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electronics laboratory (6/75).

NV-1715-0799

Marine Air Traffic Control
Communications Repairman,
Class C

Course Number: C-103-2029.

Location: Naval Air Training Command, Millington,TN; Air Technical Training Center, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 7–8 weeks (233–266 hours).

Exhibit Dates: 5/73–3/83.

Objectives: To train personnel to inspect, test, maintain, and repair a specific military radio transmitter and receiver and associated communications equipment.

Instruction: Lectures and practical exercises in radio receiver and transmitter maintenance and repair, including system troubleshooting, circuit tracing on a block diagram level, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communications laboratory (2/81).

NV-1715-0800

1. Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1
2. High Frequency Direction Finding (HFDF) Communications Technical Control
(Communications Technician "O" Branch, HFDF Communications Technical Control)

Course Number: A-580-0017.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* Self-paced 6 weeks (240 hours). *Version 2:* 6 weeks (225 hours).

Exhibit Dates: *Version 1:* 2/76–12/80. *Version 2:* 1/70–1/76.

Objectives: To train communications technicians to operate and repair direction finding communications systems.

Instruction: Classroom and practical instruction in special electronic circuits, telegraph, teletype, and communications systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in communication equipment operation (1/77). *Version 2:* In the vocational certificate category, 4 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0801

Terrier ASMD-70 55B Radar Update
(Terrier AN/SPG-55B ASMD 70 Radar Update)

Course Number: A-100-0023.

Location: Combat Systems Technical School Command, Mare Island, CA.

Length: 5 weeks (173 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To provide personnel, previously trained in radar, with the basic knowledge and skills required to maintain a modified radar.

Instruction: Lectures and practical training in the operation and maintenance of the modified radar, including range tracking circuits and narrow pulse techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1715-0802

Gunner's Mate, Class B

Course Number: A-041-0014.
Location: Gunner's Mate School, Great Lakes, IL.
Length: 25 weeks (752 hours).
Exhibit Dates: 12/67-12/73.
Objectives: To train personnel in the basic principles and procedures of operating and maintaining gun mounts and associated fire control circuits.
Instruction: Lectures and practical exercises in basic electricity and electronics, mathematics, mechanics, and equipment troubleshooting.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, and 1 in mathematics (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and 2 in electricity (6/75); in the upper-division baccalaureate category, 3 semester hours in electronics on the basis of institutional evaluation (6/75).

NV-1715-0803

Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C1

Course Number: A-113-0057.
Location: Fire Control Technician, Class C School, Great Lakes, IL.
Length: 21 weeks (710-737 hours).
Exhibit Dates: 1/71-1/88.
Objectives: To train fire control technicians to operate, adjust, and maintain an underwater fire control system.
Instruction: Instruction includes block diagram analysis, troubleshooting techniques, electronic circuitry, and electro-mechanical devices.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems and 2 in electronics laboratory (9/77).

NV-1715-0804

Terrier Weapon System DLG-28 (Class System Level Maintenance)

Course Number: A-121-0098.
Location: Guided Missiles School, Mare Island, CA.
Length: 13 weeks (450 hours).
Exhibit Dates: 1/72-1/81.
Objectives: To train fire control technicians in the operation and repair of weapon control systems.
Instruction: Lectures and practical exercises in systems components, alignment, maintenance and troubleshooting, including block diagram analysis, signal flow, and repair techniques.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0805

Tartar Weapons System Mk 74 Mod 6 Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7

Course Number: A-121-0182; A-121-0183.
Location: *All Versions:* Naval Guided Missiles School, Dam Neck, VA; *Version 2:* Naval Schools Command, Mare Island, CA.
Length: *Version 1:* 10 weeks (362 hours). *Version 2:* 12 weeks (325 hours).
Exhibit Dates: *Version 1:* 5/75-2/88. *Version 2:* 3/72-4/75.
Objectives: To train senior fire control technicians to supervise the operation and maintenance of a Tartar weapon system.
Instruction: For this course after 2/88 see NV-1715-1384. *Version 1:* Lectures and practical exercises in the operation, function, maintenance and repair of the Tartar weapon system components including the radar system transmitter, receiver and signal computer; the control computer (UNIVAC 1219) system, I/O console, diagnostics, block diagram analysis, paper tape reader, and other major components; interfacing procedures for system components; power supply and power flow analysis. *Version 2:* Lectures and laboratories in block diagrams, including maintenance and operations procedures, and testing and alignment of weapon system equipment.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer system troubleshooting laboratory, 3 in electronic troubleshooting laboratory (11/83). *Version 2:* Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0806

Sonar AN/SQS-26AX Retrofit Maintenance

Course Number: A-130-0044.
Location: Fleet Antisubmarine Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.
Length: 26 weeks (798-842 hours).
Exhibit Dates: 5/71-10/83.
Objectives: To train technicians in the operation and repair of a sonar system.
Instruction: Lectures and laboratory instruction in the theory of operation and preventive and corrective maintenance of the sonar set and Louis-Allis power supply. Topics include linear and nonlinear electronic circuits, block diagram analysis, and troubleshooting techniques.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0807

A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance
(A-7 Automatic Flight Control System Organizational Maintenance)

Course Number: C-602-3788; C-602-195.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2-3 weeks (80-100 hours).
Exhibit Dates: 9/68-1/88.
Objectives: To provide instruction in the maintenance of an automatic flight control system.
Instruction: Lectures and practical exercises on circuit analysis applied to flight control systems, stabilization, and automatic landing assemblies.
Credit Recommendation: In the vocational certificate category, 2 semester hours in advanced avionics/electronics maintenance (6/75).

NV-1715-0808

Fire Control Technician Class A, Phase 2SS

Course Number: A-113-0026.
Location: Service School Command, Great Lakes, IL.
Length: 12 weeks (360 hours).
Exhibit Dates: 1/67-1/88.
Objectives: To provide fire control technicians with the electrical/electronic/mechanical fundamentals related to torpedoes and underwater fire control systems.
Instruction: Lectures and practical exercises in electro-mechanical devices, analog computers, mechanical integrators, and trigonometry function generating devices.
Credit Recommendation: In the vocational certificate category, 8 semester hours in analog computers and electro-mechanical systems (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in analog computers and electro-mechanical systems; in the upper-division baccalaureate category, 1 semester hour in laboratory (6/75).

NV-1715-0809

AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1)
(AN/SPS-40B/C/D Radar Set Maintenance)

Course Number: A-104-0133.
Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 8 weeks (240 hours).
Exhibit Dates: *Version 1:* 11/81-Present. *Version 2:* 4/76-10/81.
Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/SPS-40B/C/D radar set.
Instruction: Course includes operation and maintenance of the AN/SPS-40B/C/D radar set; power control and distribution; air system; cooling system; antenna system; timing and trigger generation; frequency generation; low- and high-power transmitting group; receiver system; and test functions.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in circuit and system troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in communications systems, 2 in electronics laboratory (11/77).

NV-1715-0810

AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1

Course Number: A-102-0082.
Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 5 weeks (150 hours).
Exhibit Dates: 10/77-1/88.
Objectives: To provide the skills and knowledge necessary to maintain the AN/SRN-18 radio navigation set.
Instruction: Includes operation and familiarization with AN/SRN-18; antenna/receiver signals, DPU, power supply, thermal printer, test generator; system troubleshooting; and supply procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in

electronic communications systems, 1 in electronic communications laboratory (11/77).

NV-1715-0811

AN/APX-72 Series IFF Transponder
System Maintenance
(AN/APX-72 Maintenance, Class C-1)

Course Number: A-102-0063.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (90-120 hours).

Exhibit Dates: *Version 1:* 10/81-Present. *Version 2:* 12/75-9/81.

Objectives: To provide skills and training necessary to perform preventive and corrective maintenance on an aircraft interrogation system.

Instruction: Topics include theoretical and practical instruction in operation, maintenance, alignment, adjustment, and repair of a transponder system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems, 1 in electronics troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics or aircraft electronics (11/77).

NV-1715-0812

AIMS Mk XII IFF System Maintenance
(Electronics Technician, Class
C1)

Course Number: A-102-0062.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 17 weeks (680 hours). *Version 2:* 16 weeks (480 hours).

Exhibit Dates: *Version 1:* 1/81-Present. *Version 2:* 10/75-12/80.

Objectives: To provide skills and knowledge necessary to perform preventive and corrective maintenance required to maintain the Mk XII aircraft interrogation system.

Instruction: *All Versions:* Course covers operation and maintenance of radar test sets, transponder systems, interrogator systems, interference blankers, and decoders. *Version 1:* Includes power supplies, digital logic, signal conditioning, transmitters and receivers, displays and circuit analysis and troubleshooting to the component level.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems, 1 in electronics systems laboratory and 1 in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in communications systems, 3 in electronics laboratory (11/77).

NV-1715-0813

AIMS Mk XII System Differences
Equipment Maintenance, Class
C-1

Course Number: A-102-0064.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/75-1/88.

Objectives: To train electronics technicians to operate, repair, maintain and calibrate the accessory equipment AIMS Mk XII (interrogator and decoder unit) associated with an aircraft interrogator unit.

Instruction: Lectures and practical exercises in the operation and purposes of the Mk XII system, the AN/UPX-27 interrogator set, and the AN/UPA-59A decoder group equipment; computer logic, trigger and encoding circuits, transmitter and receiver circuits and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (11/77).

NV-1715-0814

AN/UPN-12 Loran Receiver Set
Maintenance (Electronics
Technician, Class C1)
(Electronics Technician, Class C,
AN/UPN-12 Loran Receiving Set
Maintenance, Class F-1)

Course Number: A-102-0040.

Location: Service School Command, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60-80 hours).

Exhibit Dates: 8/75-1/88.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/UPN-12(A) Loran receiver set.

Instruction: Topics include operation and familiarization; functional block diagram, pulse section, counter section, switch section, delay crank section, master pedestal section, pedestal generator section, sweep section, AFC section, and alignment and fault isolation procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications systems (11/77).

NV-1715-0815

Miniature Electronic Repair
Program, Class F-1
(Miniature/Microminiature Electronic
Repair (2M))

Course Number: A-100-0034.

Location: Fleet Training Center, Mayport, FL; Fleet Training Center, Pearl Harbor, HI; Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 1/79-Present. *Version 2:* 11/76-12/78.

Objectives: To provide personnel with the latest methods in disassembly, repair, and soldering of miniature printed circuits, components, terminals, circuit board laminates and conductors.

Instruction: Practical training in printed circuit board repair, terminal and connector pin soldering, micro-electronic circuit soldering, micro-miniature circuit board repair and parts installation, and micro-electronic connector pin soldering techniques; also includes replacement of components on microminiature single and double sided printed circuit boards and preventive maintenance procedures for the repair station and associated components.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic maintenance and troubleshooting (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in electronics technology (11/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (11/77).

NV-1715-0816

Prospective Electronics Material
Officer—Pacific Fleet, Class C2

Course Number: A-4B-0018.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/77-1/88.

Objectives: To provide the knowledge and skills necessary to administer and supervise the electronics maintenance division on board a Pacific fleet ship.

Instruction: Course includes audio-tutorial instruction in electronics materials management; communications systems, radar systems, navigation aids, electronic warfare, safety, training programs, and test equipment management.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/77).

NV-1715-0817

DD-063 Class Electronic Warfare
Suite
(Countermeasures Receiving Set
AN/WLR-1C (IV) Class F-1)

Course Number: A-102-0203.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8-9 weeks (320-360 hours).

Exhibit Dates: 12/76-12/82.

Objectives: Provides electronic warfare team training and technical maintenance in electronic support measures systems for the Spruance class destroyer.

Instruction: Provides training in operations under simulated conditions; alignment, repair and preventive maintenance of the AN/WLR-1C (V) with Band 10 and AN/WLR-11A.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance (1/77).

NV-1715-0818

Cryptologic Technician M, Bullseye
Wideband DF Maintenance
(Cryptologic Technician M, Basic Bullseye Maintenance)
(Bullseye System Basic Maintenance)

Course Number: A-102-0151.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* 13 weeks (536 hours). *Version 2:* 8 weeks (308-320 hours).

Exhibit Dates: *Version 1:* 5/82-4/84. *Version 2:* 11/74-4/82.

Objectives: To teach personnel with the cryptologic technician M rating to perform basic electronic maintenance on the Bullseye high-frequency, direction-finding (HFDF) system.

Instruction: *Version 1:* Upon completion of the course, the student will be able to: (1) describe operation, function and signal flow in the various subsystems of wideband antennas, receivers, magnetic recorders and spectrum analyzers (2) test, align, maintain, troubleshoot and repair down to the component level. *Version 2:* Includes instruction and practical application on the Bullseye system and equipment block diagrams of the various subsystems. Preventive maintenance and minor corrective maintenance procedures applicable to the OPEG, AN/FRD-10, AN/FLR-11, AN/FRA-54, and the AN/FRQ-15 are also taught.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (1/84). *Version 2:* In the vocational certificate category, 3 semester hours in communications electronics (1/77).

NV-1715-0819

Cryptologic Technician M, Bullseye Narrowband Maintenance
(Bullseye Narrowband Maintenance Technician)

Course Number: A-102-0152.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 28 weeks (1120 hours).
Exhibit Dates: 8/74-12/83.
Objectives: To provide personnel with the cryptologic technician M rating with sufficient training to perform electronic maintenance on the Bullseye Narrowband system.
Instruction: Subjects covered include principles, history, and evaluation of high-frequency direction finding; antenna types and construction; electromechanical, electrical, and electronic theory; principles of operation; preventive and corrective maintenance procedures and techniques on the high-frequency, direction-finding equipment; proper use of test equipment to evaluate high-frequency, direction-finding antenna systems.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting procedures (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computer science, 3 in computer technician training (1/77).

NV-1715-0820

Reserve Cryptologic Technician, Intermediate Cryptanalysis
(Reserve Naval Security Group-13.1 Intermediate Cryptanalysis)

Course Number: A-232-0056.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To provide working knowledge of the cryptanalytic techniques and practical experience in solving transposition ciphers and polygraphic substitution systems employing large tables and small matrices, including four-square, two-square, and Playfair cipher systems, and cryptosystems employing irregular cipher-text units.
Instruction: Instruction consists of a brief review of cryptographic terminology and techniques used in the solution of unilateral and multilateral substitution systems, including transposition ciphers and various polygraphic substitution systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0821

Reserve Cryptologic Technician Processing and Reporting, Phase I
(Processing and Reporting)
(Reserve Naval Security Group-3)

Course Number: A-232-0050.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To provide an introduction to basic traffic analysis.
Instruction: Course includes the construction of communications net diagrams by analysis of call signs and message externals of intercepted traffic.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0822

Reserve Cryptologic Technician Processing and Reporting, Phase II
(Processing and Reporting)
(Reserve Naval Security Group-4)

Course Number: A-232-0054.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To gain knowledge of the report writing phase of processing and reporting operations and to gain practical experience in the preparation of the special intelligence product and technical reports.
Instruction: Student will obtain practical experience in assembling and correlating special intelligence materials; in fusing collateral; in writing special intelligence product reports; in selecting the proper vehicle for electrical reporting and preparing it for transmissions; and in preparing special intelligence product and technical reports in required machinable manipulative formats.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0823

Reserve Cryptologic Technician Naval Security Group Orientation
(Reserve Naval Security Group-1)

Course Number: A-230-0015.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To familiarize the student with the organization, mission, and functions of the Naval security group and other cryptologic agencies engaged in the national intelligence effort.
Instruction: Course introduces the student to all phases of Naval security group operations including Morse, non-Morse, radiotelephone, communications security, electronic intelligence (ELINT), processing and reporting, special identification techniques, research and development, general service and Naval security group special communication, communications security material system, Armed Forces courier service, and an introduction to elementary applications of cryptanalysis and traffic analysis.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0824

Reserve Cryptologic Technician, Basic Cryptanalysis
(Reserve Naval Security Group-13)

Course Number: A-232-0055.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To provide the student with a basic knowledge of cryptographic terminology, cryptanalysis techniques, and experience in solving unilateral substitution systems employing standard and mixed alphabets, multilateral substitution with single equivalent alphabets, and multilateral substitution with variants.
Instruction: Instruction covers cryptanalytic terminology and definition, basic statistical analysis, unilateral and multilateral substitution ciphers, and key and keyword recovery.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0825

Reserve Cryptologic Technician Simulated Operational Training Phase I
(Reserve Naval Security Group Simulated Operational Training Phase I)

Course Number: A-232-0051.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To provide team training in collection, cryptanalysis, traffic analysis, reporting and forwarding of intercept materials.
Instruction: Simulates operations performed by a small Naval security detachment. Using analytic techniques, the group studies complex encrypted rotating call signs and frequency rotas to determine organization and composition (order-of-battle) of the enemy. Under supervision, students copy simulated enemy traffic, perform basic traffic analysis and cryptanalysis, and prepare special intelligence reports for electrical forwarding.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0826

Reserve Cryptologic Technician Simulated Operational Training Phase II
(Reserve Naval Security Group Simulated Operations Training Phase II)

Course Number: A-232-0057.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-12/82.
Objectives: To provide advanced training in collection, direction finding, cryptanalysis, traffic analysis, reporting and forwarding of intercept materials.
Instruction: Simulates operations performed by a small Naval security group division afloat by applying various cryptanalysis and traffic analysis techniques to simulated enemy intercept. Complex problems, including encrypted rotating call signs and frequencies are analyzed to determine the location, organization, and composition (order-of-battle) of the enemy. Students copy simulated enemy chatter and traffic, sort and log intercept, perform cryptanalysis and traffic analysis and prepare daily special intelligence summaries and technical reports for electrical forwarding.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0827

Reserve Cryptologic Technician Simulated Operational Training Phase III
(Reserve Naval Security Group Simulated Operations Training Phase III)

Course Number: A-232-0052.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–12/82.

Objectives: To provide a realistic operational environment for advanced training in traffic analysis including reporting and forwarding of intercept materials.

Instruction: Course simulates the operation of a small Naval security group division afloat, located off the coast of a hypothetical country. During theoretical crisis, students are responsible for quick and accurate special intelligence responses. Problems generated include advanced traffic analysis of call sign and frequency rotas; order-of-battle, high frequency direction-finding and address system reconstruction. Special intelligence summaries are prepared and forwarded electrically.

Credit Recommendation: Credit is not recommended because of the military-specific nature of of the course (1/77).

NV-1715-0828

AN/GYK-9 (FLEXSCOP) Maintenance
(Cryptologic Technician M, Flexscop Maintenance, Class C3)

Course Number: A-102-0079.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 24–26 weeks (948–1024 hours).

Exhibit Dates: *Version 1:* 6/81–9/85. *Version 2:* 2/75–5/81.

Objectives: To teach performance of preventive and corrective maintenance on the CP-818 Flexscop computer system, and the TT-617/G line printer.

Instruction: *All Versions:* In-depth coverage of programming logic diagram analysis and maintenance procedures for the CP-818A computer and associated I/O devices. Includes safety precautions and procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in digital computer systems operation and maintenance (1/84). *Version 2:* In the vocational certificate category, 6 semester hours in troubleshooting computer systems and subsystems (1/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied computer systems (1/77).

NV-1715-0829

Cryptologic Technician M, Class A3
(Cryptologic Technician Maintenance)

Course Number: A-102-0109.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* 16 weeks (621 hours). *Version 2:* Self-paced 12 weeks (400 hours). *Version 3:* Self-paced 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 11/79–Present. *Version 2:* 2/77–10/79. *Version 3:* 8/74–1/77.

Objectives: To teach basic electronic maintenance of equipment used in conjunction with cryptologic mission.

Instruction: *Version 1:* Provides a strong technical foundation and hands-on exercises to allow the student to test, troubleshoot and repair digitally tuned receivers, magnetic recorders, 8080 and 6800 microprocessor systems and basic teletype equipment. *Version 2:* Emphasis is on equipment configurations and procedures used in Naval security group activities. Included are basic safeguards for security; use of maintenance documentation; safety precautions and practices; principles of operation and maintenance of antenna and RF distribution systems, radio receivers, and tape recorders; principles of TTY and communication terminal equipments; and use of common and special purpose test equipment. *Version 3:* Emphasis is on equipment configurations and procedures used in Naval security group activities. Included are basic safeguards for security; use of maintenance documentation; safety precautions and practices; principles of operation and maintenance of antenna and RF distribution systems, radio receivers, and tape recorders; principles of TTY and communication terminal equipments; and use of common and special purpose test equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in digital computer technology, 3 in analog and digital test equipment, 3 in digital HF receiver systems (1/84). *Version 2:* In the vocational certificate category, 3 semester hours in electronic test equipment (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital systems fundamentals (1/77). *Version 3:* In the vocational certificate category, 3 semester hours in electronic test equipment (1/77).

NV-1715-0830

Cryptologic Technician M, Bullseye Wideband Maintenance
(Bullseye Wideband Maintenance Technician, Class C3)

Course Number: A-102-0153.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 28 weeks (1108–1120 hours).

Exhibit Dates: 12/74–12/78.

Objectives: To teach personnel with cryptologic technician M rating to perform electronic maintenance on the Bullseye Wideband system.

Instruction: Teaches preventive and corrective maintenance on the AN/FLR-11 and AN/FRA-54 equipment and associated systems.

Credit Recommendation: In the vocational certificate category, 9 semester hours in communication electronics or computer systems (1/77); in the lower-division baccalaureate/associate degree category, credit is recommended in communication electronics or for a basic course in computer science on the basis of institutional evaluation (1/77).

NV-1715-0831

Aviation Squadron Electronic Warfare (EW) Officer, Class A2

Course Number: C-2D-3814.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (148–160 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide formal training for the aviation officer assigned to an electronic warfare officer billet in a tactical air/antisubmarine warfare squadron.

Instruction: Topics include technology, organization, equipment, publications, weapons systems, training, and operations. Subjects include correspondence writing, equipment operation, training development, and operational planning.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1715-0832

Naval Security Group Direct Support Operations
(Officer Direct Support Operations, Class C4)

Course Number: A-3B-0012.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 4 weeks (148–160 hours).

Exhibit Dates: 1/77–12/78.

Objectives: To train junior officers for assignment to a Naval security direct support unit.

Instruction: Course provides training in the mission, task, and functions of the direct support unit; includes operational objectives and operational and management reports.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0833

Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator
(High Frequency Direction Finder Operator, Class C3)

Course Number: A-231-0012.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 5 weeks (188–200 hours).

Exhibit Dates: 1/77–12/78.

Objectives: To provide background, theory, and knowledge of procedures necessary to operate direction-finding equipment in current use.

Instruction: Subjects include history and theory of direction finding; review of mathematics and basic radio theory; review of security practices and principles; calibration and operation of equipment and systems; charts, plotting, and fixes; communications practices and procedures; and simulated watchstanding.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0834

Reserve Cryptologic Technician Direct Support
(Reserve Training Officer Direct Support Operations, Class F1)

Course Number: A-230-0016.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–12/82.

Objectives: To learn about Naval security group elements afloat and to enable students to perform in responsible, often independent positions.

Instruction: Student is trained to assume duties as Officer in Charge or Leading Petty Officer of a Naval security group afloat: emphasis is placed on independent operations. Tactical and operational control methods are explained and proper use of governing directives is stressed.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0835

Cryptologic Technician M AN/FLR-15 Maintenance, Class C3

Course Number: A-102-0084.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 36 weeks (1428-1440 hours).

Exhibit Dates: 11/75-12/81.

Objectives: To teach preventive and corrective maintenance on the AN/FLR-15 equipment.

Instruction: Subjects include electromechanical, electrical, and electronic theory; principles of operation; preventive and corrective maintenance procedures and techniques on the AN/FLR-15, OL-125 and associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic digital circuits and 3 in PDP 11/35 Computer Technician training (1/77).

NV-1715-0836

Cryptologic Technician R, Class A3
(Cryptologic Technician Collection Branch)

Course Number: A-231-0044.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 22 weeks (880 hours).

Exhibit Dates: 11/73-Present.

Objectives: To provide basic instruction and practical application in intercept of Morse communications.

Instruction: Includes operation of radio receiving equipment and typewriters; basic safeguards of security; communication procedures and systems; theory and operation of communication equipment. Provides basic instruction and practical application in intercept of Morse communications and develops ability to copy Morse code at a speed of 18 GPM and touch type at 25 WPM.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics or general technical subjects (7/87).

NV-1715-0837

Cryptologic Technician T, Class A3 Preparatory
(Cryptologic Technician Technical Basic Preparatory, Class A)

Course Number: A-231-0045.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 13 weeks (508-520 hours).

Exhibit Dates: 5/75-5/86.

Objectives: To provide instruction and practical experience in intercept of non-Morse communications.

Instruction: Course includes fundamental concepts of communications and techniques required to perform intercept of selected non-Morse signals. Students study International Morse code and learn to transcribe 8 GPM using Morse Coder Trainer and 15 GPM using paper and pen. Touch typing at 25 WPM is required. For course after 1986, see NV-1715-1243.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications (1/77).

NV-1715-0838

Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
(Cryptologic Technician Technical Field Operations, Type One)

Course Number: A-231-0046.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 5 weeks (200 hours).

Exhibit Dates: 1/77-6/87.

Objectives: To provide instruction and training in intercept of non-Morse communications.

Instruction: Includes concepts of collection analysis reporting and forwarding on non-Morse (plain text and enciphered) communications signals and the operation of the AN/GSQ-76 data acquisition system (TEBO) and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (1/77).

NV-1715-0839

Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
(Cryptologic Technician Technical Field Operations, Type Two)

Course Number: A-231-0047.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 3 weeks (108-120 hours).

Exhibit Dates: 5/76-1/86.

Objectives: To provide instruction and practical experience in intercept of non-Morse communications.

Instruction: Includes basic concepts in International Commercial Radio collection, analysis, reporting, and forwarding of ICR non-Morse communications signals and instruction in the operation of the AN/TCA-4 (KINDER) digital converting programming group and associated equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio operation (1/77).

NV-1715-0840

Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
(Cryptologic Technician Technical Field Operations, Type Three)

Course Number: A-231-0024.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 6 weeks (228-240 hours).

Exhibit Dates: 5/76-12/81.

Objectives: To provide training to operate all components of the AN/FLR-11 and AN/FLR-15.

Instruction: Topics include theory and knowledge of procedures necessary to operate all components of the AN/FLR-11 and AN/FLR-15; operating and basic adjustments; equipment demonstrations; practical application; and simulated watchstanding.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications equipment (1/77).

NV-1715-0841

Countermeasures Receiving Set AN/WLR-11A
(AN/WLR-11A Maintenance Training, Class C-1)

Course Number: A-102-0150.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 5 weeks (188-200 hours).

Exhibit Dates: 7/75-12/83.

Objectives: To provide technical training in the maintenance of the AN/WLR-11A and associated equipment in a shipboard environment with minimum supervision.

Instruction: Subjects include digital logic review, alignment, repair, and preventive maintenance of the AN/WLR-11A and interface with AN/WLR-1.

Credit Recommendation: In the vocational certificate category, 3 semester hours electronic communications equipment (1/77).

NV-1715-0842

AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance
(Countermeasures Set AN/SLQ-26, Class C-1)

Course Number: A-102-0192.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 7/74-12/81.

Objectives: To prepare personnel to operate, maintain, and repair the AN/SLQ-19 and AN/SLQ-26(V) systems.

Instruction: Topics include digital logic review, alignment, repair, and preventive maintenance of the AN/SLQ-19 and AN/SLQ-26(V) systems, including the AN/SLD-1A.

Credit Recommendation: In the vocational certificate category, 6 semester hours in communications electronics (1/77).

NV-1715-0843

Cryptologic Technician T, Flexscop Operator
(Flexscop Operator, Class C3)

Course Number: A-231-0025.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 4-6 weeks (160-240 hours).

Exhibit Dates: 11/74-12/78.

Objectives: To provide technical skills necessary to operate the CP-818 data computer and ancillary equipment associated with the Flexscop system.

Instruction: Includes introduction to and operating procedures for the digital data computer CP-818 and ancillary equipment. Air Force personnel attend additional 2 weeks for simulated watchstanding that parallels on-site operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to computer systems and operation (1/77); in the lower-division baccalaureate/associate degree category, credit in introduction to computer science on the basis of institutional evaluation (1/77).

NV-1715-0844

Reserve Cryptologic Technician T, Advanced, Class F1
(Reserve Naval Security Group-10-T)
(Advanced T Branch Training Orientation)

Course Number: A-231-0041.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73-12/82.

Objectives: To provide basic and update branch training beyond the Naval Security group division level training.

Instruction: Course provides current professional, practical, and knowledge factor requirements in communications equipment operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications equipment operation (1/77)

NV-1715-0845

Reserve Cryptologic Technician
Signal Analysis, Class F1
(Reserve Naval Security Group-5 Signal Analysis)

Course Number: A-232-0049.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-12/82.

Objectives: Students learn about various types of communication signals currently in use throughout the world.

Instruction: Introduction to modulation; training in graphic analysis; fundamental use of the sonagraph and undulator recorder; step-by-step breakdown of all non-Morse transmissions, beginning with basic transmissions and progressing to complex signals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications (1/77).

NV-1715-0846

Cryptologic Technician T, Flexscop
Programmer, Class C3

Course Number: A-532-0016.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 18-19 weeks (729-760 hours).

Exhibit Dates: 3/74-10/84.

Objectives: To teach skills necessary to perform systems analyst/programmer functions using the C-818/U Flexscop computer system.

Instruction: Subjects include program writing, assembling systems/programs, and troubleshooting faulty programs/systems, and instruction related to on-site programming applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer science assembly language (1/84).

NV-1715-0847

Tartar Missile Fire Control Systems
(MFCS) Mk 74 Mods 4/5/8

Course Number: A-121-0239.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 20 weeks (800 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide senior petty officers with the knowledge and techniques to coordinate and supervise planned and corrective maintenance needed on a specialized missile weapons system (Tartar).

Instruction: Lectures and practical exercises covering the operational differences of the Tartar missile weapons system radar from other fire control radars and the operation of the fire control computer including number system conversions, functional operations and the maintenance requirements of the missile system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in systems maintenance (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic digital and computer fundamentals (11/81).

NV-1715-0848

Reserve Cryptologic Technician
Communications Technical
Control, Class F1
(Reserve Naval Security Group-7 Communications Technical Control)

Course Number: A-580-0026.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/74-12/82.

Objectives: To teach basic communications technical control.

Instruction: Topics include basic technical control operation/administrative procedures, telegraph signal characteristics and printing systems, signal distortion, safety, DC patching, telegraph test equipment, control reporting, cryptographic equipment and setup/operation procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype equipment (1/77).

NV-1715-0849

Cryptologic Technician O, Tactical
Communications Systems
Operations and Management,
Class C3

Course Number: A-580-0020.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 12 weeks (480 hours).

Exhibit Dates: 3/75-10/79.

Objectives: To provide training in tactical communications systems operation and management.

Instruction: Subjects include basic theory of electricity; operating principles of transmitters, receivers, transmission lines and multicouplers; circuit control and traffic reporting procedures; shipboard communications; high frequency direction-finding (HFDF) operations and communications; and communications management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity and 6 in radio communication and communicator (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in management procedures (1/77).

NV-1715-0850

Cryptologic Technician O, Class A3
(Cryptologic Technician Communications Rating, Class A)

Course Number: A-580-0016.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 17 weeks (668-680 hours).

Exhibit Dates: 10/75-8/79.

Objectives: Provides instruction in basic radio printer communications.

Instruction: Includes cryptographic equipment operating techniques; developing teletypewriter operator skills; Naval message format preparation; the tape relay procedure method of message delivery; communications security, organization, systems, logs, and files.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype usage (1/77).

NV-1715-0851

Electronics Technician A,
Communications
(Electronics Technician Communications Basic, Class A1)

Course Number: A-102-0227.

Location: Service School Command, Great Lakes, IL.

Length: 17 weeks (619 hours).

Exhibit Dates: 10/77-7/80.

Objectives: To provide knowledge and skills in electronics fundamentals and electronic circuit analysis.

Instruction: Subjects include basic electronics technology, troubleshooting procedures, use of basic electronics test equipment and common hand tools, and introduction to communications fundamentals.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar principles, 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0852

Electronics Technician
Communications Equipment
Fundamentals, Class A1

Course Number: A-102-0228.

Location: Service School Command, Great Lakes, IL.

Length: 13 weeks (422 hours).

Exhibit Dates: 10/77-7/80.

Objectives: To develop troubleshooting skills using generic communications systems.

Instruction: Course includes principles of operation, 3M documentation, corrective and preventive maintenance techniques for generic communications systems (AN/WRC-1, R-1051, AN/URC-35, AN/URT-23, AN/URA-38, AN/SRC-20/21, AN/UCC-1, Teletype System).

Credit Recommendation: In the vocational certificate category, 7 semester hours in communications equipment (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications laboratory (10/77).

NV-1715-0853

Electronics Technician
Communications—Nuclear Field,
Class A1

Course Number: A-102-0226.

Location: Service School Command, Great Lakes, IL.

Length: 22 weeks (791 hours).

Exhibit Dates: 10/77-7/80.

Objectives: To provide nuclear field electronics technicians with a basic knowledge of electronics fundamentals and develop troubleshooting skills using generic communications equipment.

Instruction: Topics include basic electronics technology, troubleshooting procedures, basic electronics test equipment and common hand tools, introduction to communications, principles of operation, 3M documentation, corrective and preventive maintenance techniques for generic communications equipment AN/WRC-1, R-1051, AN/URC-35, AN/URT-23, and AN/URA-38.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar systems, 4 in communications equipment, and 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, 3 in radar systems, and 1 in communications laboratory (10/77).

NV-1715-0854

Electronics Technician Radar Basic
(Electronics Technician Radar, Class A1)

Course Number: A-104-0173.
Location: Service School Command, Great Lakes, IL.
Length: 17 weeks (619 hours).
Exhibit Dates: 10/77-7/80.
Objectives: To provide knowledge and skills in electronic fundamentals and circuit analysis.
Instruction: Topics include electronic technology, troubleshooting procedures, use of basic electronics test equipment and common hand tools, and introduction to radar fundamentals.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar systems, 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0855

Electronics Technician Radar
Equipment Fundamentals, Class A1

Course Number: A-104-0174.
Location: Service School Command, Great Lakes, IL.
Length: 12 weeks (400 hours).
Exhibit Dates: 10/77-7/80.
Objectives: To develop troubleshooting skills using generic radar systems.
Instruction: Course includes principles of operation; 3M documentation; corrective and preventive maintenance techniques for generic radar systems AN/SPS-10, Mk X IFF, AN/SPA-25; electronic liquid cooling and dry air systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in radar electronics, 3 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (10/77).

NV-1715-0856

Electronics Technician Radar—
Nuclear Field, Class A1

Course Number: A-104-0172.
Location: Service School Command, Great Lakes, IL.
Length: 21 weeks (729 hours).
Exhibit Dates: 10/77-7/80.
Objectives: To provide nuclear field electronics technicians with a basic knowledge of electronics fundamentals and to develop troubleshooting skills using generic radar equipment.
Instruction: Subjects are basic electronic technology and troubleshooting procedures including use of basic electronics test equipment and common hand tools; introduction to radar; principles of operation; 3M documentation; corrective and preventive maintenance techniques for generic radar equipment AN/SPS-10; electronics liquid cooling and dry air systems.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 2 in electronics laboratory, 6 in radar systems and 2 in radar electronics (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0857

Sonar AN/SQS-23 Operator
(Sonar AN/SQS-23 Series (Sonar) Operator Basic)

Course Number: K-130-0084; A-130-0084.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 3 weeks (90-94 hours).
Exhibit Dates: 7/77-11/87.
Objectives: To train personnel in the operation of AN/SQS-23 sonar systems.
Instruction: Lectures and practical exercises in the operation of AN/SQS-23 sonar sets and associated equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/86).

NV-1715-0858

Sonar AN/SQS-35(IVDS) Operator
(Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic)

Course Number: A-130-0085.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 2 weeks (63 hours).
Exhibit Dates: 5/75-1/88.
Objectives: Course trains Naval and Coast Guard personnel to operate the AN/SQS-35/38 sonar.
Instruction: Course contains topics pertinent only to the specified sonar.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

NV-1715-0859

Sonar AN/SQQ-23A (PAIR)
Organizational Maintenance

Course Number: A-130-0096.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 25 weeks (744 hours).
Exhibit Dates: 5/76-1/88.
Objectives: To train selected enlisted personnel to operate and maintain the AN/SQQ-23A sonar system.
Instruction: Classroom and laboratory experiences related to the operation and maintenance of the sonar AN/SQQ-23A. Includes circuit analysis and troubleshooting, system turn on and troubleshooting, receiver subsystems analysis and troubleshooting, solid state transmitters, and recorder/reproducer.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0860

Sonar AN/SQQ-23 (PAIR) Operator
Basic

Course Number: A-130-0097.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC.
Length: 8 weeks (239 hours).
Exhibit Dates: 8/77-1/88.
Objectives: To train selected personnel with sonar technician "G" rating to operate the AN/SQQ-23 PAIR sonar and to perform operator preventive maintenance.
Instruction: Classroom instruction and laboratory practice activities related to basic operation and preventive maintenance of the sonar AN/SQQ-23.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

NV-1715-0861

Sonar AN/SQS-53 Operator Basic

Course Number: A-130-0103.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 4 weeks (116 hours).
Exhibit Dates: 8/76-1/88.
Objectives: To prepare personnel to operate the AN/SQS-53 sonar system.
Instruction: Course content concerns the operation of the specified sonar system.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the training (8/77).

NV-1715-0862

Sonar AN/SQR-17 Organizational
Maintenance
(Sonar AN/SQR-17 and AN/SKR-4 Organizational Maintenance)

Course Number: A-130-0110.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 11 weeks (352 hours).
Exhibit Dates: 4/76-10/86.
Objectives: To provide surface sonar technicians with skills and knowledge to maintain the sonar signal processing set AN/SQR-17 and telemetric data receiving set AN/SKR-4A.
Instruction: Classroom and laboratory experiences in theory and applications of maintenance procedures and techniques unique to the sonar AN/SQR-17. Also includes basic integrated circuit nomenclature and spectrum analyzer operation and maintenance.
Credit Recommendation: In the vocational certificate category, 1 semester hour in advanced instrumentation (8/77).

NV-1715-0863

Sonar AN/SQS-26 BX Maintenance

Course Number: A-130-0046.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 20 weeks (625 hours).
Exhibit Dates: 12/76-1/88.
Objectives: Course prepares personnel with Sonar Technician "G" rating to maintain the sonar AN/SQS-26BX system.
Instruction: Topics such as servo control logic, transmitter testing, signal processing, and fault isolation of the specified sonar system.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0864

Sonar AN/SQS-23 D-G Series (TRAM)
Maintenance
(Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance)

Course Number: A-130-0049.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 12 weeks (375 hours).
Exhibit Dates: 8/76-11/87.
Objectives: To train sonar technicians in the maintenance of the AN/SQS-23 sonar system.
Instruction: Lectures and practical exercises in preventive and corrective maintenance of sonar and associated support

equipment. Includes heater and DC power supplies, transmission circuits, transmitting cooling systems, performance monitor equipment, system test circuits, presentation and receiving circuits, and related topics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0865

Sonar AN/BQS-11/12/13 Maintenance
(Submarine Sonar AN/BQS-11/12/13 System Maintenance)
(Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance)

Course Number: A-130-0065.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 5/74–11/78.

Objectives: To train sonar technicians in the preventive and corrective maintenance of the AN/BQS-11/12/13 sonar systems.

Instruction: Lectures and practical exercises in preventive and corrective maintenance of AN/BQS-11/12/13 sonar systems with emphasis on troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0866

Sonar AN/SQS-35(V) Maintenance

Course Number: A-130-0069.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 13 weeks (520 hours).

Exhibit Dates: 1/76–12/85.

Objectives: To train sonar technicians to maintain, calibrate, and operate the AN/SQS-35(V) sonar and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-35(V) sonar systems and associated timing, transmitter, receiver, and servo equipments. See NV-1715-1272 for course after 1986.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0867

Sonar Electronics Intermediate (SEI)

Course Number: A-130-0039.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 17 weeks (680 hours).

Exhibit Dates: 8/74–2/79.

Objectives: To provide enlisted personnel with a basic working knowledge of electric circuits, electronics, and computer logic circuits.

Instruction: Topics include basic electricity and electronics, DC and AC theory, vacuum tubes, solid state devices, transformer operation, power supplies, amplifiers, wave form generators, analog computer circuits, digital numbering, "and" "or" gates and flip-flop switching, memory devices, and biasing techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computer logic circuits (8/77).

NV-1715-0868

Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance
(AN/BQS-8B, 10A, 14A Sonar System Maintenance)

Course Number: A-130-0036.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 3 weeks (60–90 hours).

Exhibit Dates: 1/76–1/88.

Objectives: Student learns to operate the AN/BQS-8B/10A, 14A and 20 and detect malfunctions.

Instruction: Topics pertain specifically to sonar system equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

NV-1715-0869

DD-963 Facilities Control Quality Monitoring Processing Unit Operators
(DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1)

Course Number: A-201-0021.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 7/77–1/88.

Objectives: To provide the skills and knowledge necessary to operate a radio communications system.

Instruction: Course provides instruction in the operation of quality monitoring and control systems, high frequency radio equipment, and message processing equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems (11/77).

NV-1715-0870

DD-963 Spruance Class Destroyer Radio Communications Systems Maintenance
(Radio Communications System Maintenance for DD-963 Class Ships, Class C-1)

Course Number: A-101-0096.

Location: Service School Command, San Diego, CA.

Length: 8 weeks (240–320 hours).

Exhibit Dates: *Version 1:* 9/78–Present. *Version 2:* 11/77–8/78.

Objectives: To train electronic technicians to operate, align, and repair a radio communications system for naval vessels.

Instruction: Lectures and laboratories in circuit analysis and block diagrams of receivers and transmitters; logic systems; synthesizers; RF and control sections; power supplies and antennas; and use of test equipment to troubleshoot and repair the specified equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in circuit and system troubleshooting and 2 in communications systems (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in communications systems, 2 in electronics laboratory (11/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems (11/77).

NV-1715-0871

Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance

Course Number: A-101-0081.

Location: Service School Command, San Diego, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 9/75–1/88.

Objectives: To provide the skills and knowledge necessary to operate and maintain a satellite information exchange system operational control center.

Instruction: Students attend ten separate courses in sequence. Units of instruction include the operation and maintenance of the TT-624 line printer, RD-397/U (XN-1) signal data recorder-reproducer, ON-143 (V3)/USQ interconnecting group, AN/USH-22(V) magnetic tape subsystem, and the AN/USH-23(V) magnetic disk subsystem.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer peripherals maintenance and 1 in troubleshooting techniques (11/77).

NV-1715-0872

AN/USQ-64(V) CUDIXIS Maintenance
(Common User Digital Information Exchange System (CUDIXS) Maintenance)

Course Number: A-101-0082.

Location: Service School Command, San Diego, CA.

Length: *Version 1:* 23 weeks (920 hours). *Version 2:* 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 3/80–Present. *Version 2:* 11/75–2/80.

Objectives: To provide the skills and knowledge to operate and maintain a data processing communications system.

Instruction: *Version 1:* Lectures and practical exercises in the HP2100 minicomputer system with cassette and mag tape loader subsystems. Included are subsystems for interfacing, display, and control; operation and maintenance of line printers, data recorder/reproducers, mag tape and disk subsystems and terminals. *Version 2:* Students attend ten separate courses in sequence. Units of instruction include the operation and maintenance of the TT-624 line printer, RD-397/U (XN-1) signal data recorder-reproducer, ON-143(V3)/USQ interconnecting group, AN/USH-22(V) magnetic tape subsystem, AN/USH-23(V) magnetic disk subsystem, AN/UYK-20 data processing set, and associated communications systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in minicomputer systems, 1 in digital communications, 3 in computer peripheral maintenance and 1 in electronic troubleshooting (5/82); in the upper-division baccalaureate category, for engineering majors 1 semester hour in minicomputer systems (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in communications systems, 3 in computer peripherals maintenance, and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0873

SUBMARINE SATELLITE INFORMATION EXCHANGE SYSTEM (SSIXS) FOR SHIPBOARD INSTALLATIONS MAINTENANCE

Course Number: A-101-0083.

Location: Service School Command, San Diego, CA; Submarine School, Groton, New London, CT.

Length: *Version 1:* 8-9 weeks (340-380 hours). *Version 2:* 16 weeks (480 hours).

Exhibit Dates: *Version 1:* 4/78-1/87. *Version 2:* 9/75-3/78.

Objectives: To provide the skills and knowledge necessary to maintain a satellite information exchange system.

Instruction: For this course after 1/87 see NV-1715-1471. *Version 1:* Classroom and laboratory practice in digital logic, microprocessors (8080A), UARTS and associated processor support circuits. Maintenance and repair of digital data communications equipment (FSK), with extensive Built-in-Test Equipment (BITE), supporting encryption equipment, processor interfaces and digital computers. *Version 2:* Students attend seven separate courses in sequence. Units of instruction include the operation and maintenance of the AN/WSC-3 satellite communications set, AN/UYK-20 data processing set, ON-143(V3)/USQ interconnecting group, and associated communications systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in introductory digital logic, 1 in digital electronic maintenance and repair laboratory and 1 in communications electronics maintenance and repair laboratory (3/81); in the upper-division baccalaureate category, 2 semester hours in microcomputer hardware (3/81). *Version 2:* In the vocational certificate category, 2 semester hours in electronics technician training, 3 in computer peripherals maintenance, and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0874

FLEET SATELLITE COMMUNICATIONS FLEET BROADCAST CONTROL SUBSYSTEM MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-101-0085; A-101-0086.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 1/77-1/88.

Objectives: To provide skills and knowledge in operation and maintenance, without supervision, of a time division multiplexer and satellite signal receiving set.

Instruction: Theoretical and practical instruction in the operation, troubleshooting, and preventive maintenance of a radio receiver and a time division multiplexer to the card/module level of operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (11/77).

NV-1715-0875

AN/SYQ-7(V)3 NAVAL MODULAR AUTOMATED COMMUNICATIONS SYSTEMS NAVMACS V3 MAINTENANCE

(Naval Modular Automated Communications System (NAVMACS) A Maintenance)

Course Number: A-101-0214; A-101-0089.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: *Version 1:* 13-14 weeks (520-560 hours). *Version 2:* 20 weeks (600 hours).

Exhibit Dates: *Version 1:* 1/82-Present. *Version 2:* 9/75-12/81.

Objectives: To provide the skills and knowledge necessary to operate and maintain a modular automated communications system.

Instruction: *Version 1:* Course content includes an introduction to digital computers and the operation, maintenance and troubleshooting of computer peripherals including recorders/reproducers, line printers, data terminals and paper tape punch readers. *Version 2:* Students attend ten separate courses in sequence. Units of instruction include digital computers TT-624 line printer, AN/WSC communications equipment, and various troubleshooting and maintenance laboratories.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer architecture and machine language, 2 in computer peripherals laboratory and 1 in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics technician training and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0876

AN/WSC-3 COMMUNICATIONS SET, OE-82B/WSC-1 ANTENNA GROUP AND AN/SRA-33 ANTENNA COUPLER GROUP

(AN/WSC-3 Stand-Alone Maintenance)

(AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group)

Course Number: A-101-0138.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 7/80-Present. *Version 2:* 6/77-6/80.

Objectives: To provide the skills and knowledge required to operate and maintain a satellite communications set and related antenna equipment.

Instruction: Theoretical and practical instruction in equipment operation, troubleshooting, and preventive maintenance of a satellite communications set.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting (5/82). *Version 2:* In the vocational certificate category, 2 semester hours in electronics technician training (11/77).

NV-1715-0877

AN/WSC-5 TACTICAL SATELLITE COMMUNICATIONS SYSTEM MAINTENANCE

(Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V))

Course Number: A-102-0126.

Location: Service School Command, San Diego, CA.

Length: 7 weeks (210 hours).

Exhibit Dates: 11/77-1/88.

Objectives: To provide the skills and knowledge for the maintenance of the AN/WSC-5(V) tactical satellite communications equipment.

Instruction: Lessons and demonstrations of the theory of operation and use of the AN/WSC-5(V) tactical satellite communications system; a comprehensive analysis of all units of the system; diagnostic troubleshooting techniques for the repair and calibration of the system; the use of specialized test equipment and application of preventive maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications systems and 3 in electronics laboratory (11/77).

NV-1715-0878

SUBMARINE SATELLITE INFORMATION EXCHANGE SYSTEM (SSIXS) OPERATIONAL CONTROL CENTER OPERATOR

Course Number: A-202-0020.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/77-1/88.

Objectives: To train technicians as designated operators on the submarine satellite information exchange system operational control center shore message processing system.

Instruction: Lessons and instruction on the operation and use of the operational control center system; message modes, control console and retrieval from memory; monitoring of the system for sequential operational steps for proper operation.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (11/77).

NV-1715-0879

COMMON USERS DIGITAL INFORMATION EXCHANGE SYSTEM (CUDIXS) OPERATORS

Course Number: A-202-0021.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/76-1/88.

Objectives: To provide the skills and knowledge necessary to operate the common users digital information exchange system.

Instruction: Units of instruction include operational procedures, system alarms, program loading, message handling, system status, system recovery, and link operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communication systems (11/77).

NV-1715-0880

MISSILE TECHNICIAN POLARIS CONVERSION

Course Number: A-121-0461.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/76-1/88.

Objectives: To teach the theory, operation, maintenance, and repair of a Polaris launching system.

Instruction: Course offers a study of the functional operation and schematic analysis of a missile fire control system, including control, logic, program timer, display, simulator, power supplies, launcher alignment, calibration, launcher troubleshooting, fault analysis, and repair. Course is a combination consisting of the following: Polaris A3 Missile Advanced Training (A-121-0261), Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer Timer Digital Multimeter Advanced Training (A-121-0262), Missile Test and Readiness Equipment Mk 3 Measurement, Display and Simulation Groups Advanced Training (A-121-0263), Guidance Power Supplies Mk 115/116 Advanced Training (A-121-0266), Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Operation/Interface and Mechanical Repair Advanced Training (A-121-0264) and either Mk 17 Mod 1 Launcher Advanced Training (A-121-0271) and Mk 17 Launcher Pneumatic (A-121-0273) or Mk 21 Mod 2 Launcher Advanced Training (A-121-0272) and Mk 21 Launcher Pneumatic (A-121-0274).

Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanics for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronic technology for completion of all components of the entire course (9/77).

NV-1715-0881

Navigation Technician SSN 668 Class

Course Number: A-193-0103.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 13 weeks (520 hours).

Exhibit Dates: 5/76–1/88.

Objectives: To provide study of a navigational system consisting of a digital computer and satellite receiver, and to teach fault isolation and repair of the equipment, and to provide familiarization with system programs used to operate and diagnose the system.

Instruction: This is an initial course in the theory, operation, and maintenance of specified equipment, teaching basic inertial navigation theory, central computer complex subsystem theory and basic operation, system data flow, fault isolation, and the operational techniques of resets, calibration and error analysis. A combination course consisting of the following: Dual Mini Ships Inertial Navigation System (SINS) Maintenance (A-193-0103), Satellite Receiver AN/SRN-9A Combined Maintenance (A-102-0168), Omega Navigation Set AN/BRN-7 Combined Maintenance (A-102-0131), Inertial Navigation Principles (A-193-0050) and Central Computer Complex Duel Miniature (CCCDEMIN) Ships Inertial Navigation System (SINS) (A-115-0104).

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics technology for completion of all components of the entire course (9/77).

NV-1715-0882

585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician

Course Number: A-233-0047.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 20 weeks (540 hours).

Exhibit Dates: 9/77–1/88.

Objectives: A combined series of courses involving sophisticated electronic equipment aboard submarines.

Instruction: Course is a combination of the following: IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Radar AN/BPS-12, 13, 14 Combined Maintenance (A-104-0165), ESM AN/WLR-1 F/3A Combined Maintenance (A-233-0034), Radio Direction Finder AN/BRD-6 Combined Maintenance (A-102-0159), and Periscope Type 8B and 15D E/E Adapter Combined Maintenance (A-233-0032).

Credit Recommendation: In the vocational certificate category, 6 semester hours in electromechanical technology for completion of all components of the course (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics engineering technology for completion of all components of the course (9/77).

NV-1715-0883

Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1

Course Number: A-233-0044.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 22 weeks (660 hours).

Exhibit Dates: 12/72–1/88.

Objectives: To provide non-nuclear submarine electronics technician personnel training in sophisticated electronic equipment aboard submarines.

Instruction: Course presents training in the operation and maintenance of specified electronic equipment and is a combination of the following courses: Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance (A-233-0041), IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Radar AN/BPS-12, 13, 14 Combined Maintenance (A-104-0165), and Periscope Type 15 B/D and E Adapter Combined Maintenance (A-233-0037).

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics technology for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technology for completion of all components of the entire course (9/77).

NV-1715-0884

Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1

Course Number: A-121-0262.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/74–1/88.

Objectives: To teach the theory of operation, adjustment, fault isolation, and repair of a special-purpose digital programmer and timer for military equipment using a specially designed digital multimeter.

Instruction: Course includes a study of the functional operation of a digital programmer and timer utilizing circuit logic and logic diagrams including control, program instructions, and sequential operations. Use of test equipment including a special purpose digital multimeter to isolate faults, make adjustments, calibrate, troubleshoot, and repair military equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics technology (9/77).

NV-1715-0885

Submarine Communications Equipment Combined Maintenance

(Submarine Communications Equipment)

(Radio Equipment Submarine Maintenance)

Course Number: A-101-0061; A-101-0062.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 21 weeks (840 hours).

Exhibit Dates: 7/75–3/89.

Objectives: Course is designed to train technicians to operate, maintain, and repair a submarine communications system.

Instruction: For this course after 3/89 see NV-1715-1474. Lectures and practical exercises on a submarine communications system including various types of antennas, antenna couplers, receivers, and transmitter systems. Course covers block-diagram functional description of each subsection, signal tracing using schematics, preventive maintenance, alignment, adjustment, calibration, and troubleshooting to isolate the fault to the board or component level. Combination course consists of the following: Transceiver AN/SRC-20 Combined Maintenance (A-101-0103), Special Communications Equipment AN/BRT-2 Operator-Maintenance (A-101-0095), Antenna Multicoupler AN/BRA-16 Combined Maintenance (A-101-0104), Antenna Coupler CU-1441 Combined Maintenance (A-101-0107), Transmitter AN/WRT-4 Combined Maintenance (A-101-0106), Radio Transceiver AN/WRC-1 Family Equipment (A-101-0109), Antenna Group AN/BRA-8B Combined Maintenance (A-101-0098), Radio (Submarine) Receiver/Converter Combined Maintenance (A-101-0124) and Antenna Systems Fundamentals (Submarines) (A-101-0123).

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics communications for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory for completion of all components of the entire course (9/77).

NV-1715-0886

Interior Communications (IC) Package Course for SSN/SSBN

Course Number: A-623-0030.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/77–1/88.

Objectives: To provide theory and skills for operation and maintenance of various subsystems aboard submarines.

Instruction: Combination course consists of the following: Electronic Hovering and Depth Control Combined Maintenance (A-623-0041), Integrated Announcing System AN/WIC-2 Combined Maintenance (A-623-0051), Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1 (A-623-0048), Submarine Gyro Compass Mk 19 Mod 3 Combined Maintenance (A-670-0042), Dial X Telephone System Combined Maintenance (A-623-0058), Hydrogen Detector (Englehart) Combined Maintenance (A-623-0068) and Total Hydrocarbon Analyzer Combined Maintenance (A-623-0061). Topics include theory and analysis of DC and AC circuits, introduction to vacuum tubes, and solid-state devices, electromechanical components, and amplification and control.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics technology to be granted for completion of all components of the course (9/77).

NV-1715-0887

3306/3309 FTB Conversion Training

Course Number: A-121-0460.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 18 weeks (540 hours).

Exhibit Dates: 1/76–1/88.

Objectives: This is a conversion course designed to train a fire control (ballistic missile) specialist in the operation and maintenance of the Mk 80 fire control system.

Instruction: Combination course consisting of the following: Alignment Group Mk 1 Mods 0 and 1 (A-121-0283), Fire Control System Mk 80 Controls and Indications (A-121-0279), Polaris Target Card Computer System Mk 148 Mod 0 Theory (A-121-0275), Polaris Target Card Computer System Mk 148 Mod 0 Maintenance (A-121-0276), Fire Control System Technician, Mk 80 (A-121-0244), Data Computation and Transmission Loops FCS Mk 80 (A-121-0280), Mk 80 FCS Technician Replacement Training (A-121-0244), Switchboards and Power Supplies (A-121-0278), Digital Evaluation Unit (A-121-0282), and Mk 2 Guidance System (A-121-0254). Major areas covered are power supplies, alignment, computer theory, digital logic and guidance systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics engineering technology for completion of the entire program to include all component courses (9/77).

NV-1715-0888

637 Class Electronic Surveillance Measures (ESM) ELINT Technician

(Electronic Surveillance Measures (ESM) ELINT Technician SSN 637 Class, Class C-1)

Course Number: A-233-0045.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 15 weeks (600 hours).

Exhibit Dates: 6/76–1/88.

Objectives: To teach digital computer principles and the operation and maintenance of a digitally controlled communications receiver.

Instruction: Course consists of combination of the following: Basic Computer Theory (A-100-0032, A-100-0045) and ESM AN/BRD Combined Maintenance (A-102-0127).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in electronics technology or computer technology for completion of the entire program to include all component parts (9/77).

NV-1715-0889

Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1

Course Number: A-233-0046.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 28 weeks (1120 hours).

Exhibit Dates: 6/77–1/88.

Objectives: To provide non-nuclear submarine electronics technician personnel training in the operation and maintenance in specified equipment.

Instruction: Course is a combination of the following: AN/BPS-15 Combined Maintenance (A-102-0199), IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Basic Computer Theory (A-100-0045, A-100-0032), Periscope Type 18 Combined Maintenance (A-102-0157), and ESM AN/WLR-8 Combined Maintenance (A-233-0040).

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technician training (9/77); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics technology, 5 in computer technology, 2 in electronics engineering, and an additional 5 in electronics technology or computer technology, all to be granted only for completion of all components of the entire course (9/77).

NV-1715-0890

Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1

Course Number: A-113-0059.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 20 weeks (600 hours).

Exhibit Dates: 3/73–1/88.

Objectives: Provides necessary theory and skills required to maintain the large number of subsystems comprising a fire control system.

Instruction: Course provides primary training at the systems level in data processing, target tracking, and torpedo subsystems. Includes study of induction motors, generators, hysteresis motors, test equipment, number systems, and basic switching logic also at the systems level. Electromechanical components such as brakes, clutches, switches, relays, synchros, and resolvers are studied. Course includes classroom and laboratory study.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical technology or electromechanical technology (9/77).

NV-1715-0891

Alignment Group Mk 1 Mods 0 and 1, Class F-1

Course Number: A-121-0283; L-121-0056.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/61–1/88.

Objectives: Provides corrective maintenance training related to alignment group Mk 1 Mods 0 and 1.

Instruction: To teach maintenance supportive theory and laboratory work involving fault isolation, alignment, adjustment, and calibration procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics engineering technology (9/77).

NV-1715-0892

Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1

Course Number: A-121-0279; L-121-0053.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (79 hours).

Exhibit Dates: 10/74–1/88.

Objectives: To provide training for maintenance and repair of the Mk 49 control console and the attack center indicating panel Mk 225.

Instruction: Course includes maintenance supportive theory which does not involve signal or electron flow or detailed mechanical breakdown except for the specified equipment. Student obtains skills to perform fault isolation and repairs on specified equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0893

Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1

Course Number: A-121-0276.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/74–1/88.

Objectives: This is an application course utilizing theory acquired in the Polaris Target Card Computer System Mk 148 Mod 0 Theory course (A-121-0275).

Instruction: Course offers laboratory work involving fault isolation and repair of the Polaris target card computer system (PTCCS) Mk 148 Mod 0. Corrective maintenance is stressed.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0894

Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1

Course Number: A-121-0275; L-121-0049.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (84 hours).

Exhibit Dates: 8/74–1/88.

Objectives: To present a theory course supporting corrective maintenance of the Polaris target card computer system Mk 148 Mod 0.

Instruction: Course offers advanced theory involving control, logic, signal flow and sequential operation of the Polaris target card computer system (PTCCS); includes fault isolation procedures, repair and replacement of components, as well as functional interface with the remainder of the weapons system including power requirements and input and output signals in terms of type, format, source and destination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in logic and control systems (9/77).

NV-1715-0895

Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1

Course Number: A-121-0280; L-121-0048.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).
Exhibit Dates: 10/74–1/88.
Objectives: To provide training for corrective maintenance of the FCS Mk 80 Mods 2 and 3.
Instruction: Course offers maintenance support theory which does not involve signal or electron flow or detailed mechanical component breakdown except for the specialized equipment specified.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0896

Electronic Test Equipment Basic Operator, Class F1
(Electronic Test Equipment Operation)

Course Number: A-198-0023; L-198-0012.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 4/74–1/88.
Objectives: To provide the training necessary to enable the student to effectively care for and use common types of test equipment.
Instruction: The course explains the proper care and use of DC current and voltmeters, AC voltmeters, ohmmeter, vacuum tube voltmeters, differential voltmeters, and the volt-ohm-milliammeter. Meter scale reading accuracy and the loading effects of a voltmeter are explained. Practical exercises using an ohmmeter to test transistors and the use of meters in transistor and tube circuits are given. Oscilloscopes, RF generators, and frequency counters operation are explained and their use in aligning a superheterodyne receiver is given as a practical exercise.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0897

Polaris Target Card Computer System Peripheral Equipment, Class C1

Course Number: A-121-0277; L-121-0051.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4 weeks (120 hours).
Exhibit Dates: 9/74–1/88.
Objectives: Teaches corrective maintenance of a computer tape reader, a card punch/reader, and an IBM selectric typewriter transmitter receiver.
Instruction: Course concentrates on operational tests and procedures for the maintenance of the equipment specified; provides the theory necessary to support all corrective maintenance without going into signal or electron flow or detailed mechanical component breakdown except for those components unique to the peripheral equipment. Also provides skills to perform fault isolation and make repairs with limited supervision to the card punch/reader, punched tape reader, and the typewriter transmitter receiver.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0898

Controllers and Circuit Breakers Combined Maintenance
(Circuit Breakers and Controllers)
(Controllers Circuit Breakers, Class F1)

Course Number: A-662-0038; L-662-0013.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Training Center, Charleston, SC; Submarine School, Groton, CT.
Length: 2 weeks (60-62 hours).
Exhibit Dates: *Version 1:* 4/85–Present. *Version 2:* 6/72–3/85.
Objectives: To provide necessary principles of circuit breakers and controllers to enable effective maintenance and repair of equipment used on submarines.
Instruction: *Version 1:* Lectures and laboratory instruction provides training in the operation, maintenance, and fault detection for high voltage circuit breakers, motor controllers, and switch gear. Upon successful completion of the course, the student will be able to perform normal switching operations to isolate a circuit under fault conditions, connect an across-the-line starter for starting large motors, and remove and repair circuit breakers and switch gear. *Version 2:* Approximately 30 percent of course is devoted to theory and characteristics of circuit breakers, under voltage relays, under frequency relays, various tripping devices and the fundamentals of DC voltmeters and AM meters. Student learns purpose, characteristics, and the principle of operation, maintenance and adjustments on 6 types of circuit breakers and 5 types of controllers used aboard submarines.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electrical technology laboratory (11/85). *Version 2:* In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0899

Polaris Loran "C" Advanced Training
(Loran "C" Advanced Maintenance)
(Loran "C" AN/WPN Refresher Maintenance Class F1)

Course Number: A-193-0258; L-193-0011.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 9/74–1/88.
Objectives: To offer the theory of operation of a Loran "C" receiver and to teach the student to perform fault isolation and make repairs.
Instruction: Course covers timing loop, modes, frequencies, input/output signals, sequential operation, control and indicators, and alarm search loop of a Loran 'C' receiver, and teaches the student to perform systematic fault isolation, operational tests using test equipment, repair, alignment, adjustment, and calibration procedures on the equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0900

Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
(SECT Buoy AN/BST-1 Basic Maintenance, Class F1)
(AN/BST-1 SECT Maintenance for Submarine Tender Technician)

Course Number: A-130-0144; L-101-0013.
Location: Submarine Training Center, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 2/75–1/88.
Objectives: To provide theory and skills necessary for the operation, maintenance, and repair of the SECT buoy AN/BST-1.
Instruction: Major areas of course cover troubleshooting and programming of the specialized equipment specified.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0901

Generator Regulators, Class F-1

Course Number: L-662-0023.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 1-2 weeks (35-60 hours).
Exhibit Dates: *Version 1:* 11/85–Present. *Version 2:* 7/72–10/85.
Objectives: This is a basic course in the operation, maintenance and troubleshooting of static regulators.
Instruction: *Version 1:* Lectures and laboratory exercises in the theory of static exciters and magnetic amplifiers are offered in this course designed to refresh learning of experienced enlisted personnel in the maintenance and repair of voltage and speed regulators (from 43.2 kw to 2000 kw) at the component level. *Version 2:* Approximately 60 percent of this course is devoted to classroom work on AC theory and vector analysis of circuits and components with the remainder of the time spent in troubleshooting 2000 KW voltage regulators and 300 KW speed/voltage regulators. Time is given to review of previous training.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical engineering technology (power option) laboratory (11/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical engineering technology (power option) (9/78).

NV-1715-0902

Maintenance Analysis Test Set (MATS) Mk 352, Class F1

Course Number: A-121-0285; L-121-0030.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (57-60 hours).
Exhibit Dates: 1/61–1/88.
Objectives: To present theory of operation of specific military equipment and fault isolation and repair of that equipment.
Instruction: Course presents a study of the theory of operation of specialized military equipment utilizing logic and-or-nor gates and their sequential operation. Students will perform fault isolation tests and make repairs on the equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0903

Radio Direction Finder AN/BRD-6 Combined Maintenance
(Radio Direction Finder AN/BRD-6 Operational Maintenance)
(AN/BRD-6B Combined Maintenance, Class F1)

Course Number: A-102-0159; L-102-0020; F-101-0023.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/73–Present.

Objectives: To teach the theory of operation and maintenance of special military equipment.

Instruction: Course offers theory of operation of special military equipment including antenna loops, pre-amps, flood detectors, RF units, IF units, power supplies and synchro units. Students learn to perform adjustments, fault isolation, signal trace, and to make repairs to the component level.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (11/85).

NV-1715-0904

Digital Fundamentals, Basic
(Basic Digital Computer Theory)
(Basic Digital Fundamentals, Class F1)

Course Number: A-100-0045; L-000-0058; F-000-0080.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 6/76–1/88.

Objectives: To provide an introduction to digital fundamentals, including number systems, Boolean algebra, logic conventions, combinational and sequential circuits, memory A/D and D/A conventions, digital logic families, and organization of a typical computer.

Instruction: Course offers a study of binary, octal, duodecimal, BCD, and hexadecimal number systems. Includes conversions between number systems, binary arithmetic, complements, excess three code, and negative number representation, Boolean algebra, Veitch diagrams, graphical symbols, gates, flipflops, counters and registers. Topics include a study of the control unit, arithmetic unit, memory unit and I/O unit; Ellol detection and collection; analog-to-digital, digital-to-analog programming, diagnostics; digital logic families; and the organization of a general purpose computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics technology or computer technology (9/77).

NV-1715-0905

Special Technology I

Course Number: A-100-0046; L-000-0033.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4–6 weeks (120–180 hours).

Exhibit Dates: 4/75–6/76.

Objectives: To provide the student working in communications with a thorough practical knowledge of basic electronics.

Instruction: Course covers AC and DC circuits with vacuum tubes, amplifiers, and an introduction to solid-state devices; also covers structure of matter, physical aspects of resistors, inductors, and capacitors; Ohm's and Kirchoff's laws for DC series, parallel, and series-parallel circuits, DC bridge circuits, voltage dividers, reading schematic diagrams, use of a multimeter AC voltage generation and characteristics of a sinewave, ideal transformers; AL, AC, and ALC series and parallel circuits with respect to current, voltage, power, Q, impedance and resonance, characteristics of tube-type diodes and their application to power supplies, multielement tubes, basic class A, B, AB, and C tube-type amplifiers and their frequency response, and introduction to solid-state theory, diodes, transistors, and their respective application to power supplies and amplifiers. After January 1976 course included arithmetic and an overall review of the course.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (9/77).

NV-1715-0906

Special Technology II

Course Number: A-100-0047; L-000-0034.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/75–6/76.

Objectives: To provide a practical course in basic electronics.

Instruction: Topics covered include tubes, transistors, amplifiers, oscillators, modulation, transmitters, wave propagation, and power supplies, antennas, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics engineering technology (9/77).

NV-1715-0907

Special Technology III

Course Number: A-100-0048; L-000-0035.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 2/75–1/88.

Objectives: To provide the student working in communications with a thorough practical knowledge of basic radio receiver circuits.

Instruction: Course is structured to be the apex of Special Technology I and II and is designed primarily for technicians working with radio frequencies. Principles of operation of a TRF, superheterodyne, and single-sideband receivers are given, including the RF, IF, and audio amplifiers, detector circuits, oscillator circuits, and mixer circuits. The advantages and disadvantages of a TRF, superheterodyne and single-sideband are explained. Understanding of schematic diagrams, signal flow, and troubleshooting procedures are given. Students use a VTVM, RF signal generator, and an oscilloscope in troubleshooting a superheterodyne circuit.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (9/77).

NV-1715-0908

Missile Test and Readiness Equipment
(MTRE) Mk 3 Measurement,
Display and Simulation Groups
Advanced Training
(Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1)

Course Number: A-121-0263.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74–1/88.

Objectives: To learn functional operations and to isolate faults and make repairs on special-purpose military equipment.

Instruction: Course teaches the functional operation of special military equipment utilizing circuit and logic diagrams including control, logic, program sequence, sequential operations, alarms and displays, and to isolate faults, troubleshoot, repair, adjust and calibrate the equipment studied.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0909

Polaris A3 Missile Advanced Training

Course Number: A-121-0261.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To study the theory of operation and fault isolation, and to make repairs on missile fire control systems.

Instruction: Course offers a study of the functional operations and schematic analysis of a missile fire control system including its control, logic, sequential operation and teaches student to learn fault isolation and component replacement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0910

Missile Launcher Mk 17 Mod 1
Advanced Training, Class C1

Course Number: A-121-0271.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74–1/88.

Objectives: To study electrical, mechanical, pneumatic and hydraulic theory and to learn to troubleshoot and maintain special military equipment utilizing these components.

Instruction: A study of dehumidifier systems, including heating and cooling, pneumatic relays and electronic monitoring equipment; theory and maintenance of high-pressure air, nitrogen, and hydraulic valve systems; electronic environmental monitoring equipment, including moisture and humidity detection; electrical control system utilizing relay logic; and fault isolation and repair of equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical technology (9/77).

NV-1715-0911

Polaris/Poseidon Radio Navigation
Set AN/BRN-3 Receiver
Advanced Training, Class F1

Course Number: A-193-0261.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–6/83.

Objectives: To provide knowledge and skills required for the corrective maintenance, fault isolation and repair of a navigation control console.

Instruction: For this course after 6/83 see NV-1715-1455. Course offers classroom and laboratory time in advanced theory and corrective maintenance of a radio navigation receiver.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0912

1. Sonar Receiving Set AN/BQR-15

Combined Maintenance
2. Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1
(Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance)

Course Number: A-130-0238; A-130-0125; F-130-0034.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 2 weeks (67-80 hours).

Exhibit Dates: *Version 1:* 3/81-Present. *Version 2:* 10/75-2/81.

Objectives: To provide theory of operation and maintenance on the specific military equipment.

Instruction: *All Versions:* Course includes the study of the theory of operation of specialized military equipment. Student learns to perform fault isolation, calibrate, and adjust the equipment. *Version 1:* Includes basic maintenance and repair.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic maintenance and repair laboratory (3/81). *Version 2:* Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0913

Navigation Satellite Receiver AN/WRN-5 Combined Maintenance
(Loran AN/WRN-5 Combined Maintenance)
(Satellite Navigation System AN/WRN-5)
(Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1)
(AN/WRN-5 Combined Maintenance)
(Navigation Set Operation and Maintenance)

Course Number: A-193-0054.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School Groton, New London, CT.

Length: 3 weeks (90-117 hours).

Exhibit Dates: *Version 1:* 1/80-Present. *Version 2:* 8/73-12/79.

Objectives: To provide the necessary skills and theory to operate, repair, and maintain a satellite receiver/computer.

Instruction: *All Versions:* Course discusses arithmetic logic, input/output devices, analog-to-digital conversion, synchro-to-digital conversion, and phase modulation detection. More than 50 percent of the course is devoted to operational description of the equipment. *Version 1:* Includes discussion at the functional level of a satellite navigation receiver system. *Version 2:* Includes discussion at the functional level of magnetic and core memories of a computer.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89). *Version 2:* In the vocational certificate category, 1 semester hour in computer technology (9/77).

NV-1715-0914

IFF AN/APX-72 and AN/UPX-17 Combined Maintenance
(IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1)

Course Number: A-102-0229; A-102-0161.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/76-1/88.

Objectives: To provide training in the operation and maintenance of the AN/APX-72 and AN/UPX-17 IFF equipments aboard submarines.

Instruction: Major emphasis of course is on qualitative functional and operational description of the specified equipment concentrating on corrective maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0915

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1

Course Number: A-193-0260.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75-1/88.

Objectives: Course offers a review of theory and maintenance procedures for radio navigation equipment.

Instruction: Course includes block diagram, study of receivers, computers, and peripheral equipment; also includes approximately 35 hours of alignment procedures for receivers, computers, data processors, and peripheral equipment. Remainder of course time is devoted to troubleshooting equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
(Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance)

Course Number: A-193-0266.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75-1/88.

Objectives: To provide theory of operation of a selectric typewriter and to teach fault isolation, adjustment, and repair of the equipment.

Instruction: Course teaches theory of operation of a selectric typewriter, including controls, clutches, gears, cams, latches, linkages and springs. Students will perform fault isolation and make adjustments and repairs to the equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical technology (9/77).

NV-1715-0917

Launcher Mk 21 Mod 2 Advanced Training, Class F1

Course Number: A-121-0272.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74-1/88.

Objectives: To study electrical, mechanical, pneumatic and hydraulic theory and to learn to troubleshoot and maintain special military equipment utilizing these components.

Instruction: Course presents a study of dehumidifier systems, including heating and cooling, pneumatic relays, and electronic monitoring equipment. Course includes theory of operation and maintenance of high-pressure air, nitrogen and hydraulic valve systems; electronic environmental monitoring equipment, including moisture and humidity detection; electrical control systems utilizing relay logic, and performance of fault isolation tests and repair of equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanics (9/77).

NV-1715-0918

6L16 Oxygen Generator Electrical Technician
(Oxygen Generator Technician 6L16)

Course Number: A-623-0039.

Location: Submarine Training Facility, Norfolk, VA; Submarine Training Facility, San Diego, CA; Trident Training Facility, Bangor, WA; Submarine Training Center, Kings Bay, GA; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 3 weeks (90-120 hours).

Exhibit Dates: *Version 1:* 12/79-Present. *Version 2:* 1/74-11/79.

Objectives: To provide training in the electrical maintenance of an oxygen generator.

Instruction: Approximately one-third of the course provides instruction in power supplies, contact annunciators, magnetic amplifier annunciators, readout circuits, and pressure controller systems. The balance of the course is devoted to troubleshooting and calibration.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited, specialized nature of the course (10/89). *Version 2:* In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0919

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I

Course Number: A-193-0294.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75-1/88.

Objectives: To provide the theory of operation of specific military equipment and to enable the student to perform fault isolation on the equipment.

Instruction: Course offers a study of the theory of operation of specialized military equipment, with limited instruction on fault isolation and repair.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0920

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II

Course Number: A-193-0295.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: Provides advanced training (follow-on) for operation and fault isolation of the ships inertial navigation system (SINS) Mk 2 Mods 1 and 4 systems.
Instruction: Offers quantitative theory related to maintenance and repair of logic circuits and specialized mechanical components unique to specialized equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0921

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I

Course Number: A-193-0292.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To teach theory of operation and fault isolation performance on specific military equipment.
Instruction: Course presents theory of operation of specialized military equipment in the pre-navigate mode, including caging loops, torquing loops, alignment loops, and alarm circuitry, and the performance of fault isolation and repair on the equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0922

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II

Course Number: A-193-0293.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To study the theory of operation and maintenance of specialized military equipment.
Instruction: The study of temperature control, monitors, data transmission, and the performance of fault isolation and repair on specialized military equipment are covered.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0923

Verdan Computer Theory and Maintenance I
(Verdan Theory and Maintenance I, Class F1)

Course Number: A-193-0290.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To teach the theory of operation of a special-purpose digital computer and performance of fault isolation and repair on the equipment.
Instruction: Course offers a study of the functional operation of a special-purpose digital computer to include the following topics: control, indicators, modes, sequence of operations, input/output, timing relationships, loop functions, power supplies, coding, instructions and data format, and registers; fault isolation and repair on the Universal section, GP (non-compute) section, and the DDA section of the Verdan computer.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0924

Verdan Computer Theory and Maintenance II
(Verdan Theory and Maintenance, Class F1)

Course Number: A-193-0291.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To teach the theory of operation of a special-purpose digital computer and performance of fault isolation and repair on the equipment.
Instruction: Course covers theory of operation of the I/O section of a digital computer including input and output logic and coding, I/O diagnostic tests, control panel switches and diagrams, keyboard, displays, and typewriter buffer circuitry, and teaches performance of fault isolation and equipment repair. As conducted after 10/77 course includes functional description and operation of tape reader, including amplifiers, solenoid drivers, photodiode sensors and control signals.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0925

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training
(AN/BRN-3 Computer Advanced Training)

Course Number: A-193-0271.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To present the theory of operation of a digital data processing computer with tape reader/punch and to perform fault isolation, corrective maintenance, and repairs on the equipment.
Instruction: Course presents a study of digital data processing computer using block, logic, and schematic diagrams of the control and state counters, memory access, memory selection, and registers for shift, hold, add, increment, decrement, complement, merge, and extract operations. Interface circuitry for the tape reader and tape punch, and perform fault isolation, mechanical adjustment, and repairs on the equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0926

Naval Data Automated Computer (NAVDAC) Advanced Training

Course Number: A-193-0282.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4 weeks (120 hours).
Exhibit Dates: 1/75-1/88.
Objectives: To teach theory of operation and performance of fault isolation, and to teach repair on specialized military equipment.
Instruction: Course includes study of logic circuits and elements as they relate to timing, storage, control, input/output, arithmetic and power supplies for specific military equipment. Students will learn to perform fault analysis and make repairs on the equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (9/77).

NV-1715-0927

Submarine Communication Application and Theory Module 1
(SCATMOD 1)

Course Number: A-100-0035.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4 weeks (120 hours).
Exhibit Dates: 3/75-1/88.
Objectives: To review basic arithmetic and algebra, including linear equations, and to introduce electricity and the study of DC circuits.
Instruction: Course presents an introduction to the structure of matter and a study of electrostatics, magnetism, EMF, current, resistance, cells, and batteries, DC series circuits and applications, parallel DC circuits and applications of parallel circuits, equivalent circuits and applications.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 1 in mathematics (9/77).

NV-1715-0928

Submarine Communication Application and Theory Module 2
(SCATMOD 2)

Course Number: A-100-0036.
Location: Submarine School Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4-5 weeks (120 hours).
Exhibit Dates: 3/75-1/88.
Objectives: Course provides training in the fundamentals of electronics and electronic circuitry.
Instruction: Course provides a study of trigonometry, including right triangles, trigonometric tables and vectors (including addition and subtraction), theory of AC circuits, inductance, inductive reactance, capacitive reactance, series RL and RLC circuits, impedance, Q, parallel RL and RLC circuits, series and parallel resonance. A study of solid-state diodes and power supplies, transistors and amplifiers, multi-element tubes and amplifiers, tuned circuits, amplifier distortion and coupling.
Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (9/77)

NV-1715-0929

Submarine Communication Application and Theory Module 3, Class A-1
(SCATMOD 3)

Course Number: A-100-0050.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2-3 weeks (90 hours).
Exhibit Dates: 11/75-1/88.
Objectives: Course presents a study of electronics circuits and applications, including oscillators, pulse and wave shaping, RF power amplifiers, CW keying and transmitters, modulation, AM transmitters, FSK, single sideband, transmission lines, antennas and waveguides.
Instruction: Course covers theory of operation of oscillators, including Armstrong, Hartley, TPTG, crystal controlled, Colpitts, electron-coupled, blocking, and RC. A

study of RC shaping circuits and applications; astable, monostable, distable multivibrators; Schmidt triggers; clamping and limiting; switching; gating and applications, and frequency compensation are presented. Also presented are theory of RF power amplifiers and applications, CW keying and applications, CW transmitters, modulation, AM transmitters, frequency shift keying, single sideband, transmission lines, antennas, and wave propagation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (9/77).

NV-1715-0930

Submarine Communication Application and Theory Module 4
(SCATMOD 4)

Course Number: A-100-0051.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/75–1/88.

Objectives: To present a study of the theory of superheterodyne receivers, including CW and SSB, and to teach students to perform troubleshooting on the equipment with the use of oscilloscopes and signal generators.

Instruction: An introduction to basic superheterodyne receivers, CW and SSB receivers, control circuits, and applications of receiver control circuits. In-depth study of a six-step troubleshooting procedure with laboratory application, using oscilloscopes and signal generators, is presented.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (9/77).

NV-1715-0931

Submarine Communication Application and Theory Module 5
(SCATMOD 5)

Course Number: A-100-0052.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/75–1/88.

Objectives: To familiarize the individual with military procedures for documenting faulty equipment and technical manual layout, and to permit the individual to develop skills in using hand tools and soldering equipment and to perform adjustments, alignment, and calibration procedures on equipment.

Instruction: The course presents a study of military procedures and technical manual layouts and the use of hand tools and soldering irons to develop skills to disassemble, repair, reassemble, solder, and splice cables and perform adjustments, alignments, and calibration procedures on military equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0932

Submarine Communication Application and Theory Module 6
(SCATMOD 6)

Course Number: A-100-0053.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3–4 weeks (90 hours).

Exhibit Dates: 11/75–1/88.

Objectives: To introduce digital principles, number systems, logic circuits, Boolean algebra, functional operation of computers, programming, concepts and systems applications.

Instruction: Course presents a study of number systems, including binary and octal, conversions between ranixes, arithmetic operations, and components; logic circuits, including and, or, nand, nor, exors, and inverters; introduction to Boolean algebra and use of the Veitch diagram; study of flip-flops, registers, encoding, decoding, counting, arithmetic, control, memory, I/O, programming, and system applications.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics technology (9/77).

NV-1715-0933

Interrogator Set AN/TPX-42A(V)8 CATOC DAIR Class C1

Course Number: C-103-2033.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 9 weeks (360 hours).

Exhibit Dates: 6/79–4/88.

Objectives: To train electronic technicians in the maintenance and repair of computer based air traffic control equipment at the organizational level.

Instruction: For this course after 4/88 see NV-1715-1434. Classroom and laboratory instruction in logic and number systems, digital computer fundamentals, machine language programs; interface logic to air traffic control equipment and alignment and maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in minicomputers (2/81).

NV-1715-0934

SSN/SSBN Electronic Hovering and Depth Control Combined Maintenance
(Electronic Hovering and Depth Control Combined Maintenance)
(Electronic Hovering and Missile Compensation)

Course Number: A-623-0041.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 2 weeks (63–80 hours).

Exhibit Dates: 2/75–Present.

Objectives: To train technicians to operate, align, repair, and perform preventive maintenance on equipment to stabilize a submarine during missile launch.

Instruction: Operating stabilization equipment and performing preventive maintenance, alignment, and repair on the electronic aspects of the equipment. Troubleshooting of the system covers controls, indicators, transducers, and operational amplifiers.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/81).

NV-1715-0935

AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance

Course Number: C-102-3093.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Miramar, CA; Naval Air Maintenance Training Detachment, Oceana, VA; Naval Air Maintenance Training Detachment, LeMoore, CA; Naval Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4–5 weeks (152 hours).

Exhibit Dates: 7/80–Present.

Objectives: To provide experienced maintenance personnel with instruction in the maintenance of an electronic countermeasures receiving set by using appropriate circuit analysis and troubleshooting techniques and applicable test equipment.

Instruction: Lectures and practical laboratory work in maintenance and troubleshooting the electronic countermeasures test set, circuit analysis techniques, video circuit analysis, digital filtering analysis and associated test equipment. There is also a review of transistor fundamentals and basic digital logic circuits.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital fundamentals (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital fundamentals laboratory (7/80).

NV-1715-0936

AN/ALM-163 Digital Module Test Console Intermediate Maintenance

Course Number: C-102-3965.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/78–Present.

Objectives: To provide fleet aviation electronic technicians training in the maintenance and repair of a digital module test console.

Instruction: Lectures and laboratory instruction covering the functions and operation of a digital module test console including the power supply, power distribution control systems, logic board operation and the mechanical and electrical interface for a card reader. The student uses specialized test equipment to maintain, troubleshoot and repair console components.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/80).

NV-1715-0937

A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance

Course Number: C-102-3969.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/80–Present.

Objectives: To train experienced maintenance personnel in the organizational maintenance of a sophisticated communication, navigation, identification and intercommunication system and its associated equipment as used on a naval aircraft.

Instruction: Lectures and practical exercises in the operation, maintenance, testing, troubleshooting and repair of communication, radar altimeter, and navigation systems, and the necessary specialized test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in avionic maintenance technology(7/80).

NV-1715-0938

AN/ALR-50(V) Radar Receiver Intermediate Maintenance

Course Number: C-102-3095.

Location: Naval Air Maintenance Training Detachment, Lemoore, CA; Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, CA; Naval Air Maintenance Training Detachment, Cecil Field, FL; Naval Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (110 hours).

Exhibit Dates: 3/76–Present.

Objectives: This course provides experienced personnel with training in intermediate level maintenance and repair of a specialized radar receiver.

Instruction: Lectures and laboratory instruction on both block and detailed theory levels of operation and maintenance of an RF/Video receiver. Some time is spent on identifier and processor logic theory.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer servicing (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital fundamentals laboratory (7/80).

NV-1715-0939

AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance

Course Number: C-102-3115.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Cecil Field, FL; Naval Air Maintenance Training Detachment, Le Moore, CA; Naval Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (60 hours).

Exhibit Dates: 2/78–Present.

Objectives: Provides trained personnel with information at the block level to maintain and troubleshoot specialized chaff dispensing equipment.

Instruction: Lectures and laboratory training at the intermediate or systems level in such topics as basic concepts of major assemblies and subassemblies, and system/aircraft interface and structural considerations. Some time is spent on electronic system theory including power distribution/control, circuit card assembly, converters and drive motors.

Credit Recommendation: In the vocational certificate category, 1 semester hour in avionics maintenance technology (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical laboratory (7/80).

NV-1715-0940

A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance

Course Number: C-102-3967.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/78–Present.

Objectives: To train experienced maintenance personnel to maintain and troubleshoot a particular target recognition, communication navigation and identification system.

Instruction: Instruction in the operation, block diagram analysis, troubleshooting and maintenance of a particular target recognition system including some radar fundamentals, UHF principles and communication systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/80).

NV-1715-0941

AN/APM-375 Mini-SACE Search Radar Test Console Intermediate Maintenance

Course Number: C-104-3764.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 12/75–Present.

Objectives: To train experienced maintenance personnel to operate, maintain, troubleshoot and repair a specialized radio console.

Instruction: Lectures and practical exercises in the operation maintenance, troubleshooting and repair procedures for a semi automatic test system including block diagram analysis, selection of program mo[illegible] signal tracing and analysis, microwave circuit tracing, logic signals and timing, and equipment calibration procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics maintenance (7/80).

NV-1715-0942

A-6E TRAM Weapons System Technician Organizational Maintenance

Course Number: C-102-3971.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA, Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 5/79–Present.

Objectives: To provide trained personnel with instruction on organizational maintenance of ballistics computer, search radar, inertial navigation, and TRAM armament system equipment.

Instruction: Lectures and laboratory instruction at the basic block diagram level on the operation, troubleshooting, repair and alignment of specialized electronic equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/80).

NV-1715-0943

AN/ALM-117 Digital Test Station Operator

Course Number: C-102-3973.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/79–Present.

Objectives: To train experienced maintenance personnel in the operation of a specialized digital test station.

Instruction: Lectures and practical exercises in the operation of a digital test station including magnetic tape drives, video terminal, interface adaptors, and special alignment procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer operations, 1 semester hour in maintenance and repair laboratory (7/80).

NV-1715-0944

AN/AMP-225 Module Analyzer Test Console Intermediate Maintenance

Course Number: C-104-3762.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 12 weeks (468 hours).

Exhibit Dates: 3/79–Present.

Objectives: This course provides trained personnel with instruction on the maintenance and repair of a module analyzer test console and peripheral equipment.

Instruction: Lecture and laboratory instruction at the block diagram level in signal, sweep and gate generators, basic logic circuits and functions, electronics circuitry, digital timers, and related circuitry including troubleshooting and repair procedures using an oscilloscope, multimeter and frequency counter.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer maintenance (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (7/80).

NV-1715-0945

AN/APQ-148/156 Search Radar Intermediate Maintenance

Course Number: C-104-3763.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (248 hours).

Exhibit Dates: 5/79–Present.

Objectives: To provide experienced personnel with instruction to the block diagram level in fundamental analysis, maintenance, troubleshooting and repair of a search radar system.

Instruction: Lectures and laboratory instruction on radar set control, antenna receiver, radar transmitter, signal data converter, radar data error computer, video processor and azimuth-range indicator for a specific search radar system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in systems maintenance laboratory (7/80).

NV-1715-0946

AN/ARM-155 and AN/ARM-156 TACAN Test Equipment Intermediate Maintenance

Course Number: C-102-3089.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA; Naval Air Maintenance Training Detachment, Miramar, CA; Naval Air Maintenance Training Detachment, LeMoore, CA; Naval Air Maintenance Training Detachment, Cecil Field, FL; Naval Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/78–Present.

Objectives: The course provides trained personnel with fundamental procedures used to maintain, troubleshoot, and repair a specialized piece of equipment.

Instruction: Lectures and laboratory instruction in power requirements, signal flow and basic operation theory applicable to specialized test equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/80).

NV-1715-0947

AN/ARN-84(V) TACAN Receiver
Intermediate Maintenance

Course Number: C-102-3090.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Miramar, CA; Naval Air Maintenance Training Detachment, Moffett Field, CA; Naval Air Maintenance Training Detachment, LeMoore, CA; Naval Air Maintenance Training Detachment, Oceana, VA; Naval Air Maintenance Training Detachment, Cecil Field, FL; Naval Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 2/77–Present.

Objectives: The course provides fleet maintenance personnel with knowledge of the theory, operation and troubleshooting of an aircraft receiver.

Instruction: The student gains an understanding of the receiver operation and signal flow path so as to identify defective components or subsystems using a fault free troubleshooting procedure provided in the maintenance manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in repair and maintenance laboratory (7/80).

NV-1715-0948

AN/ASM 459 Mini-SACE Flight
System Test Console
Intermediate Maintenance

Course Number: C-104-3769.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (226 hours).

Exhibit Dates: 6/78–Present.

Objectives: To train experienced maintenance personnel to maintain and troubleshoot a semi-automatic checkout equipment system test console.

Instruction: Lectures and practical exercises in the operation, programming and program interpretation of the mini-SACE flight system test console including block diagram analysis, parts location and self testing procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics maintenance technology (7/80).

NV-1715-0949

AN/ASM-461 Mini-SACE Display Test
Console Intermediate
Maintenance

Course Number: C-104-3768.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (230 hours).

Exhibit Dates: 12/76–Present.

Objectives: To train experienced maintenance personnel to maintain and repair a specialized test set.

Instruction: The course includes instruction in the operation and maintenance of a specialized test set, including effects of malfunctions, signal tracing schematics and block diagrams, and maintenance and repair procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in maintenance procedures (7/80).

NV-1715-0950

AN/ASQ-155 and AN/ASQ-133
Ballistics Computer Set

Course Number: C-150-3770.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 11 weeks (438 hours).

Exhibit Dates: 9/78–Present.

Objectives: To train experienced personnel in the maintenance and repair of a ballistic computer, utilizing test consoles and appropriate test equipment.

Instruction: Lectures and laboratory instruction in the use and operation of the ballistic computer set, including software and hardware aspects such as assembly language, power supplies input-output sequences, tape drives, logic analysis, diagnostics fault isolation and repair of all aspects of the computer set.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital fundamentals and 3 in computer operations (7/80); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer maintenance (7/80); in the upper-division baccalaureate category, 3 semester hours in computer systems (7/80).

NV-1715-0951

AN/USH-17(V-3)(V-7) Mission Recorder
Set and AN/UPQ-5 Display Set
with Ground Support Equipment
Intermediate Maintenance

Course Number: C-102-3962.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/75–Present.

Objectives: The course provides experienced personnel with instruction in the maintenance of a video recorder applied to radar systems.

Instruction: Lectures and laboratory instruction in the functional analysis at the block diagram level and the theory of operation including maintenance procedures, the alignment and troubleshooting of a video recorder system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in audio-visual electonics (7/80).

NV-1715-0952

Automatic Flight Control System
AN/ASW-40, AN/ASW-41 and
AN/ASW-42 Intermediate
Maintenance

Course Number: C-602-3941.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (136 hours).

Exhibit Dates: 4/78–Present.

Objectives: To provide trained personnel with information necessary to maintain and troubleshoot three related automatic flight systems.

Instruction: Lectures and laboratory instruction at the block diagram level in such topics as pitch, roll and heading computers, command couplers, rate gyroscopes, normal and lateral accelerometers and various interlocking modes as related to specific specialized electronic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in avionics maintenance technology (7/80).

NV-1715-0953

Test Bench Intermediate
Maintenance AQQ
(A-6 Terrain Clearance Test Bench Intermediate Maintenance)

Course Number: C-104-3765.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 5 weeks (205 hours).

Exhibit Dates: 1/76–Present.

Objectives: To provide trained personnel with instruction in the maintenance of a terrain clearance test bench and modules of a multimode radar system associated with it.

Instruction: Instruction covers the theory of operation, the function of each circuit component, the characteristics and application of operational and differential amplifiers, wave shaping circuits and filters for the purpose of maintaining, troubleshooting, calibrating and aligning a terrain clearance test bench.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems (7/80).

NV-1715-0954

CU-1768A Computer Data Coupler
and CP-926A Digital Data
Computer Intermediate
Maintenance

Course Number: C-102-3975.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/78–Present.

Objectives: To train experienced personnel in the maintenance and repair of a digital data computer and computer interface adaptor.

Instruction: Lectures and laboratory instruction in basic computer fundamentals such as input/output operation, interrupt registers and control, central processor unit, store operations, memory addressing, timing sequences and other basic computer operations including maintenance and troubleshooting techniques and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems (7/80).

NV-1715-0955

EA-6B ICAP Electronic
Countermeasures Analyst
Organizational Maintenance

Course Number: C-102-3968.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide personnel with instruction in operation and maintenance of a defensive electronic countermeasure and tactical jamming system.

Instruction: Lectures and laboratory instruction at the systems level in such areas as surveillance receivers, encoders, various display procedures, digital recording systems, receivers and practical troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics systems maintenance laboratory (7/80).

NV-1715-0956

Subassembly Test Console (SATC) Intermediate Maintenance
(AN/ALM-138, AN/ALM-143, AN/ALM-155 Subassembly Test Console T, S, and C Intermediate Maintenance)

Course Number: C-102-3956.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 8-10 weeks (320-400 hours).

Exhibit Dates: 2/76-Present.

Objectives: To provide electronic maintenance personnel with instruction in the maintenance and operation of a contained test console.

Instruction: Lectures and laboratory instruction in the theory and operation of the test console and how to interpret its results. Instruction includes signal flow, correct voltage and logic levels as well as the function of each component and the effect its failure has on the circuit. The function and operating techniques of oscilloscopes, spectrum analyzers, pulse and sweep generators counters and other test equipment is presented. The course presumes prior knowledge of circuit analysis and transistor and logic theory.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radio frequency circuits (7/80); in the lower-division baccalaureate/associate degree category, 2 semester hours in radio frequency circuits laboratory and circuit troubleshooting techniques (7/80); in the upper-division baccalaureate category, credit in radio frequency circuit test laboratory on the basis of institutional evoluation (7/80).

NV-1715-0957

A-6E Automatic Carrier Loading System Organizational Maintenance

Course Number: C-102-3966.

Location: Naval Air Maintenance Training Detachment, Whidbey Island, WA; Naval Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/77-Present.

Objectives: Personnel are provided with training in the analysis, troubleshooting and basic maintenance of an automatic carrier landing system and its related equipment.

Instruction: Lectures and laboratory instruction, at the block diagram level, in a radar beacon and augmentation system including decoding, data linkage and interfacing peculiar to a specific and specialized electronic system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (7/80).

NV-1715-0958

AN/GYK-3 Computer Maintenance
(Bullseye Net Control Computer Maintenance)

Course Number: A-102-0059.

Location: Naval Security Group Activity, Skaggs Island, Sonoma, CA.

Length: 28-45 weeks (846 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train maintenance personnel to operate, maintain, troubleshoot and repair computer systems.

Instruction: Lectures and practical exercises in the operation, maintenance, repair and troubleshooting of a Burroughs 5000 computer and its associated systems. The repair operations are to component level for all portions of this system. The student is taught and expected to apply concepts of Burroughs assembly language, addressing, word formats, timing and program modification to accomplish the repair of this system. After 1/81 course includes working with the Burroughs 5000 digital computer and its associated core memory, power units, control and storage units for a disc memory system and controller unit by using diagnostic routines, block diagram tracing, signal tracing and input/output analysis. From 7/78-12/80 course includes the Burroughs 5000 and DEC 11/40 computer systems and their associated core memory, magnetic drum memory, power and control units, and storage unit for a disk memory system, tektronix to 14 display terminal, asynchronous line interface, asynchronous multiplexer and programable switch. Students use diagnostic routines, block diagrams tracing, signal tracing and input/output analysis to troubleshoot the system. From 1/70-6/78 course includes working with the Burroughs 5000 digital computer and its associated core memory, magnetic drum memory, status display console, teleprinter, high speed line printer, the power units, control and storage units for a disk memory system and magnetic tape units. The student uses diagnostic routines, block diagram tracing, signal tracing and input/output analysis to troubleshoot the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems, 3 in computer systems operations, and 6 in computer systems maintenance (7/80).

NV-1715-0959

Air Traffic Control Maintenance, Interrogator Set AN/TPX-42A BASIC DAIR, Class C1

Course Number: C-103-2034.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/79-2/84.

Objectives: To train electronics technicians who have had previous training in digital fundamentals and solid state theory to perform preventive and corrective maintenance on the AN/TPX-42A radar system.

Instruction: For this course after 2/84 see NV-1715-1432. Lectures and practical exercises in the operation and maintenance of selected functions of the AN/TPX42(A) radar system including: interrogator, antenna system, test equipment and radar signal processor components, digital theory and devices and operational amplifiers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic maintenance and repair and 1 in digital principles (2/81).

NV-1715-0960

Air Traffic Control Maintenance AN/FPN-63(V) Precision Approach Radar, Class C1

Course Number: C-103-2037.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 7 weeks (280 hours).

Exhibit Dates: 9/80-12/87.

Objectives: To prepare electronics technicians to maintain the AN/FPN-63(V) precision approach radar system.

Instruction: Classroom and laboratory instruction in solid state devices, digital circuits, integrated circuits and A/D convertors. Applications of the devices in radar systems is included as well as troubleshooting and maintenance of the AN/FPN-63 radar sets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in solid state devices and 3 in digital integrated circuits (2/81).

NV-1715-0961

Air Traffic Control Maintenance, Radar Set AN/CPN-4A

Course Number: C-103-2015.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 5-6 weeks (200 hours).

Exhibit Dates: 12/74-3/86.

Objectives: To familiarize the student with the theory of operation, alignment and troubleshooting techniques of an air traffic control radar set.

Instruction: Lectures and laboratories in the theory and operation of transmitter and receiver circuits used in a radar system. The student performs alignment of both receiver and transmitter circuits, and diagnoses, insulates, troubleshoots to the component level using schematic diagrams.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems (2/81).

NV-1715-0962

Marine Air Traffic Control Navigational Aids Technician Class C1

Course Number: C-103-2030.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: *Version 1:* 37 weeks (1488 hours). *Version 2:* 30 weeks (1200 hours).

Exhibit Dates: *Version 1:* 10/84-5/89. *Version 2:* 7/79-9/84.

Objectives: To train technical personnel in the theory and maintenance of digitally controlled navigational aids equipment.

Instruction: *Version 1:* Classroom and laboratory instruction in DC circuit fundamentals including Kirchoff's law series and parallel circuits, network theorems, fundamental AC theory, resonance and filter characteristics, semiconductor physics, solid state devices and vacuum tube characteristics, power supply circuits, and the operational theory of audio, RF, IF and multistage amplifiers, pulse shaping circuits, microwave tube characteristics, AM, PM and SSM theory, fundamentals of transmission lines and antennas, number systems and conversions, does, logic gates, flip-flops, simple logic functions, flowcharting, memory devices, and functional operation of a microcomputer. The course also covers the functional operation, alignment, maintenance and troubleshooting of a navigational radar system including transponders, control/indicators antenna interface and logic circuits to the board level. *Version 2:*

Classroom and laboratory instruction in basic electricity/electric circuits; familiarization with radar, communications and navigational systems including mantenance concepts; introduction to the troubleshooting of solid state circuits, digital logic principles, minicomputer architecture, programming and peripheral devices; theory and maintenance of aircraft navigational aids equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic circuit analysis, 1 in basic circuit analysis laboratory, 3 in electronic devices, 3 in electronic circuits and troubleshooting, 1 in electronic circuits and troubleshooting laboratory, 1 in digital circuit fundamentals, 1 in digital circuit fundamentals laboratory (2/85). *Version 2:* In the vocational certificate category, 20 semester hours (lecture) and 10 semester hours (laboratory) in aircraft navigational aids theory and maintenance (2/81); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital logic, 3 in electricity/electric circuits and 1 in solid state electronics (2/81); in the upper-division baccalaureate category, 4 semester hours in minicomputers (2/81).

NV-1715-0963

Marine Air Traffic Control Communications Technician Class C1

Course Number: C-103-2032.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: *Version 1:* 34 weeks (1000 hours). *Version 2:* 30 weeks (1200 hours).

Exhibit Dates: *Version 1:* 10/84-5/89. *Version 2:* 10/80-9/84.

Objectives: To train technical personnel in the theory and maintenance of computer-based communications equipment.

Instruction: *Version 1:* Classroom and laboratory instruction in DC circuit fundamentals including Kirchhoff's Law series and parallel circuits, network theorems, inductance and capacitance, fundamental AC circuit theory, resonance and filter characteristics, semiconductor physics, solid state devices, and vacuum tube characteristics, power supply circuits, regulators, oscillators, transistor and FET biasing and the operational theory of audio, RF, IF and multistage amplifiers. The course also includes knowledge of pulse shaping circuits, microwave tube characteristics, AM, PM and SSM theory, modulation circuits, fundamentals of transmission lines and antennas, number systems and conversions, codes, logic gates, flip-flops, simple logic functions, flowcharting, memory devices and functional operation of a microcomputer, theory and maintenance of radios, recorders, and display systems used in air traffic control communications. *Version 2:* Classroom and laboratory instruction in basic electricity/electric circuits; familiarization with radar, communications and navigational systems including maintenance concepts; introduction to the troubleshooting of solid state circuits; digital logic principles; minicomputer architectures, programming and peripheral devices; theory and maintenance of communications equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic DC circuit analysis, 1 in basic DC circuit analysis laboratory, 3 in electronic devices, 3 in electronic circuits and troubleshooting, 1 in electronic circuits and troubleshooting laboratory, 1 in digital circuit fundamentals, 1 in digital circuit fundamentals laboratory (2/85). *Version 2:* In the vocational certificate category, 20 semester hours (lecture) and 10 semester hours (laboratory) in communications systems theory and maintenance (2/81); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital logic, 3 in electricity/electric circuits and 1 in solid state electronics (2/81); in the upper-division baccalaureate category, 4 semester hours in minicomputers (2/81).

NV-1715-0964

Marine Corps Surveillance Radar, Class C1

Course Number: C-103-2040.

Location: Naval Air Technical Training Center, Memphis, TN.

Length: 8 weeks (320 hours).

Exhibit Dates: 11/79-Present.

Objectives: To provide military personnel with the knowledge and skills to inspect, test, and repair surveillance radar.

Instruction: Lectures and practical exercises in transmitter and receiver alignment and troubleshooting on the AN/TPS-63 radar system including the synchronizer and frequency generator, transmitter systems, and antenna, cooling systems and RF/IF receivers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic and digital system troubleshooting and repair (2/81).

NV-1715-0965

Marine Air Traffic Control Radar Technician Class C1

Course Number: C-103-2031.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: *Version 1:* 39 weeks (1549 hours). *Version 2:* 22 weeks (876 hours).

Exhibit Dates: *Version 1:* 10/84-2/89. *Version 2:* 7/79-9/84.

Objectives: To train technical personnel in the theory and maintenance of computer-based radar systems equipment.

Instruction: *Version 1:* Classroom and laboratory instruction in the following subject areas: DC circuit fundamentals, including Kirchoff's law, series and parallel circuits, network theorems, inductance and capacitance, fundamentals of AC circuit theory, semiconductor physics, solid state devices and vacuum tube characteristics, power supply circuits, operational theory of audio, RF, IF and multistage amplifiers, pulse shaping circuits, microwave tube characteristics, AM, PM and SSBM theory, fundamentals of transmission lines and antennas, number systems and conversions, codes, logic gates, flip-flops, simple logic functions, functional operation of a microcomputer, operational theory and maintenance of two radar transmitters and receivers and their interface and display equipment, maintenance of a control computer including machine language instructions and computer aided diagnostic techniques to facilitate repair. *Version 2:* Classroom and laboratory instruction in basic electricity/electric circuits; familiarization with radar, communications and navigational systems including maintenance concepts. Introduction to the troubleshooting of solid state circuits, digital logic principles, minicomputer architecture, programming and peripheral devices and the theory and maintenance of radar receiver/transmitter equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuit analysis, 1 in DC circuit analysis laboratory, 3 in electronic devices, 3 in electronic circuits and troubleshooting, 2 in electronic circuits and troubleshooting laboratory, 2 in digital circuit fundamentals, 1 in digital circuit fundamentals laboratory, 2 in microcomputer maintenance (2/85). *Version 2:* In the vocational certificate category, 10 semester hours (lecture) and 10 semester hours (laboratory) in radar systems theory and maintenance (2/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity/electric circuits, 1 in solid state electronics and 4 in digital logic (2/81); in the upper-division baccalaureate category, 4 semester hours in minicomputers (2/81).

NV-1715-0966

Submarine Electronics Technical Training Modules 1-12

Course Number: A-101-0202.

Location: Naval Submarine School, Groton, New London, CT.

Length: 24 weeks (960 hours).

Exhibit Dates: 7/80-3/89.

Objectives: To provide further electronics training for submarine radiomen.

Instruction: This course is composed of 12 2-week modules (A-101-0190 thru A-101-0201) covering the theory and application of mathematics, electronic circuits, power supplies, devices and circuits, special circuits, modulation techniques, troubleshooting techniques and radio wave propagation, basic digital concepts, arithematic techniques, sequential systems, A/D and D/A conversion, advanced digital concepts and digital computers, computer programming, microprocessors, micropreccessor systems and the 8080A microprocessor.

Credit Recommendation: In the vocational certificate category, 4 semester hours in technical mathematics, 3 in AC/DC circuitry, 2 in test equipment laboratory and 1 in electronic signal generation (3/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics on the basis of institutional evaluation, 1 in power supply and diodes, 2 in basic electronics, 1 in electronic oscillators, 1 in electronics measurements lab, 1 in communications circuits, 1 in radio electronics, 2 in introduction to digital logic circuits (3/81); in the upper-division baccalaureate category, 2 semester hours in digital computer organization, 2 in introduction to microprocessor programming and 1 in microcomputers (3/81).

NV-1715-0967

Submarine Electronics Technical Training Module 1

Course Number: A-101-0190.

Location: Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/80-3/89.

Objectives: To provide training in the application of mathematics.

Instruction: Classes include instruction in arithmetic, basic algebra including polynomials and linear equations, elements of plane trigonometry, functions, logarithms and use of tables and db calculations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in technical mathematics (3/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics on the basis of institutional evaluation (3/81).

NV-1715-0968

Submarine Electronics Technical Training Module 2

Course Number: A-101-0191.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel in basic AC/DC circuit theory.
Instruction: Classes and laboratory exercises including application of Ohm's and Kirchhoff's laws to series, parallel and series parallel circuits with one source. Characteristics of alternating current wave forms, inductors, capacitors and their series of parallel combinations are included as well as impedance and reactance calculations, RL and RC time constants, resonance, basic filter concepts, RL and RC circuit inpedance.
Credit Recommendation: In the vocational certificate category, 3 semester hours in AC/DC circuit theory (3/81).

NV-1715-0969

Submarine Electronics Technical Training Module 3

Course Number: A-101-0192.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To provide entry level technical personnel with an introduction to basic electron devices and their applications to power supplies.
Instruction: Lectures and laboratory exercises in transformers, vacuum diodes, PN junctions theory, biasing, solid-state diodes, rectifiers, power supplies and associated filters. Basic concepts of Dorton and Thevenin equivalent circuits and the theory of junction diodes are also presented.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in power supplies and diodes (vacuum and semiconductor) (3/81).

NV-1715-0970

Submarine Electronics Technical Training Module 4

Course Number: A-101-0193.
Location: Naval Submarine School Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To provide training in electronics amplifying devices and amplifier circuits.
Instruction: Lectures and laboratory exercises in the basic operation and characteristics of bipolar transistors and field effect transistors, optollectronics devices and vacuum tubes. Transistor biasing basic amplifier types, and amplifier circuits are also covered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics (3/81).

NV-1715-0971

Submarine Electronics Technical Training Module 5

Course Number: A-101-0194.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train entry level technical personnel in basic electronic oscillators.
Instruction: Lectures and laboratory exercises in basic oscillators and transistorized multivibrators. Concepts of astable, bistable and monostable devices are also covered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic oscillators (3/81).

NV-1715-0972

Submarine Electronics Technical Training Module 6

Course Number: A-101-0195.
Location: Naval Submarine School Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel in the concepts of waveshaping and time circuits with an introduction to signal generators, vacuum tubes, volt meters and oscilloscopes.
Instruction: Lectures and laboratory exercises in waveshaping techniques such as diode limiting and clamping time delay circuit theory, use of signal generators, oscilloscopes and VTVM's. Basic six-step troubleshooting philosophy is used.
Credit Recommendation: In the vocational certificate category, 2 semester hours in test equipment laboratory, 1 in electronic signal generation (3/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic measurements laboratory (3/81).

NV-1715-0973

Submarine Electronics Technical Training Module 7

Course Number: A-101-0196.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel in the knowledge of AM, FM, phase and single sideband modulation theory and associated circuitry.
Instruction: Lectures and laboratory exercises in the characteristics of modulated wave forms, block diagrams of transmitter circuits with emphasis on various types of transistor and modulator circuits, their operation and wave forms.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communications circuits (3/81).

NV-1715-0974

Submarine Electronics Technical Training Module 8

Course Number: A-101-0197.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train entry level technicians in the fundamentals of radio propagation and receiving systems.
Instruction: Lectures and laboratory exercises in transmission lines, radio antennas and propagation, radio receivers, superheterodyne techniques, AM, FM, and SSB receivers.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in radio electronics (3/81).

NV-1715-0975

Submarine Electronics Technical Training Module 9

Course Number: A-101-0198.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel in basic digital systems and operational amplifier circuits.
Instruction: Lectures and laboratory exercises in number systems, logical operators, DeMorgan's Theorems, Boolean expressions; digital logic gates, BCD, gray and ASCII codes; flip-flops, registers, counters and ALU's; D/A and A/D converters and operational amplifier circuits such as differentiators, integrators and comparitors.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital logic circuits (3/81).

NV-1715-0976

Submarine Electronic Technical Training Module 10

Course Number: A-101-0199.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel in the basic concepts of digital computers.
Instruction: Lectures and laboratory in the register transfer organization of small digital computers, instruction set interpretation, memory read/write cycles and instruction execution.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in digital computer organization (3/81).

NV-1715-0977

Submarine Electronics Technical Training Module 11

Course Number: A-101-0200.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.
Objectives: To train personnel to program an 8080 microprocessor.
Instruction: The student is introduced to programming concepts of low charting techniques. The course includes address modes, instruction set and characteristics of the 8080A microprocessor, arithmetic/logic and control circuits, tri state devices and the 8080A bus structure. Half the course is devoted to practical exercises in flow charting and programming.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in introduction to microprocessor programming (3/81).

NV-1715-0978

Submarine Electronics Technical Training Module 12

Course Number: A-101-0201.
Location: Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/80–3/89.

Objectives: To provide further training in programming an 8080 microprocessor and experience with the Z80.

Instruction: Lectures and classroom exercises in the programming of I/O and memory mapped I/O on the 8080A microprocessor including interface and memory timing, introduction to the Z80 microprocessor and comparison with the 8080A, advanced microcomputer programming concepts and practice and peripheral devices.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in microcomputers (3/81).

NV-1715-0979

Navigation Technician Type I SSN637

Course Number: A-193-0022.

Location: Submarine School, Groton, New London, CT.

Length: 24 weeks (960 hours).

Exhibit Dates: 8/78–Present.

Objectives: To provide the skills necessary to operate and maintain the navigation system of an SSN-637 class submarine.

Instruction: This pipeline course is composed of the following courses: AN/WRN-5 Combined Maintenance (A-193-0054) and Ship's Inertial Navigation System MK3 Mod 4 Combined Maintenance (A-193-0356). Please use our index to refer to the individual exhibits for the course's credit recommendations.

Credit Recommendation: Please refer to the individual exhibits as noted above for the credt recommendation (3/81).

NV-1715-0980

Radio Receiving Set AN/WRR-7
Verdin Combined Maintenance

Course Number: A-101-0068.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/74–6/85.

Objectives: To train technical personnel in the maintenance, repair, and operation of a computer driven digital data communications receiver.

Instruction: For this course after 6/85 see NV-1715-1470. Lectures and laboratory exercises in digital data communications receivers, support computer circuits, crypto devices, frequency standards and operations theory, maintenance and repair down to the board/component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital computer maintenance and repair laboratory, 1 in communications receiver (digital) maintenance and repair laboratory (3/81); in the upper-division baccalaureate category, 1 semester hour in computer organization (3/81).

NV-1715-0981

Submarine Digital Communications
Equipment Combined
Maintenance

Course Number: A-101-0133.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 21 weeks (824 hours).

Exhibit Dates: 4/78–3/89.

Objectives: To train personnel to operate and maintain submarine digital communications equipment.

Instruction: For this course after 3/89 see NV-1715-1477. This pipeline course is composed of the following 3 courses; Radio Receiving Set AN/WRR-7 Verdin Combined Maintenance (A-101-0068); Submarine Satellite Information Exchange System Maintenance-Shipboard (A-101-0083) and AN/UGC-20B/25 Teletypewriter Combined Maintenance (A-160-0064). Please use our index to refer to each course individually for the credit recommendation.

Credit Recommendation: Please refer to the individual exhibits as noted above for the credit recommendation (3/81).

NV-1715-0982

Special Communications Equipment
Combined Maintenance

Course Number: A-101-0136.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 8 weeks (316 hours).

Exhibit Dates: 10/79–11/85.

Objectives: To train men to operate and maintain a particular MF/HF radio system.

Instruction: For this course after 11/85 see NV-1715-1475. Lectures and laboratory sessions in the operation and maintenance of a communication subsystem including transmitter, antenna tuner and auxiliary equipment. Maintenance is done to the module level.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radio communication system maintenance (3/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology laboratory (3/81).

NV-1715-0983

Antennas and Coupler Combined
Maintenance

Course Number: A-101-0137.

Location: Naval Submarine Training Center, Pacific, Pearl Harbor, HI; Naval Submarine School, Groton, New London, CT.

Length: 7 weeks (280 hours).

Exhibit Dates: 7/72–Present.

Objectives: To provide knowledge and skills necessary to operate and maintain two submarine floating antennas and coupler systems.

Instruction: The course covers the functional characteristics and operations of two floating antenna systems and couplers including procedures to maintain, repair, align, adjust and calibrate these systems using specialized tools and test equipment to component and subassembly level.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/81).

NV-1715-0984

Receiver Combined Maintenance

Course Number: A-101-0135.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Naval Submarine School, Groton, New London, CT.

Length: 2-3 weeks (80-81 hours).

Exhibit Dates: 10/79-Present.

Objectives: To provide knowledge and skills necessary to operate and maintain a low frequency submarine radio receiver.

Instruction: Lectures and laboratory exercises in the operation and functional block diagram analysis of a low frequency radio to the subassembly level. Also included is maintenance and corrective maintenance procedures to isolate faults down to the modular level.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communication receivers and maintenance laboratory (10/89).

NV-1715-0985

Ship's Inertial Navigation System
(SINS) Mk 3 Mod 6 Combined
Maintenance

Course Number: A-193-0357.

Location: Naval Submarine School, Groton, New London, CT.

Length: 20 weeks (800 hours).

Exhibit Dates: 1/77–11/85.

Objectives: To train electronics technicians to operate, evaluate and maintain the Mk 3 Mod 6 ship's inertial navigation system.

Instruction: For this course after 11/85 see NV-1715-1461. Lectures and practical exercises in basic electronics, logic circuits, computer mathematics, principles of inertial navigation and programming, system maintenance and repair, organization of the processor and instruction set implementation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital logic fundamentals (with laboratory), 2 in machine language instructions and test loops, and 2 in computer maintenance and repair laboratory (3/81); in the upper-division baccalaureate category, 2 semester hours in computer organization (3/81).

NV-1715-0986

Subsystem Interface Fire Control
System (FCS) Mk 88 MOD 1

Course Number: A-121-0286.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (70 hours).

Exhibit Dates: 2/79–Present.

Objectives: To provide training in the functional theory of the operation and maintenance of a missile control system.

Instruction: Lectures and laboratory exercises in the functional operation of the missile control subsystems including power supplies, analog and digital converters, display systems and built-in test equipment to the block diagram level. Maintenance procedures, fault isolation and diagnostic techniques are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics maintenance and repair laboratory (3/81).

NV-1715-0987

Sonar Sounding Set AN/BQN-3
Maintenance
(AN/BQN-3 Sonar Sounding Set Advanced Training)

Course Number: A-193-0254.

Location: Naval Submarine Training Center Pacific, Pearl Harbor, HI; Naval Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (60-71 hours).

Exhibit Dates: 11/79-Present.

Objectives: To train technicians to operate, maintain and calibrate a particular sonar system.

Instruction: Classroom and laboratory instruction in the operation and maintenance of the BQN-3 sonar sounding set. Coverage includes system timing, transmitter, transducer, receiver and auxiliary units of this vacuum-tube system and fault isolation and repair procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics maintenance and repair laboratory (vacuum tubes) (10/89).

NV-1715-0988

Periscope Type 15 Combined Maintenance
(Periscope Set Type 15 Electronics Combined Maintenance)

Course Number: A-233-0048.

Location: Naval Submarine Training Center Pacific, Pearl Harbor, HI; Submarine Training Facility, San Diego, CA; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (50-76 hours).

Exhibit Dates: 11/79-Present.

Objectives: To train technical personnel in the operation and maintenance of a periscope.

Instruction: Lectures and laboratory practice in the operation and maintenance of periscope electromechanical systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

NV-1715-0989

AN/WLR-8(V)2 Basic Operation
(Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Basic Operator)

Course Number: A-233-0027.

Location: Trident Training Facility, Bangor, WA; Trident Training Facility, Kings Bay, GA; Naval Submarine Training Center, Pacific, Pearl Harbor, HI; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (70-80 hours).

Exhibit Dates: 6/77-Present.

Objectives: To train personnel in the operation of electronic warfare support equipment.

Instruction: Classroom instruction and laboratory exercises in the operation of specialized military equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/89).

NV-1715-0990

Sonar Receiving Set AN/BQR-19 Combined Maintenance

Course Number: A-130-0211.

Location: Naval Submarine School, Groton, New London, CT; Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine Training Center Pacific, Pearl Harbor, HI.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/79-Present.

Objectives: To train sonar technicians in the basic operation and maintenance of the AN/BQR-19 sonar receiving set.

Instruction: Lectures and practical exercises in the theory, operation and maintenance at board/module level of the BQN-19 sonar receiving system and major subsystems, including receiver, beam-forming array, and control and logic functions. A review of basic digital logic functions such as adders and counters is also included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting and maintenance laboratory (12/89).

NV-1715-0991

Enlisted Sonar Principles

Course Number: F-130-0199.

Location: Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/80-Present.

Objectives: To provide sonar operators with further knowledge of mathematics, acoustics and sonar principles needed to qualify as sonar supervisors.

Instruction: Lectures and problem solving exercises in mathematics (algebra, trigonometry, exponents/logarithems/decibels), underwater acoustics, sonar system principles including transducers, arrays, signal processors and performance predictions and tactical maneuvering problems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in sonar system principles (3/81).

NV-1715-0992

Sonar Receiving Set AN/BQR-21(V) Combined Maintenance

Course Number: A-130-0184.

Location: Naval Submarine School, Groton, New London, CT; Fleet Ballistic Missile Training Center, Charleston, SC.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/78-Present.

Objectives: To train personnel in the operation and maintenance of specific equipment and its associated digital data processor and display unit.

Instruction: Lectures and laboratory practice on the operation of sonar amplifiers, data processors, and digital display consoles and indicators. Preventive and corrective maintenance, alignment and adjustment techniques are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic maintenance laboratory and 1 in digital system maintenance laboratory (3/81).

NV-1715-0993

Mk 117 All Mods Combined Maintenance

Course Number: A-130-0191.

Location: Naval Submarine School, Groton, New London, CT.

Length: 14-15 weeks (600 hours).

Exhibit Dates: 7/77-Present.

Objectives: To train personnel to operate and maintain a computer controlled missile firing system.

Instruction: Lectures and laboratory exercises covering all operating modes of a computer controlled missile firing system including command logic, timing diagrams and circuit diagnostics for major subsystems including the control console, interface multiplexers and the program controller. Digital, analog and synchros converters are studied to enable the student to perform maintenance, fault isolation and repair to the module level.

Credit Recommendation: In the vocational certificate category, 5 semester hours in computer maintenance and repair; in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computer principles and operation and 1 in digital troubleshooting (3/81).

NV-1715-0994

Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance
(AN/WSN-1(V)2 Combined Maintenance)

Course Number: A-102-0253.

Location: Naval Submarine School, Groton, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 7-10 weeks (277-400 hours).

Exhibit Dates: 6/75-Present.

Objectives: To enable technicians to operate and maintain an inertial navigation system.

Instruction: Lectures and laboratory exercises on the operation of a navigation computer system including principles of inertial navigation, integrated circuits, operation and maintenance of the dual miniature inertial navigation system. (DMINS).

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operator; in the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical systems technology with laboratory (10/89).

NV-1715-0995

Electronic Surveillance Measures (ESM) AN/WLR-1G Combined Maintenance

Course Number: A-230-0030.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT; Naval Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (129 hours).

Exhibit Dates: 8/72-Present.

Objectives: To train technicians in the operation and maintenance of specialized electronic equipment.

Instruction: Classroom and laboratory instruction in the operation, maintenance and alignment of specialized electronic equipment. Both discrete transistor and vacuum tube technologies are covered including theory of operation and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical equipment maintenance (3/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics troubleshooting and maintenance laboratory (3/81).

NV-1715-0996

Multiplexed Equipment Fire Control System (FCS) Mk 88 MOD 1

Course Number: A-121-0294.

Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.

Length: 2 weeks (52 hours).

Exhibit Dates: 9/79-Present.

Objectives: To provide the knowledge and skills necessary to maintain a multiplexer and interfacing servo system.

Instruction: Lectures and laboratory exercises in the operation of a multiplexer including control logic signal flow, input and output signal format, and maintenance and repair procedures. The operation of a servo system as it relates to the multiplexer is also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical laboratory (3/81).

NV-1715-0997

Platform Positioning Subsystem Fire Control System (FCS) Mk 88 MOD 1

Course Number: A-121-0287.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 3 weeks (105 hours).
Exhibit Dates: 11/77-Present.
Objectives: To train personnel in the theory of operations, testing and maintenance of a servo positioning subsystem.
Instruction: Lectures and laboratory instruction on accelerometers, integrating gyros, control logic, printers, A/O converters and maintenance procedures of an inertial servo positioning subsystem.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical maintenance and repair laboratory (3/81).

NV-1715-0998

Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory)

Course Number: A-121-0256.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (64 hours).
Exhibit Dates: 6/80-Present.
Objectives: To provide knowledge needed to repair missile test equipment.
Instruction: Lectures and laboratory exercises in the functional operation to the block diagram logic level of specialized missile equipment. Topics include power supplies, display and panel controls, system verification tests, paper tape input and printer operation and maintenance.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment theory (3/81).

NV-1715-0999

Missile and Guidance System Testing, Fire Control System (FCS) Mk 88 MOD 1

Course Number: A-121-0296.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 3 weeks (103 hours).
Exhibit Dates: 12/79-Present.
Objectives: To train technical personnel in the theory of operations and maintenance of guided missile text equipment.
Instruction: Lectures and laboratory exercises in the functional description, use and maintenance of specialized missile and guidance control test equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/81).

NV-1715-1000

Magnetic Tape Unit Advanced Training

Course Number: A-193-0251.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (76 hours).
Exhibit Dates: 11/74-Present.
Objectives: To train technical personnel in the theory and maintenance of a digital computer magnetic tape drive.
Instruction: Classroom and laboratory instruction in magnetic tape transports, read write amplifiers, signal formats, computer interface control logic, EOT and EOB tape marks, parity, motion control registers and recording modes. Corrective maintenance procedures are covered in laboratory format.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital computer peripherals (3/81).

NV-1715-1001

Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1

Course Number: A-121-0292.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, Ct.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/79-1/82.
Objectives: To train personnel in the theory and maintenance of magnetic disk file memories and controllers.
Instruction: For this course after 1/82 see NV-1715-1464. Lectures and laboratory exercises covering the theory of magnetic disk interfaces, controllers, addressing, seek and interrupt logic, read write logic and timing, disk organization and compare and transfer logic. Block identifiers maintenance procedures are presented in laboratory format.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer peripherals (disk systems) (3/81).

NV-1715-1002

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II

Course Number: A-193-0297.
Location: Fleet Ballistic Missile Training Center, Charleston, SC; Naval Submarine School, Groton, New London, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 2/78-Present.
Objectives: To train technical personnel in the maintenance of a specific navigational system.
Instruction: Classroom and laboratory instruction in temperature monitoring and control circuits, fault indicators, A/D and D/A conversions, gyro circuitry and data transmission circuits as they apply to navigational systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic maintenance and repair laboratory (3/81).

NV-1715-1003

AN/BQN-17 Combined Maintenance (Sonar Sounding Set AN/BQN-17 Combined Maintenance)

Course Number: A-130-0169.
Location: Naval Submarine School, Groton, New London, CT; Fleet Training Center, Pacific, San Diego, CA.
Length: 2-3 weeks (47-120 hours).
Exhibit Dates: 4/78-Present.
Objectives: To train sonar technicians in the basic operation and maintenance of the AN/BQN-17 Sonar sounding set.
Instruction: Lectures, demonstrations and laboratory exercises in the theory, operation and maintenance at board/module level of the BQN-17 sonar system and major subsystems including tranmitter, receiver, signal processors and auxiliary units. Also included is a review of basic digital logic functions such as counters, multiplexers and PROMS.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1004

Underwater Fire Control Technician, Class A

Course Number: A-130-0138.
Location: Naval Submarine School, Groton, New London, CT.
Length: 12 weeks (420 hours).
Exhibit Dates: 10/78-10/88.
Objectives: To provide students with a basic knowledge of the fundamental areas of electronics.
Instruction: For this course after 10/88 see NV-1715-1473. Lectures and practical exercises in the use and operation of basic test equipment. Included is the theory and maintenance procedures for electromechanical components and servo systems, basic semi-conductor theory, bipolar transistors, FET transistors, analog circuits including power supplies, oscillators and operational amplifiers, digital electronics including number systems, logic gates, Boolean algebra, flip flops, counters, regulators, memories, adders and analog digital conversions. Also covered is computer organization and machine language programming.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electromechanical control systems and 4 in digital logic circuits and computer concepts (6/81).

NV-1715-1005

Mk 81 Analyzer Basic Maintenance

Course Number: A-130-0196.
Location: Naval Submarine School, Groton, Ct; Naval Submarine School, New London, CT.
Length: 6 weeks (240 hours).
Exhibit Dates: 7/73-7/80.
Objectives: To train skilled submarine sonar technicians to operate and maintain a sonar display console.
Instruction: Lectures and practical exercises in the functional operation of each subsection of a sonar display console and all operating test modes. The signal level at each subsystem interface is described, both digital and analog and, using an oscilloscope and multimeter, fault isolation procedures following prescribed maintenance instructions are given. The student also learns to align the CRT, troubleshoot, and diagnose equipment faults to the board level.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory testing and troubleshooting (6/81).

NV-1715-1006

Fire Control System (FCS) Mk 113 All Models Common Equipment Combined Maintenance

Course Number: A-130-0146.
Location: Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.
Length: 15-18 weeks (600-720 hours).
Exhibit Dates: 6/80-Present.
Objectives: To train personnel to maintain and repair a specific fire control system for torpedos.
Instruction: Lectures and practical exercises in the operation and maintenance pro-

cedures of the system. Circuitry is studied in detail with emphasis on fault isolation and repair. The system contains analog, digital and electrical/mechanical circuitry.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1007

FIRE CONTROL SYSTEM (FCS) MK 113 MODS 6/8 MK 130 DIGITAL COMPUTER MAINTENANCE

Course Number: A-130-0148.

Location: Naval Submarine School, New London, CT; Naval Submarine School, Groton, Ct.

Length: 12 weeks (440 hours).

Exhibit Dates: 11/74–Present.

Objectives: To train qualified technicians in the theory, operation and maintenance of a small digital computer-based system.

Instruction: Classroom, laboratory instruction and practical exercises covering the computer architecture from the register down to the component level and analysis of the computer circuits with emphasis on maintenance and fault isolation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in small computer maintenance (6/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer circuits (6/81).

NV-1715-1008

FIRE CONTROL SYSTEM (FCS) MK 113 MOD 9 MK 78 ANALYZER MAINTENANCE

Course Number: A-130-0149.

Location: Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 9 weeks (320 hours).

Exhibit Dates: 11/74–Present.

Objectives: To train technical personnel in the operational maintenance and troubleshooting of the Mk 113 fire control system using standard test equipment.

Instruction: Classroom and laboratory instruction covering the troubleshooting of a specific fire control system. Topics include digital and analog interfaces, digital to syncro converters, syncro to digital converters and functional organization of memory and associated support circuits.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital/analog equipment maintenance (6/81).

NV-1715-1009

TELEPHONE DIAL-X SYSTEM COMBINED MAINTENANCE

Course Number: A-623-0058.

Location: Fleet Ballistic Missile School, Charleston, SC; Naval Submarine Training Center, Pearl Harbor, HI: Naval Submarine School, Groton, New London, CT.

Length: 2-3 weeks (56-80 hours).

Exhibit Dates: 5/79–Present.

Objectives: To train personnel in the preventive and corrective maintenance of a dial telephone system.

Instruction: Lectures and practical exercises in the fault isolation, preventive maintenance, troubleshooting and corrective maintenance of a dial telephone system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in dial telephone system maintenance and repair (10/89).

NV-1715-1010

ELECTRONICS TECHNICIAN MAINTENANCE

Course Number: L-191-0010;; F-191-0010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Naval Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, Bremerton, WA; Naval Reactor Facility, Idaho Falls, ID; Naval Reactor Facility, Ballston Spa, NY.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 9/80–Present.

Objectives: To train personnel in soldering, PC board repair, connector makeup and troubleshooting techniques.

Instruction: Lectures and practical exercises in soldering and desoldering techniques, PC card repair, makeup and installation of electrical connectors, cable lacing and assembly, crimped connectors and clamps. Also covered is the use of test equipment, dual trace scopes, time domain reflectometers, meggers and resistance bridges, capacitance inductance bridges and general troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours PC board soldering and repair, 4 in electronic equipment troubleshooting techniques (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic test equipment, 1 in electrical maintenance laboratory (8/84).

NV-1715-1011

ENCAPSULATED HARPOON COMMAND AND LAUNCH SUBSYSTEM COMBINED MAINTENANCE

Course Number: A-130-0197.

Location: Naval Submarine School, New London, CT; Naval Submarine School, Groton, CT.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/77–Present.

Objectives: To train personnel in the operation and maintenance of the control and launch subsystem of a short ranged missile system.

Instruction: Lectures and practical exercises in the general physical and operational modes of a weapon control system including the functional operation of each subsystem, interface, and preventive maintenance procedures. The major emphasis of the course is on recognizing and interpreting malfunctions using prescribed procedures to isolate and repair faults in the system. A knowledge of basic digital logic gates and flip flops is required.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic laboratory troubleshooting (6/81).

NV-1715-1012

DEWEY UNDERWATER LOG COMBINED MAINTENANCE

(Dewey U/W Log Combined Maintenance)

Course Number: A-623-0062.

Location: Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/76–Present.

Objectives: To train students to operate and maintain an electro magnetic underwater speed sensor.

Instruction: Classroom and laboratory instruction in the operation of the Dewey underwater speed sensor equipment including alignment, adjustment, calibration, fault isolation and repair of the equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/81).

NV-1715-1013

MK 113 MOD 10 DIGITAL DISPLAY SUBSYSTEM

Course Number: A-130-0150.

Location: Naval Submarine School, Groton, CT; Naval Submarine School, New London, CT.

Length: 10 weeks (400 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train personnel to properly maintain a computer controlled missile firing system.

Instruction: Lectures and practical exercises in the functional description, maintenance and fault isolation procedures for a missile firing system. The control console, interface connections, display units and control computer and power supplies are examined.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment maintenance and repair laboratory (3/81).

NV-1715-1014

AN/ARN-52 (V), AN/ARN-105 AND AN/ARN-86 TACAN NAVIGATION SETS INTERMEDIATE MAINTENANCE

Course Number: C-102-3034.

Location: Naval Air Station, Oceana, VA; Naval Air Station, Chase Field, TX; Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA; Naval Air Station, Miramar, CA; Naval Air Station, LeMoore, CA; Naval Air Station, Cecil Field, FL; Naval Air Station, Cherry Point, NC; Naval Air Station, Tustin, CA; Naval Air Station, New River, NC; Naval Air Station, Beaufort, SC.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/81–Present.

Objectives: To provide fleet aviation electronics technicians with training in the operation, repair and maintenance of three TACAN navigation sets.

Instruction: Lectures and laboratory exercises in the operation, repair and troubleshooting of TACAN sets including a review of vacuum tubes, transistors and theoretical troubleshooting; video decoding, channel servo, air-to-air, suppression and antenna select circuits as related to the care and maintenance of air navigation equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (7/81).

NV-1715-1015

AN/ARC-101 VHF COMMUNICATIONS SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3023.

Location: Naval Air Station, Patuxent River, MD; Naval Air Station, Moffett Field, CA; Naval Air Station, North Island, CA.

Length: 2 weeks (56 hours).

Exhibit Dates: 12/73–Present.

Objectives: To provide fleet maintenance personnel with instruction at the block diagram level in the analysis, maintenance and repair of a VHF receiver and transmitter.

Instruction: Lectures and laboratory exercises at the block diagram level in the analysis of RF/IF circuits, audio circuits, AVC and sensitivity circuits; frequency synthesis, modulators oscillators and related circuitry pertinent to alignment troubleshooting and repair of VHF transmitters and receivers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics or communications laboratory (7/81).

NV-1715-1016

AN/ULA-2 Pulse Analyzer Group Intermediate Maintenance

Course Number: C-102-3532.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/76–Present.

Objectives: To train experienced maintenance personnel to maintain, troubleshoot and repair a pulse analyzer.

Instruction: Lectures and practical exercises in the operation and repair of a pulse analyzer using block diagrams and circuit schematics to troubleshoot power supplies, video amplifiers, sweep circuits, audio circuits and associated circuitry using some standard electronics repair equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/81).

NV-1715-1017

AN/AQA-7(V)4 and AN/AQA-7(V)5 Sonar Computer Recorder Group Difference Data Intermediate Maintenance

Course Number: C-102-3570.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 5 weeks (224 hours).

Exhibit Dates: 4/79–Present.

Objectives: To train experienced technicians in the maintenance and repair of a sonar computer-recorder group and a sonar computer-recorder group test control.

Instruction: Lectures and practical exercises in the operation, troubleshooting and repair of sonar computer recorder and its associated test set including digital sweep frequency generators, analog and digital displays, power supplies, regulator assemblies, spectrum analyzers and related electronic repair equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics maintenance (7/81).

NV-1715-1018

AN/ASW-31 Automatic Flight Control System Intermediate Maintenance

Course Number: C-102-3604.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/80–Present.

Objectives: To train experienced maintenance personnel in the component level maintenance of an automatic flight control system.

Instruction: Instruction and practical exercises in the operation, maintenance, troubleshooting and repair of an automatic flight control system including block diagram analysis, schematic diagram analysis, power supply analysis and troubleshooting techniques utilizing some standard electronics repair equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in avionics systems (7/81).

NV-1715-1019

AN/UYQ-8 Data Processing Set Intermediate Maintenance

Course Number: C-102-3605.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 7/75–Present.

Objectives: To provide fleet maintenance personnel with knowledge to operate, analyze, troubleshoot and maintain the AN/UYQ-8 data processing set equipment.

Instruction: Lectures and laboratory exercises including functional analysis at the block diagram level of a central indicator, a converter, and a power supply. Approximately one half of student's time is devoted to operation, repair and maintenance of the equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics maintenance laboratory (7/81).

NV-1715-1020

CU-2070/ARC Automatic Antenna Coupler Intermediate Maintenance

Course Number: C-102-3562.

Location: Naval Air Station, Moffett Field, CA; Naval Air Station, Patuxent River, MD; Naval Air Station, Jacksonville, FL.

Length: 2 weeks (64 hours).

Exhibit Dates: 9/74–Present.

Objectives: To train maintenance personnel to maintain an automatic antenna coupler.

Instruction: Class instruction in the maintenance of an automatic antenna coupler including RF circuit analysis, and repair techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/81).

NV-1715-1021

Electronic Assembly Repair

Course Number: C-100-3182.

Location: Naval Air Station, Miramar, CA; Naval Air Station, Norfolk, VA; Naval Air Station, Beaufort, SC; Naval Air Station, Cecil Field, FL; Naval Air Station, Jacksonville, FL; Naval Air Station, Kingsville, TX; Naval Air Station, Whidbey Island, WA; Naval Air Station, Moffett Field, CA; Naval Air Station, LeMoore, CA; Naval Air Station, El Toro, CA. Naval Air Station, Atsugi, Japan. Naval Air Station, Rota, Spain. Naval Air Station, Brunswick, MI.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/78–Present.

Objectives: To train experienced maintenance personnel in techniques, methods, tools and procedures used to maintain and repair miniature electronic modules.

Instruction: Lectures and practical exercises in the techniques and procedures for miniature electronic circuit board repair including soldering/desoldering of components, connector pin, coaxial connectors and terminals, conformal coating removal and application, repair of board laminates, conductors, pods and eyelets and evaluation criteria for repaired items.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic circuit board soldering and repair techniques (7/81).

NV-1715-1022

Integrated Circuit Components (Microelectronics) Intermediate Maintenance

Course Number: C-102-3110.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 4 weeks (144 hours).

Exhibit Dates: 11/77–Present.

Objectives: To provide fleet electronic maintenance personnel with basic theory and practical troubleshooting methods for circuit components.

Instruction: Lectures and laboratory exercises in integrated circuits (microelectronics) component identification, basic theory of operational amplifiers, transistor-transistor logic gates, multiplexers, flip-flop counters, shift registers, memories, including component analysis, fault isolation and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer or electronics engineering technology and 2 in computer laboratory (7/81).

NV-1715-1023

0A-8962/ASH Recording Group Intermediate Maintenance

Course Number: C-102-3571.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 10/80–Present.

Objectives: To provide fleet maintenance personnel with training in the maintenance and repair of the 0A-8962/ASH recording group equipment.

Instruction: Lectures and practical exercises in the block diagram, analysis, module analysis, and control analysis of specific military equipment. Approximately one third of the student's time is devoted to testing and troubleshooting the video recording system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics repair/maintenance laboratory (7/81).

NV-1715-1024

P-3A/B (DIFAR) Weapons Systems Technician Organizational Maintenance

Course Number: C-102-3561.

Location: Naval Air Station, Moffett Field, CA; Naval Air Station, Patuxent River, MD; Naval Air Station, Jacksonville, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 4/75–Present.

Objectives: To provide maintenance personnel with instruction in the avionics systems of the P-3A/B aircraft.

Instruction: Lectures and practical exercises in the operation, components, maintenance and troubleshooting of radar, IFF, ECM, MAD and sonar systems including power, system block diagrams and signal flow, interface characteristics, recording and display.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics and avionics system maintenance (7/81).

NV-1715-1025

P-3C Integrated Avionics System (Update I) Organizational Maintenance

Course Number: C-102-3607.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 18-19 weeks (740-745 hours).

Exhibit Dates: 12/79-Present.

Objectives: To provide fleet personnel with training in maintenance and repair of a P-3C UPDATE I avionics system.

Instruction: Lectures and practical exercises in the following areas: computer structure, instructions, addressing, programming memory, input/output, fault isolation techniques and operation of the system. Also included is magnetic tape, multiplexers, display and drum memory operation and troubleshooting; operation and interfacing of radar, communication/navigation, sonar, magnetic anomaly detectors, inertial navigation, Doppler radar, Omega navigation and instruments and flight controls. Approximately one half of the student's time is spent in practical, equipment oriented, activities.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic maintenance, 3 in computer maintenance (7/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer organization and functions, 3 in avionics technology and 2 in computer laboratory (7/81).

NV-1715-1026

AD "A" (P-3) Power Plant System Class A1

(P-3 Aviation Machinist's Mate (AD) Entry Level)

Course Number: C-601-3572.

Location: Naval Air Station, Moffett Field, CA.; Naval Air Station, Jacksonville, FL..

Length: 3 weeks (119 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train enlisted personnel in turbine engine maintenance.

Instruction: Lectures on turbine engine theory including applicable aircraft nomenclature, theory of flight, mathematics, hydraulics, electricity and tool selection and use.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in theory of turbine engine maintenance (7/81).

NV-1715-1027

AN/AAM-60(V)2 Electro-Optical Systems Test Set Intermediate Maintenance

Course Number: C-102-3572.

Location: Naval Air Station, Moffett Field, CA; Naval Air Station, Jacksonville, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/80-Present.

Objectives: To provide fleet maintenance personnel with training at the block diagram level in the operation, testing, troubleshooting, repair and maintenance of an electro-optical systems test set.

Instruction: Lectures and practical exercises in the use of basic electronic test instruments, TV monitor repair, digital devices, numbering systems and logic gates as they pertain to the operation care and maintenance of a specialized electro-mechanical device.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics troubleshooting laboratory (7/81).

NV-1715-1028

Advanced Electronic Assembly Repair Intermediate Maintenance

Course Number: C-100-3187.

Location: Naval Air Station, Atsugi, Japan; Naval Air Station, Whidbey Island, WA; Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA; Naval Air Station, Kingsville, TX; Naval Air Station, El Toro, CA; Naval Air Station, Miramar, CA; Naval Air Station, Norfolk, VA; Naval Air Station, LeMoore, CA; Naval Air Station, Cecil Field, FL; Naval Air Station, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/79-Present.

Objectives: To train experienced maintenance personnel to repair electronic circuit sub-assemblies.

Instruction: Instruction in the techniques and procedures used to repair electronic circuit boards including selection of proper tools, flexible conductor repair, static sensitive device replacement, electroplating, encapsulation and evaluation of repair techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic circuit board repair techniques (7/81).

NV-1715-1029

AN/AAS-36 Infrared Detecting System (IRDS) and AN/AAS-371R/LORTS Common Infrared Detection System Intermediate Maintenance

Course Number: C-198-3571.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/80-Present.

Objectives: To provide fleet maintenance personnel with the knowledge at the block diagram level to operate, troubleshoot, align and repair the AN/AAS-36 infrared detecting system.

Instruction: Lectures and laboratory exercises in the fundamentals of wave length measurements, temperature conversions, black bodies, receiver-converter video characteristics and other topics related to infrared detection. Approximately two thirds of the student's time is devoted to practical application.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics troubleshooting laboratory (7/81).

NV-1715-1030

AN/ALD-2B Direction Finder System Intermediate Maintenance

Course Number: C-102-3042.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA.

Length: 2 weeks (56 hours).

Exhibit Dates: 8/78-Present.

Objectives: To train maintenance personnel to maintain, troubleshoot, and repair a specific direction finder system.

Instruction: Lectures in the operation, troubleshooting and repair of a direction finder including electronic circuit tracing, troubleshooting to the component level, repair techniques and alignment of video circuitry, audio circuitry, pulse amplifiers, power supplies and related circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics maintenance laboratory (7/81).

NV-1715-1031

AN/APN-141(V) Radar Altimeter Intermediate Maintenance

Course Number: C-102-3033.

Location: Naval Air Station, Miramar, CA, Naval Air Station, Jacksonville, FL; Naval Air Station, Moffett Field, CA; Naval Air Station, LeMoore, CA; Naval Air Station, Cherry Point, NC.

Length: 2 weeks (56 hours).

Exhibit Dates: 12/73-Present.

Objectives: To train maintenance personnel in the maintenance and operational procedures of a radar altimeter.

Instruction: Lectures and exercises in system operation and components, use of test equipment, testing, alignment and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/81).

NV-1715-1032

Walleye II Extended Range Data Link Intermediate Maintenance

Course Number: C-121-3781.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, LeMoore, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/78-Present.

Objectives: To train maintenance personnel to maintain the Walleye II extended range data link system using appropriate test equipment.

Instruction: Lectures and laboratory exercises in the use of electronic test equipment to check, troubleshoot and adjust hardware related to the Walleye missile guidance and control system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic laboratory (3/82).

NV-1715-1033

OA-9008 Magnetic Tape Control Unit and Magnetic Tape Transport

Course Number: A-150-0235.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/79-Present.

Objectives: To train data systems technicians in the operation and maintenance of a magnetic tape transport unit.

Instruction: The course covers the theory of operation of a magnetic tape drive unit, the manner in which data is stored on the tape and the operation of the tape controller. Also included are the mechanical systems, the electronics used in the controller and the maintenance procedures used on the drive unit.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer I/O equipment operation and repair (11/81).

NV-1715-1034

Operations Summary Console Difference Maintenance

Course Number: A-150-0088.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 4 weeks (160 hours).
Exhibit Dates: 5/76–Present.
Objectives: To train students in theory, operation, and maintenance of shipboard equipment used to display navigational information received from the ship's radars, sonars and other sensors.
Instruction: Lectures and practical exercises familiarizing the student with electronic circuitry of the systems including digital memory, video circuitry, video display, transfer of digital data to and from a computer, and signal processing. Emphasis is placed on fault isolation using a system technical manual.
Credit Recommendation: In the vocational certificate category, 3 semester hours in digital systems theory and troubleshooting (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital systems troubleshooting laboratory (11/81).

NV-1715-1035

Radar Set AN/SPG-51D Gun and Guided Missile Director Mk 73 Mod 2 and Ancillary Equipments Operation and Maintenance

Course Number: A-104-0127.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 31 weeks (1200 hours).
Exhibit Dates: 1/80–Present.
Objectives: To train fire control technicians to maintain a AN/SPG-51D gun and guided missile radar director and ancillary equipment.
Instruction: Lectures and practical exercises in the operation, maintenance, and repair of a fire control system which includes a pulse radar system, radar test set, gun and guided missile director, A/D and D/A signal data converter, television monitor, and control console. Emphasis is on a functional understanding of signal flow of sufficient depth both analog and digital to apply troubleshooting procedures to isolate faults to the board or component level.
Credit Recommendation: In the vocational certificate category, 3 semester hours in radar operating system and maintenance, 1 in television monitor maintenance (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital equipment troubleshooting laboratory, 1 in electronic systems troubleshooting laboratory (11/81).

NV-1715-1036

Guided Missile Frigate (FFG-7) Combat Systems Maintenance

Course Number: A-121-0408.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 5 weeks (190 hours).
Exhibit Dates: 1/80–Present.
Objectives: To train personnel to maintain combat system equipment aboard the FFG-7 class ship.
Instruction: Lectures and practical exercises covering the mission, physical characteristics, operating modes, capabilities and limitations of a search radar, data processing subsystem and a data display anti-sub and anti-aircraft system. Data signal flow and block diagram description are given to teach fault isolation to a specific sub-system using reference documentation, test programs, and general purpose test equipment following established troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems troubleshooting (11/81).

NV-1715-1037

Mk 23 Mod 0/1 Target Acquisition System (TAS) Maintenance

Course Number: A-121-0471.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 24 weeks (1156 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide selected fire control technicians with the training required to maintain a shipboard target acquisition system (TAS).
Instruction: Lectures and practical exercises in the operation and purpose of a target acquisition system including a UNIVAC 1616 computer system and its memory, tape and I/O devices, the system power distribution, the radar system and its transmitter, antenna, receiver, signal processor, and display console and the troubleshooting procedures to be used with each.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems operation and maintenance (11/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems operation and maintenance, 1 in computer system operations (11/81).

NV-1715-1038

Mk-25 Guided Missile Launching System (GMLS)

Course Number: A-121-0124.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/75–Present.
Objectives: To provide the student with skills and knowledge necessary to operate and maintain a guided missile launching system.
Instruction: Lectures and practical exercises to familiarize the student with the operation and major subassemblies of the missile launcher including mechanical characteristics, generators, motors, solenoids, and vacuum tube circuitry.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/81).

NV-1715-1039

MK-29 Mod 0 Guided Missile Launching System (GMLS) Maintenance

Course Number: A-121-0041.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 9 weeks (360 hours).
Exhibit Dates: 9/81–Present.
Objectives: To provide the technical knowledge and skills necessary to repair, maintain and operate a specific guided missile launching system.
Instruction: Lectures and practical exercises covering the physical characteristics, major components, controls, indicators and operation of each part of the launch system including basic digital electronics and computer troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic digital electronics, 1 in computer troubleshooting (11/81).

NV-1715-1040

NATO Seasparrow Surface Missile System Mk 57 Mod 0/1/2/3 Maintenance

(Mk 91 Mod 0/1 NATO Seasparrow Guided Missile Fire Control System) (FCS))

Course Number: A-121-0240.
Location: Combat Systems Technical Schools Command, Dam Neck, VA; Combat Systems Technical Schools Command, Mare Island, CA.
Length: *Version 1:* 29 weeks (1100 hours). *Version 2:* 28 weeks (1040 hours). *Version 3:* 23 weeks (920 hours).
Exhibit Dates: *Version 1:* 1/84–2/88. *Version 2:* 6/82–12/83. *Version 3:* 1/76–5/82.
Objectives: To provide personnel with the knowledge and skill to maintain and operate a missile fire control system.
Instruction: This course was replaced by A-104-0203 and A-104-0204. Please see those exhibits. *All Versions:* The operation and the digital and analog data flow between various components of a missile fire control system are presented. These units consist of a computer, an A/D-D/A signal data converter, radar target data processor, control consoles, and video display monitors. Functional operation of each unit and subsystem is presented to sufficient detail so that appropriate documentation and procedures can be followed to maintain, troubleshoot and isolate faults usually to a circuit board level. *Version 1:* Includes the missile launch system, and launch system controller.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in radar system operation and maintenance (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced digital systems troubleshooting, 3 in computer systems operation (11/83). *Version 2:* In the vocational certificate category, 3 semester hours in radar system operation and maintenance (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital systems troubleshooting, 3 in computer system operation and maintenance (11/83). *Version 3:* In the vocational certificate category, 3 semester hours in radar system operation and maintenance (11/81); in the lower-division baccalaureate/associate degree category, 3 in computer system operation and maintenance (11/81).

NV-1715-1041

Basic FFG-7 Class AN/UYA-4(V) Equipment Maintenance

Course Number: A-150-0244.
Location: Combat Systems Technical Schools Command, Mare Island, CA.
Length: 12 weeks (480 hours).
Exhibit Dates: 8/80–Present.
Objectives: To train personnel in the theory of operation and the maintenance procedures for a ship-board combat system consisting of all systems associated with detection, evaluation, acquisition, engagement or deception of enemy air, surface or subsurface targets.
Instruction: Lectures and practical exercises covering the theory of operation, use and maintenance of a combat weapon support system including operation of the display console, classification of scope presentations, symbol identification, display system troubleshooting and repair, radar azimuth converter repair (component level),

power system repair, radar data distribution switchboard fault analysis and repair, pulse amplifier and symbol generator fault isolation and alignment, radar display console fault isolation, test set use, analysis and repair and general testing procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic system troubleshooting (11/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (operation and maintenance), 1 in electronic systems laboratory (11/81).

NV-1715-1042

Dewey Underwater Log Maintenance C-1

Course Number: A-623-0096.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/79–Present.

Objectives: To train personnel in the operation and maintenance of an electromagnetic log (speed monitor).

Instruction: Instruction and practical exercises in the theory of operation, maintenance and troubleshooting of a Mock 6 Dewey Electromagnetic Log.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic equipment maintenance and repair (10/83).

NV-1715-1043

Combat Systems Maintenance Management for the CGN-38

Course Number: A-121-0404.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/80–Present.

Objectives: To train personnel to manage maintenance of combat systems aboard a CGN-38 surface combatant ship.

Instruction: Students learn the mission, physical characteristics, operating modes, capabilities, and limitations of combat systems on a surface combatant ship. Procedures to effectively manage combat system level maintenance is given through a systematic diagnosis using applicable documentation to detect, isolate, and evaluate the impact of a fault on the combat capability of the system. The troubleshooting, maintenance and repair is specialized to specific military equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/81).

NV-1715-1044

CP-789(V)/UYK Computer

Course Number: A-150-0242.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide students with the theory of operation and the skills necessary to maintain a specific general purpose digital computer (UNIVAC 12/80).

Instruction: Lectures and practical exercises designed to familiarize the student with the computer hardware and software including the power supply, memory, input and output circuitry, control circuitry, arithmetic circuitry, and computer instruction set. Writing of diagnostic programs to detect and locate faults is also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operation and real time processing, 1 in computer diagnostics and repair (11/81).

NV-1715-1045

CV-2036 Analog Digital Converter (KCMX) Maintenance

Course Number: A-150-0100.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/76–Present.

Objectives: To train personnel in the theory, operation, and maintenance of a multiplexer handling both digital and analog signals.

Instruction: Lectures and practical exercises to familiarize the student with the circuitry which performs analog to digital conversion, digital to analog conversion, digital decoding and encoding, synchro to digital conversion, digital to digital formating, and multiplexing. The course emphasizes fault isolation and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital computer interfacing, 1 in digital systems troubleshooting (11/81).

NV-1715-1046

DD-963 Combat System Maintenance Management

Course Number: A-121-0406.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/80–Present.

Objectives: To train personnel to manage maintenance of combat systems aboard a DD-963 class surface ship.

Instruction: Students learn the mission, physical characteristics, operating modes, capabilities, and limitations of combat systems and how to effectively manage maintenance operations including data signal flow and block diagram discription of radar transmitters, receivers, antennas, sonar and their associated subsystems and principles of digital logic and programming concepts. Systematic diagnosis using applicable documentation to detect, isolate, and repair equipment is also covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar system maintenance and repair, 3 in computer system maintenance and repair (11/81).

NV-1715-1047

AN/USQ-59 Data Terminal Set Maintenance

Course Number: A-150-0099.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 2 weeks (66 hours).

Exhibit Dates: 4/81–Present.

Objectives: To provide selected personnel with knowledge in the theory of operation and maintenance of an AN/USQ-59 (a specialized digital-to-analog and analog-to-digital signal converter) data terminal set.

Instruction: Lectures and practical exercises covering the theory of operation of a specialized digital-to-analog and analog-to-digital signal converter which takes a 24 bit input word and converts it to an analog signal suitable for radio transmission or accepts signals for conversion to digital information. Also covered is the theory of maintaining this equipment including block diagram analysis, AC/DC power distribution, A/D and D/A conversion, phase shift modulation, parallel to serial and serial to parallel data conversion, and fault isolation to the module level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital communication practices (11/81).

NV-1715-1048

AN/UYK-7 Digital Computer Maintenance

Course Number: A-150-0095.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 12/80–12/86.

Objectives: To provide personnel with the training and skills necessary to perform preventive and corrective maintenance on a general purpose UNIVAC computer.

Instruction: An in-depth understanding of the computer operation, instruction repertoire, signal flow, and sub-system logic is presented. The course emphasizes fault isolation to the circuit board or component level using diagnostic programs and basic test equipment. Topics include function of front panel controls, word format, internal timing and control signals, interrupt processing, theory of instruction execution and register status, input and output timing sequence and interface characteristics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operation and real time processing, 1 in computer diagnostics and repair (11/81).

NV-1715-1049

Basic AN/UYA-4 Display Equipment Maintenance

Course Number: A-150-0022.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 17 weeks (680 hours).

Exhibit Dates: 12/80–Present.

Objectives: To provide selected personnel with the theory of operation and maintenance of a data display subsystem such that they will be able to operate, test and perform corrective and preventive maintenance on this system.

Instruction: Lectures and practical exercises covering the operation and function of many subsystems used within a complex target identification, weapon coordination and communications system including computer interface procedures and circuitry, symbol generators, pulse amplifiers (dual/four channel types), amplifier alignment, refresh memory units (operation, use and fault isolation), radar range detection procedures (theory and troubleshooting), digital converters for radar data analysis, sonar azimuth converters for digital analysis, radar video display circuit analysis and repair procedures and video signal simulation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital troubleshooting theory and techniques, 3 in electronic systems troubleshooting (11/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (operation and maintenance), 1 in digital systems laboratory, 1 in electronic systems laboratory (11/81).

NV-1715-1050

AN/SRC-23 HF Transceiver AN/SRA-34 Coupler Maintenance

Course Number: A-101-0043.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (221 hours).

Exhibit Dates: 6/80–Present.

Objectives: To train students to repair a specific naval radio receiver, transmitter, and antenna coupler.

Instruction: Lectures and practical exercises covering single sideband transmission theory, operation, circuit details, and troubleshooting of the radio receiver-transmitter and antenna coupler systems. Emphasis is placed on fault isolation techniques to the subassembly level using available technical manuals.

Credit Recommendation: In the vocational certificate category, 2 semester hours in troubleshooting techniques (11/81).

NV-1715-1051

AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance

Course Number: A-101-0045.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 3 weeks (108 hours).

Exhibit Dates: 8/75–Present.

Objectives: To train students to repair a specific naval radio receiver-transmitter and its antenna coupling system.

Instruction: Lectures and practical exercises covering the detailed familiarization of all electronic circuitry of the receiver-transmitter and its antenna coupler. Emphasis is placed on fault isolation and repair of the system using available technical manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in troubleshooting techniques (11/81).

NV-1715-1052

AN/SSQ-29 Data Terminal Set Maintenance-Difference

Course Number: A-150-0062.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 2 weeks (106 hours).

Exhibit Dates: 2/81–Present.

Objectives: To provide selected personnel with knowledge in the theory of operation and maintenance of an AN/SSQ-29 (a specialized digital-to-analog and analog-to-digital signal converter) data terminal set.

Instruction: Lectures and practical exercises covering the theory of operation of a specialized digital-to-analog and analog-to-digital signal converter which takes a 24 bit input word and converts it to an analog signal suitable for radio transmission and visa versa and the theory of maintaining this equipment including AC/DC power distribution, transmit and receive control, troubleshooting and fault isolation, A/D and D/A conversion procedures, test set utilization, and repair to the component level.

Credit Recommendation: In the vocational certificate category, 1 semester hour in digital communications system troubleshooting procedures (11/81).

NV-1715-1053

AN/SSW-1 Data Terminal Set Maintenance

Course Number: A-150-0064.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 2 weeks (74 hours).

Exhibit Dates: 12/80–Present.

Objectives: To provide selected personnel with the theory of operation and maintenance of an AW/SSW-1 data terminal set.

Instruction: The course covers the theory of operation and maintenance of a specialized military data terminal set including the AC/DC power distribution, digital-to-digital converter, block diagram analysis and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital communications systems troubleshooting procedures (11/81).

NV-1715-1054

AN/URC-85 UHF Transceiver Maintenance

Course Number: A-101-0072.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 12/80–Present.

Objectives: To train students to repair a specific naval radio receiver and transmitter.

Instruction: Detailed familiarization with all electronic circuitry of the receiver-transmitter system including power distribution, power amplification, modulation, IF amplifier and filters. Emphasis is placed on fault isolation and repair of the system using available technical manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in troubleshooting techniques (11/81).

NV-1715-1055

AN/USQ-36 Data Terminal Set Maintenance

Course Number: A-150-0063.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 4 weeks (183 hours).

Exhibit Dates: 2/81–Present.

Objectives: To provide select personnel with knowledge in the theory of operation and maintenance of an AN/SSQ-36 (a specialized digital-to-analog and analog-to-digital signal converter) data terminal set.

Instruction: Lectures and practical exercises covering the theory of operation of a specialized digital-to-analog and analog-to-digital signal converter which takes a 24 bit input word and converts it to an analog signal suitable for radio transmission or visa versa and the theory of maintaining this equipment including power distribution, self-check failure methods, timing sequences, transmit and receiver timing and control, A/D and D/A conversion, and fault isolation procedures to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications systems troubleshooting procedures (11/81).

NV-1715-1056

AN/SPS-48(V) Radar Maintenance

Course Number: A-104-0155.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 28 weeks (975 hours).

Exhibit Dates: 6/77–Present.

Objectives: To provide trained personnel with the knowledge needed to perform maintenance and repair on a specialized radar system.

Instruction: Covers the operation and maintenance of a specialized radar system including theory of operation of the radar system using block diagrams and schematics, the computer controller and its operation, the transmitter and receiver systems, the console operation and the signal tracing needed to troubleshoot these systems. Topics include number systems, conversions, arithmetic operation in binary including square roots and 3-D inertial coordinate equations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics troubleshooting (11/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar system operations and maintenance, 2 in digital logic systems maintenance (11/81).

NV-1715-1057

AN/SPS-58A Radar Maintenance

Course Number: A-104-0145.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/79–Present.

Objectives: To provide students with the knowledge and skills necessary to operate and maintain a radar system.

Instruction: Students learn the purpose of, and physical location of major sub-assemblies of the radar system including the location and purpose of controls and indicators and use of built in test equipment to align and maintain the system within specifications.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radar systems maintenance (11/81).

NV-1715-1058

AN/SRC-16, AN/SRC-13 Transceiver Maintenance Differences

Course Number: A-101-0044.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 3 weeks (111 hours).

Exhibit Dates: 12/80–Present.

Objectives: To train students in the theory of operation and maintenance of a specific naval radio receiver-transmitter.

Instruction: The course provides a detailed familiarization of all electronic circuitry of the receiver transmitter. Emphasis is placed on fault isolation and repair of the system using available technical manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in troubleshooting techniques (11/81).

NV-1715-1059

AN/SPS-48C Radar Difference

Course Number: A-104-0175.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/79–Present.

Objectives: To provide radar technicians with the skills and knowledge to operate and maintain a search radar system used in an automatic target detection system.

Instruction: Lectures and practical exercises covering the operation and maintenance of a specialized search radar system including a UNIVAC 1616 computer system and its memory, tape and I/O devices; the target processor operations and the interface systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in

computer systems operation and maintenance (11/81); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer system operations (11/81).

NV-1715-1060

AM-2310-ASQ AM-2349-ASQ-19 Amplifier (Power Supply) Receiver Intermediate Maintenance

Course Number: C-102-3099.

Location: Naval Air Station, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/77–Present.

Objectives: To provide training in the operation, testing, and maintenance of a communication unit comprised of power supply, receiver and amplifier units.

Learning Outcomes: Upon completion of the course, the student will be able to test, analyze, troubleshoot and repair communications circuits which include a power supply unit, a UHF receiver and automatic direction finding circuitry.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communication and 1 in electronic communication laboratory (5/85).

NV-1715-1061

Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance

(Ship's Navigation and Aircraft Inertial Alignment Systems Maintenance)

Course Number: A-193-0040.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train personnel in the operation, calibration, and maintenance of an inertial navigational system.

Instruction: Personnel are given in-depth instruction in the theory, operation, and maintenance of an inertial navigational system. The course includes review of algebra, trignometry, and vector algebra; physics of linear and rotational motion, principles of gyroscope operation and basic inertial system dynamics; number systems, BCD codes and conversions including fractions, logic gates and flip-flops and program flow charts. Operation and functional characteristics of a navigational computer and its peripherals including paper tape reader, paper tape punch, teletype terminal, CRT display, and power supplies is also covered. Repertoire of the computer instruction set and programming applications including bootstrap and dump routines as well as basic theory, electrical and mechanical characteristics of servo systems, use of differential voltmeters, and oscilloscopes to calibrate, align and troubleshoot equipment, in some cases, to the component level.

Credit Recommendation: In the vocational certificate category, 2 semester hours in applied mathematics, 2 in applied physics (11/81); in the lower-division baccalaureate/associate degree category, 6 semester hours in electromechanical systems (11/81).

NV-1715-1062

AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance

Course Number: C-102-3093.

Location: Naval Air Maintenance Training Detachment, NAS Miramar, CA; Naval Air Maintenance Training Detachment, NAS Oceana, VA; Naval Air Maintenance Training Detachment, NAS Lemoore, CA; Naval Air Maintenance Training Detachment, NAS Cecil Field, FL; Naval Air Maintenance Training Detachment, NAS Whidbey Island, WA.

Length: 5 weeks (152 hours).

Exhibit Dates: 6/74–6/80.

Objectives: To provide instruction in the maintenance of the specific countermeasures receiving set consisting of a pulse analyzer, an amplifier detector, azimuth indicator, and peripheral equipment.

Instruction: Instruction includes circuit analysis and troubleshooting using applicable test equipment, and instruction in publications and safety procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (2/78); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (2/78).

NV-1715-1063

Harpoon Ship Command Launch Control Set Maintenance

Course Number: J-113-0127.

Location: Fleet Training Center, Pearl Harbor, HI; Fleet Training Center, San Diego, CA; Fleet Training Center, Dam Neck, VA; Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 6 weeks (210 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide fire control technicians with the knowledge and skills necessary to operate and maintain the Harpoon Ship Command Launch Control Set AN/SWG-1(V).

Instruction: Lectures and practical exercises in the operation and maintenance of the Harpoon Ship Command Launch Control Set AN/SWG-1(V) with emphasis on fault isolation and repair at the system and component level and/or preventive maintenance of the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours of technical elective credit in electrical or electronic associate degree programs (11/81).

NV-1715-1064

AN/SRN-12/12A Omega Receiving Set Maintenance

Course Number: A-102-0077.

Location: Fleet Training Center, Norfolk, VA; Service School Command, Dan Diego, CA; Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 2 weeks (48 hours).

Exhibit Dates: 1/78–Present.

Objectives: To train enlisted personnel to operate, maintain and repair the Omega Receiving AN/SRN-12/12A and to operate and use associated test equipment.

Instruction: Lecture and practical experience in the maintenance, operation and repair of the AN/SRN-12/12A Omega Receiving set. Proper utilization of test equipment is taught. Includes signal characteristics, initializing, chart operational checks, symbolic integrated maintenance, troubleshooting and computer interface.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in a technical elective in electrical or electronics technology (11/81).

NV-1715-1065

Submarine Periscope Repair Class C1

Course Number: A-670-0019.

Location: Service School Command, Great Lakes, IL.

Length: 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 8/85–Present. *Version 2:* 1/75–7/85.

Objectives: To provide opticalmen with additional technical skills and knowledge to more effectively perform their duties.

Instruction: *All Versions:* Lecture and practical exercises in the repairing and overhauling of submarine periscopes, including inspection, replacing defective parts, refinishing surfaces, cleaning, reassembling, collimating, adjusting optical elements, sealing, drying and charging of optical assemblies. *Version 1:* Includes a review of basic electricity, electronics, motors, synchrons, torque motors, and heaters. Included is operation and maintenance of the electromechanical systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical technology; In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical technology(1/86). *Version 2:* In the vocational certificate category, 3 semester hours in electromechanical technology (1/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in physics of optics (1/82).

NV-1715-1066

AN/SPG-53F Modified Radar Maintenance

Course Number: A-113-0093.

Location: Service School Command, Great Lakes, IL.

Length: 16 weeks (640 hours).

Exhibit Dates: 2/81–Present.

Objectives: To train technicians in the maintenance of an AN/SPG-53F radar set.

Instruction: Lectures and practical exercises in the operation and maintenance of power supplies, synchronizer circuits, antenna scanners, video circuits, ranging circuits, D/S converter circuits, modulation circuits, jamming circuits, and display circuits.

Credit Recommendation: In the vocational certificate category, 6 semester hours in radar electronic maintenance (1/82).

NV-1715-1067

AN/WSN-2 Stabilized Gyrocompass Maintenance Class C1

Course Number: A-670-0048.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/79–Present.

Objectives: To provide technical knowledge and skills required to operate, maintain, and repair the AN/WSN-2 stabilized gyrocompass.

Instruction: Lecture and laboratory exercises in operation, alignment, troubleshooting and maintenance of the gyrocompass system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in gyrocompass principles and maintenance (10/83).

NV-1715-1068

Close-In Weapons System 15-1, Class C1

Course Number: A-113-0078.

Location: Guided Missile School, Dam Neck, VA; Naval Training Center, San Diego, CA; Service School Command, Great Lakes, IL.

Length: 27 weeks (1080 hours).

Exhibit Dates: 12/80–Present.

Objectives: To train technicians in the operation, maintenance, and repair of electronically controlled weapon systems.

Instruction: Lectures and practical exercises in the operation, maintenance and repair of power supplies, environmental control systems, remote and local computer driven display and control systems, operation and loading of receivers, and servocontrol systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in servo systems maintenance, 3 in radar circuits maintenance (1/82); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer interface maintenance operation (1/82).

NV-1715-1069

Electronics Technician Advanced Electronics Field/ Marine Corps/Foreign Class A1

Course Number: A-100-0062.

Location: Service School Command, Great Lakes, IL.

Length: 28 weeks (1120 hours).

Exhibit Dates: 8/80–Present.

Objectives: To develop the skills and knowledge necessary to perform basic maintenance on a variety of electronic equipment.

Instruction: An introductory level presentation on the principles of digital circuits including number systems, number conversion techniques, logic concepts, logic gates, Boolean expressions, logic diagrams, magnetic storage devices, display devices, flip-flops, counters, registers, encoders and decoders, basic communication principles, AM and FM waveforms and frequency spectra, decibels, operation of a spectrum analyzer and its application to a signal flow analysis to the component level of a SSB receiver, FM transceiver, and high frequency transmitter/receiver including RLC filter circuits, mechanical filters, modulator and demodulator circuits, oscillators, RF, IF, and audio circuits with 50% of the time devoted to signal tracing, alignment, maintenance and troubleshooting techniques in the laboratory. Introduction to radar and microwave circuits including microwave propagation, characteristics of waveguides, chokes, dummy loads, directional couplers, resonant cavities, stub tanners, CRT characteristics, klystrons, magnetrons, traveling wave tubes, microwave measurements, and synchros. Operation, alignment, fault isolation, and repair of an AN/SPS-10 and AN/SPA-25 radar sets.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to digital circuits, 4 in electronic equipment repair (1/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems, 1 in microwave systems (1/82).

NV-1715-1070

Electronics Technician Nuclear Field Class A1

Course Number: A-100-0064.

Location: Service School Command, Great Lakes, IL.

Length: 19 weeks (760 hours).

Exhibit Dates: 8/80–Present.

Objectives: To develop the skills and knowledge necessary to perform basic maintenance on a variety of electronic equipment.

Instruction: An introductory level presentation on the principles of digital circuits including number systems, number conversion techniques, logic concepts, logic gates, Boolean expressions, logic diagrams, magnetic storage devices, display devices, flip-flops, counters, registers, encoders and decoders, basic communication principles, AM and FM waveforms and frequency spectra, decibels, operation of a spectrum analyzer and its application to a signal flow analysis to the component level of a SSB receiver and FM transceiver including RLC filter circuits, mechanical filters, modulator and demodulator circuits, oscillators, RF, IF, and audio circuits with 50% of the time devoted to signal tracing, alignment, maintenance and troubleshooting techniques in the laboratory. Use of basic test equipment, characteristics of diodes and transistors, simple transistor circuits, dc biasing and load line development. Vacuum tube characteristics and operation, turled circuits, loading, Q, rf coupling techniques, Class A and Class C amplifiers, rf oscillators, multipliers, types of modulation and detection, distortion and characteristics of antennas. Introduction to radar and microwave circuits including microwave propagation, characteristics of waveguides, chokes, dummy loads, directional couplers, resonant cavities, stub tanners, CRT characteristics, klystrons, magnetrons, traveling wave tubes, microwave measurements, and synchros. Operation, alignment, fault isolation, and repair of an AN/SPS-10 radar set.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to digital circuits, 3 in electronic equipment repair (1/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems, 1 in microwave systems (1/82).

NV-1715-1071

Electronics Technician Submarine/Reserve Class A1

Course Number: A-100-0063.

Location: Service School Command, Great Lakes, IL.

Length: 19 weeks (760 hours).

Exhibit Dates: 8/80–Present.

Objectives: To develop the skills and knowledge necessary to perform basic maintenance on a variety of electronic equipment.

Instruction: An introductory level presentation on the principles of digital circuits including number systems, number conversion techniques, logic concepts, logic gates, Boolean expressions, logic diagrams, magnetic storage devices, display devices, flip-flops, counters, registers, encoders and decoders, basic communication principles, AM and FM waveforms and frequency spectra, decibels, operation of a spectrum analyzer and its application to a signal flow analysis to the component level of a SSB receiver, FM transceiver, and high frequency transmitter/receiver including RLC filter circuits, mechanical filters, modulator and demodulator circuits, oscillators, RF, IF, and audio circuits with 50% of the time devoted to signal tracing, alignment, maintenance and troubleshooting techniques in the laboratory.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to digital circuits, 3 in electronic equipment repair (1/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems (1/82).

NV-1715-1072

Electronics Technician Air Force Class A1

Course Number: A-100-0065.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (400 hours).

Exhibit Dates: 8/80–Present.

Objectives: To develop the skills and knowledge necessary to perform basic maintenance on a variety of electronic equipment.

Instruction: An introductory level presentation on the principles of digital circuits including number systems, number conversion techniques, logic concepts, logic gates, Boolean expressions, logic diagrams, magnetic storage devices, display devices, flip-flops, counters, registers, encoders and decoders, basic communication principles, AM and FM waveforms and frequency spectra, decibels, operation of a spectrum analyzer and its application to a signal flow analysis to the component level of a SSB receiver and FM transceiver including RLC filter circuits, mechanical filters, modulator and demodulator circuits, oscillators, RF, IF, and audio circuits with 50% of the time devoted to signal tracing, alignment, maintenance and troubleshooting techniques in the laboratory.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to digital circuits, 2 in electronic equipment repair (1/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems (1/82).

NV-1715-1073

FFG-7 Auxiliary Mechanical Subsystem Technician Class C1

Course Number: A-652-0158.

Location: Service School Command, Great Lakes, IL.

Length: 3–5 weeks (120–175 hours).

Exhibit Dates: 3/80–Present.

Objectives: To train enginemen to operate and maintain auxiliary mechanical subsystems.

Instruction: Lectures and practical exercises that provide the knowledge and skills necessary to operate and maintain the mechanical components of high and low air pressure systems, electronic equipment cooling water system and incinerator equipment on a FFG-7 class ship.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical engineering technology (10/83).

NV-1715-1074

FFG-7 Central Control Station Maintenance Class C1

Course Number: A-652-0155.

Location: Service School Command, Great Lakes, IL.

Length: 16 weeks (640 hours).
Exhibit Dates: 9/79–Present.

Objectives: To train technicians in the theory, maintenance and repair of a computer based shipboard control system.

Instruction: Lectures, laboratory work, and practical exercises in digital logic from basic TTL gates to memories and counters, basic computer mathematics, troubleshooting of electronics control systems and computer circuits, machine language programming, minicomputer organization and I/O.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic troubleshooting techniques, 2 in electronic troubleshooting laboratory (1/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to minicomputers and machine language programming, 2 in digital logic (1/82).

NV-1715-1075

FFG-7 Class Ship Interior Communications (IC) Subsystems Technician

Course Number: A-623-0099.
Location: Service School Command, Great Lakes, IL.
Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 9 weeks (360 hours).
Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 6/79–12/82.

Objectives: To provide technical knowledge and skills required to perform organizational level maintenance of navigation systems.

Instruction: *Version 1:* Lectures and laboratory exercises in the theory of operation, circuitry, use of technical manuals and schematics in the operation, troubleshooting and maintenance of electromechanical navigation equipment, including servo controlled gyroscopes. *Version 2:* Lectures and laboratory exercises in the theory of operation and preventive and corrective maintenance down to the component level for Dewey log, AN/WSN-2 stabilized gyrocompass and IMV, Mk-g Dead Reckoning System, Mk-I stabilized glide scope system and the Sperry Mk-27 gyrocompass.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical system maintenance and 1 in electronic system maintenance (1/86). *Version 2:* In the vocational certificate category, 3 semester hours in electromechanical system maintenance (1/82).

NV-1715-1076

Gun Fire Control System (GFCS) Mk 86 Mod 3 Maintenance Class C

Course Number: A-113-0066.
Location: Service School Command, Great Lakes, IL.
Length: 23 weeks (920 hours).
Exhibit Dates: 12/73–Present.

Objectives: To train technicians in the maintenance, fault isolation and repair of electronic fire control systems.

Instruction: Group-paced lectures and practical demonstrations in the maintenance and repair of computer input buffer systems, radar video displays, CRT's, video circuits, pulse compression circuits, frequency selective circuits, S/D and D/S converters, video monitors and cameras, transmitters, receivers, A/D converters and power supplies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic equipment maintenance and repair, 3 in video equipment maintenance and repair (1/82).

NV-1715-1077

Guided Missile Launching System (GMLS) Mk 13 Mod 4 Maintenance

Course Number: A-121-0474.
Location: Service School Command, Great Lakes, IL.
Length: 17 weeks (680 hours).
Exhibit Dates: 9/80–Present.

Objectives: To train technicians in the operation, maintenance and repair of the Mk 13 Mod 4 guided missile launching system.

Instruction: Lectures and hands-on experience in the operation and maintenance of the Mk 13 Mod 4 guided missile launching system. Areas covered include system controls and operation, electro-hydraulic-mechanical components and servos, power supplies and distribution, pneumatic-mechanical systems, and the associated electronics for the system and subsystems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1078

Gun Mount 5"/54 Mk 42 Mods 9 and 10 Maintenance Class C1

Course Number: A-113-0044.
Location: Service School Command, Great Lakes, IL.
Length: 21 weeks (840 hours).
Exhibit Dates: 1/81–Present.

Objectives: To train personnel in the maintenance of a gun mount and associated equipments.

Instruction: Lectures and demonstrations in the operation and maintenance of power distribution systems, control and firing circuits, mechanical linkages, hydraulic systems, and operational testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1079

Gunner's Mate Class A Phase II

Course Number: A-041-0016.
Location: Service School Command, Great Lakes, IL.
Length: 9 weeks (360 hours).
Exhibit Dates: 8/81–Present.

Objectives: To train technicians in the theory and maintenance of power supplies, digital circuits and hydraulic controls for gun and missile launching systems.

Instruction: Lectures and exercises in the theory and practices of AC/DC motors and generators; solid state power supplies; number systems, logic gates, digital arithmetic and circuits, counters, registers; syncro servos and hydraulic controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic, 3 in electromechanical system controls (1/82).

NV-1715-1080

Gun Mount 5"/54 Mk 45 Maintenance Class C1

Course Number: A-113-0054.
Location: Service School Command, Great Lakes, IL.
Length: 17 weeks (680 hours).
Exhibit Dates: 7/72–Present.

Objectives: To train personnel in the maintenance of a gun mount and associated equipment.

Instruction: Group-paced lectures and demonstrations in the operation and maintenance of power distribution systems, PC cards, control and arming circuits, mechanical linkages, hydraulic systems and operational testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1081

Tartar Guided Missile Launching System (GMLS) Mk 11 Maintenance Class C1

Course Number: A-121-0043.
Location: Service School Command, Great Lakes, IL.
Length: 23–24 weeks (920–960 hours).
Exhibit Dates: 7/74–Present.

Objectives: To train personnel in the maintenance of a guided missile launching system.

Instruction: Lectures and demonstrations in the operation and maintenance of power devices, magnetic amplifiers, firing circuits, mechanical linkages, hydraulic systems, and operational testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1082

Tartar Guided Missile System Mk 13 Maintenance Class C1

Course Number: A-121-0044.
Location: Service School Command, Great Lakes, IL.
Length: 24 weeks (960 hours).
Exhibit Dates: 3/80–Present.

Objectives: To train personnel in the maintenance of a guided missile launching system.

Instruction: Lectures and demonstrations in the operation and maintenance of train and elevation circuits, hoist equipment, hydraulic and lubrication systems, sensor and control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1083

Terrier Guided Missile Launching System (GMLS) Mk 10 Maintenance Class C1

Course Number: A-121-0046.
Location: Service School Command, Great Lakes, IL.
Length: 20–22 weeks (800–880 hours).
Exhibit Dates: 7/74–Present.

Objectives: To train personnel in the maintenance of a guided missile launching system.

Instruction: Lectures and demonstrations in the operation and maintenance of power distribution systems, PC cards, control and arming circuits, mechanical linkages, hydraulic systems, and operational testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical maintenance (1/82).

NV-1715-1084

Type 18 Submarine Periscope Repair Class C1

Course Number: A-670-0047.
Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 14 weeks (504 hours) *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 10/85–Present *Version 2:* 10/80–9/85

Objectives: To train personnel in the overhaul, maintenance and repair of type 18 periscopes.

Instruction: *Version 1:* Lectures and laboratory exercises covering the basic fundamentals of electricity, electronics, digital terms, and electromechanical systems used in the type 18 periscope. *Version 2:* Lectures and exercises in the theory of digital circuits including number systems, Boolean algebra, gates, counters, flip-flops. (No electrical specifications or Karneough maps) and electronic devices such as FET's, bipolar transistors, LED's and opto-isolators. Repair and maintenance of submarine periscope and electromechanical systems is also covered.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electromechanical maintenance (1/86); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electricity and electronics and 1 in electromechanical laboratory (1/86). *Version 2:* In the vocational certificate category, 4 semester hours in electromechanical maintenance (1/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic, 3 in electronic devices (1/82).

NV-1715-1085

Data Systems Technician Class C

Course Number: A-150-0066.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 11–15 weeks (440–600 hours).

Exhibit Dates: 12/77–Present.

Objectives: To provide students with skills and knowledge necessary to maintain two versions of a general purpose UNIVAC computer.

Instruction: The course offers an in-depth study of both versions of the UNIVAC general purpose computer including control, arithmetic, memory and input/output circuitry. Study of the instruction repertoire including detailed operating sequences for each instruction is included. Troubleshooting exercises are used throughout the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer troubleshooting, 2 in computer organization (11/81).

NV-1715-1086

Mk 152 Digital Computer Complex

Course Number: A-150-0079.

Location: Command Systems Technical School Command, Mare Island, CA; Naval Guided Missile School, Dam Neck, VA.

Length: 19 weeks (760 hours).

Exhibit Dates: 4/75–Present.

Objectives: Provides training in the knowledge and skills necessary to operate and maintain a digital computer and its peripheral equipment.

Instruction: A detailed study of a digital computer including maintenance and repair of its power supply, clocks, memory, logic and control. Emphasis on computer instruction sets with detailed study on how each instruction is performed. Study of peripheral equipment operations, maintenance and repair including paper tape reader, paper tape punch, keyboard, printer, and magnetic tape and analog-to-digital and digital-to-analog data converter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems, 1 in computer troubleshooting laboratory (11/81).

NV-1715-1087

Fire Control System (FCS) Mk 92 Mod 2 Maintenance

Course Number: A-113-0080.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Dam Neck, VA.

Length: 29 weeks (1087 hours).

Exhibit Dates: 5/82–Present.

Objectives: To train technicans in operation and maintenance of computer controlled gun/missile firing systems.

Instruction: Operation, functional analysis, maintenance and troubleshooting of: gyrostablized search and track antenna groups, controls and displays; radar signal generation and processing; 32 bit computer operation and I/O including: ASCII data terminal, tape reader/punch, mag tape, and interfaces. Other subjects include: servo operation, antenna drive and tracking system, A-D/D-A and synchro/digital signal processing, and use of computer words for troubleshooting and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital laboratory, 2 in electronic/digital troubleshooting, 2 in digital servo systems (5/82); in the upper-division baccalaureate category, 2 semester hours in digital computer systems (5/82).

NV-1715-1088

Basic Solid State Devices Class F1

Course Number: A-662-0019.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/76–Present.

Objectives: To provide fundamentals of solid-state theory and basic testing of components.

Instruction: Coverage of basic solid-state devices and circuits in a classroom environment including demonstrations and laboratory exercises. Diodes, bipolar transistors, UJT's and thyristors are studied as well as conventional circuits such as CE, CB, CC.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic devices (5/82).

NV-1715-1089

Gyro Compass Technician Mk 27 Maintenance Class C1

Course Number: K-670-2152.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/79–Present.

Objectives: To provide personnel with theory and maintenance of the Mk 27 gyro compass.

Instruction: Gyro compass theory, operation modes, auxiliary circuits and gyro compass maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in gyro compass theory and laboratory (5/82).

NV-1715-1090

Mechanical Gyro Maintenance and Repair C1

Course Number: A-670-0038.

Location: Fleet Training Center, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/74–Present.

Objectives: To provide personnel with theory of operation and practical training in maintenance and repair of the Mk 14 mechanical gyro compass.

Instruction: Lectures, demonstrations, and laboratory work covering gyro compass theory of operation including errors and methods of compensation and the maintenance, calibration and troubleshooting of mechanical and electrical components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in gyro compass maintenance and repair (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in gyro compass theory and operation (5/82).

NV-1715-1091

Integrated Voice Communication System AN/STC-1 Maintenance

Course Number: A-623-0042.

Location: Service School Command, San Diego, CA.

Length: 19 weeks (722 hours).

Exhibit Dates: 4/74–Present.

Objectives: To train personnel to operate and maintain the AN/STC-1 integrated voice communication system.

Instruction: Group instruction in voice communication system operation, maintenance, and troubleshooting including oscilloscope use, digital fundamentals, computer basics, teleprinter operation, tape reader operation, and interfacing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic system troubleshooting, 2 in digital electronics (5/82).

NV-1715-1092

Surface Microcomponent Repair Course

Course Number: A-100-0056.

Location: Fleet Training Center, Mayport, FL; Fleet Training Center, Pearl Harbor, HI; Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA; Fleet Mine Warfare Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/81–Present.

Objectives: To prepare personnel to repair circuit laminates, encapsulated circuits and shaft encoders, welded lead devices, multilayer devices and electroplated circuits.

Instruction: Practical training in repairing printed circuit board laminates, conductors; flexible circuits; plastic electronic panels; encapsulated circuits; shafter encoders; static-sensitive devices; welded lead devices; high density multilayer devices; electroplated materials. Includes preventive maintenance of repair station as required for Navy certification.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic repair laboratory (5/82).

NV-1715-1093

AN/SPS-49(V) Radar Set Maintenance

Course Number: A-104-0176.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 12 weeks (480 hours).

Exhibit Dates: 10/78-Present.

Objectives: To provide trained personnel to operate and maintain, with no supervision, the AN/SPS-49(V) radar set, using built-in test equipment and other associated test equipment.

Instruction: Instruction includes lectures, practical demonstrations and hands-on operation, maintenance and troubleshooting of shop mockups of the radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar or electronic systems, troubleshooting and maintenance (5/82).

NV-1715-1094

AN/SPA-66 Radar Indicator Maintenance

Course Number: A-104-0178.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/79-Present.

Objectives: To provide the skills and knowledge necessary to maintain AN/SPA-66 radar indicators.

Instruction: Course includes operation and maintenance of the AN/SPA-66 radar indicator including regulated power supplies, DC to DC converters, digital devices for timing, sweep generation and troubleshooting to the component and system level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in troubleshooting and maintenance (5/82).

NV-1715-1095

AN/SPS-55 Radar Set Maintenance

Course Number: A-104-0162.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/82-Present.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/SPS-55 radar set.

Instruction: Course includes operation an maintenance of the AN/SPS-55 radar set including power distribution; timing and frequency generation; receiving and video systems; antenna system; and system troubleshooting and repair to the lowest repairable or replaceable component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in circuit and system troubleshooting (5/82).

NV-1715-1096

AN/SPA-50, AN/SPA-50B Radar Indicator Maintenance

Course Number: A-104-0156.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/81-Present.

Objectives: To provide electronic technicians with the knowledge and skill necessary to maintain specific radar indicators.

Instruction: Lectures, practical demonstrations, and laboratory work in digital devices including A/D conversion, operational amplifiers; circuit operation of power supply, timing, sweep and display circuits; and operation of controls, required to maintain and troubleshoot specific radar indicators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic system maintenance and troubleshooting (5/82).

NV-1715-1097

AN/SPS-65(V)1 Radar Set Maintenance

Course Number: A-104-0179.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/82-Present.

Objectives: To provide electronic technicians with technical skills and knowledge to operate and perform preventive and corrective maintenance on the AN/SPS-65(V)1 radar equipment.

Instruction: Lectures, practical demonstrations, and laboratory work involving circuit tracing, functional analysis, and fault/failure finding on AC and DC power supplies, transmitters, receiver-processors, and controls of a radar set.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance and troubleshooting (5/82).

NV-1715-1098

AN/SRN-9/18 Satellite Radio Navigation Sets Combined Maintenance

Course Number: A-102-0267.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/79-Present.

Objectives: To provide the skills and knowledge needed to perform corrective and preventive maintenance on the AN/ARN-9 and AN/SRN-18 satellite radio navigation sets.

Instruction: Provides instruction on the repair and preventive maintenance on the AN/SRN-9 and AN/SRN-18 satellite radio navigation sets. Coverage includes basic digital components, number conversions, computer fundamentals, mneumonic instruction sets, phase modulation, voltage controlled oscillators, Doppler effect, character generators and application of the SIMM (Symbolic Integrated Maintenance Manual) in performing maintenance on the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in equipment troubleshooting and repair (5/82).

NV-1715-1099

Fleet Satellite Communications Spectrum Monitor System Equipment

Course Number: A-101-0188.

Location: Fleet Training Center, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/80-Present.

Objectives: To train personnel in the operation and maintenance of an HP 2100 and HP 8500 series minicomputer system and console.

Instruction: Provides instruction in the HP2100 minicomputer with cassette and mag tape loader subsystems. Included are subsystems for interfacing, display and control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in minicomputer systems (5/82); in the upper-division baccalaureate category, 1 semester hour in minicomputer systems for engineering majors (5/82).

NV-1715-1100

Narrow Band Secure Voice Stand Alone Maintenance
(Narrowband Secure Voice Stand Alone Maintenance)

Course Number: A-101-0156.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/81-Present.

Objectives: To provide electronic technicians with the skills and knowledge to maintain specialized communication equipment.

Instruction: Lectures, practical demonstrations, and laboratory work in security and classification procedures; voice to digital encoding and decoding; modems; transmitting and receiving of digital signals; and maintenance and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical technology communication systems maintenance and troubleshooting (5/82).

NV-1715-1101

ASROC Missile Intermediate Maintenance

Course Number: A-121-0146.

Location: Service School Command, Orlando, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/81-Present.

Objectives: To train enlisted personnel in the operation and maintenance procedures for the ASROC missile.

Instruction: Lectures and practical exercises in understanding the performance of the ASROC missile including its physical description, interfacing, functional and operational description, installation procedures and preventive and corrective maintenance.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/83).

NV-1715-1102

Torpedoman's Mate Basic Class A1

Course Number: A-123-0127.

Location: Service School Command, Orlando, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 6/77-10/86.

Objectives: To train personnel selected as torpedomen with the knowledge and skill required for ship or shore activities.

Instruction: For this course after 10/86 see NV-1715-1488. Lectures and practical exercises in explosives, underwater sound, hydraulics and pneumatics, neucleonics, planned maintenance and safety as they relate to a variety of torpedos and torpedo related units.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (4/83).

NV-1715-1103

Torpedo Mk 46 Mod 5 Intermediate Maintenance

Course Number: A-123-0174.
Location: Service School Command, Orlando, FL.
Length: 12 weeks (420 hours).
Exhibit Dates: 1/83–Present.
Objectives: To train enlisted personnel in the maintenance of the Mk 46 torpedo and its accessories.
Instruction: Lectures and practical experiences in the maintenance of the Mk 46 torpedo including a functional description of each system, assembly, inspection, performance testing, troubleshooting and repair.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance and troubleshooting or as a technical elective (4/83).

NV-1715-1104

Torpedo Mk 46 Mod 5 Test Equipment Intermediate Maintenance

Course Number: A-123-0175.
Location: Service School Command, Orlando, FL.
Length: 13 weeks (500 hours).
Exhibit Dates: 10/82–Present.
Objectives: To train personnel in intermediate level maintenance for torpedo Mk 46 test equipment.
Instruction: Lectures and practical exercises in the theory of operation, preventive and corrective maintenance of test sets for exploder wells, gyroscope, cable, afterbodies and exercise heads. The course includes a great deal of practical electronic troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance and electronic troubleshooting (4/83).

NV-1715-1105

Torpedo Mk 48 Mods 1 and 3 Intermediate Maintenance

Course Number: A-123-0140.
Location: Service School Command, Orlando, FL.
Length: 15 weeks (650 hours).
Exhibit Dates: 3/75–Present.
Objectives: To train fleet personnel in the theory of operation and maintenance procedures for torpedo Mk 48 Mod 1.
Instruction: Lectures and practical exercises in equipment maintenance including logistics, safety, troubleshooting, fault isolation and repair or replacement of parts.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in system maintenance and troubleshooting or as a technical elective (4/83).

NV-1715-1106

Torpedo Mk 48 Mods 1 and 3 Test Equipment Intermediate Maintenance

Course Number: A-123-0141.
Location: Service School Command, Orlando, FL.
Length: 26 weeks (1040 hours).
Exhibit Dates: 1/79–Present.
Objectives: To provide personnel with knowledge to perform intermediate level maintenance and calibration on test equipment for the torpedo Mk 48.
Instruction: Instruction includes the theory of operation and laboratory applications of electronic test equipment including oscilloscope, counter-timer, frequency synthesizer, phasemeter; digital devices including A-D converters, decoders, multiplexors, RAM, PROM, tri-state devices, 8080A microprocessor, 8228 controller; special devices and circuits including OP-amps, UJT, SCR, LED, and opto-isolators; application of ATLAS programming language; simple binary and BCD arithmetic; study of Honeywell 6/43 minicomputer system; study of 8" flexible disk drive; study of synchro-digital interface equipment. Laboratory work also includes troubleshooting of electronic assemblies.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to microprocessors, 2 in electronic troubleshooting (4/83).

NV-1715-1107

Torpedo Technician Advanced

Course Number: A-123-0147.
Location: Service School Command, Orlando, FL.
Length: Self-paced 5 weeks (180 hours).
Exhibit Dates: 1/83–1/89.
Objectives: To train enlisted personnel in digital circuits and proper soldering techniques.
Instruction: For this course after 1/89 see NV-1715-1492. Lectures and practical exercises in digital circuits including number systems, logic gates, Boolean algebra, counters and registers. The soldering portion of the course includes study of solderless wrapped connections, soldering tools, flux and making connections to a variety of terminals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic shop practices and 3 in digital fundamentals (4/83).

NV-1715-1108

Mineman Test Set Repair and Maintenance Training

Course Number: J-647-0018.
Location: Fleet and Mine Warfare Training Center, Charleston, NC.
Length: 12 weeks (360 hours).
Exhibit Dates: 9/81–Present.
Objectives: To provide senior minemen with the necessary skills and knowledge to enable them to perform maintenance of mine test equipment.
Instruction: Lectures and practical laboratory exercises in basic electricity/electronics including series, parallel and series-parallel AC and DC circuits, bridge circuits and active circuits using tubes and solid state devices. Troubleshooting and calibrating specific test equipment is also included.
Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electricity/electronics (3/83).

NV-1715-1109

Mineman Supervisory and Advanced Technical Training

Course Number: J-647-0017.
Location: Fleet and Mine Warfare Training Center, Charleston, SC.
Length: 19 weeks (617 hours).
Exhibit Dates: 1/82–Present.
Objectives: To provide selected senior enlisted personnel with the necessary skills, related administration and technical knowledge to perform mine readiness and maintenance.
Instruction: Lectures and laboratory exercises in the intermediate maintenance of a variety of weapons. Included are exercises in basic electricity and electronics covering series, parallel and series parallel, AC and DC circuitry, bridge circuits, rectifiers and active circuits using tubes and solid state devices. Lectures are conducted on the administration, logistics, safety, quality assurance, workload management, operations and readiness policies and procedures required by mine shop supervisors and middle managers.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity/electronics (3/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management (3/83).

NV-1715-1110

Fully Automatic Switching Terminal

Course Number: A-130-0267.
Location: Fleet Anti-Submarine Warfare Training Center, Atlantic, Norfolk, VA.
Length: 5 weeks (160 hours).
Exhibit Dates: 10/82–Present.
Objectives: To train experienced electronic technicians to perform circuit adjustments, hardware and software maintenance, troubleshooting and repair an automatic switching terminal.
Learning Outcomes: Upon completion of this course, the student will be able to: (1) understand the functions and subsystems of an automatic switching terminal, (2) perform maintenance on digital systems, (3) isolate faults and repair digital systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital equipment maintenance and repair (8/83).

NV-1715-1111

Passive Equipment Cabinet Operation and Maintenance

Course Number: A-130-0263.
Location: Fleet Anti-Submarine Warfare Training Center, Atlantic, Norfolk, VA; Fleet Anti-Submarine Warfare Training Center, Pacific, San Diego, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/82–9/86.
Objectives: To provide experienced personnel with the knowledge to operate, maintain and repair the passive equipment cabinet system to the component level.
Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and/or corrective maintenance on a selected group of analog and digital equipment including replacement of modules, printed circuit boards and/or discrete chassis mounted components.
Credit Recommendation: In the vocational certificate category, 2 semester hours in digital equipment maintenance and repair (8/83).

NV-1715-1112

Synchronous Distributed Processor II

Course Number: A-130-0250.
Location: Fleet Anti-Submarine Warfare Training Center, Atlantic, Norfolk, VA.
Length: 4 weeks (160 hours).
Exhibit Dates: 4/81–Present.

Objectives: To train experienced electronic technicians to perform preventive and corrective maintenance on synchronous distributed processor systems.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the function of a data processor and distribution subsystem, (2) perform maintenance on digital systems, (3) isolate faults and repair digital systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital equipment maintenance, troubleshooting and repair (8/83).

NV-1715-1113

Time Series Acoustic Recall System Maintenance

Course Number: A-130-0246.

Location: Fleet Anti-Submarine Warfare Center, Atlantic, Norfolk, VA.

Length: 4 weeks (130 hours).

Exhibit Dates: 1/83–Present.

Objectives: To provide experienced electronic technicians with the necessary background to perform preventive and corrective maintenance on selected digital signal processing units.

Learning Outcomes: Upon completion of the course the student will be capable of performing safely all necessary preventive and corrective maintenance on selected digital signal processing units and their associated power supplies using the necessary test equipment and technical manuals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic circuit repair and maintenance (8/83).

NV-1715-1114

Ocean Systems Technician Electronic

Course Number: A-130-0114.

Location: Fleet Anti-Submarine Warfare Training Center, Atlantic, Norfolk, VA.

Length: 19 weeks (760 hours).

Exhibit Dates: 8/81–Present.

Objectives: To provide technicians with the necessary prerequisite subject matter for entrance into specialized equipment courses.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) use algebra to solve electric and electronic circuit problems, (2) understand the concepts of Ohm's and Kirchhoff's Laws in series and parallel DC and AC circuits, (3) apply digital theory to computer circuits, (4) apply electronic solid state and vacuum tube theory to functional circuits.

Credit Recommendation: In the vocational certificate category, 4 semester hours in fundamentals of DC and AC circuit analysis, 3 in fundamentals of electronics and 2 in algebra and trigonometry (8/83); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital circuits and computer fundamentals, 2 in algebra and trigonometry for non-technology majors (8/83).

NV-1715-1115

Aegis Display System Operation and Maintenance

Course Number: A-150-0238.

Location: Naval Systems Department, Moorestown, NJ.

Length: 22 weeks (880 hours).

Exhibit Dates: 10/82–12/85.

Objectives: To train technicians to operate and perform maintenance on two display systems of a complex radar system.

Instruction: For this course after 12/85 see NV-1715-1301. Lectures and practical exercises in the operation, maintenance and repair, to the component level, of two video display systems including word format, test messages for fault isolation, RAM troubleshooting, symbol generator, I/O lines, video controls, signal tracing, alignment and troubleshooting procedures. Also included is the operation, maintenance and troubleshooting of auxiliary equipment such as pulse amplifiers, radar and sonar azimuth converters, data distribution switchboards, printers and equipment water cooling. There is a brief review of soldering techniques and use of test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in video display system maintenance and repair and 1 in electronic shop practices (7/83).

NV-1715-1116

Aegis Weapon System Mk 7 Operation and Maintenance

Course Number: A-104-0190.

Location: Naval Systems Department, Moorestown, NJ.

Length: 19 weeks (760 hours).

Exhibit Dates: 5/82–12/85.

Objectives: To train experienced technicians to direct the maintenance operations of a phase array radar system including computers and terminals with which it interfaces.

Instruction: For this course after 12/85 see NV-1715-1302. Lectures and practical exercises in the operation and maintenance of the subsystems comprising the Aegis Weapons system including AN/UYK-7 and AN/UYK-20 computers and their attendant disk drives, tape drives and line printers; the AN/SPY-1A radar system and AN/SPG-62 radar set; Mk 99 fire control system and the Operational Readiness Test System (ORTS Mk 1). Instruction also includes manually initiated fault detection and isolation tests, evaluation and analysis of test results and direct calibration and alignment verification procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance and troubleshooting or as a technical elective (7/83).

NV-1715-1117

Aegis Combat System Maintenance Supervisor

Course Number: S-121-0483; A-121-0483.

Location: Aegis Training Center, Wallops Island, VA; Naval Systems Department, Moorestown, NJ.

Length: 7–13 weeks (228–520 hours).

Exhibit Dates: 10/82–Present.

Objectives: To provide senior fire control technicians with the knowledge to coordinate repairs, manage system maintenance and administer system reports.

Instruction: Lectures and practical exercises in familiarization with the documentation and capabilities of a phase array radar and sonar system including the computers, consoles, weapon systems, operator duties and equipment configuration.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/88).

NV-1715-1118

Aegis Radar System AN/SPY-1A Operation and Maintenance

Course Number: A-104-0191.

Location: Naval Systems Department, Moorestown, NJ.

Length: 19 weeks (760 hours).

Exhibit Dates: 12/82–12/85.

Objectives: To train personnel in the knowledge and skills required to operate and perform maintenance tasks on a radar system.

Instruction: For this course after 12/85 see NV-1715-1303. Lectures and practical exercises in the operation and maintenance of a phase array radar system. The course includes stimulus processing and RF signal generation, transmitters, antennas, signal processing, operating modes, console operations and system maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital signal processing circuits, 4 in radar systems and 2 in communication system maintenance and troubleshooting (7/83).

NV-1715-1119

AN/WSN-5 Inertial Navigation System Maintenance

Course Number: A-670-0049.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/82–Present.

Objectives: To train personnel to operate, maintain and troubleshoot an inertial navigation system.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting of an inertial navigation system to the circuit card level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting laboratory or 1 in gyrocompass repair (10/83).

NV-1715-1120

Mk 23 Gyrocompass Systems Maintenance

Course Number: A-670-0056.

Location: Service School Command, Great Lakes, IL.

Length: 5 weeks (200 hours).

Exhibit Dates: 5/82–Present.

Objectives: To train personnel in the operation, maintenance and troubleshooting of a gyrocompass system.

Instruction: Lectures and practical exercises in the theory and operation of a gyrocompass system including synchro signal amplifier, gyro principles, AC/DC power supplies and distribution, gravity reference systems, azimuth control, leveling control, compass control, damping control, alarm systems, and course indicators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in synchro and servo control systems, 1 in servo controls laboratory (10/83). NOTE: Credit in this course duplicates that found in A-670-0055 (NV-1715-1141). Students should receive credit for one or the other of the courses, but not both.

NV-1715-1121

Tartar Weapons Direction System (WDS) Mk 4 WDE Mk 1

Course Number: A-121-0029.

Location: Guided Missiles School, Dam Neck, VA; Combat Systems Technical School Command, Mare Island, CA.

Length: 16 weeks (639 hours).

Exhibit Dates: 9/73–8/88.

Objectives: To train enlisted personnel to maintain the Mk 4 weapons direction system.

Instruction: For this course after 8/88 see NV-1715-1391. Lectures and practical exercises in the equipment operation, tests, alignment and troubleshooting, to the component level, of a weapons direction system using scopes, meters, signal generators, power supplies and a variety of specialized equipment. Circuitry experience includes vacuum tube amplifiers, relay switching circuits, power supplies, CRT and video systems, and other specialized circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electronics troubleshooting, 3 in analog circuits (11/83).

NV-1715-1122

Terrier AN/SPG-55B Mod 9 Radar Maintenance

Course Number: A-104-0197.

Location: Combat Systems Technical Schools Command, Mare Island, CA; Naval Guided Missiles School, Dam Neck, VA.

Length: 29–30 weeks (1160–1200 hours).

Exhibit Dates: 10/83–Present.

Objectives: To provide naval personnel with the technical knowledge and skill necessary to operate and maintain a radar system.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting, to the component level, of the AN/SPG-55B radar system including ship's power distribution, Doppler techniques/systems, servos and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic troubleshooting, 3 in radar fundamentals (11/83).

NV-1715-1123

Replacement Navigation Tender Technician

Course Number: A-193-0310.

Location: Guided Missile School, Dam Neck, VA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 4/79–Present.

Objectives: To provide naval personnel with the skills and knowledge to perform intermediate level maintenance on navigation subsystems.

Instruction: Lectures and practical exercises in the appropriate procedures for maintenance of a navigation test set including the correct printed circuit soldering techniques, the use of test equipment including distortion analyzers, wave analyzers, strip chart recorders, voltmeters, computers and specialized test sets; the correct repair and maintenance procedures for a sonar navigation set.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance laboratory (11/83).

NV-1715-1124

Radar Set AN/SPG-55B Terrier Operation and Maintenance

Course Number: A-104-0169.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 29–30 weeks (1160-1200 hours).

Exhibit Dates: 2/80–Present.

Objectives: To provide naval personnel with the technical knowledge and skill necessary to operate and maintain a radar system.

Instruction: Lectures and practical exercises in the operation, maintenance and troubleshooting, to the component level, of the AN/SPG-55B radar system including ship's power distribution, Doppler techniques/systems, servos and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic troubleshooting, 3 in radar fundamentals (11/83).

NV-1715-1125

Poseidon Intermediate Level Missile Maintenance Technician

Course Number: A-121-0252.

Location: Guided Missiles School, Dam Neck, VA.

Length: 16 weeks (640 hours).

Exhibit Dates: 7/78–1/89.

Objectives: To train electronic technicians in the theory and maintenance of intermediate level Poseidon missile systems.

Instruction: Lectures and practical exercises in the theory and maintenance of FBM weapon systems including the missile handling system, the missile tactical readiness test set, digital logic systems pertaining to the readiness test set, control systems, hydraulics, tape reader, counter timer, DMM and power supplies.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital troubleshooting (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced digital circuitry (11/83).

NV-1715-1126

Navigational Aids (NAVAIDS) Technician Replacement

Course Number: A-193-0034.

Location: Guided Missiles School, Dam Neck, VA.

Length: 20 weeks (800 hours).

Exhibit Dates: 5/78–1/89.

Objectives: To provide training in the operation and repair of navigational aids related to the Poseidon navigation system with ESGM's.

Instruction: Lectures and practical exercises in LORAN C navigational system theory, operation and maintenance; electronic repair of navigation communication circuitry and digital logic; theory and troubleshooting of a particular radio receiver as it relates to navigation; and sonar system theory, operation and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting/maintenance, 3 in radio receiver maintenance procedures (11/83); in the upper-division baccalaureate category, 3 semester hours in electronic communication theory for non-engineering majors (11/83).

NV-1715-1127

Missile Technician Poseidon

(Missile Technician Poseidon Replacement)

Course Number: A-121-0250.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 18–22 weeks (760–872 hours).

Exhibit Dates: 11/74–Present.

Objectives: To provide the skills necessary to troubleshoot and repair a Poseidon missile system.

Instruction: Lectures and practical exercises in Fleet Ballistic Missile (FBM) weapon system familiarization including calibration, preventive maintenance of hydraulic, pneumatic and hydrostatic systems, computer and electromechanical launch systems and troubleshooting to the modular level.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hydraulics; in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical maintenance, 3 in computer/control systems troubleshooting (6/89).

NV-1715-1128

Fire Control Technician Mk 88 Mod 2 Replacement

Course Number: A-121-0316.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 19 weeks (760 hours).

Exhibit Dates: 11/77–Present.

Objectives: To provide naval personnel with the skills and knowledge to perform the correct procedures to operate, maintain and repair a missile fire control system and its support equipment.

Instruction: Lectures and practical exercises in the operation, fault isolation and repair, to the module level, of a computer controlled fire control system including the power distribution system, the operation, maintenance and repair of magnetic disk drives, the digital computer network, magnetic tape units, keyboard and display units and the servicing and repair of the environmental systems for the missile and its equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial/commercial wiring practices (11/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing equipment maintenance, 2 in digital systems and 3 in electronic maintenance laboratory (11/83).

NV-1715-1129

Poseidon Trident 1 Backfit Intermediate Level Fire Control Technician FCS 88 Mod 1/2

(Fire Control Technician Mk 88 Intermediate Level Maintenance)

Course Number: A-121-0317.

Location: Guided Missiles School, Dam Neck, VA.

Length: 19–20 weeks (800–804 hours).

Exhibit Dates: 4/82–Present.

Objectives: To provide electronic technicians with the necessary training to operate and maintain test sets and guidance simulators.

Instruction: Lectures and practical exercises in the areas of digital electronics, optics, printers, tape readers, wirewrap operations, power supplies and general control wiring.

Credit Recommendation: In the vocational certificate category, 2 semester hours in optical system maintenance, 1 in wirewrap techniques; in the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronic troubleshooting, 2 in digital electronic circuitry (6/89).

NV-1715-1130

Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion

Course Number: A-193-0316.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 3 weeks (83 hours).

Exhibit Dates: 1/79-1/84.

Objectives: To provide advanced training in the repair of a ESGM backfit ships inertial navigation system.

Instruction: Lectures and laboratory exercises in the advanced maintenance and repair of the backfit navigation subsystem including theory, calibration, operation and fault isolation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic troubleshooting (11/83).

NV-1715-1131

Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion

Course Number: A-193-0315.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 4 weeks (96 hours).

Exhibit Dates: 1/81-Present.

Objectives: To train electronic technicians in the repair of navigation computers associated with ESGM backfit navigation systems.

Instruction: Lectures and laboratory exercises in the technical maintenance of a central navigation computer including tape equipment, core memories, D/D converters and navigation systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic troubleshooting (11/83).

NV-1715-1132

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion

Course Number: A-193-0314.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 19 weeks (760 hours).

Exhibit Dates: 10/82-Present.

Objectives: To provide advanced training in the theory and maintenance of extraordinary faults associated with the ESGM backfit navigation system.

Instruction: Lectures and practical exercises in the advanced theory of electrostatic gyro design principles using fundamentals of physics and mathematics. Electronic and digital troubleshooting of advanced digital systems related to the ESGM is an integral part of the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic and digital troubleshooting, 1 in physics (11/83); in the upper-division baccalaureate category, 2 semester hours in the theory of gyro mechanisms for non-engineering majors (11/83).

NV-1715-1133

AN/SPS-48C Radar

Course Number: A-104-0188.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 8/82-Present.

Objectives: To provide radar technicians with the skills and knowledge to operate, maintain and repair a search radar system used in an automatic target detection system.

Instruction: Lectures and practical exercises in the operation and maintenance of a specialized search radar system including op code and assembly language programming of a UNIVAC 1616 computer system with the inclusion of memory transfers, tape and I/O devices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting, 3 in computer science or assembly language, 2 in microwave fundamentals (11/83).

NV-1715-1134

Trident 1 Backfit Missile Technician (MT) Conversion

Course Number: A-121-0326.

Location: Guided Missiles School, Dam Neck, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 6/80-3/89.

Objectives: To teach the skills necessary to troubleshoot and repair the Trident 1 backfit missile system.

Instruction: Lectures and practical exercises in the operation, maintenance and repair, to the module level, of the Trident 1 missile system including a review of strategic weapons systems, missile launch systems and subsystems, support systems and mechanical systems including hydrostatic, hydraulic and pneumatic systems and complete coverage of the missile's digital controls and computer control system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hydraulics (11/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical maintenance, 3 in computer/control system troubleshooting (11/83).

NV-1715-1135

Trident 1 Backfit Missile Technician (MT) Replacement

Course Number: A-121-0329.

Location: Guided Missile School, Dam Neck, VA.

Length: 17-18 weeks (696-750 hours).

Exhibit Dates: 6/82-Present.

Objectives: To provide naval personnel with the skills necessary to troubleshoot and repair the Trident backfit missile system.

Instruction: Lectures and practical exercises in the operation, maintenance and repair, to the module level, of the Trident missile system including strategic weapons system familiarization, missile launch systems and subsystems, support systems, mechanical systems including hydrostatic, hydraulic and pneumatic systems, guidance systems, electronic control systems and the missile control computer.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hydraulics; in the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical maintenance, 3 in computer/control system troubleshooting (6/89).

NV-1715-1136

Plotting System PT-512/S Tactical Display Maintenance

Course Number: A-623-0037.

Location: Fleet Training Center, Norfolk, VA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/73-Present.

Objectives: To train students to maintain, troubleshoot and repair a tactical display plotting system.

Instruction: Lectures and practical exercises in a review of basic electronics and servo systems; full coverage of an electromechanical system including plotting table, data converter, dead reckoning indicator and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanical systems (9/83); In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical systems (9/83).

NV-1715-1137

AN/URN-25 Afloat TACAN Maintenance

Course Number: A-102-0239.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/82-Present.

Objectives: To train personnel to maintain and repair a specific navigational set, antenna and antenna group.

Instruction: Lectures and laboratory exercises in operation, maintenance and repair of the AN/URN-25 navigational set including AC/DC power supplies, coder-keyer circuits, receiver transmitter circuits, control indicator circuits, and FSK circuits; the power and monitoring circuits of the OE-273/URN antenna group and the power, monitoring and modulation generator circuits of the OE-258/URN antenna.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (9/83).

NV-1715-1138

Broadcast Control Authority (BCA) Operational Control Center Operator

Course Number: A-260-0031.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/80-Present.

Objectives: To train radiomen to operate a data processing system and maintain submarine broadcast equipment at SSIXS shore sites under all operating conditions of readiness without supervision.

Instruction: Lectures and practical exercises in the hardware configuration and software functions of the AN/USQ-64(V) data processing system and its peripherals, their operation in various modes and differing conditions and failure handling procedures to above equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications equipment operation

(9/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic equipment operation for broadcast communications (9/83).

NV-1715-1139

Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance

Course Number: A-623-0069.

Location: Fleet Training Center, Norfolk, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/81-Present.

Objectives: To provide Naval personnel with the technical knowledge and skill necessary to operate and maintain a dead reckoning analyzer and tracer.

Instruction: Lectures and practical exercises in the fundamentals of electronics including AC/DC circuits, electronic devices, digital logic devices; the fundamentals of control transformers, synchros, resolvers and the operational procedures, calibration and circuit checks of both the Mk 10 and Mk 6 equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic devices and 2 in electronic circuit troubleshooting (9/83).

NV-1715-1141

Mk 19 Gyrocompass Systems Maintenance

Course Number: A-670-0055.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (400 hours).

Exhibit Dates: 5/82-Present.

Objectives: To train personnel in the operation, maintenance, troubleshooting and repair of a shipboard gyrocompass system.

Instruction: Lectures and laboratory exercises in the theory and operation of a gyrocompass system including principles of synchros, servos, and gyros; synchro signal amplifiers, synchro testers, course indicator, electronic sub-assemblies gyro trainers, DC power supplies (using 3 phase AC sources), roll/pitch follow up, fast erect systems, gyro computer control systems, integrators, damping, accelerometers, speed/tilt systems, system alarms, electronic power supplies and special test equipment including the operation of a phase-sensitive voltmeter and a dual channel recorder. Extensive troubleshooting and repair of the system is also included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in synchro and servo control systems, 1 in electronic maintenance and troubleshooting laboratory (10/83). NOTE: Credit in this course duplicates A-670-0056 (NV-1715-1120). Students should receive credit for one or the other of the courses, but not both.

NV-1715-1142

ESGM/NAVAIDS Intermediate Level Maintenance Technician

Course Number: A-193-0037.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/82-Present.

Objectives: To provide trainees with the skills and knowledge to perform intermediate level maintenance on a navigation system test set.

Instruction: Lectures and practical exercises in the operation, maintenance and repair of a sonar test set including block diagram analysis, systematic fault isolation techniques, the use of standard electronic test equipment and optical alignment equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance laboratory (11/83).

NV-1715-1143

Advanced Electronic Warfare Applications

Course Number: A-230-0018.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 8/82-Present.

Objectives: To provide training to senior personnel in electronic detection and coordination of equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) detect, classify and track targets; (2) coordinate integration of electronic warfare equipment with other weapons systems; (3) originate correspondence to obtain support resources and services and; (4) organize maintenance and training support.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1715-1144

AN/SLQ-32(V) Presail/Underway Operations
(Electronic Warfare Technician AN/SLQ-32 Operator)

Course Number: A-102-0210.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/82-Present.

Objectives: To provide personnel with the skills to operate a specific piece of military equipment.

Learning Outcomes: Upon completion of the course, the student will be able to perform electronic warfare presail and underway watch duties aboard an AN/SLQ-32 equipped ship.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1715-1145

AN/SLQ-32(V)3 ECM Maintenance

Course Number: A-102-0216.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/83-Present.

Objectives: To provide knowledge and skills required to perform preventive and corrective maintenance on a specific piece of electronic warfare equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) describe the operation, signal flow and interconnects of the antenna, power supplies, signal processing analog/digital conversion, system controls, receiver/transmitter, and computer of a receiver/transmitter system using digital control and signal processing; (2) perform preventive maintenance, alignment, troubleshooting, and repair and; (3) use general and special purpose test equipment including computer generated diagnostic tests.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in receiver/transmitter digital system maintenance (7/87).

NV-1715-1146

Aviation Electronics Warfare Fundamentals

Course Number: A-102-0301.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/82-Present.

Objectives: To provide the student knowledge of radar, general aircraft maintenance, aircraft electronic warfare systems, and general purpose test equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) demonstrate a fundamental knowledge of digital circuits; (2) demonstrate a fundamental knowledge of radar and electronic warfare concepts and; (3) demonstrate a fundamental knowledge of corrosion control, aircraft electrical maintenance, electronic warfare test equipment, transmission lines and antenna concepts, and tangential sensitivity for electronic warfare systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in an electronic elective (7/87).

NV-1715-1147

Aviation Electronics Warfare O Level Maintenance

Course Number: A-102-0299.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/82-Present.

Objectives: To provide instruction on a system representative of a countermeasures weapon system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) demonstrate a basic knowledge of VHF/LF/HF receivers, frequency measurements, pulse analyzer indicators, direction finding indicators, video and audio recorders, frequency distribution systems and antenna selection and; (2) demonstrate skill in testing procedures and maintenance techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems maintenance (7/87).

NV-1715-1148

Aviation Electronic Warfare Intelligence Operator
(Aviation Electronics Warfare Tactical Operator)

Course Number: A-233-0022.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/82-Present.

Objectives: To provide the student with background skills in generic ESM equipment required to begin operational training in the squadron.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) intercept and recognize specific signals on a generic intercept trainer and; (2) use the intercepted signals data such as NATO name, associated threat and frequency range.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1715-1149

Aviation Electronic Warfare, Receivers, Analyzer, Recorder and Display Intermediate Level Maintenance

(Aviation Electronics Warfare Intermediate Level Maintenance)

Course Number: A-102-0300.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/82–Present.

Objectives: To provide intermediate level maintenance instruction on various items of equipment that comprise an electronics warfare weapons system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) demonstrate fundamental knowledge of VHF/UHF/IFM receivers, pulse analyzer indicators and XYZ displays; (2) demonstrate fundamental knowledge of video recorder and recorder/reproducers and; (3) demonstrate appropriate testing and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems maintenance (1/84).

NV-1715-1150

Countermeasures Set AN/ULQ-6C Maintenance

Course Number: A-102-0233.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide skill to perform preventive and corrective maintenance on a countermeasures set.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) describe operation and signal flow of antenna, power supplies, modulators, RF circuits, video circuits, amplifiers, pulse generators, controls, system interconnects of a radar system and; (2) use standard test equipment to maintain, align, troubleshoot and repair circuits and subsystems of a receiver/transmitter system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in receiver/transmitter system troubleshooting maintenance (1/84).

NV-1715-1151

Electronic Warfare Technician AN/SLQ-17 Maintenance

Course Number: A-102-0218.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 18 weeks (720 hours).

Exhibit Dates: 1/83–12/86.

Objectives: To enable the student to perform preventive maintenance on a countermeasures set using appropriate procedures, test equipment and tools.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) perform preventive maintenance on the AN/SLQ-17A(V)2;(2) align and adjust the AN/SLQ-17A(V)2; (3) troubleshoot to the lowest replaceable module and; (4) remove and replace defective modules.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (1/84).

NV-1715-1152

Tactical Intelligence Subsystem Maintenance

Course Number: A-102-0237.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 10/83–1/87.

Objectives: To train cryptologic maintenance personnel to perform maintenance on a complex computer based system.

Learning Outcomes: Upon completion of the course, the student will be able to operate, functionally analyze and perform corrective and preventive maintenance including troubleshooting to the module/card/component level on the Tacintel system. For the course after 1987, see NV-1715-1247.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer system troubleshooting and maintenance (1/84).

NV-1715-1153

Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion

Course Number: A-193-0306.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 18 weeks (700 hours).

Exhibit Dates: 9/79–8/83.

Objectives: To train experienced technicians in the operation, testing and calibration of marine vessel control systems.

Instruction: Lectures and demonstrations on marine vessel control systems including ventilation, power distribution, navigation, electronic gyro monitor sonar, radio navigation, optical equipment and computer/digital interfacing and operation. Laboratory exercises include gyro and sonar computer maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation systems technology and 1 in electronics application laboratory (8/84) OR; in the upper-division baccalaureate category, 2 semester hours in gyro control systems technology for non-engineering majors (8/84).

NV-1715-1154

Trident Exterior Communication System Level II

Course Number: A-101-0157.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 20 weeks (800 hours).

Exhibit Dates: 3/84–1/85.

Objectives: To provide experienced radiomen with the knowledge and skills necessary to perform basic corrective maintenance on radio room equipment.

Instruction: Lectures and laboratory exercises on the functions of radio room equipment and its inter-relationship with other shipboard equipment. Approximately one-half the course is devoted to maintenance and troubleshooting procedures to the component level on the following equipment: teleprinter, teletypewriter, minicomputer, antennacouplers, radio buoys, power supplies, crypto equipment and HF/UHF and VLF/LF communications equipment. After 1/85, this pipeline/combination course becomes NV-1715-1354–1359.

Credit Recommendation: In the vocational certificate category, 6 semester hours in communications equipment maintenance (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital systems laboratory and 1 in communication equipment troubleshooting laboratory (8/84) OR; in the upper-division baccalaureate category, 1 semester hour in digital communications system applications for non-engineering majors (8/84).

NV-1715-1155

Trident Fire Control Technician Replacement C1

Course Number: A-121-0412.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 16 weeks (628 hours).

Exhibit Dates: 2/84–Present.

Objectives: To prepare students to operate and maintain a weapons fire control system.

Instruction: Lectures and laboratory exercises on the Mk 98 fire control system including maintenance on the following subsystems: clock and timer systems, digital computer network, magnetic tape, disk systems keyboard and display, data base, optical alignment, control, temperature guidance, equipment test and readiness and launcher equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical system applications and 1 semester hour in digital troubleshooting laboratory (8/84) OR; in the lower-division baccalaureate/associate degree category, 2 semester hours in computer controlled electromechanical systems for non-engineering majors (8/84).

NV-1715-1156

AN/WLR-8(V)5 Basic Operator Class C

Course Number: A-102-0250.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (119 hours).

Exhibit Dates: 3/84–Present.

Objectives: To provide the student with the knowledge and proficiency to operate a radar receiver.

Instruction: Lectures and practical exercises in the operation of a radar receiving set.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/84).

NV-1715-1157

Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer

Course Number: A-193-0435; A-193-0335.

Location: FBM Training Center, Charleston, SC; Navy Submarine School, Groton, New London, CT; Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/80–Present.

Objectives: To provide advanced training for technicians in the theory and maintenance of a multiplexer interface buffer.

Instruction: Lectures and laboratory exercises covering the functional description and operation of a computer-controlled multiplexer interface buffer. Clock circuitry, computer interfacing, registers and counters operation, multiplexer operation, RAM memory unit and signal tracing are examined. Laboratory exercises cover troubleshooting and corrective maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in multiplexer/buffer theory and digital circuits laboratory (10/89).

NV-1715-1158

Electrostatically Supported Gyro
Monitor (ESGM) Theory and
Maintenance

Course Number: A-193-0330.

Location: Trident Training Facility, Bangor, Bremerton, WA; Fleet Ballistic Missile Training Center, Charleston, SC; Navy Submarine School, Groton, New London, CT.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/80–Present.

Objectives: To provide technicians training in the theory and maintenance of an analog/digital monitor.

Instruction: Lectures and laboratory exercises cover the physical and functional areas of the equipment which monitors the operating of an electrostatically supported gyro. The student learns the operating characteristics of electromagnetic accelerometers, gyro torque directors, servos, attitude read out circuits, and computer programs for operation and gyro maintenance. Maintenance and troubleshooting procedures are emphasized.

Credit Recommendation: In the vocational certificate category, 2 semester hours in servo control systems and maintenance; in the lower-division baccalaureate/associate degree category, 1 semester hour in servo control laboratory (10/89).

NV-1715-1159

Mk 118 Fire Control System (FCS)
Advanced Maintenance

Course Number: A-130-0233.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (101 hours).

Exhibit Dates: 11/82–Present.

Objectives: To prepare experienced electronic technicians to operate and maintain a defensive weapons system.

Instruction: Lectures and laboratory exercises in the theory, operation and troubleshooting of computer controlled digital/analog peripheral equipment. Troubleshooting exercises include fault isolation down to the board and component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer control applications and troubleshooting (8/84).

NV-1715-1160

Mk 118 Fire Control System (FCS)
Basic Maintenance

Course Number: A-130-0232.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (75 hours).

Exhibit Dates: 10/82–Present.

Objectives: To train experienced electronics technicians in basic maintenance procedures for a defensive weapons system.

Instruction: Lectures and laboratory exercises in the theory, operation and troubleshooting of bi-directional data transfer and signal interfacing between control processor and external systems including basic operation of the external systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer/control interfacing techniques laboratory (8/84).

NV-1715-1161

Ship's Inertial Navigation System
(SINS) Mk 2 Mod 7 Technician
Conversion

Course Number: A-193-0304.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/82–Present.

Objectives: To prepare technicians to operate, maintain and troubleshoot the Trident inertial navigation system.

Instruction: Lectures and laboratory exercises in the theory, operation, maintenance and troubleshooting of power supplies/distribution, electrostatically supported gyros, and computer operation, interfacing and test modes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in inertial navigation system maintenance (8/84).

NV-1715-1162

Ship's Interial Navigation System
(SINS) Mk 2 Mod 7 Technician
Replacement

Course Number: A-193-0307.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 22 weeks (800 hours).

Exhibit Dates: 7/83–Present.

Objectives: To prepare inexperienced electronics technicians to perform operational maintenance and testing on a computer interfaced inertial navigation system.

Instruction: Lectures and laboratory exercises in the theory, operation, maintenance and troubleshooting of an inertial navigation system including alignment, servo loops, errors, gyros, resolvers, and multispeed operations; power supplies/distribution; printer interfacing and operation; and computer operation, interfacing and test modes. The student will troubleshoot down to the board level.

Credit Recommendation: In the vocational certificate category, 4 semester hours in inertial navigation systems maintenance (8/84); in the lower-division baccalaureate/associate degree category, 2 semester hours in inertial navigation systems laboratory (8/84).

NV-1715-1163

Trident Central Navigation
Computer Technician Conversion

Course Number: A-193-0305.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 8 weeks (314 hours).

Exhibit Dates: 9/82–Present.

Objectives: To train experienced technicians in the operation, testing and maintenance of a navigation computer and its associated peripheral equipment.

Instruction: Lectures and laboratory exercises in the operation, testing and maintenance of a navigation computer system including the digital-digital converter, analog-digital converter, interfacing, flat panel display terminal and related power distribution equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in applications of digital display systems, 1 in electronic troubleshooting laboratory (8/84).

NV-1715-1164

Trident Central Navigation
Computer Technician
Replacement

Course Number: A-193-0308.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 23 weeks (1036 hours).

Exhibit Dates: 2/83–Present.

Objectives: To provide training in the operation, testing and maintenance of a navigation computer and its associated peripheral equipment.

Instruction: Lectures and laboratory exercises in the operation, testing and maintenance of the navigation computer system (CP-890B) including the digital-digital converter, analog-digital converter, interfacing, terminal equipment, X-Y plotter and related power distribution equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in the applications of digital computer control systems, 2 in the digital electronics application laboratory (8/84).

NV-1715-1165

Trident Command and Control
System (CCS) Electronics
Technician Conversion, Class C

Course Number: A-102-0249.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 8 weeks (315 hours).

Exhibit Dates: 1/83–8/84.

Objectives: To train experienced technicians to operate and maintain electronic equipment unique to Trident submarines.

Instruction: Lectures and practical exercises in the operation and maintenance of a radar transmitter/receiver, radio transponder, and periscope subsystem. Major emphasis is given to troubleshooting and repairing the radar transmitter/receiver and the antenna subsystem. After 8/84, see exhibit NV-1715-1362.

Credit Recommendation: In the vocational certificate category, 3 semester hours in the operation and maintenance of radar systems (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in radar system maintenance laboratory (8/84).

NV-1715-1166

Trident Electrostatically Supported
Gyro Monitor (ESGM) NAVAIDS
Technician Replacement

Course Number: A-193-0309.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 16–17 weeks (640–680 hours).

Exhibit Dates: 4/82–3/83.

Objectives: To train technicians to operate, maintain and test navigational equipment.

Instruction: Lectures and laboratory exercises in the operation, maintenance and troubleshooting, using a diagnostic flow chart as an aid, of navigation equipment including familiarization with manuals, power distribution equipment, navigational control console, navigation computer I/O ports, gyro monitor frequency standards, Loran receiving set, radio navigation set, sonar sounding set and other subsystems. After 3/83, see NV-1715-1370.

Credit Recommendation: In the vocational certificate category, 6 semester hours in navigation systems maintenance (8/84).

NV-1715-1167

TRIDENT EXTERIOR COMMUNICATION SYSTEM LEVEL I

Course Number: A-101-0168.
Location: Trident Training Facility, Bangor, Bremerton, WA.
Length: 10 weeks (400 hours).
Exhibit Dates: 5/84–10/88.
Objectives: To provide submarine radiomen with the knowledge and skills necessary to operate and maintain a Trident submarine radio room.
Instruction: Lectures and laboratory exercises in the theory, basic operation and preventive maintenance of various radioroom equipment such as power distribution panels, teleprinters, teletypewriters, antenna systems, radio buoys, HF/UHF subsystems, and ULF/LF subsystems. After 10/88, see NV-1715-1361.
Credit Recommendation: In the vocational certificate category, 3 semester hours in communication systems operation (8/84).

NV-1715-1168

TRIDENT EXTERIOR COMMUNICATION SYSTEM LEVEL III

Course Number: A-101-0169.
Location: Trident Training Facility, Bangor, Bremerton, WA.
Length: 10 weeks (400 hours).
Exhibit Dates: 7/84–6/85.
Objectives: To train submarine radiomen to operate and maintain a digital communication system.
Instruction: Lectures and laboratory exercises in the operation and maintenance of a digital communication system covering the capability and functions of the central communications software program including loading procedures, inserting authorized software patches and re-boot procedures in the event of a software error. The digital message interface unit and disk drive memory system is described. Approximately one half the course is devoted to maintenance procedures and troubleshooting techniques. After 6/85, see exhibit NV-1715-1360.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer operation and maintenance (8/84).

NV-1715-1169

TRIDENT MISSILE TECHNICIAN CONVERSION

Course Number: A-121-0440.
Location: Trident Training Facility, Bangor, Bremerton, WA.
Length: 22 weeks (902 hours).
Exhibit Dates: 3/82–5/84.
Objectives: To train missile technicians to perform operational maintenance and testing functions on a Trident missile launching system.
Instruction: Lectures and laboratory exercises on the theory, operation and troubleshooting of a missile launching system including the use of computer aided diagnostics and troubleshooting flow charts to the board level; pneumatic, hydraulic and electric power conversion subsystems and digital/computer components. The ability to use basic digital/computer theory and systems knowledge to troubleshoot to the component level is also emphasized. After 5/84, see NV-1715-1378.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanical systems (8/84); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems troubleshooting (8/84).

NV-1715-1170

TRIDENT MISSILE TECHNICIAN REPLACEMENT

Course Number: A-121-0441.
Location: Trident Training Facility, Bangor, Bremerton, WA.
Length: 21 weeks (659 hours).
Exhibit Dates: 12/83–Present.
Learning Outcomes: Upon conmpetion of the course, the student will be able to perform routine check-out procedres on Trident Missile laundry systems, and perform routine maintenance procedures on missile laundry system, and troubleshoot and isolate missile laundry system faults to the board or module level.
Instruction: Lectures and laboratory exercises in the operation, maintenance and repair, to the module level, of a missle launch system including its launching equipment, hydraulic systems, power supplies, radiation monitoring equipment and heating, cooling and ventilation equipment. The student is given a functional description of the equipment and trained to recognize and interpret faults using flow charts and computer aided diagnostics to isolate the fault to the board or module level.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanical systems technology (3/89).

NV-1715-1171

TRIDENT SHIP'S CONTROL LEVEL I/ATMOSPHERE SUPPORT

Course Number: A-623-0080.
Location: Trident Training Facility, Bangor, Bremerton, WA.
Length: 8 weeks (320 hours).
Exhibit Dates: 7/83–10/84.
Objectives: To prepare inexperienced communication electricians to qualify as operator/electrician on specific equipment.
Instruction: Lectures and laboratory exercises on the operation and functional theory of: a) temperature salinity, position, pressure, airflow, liquid flow, magnetic, differential pressure and depth sensor and indicating systems; b) ships control for hovering, steering, diving, alarms, power, and atmosphere support.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanical controls (8/84).

NV-1715-1172

TRIDENT SHIP CONTROL AND ATMOSPHERE SUPPORT TECHNICIAN LEVEL II
(Trident Ship's Control Level II)

Course Number: A-623-0081.
Location: Trident Trainiong Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: *Version 1:* 8 weeks (397 hours). *Version 2:* 8 weeks (320 hours).
Exhibit Dates: *Version 1:* 11/84–Present. *Version 2:* 9/83–10/84.
Objectives: To prepare communication electricians to qualify as maintenance electricians on specific equipment.
Instruction: *Version 1:* This is a pipeline course. See NV-1715-1305 (A-623-0084), NV-1715-1306 (A-623-0083), NV-1715-1307 (A-623-0085), and NV-1715-1308 (A-623-0086). *Version 2:* Lectures and laboratory exercises on the operation and maintenance of: a) temperature, salinity, position, pressure airflow, liquid flow, magnetic, differential pressure and depth sensor and indicating systems; b) ships control for hovering, steering, diving, alarms, power and atmosphere support.
Credit Recommendation: *Version 1:* See individual exhibits for credit recommendation (2/89). *Version 2:* In the vocational certificate category, 4 semester hours in electromechanical maintenance (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical laboratory (8/84).

NV-1715-1173

TRIDENT SHIP CONTROL AND ATMOSPHERE SUPPORT TECHNICIAN LEVEL III
(Trident Ship's Control Level III)

Course Number: A-623-0082.
Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: *Version 1:* 8 weeks (432 hours). *Version 2:* 8 weeks (320 hours).
Exhibit Dates: *Version 1:* 6/85–Present. *Version 2:* 7/84–5/85.
Objectives: To prepare experienced communication electricians to maintain and repair specific equipment.
Instruction: *Version 1:* This is a pipeline course. See NV-1715-1310 (A-623-0093), NV-1715-1311 (A-623-0114), and NV-1715-1312 (A-623-0113). *Version 2:* Lectures and laboratory exercises in the theory, maintenance and troubleshooting of electromechanical systems controlling ships ballast and trim, weight distribution/compensation, hovering, steering and diving, announcing and control systems. Troubleshooting down to the component level on sensors/transducers, signal processing, control devices, computer diagnostic operation and design is also covered.
Credit Recommendation: *Version 1:* See individual exhibits for credit recommendation (2/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical controls application, 2 in electromechanical controls laboratory (8/84).

NV-1715-1174

ANTISUBMARINE WARFARE (ASW) MODULE ACOUSTIC SYSTEMS

Course Number: J-102-0360.
Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.
Length: 14 weeks (490 hours).
Exhibit Dates: 1/83–Present.
Objectives: Provide students training in the operation and repair of submarine detection gear and associated peripheral equipment.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) use test equipment and operation procedures to isolate faults and repair equipment; (2) repair equipment to the module level; (3) repair some equipment to the component level; (4) use oscilloscopes, digital voltmeters and specialized test equipment and; (5) understand and use factory technical literature and diagrams for troubleshooting purposes.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance or instrumentation repair (9/84); in the upper-division baccalaureate

category, 2 semester hours in advanced digital systems for non-engineering majors (9/84).

NV-1715-1175

Antisubmarine Warfare (ASW)
Support Communications
Maintenance Technician

Course Number: J-101-0817.

Location: Fleet Combat Training Center, Dam Neck, Virigina Beach, VA.

Length: 13 weeks (520 hours).

Exhibit Dates: 1/84–Present.

Objectives: To train personnel in the operation and maintenance of an ASW communications system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) use the following equipment: teletypewriter, voice security systems, tape recorders, modems, remote antenna control systems and a communications console; (2) operate the ASW communications system; (3) troubleshoot multi-channel tape recording system; (4) troubleshoot HF/UHF security communications systems; (5) troubleshoot communications data link systems and; (6) troubleshoot ASW support communications systems. All troubleshooting is done to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data communications, 2 in digital systems analysis and 3 in electronic equipment maintenance/instrumentation (troubleshooting) (9/84).

NV-1715-1176

Antisubmarine Warfare (ASW)
Support Communications
Operator

Course Number: J-201-0816.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 6/82–Present.

Objectives: To train radio personnel to operate and coordinate various subsystems of the ASW support communications platform.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand the principles of high frequency and ultrahigh frequency communications procedures; (2) be familiar with data link and teletype circuits and voice communication systems and; (3) perform as an operator of the various subsystems of the antisubmarine warfare support communications platform.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in a survey of electronic communications (9/84).

NV-1715-1177

Force High Level Terminal Data
Systems Maintenance Technician

Course Number: J-221-0389.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 19 weeks (760 hours).

Exhibit Dates: 6/84–Present.

Objectives: To provide personnel with the technical knowledge and skills necessary to maintain data entry and display equipment for a computer system.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, troubleshoot and repair the following AN/UYK-7 peripheral equipment: UNIVAC 2000 data terminal, three types of CRT display terminals, disk storage unit and its controller, data network controller, magnetic tape drive and controller, digital communication interface equipment, digital plotter and printers, and data entry equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital equipment troubleshooting and repair (8/84).

NV-1715-1178

Gun 5"/54 Mk 45 Mod 0 Operational
Maintenance

Course Number: J-041-0130.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/77–Present.

Objectives: To provide the knowledge and skills required to perform supervised maintenance on a gun mount and its associated equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) be familiar with the function and location of the component parts of the Mk 45 gun mount; (2) maintain oil levels and nitrogen pressures; (3) perform prefire and postfire checks; (4) observe all safety precautions and; (5) inspect and maintain all parts (6) demonstrate smoothness of operation during active firing.

Credit Recommendation: Credit is not recommended due to the limited, specialized nature of the course (9/84).

NV-1715-1179

76mm/62 Caliber Mk 75 Mods 0/1 Gun
Operation and Maintenance

Course Number: J-113-0040.

Location: Fleet Combat Training Center, Dam Neck, Virginia Beach, VA;

Length: Fleet Training Command, San Diego, CA. 10 weeks (350 hours).

Exhibit Dates: 10/79–Present.

Objectives: To provide the knowledge and skills required to operate, maintain and repair the 76MM/62 caliber gun mount.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain and repair the Mk 75 Mods 0/1 gun including the following equipment: mounting systems, barrel cooling system, anti-icing system, weapons control console, hydraulic positioning systems, and electrical/servo systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electromechanical laboratory (9/84).

NV-1715-1180

Radar Set AN/SPG-53F (Modified)
Operational Maintenance

Course Number: J-113-0108.

Location: Fleet Combat Training Center, Dam Neck, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/82–Present.

Objectives: To train personnel to operate, perform preventive maintenance, isolate faults and repair a radar set.

Learning Outcomes: Upon completion of the course the student will be able to: (1) operate the radar set without supervision (2) be familiar with the subsystems of the radar set (3) recognize a malfunction and perform troubleshooting procedures to isolate a fault (4) use tools and test equipment to perform adjustments or to replace parts (5) perform preventive maintenance of the radar set (6) perform turn-on and check-out procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical circuits analysis and troubleshooting/maintenance (9/84).

NV-1715-1181

EC-130 Electrical and Instruments
Maintenance

Course Number: D-602-0451.

Location: Naval Air Station, Patuxent River, MD.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide personnel with the knowledge and skills necessary to maintain and troubleshoot the aircraft's electrically operated instruments systems.

Instruction: Lectures and laboratory application in AC and DC power sources and distribution related to fuel quantity indicating systems, anticing, air conditioning and pressurization, propeller, landing gear, brakes, antiskid and flight control warning systems. Student also learns to understand, operate and maintain electrically related instruments including flight director, altitude heading, automatic pilot, inertial navigation, altimeter and pitot-static system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical fundamentals, 3 in instrument familiarization (11/84); in the lower-division baccalaureate/associate degree category, 5 semester hours in electrical systems (11/84).

NV-1715-1182

TACAMO Communication and
Avionics System Operation

Course Number: D-050-0412.

Location: Naval Air Station, Patuxent River, MD.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide skills and training necessary to operate the EC-130 TACAMO communications system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) properly operate, under normal conditions, EC-130 TACAMO communications equipment including VLF, HF, and UHF receivers and transmitters (2) operate teletype equipment including a printer, tape reader and a Baudot-Morse converter (3) make normal adjustments to the frequency-time standard (4) operate AC power distribution systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/84).

NV-1715-1183

TACAMO Communications System
Maintenance

Course Number: D-102-0422.

Location: Naval Air Station, Patuxent River, MD.

Length: 18 weeks (720 hours).

Exhibit Dates: 8/84–Present.

Objectives: To provide knowledge and skills necessary to troubleshoot and maintain the TACAMO equipment and flight deck avionics.

Learning Outcomes: Upon completion of the course, the student will be able to perform nominal check-out procedures and troubleshoot to the system level, the following equipment: TACAMO communication systems and EC-130G/Q avionics systems including power distribution, ULF, HF, VHF and UHF communications, teletype equipment and system switching.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to troubleshooting of communications receiver/transmitter systems (11/84).

NV-1715-1184

TACAMO UHF/HF COMMUNICATIONS SYSTEM INTERMEDIATE MAINTENANCE

Course Number: D-102-6144.

Location: Naval Air Station, Patuxent River, MD.

Length: 19 weeks (760 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide electronic technicians with training in maintenance and repair of communications equipment, including troubleshooting, using specialized equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) troubleshoot and repair to the board level, the following equipment: AN/ARC-132 HF receiver/transmitter, AN/ARC-138 UHF transceiver and AM-658 RF drives (2) describe the functional operation of, and troubleshoot to the board level, the following digital computer subsystems: CP-970/USQ (8311-13) computer; 7404A data converters, USC-11A data converter, USC-11A data modem and USC-14 teletype adapter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital system troubleshooting, 2 in RF signal processing and signal tracing, 2 in introduction to digital logic systems (11/84).

NV-1715-1185

TACAMO VLF COMMUNICATIONS AND VERDIN SYSTEM INTERMEDIATE MAINTENANCE

Course Number: D-102-6145.

Location: Naval Air Station, Patuxent River, MD.

Length: 19 weeks (760 hours).

Exhibit Dates: 1/84–Present.

Objectives: To provide training in the maintenance and repair of a particular communications system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) properly adjust and operate the two specific pieces of equipment and; (2) troubleshoot to a board level using typical electronic test equipment - both analog and digital.

Credit Recommendation: In the vocational certificate category, 2 semester hours in schematic reading and electronic systems (2/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in troubleshooting of power supplies, 2 in introduction to digital computers, I/O and programming (2/85).

NV-1715-1186

15G20 SIMULATOR MAINTENANCE CLASS C1

Course Number: C-103-2041.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/81–Present.

Objectives: To provide the skills necessary to perform maintenance, preventive and corrective, on a radar approach control simulator.

Instruction: Lectures and practical exercises in the operation of a radar approach control simulator and its various input channels, including a very cursory review of microprocessor basics. A majority of the class time is devoted to testing, troubleshooting, to a faulty circuit card or chassis mounted component, and alignment of equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/85).

NV-1715-1187

15G21 CARRIER AIR TRAFFIC CONTROL SIMULATOR MAINTENANCE CLASS C1
(15G21 Simulator Maintenance Class C1)

Course Number: C-103-2042.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: 2-3 weeks (104-120 hours).

Exhibit Dates: 3/81–Present.

Objectives: To provide skills necessary to perform maintenance, both preventive and corrective, on a radar air traffic control shipboard target simulator system.

Instruction: Lectures and practical exercises in the operation of a radar traffic control shipboard target simulator system and its various input channels, including a cursory review of microprocessor basics. A majority of the class time is devoted to testing, troubleshooting, to a faulty circuit card or chassis mounted component, and alignment of equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/89).

NV-1715-1188

AN/GPN-27 AIRPORT SURVEILLANCE RADAR MAINTENANCE CLASS C

Course Number: C-103-2036.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: 8 weeks (300 hours).

Exhibit Dates: 1/84–5/87.

Objectives: To provide the skills necessary to perform system trouble analysis to the board component level and perform preventive maintenance on airport surveillance radar systems.

Instruction: Lectures and practical training in the calibration and maintenance of a computer controlled airport surveillance radar system, including transmitters and receivers, system processors and memory control. Heavy use of logic diagrams is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced digital maintenance, 2 in advanced radar equipment maintenance (2/85).

NV-1715-1189

MARINE AIR TRAFFIC CONTROL ADVANCED TECHNICIAN, CLASS C1

Course Number: C-103-2047.

Location: Air Technical Training Center, Millington, Memphis, TN.

Length: 14 weeks (560 hours).

Exhibit Dates: 10/83–3/88.

Objectives: To provide the necessary knowledge and skills to install and maintain air traffic control equipment and to train personnel in maintenance management and supervision.

Instruction: Lectures and practical exercises in management consideration of marine air traffic control facilities, including system siting, maintenance and supply; computer basics including formats and languages; and radar equipment used in air traffic control communications, navigational aids and radar. A majority of the time is devoted to alignment augmentation and maintenance of receivers, radars, transmitters, display indicators and microcomputer and related equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in microcomputer maintenance laboratory and 1 in electronic equipment maintenance laboratory (2/85).

NV-1715-1190

AN/AAM-60(V)6 ELECTRO-OPTICAL TEST SET INTERMEDIATE

Course Number: C-102-4016.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 12/82–Present.

Objectives: To train technicians in the repair and maintenance of an electro-optical systems tester.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, repair and maintain the following aspects of an electro-optical system test set at the circuit board and component level: logic devices, including gates, multiplexers, decoders, line-drivers, phase-locked loops, CRT display electronics, servo system electronics and a H/P 2108B 16 bit microcomputer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in digital systems applications, 2 in electronic systems laboratory, and 1 in servo control applications laboratory (4/85).

NV-1715-1191

AN/APS-116 SEARCH RADAR AND PECULIAR GROUND SUPPORT EQUIPMENT INTERMEDIATE MAINTENANCE

Course Number: C-102-3679.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 13 weeks (520 hours).

Exhibit Dates: 9/80–Present.

Objectives: To provide training in the operation and maintenance of search radar and ground support equipment.

Learning Outcomes: Upon completion of the course the student will be able to: (1) demonstrate an understanding of the theory of operation of search radar and its ground support equipment; (2) perform circuit analysis, testing and fault isolation of a radar system and its associated ground support systems including power supplies, transmitter and receiver systems, antenna systems, discrete digital circuits, linear integrated circuits, video processing circuits, oscilloscopes, frequency meters, function generators, and signal simulators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital electronics systems, 2 in digital electronics laboratory, 2 in linear electronics systems, 2 in linear electronics laboratory, 3 in radar systems, 2 in radar systems laboratory (4/85).

NV-1715-1192

AN/AQS-13E Sonar Organizational Maintenance

Course Number: C-130-3401.

Location: Naval Air Station, North Island, San Diego, CA; Naval Air Station, Jacksonville, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/82–Present.

Objectives: To train electronics technicians to troubleshoot, repair, and maintain the AN/AQS-13E sonar set at the block diagram level.

Learning Outcomes: Upon completion of the course, the student will be able to service a military sonar system at the block diagram level, be familiar with sonar fundamentals, sonar hydrophones and projectors, reeling machines, dome control, azimuth and range indicators, and system power distribution.

Credit Recommendation: In the vocational certificate category, 1 semester hour in sonar repair and maintenance, 1 in sonar repair and maintenance laboratory (4/85).

NV-1715-1193

AN/USM-403 Hybrid Automatic Test Set (HATS) Operator

Course Number: C-198-3676.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/82–Present.

Objectives: To train personnel in the operation of a hybrid automatic test set and to isolate and repair faults to the board level.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain the following aspects of a hybrid automatic test set at the block level: programmable power supplies, CRT display, thermal printer, Diablo disk drive, and atlas analog.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to computer system repair and maintenance (4/85).

NV-1715-1194

S-3A Computer System Specialist Organizational Maintenance

Course Number: C-102-3681.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 8–9 weeks (340 hours).

Exhibit Dates: 9/84–Present.

Objectives: To train personnel in the maintenance of a general purpose digital computer system.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) describe the operation of a general purpose digital computer system in terms of the main function of the CPU, I/O and memory subsystem; (2) identify the main functional unit in each subsystem and describe how they interact with other hardware and system software and; (3) load and run system diagnostic software and interpret diagnostic results to isolate system faults.

Credit Recommendation: In the vocational certificate category, 6 semester hours in digital computer maintenance (4/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer system theory, 2 in digital systems maintenance laboratory (4/85).

NV-1715-1195

SH-3 Communications/Navigation Systems Organizational Maintenance

Course Number: C-102-3403.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/81–Present.

Objectives: To familiarize avionics personnel in the principles of operation and repair of communications, navigation and radar systems of a helicopter.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, repair and troubleshoot to the block diagram level the following systems of a rotary wing aircraft: UHF communications system, search radar system, radar altimeter system, doppler, interface and automatic navigation systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/85).

NV-1715-1196

S-3A Electronic Systems Organizational Maintenance

Course Number: C-102-3676.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 7 weeks (272 hours).

Exhibit Dates: 5/79–Present.

Objectives: To train aviation technicians to maintain an aviation electronic system.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate a working knowledge of the system operation together with the ability to troubleshoot and repair, to the block diagram level, the following components: HF/UHF communications systems, sonar, radar and infrared detection systems, instrument landing systems, electronics countermeasures and inter-aircraft interrogation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications sytems, 3 in communications systems laboratory (4/85).

NV-1715-1197

SH-60B Automatic Flight Control System Organizational Maintenance

Course Number: C-602-4407.

Location: Naval Air Station, Mayport, FL; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/84–Present.

Objectives: To train aviation electricians to operate, troubleshoot, repair and maintain the electrical systems of a helicopter.

Learning Outcomes: Upon completion of the course, the student will be able to test, troubleshoot, repair and maintain the following systems of the SH-60B aircraft: the automatic flight control, stability augmentation, digital automatic flight control and stabilization.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical laboratory, 1 in digital circuit repair (4/85).

NV-1715-1198

SH-60B Light Airborne Multipurpose System (LAMPS) Mk III Weapons System Technician Organizational Maintenance

Course Number: C-646-4406.

Location: Naval Air Station, Mayport, FL; Naval Air Station, North Island, San Diego, CA.

Length: 10 weeks (384 hours).

Exhibit Dates: 7/85–Present.

Objectives: To train aviation electronics and anti-warfare technicians to analyze, troubleshoot and maintain a weapons system.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance and troubleshooting tests to the functional unit level for the SH-60B system including data handling/data display subsystem, communication/navigation subsystem and a mission equipment subsystem to the functional unit level.

Credit Recommendation: In the vocational certificate category, 2 semester hours in spectrum analyzer servicing, 1 in spectrum analyzer applications in circuit analysis, 2 in electronic navigation operation principles and maintenance and 1 in computer aided testing techniques (4/85).

NV-1715-1199

Dynamics Alignment Test Set (DATS) Intermediate Maintenance

Course Number: C-198-3680.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 7/83–Present.

Objectives: To provide personnel with the skills necessary to maintain and repair a dynamic alignment test set.

Learning Outcomes: Upon completion of the course, the student will be able to analyze, troubleshoot, and repair the following radar related components: 5-15 volt power supplies, 5 IPS read/write assemblies, cassette tube transport modules, and control, memory, counter and I/O printed circuit boards.

Credit Recommendation: In the vocational certificate category, 6 semester hours in radar maintenance and repair (4/85).

NV-1715-1200

Dynamics Alignment Test Set (DATS) Operator

Course Number: C-198-3679.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/81–Present.

Objectives: To provide electronics and ASW technicians the necessary skills to operate and maintain a dynamic alignment test set.

Learning Outcomes: Upon completion of the course, the student will be able to perform the following tasks at the block diagram level: DATS automatic testing, software analysis, tactical display system alignment, functional testing and integrated system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar maintenance and repair (4/85).

NV-1715-1201

IP-1214/AA Infrared Viewer Intermediate Maintenance

Course Number: C-102-3683.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/84–Present.

Objectives: To train personnel to perform component level maintenance on an infrared viewer.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate competency in the operation and maintenance to the board level, of the IP-1214/AA infrared viewer and associated test set AN/AAM-60(V)6.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electro-optic applications (4/85).

NV-1715-1202

LN-66HP Radar Intermediate Maintenance

Course Number: C-102-3388.

Location: Naval Training Center, Norfolk, VA, Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (76 hours).

Exhibit Dates: 4/75–Present.

Objectives: To train aviation electronics and ASW technicians to repair and maintain a radar set.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, repair and maintain the following elements of a radar set to the circuit board level: power supply, transmitter/receiver, antenna, and all related circuit boards.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radar repair and maintenance (4/85).

NV-1715-1203

E-2B AN/APS-96 Radar Organizational Maintenance

Course Number: C-104-3475.

Location: Naval Air Station, Miramar, CA.

Length: 3 weeks (hours).

Exhibit Dates: 1/80–Present.

Objectives: To provide training in the operation and maintenance, at the functional system level, of the AN/APS-96 Radar System.

Learning Outcomes: Upon completion of the course, the student will be able to (1) demonstrate an understanding of the operation of the functional units of a radar system, and (2) operate, align and maintain a radar system to the functional units level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar systems laboratory (5/85).

NV-1715-1204

AN/ASN-39/39A and AN/ASN-41 Navigational Computer Systems Intermediate Maintenance

Course Number: C-102-3040.

Location: Naval Air Station, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/80–Present.

Objectives: To provide training in the alignment, troubleshooting and repair of electromechanical navigational computer systems at the module and component level.

Learning Outcomes: Upon completion of the course, the student will be able to: 1) demonstrate an understanding of th fundamentals principles of aircraft navigation, and 2) align, test, maintain and repair, at the module and component level, electromechanical navigational computing systems using synchros, servar, electronic amplifiers and various mechanical linkages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical laboratory (5/85).

NV-1715-1205

Semi-Automatic Checkout Equipment (SACE) with INS/AFCS/ADC/UE Test Benches Intermediate Maintenance

Course Number: C-102-3084.

Location: Naval Air Station, Miramar, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/77–Present.

Objectives: To provide training in the operation and maintenance of electronic automatic test equipment.

Learning Outcomes: Upon completion of the course, the student will be able to (1) operate, align and calibrate semi-automatic test equipment needed for testing various avionics systems, (2) construct test programs to automate a sequence of tests to be performed, and (3) troubleshoot, repair, and maintain such equipment at the module and component levels.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in logic circuits, 2 in digital circuits laboratory, and 2 in electronic circuits laboratory (5/85).

NV-1715-1206

TS-2109/ASA-48 Semi-Automatic Checkout Equipment (SACE) Programmer Intermediate Maintenance

Course Number: C-102-3088.

Location: Naval Air Station, Miramar, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/74–Present.

Objectives: To provide training in maintenance, troubleshooting, and repair at semi-automatic test equipment.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) construct programs for automatic test equipment to generate specific test sequences, (2) understand functional operation and circuits of computer operated equipment interfaced to analog peripherals including scaling, decoding, comparators, ADC, and counter/timers,and (3) use self test procedures to isolate faults down to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuit laboratory maintenance/troubleshooting of computerized control equipment and 3 in digital circuits (5/85).

NV-1715-1207

Inertial Platform Test Station (IPTS) Intermediate Maintenance

Course Number: C-102-3096.

Location: Naval Air Station, Miramar, CA.

Length: 67 weeks (264 hours).

Exhibit Dates: 12/82–Present.

Objectives: To train electronic technicians to perform intermediate level maintenance of the Inertial Platform Test Station.

Learning Outcomes: Upon completion of the course, the student will be able to perform the following on a computer controlled inertial platform test station: (1) demonstrate understanding of computer modes, register functions, control words, and instructions, (2) write simple machine language programs, (3) perform diagnostic tests and troubleshooting of subassemblys, and (4) understand and describe function and operation of logic, ADC, power, data entry, interrupts, and inertial measuring units circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer controlled test equipment maintenance and operation, and 1 in computer controlled testing laboratory (5/85).

NV-1715-1208

AN/USM-402(V) Swept Frequency Measurement (SEFT Cart) Test Set Intermediate Maintenance

Course Number: C-102-3108.

Location: Naval Air Station, Miramar, CA.

Length: 5 weeks (185 hours).

Exhibit Dates: 10/79–Present.

Objectives: To provide fleet aviation electronic, antisubmarine and fire control technicians the basic maintenance skills needed in the alignment, calibration and repair for the SWFT Cart (Swept Frequency) Test Set.

Learning Outcomes: Upon completion of the course, the student will be able to perform the following objectives: 1) use schematic diagrams, logic drawings and maintenance instruction man- uals to identify and correct circuit problems, 2) perform preventive maintenance and calibration on power supplies, frequency analyzers, marker generators, oscilloscopes and recorders, 3) use standard tests equipment to troubleshoot circuits, 4) troubleshoot solid state and logic circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours (3 in lecture, 1 in laboratory) in electronic systems (5/85).

NV-1715-1209

TS-2109/OA-3739/OA-ASA 48 Semi-Automatic Checkout Equipment (SACE) Operator Intermediate Maintenance

Course Number: C-104-3476.

Location: Naval Air Station, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/85–Present.

Objectives: To provide instruction in the operation of automatic test equipment used for testing avionics systems.

Learning Outcomes: Upon completion of this course, the student will be able to demonstrate an understanding of theory and actual operating procedures for several test consoles used for the semi-automatic testing of avionics systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/85).

NV-1715-1210

ASM-144 On Board Memory Tester Digital Volt Ohmmeter Intermediate Maintenance

Course Number: C-150-3488.

Location: Naval Air Station, Miramar, CA.
Length: 6 weeks (240 hours).
Exhibit Dates: 9/79–Present.
Objectives: To provide electronic technicians with training in testing and troubleshooting of an on board memory tester.
Learning Outcomes: Upon completion of the course, the student will be able to: (1) understand purpose, characteristics, operation and maintenance of memory tester including component parts (i.e., core memory, digitizer, stimuli generator, power supplies, DVOM and interfacing/switching circuits), (2) demonstrate understanding of circuit theory/operation and testing of above components through laboratory assignments.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital test equipment laboratory and 3 in digital circuits laboratory (5/85).

NV-1715-1211

AN/ASM-33B AN/ASM-122 Portable Module Test (PMT) Intermediate Maintenance

Course Number: C-150-3489.
Location: Naval Air Station, Miramar, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/83–Present.
Objectives: To provide instruction on the operation and maintenance of electronic test equipment at the board/component level.
Learning Outcomes: Upon completion of the course, the student will be able to maintain and repair at the board/component level electronic test equipment circuitry including oscilloscope, power supplies, horizontal sweep circuits and vertical deflection circuits.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (5/85).

NV-1715-1213

AN/USM-467 RADCOM Test Station Intermediate Maintenance Course

Course Number: C-198-3030.
Location: Naval Air Station, Miramar, CA.
Length: 8 weeks (320 hours).
Exhibit Dates: 9/84–Present.
Objectives: To provide the student training in the start up, self test and operation of the AN/USM-467 RADCOM Test Station.
Learning Outcomes: Upon completion of this course, the student will be able to 1) perform language programming, 2) boot strap start up, 3) use diagnostic and self certification programs, 4) perform the necessary maintenance procedures for testing of airborne equipment which are tested by the AN/USM-467, and (5) demonstrate a detailed understanding of hardware components function and operation including waveforms, signal levels.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer repair laboratory and 3 in digital computer principles (5/85).

NV-1715-1214

AN/ASN-31/36/92 Inertial Platform Maintenance Technician Intermediate Maintenance

Course Number: C-602-3017.
Location: Naval Air Station, Miramar, CA.
Length: 4 weeks (184 hours).
Exhibit Dates: 9/79–Present.
Objectives: To train electronic technicians in the operation and preventive maintenance of a computerized inertial platform test station and its use in the testing and repair of inertial platforms.
Learning Outcomes: Upon completion of the course, the student will be able to: 1) operate the testing platform in both self testing modes and testing at inertial platforms, 2) understand principles of inertial navigation, inertial platforms, accelerometors, gyroscopes, resolvers, synchros and other sensors used on inertial platforms including analog and digital circuit operation, 3) use diagnostic test programs to identify faults and perform alignments/calibrations on both the platform tester and inertial platforms, and 4) remove and replace failed components such as gyros, and resolvers.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in avionics maintenance and testing (5/85).

NV-1715-1215

E-2B Navigational Systems Organizational Maintenance

Course Number: C-602-3487.
Location: Naval Air Station, Miramar, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 8/79–Present.
Objectives: To provide the student training in the maintenance and operation, at the organizational level, of the E-2B Navigational Systems.
Learning Outcomes: Upon completion of the course, the student will be able to perform the following objectives: (1) utilize publications/ diagrams in maintaining and troubleshooting systems, (2) perform operational test noting all indications for accuracy in accordance with E-2B manual of operation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics laboratory (5/85).

NV-1715-1216

TS-2109/OA-3742/OA-6672 Semi-Automatic Checkoput Equipment (SACE) Intermediate Operators

Course Number: C-104-3477.
Location: Naval Air Station, Miramar, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 3/85–Present.
Objectives: To familiarize the student with the operation and maintenance of the TS-2109/OA-3742/OA-6672 Semi-Automatic test benches.
Learning Outcomes: Upon completion of the course the student will be able to perform the following objectives: (l) understand the theory and operation of the Programming Test Console, Inertial Navigation Test Console, and Universial Encoder Test Console, (2) perform under close supervision, the operation of the above mentioned test benches in the intermediate maintenance working environment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

NV-1715-1217

C-2A Avionics Systems Organizational Maintenance

Course Number: C-102-3493.
Location: Naval Air Station, Miramar, CA.
Length: 2 weeks (hours).
Exhibit Dates: 12/79–Present.
Objectives: To provide training in the operation and system level maintenance of avionics systems.
Learning Outcomes: Upon completion, the student will be able to demonstrate knowledge of component characteristics, operational checks, block diagram analysis and troubleshooting techniques for communication systems (intercom, UHF, HF), navigational systems (UHF radio, TACAN, LF/AF Direction finder, UHF/ADF, LORAN, OMEGA) and special systems (IFF, Radar altimeter, aircraft approach control, flight recorder-locator, weather radar).
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in avionics systems (5/85).

NV-1715-1218

RT-542/ASQ, RT-546/ASQ-19, AN/ARC-52 Receiver Transmitter Intermediate Maintenance

Course Number: C-102-3079.
Location: Naval Air Station, Miramar, CA; Marine Corps Air Station, El Toro, CA.
Length: 3 weeks.
Exhibit Dates: 4/77–Present.
Objectives: To provide maintenance personnel with theory of operation, shop test and system troubleshooting procedures on the transmitter/receivers.
Learning Outcomes: Upon completion of the course, the student wil be able to (1) describe the operation of the RT-542/ASQ, RT-546/ASQ-19, AN/ARC-52 Receiver/Transmitter, (2) signal trace the overall schematic of the system, and (3) align and perform intermediate maintenance on the system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications systems (5/85).

NV-1715-1219

Mk 117 Fire Control System (FCS) Basic Operation

Course Number: A-4E-0059.
Location: Submarine Training Center, Pacific Pearl Harbor, HI.
Length: 2 weeks (59 hours).
Exhibit Dates: 4/81–Present.
Objectives: To give a detailed review of the operation and employment of the Mk-117 fire control system.
Instruction: Course covers operation and employment of the Mk 81 weapon control consoles information supplied for the Mk 92 attack control systems, system theory and software interface.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems interfacing (11/85).

NV-1715-1220

An/BRT-2 Subsystem Refresher

Course Number: A-101-0141.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (70 hours)
Exhibit Dates: 5/85–10/88.
Objectives: Upon completion of this course experienced submarine radio operators will be requalified in the theory, basic operation, and corrective maintenance of several communications subsystems.
Instruction: Lectures and laboratory exercises in the theory or operation, and corrective and preventive maintenance at the block diagram level of specialized antennas, receivers, and transmitters.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

NV-1715-1221

Periscope Type 18 Combined Maintenance

Course Number: A-102-0157.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT.
Length: 3 weeks (117 hours).
Exhibit Dates: 1/76–Present.
Objectives: To provide training in functional checkout, operation and maintenance and repair of the type 18 periscope system.
Instruction: Lecture and laboratory instruction in the theory of operation, functional analysis and description, logic flow and maintenance concepts of type 18 periscope system.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

NV-1715-1222

Mk 9 MOD-4 Dead Reckoning Analyzer Indicator (DRAI) Combined Maintenance.

Course Number: A-623-0108.
Location: Submarine Training Center, Pacific Pearl Harbor, HI.
Length: 2 weeks (65 hours).
Exhibit Dates: 7/84–Present.
Objectives: To provide training in functional check out, operation, maintenance and repair of the Mk 9 MOD 4 dead reckoning analyzer indicator.
Instruction: Lecture and laboratory instruction on synchros, resoivers, control transformers and servo loops found in the MK-9 MOD 4 dead reckoning analyzer indicator.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester credit hour in electro/mechanical technology lab (11/85).

NV-1715-1223

Mk 19/27 Gyro Operator

Course Number: A-670-0050.
Location: Submarine School, Groton, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (78 hours).
Exhibit Dates: 4/84–Present.
Objectives: To provide training in the functional checkout and operation of the Mk 19/27 Gyro Operator. Students will be instructed in the proper methods of troubleshooting utilizing necessary test equipment.
Instruction: Lecture and laboratory instructions, flow diagrams and test equipment stressed throughout.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic lab (11/85).

NV-1715-1224

Mk 27 Mod 1 Mk 19 Gyrocompass Systems Advanced Theory and Maintenance.

Course Number: A-670-0051.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4 weeks (140 hours).
Exhibit Dates: 4/83–8/89.
Objectives: To provide advanced training in the functional check out and operation of the Mk 19/27 Gyrocompass system.
Instruction: For this course after 8/89 see NV-1715-1450. Lecture and laboratory exercises in the theory of operation, preventive and corrective maintenance at the component level of two gyrocompass systems. This training is provided under class room conditions with skill training on operational and simulated systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical engineering technology/laboratory (11/85).

NV-1715-1225

Mk 63 Torpedo Tube Basic Maintenance

Course Number: L-123-0014.
Location: Submarine Training Facility, San Diego, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 11/84–Present.
Objectives: Upon completion of this course the student will be versed in the operational characteristics and maintenance requirements for the Mk 63 torpedo tube.
Instruction: Lectures on the theory of operation and routine maintenance of the Mk 63/65 torpedo tube. Included topics are air, hydraulic, and ejection systems, safety precautions, troubleshooting, firing procedures and record keeping. No actual hands-on training is provided due to lack of a trainer.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/85).

NV-1715-1226

AN/UYK-7 Computer - Diagnostic Maintenance

Course Number: L-150-0002.
Location: Submarine Training Facility, Pacific, Pearl Harbor, HI.
Length: 4–5 weeks (175 hours).
Exhibit Dates: 10/81–Present.
Objectives: To train personnel to repair, troubleshoot, and maintain the AN/UYK-7 computer utilizing diagnostic test and procedure guides.
Instruction: The course provides an introduction to AN/UYK-7 computer, functional characteristics of the central processor unit, and functional characteristics of input/output peripherals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operation theory, 1 in computer operation laboratory (11/85).

NV-1715-1227

FFG-7 Electrical Maintenance

Course Number: A-652-0248.
Location: Naval Training Center, Great Lakes, IL.
Length: 18 weeks (720 hours).
Exhibit Dates: 12/83–6/86.
Objectives: To enable the student to acquire the knowledge and skills required to maintain propulsion control and monitoring equipment.
Instruction: Indepth review of digital circuits including numbering systems and codes, IC characteristics, flip flops, registers, AD and DA converters, OP-amps, and signal conditioners, operation, maintenance, and repair of control circuits which include resistance temperature detectors, therocouplers, pressure, and thermostat transducers. Course covers the operation of a micro computer processor which includes registers, instruction set, addressing nodes, interfacing techniques, and use of micro program diagnostic routines.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in lecture, 1 in laboratory in process control systems, and 3 in digital logic (1/86).

NV-1715-1228

Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar

Course Number: A-113-0098.
Location: Naval Training Center, Great Lakes, IL.
Length: 17 weeks (680 hours).
Exhibit Dates: 10/84–Present.
Objectives: To provide selected trainees who have completed Fire Control A school with the skills and knowledge to perform intermediate level maintenance on GFCS Mk 86 Radar.
Instruction: The trainee will be able to use tools and test equipment required for alignment and maintenance of Mk 86 radar; perform operational and diagnostic testing; disassemble, repair, and reassemble; perform alignment adjustment and calibration procedures; describe the operation and mechanization of the antenna azimuth drive function.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in radar system maintenance (1/86).

NV-1715-1229

CV Air Operations Closed Circuit Television (ILARTS) Maintenance

Course Number: A-191-0011.
Location: Naval Training Center, Great Lakes, IL.
Length: 21 weeks (630 hours).
Exhibit Dates: 10/85–Present.
Objectives: Provide interior communications electricians with the knowledge and skills to perform maintenance in low light level television systems.
Instruction: Lecture and practical exercises in the maintenance of shipboard television equipment. Upon successful completion of this course, the student will be able to identify electronic circuit symbols, measure current voltage and resistance, use function generator, DVM, and oscilloscope to isolate a circuit board malfunction down to the component level, analyze resistive/reactive and tuned circuits, and troubleshoot low light level B/W video cameras, video monitors, video cassette recorders and reel-to-reel recorders.
Credit Recommendation: In the vocational certificate category, 4 semester hours in TV/VCR servicing (1/86).

NV-1715-1230

Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance

Course Number: A-191-0010.

Location: Naval Training Center, Great Lakes, IL.

Length: 25 weeks (752 hours).

Exhibit Dates: 10/85–Present.

Objectives: To provide interior communication electronics with the knowledge and skills necessary to perform maintenance on training and entertainment systems.

Instruction: Lecture (420 hours) and practical exercises (312 hours) in the maintenance of shipboard A/V equipment. Upon successful completion of this course, the student will be able to identify electronic circuit systems, measure current, voltage, and resistance; use the function generators, DVM and oscilloscope to isolate a circuit board malfunction down to the component level; analyze resistive and reactive circuits; troubleshoot color video cameras, video cassette recorders, and reel-to-reel audio recorders.

Credit Recommendation: In the vocational certificate category, 6 semester hours in television/VCR servicing (1/86).

NV-1715-1231

FFG-7 Replacement Crew Training (FFG-7 Class Ship Replacement Crew Training)

Course Number: J-113-0162.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/84–Present.

Objectives: To train enlisted personnel to understand the interface between the system and its components, and to operate display and weapons control consoles of a FFG-7 class guided missile frigate.

Instruction: Lectures and laboratory exercises on the limitations, capabilities, and operation of a Naval Tactical Data System (NTDS) which includes such subsystems as a weapons control console, search radars, sonar, and weapon systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1232

FFG-7 Class Combat System Officer (FFG-7 Weapons System Officer)

Course Number: J-2E-0155.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/84–Present.

Objectives: To train officers in the characteristics, operation, and deployment of a Naval tactical data system (NTDS) multiple weapon combat system for the FFG-7 class guided guided missile frigate.

Instruction: Classroom lectures and laboratory exercises on the limitations, capabilities, and operation of subsystems comprising the weapon system, which utilizes radar, sonar, and magnetic inputs, radio communications, and computer control. Laboratory exercises in operation of all system components in engagement and deployment modes are included.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1233

Antisubmarine Warfare (ASW) Operations Center (ASWOC) System Operator

Course Number: J-210-0363.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/86–Present.

Objectives: To train experienced personnel to operate tactical data processing equipment used in antisubmarine warfare.

Instruction: Training in various operating modes of data communications video console including data entry, recall, modify, print, plot, and transfer. Power up/down procedures and operation of a XEBEC disk operating system, Nova 2000 computer, Hazeltine 2000 plotter, and magnetic tape transport are all included. Proper use of software, drafting standard Naval messages in correct format and analyzing acoustical data are also covered in this course.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operator/data processor (6/86).

NV-1715-1234

Antisubmarine Warfare (ASW) Module Operator

Course Number: J-210-0368.

Location: Fleet Combat Training Center, Dam Neck, VA.

Length: 7–8 weeks (280 hours).

Exhibit Dates: 9/85–Present.

Objectives: To train experienced personnel to operate tactical data processing equipment used in antisubmarine warfare.

Instruction: Operator training on an antisubmarine warfare system including such subsystems as video console, tape transport teletype terminal, XEBEC disk operating system, magnetic tape transport, and control panels. Also included are message format procedures, radio telephone operation, procedures, software management using utility programs, display aids and interface characteristics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operations (6/86).

NV-1715-1235

Naval Tactical Data System Input

Course Number: J-221-0094.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/81–Present.

Objectives: To train selected naval enlisted personnel in skills related to tactical data collection, system execution procedures, and interpretation of information unique to the mode of operation.

Instruction: Instruction includes lecture and practical applications in a laboratory mock-up environment. Console operations, systems monitoring, tracking, and the duties of the various systems operators are the major areas of concentration.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1236

CV Naval Tactical Data System Input Basic

Course Number: K-221-0092.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/84–Present.

Objectives: To provide junior and middle grade enlisted personnel with training in the operating procedures, capabilities and limitations of the CV/CVN class ship naval tactical data system.

Instruction: Classroom lectures and laboratory exercises that provide the student with a basic knowledge of duties, purposes of various controls and subsystems, modes of operation and practical applications with a system mockup of target tracking equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1237

Electronic Warfare Watch Supervisor-Surface

Course Number: J-233-0211.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA; Fleet Training Center, Mayport, FL; Fleet and Mine Warfare Training Center, Charleston, SC; Fleet Training Group, Pearl Harbor, HI; Fleet Training Group, Western Pacific, Yokosuka, Japan.

Length: 3–4 weeks (140 hours).

Exhibit Dates: 1/85–Present.

Objectives: To train senior enlisted personnel in the concepts and operational applications of electronic warfare.

Instruction: Lectures on a broad range of electronic warfare topics which includes a subject overview, assisting the electronic warfare officer, a working knowledge of soviet naval command, communications and weapons, allied naval forces weapon capabilities, U.S. naval forces and weapon capabilities, electronic warfare organization and planning. Laboratory exercises assisting the electronic warfare in a simulated tactical warfare game.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1238

Antisubmarine Warfare (ASW) Operations Center Data Processing Technician

Course Number: J-531-0365.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 10 weeks (400 hours).

Exhibit Dates: 11/84–Present.

Objectives: To train data processing technicians in the operation of the tactical data processing system utilized by the antisubmarine warfare operations center.

Instruction: Instruction includes formal classroom work and laboratory practice utilizing current publications and equipment. The following topics related to antisubmarine warfare operations are covered: operation of the UNIVAC 1830A(CP901) computer system (CPU, disk, tape, printer, monitor), software, data bases, mission support operations, and basic system performance checks.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer systems operation (6/86).

NV-1715-1239

Weapon Direction System (WDS) MK-14 Terrier Console Operator

Course Number: J-113-0134.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 2-3 weeks (133 hours).
Exhibit Dates: 3/85-Present.
Objectives: To train officers, warrant officer and selected naval enlisted personnel in the efficient operation of the MK-14 weapon direction system (WDS).
Instruction: Lecture and practical exercises in common console operations to control a terrier weapon system and the weapons/missile engagement controller under simulated warfare conditions in which equipment capability is reduced.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-1715-1240

Optical Landing System Maintenance

Course Number: C-670-2010.
Location: Naval Air Technical Training Center, Lakehurst, NJ.
Length: 8 weeks (312 hours).
Exhibit Dates: 1/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, and repair the Fresnel Lens Optical Landing Mk 6 Mod 1 and the manually operated visual landing systems Mk 1 Mod 1, 2, and 3 or Mk II with minimum supervision above introductory level.
Instruction: Lectures and practical exercises in the troubleshooting and maintenance of the Fresnel Lens Optical Landing System Mk 6 Mod 1 and the manually operated visual landing aid system Mk I Mod 1, 2, and 3, or Mk II, including electrical and solid-state devices, component identification, test equipment, indicator assembly stabilization, stabilization control equipment, reference lighting circuits, and lighting assembly.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics theory (6/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity/electronic circuit theory and 3 in troubleshooting procedures (6/87).

NV-1715-1241

OUTBOARD Maintenance Direction Finding (DF) Technician

Course Number: A-102-0327.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 18 weeks (720 hours).
Exhibit Dates: 3/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to maintain, troubleshoot and service to the modular level OK-324/SYQ computer with video display and teleprinter, AN/SLR-23 receiver, and AN/SRD-19A receiver.
Instruction: Illustrated lectures, laboratory exercises and troubleshooting problems are used to teach preventative maintenance, troubleshooting and corrective maintenance to the modular level of the OUTBOARD II receiver system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in system troubleshooting and 2 in system operation (7/87).

NV-1715-1242

Communications Technical Controller

Course Number: A-260-0044.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 12 weeks (480 hours).
Exhibit Dates: 4/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate a communications technical control facility which includes organization, administration, reporting, quality control administration, testing and troubleshooting.
Instruction: Lecture with A/V aids, skilled exercises and supervised laboratory exercises are used to teach the student the operating procedures of a communication technical control facility.
Credit Recommendation: In the vocational certificate category, 2 semester hours in office procedures, and 2 in communications theory (7/87).

NV-1715-1243

Basic Non-Morse Operator

Course Number: A-231-0045.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 22 weeks (880 hours).
Exhibit Dates: 6/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to transcribe international Morse Code at a rate of 16 groups/minute using a keyboard device and pencil. He will also be familiar with basic concepts and terminology used in electronic communication and be able to apply these to radio printers, graphical analysis, target analysis and identification.
Instruction: Includes laboratory instruction in Morse Code and classroom instruction covering basic concepts, definitions, terminology, and simple calculations used in electronic communications. Subjects presented include band width, frequency allocation, types of modulation, multiplexing, and antennae. For earlier versions of this course, see NV-1715-0837.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communication principles, and 1 in Morse Code (7/87).

NV-1715-1244

Telecommunications Operations Specialist

Course Number: A-260-0043.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 6 weeks (233 hours).
Exhibit Dates: 2/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to apply the concepts and principles of effective writing to improved writing style and office administration practices.
Instruction: Group-paced lecture, practical exercises, seminar and skill exercise. Topics covered in this course include budget management, manning requirements, security management, emergency planning, enlisted evaluations and training.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing and 3 in office management (7/87).

NV-1715-1245

Narrowband System Operator (NBS OPS) Class C School

Course Number: A-231-0056.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 7 weeks (200 hours).
Exhibit Dates: 10/83-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate a computer controlled narrowband HFDF system utilizing a PDP 11/34, several microcomputers, and associated receiving, display and control equipment.
Instruction: Classroom instruction and laboratory assignments utilizing the system. Subjects include subsystem function/operation, specific computer coding, syntax, loading, error messages, etc., and operation of the system in normal and emergency modes.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, and 2 in system operation (7/87).

NV-1715-1246

OUTBOARD Maintenance Acquisition Technician

Course Number: A-102-0326.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 18 weeks (720 hours).
Exhibit Dates: 3/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to maintain, troubleshoot and service to modular level AN/SYQ-8 signal processing system and AN/SLR-16A computerized receiver.
Instruction: Illustrated lectures, laboratory exercises and troubleshooting problems are used to teach preventative maintenance, troubleshooting and corrective maintenance to the modular level of the OUTBOARD II receiver system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in system troubleshooting and 2 in system operation (7/87).

NV-1715-1247

Tactical Intelligence (TACINTEL) System Maintenance

Course Number: A-102-0237.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 12 weeks (473 hours).
Exhibit Dates: 2/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform preventative and corrective maintenance on computer-controlled tape recording and reproducing equipment (RD-397/U Recorder-Reproducer) and troubleshoot the system to the modular level.
Instruction: Group-paced lectures, demonstrations and lab exercises supported by audio/visual presentations are used to prepare the student to perform corrective and preventative maintenance on a tape recorder/reproducer and troubleshoot the system to the modular level.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in magnetic recording devices maintenance (7/87).

NV-1715-1248

Intermediate Non-Morse Analyst

Course Number: A-232-0060.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 12 weeks (480 hours).
Exhibit Dates: 4/86-Present.
Learning Outcomes: Upon completion of the course, the student will be able to use various display and measuring devices including oscilloscopes, spectrum analyzers, other visual display instruments, frequency counters, multiplexers, receiver and magnetic recording devices. A fundamental knowl-

edge of AC and communications is also a required part of the outcomes.

Instruction: Group-paced course with a presentation format using lecture, slides, video cassettes and lab exercises to instruct the student in the use of oscilloscopes and other display devices used in the reception, processing and analysis of non-Morse Code signals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in theory of electronic communications (7/87).

NV-1715-1249

AN/UYK-20 Maintenance

Course Number: A-102-0307.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform diagnostic tests on AN/UYK-20 data processing set, isolate a malfunction to a faulty PC board without technical assistance and use system block diagrams to trace flow.

Instruction: Group-paced lectures, practical demonstrations and laboratory work. Includes the discussion of number system, micro program analysis, I/O concepts (serial-parallel), use of diagnostics and power distribution.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics maintenance laboratory (7/87).

NV-1715-1250

Electronic Warfare Technician WLR-1H Maintenance

Course Number: A-102-0217.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 10 weeks (355 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, calibrate, analyze failures, troubleshoot and repair electronic warfare equipment (WLR-1H) using functional diagrams, schematics, built-in test equipment and standard test equipment such as VOMS, oscilloscopes, etc.

Instruction: Classroom instruction and supervised laboratory, activities, covering the functional description and operation of controls, displays and indicators, functional description of system, subsystems, and interfaces, including antennae, built-in test equipment, video displays, amplifiers, power supplies, etc., and preventive and corrective maintenance with fault identification through situational questions and laboratory exercises.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic system operation and maintenance (7/87).

NV-1715-1251

Fleet Electronic Support Maintenance, Class C1

Course Number: A-102-0285.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 6 weeks (177 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance to the board level on an electronic system (AN/SSQ-80V), trace signal flow using functional block diagrams, identify circuit card functions, set up and operate system, and explain operation of systems and components.

Instruction: Computer assisted instruction and laboratory exercises. System includes MF/LF and VHF/LUHF receivers, memory handoff unit, audio control unit, signal display unit, and associated controls. Troubleshooting is a combination of hypothetical, where symptoms settings and readouts are described, and actual troubleshooting, where the instructor implements problems such as erroneous switch settings (on cards as well as front panels), wrongly connected cables, and missing cards. Operation of individual cards and other system components are studied including purpose/function and signal tracing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic system maintenance (7/87).

NV-1715-1252

Electronic Technology, Class A1

Course Number: A-102-0214.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 19 weeks (1024 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain specialized electronic equipment.

Instruction: Classroom instruction and laboratory exercises concerning basic soldering and connector repair, DC and AC circuits, linear power supplies, transistor amplifiers, super heterodyne receivers, timing and display circuits, RF transmission and antenna control systems, and digital logic and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics, 3 in digital electronics (7/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in soldering and connector repair, 3 in DC circuits, 3 in AC circuits, 3 in electronic communication fundamentals, and 3 introduction to microcomputers (7/87).

NV-1715-1253

Electronic Technology, Class A1

Course Number: A-102-0224.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 19 weeks (1152 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain specialized electronic equipment.

Instruction: Classroom instruction and laboratory exercises concerning basic soldering and connector repair, DC and AC circuits, linear power supplies, transistor amplifiers, super heterodyne receivers, timing and display circuits, RF transmission and antenna control systems, and digital logic and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics, 3 in digital electronics (7/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in soldering and connector repair, 3 in DC circuits, 3 in AC circuits, 3 in electronic communication fundamentals, and 3 in introduction to microcomputers (7/87).

NV-1715-1254

Electronic Technology, Class A1

Course Number: A-102-0234.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 19 weeks (1096 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain specialized electronic equipment.

Instruction: Classroom instruction and laboratory exercises concerning basic soldering and connector repair, DC and AC circuits, linear power supplies, transistor amplifiers, super heterodyne receiver, timing and display circuits, RF transmission and antenna control systems, and digital logic and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics, 3 in digital electronics (7/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in soldering and connector repair, 3 in DC circuits, 3 in AC circuits, 3 in electronic communication fundamentals and 3 in introduction to microcomputers (7/87).

NV-1715-1255

AN/ULQ-6B Maintenance

Course Number: A-102-0232.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/85–Present.

Learning Outcomes: Upon completion of the course, the student, given the appropriate test equipment, schematic diagrams and technical documentation, will be able to operate, perform alignments, identify and correct malfunctions in the AN/ULQ-6B countermeasures set and the AN/SLA antenna group.

Instruction: Group-paced lecture exercises and lab performance using chalk board, overhead and slide projectors. Lecture material cover HV power supplies, RF circuits, video circuits, testing and alignment and AN/ULQ-6B troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic troubleshooting laboratory (7/87).

NV-1715-1256

High Frequency Direction Finding (HFDF) Maintenance

Course Number: A-102-0305.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 20 weeks (800 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student, with access to reference material, tools and test equipment, will be able to power up, tune up and troubleshoot the narrowband system.

Instruction: Group-paced lecture, practical exercises and laboratory performance using chalk board and standard AV equipment covering the power and timing distribution, boot-verification and reload procedures and power up/down procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics maintenance laboratory (7/87).

NV-1715-1257

Master Cryptologic Systems Technician

Course Number: A-230-0019.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform effectively at the mid-management level as a supervisor of technical operations.

Instruction: Group instruction and laboratory assignments concerning office management, report preparations, safety, budgets, supply, manning, change proposals, security, etc., as required for/at cryptologic facilities.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-1715-1258

Senior Non-Morse Analysis

Course Number: A-232-0058.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 24 weeks (960 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use spectrum analyzers, receivers, demodulators, narrow and wide band recording equipment in the collection of non-morse signal search and analysis.

Instruction: Group-paced lecture, practical exercises and laboratory performance using chalk board or VAP lecture and AV equipment. Includes the study of basic algebra, trigonometry, number systems, Boolean algebra, AC/DC theory, inductive and capacitive reactance, antenna systems, AM and FM modulation and waveform analysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in technical mathematics, 4 in electronic laboratory (7/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications theory (7/87).

NV-1715-1259

AN/UYA-4 Display Maintenance
Includes Beacon Video Processor

Course Number: A-150-0139.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 23 weeks (920 hours).

Exhibit Dates: 2/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to isolate malfunctions and perform preventive and corrective maintenance on display subsystems equipment and componenets including power supplies and video processors at the lowest component replacement level; apply the theory of logic gates, amplifiers, waveform generators and counters to troubleshooting and diagnosis of malfunctions.

Instruction: Classroom lectures and discussions on the display system components, block diagrams and circuits; practical exercises using electronic diagnostic instruments for finding and replacing defective parts and for checking the proper operation of the system. The course is a combination of several discrete courses involving various display systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1260

CGN/SM-2 Medium Range Missile
System Technician

Course Number: A-121-0508.

Location: Combat Systems Technical School, Mare island, CA.

Length: 11 weeks (440 hours).

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare a shipboard missile system for operation; operate the system; test the system for faults; maintain the system including system troubleshooting and repair.

Instruction: Includes classroom lectures and practical exercises on the missile system. Topics covered include data entry of combat information, operation of test control station, signal flow tracing, fault isolation procedures, and software diagnostic aids.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1261

AN/UYK-7 DD 963
Computer/Peripheral Technician

Course Number: A-150-0109.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 25 weeks (1000 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate an AN/UYK-7 computer; write machine language programs for the computer; use software diagnostic aids; troubleshoot and repair computer; troubleshoot and repair specific digital data converters, I/O control consoles, magnetic tape units, digital to analog converters, and data display equipment.

Instruction: Lectures and practical exercises on the theory and troubleshooting of a general purpose computer and its peripherals. An in-depth understanding of the computer operation, instruction repertoire, signal flow, and subsystem logic is presented. The course emphasizes fault isolation to the circuit board or component level using diagnostic programs and basic test equipment. Course also includes topics pertaining to digital data converters, I/O control consoles, magnetic tape units, digital to analog converters, and data display equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer organization and architecture, 3 in computer troubleshooting and 2 in computer peripherals troubleshooting (7/87).

NV-1715-1262

AN/UYK-7 Digital Computer
Maintenance

Course Number: A-150-0095.

Location: Combat Systems Technical Schools Command, Mare Island, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the AN/UYK-7 computer; write machine language programs on the computer; discuss interrupt concepts; troubleshoot and repair all parts of computer; use software diagnostic tape to locate faults.

Instruction: Lectures and practical exercises in the theory of operation and the maintenance of a general purpose UNIVAC computer. An in-depth understanding of the computer operation, instruction repertoire, signal flow, and sub-system logic is presented. The course emphasizes fault isolation to the circuit board or component level using diagnostic programs and basic test equipment. Topics include function of front panel controls, word format, internal timing and control signals, interrupt processing, theory of instruction execution and register status, input and output timing sequence and interface characteristics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer troubleshooting and 1 in computer organization and architecture (7/87).

NV-1715-1263

Data Systems Technician Class A

Course Number: A-150-0025.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 32 weeks (1280 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyse basic series/parallel circuits both AC and DC; analyse RC and RL circuits including time constants; understand resonance and oscillator circuits; identify logic gates and related circuitry; understand memory theory and computer block diagrams; perform basic programming functions; identify logic functions such as AND, OR, NAND etc.; understand I/O concepts, basic block diagrams chaining and I/O instruction execution; perform basic troubleshooting diagnostics; understand transistor and diode theory and function, oscillator circuits, silicon control rectifiers, unijuction and field effect transistors, and operational amplifiers.

Instruction: Includes lectures and laboratory exercises in basic AC/DC theory; solid state circuitry: rectifiers, amplifiers, and oscillators; number systems; logic circuits; memory theory; and computer programming. This comprehensive course also includes extensive training in the use of laboratory test instruments, troubleshooting to the component level, and soldering techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 4 semester hours in AC/DC theory, 4 in digital electronics, 2 in electronics laboratory techniques; 3 in solid state circuits, and 2 in electronic systems troubleshooting (7/87).

NV-1715-1264

Tartar Weapons Direction System Mk
13 Mod 4

Course Number: A-121-0493.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive or corrective maintenance on the Mk 13 Tartar Weapons Direction System; operate the system or an individual piece of equipment in the system; conduct daily system operability tests and identify the computer complex in the system; and use electronic equipment such as frequency counters, differential voltmeter, multimeter, and oscilloscope for troubleshooting.

Instruction: Lectures (50%) and laboratory exercises (50%) covering a description of the equipment, methods of operation, and troubleshooting using electronic test equipment; preventive maintenance exercises using maintenance requirement cards and technical manuals; laboratory exercises on detecting, isolating, and correcting simulated system malfunctions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic instruments or measurements laboratory and 2 in electronic systems troubleshooting (7/87).

NV-1715-1265

SHIPBOARD NON-TACTICAL AUTOMATED DATA PROCESSING (SNAP)

Course Number: A-150-0250.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 15 weeks (600 hours).

Exhibit Dates: 10/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and prepare for operation the mainframe computer and peripheral equipment comprising the SNAP system including printers, terminals, and disk and tape drive subsystems; troubleshoot, detect, and isolate faults of items at the field (shipboard) replacable item parts list level, replace and make appropriate adjustments within specified time periods; rapidly identify critical part numbers; restore the system to operational status; and use specialized electronic test equipment such as digital volt meters and dual trace oscilloscopes as well as small hand tools.

Instruction: Classroom instruction (55%) and laboratory exercise (45%) on identifying the elements in the SNAP system; running system electrical checks, running special diagnostic tests on subsystems, and making adjustments or corrections to simulated malfunctions at the parts level. Students perform test and maintenance tasks in the laboratory within time limits and produce error-free results. Students also interpret error messages resulting from the malfunctions in order to restore the equipment to error-free operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic measurement and instrumentation laboratory and 3 in computer peripheral troubleshooting and maintenance (7/87).

NV-1715-1266

WDS MK 14 COMMUNICATIONS TRACKING SET SYR-1 MAINTENANCE TARTAR

Course Number: A-150-0254.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 21 weeks (840 hours).

Exhibit Dates: 9/85–Present.

Learning Outcomes: Upon completion of the course, student will be able to write machine language programs for the system computer; use software diagnostics on computer; understand I/O techniques; discuss computer interrupts; troubleshoot and repair computers; troubleshoot and repair antenna systems; and troubleshoot and repair UHF and RF detectors.

Instruction: Lectures and practical exercises in maintenance and repair of a missile tracking system. Theory and repair techniques of the system components including antenna, UHF and RF detectors, and computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer organization and architecture, 3 in computer system troubleshooting, and 2 in electronic systems troubleshooting (7/87).

NV-1715-1267

NAVAL TACTICAL DATA SYSTEMS (NTDS) DATA LINK TERMINAL MAINTENANCE CLASS C

Course Number: A-150-0017.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 2-3 weeks (117 hours).

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, perform system maintenance and repair at the radio frequency and terminal equipment level on the data link terminal using technical manuals, troubleshooting techniques, panel meters and light indicators; identify and record the correct shipboard sequence for loading diagnostic software into the computers; and understand the functional elements of the data link system.

Instruction: Classroom instruction and laboratory exercises on correcting malfunctions introduced in a simulated operational environment using documented troubleshooting techniques manuals and meters. Check lists of multiple choices are used to guide the operator through these repair and maintenance exercises.

Credit Recommendation: Credit is not recommended due to the limited, specialized nature of the course (7/87).

NV-1715-1268

AN/SPS-52C RADAR SET MAINTENANCE

Course Number: A-104-0181.

Location: Combat Systems Technical School, Mare Island, CA.

Length: 27 weeks (1080 hours).

Exhibit Dates: 10/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the radar in all modes; perform preventive maintenance, align and adjust using standard procedures; remove/replace assemblies, modules, or components, as required to pass appropriate operational check-out procedures; repair in place selected modules, assemblies, and subassemblies as required to pass appropriate operational check-out procedures; locate and correct malfunctions at the lowest possible replacement unit for shipboard repair as per current maintence philosophy; set up and operate general and specialized test equipment; repair and troubleshoot standard Navy minicomputer.

Instruction: Lectures and practical exercises in the servicing, maintenance and modification of the radar set including processor/emulator block diagrams, memory diagnostics, I/O diagnostics, AC/DC distribution, macrocomponent functions, and maintenance and repair philosophy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer organization and architecture, 3 in computer troubleshooting, and 3 in electronic systems troubleshooting (7/87).

NV-1715-1269

SSBN SONAR COMBINED MAINTENANCE

Course Number: A-130-0203.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 15 weeks (597 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, troubleshoot and repair to the component level as well as perform preventive maintenance on submarine sonar equipment.

Instruction: Includes lecture, demonstration and laboratory performance in safety devices, test equipment, vacuum tubes, solid state analog and digital subsystems of submarine sonar equipment, AM modulation and detection, logic circuits, numbering systems, memory devices, counters, registers, and servo systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics, 2 in analog electronics, and 3 in electronic systems troubleshooting (7/87).

NV-1715-1270

SONAR AUXILIARY EQUIPMENT COMBINED MAINTENANCE REVISION A

Course Number: A-130-0172.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 21 weeks (840 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance on various sonar auxiliary equipment including communication, receiving, recording, classification, and performance measurement devices.

Instruction: A nonmathematical review of fundamentals of vacuum tubes, solid state devices, amplifier circuits, oscillators, modulation and demodulation, basic servo systems, fundamental digital numbering systems, digital circuits, common test equipment, as well as procedures used to troubleshoot, to a limited degree, various sonar equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics, 2 in analog electronics, and 3 in electronic systems troubleshooting (7/87).

NV-1715-1271

SONAR DETECTING/RANGING SETS, AN/BQQ-5 SERIES COMBINED BASIC MAINTENANCE

(AN/BQQ-5 Combined Basic Maintenance Revision A)

Course Number: A-130-0208.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 16 weeks (475 hours).

Exhibit Dates: 5/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the theory of operation of the sonar system, perform routine preventive maintenance, operate the sonar system, and perform documented fault isolation procedures.

Instruction: Information presented by group-paced instruction utilizing the lecture method. Lab exercises used for skill learning. Topics in the operation and maintenance of sonar system, basic corrective maintenance without going into detailed logic, circuit analysis or detailed mechanical breakdown of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting (7/87).

NV-1715-1272

Sonar AN/SQS-35 (V) Maintenance

Course Number: K-130-0069.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 17 weeks (680 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and corrective maintenance on Sonar AN/SQS-35(V) system under limited supervision.

Instruction: Lectures, demonstration and performance exercises on the AN/SQS-35(V) sonar systems using the correct troubleshooting techniques, technical manuals and test equipment to perform maintenance to the component level. For earlier version of the course, see NV-1715-0866.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1273

Sonar AN/SQS-53B Maintenance
Level 2

Course Number: K-130-0282.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 29 weeks (1040 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and corrective maintenance on the Sonar AN/SQS-53B system and associated power supply.

Instruction: Lecture and laboratory instruction in theory of operation, maintenance to module level, review of circuitry, system alignment and calibration of Sonar AN/SQS-53B system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics systems troubleshooting (7/87).

NV-1715-1274

Sonar Technician Submarine STS
Class A

Course Number: A-130-0029.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 10 weeks (394 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the Navy submarine sonar systems, recognize and classify sonar targets, and perform fire control plotting procedures, and perform submarine noise reduction procedures.

Instruction: Lectures and practical exercises on topics of underwater acoustics, submarine sonar systems, sonar watchstanding procedures and underwater fire control. For previous version of this course, see NV-1715-0040.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of underwater acoustics (7/87).

NV-1715-1275

Sonar AN/SQS-26 AXR/CX
Maintenance

Course Number: K-130-0047.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 38 weeks (1512 hours).

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, troubleshoot and repair Sonar AN/SQS-26 CX system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-26CX and the AN/SQS-53 sonar detecting-ranging set, including binary mathematics and logic, test equipment, modes of operation, sound propagation, primary power distribution, sonar monitor, block diagrams, fault-locating monitor, mode selection and generation, simulated targets and target control, surface duct programmer and transmitter, B-scan receiver and display, various circuits, variable depression components, range measuring and servos.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1276

Sonar AN/SQS-53 Maintenance

Course Number: K-130-0102.

Location: Antisubmarine Warfare Training Center, San Diego, CA.

Length: 34 weeks (1356 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, troubleshoot, and repair a sonar ranging detecting set.

Instruction: Lectures and practical exercises in the operation and maintenance of the sonar set. Includes binary mathematics and logic, test equipment, modes of operation, sound propagation, power distribution, sonar monitor, block diagrams, fault-locating monitor, mode selection and generation, simulated target and target control, surface duct programmer, transmitter, B-scan receiver and display, various circuits, range measuring, and servos.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting (7/87). For earlier versions of this course see NV-1715-0405.

NV-1715-1277

Sonar AN/SQS-26 BX Maintenance

Course Number: K-130-0046.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 27 weeks (1076 hours).

Exhibit Dates: 1/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot to the component level and repair the sonar system equipment, align and calibrate the sonar system, and perform preventive maintenance on sonar systems.

Instruction: Lectures and practical exercises in the theory of operation, preventive and corrective maintenance, repair and system alignment of sonar system and associated power supply. Also includes a review of solid state circuitry and digital logic. For previous version of this course see NV-1715-0863.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1278

Sonar AN/SQR-17(V)/17A(V) Series
Maintenance

Course Number: K-130-0275.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 18 weeks (720 hours).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to isolate faults in the sonar system, repair and replace defective parts, and perform preventive maintenance.

Instruction: Lectures and practical exercises over the theory of operation and maintenance of a number of surface sonar equipments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1279

Sonar AN/SQQ-23A PAIR
Organizational Maintenance

Course Number: K-130-0096.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 29 weeks (1145 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance on the sonar equipment, troubleshoot to the component level and repair faults in the sonar equipment.

Instruction: Lectures and practical exercises in the theory of operation of the sonar equipment, a review of solid state circuitry and basic digital electronics, fault isolation, alignment and calibration of equipment. For previous version of this course, see NV-1715-0859.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (8/87).

NV-1715-1280

Sonar AN/SQQ-28(V) Maintenance

Course Number: K-130-0265.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 16 weeks (638 hours).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform diagnostic tests, preventive and corrective maintenance on the AN/SQQ-28 Sonar Signal Processing System using specialized test equipment.

Instruction: Lecture, demonstration and laboratory exercises in theory of operation, specialized test equipment, diagnostics, preventive and corrective maintenance procedures. Review of microprocessor fundamentals, data recording, interfacing, logic analyzing, and computer display.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic data processing systems troubleshooting (7/87).

NV-1715-1281

Sonar Detecting/Ranging Sets,
AN/BQQ-5 Series Combined
Advanced Maintenance
(Sonar Detecting-Ranging Sets
AN/BQQ-5 Advanced Maintenance
Revision A)

Course Number: A-130-0209.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 30 weeks (895 hours).

Exhibit Dates: 4/83–Present

Learning Outcomes: Upon completion of the course, the student will be able to operate and perform advanced maintenance on the Sonar AN/BQQ systems.

Instruction: Lecture, demonstration and laboratory exercises in the theory of operation, preventive maintenance procedures, fault isolation and repair procedures of the AN/BQQ-5 sonar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1282

Sonar AN/SQS-38 Maintenance

Course Number: K-130-0071.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 17 weeks (670 hours).

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair a sonar system and an underwater telephone to the component level, align equipment, and perform preventive maintenance on equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-38 sonar set, WQC2 underwater telephone, and built-in test equipment, including special circuits, power supplies and distribution, transmission signal development; transmitter modules, transducers and transducer switching; and receiving subsystem, including classification, position-indicator system timing and deflection circuitry, primary cursor generation, and servos. For previous version, see NV-1715-0404.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1283

Sonar AN/SQR-19(V) Maintenance

Course Number: K-130-1108.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 12 weeks (460 hours).

Exhibit Dates: 2/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair the AN/SQR-19 sonar system and perform preventive maintenance on system.

Instruction: Lectures and practical exercises in the theory of operation of the sonar system, fault isolation, repair procedures, alignment and calibration of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1284

Sonar AN/SQR-18A(V)1 Maintenance

Course Number: K-130-1107.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 18 weeks (606 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance on, troubleshoot, repair, align and calibrate sonar system.

Instruction: Classroom and practical exercises including digital logic, operational amplifiers, and a thorough study of the particular sonar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics and 3 in electronic systems troubleshooting (7/87).

NV-1715-1285

Independent Variable-Depth Sonar Hoist AN/SQA-13(V) Maintenance

Course Number: K-041-2019.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, and repair a hydraulic hoist mechanism.

Instruction: Lectures and practical exercises over the electronic circuitry and hydraulic mechanisms of the hoist system. A detailed study of all parts of the system. For previous version of this course, see NV-1715-0772.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic systems maintenance (7/87).

NV-1715-1286

AN/WLR-1H(V)1 Combined Maintenance

Course Number: A-233-0061.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, San Diego, CA.

Length: 5 weeks (201 hours).

Exhibit Dates: 5/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, checkout, maintain, troubleshoot, and repair specific Navy submarine electronic equipment.

Instruction: Instruction includes lectures and practical exercises over the theory of operation, functional analysis, logic flow, and maintenance procedures. Includes radar, super heterodyne receivers, digital electronics, and microprocessors.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (7/87).

NV-1715-1287

1. LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance Technician
2. Recovery Assist Securing and Traversing (RAST) A/W 42U-1(V) Maintenance (Electrical)

Course Number: *All Versions:* K-652-2204.

Location: *Version 1:* Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA. *Version 2:* Fleet Training Center, San Diego, CA.

Length: *Version 1:* 4 weeks (159 hours). *Version 2:* 3–4 weeks (97 hours).

Exhibit Dates: *Version 1:* 8/87–Present. *Version 2:* 12/86–7/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform electrical/electronic maintenance, troubleshooting, and repair to the component level on a shipboard system used to land helicopters.

Instruction: *Version 1:* Lectures and practical exercises on the electrical/electronic troubleshooting and maintenance of the helicopter landing system. The electrical/electronic circuitry primarily concerns motor control and power. *Version 2:* Lectures and practical exercises on the electrical/electronic maintenance of the helicopter landing system. The electrical/electronic circuitry primarily concerns motor control and power.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical/electronic troubleshooting and 1 in electrical control systems laboratory (3/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic troubleshooting (7/87).

NV-1715-1288

1. LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance
2. Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical)

Course Number: K-652-2205.

Location: *Version 1:* Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA. *Version 2:* Fleet Training Center, San Diego, CA.

Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 4 weeks (157 hours).

Exhibit Dates: *Version 1:* 8/87–Present. *Version 2:* 12/86–7/87.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to perform operational tasks, preventive and corrective maintenance, and troubleshoot the mechanical components of a shipboard system used to land helicopters. *Version 2:* Upon completion of the course, the student will be able to perform operational tasks, preventive maintenance, and basic corrective maintenance of the Recovery Assist Securing and Traversing (RAST) system.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises on theory, maintenance and operation of the system. *Version 2:* Instruction includes lecture and laboratory instruction on theory maintenance and operation of the RAST system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of mechanical systems, 1 in principles of hydraulic systems, and 1 in hydro-mechanical laboratory (3/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of mechanical systems, 1 in principles of hydraulic systems, 1 in mechanical troubleshooting, and 1 in hydraulic troubleshooting (7/87).

NV-1715-1289

(GFCS) Mk 86 Radar Group Equipment Maintenance

Course Number: A-113-0098.

Location: Fleet Training Center, San Diego, CA; Service School Command, Great Lakes, IL. Fleet Combat Training Center, Dam Neck, VA.

Length: 17 weeks (623 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain the GFCS MK 86 (Gun Fire Control System) Radar Group, including the primary power controllers, the SPG-60 Air Action Radar, the SPQ-9A Surface Search Radar, the MK-2 system as well as the digital control and interface systems.

Instruction: Students shall have completed Fire Control A school and shall receive instruction in theory and practice in the principles of search and tracking radars, the use of tools and proper test instruments necessary to perform operational and diagnostic testing, disassemble, repair, reassemble and calibration of the GFCS MK 86 Radar Group. For previous version of this course, see NV-1715-1228.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (7/87).

NV-1715-1290

MK 38 GUN FIRE CONTROL SYSTEM (FCS)

Course Number: K-113-1185.
Location: Fleet Training Center, San Diego, CA.
Length: 7-8 weeks (320 hours).
Exhibit Dates: 1/84-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and perform planned maintenance on the MK 38 Gun Fire Control System.
Instruction: Instruction includes lecture and laboratory experiences on all aspects of the MK 38 Gun Fire Control System. This includes theory, operation, maintenance, and repair using tools and test equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in principles of radar (7/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic systems troubleshooting, and 2 in principles of hydraulic control (7/87).

NV-1715-1291

MK 37 GUN FIRE CONTROL SYSTEM (FCS)

Course Number: A-113-0109.
Location: Fleet Training Center, San Diego, CA.
Length: 7-8 weeks (320 hours).
Exhibit Dates: 1/84-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and perform planned maintenance on the MK 37 Gun Fire Control System.
Instruction: Instruction includes lecture and laboratory experiences in all aspects of the MK 37 Gun Fire Control System. This includes theory, operation, maintenance and repair using tools and test equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in fundamentals of radar (7/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic system troubleshooting and 2 in principles of hydraulic control (7/87).

NV-1715-1292

5"38 CALIBER GUN SYSTEM

Course Number: K-113-0108.
Location: Fleet Training Center, San Diego, CA.
Length: 7-8 weeks (320 hours).
Exhibit Dates: 4/84-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and perform planned maintenance on the 5"8 MK 28 Gun System.
Instruction: Instruction includes lecture and laboratory practice on all aspects of the MK 28 Gun and hydraulic control system. This includes theory, operation, maintenance, and repair using tools and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles of hydraulic control (7/87).

NV-1715-1293

16"/50 CALIBER GUN SYSTEM

Course Number: A-113-0111.
Location: Fleet Training Center, San Diego, CA.
Length: 7-8 weeks (320 hours).
Exhibit Dates: 1/84-Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and perform planned maintenance on operational gun turrets under limited supervision.
Instruction: Group-paced instruction including lecture and laboratory experiences on the gun turret system utilizing both trainers and live equipment. This includes theory, operation, maintenance, and repair using tools and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of electrical systems maintenance, 2 in principles of mechanical systems, and 2 in principles of hydraulic systems (7/87).

NV-1715-1294

BASIC CIRCUIT CONCEPTS

Course Number: A-652-0134.
Location: Service Schools Command, Great Lakes, IL.
Length: 1 week (40 hours).
Exhibit Dates: 9/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able recognize safe electrical practice, analyze AC and DC circuits, interpret circuit diagrams pertaining to solid state devices, analyze operating conditions of simple digital logic circuits, and use the multimeter and oscilloscope for measurements.
Instruction: Classroom and practical exercises covering electrical safety, basic AC and DC circuits, solid state devices, digital logic circuits and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic technology (6/88).

NV-1715-1295

ELECTRICIAN'S MATE ADVANCED MAINTENANCE TRAINING

Course Number: A-662-0017.
Location: Service Schools Command, Great Lakes, IL.
Length: 20 weeks (800 hours).
Exhibit Dates: 6/87-Present.
Learning Outcomes: Upon completion of the course, the student will have a fundamental understanding of: how to operate and maintain a 100KW motor-generator and the generator frequency and voltage controller, basic electricity and electronics, solid state theory and application, digital logic theory and application, test equipment application, single and multiphase motors, servo systems, degaussing system operation and maintenance.
Instruction: Multimedia, group-paced learning system incorporating extensive use of laboratories in AC/DC circuits, semiconductor theory and application, digital logic and logic circuits, AC and DC motor and generator operation and maintenance, 100KW generator frequency and voltage controller operation and maintenance, degaussing systems operations and testing, maintenance and material managment, servo system operation and testing.
Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics and 3 in technical mathematics (6/88); in the lower-division baccalaureate/associate degree category, 3 semester hours in electro-mechanical control, 4 in DC circuits, 4 in AC circuits, and 2 in digital logic (6/88).

NV-1715-1296

INTERIOR COMMUNICATIONS ELECTRICIAN ADVANCED MAINTENANCE TRAINING

Course Number: A-623-0013.
Location: Service Schools Command, Great Lakes, IL.
Length: 20 weeks (800 hours).
Exhibit Dates: 6/87-Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance, calibration, troubleshooting, and repair of shipboard electrical equipment, such as communication systems, wind measuring systems, and shift, temperaturing, monitoring, salinity measuring systems, and ships logging system using basic electricity/electronics, solid state theory and application, digital logic theory and application, test equipment application, single and multiphase motors, and servosystems.
Instruction: Multimedia, group-paced learning system incorporating extensive use of laboratories in AC/DC circuits, semiconductor theory and application, digital logic and logic circuits, AC and DC motor and generator operation, servomechanism components and systems, and a review of basic algebra and trigonometry.
Credit Recommendation: In the vocational certificate category, 3 semester hours in solid state electronics and 3 in technical math (6/88); in the lower-division baccalaureate/associate degree category, 4 semester hours in DC circuits, 4 in AC circuits, 3 in servomechanism, and 2 in digital logic (6/88).

NV-1715-1297

GUN MOUNT 5"/54 MK 45 MOD 1

Course Number: A-113-0115.
Location: Service Schools Command, Great Lakes, IL.
Length: 4 weeks (160 hours).
Exhibit Dates: 10/84-Present.
Learning Outcomes: Upon successful completion of the course, the student will have developed the fundamental electromechanical-hydraulic skill and knowledge to operate, maintain, isolate and repair mechanical, electrical and electronic faults for a computer controlled gun mount.
Instruction: Classroom instruction and laboratory exercises covering system operation, controls, indicators/readouts, electrical/hydraulic/electronic circuits, mechanical structures/linkages, computer codes, and diagnostic procedures, and basic safety.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical system operation, troubleshooting, and maintenance (6/88).

NV-1715-1298

GUIDED MISSILE LAUNCHING SYSTEM MK 10 SOLID STATE CONTROL SYSTEM DIFFERENCE

Course Number: A-121-0499.
Location: Service Schools Command, Great Lakes, IL.

Length: 6 weeks (240 hours).
Exhibit Dates: 4/87–Present.
Learning Outcomes: Upon successful completion of the course, the student will have developed the fundamental skills and knowledge to operate and maintain a computer controlled guided missile launching system. The student will be able to identify and correct system faults down to the subsystem (module) level using flow charts, logic drawings, schematic diagrams and coded visual display fault indicators.
Instruction: Classroom instruction and laboratory exercises, covering system operation, controls, indicators/readouts, electrical/electronic/hydraulic circuits, mechanical structures/linkages, computer codes, diagnostic procedures, and basic safety.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic systems troubleshooting and maintenance (6/88).

NV-1715-1299

U.S. Marine Corps Remote Sensor Operator Reserve (Phases 1 and 2)

Course Number: J-243-2014.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.
Length: 4 weeks (80 hours).
Exhibit Dates: 7/88–Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and employ ground-based remote sensor equipment.
Instruction: Lectures and demonstrations in operations, employment, and maintenance of remote sensors, preparation of plans, documents, reports, and messages associated with remote sensor operations.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic security systems and 3 in electronic security implementation, operation, and management; in the lower-division baccalaureate/associate degree category, 2 semester hours in basic map reading (7/88).

NV-1715-1300

U.S. Marine Corps Remote Sensor Operator

Course Number: J-243-0941.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.
Length: 5–6 weeks (204 hours).
Exhibit Dates: 11/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and employ ground-based remote sensor equipment.
Instruction: Lectures, demonstrations, and practical exercises in the operation, employment, and maintenance of remote sensors, map reading and interpretation, preparation of plans, documents, reports and messages associated with remote sensor operations.
Credit Recommendation: In the vocational certificate category, 3 semester hour in electronic security systems and 3 in electronic security implementation, operation, and management (7/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic map reading (7/88).

NV-1715-1301

Aegis Display System Operation and Maintenance

Course Number: S-150-0238; A-150-0238.
Location: Aegis Training Center, Dahlgren, VA.
Length: 22 weeks (876 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able operate, maintain, and repair a computer-based video signal processing system including displays, computers, communications, power supplies, and cooling equipment; use general purpose and specialized test equipment to isolate system problems to the component and connector pin level; understand the function of subsystems which make up the system including digital computer organization, power supplies, CRT circuits, radar circuits, data conversion circuits, and liquid cooling systems.
Instruction: Half classroom and half laboratory instruction on the above topics. For this course before 1/86 see NV-1715-1115.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems troubleshooting and maintenance (12/88).

NV-1715-1302

Aegis Weapon System Operation and Maintenance (AN/SPY-1A/B)

Course Number: S-121-0551; A-121-0551; A-104-0190.
Location: Aegis Training Center, Dahlgren, VA.
Length: 17 weeks (678 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to direct the maintenance operations of a phased array radar system; be familiar with the Aegis weapon system and all of its subsystems, the radar system, radar set, fire control system, and the operational readiness test system; be able to manually initiate fault detection and isolation tests, and evaluate and analyze test results.
Instruction: Classroom lectures and practical exercises on the above topics. For this course before 1/86 see NV-1715-1116.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance and 2 in computer system troubleshooting and maintenance (12/88).

NV-1715-1303

Aegis Radar System AN/SPY-1A Operation and Maintenance

Course Number: S-104-0191; A-104-0191.
Location: Aegis Training Center, Dahlgren, VA.
Length: 24 weeks (908 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate and maintain a phased array radar system including high voltage power supplies, cooling systems, computerized control and signal processing systems, microwave transmitter/receivers, and antenna/waveguide structures; use standard and RF-specific test equipment to test, troubleshoot, align, and maintain radar; understand the function of system components including power, computer controls, RF signal generation and detection, digital signal processing, and cooling/conditioning equipment.
Instruction: Half classroom lecture half practical excercises on the above topics. For this course before 1/86 see NV-1715-1118.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems and organization, 4 in radar systems, and 6 in electronic systems troubleshooting and maintenance (12/88).

NV-1715-1304

Aegis Fire Control System/ORTS Operation and Maintenance

Course Number: S-104-0192; A-104-0192.
Location: Aegis Training Center, Dahlgren, VA.
Length: 25 weeks (907 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate and maintain a complex computer-based weapons control system; troubleshoot computer-based equipment including interfaces (analog and digital), peripherals, printer, and displays; understand technical manuals incorporating schematics, wiring diagrams, logic charts; perform alignment procedures using test equipment such as oscilloscopes; use diagnostic computer programs to localize equipment faults.
Instruction: For this course before 1/86 see NV-1402-0058. Lecture and laboratory exercises involving theory, operation, routine maintenance, and troubleshooting of a computer-based weapons system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer systems troubleshooting and maintenance, 4 in electronic systems troubleshooting and maintenance, and 4 in computer interface and peripheral systems (12/88).

NV-1715-1305

Remote Pressure/Tank Level/Liquid Airflow Indicating Equipment Maintenance

Course Number: A-623-0084.
Location: Trident Training Facility, Kings Bay GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: 2 weeks (77 hours).
Exhibit Dates: 11/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to describe the theory needed to support all corrective journeyman level maintenance on electronic and mechanical components of the remote pressure, tank level, liquid flow and pneumatic systems using authorized fault isolation and repair procedures.
Instruction: Group paced lecture and laboratory exercises on the operation and maintenance of A) remote pressure indicating equipment, B) differential pressure tank level indicator, C) magnetic tank level indicator, D) airflow indicator equipment, E) liquid flow indicator equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial instrumentation laboratory (2/89).

NV-1715-1306

Common Alarm, Temperature Monitoring and Salinity Systems Equipment Maintenance

Course Number: A-623-0083.
Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: 1 week (56 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the theory to support corrective maintenance using all authorized fault isolation and repair procedures on the temperature monitoring, salinity and common alarm systems found on the trident submarine.

Instruction: Group paced lecture and laboratory exercises on the operation and maintenance of A) alarm systems, B) temperature monitoring equipment, C) salinity equipment. Maintenance is at the journeyman level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instrumentation mechanics (2/89).

NV-1715-1307

ATMOSPHERE SUPPORT EQUIPMENT MAINTENANCE

Course Number: A-623-0085.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (44 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform documented corrective maintenance on the Trident control atmosphere monitoring system and the hydrogen detector.

Instruction: Group paced journeyman level instruction and laboratory exercises on the operation and maintenance of A) hydrogen detector, B) atmosphere monitoring system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in instrumentation laboratory (2/89).

NV-1715-1308

SHIP CONTROL SYSTEM MAINTENANCE

Course Number: A-623-0086.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 5 weeks (158 hours).

Exhibit Dates: 12/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform documented corrective maintenance on the ship control system and associated systems. Students can use the necessary test equipment to isolate and correct equipment faults at the journeyman level.

Instruction: Group paced lecture and laboratory exercises at the journeyman level on the operation and maintenance of A) multiplexer, B) ship control system, C) steering and diving control equipment, D) hovering equipment, E) missile compensating equipment, F) variable ballast and trim equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical laboratory (2/89).

NV-1715-1309

TRIDENT SHIP CONTROL AND ATMOSPHERE SUPPORT TECHNICIAN LEVEL I

Course Number: A-623-0080.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 9 weeks (372 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to do preventive maintenance at the apprentice level on specific atmosphere support equipment on board a Trident submarine. Technician will be able to give a general, physical and documentation description of specific equipment on board the Trident submarine for which that student is responsible.

Instruction: Lectures and laboratory exercises on the theory, maintenance and operation of the following equipment: a) power distribution system, b) alarm system, c) valve control equipment, d) position indication equipment, g) liquid flow indicator equipment, h) level indicator, i) salinity equipment, j) temperature monitoring equipment, k) depth detector, l) public address system, m) ballast and trim equipment, n) position control system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical controls and 3 in industrial instrumentation (mechanical) (2/89).

NV-1715-1310

INTEGRATED ANNOUNCING SYSTEM

Course Number: A-623-0093.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (69 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the theory to support advanced detailed corrective maintenance using all authorized fault isolation, test equipment and repair procedures on the integrated announcing system.

Instruction: Group paced lectures and advanced laboratory exercises on the operation and maintenance of the integrated announcing system. The advanced laboratory exercises include the use of special tools and test equipment used in the alignment and calibration after fault identification and correction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting (2/89).

NV-1715-1311

HOVERING AND MISSILE COMPENSATION AND ASSOCIATED POSITION CONTROL UNITS (PCU'S) ELECTRICAL MAINTENANCE

Course Number: A-623-0114.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (72 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide advanced electromechanical maintenance and undocumented troubleshooting for the hovering and missile compensation systems and associated position control units.

Instruction: Group paced lecture and advanced laboratory exercises on the operation and maintenance of hovering equipment and position control unit, missile compensating equipment and position control unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical systems laboratory (2/89).

NV-1715-1312

STEERING/DIVING SHIP'S CONTROL STATION AND VARIABLE BALLAST AND TRIM ELECTRICAL MAINTENANCE

Course Number: A-623-0113.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2–3 weeks (110 hours).

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide advanced maintenance and undocumented troubleshooting for steering/diving, ship control station and variable ballast and trim associated position control units.

Instruction: Group paced lecture and advanced laboratory exercises on the operation and maintenance of ship control station, ballast and trim equipment, steering and diving control equipment, and position control equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical control laboratory (2/89).

NV-1715-1313

TRIDENT SONAR SUBSYSTEM OPERATION AND MAINTENANCE LEVEL I

Course Number: A-130-0126.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 24 weeks (956 hours).

Exhibit Dates: 9/77–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform alignment, operational test, corrective maintenance, disassembly, repair, reassembly and/or replace/remove units during basic corrective maintenance to the authorized maintenance level on sonar subsystems. Involves apprentice level skills.

Instruction: Group paced lectures and laboratory exercises on the operation, maintenance and reconfigeration of the following sonar subsystems: A) Command and Control System, B) Detection-Tracking Group, C) Broadband Detection Spherical Array, D) Broadband Detection Towed Array, E) Passive Broadband Tracking Array, F) Torpedo Detection and Classification Communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in electronic communications systems laboratory (2/89).

NV-1715-1314

TRIDENT SONAR SUBSYSTEM OPERATION AND MAINTENANCE LEVEL III

Course Number: A-130-0129.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 8 weeks (288 hours).

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all authorized fault isolation and repair/corrective maintenance at the advanced journeyman level. Technician will be able to describe all major and associated components of the Sonar Subsystem Group,and to describe the functional interface between the AGC and related external equipment, describe signal flow, frequencies, input/output, frequencies, power supplies and protection devices.

Instruction: Group paced lecture and advanced laboratory exercises on the operation and maintenance on the following sonar subsystems: A) Acoustic Communication Group, B) Depth/Sound Speed Group, C) Depth Sounding Group, D) Bathytheormograph Group E) Recorder-Reproduce Group.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems laboratory (2/89).

NV-1715-1315

Trident Sonar Subsystem Operation and Maintenance Level II

Course Number: A-130-0127.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 9 weeks (330 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: See individual exhibits for learning outcomes. This is a pipeline course.

Instruction: See exhibits NV-1715-1316 (A-130-0131), NV-1715-1319 (A-130-0132), NV-1715-1318 (A-130-0307), NV-1715-1317 (A-130-0305), and NV-1715-1320 (A-130-0306).

Credit Recommendation: See individual exhibits for credit recommendation (2/89).

NV-1715-1316

AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/Spherical Array, Passive Beamforms (SAPB) Maintenance

Course Number: A-130-0131.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (62 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to adhere to personnel and equipment safety precautions which are to be observed while performing corrective maintenance, recognize and interpret all malfunction indications while performing corrective maintenance, use advanced techniques taught in this course to isolate faults/failures which cannot be located using prescribed maintenance documentation.

Instruction: Group-paced lecture and advanced laboratory exercises on the functional operation and maintenance of the spherical array passive beamforms (SAPB) preamplifier, filter, equalizer, clipper (PFEC) spherical array hydrophone (SAH).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (2/89).

NV-1715-1317

AN/BQQ-6 Group A Primary Power Control (PCC)/SSDC Advanced Maintenance

Course Number: A-130-0305.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (52 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe authorized techniques to isolate faults/failures which cannot be located using standard procedures contained in presribed maintenance documentation and/or with performance monitoring/fault localization; describe the recognition and interpretation of all malfunction systems.

Instruction: Group paced lecture and advanced laboratory exercises on the functional operation of the primary power control and units of the detection-tracking group.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic troubleshooting laboratory (2/89).

NV-1715-1318

AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum Analyzer (DSA) Advanced Maintenance

Course Number: A-150-0307.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (56 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize and interpret all malfunction indications, use authorized techniques to isolate faults/failures which cannot be located using procedures contained in prescribed maintenance documentation and/or with performance monitoring/fault localization.

Instruction: Group paced lecture and advanced laboratory exercises on the functional operation and maintenance of the multipurpose interface unit (MIU), digital spectrum analyzer (DAS).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (2/89).

NV-1715-1319

AN/BQQ-6 Sonar Set Detection Tracking

Course Number: A-130-0132.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the authorized techniques to isolate faults/failures which cannot be located using procedures contained in prescribed maintenance documentation and/or with performance monitoring/fault localization.

Instruction: Group paced lecture and advanced laboratory exercises on the fault isolation and repair procedures on the AN/BQQ-6 Sonar Detection-Tracking Group A Control Display Console.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting laboratory (2/89).

NV-1715-1320

AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance

Course Number: A-130-0306.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe authorized techniques to isolate faults/failures which cannot be located using standard procedures contained in prescribed maintenance documentation and/or with performance monitoring/fault localization; and describe the recognition and interpretation of all malfunction indications to support all corrective maintenance.

Instruction: Group paced lecture and advanced laboratory exercises on the Spherical Array Passive Processor (SAPP), Interference Rejection Processor (IRP), Detection-Tracking Group (DTG), and Precision Data Recorder (PDR).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic troubleshooting laboratory (2/89).

NV-1715-1321

Fire Control System Mk 98 Mod O Maintenance Procedures

Course Number: A-121-0436.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (65 Hours).

Exhibit Dates: 5/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform documented repair procedures on weapons system interconnections, troubleshoot and repair fire control system faults.

Instruction: Lecture and laboratory exercises in non-routine maintenance of fire control system software and hardware.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial electronics laboratory (2/89).

NV-1715-1322

Fire Control System Mk 98 Mod O Rev A Advanced Operations

Course Number: A-121-0431.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (76 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe characteristics, capabilities, and functional operation(s) and interface(s) of all subsystems of the Mk 98, Mod O fire control system, and perform all operational procedures with respect to the Mk 98 Mod 0 fire control system.

Instruction: Lecture and laboratory exercises in the description and operation of the Mk 98 Mod O fire control system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial electronics laboratory (2/89).

NV-1715-1323

Launcher Control Group Mk 13 Mod O Advanced

Course Number: A-121-0452.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (52 weeks).

Exhibit Dates: 12/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use special tools to identify and perform fault isolation and corrective maintenance to the equipment or program of the Launcher Control Group.

Instruction: Lecture and laboratory activities on basic theory, functions, operation, and maintenance procedures of the Launcher Control Group. Instruction covers topics on schematic diagrams, system test modes, control logic, signal flew, and sequential operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic technology (2/89).

NV-1715-1324

Controllers and Circuit Breakers Combined Maintenance

Course Number: A-662-0108.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and corrective maintenance on electrical controllers and circuit breakers used on submarines.

Instruction: Lectures and laboratory instruction on the operation, maintenance, and fault detection for high voltage circuit breakers, motor controllers, and switchgear.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical technology laboratory (2/89).

NV-1715-1325

Basic Electronic Test Equipment

Course Number: A-198-0054.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (57 hours).

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate basic electronic test equipment to measure electrical valves.

Instruction: Theory and laboratory exercises on basic electronic test equipment with topics on analog and digital multimeters, oscilloscopes, power supplies, transistor testers, generators, impedance meters, and AC/DC differential voltmeters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic instruments laboratory (2/89).

NV-1715-1326

Mk 118 Fire Control System Basic Maintenance

Course Number: A-130-0232.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (99 hours).

Exhibit Dates: 8/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic preventive/corrective maintenance on the fire control system.

Instruction: Lectures and laboratory exercises in the theory, operation, and maintenance of power supplies and power distribution, and firing circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer control/interfacing techniques laboratory (2/89).

NV-1715-1327

Ocean Systems Technician Maintainer Class A

Course Number: J-130-0295.

Location: Fleet Anti-Submarine Warfare Training Center, Norfolk, VA.

Length: 31–32 weeks (1223 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to solve algebra and trigonometric problems, solve AC and DC passive circuits and devices, analyze solid state circuits and devices, analyze digital circuits and devices, use basic laboratory instruments, and troubleshoot electronic systems.

Instruction: Lectures and practical exercises on basic electronics and specific military systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 2 in AC circuits, 2 in basic electronics laboratory, 3 in solid state electronics, 2 in digital principles, and 3 in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1328

AN/SRQ-4 Light Airborne Multipurpose System (LAMPS) Mk3 Maintenance

Course Number: A-101-0209.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to test, operate, and maintain a data link transceiver under operational conditions at the organizational level.

Instruction: Instructional methods include lectures and supporting laboratories in analyzing, locating, and correcting faults using such equipment as spectrum analyzers, oscilloscopes, and digital multimeters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1329

Communications Maintenance Class C

Course Number: J-130-0267.

Location: Fleet Anti-Submarine Training Center, Norfolk, VA.

Length: 7–8 weeks (288 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair at the board level a secure data relay system, an automatic switching terminal and teletype equipment.

Instruction: Instruction includes lectures and supporting laboratories in analyzing, locating, and repairing faults at the board level on several complex electronic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1330

Microminiature Electronics Repair

Course Number: A-100-0073.

Location: Fleet Training Center, Norfolk, VA; Fleet Mine Warfare Training Center, Charleston, SC; Fleet Training Center, Mayport, FL; Fleet Training Center, Pearl Harbor, HI; Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to repair and replace components on rigid and flexible printed circuit boards.

Instruction: Lectures, demonstrations, and practical experience in the techniques of printed circuit board repair, including component handling precautions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic fabrication techniques (3/89).

NV-1715-1331

General Purpose Electronic Test Equipment Functional and Operational Use

Course Number: J-100-0707.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, Mayport, FL.

Length: 1–2 weeks (68 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate test equipment (meters, signal generators, frequency counters, oscilloscopes, spectrum analyzers, and power meters) and perform routine maintenance on that equipment.

Instruction: Lectures and practical exercises on electronic test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics laboratory (3/89).

NV-1715-1332

AN/SPS-67(V)1 Radar Set Maintenance

Course Number: A-104-0177.

Location: Fleet Training Center, Norfolk, VA; Advanced Electronics School, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify, analyze, locate, and correct malfunctions occurring in a specific military radar set.

Instruction: Lectures and laboratory exercises related to maintenance and repair of the radar set. Subject matter includes electronic circuitry, troubleshooting techniques, test equipment, and maintenance methods.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1333

AN/SPS-64(V)9 Radar Set Maintenance

Course Number: A-104-0195.

Location: Fleet Training Center, Norfolk, VA; Advanced Electronics School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a specific shipboard radar set.

Instruction: Lectures and practical exercises related to maintaining a shipboard radar set. Emphasis is on the ability to identify, analyze, locate, and correct malfunctions in the radar set.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1334

Surface Electronic Warfare Operations Intermediate

Course Number: K-233-0022.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, Mayport, FL; Fleet Combat Training Center, San Diego, CA; Fleet Training Group, Pearl Harbor, HI; Fleet Training Group WESTPAC, Japan.

Length: 3 weeks (116 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe principles of electronic warfare, warfare systems, detection, classification and targeting.

Instruction: Lectures and classroom exercises on topics in electronic warfare.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/89).

NV-1715-1335

AN/SPS-40E Air Search Radar Set Maintenance

Course Number: A-104-0199.

Location: Fleet Training Center, Norfolk, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and maintain air search radar equipment using built-in and other laboratory test equipment under operational conditions with no supervision.

Instruction: Instructional methods include lectures and supporting laboratories in analyzing, locating, and correcting malfunctions in radar equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1336

AN/SPS-49(V)5 ATD Operation and Maintenance

Course Number: A-104-0209.

Location: Fleet Training Center, Norfolk, VA, Service School Command, San Diego, CA.

Length: 16 weeks (640 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain the radar system under all shipboard readiness conditions using built-in and other associated laboratory test equipment with no supervision.

Instruction: Lectures and supporting laboratories in operational set-up procedures and the use of built-in test equipment to maintain and troubleshoot the radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1337

AN/SPA-25G Radar Indicator Group Maintenance

Course Number: A-104-0205.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain, troubleshoot and repair a specific radar system.

Instruction: Lectures and practical exercises on the major functions of the equipment, operating procedures, adjustments, troubleshooting procedures, and removal and replacement procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1338

AN/USQ-74 Link Data Terminal Maintenance

Course Number: A-101-0222.

Location: Fleet Training Center, Norfolk, VA; Advanced Electronics School, San Diego, CA.

Length: 4 weeks (152 hours).

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain data terminals using diagnostic tests and measurement equipment.

Instruction: Lectures and laboratory exercises in the operation and maintenance procedures of keyboards, teletypes, tape readers, and associated equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance (3/89).

NV-1715-1339

Mk NC-2 Mod 2/2A Plotting System Maintenance

Course Number: J-623-0016.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 5 weeks (200 houts).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair a shipboard navagational plotting system.

Instruction: For this course before 11/84 see NV-1715-0076. Lectures and laboratories in solid state devices, voltage networks, transistors, synchro/servo systems, dead reckoning analyzer-indicator, plotting table and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1340

High Frequency Systems Technician Maintenance

Course Number: A-101-0258.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 11 weeks (440 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and perform corrective and preventive maintenance on high frequency shipboard communication systems.

Instruction: Lectures and practical exercises to isolate and repair equipment malfunctions as well as perform preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1341

AN/SRN-19(V)2 Radio Navigation Set Maintenance

Course Number: A-102-0266.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/80–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a specific military radio navigation set.

Instruction: Lectures and practical exercises specific to the radio navigation set with emphasis on isolation and correction of malfunctions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1342

TSEC/KY-65A/75A AN/USC-43 ANDVT Limited Maintenance

Course Number: A-160-0087.

Location: Fleet Training Center, Norfolk, VA; Combat Systems Training School, Mare Island, CA.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform limited maintenance on a specific cryptographic set.

Instruction: Lectures and practical exercises focused on the maintenance of the cryptographic set.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/89).

NV-1715-1343

Officer in Tactical Command Information Exchange System

Course Number: A-101-0221.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2-3 weeks (96 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain crypto equipment and peripherals.

Instruction: Lectures and practical exercises on the operation, troubleshooting, and repair of the electronic system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1344

AN/WSC-6(V)2 Maintenance

Course Number: A-101-0149.

Location: Fleet Training Center, Norfolk, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain specific satellite communications modems.

Instruction: Lectures and practical exercises on theory of operation preventive maintenance, and alignment procedures of specific satellite communications data links (modems).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1345

MINIATURE ELECTRONICS REPAIR

Course Number: A-100-0072.

Location: Fleet Training Center, Norfolk, VA; Fleet Mine Warfare Training Center, Charleston, SC; Fleet Training Center, Mayport, FL; Fleet Training Group, Pearl Harbor, HI; Service School Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to repair two-sided printed circuit boards to original specifications and maintain the repair station equipment without supervision.

Instruction: Instructional methods include lectures and supporting laboratories in disassembling and replacing or repairing connectors and components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fabrication (3/89).

NV-1715-1346

OM-55/USC SUPER HIGH FREQUENCY SATELLITE COMMUNICATION MODULAR DEMODULATOR GROUP MAINTENANCE

Course Number: A-101-0244.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, maintain, and repair specific satellite communications modems.

Instruction: Lectures and practical exercises in operation, fault isolation, repair, and preventive maintenance of specific communication system modem.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1347

ULTRA HIGH FREQUENCY-DEMAND ASSIGNED MULTIPLE ACCESS (DAM-A)

Course Number: A-101-0164.

Location: Fleet Training Center, Norfolk, VA; Advanced Electronics School, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain a multiplexer set and related rack equipment under limited supervision.

Instruction: Instructional methods include lecture and supporting laboratories in analyzing, locating, and correcting faults using such test equipment as frequency counters, oscilloscopes, and digital voltmeters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1348

HIGH FREQUENCY SURFACE COMMUNICATIONS SYSTEM OPERATOR

Course Number: A-260-0063.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 6 weeks (236 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain several specific radio and satellite communications systems.

Instruction: Lectures and practical exercises which provide comprehensive systems-level training for operating and isolating faults on communications systems found on surface ships.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1349

ELECTROMAGNETIC COMPATABILITY TECHNICIAN

Course Number: A-101-0250.

Location: Fleet Training Center, Norfolk, VA.

Length: 2-3 weeks (115 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform electromagnetic interference surveys, and correct interference.

Instruction: Instructional methods include lectures and supporting laboratories in detecting and correcting electromagnetic interference. Training in the use of spectrum analyzers, an antenna test set, a time domain reflectometer, a broadband radition monitor, a thruline wattmeter, a megohmmeter, and an RF burn meter are emphasized.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communication (3/89).

NV-1715-1350

AN/USQ-74 LINK SYSTEM MAINTENANCE

Course Number: A-101-0264.

Location: Fleet Training Center, Norfolk, VA; Advanced Electronics School, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain a computer system at the user level under all operational conditions with no supervision.

Instruction: Instructional methods include lectures and supporting laboratories in basic digital theory, computer systems and organization, and system troubleshooting and maintenance. Major topics include number systems, Boolean algebra, logic gates, macro and micro instructions, I/O and memory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital principles, 3 in computer systems and organization, and 3 in computer systems troubleshooting and maintenance (3/89).

NV-1715-1351

AN/SPS-40B/C/D DMTI RADAR SET MAINTENANCE

Course Number: A-104-0183.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 9 weeks (344 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain specific radar equipment under shipboard operational conditions with no supervision.

Instruction: Instructional methods include lectures and supporting laboratories in analyzing, locating, and correcting various malfunctions in radar equipment using the associated test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1352

AN/TRQ-35(V) TACTICAL FREQUENCY MANAGEMENT SYSTEM

Course Number: A-101-0225.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform preventive and corrective maintenance on a specific receiver subsystem.

Instruction: Lectures and practical experience in preventive maintenance and isolation and correction of system malfunctions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (3/89).

NV-1715-1353

TRIDENT EXTERIOR COMMUNICATIONS SYSTEM (ECS) LEVEL II BASIC MAINTENANCE

Course Number: A-101-0157.

Location: Trident Training Facility, Bangor, Bremerton, WA; Kings Bay GA.

Length: 26 weeks.

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform corrective maintenance on the AN/BSC-2 except the OJ-326 SIDS console.

Instruction: This course is composed ofA-150-0228 (NV-1715-1354), A-101-0170 (NV-1715-1355), A-101-0175 (NV-1715-1359), A-101-0172 (NV-1715-1357), A-101-0173 (NV-1715-1358), A-101-0171, (NV-1715-1356), A-101-0256.

Credit Recommendation: See individual exhibits for credit recommendations.

NV-1715-1354

TRIDENT EXTERIOR COMMUNICATIONS SYSTEM (ECS) AN/UYY-20X(V) DATA PROCESSING SET/CONTROL, MONITOR AND TEST SUBSYSTEM MAINTENANCE

Course Number: A-150-0228.

Location: Trident Training Facility, Bangor, Bremerton, WA; Trident Training Facility, Kings Bay, GA.

Length: 6 weeks (260 hours)

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to define the abbreviations and terms associated with the control, monitor and test (CMT) subsystem, state the operational characteristics of the subsystem, describe all major components of the subsystem and use all technical documentation required to support basic corrective maintenance of the CMT subsystem.

Instruction: Lecture and hands on laboratory exercises in operation and fault isolation and corrective maintenance of the following electronic equipment: 1) Indicator Processor ID-2156, 2) Interface unit J-3565, 3) Power Supplies, 4) Recorder-Reproducer Control C-10447, and 5) Demodulater Group OM-56/BSC-1.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronics laboratory (3/89).

NV-1715-1355

Trident Exterior Communications System (ECS) Level II VLF/LF Subsystem

Course Number: A-101-0170.

Location: Trident Training Facility, Bangor, Bremerton, WA Trident Training Facility, Kings Bay, GA.

Length: 5 weeks (208 Hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon successful completion of the course, the trainee will be able to state the operational characteristics of the VLF/LF Subsystem, define the abbreviations and terms used in the system documentation, describe the organization and content of all technicial documentation used in the support of basic preventive/corrective maintenance at the component level.

Instruction: Laboratory and hands on laboratory exercises in diagnostic procedures, disassembly, repair, and reassembly of the VLF/LF communication system and subsystems to include demodulators, power supplies, radio receivers and teletypes. Test equipment used includes digital multimeters, oscilloscopes and frequency meters.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital communications laboratory (3/89).

NV-1715-1356

Trident Exterior Communications System (ECS) Data Switching Subsystem Basic Maintenance

Course Number: A-101-0171.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (152 hours).

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon successful completion of this course the level I Radioman will have the necessary skills to perform basic corrective maintenance on Data Switching devices.

Instruction: Lecture and hands on laboratory exercises in the fault isolation and repairs of the following equipment: 1. Switch Interconnect, 2. Crypto Set TSEC/KL-51, 3. Demodulator MD-1044/Convertor CV2460, 4. Power Switchboard, and 5. Power Supplies.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electro/mechanical systems laboratory (3/89).

NV-1715-1357

Trident Exterior Communications System (ECS) Support Subsystem Basic Maintenance

Course Number: S-101-0172.

Location: Trident Training Facility, Bangor, Bremerton, WA; Kings Bay, GA.

Length: 3 weeks (110 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon successful completion of this course the Level I Radioman will have the necessary skills to perform basic corrective maintenance on the Trident ECS support system, to include: power and control units and high speed printers.

Instruction: Lecture and Hands on laboratory exercise in the fault isolation and repair of the following equipment: Teleprinter TT-624, Teleprinter AN//UGC-136, Power switchboard, and electronic equipment air coolers.

Credit Recommendation: In the vocational certificate category, 2 semester hours in teletype repair (3/89).

NV-1715-1358

Trident Exterior Communications System (ECS) Antennas/Antenna Interface System

Course Number: A-101-0173.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon successful completion of the course the level I Radioman will have the necessary skills to perform basic corrective maintenance on antennas, antenna couples, and antenna switches.

Instruction: Lecture and hands on laboratory exercises in the fault isolation and corrective maintenance of Antennas/Antenna Interface system to include: 1. Antenna coupler CU-2197, 2. Antenna Control Indicator C-10257, 3. Towed Buoy Antenna, and 4. Antenna Interconnect Box.

Credit Recommendation: In the vocational certificate category, 2 semester hours in antenna systems laboratory (3/89).

NV-1715-1359

Trident Exterior Communications System (ECS) Level II HF/VHF

Course Number: A-101-0175.

Location: Trident Training Facility, Bangor, Bremerton, WA; Kings Bay, GA.

Length: 3 weeks (128 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of this course the trainee will be able to state the operational characteristics of the VHF/HF subsystem, define the abbreviations and terms used in the system documentation, describe the organization and content of all technical documentation used in the support of basic preventive/corrective maintenance at the component level.

Instruction: Lecture and hands on laboratory exercises in diagnostic procedures, disassembly, repair and reassembly of the VHF/HF communication system and subsystems to include radio transmitters/receivers, RF amplifers, Audio-Digital (A/D) converters, voice switch and power supplies. Test equipment used includes oscilloscopes, digital multimeter frequency meters an alignment tools.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in analog communications laboratory (3/89).

NV-1715-1360

Trident Exterior Communications Subsystem Advanced Maintenance Level III

Course Number: A-101-0169.

Location: Trident Training Facility, Bangor, Bremerton, WA; Trident Training Facility, Kings Bay, GA.

Length: 9 weeks (357 hours).

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon successful completion of this course the senior Trident radioman will have the necessary skills to perform advanced corrective maintenance on critical equipment used in the Trident Exterior Communications Subsystems using both documented and undocumented procedures.

Instruction: Laboratory exercises and lectures in the operation and maintenance of a digital communication systems covering the capability and functions of the central communications software program including loading procedures, inserting authorized software patches and re-boot procedures in the event of a software error are all covered. The digital message interface unit and disk drive memory system is described. Approximately half of the course is devoted to maintenance procedured and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer operation and maintenance (3/89).

NV-1715-1361

Trident Exterior Communication System, Level I

Course Number: A-101-0168.

Location: Trident Training Facility, Bangor, Bremerton, WA; Trident Training Facility, Kings Bay, GA.

Length: 11 weeks (448 weeks).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon successful completion of this course the trainee will have acquired the knowledge and developed the neccessary skills to: 1) state the purpose, function and location of Trident Submarine Exterior Communications Systems (ECS), 2) Perform, with supervision preventive maintenance at the systems level on ECS, 3) Describe the theory necessary to understand and support the normal operation of communications equipment found on Trident Submarines.

Instruction: Lecture and hands-on laboratory exercises in the basic theory, operation and preventive maintenance at the systems level on power distribution panels, teleprinters/typewriters, antennae systems, radio buoys, and HF/UHF and LF/ULF Subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communications laboratory systems (3/89).

NV-1715-1362

Trident (ECS) Electronics Command and Control System Technician Conversion

Course Number: A-102-0249.

Location: Trident Training Facility, Bangor, Bremerton, WA; Trident Training Facility, Kings Bay, GA.

Length: 6 weeks.

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to oper-

ate and maintain electronic equipment unique to the Trident submarine.

Instruction: This is a composite course consisting of A-100-0077, A-102-0251 (NV-1715-1364), A-102-0252 (NV-1715-1363) and A-102-0261. See individual exhibits.

Credit Recommendation: See individual exhibits.

NV-1715-1363

AN/BPS Radar Combined Maintenance

Course Number: A-102-0252.

Location: Trident Training Facility, Bremerton, Bangor, WA. Trident Training Facility, Kings Bay, GA.

Length: 3 weeks (119 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance and all authorized fault isolation and repair procedures in Trident Radar Subsystem

Instruction: Laboratory and hands on laboratory exercises in the operation and preventive maintenance on AN/BPS-15B Radar and DWS/CS Display Radar.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radar maintenance laboratory (3/89).

NV-1715-1364

Trident Command and Control System (CCS) Electronics Technician Conversion

Course Number: A-102-0251.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (56 hours).

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the theory necessary to support the normal operation and mechanical component breakdown on Trident Radar Subsystems.

Instruction: Laboratory and hands on laboratory exercises in the operation and preventive maintenance on Transponder Test Set AN/UPM-136 and IFF equipment AN/UPX-28 (V).

Credit Recommendation: In the vocational certificate category, 1 semester hour in radar laboratory (12/89).

NV-1715-1365

Trident Defensive Weapons Ordinance Subsystem (DWOS) Replacement

Course Number: A-123-0176.

Location: Trident Training Facility, Bangor, Bremerton, WA; Trident Training Facility, Kings Bay, GA.

Length: 5 weeks (194 hours).

Exhibit Dates: 7/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to state the purpose of the command and control system (CCS), define the abbreviations and terms used with the CCS, state the operational characteristics and capabilities of the CCS, state the operational characteristics and capabilities of Defense Weapons Ordinance Subsystem (DWOS), perform alignment, adjustment, calibration and corrective maintenance on the torpedo launching system.

Instruction: Lecture and laboratory exercises on torpedo launching systems, ordinance handling equipment, command and control equipment and defensive weapons ordinance subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electro/mechanical and pneumatics systems laboratory (3/89).

NV-1715-1366

Trident Navigation Subsystem Theory

Course Number: A-193-0345.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (77 hours).

Exhibit Dates: 6/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the functions of the Trident Navigational Subsystem.

Instruction: Lectutes on the functional operation of the Trident Navigation Subsystems. Each of the 17 components of the navigation subsystem is covered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/89).

NV-1715-1367

Navigation Control Console Mk 3 Mod 2 Maintenance

Course Number: A-193-0342.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (63 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the functional operation and of the Mk3 Mod 2 Navigation Control Console (NCC), and describe the , Control, Test logic and functual waterface circuitry of the NCC, and perform all authorized fault isolation an repair procedures an the NCC.

Instruction: Lecture and laboratory exercises supporting corrective maintenance procedures on the Mk3 Mod 2 navigational control console; specifically with respect to the: X-Y plotter, teleprinter, CNC controls, status displays and power supplies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in applied electronics (control consoles).

NV-1715-1368

SONAR Sounding Set AN/BON-3J Maintenance

Course Number: A-193-0329.

Location: Trident Traning Facility, Bangor, Bremerton, WA.

Length: 3 weeks (92 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe in detail the construction features of the AN/BQN-3J sonar sounding set subassemblies, and describe in detail its functional operation; and perform authorized fault isolation and repair procedures on the equipment.

Instruction: Lectures and laboratory exercises supporting corrective maintenance procedures on the AN/BQN-3J sonar sounding set, specifically with respect to the system training unit, control display unit, transmitter receiver groups, sonar read-out, computer interface, digital depth measuring system, automatic power level control, external display interface and performance monitor/fault locator.

Credit Recommendation: In the vocational certificate category, 1 semester hours in applied techniques (sonar in electronics (sonar systems) (3/89).

NV-1715-1369

Ships Inertial Navigation System Theory and Maintenance II

Course Number: A-193-0322.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (72 hours).

Exhibit Dates: 12/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform routine check-out procedures on the MK2 Mod 6/7 Ships Inertial Navigation System (SINS), performs preventive and corrective maintenance on the MK2 Mod 6/7 SINS, and effectively utilize special tools an support documentation in isolating system faults.

Instruction: Lecture an laboratory exercises inthe describtion, function and corrective maintenance procedures of Inertial Navigation System power distribution and control loops.

Credit Recommendation: In the vocational certificate category, 2 semester hours in applied electronics (inertial navigation systems) (3/89).

NV-1715-1370

Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement

Course Number: A-193-0309.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 17 weeks (730 hours).

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, monitor and test navigational equipment.

Instruction: This course is comprised of A-193-0398 (NV-1715-1371) and A-193-0399 (NV-1715-1372). See individual exhibits.

Credit Recommendation: See individual exhibits (3/89).

NV-1715-1371

Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements

Course Number: A-143-0398.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 13 weeks (566 hours).

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all normal and casualty operations on the Navigation Subsystem, Sonar Sounding Set, Radio Navigation Set, Loran Receiving Set, ESGM and Navigation Equipment VAMP. Student will also perform preventative maintenance and fault isolation/repair procedures on various electronic navigation equipment.

Instruction: Lecture and laboratory exercises in the operation, testing, and maintenance of electronic navigation equipment including: central navigation computer, navigation control console, radio navigation set, LORAN Set, sonar sounding set, electrostatically supported gyro monitor (ESGM) and strategic weapons system (SWS) ventilation and power distribution.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic navigation systems maintenance (3/89).

NV-1715-1372

Trident I-Navigation Subsystems

Course Number: A-193-0399.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 4 weeks (164 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all normal and casualty procedures or the Trident I Navigation Subsystem; perform all preventive maintenance procedures on subsystem; and perform documented fault isolation and repair procedures on subsystems.

Instruction: Lecture and laboratory exercises in support of operational and maintenance efforts on strategic weapons system and navigation subsystems including: SWS ventilation, 400HZ, 600HZ and DC power supply and navigation subsystem interface and calibration.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromedical systems technology (3/89).

NV-1715-1373

Trident I CNC Equipment Replacement

Course Number: A-193-0396.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 16 weeks (592 hours).

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform normal and casualty operationsl procedures on the navigation subsystem, perform preventive maintenance procedures on the subsystem level and perform documented fault isolation and repair procedures on the subsystem.

Instruction: Lecture and laboratory exercise in the operation testing and maintenance of navigation computer systems including: Navigation computer CP-890B/UYK, digital to digital and analog to digital converters, tape I/O and the navigation control counsol.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, and 2 in laboratory digital systems maintenance (3/89).

NV-1715-1374

Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration

Course Number: A-193-0320.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (51 hours).

Exhibit Dates: 1/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform calibration procedures on Mk 2 Mod 6/7 Ships Inertial Navigation System.

Instruction: Lectures and laboratory exercises in the theory and detailed logic analysis of the Ships Inertial Navigation System, familiarization with the operation, special tools and support documentation, and repair procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/89).

NV-1715-1375

Electrostatically Supported Gyro Monitor (ESGM) Calibration

Course Number: A-193-0331.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (63 hours).

Exhibit Dates: 11/81–Present.

Learning Outcomes: Upon completion of the course, the student will be able to calibrate the Electrostatically Supported Gyro Monitor (ESGM).

Instruction: Lecture and laboratory exercises in the operational TASKS concerned with calibration of ESGM system equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/89).

NV-1715-1376

Advanced Theory and Maintenance I Ships Inertial Navigation System (SINS) Mk 2 Mods 6/7

Course Number: A-193-0321.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 2 weeks (72 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate the Mk 2 Mod 6/7 Ships Inertial Navigation System (SINS), perform preventive and corrective maintenance on the MK 2 Mod 6/7 SINS and effectively utilize special tools and support documents in isolating system faults.

Instruction: Lecture and laboratory exericises in advanced theory and maintenance of Ships Inertial Navigation Systems including: temperature control, monitoring alarm and support circuits; data monitoring, transmissions and gyro-monitoring circuits; and on-line diagnotic monitoring circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in applied electronics (Inertial Navigational Systems) (3/89).

NV-1715-1377

Trident-I Fire Control Techician Replacement

Course Number: A-121-0412.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 23 weeks (532 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform normal and casualty operational procedures on the Mk98 Mod O Fire Control System and associated equipment, and perform preventive maintenance and fault isolation/repair procedures on the Mk98 Mod O Fire Control System and associated equipment.

Instruction: Lecture an laboratory exercises supporting operational and maintenance procedures on Fire Control Equipment including; computer network software, diagnostic disk file, magnetic tape flie, keyboard an display, printer subsystem, master clock, data base equipment, power and switching subsystems and optical alignment group.

Credit Recommendation: In the vocational certificate category, 4 semester hours in applied electronics fire control systems; In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics and 2 in computer technology (3/89).

NV-1715-1378

Trident-1 Missile Technician Conversion

Course Number: A-121-0440.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 23 weeks (562 hours).

Exhibit Dates: 6/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to transfer his skills as a missile technician to trident system including; perform standard test procedures on trident missile launching systems, and performs routine maintenance procedures on missile launching systems missile lauching systems, troubleshoot and isolate faults on the system and component level,

Instruction: Lecture an laboratory exercises on the theory, operation and troubleshooting of a missile launching system including the use of computer aided diagnostics and troubleshooting flow charts to the board level; pneumatic, hydraulic and electric power conversion subsystems and digital/computer components; the ability to use basic digital/computer theory and systems knowledge to troubleshoot to the component level is also emphasized.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electromedical systems (3/89); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital systems maintenance laboratory (3/89).

NV-1715-1379

Trident I Ships Inertial Navigation System (SINS) Equipment

Course Number: A-193-0397.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 17 weeks (620 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply basic concepts of physics, electronics and electromechanical devices, and perform operating procedures on Ships Inertial Navigation System (SINS) MK 2 Mod 7 and related equipment, and perform preventive and corrective mai maintenance on SINS MK 2 Mod 7 and related equipment.

Instruction: Lecture and laboratory exercises in applying basic electronics, physics and computer science to support the operation and maintenance of Ships Inertial Navigation Systems. Specific applications include servo leops, gyros, power supplies, printer interfacing and computer operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in applied electronics (Inertial Navigation Systems Maintenance) (3/89). In the lower-division baccalaureate/associate degree category, 2 semester hours in physical science, and 2 semester hours in computer technology (3/89).

NV-1715-1380

Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement

Course Number: A-193-0307.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 21 weeks (784 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to oper-

ate, maintain and test SINS and associated equipment.

Instruction: This course is a combination course, composed of A-193-0397, (NV-1715-1379), and A-193-0399 (NV-1715-1372).

Credit Recommendation: See separate exhibits (3/89).

NV-1715-1381

Trident Central Navigation Computer Technician Replacement

Course Number: A-193-0308.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 20 weeks (756 hours).

Exhibit Dates: 2/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform operational, maintenance, and testing functions required onboard the Trident class SSBN. Student will understand normal/casualty/alternate operation and employment of computers CP-8908/UYK, D/D converter, A/D converter, a magnetic tape unit, and other associated equipment.

Instruction: This is a combination course, consisting of A-193-0396 (NV-1715-0396) and A-193-0399 (NV-1715-1372). See separate exhibits.

Credit Recommendation: See separate exhibits for credit recommended.

NV-1715-1382

Terrier Mk 152 Computer Complex

Course Number: A-150-0085.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 19–20 weeks (784 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will understand the operation of a digital computer and associated I/O equipment including operating console, terminal, and data recorder; understand the instruction set of the computer and be able to write machine language programs which perform arithmetic, control and I/O tasks; maintain and troubleshoot the computer system using automated diagnostics and manual signal tracing routines.

Instruction: For this course before 11/88 see NV-1715-0391. Lectures and practical experience which cover the specific computer and auxilliary input/output equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems troubleshooting and maintenance (6/89).

NV-1715-1383

Fleet Ballistic Missile Navigation Maintenance NAVAIDS

Course Number: A-193-0037.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 3–4 weeks (128 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to test, align, and maintain several submarine navigational aids and optical test equipment.

Instruction: Lectures and practical exercises related to the maintenance of the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hous in optical systems maintenance and 2 in electronic systems troubleshooting and maintenance (5/89).

NV-1715-1384

Tartar Weapons System Mk 74 Mod 6

Course Number: A-121-0183.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the operation, testing, and maintenance of a guided missile control and firing system including radar, digital logic, and launching systems.

Instruction: Lectures and practical exercises which feature the specific equipment used in the weapon system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1385

Fire Control System Technician Mk 88 Mod 1 Replacement

Course Number: A-121-0245.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 27–28 weeks (1136 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the organization of a computer system and to troubleshoot and repair a missile fire control system, including the computer, tape drive and printer.

Instruction: Lectures and practical exercises emphasizing the maintenance of the fire control system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in computer systems troubleshooting and maintenance, and 2 in computer sytems and organization (6/89).

NV-1715-1386

AN/SPG-55B Mod 9 Radar Difference

Course Number: A-104-0194.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair all parts of a specific radar system including transmitter, receiver, and signal processing circuits.

Instruction: Lectures and practical exercises with emphasis on the maintenance of the radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1387

Close-In Weapon System Mk 15 Block 0/1 Difference

Course Number: A-113-0095.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Fleet Training Center, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain a weapon system including digital equipment, solid state devices, and RF transmission, receiving, and processing equipment.

Instruction: Lectures and practical exercises related to the maintenance of the weapon system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1388

Close-In Weapon System Mk 15 Mod 11/14 Operation and Maintenance

Course Number: A-113-0114.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Fleet Training Center, San Diego, CA; Service School Command, Great Lakes, IL.

Length: 29 weeks (1160 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain a weapon system including digital equipment, solid state devices, and RF transmission, receiving, and processing equipment.

Instruction: Lectures and practical exercises related to the maintenance of the weapon system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1389

NATO Seasparrow Surface Missile System Officer

Course Number: A-2F-0055.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will supervise system maintenance, administration, and tactically employ a tactical missile system consisting of radar, signal processing, computer and aiming components.

Instruction: Lectures and practical exercises on the function and operation of the major subsystems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course.

NV-1715-1390

3D Radar Search AN/SPS-39A

Course Number: A-104-0103.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 20-21 weeks (840 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain a military radar system and adaptive video processor.

Instruction: For this course before 7/88 see NV-1715-0233. Lectures and practical exercises in the operation, maintenance and alignment of radar system components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems and 2 in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1391

TARTAR WEAPONS DIRECTION SYSTEM (WDS) MK 4 WDE MK 1

Course Number: A-121-0029.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 16 weeks (640 hours).

Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot a repair a weapons direction system to the component level.

Instruction: Lectures and practical exercises on troubleshooting and corrective maintence of the weapons system. For this course before 9/88 see NV-1715-1121.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/88).

NV-1715-1392

CENTRAL NAVIGATION COMPUTER (CNC) TECHNICIAN REPLACEMENT

Course Number: A-193-0392.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 12–13 weeks (512 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair a navigation computer and its peripherals.

Instruction: Lectures and practical exercises related to the computer system and to computer organization.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance and 3 in computer systems and organization (6/89).

NV-1715-1393

SHIPS INERTIAL NAVIGATION SYSTEM (SINS) MK 2 MOD 6 EQUIPMENT TECHNICIAN REPLACEMENT

Course Number: 1-193-0391.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 17 weeks (680 hours).

Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain a submarine navigation system including computer, repeaters, test equipment, and navigation equipment.

Instruction: Lectures and practical exercises with an emphasis on troubleshooting the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1394

NATO SEASPARROW 7M MAINTENANCE

Course Number: A-104-0204.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Combat System Technical Training Center, Mare Island, CA.

Length: 30 weeks (1200 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, maintain and troubleshoot a radar-directed computer-controlled missile system; understand the functions of the major system components including radar, signal processing, digital computer, and servomechanism aiming; perform hardware and software preventive maintenance using automated and manual test methods and equipment; troubleshoot and repair to the module level all systems.

Instruction: Lectures and practical exercises which prepare the student to operate, maintain, and troubleshoot complex electronic equipment. There is extensive troubleshooting experience.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in computer systems troubleshooting and maintenance, 2 in computer systems and organization, 3 in radar systems, and 3 in control systems (6/89).

NV-1715-1395

STRATEGIC WEAPON SYSTEM COMMAND POSEIDON WEAPONS OFFICER

Course Number: A-2F-0031.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 3–4 weeks (144 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the major systems which make up a missile fire control system, including digital computers and data transmission.

Instruction: Lectures and practical exercises on the operation of the major subsystems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/89).

NV-1715-1396

TERRIER CG/DDG STANDARD MISSILE (ER) OFFICER ADVANCED

Course Number: A-2F-0061.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise maintenance administration and employment of a missile fire control system including radar, computer, and launching subsystems.

Instruction: Lectures and practical exercises using the system's components.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/89).

NV-1715-1397

ELECTROSTATICALLY SUPPORTED GYRO MONITOR (ESGM) BACKFIT STRATEGIC WEAPON SYSTEM COMMAND REPLACEMENT/NAVIGATION

Course Number: A-2E-0039.

Location: Guided Missile School, Dam Neck, Virginia Beach, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will understand the basic principles of inertial navigation and the mechanical and electronic systems which make up a ship's inertial navigation system.

Instruction: Lectures and homework on the system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-1715-1398

TRIDENT 1 BACKFIT STRATEGIC WEAPON SYSTEMS COMMAND REPLACEMENT

Course Number: A-2F-0050.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 3–4 weeks (144 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will understand and operate, at the command level, the major subsystems of a missile fire control system including computers and data transmission.

Instruction: Lectures and practical exercises in the function and operation of the major system components.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-1715-1399

FIRE CONTROL SYSTEM MK 88 MOD 2 ADVANCED TECHNICIAN

Course Number: A-121-0526.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 1–2 weeks (72 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform corrective maintenance on the cabling and intraconnections of a missile weapons system.

Instruction: Lectures and practical exercises on wirewrap techniques, soldering techniques, and missile weapons systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering and wirewrap techniques (6/89).

NV-1715-1400

STRATEGIC WEAPONS SYSTEM ELECTRONIC A SCHOOL

Course Number: A-121-0142.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 13–14 weeks (544 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to recognize and utilize terms specific to electricity and electronics; use basic algebra and arithmetic including power of ten notation to analyze basic electric and electronic circuits for pertinent qualities; use multimeters, oscilloscopes, and signal generators to troubleshoot circuits; recognize circuit components by inspection; correctly assemble electronic and electric circuits using schematic diagrams; convert between number systems including decimal, octal, binary, hexadecimal, one's complement, and two's complement; analyze digital circuits including and/or gates and flip-flops; analyze counters, encoders, decoders, multiplexers, adders, and registers. The student will have a basic understanding of the physics of linear and circular motion, and the electromechanical devices for the sensing and control of such motion; understand the fundamental operation of synchros, resolvers, inductosyns, and servomechanism systems; be able to troubleshoot and repair, to the major component level, electromechanical servomechanism systems.

Instruction: School includes lectures and laboratories and is divided into three sections: basic electricity and electronics (7 weeks), computer fundamentals (4 weeks), and special electronics and mechanical skills

(2-3 weeks). For this course before 3/88 see NV-1715-0705.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 2 in DC circuits, 2 in AC circuits, 3 in digital principles, 3 in solid state electronics, 3 in computer systems and organization, and 3 in control systems (6/89).

NV-1715-1401

Electronic Special Circuits

Course Number: A-121-0529.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course the student will be familiar with electron tubes (vacuum tubes), basic electronic communications, and radar systems.

Instruction: Very little laboratory work is required. The students learn terminology and basic facts. Course prepares them for further study.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronic communication (6/89).

NV-1715-1402

Central Navigation Computer (CNC) Technician

(Computer Intermediate Level Maintenance)

(Fleet Ballistic Missile Tender Navigation Maintenance Computer)

Course Number: A-193-0038.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 2-3 weeks (96 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain, troubleshoot, and repair components of electromechanical control systems including servomechanisms and attendent gear trains using electronic and mechanical analysis test sets.

Instruction: Lectures and laboratory exercises involving the use of a servomechanism test set and attendent xy recorder and electronic test equipment. For this course before 3/88 see NV-1715-0182.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in servomechanism/robotics equipment troubleshooting, maintenance and repair (6/89).

NV-1715-1403

NATO Seasparrow 7M Difference Maintenance

Course Number: A-104-0203.

Location: Guides Missiles School, Dam Neck, Virginia Beach, VA; Combat Systems Technical Training Center, Mare Island, CA.

Length: 6-7 weeks (256 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair a guided missile fire control system, launch system, and associated computer.

Instruction: Lectures and practical exercises with emphasis on repair and maintenance of a surface missile system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1404

NAVAIDS Equipment Technician Replacement

Course Number: A-193-0393.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 16 weeks (640 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a sonar set, a radio navigation set, a frequency standard, a loran receiving set, and a gyro monitor.

Instruction: Lectures and practical exercises with emphasis on maintenance of the specific submarine navigation system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1405

AN/SQR-15 Maintenance Training

Course Number: J-130-0101.

Location: Fleet Antisubmarine Warfare Training Center-Atlantic, Norfolk, VA.

Length: 15 weeks (600 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and repair a towed-array sonar system and its associated subsystems.

Instruction: Lectures and practical exercises on the sonar system with emphasis on corrective maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1406

Universal ILM Tender

Course Number: A-121-0554.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 21 weeks (840 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and perform preventive and corrective maintenance on specific missile systems.

Instruction: Instruction includes classroom and laboratory work on the operation of electrical and electronic systems and their interface with other systems required to launch missiles. Includes procedures for fault isolation and and correction on these systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in mechanical systems maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1407

Vertical Laucher System Mk 41

Course Number: A-121-0522.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Naval Ship Weapons Engineering Station, Port Hueneme, CA; Fleet Training Center, San Diego.

Length: 19-20 weeks (784 hours).

Exhibit Dates: 3/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain the computers, tape unit, terminals, control systems, and mechanical systems that comprise a missile launch system.

Instruction: Lectures and practical exercises on all parts of the missile launch system. Emphasis is placed on troubleshooting and corrective maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance and 3 in computer systems troubleshooting and maintenance (6/89).

NV-1715-1408

Mk 152 Digital Computer

Course Number: A-150-0079.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 19-20 weeks (784 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course the student will understand the operation of a digital computer and associated I/O equipment including operating console, terminal, and data recorder; understand the instruction set of the computer and be able to write machine language programs which perform arithmetic, control and I/O tasks; maintain and troubleshoot the computer system using automated diagnostics and manual signal tracing routines.

Instruction: For this course before 11/88 see NV-1715-0391. Lectures and practical experience which cover the specific computer and auxilliary input/output equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems and organization, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems troubleshooting and maintenance (6/89).

NV-1715-1409

AN/SQR-17A(V) Difference Maintenance

Course Number: K-130-0277.

Location: Fleet Antisubmarine Training Center-Atlantic, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 5-6 weeks (230 hours).

Exhibit Dates: 9/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain, troubleshoot, and repair a specific sonar system.

Instruction: Lectures and practical exercises with emphasis on corrective maintenance of the sonar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/89).

NV-1715-1410

Miniature Electronics Repair

Course Number: C-100-3182.

Location: Naval Air Station, Rota, Spain; Naval Air Station, Atsugi, Japan; Naval Air Station, Whidbey Island, WA. Naval Air Station, El Toro, CA. Naval Air Station, Moffett Field, CA. Naval Air Station, Miramar, CA. Naval Air Station, Lemoore, CA. Naval Air Station, Cecil Field, FL. Naval Air Station, Norfolk, VA.

Length: 6 weeks (200 hours).

Exhibit Dates: 2/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform miniture repairs to printed circuit boards, including removal and replacement of laminate material; removal and replacement of conducting tracks; removal and replacement of conformal coatings; install lead wires on various types of terminations and connectors; and use miniature repair equipment including those operations which require microscopic viewing.

Instruction: Lecture and lab experience covering printed circuit board construction; component types and mounting methods; electronic sounders and fluxer; removal and replacement of discrete components and multi-lead through-hole devices; removal and replacement of surface mount devices; laminated board and trace repair; and lead preparation and connection techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in repair techniques (8/89).

NV-1715-1411

AN/AAS-33A Detecting and Ranging Set Receiver Group/Reciprocating Compressor/Infrared Indicator Intermediate Maintenance Course.

Course Number: C-102-3980.

Location: Naval Air Station, Whidbey Island, WA.

Length: 9 weeks (360 hours).

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform under supervision, intermediate maintenance on the AN/AAS-33A Infrared/Laser Detecting and ranging set, using the AN/AAM-60 electro-optical systems test set.

Instruction: Lectures and laboratory assignments covering operation, maintenance, troubleshooting and repair of the following systems/subsystems: the AN/AAM-60 Electro-optical test set with digital logic, phase locked loops, CRT display electronics and signal processing, servo system electronics, and an HP 218B 16 bit micro-computers; the AN/AAS-33A detecting and ranging receiver with IR detectors, optics, cooling, vacuum and signal processing; 4 ginbolled gyro stablized platform with synchros, resolvers and phase-locked loops; and laser generation, transmitting, receiving and signal processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electro-optical systems maintenance (8/89).

NV-1715-1412

OQ-35A/ASM-347 (V) Programmer Comparator Intermediate Maintenance

Course Number: C-198-3011.

Location: Naval Air Station, Whidbey Island, WA. Naval Air Station, Oceana, VA.

Length: 11 weeks (320 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to list the input power requirements for the Programmer Comparator (PC); demonstrate a knowledge, in writing, of the functional operation of the Analog-to-Digital Converter to include solving theoretical troubleshooting problems; state the function and modes of operation of the Calibration Interface Adapter; trace signal from one point in the PC to another; use applicable publications to isolate and correct faults in the PC; develop programs in machine code, to sequence the PC through a sampling cycle.

Instruction: Lecture and laboratory exercises on the OQ-35A/ASM-347 (V) programmer-comparator.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in programmable controllers (8/89).

NV-1715-1413

C-8610/AWE Armament Control Panel Intermediate Maintenance Course.

Course Number: C-646-3767.

Location: Naval Air Station, Whidbey Island, WA; Naval Air Station, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/77–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain and repair the C-8610/AWE armament control panel and operate the associated SRA maintenance adapter set.

Instruction: Lecture and lab experience on the armament control panel and associated controls and indicators, and the SRA maintenance adapter SRT.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/89).

NV-1715-1414

Electro-Optics/Cryogenics Fundamentals

Course Number: C-102-3981.

Location: Naval Air Station, Whidbey Island, WA; Naval Air Station, Oceana, VA; Naval Air Station, Moffet Field, CA.

Length: 2 weeks (59 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to effectively support, under supervision, intermediate maintenance on electro-optical and cryogenic systems. The student will demonstrate a knowledge, in writing, of the properties of electromagnetic waves and beam dynamics, relationships of the different frequencies of light and color, principles of wave optics, principles of light polarization, principles and definitions of lens optics, fundamentals of the partical theory of light, basic atomic structure and energy levels, principles of photon absorption and emission, basic characteristics of laser operation, and introduction to cryogencis.

Instruction: Lecture and practical exercises in the theory, operation, maintenance and troubleshooting of electro-optical and cryogenic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in applied physics (8/89).

NV-1715-1415

GT-3 OK-441/ALM Controller Intermediate Maintenance

Course Number: C-102-4743.

Location: Naval Air Station, Whidbey Island, WA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to state the four main sections of the HP-1000 computer and their functions. Enter machine language programs via the computer front panel. Perform the disk cartridge load and unload procedure. Demonstrate knowledge of how to test troubleshoot, align, adjust and maintain the dual disk drive unit. Perform HP2645A Display Terminal operation, testing and maintenance. Complete a statement descriving the operating system to include its purpose, subdivisions, utilities programs system prompts, command structure and security codes.

Instruction: Lecture and laboratory exercises in computer operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (8/89).

NV-1715-1416

OJ-511/ALM Exciter Test Station Intermediate Maintenance

Course Number: C-102-4745.

Location: Naval Air Station, Whidbey Island, WA.

Length: 5 weeks (160 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform under close supervision intermediate maintenance including system analysis and troubleshooting using computer-controlled diagnostics, on a test station which uses the IEE-488 bus to interface various test equipments such as Digital Multi-meters, spectrum analyzers, timers and oscilloscopes to the computer and item under test.

Instruction: Lecture and laboratory activities covering functional operation, circuit operation, testing using computer diagnostics and troubleshooting and repair of the OJ-511/ALM Exciter Test Station.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance repair of computer controller test equipment (8/89).

NV-1715-1417

AN/USM-467 Radar Communication Test Station Operator Intermediate Maintenance

Course Number: C-198-3046.

Location: Naval Air Station, Whidbey Island, WA. Naval Air Station, Oceana, VA.

Length: 4 weeks (148 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and do minor hardware and software maintenance on a Radar Communications Test Station.

Instruction: Classroom lectures and laboratory application on operation and programming of a Radar Communications Test Station. Subjects covered and tasks mastered include operation of system; knowledge of real time, executive (RTE) operating system, self test programs and operator usage; and knowledge of and programming facility with the ATLAS (Abbreviated Languages for All Systems) language, as applied to a real time control system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/89).

NV-1715-1418

AN/USM-467 Radar Communications Test Station Maintainer Intermediate Maintenance

Course Number: C-198-3047.

Location: Naval Air Station, Whidbey Island, WA. Naval Air Station, Oceana, VA.

Length: 9 weeks (315 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, troubleshoot and repair down to the component level, using self test diagnostic and coventional test equipment a Radar Communications Test Station.

Instruction: Classroom lecture and laboratory exercise covering the theory of operation and circuitry of various devices such as power supplys, digital computers, disc controller, dual disk drive, programmable multifunction meter, digial word generator, color graphics unit, bus test unit, programmable oscilloscope, multiple matrix switch, syncro/reslover, auto function generator, auto spectrum analyser, RF Interface unit, signal analyser, HP-436A power meter and rebidium oscillator. Also covered is the use of the IEE-488 bus to control and interface the above devices and the use of system programming languages.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer interfacing (8/89).

NV-1715-1419

AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course

Course Number: C-104-3771.

Location: Naval Air Station, Whidbey Island, WA; Naval Air Station, Oceana, VA.

Length: 19 weeks (560 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the AN/APM-375 Mini-Sace Search Radar Test Console (MSRTC), the AN/AP0-156 and the AN/APS-130 Search Radar Systems and MSRTC-tested AN/AAS-33A WRAS, including system analysis and troubleshooting techniques. The student will be able to perform intermediate level maintenance under close supervision.

Instruction: Lecture and lab covering the AN/APM-375 Mini-Sace Search Radar test console functional analysis; the AN/AAS-33A detecting and ranging set functional analysis; and the AN/AP0-156 and AN/APS-130 Search Radar functional analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in analog and power supply circuit analysis; 1 in troubleshooting techniques.

NV-1715-1420

IP-722F/AVA-1 Analog Display Indicator Intermediate Maintenance

Course Number: C-198-3762.

Location: Naval Air Station, Whidbey Island, WA.

Length: 6 weeks (200 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform under close supervison intermediate maintenance on a video display subsystem including power supplies, signal generating, processing and shaping circuits; video amplifiers, and analog to digital conversion.

Instruction: Lecture on basic operation and circuits and practical laboratory troubleshooting covering test set up and procedures; low voltage and high voltage power supplies; video circuits and indicator lamps; generation of field scans, buffering, lineority and drive signals; video amplifier; analog to digital conversion circuits; timers; symbols generation for flight path, command heating, alphanumerics, and other externally input display, symbols; and a video mixer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in video interfacing (8/89).

NV-1715-1421

OJ-615/ALM Countermeasures Test Console Intermediate Maintenance

Course Number: C-198-3763.

Location: Naval Air Station, Whidbey Island, WA.

Length: 5 weeks (160 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the theory of the OJ-615/ALM countermeasures test console system analysis and troubleshooting techniques; to perform, under close supervision, test station maintenance in an intermediate maintenance work center.

Instruction: Lecture and Laboratory applicaton related to transmitter test station theory, including: power supplies and line filters; test equipment; IEEE-488 Bus Analysis; Matrix Switch.

Credit Recommendation: Credit is not recommmended because of the limited, specialized nature of the course (8/89).

NV-1715-1422

AN/ALR-50 Support Equipment Intermediate Maintenance

Course Number: C-102-3097.

Location: Naval Air Station, Whidbey Island, WA.

Length: 4 weeks (112 hours).

Exhibit Dates: 3/77–Present.

Learning Outcomes: Upon completion of the course, the student will be able to analyze the AN/ALM-140 test set system by tracing signal flow through a system block diagram and will state the basic function of each subsystem (plug-in module). The student will isolate instructor-induced troubles down to the component level in the following subsystems: tone generator, formal generator, code generator, sequence generator, control board, interface analyzer board and timer and analog interface board. The student will also be able to calibrate and align test set.

Instruction: Classroom lecture and laboratory application on the operation and maintenance of the AN/ALM-140 test set system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semseter hours in electronic systems troubleshooting and maintenance

NV-1715-1424

Advanced First Term Avionics, Class A1

Course Number: C-100-2010.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 11 weeks (437 hours)

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, test and maintain, under minimum supervision, navigation, communication and radar systems.

Instruction: Lectures and practical exercises in AC and DC circuits, resonance, time constants, decibels, ideal transistors, transistor theory including biasing, load line analysis, equivalent circuits, RC, transformers, direct coupled, feedback, video, and power amplifiers, power supplies, regulators, wave-shaping circuits, oscillators, fundamentals of computer logic and systems, with emphasis on maintenance of equipment, microwave principles including characteristics of transmission lines, waveguides, cavities, antennas, microwave tubes and circuits, fundamentals of AM, FM, and SSB, and block diagrams and operation of radar and navigation equipment with emphasis on maintenance and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in AC circuits, 3 in active devices and circuits, and 3 in communications electronics (9/89).

NV-1715-1425

AN/FPN-63(V) Maintenance, Class C1

Course Number: C-103-2037.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and troubleshoot the precision approach radar system and turntable system.

Instruction: Lectures and practical exercises in electronic systems, process of timing devices, transmitters, receivers, indicators, turntables, power circuits, radar alignment, and systems troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems and 3 in computer systems troubleshooting and maintenance (9/89).

NV-1715-1426

AN/GPN-27 Maintenance, Class C1

Course Number: C-103-2036.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 9 weeks (360 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform preventive maintenance on an airport surveillance radar system.

Instruction: Lectures and practical exercises in radar systems and their controls, power supplies, transmitters, receivers, AC power distribution, system alarm/fault logic synchronizers, and preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar systems and 4 in electronic communications (9/89).

NV-1715-1427

AN/SPN-35A Maintenance, Class A1

Course Number: C-103-2012.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 7–8 weeks (312 hours).

Exhibit Dates: 9/82–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and perform preventive and corrective maintenance on a radar system.

Instruction: Lectures and practical exercises in electronic block diagrams, power distribution, power supplies, antenna control and drive circuits, azimuth and elevation controls, antenna alignment, radio frequency monitors, IF and video amplifiers, receivers and transmitters, sweep circuits, trigger delay generators, control computations and target generators, and special emphasis on system troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1428

AN/SPN-41 Maintenance, Class C1

Course Number: C-103-2023.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 4-5 weeks (176 hours).

Exhibit Dates: 7/83-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot and repair radar systems.

Instruction: Lectures and practical exercises in power distribution, elevation drives, azimuth drives, antenna alignment, synchro/servo fundamentals, transmitter stabilization, digital logic and emphasis in radar system troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar system (9/89).

NV-1715-1429

AN/SPN-42A Maintenance, Class C1

Course Number: C-103-2013.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 22 weeks (880 hours).

Exhibit Dates: 1/83-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain an all weather carrier landing system including its computers and subsystems.

Instruction: Lectures and practical exercises in radar systems, controls, operation, DC power distribution, radar subsystems, data stabilization subsystems, control and monitoring equipment, input and output buffers, data link monitors. Includes systems analysis and ability to isolate and repair faults. Includes console alignment, encoder alignment, radar alignment, computer maintenance procedure, machine language programming, computer subsystem power supplies, control logic circuiting, program translation, computer diagnostic tests, and fault diagnosis using diagnostic programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer operation, 8 in computer systems and organization, and 4 in radar systems (9/89).

NV-1715-1430

AN/SPN-43A Maintenance, Class C1

Course Number: C-103-2014.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 4-5 weeks (176 hours).

Exhibit Dates: 2/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair a radar system.

Instruction: Lectures and practical exercises in block diagrams, power supplies, power distribution, high voltage circuits, oscillators, amplifiers, frequency control, stabilization relay circuits and azimuth drive and elevation tilt circuits. Emphasis is placed on practical exercises and troubleshooting laboratories.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (9/89).

NV-1715-1431

AN/SPN-44 Maintenance, Class C1

Course Number: C-103-2024.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 3 weeks (104 hours).

Exhibit Dates: 2/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair a radar system.

Instruction: Lectures and practical exercises in power distribution, low and high voltage power supplies, receivers and transmitters, Doppler processors, servo systems, recorders and indicators. Emphasis is placed on radar systems and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar systems (9/89).

NV-1715-1432

AN/TPX-42A Basic Direct Altitude Identity Readout (DAIR) Maintenance, Class, C1.

Course Number: C-103-2034.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair the Direct Altitude Identity Readout system.

Instruction: Lectures and practical exercises in the operation and basic maintenance of the radar system. Topics include semiconductor devices, logic devices, powers supplies, coders, receivers, transmitters, analog to digital converters, processor operation and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance and 1 in radar systems (9/89).

NV-1715-1433

AN/TPX-42A(V)5 Direct Altitude Identity Readout (DAIR) Maintenance, Class C1

Course Number: C103-2028.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 5-6 weeks (208 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair the Direct Altitude Identity Readout system.

Instruction: Lectures and practical exercises in the operation and maintenance of the radar system. Topics include semiconductors, power supplies, digital sweep generator, data processor memory circuits, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1434

AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1

Course Number: C-103-2033.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 9 weeks (360 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course the student will be able operate, test, troubleshoot and repair a radar system.

Instruction: Lectures and practical exercises in control and maintenance panels, maintenance procedures, electrostatic devices, block diagrams, fault isolation, circuit analysis, and keyboard familiarization. Special emphasis is placed on troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1435

AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1

Course Number: C-103-2035.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 7-8 weeks (296 hours).

Exhibit Dates: 4/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair a radar system.

Instruction: Lectures and practical exercises in introduction to computers, programming, console operations, power supplies, circuit analysis, and direct memory access. Emphasis is placed on troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1436

Antisubmarine Warfare Operator, Class A1

Course Number: C-210-2010.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 10-11 weeks (436 hours).

Exhibit Dates: 5/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform the duties of an antisubmarine warfare operator.

Instruction: Lectures and practical exercises in radar systems, including plotting codes and tactics; sonar and sonar operations; and the fundamentals of oceanography.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in oceanography and 1 in radar systems (9/89).

NV-1715-1437

Aviation Ordnance, Class A1

Course Number: C-646-2010.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 10–11 weeks (415 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course the student will have the basics skills which lead to fulfillment of technical requirements of apprentice aviation ordnanceman.

Instruction: Lectures and laboratories in mathematics, hardware, use of tools and special tools, safety, electricity to include series, parallel, and series/parallel circuits, measuring devices, troubleshooting, corrosion control, ammunition and magazines, ordnance, aircraft guns, guided missiles, and their functions, operation and safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in DC circuits (9/89).

NV-1715-1438

Avionics Intermediate, Class C7

Course Number: C-100-2012.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 30–31 weeks (1225 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair electronic, avionic, digital, radar and communication systems.

Instruction: Lectures and laboratories in mathematics, physics, electronic devices and systems, digital computer systems, communication and microwave principles, wave form devices, radar principles, systems analysis, avionics principles, servomechanisms, and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in technical mathematics, 6 in semiconductor devices, 4 in AC ciruits, 4 in digital computers, 3 in digital fundamentals, 3 in communications electronics, 4 in radar systems, 2 in avionic systems, and 1 in physics (9/89).

NV-1715-1439

Avionics Technician, Class A1

Course Number: C-100-2013.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 23 weeks (884 hours).

Exhibit Dates: *Version 1:* 4/89–Present. *Version 2:* 10/86–3/89.

Learning Outcomes: *Version 1:* Upon completion of the course the student will be able to operate, maintain, and troubleshoot solid state devices, radar systems, and electrical and electronic systems with little supervision. *Version 2:* Upon completion of the course the student will be able to operate, maintain, and troubleshoot communication radar, and electrical and electronic systems.

Instruction: *Version 1:* Lectures and laboratories in mathematics, computer, electrical, electronic, communication and radar systems. Included are the fundamentals of amplitude and frequency modulation, receiver circuits, use of test equipment, and troubleshooting to the component level. Topics include RF/IF and radio amplifiers, mixers, oscillators, detecters, modulators, and power supplies. Includes introduction to digital logic, principles and circuits, as well as to the organization, programming and troubleshooting of basic digital computers. Also includes AC and DC fundamentals, semiconductor devices, and electronic system troubleshooting and repair. Also includes lectures and laboratories in the troubleshooting and repair of radar systems. *Version 2:* Lectures and laboratories in mathematics, computer, electrical, electronic, communication and radar systems. Included are the fundamentals of amplitude and frequency modulation, receiver circuits, use of test equipment, and troubleshooting to the component level. Topics include RF/IF and radio amplifiers, mixers, oscillators, detecters, modulators, and power supplies. Includes introduction to digital logic, principles and circuits, as well as to the organization, programming and troubleshooting of basic digital computers. Also includes AC and DC fundamentals, semiconductor devices, and electronic system troubleshooting and repair. Also includes lectures and laboratories in the troubleshooting and repair of radar systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in shop mathematics; in the lower-division baccalaureate/associate degree category, 6 semester hours in communications electronics, 4 in computer organization, 4 in microprocessors, 4 in computer systems troubleshooting and maintenance, and 3 in radar systems (9/89). *Version 2:* In the vocational certificate category, 3 semester hours in shop mathematics; in the lower-division baccalaureate/associate degree category, 6 semester hours in communications electronics, 4 in computer organization, 4 in computer systems troubleshooting and maintenance and 4 in electronics systems troubleshooting and maintenance (9/89).

NV-1715-1440

Avionics Technician, Class A1

Course Number: C-100-2014.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 8–9 weeks (344 hours).

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to use test equipment to perform circuit analysis.

Instruction: This course is made up of the first 8 weeks, 3 days of the AVA school (NV-1715-1439). Lectures and practical exercises in the fundamentals of DC and AC circuits including analog and digital meter principles and use, principles of transformers, bridge circuits and circuit analysis, and technical methematics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in shop mathematics; in the lower-division baccalaureate/associate degree category, 1 semester hour in DC circuits and 1 in AC circuits (9/89).

NV-1715-1441

Marine Air Traffic Control
Communications Technician,
Class C1

Course Number: C-103-2032.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 30–31 weeks (1216 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, and repair communications systems and data processing equipment.

Instruction: Lectures and laboratories in analog electronic components and circuits including semiconductors, diodes, transistors, power supply filters and rectifiers, amplifiers, oscillators, multivibrators, mixers, modulators, antennas, and gain and frequency control. Also included: theory of digital components and circuits, including logic gates, integrated circuits, flip-flops, I/O devices, memory devices, and microprocessors. Emphasis is placed on fault isolation and repair of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronic devices and circuits, 4 in digital devices and circuits, 2 in computer principles, and 2 in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1442

Marine Air Traffic Control
Navigational Aids Technician,
Class C1

Course Number: C-103-2030.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 33–34 weeks (1336 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, install, and repair navigation equipment and data processing equipment.

Instruction: Lectures and laboratories in analog electronic components, including semiconductors, diodes, transistors, power supply filters and rectifiers, oscillators, multivibrators, mixers, modulators, antennas, and gain and frequency control. Also includes digital theory including logic gates, integrated circuits, flip-flops, I/O devices, memory devices, and microprocessors. Emphasis is places on troubleshooting navigation aids systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronic devices and ciruits, 4 in digital devices and circuits, 2 in computer principles, and 2 in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1443

Marine Air Traffic Control Radar
Technician, Class C1

Course Number: C-103-2031.

Location: Naval Air Technical Training Center, Memphis, Millington, TN.

Length: 35–36 weeks (1432 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, test, troubleshoot, install, and repair radar equipment and data processing equipment.

Instruction: Lectures and laboratories in, analog electronic components, including semiconductors, diodes, transistors, power supply filters and rectifiers, oscillators, multivibrators, mixers, modulators, antennas, and gain and frequency control. Also includes digital theory including logic gates, integrated circuits, flip-flops, I/O devices, memory devices, and microprocessors. Emphasis is places on troubleshooting radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronic devices and ciruits, 4 in digital devices and circuits, 2 in computer principles, and 6 in electronic systems troubleshooting and maintenance (9/89).

NV-1715-1444

BASIC ELECTRONICS RATE TRAINING

Course Number: A-100-0089.

Location: Submarine School, Groton/New London, CT.

Length: 14 weeks (560 hours).

Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to make mathematical calculations and solve problems using basic algebraic and trigonometric methods; calculate voltages and currents in DC series and parallel circuits; calculate AC circuit variables in RL, RC, and RLC circuits; analyze the operation of solid state devices including diodes, bipolar transistors, and solid state circuits including power supplies, amplifiers, operational amplifiers, oscillators, and wave shapers; describe the operation of digital gates, flip-flops, counters, registers, adders, and A/D converters; and perform arithmetic in binary, octal, and hexadecimal numbering systems.

Instruction: Lectures and practical exercises on topics in basic technical mathematics and electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 2 in DC circuits, 3 in AC circuits, 3 in digital principles, and 6 in solid state electronics (10/89).

NV-1715-1445

AN/BRQ-1 AN/WYQ-1 COMBINED MAINTENANCE

Course Number: A-102-0128.

Location: Submarine School, Groton/New London, CT.

Length: 8 weeks (328 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, repair and maintain HF receivers with emphasis on types of signal generation, frequencies, and inputs/outputs.

Instruction: Theory and laboratory exercises on the operation and maintenance of receivers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1446

CRYPTOLOGIC MAINTENANCE TECHNICIAN AN/WLQ-4(V) SUBSYSTEM MAINTENANCE PIPELINE

Course Number: A-233-0052.

Location: Submarine School, Groton/New London, CT.

Length: 27 weeks (1080 hours).

Exhibit Dates: 8/83–Present.

Learning Outcomes: Upon completion of this pipeline the student will be able to peform subsurface cryptologic maintenance.

Instruction: This pipeline course consists of A-150-0267, AN/UYK-20(V) Basic Maintenance; A-233-0049 AN/WLQ-4(V) (E-Suite) Combined Maintenance; A-102-0128, AN/BRQ-1 AN/WYQ-1 Combined Maintenance; and A-233-0050, AN/WLQ-4(V) N-Suite Combined Maintenance. Please see the exhibits under the numbers above for further information.

Credit Recommendation: Please refer to the courses listed above for credit recommendations (10/89).

NV-1715-1447

AN/WLQ-4(V) N-SUITE COMBINED MAINTENANCE

Course Number: A-233-0050.

Location: Submarine School, Groton/New London, CT.

Length: 7 weeks (270 hours).

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a wideband recorder, a frequency converter, an FM multiplexer, and a signal distribution unit.

Instruction: Lectures and laboratories with emphasis on equipemnt maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1448

AN/WLQ-4(V) (E-SUITE) COMBINED MAINTENANCE

Course Number: A-233-0049.

Location: Submarine School, Groton/New London, CT.

Length: 10 weeks (440 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair and maintain a navigation system that includes antennas and signal processing equipment.

Instruction: Lectures and practical exercises related to the maintenance of a naval navigation system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1449

APPLICATION OF STATIC CONTROL DEVICES

Course Number: A-662-0139.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Guided Missile School Detachment, Dam Neck, VA; Submarine Training Facility, San Diego, CA; Submarine Training Center, Pearl Harbor, HI.

Length: 2 weeks (72 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will be able describe a wide variety of applications of solid state conponents, basic measurement and control circuits, and logic circuits. Student will analyze solid state circuits function, determine circuit outputs, and troubleshoot devices.

Instruction: Lectures, demonstrations and laboratory exercises in applied solid state circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in DC machinery and 1 in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1450

MK 19/27 ADVANCED THEORY AND MAINTENANCE

Course Number: A-670-0051.

Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe basic feedback theory including synchros and solid state electronic control systems as applied to multidimensional orientation measurement systems. Student will be able to analyze circuit diagrams for function and troubleshoot and repair functions on the control systems, power supplies, and measurement systems.

Instruction: Lectures, demonstrations, and laboratory exercises on the above areas using a sophisticated gyrocompass as a physical device.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours lecture and 1 semester hour laboratory in electromechanical systems (10/89).

NV-1715-1451

COMBINED INTEGRATED SUBMARINE COMMUNICATIONS ANTENNA SUBSYSTEM MAINTENANCE

Course Number: A-101-0137.

Location: Submarine School, Groton/New London, CT.

Length: 5–6 weeks (161 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course the student will operate and maintain basic submarine loop and whip antennas.

Instruction: Lectures and practical exercises on the antennas.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/89).

NV-1715-1452

ANALOG-TO-DIGITAL CONVERTER MK 65 MODS 1 AND 2 MAINTENANCE

Course Number: A-193-0253.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, WA.

Length: 1–2 weeks (57 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe functional components of specialized analog to digital converter and be familiar with maintenance procedures.

Instruction: Lectures and laboratories on the converter.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

NV-1715-1453

NAVIGATION CONTROL CONSOLE MK 3 MODS 1 AND 2 MAINTENANCE

Course Number: A-193-0342.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, WA.

Length: 1 week (56 hours).

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair a navigational control console.

Instruction: Lectures and practical exercises with emphasis on console maintenance.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

NV-1715-1454

Magnetic Tape Input/Output Device
MX-7988A,B UYK Maintenance

Course Number: A-193-0[illegible].
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Bangor, WA.
Length: 2 weeks (76 hours).
Exhibit Dates: 7/81–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a magnetic tape unit.

Instruction: Lectures and laboratory exercises on the maintenance and repair of magnetic tape units, including a magnetic tape transport, read/write switching amps, power supplies, combination logic functions, command code execution, and use of special tools and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer systems troubleshooting and maintenance (10/89).

NV-1715-1455

Radio Navigation Set AN/BRN-3B
Maintenance

Course Number: A-193-0261.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 2 weeks (79 hours).
Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe and operate an HF radio receiver including knowledge of preamplifiers, limiters, RF amplifiers, IF amplifiers, and audio amplifiers; perform diagnostic checks using computer programs; and align, adjust, and maintain the RF receiver.

Instruction: Lectures and laboratory exercises on the subject matter.

Credit Recommendation: In the vocational certificate category, 2 semester hours in repair and maintenance of RF receivers (10/89).

NV-1715-1456

Guidance System Mk 3 Mod 0 Theory
and Maintenance

Course Number: A-121-0296.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 2 weeks (75 hours).
Exhibit Dates: 1/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a missile guidance system.

Instruction: Lectures and practical exercises on the circuitry and components of the missile guidance system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1457

Electrostatically Supported Gyro
Monitor (ESGM) Backfit
Navigation Subsystem Theory

Course Number: A-193-0346.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 2 weeks (64 hours).
Exhibit Dates: 8/80–Present.

Learning Outcomes: *Upon completion of* the course the student will be able to describe the theory to support the performance of all corrective maintenance for the navigation system.

Instruction: Lectures and practical exercises on the function and operation of the navigation system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

NV-1715-1458

Electrostatically Supported Gyro
Monitor (ESGM) Calibration

Course Number: A-193-0431.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 2 weeks (64 hours).
Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to calibrate and comprehend the theory behind the gyro monitor.

Instruction: Lectures and laboratory exercises on the specific equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

NV-1715-1459

AN/BPS-14 Radar Combined
Maintenance

Course Number: A-104-0165.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 3 weeks (120 hours).
Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a naval radar system.

Instruction: Lectures and practical exercises focused on the maintenance of a specific radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1460

5 Kw Static Inverter Combined
Maintenance

Course Number: A-662-0030.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (64 hours).
Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe solid state electronic circuits as applied to DC and AC power conversion systems at the functional level. Student will be able to analyze circuit function from diagrams and conduct repairs, troubleshooting, and maintenance functions of the power conversion and monitoring systems.

Instruction: Lectures, demonstations and practical exercises in solid state electronic power conversion.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in solid state electronics (10/89).

NV-1715-1461

Mk 3 Mod 6 Ship's Inertial Navigation
System (SINS) Combined
Maintenance

Course Number: A-193-0357.
Location: Submarine School, Groton/New London, CT.
Length: 16–17 weeks (646 hours).
Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, repair and maintain an inertial navigation system.

Instruction: Lectures and practical exercises in the theory of computer organization, timing circuits, register logic, and test equipment for computer maintenance and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in computer systems and organization and 3 in computer systems troubleshooting and maintenance (10/89).

NV-1715-1462

Inertial Navigation System (ESGN)
AN/WSN-3A(V)2 Combined
Maintenance

Course Number: A-193-0354.
Location: Submarine School, Groton/New London, CT.
Length: 7 weeks (280 hours).
Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot and repair an inertial navigation system.

Instruction: Lectures and practical exercises on the navigation system which includes a microprocessor-based special purpose computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1463

AN/WLQ-4(V) Direct Support
Element Basic Operator

Course Number: A-233-0051.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4 weeks (154 hours).
Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform normal operational procedures with supervision on the communications subsystem.

Instruction: Theory and laboratory exercises on the function and operation of the subsystem including speakers, loud speakers, interface box, audio recorders, and magnetic tape drives.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/89).

NV-1715-1464

Magnetic Disk File (MDF) Theory and
Electrical Maintenance

Course Number: A-121-0304.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 3 weeks (120 hours).
Exhibit Dates: 2/82–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a magnetic disk drive used for computer data storage.

Instruction: Lectures and laboratory exercises covering, in detail, the circuitry and components of a computer disk drive.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1465

Subsurface Direct Support Maintenance

Course Number: A-233-0074.

Location: Submarine School, Groton/New London, CT.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair basic receivers and transmitters.

Instruction: Lectures and laboratories in audio detection, IF, RF, amplifiers and oscillator stages. Also includes bandwidth switching, prescaling, frequency conversion, video amplification, power supplies and alignment of complex electronic assemblies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1466

Sonar Receiving Set AN/BQR-23 Basic Maintenance

Course Number: A-130-0156.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/81–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate remote controlled CRT displays and understand the use of the CPU, I/O address register and data control.

Instruction: Lectures and practical exercises on signal processing, beam tracing, and video amplifiers.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (10/89).

NV-1715-1467

AN/BQR-15 SPALT 9080 Operations and Maintenance

Course Number: A-130-0332.

Location: Submarine School, Groton/New London, CT.

Length: 1-2 weeks (52 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair a sonar receiving set.

Instruction: Experienced technicians are introduced to the theory, operation, and maintenance of a particular sonar receiving set. Instruction is also provided on electrical, mechanical, and hydraulic maintenance of the set.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenace (10/89).

NV-1715-1468

Static Control Device Theory

Course Number: A-661-0138.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, San Diego, CA; Submarine Training Facility, Charleston, SC; Guided Missile School Detachment, Norfolk, VA; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 1-2 weeks (75 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will understand the theory of solid state components, basic circuits, and logic circuits; make algebraic computations associated with solid state components and circuits such as gain and impedance of transistors, including FETs, and determine outcomes for logic circuits.

Instruction: Lectures, demonstrations and laboratory exercises in solid state electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in solid state electronics (10/89).

NV-1715-1469

AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance

Course Number: A-101-0230.

Location: Submarine School, Groton/New London, CT.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, repair and maintain a data link communication system.

Instruction: Lectures and practical exercises with emphasis on maintenance of the data link communication system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1470

AN/WRR-7 Combined Maintenance

Course Number: A-101-0068.

Location: Submarine Training Facility, Charleston, SC; Submarine School, Groton/New London, CT.

Length: 6 weeks (214 hours).

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a digital data processor, a radio receiver, a power supply, a frequency standard, and a cryptologic device.

Instruction: Lectures and practical exercises with emphasis on the maintenance of the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1471

Submarine Satellite Information Exchange Subsystem Combined Maintenance

Course Number: A-101-0083.

Location: Submarine School, Groton/New London, CT.

Length: 8 weeks (375 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair a submarine satellite information exchange system.

Instruction: Lectures and practical exercises related to the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1472

AN/WIC Integrated Announcing System

Course Number: A-623-0051.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair shipboard internal communications equipment and describe the theory of operation at the system and subsystem level.

Instruction: Lectures, tests, and practical exercises which include demonstrations, individualized practice, and solution of practical problems in fault isolation, component-level repair, and electrical safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1473

Underwater Fire Control, Class A

Course Number: A-113-0133.

Location: Submarine School, Groton/New London, CT.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze and maintain electromechanical control systems including step motors, servo systems, and synchros; describe the organization of general purpose computers; and troubleshoot and repair an electronic fire control system and a submarine warfare system.

Instruction: Lectures and practical exercises on topics in electromechanical systems, computer theory, and specific military systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical control systems, 3 in electronic systems troubleshooting and maintenance, and 3 in computer systems and organization (10/89).

NV-1715-1474

Submarine Communications Equipment Combined Maintenance

Course Number: A-101-0061.

Location: Submarine School, Groton/New London, CT.

Length: 17 weeks (688 hours).

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course the student will operate and maintain submarine radio receivers, antennas, MF/HF transmitters, and special communications equipment.

Instruction: This pipeline course consists of A-101-0237, Special Communications Equipment Combined Maintenance; A-101-

0135, Receivers Combined Maintenance, and A-101-0137, Combined Integrated Submarine Communications Antenna Subsystem Maintenance. The remaining course component is classified and was not evaluated. Please see the exhibits listed above for further information.

Credit Recommendation: Please see the exhibits listed in the instruction for credit recommendations (10/89).

NV-1715-1475

Special Communications Equipment Combined Maintenance

Course Number: A-101-0237.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI; Trident Training Facility, Kings Bay, GA.
Length: 8 weeks (304 hours).
Exhibit Dates: 12/85–Present.
Learning Outcomes: Upon completion of the course the student will be able to troubleshoot, repair, and maintain a radio transmitter system.
Instruction: Lectures and practical exercises related to the maintenance of the transmitters.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1476

AN/BRN-6/SRN-9A Combined Maintenance

Course Number: A-102-0168.
Location: Submarine School, Groton/New London, CT.
Length: 2 weeks (74 hours).
Exhibit Dates: 12/84–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate, maintain, troubleshoot, and repair a navigation satellite receiver.
Instruction: This course covers both theory and laboratory on the physical, functional, and interface description of the troubleshooting and repair of a radio receiver. The course also covers the use of special tools and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (10/89).

NV-1715-1477

Submarine Tactical Communications Equipment Combined Maintenance

Course Number: A-101-0133.
Location: Submarine School, Groton/New London, CT.
Length: 13 weeks (506 hours).
Exhibit Dates: 4/89–Present.
Learning Outcomes: Upon completion of the course the student will be able to describe the theory of operation and be able to perform routine preventive and corrective maintenance on submarine tactical communications equipment.
Instruction: This is a pipeline course consisting of A-101-0083, Submarine Satellite Information Exchange System For Shipboard Installations Combined Maintenance and A-101-0251, Submarine Digital Teletype Combined Maintenance. For further information, please see the individual exhibits.
Credit Recommendation: Please see the individual exhibits listed under instruction for credit recommendations (10/89).

NV-1715-1478

Navigation Technician 594/688 Class Pipeline

Course Number: A-193-0103.
Location: Submarine School, Groton/New London, CT.
Length: 14 weeks (547 hours).
Exhibit Dates: 9/76–Present.
Learning Outcomes: Upon completion of the pipeline the student will be able to operate, maintain, and repair navigation systems including radar, receivers, and Identify Friend or Foe systems.
Instruction: This is a pipeline course consisting of A-102-0253, DMINS AN/WSN-1(V)2 Combined Maintenance; A-102-0199, AN/BPS-15 Radar Combined Maintenance; A-102-0168, BRN-6/SRN-9A Combined Maintenance; and A-102-0229 and A-102-0131. The last two courses were too short for evaluation. Please see the individual courses for further information.
Credit Recommendation: PLease see the individual exhibits listed above for the credit recommendations (10/89).

NV-1715-1479

Navigation Technician 637/688 Class Pipeline

Course Number: A-193-0363.
Location: Submarine School, Groton/New London, CT.
Length: 14 weeks (550 hours).
Exhibit Dates: 1/84–Present.
Learning Outcomes: Upon completion of the pipeline the student will be able to operate, maintain, and repair navigation systems including radar, receivers, and Identify Friend or Foe systems.
Instruction: This is a pipeline course consisting of A-193-0354, Inertial Navigation System (ESGN) AN/WSN-3A(V)2 Combined Maintenance; A-102-0199, AN/BPS-15 Radar Combined Maintenance; A-102-0168, BRN-6/SRN-9A Combined Maintenance; and A-102-0229 and A-102-0131. The last two courses were too short for evaluation. Please see the individual courses for further information.
Credit Recommendation: PLease see the individual exhibits listed above for the credit recommendations (10/89).

NV-1715-1480

Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline

Course Number: A-233-0079.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate subsurface cryptographic equipment.
Instruction: This is a pipeline course consisting of A-233-0051, AN/WLQ-4(V) Direct Support Element (DSE) Basic Operator, and A-233-0073 and A-233-0086, both of which were too short for evaluation. Please see exhibit for A-233-0051 for further information.
Credit Recommendation: For credit recommendation please see exhibit listed above (10/89).

NV-1715-1481

Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline

Course Number: A-233-0081.
Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate subsurface cryptographic equipment.
Instruction: This is a pipeline course consisting of A-233-0051, AN/WLQ-4(V) Direct Support Element (DSE) Basic Operator, and A-233-0027, AN/WLR-8(V)2 Basic Operation. Please see these exhibits for further information.
Credit Recommendation: For credit recommendation please see the exhibits listed above (10/89).

NV-1715-1482

Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline

Course Number: A-233-0080.
Location: Submarine School, Groton/New London, CT.
Length: 9 weeks (360 hours).
Exhibit Dates: 1/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate subsurface cryptographic equipment.
Instruction: This is a pipeline course consisting of A-233-0051, AN/WLQ-4(V) Direct Support Element (DSE) Basic Operator; A-233-0029, AN/WRQ-1, AN/WYQ-1 Operator; and A-233-0073 and A-233-0086, both of which were too short for evaluation. Please see exhibits for A-233-0051 and A-233-0029 for further information.
Credit Recommendation: For credit recommendation please see exhibits listed above (10/89).

NV-1715-1483

Electronic Support Measures 637 Class Type 2 Combined Maintenance Pipeline

Course Number: A-233-0055.
Location: Submarine School, Groton/New London, CT.
Length: 15 weeks (600 hours).
Exhibit Dates: 1/82–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate, troubleshoot, and repair electronic support systems.
Instruction: This pipeline course consists of A-150-0267, AN/UYK-20(V) Basic Maintenance; A-233-0049, AN/WLQ-4(V) (E-Suite) Combined Maintenance; and A-102-0157, Periscope Type 18 Combined Maintenance. Please see thes exhibits for further information.
Credit Recommendation: PLease see the exhibits listed above for credit recommendations (10/89).

NV-1715-1484

Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88

Course Number: A-121-0305.
Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC.
Length: 1-2 weeks (48 hours).

Exhibit Dates: 8/83-Present.

Learning Outcomes: Upon completion of the course the student will understand the theory of and be able to operate and repair computer magnetic disk drives and operate and repair electro/hydraulic/mechanical systems serving the computer disk drive units.

Instruction: Lectures and laboratories on the disk drives.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in mechanical systems (disk drives) (10/89).

NV-1715-1485

AN/BQH-5(V)4 Combined Maintenance

Course Number: A-130-0290.

Location: Submarine School, Groton/New London, CT; Submarine Training Center, Pearl Harbor, HI.

Length: 4 weeks (154 hours).

Exhibit Dates: 1/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, maintain, and troubleshoot recorder/reproducer tape transport equipment.

Instruction: Lectures and laboratory instruction on the above topic.

Credit Recommendation: In the vocational certificate category, 1 semester hour in audio tape recorder repair (10/89).

NV-1715-1486

Intermediate Maintenance Activity (IMA) Machinery Maintenance

Course Number: A-210-0014.

Location: Submarine School, Groton/New London, CT.

Length: 1-2 weeks (54-80 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the basic concepts of acoustics, rotating machinery vibration, noise generation, structureborne and fluidborn transmission, machinery balancing and noise measurement, and reduction procedures. Student will operate vibration monitoring equipment and understand the maintenace implications of the measurements.

Instruction: Lectures, demonstrations, and laboratory exercises in acoustics, vibrations, and measurement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester lecture and 1 semester hour laboratory in acoustics or vibrations (10/89).

NV-1715-1487

Navigation Technician Type 2 637 Class Pipeline

Course Number: A-193-0372.

Location: Submarine School, Groton/New London, CT.

Length: 23 weeks (910 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of this pipeline the student will be able to operate and perform preventive and corrective maintenance on a number of navigation system components including radar, NAVSAT, and Identify Friend or Foe (IFF) systems.

Instruction: This course consistes of A-193-0357, Mk 3 Mod 6 Ship's Inertial Navigation System Combined Maintenance; A-102-0199, AN/BPS-15 Radar Combined Maintenance; A-102-0168, BRN-6/SRN-9A Combined Maintenance; and A-102-0229. The last was too short for evaluation. The others can be found in exhibits listed under the course number and title. Please refer to the individual exhibits.

Credit Recommendation: Please refer to the courses listed above for credit recommendations (10/89).

NV-1715-1488

Torpedoman's Mate Class A1

Course Number: A-123-0127.

Location: Service School Command, Orlando, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 11/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to solve problems using basic math and linear equations; analyze circuits to calculate resistance, current, voltage, in series, parallel, complex DC circuits and capacitance, inductance in basic AC circuits.

Instruction: Principles of basic mathematics and algebra, solving linear equasions, series and parallel DC circuits, complex DC circuits, capacitance, inductance, reactance, and transformers. Laboratory exercises in basic techniques of measurement for AC and DC circuits. Also includes explosives, underwater sound, hydraulics and pneumatics, nucleonics, planned maintenance and safety as they relate to torpedos and torpedo systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in DC circuits and 1 in technical mathematics (2/90).

NV-1715-1489

Electronics Technician Class A

Course Number: A-100-0084.

Location: Service School Command, Orlando, FL.

Length: 17 weeks (680 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to solve for voltage, current, power and resistor values in DC series, parallel, and series-parallel circuits; use common laboratory instruments and perform laboratory work; calculate transient voltages and currents in RC and RL circuits; calculate voltages, currents and impedances in sinusoidal RLC circuits; analyze transformer circuits; analyze filters; analyze vacuum tube circuits; analyze circuits containing diodes, transistors, and circuit protection devices; analyze Class A, B, AB, and C power amplifiers; analyze rectifier circuits and regulated power supplies; describe the operation of solid state nonlinear semiconductor devices; analyze multivibrators, limiters, clampers, oscillators, integrators, differentiators; analyze and troubleshoot AM transmitter and receiver circuits; describe antenna characteristics and radio wave propagation; troubleshoot and repair electric and electronic circuits to the component level.

Instruction: Lectures and laboratory exercises on topics in basic electricity and electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in DC circuits, 3 in AC circuits, 7 in solid state electronics, 3 in electronic systems troubleshooting and maintenance and 2 in electronic communications (2/90).

NV-1715-1490

Tomahawk Missile Intermediate Maintenance

Course Number: A-121-0487.

Location: Service School Command, Orlando, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to perform preventive maintenance, documented fault isolation, and repair procedures on a cruise missile under supervision.

Instruction: Lectures and practical exercises related to the maintenance of the missile. Course does not go into detailed circuit analysis or mechanical component breakdown.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/90).

NV-1715-1491

Torpedo MK 48 Intermediate Maintenance Activity Supervisor

Course Number: A-123-0181.

Location: Service School Command, Orlando, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/84-1/90.

Learning Outcomes: Upon completion of the course the student will be able to manage the maintenance activities of a torpedo weapons system.

Instruction: Lectures and practical exercises on the maintenance of a torpedo system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/90).

NV-1715-1492

Torpedo Technician Advanced

Course Number: A-123-0147.

Location: Service School Command, Orlando, FL.

Length: 15 weeks (600 hours).

Exhibit Dates: 2/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze operation of basic DC series, parallel, series-parallel, bridge and DC networks. Includes Thevenin's Theorem, AC theory, algebra, inductance, capacitance. Able to solve for current, voltage and time relationships in DC RL circuits, transformers, filters, RCL circuits; able to solder and wirewrap; able to operate basic test equipment, transistor amplifiers, oscillators, switching circuits, synchros and resolvers. Able to use digital numbering systems, Boolean algebra and describe logic circuits, flip-flops, counters, shift registers, and A/D and D/A converters and multiplexers.

Instruction: Lectures in DC and AC circuits including series, parallel circuits, Thevenin's Theorem, capacitance, inductance, RL and RCL circuits, AC transformers, resonance. Lectures and practical exercises in digital electronics, including numbering systems, Boolean algebra, and logic circuits. Laboratory exercises in soldering and wirewrap techniques, electrostatic discharge and failure analysis.

Credit Recommendation: In the vocational certificate ·category, 2 semester hours in electronic shop practice; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 3 in

AC circuits, 4 in solid state electronics, and 3 in digital principles (2/90).

NV-1715-1493

Torpedo Mk 48 Advanced Capability (ADCAP) Intermediate Maintenance

Course Number: A-123-0183.

Location: Service School Command, Orlando, FL.

Length: 15 weeks (600 hours).

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and repair the Mk 48 torpedo and its test sets.

Instruction: Lectures and practical exercises on the maintenance of the torpedo and its associated systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/90).

NV-1715-1494

General Purpose Electronic Test Equipment Repair Intermediate Maintenance

Course Number: C-198-3041.

Location: Air Maintenance Training Group Detachment, Norfolk, VA; Air Maintenance Training Group Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 5/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze transistor amplifier circuits, operational amplifier circuits, power supplies; convert between binary, octal, hexadecimal, and BCD number systems; construct truth tables for logic circuits; describe counters, decoders, and multiplexers; troubleshoot and repair signal generators, voltmeters, oscilloscopes, and frequency counters.

Instruction: Lectures and practical exercises with emphasis on troubleshooting common electronic laboratory instruments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital principles, 1 in solid state electronics, and 3 in electronic systems troubleshooting and maintenance (3/90).

NV-1715-1495

Intermediate Level Calibration of Physical/Dimensional Test and Measuring Systems Phases B/D

Course Number: C-198-3034.

Location: Air Maintenance Training Group Detachment, Norfolk, VA; Air Maintenance Training Group Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to calibrate various physical/mechanical measuring devices such as pressure and vacuum devices, torque and tension measuring devices, temperature measuring devices, and dimensional measuring devices.

Instruction: Lectures and practical exercises in physical/dimensional calibration techniques. Analytical/mathematical techniques are not stressed.

Credit Recommendation: In the vocational certificate category, 3 semester hours in mechanical measuring instrument calibration (3/90).

NV-1715-1496

Intermediate Level Test Equipment Calibration

Course Number: C-198-3033.

Location: Air Maintenance Training Group Detachment, Norfolk, VA; Air Maintenance Training Group Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to calibrate oscilloscopes, meters, counters, and signal generators involving adjustments or replacement of components to ensure operational standards.

Instruction: Classroom lectures on theory and laboratory exercises on equipment calibration. Extensive laboratory time is devoted to signal generators and power measurements.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in the calibration of electronic test equipment (3/90).

NV-1715-1497

AN/SQR-17(V) Series Operator

Course Number: K-130-0274.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a particular sonar set.

Instruction: Lectures and practical exercises on the operation of the sonar set.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1498

AN/SQR-18A(V)1 Operator

Course Number: K-130-0216.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a sonar receiving set.

Instruction: Lectures and laboratory exercises using the specific sonar equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1499

Surveillance Towed Array Sensor System (SURTASS) Shore

Course Number: J-130-0288.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to recognize, analyze, locate, and correct malfunctions by using diagnostic routines and associated test equipment.

Instruction: Lectures and practical exercises in disk controllers, disk packs, CRT monitors, trackballs, display controllers, keyboards, magnetic tape controllers, magnetic tape transports, and the synchronous channel multiplexer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance (3/90).

NV-1715-1500

Advanced Digital Theory

Course Number: J-130-0299.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze digital circuits containing gates, flip-flops, registers, counters, adders and subtractors; convert between binary, decimal, octal, hexadecimal and BCD number systems; program a specific microprocessor using machine language; describe the principles and the uses of flags, stocks, interrupts, and interfaces; and troubleshoot a microprocessor-based computer to the component level.

Instruction: Lectures and laboratory exercises related to the topics. Laboratory emphasizes troubleshooting microprocessor-based computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital principles and 3 in microprocessors (3/90).

NV-1715-1501

AN/SQQ-23 PAIR Operations Basic

Course Number: K-130-0097.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific sonar system and a specific receiving system using existing or provided environmental and tactical data to detect, classify and track submarine and nonsubmarine contacts.

Instruction: Lectures and practical exercises on the operation of a specific sonar system.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1502

Passive Equipment Cabinet (PEC) Operation and Maintenance

Course Number: J-130-0263.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to analyze printed circuit boards and chassis-mounted components; troubleshoot; isolate faults; and maintain boards and components to the module replacement level.

Instruction: Classroom instruction and major laboratory exercises in fault isolation and troubleshooting techniques. Topics include AC/DC power distribution, test diagrams, audio circuits and switch matrix circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (3/90).

NV-1715-1503

FF-1052 Sonar Supervisor

Course Number: K-130-1119.

Location: Fleet Antisubmarine Training Center, Norfolk, VA; Fleet Antisubmarine Training Center, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise the operation of a sonar team in antisubmarine warfare.

Instruction: Lectures and practical exercises on topics in antisubmarine warfare including sonar systems, search plan development, detection and classification, tracking, attack, and sonobuoy operation.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1504

AN/SQQ-89(V)1/3 Sonar Watch Supervisor

Course Number: K-130-1102.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise a sonar team in antisubmarine warfare operations; recommend a sonar search plan; obtain and evaluate data; and supervise search methodology.

Instruction: Lectures and practical exercises in search methodology using equipment in the sonar suite.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1715-1505

Advanced Acoustic Analysis Class C

Course Number: J-210-0529.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform advanced acoustic analysis of sonar contacts in accordance with recently published intelligence data.

Instruction: Lectures and practical exercises in Soviet sonar technology, underwater communications systems, and signature analysis of Soviet submarines.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1506

AN/SQQ-89(V)2 Sonar Watch Supervisor

Course Number: K-130-1103.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon completion of the course the student will supervise the operation of a specific antisubmarine warfare sonar system.

Instruction: Lectures and practical exercises over topics in antisubmarine warfare tactics, development of sonar search plans, sonobuoy use, detection, classification and tracking.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1715-1507

AN/SQQ-89(V)2 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C

Course Number: K-130-0269.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific antisubmarine warfare sonar system.

Instruction: Lectures and practical exercises on topics in sonar, antisubmarine warfare tactics, sonobuoys, detection and classification, tracking and searching.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1715-1508

AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C

Course Number: K-130-0283.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 15 weeks (600 hours).

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate the combat sensors and support equipment of a specific surface antisubmarine warfare combat system in all phases of the mission.

Instruction: Lectures and practical exercises in the operation of a sonar system and its associated subsystems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1715-1509

Antisubmarine Warfare (ASW) Evaluator Common Core

Course Number: J-2G-0539.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to use technical knowledge and skills to employ antisubmarine sensors and weapons.

Instruction: Lectures, laboratories and demonstrations on the subject matter.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/90).

NV-1715-1510

Antisubmarine Warfare (ASW) Officer

Course Number: J-2G-0536.

Location: Fleet Antisubmarine Warfare Training Center, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: 9/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to supervise antisubmarine operations.

Instruction: Lectures, laboratories, and demonstrations on oceanography, sound propagation, fire control systems, torpedos, missiles, launching systems, and tactical considerations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/90).

NV-1715-1511

Dental Equipment Repair Technology Class C

Course Number: B-198-0013.

Location: School of Dental Assisting and Technology, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 1/90–Present.

Learning Outcomes: Upon completion of the course the student will be able to use basic electronic test equipment to maintain, troubleshoot and repair dental equipment.

Instruction: Lectures and practical exercises on topics in basic electricity, tools, dental chairs, X-rays, pneumatic systems systems, sterilizers, plumbing equipment, dental operating equipment, ultrasonic equipment, film processors, and dental laboratory equipment. Emphasis is on troubleshooting, repair and maintenance.

Credit Recommendation: In the vocational certificate category, This course is equivalent to a certificate in dental equipment maintenance and repair; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance and 3 in basic electronics laboratory (6/90).

NV-1717-0001

Aviation Management

Course Number: E-4D-10.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 2/70–1/88.

Objectives: To train staff and unit maintenance officers to fully utilize the Navy maintenance and material management system.

Instruction: Lectures on documentation and analysis of man-hour accounting, maintenance data collection, aircraft statistical data, and maintenance requirement cards; personnel management; and familiarization of staff and support activities.

Credit Recommendation: In the vocational certificate category, credit in aviation management on the basis of institutional evaluation (2/74).

NV-1717-0002

RA-5C Plane Captains Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 1/68–1/88.

Objectives: To provide fleet maintenance personnel with training in RA-5C aircraft organizational maintenance.

Instruction: Lectures and practical exercises in aircraft structures and hydraulic, electrical, power plant, environmental, and indicating systems maintenance; corrosion control; and flight and inlet-duct airflow control systems operations and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (2/74).

NV-1717-0003

Naval Aviation
Maintenance/Material
Management, Class B

Course Number: Not available.

Location: Naval Air Technical Training Station, Memphis, TN.

Length: 2 weeks (78 hours).

Exhibit Dates: 10/70–1/88.

Objectives: To train noncommissioned officers to supervise maintenance activities.

Instruction: Lectures and practical experience in aviation maintenance management procedures, publications, data collection systems, and aviation safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management (2/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (2/74).

NV-1717-0005

RA-5C Maintenance Supervisors
Familiarization

Course Number: C-000-3743; C-2A-3743.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (144 hours).

Exhibit Dates: 2/73–1/88.

Objectives: To train senior enlisted personnel and branch officers in the operation and mission capabilities of the RA-5C weapons system.

Instruction: Lectures and practical exercises in the operation and mission capabilities of the RA-5C weapon system, including aircraft familiarization and safety, primary essential aircraft systems, electronic systems, structures and corrosion control, hydraulic power system, survival and environmental systems, flight control and fuel systems, AN/ASQ-56A integrated electronic central and electronic altimeter, electronic countermeasures system, and reconnaissance systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance supervisor familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance supervisor familiarization (6/74).

NV-1717-0006

Prospective Engineer Officers

Course Number: K-4H-465.

Location: Fleet Training Center, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train junior officers as prospective engineering and damage control officers on steam- and diesel-drive ships.

Instruction: Lectures and practical exercises in the duties of an engineering department officer and a damage control officer. Course includes administration, boilers, auxiliaries, steam propulsion and diesel propulsion machinery, electrical systems and equipment, fire fighting, damage control, and nuclear, biological, and chemical warfare defense.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in industrial management (7/74).

NV-1717-0007

Warehouse Operations Management

Course Number: A-8C-0015.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 10/71–1/88.

Objectives: To train military and civilian personnel in military warehousing.

Instruction: Lectures and practical exercises in the study of warehousing and storage planning and practices; materials-handling principles; selection and utilization of equipment; automated materials-handling systems; military packaging policies and the basic principles of unit protection and packing; including quantitative aspects of management; documentation and control; warehousing and storage; materials handling; preservation and packaging.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1717-0008

Aviation Maintenance Control
Administration

Course Number: C-000-3204.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Alameda, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Pensacola, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/71–1/88.

Objectives: To train enlisted personnel in the administrative practices and procedures of aviation units.

Instruction: Lectures and practical exercises in the administrative practices and procedures of aviation units, including maintenance management, maintenance and production control, component repair program, maintenance data collection and reporting, aircraft accounting, ground support equipment data reporting, aircraft engine accounting system, logs and records, and administrative procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in organization and management (7/74).

NV-1717-0010

Aviation Ordnanceman, Class C7
(Aviation Ordnanceman, Class B)

Course Number: C-646-2011.

Location: Air Technical Training Center, Jacksonville, FL; Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 21–26 weeks (840 hours). *Version 2:* 21–25 weeks (840–1000 hours).

Exhibit Dates: *Version 1:* 2/74–12/84. *Version 2:* 10/53–1/74.

Objectives: To train enlisted personnel to perform ordnance functions aboard ships.

Instruction: Lectures and practical exercises in administrative techniques, mathematics, physics, electricity, guns, munitions, equipment, and missiles.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic algebra and trigonometry, 3 in electricity/electric circuits and 2 in principles of physics (2/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0011

Naval Aircraft Maintenance
Management

Course Number: Not available.

Location: Naval Training Detachment, North Island, CA; Naval Training Detachment, Jacksonville, FL; Naval Training Detachment, Lemoore, CA; Naval Training Detachment, Quonset Point, RI; Naval Training Detachment, Pensacola, FL; Naval Training Detachment, Norfolk, VA; Naval Training Detachment, Whidbey Island, WA; Naval Training Detachment, Barbers Point, HI.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/67–1/88.

Objectives: To train enlisted personnel to manage aviation maintenance materiel.

Instruction: Lectures and practical exercises in maintenance materiel management, including management, control and security of classified information, naval aircraft maintenance program framework organization, administrative functions and procedures, maintenance and materiel control, quality control, maintenance data collection system, and maintenance equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0012

Parachute Rigger School, Class B

Course Number: None.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 12 weeks (496 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To provide parachute riggers with administrative, theoretical, and practical backgrounds for operating squadrons.

Instruction: Lectures and practical exercises in supervision and management; aircraft maintenance skills; sewing machine adjustments and repairs; liquid oxygen and oxygen regulators; and pressure suits and components.

Credit Recommendation: In the vocational certificate category, 1 in sewing and sewing machine maintenance, 5 in liquid oxygen and regulators, and 2 in pressure suits (5/74); In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0013

Leadership and Management for
Officers (LMT)
(Leadership and Management for Petty
Officers (LMT))

Course Number: A-7C-0018; A-500-0031.

Location: Various Naval Training Centers, USA.
Length: 2 weeks (80 hours).
Exhibit Dates: 4/75–8/79.
Objectives: To provide officers and petty officers with the latest and most pertinent information on leadership methods, management techniques, and skills for applying the Navy's Human Goals Plan.
Instruction: Instruction covers responsibility, accountability, and authority; management and motivation; organizational development; interpersonal communications; problem-solving applications; crisis management; and pertinent human resources management information.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/76).

NV-1717-0014

Leadership and Management Education and Training (LMET) for Leading Petty Officers

Course Number: A-500-0034.
Location: Various Naval Training Centers, USA; Human Resources Management Detachment, Rota, Spain.
Length: 2 weeks (70 hours).
Exhibit Dates: 9/79–3/90.
Objectives: To provide leading petty officers with modern concepts and methods of leadership development and human resources utilization.
Instruction: Course content covers concepts which maximize student growth in the management areas of leadership development and motivational concepts. Topics include establishing authority,time management, methods of developing subordinates, self-motivation, employee discipline techniques and managerial styles. Students are actively involved by role playing, model building, goal setting and performance analysis.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial management, industrial psychology, leadership development or a management elective (11/81).

NV-1717-0015

Leadership and Management Education and Training (LMET) for Chief Petty Officers
(Leadership and Management Education and Training (LMET) For Leading Chief Petty Officers)

Course Number: A-500-0036.
Location: Various Naval Training Centers, USA; Human Resource Management Detachment, Rota, Spain.
Length: 2 weeks (70–80 hours).
Exhibit Dates: 9/79–3/90.
Objectives: To provide leading chief petty officers with modern concepts and methods of leadership development and human resources utilization.
Instruction: Course content covers concepts which maximize student growth in the management areas of leadership development and motivational concepts. Topics include establishing authority, time management, methods of developing subordinates, self-motivation, employee discipline techniques and managerial styles. Students are actively involved by role playing, model building, goal setting and performance analysis.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial psychology, leadership development or a management elective (12/89).

NV-1717-0016

Surface Warfare Split Tour Engineer Officer

Course Number: A-4H-0060.
Location: Surface Warfare Officer School Command, Newport, RI.
Length: 11–14 weeks (408 hours).
Exhibit Dates: 4/76–Present.
Objectives: To provide advanced engineering to unrestricted line officers who are enroute to engineer officer billets in steam propulsion ships.
Instruction: Through individualized instruction officers are provided the necessary knowledge to effectively manage the engineering department of a US naval ship. The course includes the following topics: heat transfer and fluid flow; electrical theory and systems; main propulsion systems; auxiliary systems; damage control; water chemistry; automatic boiler controls; and engineering organization and management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering, 2 in maintenance management (11/82).

NV-1717-0017

Surface Warfare Officer Basic

Course Number: A-4H-0118.
Location: Surface Warfare Officers School Command, Newport, RI; Surface Warfare Officers School Command, Coronado, CA.
Length: 17–18 weeks (674–688 hours).
Exhibit Dates: 10/79–Present.
Objectives: To prepare newly commissioned line officers for junior officer assignment in surface warfare units and to provide a performance-oriented foundation for promotion.
Instruction: A managerial type course providing basic instruction in navigation; seamanship and ship handling; external communications; steam diesel and gas turbine propulsion and auxiliary systems; damage control; inspection and safety; and naval ordnance. Also, included are instruction in human resources management; correspondance and training; materials management; engineering administration and operations; professional development and leadership and management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic seamanship or 3 in a technical elective (11/82); in the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in leadership development or industrial psychology or industrial management or a management elective (11/82).

NV-1717-0018

Surface Warfare Officer Advanced Command

Course Number: A-4H-0111.
Location: Surface Warfare Officer School Command, Newport, RI.
Length: 6–9 weeks (320 hours).
Exhibit Dates: 1/72–Present.
Objectives: To prepare senior grade officers to command suface warfare units by providing fleet-oriented training.
Instruction: The course includes training in personnel leadership and management, inspection, supply management, safety and seamanship. Technical topics briefly touched upon include: nuclear weapons, navigation, communications, surveillance systems, sonar and missile or torpedo systems including Tartar, Terrier, Seasparrow, ASROC and Mk 46.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in ships management (11/82).

NV-1717-0019

Surface Warfare Officer Department Head

Course Number: A-4H-0107.
Location: Surface Warfare Officers School Command, Newport, RI.
Length: 18–24 weeks (735-780 hours).
Exhibit Dates: 4/76–Present.
Objectives: To prepare commissioned officers to execute leadership and and supervisory duties aboard ship.
Instruction: The training emphasizes departmental, system and unit interdependence. The course includes theoretical, technical and practical instruction pertinent to command-at-sea including lectures and problem solving exercises in fundamentals of electricity, computers, fire control, explosives, launching systems, communications systems, intelligence, nuclear weapons, mathematics, physics and high pressure steam systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in physics (mechanics and thermodynamics), 2 in basic electricity and 3 in basic marine engineering (11/82); in the upper-division baccalaureate category, 3 semester hours in industrial management, industrial psychology, leadership development or a management elective (11/82).

NV-1717-0020

Surface Warfare Officers Advanced Executive Command

Course Number: A-4H-0112.
Location: Surface Warfare Officers School Command, Newport, RI.
Length: 6–7 weeks (280 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train Navy personnel in shipboard operations and management.
Instruction: Classroom instruction and practical exercises in shipboard operation and management including maintenance management, seamanship, navigation, rules of the road, ship handling, cargo stowage, underway replenishment, ordnance, nuclear and small craft operation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in ships operations and management or 3 in basic seamanship (11/82).

NV-1717-0021

Leadership Management Education and Training (LMET) Instructor
(Leadership Management Education and Training, Class C1)

Course Number: A-012-0045.
Location: Naval Amphibious School, Little Creek, VA; Leadership and Organizational Effectiveness School, Millington, Memphis, TN.
Length: 10 weeks (400 hours).
Exhibit Dates: 10/83–Present.
Objectives: To provide selected enlisted and officer personnel with knowledge and

skills necessary to instruct in a specific two week Leadership Management Education course offered at U.S. Navy schools and provide a general background in classroom instruction.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) articulate modern principles of course design, (2) practice techniques of creating a positive classroom environment, (3) practice techniques of managing group learning, (4) demonstrate feedback counseling and goal setting skills in a classroom setting, (5) demonstrate practical sensitivity to EEO issues in a classroom, (6) exhibit competence in negotiations and group process in the classroom setting, (7) prepare teaching plans and other instructional materials, and (8) evaluate classroom performance of peers and students.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional stategies and teaching methods and 3 in practice teaching (2/85).

NV-1717-0022

Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer

Course Number: A-500-0033.

Location: Service Schools Command, Great Lakes, IL.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/79-Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize and understand key leadership and management skills (competencies); perform self-assessment in relation to these competencies; and utilize these competencies in the field.

Instruction: Student is instructed using lecture, discussion, roleplaying, simulation and case studies in the following topics: human resource development and leadership concepts or procedures, learning skills, self-assessment and control, leadership performance and management styles, management control processes, reward and discipline, social power (influence), counseling, critical thinking, moral development, and subordinate development.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to personnel management OR introduction to organizational behavior (6/88).

NV-1720-0001

Submarine Tender Radiological Controls

Course Number: F-000-034.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/67-1/88.

Objectives: To train enlisted personnel in the basic theory of radiological controls as applied to nuclear support ships and shore facilities.

Instruction: Lectures and practical exercises in basic theory of radiological controls as applied to nuclear support ships and shore facilities. Course includes basic mathematics, slide rule use, radiological controls, and testing of samples for radiation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in laboratory procedures (6/74).

NV-1720-0002

Cryogenics Equipment Technician

Course Number: J-750-0015.

Location: Cryogenics School, Portsmouth, VA.

Length: 19-20 weeks (760 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to produce liquid nitrogen and liquid oxygen, and handle, store, operate, repair, and maintain cryogenic systems.

Instruction: Classroom instruction and practical exercises on cryogenic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours lecture and 1 laboratory in cryogenic mechanical systems (3/89).

NV-1720-0003

Advanced Cryogenics Equipment Technician

Course Number: J-750-0485.

Location: Fleet Training Center Cryogenics School, Portmouth, VA.

Length: 8-9 weeks (320 hours).

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to produce liquid nitrogen and liquid oxygen; handle, store, operate, repair, and maintain cryogenic systems.

Instruction: Classroom and practical exercises on cryogenic equipment and systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in cryogenic refrigeration systems; in the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in cryogenic mechanical systems (3/89).

NV-1721-0001

Remote Sensor System for Physical Security, Class C1

Course Number: A-198-0030.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 7 weeks (252 hours) *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 4/83-Present. *Version 2:* 8/77-3/83.

Objectives: To train selected students to maintain the remote sensor system for physical security at all times and in all conditions.

Instruction: *Version 1:* Lectures and practical exercises in the operation, theory and block diagram analysis on three types of remote sensor security systems. Basic digital theory is covered as background information to repair the multiplexer and video monitor to the component level. *Version 2:* Topics include troubleshooting and maintaining remote sensing equipment such as static, magnetic, and sonic, and keeping equipment operating properly under all conditions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in security systems maintenance (1/86). *Version 2:* In the vocational certificate category, 2 semester hours in security systems maintenance (9/77).

NV-1721-0002

Noise Measurement and Reduction

Course Number: F-210-014.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/73-1/88.

Objectives: To train enlisted personnel to use sound measurement equipment, to isolate vibrations in noise-critical machinery, to reduce submarine noise, and to perform in-place dynamic balancing.

Instruction: Lectures and practical exercises in the use of sound measurement equipment, vibration analysis of noise-critical machinery, submarine noise reduction, and in-place dynamic balancing, including vibration fundamentals, analysis of frequency spectrum, mechanical vibration and measurement, airborne measurement, use of specific equipment, and overhaul of noise-critical motors.

Credit Recommendation: In the vocational certificate category, 2 semester hours in sound and vibration (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical technology laboratory (sound and vibration) or as an elective in mechanical technology (sound and vibration) (5/74).

NV-1721-0003

Noise and Vibration Measurement

Course Number: A-210-0013; L-210-015.

Location: Submarine Training Center, Charleston, SC; Submarine Training Center, San Diego; Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: *Version 1:* 4/85-Present. *Version 2:* 11/72-3/85.

Objectives: To train enlisted personnel to operate sound- and vibration-monitoring equipment.

Instruction: *Version 1:* Upon successful completion of this course the student will possess the basic knowledge of submarine noise reduction, mechanical vibration and measurement, use of sound measurement equipment, analysis of frequency spectrum, inplace dynamic balancing, and vibration isolation of noise critical machinery. The course is presented through lectures and laboratory instruction in sound, vibration fundamentals, structure borne noise equipment and vibration isolation devices. Hands-on instruction in dynamic balancing and mechanical overhaul of noise critical motors. Instruments studies include general radio sound analysis system, electronic strobotac, and sound level meter. *Version 2:* Lectures and practical exercises in the operation of sound- and vibration-monitoring equipment, including sound and vibration theory, general radio equipment, calibration of vibration-monitoring equipment, vibration survey techniques and data analysis, in-place balance theory, vibration isolation, data acquisition, and equipment maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in vibration reduction and analysis (11/85). *Version 2:* In the vocational certificate category, 2 semester hours in sound and vibration (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical technology laboratory (sound and vibration) or as an elective in mechanical technology (sound and vibration) (5/75).

NV-1721-0004

Instrumentmen, Class A

Course Number: A-670-0010.

Location: Service Schools Command, Great Lakes, IL.

Length: Self-paced 16-17 weeks (546-640 hours).

Exhibit Dates: *Version 1:* 1/82-Present. *Version 2:* 11/70-12/81.

Objectives: To train enlisted personnel to repair typewriters and measuring instruments.

Instruction: Lectures and practical exercises in typewriter troubleshooting and repair, high- and low-pressure pneumatic and hydraulic measuring instruments repair and calibration, tachometers, torque- and flow-measuring instruments, temperature-measuring instruments, brazing and soldering techniques, and use of common hand and power tools.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in typewriter repair, 6 in instrument repair (1/82); in the lower-division baccalaureate/associate degree category, 6 semester hours in mechanical technology (1/82). *Version 2:* In the vocational certificate category, 5 semester hours in typewriter repair, 6 in instrument repair, 6 in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in mechanical technology (5/74).

NV-1721-0005

WATCH AND CLOCK REPAIR, CLASS C (Instrumentmen—Watch Repair)

Course Number: A-670-0011.

Location: Service Schools Command, Great Lakes, IL.

Length: *Version 1:* 12 weeks (432 hours). *Version 2:* 16 weeks (480 hours).

Exhibit Dates: *Version 1:* 5/76-Present. *Version 2:* 6/70-4/76.

Objectives: To train enlisted personnel to perform as watch and clock repairmen.

Instruction: Lectures and practical exercises in the lubrication, cleaning, disassembly, reassembly, and testing of clocks, watches, aneroid and mercurial barometers, and dial indicators, including use of watchmaker's tools (pivot drill and plug, balance staff, jewel setting, winding stem and click springs) and repivoting of wheel.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in horology or watch and clock repair (1/82); in the lower-division baccalaureate/associate degree category, 6 semester hours in horology or watch and clock repair (1/82). *Version 2:* In the vocational certificate category, 15 semester hours in horology or watch and clock making (6/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in horology or watch and clock making (6/74); in the upper-division baccalaureate category, 3 semester hours in horology or watch and clock making (6/74).

NV-1721-0006

A-7A/B ATTITUDE HEADING AND REFERENCE SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3793.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (60-80 hours).

Exhibit Dates: *Version 1:* 8/74-Present. *Version 2:* 5/71-7/74.

Objectives: To train maintenance personnel in the operation and maintenance of a specific attitude, heading, and reference system.

Instruction: Lectures and practical exercises on an attitude, heading, and reference system (ASN-50), including introduction to the system and review of gyroscopic fundamentals; theory of the displacement gyro, amplifier power supply, compass adapter compensator, compass controller and switching rate gyro, attitude indicator coupler, attitude director indicator; and intermediate maintenance and test procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in instrument maintenance (3/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in control systems maintenance (3/82). *Version 2:* In the vocational certificate category, 3 semester hours in instrument maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in instrument maintenance (6/74).

NV-1721-0007

OPTICALMEN, CLASS A

Course Number: A-670-0018.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 24 weeks (871 hours). *Version 2:* 15-17 weeks (612-692 hours). *Version 3:* 17 weeks (540 hours).

Exhibit Dates: *Version 1:* 8/84-Present. *Version 2:* 1/82-7/84. *Version 3:* 1/68-12/81.

Objectives: To train nonrated personnel as opticalmen in units of the fleet or in shore activities.

Instruction: *All Versions:* Lectures and practical exercises in the duties of opticalmen, including basic mathematics, hand tools and measuring instruments, drills and drilling machines, grinders, basic lathe operation, basic milling machine operation, maintenance and material management, fundamentals of optics, optical instrument components, optical instrument repair, lens cementing and painting, primary telescopes, and navigational instruments. *Version 1:* includes basic electricity and blueprint reading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 2 in physical optics, 1 in basic mathematics, 1 in basic circuit theory and 1 in basic circuit laboratory (1/86). *Version 2:* Insufficient data available for evaluation (1/82). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 1 in basic arithmetic, 2 in physics (8/74); in the upper-division baccalaureate category, credit in physics on the basis of institutional evaluation (8/74).

NV-1721-0008

GYROCOMPASS TECHNICIAN MECHANICAL, CLASS C1

Course Number: *All Versions:* A-670-0014. *Version 2:* A-670-014.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 5 weeks (167 hours). *Version 2:* 10 weeks (400 hours).

Exhibit Dates: *Version 1:* 9/73-1/88. *Version 2:* 5/67-8/73.

Objectives: To train interior communications technicians to operate, maintain, and repair Sperry and Arma mechanical gyrocompasses.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of Sperry and Arma gyrocompasses, including principles of gyrocompasses, operation procedures, disassembly and assembly procedures, and inspection, overhaul, and repair procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in industrial-mechanical technology (9/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in industrial or mechanical technology (8/74).

NV-1721-0009

METEOROLOGICAL EQUIPMENT MAINTENANCE, CLASS C

Course Number: C-198-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 4-17 weeks (176-688 hours).

Exhibit Dates: 4/74-1/88.

Objectives: To train electronic technicians to operate and maintain meteorological equipment in use within the Naval Weather Service Command and the Marine Corps Weather Service.

Instruction: Course consists of the following nine phases: I—Radiosonde Receptor Equipment; II—Weather Satellite Equipment; III—Transmissometer and RVR Converter; IV—Cloud Height Equipment; V—Surface Observational Equipment; VI—Weather Radar Equipment; VII—Weather Radar-Television Equipment; VIII—Radar-Telephone Transmission Systems; IX—Rawin Sounding Equipment. Students will attend all or part of the course, depending on their ultimate duty assignment. Group A students will complete all nine phases; Group B students will complete phases I and II; and Group C students will complete phases III, IV, and V.

Credit Recommendation: Group A: In the vocational certificate category, 12 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 8 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory, and 4 semester hours in weather equipment (6/75). Group B: In the vocational certificate category, 4 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory (6/75). Group C: In the vocational certificate category, 5 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory (6/75).

NV-1721-0010

SOUND ANALYSIS, NOISE AND VIBRATION REDUCTION (ENLISTED)

Course Number: A-210-0014; F-210-015.

Location: Submarine School, Groton, New London,CT.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 3 weeks (91 hours).

Exhibit Dates: *Version 1:* 7/73-Present. *Version 2:* 3/70-6/73.

Objectives: To train personnel in the techniques and equipment involved in the analysis and reduction of submarine noise and vibration.

Instruction: *All Versions:* Lectures and practical exercises in the operation, calibration, and maintenance of specific noise and vibration measuring instruments. *Version 1:*

Includes operation, calibration and maintenance of spectrum analysers and recorders as well as dynamic balancing and isolation techniques for noise reduction.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in vibration reduction and analysis (6/81). *Version 2:* Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1721-0011

Noise Reduction/Structure Borne Monitoring (Noise and Vibration Monitoring System (NVMS)

Course Number: A-210-0019.

Location: Submarine Training Facility, San Diego, CA; Submarine Training Facility, Charleston, SC; Submarine School, New London, CT Guided Missile School Detachment, Norfolk, VA; Sub Training Center Pacific, Pearl Harbor, HI.

Length: 2 weeks (79 hours).

Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon successful completion of the course, the student will possess the basic knowledge of submarine noise reduction, mechanical vibration and measurement, use of sound measurement equipment, analysis of frequency spectrum, in-place dynamic balancing, and vibration isolation of noise critical machinery.

Instruction: The course is presented through lectures and laboratory instruction in sound, vibration fundamentals, structure borne noise equipment and vibration isolation devices. Hands-on instruction in dynamic balancing and mechanical overhaul of noise critical motors. Instruments studies include general radio sound analysis system, electronic strobotac, and sound level meter. For previous version, see NV-1721-0003.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to acoustics (7/87).

NV-1722-0001

Aviation Boatswain's Mate G (Gasoline) Class A
(Gasoline Handling)

Course Number: Not available.

Location: Air Material Center, Philadelphia, PA.

Length: 9 weeks (350 hours).

Exhibit Dates: 5/56–4/58.

Objectives: To qualify enlisted personnel as aviation boatswain's mates (gasoline handling).

Instruction: Lectures and practical exercises in aircraft carrier air department organization, hydraulics principles, air-sea rescue, aircraft fire fighting and damage control fire fighting, aviation seamanship, aircraft carrier flight and hangar deck operations, fuel and oil storage and transfer, gaseous storage and transfer systems and handling operations, and fuel and fire-fighting equipment operation and preventive maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in fire science, 1 as an elective in seamanship, and 3 as an elective in petroleum or chemical technology (4/74).

NV-1722-0002

Boatswain's Mate Training

Course Number: G-060-6305.

Location: Amphibious School, Norfolk, VA.

Length: 2-3 weeks (68-105 hours).

Exhibit Dates: 7/68–1/88.

Objectives: To train seamen to perform the duties of a boatswain's mate.

Instruction: Lectures and practical exercises on duties of boatswain's mates, including honors and ceremonies, marlinspike seamanship, ground tackle and mooring, painting and equipment, damage control, gunnery, aids to navigation, rules of the road, life saving equipment, visual signals, weather, welin davits, amphibious boat seamanship, cargo handling and equipment, booms and rigging, and replenishment at sea.

Credit Recommendation: In the vocational certificate category, 2 semester hours in seamanship (5/74).

NV-1722-0003

Coastal Patrol Craft Training

Course Number: H-00-1800; H-000-1800.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 9 weeks (487–561 hours).

Exhibit Dates: 7/69–1/88.

Objectives: To train personnel for riverine/coastal warfare operations.

Instruction: Lectures and practical exercises on riverine/coastal warfare operations, including team training for coastal patrol craft crews in boat operations, tactics, navigation, seamanship, gunnery, and communications; specialized training in small arms, engineering, hull, damage control and salvage; survival-in-water training; all aspects of counterinsurgency and survival; and language training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1722-0004

Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1

Course Number: A-690-0023.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 7/77–1/88.

Objectives: To train selected personnel to check out, troubleshoot, maintain and repair the Sperry active fin stabilizer system.

Instruction: Instruction in the operation and maintenance of the fin stabilizer system including servo-amplifier systems, hydraulic systems, and system troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical and hydraulic systems (9/77).

NV-1722-0005

Basic Boatswain's Mate (General)

Course Number: J-060-0622; J-060-6221.

Location: Fleet Training Center, Newport, RI.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/71–1/88.

Objectives: To provide nonrated naval personnel with the skills of the general boatswain's mate rating.

Instruction: Lectures and practical exercises on the responsibilities of the general boatswain's mate rating, including duties, marlinspike seamanship, ground tackle, line handling, painting and equipment, honors and ceremonies, aids to navigation, weather, rules of the road, boat seamanship, visual signals, life saving equipment, welin davits, booms and rigging, cargo-handling equipment, and replenishment at sea.

Credit Recommendation: In the vocational certificate category, 2 semester hours in seamanship (5/74).

NV-1722-0006

Destroyer Officer

Course Number: A-00-107.

Location: Naval Destroyer School, Newport, RI.

Length: 26 weeks (780 hours).

Exhibit Dates: 6/69–1/88.

Objectives: To train officers in the operations, weapon systems, and engineering departments aboard naval destroyers.

Instruction: Lectures in ship handling and operations, weapons systems, antisubmarine warfare, fuel oil system, electrical system, lubrication system, and special problems in damage control.

Credit Recommendation: In the vocational certificate category, 5 semester hours in industrial technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial technology (6/74); in the upper-division baccalaureate category, 3 semester hours in naval engineering (12/68).

NV-1722-0007

Basic Submarine Quartermaster, Class A

Course Number: F-772-010.

Location: Submarine School, Groton, CT.

Length: 5 weeks (199 hours).

Exhibit Dates: 8/67–1/88.

Objectives: To train enlisted personnel to assist in navigation and visual communication.

Instruction: Lectures and practical exercises in navigation publications, charts and instruments, piloting, tides and currents, rules of the nautical road, use of operating signals in cummunications, flaghoists, flashing lights, and semaphore.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1722-0008

Officer of the Deck-Basic
(Prospective Officer of the Deck)

Course Number: *Version 1:* K-2E-2103. *Version 2:* C-602.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (87–92 hours).

Exhibit Dates: *Version 1:* 5/78–Present. *Version 2:* 6/66–12/68.

Objectives: To provide basic preparation for the duties of an officer of the deck in port or underway.

Instruction: *Version 1:* Lectures, problem solving and laboratory experiences in seamanship, navigation and tactics including ground tackle, heavy weather seamanship, use of magnetic compass, buoys and other navigation aids, navigational publications, use of maneuvering board and voice radio procedures. *Version 2:* Lectures and practical exercises in communications, navigation and rules of the road, tactics, watchstanding in port and at sea, anchoring and weighing anchor, ship handling drill, navigational instruments, and the U.S. bouyage system.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic navigation and seamanship (1/83). *Version 2:*

Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1722-0009

Swift Boat Crew Training

Course Number: H-00-5324; H-000-5324.

Location: Amphibious School, Coronado, CA.

Length: 9 weeks (260 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To prepare personnel for duty as Swift boat crewmen.

Instruction: Lectures and practical exercises in survival swimming, maps and charts, navigation, radio operation, communications, electronics, engine operation, boat electrical systems, and maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1722-0010

River Patrol Craft Training

Course Number: H-00-1600; H-000-1600.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 8–10 weeks (432–538 hours).

Exhibit Dates: 11/66–1/88.

Objectives: To train officers and enlisted personnel in the conduct of river patrol operations.

Instruction: Team training in boat operations and tactics; boarding and search procedures; navigation; seamanship; gunnery; communications; and hull, engine and electronics maintenance and repair.

Credit Recommendation: In the vocational certificate category, 6 semester hours in seamanship (7/74).

NV-1723-0001

Machine Tool Operator
(Machine Tool Operations)

Course Number: A-702-0028; L-702-010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Training Center, Charleston, SC; Submarine School, Groton, New London, CT.

Length: *Version 1:* 3 weeks (112 hours). *Version 2:* 2 weeks (60–72 hours).

Exhibit Dates: *Version 1:* 2/79–3/85. *Version 2:* 9/66–1/79.

Objectives: To provide enlisted personnel with advanced training in the operation of South Bend engine lathes.

Instruction: For this course after 3/85 see NV-1723-0015. Lectures and practical exercises in the repair and operation of South Bend engine lathes, including measuring instruments, center drilling, rough turning, tool bit grinding, taper turning, threading and knurling, and milling.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mechnical or manufacturing technology (6/81). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in machine shop (4/74).

NV-1723-0002

Machinery Repairmen, Class A

Course Number: A-702-0019.

Location: Service School Command, San Diego, CA.

Length: *Version 1:* 10–11 weeks (400 hours). *Version 2:* 12 weeks (360–374 hours).

Exhibit Dates: *Version 1:* 12/78–Present. *Version 2:* 10/64–11/78.

Objectives: To train enlisted personnel to perform as machinery repairmen.

Instruction: Lectures and practical exercises in machinery repair, including use of hand tools and measuring instruments; principles and applications of blueprint reading; mathematics; portable equipment; machine shop procedures, bench work, and disassembly, repair, assembly, and testing; basic, intermediate, and advanced operations on drilling, shaping, turning, milling, grinding, sawing, and engraving machines; the fabrication of parts and repair of valves, and maintenance management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in machine trades or machinery repair (5/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machinery repair (5/82). *Version 2:* In the vocational certificate category, 6 semester hours in machine trades or machinery repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machinery repair (5/74); in the upper-division baccalaureate category, 2 semester hours in machine trades or machinery repair (5/74).

NV-1723-0003

Molders, Class B

Course Number: A-790-0011.

Location: Development and Training Center, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 2/65–1/88.

Objectives: To train enlisted personnel to identify and test ferrous and nonferrous casting metals, identify and use melting equipment, prepare molds, and cast various ferrous and nonferrous metals.

Instruction: Lectures and practical exercises in preparing molds and casting metals. Topics include mechanical drawings, mathematics and foundry calculations, mold construction, melting equipment, leadership skills, casting-metal metallurgy, identification and testing of metal castings, nonferrous alloy casting technology, and foundry management.

Credit Recommendation: In the vocational certificate category, 6 semester hours in foundry practice (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in foundry practice (6/74).

NV-1723-0004

Patternmaker, Class A

Course Number: A-790-0012.

Location: Patternmakers School, San Diego, CA.

Length: 20 weeks (600–694 hours).

Exhibit Dates: 11/61–1/88.

Objectives: To train personnel to perform as patternmakers.

Instruction: Lectures and practical exercises in the functions of patternmakers, including fundamentals of patternmaking; shop math, pattern reproduction, production molding, and mold construction; flanged fittings, molding equipment, and intercasting; surface development; segmental, staved, and lag construction; metal patterns; shell molding; advanced patternmaking; pattern and casting design; pattern machinery operation, maintenance, and safety precautions; and hand and portable power tools.

Credit Recommendation: In the vocational certificate category, 24 semester hours in patternmaking and foundry (6/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in patternmaking and foundry (6/74); in the upper-division baccalaureate category, 6 semester hours in patternmaking and foundry (6/74).

NV-1723-0005

Shipfitters Hull Maintenance Technician, Class A, Phase 2

Course Number: A-700-010.

Location: Training Center, Philadelphia, PA; Training Center, San Diego, CA.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 12 weeks (353 hours).

Exhibit Dates: *Version 1:* 8/77–10/81. *Version 2:* 1/72–7/77.

Objectives: To train enlisted personnel in shipfitting and hull maintenance.

Instruction: Lectures and practical exercises in shipfitting and hull maintenance, including basic tools and materials, basic metallurgy, oxyacetylene welding, silver brazing, braze welding, manual arc welding, sheetmetal layout and fabrication, piping sections layout and fabrication, shipboard piping systems, and environmental pollution control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in welding processes, 1 in sheet metal fabrication (10/81). *Version 2:* In the vocational certificate category, 8 semester hours in sheet metal work and piping (5/74).

NV-1723-0006

Shipfitters, Class A (Metalsmith)

Course Number: Not available.

Location: Training Center, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 5/63–12/68.

Objectives: To train enlisted personnel to be metalsmiths.

Instruction: Lectures and practical exercises in metalsmithy, including shipfitter responsibilities, mathematics, blueprint reading and symbols, tools and materials, metallurgy, welding, brazing and soldering, coppersmithing, and basic metalsmithing.

Credit Recommendation: In the vocational certificate category, 8 semester hours in metalsmithy (5/74).

NV-1723-0007

Steelworker/Sheetmetal, Class C

Course Number: A-703-0010.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA; Construction Battalion Center, Davisville, RI.

Length: 6–7 weeks (180–210 hours).

Exhibit Dates: 1/72–1/88.

Objectives: To train petty officers to perform as sheet metal technicians.

Instruction: Lectures and practical exercises in sheet metal work and blueprint reading and estimating, including mathematics; blueprint reading, planning, and estimating; sheet metal pattern layout; sheet metal tools and equipment; soldering; sheet metal fabrication and installation; material requisitioning; pattern layout; and duties and responsibilities of the supervisor.

Credit Recommendation: In the vocational certificate category, 4 semester hours in sheet metal (5/74).

NV-1723-0008

Steelworker, Class J (SW)

Course Number: A-711-0018.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 14-15 weeks (420-454 hours).

Exhibit Dates: 9/63-1/88.

Objectives: To train personnel to perform as steelworkers with construction battalions.

Instruction: Lectures and practical exercises in the techniques of control and supervision and the materials and tools used in the planning and erection of steel structures, including foremanship, applied mathematics, metal working, oxyacetylene welding, inert-gas welding, and steel erection.

Credit Recommendation: In the vocational certificate category, 9 semester hours in construction and advanced steelwork (7/76).

NV-1723-0009

Steelworkers, Class A

Course Number: A-711-0015.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: *Version 1:* 9 weeks (265 hours). *Version 2:* 12 weeks (360-361 hours).

Exhibit Dates: *Version 1:* 7/75-1/88. *Version 2:* 12/63-6/75.

Objectives: To train enlisted personnel to be steelworkers.

Instruction: *Version 1:* Lectures and practical exercises in erection of steel structures, including basic mathematics, blueprint reading and sketching, sheet metal layout, metal working, and welding. *Version 2:* Topics also include steel erection and rigging.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in construction, basic steelworker (7/76). *Version 2:* In the vocational certificate category, 6 semester hours in construction, basic steelworker (5/74).

NV-1723-0010

Intermediate Level Maintenance Navigation Technician
(Navigation Technician Intermediate Level Maintenance)

Course Number: A-193-0311.

Location: Naval Guided Missiles School, Dam Neck, VA.

Length: 3 weeks (104-120 hours).

Exhibit Dates: 8/82-Present.

Objectives: To provide naval personnel with the skills and knowledge to perform intermediate level maintenance on navigation subsystems.

Instruction: Lectures and practical exercises in the appropriate administrative procedures for maintenance duties including the correct soldering and wirewrapping techniques needed to maintain the navigation subsystem.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering and wirewrapping techniques (6/89).

NV-1723-0011

Machinery Repairmen, Class B

Course Number: A-702-0020.

Location: Technical Training Command, San Diego, CA.

Length: *Version 1:* 17 weeks (510 hours). *Version 2:* 18 weeks (600 hours).

Exhibit Dates: *Version 1:* 9/72-1/88. *Version 2:* 10/64-8/72.

Objectives: To train personnel to serve as machinery repairmen.

Instruction: Lectures and practical exercises in machinery repair. Course includes shop mathematics, interpretation of drawings of machine tool operations on the toolmaker's lathe; turret lathe; surface, tool and universal cylindrical grinders; milling machines and rapid, plane, angular, and differential indexing; the generation and manufacture of spur, helical, bevel, and worm gears, and symmetrical and nonsymmetrical forms; metal spraying; physical metallurgy and plastics; and advanced precision measuring instruments.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in advanced machine shop (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in advanced machine shop (5/74); in the upper-division baccalaureate category, 6 semester hours in advanced machine shop (5/74). *Version 2:* In the vocational certificate category, 10 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74); in the upper-division baccalaureate category, 4 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74).

NV-1723-0013

Hull Technician Class A, Phase I/II

Course Number: A-495-0035; A-700-0010.

Location: Naval Technical Training Center, Treasure Island, San Francisco, CA; Navy Damage Control Training Center, Philadelphia, PA.

Length: 11 weeks (440 hours).

Exhibit Dates: 11/81-Present.

Objectives: To train enlisted personnel in damage control techniques and in ship fitting and hull maintenance.

Instruction: The first three weeks contain lectures and practical exercises in hull and hull systems, casualty control fire fighting, hull and pipe patching, characteristics of nuclear bursts, classification and detection of biological and chemical agents, ship board decontamination use and care of oxygen breathing equipment. The last 8 weeks is directed to lectures and practical exercises in ship fitting and hull maintenance, including basic tools and materials, oxyacetylene welding, manual arc welding, sheet metal layout and fabrication, ship board piping systems and environmental pollution control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those students completing phase I, 2 semester hours in damage control and 1 in firefighting. For those students completing phase II, 3 semester hours in welding processes and 1 in sheet metal fabrication (11/81).

NV-1723-0014

Underwater Hydraulic Tools

Course Number: A-433-0043.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Mobile Diving Salvage School, Little Creek, VA.

Length: 2 weeks (75 hours).

Exhibit Dates: 3/85-Present.

Objectives: To provide training for second class divers and above with advanced maintenance and tool technique training in the NAVSEA under water hydraulic tool package.

Instruction: Lecture and laboratory instruction. Upon successful completion of this course the diver is prepared for assignment to ashore/afloat ship repair facilities to provide underwater ship repair. This includes in depth study of the individual tools, their power sources, troubleshooting and preventive maintenance actions. Hydraulic tools covered in the course are: grinder, impart wrench, come-along, rope cutter, jack and sump pump.

Credit Recommendation: In the vocational certificate category, 1 semester hour in mechanical laboratory (11/85).

NV-1723-0015

Machine Tool Operator

Course Number: A-702-0028.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Facility, Kings Bay, GA; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (119 hours).

Exhibit Dates: 4/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and maintain lathes and milling machines.

Instruction: Lectures and laboratories in lathes and milling machine operation and maintenance, including measuring instruments, center drilling, rough turning, tool bit grinding, taper turning, threading, knurling and milling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in manufacturing or mechanical technology (lathe and milling machine operation) (10/89).

NV-1723-0016

Advanced Auxiliary Equipment Package

Course Number: A-652-0136.

Location: Submarine School, Groton/New London, CT.

Length: 13 weeks (513 hours).

Exhibit Dates: 7/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to weld, braze, and repair air conditioning and refrigeration systems.

Instruction: This is a pipeline course consisting of A-701-0064, Fuel Gas Welding, Brazing, and Cutting; A-701-0053, Shielded Metal Arc Welding; A-702-0028, Machine Tool Operator; and A-720-0030, Air Conditioning and Refrigeration. Please see the individual exhibits for further information.

Credit Recommendation: Please see the exhibits cited above for credit recommendations (10/89).

NV-1724-0001

Heat Treatment of Metals, Class C

Course Number: A-702-0021.

Location: Service Schools Command, San Diego, CA.

Length: 7 weeks (234-280 hours).

Exhibit Dates: *Version 1:* 2/72-Present. *Version 2:* 10/64-1/72.

Objectives: To train personnel as heat treatment specialists.

Instruction: *All Versions:* Lectures and practical exercises in the heat treatment of metals, including properties of metals, metal alloy systems, identification and classification of metals, corrosion and surface treatment. *Version 2:* Includes maintenance and material management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in physical metallurgy, 3 in heat treating laboratory (5/82). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in physical metallurgy, 4 in heat treating (5/74).

NV-1724-0002

Nondestructive Testing of Metals

Course Number: A-701-017.

Location: Welding School, Class C, San Diego, CA.

Length: 14-19 weeks (420-665 hours).

Exhibit Dates: 3/65-1/88.

Objectives: To train personnel in the nondestructive testing of metals.

Instruction: Lectures and practical exercises in Atomic Energy Commission rules and regulations pertaining to radiography and the safe handling of radioactive byproduct material, and the fundamentals of nondestructive testing, including NDT-related inspections and mathematics; fundamentals of radiation as applied to industrial radiography; radiation control, detection, and measurement; magnetic particle and liquid penetrant testing; ultrasonic testing; and radiographic inspection.

Credit Recommendation: In the vocational certificate category, credit in metals testing on the basis of institutional evaluation (5/74); in the lower-division baccalaureate/associate degree category, credit in metals testing on the basis of institutional evaluation (5/74); in the upper-division baccalaureate category, credit in metals testing on the basis of institutional evaluation (12/68).

NV-1724-0003

Nondestructive Testing of Metals
Ultrasonic Thickness Inspection
Class C1

Course Number: A-701-0046.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train naval personnel to be ultrasonic thickness and banding inspectors.

Instruction: Includes instruction in the theory of ultrasonics, principles and fundamental wave modes; equipment-transducers and flow detectors; documents and standards; thickness and bonding readings and glass reinforced plastics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in ultrasonic nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in ultrasonic quality control (5/82).

NV-1724-0004

Nondestructive Testing of Metals
Ultrasonic Silver Braze
Inspection, Class C1

Course Number: A-701-0034.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/76-Present.

Objectives: To train naval personnel in ultrasonic silver braze inspection.

Instruction: Classroom instruction and laboratory exercises in the theory of ultrasonic wave technology to be used for nondestructive testing inlcuding wave theory, equipment calibration, transducers, and flaw detection as applied to brazed joints.

Credit Recommendation: In the vocational certificate category, 2 semester hours in ultrasonic nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in ultrasonic quality control (5/82).

NV-1724-0005

Nondestructive Testing of Metals
Ultrasonic Shearwave
Inspection, Class C1

Course Number: A-701-0047.

Location: Service School Command, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/78-Present.

Objectives: To train personnel in the theory, application and techniques required for ultrasonic shearwave inspection.

Instruction: Theory of the generation, attenuation and reflections of ultrasonic wave modes including the advantages and limitations of ultrasonic testing. Operation and qualification of ultrasonic shearwave equipment to detect, evaluate and record weld discontinuities in accordance with written procedures and acceptance standards.

Credit Recommendation: In the vocational certificate category, 2 semester hours in ultrasonic sheer wave nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in quality control ultrasonic sheerwave inspection (5/82).

NV-1724-0006

Nondestructive Testing of Metals
Visual, Magnetic Particle and
Liquid Penetrants
Operator/Inspector

Course Number: A-701-0033.

Location: Service School Command, San Diego, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 12/75-Present.

Objectives: To train naval personnel in the theory and application of nondestructive testing of materials.

Instruction: To train enlisted personnel in the theory and application of nondestructive testing of materials including inspection of weld zones by visual, magnetic particle, and liquid penetrant methods. Also instruction in basic magnetic theory and welding techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in quality control in visual metals, magnetic particles and liquid penetrants (5/82).

NV-1724-0007

Nondestructive Testing of Metals
Radiographic Inspector Class C1

Course Number: A-701-0035.

Location: Service School Command, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/79-Present.

Objectives: To train naval radiographers in the advanced theory, application and techniques required for radiographic inspectors.

Instruction: Lectures and practical exercises in radiographic theory including nomenclature and functions of X-ray equipment, characteristics of X- and gamma-rays, X-ray films including processing and factors affecting quality, radiographics, mathematics, weld defects, qualifications and inspections requirements. Also included are perceptual skills required for film interpretation along with information and knowledge required in accepting or rejecting discontinuation/defects.

Credit Recommendation: In the vocational certificate category, 3 semester hours in nondestructive testing, mathematical inspection (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in metal radiographic, 1 in photographic laboratory (5/82).

NV-1724-0008

Nondestructive Testing of Metals
Eddy Current Inspection Class
C1

Course Number: A-701-0050.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 8/77-Present.

Objectives: To train personnel in the theory, application and techniques required for eddy current inspection.

Instruction: Electrical theory of the generation, distribution and concepts of eddy currents including the advantages and limitations of eddy current testing. Operation and qualification of eddy current crack detection equipment on ferrous weldments in accordance with written procedures and acceptance standards. Operation and qualification of eddy current equipment to detect and evaluate dealloying in bronze castings in accordance with written procedures and acceptance standards.

Credit Recommendation: In the vocational certificate category, 1 semester hour in nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 1 semester hour in quality control (5/82).

NV-1724-0009

Nondestructive Testing of Metals
Radiographic Operator

Course Number: A-701-0032.

Location: Service School Command, San Diego, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/79-Present.

Objectives: To train personnel in the theory, application and techniques required for radiographic inspection.

Instruction: Lectures and practical exercises in the theory of the generation and exposure effects of X-rays and Gamma-rays and development of film exposure and development techniques to written procedures and acceptance standards.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radiographic nondestructive testing (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in radiographic quality control, 1 in photographic laboratory (5/82).

NV-1726-0001

Ship Serviceman Class C Shipboard
Barber

Course Number: A-840-0012; A-840-0013.

Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train personnel to perform as barbers.

Instruction: Lectures and practical exercises in the organization and management of barbershop operations, including use and maintenance of barbershop equipment, hair cutting, barber tools and equipment, management and operation, skin diseases and prevention, honing and stropping, and neck shaving.

Credit Recommendation: In the vocational certificate category, 4 semester hours in barbering (6/74).

NV-1728-0001

Counterinsurgency Training

Course Number: G-00-6250; G-000-6250.

Location: Naval Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (205 hours).

Exhibit Dates: 4/68–1/88.

Objectives: To train and prepare naval officers and enlisted personnel for duty in countries subject to insurgency warfare. The course presents a geopolitical orientation to a country under wartime conditions, and prepares the individual to survive hostile conditions.

Instruction: Fundamentals of insurgency warfare; counterinsurgency; weapons; techniques of survival, evasion, resistance, and escape.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1728-0002

Naval Internal Security Force Training

Course Number: H-00-5240; H-000-5240.

Location: Naval Amphibious School, Coronado, San Diego, CA.

Length: 4 weeks (97 hours).

Exhibit Dates: 6/67–1/88.

Objectives: To provide training in internal security and counterinsurgency operations, and to provide a basic geopolitical orientation to a specific foreign country.

Instruction: History of insurgent movements; fundamentals of counterinsurgency; communist ideology, organization and goals; general principles of guerilla and counterguerilla operations; naval tactics and techniques which have application in combating insurgent movements; general principles of psychological operations and civil affairs; area and cultural orientation; intelligence and counterintelligence orientation; voice communication procedure; and internal security. Instruction further acquaints student with basic techniques of personal and physical security and qualifies him in areas of physical fitness, marksmanship, and communications skills.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

NV-1728-0003

Counterinsurgency Pre-Deployment

Course Number: H-00-5221; H-000-5221.

Location: Naval Amphibious School, Coronado, San Diego, CA.

Length: 13 weeks (508 hours).

Exhibit Dates: 1/69–1/88.

Objectives: To provide maximum training in internal defense, internal development and insurgency/counterinsurgency to Navy officers and personnel enroute to duty in an advisory capacity or in a billet which will require close operational contact with the indigenous population in a Pacific Ocean Area country where subversive aggression is incipient or in being.

Instruction: Ideologies: theory and application; area studies; insurgency and counterinsurgency; psychological operations; intelligence and counterintelligence; guerilla and counterguerilla warfare; communications; engineering; medical; weapons training; field tactics; survival, evasion, resistance to interrogation, and escape techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in Vietnamese language, 9 in criminal justice (11/73).

NV-1728-0004

Fire Fighter Instructor
(Fire Fighting Instructor)

Course Number: A-780-0024; A-780-0025.

Location: Damage Control Training Center, Philadelphia, PA; Damage Control Training Center, Treasure Island, CA.

Length: 4 weeks (128–140 hours).

Exhibit Dates: 1/64–1/88.

Objectives: To prepare enlisted personnel as instructors of fire fighters.

Instruction: Lectures and practical experience in the use and care of fire-fighting equipment, fire-fighting techniques, lesson planning, and instructing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in fire fighting (1/74).

NV-1728-0005

Aviation Boatswain's Mate F (Fuels), Class

Course Number: C-821-2010.

Location: Naval Air Technical Training Center, Lakehurst, NJ; Naval Air Technical Training Center, Philadelphia, PA.

Length: 7–8 weeks (280–320 hours).

Exhibit Dates: 4/66–1/88.

Objectives: To train enlisted personnel in the specialized techniques of ship fire fighting.

Instruction: Lectures and practical experience in safety, survival, and fire-fighting procedures, fuel and volatile liquid types, inspection and maintenance of transfer systems and shore based refuelers and service unit systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1728-0006

1. Aircraft Firefighting and Rescue, Class A1
2. Aviation Crash Crewman Class C

Course Number: C-780-2010.

Location: Air Technical Training Center, Millington, TN; Air Technical Training Center, Memphis, TN.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: *Version 1:* 7/78–Present. *Version 2:* 7/64–6/78.

Objectives: To train enlisted personnel who have backgrounds in aviation fundamentals to perform as aviation crash crewmen.

Instruction: Lectures and practical exercises in the functions of aviation crash crewmen, including theory of fire and fire extinguishing, aircraft familiarization, mobile fire-fighting equipment, and crash rescue and fire-fighting techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in fire fighting (9/89). *Version 2:* In the vocational certificate category, 3 semester hours in fire fighting (5/74).

NV-1728-0007

Safety Inspector Class C

Course Number: None.

Location: Naval Schools Construction, Port Hueneme, CA; Naval Schools Construction, Davisville, RI; Naval Schools Construction, Gulfport, MS.

Length: 3 weeks (94 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To train enlisted personnel to be safety inspectors in construction battalions.

Instruction: Lectures and practical exercises in naval safety programs and chain of command, safety administrative procedures, safety section organization and functions, transportation and construction equipment safety, power tools and hand tools safety, utilities construction and electrical safety, and steelworker and builder safety.

Credit Recommendation: In the vocational certificate category, 2 semester hours in safety inspection (5/74).

NV-1728-0009

Damage Controlman Class 'A' School

Course Number: A-495-2060.

Location: Naval Technical Training Center, Treasure Island, CA.

Length: 8 weeks (300 hours).

Exhibit Dates: 12/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide training to promote, effective shipboard team member participation in damage control activities.

Instruction: Lecture and laboratory exercise to provide knowledge of shipboard systems identification and communication of damage control conditions, and skill development in effective and safe damage control procedures (i.e. Firefighting, Biological and Chemical Decontamination).

Credit Recommendation: In the vocational certificate category, 3 semester hours in decontamination technology; in the lower-division baccalaureate/associate degree category, 4 semester hours in fire technology, and 2 in shipboard systems (8/89).

NV-1728-0011

Damage Control Assistant

Course Number: A-4G-0011; A-4G-0010.

Location: Naval Control Training Center, San Francisco, CA; Naval Control Training Center, Treasure Island, CA; Naval Control Training Center, Philadelphia, PA.

Length: *Version 1:* 6 weeks (220 hours). *Version 2:* 9 weeks (266 hours).

Exhibit Dates: *Version 1:* 7/78–Present. *Version 2:* 3/71–6/78.

Objectives: To train officers to be damage control officers.

Instruction: *All Versions:* Lectures in fire prevention and fire-fighting techniques, including extinguishing random fires, shipboard fire prevention, operation of oxygen breathing apparatus and other fire-fighting equipment; practical damage control, including underwater damage repair, plugging and patching and damage control battle organization; and nuclear, biological, and chemical warfare defense operations. *Version 2:* Includes research and development of firefighting equipment, practical damage control including ships systems operation and repair procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in ships engineering, 1 in fire prevention (7/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in fire prevention (5/74); in the upper-division baccalaureate category, 3 semester hours in ships engineering (5/74).

NV-1728-0012

Damage Controlmen Class A HT-A
Phase 1

Course Number: A-780-0035; A-780-0036.

Location: Damage Control Training Center, Philadelphia, PA; Damage Control Training Center, Treasure Island, CA.

Length: 3-8 weeks (240 hours).

Exhibit Dates: 7/70-10/81.

Objectives: To train enlisted personnel in damage control techniques.

Instruction: Lectures and practical exercises in hull and hull systems, casualty control, shoring, hull and pipe patching, plastic repairs, fire fighting, basic nuclear physics, characteristics of nuclear bursts, classification and detection of biological and chemical agents, shipboard decontamination, use and care of oxygen breathing equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fire fighting, 3 in damage control (10/81).

NV-1728-0013

Aviation Boatswain's Mate U
(Utility), Class A

Course Number: Not available.

Location: Air Material Center, Philadelphia, PA.

Length: 9 weeks (360 hours).

Exhibit Dates: 3/57-2/58.

Objectives: To train boatswain's mates in the use and maintenance of aviation catapults and arresting gear.

Instruction: Lectures and practical exercises on the use and maintenance of catapults and arresting gear, including marlinspike seamanship, wire rope socketing, hydraulics, fundamentals of fire fighting, general information and preventive maintenance of catapult and arresting gear systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1728-0014

Aviation Boatswain's Mate H
(Aircraft Handling), Class A
(Aviation Boatswain's Mate H (Handling), Class A)

Course Number: C-822-2010.

Location: Air Technical Training Center, Philadelphia, PA; Air Technical Training Center, Lakehurst, NJ.

Length: 7-8 weeks (280 hours).

Exhibit Dates: 6/65-7/82.

Objectives: To train enlisted personnel as aviation boatswain's mates.

Instruction: Lectures and practical exercises on aircraft carrier fire fighting, aircraft-handling equipment maintenance, and spotting and handling of aircraft, including survival and emergency equipment, aircraft familiarization and handling, aircraft carrier fire fighting and personnel rescue, aircraft crash fire-fighting procedures and techniques, aircraft crash fire-fighting equipment ashore, and crash fire and rescue drills.

Credit Recommendation: In the vocational certificate category, 4 semester hours in fireman training (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in fire science (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial safety and security (6/74).

NV-1728-0015

Military Justice (Non-Lawyer)

Course Number: A-5F-0014.

Location: Naval Training Center, San Diego, CA; Naval Justice School, Newport, RI.

Length: 5 weeks (120-148 hours).

Exhibit Dates: *Version 1:* 8/72-1/88. *Version 2:* 3/70-7/72.

Objectives: To train commissioned officers to act as paralegal professionals.

Instruction: Lectures and practical exercises in the duties and skills necessary to act as a paralegal professional in legal and court situations. Course includes court procedures; an in-depth study of criminal, civil, and military law; prosecution and judgemental services; and legal advising.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in criminal justice or criminology (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in political science (12/68).

NV-1728-0016

Military Justice (Lawyer)

Course Number: A-5F-0013.

Location: Naval Justice School, Newport, RI.

Length: 10 weeks (400 hours).

Exhibit Dates: 7/72-1/88.

Objectives: To provide lawyers with a basic orientation to military and administrative law.

Instruction: Instruction includes lectures in military and administrative law, criminal procedure, military crimes, and rules of evidence; moot court exercises; and trial clinics and administrative proceedings. Students are required to do some library research.

Credit Recommendation: Undergraduate credit is not recommended because of the professional nature of the course (6/75).

NV-1728-0017

Military Justice (Officers)

Course Number: K-00-2044; K-00-060.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/71-1/88.

Objectives: To prepare personnel to perform the duties of a discipline or legal officer.

Instruction: Instruction provides the student with an overview of military justice, including court martial procedure, laws of evidence, court martial punishments, and search and seizure.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in evidence or criminal investigation (6/75).

NV-1728-0018

Aviation Boatswain's Mate Handling,
Class A1 (Shore Track)

Course Number: C-822-2012.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 3-4 weeks (132 hours).

Exhibit Dates: 8/82-6/86.

Learning Outcomes: Upon completion of the course, the student will be able to assist in aircraft ground maneuvering and assist in fire fighting with direct supervision on shore.

Instruction: Includes lectures and performance exercises in aircraft ground maneuvering and firefighting techniques on shore.

Credit Recommendation: In the vocational certificate category, 1 semester hour in heavy equipment operation (fire fighting) (6/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in A/C ground handling, 1 in fire fighting principles, and 1 in industrial safety (6/87).

NV-1728-0019

Aviation Boatswain's Mate Handling,
Class A1 (Sea Track)

Course Number: C-822-2011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 2-3 weeks (95 hours).

Exhibit Dates: 8/81-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist in aircraft ground maneuvering and assist in fire fighting with direct supervision at sea.

Instruction: Includes lectures and performance exercises in aircraft ground maneuvering and firefighting techniques at sea.

Credit Recommendation: In the vocational certificate category, 1 semester hour in heavy equipment operation (fire fighting) (6/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in A/C ground handling, 1 in fire fighting principles, and 1 in industrial safety (6/87).

NV-1728-0020

Aviation Boatswain's Mate Handling,
Class A1
(Aviation Boatswain's Mate Aircraft Handling, Class A1)

Course Number: C-822-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* 5-6 weeks (224 hours). *Version 2:* 1-2 weeks (54-64 hours).

Exhibit Dates: *Version 1:* 5/87-Present. *Version 2:* 8/82-4/87.

Learning Outcomes: Upon completion of the course, the student will be able to assist in aircraft ground maneuvering and assist in firefighting with direct supervision on shore or at sea.

Instruction: Lectures and performance exercises in aircraft ground manuevering and firefighting techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in heavy equipment operation (firefighting) (6/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft ground handling, 1 in fire fighting principles, and 1 in industrial safety (6/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft ground handling (6/87).

NV-1728-0021

Navy Security Guard (Class C1)

Course Number: A-830-0011.

Location: Naval Air Technical Training Center, Lakehurst, NJ.
Length: 4 weeks (181 hours).
Exhibit Dates: 10/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to display knowledge of patrolling assigned sector, qualify in weapons and firearms and self-defense techniques, conduct preliminary investigations, complete and file police reports, operate patrol vehicle, perform physical security, loss prevention, crime prevention, respond to calls for police service, and become familiar with military code of justice.
Instruction: Topics covered are patrol techniques, vehicle operations, felony stops, report writing/forms, apprehensions and restraints, crisis intervention/combatting terrorism, crime prevention/loss prevention, defensive tactics, weapons firing, and emergency driving procedures.
Credit Recommendation: In the vocational certificate category, 1 semester hour in physical training and weaponry (8/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in patrol procedures (8/87).

NV-1728-0022

Sensitive Compartmented Information (SCI) Administration and Physical Security

Course Number: J-3A-0984.
Location: Navy and Marine Corps Intelligence Training Center, Dam Neck, VA.
Length: 1–2 weeks (60 hours).
Exhibit Dates: 9/84–Present.
Learning Outcomes: Upon completion of the course the student will be able to administer and employ security procedures for small shipboard and land based offices.
Instruction: Lectures and extensive practical exercises expose students to: an introduction to intelligence, performance and administration of a security program; completion of investigation forms and checklists; application of detection, telephone, and other security systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in security administration (12/87).

NV-1728-0023

Senior Enlisted Damage Control

Course Number: A-495-2055.
Location: Naval Technical Training Center, Treasure Island, CA. Damage Control Training Center, Philadelphia, PA.
Length: 10 weeks (400 hours).
Exhibit Dates: 12/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain all equipment in the areas of damage control; firefighting, chemical-biological and radiological (CBR) defense, nuclear weapons incidents, ship stability and bouyancy, and gas free engineering. Also plan, manage, conduct and critique ship-board training programs in damage control.
Instruction: Lecture and laboratory exercises in instructor training, damage control (DC) organization stability and bouyance, CBR defense, nuclear weapons and accidents/incidents, firefighting, emergency hull repair, practical DC, DC maintenance, and fire marshal/gas-free engineer.
Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial safety, in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced fire technology, and 1 in instructional methods (8/89).

NV-1729-0001

Food Services and Disbursing

Course Number: None.
Location: Naval Supply Center, Oakland, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 10/71–1/88.
Objectives: To acquaint experienced supply officers with new developments and procedures in food service management.
Instruction: New developments in food service management; review and reinforcement of food service/disbursing management functions.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1729-0002

Commissaryman-Steward Management Principles, Class C

Course Number: A-800-0015; A-800-014; A-800-015.
Location: Naval School, San Diego, CA.
Length: 9 weeks.
Exhibit Dates: 9/71–4/85.
Objectives: To provide students with advanced technical knowledge and skills in food services and supervision.
Instruction: Management and administration principles; organization and personnel management; technical aspects; sanitation and nutrition.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in food service management (12/73).

NV-1729-0003

Commissaryman-Steward, Class C

Course Number: None.
Location: Naval School, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 8/71–1/88.
Objectives: To provide trainees with advanced knowledge and skill in food services.
Instruction: Advanced training in food production and baking, with emphasis on fine food and classical cuisine; basic accounting; equipment; sanitation; standard recipes.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0004

Commissaryman-Steward, Class A
(Commissaryman Class A)

Course Number: None.
Location: Naval School, Newport, RI; Naval School, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 4/68–1/88.
Objectives: To provide enlisted personnel with the technical knowledge and skills required to perform as commissarymen or stewards in food service facilities.
Instruction: Organization of supply department; methods of food service computation; principles of nutrition and their application to menu planning; sanitation and safety precautions; principles, methods, and techniques of cooking and baking.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0005

Stewards, Class A

Course Number: None.
Location: Naval School, San Diego, CA.
Length: 6–7 weeks (180–210 hours).
Exhibit Dates: 9/62–12/68.
Objectives: To train personnel to cook and serve meals, prepare menus, and maintain records.
Instruction: A basic course in food production principles, covering cooking, baking, menu planning, sanitation, receiving, and storage.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0006

Commissarymen, Class B

Course Number: None.
Location: Naval School, San Diego, CA; Naval School, Bayonne, NJ; Naval School, Newport, RI.
Length: 15 weeks (450 hours).
Exhibit Dates: 5/62–12/68.
Objectives: To prepare food service personnel for supervisory and advanced technical duties.
Instruction: Essentially an advanced volume-food service management course with emphasis on the finer points of cooking, baking, menu planning, purchasing, and management.
Credit Recommendation: In the vocational certificate category, 5 semester hours in hotel restaurant institutions (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0007

Steward Apprentice, Class P
(Class P Steward's Apprentice)

Course Number: None.
Location: Naval Training Center, San Diego, CA; Naval School, Great Lakes, IL; Naval School, Bainbridge, MD.
Length: 6 weeks (103 hours).
Exhibit Dates: 3/56–12/68.
Objectives: To train stewards in dining room preparation and individual food service.
Instruction: Lectures and practical exercises in dining room preparation and individual food service, including table setting and meal service; preparation of salads, sandwiches, vegetables, eggs, beverages, and cereals; food storage and preparation precautions; and securing for sea.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in catering or food service (6/74).

NV-1729-0008

Stewards
(Commissioned Officers' Mess Closed Mess Management)

Course Number: A-801-015.
Location: Mess Management Training Facility, Patuxent River, MD.
Length: 8 weeks (240 hours).
Exhibit Dates: 6/68–1/88.
Objectives: To train stewards to manage mess halls.
Instruction: Lectures and practical exercises in the management of mess halls. Course includes military leadership, mess regulations, mathematics, accounting proce-

dures, sanitation, table and banquet planning and services, nutrition and menu planning, culinary arts, meat, poultry and seafood preparation, and layout and facilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in introduction to food service and 3 in catering), 3 in business mathematics, 3 in food and beverage management (8/74); in the upper-division baccalaureate category, 2 semester hours in food service management (12/68).

NV-1729-0009

Management of Navy OPEN Messes (Management of Officers and Petty Officers' Messes)

Course Number: S-8E-0010; A-8E-010.

Location: Special Services Administrative Activity, Patuxent River, MD; Mess Management Training Facility, Patuxent River, MD.

Length: 4 weeks (120-140 hours).

Exhibit Dates: *Version 1:* 1/77–Present. *Version 2:* 6/66–12/76.

Objectives: To train enlisted personnel and civilians to manage officers' and petty officers' messes.

Instruction: *Version 1:* Instruction includes lectures, audio-visual presentations and practical exercises designed to develop managerial skills needed to successfully operate Navy OPEN Messes. Included are club regulations, accounting, cost controls and personnel procedures. *Version 2:* Lectures and practical exercises in the management of officers' and petty officers' messes. Course includes development of managerial and administrative abilities in relationship to mess and club regulations; accounting, auditing, and cost controls; personnel management and promotion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in food and beverage management (7/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to institutional management (7/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in food and beverage management, and 3 in food and beverage cost controls or accounting (8/74); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

NV-1729-0010

Submarine Food Service Watchstander

Course Number: F-000-0070.

Location: Service School Command, San Diego, CA; Submarine School, Groton, New London, CT.

Length: 2 weeks (77 hours)

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply the principles, rules and concepts of issuing, inventorying and product acceptability in a food service operation.

Instruction: This is a lecture course emphasizing the following skills: the student will be able to prepare forms and procedures for receiving and storage of food items, and for inventory procedures; apply safety, operating, and cleaning procedures to food service equipment used in food service facilities; implement sanitation and safety techniques to food service operations and personnel; use the basic four food groups and nutrition as they apply to menu planning; develop and apply menu planning techniques as they pertain to acceptability factors; and to implement basic supervision principles to food service policies, procedures, and personnel responsibilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food service operations (3/90).

NV-1729-0011

Mess Management Specialist 'A'

Course Number: A-800-0013.

Location: Service School Command, San Diego, CA.

Length: 7 weeks (205 hours).

Exhibit Dates: 7/78–Present.

Learning Outcomes: Upon completion of the course, the student will have gained fundamental knowledge and practical skills needed to prepare food items using standard recipes.

Instruction: Lectures and laboratory experiences emphasize basic cooking and baking skills, use of standard recipes, food service organization, recipe conversion, sanitation and safety rules, and table service.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in food preparation (2/90).

NV-1729-0012

Food Service Records and Returns

Course Number: A-800-0020.

Location: Service School Command, San Diego, CA; Trident Training Facility, Bangor, WA; Naval Submarine School, Groton, CT; Fleet Training Command, Norfolk, VA; Trident Training Facility, King's Bay, GA; Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to design and mantain record keeping systems and filing systems.

Instruction: The instruction includes lectures and exercises in developing and maintaining records in the areas of procurement, receiving, delivery, transfers, expenditures, and receipts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in food service operation (2/90).

NV-1729-0013

Food Service Management

Course Number: A-800-0027.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and solve problems associated with a computerized food service record keeping system.

Instruction: Lectures and performance exercises using computers to include; equipment set up and upkeep, loading software computer operations, security requirements, and food service applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hurs in food service computer applications (2/90).

NV-1729-0014

Food Service Administration

Course Number: A-800-0015.

Location: Service School Command, San Diego, CA; Supply Schools, Fleet Training Center, Norfolk, VA.

Length: 6-7 weeks (264 hours).

Exhibit Dates: 4/85–Present.

Learning Outcomes: Upon completion of the course, the student will have fundamental knowledge of food production and how it interacts with food service.

Instruction: Lectures and/or exercises in sanitation, customer service, menu planning, executive (private) dining, employee cafeterias, and the overall administration of food and beverage service.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food service administration (2/90).

NV-1729-0015

General Mess Operatons

Course Number: A-800-0025.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will have an understanding of the different techniques involved in the management of a food service facility.

Instruction: The course consists of lectures and problem solving in the areas of food preparation, menu planning, food presentation, food service equipment, sanitation and safety, and food service management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food service operations (2/90).

NV-1729-0016

Private Mess Operations

Course Number: A-800-0026.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the advanced administrative, accounting, and managerial functions required in operating an executive dining room.

Instruction: Classroom lectures emphasizing purchasing, receiving, and inventory procedures, accounting and auditing, protocol, and service and preparation techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in dining room management (2/90).

NV-1729-0017

Advanced Food Preparation

Course Number: A-800-0018.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (110–120 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply the principles of advanced culinary arts in food preparation.

Instruction: Course will consist of lectures and performance exercises in advanced cooking, baking, garnishing, and ice carving.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced culinary arts (2/90).

NV-1730-0001

Basic Refrigeration Theory and Maintenance

Course Number: L-652-021.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To train enlisted personnel to operate, test, and repair refrigeration systems.

Instruction: Lectures and practical exercises in basic refrigeration theory and maintenance. Course includes the theory of operation of the vapor-compression refrigeration system; a study of system components; and practice in troubleshooting, servicing, and maintaining small refrigeration systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in refrigeration maintenance (5/74).

NV-1730-0002

Auxiliary Equipment Package

Course Number: A-652-0043; A-652-0044.

Location: Submarine School Groton, New London CT; Submarine Training Center, Pearl Harbor, HI; Fleet Ballistic Submarine Training Center, Charleston, SC.

Length: 10 weeks (318 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To train enlisted personnel to operate and service refrigeration equipment, pumps, and air compressors.

Instruction: Lectures and practical exercises in maintaining and servicing refrigeration equipment. Course includes pumps, air compressors, and hydraulic and pneumatic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration systems—operation and servicing (5/74).

NV-1730-0003

1. Ships Stores Refrigeration R-12/York/Combined Maintenance (R-12 SS 4K Combined Maintenance)
2. Submarine Refrigeration and Air Conditioning R-12

Course Number: F-652-014; A-720-0027.

Location: Submarine School, Groton, New London,CT. *Version 1:* Fleet Ballistic Missile School, Charleston, SC; Naval Submarine Training Center, Pearl Harbor, HI.

Length: 2 weeks (60–64 hours).

Exhibit Dates: *Version 1:* 5/80–1/84. *Version 2:* 3/68–4/80.

Objectives: To train enlisted personnel to maintain and service large refrigeration systems.

Instruction: For this course after 1/84 see NV-1730-0009. Lectures and practical exercises in the maintenance of large refrigeration units. Topics include system components, troubleshooting, and the general construction, operation, and servicing of large refrigeration systems employing reciprocating compressors.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in mechanical servicing of refrigeration systems (6/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in applied science of refrigeration systems (6/81). *Version 2:* In the vocational certificate category, 2 semester hours in mechanical servicing of refrigeration systems (5/74).

NV-1730-0004

Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance

Course Number: F-652-010.

Location: Fleet Training Group, Pearl Harbor, HI; Submarine School, Groton, CT; Mine Warfare Training Center, Charleston, SC.

Length: 10 weeks (300 hours).

Exhibit Dates: 8/70–1/88.

Objectives: To train enlisted personnel to maintain and service refrigeration systems containing reciprocating or centrifugal compressors, and lithium-bromide absorption units.

Instruction: Lectures and practical exercises in the maintenance and operation of refrigeration systems. Course includes the mechanical aspects of the construction and operation of refrigeration systems employing reciprocating or centrifugal compressors, lithium-bromide absorption systems, hydraulic systems, and air compressors. Instruction emphasizes system components, troubleshooting, and service procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in refrigeration equipment, mechanical service, and maintenance (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration equipment, mechanical service, and maintenance (7/74).

NV-1730-0005

C-2A Environmental Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/69–1/88.

Objectives: To train enlisted personnel to maintain the C-2A air conditioning and pressurization systems.

Instruction: Lectures and practical exercises in C-2A air conditioning and pressurization systems maintenance, including air conditioning and pressurization fundamentals, utility and survival systems, emergency equipment, and system operation and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration laboratory (7/74).

NV-1730-0006

Refrigerant 11 Air Conditioning (Air Conditioning Refrigerant 11)

Course Number: L-652-0010; L-652-010.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (62 hours).

Exhibit Dates: 5/67–1/88.

Objectives: To provide maintenance training to enable the trainee to understand required R-11 compressor operation, maintenance and troubleshooting, to include associated auxiliary equipment and safety problems.

Instruction: Provides instruction in the components and functions of mechanical systems, principles of operation and safety precautions. Training covers the operation, disassembly, reassembly, maintenance, and troubleshooting of the R-11 unit.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical servicing of refrigeration systems (6/77).

NV-1730-0007

S-3A Environmental Control, Miscellaneous Utilities and Egress Systems Organizational Maintenance

Course Number: C-602-3679.

Location: Naval Air Station, Cecil Field, FL; Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (96 hours).

Exhibit Dates: 9/83–Present.

Objectives: To provide enlisted personnel the skills necessary to operate, test and troubleshoot the aircraft environmental control and egress systems.

Learning Outcomes: Upon completion of the course, the student will be able to understand and troubleshoot the oxygen, bleed air, refrigeration cabin environmental control, ice protection and egress systems and (2) use proper test procedures and equipment for troubleshooting these systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in air conditioning refrigeration systems (4/85).

NV-1730-0009

Ship's Stores Refrigeration System R-12 Combined Maintenance

Course Number: A-720-0027.

Location: Submarine School, Groton/New London, CT; Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine Training Center, Norfolk, VA.

Length: 1–2 weeks (58 hours).

Exhibit Dates: 2/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the interworkings of refrigeration systems to other mechanical systems and will be able to operate and maintain industrial refrigeration systems.

Instruction: Lectures and laboratories in the operation and maintenance of industrial refrigeration systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester lecture and 1 semester hour laboratory in refrigeration systems (10/89).

NV-1730-0010

Lithium Bromide Maintenance F-1

Course Number: A-652-0224.

Location: Submarine School, Groton/New London, Ct; Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (77 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the theory and operation of absorption refrigeration systems.

Instruction: Lectures and laboratories in the lithium bromide system, charcteristics, control systems, operation, and maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour lecture and 1 semester hour laboratory in refrigeration systems (10/89).

NV-1730-0011

Air Conditioning and Refrigeration

Course Number: A-720-0030

Location: Submarine School, Groton/New London, CT.

Length: 6 weeks (234 hours).

Exhibit Dates: 7/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the theory and principles of operation of mechanical and absorption refrigeration systems.

Instruction: Lectures and laboratories in mechanical and absorption refrigeration systems, including instruction in psychrometrics, electrical motor theory, compressor and heat exchanger construction, controls, load calculations, and comfort conditioning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours lecture and 2 semester hours laboratory in refrigeration systems (10/89).

NV-1731-0001

Trident Submarine Atmospheric
Support System Maintenance

Course Number: A-652-0146.

Location: Trident Training Facility, Bangor, Bremerton, WA.

Length: 1 week (56 hours).

Exhibit Dates: 11/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform all operational and documented fault isolation procedures as CO/H2 Burner and CO2 Scrubber assemblies.

Instruction: Lecture and laboratory exercises in the theory of operation and maintenance of CO/H2 Burners and CO2 Scrubbers.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/89).

NV-1732-0001

Steam Generating Plant Inspector

Course Number: *Version 1:* K-651-2151. *Version 2:* A-651-0030, A-651-022.

Location: *Version 1:* Fleet Training Center, San Diego, CA. *Version 2:* Destroyer School, Newport, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 5/81-Present. *Version 2:* 12/69-4/81.

Objectives: To train enlisted personnel to perform as steam generating plant inspectors.

Instruction: Lectures and practical exercises on steam generating plants, including salient design features of naval boilers, tube ruptures and renewal, casing and foundation, pressure parts not exposed to firesides, hydro tests, safety valves, boiler inspection, boiler chemistry, and steam generator performance during steady load.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in boiler inspection (5/82); in the lower-division baccalaureate/associate degree category, 2 semester hours in steam generating plant technology (5/82). *Version 2:* In the vocational certificate category, 3 semester hours in boiler inspection (5/74).

NV-1732-0002

Basic Nuclear Power

Course Number: Not available.

Location: Submarine School, Mare Island, CA; Submarine School, New London, CT; Submarine School, Bainbridge, MD; Submarine School, Orlando, FL.

Length: 22 weeks (555-650 hours).

Exhibit Dates: 7/56-Present.

Objectives: To train enlisted personnel in nuclear power plant theory and operation.

Instruction: Lectures and practical exercises in nuclear power plant theory and operation, including basic mathematics (algebra, trigonometry, and introduction to calculus); modern physics; reactor principles; thermodynamics; water technology; nuclear power plant systems and components; health physics; and one or more courses in welding, chemistry, machine tool operation, electronics, or electrical machinery. NOTE: When this course was established in the mid-1950's, the office was able to obtain the curriculum outline from the Department of the Navy and have it evaluated. The recommendation for the program as it was given until 1961 is provided below. However, by 1961, the course was changed and the curriculum appeared to have been substantially strengthened, although the course materials were classified for military security reasons and could not be evaluated. Nevertheless, the course as it has been offered since 1961 is considered to be academically stronger than the earlier program. Inasmuch as the credit listed below is recommended for the course as given prior to 1961, institutions would be justified in granting that amount of credit plus additional credit as determined by institutional evaluation.

Credit Recommendation: In the vocational certificate category, 12 semester hours in nuclear power plant operation (see Note above) (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in nuclear engineering technology (see Note above) (5/74); in the upper-division baccalaureate category, 3 semester hours in introductory atomic physics or nuclear technology (see Note above) (12/68).

NV-1732-0003

Advanced Nuclear Power

Course Number: Not available.

Location: Submarine School, Mare Island, CA; Submarine School, New London, CT; Submarine School, Bainbridge, MD; Submarine School, Orlando, FL.

Length: 22 weeks (650-690 hours).

Exhibit Dates: 7/56-Present.

Objectives: To train officers in nuclear reactor engineering theory and nuclear reactor power plant system operation.

Instruction: Lectures and practical exercises in advanced mathematics, atomic and nuclear physics, reactor engineering, servomechanisms, reactor and power plant control theory, metallurgy, thermodynamics, nuclear power plant systems and components, reactor control systems and components, and health physics. Note: When this course was established in the mid-1950's, the office was able to obtain the curriculum outline from the Department of the Navy and have it evaluated. The recommendation for the program as it was given until 1961 is provided below. However, by 1961, the course was changed and the curriculum appeared to have been substantially strengthened, although the course materials were classified for military security reasons and could not be evaluated. Nevertheless, the course as it has been offered since 1961 is considered to be academically stronger than the earlier program. Inasmuch as the credit listed below is recommended for the course as given prior to 1961, institutions would be justified in granting that amount of credit plus additional credit as determined by institutional evaluation.

Credit Recommendation: In the vocational certificate category, 16 semester hours in nuclear power plant operation (see Note above) (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in nuclear engineering technology (see Note above) (5/74); in the upper-division baccalaureate category, 3 semester hours in reactor engineering (see Note above) (12/68).

NV-1732-0005

DATC Machinist's Mate Maintenance
(600 PSI MM Maintenance)

Course Number: A-651-0024.

Location: Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train machinist's mates and boilermen in the maintenance and repair of main propulsion machinery and its auxiliaries.

Instruction: Lectures and practical exercises in the maintenance and repair of main propulsion machinery and its auxiliaries, including the operation and theory of these systems, blueprints and micrometers, valve repair, steam traps, main turbines and reduction gears, flexible couplings, auxiliary turbines, main feed pump, centrifugal and reciprocating pumps, deaerating feed tank, high- and low-pressure air compressors, lubricating oil pumps, and lube oil purifier.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance machinist or power plant technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance machinist or power plant technology (5/74); in the upper-division baccalaureate category, 2 semester hours in maintenance machinist or power plant technology (5/74).

NV-1732-0006

Utilitiesman, Class A1 (UT"A")

Course Number: A-720-0012; A-720-0016.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA. *Version 2:* Construction School, Davisville, RI.

Length: *Version 1:* 11-14 weeks (331-420 hours). *Version 2:* 12 weeks (368 hours).

Exhibit Dates: *Version 1:* 1/72-1/88. *Version 2:* 6/57-12/71.

Objectives: To train enlisted personnel to be utilities men.

Instruction: Lectures and practical exercises in utilities operation, including plumbing, field sanitation, internal combustion engines, pumps, compressors, water treatment, refrigeration, and boiler operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in utilities (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in utilities (7/76). *Version 2:* In the vocational certificate category, 9 semester hours in theory of water purification (5/74); in the upper-division baccalaureate category, 2 semester hours in theory of water purification (12/68).

NV-1732-0007

NC-8A Mobile Electric Power Plant
Intermediate Maintenance

Course Number: C-602-3223.

Location: Naval Air Station, Jacksonville, FL; Naval Air Station, North Island, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/76–Present.
Objectives: To train naval personnel to operate, maintain and repair the NC-8A mobile electric power plant.
Instruction: Lectures and practical exercises in operational procedures of the NC-8A mobile electrical power plant including maintenance and repair of the electrical propulsion unit, AC/DC generator supply system, electrical, control and regulation.
Credit Recommendation: In the vocational certificate category, 1 semester hour in AC/DC Generator Repair (3/82).

NV-1732-0008

STEAM GENERATOR MAINTENANCE

Course Number: A-651-0075.
Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 8–10 weeks (301 hours).
Exhibit Dates: 8/80–12/88.
Objectives: To train personnel in the proper inspection operation and maintenance of high pressure boilers.
Instruction: For this course after 12/88 see NV-1732-0017. Classroom instruction and practical exercises in the inspection, operation and maintenance of high pressure boilers and boiler components including refractories, drums, headers, tubes, firesides, uptakes, smoke indicators, burners, quick closing valves, soot blowers, blowdown system, supports, air casings, safety valves and liquid level indicators.
Credit Recommendation: In the vocational certificate category, 10 semester hours in high pressure boiler maintenance and repair (5/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in high pressure boiler operation and maintenance (5/82).

NV-1732-0009

SENIOR ENLISTED STEAM ENGINEERING

Course Number: A-651-0106.
Location: Service School Command, Great Lakes, IL.
Length: 8 weeks (320 hours).
Exhibit Dates: 8/82–1/84.
Objectives: To train personnel in the operation of a high pressure steam plant.
Instruction: For this course after 1/84 see NV-1732-0014. Lectures and practical exercises in the operation of a high pressure steam plant including plant piping, electrical and control systems, plant safety, inspection, maintenance and management programs, personnel duties and training, plant operation and casualty control procedures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in high pressure steam plant operation, 1 in high pressure steam plant laboratory (10/83).

NV-1732-0010

FFG-7 CLASS SHIP AUXILIARY ELECTRICAL SYSTEM TECHNICIAN

Course Number: A-662-0121.
Location: Service School Command, Great Lakes, IL.
Length: 19 weeks (760 hours).
Exhibit Dates: 2/81–Present.
Objectives: To train personnel to operate and perform corrective and preventive maintenance on auxiliary electrical systems on a FFG-7 class ship.
Instruction: This is a pipeline course consisting of the following courses: NV-1704-0262, NV-1714-0022, NV-1402-0020, NV-1714-0031, NV-1714-0029 and NV-1601-0026.
Credit Recommendation: Please refer to the exhibits listed above for our credit recommendations.

NV-1732-0011

PROSPECTIVE NUCLEAR ENGINEER OFFICER

Course Number: L-4H 0026.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Trident Training Facility, Bangor, Bremerton, WA; Submarine Training Facility, San Diego CA.
Length: 8 weeks (Self-paced).
Exhibit Dates: 1/74–Present.
Objectives: To assist nuclear engineer officers in preparation for the nuclear engineer officer examination.
Instruction: The course consists of a series of test questions for the maintenance of 58G reactor plants.
Credit Recommendation: Credit is not recommended because of the nature of the presentation of the course (11/85).

NV-1732-0012

SUBMARINE MAIN POWER GENERATOR

Course Number: A-662-0137.
Location: Submarine Training Facility, Charleston, SC; Submarine School, New London, CT; Guided Missile School Detachment, Norfolk, VA; Submarine Training Center, Pacific, Pearl Harbot, HI; Submarine Training Facility, San Diego, CA.
Length: 2 weeks (71 hours).
Exhibit Dates: 5/85–1/87.
Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, and do preventive maintenance on submarine voltage converter type power generators and regulators.
Instruction: For this course after 1/87 see NV-1714-0053. Instruction includes principles of AC and DC motors and generators, repair and maintenance procedures, methods of voltage and frequency regulation, general discussion of rectifiers, saturable reactors and servo feedback considerations.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical power generation and control (7/87).

NV-1732-0013

CARBON DIOXIDE SCRUBBER AND CARBON MONOXIDE/HYDROGEN BURNER COMBINED MAINTENANCE

Course Number: A-652-0104.
Location: Submarine Training Facility, Charleston, SC; Submarine School, New London, CT; Guided Missile School Detachment; Norfolk, VA; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine Training Facility, San Diego, CA.
Length: 1 week (42 hours).
Exhibit Dates: 5/82–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform preventive maintenance, testing, troubleshooting, and overhaul of the major components of the CO2 Scrubber and CO-H2 Burner System.
Instruction: Instruction includes group-paced classroom and laboratory instruction on maintenance and repair of the CO2 Scrubber and CO-H2 Burner system.
Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to mechanics (7/87).

NV-1732-0014

SENIOR ENLISTED PROPULSION ENGINEERING (STEAM, GAS TURBINE, DIESEL)

Course Number: A-651-0110.
Location: Service Schools Command, Great Lakes, IL.
Length: 9–10 weeks (330–360 hours).
Exhibit Dates: 2/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to administer the labor force in the routine operations of a power plant; carry out shipboard inspections, tests and trials; provide for crew training readiness; demonstrate knowledge of generic shipboard engineering systems; evaluate operating conditions of systems and components of a Steam (169W), Diesel (169X), or Gas Turbine (169V) Propulsion plant for proper response/corrective action.
Instruction: Lectures, laboratory training and practical exercises covering inspection, maintenance and management procedures, personnel duties and training, plant operation and casulty control procedures for high pressure steam powerplant systems including auxiliaries, electrical, control and plant safety systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in powerplant management, 3 in powerplant technology, 2 in steam plant operations laboratory (169W) OR diesel plant operations laboratory (169X) OR gas turbine operations laboratory (169V) (6/88).

NV-1732-0015

NUCLEAR PROPULSION PLANT REFRESHER TRAINING

Course Number: A-661-0106.
Location: Submarine School, Groton/New London, CT; Submarine School, Pearl Harbor, HI; Submarine School, Norfolk, VA; Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: 5 weeks (91 hours).
Exhibit Dates: 10/85–Present.
Learning Outcomes: Upon completion of the course, the student will have the theoretical background to qualify as Engineering Water Supervisor.
Instruction: Lecture and self-paced study modules covering fundamental reactor plant concepts and principles (nuclear physics, chemistry and material science), plant start-up and operations at power.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in nuclear power plant technology (2/89).

NV-1732-0016

TRIDENT SUBMARINE AUXILIARY EQUIPMENT TECHNICIAN REPLACEMENT LEVEL I

Course Number: A-652-0140.
Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.
Length: 6 weeks (209 hours).
Exhibit Dates: 6/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to identify by function various power plant components, and perform normal operating procedures on power plant auxiliary equipment, perform preventive and corrective maintenance on such power plant equip-

ment as pumps, valves, hydraulic, pneumatic and refrigeration systems.

Instruction: Lecture and laboratory exercises in the construction operation and maintenance of power plant auxiliary equipment such as pumps, valves, hydraulic and compressed air systems and refrigeration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in power plant technology or facilities engineering (2/89).

NV-1732-0017

STEAM GENERATOR MAINTENANCE

Course Number: A-651-0075.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course the student will perform proper inspection, repair and maintenance on high pressure steam generators.

Instruction: Classroom instruction and practical exercises in the inspection and maintenance of high pressure boilers and boiler components including refractories, drums, headers, tubes, firesides, uptakes, smoke indicators, burners, quick closing valves, soot blowers, blowdown system, supports, air casings, safety valves, and liquid level indicators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in steam generator maintenance and repair (3/89).

NV-1732-0018

VALVE AND STEAM TRAP MAINTENANCE

Course Number: A-651-0065.

Location: Fleet Training Center, Norfolk, VA; Fleet Training Center, San Diego, CA.

Length: 1-2 weeks (42 hours).

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform preventive and corrective maintenance on all types of valves and orifice-type steam traps as found in steam power plant and its supporting systems.

Instruction: Performance-oriented instruction on the above topics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in steam power systems laboratory (3/89).

NV-1732-0019

NUCLEAR POWER PLANT WELDER REQUALIFICATION

Course Number: A-701-0031.

Location: Submarine School, Groton/New London, CT; Submarine Training Facility, Charleston, SC; Trident Training Center, Bangor, WA; Trident Training Center, Kings Bay, GA; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to perform basic welding functions and take intermediate and advanced welding or welding supervisor instruction to ASME pressure vessel and nuclear code standards.

Instruction: Lectures on safety, welding and silver brazing processes, and nondestructive testing processes. Laboratory sessions are used to bring the student to a reasonable level of proficiency in welding (or brazing) pipe or plate. Repairs to welds and braze joints are also covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours lecture and 3 semester hours laboratory in welding processes, brazing processes, and nondestructive testing processes (10/89). Note: this course duplicates A-701-0015. Credit should not be awarded for both.

NV-1733-0001

PARACHUTE RIGGER (SURVIVAL), CLASS A

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/56–7/65.

Objectives: To train enlisted personnel to perform as parachute riggers (survival).

Instruction: Lectures and practical exercises in parachute rigging, construction, and repair, including nomenclature, inspection, packing, testing, and maintenance of service parachutes; descent techniques; fleet-type sewing machine operation; use of all dropable air-sea rescue and personal and fixed-aviation survival equipment; and land and sea survival techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aeronautical technology, 2 in sewing machines and fabrics (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology (5/74).

NV-1733-0003

BASIC NAVAL PARACHUTIST, CLASS C1

Course Number: C-602-2020.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/85–12/86.

Learning Outcomes: Upon completion of the course, the student will be able to perform all phases of training leading up to and including five static line parachute descents.

Instruction: Includes lectures and performance with a ratio of approximately 1:4, supervised training leading to qualification to pack parachutes, expanded training in related areas of equipment inspection, aircraft exit, parachute canopy control, various malfunctions and emergencies and proper actions. Extensive physical fitness training throughout.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in physical education/conditioning (6/87).

NV-1733-0004

JUMPMASTER NAVAL PARACHUTIST, CLASS C1

Course Number: C-602-2022.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform jumpmaster duties to include accuracy landing procedures, accurate direction of aircraft in flight and organization and conducting safe and efficient parachute operations.

Instruction: Includes lecture and practical performance with a ratio of approximately 1:12. Physical fitness stressed throughout course. Inspection and packing parachute equipment and control of parachute descent to reach a predetermined area without instructions from people on the ground. Trained to organize and conduct parachute operations to include considerations of weather and aircraft performance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in physical education - advanced parachute procedures (6/87).

NV-1733-0005

ADVANCED NAVAL PARACHUTIST, CLASS C1

Course Number: C-602-2021.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform free-fall parachute descents of not less than five seconds followed by manually deploying the parachute.

Instruction: Includes lecture and practical performance with a ratio of approximately 1:9. Physical conditioning stressed throughout the course. Specific areas of training include inspection and packing parachute and related equipment, parachute canopy control, aircraft exits, free-falling techniques and positions, use of supplemental oxygen for high attitude, night and water landing considerations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in physical education (introduction to sky diving) (6/87).

NV-1736-0001

BUILDER/MILLWORKER, CLASS C (BU "C" Millworker)

Course Number: A-712-0011.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 6-9 weeks (180-275 hours).

Exhibit Dates: 11/70–1/88.

Objectives: To provide advanced instruction in the methods of millwork.

Instruction: Lectures and practical exercises in advanced rough-lumber manufacturing, including the manufacturing of doors, windows, finish stalls, and various types of trim; operation and operator maintenance of millworking machines; the preparation of jigs for precutting and prefabrication of mass-produced items such as rafters and trusses; shop layout, planning, and estimation; and furniture and cabinet construction.

Credit Recommendation: In the vocational certificate category, 4 semester hours in millwork (7/76).

NV-1736-0002

PRECISION GRINDING AND BALANCING CLASS C1

Course Number: A-702-0022.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (240 hours)

Exhibit Dates: 3/76–Present.

Objectives: To train naval personnel with advanced machine training in sharpening, reclaiming and restoring cutters for machine shop operations.

Instruction: Includes lecture, demonstrations, and laboratory exercises in precision grinding including safety, hand tools, abrasives, composition, marking and installation of grinding wheels, surface and cylindrical grinders, tool and cutter grinders and special grinders. The course also includes theory and application of hardness testing and analysis and balancing machine components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced machine shop (5/82).

NV-1736-0003

Turret Lathes and Metal Build-up Class C1

Course Number: A-702-0023.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/76–Present.

Objectives: To train personnel in the theory and use of turret lathes, boring mills and surface build-up equipment.

Instruction: Lectures and practical exercises in the set-up, operation and maintenance of horizontal and vertical turret lathes and horizontal boring mills. Selection, operation and maintenance of metal surfacing equipment including spray, torch and electroplating types. Repair and restoration of Babbit bearings.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in machine tool metalworking, 3 in machine shop laboratory (5/82).

NV-1736-0004

Advanced Milling and Shop Management Class C1

Course Number: A-702-0024.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/76–Present.

Objectives: To give naval personnel the advanced theory and application of gear manufacture and basic supervision skills.

Instruction: Includes geometric and trigonometric computation development for set-up and indexing, spur, helical, level and worm gear manufacture as well as advanced use of the universal milling machine and attachments. Includes instruction in effective shop management techniques; personnel supervision, workload maintenance and equipment coordination.

Credit Recommendation: In the vocational certificate category, 5 semester hours in advanced machine shop, 1 in supervision/management techniques (5/82); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced machine shop, 1 in trade mathematics (5/82).

NV-2201-0113

Gunnery Petty Officer

Course Number: J-041-0102.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 2–3 weeks (80 hours).

Exhibit Dates: 3/85–Present.

Objectives: To train petty officers in the major administrative requirements, principles and applications associated with gunnery science.

Instruction: Lectures on gunnery administration including operational reports, tactical weapon publications, and support activities. Discussions on ordnance handling, characteristics of small arms, and introduction to ballistics theory which includes use of range tables, factors that effect accuracy and error resolutions. Practical exercises on administrative procedures and ballistic calculations and error analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0001

Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics

Course Number: E-2D-056.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To instruct Naval officers in basic oceanography and antisubmarine warfare tactical procedures.

Instruction: Instruction covers basic oceanography and antisubmarine warfare, with specific emphasis on tactical procedures utilized in the employment of carrier fixed-wing antisubmarine warfare systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/76).

NV-2202-0002

Navy Sniper Training

Course Number: H-000-1900.

Location: Inshore Operations Training Center, Cp. Roberts, CA.

Length: 3 weeks (124 hours).

Exhibit Dates: 1/70–1/88.

Objectives: To train highly skilled riflemen to perform as snipers from river assault and river patrol boats.

Instruction: Lectures and practical exercises in sniper orientation, sniper equipment, marksmanship, and field tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0003

Nurse Corps Indoctrination

Course Number: A-00-0053; A-00-4602.

Location: Women Officers School, Newport, RI.

Length: 4 weeks (173 hours).

Exhibit Dates: 3/72–1/88.

Objectives: To provide commissioned officers in the nurse corps with military orientation.

Instruction: Lectures in personnel administration; leadership; the naval medical department; legal aspects of military nursing; physical education; personal grooming; and naval history, customs, and traditions.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel administration and management (2/74).

NV-2202-0004

Medical Officer Indoctrination

Course Number: None.

Location: Officer Indoctrination School, Newport, RI.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/70–1/88.

Objectives: To teach the student basic naval subjects to prepare him to assume the duties of a shipboard medical officer.

Instruction: Lectures on Navy organization, national security, general administration, and fleet familiarization.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/72).

NV-2202-0005

Amphibious Command Indoctrination

Course Number: G-2E-6303.

Location: Amphibious School, Norfolk, VA.

Length: 2-4 weeks (74–164 hours).

Exhibit Dates: 5/69–1/88.

Objectives: To orient or refresh commanding officers, executive officers, and senior staff officers of amphibious ships in the organization and functions of amphibious forces.

Instruction: Lectures and practical exercises in operations, planning, readiness training, communications, engineering, weather conditions, and command and staff responsibilities.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0006

Amphibious Tactical Air Control Party

(Tactical Air Control Party)

Course Number: G-2G-4314; G-2G-6432; H-2G-5421; H-2G-3621.

Location: Naval Amphibious School, Norfolk, VA, Naval Amphibious School, San Diego, CA.

Length: 3 weeks (96–106 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train officers to control and coordinate tactical air support.

Instruction: Procedures of tactical air support planning and request; techniques of forward air controlling; helicopter planning and employment; and practical field exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0007

Naval Preparatory School

Course Number: None.

Location: Naval Training Center, Bainbridge, MD; Naval Training Center, San Diego, CA.

Length: 9 weeks.

Exhibit Dates: 1/69–1/88.

Objectives: To provide prospective engineering and science students with a college-preparatory course in mathematics and English.

Instruction: Lectures and practical exercises in English grammar and syntax; techniques of improving written and oral expression; algebra, trigonometry, analytical geometry; calculus; and chemistry and physics.

Credit Recommendation: Credit is not recommended because of the college preparatory nature of the course (1/74).

NV-2202-0008

Rotary Wing Antisubmarine Warfare Tactics

Course Number: E-2C-012.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 3 weeks (102 hours).

Exhibit Dates: 2/71–1/88.

Objectives: To instruct Naval aviators in antisubmarine warfare tactical procedures and general oceanography as applied to antisubmarine warfare acoustic sensors.

Instruction: Instruction covers oceanography and antisubmarine warfare, with specific emphasis on tactical procedures utilized in the employment of helicopter antisubmarine warfare systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/76).

NV-2202-0009

Torpedo Tube Mk 65 Basic Maintenance

Course Number: A-123-0157.

Location: Submarine School, New London, CT; Fleet Ballistic Missile School, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/76–1/88.

Objectives: To provide the theory and skills required to perform organizational maintenance of the Mk 65 torpedo tube (all models) aboard operating submarines.

Instruction: Course is largely descriptive involving the maintenance of torpedo tubes, including air hydraulic and ejection systems, safety precautions, loading and firing procedures; actual tube line up and firing are accomplished.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-2202-0010

Vietnam Orientation

Course Number: None.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–12/76.

Objectives: To provide personnel with a broad overview of the military, political, social, and economic policies of South Vietnam.

Instruction: Geographical, historical, and cultural aspects of South Vietnam; weapons, survival, and medical training; communications; defense planning; logistics; methods of insurgency and counterinsurgency; administrative organization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (1/74).

NV-2202-0011

Vietnam Orientation

Course Number: A-011-0014.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (110 hours).

Exhibit Dates: 11/72–12/76.

Objectives: To provide personnel with a broad overview of the military, political, social, and economic situation in South Vietnam.

Instruction: Nature of the Vietnam conflict; national objectives and strategies in Southeast Asia; U.S. Navy role in Southeast Asia; Vietnamese geographical, historical, and cultural introduction; weapons; medical and survival training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0012

Sonar Watch Supervisor and Advanced Watchstander Training

Course Number: F-210-011.

Location: Submarine School, Groton, CT.

Length: 2 weeks (54 hours).

Exhibit Dates: 11/72–1/88.

Objectives: To provide experienced watch supervisors or prospective watch supervisors with advanced training in passive sonar contact procedures.

Instruction: Foreign patrol craft and warship acoustic analysis; foreign diesel and nuclear submarines; sonar identification and classification translation; radio and sonar filter operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (1/74).

NV-2202-0013

Submarine Officers Advanced

Course Number: A-2E-0030.

Location: Submarine School, Groton, CT.

Length: 24 weeks (752 hours).

Exhibit Dates: 7/71–1/88.

Objectives: To train selected junior officers in the technical and administrative management of nuclear submarines.

Instruction: Procedures of shipboard management and administration; electronic equipment techniques; foreign naval weapons systems; navigational skills; naval communications; principles of electronic warfare.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel management and administration, 3 in electrical engineering (1/74).

NV-2202-0014

Basic Military Training
(Recruit Training)

Course Number: None.

Location: Recruit Training Command, San Diego, CA; Recruit Training Command, Great Lakes, IL; Recruit Training Command, Orlando, FL.

Length: 7–8 weeks (265–267 hours).

Exhibit Dates: 4/79–Present.

Objectives: To assimilate recruits into the Navy way of life and to prepare them for further advanced training in specialized Navy occupations.

Instruction: Student will receive indoctrination and physical conditioning to prepare for the rigors and unique demands of naval service. Observance of naval customs and traditions will be taught in a manner to foster pride in the nation and in patriotic behavior, high standards of conduct, and respect for civilian and military authority.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personal fitness/conditioning, 1 in personal/community health, 2 in first aid and safety (10/79).

NV-2202-0015

A-6A Conventional Weapons

Course Number: None.

Location: Naval Air Maintenance Training Group, Oceana, VA; Naval Air Maintenance Training Group, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/71–1/88.

Objectives: To provide ordnance personnel with a broad understanding of suspension and launching equipment and conventional weaponry.

Instruction: Aircraft familiarization; assembly, installation, and disassembly procedures for conventional weapons; safety features and procedures for conventional weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0016

Warrant Officer (WO) Aviation Indoctrination

Course Number: None.

Location: Naval Air Basic Training Command, Pensacola, FL.

Length: 6–8 weeks (213–300 hours).

Exhibit Dates: 6/65–1/88.

Objectives: To train warrant officers to perform managerial and supervisory functions in the aviation field.

Instruction: Lectures in the basic principles of management, including human relations, personnel management, basic psychology, world affairs, effective written and oral communication, military justice, and military organization.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-2202-0017

Surface Explosive Ordnance Disposal Basic

Course Number: A-4E-0022; A-431-0012.

Location: Naval School, Indian Head, MD.

Length: 12 weeks (440 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train military personnel of all branch services in the techniques of explosive ordnance disposal.

Instruction: Basic electricity; elementary physics; demolition procedures; identification operation; munitions procedures; operation, render-safe, and disposal procedures; identification and reporting of underwater explosive ordnance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in metallurgical engineering (1/74).

NV-2202-0018

UDT-SEAL Explosive Ordnance Disposal Indoctrination

Course Number: A-431-0023.

Location: Naval School, Indian Head, MD.

Length: 5 weeks (175 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To provide naval personnel with the skills necessary to recognize, evaluate, recover, and dispose of conventional ordnance and explosives.

Instruction: Basic physics and principles of electricity; fuze operation; characteristics and methods of disposal of explosive fillers; procedures of explosive demolition; identification and classification of placed, projected, and dropped munitions.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0019

Explosive Ordnance Disposal — Reserve Officer Training

Course Number: A-4E-0045.

Location: Naval School, Indian Head, MD.

Length: 2 weeks (75 hours).
Exhibit Dates: 10/72-1/88.
Objectives: To train naval reserve officers in the procedures for recovering, evaluating, and disposing of non-nuclear explosive ordnance.
Instruction: Underwater ordnance and principles of operation; performance of requalification dives and swims; principles of explosive ordnance disposal reconnaissance; methods of munitions projection; hazards, precautions, and disposal procedures for dropped munitions; type, employment, and operation of guided missiles.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0020

Explosive Ordnance Disposal Navy Basic

Course Number: None.
Location: Naval School, Indian Head, MD.
Length: 10 weeks (328 hours).
Exhibit Dates: 8/72-1/88.
Objectives: To train naval personnel to recover, evaluate, render safe, and dispose of underwater explosive ordnance.
Instruction: Lectures in the theory, concepts, and operations of torpedoes, exploders, and mines; requalification exercises in open and semi-closed circuit scuba.
Credit Recommendation: In the vocational certificate category, 6 semester hours in ordnance engineering (1/74); in the upper-division baccalaureate category, 3 semester hours in ordnance engineering (1/74).

NV-2202-0021

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C

Course Number: E-2D-0071; E-2D-071.
Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.
Length: 2-3 weeks (77-91 hours).
Exhibit Dates: 9/72-1/88.
Objectives: To provide experienced Naval aviators with supplementary training to prepare them for duty in the Pacific.
Instruction: Training includes oceanography and underwater acoustics, aviation antisubmarine warfare tactical procedures, a basic knowledge of aviation antisubmarine warfare sensors and associated equipment, and familiarization with current electronic warfare concepts, capabilities, limitations, and requirements.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/76).

NV-2202-0022

Fleet Officer and Fleet Enlisted Air Intelligence

Course Number: None.
Location: Operational Intelligence Training, Alameda, CA.
Length: 6 weeks (199 hours).
Exhibit Dates: 3/72-1/88.
Objectives: To train military personnel in the operational aspects of air intelligence.
Instruction: Administrative and functional aspects of security; classified accounting procedures and methods ; management and handling of classified material; meteorology; map and chart reading; procedures of NON-IOIC data base; terminology, types and operations of nuclear weapons; radar characteristics; photography; Sino-Soviet air defense systems; stereoscopy.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0023

Fleet Air Intelligence Officer

Course Number: K-3A-5002; K-3A-516.
Location: Fleet Operational Intelligence Training Center, San Diego, CA.
Length: 3 weeks (152 hours).
Exhibit Dates: 2/70-1/88.
Objectives: To train Navy and Marine Corps officers in the operational aspects of air intelligence.
Instruction: Lectures on fundamentals of intelligence; recognition and capabilities of Eurasian-communist weapons systems; practical intelligence work and briefs; radar and weapons employment; imagery interpretation and photography; geopolitical topics; and intelligence requirements and reporting.
Credit Recommendation: In the vocational certificate category, 1 semester hour in photographic interpretation (1/74).

NV-2202-0024

CVA/CVS Air Launched Weapons General Ordnance

Course Number: None.
Location: Navy Military Training Detachment, Jacksonville, FL; Navy Military Training Detachment, Norfolk, VA; Navy Military Training Detachment, Alameda, CA; Navy Military Training Detachment, North Island, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/71-1/88.
Objectives: To teach weapon handlers assigned to aircraft carriers the procedures and safety precautions of air launched weapons handling.
Instruction: Lectures and practical exercises in basic carrier operation, ammunition handling, pyrotechnics, aircraft munitions, and air launched missiles.
Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives handling (2/74).

NV-2202-0025

Battalion Staff Officers (Amphibious Planning)

Course Number: G-2E-4231.
Location: Amphibious Base, Little Creek, VA.
Length: 2 weeks (77 hours).
Exhibit Dates: 12/71-1/88.
Objectives: To train U.S. and foreign armed forces officers and staff noncommissioned officers to function effectively as members of a battalion executive staff in amphibious environments.
Instruction: Lectures on amphibious operations; organization for combat; organization and functioning of battalion staff; the sequence of command and staff action; and principles of intelligence, operations, logistics, embarkation, supporting arms, and communications.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0026

Jumpmaster Naval Parachutist, Class C1
(Naval Jumpmaster Class C)

Course Number: C-602-2022.
Location: Naval Air Technical Training Center, Lakehurst, NJ.
Length: Self-paced 2-3 weeks (80-120 hours).
Exhibit Dates: 5/69-1/88.
Objectives: To train Navy and Marine Corps personnel to safely and efficiently organize and conduct parachute operations.
Instruction: Lectures and practical exercises in theory of parachuting; organization and direction of parachute jumping; jumpmaster equipment; maps and photos; communications; and parachute operations, including day, night, land, and water jumps.
Credit Recommendation: In the vocational certificate category, 1 semester hour in parachuting (2/74).

NV-2202-0027

Surface Warfare Officer School

Course Number: None.
Location: Surface Warfare Officer School, Newport, RI.
Length: 6 weeks (202 hours).
Exhibit Dates: 11/71-6/74.
Objectives: To provide instruction for surface line officers in division officer and watch-standing duties.
Instruction: Lectures and practical exercises in administration and organization, shipboard damage control, watch standing, seamanship, engineering, ship handling.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in personnel management and administration (2/74).

NV-2202-0028

Gun Fire Control System (GFCS) Mk 63 Maintenance

Course Number: K-113-2074.
Location: Fleet Training Center, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 10/72-1/88.
Objectives: To prepare fire control technicians and designated strikers to maintain the Mark 63 Gunfire Control System (GFCS Mk 63).
Instruction: Lectures on the description and operation of GFCS Mk 63 and practical exercises in checks and adjustments in the maintenance of GFCS Mk 63.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0029

Basic Enlisted Submarine

Course Number: A-060-0011; F-000-010.
Location: Submarine School, Groton, New London, CT.
Length: 6-8 weeks (165-236 hours).
Exhibit Dates: *Version 1:* 5/79-11/84. *Version 2:* 10/67-4/79.
Objectives: To prepare enlisted personnel for assignment to an operational submarine.
Instruction: For this course after 11/84 see NV-2202-0148. *All Versions:* Lectures and practical experience in standard submarine organization and regulations, systems and principles of submarine operation, safety and escape tank training, and interior communications. *Version 1:* Includes lectures and practical exercises in hydraulic systems principles and operation, ventilation systems, pumping systems, pressurized air systems, ship control systems and refrigeration systems.
Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester

hour in principles of hydraulic systems (6/81). *Version 2:* In the vocational certificate category, credit in submarine operations on the basis of institutional evaluation (2/74).

NV-2202-0030

1. Basic Naval Parachutist, Class C1
2. Basic Naval Parachutist Course, NP-1 Class C

(Naval Parachutist, Basic, Class C)

Course Number: C-602-2020.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 3 weeks (120 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/74-1/88. *Version 2:* 5/69-4/74.

Objectives: To train military personnel to become qualified parachutists.

Instruction: Lectures and practical exercises in the history of parachuting; aircraft procedures; canopy control; and pre-jump, during-jump, and post-jump procedures.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (2/74). *Version 2:* Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0031

Amphibious Planning

Course Number: G-2G-6510; H-2G-5212.

Location: Amphibious Schools, Norfolk, VA; Amphibious Schools, San Diego, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 1/71-1/88.

Objectives: To provide officers with the knowledge and skills necessary to plan amphibious operations.

Instruction: Lectures and practical exercises in planning amphibious operations, including ship-to-shore movement, intelligence, communications, and general military planning procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0032

Aviation Antisubmarine Warfare
(AASW) for Second Tour Pilots,
P3A/B(D)

Course Number: E-2D-065.

Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.

Length: 3 weeks (115 hours).

Exhibit Dates: 9/72-1/88.

Objectives: To provide experienced naval aviators with supplementary training to prepare them for duty in the Pacific.

Instruction: Lectures and practical demonstrations in oceanography, underwater acoustics, aircraft sensors, and airborne antisubmarine warfare tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0033

Aviation Officer Candidate

Course Number: *Version 1:* Q-9B-0021.

Location: Air Basic Training Command, Pensacola, FL.

Length: *Version 1:* 14 weeks (375 hours). *Version 2:* 16 weeks (440 hours). *Version 3:* 11-16 weeks (404-489 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 1/69-9/85. *Version 3:* 3/66-12/68.

Objectives: To train military personnel to be aviation officers.

Instruction: Lectures in naval history, orientation to naval careers, world affairs, physics and mathematics, engineering, aerodynamics, aviation physiology, navigation and seamanship, physical fitness and swimming, and applied leadership training.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in naval science, 2 in fundamentals of administration and operations, 2 in navigation, 2 in aerodynamics, and 2 in aviation science (11/86). *Version 2:* In the upper-division baccalaureate category, 12 semester hours in naval science (2/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in naval science (12/68).

NV-2202-0034

Light Airborne Multipurpose System
(LAMPS) Operator

(Light Airborne Multipurpose System
(LAMPS) Sensor Operator)

Course Number: E-210-0057; E-210-57.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, San Diego, CA; Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2-6 weeks (78-192 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel in passive/active acoustic and nonacoustic sensor operation in a light airborne multipurpose system squadron.

Instruction: Lectures and practical exercises in passive/active acoustic and nonacoustic sensor operation, basic localization techniques, RADAR/MAD operation, and aural interpretation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0035

Light Airborne Multipurpose System
(LAMPS) Tactics

Course Number: E-2C-013.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 3 weeks (103 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train officers in basic oceanography and tactical procedures.

Instruction: Lectures include basic oceanography, antisubmarine warfare, and antiship missile defense, with emphasis on current tactical procedures used by light airborne multipurpose system squadrons.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0036

Airborne Early Warning, Class O

Course Number: None.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/68-1/88.

Objectives: To provide flight officers with training in airborne early warning systems.

Instruction: Lectures on fleet organization, avionics equipment, navigational problems, airborne early warning and antisubmarine warfare systems, and basic air control; simulated training in anti-air warfare; and flight training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74)

NV-2202-0037

Shore Fire Control Party

Course Number: G-041-6436.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (117-121 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train enlisted personnel in the duties of shore fire control party men.

Instruction: Lectures and practical exercises in communications, map reading, fire support ships and ammunition, naval gunfire spotting, and simulated firing training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0038

Basic Counterintelligence
Communications (CIC)
Techniques for Enlisted
Personnel

Course Number: K-221-0019.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (88 hours).

Exhibit Dates: 2/72-1/88.

Objectives: To teach enlisted personnel basic counterintelligence communications (CIC) techniques.

Instruction: Lectures and practical exercises in basic CIC techniques, including concepts of CIC, radiotelephone nets and radiotelephone procedures, allied naval signal book, internal communications and sound-powered telephone procedures, basic principles of radar, maneuvering-board fundamentals, CIC plots, DRT check-out, plotting procedures, radar assisted piloting, basic tactics, single-line and circular formations and associated maneuvers, and types of screens and screen maneuvers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0039

VS CRAG Enlisted Aircrewman
Antisubmarine Warfare (ASW)
Indoctrination and Equipments

Course Number: D-050-011.

Location: Fleet Airborne Electrician Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train VS aircrew personnel to operate ASW equipment.

Instruction: Lectures in ASW organization, submarine characteristics and operating procedures; radar, ECM, and Jezebel operator techniques and duties; MAD, AQA-1, and Julie operator techniques and duties; and tactical display and navigational equipment introduction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0040

VP CRAG Pilot Antisubmarine
Warfare (ASW) Indoctrination,
Equipments and Tactics

Course Number: D-2A-011.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 6 weeks (150 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train CRAG pilots to operate the VP aircraft weapons systems.

Instruction: Lectures and synthetic trainer exercises in submarine operating characteristics; various search techniques, including radar, ECM, Jezebel, SOSUS, visual search, exhaust trail indicator equipment and tactics, and search planning and execution; operational, intelligence, and contact reporting; localization tactics and equipment; and VP aircraft weapons system, including tactical navigational equipment, tactical plotting, and ASA-16 capabilities, operation, and limitations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74)

NV-2202-0041

P3A/B VP Readiness Tactical Coordinator

(VP CRAG Tactical Coordinator Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics)

Course Number: D-2D-0010; D-2D-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 7 weeks (210–235 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train VP CRAG tactical coordinators in the operation, capabilities, limitations, and tactical applications of VP aircraft.

Instruction: Lectures in VP weapons system introduction; detection and contact classification theory; visual search techniques; radar characteristics, equipment, and tactics; and various weapons system equipment operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0042

Antisubmarine Warfare (ASW) Tactics—VS Pilot/Naval Flight Officer

(VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft)

Course Number: D-2A-0013; D-2A-013.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5–6 weeks (150–187 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train pilots to operate the S-2E weapons system.

Instruction: Lectures and practical exercises in submarine operating characteristics, underwater sound, radar and ECM equipment and tactics, submarine evasion tactics, tactical navigation equipment operation, and synthetic trainer exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0043

Antisubmarine Warfare (ASW) Tactics—First Tour VP Pilot

(VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft)

(VP Pilot P3A/B)

Course Number: D-2A-0011; D-2A-0012; D-2A-012.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5–7 weeks (150–235 hours).

Exhibit Dates: 1/66–1/88.

Objectives: To train pilots to operate S-2D weapons systems.

Instruction: Lectures in ASW organization, VS weapons system introduction, submarine operating characteristics, underwater sound, radar equipment and tactics, submarine evasion tactics, attack criteria, and coordinated submarine/air barrier operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0044

VP CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments

Course Number: D-050-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks.

Exhibit Dates: 7/66–12/68.

Objectives: To train enlisted personnel in ASW equipment operation.

Instruction: Lectures in ASW background and organization, methods of aircrew designation, submarine characteristics and operating procedures, radar and ECM operator techniques and duties, and tactical navigational and tactical display equipment introduction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0045

Amphibious Warfare Indoctrination

Course Number: G-00-6301.

Location: Amphibious School, Little Creek, VA.

Length: 2 weeks (69–73 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train officers in the organization and capabilities of amphibious forces and the basic principles and techniques of amphibious warfare.

Instruction: Lectures and practical exercises on amphibious warfare, including concepts of amphibious operations, organization and command; naval orientation in amphibious forces; supporting arms; amphibious planning, intelligence, communications, and logistics; and ship and shore movement.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0046

Amphibious Junior Officer Indoctrination

Course Number: H-00-5223.

Location: Amphibious School, San Diego, CA.

Length: 9 weeks (268 hours).

Exhibit Dates: 6/70–1/88.

Objectives: To enable junior officers without previous shipboard experience to perform as administrators, division officers, and watch standers.

Instruction: Lectures and practical exercises on amphibious indoctrination, including amphibious warfare indoctrination, naval amphibious communications and drill, landing craft control, duties of boat officers, boat handling and salvage operations, division organization and administration, indoctrination of new personnel, amphibious shipboard indoctrination, and courses from fleet training center.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0047

Weapons Delivery System (Officers)

Course Number: F-4E-013.

Location: Submarine School, Groton, CT.

Length: 11 weeks (307 hours).

Exhibit Dates: 4/70–1/88.

Objectives: To train submarine officers in the functions, operations, and effective employment of the BQQ-2 sonar system, the Mk 113 fire control system, the Mk 48 weapons system, and the Mk 28 SUBROC missile.

Instruction: Lectures and practical exercises in weapons delivery systems, including the capabilities, operations, and employment of the BQQ-2 sonar system, the Mk 113 UWFCS, the Mk 48 torpedo and all other operational torpedoes, and the Mk 28 SUBROC missile; and in the duties of the fire control party and the approach officer, and techniques of passive ranging and target motion analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0048

Mobile Riverine Force Staff Officer Training

Course Number: H-00-1501.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 6 weeks (256 hours).

Exhibit Dates: 4/69–1/88.

Objectives: To train officers in the techniques and tactics of riverine warfare.

Instruction: Lectures and practical exercises on riverine warfare techniques, including survival in water, counterinsurgency, survival training, riverine warfare orientation and operations, organization and command, small arms and support weapons, communications, combat support, combat service support, and tactical boat operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0049

Ship Landing Party Indoctrination

Course Number: G-2E-4606; G-010-4606.

Location: Landing Force Training Command, Norfolk, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/72–1/88.

Objectives: To train personnel to conduct small-unit operations ashore and to quell civil riots and disorders ashore.

Instruction: Lectures and practical exercises on the conduct of small-unit tactics, including individual training, weapons, riot control, communications, map reading, small-unit tactics, helicopter orientation, amphibious training and camouflage.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0050

Chief Petty Officer Leadership, Class C

Course Number: None.

Location: Air Training Command, Pensacola, FL.

Length: 5 weeks (220 hours).

Exhibit Dates: 7/59–12/68.

Objectives: To improve the leadership qualities of chief petty officers.

Instruction: Lectures and practical exercises on leadership areas including duties, responsibilities, capabilities, discipline, morale, management, moral leadership, inspections, military justice, drill and command, teaching techniques, job analysis, drill review, conference speaking, world affairs, naval history, and naval traditions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-2202-0051

JUDGE ADVOCATE GENERAL'S CORPS INDOCTRINATION

Course Number: A-00-0046.

Location: Officer Training School, Newport, RI.

Length: 8 weeks (280 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train legal officers in basic Navy Judge Advocate General's Corps duties.

Instruction: Lectures in basic naval subjects, including protocol, administration, development of policy, history, concepts of sea power, carrier and submarine operations, combined military operations, shipboard organization, communications, formations and maneuvering, propulsion and damage control, and basic navigation.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

NV-2202-0052

ANTI-SUBMARINE AIR CONTROL (OFFICER AND ENLISTED)

(Antisubmarine Air Control, Class C/O)
(Antisubmarine Air Control, Class O)

Course Number: K-00-556; J-221-0321; K-00-1013; J-2G-3212; J-221-3212.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA; Fleet Antisubmarine Warfare School, San Diego, CA; Air Technical Training Center, Glynco, GA.

Length: 3-5 weeks (105-164 hours).

Exhibit Dates: 6/66-6/87.

Objectives: To train officers and senior enlisted personnel to perform as antisubmarine air controllers using fixed- and rotary-wing techniques and procedures.

Instruction: Lectures and practical exercises in antisubmarine air control using fixed- and rotary-wing techniques and procedures, including search and rescue, oceanography, submarine capabilities, coordinated antisubmarine warfare operations, intelligence procedures, aircraft control, attack procedures, communications and emergency procedures, helicopters and sonar characteristics, and associated light, multipurpose systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0053

NAVAL GUNFIRE AIR SPOTTER

Course Number: H-2G-5443.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (114-153 hours).

Exhibit Dates: 2/66-1/88.

Objectives: To train officers to request and control artillery and close air support, and to perform as gunfire air spotters.

Instruction: Lectures and practical exercises in the procedures for requesting and controlling artillery and close air support, and the function of gunfire air spotters, including amphibious operations, use of artillery, air support, and supporting arms coordination; ordnance and weapons systems; air observation; map reading; shipboard gunfire control systems; fire procedures; communications; and aviation ordnance and effects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0054

SIGNALMAN CLASS A

(Basic Signalman)

Course Number: A-203-0001; K-201-2115; J-201-615; K-301-840.

Location: Service School Command, Orlando, FL; Fleet Training Center, San Diego, CA; Fleet Training Center, Newport, RI; Fleet Training Center, Pearl Harbor, HI.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/63-Present.

Objectives: To train enlisted personnel as watchstanders.

Instruction: Lectures and practical exercises in visual communications procedures, including international Morse code, flag identification and flaghoist signaling, publications, flashing light and semaphore drills and positions, and message construction and procedure.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/83).

NV-2202-0055

SUPPORTING ARMS COORDINATION

(Supporting Arms Coordinator)

Course Number: G-2G-6449.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 6 weeks (218-227 hours).

Exhibit Dates: 10/69-1/88.

Objectives: To qualify officers to perform as supporting-arms coordinators on amphibious staffs.

Instruction: Lectures and practical exercises on troop organization and operations, coordination of naval gunfire with air and artillery support, planning naval gunfire support of amphibious operations, and SACC operations. Includes map reading and supporting-arms familiarization, planning naval gunfire support of operations ashore, conduct of fire, and supporting-arms coordination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0056

SUBMARINE OFFICERS INDOCTRINATION

Course Number: A-2E-0029; F-00-012.

Location: Submarine School, Groton, CT.

Length: 5 weeks (134-142 hours).

Exhibit Dates: 8/70-1/88.

Objectives: To qualify officers who have had training in nuclear power as officers on nuclear-powered submarines.

Instruction: Lectures and practical exercises in the duties of officers on nuclear-powered submarines, including vital ship control systems (hydraulics, steering and diving, trim and drain, hovering, high- and low-pressure air, main ballast tanks, electrical distribution, ventilation, and snorkeling), diving principles, recovery operations, communications, shiphandling, navigational principles, submarine sensors (including sonar), sound propagation principles, and basic electronics procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0057

TROOP NAVAL GUNFIRE SPOTTER

Course Number: G-2E-6435; G-2G-6435; G-041-6435.

Location: Amphibious School, Little Creek, VA.

Length: 3 weeks (108-116 hours).

Exhibit Dates: 10/66-1/88.

Objectives: To train officers and noncommissioned officers to perform as naval gunfire spotters.

Instruction: Lectures and practical exercises in planning and coordination of naval gunfire at the spotter level, including administration, gunfire support, communications, fire support ships and ordnance, fire planning and coordination, conduct of fire, principles of observation, gunfire teams and communication nets, characteristics and operation of the radar beacon, and communications equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0058

NAVAL GUNFIRE LIAISON OFFICER

Course Number: G-2G-6434.

Location: Amphibious School, Little Creek, VA.

Length: 8-9 weeks (271-290 hours).

Exhibit Dates: 1/68-1/88.

Objectives: To train officers to perform as gunfire liaison officers.

Instruction: Lectures and practical exercises in the duties of gunfire liaison officers, including troop organization and operations, communications, map reading, conduct of fire, naval gunfire spotting, supporting arms, gunfire support planning, and coordination of gunfire support with air and artillery support in amphibious operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0059

NAVAL GUNFIRE AIR SPOTTER

Course Number: G-2G-6438.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 2 weeks (88 hours).

Exhibit Dates: 12/72-1/88.

Objectives: To train officers as naval gunfire air spotters.

Instruction: Lectures in naval gunfire support introduction, fire support ships operation, ordnance and gunnery, naval gunfire planning and coordination, air observer procedures, administrative procedures, and physical training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0060

NAVAL GUNFIRE LIAISON OFFICER

Course Number: H-2G-5441.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 7 weeks (265-339 hours).

Exhibit Dates: 1/66-1/88.

Objectives: To train officers to be naval gunfire liaison officers.

Instruction: Lectures and practical exercises in troop organization and operation, spotting and coordination of naval gunfire with air and artillery support, planning naval gunfire support of amphibious operations, communications, map reading, target intelligence, aerial photograph interpretation, ammunition, and physical training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0061

Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve)

Course Number: H-041-5442A.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (78 hours).

Exhibit Dates: 7/70-1/88.

Objectives: To train enlisted personnel as communicators and spotters on shore fire control parties.

Instruction: Lectures and practical exercises in amphibious operations, administration, military organization, map reading, naval ordnance and weapons systems, and communications equipment and procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0062

Shore Fire Control Party Enlisted

Course Number: H-041-5442.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3-4 weeks (132-210 hours).

Exhibit Dates: 7/66-1/88.

Objectives: To train enlisted personnel in naval gunfire techniques.

Instruction: Lectures and practical exercises in ammunition, naval fires classification, characteristics and employment of naval gunfire support ships, communication equipment operation and procedures, map reading, targets, and battle tactics.

Credit Recommendation: Credit is not because of the military-specific nature of the course (5/74).

NV-2202-0063

Gunner's Mate Specialized Training

Course Number: A-011-0021.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (75 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train rated gunner's mates to maintain and repair small arms and other base defense or craft-mounted weapons.

Instruction: Lectures and practical exercises in maintenance and repair of cannons, mortars, machine guns, grenade launchers, rockets, mines, and various small arms.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0064

Naval Gunfire Spotters (Troop Officers)

Course Number: H-2G-5445.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (115-153 hours).

Exhibit Dates: 7/66-Present.

Objectives: To train officers in the tactics, techniques, employment, and conduct of naval gunfire during amphibious operations.

Instruction: Lectures and practical exercises in military organization, supporting services, map reading, fire support, ordnance and weapons systems, air operations, communications, and the conduct of naval gunfire.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0065

Leadership Schools Class C-1

Course Number: Not available.

Location: Service School Command, San Diego, CA; Naval Schools Command, Norfolk, VA; Naval Schools Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/61-12/68.

Objectives: To provide enlisted personnel with leadership training.

Instruction: Lectures in leadership training, including the Navy's role in world affairs, human relations, petty officer duties and responsibilities, and command leadership training programs.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0066

Boat Group Officers

Course Number: H-2E-5313.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (82 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train officers to supervise boat groups in ship-to-shore amphibious operations.

Instruction: Lectures and practical exercises in landing craft and amphibious vehicle operation, control of assault boat waves in practice movements, beaching and retracting, landing craft communications, and navigation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0067

Naval Gunfire Staff Officer

Course Number: H-2G-5444.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (75 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To train staff officers to develop gunfire plans in support of amphibious operations.

Instruction: Lectures and practical exercises in amphibious operations and supporting gunfire, ordnance and weapons systems, communications, map reading, physical conditioning, field artillery, supporting arms coordination, and military symbols.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0068

Environmental Indoctrination

Course Number: D-2A-0003.

Location: Naval Air Basic Training Command, Pensacola, FL.

Length: 3 weeks (98-112 hours).

Exhibit Dates: 3/70-1/88.

Objectives: To train officers in environmental indoctrination as a prerequisite for aviation/flight officer training.

Instruction: Lectures on introduction to aerodynamics, aviation physiology, aviation engineering, survival training, swimming, mathematics and physics, defensive driving, and physical fitness.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0069

Combat Information Center (CIC) Officer, Class O

Course Number: C-2G-2017.

Location: Air Technical Training Center, Glynco, GA.

Length: 9-13 weeks (353-512 hours).

Exhibit Dates: 10/65-1/88.

Objectives: To train officers in all operational phases of combat information centers.

Instruction: Instruction includes management, organization, electronics, electronic warfare, and communications; surface, air, and advanced operations, including air control, antiair and antisubmarine warfare.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/76).

NV-2202-0070

Ice Observer, Class C

Course Number: Not available.

Location: Technical Training Unit, Lakehurst, NJ.

Length: 6 weeks (240 hours).

Exhibit Dates: 4/57-12/68.

Objectives: To train enlisted personnel for ice reconnaissance duties and operations.

Instruction: Lectures and practical exercises in ice reconnaissance duties and operations. Topics include military operations, ice seamanship, survival, sea ice, land ice, equipment utilization, and observation techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-2202-0071

Combat Sensor Warfare Training

Course Number: H-00-1940; H-000-1940.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 6 weeks (348 hours).

Exhibit Dates: 1/70-1/88.

Objectives: To train personnel in combat sensor warfare and in the detection and evaluation of clandestine insurgent movements.

Instruction: Lectures and practical exercises in combat sensor warfare, including counterinsurgency, military organization in Vietnam, MACV organization and basic field organization, survival training, intelligence, operations, small arms and explosives, first aid, ground unit tactics, sensor warfare, advanced operational and environmental training, and legal and medical aspects of drug abuse.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course(6/74).

NV-2202-0073

DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control

System (MFCS) Mk 76 Mod 5
(DLG-16 (MOD) Terrier Weapons System)

Course Number: A-121-0150.

Location: Guided Missiles School, Dam Neck, VA.

Length: 10 weeks (354 hours).

Exhibit Dates: 10/72-12/75.

Objectives: To train fire control technicians on the Terrier missile weapons systems.

Instruction: Lectures and practical exercises on the Terrier weapons system, including introduction to the DLG-16 integrated weapon system, target sensors with Naval Tactical Data System (NTDS) interface, specific weapons direction system, ships weapons systems, weapons system alignment, digital system maintenance test program and analog system maintenance tests.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0074

Air Watch Officer
(Combat Information Center (CIC) Watch Officer, Class O)

Course Number: J-2G-0322; K-2G-351; K-2G-352; K-2G-353; C-2G-2020.

Location: Fleet Combat Training Center, Dam Neck, Va; Fleet Anti-Air Warfare Training Center, San Diego, CA; Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/71-Present.

Objectives: To train officers and chief petty officers to perform as CIC watch officers for normal steaming and condition-III watches.

Instruction: Lectures and practical exercises in the functions of the CIC watch officer, including foundation skills, preparation for assuming the watch, surface formation maneuvers, special situations, anti-air warfare, strike force operations, and anti-submarine warfare, exercises, and administration. Includes plot and display boards, data link systems and anti-air and anti-submarine warfare theory.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0075

Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount

Course Number: K-041-2050.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel to operate, maintain, repair, and analyze the 5"/38 caliber train and Mk 6 elevation power drive.

Instruction: Lectures and practical exercises in the maintenance and repair of the electric hydraulic power drive for the 5"/38 caliber gun mount. Course includes hydraulic systems, electrical systems, local and automatic control, elevation and train indicator receiver regulator, and the interlocking solenoid system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-2202-0076

Basic Quartermaster

Course Number: K-772-600.

Location: Fleet Training Center, Pearl Harbor, HI.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/64-12/68.

Objectives: To train enlisted personnel to stand quartermaster watches.

Instruction: Lectures and practical exercises in charts and related publications; navigational aids, time and timepieces; logs; compasses and compass error; weather; tides and currents; sunrise and sunset; azimuths; taking bearings; symbols; types of fixes; set and drift; speed and distance; and plotting problems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0077

A-4 Conventional Weapons Training

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68-1/88.

Objectives: To train enlisted personnel to install and disassemble armament carried on A-4 aircraft.

Instruction: Lectures and practical exercises in the installation and disassembly of armament carried on A-4 aircraft. Course includes explosives introduction, safety procedures, aircraft bombs, fuzes, and rockets and launchers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0078

2F69D P-3 Weapon System Follow-on-Training

Course Number: Not available.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/73-1/88.

Objectives: To train flight crew personnel in weapons systems.

Instruction: Lectures and practical exercises in weapons systems, including operating sensors for detection, identification, and destruction of enemy submarines.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0079

2F87 P-3 Weapon System Follow-on-Training

Course Number: Not available.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/73-1/88.

Objectives: To train enlisted personnel to operate the 2F87 P-3 weapon system.

Instruction: Lectures and practical exercises in 2F87 P-3 weapon system operation, including operating sensors required to detect, identify, localize, and destroy hostile submarines.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0080

Helicopter (HS) Antisubmarine Warfare (ASW) Operator
(Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13))

Course Number: E-210-0032; E-210-32.

Location: Fleet Airborne Electronics Training Unit, Pacific, North Island, CA.

Length: 3-4 weeks (90-138 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel to be airborne sonar operators.

Instruction: Lectures and practical exercises in airborne sonar operation, including sonar search procedures, aerial plotting, vector beam patterns, sound recognition, group training, and weapons system trainer.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-2202-0081

Counterinsurgency Orientation

Course Number: H-00-5219; H-000-5219.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel in the concepts and policies of counterinsurgency.

Instruction: Lectures and practical exercises in the concepts and policies of counterinsurgency, with a survey of foreign political ideologies that are in conflict with democratic philosophies. Course includes a survey of philosophical, sociological, political, and cultural influences that conflict with democratic aims, as well as an overview of strategies and tactics used in defense against insurgent movements in foreign countries.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0082

Talos Telemetering Data Reduction

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68-12/78.

Objectives: To train officers and enlisted personnel to perform data reduction and analysis of Talos guided missile telemetered flight records.

Instruction: Lectures and practical exercises on Talos telemetering data reduction, including fire control system, telemetering system, airborne telemetering equipment, telemeter ground station and associated evaluation equipment, prefiring procedures, Talos data reduction, and flight analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0083

Terrier Telemetering Data Reduction

Course Number: Not available.

Location: Guided Missile School, Dam Neck, VA; Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68-12/72.

Objectives: To train officers and enlisted personnel to perform data reduction and analysis on Terrier guided missile telemetered flight records.

Instruction: Lectures and practical exercises on data reduction and analysis of Terrier guided missile telemetered flight records, including introduction to airborne and ground station telemetering systems; Terrier guided missile exercise heads; telemeter ground stations and associated equipment; and specific Terrier guided missile functional description, data reduction and flight analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0084

ASTOR/SUBROC Operator Maintenance

Course Number: K-000-947.

Location: Nuclear Weapons Training Center, Pacific, North Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/68-1/88.

Objectives: To train COMSUBPAC personnel in the operation and maintenance of the ASTOR torpedo warhead and the SUBROC warhead.

Instruction: Lectures and practical exercises in the operation and maintenance of the ASTOR torpedo warhead and SUBROC warhead, including nuclear weapons administration, nuclear training, and weapons training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0085

3"/50 Caliber Rapid Fire Gun Mount Maintenance

Course Number: K-041-2052.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train enlisted personnel to operate, maintain, adjust, and repair the 3"/50 caliber rapid-fire gun and mount.

Instruction: Lectures and practical exercises in 3"/50 caliber rapid-fire gun and mount operation, maintenance, and repair, including stand, carriage, training gear, elevating gear, power drives, electrical installations, gun assembly, and loader.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0086

Navy Nuclear Weapons Advanced Maintenance

Course Number: A-644-0015.

Location: Defense Atomic Support Agency, Albuquerque,NM.

Length: 4 weeks (126 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train enlisted personnel to maintain nuclear warheads.

Instruction: Lectures and practical exercises in the depot-level maintenance of nuclear warheads, including theory of nuclear warhead components, disassembly, inspection, testing, maintenance, general handling, and safety, and preparation and testing of sealant compounds.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0087

Aviation Indoctrination, Limited Duty Officer (LDO)

Course Number: None.

Location: Air Base Training Command, Pensacola, FL.

Length: 8 weeks (296 hours).

Exhibit Dates: 10/64-1/88.

Objectives: To train limited-duty officers to assume various aviation-related duties.

Instruction: Lectures and practical exercises in aviation indoctrination for limited-duty officers. Course includes naval leadership, organization and administration, naval history and operations, and physical training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-2202-0088

Aviation Reserve Officer Candidate (AVROC)

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: *Version 1:* 16 weeks (440 hours). *Version 2:* 12-16 weeks (404-489 hours).

Exhibit Dates: *Version 1:* 1/69-1/88. *Version 2:* 3/66-12/68.

Objectives: To train military personnel to be aviation officers.

Instruction: This course is the same as NV-2202-0033, except that reserve personnel complete it in two 6- or 8-week summer sessions. Topics include: naval history; orientation to naval careers; world affairs; physics and mathematics; engineering; aerodynamics; aviation physiology; navigation and seamanship; physical fitness and swimming; and applied leadership training.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in naval science (i.e., 6 semester hours for each summer session) (2/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in naval science (i.e., 3 semester hours for each summer session) (12/68).

NV-2202-0089

Naval Gunfire Support Planning

Course Number: H-2G-5447.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 5-6 weeks (197-237 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To provide Navy and Marine Corps officers with knowledge and skills in naval gunfire planning and employment.

Instruction: Lectures and practical exercises in history of naval gunfire, amphibious raids, organization of military combat units, supporting arms, air control, communications, with special emphasis on landing force aspects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0090

Amphibious Junior Division Officer Indoctrination

Course Number: G-00-6518.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (102 hours).

Exhibit Dates: 4/67-1/88.

Objectives: To provide newly commissioned officers with knowledge in amphibious warfare.

Instruction: Lectures and practical exercises in concepts of amphibious warfare, operations, planning, communications, ship/shore movement, physical training, leadership, career counseling, and support operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0091

PHIBLANT Petty Officer Leadership

Course Number: G-000-6583.

Location: Amphibious Base, Little Creek, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To provide leadership training.

Instruction: Lectures and practical exercises to include basic leadership principles, instructor training, military law, world affairs, American government, Navy history and heritage, and career counseling.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0092

Enlisted Submarine Indoctrination

Course Number: A-060-0012.

Location: Submarine School, Groton, CT.

Length: 4 weeks (113 hours).

Exhibit Dates: 7/71-1/88.

Objectives: To provide enlisted personnel with familiarization and knowledge of submarines.

Instruction: Lectures and practical exercises in purpose, function, and location of installed equipment and systems of a nuclear-powered submarine, including theory and operation of equipment and systems, and all aspects of submarine duty.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (7/74).

NV-2202-0093

Women Officer Candidate School

Course Number: A-00-0051.

Location: Women Officer School, Newport, RI.

Length: *Version 1:* 16 weeks (480 hours). *Version 2:* 7-8 weeks (182-240 hours).

Exhibit Dates: *Version 1:* 8/71-1/88. *Version 2:* 3/61-7/71.

Objectives: To provide women officer candidates with instruction and training in essential naval subjects which will prepare them to perform duties as naval officers.

Instruction: Study of the Navy role in support of national objectives, national security organization, leadership, managerial and personnel administration, military justice, and communication skills development.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in naval organization and history (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in naval organization and history (7/74).

NV-2202-0094

Limited Duty Officer (LDO) Indoctrination

Course Number: None.
Location: Naval Schools Command, Newport, RI.
Length: *Version 1:* 7–10 weeks (217 hours). *Version 2:* 5 weeks (150 hours).
Exhibit Dates: *Version 1:* 4/56–12/68. *Version 2:* 6/54–3/56.
Objectives: To provide orientation and familiarization to newly commissioned officers in the broad scope of customs, traditions, and regulations of the Navy.
Instruction: Lectures and practical exercises in naval leadership, administration, customs, military courtesy, seamanship, military justice, and naval operations.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in naval science (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in naval science (12/68).

NV-2202-0095

Naval School, Officer Women (Reserve)

Course Number: None.
Location: Naval Schools Command, Newport, RI.
Length: 15–16 weeks (450–488 hours).
Exhibit Dates: 4/54–1/88.
Objectives: To provide indoctrination and training in general subjects for personnel on duty in reserve forces.
Instruction: Lectures and practical exercises in basic naval subjects to include administration, communication, operation, naval techniques, regulations, essential techniques and basic psychology of leadership, and naval ideals, customs, and traditions. (Reserve personnel attend two eight-week summer sessions.)
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in naval organization and history for each eight-week summer session (7/74).

NV-2202-0096

Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive)

Course Number: E-210-51.
Location: Fleet Airborne Electronics Training Unit, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 10/72–1/88.
Objectives: To prepare personnel as antisubmarine warfare acoustic operators.
Instruction: Lectures and practical exercises to include sonobouys, radio receivers, switch functions, safety precautions, preflight practices, diesel submarines, and foreign submarine identification and operations.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0097

A-7 M61A1 Gun and Associated Systems Intermediate Maintenance

Course Number: C-646-3786.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/70–3/82.
Objectives: To train personnel to maintain the M61A1 gun.
Instruction: Lectures and practical exercises in the operation, inspection, disassembly, repair, reassembly, and testing of the M61A1 gun and control system.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0098

Mine Hunting Sonar Familiarization (Reserve)

Course Number: A-130-0081.
Location: Mine Warfare School, Charleston, SC.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/71–6/76.
Objectives: To provide personnel with the necessary skills and related knowledge to operate specified sonar sets.
Instruction: Lectures, demonstrations, and practical experience in doctrine, basic sonar principles and procedures for navigation and plotting, and instruction in system capabilities and limitations of the AN/SQQ-14 mine-detecting/classifying sonar.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the training (8/77).

NV-2202-0099

Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization

Course Number: A-2F-0036.
Location: Guided Missiles School, Dam Neck, VA.
Length: 2 weeks (60 hours).
Exhibit Dates: 8/71–1/88.
Objectives: To instruct personnel in target motion analysis using a specific fire control system.
Instruction: Lectures and practical exercises providing basic background in relative motion concepts; plotting techniques; purpose of the system; elements of display; and interpretation of observations.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-2202-0100

Marine Nuclear Ordnance Platoon (NOP)

Course Number: Not available.
Location: Nuclear Weapons Training Group, Pacific, North Island, CA.
Length: 7 weeks (215–245 hours).
Exhibit Dates: 1/73–1/88.
Objectives: To train selected Marine Corps officers and noncommissioned officers for assignment to nuclear operations platoons.
Instruction: Instruction includes administration, security, reliability, and safety, and theory of operation, assembly, test, and maintenance of Marine Corps ground-delivered weapons.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-2202-0101

Naval Enlisted Scientific Education Program (NESEP)
(NESEP Basic)

Course Number: A-00-4402; A-00-4404; A-00-0109.
Location: Officer Candidate School, Newport, RI.
Length: 10 weeks (260–350 hours).
Exhibit Dates: 4/72–1/88.
Objectives: To prepare selected enlisted personnel for commissioning.
Instruction: Classroom and practical instruction in leadership and supervision, naval operations, and general military subjects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in interpersonal relations (6/75).

NV-2202-0102

Officer Candidate School

Course Number: A-00-4401; A-00-0044.
Location: Education and Training Center, Newport, RI.
Length: 16–19 weeks (512–665 hours).
Exhibit Dates: 4/55–1/88.
Objectives: To provide officer candidates with an introduction to essential naval subjects.
Instruction: Classroom and practical instruction in naval orientation and supervision, tactics, seamanship, damage control, engineering, navigation, and the role of sea power. Primary emphasis is placed on leadership for newly commissioned officers.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (7/74).

NV-2202-0103

Reserve Officer Candidate (ROC II and ROC I)

Course Number: A-00-4301; A-00-0045.
Location: Education and Training Center, Newport, RI.
Length: 16–21 weeks (512–665 hours).
Exhibit Dates: 4/55–1/88.
Objectives: To provide reserve officer candidates with instruction in essential naval subjects.
Instruction: This course provides essentially the same instructional material as the Officer Candidate program for active-duty personnel (see NV-2202-0102). Students attend 8–9 weeks of training (ROC II) during the summer between their junior and senior college years. The remainder of the program—8–12 weeks (ROC I)—is completed after graduation from college.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced naval science for completion of ROC II and 3 in advanced naval science for completion of ROC I (see "Instruction" section above) (7/74).

NV-2202-0104

Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1

Course Number: A-113-0044.
Location: Gunner's Mate School, Great Lakes, IL.
Length: 19 weeks (570–592 hours).
Exhibit Dates: 2/70–1/88.
Objectives: To train personnel in the operation, adjustment, and maintenance of a 5"/54 gun mount.
Instruction: Lectures and practical exercises in gun loaders, hoists, ammunition carriers, and related equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical hydraulic systems and 2 in electromechanical hydraulics laboratory (9/77).

NV-2202-0105

Advanced Jezebel (VP)

Course Number: E-210-44.

Location: Naval Air Station, Moffet Field, CA.

Length: 2 weeks (75 hours).

Exhibit Dates: 11/72-1/88.

Objectives: To train personnel in the operation of a specific electronic system.

Instruction: Lectures and practical exercises to include advanced gram analysis, tactical aspects of AQA-7 Jezebel, intelligence data, and basic sonar theory.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-2202-0106

Mine Mk 60 Mod 0 Weapons Systems
Technician

Course Number: J-647-0036.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 8 weeks (260 hours).

Exhibit Dates: 4/80-Present.

Objectives: To train enlisted personnel to perform intermediate maintenance on a CAPTOR weapons system.

Instruction: Lectures and practical exercises in the maintenance of a weapons system including all associated support equipment. The tasks include weapons preparation as well as operation and authorized maintenance of test equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/83).

NV-2202-0107

Navigation Officer (Shipboard) and
Celestial Class C2

Course Number: J-2G-0618.

Location: Fleet Training Center, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/82-Present.

Objectives: To train officers in the principles and techniques of navigation.

Instruction: Lectures and practical exercises in shipboard duties of the ship's navigator including use and maintenance of charts and navigation publications, magnetic compass operation and adjustment, piloting, celestial navigation and administration of navigation functions aboard ship.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation (9/83).

NV-2202-0108

Naval and Marine Electronic
Warfare Officer

Course Number: C-2D-3810.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 11/81-Present.

Objectives: To provide background knowledge prerequisite to operational training in a squadron.

Learning Outcomes: Upon completion of the course, the student will be able to: (1) create an area order of battle from appropriate publications (2) determine the threats within a complex signal environment based upon the identification of Systems/Platforms through recognition of the signals (3) relay an assessment of the environment in accord with the communication plan (4) adjust the order of battle to accomplish the basic ESM and/or ESM objectives.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/87).

NV-2202-0109

Naval Science Institute

Course Number: P-00-4307.

Location: Naval Education and Training Command, Newport, RI.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/78-Present.

Objectives: To provide the student with the training equivalent to the basic course of the Naval ROTC and to qualify the students for enrollment into the advanced course.

Instruction: This is a four part course including introduction to naval science, ship systems (engineering), ships systems (weapons) and sea power and maritime affairs. Introduction to naval science includes an introduction to to the naval profession and concepts of sea power; ship's systems (engineering) includes coverage of basic therodynamics, steamplant systems, diesel engines, gas turbines, power plant auxiliaries, basic ships structure, stability, buoyancy, damage stability and damage control; ships systems (weapons) includes the basic principles of a naval weapons system such as sensor and detection equipment, tracking equipment, computational devices and weapons delivery systems. The seapower section has a survey of US naval history from the American Revolution to the present including law of the sea, comparisons of the US and Soviet naval strategies and merchant marine commerce. There is a physical education component that requires sailing competency upon completion of the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in naval science ship systems II (weapons), 3 in naval science orientation, 3 in sea power and maritime affairs OR 2 in naval history since 1775, 3 in naval science ship systems I (engineering) OR 3 in basic marine engineering OR 3 in an engineering elective, and 1 in personal physical fitness and 1 in basic sailing (7/84).

NV-2202-0110

Senior Enlisted Academy

Course Number: P-00-1300.

Location: Naval Education and Training Center, Newport, RI.

Length: 9 weeks (360 hours).

Exhibit Dates: 9/81-Present.

Objectives: To prepare senior enlisted personnel to fulfill their leadership and management responsibilities.

Instruction: Lectures and practical exercises in the areas of leadership and management including group dynamics, motivation, managerial theories; communications skills including writing exercises and oral presentations; national security affairs including the role of the United States military in the world today; and navy programs including programming, budgeting and planning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management process and theory, 4 in human relations in supervision, 3 in operations management, 2 in business communications, 2 in effective speaking, 1 in personal physical fitness (7/84); in the upper-division baccalaureate category, 3 semester hours in international relations (7/84).

NV-2202-0111

S-3A Armament Control and
Delivery System Organizational
Maintenance

Course Number: C-646-3676.

Location: Naval Air Station, North Island, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/82-Present.

Objectives: To train technicians to maintain a weapons delivery system.

Learning Outcomes: Upon completion of the course, the student will be able to perform general maintenance at the block diagram level on the following systems: the search store system, the conventional weapons system and the special weapons and rocket aiming sight system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/85).

NV-2202-0112

Advanced Submarine Quartermaster

Course Number: A-061-0015.

Location: Submarine School, Groton, CT; Submarine Training Facility, San Diego, CA; Fleet Ballistic Submarine Training Center, Charleston, SC; Guided Missile School Detachment, Norfolk, VA; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (85 hours).

Exhibit Dates: 1/85-Present.

Objectives: To teach classroom elements of the requirements of rated quartermasters in duties assisting navigator.

Instruction: Course presents navigation administration, time and longitude, restricted waters navigation, daily phenomenon, weather fundamentals, maneuvering boards, compasses, celestial navigation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to navigation procedures (11/85).

NV-2202-0114

CV Naval Tactical Data System
(NDTS) Data Utilization

Course Number: K-2G-0092.

Location: Fleet Combat Training Center, Dam Neck, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/84-Present.

Objectives: To provide officer and senior enlisted personnel with training in the operation procedures, capabilities and limitations of the CV/CVN class ship tactical data system.

Instruction: Lectures and laboratory exercises provide the student with a basic understanding of the purpose and use of various controls, subsystems and modes of operation, methods of data entry, duties of various coordinator/controller personnel and practical application with system mock up of target tracking equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/86)

NV-2202-0115

Surface Electronic Warfare Officer
(Electronic Warfare Officer Surface)

Course Number: J-2G-0210.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Training Group, Pearl Harbor, HI; Fleet Combat Training Center, Pacific, San Diego, CA.

Length: 4-5 weeks (160 hours).
Exhibit Dates: 9/81-Present.
Objectives: To train officers in the concepts and operational applications of electronic warfare.
Instruction: Lectures on a broad range of electronic warfare topics are given covering subjects such as target acquisition and analysis methods, countermeasures, Soviet naval warfare capabilities, free world weapon systems, and electronic warfare administration. Laboratory exercises on mission planning problems are included.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0116

Antisubmarine Warfare Operations Center Watch Officer

Course Number: J-2G-0367.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 3-4 weeks (140 hours).
Exhibit Dates: 8/84-Present.
Objectives: To train officers in system capabilities and equipment operation, of a tactical data base management system and its use in a naval operations center.
Instruction: Classroom lectures, demonstration and laboratory work on function and operation of different computer/system components and controls, preparation, receipt and transmission of messages and data, briefing and debriefing flight crews, and preparing analyzing, interpretating data and making calculations.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/86).

NV-2202-0117

Naval Reserve Senior Officer Tactics

Course Number: J-2G-0380.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 2 weeks (73 hours).
Exhibit Dates: 5/85-Present.
Objectives: To provide senior reserve officers with a realistic update in the varied aspects of naval warfare.
Instruction: Classroom exercises which provide a knowledge of Soviet warfare capabilities and tactics, U.S. antisubmarine, electronic, and anti-air warfare capabilities, and U.S. and NATO surface capabilities, students also engage in exercises which provide practical application experiences.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0118

Track Supervisor/Tadil A Track Coordinator (Advanced)

Course Number: J-221-0308.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 1 week (40 hours).
Exhibit Dates: 6/81-Present.
Objectives: To provide selected enlisted personnel with the knowledge and skills required to function as a tactical data system target tracking supervisor in a multiship/service environment.
Instruction: Classroom lecture combined with laboratory work provides instruction in supervisor duties and responsibilities in accordance with current fleet directives. Also included is information on data input equipment, target tracking procedures, gridlocks, data linking, and related systems.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/86).

NV-2202-0119

CGN-38/DDG-993 (SM-2) Combat Systems Operator

Course Number: J-221-0309.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 1/86-Present.
Objectives: To train personnel to operate the combat system and display consoles on board CGN-38 and DDG-993 class ships.
Instruction: Lecture and laboratory exercises covering the identification of weapon system/subsystems and sensors, and purpose and operation of various subsystems involving tracking, identification and display, data entry, video processor, sonar and weapon control systems when used in a combat environment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0120

Antisubmarine Air Control Naval Tactical Data System (NTDS)

Course Number: J-221-0323.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.
Length: 4 weeks (140 hours).
Exhibit Dates: 9/85-Present.
Objectives: To train selected personnel to perform the duties of an antisubmarine air controller which include the ability to provide positive control to antisubmarine warfare craft.
Instruction: Classroom and laboratory exercises include instruction in air control, console operation, antisubmarine warfare search procedures, sensors, submarine classifications, sonobouy patterns, weapons and attack procedures, antisubmarine warfare operations, and aircraft air traffic control procedures.
Credit Recommendation: In the vocational certificate category, credit in aircraft traffic control operation on the basis of institutional evaluation (6/86).

NV-2202-0121

Force/Ship Weapons Coordinator Tactical Training

Course Number: J-221-0324.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 2 weeks (75 hours).
Exhibit Dates: 9/83-Present.
Objectives: To provide shipboard watchstanders, assigned to tactical data system equipped ships, with comprehensive tactical training.
Instruction: Classroom lectures covering basic knowledge of: the Soviet threat, U.S. and NATO ships and their weapons, capabilities and limitations of U.S. Navy fighter aircraft, warfare net radio procedures, capabilities, limitations and use of USAF, USN and NATO early warning aircraft, anti-aircraft warfare equipment and use, and a thorough knowledge of composite warfare doctrine.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0122

Antisubmarine Warfare (ASW) Centers Command and Control System Operator

Course Number: J-221-0362.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 3-4 weeks (140 hours).
Exhibit Dates: 9/85-Present.
Objectives: To train personnel in the system capabilities, operation and functions of antisubmarine warfare equipment.
Instruction: Course consists of lectures and practical work encompassing mission support operations, telecommunications procedures, console operation, data terminal operation, and simulated training missions with associated calculations.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/86).

NV-2202-0123

Tactical Action Officer

Course Number: K-2G-0033.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.
Length: 6 weeks (210 hours).
Exhibit Dates: 7/73-Present.
Objectives: To provide experienced officers with the tactical and supervisory skills necessary to serve as a multi-threat warfare tactician on board surface ships and embarked tactical staffs.
Instruction: Instruction consists of mainly classroom lectures with a few hours of associated laboratory work. Major units of study include: physical environment, naval forces command, control, communications and intelligence, Soviet capabilities, ship and submarine weapons, sensors, and platforms, U.S. naval air capabilities, counter assessment and tactics.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0124

Air Watch Officer

Course Number: J-2G-0322.
Location: Fleet Training Center, San Diego, CA.
Length: 3 weeks (105 hours).
Exhibit Dates: 5/84-Present.
Learning Outcomes: Upon completion of the course, the student will be able to provide inexperienced officers and chief petty officers the training to qualify as a Watch Oficer in a Combat Information Center (CIC).
Instruction: An overview of the equipment, tactics, and duties of the personnel in a combat control center on a ship. This includes plot and display boards, CIC communication and data link systems, maneuvering theory, surface formation maneuvers, anti-air and anti-submarine warfare theory and duties of CIC officers.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course.

NV-2202-0125

Combat Information Center (CIC) Officer

Course Number: J-2G-0325.
Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.
Length: 6 weeks (210 hours).

Exhibit Dates: 10/81-Present.

Objectives: To train officers in all operational phases of combat information centers.

Instruction: Instruction includes management, organization, electronic warfare, intelligence, and communications; also surface formation maneuvers, and advanced operations including air control, antiair and antisubmarine warfare.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0126

Air Intercept Control Supervisor

Course Number: K-221-0015.

Location: Fleet Combat Training Center, Pacific, San Diego, CA; Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/78-Present.

Objectives: To train qualified air intercept controllers to effectively supervise and instruct air intercept operations.

Instruction: Classroom and laboratory exercises including instruction in air control procedures; U. S. and Soviet aircraft types, performance, and tactics; Soviet naval and air capabilities and warfare doctrine; antisubmarine warfare detection equipment, weapons and tactics; weather considerations; intercept control communications and tactics, navigation aids, IFF and radar capabilities; and rules/regulations and publications related to aircraft operations; supervisor training.

Credit Recommendation: In the vocational certificate category, credit in aircraft traffic control operation on the basis of institutional evaluation (6/86).

NV-2202-0127

Naval Warfare Operations Specialist-Advanced

Course Number: K-221-0053.

Location: Fleet Combat Training Center, Pacific, San Diego, CA; Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 10-14 weeks.

Exhibit Dates: 4/79-Present.

Objectives: To provide the present knowledge and skills required to qualify as Combat Information Center Watch supervisors and division leading petty officers.

Instruction: Classroom lectures, demonstrations and laboratory exercises which provide training in basic principles and tactical use of: navigation methods, communications publications and equipment, surface tactical maneuvering, naval gunfire support, amphibious operations, anti-submarine, antiship and anti-aircraft warfare, radar usage, electronic warfare, and the naval tactical data system (NTDS).

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0128

Antisubmarine Warfare (ASW) Module Watch Officer

Course Number: J-2G-0369.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA.

Length: 3-4 weeks (105 hours).

Exhibit Dates: 4/84-Present.

Objectives: To train officers in system capabilities and equipment operating of a data base management system and its use in a naval operational center.

Instruction: Classroom lectures, demonstrations and laboratory work on function and operation of different computer/system components and controls, preparation, receipt and transmission of messages and data, briefing and debriefing flight crews, and preparing, analyzing, interpreting data and making calculations.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/86).

NV-2202-0129

Enlisted Tactical Applications

Course Number: J-221-0025.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet and Mine Warfare Training, Charleston, SC.

Length: 2 weeks (67 hours).

Exhibit Dates: 3/82-Present.

Objectives: To provide leading petty officers with a basic understanding of the interrelationships between their weapons/sensor systems and other systems in the ship group, and force to enable them to make better decisions regarding their employment in a multi-threat environment.

Instruction: Classroom lectures include information on Soviet naval forces, U.S. Navy command, control and communications tactics, U.S. and allied naval ships, weapons, and sensors, shipboard organization for warfare, and tactical gaming.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/86).

NV-2202-0130

Combat Information Center (CIC) Procedures Advanced

Course Number: J-221-0305.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Training Center, Mayport, FL; Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/80-Present.

Objectives: To train the junior operation specialist as a watch stander and petty officers as a watch supervisor in a combat information center aboard a ship.

Instruction: Review of sound powered and radio telephone procedures, antisubmarine, anti-aircraft and antisurface ship warfare and electronic warfare techniques. Course emphasis is on plotting ship maneuvers for weapon engagement, avoiding courses, scouting, tactics, fleet maneuvers, navigation calculations, and maintaining various records in proper format.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the coruse (6/86).

NV-2202-0131

Air Intercept Controller, Conventional Qualification

Course Number: K-221-0007.

Location: Fleet Combat Training Center, Atlantic, Dam Neck, VA; Fleet Combat Training Center, Pacific, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/81-Present.

Objectives: To train senior enlisted and junior officer personnel with previous experience with the tactical data system in the duties, responsibilities and skills required of air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control, including fleet anti-air warfare, threat intelligence, interceptor aircraft characteristics and air-to-air weapons systems, air navigation aids, communications equipment, intercept control communications procedures and vocabulary, radar indicator equipment, identification equipment, and preparation and procedures for NTDS control.

Credit Recommendation: In the vocational certificate category, credit in aircraft traffic control operation on the basis of institutional evaluation (6/86).

NV-2202-0132

Joint Military Operations for College of Naval Warfare

Course Number: None.

Location: Naval War College, Newport, RI.

Length: 13 weeks (156 hours).

Exhibit Dates: 11/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assess and implement concepts of military management, planning, and analysis consistent with theoretical foundations of strategy and warfare.

Instruction: Instruction includes a blend of frequent seminar work, carefully selected readings, case studies, an independent research project and written examinations. The course is divided into four components: strategy and operations; military warfare; planning and decision making; gaming. Students are required to complete a final examination at the conclusion of each component.

Credit Recommendation: In the graduate degree category, 6 semester hours in either management or military science (9/87).

NV-2202-0133

Maritime Operations for College of Naval Command and Staff

Course Number: None.

Location: Naval War College, Newport, RI.

Length: 14 weeks (151 hours).

Exhibit Dates: 11/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assess and implement concepts of military management, planning, and analysis consistent with theoretical foundations of strategy and warfare.

Instruction: Instruction includes a blend of frequent seminar work, carefully selected readings, case studies, an independent research project and written examinations. The course is divided into three components: strategy and operations; military warfare; planning and decision making; gaming. Students are required to complete a final examination at the conclusion of each component.

Credit Recommendation: In the graduate degree category, 6 semester hours in either management or military science (9/87).

NV-2202-0134

Maritime Operations Employment of Naval Forces Nonresident Seminar

Course Number: None.

Location: Annapolis, MD; Corpus Christi, TX; Dahlgren, VA; Newport, RI; Norfolk, VA; Patuxent, MD; Pensacola, FL; San Diego, CA; San Francisco, CA; Seattle, WA; Washington, D.C.; White Oak, MD.

Length: 36 weeks (90 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to assess concepts of military management, planning, and analysis and be able to participate knowledgeably in the decision making and management of maritime operations.

Instruction: Seminar and selected readings. Short papers and two written examinations. Major topics are: strategic concepts, planning and decision making, and Naval warfare tasks.

Credit Recommendation: In the graduate degree category, 3 semester hours in management or military science (3/88).

NV-2202-0135

Naval War Correspondence Course in Maritime Operations (Employment of Naval Forces)

Course Number: None.

Location: Naval War College, Off-Campus Program, Washington, D.C.

Length: Maximum 52 weeks.

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to assess concepts of military management, planning, and analysis and be able to participate knowledgeably in the decision making and management of maritime operations.

Instruction: The course is organized by modules in the following major areas: strategic concepts, planning and decision making, and naval warfare tasks. Students complete readings in each module and write essays for all modules. The essays are reviewed by faculty and graded.

Credit Recommendation: In the graduate degree category, 1 semester hour in management or military science (3/88).

NV-2202-0136

Trident Sonar Advanced Operator

Course Number: A-130-0323.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform advanced sonar watchstanding techniques on the AN/BQQ-6 in all modes.

Instruction: Classroom and laboratory instruction in sonar administration, sonar calculators, contact localization, and tactical security.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/89).

NV-2202-0137

Trident Sonar Supervisor

Course Number: A-130-0187.

Location: Trident Training Facility, Kings Bay, GA; Trident Training Facility, Bangor, Bremerton, WA.

Length: 3 weeks (46 hours).

Exhibit Dates: 8/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as an advanced sonar supervisor.

Instruction: Classroom and laboratory instruction on the supervisor's responsibilities, sonar subsystem operating conditions air ASW systems, acoustics, and pseudo sound.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/89).

NV-2202-0138

Strategic Weapon System Officer Trident 1

Course Number: A-2F-4623.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 3–4 weeks (144 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will direct operational procedures for a nuclear ballistic missile targeting system.

Instruction: Lectures and practical exercises concerning operation of the missile system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-2202-0139

Strategic Weapons System Assistant Weapons Officer (AWEPS) Trident 1 Backfit

Course Number: A-2F-4622.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Submarine Training Facility, Charleston, SC.

Length: 4–5 weeks (178 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will function as a missile launch officer and nuclear weapons handling supervisor.

Instruction: Lectures and practical exercises related to operational procedures for a specific missile weapons system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-2202-0140

Terrier New Threat Upgrade (NTU) Advanced Officer

Course Number: A-2F-4638.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course the student will supervise system maintenance, administration, and employment of a guided missile fire control system.

Instruction: Lectures and practical exercises on topics related to the specific missile fire control system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-2202-0141

Strategic Weapons System Officer Poseidon

Course Number: A-2F-4621.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 3–4 weeks (144 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will direct operational procedures for a nuclear weapons system.

Instruction: Lectures and practical exercises on system operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-2202-0142

Strategic Weapons System Assistant Weapons Officer Poseidon

Course Number: A-2F-4620.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA; Submarine Training Facility, Charleston, SC; Submarine School, Groton, CT.

Length: 4–5 weeks (176 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will function as a missile launch officer and a nuclear weapons handling supervisor.

Instruction: Lectures and practical exercises related to operational procedures for a missile officer.

Credit Recommendation: Credit is not recommended because of the miltary-specific nature of the course (6/89).

NV-2202-0144

Trident Mk 4 Reentry System Tender Transfer and Handling

Course Number: A-644-0023.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 2 weeks (62 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate and perform preventive maintenance on missile warheads and warhead handling equipment.

Instruction: Lectures and practical exercises on the subject equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

NV-2202-0145

Surface Acoustic Analysis Specialist

Course Number: J-130-0500.

Location: Fleet Antisubmarine Warfare Training Center-Atlantic, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 24 weeks (960 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to make basic calculations of algebra, trigonometry, and statistics and apply the concepts of underwater acoustics to to sonar systems.

Instruction: This evaluation is based on the first five and one half weeks of the course. The remainder is classified. Lectures and exercises in algebra, trigonometry, statistics, underwater acoustics including sound propagation theory, environmental effects, acoustic signal processing, underwater sounds, and sonar theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in technical mathematics; in the upper-division baccalaureate category, 4 semester hours in physics of underwater acoustics (6/89).

NV-2202-0146

Intermediate Surface Acoustic Analysis

Course Number: K-130-1093.

Location: Fleet Antisubmarine Warfare Training Center-Atlantic, Norfolk, VA; Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify ship types based on the passive sonar acoustic signals received.

Instruction: Lectures and practical exercises related to signal reception of passive sonar systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/89).

NV-2202-0148

Basic Enlisted Submarine

Course Number: A-060-011/A.

Location: Submarine School, Groton, New London, CT.

Length: 5-6 weeks (228 hours).

Exhibit Dates: 12/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to describe the function of components of shipboard mechanical systems.

Instruction: Lectures and practical instruction in the basic function of shipboard mechanical systems including description of a submarine's air, drain, ballast, trim, hydraulic, ventilation, and power systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in general mechanical systems (10/89).

NV-2202-0149

Advanced Signalman

Course Number: J-203-0803.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course the student will be familiar with communications procedures, honors, ceremonies, and advanced navigation techniques.

Instruction: Instruction consists of classroom discussion of the duties of a signalman, handling classified material, message formats, light and flag signal procedures, record keeping, radio procedures, proper display of flags, dress and full dress of ships, navigation, emergency procedures, International Morse code, and the U.S. systems of buoys and navigational aids.

Credit Recommendation: In the vocational certificate category, 2 semester hours in International Morse code; in the lower-division baccalaureate/associate degree category, 2 semester hours in navigational rules (12/89).

NV-2202-0150

Senior Quartermaster Refresher

Course Number: J-061-2207.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course the student will be able to provide navagational expertise to shipboard personnel; select and use appropriate nautical charts; advise during unusual navigational conditions in accordance with fleet directives; extract and record maintenance data from navigation publications; compute positions, courses, and distances and navigate to and from a hypothetical point; determine ship's permanent allowance; correct and update ship's charts and publications; solve for errors in magnetic and gyro compass systems; navigate by dead reckoning; use all charted visual aids to navigation; plot lines of position; use tide and current data; determine anchorages; use electronic navigation systems, including SATNAV and LORAN; be familiar with ship's weather monitoring systems; know the rules of the road; and plan and plot navigational briefs.

Instruction: Lectures and laboratory exercises using navigation instruments, charts, and aids to navigation. Topics include rules of the road, records and logs, gyro and magnetic compass systems, voyage planning and preparation, tides and currents, and dead reckoning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in navigation (12/89).

NV-2203-0143

Poseidon Mk 3 Renetry System Tender Transfer and Handling

Course Number: A-644-0018.

Location: Guided Missiles, School, Dam Neck, Virginia Beach, VA.

Length: 3-4 weeks (144 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to handle and transfer missiles between a submarine and a submarine surface tender.

Instruction: Lectures and practical exercises related to the handing of the Poseidon missile.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/89).

NV-2205-0001

Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Navigation Officer Replacement

Course Number: A-2G-0027.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand and apply basic inertial navigation theory and direct the operation and maintenance of a ship's inertial navigation guidance system.

Instruction: Lectures and practical exercises in inertial navigation and the subsystems which make up an inertial navigation system, including gyroscope principles, coordinate systems, torqing, azimuth alignment, and drift prediction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic navigation (6/89).

NV-2205-0002

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem

Course Number: A-193-0394.

Location: Guided Missiles School, Dam Neck, Virginia Beach, VA.

Length: 4-5 weeks (178 hours).

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course the student will be able to operate the ESGM Backfit Navigation Subsystem as well as perform basic preventive and corrective maintenance and calibration procedures on the system.

Instruction: Instruction includes classroom and laboratory work on principles of navigation, operating principles of of navigation equipment, and basic preventive maintenance of the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic navigation (6/89).

Navy Enlisted Ratings Exhibits

NER-AB-001

AVIATION BOATSWAIN'S MATE

ABCS
ABCM

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

May progress from: ABHC, Chief Aviation Boatwain's Mate, Aircraft Handling (E-7); ABFC, Chief Aviation Boatswain's Mate, Fuels (E-7); OR ABEC, Chief Aviation Boatswain's Mate, Launching and Recovery Equipment (E-7). ABCS: Senior Chief Aviation Boatswain's Mate (E-8). ABCM: Master Chief Aviation Boatswain's Mate (E-9).

Description

ABCS: Able to perform the duties required for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling), ABFC (Chief Aviation Boatswain's Mate, Fuels), or ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment); monitors maintenance schedules and administers safety programs in the following areas: launch, recovery, aviation-fuel system, aircraft-handling, crash-rescue and damage-control equipment; assigns personnel and prepares correspondence; organizes, schedules, and evaluates training programs; responsible for availability of spare parts and equipment; implements quality control and surveillance procedures for aviation fuel; evaluates equipment overhaul procedures; administers long-range maintenance programs; requisitions, inventories, and disposes of materials in own operational area; administers air terminal operations, including storage of cargo, handling of passengers and aircrew, and aircraft services. *ABCM:* Able to perform the duties required for ABCS; formulates guidelines for use in safety inspections; plans, organizes, and implements control activities in compliance with policy statements, orders, and directives; establishes goals and objectives in area of responsibility; reviews and interprets maintenance directives; reviews performance of aircraft-handling, crash-rescue, and damage-control crews with crew members; reviews programs and insures that all scheduled maintenance for launch, recovery, aviation-fuel system aircraft- handling, crash-rescue, and damage-control equipment is performed; establishes inspection and operational evaluation procedures to be used on repaired or newly installed parts; develops operating budgets and monitors expenditures; enters changes to ship equipment configuration accounting system and submits required reports.

Recommendation, ABCS

In the vocational certificate category, if the individual progressed from ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), use the recommendation in exhibit NER-ABE-001. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation safety, 3 in maintenance management, and 3 in air operations management, and additional credit in hydraulics, fire science, and aircraft servicing or air operations on the basis of institutional evaluation; add the 16 semester hours for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling), or the 16 semester hours for ABFC (Chief Aviation Boatswain's Mate, Fuels), or the 13 semester hours for ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ABCM

In the vocational certificate category, if the individual progressed from ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), use the recommendation in exhibit NER-ABE-001. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation safety, 3 in maintenance management, 3 in air operations management, and 3 in introduction to management, and additional credit in hydraulics, fire science, and aircraft servicing or air operations on the basis of institutional evaluation; add the 16 semester hours for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling) in exhibit NER-ABH-001; or the 16 semester hours for ABFC (Chief Aviation Boatswain's Mate, Fuels) in exhibit NER-ABF-001, or the 13 semester hours for ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment) in exhibit NER-ABE-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (2/77).

NER-ABE-001

AVIATION BOATSWAIN'S MATE,
LAUNCHING AND RECOVERY
EQUIPMENT

ABE3
ABE2
ABE1
ABEC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABE3:* Aviation Boatswain's Mate, Launching and Recovery Equipment, Third Class (E-4). *ABE2:* Aviation Boatswain's Mate, Launching and Recovery Equipment, Second Class (E-5). *ABE1:* Aviation Boatswain's Mate, Launching and Recovery Equipment, First Class (E-6). *ABEC:* Chief Aviation Boatswain's Mate, Launching and Recovery Equipment (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Operates and maintains hydraulic and steam catapults, barricades and arresting gear; operates catapult launch, retract panels, consoles, firing panels, water brakes, chronographs, blast deflectors and cooling panels; imspects and proof-loads cables, fittings, and wire rope sockets. *ABE3:* Inspects and lubricates launch and recovery equipment; replaces packing and seals on catapults and arresting gear; rigs and installs barricades; performs planned maintenance on arresting gear and arresting gear engines; operates and maintains jet blast deflectors; determines safe working loads for hoisting materials, wire rope, manila lines, nylon lines, and webbing; uses maintenance cards; completes maintenance records. *ABE2:* Able to perform the duties required for ABE3; inspects, tests, and adjusts catapults and related equipment; tests, adjusts, and calibrates arresting gear and barricades; supervises personnel on aircraft launch hookup; inventories equipment and spare parts; orders spare parts and special tools. *ABE1:* Able to perform the duties required for *ABE2:*; disassembles, replaces defective parts, and reassembles catapult systems, arresting gear engines, and accessories; prepares data for equipment logs; supervises the use of maintenance publications; prepares preventive maintenance schedules; maintains custody records. *ABEC:* Able to perform the duties required for ABE1; supervises the use, filing, and maintenance of publications and records; screens defective components for repairs; inspects and evaluates operation of repaired equipment; insures quality control; prepares quarterly schedules of preventative maintenance; supervises the accounting for and replacement of spare parts and equipment.

Recommendation, ABE3

In the vocational certificate category, 3 semester hours in basic hydraulics and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, credit in hydraulics on the basis of institutional evaluation (2/77).

Recommendation, ABE2

In the vocational certificate category, 3 semester hours in basic hydraulics and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, credit in hydraulics on the basis of institutional evaluation (2/77).

Recommendation, ABE1

In the vocational certificate category, 3 semester hours in hydraulics, 2 in shop management, and 1 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 2 in shop management, 2 in personnel supervision, and 1 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation (2/77).

Recommendation, ABEC

In the vocational certificate category, the recommendation is the same as that for ABE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 for field experience in management, 3 in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation (2/77).

NER-ABF-001

Aviation Boatswain's Mate, Fuels

ABF3
ABF2
ABF1
ABFC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABF3:* Aviation Boatswain's Mate, Fuels, Third Class (E-4). *ABF2:* Aviation Boatswain's Mate, Fuels, Second Class (E-5). *ABF1:* Aviation Boatswain's Mate, Fuels, First Class (E-6). *ABFC:* Chief Aviation Boatswain's Mate, Fuels (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Operates, maintains, and repairs fueling and lubricating oil systems including service stations, pumprooms, pumps, piping, valves, tanks, and protective piping systems; operates equipment associated with the fueling and defueling of aircraft aboard ship and ashore; operates motor driven fueling equipment; maintains fuel quality; trains, directs, and supervises firefighting crews and fire rescue teams; follows fuel-handling safety precautions. *ABF3:* Operates shipboard firefighting and life saving equipment; knows the characteristics of aviation fuel fires and the procedures and equipment required to fight them; performs maintenance record keeping; uses portable inertness analyzers; aligns valves in fuel piping systems for various operations; fuels and defuels aircraft; obtains samples of aviation fuels and tests for water and solid contaminants; knows the properties and hazards of aviation fuels; makes entries in pumproom logs and records; uses maintenance record cards; operates crash firefighting and mobile fueling and lubricating oil equipment; uses and maintains hand tools and portable power tools. *ABF2:* Able to perform the duties required for ABF3; replaces components of aviation fuel and lubricating oil systems; conducts tests on fuel filter elements; operates solid contamination detectors and water free detectors; inventories, orders, and accounts for spare repair parts; supervises crews in the fueling and defueling of aircraft. *ABF1:* Able to perform the duties required for ABF2; analyzes malfunctions of aviation-fuel system test equipment, aviation fuel and lubricating oil systems, and the nitrogen distribution system and determines corrective action; maintains fuel and lubricating oil inventory records; calibrates, adjusts, tests, cleans, and flushes aviation fuel and lubricating oil systems; knows the principles and maintenance requirements of centrifugal purifiers; trains subordinates in the operation of fuel systems and test equipment; prepares weekly maintenance schedules; maintains inventory and supply records. *ABFC:* Able to perform the duties required for ABF1; supervises inspection, operation, maintenance and repair of aviation fuel systems; monitors procedures for maintaining quality control; prepares quarterly maintenance schedules; responsible for materials and supplies for organizational unit; supervises inspection procedures to ensure that technical specifications and standards of workmanship are met; inspects and evaluates the operation of repaired or newly installed parts and components of aviation fuel systems and related equipment.

Recommendation, ABF3

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 1 in aircraft servicing (2/77).

Recommendation, ABF2

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 2 in aircraft servicing (2/77).

Recommendation, ABF1

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing, 2 in personnel supervision, 2 in shop management, and 2 in record keeping (2/77).

Recommendation, ABFC

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing, 3 in personnel supervision, 3 for field experience in management, 2 in shop management, and 2 in record keeping (2/77).

NER-ABH-001

Aviation Boatswain's Mate, Aircraft Handling

ABH3
ABH2
ABH1
ABHC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABH3:* Aviation Boatswain's Mate, Aircraft Handling, Third Class (E-4). *ABH2:* Aviation Boatswain's Mate, Aircraft Handling, Second Class (E-5). *ABH1:* aviation Boatswain's Mate, Aircraft Handling First Class (E-6). *ABHC:* Chief Aviation Boatswain's Mate, Aircraft Handling (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Directs the movement and spotting of aircraft ashore and afloat; operates and maintains ground-handling equipment used for moving and hoisting aircraft; supervises securing of aircraft and equipment; performs crash rescue, firefighting, crash removal, and damage control; performs duties in connection with launching and recovering aircraft. *ABH3:* Carries out cockpit emergency entry procedures; knows procedures for rescuing personnel from crashed aircraft; operates damage-control equipment, lifesaving apparatus, and fire and elevator doors; supervises movement and spotting of aircraft ashore and afloat; secures aircraft and equipment; performs preventive operator maintenance on aircraft ground-handling equipment; operates and performs daily inspections on mobile crash-handling vehicles and equipment; installs aircraft hoisting slings involving emergency crash landings; computes safe working load for hoisting material; rigs deck equipment on shore-based arresting gears; operates aircraft cranes, elevator controls and related hangar/deck equipment; provides signals for the launching and recovery of helicopters; performs air terminal functions including storage of cargo, handling of passengers, aircrew, and aircraft services; completes maintenance records. *ABH2:* Able to perform the duties required for ABH3; directs part of a crew involved in repairing damage to flight and hangar decks; spots aircraft for catapult launching; tests hangar sprinkler systems; reads and interprets blueprints and drawings; inventories installed equipment and spare parts; orders spare parts and special tools; uses maintenance publications. *ABH1:* Able to perform the duties required for ABH2; directs a crew involved in repairing damaged flight and hangar decks; directs a unit of a deck, water, or land crash fire and rescue group; keeps logs pertaining to test data and equipment history; determines type and use of emergency equipment for removing crashed or damaged aircraft; prepares weekly schedules of preventive maintenance; maintains inventories and custody records; reeves cables on ship's boat and airplane crane; interprets aircraft spotting and respotting procedures; interprets procedures and equipment requirements for jettisoning aircraft and equipment. *ABHC:* Able to perform the duties required for ABH1; plans spotting of aircraft on flight and hangar decks; conducts prelaunch briefings of plane directors; directs the movement and spotting of aircraft during launching, landing, and respotting aboard aircraft carriers; prepares quarterly schedules of preventive maintenance; supervises inspection procedures for quality control; screens defective components for feasibility of repair; supervises storage, inventory, and replacement of spare parts and equipment; supervises the use and maintenance of publications and records.

Recommendation, ABH3

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 2 in aircraft servicing or air operations (2/77).

Recommendation, ABH2

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 2 in aircraft servicing or air operations (2/77).

Recommendation, ABH1

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing or air operations, 2 in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in fire science on the basis of institutional evaluation (2/77).

Recommendation, ABHC

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing or air operations, 3 in personnel supervision, 3 for field experience in management, 2 in shop management, and 2 in record keeping, and additional credit in fire science on the basis of institutional evaluation (2/77).

NER-AC-001

Air Traffic Controller
(Air Controlman)

AC3
AC2
AC1
ACC
ACCS
ACCM

Exhibit Dates: 6/71–Present.

Occupational Field: 7 (Air Traffic Control).

Career Pattern

AN: Airman (E-3). *AC3:* Air Controlman Third Class (E-4). *AC2:* Air Controlman Second Class (E-5). *AC1:* Air Controlman First Class (E-6). *ACC:* Chief Air Controlman (E-7). *ACCS:* Senior Chief Air Controlman (E-8). *ACCM:* Master Chief Air Controlman (E-9).

Description

Summary: Performs air traffic control duties in air control towers, radar air traffic control facilities, and air operations offices; directs aircraft under VFR and IFR conditions. *AC3:* Interprets FAA regulations pertaining to air traffic control; directs air traffic under visual flight rules; records instrument flight rules clearances and relays to aircraft; issues instructions to vehicular traffic on the airfield and to aircraft on the ground relative to taxiing, parking, and related airport information; issues instructions to fire, crash, and rescue equipment for emergency landings, crashes, and accidents; identifies airfield markings and lighting systems; effects radar handoff; carries out nonradar control of aircraft experiencing emergencies in flight; interprets effect of weather and topography on the operating capability of radar, IFF, and related equipment; maintains flight data and status boards; processes flight plans; controls aircraft using precision approach radar; drafts and processes air traffic control data by teletype/interphone; operates communications equipment and airfield lighting sustems; obtains and relays weather information to aircraft and local weather facilities; checks calibration and adjusts radar indicators; identifies and monitors electronic aids to air navigation; uses standard aeronautical charts and publications used in air navigation. *AC2:* Able to perform the duties required for AC3; carries out radar control of aircraft experiencing emergencies in flight; assigns and evaluates IFF/SIF codes; controls aircraft using air surveillance radar; directs air traffic under instrument flight rules; locates, identifies, and tracks aircraft; interprets characteristics, purposes, and general operating procedures of landing approach sustems; applies minimums applicable to IFR approaches and departures and special VFR operations; maintains air traffic operations logs and records; orders charts and publications. *AC1:* Able to perform the duties required for AC2; supervises procedures used by control tower personnel; coordinates functions of radar air traffic control; applies holding pattern criteria; carries out training program for air traffic control facility personnel; maintains logs, publications, files, and records applicable to air traffic control facilities; inventories, requisitions, and accounts for air traffic control equipment. *ACC:* Able to perform the duties required for AC1; supervises radar air traffic control operations; supervises ATC facility flight checks; conducts emergency drills for air traffic control personnel; supervises the air traffic control facility training program; prepares air traffic control facility reports; interprets and disseminates FAA regulations governing the operations of air traffic control facilities; supervises the use, filing, and maintenance of publications, logs and records. *ACCS:* Able to perform the duties required for ACC; serves as air traffic control facility watch officer; coordinates ATC facility flight checks; reviews and verifies facility compliance with standards for approach zone criteria, obstruction lighting, and field marking; organizes, schedules, and evaluates training program; establishes required inspection procedures; coordinates maintenance of air traffic control facility equipment; manages, coordinates, and evaluates safety programs and emergency drills; prepares local directives and instructions; prepares correspondence; interviews, assigns, and evaluates personnel; plans and organizes runway use and noise abatement programs; submits air traffic control facility reports. *ACCM:* Able to perform the duties required for ACCS; prepares and interprets letters of agreement, directives, and memoranda applicable to air traffic control; develops operating budgets and monitors expenditures; reviews personnel, equipment, and material requirements and forecasts future needs; establishes goals and sets priorities; plans, organizes, implements, and controls air traffic control activities.

Recommendation, AC3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, and 3 in federal aviation regulations (2/77).

Recommendation, AC2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, and 3 in federal aviation regulations (2/77).

Recommendation, AC1

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 1 in personnel supervision, and 1 in record keeping (2/77).

Recommendation, ACC

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 2 in aviation safety management, 2 in personnel supervision, and 2 in record keeping (2/77).

Recommendation, ACCS

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in aviation safety management, 2 in record keeping, 2 in aviation facility management, and 2 in technical report writing. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ACCM

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ACCS. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in organization and planning, and 3 in management problems (2/77).

NER-AD-001

Aviation Machinist's Mate, Senior Chief

ADCS

Exhibit Dates: 6/71–12/76.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from either ADJC, Chief Aviation Machinist's Mate, Jet Engine Mechanic (E-7), or ADRC, Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Manages, supervises, and administers powerplant work centers; plans safety program pertaining to aircraft power plants, related equipment, and work centers; interprets maintenance instructions and directives; ensures that established procedures are followed for conducting ground tests and inspections to maintain desired quality level; applies quality control concepts; evaluates repair requirements and requests technical assistance from contract representatives, as needed; determines capabilities, limitations, and reliability of aircraft power plants and related systems; administers long-range planned maintenance program; organizes, schedules, and evaluates training programs; prepares local directives and instructions; prepares correspondence.

Recommendation, ADCS

In the vocational certificate category, use the recommendation for either ADJ2 (Aviation Machinist's Mate, Jet Engine Mechanic, Second Class) in exhibit NER-ADJ-001 or ADR1 (Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class) in exhibit NER-ADR-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety management and 3 in principles of administration; add the credit recommended for either ADJC (Chief Aviation Machinist's Mate, Jet Engine Mechanic) in exhibit NER-ADJ-001 or ADRC (Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic) in exhibit NER-ADR-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations (2/77).

NER-AD-002

Aviation Machinist's Mate, Senior Chief

ADCS

Exhibit Dates: 1/77–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from either ADC, Chief Aviation Machinist's Mate, (E-7), or ADRC, Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's

Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

(Note: See exhibit NER-AD-003 for AD3, AD2, AD1, and ADC.) Manages, supervises, and administers power plant work centers; plans safety program pertaining to aircraft power plants, related equipment, and work centers; interprets maintenance instructions and directives; ensures that established procedures are followed for conducting ground tests and inspections to maintain desired quality level; applies quality control concepts; evaluates repair requirements and requests technical assistance from contract representatives, as needed; determines capabilities, limitations, and reliability of aircraft power plants and related systems; administers long-range planned maintenance program; organizes, schedules, and evaluates training programs; prepares local directives and instructions; prepares correspondence.

Recommendation, ADCS

In the vocational certificate category, use the recommendation for either AD2 (Aviation Machinist's Mate, Second Class) in exhibit NER-AD-003 or ADR1 (Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class) in exhibit NER-ADR-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety management and 3 in principles of administration; add the credit recommended for either ADC (Chief Aviation Machinist's Mate) in exhibit NER-AD-003, or ADRC (Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic) in exhibit NER-ADR-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations (5/79).

NER-AD-003

AVIATION MACHINIST'S MATE

AD3
AD2
AD1
ADC

Exhibit Dates: 1/77–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AD3:* Aviation Machinist's Mate, Third class (E-4). *AD2:* Aviation Machinist's Mate, Second Class (E-5). *AD1:* Aviation Machinist's Mate, First Class (E-6). *ADC:* Chief Aviation Machinist's Mate (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains aircraft engines and related systems, including the induction, cooling, fuel, oil, compression, combustion, turbine, airborne gas-turbine compressors and exhaust systems; conducts engine and related systems inspections. *AD3:* Replaces gaskets, packings, and seals in fuel and oil systems; performs fuel and oil pressure adjustments; adjusts idle mixture and idle speed; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; removes and installs ignitor plugs, spark plugs, starting ingition units, and leads of ignition and starting systems; inspects aircraft fuel systems and fuel samples for contamination; removes, cleans and replaces fuel and oil filters; uses technical publications; services aircraft on the flight line; performs operation operational of new or overhauled engines installed in aircraft; uses and maintains handtools. *AD2:* Able to perform the duties required for AD3; installs, removes, and operates jet calibration test units; diagnoses defects in fuel and oil systems; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; inspects, removes, and installs helicopter tail rotor transmissions and rotary-wing heads and components; inspects compressors for proper axial and radial clearances; preserves and depreserves aircraft power plants and related systems; performs cylinder changes and valve clearance adjustments; installs and times magnetos; installs carburetors; installs and adjusts propeller controls; inspects, removes, and installs auxiliary power plant and components; performs periodic aircraft inspections; orders technical publications, directives, and manuals; is a first-line supervisor of a 3- to 7-person work group. *AD1:* Able to perform the duties required for AD2; troubleshoots malfunctions in power plant systems; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter intermediate gearboxes, tail rotors, swashplates and pitch link rods; supervises use of ground support equipment peculiar to power plants and related systems; orders power plant parts, equipment, material, and tools maintains inventory records; supervises training of subordinates maintaining power plants and related systems; supervises aircraft inspections; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintance; maintains shop files of technical publications, directives, and manuals; supervises medium-sized (10-30 persons) work centers; *ADC:* Able to perform the duties required for AD1; supervises use of engine service maintenance, and test equipment; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; recommends changes to maintenance instructions; analyzes reports of aircraft engine malfunctions and discrepancies and determines corrective action; analyzes inspection procedures to ensure that specifications and standards of workmanship are met; supervises scheduling of work at power plant work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engines; disposes of engines removed from service; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, AD3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine maintenance and repair and 3 in aviation maintenance technology (5/79).

Recommendation, AD2

In the vocational certificate category, 15 semester hours in aircraft engine maintenance and repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, and 2 personnel supervision (5/79).

Recommendation, AD1

In the vocational certificate category, the recommendation is the same as that for AD2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management (5/79).

Recommendation, ADC

In the vocational certificate category, the recommendation is the same as that for AD2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/79).

NER-ADJ-001

AVIATION MACHINIST'S MATE, JET ENGINE MECHANIC

ADJ3
ADJ2
ADJ1
ADJC

Exhibit Dates: 6/71–12/76. (Effective 1/77, ADJ was discontinued and its functions were incorporated into AD, Aviation Machinist's Mate.)

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *ADJ3:* Aviation Machinist's Mate, Jet Engine Mechanic, Third Class (E-4). *ADJ2:* Aviation Machinist's Mate, Jet Engine Mechanic, Second Class (E-5). *ADJ1:* Aviation Machinist's Mate, Jet Engine Mechanic, First Class (E-6). *ADJC:* Chief Aviation Machinist's Mate, Jet Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains aircraft jet engines and related systems, including the induction, cooling, fuel oil, compression, combustion, turbine, airborne gas-turbine compressors, and exhaust systems. *ADJ3:* Replaces gaskets, packings, and seals in fuel and oil systems; performs fuel and oil pressure adjustments; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; removes and installs ignitor plugs, starting ignition units, and leads of ignition and starting systems; inspects aircraft fuel systems and fuel samples for contamination; uses technical publications; services aircraft on the flight lines; uses and maintains handtools. *ADJ2:* Able to perform the duties required for ADJ3; installs, removes, and operates jet calibration test units; diagnoses defects in fuel and oil systems; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; inspects, removes, and installs helicopter tail transmissions, and rotary wing heads and components; inspects compressors for proper axial and radial clearances; preserves and depreserves aircraft power plants and related systems; performs periodic aircraft inspections; orders technical publications, directives, and manuals; is a first-line supervisor of a 3- to 7 person work group. *ADJ1:* Able to perform the duties required for ADJ2; troubleshoots malfunctions in power plant systems; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter intermediate gearboxes, tail rotors, swashplates and pitch link rods; supervises use of ground support equipment peculiar to power plants and related systems; orders power plant parts, equipment, material, and tools and maintains inventory records; supervises training of subordinates maintaining power plants and related systems; supervises aircraft inspections; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintenance; maintains shop files of technical publications, directives, and manuals; supervises medium-sized (10-30 persons) work centers. *ADJC:* Able to perform the duties required for ADJ1; supervises use of engine service, maintenance, and test equipment; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; recommends changes to maintenance instructions; analyzes reports of aircraft malfunctions and discrepancies and determines corrective action; analyzes inspection procedures to ensure that technical specifications and standards of workmanship are met; supervises scheduling of work at power plant work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engines; disposes of engines removed from services; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, ADJ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine (turbine) maintenance and repair and 3 in aviation maintenance technology (2/77).

Recommendation, ADJ2

In the vocational certificate category, 15 semester hours in aircraft engine (turbine) maintenance and repair and 6 aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, and 2 in personnel supervision (2/77).

Recommendation, ADJ1

In the vocational certificate category, the recommendation is the same as that for ADJ2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management (2/77).

Recommendation, ADJC

In the vocational certificate category, the recommendation is the same as that for ADJ2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-ADR-001

AVIATION MACHINIST'S MATE,
RECIPROCATING ENGINE MECHANIC

ADR3
ADR2
ADR1
ADRC

Exhibit Dates: 6/71-6/80. (Effective 7/80, ADR was discontinued and its functions were incorporated into AD, Aviation Machinist's Mate.)

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *ADR3:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, Third Class (E-4). *ADR2:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, Second Class (E-5). *ADR1:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class (E-6). *ADRC:* Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Inspects and maintains aricraft reciprocating engines and related systems. *ADR3:* Performs idle mixture, idle speed, and fuel and oil pressure adjustments; inspects, removes, and installs spark plugs, leads, and coils; replaces gaskets, packings and seals in fuel and oil systems; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; inspects aircraft fuel systems and fuel samples for contamination; performs fuel integrity checks on aircraft fuel systems; uses and maintains handtools; services aircraft on the flight line; uses technical publications. *ADR2:* Able to perform the duties required for ADR3; locates and identifies defects in fuel and oil systems; measures and adjusts engine valve clearance; performs compression tests; performs cylinder changes; installs and times magnetos, distributors, and carburetors; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; removes, installs, and adjusts propeller governors; removes, cleans, and installs propeller assemblies; inspects, removes, and installs helicopter tail rotor transmissions; performs continuity and insulation tests on aircraft engine ignition systems, using electrical test equipment; orders technical publications, directives, and manuals; performs periodic aircraft inspections; applies corrosion prevention and preservation materials; preserves and depreserves aircraft power plants and related systems. *ADR1:* Able to perform the duties required for ADR2; troubleshoots propeller systems; inspects and balances aircraft propeller assemblies; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter transmissions and related components, intermediate gearboxes, tail rotors, swashplate and pitch link rods; uses engine analyzers to troubleshoot reciprocating engines; uses schematic diagrams and drawings to troubleshoot power plant systems; maintains shop files of technical publications, directives, and manuals; supervises the training of subordinates involved in maintaining power plants and related systems; supervises aircraft inspections; supervises power plant and related system component build-up, removal, and installations; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintenance; orders power plant parts, equipment, materials, and tools and maintains inventory records. *ADRC:* Able to perform the duties required for ADR1; supervises balancing of propeller assemblies; supervises use of engine service, maintenance, and test equipment; recommends changes in maintenance instructions; maintains work center registers and prepares related reports; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; analyzes reports of aircraft engine malfunctions and discrepancies and determines corrective action; analyzes inspection precedures to ensure that technical specifications and standard of workmanship are met; supervises scheduling of work at work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engine; disposes of engines removed from service; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, ADR3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in aircraft engine (reciprocating) maintenance and repair and 2 in aviation maintenance technology (2/77).

Recommendation, ADR2

In the vocational certificate category, 12 semester hours in aircraft engine (reciprocating) maintenance and repair and 4 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine (reciprocating) maintenance and repair, 4 in aviation maintenance technology, and 2 in personnel supervision (2/77).

Recommendation, ADR1

In the vocational certificate category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management (2/77).

Recommendation, ADRC

In the vocational certificate category, the recommendation is the same as that for ADR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AE-001

AVIATION ELECTRICIAN'S MATE

AE3
AE2
AE1
AEC
AECS

Exhibit Dates: 6/71–12/85.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AE3:* Aviation Electrician's Mate Third Class (E-4). *AE2:* Aviation Electrician's Mate Second Class (E-5). *AE1:* Aviation Electrician's Mate First Class (E-6). *AEC:* Chief Aviation Electrician's Mate (E-7). *AECS:* Senior Chief Aviation Electrician's Mate (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs lighting, control, and power system on aircraft, including: power generation, conversion, and distribution systems; aircraft batteries; interior and exterior lighting; electrical control of aircraft systems, including hydraulic, landing gear, flight control, utility, and power plant and related systems; instrument systems, including aircraft engine, flight, and other indicating and warning systems; automatic flight control and stabilization systems; aircraft compass systems; attitude reference systems; and inertial navigation systems. NOTE: Duty assignments have been O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AE rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level or I-Level or both. *AE3:* Assists in troubleshooting and repairing electrical and instrument systems on aircraft; follows standard check-out procedures to locate and repair electrical malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AE2:* Able to perform the duties required for AE3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, megger, and frequency counters; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising two or three persons on a job; interprets technical directives; maintains technical library and inventory and training records; perform periodic aircraft inspections. *AE1:* Able to perform the duties required for AE2; serves as shift supervisor, supervising 8-9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and makes simplified versions; conducts on-the-job training program; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises and directs aircraft inspections; directs installation of aircraft electrical changes. *AEC:* Able to perform the duties required for AE1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; evaluates aircraft electrical systems and equipment test procedures and recommends improvements; prepares maintenance duty schedules; prepares periodic or recurring reports; supervises the use and file maintenance of publications, logs, and records; interprets technical publications pertaining to aircraft electrical systems and test equipment; prepares quarterly schedules of preventive maintenance; supervises quality control program; provides technical assistance in aircraft accident investigations. *AECS:* Able to perform the duties required for AEC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory and 12 in aircraft electrical maintenance, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. Qualified to enter an apprentice training program in any electrical trade (2/77).

Recommendation, AE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, and 2 in introduction to AC/DC theory, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AE1

In the vocational certificate category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, and 3 in introduction to AC/DC theory, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 2 in personnel supervision, and 2 in maintenance management, and additional credit in aircraft electrical maintenance, on the basis of institutional evaluation. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AEC

In the vocational certificate category, the recommendation is the same as that for AE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AECS

In the vocational certificate category, the recommendation is the same as that for AE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in safety management, 3 in management electives, and 2 in technical writing, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic appprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

NER-AE-002

AVIATION ELECTRICIAN'S MATE

AE3
AE2
AE1
AEC
AECS

Exhibit Dates: 1/86–12/90.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AE3:* Aviation Electrician's Mate Third Class (E-4). *AE2:* Aviation Electrician's Mate Second Class (E-5). *AE1:* Aviation Electrician's Mate First Class (E-6). *AEC:* Chief Aviation Electrician's Mate (E-7). *AECS:* Senior Chief Aviation Electrician's Mate (E-8). *AECM:* Master Chief Aviation Electrician's Mate (E-9).

Description

Summary: Maintains and repairs electrical, instrument, and power systems on aircraft, including: power generation, conversion, and distribution systems; aircraft systems, including hydraulic, landing gear, flight control, utility, and power plant and related systems; instrument systems, including aircraft engine, flight, and other indicating and warning systems; automatic flight control and stabilization systems; aircraft compass systems; attitude reference systems; and inertial navigation systems. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AE rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level, I-Level, or both. *AE3:* Troubleshoots and repairs electrical and instrument systems on aircraft; follows standard check-out procedures to locate and repair electrical malfunctions; reads schematics and block diagrams; uses volt-ohm-milliameter and oscilloscope; repairs inertial navigation systems; measures voltage, current and resistance; calibrates temperature sensing system; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AE2:* Able to perform the duties required for AE3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and frequency counters; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising two to four persons on a job; interprets technical directives; maintains technical library and inventory and training records; performs periodic aircraft inspections. *AE2:* Able to perform the duties required for AE1; serves as shift supervisor, supervising 8-9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and makes simplified versions; conducts on-the-job training program; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises technical library; supervises and directs aircraft inspections; directs installation of aircraft electrical changes; writes technical reports and prepares personnel efficiency reports. *AE1:* Able to perform the duties required for AE2; serves as shift supervisor, supervising 8–9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises technical library; supervises and directs aircraft inspections; directs installation of aircraft electrical changes; writes technical reports and prepares personnel efficiency reports. *AEC:* Able to perform the duties required for AE1; serves as shop supervisor, supervising 15–20 persons; plans and implements safety instruction and inspection programs; evaluates aircraft electrical systems and equipment test procedures and recommends improvements; prepares maintenance duty schedules; prepares periodic or recurring reports; supervises the use and file maintenance of publications, logs, and records; interprets technical publications pertaining to aircraft electrical systems and test equipment; prepares quarterly schedules of preventive maintenance; supervises quality control program; provides technical assistance in aircraft accident investigations. *AECS:* Able to perform the duties required for AEC; may oversee three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AE3

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 2 in AC/DC theory, 3 in electrical test instruments, and 3 in electrical schematic interpretation (6/87).

Recommendation, AE2

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, and 3 in electrical schematic interpretation (6/87).

Recommendation, AE1

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (6/87).

Recommendation, AEC

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (6/87).

Recommendation, AECS

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, and 3 for field experience in management (6/87).

NER-AE-003

AVIATION ELECTRICIAN'S MATE

AE3
AE2
AE1
AEC
AECS
AECM

Exhibit Dates: 1/91–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AE3:* Aviation Electrician's Mate Third Class (E-4). *AE2:* Aviation Electrician's Mate Second Class (E-5). *AE1:* Aviation Electrician's Mate First Class (E-6). *AEC:* Chief Aviation Electrician's Mate (E-7). *AECS:* Senior Chief Aviation Electrician's Mate (E-8). *AECM:* Master Chief Aviation Electrician's Mate (E-9).

Description

Summary: Maintains and repairs electrical, instrument, and power systems on aircraft, including: power generation, conversion, and distribution systems; aircraft systems, including hydraulic, landing gear, flight control, utility, and power plant and related systems; instrument systems, including aircraft engine, flight, and other indicating and warning systems; automatic flight control and stabilization systems; aircraft compass systems; attitude reference systems; and inertial navigation systems. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AE rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level, I-Level, or both. *AE3:* Troubleshoots and repairs electrical and instrument systems on aircraft; follows standard checkout procedures to locate and repair electrical malfunctions; reads schematics and block diagrams; uses volt-ohm-milliameter and oscilloscope; repairs inertial navigation systems; measures voltage, current and resistance; calibrates temperature sensing system; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AE2:* Able to perform the duties required for AE3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and frequency counters; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising two to four persons on a job; interprets technical directives; maintains technical library and inventory and training records; performs periodic aircraft inspections. *AE2:* Able to perform the duties required for AE1; serves as shift supervisor, supervising 8-9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and makes simplified versions; conducts on-the-job training program; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises technical library; supervises and directs aircraft inspections; directs installation of aircraft electrical changes; writes technical reports and prepares personnel efficiency reports. *AE1:* Able to perform the duties required for AE2; serves as shift supervisor, supervising 8–9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises technical library; supervises and directs aircraft inspections; directs installation of aircraft electrical changes; writes technical reports and prepares personnel efficiency reports. *AEC:* Able to perform the duties required for AE1; serves as shop supervisor, supervising 15–20 persons; plans and implements safety instruction and inspection programs; evaluates aircraft electrical systems and equipment test procedures and recommends improvements; prepares maintenance duty schedules; prepares periodic or recurring reports; supervises the use and file maintenance of publications, logs, and records; interprets technical publications pertaining to aircraft electrical systems and test equipment; prepares quarterly schedules of preventive maintenance; supervises quality control program; provides technical assistance in aircraft accident investigations. *AECS:* Able to perform the duties required for AEC; may oversee three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness. *AECM:* Able to perform the duties required for AECS; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; prepares maintenance plans and staff studies for management review; exercises techniques of aircraft maintenance and personnel management; develops and implements preventive maintenance, corrosion control, and quality assurance programs; develops operating budget and monitors expenditures.

Recommendation, AE3

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 2 in AC/DC theory, 3 in electrical test instruments, and 3 in electrical schematic interpretation (6/87).

Recommendation, AE2

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, and 3 in electrical schematic interpretation (6/87).

Recommendation, AE1

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (6/87).

Recommendation, AEC

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (6/87).

Recommendation, AECS

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 3 in AC/DC theory, 3 in electrical test instruments, 3 in electrical schematic interpretation, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, and 3 for field experience in management (6/87).

Recommendation, AECM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AECS. In the upper-division baccalaureate category, 2 semester hours in industrial management, 3 in shop management, 6 for field experience in management, and 3 in management problems (6/87).

NER-AF-001

AIRCRAFT MAINTENANCEMAN, MASTER CHIEF

AFCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress to AFCM, Master Chief Aircraft Maintenanceman (E-9), from either ADCS, Senior Chief Aviation Machinist's Mate (E-8), OR AMCS (Senior Chief Aviation Structural Mechanic) (E-8).

Description

Able to perform the duties required for either ADSC (Senior Chief Aviation Machinist's Mate) or AMCS (Senior Chief Aviation Structural Mechanic); assists in statistical analyses of aircraft accident reports; formulates guidelines for safety inspections and instructions; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; administers inventory, requisition, receipt, and transfer procedures for aircraft and components; monitors implementation of preventive maintenance program; serves as liaison with other Navy units; reviews and evaluates inspection records, quality control reports, and flight records to assure that proper maintenance procedures are followed; prepares staff studies and reports; develops operating budgets and monitors expenditures.

Recommendation

Use the recommendation for either ADCS (Senior Chief Aviation Machinist's Mate) in exhibit NER-AD-001 or AMCS (Senior Chief Aviation Structural Mechanic) in exhibit NER-AM-001, as appropriate, and additional credit as follows: In the vocational certificate category, 3 semester hours in technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing and 3 in management electives. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in human relations, and additional credit in quality control on the basis of institutional evaluation (2/77).

NER-AG-001

AEROGRAPHER'S MATE

AG3
AG2
AG1
AGC
AGCS
AGCM

Exhibit Dates: 6/71–Present.

Occupational Field: 23 (Meteorology).

Career Pattern

AN: Airman (E-3). *AG3:* Aerographer's Mate Third Class (E-4). *AG2:* Aerographer's Mate Second Class (E-5). *AG1:* Aerographer's Mate First Class (E-6). *AGC:* Chief Aerographer's Mate (E-7). *AGCS:* Senior Chief Aerographer's Mate (E-8). *AGCM:* Master Chief Aerographer's Mate (E-9).

Description

Summary: Observes, collects, records and analyzes meteorological and oceanographic data; makes visual and instrumental observations of weather and sea conditions. *AG3:* Identifies the types and knows the purposes of instruments and equipment used by the weather service; operates and performs routine checks and operator preventive maintenance for meteorological and oceanographic equipment and instruments; observes, collects, records, and prepares for transmission surface meteorological elements; plots synoptic surface charts using aviation observations, constant pressure charts, data from environmental warnings and advisories, and skew T, Log P diagrams; determines tracking data from meteorological satellite predict messages; applies grid to meterological satellite pictures; operates radio receivers, facsimile and teletype equipment; uses publications and directives related to weather communications. *AG2:* Able to perform the duties required for *AG3:*: checks surface observations for accuracy prior to transmission; applies meteorological fundamentals of primary, secondary, and tertiary circulations of the earth's atmosphere and of types of weather associated with air masses, frontal systems, and anti-cyclonic systems in drawing weather charts; identifies physical properties of sea water and major current systems and water masses of the ocean; constructs radiological fallout plot from upper wind data; draws synoptic surface charts showing frontal systems, isobars, isallobars, and pressure centers; draws constant-pressure charts showing isohypses, troughs, ridges, and height centers; interprets oceanographic charts; computes astronomical and tidal data; maintains directives, publications, and climatological records; orders, inventories, and disposes of meteorological and oceanographic equipment, instruments, and supplies. *AG1:* Able to perform the duties required for AG2, prepares short-range (up to 24 hours) environmental forecasts; identifies and classifies weather echoes on radar; computes atmospheric refractive index; analyzes and uses skew T, Log P diagrams in preparing environmental forecasts; prepares and presents weather data for local and extended flights; identifies charts and related products from digital computers; performs calibrations and adjustments to meteorological and oceanographic equipment (excluding electronic components). *AGC:* Able to perform the duties required for AG1; interprets ocean thermal structure and factors affecting underwater transmission of sound, wind wave, swell generation, and propagation in preparing oceanographic forecasts; analyzes and uses constant pressure charts, streamline charts, surface charts, satellite data, and sea condition charts in preparing environmental forecasts; constructs and verifies prognostic surface and constant pressure charts; prepares enviromental warnings and advisories; assigns tasks to personnel assigned to weather service units; trains subordinates in correct operating and maintenance procedures for assigned equipment. *AGCS:* Able to perform the duties required for AGC; evaluates recent meteorological and oceanographic developments for integration into local routines; provides climatological, meteorological, and oceanographic data at planning-level meetings; organizes, schedules, and evaluates training programs; administers technical publications library; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, assigning, and evaluating personnel. *AGCM:* Able to perform the duties required for AGCS; prepares statistical analyses of climatological data and provides information concerning its uses, capabilities, and limitations; reviews personnel, equipment and material requirements and forecasts future requirements; establishes goals and set priorities; develops operating budgets and monitors expenditures.

Recommendation, AG3

In the lower-division baccalaureate/associate degree category, 2 semester hours in

meteorology and 2 in meteorology laboratory (2/77).

Recommendation, AG2

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 2 in meteorology laboratory, and 1 in oceanography (2/77).

Recommendation, AG1

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 2 in climatology, and 1 in oceanography. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics (2/77).

Recommendation, AGC

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 2 in oceanography, and 1 in personnel supervision. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics (2/77).

Recommendation, AGCS

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 3 in oceanography, and 3 in personnel supervision. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics and 1 in measurements and data systems (2/77).

Recommendation, AGCM

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 3 in oceanography, 3 in personnel supervision, and 3 in principles of administration. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics, 2 in measurement and data systems, 3 in weather station management, and 3 in management problems (2/77).

NER-AK-001

AVIATION STOREKEEPER

AK3
AK2
AK1
AKC
AKCS
AKCM

Exhibit Dates: 6/71–Present.

Occupational Field: 16 (Logistics).

Career Pattern

AN: Airman (E-3). *AK3:* Aviation Storekeeper Third Class (E-4). *AK2:* Aviation Storekeeper Second Class (E-5). *AK1:* Aviation Storekeeper First Class (E-6). *AKC:* Chief Aviation Storekeeper (E-7). *AKCS:* Senior Chief Aviation Storekeeper (E-8). *AKCM:* Master Chief Aviation Storekeeper (E-9).

Description

Summary: Receives, identifies, stores, and issues aviation supplies, spare parts, and equipment; maintains stock control records; conducts inventories. *AK3:* Applies automated data processing (ADP) supply procedures; operates various office machines; receives, verifies for quantity and condition, and acknowledges the receipt of materials; issues materials; maintains receipt control records; prepares and submits requisition, purchase, and transportation documents; types (at 20 words per minute), routes, and files correspondence, messages and forms; operates material-handling equipment and microfiche/microfilm reader equipment. *AK2:* Able to perform the duties required for AK3; drafts correspondence and messages; monitors day-to-day status of funds and prepares rough periodic financial reports; maintains equipage inventories and records; conducts inventories; carries out procedures for maintaining, expediting, and processing components awaiting parts; applies procedures for control and accounting of classified equipment; maintains files of publications. *AK1:* Able to perform the duties required for AK2; reviews computer output for accuracy of data content; insures compliance with procedures for records disposal; establishes and maintains tickler files and a technical library; accounts for damaged, overage, and short shipments and deliveries; develops storage plans; prepares correspondence and messages. *AKC:* Able to perform the duties required for AK1; monitors shipboard uniform automated data processing system procedures applicable to supply department functions; plans the layout of offices, storerooms, and issue rooms to facilitate efficient operations; organizes and administers elements of aviation supply activities; prepares lists of material requirements; develops and implements inventory procedures. *AKCS:* Able to perform the duties required for AKC; prepares operating and safety instructions; applies procedures for the establishment, control, and supervision of supply operations; prepares local directives and instructions; reviews and evaluates personnel; organizes on-the-job training program. *AKCM:* Able to perform the duties required for AKCS; monitors conformance to safety and maintenance regulations; plans organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; supervises the administrative, control, material, and fiscal functions of an aviation supply department; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; evaluates supply procedures and personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AK3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines and 1 in office procedures (2/77).

Recommendation, AK2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in record keeping, and 1 in office procedures (2/77).

Recommendation, AK1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in office machines, and 1 in office procedures (2/77).

Recommendation, AKC

In the vocational certificate category, 3 semester hours in record keeping, 2 in office machines, 2 in office management, and 1 in office procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in office machines, 2 in office management, 1 in office procedures, and 1 in personnel supervision. In the upper-division baccalaureate category, credit for a practicum in management on the basis of institutional evaluation (2/77).

Recommendation, AKCS

In the vocational certificate category, the recommendation is the same as that for AKC. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in management electives, 2 in office machines, 2 in office management, 2 in personnel supervision, and 1 in office procedures. In the upper-division baccalaureate category, 3 semester hours for a practicum in management (2/77).

Recommendation, AKCM

In the vocational certificate category, the recommendation is the same as that for AKC. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in management electives, 3 in personnel supervision, 3 in office management, 3 in office procedures, and 2 in office machines. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in management problems, and additional credit in personnel management and in human relations on the basis of institutional evaluation (2/77).

NER-AM-001

AVIATION STRUCTURAL MECHANIC,
SENIOR CHIEF

AMCS

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from AMHC, Chief Aviation Structural Mechanic, Hydraulics (E-7), or AMEC, Chief Aviation Structural Mechanic, Safety Equipment (E-7), or AMSC, Chief Aviation Structural Mechanic, Structures (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Manages, supervises, and administers airframe work centers of varying sizes; supervises aviation structural mechanic in the inspection, maintenance, and repair of aircraft, airframes, and hydraulic and pneumatic systems; plans safety program pertaining to airframes, related equipment, and assigned work areas; evaluates requirements and requests technical assistance from contractor representatives, as needed; prepares local directives and instructions; prepares correspondence; organizes, schedules, and evaluates training programs; monitors the overhaul and rework of airframes, structural components, and related systems; applies concepts; objectives, and functions of quality control; administers long-range, planned maintenance program; applies material control practices and supply management policies.

Recommendation

In the vocational certificate category, use the recommendation for AMH2 (Aviation Structural Mechanic, Hydraulics, Second Class), in exhibit NER-AMH-001, or AME1 (Aviation Structural Mechanic, Safety Equipment, First Class) in exhibit NER-AME-001, or AMS1 (Aviation Structural Mechanic, Structural, First Class) in exhibit NER-AMS-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety management and 3 in principles of administration; add the 30 semester hours recommended for AMHC (Chief Aviation Structural Mechanic, Hydraulics) in exhibit NER-AMH-001, or AMEC (Chief Aviation Structural Mechanic, Safety Equipment) in exhibit NER-AME-001, or AMSC (Chief Aviation Structural Mechanic, Structural) in exhibit NER-AMS-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations (2/77).

NER-AME-001

AVIATION STRUCTURAL MECHANIC,
SAFETY EQUIPMENT

AME3
AME2
AME1
AMEC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AME3:* Aviation Structural Mechanic, Safety Equipment, Third Class (E-4). *AME2:* Aviation Structural Mechanic, Safety Equipment, Second Class (E-5). *AME1:* Aviation Structural Mechanic, Safety Equipment, First Class (E-6). *AMEC:* Chief Aviation Structural Mechanic, Safety Equipment (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains safety belts, shoulder harnesses, and integrated flight harnesses, inertia reels, seat and canopy ejection systems, gaseous and liquid oxygen systems, life raft ejection systems, fire-extinguishing systems (excluding fire detection systems), emergency egress systems, air-conditioning, heating, and cockpit pressurization systems, and anti-G systems; replenishes liquid oxygen and gaseous systems; removes, inspects, installs, and rigs egress systems; performs daily preflight, postflight, and other periodic inspections. *AME3:* Knows operating principles of aircraft oxygen systems; services aircraft with liquid and gaseous oxygen, using oxygen transfer trailers or direct filling equipment; purges aircraft oxygen systems; removes and installs aircraft oxygen systems, cockpit canopies, canopy seals, safety belts, automatic lap belts, shoulder harnesses, and inertia reels; adjusts actuating controls and mechanisms; replaces defective indicators and controls; removes and installs temperature and pressure control units and components of cooling system equipment; replaces components of fixed fire-extinguishing systems; bleeds air defrosting, anti-ice, and rain removal systems; uses schematic diagrams, drawings, and charts; uses and maintains handtools; uses technical publications. *AME2:* Able to perform the duties required for AME3; assembles and installs equipment; performs periodic aircraft inspections; assists with inventorying equipment; orders parts, equipment, material, and tools; knows operating principles of air-conditioning, pressurization, and utility systems; removes and installs ejection seats and components; adjusts ejection seat and canopy components; performs ground checks on oxygen systems; is a first-line supervisor of 4- to 7-person work group. *AME1:* Able to perform the duties required for AME2; operates vapor cycle system and portable testers for cabin pressurization; troubleshoots and repairs malfunctioning equipment; trains subordinates on operation, maintenance, and repair of aircraft environmental system and egress system; orders and maintains shop files of technical publications, directives, and manuals; adjusts cockpit canopy mechanisms and linkages; tests cockpits and cabins for pressure tightness, leaks, proper pressure, and temperature control; inspects, tests, and adjusts firing mechanisms in ejection seats, lap belts, canopies, and other cartridge-actuated emergency escape systems; analyzes air-conditioning, pressurization, and utility systems malfunctions, isolates defective components, and determines corrective action; inspects installation and evaluates operation of repaired or newly installed parts and components; supervises inspections; prepares weekly schedules of preventive maintenance. *AMEC:* Able to perform the duties required for AME1; interprets technical publications and directives; plans, organizes, and lays out work centers; maintains work center registers and prepares local reports; monitors inspection procedures to ensure that technical specifications and standards of workmanship are met; prepares quarterly schedules of preventive maintenance; maintains work center inventory records; estimates spare parts, supplies, equipment, and manpower requirements.

Recommendation, AME3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in aircraft safety and warning systems, and 3 in aviation maintenance technology (2/77).

Recommendation, AME2

In the vocational certificate category, 12 semester hours in aircraft safety and warning systems and 4 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft safety and warning systems, 4 in aviation maintenance technology, and 2 in personnel supervision (2/77).

Recommendation, AME1

In the vocational certificate category, 15 semester hours in aircraft safety and warning systems and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft safety and warning systems, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management (2/77).

Recommendation, AMEC

In the vocational certificate category, the recommendation is the same as that for AME1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft safety and warning systems, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AMH-001

AVIATION STRUCTURAL MECHANIC,
HYDRAULICS

AMH3
AMH2
AMH1
AMHC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AMH3:* Aviation Structural Mechanic, Hydraulics, Third Class (E-4). *AHM2:* Aviation Structural Mechanic, Hydraulics, Second Class (E-5). *AMH1:* Aviation Structural Mechanic, Hydraulics, First Class (E-6). *AHMC:* Chief Aviation Structural Mechanic, Hydraulics (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains hydraulic systems, including main and auxiliary power systems and unit actuating subsystems, landing gear (excluding wheels and tires), brakes, and related pneumatic systems; inspects, removes, and replaces components of hydraulic systems; perform preflight, postflight, and other periodic aircraft inspections. *AMH3:* Removes and installs check valves, relief valves, sequence valves, restrictors, actuating cylinders, and emergency air bottles; uses schematic diagrams, drawings, and charts to trace systems; fabricates, fits, and tests rigid tubing and flexible hose assemblies; identifies types and designations of fuel, oil hydraulic fluids, and lubricants used in aircraft; operates ground support equipment; uses and maintains handtools; bleeds hydraulic systems; adjusts brakes and replaces lining and pucks; replaces gaskets, packings, and wipers in hydraulic components; recognizes the effects of high noise levels on the human body. *AMH2:* Able to perform the duties required for AMH3; is a first-line supervisor of a 4- to 7 person work group; adjusts and replaces hydraulic and pneumatic components of flight control systems; bleeds hydraulic power system and subsystem; removes and installs pumps, motors, pressure regulators, and recoil struts; checks, tests, adjusts, and repairs hydraulic and pneumatic components; replaces master cylinders, power brake valves, and emergency brake system components; troubleshoots malfunctions of landing gear controls, control valves, shock and recoil struts, and shimmy dampers; orders aircraft parts, tools, equipment, and material; adjusts landing gear controls, locks, doors, microswitches, and mechanical linkages. *AMH1:* Able to perform the duties required for AMH2; supervises 10- to 15-person work groups; trains personnel on aircraft hydraulic/pneumatic systems; supervises landing gear drop checks; maintains shop files of technical publications, directives, and manuals; inspects installation and evaluates operation of newly installed parts and components; supervises aircraft inspections; prepares weekly schedules of preventive maintenance; adjusts nose wheel steering mechanisms and control and actuating linkages and mechanisms. *AHMC:* Able to perform the duties required for AMH1; analyzes malfunctions of flight control systems and determines corrective action; determines the need and method for decontamination of a hydraulic system; plans and organizes work centers; provides technical assistance; prepares reports; monitors inspection procedures to ensure that technical specifications and standards of workmanship are met; prepares quarterly preventive maintenance schedules; maintains work center inventory records; estimates spare parts, supplies, equipment, and manpower requirements; diagnoses aircraft irregular flight characteristics and determines corrective action.

Recommendation, AMH3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in hydraulics systems repair and 3 in aviation maintenance technology (2/77).

Recommendation, AMH2

In the vocational certificate category, 15 semester hours in hydraulics systems repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, and 2 in personnel supervision (2/77).

Recommendation, AMH1

In the vocational certificate category, the recommendation is the same as that for AMH2. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management (2/77).

Recommendation, AMHC

In the vocational certificate category, the recommendation is the same as that for AMH2. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AMS-001

AVIATION STRUCTURAL MECHANIC, STRUCTURES

AMS3
AMS2
AMS1
AMSC

Exhibit Dates: 6/71-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AMS3:* Aviation Structural Mechanic, Structures, Third Class (E-4). *AMS2:* Aviation Structural Mechanic, Structures, Second Class (E-5). *AMS1:* Aviation Structural Mechanic, Structures, First Class (E-6). *AMSC:* Chief Aviation Structural Mechanic, Structures (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains aircraft fuselages, wings, fixed and moveable surfaces, airfoils, empennages, seats (except ejection seats), wheels, tires, controls, and mechanisms; installs and rigs flight controls; fabricates and assembles metal parts and makes minor repairs to aircraft skin; installs rivets and metal fasteners; paints; performs dye penetrant inspections; performs daily preflight, postflight, and other periodic aircraft inspections. *AMS3:* Uses schematic diagrams, drawings, and charts; prepares layout patterns and templates for metal work; fabricates, fits, and tests rigid tubing and flexible hose assemblies; uses technical publications; uses and maintains handtools; performs hardness tests; detects corrosion and assists in correction and prevention of it; removes corrosion products from aircraft surfaces and stuctural members; prepares, primes, and paints aircraft surfaces; applies identification markings; builds up wheels and tires. *AMS2:* Able to perform the duties required for AMS3; assembles and installs equipment; repairs stressed and nonstressed skin; fabricates metal parts and repairs internal structural members; performs periodic aircraft inspections; orders aircraft parts, equipment, materials, and tools; applies corrosion prevention and preservation materials; treats metals chemically after corrosion removal; removes and installs special rivets, metal fasteners, flight control surfaces, and detachable aft fuselage section of aircraft; replaces panels in windshields, canopies, plastic enclosures, and windows; repairs minor surface damage to transparent plastics and breaks, cracks, and punctures in reinforced plastics; repairs leaks in integral fuel tanks; in a first-line supervisor of a 3- to 7-person work group. *AMS1:* Able to perform the duties required for AMS2; troubleshoots and corrects material failures; removes and installs wing panels and stabilizers; corrects balancing of flight control surfaces; performs alignment checks of airframes and landing gear; analyzes the extent of corrosion damage; determines repair procedures for aircraft structural damage; supervises aircraft inspections; supervises and evaluates hardness tests and dye penetrant inspections on metals; inspects installation and evaluates operation of repaired or newly installed parts and components; orders technical publications, directives, and manuals; maintains shop files of technical publications, directives, and manuals; trains personnel on aircraft structural systems; is a supervisor of a medium-sized (20-30 persons) work center. *AMSC:* Able to perform the duties required for AMS1; plans, organizes, and lays out work centers; schedules and assigns workloads; maintains work center registers, inventory records, and prepares local reports; interprets technical publication, directives, and manuals; analyzes reports of discrepancies and malfunctions and determines corrective action; monitors inspection procedures to ensure that technical specifications and standards of workmanshop are met; prepare quarterly schedules of preventive maintenance; estimates aircraft spare parts, supplies, equipment, and manpower requirements; implements a program for detecting, treatment, and preventing corrosion of aircraft.

Recommendation, AMS3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in airframe structures repair and 2 in aviation maintenance technology or airframe structures (2/77).

Recommendation, AMS2

In the vocational certificate category, 12 semester hours in airframe structures repair and 4 in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 4 in aviation maintenance technology or airframe structures, and 2 in personnel supervision (2/77).

Recommendation, AMS1

In the vocational certificate category, 15 semester hours in airframe structures repair and 6 in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology or airframe structures, 3 in personnel supervision, and 2 in maintenance management (2/77).

Recommendation, AMSC

In the vocational certificate category, the recommendation is the same as that for AMS1. In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology or airframe structures, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AN-001

AIRMAN

AN

Exhibit Dates: 6/71-Present.

Career Pattern

Airman is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (Airman apprentice), and E-3 (Airman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Aircrew Survival Equipmentman (PR), Aviation Antisubmarine Warfare Technician (AX), Aviation Electrician's Mate (AE), Aviation Electronics Technician (AT), Aviation Fire Control Technician (AQ), Aviation Machinist's Mate (AD), Aviation Maintenance Administrationman (AZ), Aviation Ordnanceman (AO), Aviation Structural Mechanic (AM), Aviation Boatswain's Mate (AB), Aviation Support Equipment Technician (AS), Air Controlman (AC), Tradevsman (TD), Aviation Storekeeper (AK), Photographer's Mate (PH), Aerographer's Mate (AG), or Aviation Antisubmarine Warfare Operator (AW).

Description

Assists in the maintenance of aircraft, associated aeronautical equipment, and aircraft support equipment; services, cleans, and handles aircraft; performs other apprentice-level duties involved in the operation of naval aircraft afloat and ashore.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation/aircraft fundamentals (2/77). NOTE: Credit for airman (AN) should be granted only after pay grade E-3 has been achieved.

NER-AO-001

AVIATION ORDNANCEMAN

AO3
AO2
AO1
AOC
AOCS
AOCM

Exhibit Dates: 6/71-12/85.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AO3:* Aviation Ordanceman Third Class (E-4). *AO2:* Aviation Ordnanceman Second Class (E-5). *AO1:* Aviation Ordnanceman First Class (E-6). *AOC:* Chief Aviation Ordnanceman (E-7). *AOCS:* Senior Chief Aviation Ordnanceman (E-8). *AOCM:* Master Chief Aviation Ordnanceman (E-9).

Description

Summary: Maintains, inspects, and repairs aircraft armament equipment and aviation ordance (weapons) equipment, including aircraft guns, gun accessories, noncomputing gunsights, aerial towed target equipment, small arms, ammunition, handling eqipment, and ammunition suspension, release, launching, and arming equipment; stores and loads aviation ammunition, nuclear weapons, aerial mines, torpedos, and air-launched guided missiles; operates small-arms ranges; supervises the operation of aviation ordnance shops and storage facilities. *AO3:* Prepares gun ammunition for loading; assembles and disasembles aircraft ordnance weapons; performs weapons maintenance; uses schematics, diagrams, and charts to trace systems; performs routine inspection of ordnance equipment; completes periodic maintenance data forms; performs electromechanical maintenance of air armament units; issues standards for safety in ordnance maintenance; operates ground support equipment; detects, removes, and controls corrosion on aircraft armament and aviation ordnance handling equipment. *AO2:* Able to perform the duties required for AO3; serves as arming/dearming crew leader; supervises and coordinates crew loading of munitions aboard aircraft; maintains shop files, logs, and records; orders technical publications and manuals; performs periodic aircraft preloading inspections. *AO1:* Able to perform the duties required for AO2; supervises the preparation of fuel, air, and gel weapons; analyzes test equipment defects; conducts on-the-job training; performs quality checks and inspections on loaded aircraft; supervises and directs aircraft inspections; prepares weekly schedules of preventive maintenance; troubleshoots release and arming system. *AOC:* Able to perform the duties required for AO1; supervises and coordinates receipt stowage, movement, preparation, and loading of munitions by squadron crews; interprets technical publications and instructions on the handling of aviation ordnance equipment and munitions; prepares correspondence and reports; plans, organizes, and supervises aviation ordnance shops, storage facilities, and handling areas; supervises the training of special weapon loading teams; analyzes reports and prepares schedules of preventive maintenance; accounts for inventory; evaluates assigned personnel. *AOCS:* Able to perform the duties required for AOC; supervises and coordinates all the munitions-loading crews of an airwing (several squadrons); prepares local directives and instructions; prepares correspondence; interviews, evaluates, and assigns personnel; organizes and schedules training programs and evaluates their effectiveness; administers long-range planned maintenance program; monitors quality control program; makes recommendations on utilization, capabilities, reliability, and operations of airwing ordnance units. *AOCM:* Able to perform the duties required for AOCS; evaluates aviation ordnance equipment safety requirements and initiates recommendations for improvements; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; initiates action to satisfy requirements; establishes goals and priorities; reviews and evaluates space, personnel, equipment, and material requirements; provides technical information and advice on the capabilities, limitations, reliability, and use of aviation ordnance, aircraft armament, and related equipment; evaluates the effectiveness of special weapons team training; evaluates new armament equipment and aviation ordnance materials; implements procedures for emergency storage facilities; develops operating budgets and monitors expenditures.

Recommendation, AO3

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, and 2 in blueprint reading and schematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, and 2 in industrial safety (2/77).

Recommendation, AO2

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, 3 in basic electronics, 3 in record keeping, and 3 in blueprint reading and schematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, and 2 in industrial safety (2/77).

Recommendation, AO1

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, and 3 in industrial safety. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials (2/77).

Recommendation, AOC

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 2 in aviation management, 2 in office management, and 1 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials and additional credit for field experience in management on the basis of institutional evaluation (2/77).

Recommendation, AOCS

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 2 in aviation management, 2 in office management, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials and 3 for field experience in management (2/77).

Recommendation, AOCM

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, 3 in basic electronics, 3 in record keeping, 3 in blueprint reading and schematics, and 3 in technical report writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 3 in technical writing, 3 in aviation management, 3 in personnel supervision, and 2 in office management. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials, 3 for field experience in management, and 3 in management problems, and additional credit in human relations and personnel management on the basis of institutional evaluation (2/77).

NER-AO-002

Aviation Ordnanceman

AO3
AO2
AO1
AOC
AOCS
AOCM

Exhibit Dates: 1/86–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AO3:* Aviation Ordnanceman Third Class (E-4). *AO2:* Aviation Ordnanceman Second Class (E-5). *AO1:* Aviation Ordnanceman First Class (E-6). *AOC:* Chief Aviation Ordnanceman (E-7). *AOCS:* Senior Chief Aviation Ordnanceman (E-8). *AOCM:* Master Chief Aviation Ordnanceman (E-9).

Description

Summary: Maintains, inspects, and repairs aircraft armament equipment and aviation ordnance (weapons) equipment, incuding aircraft guns, gun accessories, noncomputing gunsights, aerial towed target equipment, small arms, ammunition, handling equipment, and ammunition suspension, release launching, and arming equipment; stores and loads aviation ammunition, nuclear weapons, aerial mines, torpedoes, air-launched guided missiles; operates small-arm ranges; supervises the operation of aviation ordnance shops and storage facilities. *AO3:* Prepares gun ammunition for loading; assembles and disassembles aircraft ordnance weapons; performs weapons maintenance; uses schematics, diagrams, and charts to trace systems; performs routine inspection of ordnance equipment; completes periodic maintenance data forms; performs electromechanical maintenance on air armament units; issues standards for safety in ordnance maintenance; operates ground support equipment; detects, removes, and controls corrosion on aircraft armament and aviation ordnance handling equipment; maintains tool inventory; orders supplies and equipment. *AO2:* Able to perform the duties required for AO3; serves as arming/dearming crew leader; supervises and coordinates crew loading of munitions aboard aircraft; maintains shop files, logs, and records; orders technical publications and manuals; performs periodic aircraft preloading inspections. *AO1:* Able to perform the duties required for AO2; supervises the preparation of fuel, air, and gel weapons; analyzes test equipment defects; conducts on-the-job training; performs quality checks ad inspections on loaded aircraft; supervises and directs aircraft inspections; troubleshoots release and arming systems; prepares planned maintenance schedules. *AOC:* Able to perform the duties required for AO1; supervises and coordinates receipt, stowage, movement, preparation, and loading of munitions by squadron crews; interprets technical publications and instructions on the handling of aviation ordnance equipment and munitions; prepares correspondence and reports; plans, organizes, and supervises aviation ordnance shops, storage facilities, and handling areas; supervises the training of special weapons loading teams; analyzes reports and prepares schedules of preventive maintenance; accounts for inventory; evaluates assigned personnel; assists in aircraft accident investigation. *AOCS:* Able to perform the duties required for AOC; supervises and coordinates all the munitions-loading crews of an airwing (several squadrons); prepares local directives and instructions; prepares correspondence; interviews, evaluates, and assigns personnel; organizes and schedules training programs and evaluates their effectiveness; administers long-range planned maintenance program; monitors quality control program; makes recommendations on utilization, capabilities, reliability, and operations on airwing ordnance units. *AOCM:* Able to perform the duties required for AOCS; evaluates aviation ordnance equipment safety requirements and initiates recommendations for improvements; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; initiates action to satisfy requirements; establishes goals and priorities; reviews and evaluates space, personnel, equipment, and material requirements; provides technical information and advice on the capabilities, limitations, reliability, and use of aviation ordnance, aircraft armament, and related equipment; evaluates the effectiveness of special weapons team training; evaluates new armament equipment and aviation ordnance materials; implements procedures for emergency storage facilities; develops operating budgets and monitors expenditures.

Recommendation, AO3

In the lower-division baccalaureate/associate degree category, 3 semester hours in weaponry maintenance, 1 in industrial corrosion control, and 1 in basic electricity (6/87).

Recommendation, AO2

In the lower-division baccalaureate/associate degree category, 3 semester hours in weaponry maintenance, 1 in industrial corrosion control, 1 in basic electricity, 1 in basic electricity troubleshooting, and 2 in industrial safety (6/87).

Recommendation, AO1

In the lower-division baccalaureate/associate degree category, 3 semester hours in weaponry maintenance, 1 in industrial corrosion control, 1 in basic electricity, 1 in basic electricity troubleshooting, 2 in industrial safety, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (6/87).

Recommendation, AOC

In the lower-division baccalaureate/associate degree category, 3 semester hours in weaponry maintenance, 1 in industrial corrosion control, 1 in basic electricity, 1 in basic electricity troubleshooting, 2 in industrial safety, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (6/87).

Recommendation, AOCS

In the lower-division baccalaureate/associate degree category, 3 semester hours in weaponry maintenance, 1 in industrial corrosion control, 1 in basic electricity, 1 in basic electricity troubleshooting, 2 in industrial safety, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, and 1 for field experience in management (6/87).

Recommendation, AOCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AOCS. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, 3 in industrial management and problem solving, and 2 for field experience in management (6/87).

NER-AQ-001

AVIATION FIRE CONTROL TECHNICIAN

AQ3
AQ2
AQ1
AQC
AQCS

Exhibit Dates: 6/71–12/85.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AQ3:* Aviation Fire Control Technician Third Class (E-4). *AQ2:* Aviation Fire Control Technician Second Class (E-5). *AQ1:* Aviation Fire Control Technician First Class (E-6). *AQC:* Chief Aviation Fire Control Technician (E-7). *AQCS:* Senior Chief Aviation Fire Control Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs aircraft weapons control systems, including weapons control radar, computers, doppler computing sights, gyroscopes, and related equipment, and air-launched guided missile equipment. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular system on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AQ rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level or I-Level or both. *AQ3:* Assists in troubleshooting and repairing electrical and electronics weapons control systems (such as radar, infrared, optical, laser, and television systems; analog and digital computers; and gyro stabilizing systems and sensing elements) and related accessories and equipment; follows standard check-out procedures to locate and repair system malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter; applies a working knowledge of hydraulic systems; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AQ2:* Able to perform the duties required for AQ3; performs troubleshooting and repair tasks not covered in standard services manuals; knows how to use oscilloscope, signal generators, and meggers; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library; interprets technical directives. *AQ1:* Able to perform the duties required for AQ2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; conducts on-the-job training program; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance. *AQC:* Able to perform the duties required for AQ1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *AQCS:* Able to perform the duties required for for AQC; oversees three shops; serves as liaison with Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AQ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory and 2 in applied physics, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. Qualified to enter an industrial electronics technician, communications electronics technician, or industrial instrumentation technician apprentice training program, or an apprentice training program for any electrical trade (2/77).

Recommendation, AQ2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, and 3 in introduction to AC/DC theory, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. Advanced standing in an industrial electronics technician, communications electronics technician, or industrial instrumentation technician apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance evaluation (2/77).

Recommendation, AQ1

In the vocational certificate category, the recommendation is the same as that for AQ2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 2 in personnel supervision, and 2 in maintenance management, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. In an industrial electronics technician aprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a communications electronics technician or industrial instrumentation technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (2/77).

Recommendation, AQC

In the vocational certificate category, the recommendation is the same as that for AQ2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AQ1 because additional skills are administrative and supervisory in nature (2/77).

Recommendation, AQCS

In the vocational certificate category, the recommendation is the same as that for AQ2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in management electives, 3 in safety management, and 2 in technical writing, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AQ1 because additional skills are administrative and supervisory in nature (2/77).

NER-AQ-002

AVIATION FIRE CONTROL TECHNICIAN

AQ3
AQ2
AQ1
AQC
AQCS

Exhibit Dates: 1/86–12/90. (Effective 1/91, the AQ rating was discontinued and its duties were incorporated into the Avionics Maintenance Technician rating (NER-AV-001).

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AQ3:* Aviation Fire Control Technician Third Class (E-4). *AQ2:* Aviation Fire Control Technician Second Class (E-5). *AQ1:* Aviation Fire Control Technician First Class (E-6). *AQC:* Chief Aviation Fire Control Technician (E-7). *AQCS:* Senior Chief Aviation Fire Control Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs aircraft weapons control systems, including weapons control radar, computers, doppler computing sights, gyroscopes, and related equipment, and air-launched guided missile equipment. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AQ rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level or I-Level or both. *AQ3:* Troubleshoots and repairs electrical and electronics weapons control systems (such as radar, infrared, optical, laser, and television systems; analog and digital computers; and gyro stabilizing systems and sensing elements) and related accessories and equipment; follows standard check-out procedures to locate and repair system malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter; applies a working knowledge of hydraulic systems; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AQ2:* Able to perform the duties required for AQ3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and meggers; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library; interprets technical directives. *AQ1:* Able to perform the duties required for AQ2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; conducts on-the-job training programs; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance. *AQC:* Able to perform the duties required for AQ1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *AQCS:* Able to perform the duties required for AQC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AQ3

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communications systems troubleshooting, and 3 in basic mathematics (10/87).

Recommendation, AQ2

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, and 3 in instrumentation/measurement (10/87).

Recommendation, AQ1

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/measurement, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (10/87).

Recommendation, AQC

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/measurement, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (10/87).

Recommendation, AQCS

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/measurement, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, and 1 for field experience in management (10/87).

NER-AS-001

AVIATION SUPPORT EQUIPMENT TECHNICIAN

AS1
ASC
ASCS
ASCM

Exhibit Dates: 6/71–2/82.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

May progress from: ASE2, Aviation Support Equipment Technician, Electrical, Second Class (E-5); or ASH2, Aviation Support Equipment Technician Hydraulics and Structures, Second Class (E-5); or ASM2, Aviation support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

AS1: Able to perform the duties required for ASE2, ASM2, or ASH2; analyzes and diagnoses malfunctions of the following systems: Hydraulics, pneumatic, electrical power generating, chassis and chassis electrical, internal combustion engines, air-conditioning, and gas-turbine compressors; determines corrective action; maintains shop files and technical publications; plans shop work schedule; supervises subordinates; performs quality control inspections; prepares schedules of preventive maintenance; requisitions and is responsible for materials and equipment. *ASC:* Able to perform the duties required for AS1; supervises training of personnel who operate, maintain, and repair aviation support equipment; coordinates administration, planning, and workload scheduling; organizes facilities for repair and maintenance of equipment and components; is responsible for ordering, storing, and inventorying materials and supplies for organizational unit. *ASCS:* Able to perform the duties required for ASC; is responsible for the administrative function of the organizational unit; organizes, schedules, and evaluates training; reviews, evaluates, and recommends inprovements to maintenance procedures; administers long-range maintenance program. *ASCM:* Able to perform the duties required for ASCS; responsible for the administration of assigned organizational unit, including planning, organizing and implementing activities in compliance with policy statements; reviews personnel, equipment and material requirements; establishes objectives and set priorities in area of responsibility; evaluates and monitors maintenance planning and quality control programs; develops operating budget and monitors expenditures; assists in formulating and implementing a safety program; provides technical information and assistance to subordinates; prepares maintenance, evaluation, and staff studies.

Recommendation, AS1

In the vocational certificate category, use the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, or the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, or the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, as appropriate, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions, on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 1 in shop management, and 1 in record keeping, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 in exhibit NER-ASE-001, or the 18 semester hours for ASH2 in exhibit NER-ASH-001, or the 21 semester hours for ASM2 in exhibit NER-ASM-001, as appropriate (2/77).

Recommendation, ASC

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in basis electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engine, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, or the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, or the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, as appropriate (2/77).

Recommendation, ASCS

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, or the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, or the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ASCM

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in introduction to management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, or the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, or the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/77).

NER-AS-002

AVIATION SUPPORT EQUIPMENT
TECHNICIAN

AS1
ASC
ASCS
ASCM

Exhibit Dates: 3/82–12/89.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

May progress from: ASE2, Aviation Support Equipment Technician, Electrical, Second Class (E-5), or ASM2, Aviation Support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

AS1: Able to perform the duties required for ASE2 or ASM2; analyzes and diagnoses malfunctions of the following systems: hydraulics, pneumatic, electrical power generating, chassis and chassis electrical, internal-combustion engines, air-conditioning, and gas-turbine compressors; determines corrective action; maintains shop files and technical publications; plans shop work schedule; supervises subordinates; performs quality control inspections; prepares schedules of preventive maintenance; requisitions and is responsible for materials and equipment. *ASC:* Able to perform the duties required for AS1; supervises training of personnel who operate, maintain, and repair aviation support equipment; coordinates administration, planning, and workload scheduling; organizes facilities for repair and maintenance of equipment and components; is responsible for ordering, storing, and inventorying materials and supplies for organizational unit. *ASCS:* Able to perform the duties required for ASC; is responsible for the administrative function of the organizational unit; organizes, schedules, and evaluates training; reviews, evaluates, and recommends inprovements to maintenance procedures; administers long-range maintenance program. *ASCM:* Able to perform the duties required for ASCS; responsible for the administration of assigned organizational unit, including planning, organizing and implementing activities in compliance with policy statements; reviews personnel, equipment and material requirements; establishes objectives and sets priorities in area of responsibility; evaluates and monitors maintenance planning and quality control programs; develops operating budget and monitors expenditures; assists in formulating and implementing the safety program; provides technical information and assistance to subordinates; prepares maintenance evaluation and staff studies.

Recommendation, AS1

In the vocational certificate category, use the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, or the 19 semester hours ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-002, as appropriate, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, diesel engines, and power transmissions, on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 1 in shop management, and 1 in record keeping, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, diesel engines, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 in exhibit NER-ASE-001 or the 19 semester hours for ASM2 in exhibit NER-ASM-002, as appropriate (5/83).

Recommendation, ASC

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, diesel engines, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001 or the 19 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-002, as appropriate (5/83).

Recommendation, ASCS

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, diesel engines, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001 or the 19 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-002, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/83).

Recommendation, ASCM

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in introduction to management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, diesel engines, and power transmissions on the basis of institutional evaluation; add the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001 or the 19 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-002, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/83).

NER-AS-003

AVIATION SUPPORT EQUIPMENT
TECHNICIAN

AS3
AS2
AS1
ASC
ASCS
ASCM

Exhibit Dates: 1/90–Present. Pending evaluation.

NER-ASE-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, ELECTRICAL

ASE3
ASE2

Exhibit Dates: 6/71–12/89. (Effective 1/90, the ASE rating was discontinued and its duties were incorporated into the Aviation Support Equipment Technician rating (AS); see exhibit NER-AS-003.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASE3:* Aviation Support Equipment Technician, Electrical, Third Class (E-4). *ASE2:* Aviation Support Equipment Technician, Electrical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs automotive electrical systems in mobile and self-propelled aviation support equipment, electrical components and wiring in auxiliary electrical power units used in servicing aircraft, electrical control systems in gas-turbine compressor units and air-conditioning systems, and electrical and electronic circuits and components in general aircraft servicing equipment. *ASE3:* Uses precision measuring equipment, electrical test equipment and internal-combustion-engine analyzers; repairs motors and generators; replaces electrical components of power-generating units and air-conditioning systems; tests, services, and installs storage batteries; tests, replaces, and adjusts voltage regulators; repairs, removes, and installs components of ignition and starting systems; identifies characteristics of electrical and electronic circuit parts; uses maintenance publications; completes maintenance records; uses and maintains handtools and hoisting and lifting devices. *ASE2:* Able to perform the duties required for ASE3; tests, adjusts, and repairs electrical components of power-generating units; performs electrical load bank checks and repairs and adjusts transformer rectifier units; repairs malfunctioning electrical components of air-conditioning systems; performs tests, locates malfunctions, and makes adjustments on gas-turbine compressors, utilizing gas-turbine compressor analyzer.

Recommendation, ASE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive electricity, 4 in basic shop practices, 3 in basic electricity/electronics, and 2 in care and use of tools (2/77).

Recommendation, ASE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive electricity, 4 in basic shop practices, 3 in basic electricity/electronics, 3 in power generator systems, 3 in electrical control systems, and 2 in care and use of tools (2/77).

NER-ASH-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, HYDRAULICS AND
STRUCTURES

ASH3
ASH2

Exhibit Dates: 6/71–2/82. (Effective 2/82, the ASH rating was discontinued and its duties were incorporated into ASM, Aviation Support Equipment Technician, Mechanical.)

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASH3:* Aviation Support Equipment Technician, Hydraulics and Structures, Third Class (E-4). *ASH2:* Aviation Support Equipment Technician, Hydraulics and Structures, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs hydraulic and pneumatic systems and structural components of aviation support equipment; maintains hydraulic test and service equipment, air compressors, jacks, work stands, and associated equipment; performs body and fender metal work and painting of aviation support equipment; welds, brazes, solders, cuts, shapes, and patches metal; adjusts and repairs brake systems. *ASH3:* Uses mechanical precision measuring equipment, electrical test equipment, hydraulic and pneumatic test equipment, gauges, meters, and hydraulic test stands; uses and maintains hand tools; replaces seals, packings, tubing, and flexible hoses in hydraulic systems; repairs, removes and installs hydraulic and pneumatic system components; bleeds and flushes hydraulic systems; performs structural repairs; welds with electrical and oxyacetylene equipment; brazes and solders; paints support equipment; uses maintenance publications; completes maintenance records; identifies types and designations of fuels, hydraulic fluids, coolants, and lubricants. *ASH2:* Able to perform the duties required for ASH3; diagnoses hydraulic test equipment malfunctions; adjusts valves and regulators in hydraulic and pneumatic systems; performs equipment modifications in hydraulic and pneumatic systems; analyzes hydraulic fluid for contamination; welds with inert-gas welding equipment.

Recommendation, ASH3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in gas and electric welding, 4 in hydraulics, 4 in basic shop practices, and 2 in care and use of tools (2/77).

Recommendation, ASH2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in gas and electric welding, 4 in hydraulics, 4 in basic shop practices, 2 in inert-gas welding, and 2 in care and use of tools (2/77).

NER-ASM-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, MECHANICAL

ASM3
ASM2

Exhibit Dates: 6/71–2/82.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASM3:* Aviation Support Equipment Technician, Mechanical, Third Class (E-4). *ASM2:* Aviation Support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs gasoline and diesel engines in mobile and self-propelled aviation support equipment and associated automotive systems, including fuel systems, automatic and power transmissions, differentials, and steering systems; maintains gas-turbine compressor units and air-conditioning systems used in servicing aircraft. *ASM3:* Uses mechanical precision measuring equipment, electrical test equipment, and internal-combustion-engine analyzers; uses and maintains hand tools; replaces seals, packings, tubing and flexible hoses in hydraulic systems; removes electromechanical and cooling system components; services, adjusts, and repairs hydraulic, pneumatic, and mechanical brakes; performs minor engine tune-up; welds with oxyacetylene equipment; uses maintenance publications; completes maintenance records. *ASM2:* Able to perform the duties required for ASM; uses gas-turbine analyzers; diagnoses malfunctions of internal-combustion engines; grinds valves and overhauls internal-combustion engines; performs major engine tune-ups; repairs and adjusts transmissions and differentials; performs steering and front-end alignment; adjusts and maintains air-conditioning systems; inspects compressors and turbines; makes adjustments on gas-turbine compressors.

Recommendation, ASM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic shop practices, 3 in diesel engines, 3 in hydraulic brakes, and 2 in care and use of tools (2/77).

Recommendation, ASM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engines, 4 in basic shop practices, 3 in hydraulic brakes, 3 in power transmissions, 3 in gas welding, and 2 in care and use of tools (2/77).

NER-ASM-002

Aviation Support Equipment
Technician, Mechanical

ASM3
ASM2

Exhibit Dates: 3/82–12/89. (Effective 1/90, the ASM rating was discontinued and its duties were incorporated into the Aviation Support Equipment Technician (AS) rating; see exhibit NER-AS-003.)

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASM3:* Aviation Support Equipment Technician, Mechanical, Third Class (E-4). *ASM2:* Aviation Support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs gasoline engines and associated automotive systems, hydraulic systems, pnuematic systems, and structural components in mobile and self-propelled aviation support equipment, aviation armament handling equipment, including generating, starting, lighting, and ignition systems, electrical components and writing in auxiliary electrical power units used in servicing aircraft, electrical control systems in gas turbine compressor units and air conditioning systems, and electrical and electronic circuits and components in general aircraft servicing equipment. *ASM3:* Uses mechanical precision measuring equipment, hydraulic and pneumatic test equipment, electrical test equipment, engine maintenance and overhaul test equipment; repairs and adjusts automotive brake systems, steering systems, air-conditioning systems, cooling systems, and suspension systems; replaces seals and packing; fabricates and fits rigid tube and low pressure flexible hose assemblies; removes, repairs and services components associated with hydraulic and pneumatic systems; uses maintenance publications; completes maintenance records. *ASM2:* Able to perform the duties required for ASM3; isolates, repairs and adjusts problems relating to transmissions, differentials, steering systems, air conditioning systems, mechanical systems, and hydraulic systems; uses specialized test equipment to isolate malfunction in hydraulic equipment; performs scheduled maintenance inspections; performs dye penetrant and hydraulic contamination analysis.

Recommendation, ASM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic shop practices, 3 in diesel engines, 4 in hydraulics, and 2 in care and use of tools (5/83).

Recommendation, ASM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic shop practices, 6 in diesel engines, 4 in hydraulics, 3 in power transmissions, and 2 in use and care of tools (5/83).

NER-AT-001

Aviation Electronics Technician

AT3
AT2
AT1
ATC
ATCS

Exhibit Dates: 6/71–12/85.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AT3:* Aviation Electronics Technician Third Class (E-4). *AT2:* Aviation Electronics Technician Second Class (E-5). *AT1:* Aviation Electronics Technician First Class (E-6). *ATC:* Chief Aviation Electronics Technician (E-7). *ATCS:* Senior Chief Aviation Electronics Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs electronic communications systems and in-flight navigation and detection systems on aircraft. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AT rating receive equivalent training and must pass the same advancement examinations, regardless of whether duty assignments have been O-Level or I-Level or both. *AT3:* Assists in troubleshooting and repairing radar systems, radar and tactical displays, IFF/SIF equipment, radar altimeters, doppler navigation equipment, radio navigation equipment, analog computing devices, communications systems, CIC and electronics countermeasures equipment, infrared devices, recorder systems, and aircraft digital data systems; follows standard check-out procedures to locate and repair malfunctions; reads schematics and block diagrams; uses volt-ohm-milliameter, frequency counters, and specialized system test equipment; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AT2:* Able to perform the duties required for AT3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and megger; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library and inventory records; inspects, tests, and maintains aircraft transmission lines and antennas. *AT1:* Able to perform the duties required for AT2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; inspects and approves completed work assignments, including the installation of new parts and components; conducts on-the-job training program and maintains training records; prepares weekly schedules of preventive maintenance. *ATC:* Able to perform the duties required for AT1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *ATCS:* Able to perform the duties required for ATC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, and 12 in avionics technology, and additional credit in avionics technology on the basis of institutional evaluation. Qualified to enter an industrial or communications electronics technician apprentice training program (2/77).

Recommendation, AT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to

AC/DC theory, and 12 in avionics technology, and additional credit in avionics technology on the basis of institutional evaluation. Advanced standing in a communications electronics technician apprentice training program on the basis of employer or trade association performance examination; qualified to enter an industrial electronics technician apprentice training program (2/77).

Recommendation, AT1

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 2 in personnel supervision, and 2 in maintenance management, and additional credit in avionics technology on the basis of institutional evaluation. In a communications electronics technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In an industrial electronics technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (2/77).

Recommendation, ATC

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in avionics technology on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AT1 because additional skills are administrative and supervisory in nature (2/77).

Recommendation, ATCS

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in management electives, 3 in safety management, and 2 in technical writing, and additional credit in avionics technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AT1 because additional skills are administrative and supervisory in nature (2/77).

NER-AT-002

AVIATION ELECTRONICS TECHNICIAN

AT3
AT2
AT1
ATC
ATCS

Exhibit Dates: 1/86–12/90.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AT3:* Aviation Electronics Technician Third Class (E-4). *AT2:* Aviation Electronics Technician Second Class (E-5). *AT1:* Aviation Electronics Technician First Class (E-6). *ATC:* Chief Aviation Electronics Technician (E-7). *ATCS:* Senior Chief Aviation Electronics Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs electronic communications systems and in-flight navigation and detection systems on aircraft. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing module systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AT rating receive equivalent training and must pass the same advancement examinations, regardless of whether duty assignments have been O-Level or I-Level or both. *AT3:* Troubleshoots and repairs radar systems, radar and tactical displays, IFF/SIF equipment, radar altimeters, doppler navigation equipment, radio navigation equipment, analog computing devices, communications systems, CIC and electronics countermeasures equipment, infrared devices, recorder systems, and aircraft digital data systems; follows standard check-out procedures to locate and repair malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter, frequency counters, and specialized system test equipment; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AT2:* Able to perform the duties required for AT3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generator, and megger; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library and inventory records; inspects, tests, and maintains aircraft transmission lines and antennas. *AT1:* Able to perform the duties required for AT2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; inspects and approves completed work assignments, including the installation of new parts and components; conducts on-the-job training program and maintains training records; prepares weekly schedules of preventive maintenance. *ATC:* Able to perform the duties required for AT1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *ATCS:* Able to perform the duties required for ATC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AT3

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, and 3 in basic mathematics (6/87).

Recommendation, AT2

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, and 3 in instrumentation/measurement (6/87).

Recommendation, AT1

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (6/87).

Recommendation, ATC

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (6/87).

Recommendation, ATCS

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, and 1 for field experience in management (6/87).

NER-AT-003

AVIATION ELECTRONICS TECHNICIAN

AT3
AT2
AT1
ATC
ATCS
ATCM

Exhibit Dates: 1/91–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AT3:* Aviation Electronics Technician Third Class (E-4). *AT2:* Aviation Electronics Technician Second Class (E-5). *AT1:* Aviation Electronics Technician First Class (E-6). *ATC:* Chief Aviation Electronics Technician (E-7). *ATCS:* Senior Chief Aviation Electronics Technician (E-8). *ATCM:* Master Chief Aviation Electronics Technician (E-9).

Description

Summary: Maintains and repairs electronic communications systems and in-flight navigation and detection systems on aircraft. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing module systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AT rating receive equivalent training and must pass the same advancement examinations, regardless of whether duty assignments have been O-Level or I-Level or both. *AT3:* Troubleshoots and repairs radar systems, radar and tactical displays, IFF/SIF equipment, radar altimeters, doppler navigation equipment, radio navigation equipment, analog computing devices, communications systems, CIC and electronics countermeasures equipment, infrared devices, recorder systems, and aircraft digital data systems; follows standard check-out procedures to locate and repair malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter, frequency counters, and specialized system test equipment; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AT2:* Able to perform the duties required for AT3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generator, and megger; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library and inventory records; inspects, tests, and maintains aircraft transmission lines and antennas. *AT1:* Able to perform the duties required for AT2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; inspects and approves completed work assignments, including the installation of new parts and components; conducts on-the-job training program and maintains training records; prepares weekly schedules of preventive maintenance. *ATC:* Able to perform the duties required for AT1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *ATCS:* Able to perform the duties required for ATC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness. *ATCM:* Able to perform the duties required for ATCS; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; prepares maintenance plans and staff studies for management review; exercises techniques of aircraft maintenance and personnel management; develops and implements preventive maintenance, corrosion control, and quality assurance programs; devleops operating budget and monitors expenditures.

Recommendation, AT3

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, and 3 in basic mathematics (6/87).

Recommendation, AT2

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, and 3 in instrumentation/measurement (6/87).

Recommendation, AT1

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/measurement, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (6/87).

Recommendation, ATC

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (6/87).

Recommendation, ATCS

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, and 1 for field experience in management (6/87).

Recommendation, ATCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ATCS. In the upper-division baccalaureate category, 2 semester hours in industrial management, 3 in shop management, 3 in management planning, 3 for field experience in management, and 3 in management problems (6/87).

NER-AV-001

AVIONICS TECHNICIAN, MASTER CHIEF

AVCM

Exhibit Dates: 6/71–12/90. (Effective 1/91, AVCM was discontinued.)

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress to AVCM, Master Chief Avionics Technician (E-9), from: AXCS, Senior Chief Aviation Antisubmarine Warfare Technician (E-8); *AECS:* Senior Chief Aviation Electrician's Mate (E-8); ATCS, Senior Chief Aviation Electronics Technician (E-8); or AQCS, Senior Chief Aviation Fire Control Technician (E-8).

Description

Able to perform the duties required for AXCS (Senior Chief Aviation Antisubmarine Warfare Technician), AECS (Senior Chief Aviation Electrician's Mate), ATCS (Senior Chief Aviation Electronics Technician), or AQCS (Senior Chief Aviation Fire Control Technician); plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; prepares maintenance plans and staff studies for management review; exercises techniques of aircraft maintenance and personnel management; develops and implements preventive maintenance, corrosion control, and quality assurance programs; develops operating budget and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for AE1 (Aviation Electrician's Mate First Class) in exhibit NER-AE-001 or NER-AE-002, AT2 (Aviation Fire Control Technician Second Class) in exhibit NER-AT-001 or NER-AT-002, or AQ2 (Aviation Fire Control Technician Second Class) in exhibit NER-AQ-001 or NER-AQ-002, or AX1 (Aviation Antisubmarine Warfare Technician, First Class), in exhibit NER-AX-001 or NER-AX-002, as appropriate. In the lower-division baccalaureate/associate degree category, add 1 semester hour in technical writing to the recommendation for AECS (Senior Chief Aviation Electrician's Mate) in exhibit NER-AE-001 or NER-AE-002, or ATCS (Senior Chief Aviation Electronics Technician) in exhibit NER-AT-001 or NER-AT-002, or AQCS (Senior Chief Aviation Fire Control Technician) in exhibit NER-AQ-001 or NER-AQ-002, or AXC (Chief Aviation Antisubmarine Warfare Technician) in exhibit NER-AX-001 or NER-AX-002, as appropriate. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in human relations, and additional credit in quality control on the basis of institutional evaluation (2/77).

NER-AV-002

AVIONICS MAINTENANCE TECHNICIAN

AV3
AV2
AV1
AVC
AVCS
AVCM

Exhibit Dates: 1/91–Present. Pending evaluation.

NER-AW-001

AVIATION ANTISUBMARINE WARFARE OPERATOR (ACOUSTIC)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

NOTE: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Non-Acoustic) exhibit is NER-AW-002; the AW (Helicopter) exhibit is NER-AW-003. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Operates various acoustic sensors in order to discover and track submarines; identifies and classifies targets; identifies sounds produced by surface ships, submarines, marine life, and other natural phenomena; determines acoustic energy propagation characteristics under various oceanographic conditions. *AW2:* Able to perform the duties required for AW3; identifies submarine evasion tactics; classifies targets in more detail than an AW3 and has a fuller understanding of the ocean environment on antisubmarine warfare data. *AW1:* Able to perform the duties required for AW2; may serve as an instructor; performs reconstruction of antisubmarine tactical exercises; navigates using airborne radar; has knowledge of non-acoustic antisubmarine warfare; analyzes in multi-target situations; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; performs as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3

(Acoustic) In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of oceanography (8/79).

Recommendation, AW2

(Acoustic) In the lower-division baccalaureate/associate degree category, 4 semester hours in survey of oceanography. In the upper-devision baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1

(Acoustic) In the lower-division baccalaureate/associate degree category, 5 semester hours in survey of oceanography, 2 in survey of meteorology, and 3 in personnel supervision. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC

(Acoustic) In the lower-division baccalaureate/associate degree category, 5 semester hours in oceanography, 3 in meteorology, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS

(Acoustic) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 for management problems; if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCM

(Acoustic) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems; if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

NER-AW-002

AVIATION ANTISUBMARINE WARFARE OPERATOR (NON-ACOUSTIC)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

NOTE: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Acoustic) exhibit is NER-AW-001; the AW (Helicopter) exhibit is NER-AW-003. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Operates equipment to detect submarines by electromagnetic or infrared means; operates airborne radar to detect, identify, and interpret targets, and to avoid hazardous weather; advises pilot of expected weather conditions. *AW2:* Able to perform the duties required for AW3; identifies submarine evasion tactics; interprets effects of deception devices. *AW1:* Able to perform the duties required for AW2; performs reconstruction of airborne antisubmarine warfare tactical exercises; navigates using airborne radar; instructs personnel in the tactical use of airborne antisubmarine warfare equipment; may serve as an instructor; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; performs as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, 2 semester hours in survey of meteorology (8/79).

Recommendation, AW2

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of meteorology. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, 4 semester hours in survey of meteorology, 3 in survey of oceanography, and 3 in personnel supervision. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, 4 semester hours in survey of meteorology, 4 in survey of oceanography, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems; if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCM

(Non-Acoustic) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems; if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

NER-AW-003

AVIATION ANTISUBMARINE WARFARE
OPERATOR (HELICOPTER)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

NOTE: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Acoustic) exhibit is NER-AW-001; the (Non-Acoustic) exhibit is NER-AW-002. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Uses both acoustic and non-acoustic devices to detect and track submarines; serves as crewman on a helicopter; uses airborne radar to detect, identify, and intercept targets, and avoid hazardous weather; uses airborne sonar to detect, classify, and track; identifies sounds produced by surface ships submarines, evasion devices, marine life, and other natural phenomena. *AW2:* Able to perform the duties required for AW3; operates equipment and interprets results; identifies submarine evasion tactics; interprets effects of deception devices. *AW1:* Able to perform the duties required for AW2; may serve as an instructor; performs reconstruction of helicopter tactical, exercises; analyzes multitarget situations; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; performs as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3

(Helicopter) In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency medical techniques, 2 in survey of meteorology, and 3 in survey of oceanography (8/79).

Recommendation, AW2

(Helicopter) In the lower-division baccalaureate/associate degree category, 4 semester hours in emergency medical techniques, 2 in survey of meteorology,and 4 in survey of oceanography. In the upper-division baccalaureate category, IF served as instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1

(Helicopter) In the lower-division baccalaureate/associate degree category, 5 semester hours in emergency medical techniques, 2 in survey of meteorology, 5 in survey of oceanography,and 3 in personnel supervision. In the upper-division baccalaureate category, IF served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC

(Helicopter) In the lower-division baccalaureate/associate degree category, 5 semester hours in emergency medical techniques, 2 in survey of meteorology, 5 in survey of oceanography, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, IF served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS

(Helicopter) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems; IF served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCM

(Helicopter) In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6semester hours for field experience in management, 3 in personnel management, and 3 in management problems; IF served as an instructor, 3 semester hours for a practicum in teaching (8/79).

NER-AX-001

AVIATION ANTISUBMARINE WARFARE
TECHNICIAN

AX3
AX2
AX1
AXC
AXCS

Exhibit Dates: 1/75–12/85.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AX3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AX2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AX1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AXC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AXCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Inspects and performs maintenance and in-flight repair on aviation antisubmarine warfare sensor equipment and associated integrated systems, including those relating to Magnetic Anomaly Detection, underwater detection, acoustic analysis, electronic support measures, computer/data processing, electro-optics, data display, data link, and electro/mechanical recorders; operates and maintains associated test equipment. *AX3:* Performs routine maintenance and replaces defective parts; performs operational ground checks and assists in repair of avionics equipment; assists in maintaining technical library and instrument records. *AX2:* Able to perform the duties required for AX3; tests and repairs avionics equipment, including printed circuits and modules used in computer and radar devices; tests and repairs electronic countermeasures (ECM) equipment, underwater detection equipment and data link devices; performs collateral duty inspections and minimum performance checks; debriefs flight crews; interprets technical directives and monitors avionics corrosion control. *AX1:* Able to perform the duties required for AX2; inspects installation and evaluates performance of repaired or new avionics devices; analyzes operation of avionics units and isolates equipment malfunctions; supervises maintenance actions and performs qualitative tests; maintains training records and supervises maintenance of technical library; prepares weekly schedules of maintenance and inspects quality of work performed to determine effectiveness and take corrective action. *AXC:* Able to perform the duties required for AX1; prepares and completes periodic reports and evaluates performance of personnel; maintains custody of record and supervises facilities for repair of equipment; prepares maintenance schedules; supervises work center quality assurance programs and provides technical assistance in aircraft accident investigations. *AXCS:* Able to perform the duties required for AXC; prepares local directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements programs for interviewing, evaluating and assigning personnel to assure maximum utilization; advises supervisory personnel on production, personnel, material, and training program; organizes and schedules training programs, evaluates effectiveness and initiates improvements; administers long-range planned maintenance programs and monitors effectiveness of quality assurance programs.

Recommendation, AX3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in troubleshooting techniques, and 2 in introduction to physics (8/79).

Recommendation, AX2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in troubleshooting techniques, 2 in introduction to physics, and 2 in AC/DC circuit theory. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AX1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 4 in troubleshooting techniques, 2 in introduction to physics, 3 in AC/DC circuit theory and 3 in personnel supervision. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AXC

In the vocational certificate category, the recommendation is the same as that for AX1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics 4 in troubleshooting techniques, 2 in introduction to physics, 3 in AC/DC circuit theory, 3 in personnel supervision, and 3 in human relations. In the upper-division baccalaureate category, if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

Recommendation, AXCS

In the vocational certificate category, the recommendation is the same as that for AX1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AXC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems; if served as an instructor, 3 semester hours for a practicum in teaching (8/79).

NER-AX-002

AVIATION ANTISUBMARINE WARFARE
TECHNICIAN

AX3
AX2
AX1
AXC
AXCS

Exhibit Dates: 1/86–12/90. (Effective 1/91, the AX rating was discontinued and its duties were incorporated into the Avionics Maintenance Technician rating (see NER-AV-001).

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AX3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AX2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AX1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AXC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AXCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs aviation antisubmarine warfare sensor equipment and associated integrated systems, including those relating to Magnetic Anomaly Detection, underwater detection, acoustic analysis, electronic support measure, computer/data processing, electro-optics, data display, data link, and electro-mechanical recorders; operates and maintains associated test equipment. NOTE: Duty assignments are designated either O-Level (troubleshooting and replacing modular systems) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AX rating receive equivalent training and must pass the same advancement examinations regardless of whether duty assignments have been O-Level or I-Level or both. *AX3:* Troubleshoots and repairs radar systems, radar and tactical displays, digital data systems, infrared devices, data link equipment, analog computing devices and acoustic magnetic tape recorder systems; follows standard check-out procedures to locate and repair malfunctions; reads schematics and block diagrams; uses volt-ohm-milliameter, frequency counters, and specialized system test equipment; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AX2:* Able to perform the duties required for AX3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generator, and megger; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library and inventory records; inspects, tests, and maintains aircraft transmissions, lines and antennas; troubleshoots and repairs acoustic processing equipment, recorder systems, combat information center (CIC) and electronic countermeasure (ECM) equipment, electronics support measures (ESM) equipment and underwater detection equipment. *AX1:* Able to perform the duties required for AX2; serves as shift supervisor, supervising from eight to nine persons; diagnoses more routine malfunctions and demonstrates repair techniques; inspects and approves completed work assignments including the installation of new parts and components; conducts on-the-job training programs and maintains training records; prepares weekly schedules of preventive maintenance. *AXC:* Able to perform the duties required for AX1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *AXCS:* Able to perform the duties required for AXC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AX3

In the vocational certificate category, 3 semester hours in beginning electrical/ electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, and 3 in basic mathematics (10/87).

Recommendation, AX2

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, and 3 in instrumentation/ measurement (10/87).

Recommendation, AX1

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management (10/87).

Recommendation, AXC

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in industrial management and 1 in shop management (10/87).

Recommendation, AXCS

In the vocational certificate category, 3 semester hours in beginning electrical/electronic laboratory. In the lower-division baccalaureate/associate degree category, 3 semester hours in AC fundamentals, 3 in DC fundamentals, 3 in communication systems troubleshooting, 3 in basic mathematics, 3 in electrical circuitry, 3 in schematic reading, 3 in instrumentation/ measurement, 3 in technical report writing, 3 in personnel supervision, and 3 in industrial maintenance planning. In the upper-division baccalaureate category, 2 semester hours in industrial management, 2 in shop management, 3 in management planning, and 1 for field experience in management (10/87).

NER-AZ-001

AVIATION MAINTENANCE
ADMINISTRATIONMAN

AZ3
AZ2
AZ1
AZC
AZCS
AZCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3) *AZ3:* Aviation Maintenance Administrationman Third Class (E-4). *AZ2:* Aviation Maintenance Administrationman Second Class (E-5). *AZ1:* Aviation Maintenance Administrationman First Class (E-6). *AZC:* Chief Aviation Maintenance Administrationman (E-7). *AZCS:* Senior Chief Aviation Maintenance Administrationman (E-8). *AZCM:* Master Chief Aviation Maintenance Administrationman (E-9).

Description

Summary: Performs or supervises clerical duties including typewriting, office machine operations, preparation of correspondence and reports, filing, and records administration for the Navy aviation maintenance program. *AZ3:* Types correspondence and reports (a straight-copy typing rate of at least 20 words per minute is required); uses duplicating or photocopy equipment; maintains files and a technical library. *AZ2:* Able to perform the duties required for AZ3; prepares, verifies, and maintains aircraft logs and records; prepares and processes work requests; determines the need for updating aeronautical technical libraries and distributes updates. *AZ1:* Able to perform the duties required for AZ2; supervises administrative procedures of the office; analyzes dates; prepares data in narrative, tabular, chart, or graphic form. *AZC:* Able to perform the duties required for *AZ1*;: schedules aircraft and equipment for maintenance; coordinates unscheduled maintenance actions; screens and interprets messages and instructions; analyzes reports; determines data requirements for aircraft maintenance activities. *AZCS:* Able to perform the duties required for AZC; determines personnel and material needs; prepares directives and instructions for improving operations; develops a program for interviewing, evaluating, and assigning personnel for maximum utilization; organizes, schedules, and evaluates training programs; develops objectives for preventive maintenance and quality assurance programs; coordinates the preparation and dissemination of safety instructions applicable to aviation maintenance; provides information and advice on utilization, capabilities, reliability, and operations. *AZCM:* Able to perform the duties required for AZCS; formulates guidelines for safety and assists in the analysis of aircraft accident reports; forecasts future requirements; plans and initiates action to satisfy requirements; establishes goals and priorities; reviews and evaluates space, personnel, equipment, and material requirements; recommends, prepares, and submits aviation maintenance staff studies; plans, organizes implements, and controls activities in compliance with policy statements, operation orders, and directives; plans and forecasts workload requirements; administers aircraft and component inventory, requisition, receipt, transfer, and survey; develops operating budgets and monitors expenditures.

Recommendation, AZ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, and 2 in clerical office procedures, and additional credit in typewriting on the basis of institutional evaluation (2/77).

Recommendation, AZ2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, and 3 in record keeping, and additional credit in typewriting on the basis of institutional evaluation (2/77).

Recommendation, AZ1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, and 3 in office management, and additional credit in typewriting on the basis of institutional evaluation (2/77).

Recommendation, AZC

In the vocational certificate category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, and 2 in business communications, and additional credit in typewriting on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 1 in personnel supervision, and additional credit in typewriting on the basis of institutional evaluation (2/77).

Recommendation, AZCS

In the vocational certificate category, the recommendation is the same as that for AZC. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 2 in personnel supervision, and additional credit in typewriting on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, AZCM

In the vocational certificate category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 3 in technical writing, and additional credit in typewriting on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, 3 in personnel supervision, 3 in management electives, and 3 in technical writing, and additional credit in typewriting on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, and 3 in management problems, and additional credit in human relations and personnel management on the basis of institutional evaluation (2/77).

NER-BM-001

BOATSWAIN'S MATE

BM3
BM2
BM1
BMC
BMCS
BMCM

Exhibit Dates: 6/71–12/89.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *BM3:* Boatswain's Mate Third Class (E-4). *BM2:* Boatswain's Mate Second Class (E-5). *BM1:* Boatswain's Mate First Class (E-6). *BMC:* Chief Boatswain's Mate (E-7). *BMCS:* Senior Chief Boatswain's Mate (E-8). *BMCM:* Master Chief Boatswain's Mate (E-9).

Description

Summary: Knows shipboard operations, including stevedoring and maintenance; operates and maintains small boats and deck equipment and machinery; is knowledgeable of rigging, ship's security, deck seamanship, and navigation and piloting. *BM3:* Prepares metal and wood surfaces for primers and paints; prepares and applies primers and paints; rigs cargo-handling equipment to replenish ship at sea; handles cargo in port; knows signals for directing winch and crane operators; cares for and stows natural fiber, synthetic, and wire rope; makes fenders and eye splices; handles small boats as coxswain; uses navigational aids; understands limitations of small boats in rough weather, low visibility, and capacity; interprets Nautical Rules of the Road regarding crossing and overtaking situations and avoiding collisions; reads compasses; steers by compass; operates and maintains sewing machines for sewing canvas; stands watch as boatswain's-mate-of-the-watch at sea and in port; sends and receives communications by semaphore and flashing light; uses, maintains, repairs, and overhauls blocks, tackles, and shipboard rigging. *BM2:* Able to perform the duties required for BM3; supervises cargo handling; supervises rigging for fueling at sea, using the astern, constant-tension, spanwire, and close-in methods; maintains and overhauls anchors, chains, cables, connecting links and shackles; determines weather conditions from visual observations and instruments; rigs for towing and being towed; inspects and maintains lifeboats, life rafts, and survival equipment; launches and recovers lifeboats and ship's small craft; maintains hull records, painting records, and inventories of equipment, tools, and paint; obtains replacement equipment, tools and paint; prepares hull reports; supervises 6-40 persons performing work details, deck functions, general upkeep of ship, and maintenance and repair of deck equipment; maintains discipline; serves as master-at-arms and police petty officer. *BM1:* Able to perform the duties required for BM2; supervises repair parties during shipboard emergencies; determines ship's position by bearing, cross-bearing, and running fix; computes effects of wind and current; determines the appropriate rigging method to use; plans, organizes, and assigns work for 6-40 persons and trains and supervises them in all aspects of seamanship, equipment maintenance, and spare parts inventory; keeps records and logs. *BMC:* Able to perform the duties required for BM1; supervises the handling and storing of ammunition and flammables; supervises ship repair crews and the care, maintenance, and overhaul of ground tackle and rigging for mooring; operates and maneuvers service craft and other small craft in amphibious, docking and undocking, and rescue operations; uses tide and current tables and navigational aids; uses the three-minute rule to determine speed-distance-time; has a working knowledge of the inland and international Nautical Rules of the Road. *BMCS:* Able to perform the duties required for BMC; calculates the stability of the ship; coordinates shipboard activities during cargo operations and anchoring and mooring while underway and in port; supervises persons in all rates in a division of 20-30 persons; organizes and schedules training programs; prepares information directives and instructions for obtaining organizational objectives; prepares correspondence; establishes and implements a program for evaluating and assigning personnel; evaluates the division's effectiveness and initiates improvements. *BMCM:* Able to perform the duties required for BMCS; establishes objectives and priorities in area of responsibility; administers departmental long-range programs; coordinates salvage and rescue operations; develops operating budgets and monitors expenditures; plans;

organizes, and implements all deck departmental operations aboard ship in accordance with policies and procedures; reviews recommendations for individual advancement and career developments; reviews personnel, equipment, and material requirements and makes appropriate recommendations.

Recommendation, BM3

In the vocational certificate category, 3 semester hours in seamanship, 3 in rigging, and 1 in small crane signaling; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BM2

In the vocational certificate category, 4 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 4 semester hours in seamanship, 2 in record keeping, and 2 in personnel supervision; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BM1

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, and 2 in record keeping; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BMC

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation; if the duty assignment was boat captain of a harbor service craft, 3 additional semester hours in coastline navigation and piloting. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, 3 for field experience in management, and 2 in record keeping; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation; if the duty assignment was boat captain of a harbor service craft, 3 additional semester hours in coastline navigation and piloting (12/76).

Recommendation, BMCS

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 3 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation; if the duty assignment was boat captain of a harbor service craft, 3 additional semester hours in coastline navigation and piloting. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, 3 for field experience in management, 3 in record keeping, and 3 in management electives; if the duty assignment was boat coxswain, additional credit in small boat handling on the basis of institutional evaluation; if the duty assignment was boat captain of a harbor service craft, 3 additional semester hours in coastline navigation and piloting. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, BMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMCS. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in personnel management, 3 in management problems, and additional credit in human relations on the basis of institutional evaluation (12/76).

NER-BM-002

BOATSWAIN'S MATE

BM3
BM2
BM1
BMC
BMCS
BMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *BM3:* Boatswain's Mate Third Class (E-4). *BM2:* Boatswain's Mate Second Class (E-5). *BM1:* Boatswain's Mate First Class (E-6). *BMC:* Chief Boatswain's Mate (E-7). *BMCS:* Senior Chief Boatswain's Mate (E-8). *BMCM:* Master Chief Boatswain's Mate (E-9).

Description

Summary: Knows shipboard operations including stevedoring and maintenance; operates and maintains small boats and deck equipment and machinery; is knowledgeable of rigging, ship's security, deck seamanship, and navigation and piloting. *BM3:* Prepares metal and wood surface for primers and paints; prepares and applies primers and paints; rigs cargo handling equipment to replenish ship at sea; handles cargo in port; knows signals for directing winch and crane operators; cares for and stows natural fiber, synthetic, and wire rope; makes fenders and eye splices; handles small boats as coxswain; uses navigational aids; understands limitations of small boats in rough weather, low visibility, and capacity; interprets Nautical Rules of the Road regarding crossing and overtaking situations and avoiding collisions; reads compasses; steers by compass; operates and maintains sewing machine for sewing canvas; stands watch as boatswain's-mate-of-watch at sea and in port; uses, maintains, repairs, and overhauls blocks, tackles, and shipboard rigging. *BM2:* Able to perform the duties required for BM3; supervises cargo handling; supervises rigging for fueling at sea, using the astern, constant-tension, span-wire, and close-in methods; maintains and overhauls anchors, chains, cables, connecting links, and shackles; performs damage control and basic firefighting procedures; rigs for towing and being towed; inspects and maintains lifeboats, life rafts, and survival equipment; launches and recovers lifeboats and ship's small craft; maintains hull records, painting records, and inventories of equipment, tools and paints; obtains replacement equipment, tools, and paint; prepares hull reports; supervises 6-40 persons performing work details, deck functions, general upkeep of ship, and maintenance and repair of deck equipment; maintains discipline; serves as master-at-arms and police petty officer. *BM1:* Able to perform the duties required for BM2; supervises repair parties during shipboard emergencies; determines ship's position by bearing, cross-bearing, and running fix; computes effects of wind and current; determines the appropriate rigging method to use; plans, organizes, and assigns work for 6-40 persons and trains and supervises them in all aspects of seamanship, equipment maintenance, and spare parts inventory; keeps records and logs. *BMC:* Able to perform the duties required for BM1; supervises the handling and sorting of ammunition and flammables; supervises ship repair crews and the care, maintenance, and overhaul of ground tackle and rigging for mooring; operates and maneuvers service craft and other small craft in amphibious docking and undocking, and rescue operations; uses tide and current tables and navigational aids; uses the three-minute rule to determine speed-distance-time; has a working knowledge of the inland and international Nautical Rules of the Road. *BMCS:* Able to perform the duties required for BMC; calculates the stability of the ship; coordinates shipboard activities during cargo operations and anchoring and mooring while underway and in port; supervises persons in all rates in a division of 20-30 persons; organizes and schedules training programs; prepares information directives and instructions for attaining organizational objectives; prepares correspondence; establishes and implements a program for evaluating and assigning personnel; evaluates the division's effectiveness and initiates improvements. *BMCM:* Able to perform the duties required for BMCS: establishes objectives and priorities in area of responsibility; administers departmental long-range programs; coordinates salvage and rescue operations; develops operating budgets and monitors expenditures; plans, organizes, and implements all deck departmental operations aboard ship in accordance with policies and procedures; reviews and evaluates personnel, equipment, and material requirements and makes appropriate recommendations.

Recommendation, BM3

In the vocational certificate category, 1 semester hour in small boat handling, 1 in basic firefighting, 2 in rigging, and 2 in boat maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship and 2 in record-keeping (12/89).

Recommendation, BM2

In the vocational certificate category, the recommendation is the same as that for BM3. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 1 in advanced seamanship, 3 in record keeping, and 2 in personnel supervision (12/89).

Recommendation, BM1

In the vocational certificate category, the recommendation is the same as that for BM3. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 1 in advanced seamanship, 3 in recordkeeping, 3 in personnel supervision, and 1 in supply management (12/89).

Recommendation, BMC

In the vocational certificate category, the recommendation is the same as that for BM3. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 1 in advanced seamanship, 3 in recordkeeping, 3 in personnel supervision, 2 in supply management, 3 in coastal navigation and piloting, and 1 in personnel administration (12/89).

Recommendation, BMCS

In the vocational certificate category, the recommendation is the same as that for BM3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, BMCM

In the vocational certificate category, the recommendation is the same as that for BM3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMC. In the upper-division baccalaureate category, 6 smester hours for field experience in management and 3 in management problems (12/89).

(12/89).

NER-BT-001

BOILER TECHNICIAN

BT3
BT2
BT1
BTC
BTCS
BTCM

Exhibit Dates: 1/77–12/89. NOTE: The Boiler Technician rating has undergone several changes. In 6/71, there were two ratings: Boilermaker (BR) and Boilerman (BT). In 6/72, the title of Boilerman (BT) was changed to Boiler Technician (BT). In 1/77, the Boilermaker (BR) rating was discontinued and the duties were incorporated into the Boiler Technician (BT) rating. This evaluation covers the period from 1/77–12/89.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *BT3:* Boiler Technician, Third Class (E-4). *BT2:* Boiler Technician, Second Class (E-5). *BT1:* Boiler Technician, First Class (E-6). *BTC:* Chief Boiler Technician (E-7). *BTCS:* Senior Chief Boiler Technician (E-8). *BTCM:* Master Chief Boiler Technician (E-9).

Description

Summary: Operates and performs maintenance on marine boilers, pumps, blowers, and heat exchangers. *BT3:* Performs tests on boiler water, fuel and lubricating oils; operates and performs preventive maintenance on boilers and boiler auxiliary equipment; operates distilling plants; tests and calibrates gauges; exercises environmental control procedures to prevent or minimize air pollution and oil spills; completes maintenance data forms. *BT2:* Able to perform the duties required for BT3; recognizes and corrects boiler operating malfunctions; may supervise a fireroom watch; completes maintenance reports; inventories installed equipment and orders repair parts and tools; computes and records daily fuel oil and water receipts and expenditures. *BT1:* Able to perform the duties required for BT2; inspects boilers and advises on replacement and repair actions; installs boiler furance brickwork and insulation; instructs fireroom personnel in maintenance procedures and equipment operation; reviews maintenance data forms; prepares weekly maintenance schedules. *BTC:* Able to perform the duties required for BT; supervises maintenance and repair work; prepares reports; conducts on-the-job training; monitors maintenance and handling of logs, records, accounts, and reports; prepares quarterly maintenance schedules. *BTCS:* Able to perform the duties required for BTC; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares directives and instructions for attaining organization objectives; prepares correspondence; organizes and schedules training programs; administers a long-range planned maintenance program. *BTCM:* Able to perform the duties required for BTCS; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections; develops operating budgets and monitors expenditures.

Recommendation, BT3

In the vocational certificate category, 6 semester hours in mechanical maintenance or engine maintenance, 1 in blueprint reading, and 3 in maintenance technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering (steam generation), 3 in mechanical maintenance or engine maintenance, 1 in blueprint reading, and 3 in maintenance technology (12/78).

Recommendation, BT2

In the vocational certificate category, 10 semester hours in mechanical maintenance or engine maintenance, 1 in blueprint reading, 6 in maintenance technology, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, 4 in maintenance technology, and 1 in record keeping (12/78).

Recommendation, BT1

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, 4 in maintenance technology, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, BTC

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, 4 in maintenance technology, 2 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (12/78).

Recommendation, BTCS

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, BTCM

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-BT-002

BOILER TECHNICIAN

BT3
BT2
BT1
BTC
BTCS
BTCM

Exhibit Dates: 1/90–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *BT3:* Boiler Technician, Third Class (E-4). BT2 Boiler Technician, Second Class (E-5). *BT1:* Boiler Technician, First Class (E-6). *BTC:* Chief Boiler Technician (E-7). *BTCS:* Senior Chief Boiler Technician (E-8). *BTCM:* Master Chief Boiler Technician (E-9).

Description

Summary: Operates and performs maintenance on marine boilers, pumps, and other fireroom machinery. *BT3:* Performs tests on boiler water, fuel and lubricating oils; operates and performs preventive maintenance on boilers and boiler auxiliary equipment; operates distilling plants; tests and calibrates gauges; exercises environmental control procedures to prevent or minimize air pollution and oil spills; completes maintenance data forms. *BT2:* Able to perform the duties required for BT3; recognizes and corrects boiler operating malfunctions; may supervise a fireroom watch; completes maintenance reports; inventories installed equipment and orders repair parts and tools; computes and records daily fuel oil and water receipts and expenditures. *BT1:* Able to perform the duties required for BT2; inspects boilers and advises on replacement and repair actions; installs boiler furnace brickwork and insulation; instructs fireroom personnel in maintenance procedures and equipment operation; reviews maintenance data forms; prepares weekly maintenance schedules. *BTC:* Able to perform the duties required for BT1; supervises maintenance and repair work; supervises oil spill containment and collecting; prepares environment pollution reports; conducts on-the-job training; monitors maintenance and handling of logs, records, accounts and reports; prepares quarterly maintenance schedules. *BTCS:* Able to perform the duties required for BTC; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares directives and instructions for attaining organization objectives; prepares correspondence; organizes and schedules training programs; administers a long-range planned maintenance program. *BTCM:* Able to perform the duties required for BTCS; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections; develops operating budgets and monitors expenditures.

Recommendation, BT3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic machine engineering, 1 in blueprint reading, and 6 in maintenance technology (3/90).

Recommendation, BT2

In the lower-division baccalaureate/associate degree category, 5 semester hours in basic machine engineering, 1 in blueprint reading, 8 in maintenance technology, and 1 in recordkeeping (3/90).

Recommendation, BT1

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic machine engineering, 1 in blueprint reading, 9 in maintenance technology, 1 in recordkeeping, 2 in principles of supervision, and 2 in maintenance management (3/90).

Recommendation, BTC

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic machine engineering, 1 in blueprint reading, 9 in maintenance technology, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (3/90).

Recommendation, BTCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, BTCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/90).

NER-BU-001

BUILDER

BU3
BU2
BU1
BUC
BUCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *BU3:* Builder Third Class (E-4). *BU2:* Builder Second Class (E-5). *BU1:* Builder First Class (E-6). *BUC:* Chief Builder (E-7). *BUCS:* Senior Chief Builder (E-8). *CUCM:* Master Chief Contructionman (E-9).

Description

Summary: Performs tasks required for construction, maintenance, and repair of wooden, concrete, and masonry structures, concrete pavement, and waterfront and underwater structures. *BU3:* Places reinforcing steel; erects form members and strip forms; installs asphalt and vinyl floor coverings, interior wall coverings, door and window trim, moldings and glass; mixes, places, and finishes concrete; contructs masonry, metal, light wood frame, and timber structures; operates and performs operator maintenance on assigned vehicles and on diesel and gas driven air compressors and portable generators; performs calculations for simple areas and volumes; identifies and interprets grade and site stakes. *BU2:* Able to perform the duties required for BU3; works from construction drawings and specifications; draws simple shop drawings and sketches; prepares standard requisitions; performs shoring of small excavations; performs layout for and directs crews in erecting and stripping concrete form; establishes lines and elevations and layout for concrete masonry unit and brick construction; performs layout plan, and directs crews in the construction of light wood frame and timber structures; erects pre-engineered buildings; directs crews in mixing, placing, finishing, and curing concrete; computes quantities of materials for various concrete mixes, mortar, and stucco; applies roofing materials; operates and maintains paint-spraying and concrete-pumping equipment; operates and performs operator maintenance on stud guns; computes volume of irregular shaped solids. *BU1:* Able to perform the duties required for BU2; prepares work progress reports; implements training for team and crew members; performs shoring of large excavations, buildings and structures; directs installation of all types of interior walls, tile, and suspended acoustic tile systems; directs pile-driving operations and teams in the construction of wood, masonry, and metal structures; directs crews in concrete construction; organizes daily work assignments; prepares equipment, manpower, and material estimates; uses principles of Critical Path Method (CPM) scheduling; performs construction and maintenance inspections; conducts slump tests on concrete and adjusts mixes; performs duties of carpenter shop supervisor, shop planner, and maintenance scheduler. *BUC:* Able to perform the duties required for BU1; drafts correspondence; prepares reports; supervises and coordinates all unit tasks; provides technical advice and assistance on plans and specifications and on construction and maintenance techniques; implements maintenance and cost control program; prepares and maintains progress charts. *BUCS:* Able to perform the duties required for BUC; provides information and advice on operations in own area of responsibility; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program to assure maximum utilization of personnel; determines requirements for advanced planning; coordinates equipment assignment; is capable of directing the operation and maintenance of all utilities and the repair, alteration and maintenance of all facilities under the congnizance of a public works department; directs transportation and equipment services to all activities and supervises maintenance of all equipment used for that purpose; establishes maintenance and cost control program; coordinates the preparation and submission of related reports.

Recommendation, BU3

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in construction techniques, and 2 in equipment operation and maintenance. In the upper-division baccalaureate category, 1 semester hour in construction materials and 1 in construction techniques (1/77).

Recommendation, BU2

In the vocational certificate category, 6 semester hours in construction techniques, 3 in introduction to construction, 3 in construction materials, 2 in blueprint reading, and 2 in equipment operation and maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction techniques, 2 in general plans and specifications, and 1 in construction materials (1/77).

Recommendation, BU1

In the vocational certificate category, 9 semester hours in construction techniques, 3 in introduction to construction, 3 in construction materials, 3 in estimating and scheduling, 3 in technical mathematics, 2 in blueprint reading, and 2 in equipment operation and maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction techniques, 2 in general plans and specifications, 2 in fundamentals of supervision, 1 in construction materials, 1 in construction estimating, 1 in construction management, and 1 in technical mathematics (1/77).

Recommendation, BUC

In the vocational certificate category, the recommendation is the same as that for BU1. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction techniques, 3 in fundamentals of supervision, 3 for field experience in construction management, 3 in general plans and specifications, 2 in construction management, 2 in records and cost control, 2 in construction materials, 1 in construction estimating, and 1 in technical mathematics (1/77).

Recommendation, BUCS

In the vocational certificate category, the recommendation is the same as that for BU1. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in construction management, 3 in construction techniques, 3 in fundamentals of supervision, 3 in general plans and specifications, 3 in records and cost control, 2 in construction management, 2 in construction materials, 2 in technical writing, and 1 in technical mathematics. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

NER-CE-001

CONSTRUCTION ELECTRICIAN

CE3
CE2
CE1
CEC
CECS

Exhibit Dates: 6/72–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *CE3:* Construction Electrician Third Class (E-4). *CE2:* Construction Electrician Second Class (E-5). *CE1:* Construction Electrician First Class (E-6). *CEC:* Chief Construction Electrician (E-7). *CECS:* Senior Chief Construction Electrician (E-8). *UTCM:* Master Chief Utilitiesman (E-9).

Description

Summary: Plans supervises, and performs tasks required to install, operate, service, and overhaul electric generating and distribution systems, wire communication systems, and associated equipment. *CE3:* Erects and climbs poles; installs storage and dry cell batteries; installs electrical appliances and equipment; operates vehicles and performs pre-start checks and operator maintenance; performs preventive maintenance and minor repairs on electrical power tools, appliances, and equipment, and on interior wiring systems, power distribution systems, and tactical field telephone systems. *CE2:* Able to perform the duties required for CE3; draws simple shop drawings and sketches; reads and works from construction drawings and specifications; prepares time cards and material requisitions; installs advanced-base type generators and distribution panels, public address equipment, electrical conduits, wiring systems, automatic controls for boilers and for air-conditioning and refrigeration equipment; operates and performs pre-start checks and operator maintenance on auger trucks and bucket trucks; maintains and repairs tactical field telephones, appliances, and equipment, wiring systems, automatic controls for boilers and for air-conditioning and refrigeration systems, distribution systems, and public address systems. *CE1:* Able to perform the duties required for CE2; prepares as-built drawings; prepares work progress and material usage reports; conducts personnel readiness program interviews; maintains standard forms used by the maintenance or utilities division of a public works activity; implements training for team or crew members; directs personnel in the installation and operation of advanced-base type generating equipment, security and air field lighting systems, and fire detection and alarm systems; organizes work assignments; prepares estimates from drawings and specifications; conducts inspections; troubleshoots systems; performs technical maintenance and repairs; calibrates automatic controls; computes load requirements. *CEC:* Able to perform the duties required for CE1; prepares letters, instructions, and reports; administers safety program; assigns personnel; supervises and coordinates all tasks assigned to a unit; provides technical advice and assistance; implements cost control program. *CECS:* Able to perform the duties required for CEC; prepares local directives and instructions for attaining organizational objectives; establishes and implements a program to assure maximum utilization of personnel and equipment; directs the operation and maintenance of all facilities and equipment used in the public works department; organizes, schedules, and evaluates training programs.

Recommendation, CE3

In the vocational certificate category, 3 semester hours in basic electricity and 3 in introduction to construction. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CE2

In the vocational certificate category, 3 semester hours in basic electricity, 3 in intermediate electricity, 3 in introduction to construction, and 2 in blueprint reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in blueprint reading, and 1 in electrical construction laboratory. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CE1

In the vocational certificate category, 3 semester hours in basic electricity, 3 in intermediate electricity, 3 in advanced electricity, 3 in introduction to construction, and 2 in blueprint reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in electrical construction laboratory, 2 in electrical problems (toubleshooting), 2 in blueprint reading, 1 in records administration, and 1 in personnel supervision. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CEC

In the vocational certificate category, the recommendation is the same as that for CE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in electrical construction laboratory, 2 in electrical problems (troubleshooting), 2 in blueprint reading, 2 in shop management, 2 in personnel supervision, 1 in records administration, and 1 in safety management. In the upper-division baccalaureate category, 3 semester hours in human relations. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CECS

In the vocational certificate category, the recommendation is the same as that for CE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in personnel supervision, 2 in electrical construction laboratory, 2 in electrical problems (troubleshooting), 2 in blueprint reading, 2 in shop management, 2 in records administration, and 1 in safety management. In the upper-division baccalaureate category, 3 semester hours in human relations and 3 for a practicum in management. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

NER-CM-001

CONSTRUCTION MECHANIC

CM3
CM2
CM1
CMC
CMCS

Exhibit Dates: 6/71-Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *CM3:* Construction Mechanic Third Class (E-4). *CM2:* Construction Mechanic Second Class (E-5). *CM1:* Construction Mechanic First Class (E-6). *CMC:* Chief Construction Mechanic (E-7). *CMCS:* Senior Chief Construction Mechanic (E-8). *EQCM:* Master Chief Equipmentman (E-9).

Description

Summary: Maintains, repairs, and overhauls automotive, construction, and materials-handling equipment; keeps equipment maintenance records; prepares requisitions and reports; trains subordinates in maintenance procedures and techniques. *CM3:* Works from shop drawings, specifications, and repair and parts manuals; performs preventive maintenance; operates equipment during test procedures; repairs braking systems; tests electrical systems and makes minor repairs. *CM2:* Able to perform the duties required for CM3; prepares time sheets, material distribution records, equipment historical files, and parts and material requisitions; performs engine diagnosis and corrects problems through subassembly repair or replacement; repairs and adjusts steering system; performs minor body repairs and painting; performs gas welding, cutting, and brazing; operates construction, automotive, and material equipment during diagnosis and testing; rebuilds components. *CM1:* Able to perform the duties required for CM2; prepares work progress reports and provides material usage data; conducts personnel readiness capability program interviews; prepares vehicle and equipment inspection reports; implements training for crews and overhauls internal-combustion engines; diagnoses engine malfunctions; tests, diagnoses, overhauls, and adjusts diesel engine fuel systems; diagnoses malfunctions and repairs power train units (except torque convertor power shift and automatic transmission); troubleshoots hydraulic, air, and vacuum braking systems; supervises personnel repairing automotive, construction, and material-handling equipment; performs diagnosis and repair of standard and electronic ignition systems, using test equipment; organizes work assignments for team and crew leaders; prepares equipment, manpower, and material estimates from drawings and specifications; uses principles and techniques of Critical Path Method (CPM) scheduling; identifies fossil fuel and combustion polluting components and applies atmospheric pollution control measures. *CMC:* Able to perform the duties required for CM1; drafts letters, instructions, and notices; prepares reports; administers accident prevention program; coordinates the assignment of tasks to department and unit personnel; provides technical advice and assistance; implements maintenance and cost control program; organizes and controls the use of equipment and material. *CMCS:* Able to perform the duties required for CMC; organizes, schedules, and evaluates training programs; prepares directives and instructions for attaining organizational objectives; prepares correspondence; establishes and implements a program for interviewing and evaluating personnel; coordinates equipment assignment among various units, according to priorities; directs transportation and equipment services; establishes maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage, and maintenance data; prepares and submits related reports.

Recommendation, CM3

In the vocational certificate category, 9 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive, diesel, or truck mechanics and 1 in care and use of tools. In an automotive, diesel, or truck mechanic apprentice training program, 1,500 clock hours of experience and 144 contact hours of related instruction (1/77).

Recommendation, CM2

In the vocational certificate category, 15 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive, diesel, or truck mechanics, 3 in shop practices, and 1 in care and use of tools. In an automotive, diesel, or truck mechanic apprentice training program, 3,000 clock hours of experience and 288 contact hours of related instruction (1/77).

Recommendation, CM1

In the vocational certificate category, 18 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 2 in personnel supervision, 1 in records administration, and 1 in care and use of tools. In an automotive, diesel, or truck mechanic apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction (1/77).

Recommendation, CMC

In the vocational certificate category, 18 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 3 in personnel supervision, 2 in records administration, and 1 in care and use of tools. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as an automotive, diesel, or truck mechanic (1/77).

Recommendation, CMCS

In the vocational certificate category, 18 semester hours in diesel, truck, or automotive mechanics, 3 in leadership, and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 3 in personnel supervision, 3 in records administration, 3 in introduction to management, and 1 in care and use of tools. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in human relations. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as an automotive, diesel, or truck mechanic (1/77).

NER-CN-001

CONSTRUCTIONMAN

Exhibit Dates: 6/71–Present.

Career Pattern

Constructionman (CN) is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (Constructionman apprentice), and E-3 (Constructionman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), or Utilitiesman (UT).

Description

Is introduced to all phases of construction work, including construction equipment operation and equipment maintenance, surveying and drafting, site preparaton and earthwork, concrete and masonry, steelwork, carpentry and painting, utilities, and tools; understands the mission of the various operating units of the Naval construction force; reads simple sketches used in construction; has basic knowledge of map and compass techniques; knows hand signals for construction equipment operation; uses and maintains common measuring, cutting, line-clearing, manual excavating, and portable power tools; paints with brushes and rollers; knows safety requirements regarding construction equipment and tools, fuels, paints, and electricity; knows first-aid procedures for controlling bleeding, preparing and applying improvised splints, administering artificial respiration, treating heat exhaustion and heat stroke, and transporting injured persons; knows symptons of and immediate treatment for shock; can classify and administer first-aid treatment of burns.

Recommendation

In the vocational certificate category, 3 semester hours in introduction to construction procedures, 1 in map and compass reading and interpretation, and 1 in first aid. In the lower-division baccalaureate/associate degree category, 1 semester hour in map and compass reading and interpretation and 1 in first aid (1/77). NOTE: Credit for Constructionman (CN) should be granted only after pay grade E-3 has been achieved.

NER-CTA-001

CRYPTOLOGIC TECHNICIAN,
ADMINISTRATIVE
(COMMUNICATIONS TECHNICIAN,
ADMINISTRATIVE)

CTA3
CTA2
CTA1
CTAC
CTACS
CTACM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTA3:* Cryptologic Technician, Administrative, Third Class (E-4). *CTA2::* Cryptologic Technician, Administrative, Second Class (E-5). *CTA1:* Cryptologic Technician, Administrative, First Class (E-6). *CTAC:* Chief Cryptologic Technician, Administrative (E-7). *CTACS:* Senior Chief Cryptologic Technician, Administrative (E-8). *CTACM:* Master Chief Cryptologic Technician, Administrative (E-9).

Description

Summary: Performs general office duties in an administrative office. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *CTA3:* Types messages, correspondence, directives, and reports; operates office equipment; files correspondence and directives; types at 30 words per minute. *CTA2:* Able to perform the duties required for CTA3; types at 40 words per minute; drafts correspondence and messages; organizes and maintains files; estimates requirements and requisitions office supplies. *CTA1:* Able to perform the duties required for CTA2; types at 50 words per minute; requisitions, maintains, issues, and accounts for training and educational manuals and materials; advises personnel on educational and training matters. *CTAC:* Able to perform the duties required for CTA1; supervises the daily operation of an administration office; establishes work priorities and assigns work; ensures timely and accurate submission of reports; evaluates administrative reports and outgoing reports for adequacy and accuracy; interprets and analyzes manpower authorizations; coordinates preparation of manpower organization; coordinates submission of performance evaluations. *CTACS:* Able to perform the duties required for CTAC; manages the preparation, supervision, and evaluation of administrative functions; prepares recommended changes to administrative procedures; prepares local directives and instructions for attaining objectives; establishes and maintains a system for the control, updating, and maintenance of administrative files, instructions, and publications; interviews, evaluates, and assigns personnel; provides written evaluations of subordinate personnel; prepares correspondence and ensures its adequacy; and schedules local training programs. *CTACM:* Able to perform the duties required for CTACS; plans, organizes, implements, and controls administrative procedures that comply with policy statements; forecasts future requirements for personnel, equipment, and organization; establishes goals and objectives; reviews and evaluates personnel; performs organizational analysis, manpower analysis, and workloads; develops operating budget and monitors expenditures.

Recommendation, CTA3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in office practices and procedures and 2 in typewriting (2/81).

Recommendation, CTA2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in office practices and procedures and 3 in typewriting (2/81).

Recommendation, CTA1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 5 semester hours in office practices and procedures, 3 in typewriting, and 3 in written communications (2/81).

Recommendation, CTAC

In the vocational certificate category, the recommendation is the same as that for CTA1. In the lower-division baccalaureate/associate degree category, 5 semester hours in office practices and procedures, 3 in written communications, 3 in typewriting, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management (2/81).

Recommendation, CTACS

In the vocational certificate category, the recommendation is the same as that for CTA1. In the lower-division baccalaureate/associate degree category, 5 semester hours in office practices and procedures, 3 in written communications, 3 in typewriting, 2 in personnel supervision, and 2 in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 2 in personnel management, and 3 for field experience in management (2/81).

Recommendation, CTACM

In the vocational certificate category, the recommendation is the same as that for CTA1. In the lower-division baccalaureate/associate degree category, 5 semester hours in office practices and procedures, 3 in written communications, 3 in typewriting, 2 in personnel supervision, 2 in administrative communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 for field experience in management, and 2 in management problems (2/81).

NER-CTI-001

CRYPTOLOGIC TECHNICIAN, INTERPRETIVE (COMMUNICATIONS TECHNICIAN, INTERPRETIVE)

CTI3
CTI2
CTI1
CTIC
CTICS
CTICM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTI3:* Cryptologic Technician, Interpretive, Third Class (E-4). *CTI2:* Cryptologic Technician, Interpretive, Second Class (E-5). *CTI1:* Cryptologic Technician, Interpretive, First Class (E-6). *CTIC:* Chief Cryptologic Technician, Interpretive (E-7). *CTICS:* Senior Chief Cryptologic Technician, Interpretive (E-8). *CTICM:* Master Chief Cryptologic Technician, Interpretive (E-9).

Description

Summary: Translates routine intercepted communications. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *CTI3:* Possesses advanced abilities in at least one foreign language; translates routine intercepted communications; maintains logs, records, files, and publications; operates recording equipment; types 25 words per minute. *CTI2:* Able to perform the duties required for CTI3; identifies categories of significant intelligence alerts; plots bearings of intercepted signals; recognizes and reports unusual communication activity; prepares routine technical reports; identifies foreign languages likely to be encountered in the local signal environment. *CTI1:* Able to perform the duties required for CTI2; assists in the planning of support operations for designated missions; prepares technical reports; uses computers for word analysis of intercepted communications; writes personnel evaluation reports. *CTIC:* Able to perform the duties required for CTI1; supervises division-level foreign language processing activities; establishes and maintains a quality-control system for processing and reporting functions; prepares plans to assure coverage of intercepted messages; identifies procedures for handling sensitive and critical messages; prepares reports of activities. *CTICS:* Able to perform the duties required for CTIC; prepares, conducts and evaluates foreign language support activities; provides advice on utilization, reliability, capabilities, and operations; prepares directives and instructions for attaining unit objectives; prepares correspondence; interviews, evaluates and assigns personnel; writes evaluations of reports; establishes and maintains a system for control, corrrection and updating of publications file, instructions, and functional files; administers classified material control system and records disposal program; organizes and schedules local training programs. *CTICM:* Able to perform the duties required for CTICS; plans, organizes, implements, and controls activities that comply with policy statements; forecasts future requirements for personnel, material, and equipment; establishes goals, objectives, and priorities in own area of responsibility; reviews and evaluates personnel, including written evaluations; performs organizational analysis, manpower analysis, and workloads; develops operating budget and monitors expenditures.

Recommendation, CTI3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 1 in written communication skills, and 1 in oral communication skills. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

Recommendation, CTI2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in written communication skills, and 2 in oral communication skills. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

Recommendation, CTI1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in written communication skills, and 3 in oral communication skills. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

Recommendation, CTIC

In the vocational certificate category, the recommendation is the same as that for CTI1. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in written communication skills, 3 in oral communication skills, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

Recommendation, CTICS

In the vocational certificate category, the recommendation is the same as that for CTI1. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in written communication skills, 3 in oral communication skills, 2 in personnel supervision, and 2 in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management and 2 in personnel management. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

Recommendation, CTICM

In the vocational certificate category, the recommendation is the same as that for CTI1. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in written communication skills, 3 in oral communication skills, 2 in personnel supervision, 2 in administrative communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, 2 in management problems, and 3 in personnel management. NOTE: Add credit for the specific foreign language in accordance with the recommendation in Volume 4 of the Guide to the Evaluation of Educational Experiences in the Armed Services (2/81).

NER-CTM-001

CRYPTOLOGIC TECHNICIAN, MAINTENANCE (COMMUNICATIONS TECHNICIAN, MAINTENANCE)

CTM3
CTM2
CTM1
CTMC
CTMCS
CTMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTM3:* Cryptologic Technician, Maintenance, Third Class (E-4). *CTM2:* Cryptologic Technician, Maintenance, Second Class (E-5). *CTM1:* Cryptologic Technician, Maintenance, First Class (E-6). *CTMC:* Chief Cryptologic Technician, Maintenance (E-7). *CTMCS:* Senior Chief Cryptologic Technician, Maintenance (E-8). *CTMCM:* Master Chief Cryptologic Technician, Maintenance (E-9).

Description

Summary: Repairs and performs maintenance on electronic systems. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *CTM3:* Repairs analog and digital electronic systems; reads schematic diagrams and identifies physical components; knows theory of operation and function of power supplies, amplifiers, oscillators, and fillers; uses meters, oscilloscopes, and signal generators to troubleshoot systems; knows the relationships between current, voltage, and power in AC and DC circuits containing resistors, capacitors, and inductors; uses Boolean Algebra truth tables to evaluate digital logic circuits; uses and maintains hand and power tools. *CTM2:* Able to perform the duties required for CTM3; performs maintenance on computers; knows theory of operation of digital computers including control units, memory, and input/output; knows techniques of analog-digital and digital-analog conversion; prepares maintenance schedules. *CTM1:* Able to perform the duties required for CTM2; aligns, adjusts, and calibrates electronic equipment; troubleshoots, diagnoses, and repairs complex malfunctions. *CTMC:* Able to perform the duties required for CTM1; provides maintenance support services; evaluates operational test results against engineering design standards on electronic systems; supervises and evaluates subordinate personnel; prepares written evaluation reports; establishes schedules of calibration, alignment and preventative maintenance; allocates and assigns personnel; manages safety program, determines safety of work areas, and corrects discrepancies; provides technical and supervisory liaison between assigned work centers. *CTMCS:* Able to perform the duties required for CTMC; prepares technical reports and evaluations on operational performance installed at assigned location; evaluates test and performance results against design standards, prepares directives for attaining unit objectives; evaluates and assigns personnel; prepares and implements local safety and security directives; administers long-range maintenance program; supervises and evaluates subordinate personnel. *CTMCM:* Able to perform the duties required for CTMCS; manages personnel and resources; plans, organizes, implements, and controls activities in maintenance of electronics equipment; coordinates overall maintenance effort with other departments; establishes goals, objectives, and priorities in own areas of responsibility; forecasts future requirements and initiates action to satisfy objectives and requirements; evaluates subordinate supervisors and other personnel; develops operating budget and monitors expenditures.

Recommendation, CTM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 2 in solid-state circuitry, 3 in troubleshooting techniques, and 5 in digital electronics (2/81).

Recommendation, CTM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 3 in solid-state circuitry, 5 in troubleshooting techniques, and 6 in digital electronics (2/81).

Recommendation, CTM1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 4 in solid-state circuitry, 6 in troubleshooting techniques, and 7 in digital electronics (2/81).

Recommendation, CTMC

In the vocational certificate category, the recommendation is the same as that for CTM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 4 in solid-state circuitry, 6 in troubleshooting techniques, 7 in digital electronics, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management (2/81).

Recommendation, CTMCS

In the vocational certificate category, the recommendation is the same as that for CTM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 4 in solid-state circuitry, 6 in troubleshooting techniques, 7 in digital electronics, 2 in personnel supervision, and 2in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, and 2 in personnel management (2/81).

Recommendation, CTMCM

In the vocational certificate category, the recommendation is the same as that for CTM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory electronics, 3 in circuit analysis, 4 in solid state circuitry, 6 in troubleshooting techniques, 7 in digital electronics, 2 in personnel supervision, 2 in administrative communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, 2 in management problems, and 3 in personnel management (2/81).

NER-CTO-001

Cryptologic Technician,
Communications
(Communications Technician,
Communications)

CTO3
CTO2
CTO1
CTOC
CTOCS
CTOCM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTO3:* Cryptologic Technician, Communications, Third Class (E-4). *CTO2:* Cryptologic Technician, Communications, Second Class (E-5). *CTO1:* Cryptologic Technician, Communications, First Class (E-6). *CTOC:* Chief Cryptologic Technician, Communications (E-7). *CTOCS:* Senior Chief Cryptologic Technician, Communications (E-8). *CTOCM:* Master Chief Cryptologic Technician, Communications (E-9).

Description

Summary: Operates on-line cryptographic devices and teletype equipment. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *CTO3:* Sends and receives communications by automated communications processing systems; types at 35 words per minute; maintains logs, records, files, and publications; inspects, cleans, and makes operational adjustments to keyboard equipment. *CTO2:* Able to perform the duties required for CTO3; requisitions supplies and maintains stock level; prepares messages. *CTO1:* Able to perform the duties required for CTO2; types at 40 words per minute; prepares operations and technical reports; plans and conducts operations; identifies the purpose of the various special security communications systems and networks operated by Naval security. *CTOC:* Able to perform the duties required for CTO1; supervises and maintains communications center; supervises and evaluates subordinate personnel; prepares written evaluation reports; prepares requests for activation or deactivation of communications networks; allocates and tasks manpower assets to complete workload; manages safety program and maintenance program in work area. *CTOCS:* Able to perform the duties required for CTOC; prepares, supervises, and evaluates cryptographic operations; prepares changes to security regulations; advises on utilization, capabilities, reliability and operations in own area of responsibility; establishes and implements program for interviewing, evaluating, and assigning personnel; supervises classified material control systems; administers and evaluates security requirements; organizes and schedules local training programs. *CTOCM:* Able to perform the duties required for CTOCS; plans, organizes, implements, and controls activities that comply with policy statements; forecasts future requirements for own area of responsibility; establishes goals and objectives; reviews and evaluates personnel; performs organizational analysis, manpower analysis, and workloads; develops operating budget and monitors expenditures; may manage three or four Navy shops or shop crews.

Recommendation, CTO3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (2/81).

Recommendation, CTO2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typewriting (2/81).

Recommendation, CTO1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting and 2 in introduction to computer operations (2/81).

Recommendation, CTOC

In the vocational certificate category, the recommendation is the same as that for CTO1. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in introduction to computer operations, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management (2/81).

Recommendation, CTOCS

In the vocational certificate category, the recommendation is the same as that for CTO1. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in introduction to computer operations, 2 in personnel supervision, and 2 in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 2 in personnel management, and 3 for field experience in management (2/81).

Recommendation, CTOCM

In the vocational certificate category, the recommendation is the same as that for CTO1. In the lower-division baccalaureate/associate degree category, 3 semester hour hours in typewriting, 2 in introduction to computer operations, 2 in personnel supervision, 2 in administrative communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 in personnel management, 3 for field experience in management, and 2 in management problems (2/81).

NER-CTR-001

Cryptologic Technician, Collection
(Communications Technician,
Collection)

CTR3
CTR2
CTR
CTRC
CTRCS
CTRCM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTR3:* Cryptologic Technician, Collection, Third Class (E-4). *CTR2:* Cryptologic Technician, Collection, Second Class (E-5). *CTR1:* Cryptologic Technician, Collection, First Class (E-6). *CTRC:* Chief Cryptologic Technician, Collection (E-7). *CTRCS:* Senior Chief Cryptologic Technician, Collection (E-8). *CTRCM:* Master Chief Cryptologic Technician, Collection (E-9).

Description

Summary: Operates equipment that receives and tape records radio waves. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competenties and knowledges associated with the rating were evaluated. *CTR3:* Operates receiving and recording equipment; identifies callsigns and encrypted callsigns; types messages received; knows operating and procedure signals; identifies natural and manmade radio interference; recognizes and reports unusual radio wave activity; handles magnetic tapes and makes recordings; maintains files, records, logs, and publications. *CTR2:* Able to perform the duties required for CTR3; is familiar with various systems for direction finding; loads and operates data processing computers. *CTR1:* Able to perform the duties required for CTR2; designs plans for intercept coverage; has knowledge of the geographical, political, and economic characteristics of target area; drafts status reports. *CTRC:* Able to perform the duties required for CTR1; supervises the preparation for, and conduct of, support operations in the area of information collection; prepares plan for signal security; supervises and evaluates subordinate personnel; prepares written evaluation reports; prepares reports of significant activities; drafts security reports and other reports as required; identifies communications circuits required for specific geographic areas. *CTRCS:* Able to perform the duties required for CTRC; manages the preparation and evaluation of support operations relating to information collection; prepares recommended changes for submission in area of responsibility; advises on utilization, capabilities, reliability, and operations; establishes and implements a program for interviewing, evaluating, and assigning personnel; prepares personnel utilization report; establishes and maintains a system for the control, maintenance, and updating of publications,instructions, and functional files; administers records disposal program; prepares correspondence, local directives, and instructions in the conduct of operations; organizes and schedules local training programs; prepares rough-draft budget estimates in area of operations. *CTRCM:* Able to perform the duties required for CTRCS; plans, organizes, implements, and controls activities that comply with policy statements; forecasts future requirements for own area of responsibility; establishes goals and objectives; reviews and evaluate personnel, including written evaluations; performs analyses of organization tools, manpower, and workload; develops operating budget and monitors expenditures.

Recommendation, CTR3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (2/81).

Recommendation, CTR2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting and 2 in introduction to computer operations (2/81).

Recommendation, CTR1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting and 2 in introduction to computer operations (2/81).

Recommendation, CTRC

In the vocational certificate category, 2 semester hours in typewriting and 2 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in introduction to computer operations, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management (2/81).

Recommendation, CTRCS

In the vocational certificate category, 2 semester hours in typewriting and 2 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in introduction to computer operations, 2 in computer operations, 2 in personnel supervision, and 2 in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 2 in personnel management, and 3 for field experience in management (2/81).

Recommendation, CTRCM

In the vocational certificate category, 2 semester hours in typewriting and 2 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 2 in introduction to computer operations, 2 in personnel supervision, 2 in administrative communications, and 2 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 2 in management problems, 3 for field experience in management, and 3 in personnel management (2/81).

NER-CTT-001

CRYPTOLOGIC TECHNICIAN, TECHNICAL
(COMMUNICATIONS TECHNICIAN,
TECHNICAL)

CTT3
CTT2
CTT1
CTTC
CTTCS
CTTCM

Exhibit Dates: 6/71–Present.

Occupational Field: 20 (Cryptology).

Career Pattern

SN: Seaman (E-3). *CTT3:* Cryptologic Technician, Technical, Third Class (E-4). *CTT2:* Cryptologic Technician, Technical, Second Class (E-5). *CTT1:* Cryptologic Technician, Technical, First Class (E-6). *CTTC:* Chief Cryptologic Technician, Technical (E-7). *CTTCS:* Senior Cryptologic Technician, Technical (E-8). *CTTCM:* Master Chief Cryptologic Technician, Technical (E-9).

Description

Summary: Operates a computer system and monitors operational functions. NOTE: Many of the duties required for this rating involve highly classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *CTT3:* Able to identify and classify the general characteristics of electromagnetic energy, interference, and common emitters; operates a computer system; types at 20 words per minute; inspects, cleans, and makes necessary adjustments to keyboard equipment; performs minor repairs; maintains logs, records, files, and publications. *CTT2:* Able to perform the duties required for CTT3; prepares routine technical reports; uses analysis equipment including signal generators, graphic recorders, and spectrum analyzers. *CTT1:* Able to perform the duties required for CTT2; identifies and analyzes complex and sophisticated radio signals; performs system analysis to ensure effective data flow; prepares technical reports. *CTTC:* Able to perform the duties required for CTT1; supervises and maintains communications center; supervises and evaluates subordinate personnel; prepares written evaluation reports; prepares requests for activation or deactivation of communications networks; allocates and tasks manpower assets to complete workload; manages safety program and maintenance program in work area. *CTTCS:* Able to perform the duties required for CTTC; prepares, supervises, and evaluates crypotographic operations; prepares changes to security regulations; advises on utilization, capabilities, reliability, and operations in own area of responsibility; establishes and implements program for interviewing, evaluating, and assigning personnel; supervises classified material control systems; administers and evaluates security requirements; organizes and schedules local training programs. *CTTCM;:* Able to perform the duties required for CTTCS; plans, organizes, implements, and controls activities that comply with policy statements; forecasts future requirements for own area of responsibility; establishes goals and objectives; reviews and evaluates personnel; performs organizational analysis, manpower analysis, and workloads; develops operating budget and monitors expenditures; may manage 3 or 4 Navy shops or shop crews.

Recommendation, CTT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (2/81).

Recommendation, CTT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (2/81).

Recommendation, CTT1

In the vocational certificate category, 2 semester hours in typewriting and 3 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in introduction to computer operations, and 1 in technical report writing (2/81).

Recommendation, CTTC

In the vocational certificate category, 2 semester hours in typewriting and 3 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in introduction to computer operations, 1 in technical report writing, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in introduction to management (2/81).

Recommendation, CTTCS

In the vocational certificate category, 2 semester hours in typewriting and 3 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in introduction to computer operations, 1 in technical report writing, 2 in personnel supervision, and 2 in administrative communications. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, and 2 in personnel management (2/81).

Recommendation, CTTCM

In the vocational certificate category, 2 semester hours in typewriting and 3 in introduction to computer operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting, 3 in introduction to computer operations, 1 in technical report writing, 2 in personnel supervision, 2 in administrative communications, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in introduction to management, 3 for field experience in management, 2 in management problems, and 3 in personnel management (2/81).

NER-CU-001

CONSTRUCTIONMAN, MASTER CHIEF

CUCM

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

May progress to CUCM, Master Chief Constructionman (E-9), from BUCS, Senior Chief Builder (E-8), or EACS, Senior Chief Engineering Aid (E-8), or SWCS Senior Chief Steelworker (E-8).

Description

Able to perform the duties required for BUCS (Senior Chief Builder), OR EACS (Senior Chief Engineering Aid), OR SWCS (Senior Chief Steelworker); establishes goals and sets priorities in area of responsibility; uses the Critical Path Method; forecasts future personnel equipment, and material requirements and takes necessary action to satisfy them; develops procedures for work improvement and simplification through organizational analysis; prepares correspondence and reports; serves as a construction inspector; manages a contracts inspection branch; implements pollution control program and energy conservation program; assists in the management and operations of a public works department; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, the recommendation is the same as that for BU1 (Builder First Class) in exhibit NER-BU-001 or EA1 (Engineering Aid First Class) in exhibit NER-EA-001 or NER-EA-002, or SW1 (Steelworker First Class), in exhibit NER-SW-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting procedures; add the 25 semester hours for BUCS (Senior Chief Builder) in exhibit NER-BU-001, or the 25 semester hours for EACS (Senior Chief Engineering Aid) in exhibit NER-EA-001, or the 26 semester hours in exhibit NER-EA-002, or the 21 semester hours for SWCS (Senior Chief Steelworker) in exhibit NER-SW-001. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in forecasting, and 3 in management problems; add the 6 semester hours for BUCS in exhibit NER-BU-001, or the 6 semester hours for EACS in exhibit NER-EA-001 or NER-EA-002, or the 9 semester hours for SWCS in exhibit NER-SW-001, as appropriate (1/77).

NER-DC-001

DAMAGE CONTROLMAN

DC3
DC2
DC1
DCC
DCCS
DCCM

Exhibit Dates: 4/87–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *DC3:* Damage Controlman, Third Class (E-4). *DC2:* Damage Controlman, Second Class (E-5). *DC1:* Damage Controlman, First Class (E-6). *DCC:* Chief Damage Controlman (E-7). *DCCS:* Senior Chief Damage Controlman (E-8). *DCCM:* Master Chief Damage Controlman (E-9).

Description

Summary: Performs organizational and intermediate level maintenance and repair of damage control equipment and systems; plans, supervises, and performs tasks necessary for damage control, ship stability, preservation of watertight integrity, firefighting, and chemical, biological, and radiological (CBR) warfare defense. *DC3:* Operates and maintains firefighting, fixed-flooding, washdown, ventilation, de-watering, and air test equipment, and damage control life support devices. *DC2:* Able to perform the duties required for DC3; performs radiological and chemical monitoring and surveying; serves as on-scene leader; organizes and directs fire party; inventories damage control equipment. *DC1:* Able to perform the duties required for DC2; instructs and coordinates damage control parties; instructs personnel in the techniques of damage control and CBR defense; supervises and performs tasks in procurement and issuance of supplies and repair parts; prepares records and reports. *DCC:* Able to perform the duties required for DC1; plans and conducts damage control exercises; maintains records and prepares progress reports; supervises training programs; estimates time, personnel, and material requirements; prepares quarterly maintenance schedules. *DCCS:* Able to perform the duties required for DCC; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence; organizes and evaluates training programs; administers a long-range planned maintenance program. *DCCM:* Able to perform the duties required for DCCS; reviews personnel, equipment, and material requirements and forecasts future requirements; plans, organizes, implements and controls activities; develops operating budgets and monitors expenditures.

Recommendation, DC3

In the lower-division baccalaureate/associate degree category, 1 semester hour in fire protection systems, 4 in portable and fixed extinguishing systems, 1 in firefighting strategy, and 1 in blueprint reading (3/90).

Recommendation, DC2

In the lower-division baccalaureate/associate degree category, 2 semester hours in fire protection systems, 5 in portable and fixed extinguishing systems, 2 in firefighting strategy, 1 in chemical radiation hazards, 2 in blueprint reading, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, DC1

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire protection systems, 6 in portable and fixed extinguishing systems, 3 in firefighting strategy, 2 in chemical radiation hazards, 2 in blueprint reading, 1 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, DCC

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire protection systems, 6 in portable and fixed extinguishing systems, 4 in firefighting strategy, 3 in chemical radiation hazards, 2 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, and 2 in ship stability (3/90).

Recommendation, DCCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DCC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, DCCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DCC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 6 in management problems (3/90).

NER-DK-001

DISBURSING CLERK

DK3
DK2
DK1
DKC
DKCS
DKCM

Exhibit Dates: 6/71–12/87.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *DK3:* Disbursing Clerk, Third Class (E-4). *DK2:* Disbursing Clerk, Second Class (E-5). *DK1:* Disbursing Clerk, First Class (E-6). *DKC:* Chief Disbursing Clerk (E-7). *DKCS:* Senior Chief Disbursing Clerk (E-8). *DKCM:* Master Chief Disbursing Clerk (E-9).

Description

Summary: Maintains military personnel financial records, including payroll, travel allowances, and reimbursements; performs related computations; prepares related reports. *DK3:* Maintains files of manuals and documents; types at 20 wpm; types forms and memoranda; identifies appropriate Navy Codes for charging and crediting disbursements and receipts; applies Navy regulations in computation of pay, deductions, and reimbursements; applies Navy regulations in the preparation of leave records. *DK2:* Able to perform the duties required for DK3; processes more complex and difficult transactions; may train and supervise subordinate personnel. *DK1:* Able to perform the duties required for DK2; organizes the flow of work in the disbursing office; prepares correspondence and messages; prepares budgets; handles cash funds; audits entries on statements and documents; supervises subordinate personnel. *DKC:* Able to perform the duties required for DK1; supervises the operation of a disbursing office; interprets regulations and identifies disbursement procedures; audits reports, records, and vouchers. *DKCS:* Able to perform the duties required for DKC; supervises a large finance establishment; prepares and implements a program for interviewing, evaluating, and assigning personnel to obtain maximum utilization; evaluates local systems of internal control and submits recommendations concerning plans and procedures; prepares directives for the purpose of attaining organization goals and objectives; organizes and schedules training programs and evaluates results. *DKCM:* Able to perform the duties required for DKCS; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; directs an inspection and audit of the financial transaction of a disbursing office.

Recommendation, DK3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, and 1 in business mathematics (3/79).

Recommendation, DK2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in office management, and 1 in record keeping (3/79).

Recommendation, DK1

In the vocational certificate category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, and 2 in office management. In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, 2 in office management, 1 in personnel supervision, and 1 in human relations (3/79).

Recommendation, DKC

In the vocational certificate category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, and 3 in office management. In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, 3 in office management, 2 in human relations, and 3 in personnel supervision. In the upper-division baccalaureate category, 1 semester hour for a practicum in management (3/79).

Recommendation, DKCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DKC. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in personnel management (3/79).

Recommendation, DKCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DKC. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in management problems, and 3 in personnel management (3/79).

NER-DK-002

DISBURSING CLERK

DK3
DK2
DK1
DKC
DKCS
DKCM

Exhibit Dates: 1/88–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *DK3:* Disbursing Clerk, Third Class (E-4). *DK2:* Disbursing Clerk, Second Class (E-5). *DK1:* Disbursing Clerk, First Class (E-6). *DKC:* Chief Disbursing Clerk (E-7). *DKCS:* Senior Chief Disbursing Clerk (E-8). *DKCM:* Master Chief Disbursing Clerk (E-9).

Description

Summary: Maintains military personnel financial records, including payroll, travel allowances, and reimbursements; performs related computations; prepares related reports. *DK3:* Maintains files of manuals and documents; types at 20 wpm; types forms and memoranda; processes vouchers for receipt and expenditure of public monies; applies Navy regulations in computation of pay, deductions, and reimbursements; applies Navy regulations in the preparation of leave records; prepares payroll checks for all personnel. *DK2:* Able to perform the duties required for DK3; processess more complex and difficult transactions; may train and supervise subordinate personnel. *DK1:* Able to perform the duties required for DK2; organizes the flow of work in the disbursing office; insures accuracy of data base for personnel and pay records; prepares correspondence and messages; prepares budgets; handles cash funds; audits entries on statements and documents; supervises subordinate personnel. *DKC:* Able to perform the duties required for DK1; supervises the operation of a disbursing office; monitors source data system for security requirements; interprets regulations and identifies disbursement procedures; audits reports, records, and vouchers. *DCKS:* Able to perform the duties required for DKC; supervises a large finance establishment; establishes and administers training programs in pay procedures; evaluates local systems of internal control and submits recommendations concerning plans and procedures; prepares directives for the purpose of attaining organization goals and objectives; writes correspondence, directives, and instructions; prepares written staff studies. *DKCM:* Able to perform the duties required for DKCS; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; directs an inspection and audit of the financial transaction of a disbursing office.

Recommendation, DK3

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 1 in office procedures, 2 in payroll accounting, 1 in automatic data processing (ADP) operations, 1 in recordkeeping, and 1 in interpersonal communications (3/90).

Recommendation, DK2

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 1 in office procedures, 2 in payroll accounting, 2 in automatic data processing (ADP) operations, 1 in recordkeeping, and 1 in interpersonal communications (3/90).

Recommendation, DK1

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 2 in office procedures, 3 in payroll accounting, 2 in automatic data processing (ADP) operations, 1 in office administration, 2 in recordkeeping, 2 in principles of supervision, 2 in interpersonal communications, and 1 in internal auditing procedures. In the upper-division baccalaureate category, 2 semester hours in management problems (3/90).

Recommendation, DKC

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 2 in office procedures, 3 in payroll accounting, 3 in automatic data processing (ADP) operations, 2 in office administration, 2 in recordkeeping, 3 in principles of supervision, 2 in interpersonal communications, and 2 in internal auditing procedures. In the upper-division baccalaureate category, 2 semester hours in management problems, 2 in human resource management, and 2 for field experience in management (3/90).

Recommendation, DKCS

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in office procedures, 3 in payroll accounting, 3 in automatic data processing (ADP) operations, 2 in office administration, 2 in recordkeeping, 3 in principles of supervision, 3 in interpersonal communications, 2 in business communications, and 2 in internal auditing procedures. In the upper-division baccalaureate category, 2 semester hours for field experience in management, 3 in human resource management, and 3 in management problems (3/90).

Recommendation, DKCM

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in office procedures, 3 in payroll accounting, 3 in automatic data processing (ADP) operations, 2 in office administration, 2 in recordkeeping, 3 in principles of supervision, 3 in interpersonal communications, 3 in business communications, and 2 in internal auditing procedures. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in human resource management, and 3 in management problems (3/90).

NER-DM-001

ILLUSTRATOR DRAFTSMAN

DM3
DM2
DM1
DMC
DMCS
DMCM

Exhibit Dates: 6/71–12/81.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *DM3:* Illustrator Draftsman, Third Class (E-4). *DM2:* Illustrator Draftsman, Second Class (E-5). *DM1:* Illustrator Draftsman, First Class (E-6). *DMC:* Chief Illustrator Draftsman (E-7). *DMCS:* Senior Chief Illustrator Draftsman (E-8). *DMCM:* Master Chief Illustrator Draftsman (E-9).

Description

Summary: Makes illustrations with pen and ink, water color, and other art media; makes orthographic and other mechanical drawings; operates and maintains graphic arts reproduction and audio-visual presentation equipment. *DM3:* Makes illustrations with pen and ink, water color, pencils, art markers, and other art media for posters, graphs, charts, training aids, books, and publications; mixes colors; designs and executes freehand drawings in realistic and/or cartoon style; makes orthographic and other mechanical drawings; prepares sketches and drawings for audio-visual presentations; mounts and retouches photographs; uses and performs operator maintenance on graphic arts reproduction and audio-visual presentation equipment. *DM2:* Able to perform the duties required for *DM3;:* uses horizontal and vertical copy camera; sets up and operates office duplicators (offset reproduction); constructs basic cartoon figures; draws overlays with acetate inks and cell paints; uses electronic mixers and pulse generators in sound-slide presentations; makes technical illustrations (isometric, phantom, and exploded views). *DM1:* Able to perform the duties required for DM2; schedules and assigns routine shop work; uses air brush for illustrations and for retouching photographs; uses and maintains silk-screen process equipment; constructs cartoon figures and backgrounds; determines and develops motion sequences for audio-visual presentations. *DMC:* Able to perform the duties required for DM1; organizes a training aids and graphics shop; assures compliance with copy and reproduction regulations; evaluates visual aids and maintains quality control; monitors control of produced classified material. *DMCS:* Able to perform the duties required for DMC; provides technical advice concerning illustration and drafting equipment; prepares directives and instructions for achieving organization objectives and improving operations; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes, schedules, and evaluates training programs; monitors quality control assurance requirements; prepares cost estimates for audio-visual presentations; determines audio-visual equipment requirements; *DMCM:* Able to perform the duties required for DMCS; plans, organizes, implements, and controls activities; reviews personnel equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; evaluates and makes recommendations for new audio-visual equipment and innovations.

Recommendation, DM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art (3/79).

Recommendation, DM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, and 3 for field experience in graphics (3/79).

Recommendation, DM1

In the vocational certificate category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration or airbrush, and 3 in audio-visual graphics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration or airbrush, 3 in audio-visual graphics, and 1 in graphics arts management. In the upper-division baccalaureate category, 2 semester hours in industrial arts education (graphics) (3/79).

Recommendation, DMC

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration or airbrush, 3 in audio-visual graphics, 3 in graphic arts management, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/79).

Recommendation, DMCS

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration or airbrush, 3 in audio-visual graphics, 3 in graphic arts management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 3 for field experience in management, and 3 in management problems (3/79).

Recommendation, DMCM

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DMCS. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 6 for field experience in management, and 3 in management problems (3/79).

NER-DM-002

ILLUSTRATOR DRAFTSMAN

DM3
DM2
DM1
DMC
DMCS
DMCM

Exhibit Dates: 1/82–Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *DM3:* Illustrator Draftsman, Third Class (E-4). *DM2:* Illustrator Draftsman, Second Class (E-5). *DM1:* Illustrator Draftsman, First Class (E-6). *DMC:* Chief Illustrator Draftsman (E-7). *DMCS:* Senior Chief Illustrator Draftsman (E-8). *DMCM:* Master Chief Illustrator Draftsman (E-9).

Description

Summary: Makes illustrations with pen and ink, water color, and other art media; makes orthographic and other mechanical drawings; operates and maintains graphic arts reproduction and audio-visual presentation equipment. *DM3:* Makes illustrations with pen and ink, water color, pencils, art makers, and other media for posters, graphs, charts, training aids, books, and publications; mixes colors; designs and executes freehand drawings in realistic and/or cartoon style; makes orthographic and other mechanical drawings; prepares sketches and drawings for visual presentations; mounts and retouches photographs; uses and performs operator maintenance on graphic arts reproduction and audio visual presentation equipment; sets up and operates office duplicators (offset reproduction). *DM2:* Able to perform the duties required for DM3; uses horizontal and vertical copy cameras; constructs basic cartoon figures; draws overlays with acetate inks and cell paints; uses electronic mixers and pulse generators in sound-slide presentations; makes technical illustrations (isometric, phantom, and exploded views); estimates time and materials needed for assigned jobs; maintains technical library. *DM1:* Able to perform the duties required for DM2; schedules and assigns routine shop work; prepares cost estimates for work requested; uses air brush for illustrations and for retouching photographs; and uses and maintains silk-screen process equipment. *DMC:* Able to perform the duties required for DM1; organizes a training aids and graphics shop; assures compliance with copy and reproduction regulations; evaluates visual aids and maintains quality control; monitors control of produced classified material. *DMCS:* Able to perform the duties required for DMC; provides technical advice concerning illustration and drafting equipment; prepares directives and instructions for achieving organization objectives and improving operations; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes, schedules, and evaluates training programs; monitors quality control assurance requirements. *DMCM:* Able to perform the duties required for DMCS; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; evaluates and makes recommendations for new audio-visual equipment and innovations.

Recommendation, DM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art (3/86).

Recommendation, DM2

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in visual graphics, and 3 for field experience in graphics (3/86).

Recommendation, DM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in visual graphics, 3 for field experience in graphics, 3 in silk-screen printing, and 2 in graphic arts management. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/76).

Recommendation, DMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in visual graphics, 3 for field experience in graphics, 3 in silk-screen printing, 3 in graphic arts management, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/86).

Recommendation, DMCS

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in visual graphics, 3 for field experience in graphics, 3 in silk-screen printing, 3 in graphic arts management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 3 for field experience in management, and 3 in management problems (3/86).

Recommendation, DMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DMCS. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 6 for field experience in management, and 3 in management problems (3/86).

NER-DN-001

DENTALMAN

DN

Exhibit Dates: 6/71–Present.

Career Pattern

Dentalman is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (Dentalman apprentice), and E-3 (Dentalman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Dental Technician, General (DTG), Dental Technician, Repair (DTR), or Dental Technician, Prosthodontics (DTP).

Description

Assists dental officers in the treatment of patients; performs first aid; maintains, sterilizes, and arranges dental instruments; cares for dental equipment; maintains dental offices and dental records; uses medical terminology and standard abbreviations; identifies bones of head, neck, and oral structures; classifies and identifies teeth and supporting structures; instructs patients in oral health education.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2-3 semester hours for a dental practicum, 3 in dental assisting, 1 in dental office procedures, 3 in dental anatomy, and 3 in dental radiography (12/81). NOTE: Credit for Dentalman (DN) should be granted only after pay grade E-3 has been achieved.

NER-DP-001

DATA PROCESSING TECHNICIAN

DP3
DP2
DP1
DPC
DPCS
DPCM

Exhibit Dates: 6/72–12/82.

Occupational Field: 12 (Data Systems).

Career Pattern

SN: Seaman (E-3). *DP3:* Data Processing Technician, Third Class (E-4). *DP2:* Data Processing Technician, Second Class (E-5). *DP1:* Data Processing Technician, First Class (E-6). *DPC:* Chief Data Processing Technician (E-7). *DPCS:* Senior Chief Data Processing Technician (E-8). *DPCM:* Master Chief Data Processing Technician (E-9).

Description

Summary: Operates data processing equipment to record source data; sets up and operates data processing equipment, including card, magnetic tape, disk, computers, and peripherals. *DP3:* Prepares program controls; handles and stores cards, magnetic tapes, and disk packs in compliance with environmental requirements; processes data and record operations; performs routine user maintenance on data processing equipment; uses maintenance and procedures manuals and operational flow charts; maintains data medium library records. *DP2:* Able to perform the duties required for DP3; supervises data medium library records and the preparation and operation of computer peripherals; constructs programming, data, and operational flow charts, decision tables, and internal and external subroutine programs, low-level and high-level programming languages; differentiates source and object programs, and the purposes of automatic and programmed checks. *DP1:* Able to perform the duties required for DP2; schedules electronic data processing (EDP) runs, ensuring accurate and timely processing; prepares and maintains flow charts for manual and machine operating procedures; prepares and maintains a program run book; writes, debugs, and documents COBOL and FORTRAN programs; performs systems analysis; identifies characteristics of open and closed subroutines; identifies functions of index registers; trains and evaluates personnel in local automatic data processing (ADP) and electronic data processing (EDP) procedures. *DPC:* Able to perform the duties required for DP1; analyzes ADP and EDP systems and subsystems; implements computer maintenance and diagnostic programs; designs input and output requirements for systems and subsystems; ensures quality assurance of ADP generated products; designs and documents specifications for COBOL or FORTRAN programs; implements data file management system; directs an ADP installation or office operation. *DPCS:* Able to perform the duties required for DPC; coordinates ADP methods and procedures, site preparation,installation and operation; coordinates between ADP installation units; analyzes proposed EDP changes; designs ADP software systems; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; prepares local directives and instructions for attaining organization objectives and improving operations; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements. *DPCM:* Able to perform the duties required for DPCS; establishes correspondence and report control system procedures; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; establishes goals, objectives, and priorities and forecasts future requirements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, DP3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and 3 in computer operations (6/81).

Recommendation, DP2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, and 3 in computer programming concepts (6/81).

Recommendation, DP1

In the vocational certificate category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN and 3 in COBOL I. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN, 3 in COBOL I, 2 in personnel supervision, and 3 in human relations (6/81).

Recommendation, DPC

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN, 3 in COBOL I, 3 in personnel supervision, and 3 in human relations (6/81).

Recommendation, DPCS

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, DPC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

Recommendation, DPCM

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DPC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

NER-DP-002

DATA PROCESSING TECHNICIAN

DP3
DP2
DP1
DPC
DPCS
DPCM

Exhibit Dates: 1/83–Present.

Occupational Field: 12 (Data Systems).

Career Pattern

SN: Seaman (E-3). *DP3:* Data Processing Technician, Third Class (E-4). *DP2:* Data Processing Technician, Second Class (E-5). *DP1:* Data Processing Technician, First Class (E-6). *DPC:* Chief Data Processing Technician (E-7). *DPCS:* Senior Chief Data Processing Technician (E-8). *DPCM:* Master Chief Data Processing Technician (E-9).

Description

Summary: Operates data processing equipment to record source data; sets up and operates data processing equipment, including card, magnetic tape, disk, computers, and peripherals. *DP3:* Prepares program controls; handles and stores cards, magnetic tapes, and disk packs in compliance with environmental requirements; processes data and record operations; performs routine user maintenance on data processing equipment; uses maintenance and procedures manuals and operational flow charts; maintains data medium library records. *DP2:* Able to perform the duties required for DP3; supervises data medium library records and the preparation and operation of computer peripherals; constructs programming, data and operational flow charts, decision tables, and internal and external subroutine programs; differentiates source and object programs, low-level and high-level programming languages, and the purposes of automatic and programmed checks. *DP1:* Able to perform the duties required for DP2; schedules electronic data processing (EDP) run, ensuring accurate and timely processing; prepares and maintains flow charts for manual and machine operating procedures; prepares and maintains a program run book; writes, debugs, and documents interactive and batch COBOL and FORTRAN program; performs systems analysis; identifies characteristic of open and closed subroutines; identifies functions of index registers; trains and evaluates personnel in local automatic (ADP) and electronic data processing procedures. *DPC:* Able to perform the duties required for DP1; analyzes ADP and EDP systems and subsystems; implements computer maintenance and diagnostic programs; designs input and output requirements for systems and subsystems; ensures quality assurance of ADP generated products; designs and documents specifications for COBOL or FORTRAN programs; implements data file and data base management systems; ensures data integrity; directs an ADP installation or office operation. *DPCS:* Able to perform the duties required for DPC; coordinates ADP methods and procedures, site preparation, installation and operation; activities between ADP installation units, including data communications; analyzes proposed EDP changes; designs ADP software systems; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; prepares local directives and instructions for attaining organization objective, improving operations and achieving computer security; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements. *DPCM:* Able to perform the duties required for DPCS; establishes correspondence and report control system procedures; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; establishes goals, objectives, and priorities and forecasts future requirements; reviews personnel, equipment, and material requirements; develops operating budget and monitors expenditures.

Recommendation, DP3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and 3 in computer operations (11/83).

Recommendation, DP2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, and 3 in computer programming concepts (11/83).

Recommendation, DP1

In the vocational certificate category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN, and 3 in COBOL I. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN, 3 in COBOL I, 2 in personnel supervision, and 3 in human relations (11/83).

Recommendation, DPC

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in computer operations, 3 in systems design I, 3 in computer programming concepts, 3 in FORTRAN, 3 in COBOL I, 3 in data base concepts, 3 in personnel supervision, and 3 in human relations (11/83).

Recommendation, DPCS

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DPC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (11/83).

Recommendation, DPCM

In the vocational certificate category, the recommendation is the same as that for DP1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DPC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (11/83).

NER-DS-001

DATA SYSTEMS TECHNICIAN

DS3
DS2
DS1
DSC
DSCS
DSCM

Exhibit Dates: 6/71–Present.

Occupational Field: 12 (Data Systems).

Career Pattern

SN: Seaman (E-3). *DS3:* Data Systems Technician, Third Class (E-4). *DS2:* Data Systems Technician, Second Class (E-5). *DS1:* Data Systems Technician, First Class (E-6). *DSC:* Chief Data Systems Technician (E-7). *DSCS:* Senior Chief Data Systems Technician (E-8). *DSCM:* Master Chief Data Systems Technician (E-9).

Description

Summary: Performs general maintenance and repairs on electronic data systems and equipment, including computers, data storage devices, digital interface and display equipment, link terminals and related equipment. *DS3:* Inspects and tests equipment and components; solders connections, measures voltage and resistance, and analyzes circuits; traces defective parts; repairs electronic sub-assemblies; routinely uses electronics test equipment; diagnoses and repairs malfunctions in analog/digital computers; performs fundamental programming; performs preventive maintenance on analog/digital data equipment; evaluates performance of test equipment and signal generators; uses electrical and electronic schematics; uses and maintains common and special purpose hand tools. *DS2:* Able to perform the duties required for DS3; evaluates performance of test equipment and signal generators; aligns and calibrates digital and analog devices; troubleshoots and adjusts electro-mechanical devices in digital systems; applies minor changes to programmed maintenance routines; constructs program flow charts. *DS1:* Able to perform the duties required for DS2; applies methods of controlling electrical interference, prepares weekly schedules of preventive maintenance. *DSC:* Able to perform the duties required for DS1; supervises and inspects electronic data systems maintenance and repairs; constructs and operates computer operational and maintenance programs; identifies interface characteristic of digital data system and other related systems; compiles data for performance and maintenance reports; maintains records; analyzes digital data equipment failure trends; determines deficiencies and establishes corrective action; supervises inspection procedures. *DSCS:* Able to perform the duties required for DSC; analyzes operations where safety problems exist; corrects problems; uses programming language; writes directives and instructions; interviews and assigns personnel; prepares correspondence; administers a long-range planned maintenance program. *DSCM:* Able to perform the duties required for DSCS; establishes goals and priorities; forecasts requirements; evaluates personnel and equipment requirements; plans, organizes, and implements activities; develops operating budgets and monitors expenditures.

Recommendation, DS3

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in digital circuits, 3 in computer systems, 6 in computer maintenance, 2 in electronics laboratory, and 3 in vocational mathematics, and additional credit in these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in digital circuits, 6 in computer systems analysis, 2 in industrial arts (electronics), and additional credit in these areas on the basis of institutional evaluation (10/87).

Recommendation, DS2

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in digital circuits, 3 in computer systems, 9 in computer maintenance, 6 in electronics laboratory, 3 in vocational mathematics, and additional credit in these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in digital circuits, 9 in computer systems analysis, 3 in industrial arts (electronics), and additional credit in these areas on the basis of institutional evaluation (10/87).

Recommendation, DS1

In the vocational certificate category, 3 semester hours in introduction to electronics, 3 in digital circuits, 6 in computer systems, 9 in computer maintenance, 6 in electronics laboratory, 3 in vocational mathematics, and additional credit in these areas on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in digital circuits, 9 in computer systems analysis, 6 in industrial arts (electronics), 3 in personnel supervision, and additional credit in these areas on the basis of institutional evaluation (10/87).

Recommendation, DSC

In the vocational certificate category, the recommendation is the same as that for DS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in digital circuits, 9 in computer systems analysis, 6 in industrial arts (electronics), 6 in personnel supervision, and additional credit in these areas on the basis of institutional evaluation (10/87).

Recommendation, DSCS

In the vocational certificate category, the recommendation is the same as that for DS1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in human relations (10/87).

Recommendation, DSCM

In the vocational certificate category, the recommendation is the same as that for DS1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DSC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in human relations (10/87).

NER-DT-001

DENTAL TECHNICIAN, SENIOR CHIEF AND MASTER CHIEF

DTCS
DTCM

Exhibit Dates: 6/71–Present.

Occupational Field: 14 (Health Care).

Career Pattern

May progress from DTGC, Chief Dental Technician, General (E-7), or DTPC, Chief Dental Technician, Prosthodontics (E-7), or DTRC, Chief Dental Technician, Repair (E-7). *DTCS:* Senior Chief Dental Technician (E-8). *DTCM:* Master Chief Dental Technician (E-9).

Description

DTCS: Able to perform the duties required for DTGC (Chief Dental Technician, General), DTPC (Chief Dental Technician, Prosthodontics), or DTRC (Chief Dental Technician, Repair); prepares directives and instructions for attaining organization objectives and improving operations; establishes a program for interviewing, evaluating, and assigning personnel for maximum utilization; prepares correspondence; organizes and schedules training programs. *DTCM:* Able to perform the duties required for DTCS: plans, organizes, and implements activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; establishes goals, objectives, and priorities; provides counseling on medical department training opportunities; develops operating budgets and monitors expenditures.

Recommendation, DTCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, use the recommendation for DTGC (Chief Dental Technician, General) in exhibit NER-DTG-001, or DTPC (Chief Dental Technician, Prosthodontics) in exhibit NER-DTP-001, or DTRC (Chief Dental Technician, Repair) in exhibit NER-DTR-001. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in business management, 3 in human relations, 3 for field experience in management, and 3 in dental care administration (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DTCS. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in business management, 3 in human relations, 6 for field experience in management, 3 in dental care administration, and 3 in dental care planning (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

NER-DTG-001

DENTAL TECHNICIAN, GENERAL

DTG3
DTG2
DTG1
DTGC

Exhibit Dates: 6/71–Present.

Occupational Field: 14 (Health Care).

Career Pattern

DN: Dentalman (E-3). *DTG3:* Dental Technician, General, Third Class (E-4); *DTG2:* Dental Technician, General, Second Class (E-5); *DTG1:* Dental Technician, General, First Class (E-6); *DTGC:* Chief Dental Technician, General (E-7); *DTCS:* Senior Chief Dental Technician (E-8); *DTCM:* Master Chief Dental Technician (E-9).

Description

Summary: Assists dental officers in the treatment of patients; performs clinical and administrative duties. *DTG3:* Assists dental officers in all phases of dentistry; performs routine scaling and polishing of teeth, performs cardiopulmonary resuscitation (CPR); prepares dental treatment records; maintains dental appointment system; performs routine maintenance on dental equipment. *DTG2:* Able to perform the duties required for DT3; prepares dental materials and setups for all phases of dentistry; prepares oral health education material for presentation to groups; coordinates the clinical duties and assignments of subordinate personnel. *DTG1:* Able to perform the duties required for DTG2; directs preventive dentistry programs; requisitions and maintains records of dental supplies and equipment; performs minor repairs and operational checks on dental equipment; ensures proper security of dental supplies and equipment. *DTGC:* Able to perform the duties required for DTG1; supervises and coordinates records management programs; supervises performance evaluation programs; maintains financial records; analyzes budgetary and programming requirements; analyses manpower authorizations for accuracy and adequacy; responsible for the inventory control of dental supplies and equipment.

Recommendation, DTG3

In the vocational certificate category, 1 semester hour in first aid and 1 in cardiopulmonary resuscitation (CPR). In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in cardiopulmonary resuscitation (CPR), and 2 in dental office procedures (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTG2

In the vocational certificate category, the recommendation is the same as that for DTG3. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in cardiopulmonary resuscitation (CPR), 2 in dental office procedures, 1 in personnel supervision, and 2 in dental records management (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTG1

In the vocational certificate category, the recommendation is the same as that for DTG3. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in cardiopulmonary resuscitation (CPR), 2 in dental office procedures, 3 in personnel supervision, 2 in dental records management, and 3 in dental office management (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTGC

In the vocational certificate category, the recommendation is the same as that for DTG3. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in cardiopulmonary resuscitation (CPR), 2 in dental office procedures, 3 in personnel supervision, 2 in dental records management, 3 in dental office management, 3 in business management, and 2 in communication techniques. In the upper-division baccalaureate category, 3 semester hours in personnel management (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

NER-DTP-001

DENTAL TECHNICIAN, PROSTHODONTICS

DTP3
DTP2
DTP1
DTPC

Exhibit Dates: 6/71–Present.

Occupational Field: 14 (Health Care).

Career Pattern

DN: Dentalman (E-3). *DTP3:* Dental Technician, Prosthodontics, Third Class (E-4). *DTP2:* Dental Technician, Prosthodontics, Second Class (E-5). *DTP1:* Dental Technician, Prosthodontics, First Class (E-6). *DTPC:* Chief Dental Technician, Prosthodontics (E-7). *DTCS:* Senior Chief Dental Technician, Prosthodontics (E-8). *DTCM:* Master Chief Dental Technician, Prosthodontics (E-9).

Description

Summary: Assists dental officer in all phases of prosthetic dentistry; constructs and repairs prosthetic dental devices. *DTP3:* Prepares set-ups and dental materials used in prosthetic procedures; performs routine scaling and polishing of teeth; constructs and repairs dental devices; performs routine maintenance on dental equipment. *DTP2:* Able to perform the duties required for DTP3; prepares and maintains dental laboratory records and precious-metal records. *DTP1:* Able to perform the duties required for DTP2; supervises a dental laboratory; requisitions dental supplies and equipment; maintains dental appointment system; performs minor repairs and operational checks on dental equipment; ensures proper security of dental supplies and equipment. *DTPC:* Able to perform the duties required for DTP1; supervises and coordinates dental laboratory records management programs; supervises the performance evaluation program; analyzes manpower authorizations for accuracy and adequacy.

Recommendation, DTP3

In the vocational certificate category, 1 semester hour in first aid. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid and 2 in dental laboratory procedures (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTP2

In the vocational certificate category, 1 semester hour in first aid. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in dental laboratory procedures, 2 in dental laboratory records management (prosthetic), and 3 in prosthetic procedures (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTP1

In the vocational certificate category, 1 semester hour in first aid. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in dental laboratory procedures, 2 in dental laboratory records management (prosthetic), 3 in prosthetic procedures, 3 in dental laboratory management, and 2 in personnel supervision (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTPC

In the vocational certificate category, 1 semester hour in first aid. In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 2 in dental laboratory procedures, 2 in dental laboratory records management (prosthetic), 3 in prosthetic procedures, 3 in dental laboratory management, 3 in personnel supervision, and 3 in business management. In the upper-division baccalaureate category, 3 semester hours in personnel management (12/81). NOTE: Add the credit recommended for Dentalman (E-3) in exhibit NER-DN-001.

NER-DTR-001

DENTAL TECHNICIAN, REPAIR

DTR2
DTR1
DTRC

Exhibit Dates: 6/71–Present.

Occupational Field: 14 (Health Care).

Career Pattern

DN: Dentalman (E-3). *DTG3:* Dental Technician, General, Third Class (E-4). *DTR2:* Dental Technician, Repair, Second Class (E-5). *DTR1:* Dental Technician, Repair, First Class (E-6). *DTRC:* Chief Dental Technician, Repair (E-7). *DTCS:* Senior Chief Dental Technician (E-8). *DTCM:* Master Chief Dental Technician (E-9).

Description

Summary: Performs or supervises maintenance and repair of dental equipment. *DTR2:* Able to perform the duties required for DTG3; performs preventive maintenance and repair on air and water control units, patient positioning chairs, intra-oral and panoramic x-ray machines, x-ray film processors, dental handpieces, and general dental support apparatus; supervises sterilization procedures; files directives and technical manuals pertaining to dental equipment and maintenance activities; prepares dental equipment reports. NOTE: Progressed to DTR2 from DTG3 (Dental Technician, General, Third Class). *DTR1:* Able to perform the duties required for DTR2; applies procedures for treatment and mass casualties; prepares correspondence; conducts in-service training for dental maintenance and repair activities; develops and maintains a repairman's preventive maintenance program for dental facilities; develops and maintains maintenance records; requisitions and maintains records for issue and disposal of dental equipment. *DTRC:* Able to perform the duties required for DTR1; analyzes manpower authorizations; supervises dental equipment repair records; supervises and evaluates performance of subordinate personnel; serves as dental equipment maintenance supervisor; analyzes and projects programming and budgetary requirements.

Recommendation, DTR2

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronic circuits, 2 in electrical troubleshooting techniques, and 2 in mechanical troubleshooting techniques (10/82). NOTE: Add the credit recommended for DTG3 in exhibit NER-DTG-001 and Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTR1

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronic circuits, 2 in electrical troubleshooting techniques, 2 in mechanical troubleshooting techniques, 2 in dental equipment maintenance and repair, and 3 in personnel supervision (10/82). NOTE: Add the credit recommended for DTG3 in exhibit NER-DTG-001 and Dentalman (E-3) in exhibit NER-DN-001.

Recommendation, DTRC

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronic circuits, 2 in electrical troubleshooting techniques, 2 in mechanical troubleshooting techniques, 2 in dental equipment maintenance and repair, 3 in personnel supervision, and 2 in electrical and plumbing codes and standards. In the upper-division baccalaureate category, 3 semester hours in personnel management and 3 in human relations (10/82). NOTE: Add the credit recommended for DTG3 in exhibit NER-DTG-001 and Dentalman (E-3) in exhibit NER-DN-001.

NER-EA-001

ENGINEERING AID

EA3
EA2
EA1
EAC
EACS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *EA3:* Engineering Aid Third Class (E-4). *EA2:* Engineering Aid Second Class (E-5). *EA1:* Engineering Aid First Class (E-6). *EAC:* Chief Engineering Aid (E-7). *EACS:* Senior Chief Engineering Aid (E-8). *CUCM:* Master Chief Constructionman (E-9).

Description

Summary: Plans, supervises, and performs tasks required in construction surveying, drafting, planning and estimating, and quality control. *EA3:* Traces and revises drawings; prepares charts and sketches; places construction stakes and other references; uses standard surveying instruments; performs basic calculations of regular areas and volumes; and performs simple tests on soils and concrete materials. *EA2:* Able to perform the duties required for EA3; draws mechanical layouts of service and building utilities and of distribution and collection systems from existing plans, sketches, or specifications; prepares material requisitions; records survey field notes; inputs the placing of concrete, and tests its compressive and flexural strength; computes irregular areas; performs stadia and hydrographic surveying; tests for soil compaction field density, atterberg limits, and aggregate soundness. *EA1:* Able to perform the duties required for EA2; checks layouts and drawings for accuracy and conformance to standards; prepares progress reports; organizes work assignements; prepares equipment, manpower, and material estimates; performs maintenance and construction inspections; performs the test of Marshall stability; prepares concrete, flexible pavement, and soil stabilization design mixes; as party chief, establishes vertical and horizontal control and directs topographic, boundary, and engineering surveys. *EAC:* Able to perform the duties required for EA1; supervises and coordinates all construction tasks assigned to a unit; provides technical advice and assistance on plans and specifications and on construction and maintenance techniques; implements a program of maintenance and cost control. *EACS:* Able to perform the duties required for EAC; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program to assure maximum use of personnel; determines requirements for advance planning; coordinates equipment assignment among projects; is capable of directing the operation and maintenance of all utilities and the repair, alteration and maintenance of all facilities under the cognizance of the public works department; directs transportation and equipment services to all activities and maintains all equipment used for that purpose; establishes a maintenance and cost control program.

Recommendation, EA3

In the vocational certificate category, 3 semester hours in introduction to construction, 2 in drafting, 2 in surveying, and 2 in materials testing. In the lower-division baccalaureate/associate degree category, 1 semester hour in construction technology, 1 in drafting, and 1 in surveying (1/77).

Recommendation, EA2

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in construction methods, 4 in materials testing, 4 in drafting, 3 in surveying, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in algebra, 2 in drafting, and 1 in construction technology (1/77).

Recommendation, EA1

In the vocational certificate category, 6 semester hours in materials testing, 4 in drafting, 3 in surveying, 3 in introduction to construction, 3 in construction methods, 3 in earthwork computation, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in pavement design, 3 in algebra, 2 in drafting, 2 in personnel supervision, and 1 in construction technology (1/77).

Recommendation, EAC

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in algebra, 3 in personnel supervision, 3 in construction technology, and 2 in drafting (1/77).

Recommendation, EACS

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in algebra, 3 in personnel supervision, 3 in construction technology, 2 in drafting, and 2 in technical writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

NER-EA-002

ENGINEERING AID

EA3
EA2
EA1
EAC
EACS

Exhibit Dates: 1/82–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *EA3:* Engineering Aid Third Class (E-4). *EA2:* Engineering Aid Second Class (E-5). *EA1:* Engineering Aid First Class (E-6). *EAC:* Chief Engineering Aid (E-7). *EACS:* Senior Chief Engineering Aid (E-8). *CUCM:* Master Chief Constructionman (E-9).

Description

Summary: Plans, supervises, and performs tasks required in construction surveying, drafting, planning and estimating, and quality control. *EA3:* Traces and revises drawings; prepares charts and sketches; places construction stakes and other references; uses standard surveying instruments; performs basic calculations of regular areas and volumes; and performs simple tests on soils and concrete materials. *EA2:* Able to perform the duties required for EA3; draws mechanical layouts of service and building utilities and of distribution and collection systems from existing plans, sketches, or specifications; prepares material requisitions; records survey field notes; inspects the placing of concrete, and tests its compressive and flexural strength; computes irregular areas; performs stadia and hydrographic surveying; tests for soil compaction field density, atterberg limits, and aggregate soundness. *EA1:* Able to perform the duties required for EA2; checks layouts and drawings for accuracy and conformance to standards; prepares progress reports; organizes work assignments; prepares equipment, manpower, and material estimates; performs maintenance and construction inspections; performs the test of Marshall stability; prepares concrete, flexible pavement, and soil stabilization design mixes; as party chief, establishes vertical and horizontal control and directs topographic, boundary, and engineering surveys. *EAC:* Able to perform the duties required for EA1; supervises and coordinates all construction tasks assigned to a unit; provides technical advice and assistance on plans and specifications and on construction and maintenance techniques; implements a program of maintenance and cost control. *EACS:* Able to perform the duties required for EAC; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program to assure maximum use of personnel; determines requirements for advance planning; coordinates equipment assignment among projects; is capable of directing the operation and maintenance of all utilities and the repair, alteration and maintenance of all facilities under the cognizance of the public works department; directs transportation and equipment services to all activities and maintains all equipment used for that purpose; establishes a maintenance and cost control program.

Recommendation, EA3

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in drafting, 2 in surveying, and 2 in materials testing. In the lower-division baccalaureate/associate degree category, 1 semester hour in construction technology, 2 in drafting, and 1 in surveying (3/86).

Recommendation, EA2

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in construction methods, 4 in materials testing, 4 in drafting, 3 in surveying, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in trigonometry, 3 in drafting, and 1 in construction technology (3/86).

Recommendation, EA1

In the vocational certificate category, 6 semester hours in materials testing, 4 in drafting, 3 in surveying, 3 in introduction to construction, 3 in construction methods, 3 in earthwork computation, and 3 in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in pavement design, 3 in trigonometry, 3 in drafting, 2 in personnel supervision, and 1 in construction technology (3/86).

Recommendation, EAC

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in trigonometry, 3 in personnel supervision, 3 in construction technology, and 3 in drafting (3/86).

Recommendation, EACS

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in trigonometry, 3 in personnel supervision, 3 in construction technology, 3 in drafting, and 2 in technical writing. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in management problems (3/86).

NER-EM-001

ELECTRICIAN'S MATE

EM3
EM2
EM1
EMC
EMCS

Exhibit Dates: 6/73–12/89.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EM3:* Electrician's Mate Third Class (E-4). *EM2:* Electrician's Mate, Second Class (E-5). *EM1:* Electrician's Mate, First Class, (E-6). *EMC:* Chief Electrician's Mate (E-7). *EMCS:* Senior Chief Electrician's Mate (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates and maintains power and lighting circuits, electrical fixtures, film projectors, motors, generators, controllers, switchboards, voltage and frequency regulators, and other test equipment; tests for short circuits; rebuilds electrical equipment. *EM3:* Operates standard test and metering equipment, including multimeter, voltmeter, ammeter, ohmeter, oscilloscope, stroboscope, voltage tester, wattmeter, and vacuum tube voltmeter; makes standard wire splices; detects and locates grounds, open circuits, and short circuits in lighting and power circuits; solders electrical connections; examines motors and generators for conditions and needed maintenance; operates AC and DC generators; replaces bearings in generators and motors; repairs portable electrical tools; prepares, activates, and services storage batteries; troubleshoots and repairs small boat electrical systems; tests and maintains signal lights, search lights, and beacons; maintains electrical cooking equipment; computes resistance, current, voltage, phase angle, and impedance; prepares diesel generators for operation; reads and interprets schematic diagrams and electrical blueprints. *EM2:* Able to perform the duties required for EM3; operates and uses signal generator; operates instrument transformer; conducts bench tests on motor and generator windings; operates and maintains AC and DC ship propulsion equipment; installs new power and lighting circuits; connects shore power to main distribution board of ship; inspects and maintains battery chargers, cathode protective units, air-conditioning control circuits, air compressor control circuits, and hoist/winch systems; completes planned maintenance reports; inventories installed equipment and spare part support; may supervise up to four Third Class Electrician's Mates. *EM1:* Able to perform the duties required for EM2; conducts bench tests on electric governors; checks logic on solid state electro-hydraulic controllers; inspects ship's service and emergency switchboard equipment when power is connected; estimates extent of casualty damage to equipment; removes, tests, and replaces defective components in automatic degaussing control panels; determines type and value of acceptable substitute components; checks electrical operating logs and maintenance records; prepares weekly maintenance schedules; may supervise up to nine Electrician's Mates. *EMC:* Able to perform the duties required for EM1; tests, inspects, and directs repairs of power and lighting eqipment, static magnetic amplifier equipment, voltage and speed regulators, and static inverters; maintains files; directs operation and control of electrical distribution and interior communication system and circuits; plans, organizes, and directs the operation and maintenance of electrical systems; estimates time, materials, and labor required for repair of electrical systems and equipment. *EMCS:* Able to perform the duties required for EMC; advises on preparation for administrative, material, and readiness inspections, the opening and inspection of equipment, and preparation of work requests; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel; administers a long-range planned maintenance program.

Recommendation, EM3

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, and 3 in electrical motors, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, and 2 in electricity/electronics laboratory, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

Recommendation, EM2

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, 5 in electrical motors, and 2 in electrical and electronic circuits, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, and 2 in electricity/electronics laboratory, and credit in troubleshooting techniques and human relations on the basis of institutional evaluation; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, EM1

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, 7 in electrical motors, 4 in electrical and electronic circuits, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, 2 in electricity/electronics laboratory, 3 in human relations, 2 in personnel supervision, 2 in maintenance management, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, EMC

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, 2 in electricity/electronics laboratory, 3 in human relations, 3 in personnel supervision, 3 in maintenance management, 1 in record keeping, and 1 in report writing, and credit in troubleshooting techniques on the basis of institutional evaluation; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, EMCS

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EMC. In the upper-division baccalaureate category, 3 semester hours in electrical circuits, 3 for field experience in management, and 3 in management problems (12/78).

NER-EM-002

ELECTRICIAN'S MATE

EM3
EM2
EM1
EMC
EMCS

Exhibit Dates: 1/90–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EM3:* Electrician's Mate, Third Class (E-4). *EM2:* Electrician's Mate, Second Class (E-5). *EM1:* Electrician's Mate, First Class (E-6). *EMC:* Chief Electrician's Mate (E-7). *EMCS:* Senior Chief Electrician's Mate (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates and maintains power and lighting circuits, electrical fixtures, film projectors, motors, generators, controllers, switchboards, voltage and frequency regulators, and other test equipment; tests for short circuits; rebuilds electrical equipment. *EM3:* Operates standard test and metering equipment, including multimeter, voltmeter, ammeter, ohmeter, oscilloscope, stroboscope, voltage tester, wattmeter, and vacuum tube voltmeter; makes standard wire splices; detects and locates ground, open circuits and short circuits in lighting and power circuits; solders electrical connections; examines motors and generators for conditions and needed maintenance; operates AC and DC generators; replaces bearings in generators and motors; repairs portable electrical tools; prepares, activates, and services storage batteries; troubleshoots and repairs small boat electrical systems; tests and maintains signal lights, search lights, and beacons; maintains electrical cooking equipment; computes resistance, current, voltage, phase angle, and impedance; prepares diesel generators for operation; reads and interprets schematic diagrams and electrical blueprints. *EM2:* Able to perform the duties required for EM3; operates and uses signal generator; operates instrument transformer; conducts bench tests on motor and generator windings; operates and maintains AC and DC ship propulsion equipment; installs new power and lighting circuits; connects shore power to main distribution board of ship; inspects and maintains battery charges, cathodic protective units, air-conditioning control circuits, air compressor control circuits, hoist/winch systems, ship's fueling continuity circuits, solid state logic components, and helicopter starting units; maintains equipment calibration schedules; completes planned maintenance reports; inventories installed equipment and spare parts support; may supervise up to four Third Class Electrician's Mates. *EM1:* Able to perform the duties required for EM2; conducts bench tests on electric governors; checks logic on solid state electro-hydraulic controllers; inspects ship's service and emergency switchboard equipment when power is connected; estimates extent of casualty damage to equipment; removes, tests, and replaces defective components in automatic degaussing control panels; determines type and value of acceptable substitute components; checks electrical operating logs and maintenance records; prepares weekly maintenance schedules; instructs personnel in operation, maintenance and casualty control; may supervise up to nine Electrician's Mates. *EMC:* Able to perform the duties required for EM1; tests, inspects, and directs repairs of power and lighting equipment, static magnetic amplifier equipment, voltage and speed regulators, and static inverters; maintains files; direct operation and control of electrical distribution and interior communication system and circuits; plans, organizes, and directs the operation and maintenance of electrical systems; estimates time, materials, and labor required for repair of electrical systems and equipment; verifies compliance with quality assurance procedures; performs casualty analysis; stands engineering watch; assigns personnel to watch stations; supervises training in operation, maintenance, and casualty control; reviews efficiency reports of subordinates, and prepares ship trial reports. *EMCS:* Able to perform the duties required for EMC; advises on preparation for administrative, material and readiness inspections, the opening and inspection of equipment, and preparation of work requests; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel; administers a long-range planned maintenance program; reviews and submits reports, initiates correspondence and directives; evaluates operational deficiencies and test results; reviews ship trial data; organizes and schedules training programs and evaluates effectiveness of subordinates.

Recommendation, EM3

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics laboratory, 3 in electrical systems troubleshooting and maintenance, 2 in AC/DC machines, and 1 in basic electronics (12/89).

Recommendation, EM2

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in electrical systems troubleshooting and maintenance, 3 in AC/DC machines, 2 in basic electronics, and 2 in personnel supervision (12/89).

Recommendation, EM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in electrical systems troubleshooting and maintenance, 4 in AC/DC machines, 2 in basic electronics, and 3 in personnel supervision (12/89).

Recommendation, EMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in electrical systems troubleshooting and maintenance, 4 in AC/DC machines, 2 in basic electronics, 3 in personnel supervision, and 3 in maintenance management (12/89).

Recommendation, EMCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

NER-EM-003

Electrician's Mate Master Chief

EMCM

Exhibit Dates: 6/73–12/89.

Occupational Field: 3 (Marine Engineering).

Career Pattern

May progress to EMCM, Master Chief Electrician's Mate (E-9), from EMCS, Senior Chief Electrician's Mate (E-8), or ICCS, Senior Chief Interior Communications Electrician (E-8).

Description

Able to perform the duties required for either EMCS (Senior Chief Electrician's Mate) or ICCS (Senior Chief Interior Communications Electrician); advises on new developements and technical information concerning capabilities, limitations, and employment of interior communications and electrical equipment; plans, organizes, and implements activities; plans and initiates actions to satisfy personnel, equipment, and material requirements and forecasts future requirements; schedules major maintenance and repair; develops procedures and supervises practices and techniques for correction of equipment and system malfunctions; supervises inspections and surveys of equipment; evaluates defective and worn electrical equipment items in terms of feasibility of repair or replacement; develops operating budgets and monitors expenditures.

Recommendation, EMCM

In the vocational certificate category, use either the 20 semester hours recommended for EM1 in exhibit NER-EM-001, or the 25 semester hours recommended for IC1 in exhibit NER-IC-001, as appropriate. In the lower-division baccalaureate/associate degree category, use either the 22 semester hours recommended for EMC in exhibit NER-EM-001, or the 28 semester hours recommended for ICC in exhibit NER-IC-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours in electrical circuits, 6 for field experience in management, and 3 in management problems (12/78).

NER-EM-004

Electrician's Mate, Master Chief

EMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

May progress to EMCM, Master Chief Electrician's Mate (E-9), from EMCS, Senior Chief Electrician's Mate (E-8), or ICCS, Senior Chief Interior Communications Electrician (E-8).

Description

Able to perform the duties required for either EMCS (Senior Chief Electrician's Mate) or ICCS (Senior Chief Interior Communications Electrician); advises on new developments and new technical information concerning capabilities, limitations, and employment of interior communications and electrical equipment; plans, organizes, and implements activities; plans and initiates actions to satisfy personnel, equipment, and material requirements and forecasts future requirements; schedules major maintenance and repair; develops procedures and supervises practices and techniques for correction of equipment and system malfunctions; supervises inspections and surveys of equipment; evaluates defective and worn electrical equipment items in terms of feasibility of repair or replacement; develops operating budgets and monitors expenditures; prepares staff studies, establishes goals, objectives and priorities; reviews efficiency of subordinates and prepares policy statements and directives.

Recommendation, EMCM

In the lower-division baccalaureate/associate degree category, if progressed to EMCM from ICCS (Interior Communications Electrician, Senior Chief), use the recommendation for ICCS in exhibit NER-IC-001; if progressed from EMCS, use the recommendation for EMCS in exhibit NER-EM-003. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-EN-001

Engineman

EN3
EN2
EN1
ENC
ENCS
ENCM

Exhibit Dates: 6/71–12/85.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EN3:* Engineman, Third Class (E-4). *EN2:* Engineman, Second Class (E-5). *EN1:* Engineman, First Class (E-6). *ENC:* Chief Engineman (E-7). *ENCS:* Senior Chief Engineman (E-8). *ENCM:* Master Chief Engineman (E-9).

Description

Summary: Operates, repairs, and performs maintenance on internal-combustion engines, main propulsion machinery, refrigeration, air-conditioning, gas-turbine engine, and shipboard auxiliary equipment; stands watch on auxiliary boilers. *EN3:* Uses firefighting equipment and radiac instruments; performs routine hydraulic maintenance; installs hydraulic seals, packings, and wipers; uses the following test equipment: stroboscopes, micrometers, dial indicators, hydrometers, viscosity gauges, and freon leak dectectors; operates electrical charging and regulating systems; uses and files blueprints, microfilm, aperture cards, and ship's drawings for maintaining and servicing equipment and for locating valves, piping systems, and machinery; conducts boiler water and feed water tests; operates steam-operated distilling plants; mechanically removes scale from evaporator tubes; operates and stands watch on refrigeration and air-conditioning systems; operates air compressors; overhauls manually-operated valves; tests electro-hydraulic steering system; inspects, lubricates, and tests galley and laundry equipment; recognizes symptoms in a diesel engine and takes appropriate action to avoid damage to the engine; completes maintenance data forms; exercises environmental control procedures to prevent or minimize air pollution and oil spills. *EN2:* Able to perform the duties required for EN3; tests and recharges refrigeration and air-conditioning systems; overhauls pumps; cleans, inspects, and test heat exchangers; removes, inspects, repairs, and reinstalls liners, pistons, cylinder heads, wrist pins, piston rings, and bearings; disassembles, cleans, repairs, assembles, and replaces fuel oil injectors; records equipment test results and training data; orders repair parts and tools; uses dial indicators, micrometers, bridge gauges and depth gauges to take clearances on journals, bearings, liners, and pistons. *EN1:* Able to perform the duties required for EN2; inspects, repairs, tests, and maintains auxiliary boilers; determines engine malfunctions and takes appropriate corrective action; checks main engine bearing and thrust clearances; interprets causes and prevention of damage to shafts and thrust bearings; disassembles, cleans, inspects, and repairs mechanical and hydraulic governors, overspeed trips, and load limiting governors; supervises a damage control party; maintains engine room records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *ENC:* Able to perform the duties required for EN1; supervises repair of engineroom equipment and auxiliary equipment, refrigeration, and air-conditioning equipment; inspects propellers and shafts; checks main reduction gears; supervises an engineroom watch; prepares reports; estimates time and material requirements; prepares quarterly maintenance schedules; analyzes results of spectrographic, physical, and chemical oil analysis. *ENCS:* Able to perform the duties required for ENC; monitors environmental pollution control programs; analyzes daily operating records to determine system irregularities; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; administers a long-range planned maintenance program. *ENCM:* Able to perform the duties required for ENCS; develops and monitors safety programs; forecasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; reviews requirements for manuals, prints, and publications; develops operating budgets and monitors expenditures.

Recommendation, EN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in engine maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading (12/78).

Recommendation, EN2

In the vocational certificate category, 12 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 12 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 1 in record keeping; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, EN1

In the vocational certificate category, 15 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 2 in record keeping. In the lower-division baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, ENC

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-division baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 3 in maintenance management, 3 in personnel supervision, and 3 in human relations; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, ENCS

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, ENCM

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-EN-002

ENGINEMAN

EN3
EN2
EN1
ENC
ENCS
ENCM

Exhibit Dates: 1/86–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EN3:* Engineman Third Class (E-4). *EN2:* Engineman Second Class (E-5). *EN1:* Engineman First Class (E-6). *ENC:* Chief Engineman (E-7). *ENCS:* Senior Chief Engineman (E-8). *ENCM:* Master Chief Engineman (E-9).

Description

Summary: Operates, repairs, and performs maintenance on internal-combustion engines, main propulsion machinery, refrigeration and air conditioning equipment, gas-turbine engines, and shipboard auxiliary equipment; stands watch on auxiliary boilers. *EN3:* Aligns and operates drain systems, stripping systems, machinery cooling water systems, oil systems, and purifier systems; aligns steam systems; operates pumps; aligns, operates and secures internal combustion engines, steam distilling plants, compressed air systems, refrigeration and air conditioning systems; records pressure and temperature readings on operating equipment; conducts tests on lubricating oil and distillate fuels; operates and maintains auxiliary boilers; maintains tools; overhauls valves; performs preventive maintenance on auxiliary equipment, main propulsion equipment and on small craft clutches, transmissions, drive shafts and packing glands; tests electro-hydraulic steering systems; inspects for leaks on reduction gears and thrust bearings; installs or removes and replaces flange shields on piping systems; fabricates and fits tubing and flexible hose assemblies; monitors electrical charging and regulating systems; operates and maintains hydraulic equipment; controls or minimizes the effects of oil and fuel spillage; completes maintenance data system forms; uses blueprints, drawings and manuals; tests boiler water and feed water. *EN2:* Able to perform the duties required for EN3; operates lube oil service, fill and storage systems and steam reducing stations; performs pre-start inspections; tests evaporators and condensers for leaks; conducts feed tests and treatment on distilling plants; aligns pump driving units; overhauls air compressors, internal combustion engines, pumps, refrigeration and air conditioning compressors, small craft clutches, transmissions and drive shafts; repairs valves and packing glands; tests and recharges refrigeration and air conditioning systems; tests and repairs piping systems; tests, cleans, inspects, and repairs or replaces heat exchangers; troubleshoots and repairs auxiliary equipment, internal combustion engines and distilling plants; uses halide torch to test for leaks on refrigeration and air conditioning equipment; adjusts valves, injectors, control racks, governor and governor control linkages on diesel engines; checks oil clearance in bearings; disassembles, cleans, repairs, assembles, tests and replaces fuel nozzles; inspects and repairs lube oil and fuel oil purifiers; inspects metal surfaces for cracks or defects by the dye-penetrant and magnaflux methods; inspects, adjusts and test-runs diesel and gasoline engines; lubricates steering gear; operates and maintains vertical conveyors; operates and troubleshoots internal combustion engine blowers and turbo-chargers; operates an engine lathe; adjusts and repairs refrigeration automatic controls. *EN1:* Able to perform the duties required for EN2; analyzes malfunctions of main propulsion equipment and takes corrective action; repairs and maintains mechanical and hydraulic governors, overspeed trips and load limiting governors; checks main engine bearing readings; inspects and checks clearances on blowers and turbo-chargers; measures main propulsion shaft thrust clearance; conducts quality assurance inspections; supervises maintenance activities; prepares planned maintenance schedules. *ENC:* Able to perform the duties required for EN1; conducts diesel engine post-overhaul checkout; checks main reduction gears for backlash and alignment; measures crankshaft deflection; uses trend analysis data to determine changes in diesel engines; supervises personnel in the operation, maintenance, and repair of engineroom and auxiliary equipment; analyzes results of oil tests. *ENCS:* Able to perform the duties required for ENC; monitors environmental pollution control programs; administers long-range planned maintenance programs; plans and schedules workloads; writes correspondence, directives and instructions. *ENCM:* Able to perform the duties required for ENCS; reviews overhaul work package; monitors all ship-to-shop work and maintenance progress reports; establishes goals, objectives and priorities; prepares staff studies; develops operating budgets and monitors expenditures; forecasts future requirements.

Recommendation, EN3

In the lower-division baccalaureate/associate degree category, 10 semester hours in engine maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading (10/87).

Recommendation, EN2

In the lower-division baccalaureate/associate degree category, 12 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 1 in record keeping; if assigned to gas turbine propulsion systems, 1-3 semester hours in gas turbine technology on the basis of institutional evaluation (10/87).

Recommendation, EN1

In the lower-division baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 2 in maintenance management, and 2 in personnel supervision; if assigned to gas turbine propulsion systems, 1-3 semester hours in gas turbine technology on the basis of institutional evaluation (10/87).

Recommendation, ENC

In the lower-division baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 3 in maintenance management, and 3 in personnel supervision; if assigned to gas turbine propulsion systems; 1-3 semester hours in gas turbine technology on the basis of institutional evaluation (10/87).

Recommendation, ENCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (10/87).

Recommendation, ENCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (10/87).

NER-EO-001

Equipment Operator

EO3
EO2
EO1
EOC
EOCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *EO3:* Equipment Operator Third Class (E-4). *EO2:* Equipment Operator Second Class (E-5). *EO1:* Equipment Operator First Class (E-6). *EOC:* Chief Equipment Operator (E-7). *EOCS:* Senior Chief Equipment Operator (E-8). *EQCM:* Master Chief Equipmentman (E-9).

Description

Summary: Operates automotive, material-handling, weight-lifting and construction equipment involved in earth moving, road building, quarrying, asphalt batching and paving, concrete paving, and construction work. *EO3:* Able to perform the duties required for CN (Constructionman); reads workship drawings and sketches; reads grade stake markings; computer working loads for lines and wire rope; uses slings, spreaders, cargo nets, and hooks; determines optimum working distances for construction equipment with the exception of scrapers; changes attachments and adapts cable/hydraulic assemblies on tractors (wheeled and crawler) with front and rear mounted and towed attachments; maintains, dismounts, repairs, and mounts tires; operates and performs operator maintenance on portable rotary rock drill, self-propelled compaction equipment, wheel and crawler tractors, wheel and crawler front-end loaders, warehouse and rough-terrain forklifts up to 6,000 pounds capacity, passenger-carrying vehicles, and trucks through 5-ton, including truck-tractor with semitrailer. *EO2:* Able to perform the duties required for EO3; works from construction drawings and specifications; draws simple shop drawings and sketches; maintains records and logs, including time sheets; prepares requisitions; changes attachments and adapts cable/hydraulic assemblies on multipurpose excavators and cranes (crawler), up to and including 3-cubic-yard for clamshell, dragline, shovel-front, backhoe, pile driver, and hooklock; operates and performs operator maintenance on scrapers, cranes, pile drivers, rock drills, asphalt pavers, soil stabilization mixers, and rough-terrain forklifts, up to and including those with 18,000-pound capacity; maintains asphalt surfaces. *EO1:* Able to perform the duties required for EO2; prepares as-built drawings, work progress reports, and material usage data; implements on-the-job training; directs crews in excavating, paving, grading, hauling, and materials-handling operations; makes work assignments; uses Critical Path Method (CPM) schedules; is a quarry operator and construction inspector; operates and performs operator maintenance on asphalt and concrete batch plants; computes volume of embankment sections; estimates manpower, material, and equipment needs from drawings and specifications; carries out procedures to limit or minimize the adverse effects of oil and fuel spillage and of fuel combustion on air quality. *EOC:* Able to perform the duties required for EO1; drafts letters, reports, and instructions; coordinates and supervises the work performed by unit personnel; provide technical advice on plans and specifications and on equipment operation, construction, and maintenance techniques; implements maintenance and cost control programs; prepares and maintains project progress charts; organizes and controls the site deployment of materials and equipment. *EOCS:* Able to perform the duties required for EOC; provides information and advice on the capabilities, utilization, and operations in own area of responsibility; prepares correspondence; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program for assigning and evaluating personnel; coordinates the assignment of equipment among various projects according to priorities; administers construction force tool inventory and inspection program; prepares and maintains visual status boards; directs the repair, alteration, and maintenance of all facilities under the cognizance of public works department; establishes a maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage and maintenance data and prepares related reports; organizes, schedules, and evaluates training programs.

Recommendation, EO3

In the vocational certificate category, 10 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 2 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction equipment operation and 1 in mechanical maintenance (1/77).

Recommendation, EO2

In the vocational certificate category, 20 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 3 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in construction equipment operation and 2 in mechanical maintenance (1/77).

Recommendation, EO1

In the vocational certificate category, 30 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 3 in mechanical maintenance. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 2 in operations management, 2 in personnel supervision, and 2 in mechanical maintenance (1/77).

Recommendation, EOC

In the vocational certificate category, the recommendation is the same as that for EO1. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 3 in operations management, 3 in personnel supervision, and 2 in mechanical maintenance (1/77).

Recommendation, EOCS

In the vocational certificate category, the recommendation is the same as that for EO1. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 3 in operation planning, 3 in operations management, 3 for field experience in management, 3 in personnel supervision, and 2 in mechanical maintenance. In the upper-division baccalaureate category, 3 semester hours in operations/construction management and 3 in human relations (1/77).

NER-EQ-001

Equipmentman, Master Chief

EQCM

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

May progress to EQCM, Master Chief Equipmentman (E-9), from either EOCS, Senior Chief Equipment Operator (E-8), or CMCS, Senior Chief Construction Mechanic (E-8). *EQCM:* Master Chief Equipmentman (E-9).

Description

Able to perform the duties required for Either EOCS (Senior Chief Equipment Operator) or CMCS (Senior Chief Construction Mechanic); forecasts future requirements and plans and initiates action to satisfy them; establishes goals and priorities; plans, organizes, implements, and controls work activities in compliance with policy statements and directives; reviews personnel, equipment, and material requirements; is responsible for the administration of a department or company; develops procedures for work improvement and simplification through organizational analysis; manages a contracts inspection branch; implements pollution control and energy conservation programs; develops operating budgets and monitors expenditures; assists in managing a public works department.

Recommendation

In the vocational certificate category, use the recommendation for either EO1 (Equipment Operator First Class) in exhibit NER-EO-001 or CMCS (Senior Chief Construction Mechanic) in exhibit NER-CM-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting procedures; add either the 20 semester hours for EOCS (Senior Chief Equipment Operator) in exhibit NER-EO-001, or the 22 semester hours for CMCS in exhibit NER-CM-001. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in forecasting, and 3 for a practicum in management; add either the 6 semester hours for EOCS in exhibit NER-EO-001, or the 6 semester hours for CMCS in exhibit NER-CM-001, as appropriate (1/77).

NER-ET-001

Electronics Technician

ET1
ETC
ETCS
ETCM

Exhibit Dates: 6/71–6/78.

Occupational Field: 8 (Weapons Control).

Career Pattern

May progress from: ETN2, Electronics Technician, Communications, Second Class (E-5); or ETR2, Electronics Technician, Radar, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

ET1: Able to perform the duties required for ETN2 or ETR2; diagnoses, isolates, aligns, adjusts, and calibrates electronic subsystems; monitors maintenance quality control; prepares weekly preventive maintenance schedules; maintains inventory of parts; reviews completed maintenance data forms; trains in the operation of tests on systems and subsystems. *ETC:* Able to perform the duties required for ET1; supervises the repair of electronic systems and subsystems; uses accounting procedures to maintain control of inventories, workflow, and work accomplished; estimates time and support required for repair of equipment; provides technical and supervisory liaison between work centers; implements and administers a maintenance and repair program; prepares quarterly preventive maintenance schedules. *ETCS:* Able to perform the duties required for ETC; evaluates operational test results against engineering design standards; reviews, prepares, and administers the electronic repair organization bill; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs and evaluates their effectiveness; administers a long-range planned maintenance program. *ETCM:* Able to perform the duties required for ETCS; organizes, controls, directs and evaluates personnel and equipment utilization; forecasts future requirements and reviews personnel, equipment, and material requirements; coordinates activities with other departments; develops operating budgets and monitors expenditures.

Recommendation, ET1

In the vocational certificate category, use the 19 semester hours for ETN2 (Electronics Technician, Communications, Second Class) in exhibit NER-ETN-001, or the 19 semester hours for ETR2 (Electronics Technician, Radar, Second Class) in exhibit NER-ETR-001, and 2 additional semester hours in systems maintenance. In the lower-division baccalaureate/associate degree category, use the 16 semester hours for ETN2 (Electronics Technician, Communications, Second Class) in exhibit NER-ETN-001, or the 16 semester hours for ETR2 (Electronics Technician, Radar, Second Class) in exhibit NER-ETR-001, and additional credit as follows: 1 additional semester hour in systems maintenance, 3 in human relations, 2 in personnel supervision, and 2 in maintenance management. In the upper-division baccalaureate category, 6 semester hours in circuit analysis (12/78).

Recommendation, ETC

In the vocational certificate category, use the 21 semester hours for ET1 and 1 semester hour in record keeping. In the lower-division baccalaureate/associate degree category, use the 24 semester hours for ET1 and additional credit as follows: 1 additional semester hour in personnel supervision, 1 in maintenance management, 1 semester hour in record keeping, and 1 in report writing. In the upper-division baccalaureate category, 6 semester hours in circuit analysis (12/78).

Recommendation, ETCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 3 for field experience in management, and 3 in management problems (12/78).

Recommendation, ETCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 6 for field experience in management, and 3 in management problems (12/78).

NER-ET-002

ELECTRONICS TECHNICIAN

ET3
ET2
ET1
ETC
ETCS
ETCM

Exhibit Dates: 7/78–12/89.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ET3:* Electronics Technician, Third Class (E-4). *ET2:* Electronics Technician, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic surface equipment, electronic air detection and tracking equipment, electronic recognition and identification equipment, aids to navigation, and electronic equipment and components used for communications, cryptography, and navigation; possesses a general working knowledge of electricity and electronics. *ET3:* Reads and interprets schematics and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; completes maintenance data forms. *ET2:* Able to perform the duties required for ET3; maintains radar transmitting equipment, radar receiving equipment, radar identification equipment, and air navigation equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports. *ET1:* Able to perform the duties required for ET2; diagnoses, isolates, aligns, adjusts, and calibrates electronic subsystems; monitors maintenance quality control; prepares weekly preventive maintenance schedules; maintains inventory of parts; reviews completed maintenance data forms; trains in the operation of tests on systems and subsystems. *ETC:* Able to perform the duties required for ET1; supervises the repair of electronic systems and subsystems; uses accounting procedures to maintain control of inventories, workflow, and work accomplished, estimates time and support required for repair of equipment; provides technical and supervisory liaison between work centers; implements and administers a maintenance and repair program; prepares quarterly preventive maintenance schedules. *ETCS:* Able to perform the duties required for ETC; evaluates operational test results against engineering design standards, reviews, prepares, and administers the electronic repair organization bill; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs and evaluates their effectiveness; administers a long-range planned maintenance program. *ETCM:* Able to perform the duties required for ETCS; plans, organizes, controls, directs, and evaluates personnel and equipment utilization; forcasts future requirements and reviews personnel, equipment, and material requirements; coordinates activities with other departments; develops operating budgets and monitors expenditures.

Recommendation, ET3

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, and 6 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, 1 in digital electronics, and 2 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (6/81).

Recommendation, ET2

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, and 8 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, and 3 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (6/81).

Recommendation, ET1

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 10 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, 4 in systems maintenance, 3 in human relations, 2 in personnel supervision, 2 in maintenance management, and credit in troubleshooting techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in circuit analysis (6/81).

Recommendation, ETC

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 10 in systems maintenance, 1 in recordkeeping, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, 4 in systems maintenance, 3 in human relations, 3 in personnel supervision, 3 in maintenance management, 1 in recordkeeping, 1 in report writing, and credit in troubleshooting techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in circuit analysis (6/81).

Recommendation, ETCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 3 for field experience in management, and 3 in management problems (6/81).

Recommendation, ETCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 6 for field experience in management, and 3 in management problems (6/81).

NER-ET-003

ELECTRONICS TECHNICIAN

ET3
ET2
ET1
ETC
ETCS
ETCM

Exhibit Dates: 1/90–Present

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ET3:* Electronics Technician, Third Class (E-4). *ET2:* Electronics Technician, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic equipment for surface ships and submarines, electronic air detection and tracking equipment, electronic recognition and identification equipment, aids to navigation, and electronic equipment and components used for communication, cryptography, and navigation; possesses a general working knowledge of electricity and electronics. *ET3:* Reads and interprets schematics and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; completes maintenance data forms. *ET2:* Able to perform the duties required for ET3; maintains radar transmitting equipment, radar receiving equipment, radar identification equipment, and air navigation equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports. *ET1:* Able to perform the duties required for ET2; diagnoses, isolates, aligns, adjusts, and calibrates electronic subsystems; monitors maintenance quality control; prepares weekly preventive maintenance schedules, maintains inventory of parts; reviews completed maintenance data forms, trains in the operation of tests on systems and subsystems. *ETC:* Able to perform the duties required for ET1; supervises the repair of electronic systems and subsystems, uses accounting procedures to maintain control of inventories, workflow, and work accomplished; estimates time and support required for repair of equipment; provides technical and supervisory liaison between work centers, implements and administers a maintenance and repair program; prepares quarterly preventive maintenance schedules. *ETCS:* Able to perform the duties required for ETC; evaluates operational test results against engineering design standards; reviews, prepares, and administers the electronic repair organization bill, prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization, organizes and schedules training programs and evaluates their effectiveness; administers a long-range planned maintenance program. *ETCM:* Able to perform the duties required for ETCS; plans, organizes, controls, directs, and evaluates personnel and equipment utilization; forecasts future requirements and reviews personnel, equipment, and material requirements; coordinates activities with other departments; develops operating budgets and monitors expenditures.

Recommendation, ET3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 3 in electronic systems troubleshooting and maintenance, 2 in technical mathematics, 1 in electronic control systems, 1 in electronic communications, 1 in DC circuits, and 1 in AC circuits (12/89).

Recommendation, ET2

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 1 in solid state electronics, 1 in microprocessors, 3 in electronic systems troubleshooting and maintenance, 2 in technical mathematics, 2 in electronic control systems, 2 in electronic communications, 1 in DC circuits, 1 in AC circuits, and 2 in personnel supervision (12/89).

Recommendation, ET1

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 2 in solid state electronics, 2 in microprocessors, 3 in electronic systems troubleshooting and maintenance, 2 in technical mathematics, 2 in electronic control systems, 3 in electronic communications, 1 in DC circuits, 1 in AC circuits, and 3 in personnel supervision (12/89).

Recommendation, ETC

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 3 in solid state electronics, 2 in microprocessors, 3 in electronic systems troubleshooting and maintenance, 2 in technical mathematics, 2 in electronic control systems, 3 in electronic communications, 1 in DC circuits, 1 in AC circuits, 3 in personnel supervision, and 3 in maintenance management (12/89).

Recommendation, ETCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, ETCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-ETN-001

ELECTRONICS TECHNICIAN,
COMMUNICATIONS

ETN3
ETN2

Exhibit Dates: 6/71–6/78. (Effective 7/78, the ETN rating was discontinued.)

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ETN3:* Electronics Technician, Communications, Third Class (E-4). *ETN2:* Electronics Technician, Communications, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic equipment and components used for communications, cryptography, and navigation; possesses a general working knowledge of electricity and electronics. *ETN3:* Reads and interprets schematic and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; orders parts and tools; inspects, cleans, and lubricates equipment; completes maintenance data forms. *ETN2:* Able to perform the duties required for ETN3; maintains electrical/electronic navigational aids, and communications receiving and transmitting equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports.

Recommendation, ETN3

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, and 6 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, 1 in digital electronics, and 2 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

Recommendation, ETN2

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, and 8 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, and 3 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

NER-ETR-001

ELECTRONICS TECHNICIAN, RADAR

ETR3
ETR2

Exhibit Dates: 6/71–6/78. (Effective 7/78, the ETR rating was discontinued.)

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ETR3:* Electronics Technician, Radar, Third Class (E-4). *ETR2:* Electronics Technician, Radar, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic surface and air tracking and detection equipment, electronic recognition and identification equipment, and aids to navigation; possesses a general working knowledge of electricity and electronics. *ETR3:* Reads and interprets schematics and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; orders parts and tools; inspects, cleans, and lubricates equipment; completes maintenance data forms. *ETR2:* Able to perform the duties required for ETR3; maintains radar transmitting equipment, radar receiving equipment, radar identification equipment, and air navigation equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports.

Recommendation, ETR3

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, and 6 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, 1 in digital electronics, and 2 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

Recommendation, ETR2

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, and 8 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, and 3 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

NER-EW-001

ELECTRONICS WARFARE TECHNICIAN

EW3
EW2
EW1
EWC
EWCS
EWCM

Exhibit Dates: 6/71–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *EW3:* Electronics Warfare Technician, Third Class, (E-4). *EW2:* Electronics Warfare Technician, Second Class (E-5). *EW1:* Electronics Warfare Technician, First Class (E-6). *EWC:* Chief Electronics Warfare Technician (E-7). *EWCS:* Senior Chief Electronics Warfare Technician (E-8). *EWCM:* Master Chief Electronics Warfare Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on electronic warfare equipment; analyzes and evaluates received signals. *EW3:* Operates electronic signal analyzing equipment; operates electronic direction-finding equipment; maintains radio frequency transmission systems; performs maintenance on electronic warfare equipment; reads and interprets electronic block diagrams. *EW2:* Able to perform the duties required for EW3; tests analog and digital circuits, servomechanisms, and digital logic and interconnecting circuits; operates general-purpose test equipment, including power meters, oscilloscopes, signal generators, counters, pulse generators, and time/frequency domain reflectometers; reads and interprets electrical/electronic schematics and blueprints for maintenance and modifications; inventories installed equipment and spare part support. *EW1:* Able to perform the duties required for EW2; analyzes electronic systems faults and initiates corrective action; analyzes test equipment defects and determines corrective action; trains electronics warfare operators in signal analysis and equipment operation; prepares weekly preventive maintenance schedules. *EWC:* Able to perform the duties required for EW1; tests and evaluates newly installed or repaired electronic warfare equipment; conducts electronic interference surveys and recommends corrective action; supervises an operational training program for electronic warfare personnel; supervises and trains personnel in maintenance procedures; coordinates test equipment calibration requirements and procedures; writes messages and prepares reports; prepares quarterly maintenance schedules. *EWCS:* Able to perform the duties required for EWC; administers a long-range planned maintenance program; coordinates the collection, preparation, and dissemination of technical information pertaining to test, maintenance, and repair of electronic warfare systems; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs. *EWCM:* Able to perform the duties required for EWCS; plans, organizes, and implements electronic warfare activities; forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, EW3

In the vocational certificate category, 6 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, and 1 in digital electronics, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

Recommendation, EW2

In the vocational certificate category, 8 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance, 3 in basic electronics, 6 in circuit theory, 2 in applied mathematics, and 2 in digital electronics, and credit in troubleshooting techniques on the basis of institutional evaluation (12/78).

Recommendation, EW1

In the vocational certificate category, 10 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 4 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 2 in personnel supervision, and 2 in maintenance management, and credit in troubleshooting techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in circuit theory (12/78).

Recommendation, EWC

In the vocational certificate category, 10 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 4 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 3 in personnel supervision, 3 in maintenance management, 1 in record keeping, and 1 in report writing, and credit in troubleshooting techniques on the basis of institutional evaluation. In the upper-division baccalaureate category, 6 semester hours in circuit theory (12/78).

Recommendation, EWCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EWC. In the upper-division baccalaureate category, 6 semester hours in circuit theory, 3 for field experience in management, and 3 in management problems (12/78).

Recommendation, EWCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EWC. In the upper-division baccalaureate category, 6 semester hours in circuit theory, 6 for field experience in management, and 3 in management problems (12/78).

NER-FC-001

FIRE CONTROLMAN

FC3
FC2
FC1
FCC
FCCS
FCCM

Exhibit Dates: 1/86–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FC3:* Fire Controlman Third Class (E-4). *FC2:* Fire Controlman Second Class (E-5). *FC1:* Fire Controlman First Class (E-6). *FCC:* Chief Fire Controlman (E-7). *FCCS:* Senior Chief Fire Controlman (E-8). *FCCM:* Master Chief Fire Controlman (E-9).

Description

Summary: Operates, repairs, and performs maintenance on shipboard gun fire control systems (including submarine weapon control systems and associated test equipment) and surface missile fire control systems (including weapon direction systems and search radar), telemetry equipment, missiles, and associated support equipment. *FC3:* Troubleshoots and repairs electrical and electronic gun fire control systems and surface missile fire control systems; performs preventive maintenance on weapons; follows standard checkout procedures to locate and repair system malfunctions; tests, aligns, and adjusts radar-indicating circuits and power supplies; uses test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational tests and operator adjustments on weapon equipment; operates radar equipment, fire control systems, and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; performs electro-mechanical maintenance on mechanical and electrical mechanical assemblies; completes maintenance forms; inventories parts and supplies. *FC2:* Able to perform the duties required for FC3; repairs, troubleshoots, and performs preventive maintenance on electrical and electronic gun fire control systems, specialized equipment, and circuits; reads schematics and block diagrams; completes maintenance reports; inventories installed equipment. *FC1:* Able to perform the duties required for FC2; analyzes fire control systems failures and directs corrective maintenance action; coordinates shop activities and serves as weapon systems test coordinator; diagnoses non-routine malfunctions and provides the expertise necessary to affect repairs; inspects completed work assignments; tests, analyzes, isolates faults, and adjusts digital computers; prepares weekly maintenance schedules. *FCC:* Able to perform the duties required for FC1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; prepares quarterly maintenance schedules. *FCCS:* Able to perform the duties required for FCC; advises and provides information on reliability, utilization, capabilities, and operations of weapons department; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; administers a long-range planned maintenance program. *FCCM:* Able to perform the duties required for FCCS; provides technical information and advice concerning operational employment of weapons equipment; plans, organizes, implements, and controls activities; forecasts future requirements and reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, FC3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in applied mathematics (10/87).

Recommendation, FC2

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading.

Recommendation, FC1

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (10/87).

Recommendation, FCC

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (10/87).

Recommendation, FCCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FCC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (10/87).

Recommendation, FCCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FCC. In the upper-division baccalaureate category, 6 semester hours for field experience in managment and 3 in management problems (10/87).

NER-FN-001

FIREMAN

FN

Exhibit Dates: 6/71–12/89.

Career Pattern

Fireman is a general rate (Naval apprenticeship) for persons at paygrade E-1 (recruit), E-2 (Fireman apprentice), and E-3 (Fireman). At paygrade E-4 (petty officer third class), the person may enter any one of the following ratings: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician (GS), Interior Communications Electrician (IC), Machinist's Mate (MM), Hull Maintenance Technician, (HT), Machinery Repairman (MR), Molder (ML), or Patternmaker (PM).

Description

Performs all basic fireman apprenticeship functions in engineering areas aboard ship, involving cleanliness, operation, maintenance, and preservation of main propulsion, auxiliary steam or diesel machinery, steam or diesel generators, various pumps, motors, and associated equipment; identifies functions of refrigeration equipment, anchor windlasses, distilling plants, and compressors; uses and maintains handtools; stands security watches and fire watches; knows the purpose and limitations of first aid and the first aid treatment for electrical shock, simple and compound fractures, heat exhaustion, heat stroke, and burns; must be qualified as a Swimmer Fourth Class, requiring floating for a minimum of five minutes, preparing and using clothing and buoyant objects for staying afloat, and swimming through oil, flames, and debris; knows how to determine the classes of fire and how to extinguish them; knows how to couple, uncouple, and stow fire hoses and how to use carbon dioxide, dry chemical, and water-portable fire extinguishers; knows the function of the typical fire main system, fixed carbon dioxide system, water washdown system, and magazine sprinkling system; knows the difference between flooding and progressive flooding and the dangers involved.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in marine engineering and credit in first aid and fire science on the basis of institutional evaluation; if the duty assignment was boat engineer, 3 semester hours in diesel engine technology; if qualified as a Swimmer First Class, 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation (12/78). NOTE: Credit for Fireman (FN) should be granted only after paygrade E-3 has been achieved.

NER-FN-002

FIREMAN

FN

Exhibit Dates: 1/90–Present.

Career Pattern

Fireman is a general rate (Naval apprenticeship) for persons at paygrade E-1 (recruit), E-2 (Fireman apprentice), and E-3 (Fireman). At paygrade E-4 (petty officer third class), the person may enter any one of the following ratings: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician (GS), Interior Communications Electrician (IC), Machinist's Mate (MM), Damage Controlman (DC), Hull Maintenance Technician (HT), Machinery Repairman (MR), Molder (ML), or Patternmaker (PM).

Description

Performs all basic fireman apprenticeship functions in engineering areas aboard ship, involving cleanliness, operation, maintenance, and preservation of main propulsion, auxiliary steam or diesel machinery, steam or diesel generators, various pumps, motors, and associated equipment; identifies basic types and components of naval boilers, steam turbines, reduction gears, propellers and shafting, shipboard electric systems, and internal combustion engines; performs routine maintenance procedures.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to marine engineering and 1 in blueprint reading; if qualified as a Swimmer First Class, 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation. NOTE: Credit for Fireman should be granted only after paygrade E-3 has been achieved (3/90).

NER-FT-001

FIRE CONTROL TECHNICIAN

FTCS
FTCM

Exhibit Dates: 6/73–12/89.

Occupational Field: 8 (Weapons Control)

Career Pattern

May progress from: FTBC, Chief Fire Control Technician, Ballistic Missile Fire Control (E-7); FTGC, Chief Fire Control Technician, Gun Fire Control (E-7), FTMC, Chief Fire Control Technician, Surface Missile Fire Control (E-7); or MTC, Chief Missile Technician (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9)

Description

FTCS: Able to perform the duties required for FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control), FTGC (Chief Fire Control Technician, Gun Fire Control), FTMC (Chief Fire Control Technician, Surface Missile Fire Control), or MTC (Chief Missile Technician); advises and provides information on reliability, utilization, capabilities, and operations of weapons department, prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; administers a long-range planned maintenance program. *FTCM:* Able to perform the duties required for FTCS: provides technical information and advice concerning operational employment of weapons equipment; plans, organizes, implements, and controls activities; forecasts future requirements and reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, FTCS

In the vocational certificate category, use the recommendation for FTG2 (Fire Control Technician, Gun Fire Control, Second Class) in exhibit NER-FTG-001, or FTB2 (Fire Control Technician, Ballistic Missile Fire Control, Second Class) in exhibit NER-FTB-001, or FTM2 (Fire Control Technician, Surface Missile Fire Control, Second Class) in exhibit NER-FTM-001, or MT2 (Missile Technician, Second Class) in exhibit NER-MT-001, as appropriate. In the lower-division baccalaureate/associate degree category, use the recommendation for FTGC (Chief Fire Control Technician, Gun Fire Control) in exhibit NER-FTG-001, or FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control) in exhibit NER-FTB-001, or FTMC (Chief Fire Control Technician, Surface Missile Fire Control) in exhibit NER-FTM-001, or MTC (Chief Missile Technician) in exhibit NER-MT-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, FTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FTCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-FT-002

FIRE CONTROL TECHNICIAN

FTCS
FTCM

Exhibit Dates: 1/90–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

May progress from: FTBC, Chief Fire Control Technician, Ballistic Missile Fire Control (E-7); FTGC, Chief Fire Control Technician, Gun Fire Control (E-7); or MTC, Chief Missile Technician (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

FTSC: Able to perform the duties required for FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control), FTGC (Chief Fire Control Technician, Gun Fire Control), or MTC (Chief Missile Technician); advises and provides information on reliability, utilization, capabilities, and operations of weapons department; reviews directives and instructions for attaining organization objectives; prepares correspondence; organizes and schedules training programs; administers a long-range planned maintenance program. *FTCM:* Able to perform the duties required for FTCS; provides technical information and advice concerning operational employment of weapons equipment; plans, organizes, implements, and controls activities; forecasts future requirements and reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures; prepares staff studies.

Recommendation, FTCS

In the lower-division baccalaureate/associate degree category, use the recommendation for FTCG (Chief Fire Control Technician, Gun Fire Control) in exhibit NER-FTG-002, or FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control) in exhibit NER-FTB-002, or MTC (Chief Missile Technician) in exhibit NER-MT-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, FTCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FTCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-FTB-001

FIRE CONTROL TECHNICIAN, BALLISTIC MISSILE FIRE CONTROL

FTB3
FTB2
FTB1
FTBC

Exhibit Dates: 6/73–12/89.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTB3:* Fire Control Technician, Ballistic Missile Fire Control, Third Class (E-4). *FTB2:* Fire Control Technician, Ballistic Missile Fire Control, Second Class (E-5). *FTB1:* Fire Control Technician, Ballistic Missile Fire Control, First Class (E-6). *FTBC:* Chief Fire Control Technician, Ballistic Missile Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on ballistic missile fire control systems, equipment, and associated test equipment. *FTB3:* Adjusts, aligns, and calibrates basic electronic circuits; under supervision, performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems and support subsystems; isolates and replaces faulty parts and components; identifies electrical components and parts from drawings and schematic diagrams; identifies basic digital circuits; orders repair parts; completes maintenance data forms. *FTB2:* Able to perform the duties required for FTB3; isolates and replaces defective circuit components; performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems and support subsystems; operates analog/digital computer; maintains logs and records; completes maintenance reports; inventories installed equipment. *FTB1:* Able to perform the duties required for FTB2; inspects maintenance and repair work of weapon systems and auxiliary equipment; reviews completed maintenance data forms; prepares weekly maintenance schedules; administers nuclear weapon security procedures. *FTBC:* Able to perform the duties required for FTB1; serves as shop supervisor; coordinates and directs maintenance on fire control, guidance, missile, test, and readiness equipment and support subsystems; assures compliance with nuclear weapons safety rules; prepares reports; prepares quarterly maintenance schedules.

Recommendation, FTB3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in applied mathematics (12/78).

Recommendation, FTB2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading (12/78).

Recommendation, FTB1

In the vocational certificate category, the recommendation is the same as that for FTB2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, FTBC

In the vocational certificate category, the recommendation is the same as that for FTB2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

NER-FTB-002

FIRE CONTROL TECHNICIAN, BALLISTIC MISSILE FIRE CONTROL

FTB3
FTB2
FTB1
FTBC

Exhibit Dates: 1/90–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTB3:* Fire Control Technician, Ballistic Missile Fire Control, Third Class (E-4). *FTB2:* Fire Control Technician, Ballistic Missile Fire Control, Second Class (E-5). *FTB1:* Fire Control Technician, Ballistic Missile Fire Control, First Class (E-6). *FTBC:* Chief Fire Control Technician, Ballistic Missile Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, tests, repairs, and performs maintenance on ballistic missile fire control systems, equipment, and associated test equipment. *FTB3:* Adjusts, aligns, and calibrates basic electronic circuits; under supervision, performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems; performs maintenance on optical alignment equipment; isolates and replaces faulty parts and components; identifies electrical components and parts from drawings and schematic diagrams; identifies basic circuits; prepares computer for all modes of operations; interprets printouts of computers and peripheral equipment; complies with nuclear weapons safety standards; orders repair parts; completes maintenance data forms. *FTB2:* Able to perform the duties required for FTB3; isolates and replaces defective circuit components; performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems and support subsystems; operates analog/digital computer; maintains logs and records; completes maintenance reports; inventories installed equipment. *FTB1:* Able to perform the duties required for FTB2; inspects maintenance and repair work of weapons systems and auxiliary equipment; reviews completed maintenance data forms; prepares planned maintenance schedules; administers nuclear weapons security procedures. *FTBC:* Able to perform the duties required for FTB1; compiles and analyzes missile targetting data; serves as shop supervisor; coordinates and directs maintenance on fire control, guidance, missile, test, and readiness equipment and support subsystems; serves as special weapons handling supervisor; assures compliance with nuclear wepons safety rules; prepares reports; prepares quarterly maintenance schedules.

Recommendation, FTB3

In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics, 2 in computer organization, 3 in basic electronics laboratory, and 3 in computer systems troubleshooting and maintenance (12/89).

Recommendation, FTB2

In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics, 2 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, and 2 in personnel supervision (12/89).

Recommendation, FTB1

In the lower-division baccalaureate/associate degree category, 4 semester hours in digital electronics, 3 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, and 3 in personnel supervision (12/89).

Recommendation, FTBC

In the lower-division baccalaureate/associate degree category, 4 semester hours in digital electronics, 3 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, 3 in personnel supervision, and 3 in maintenance management (12/89).

NER-FTG-001

FIRE CONTROL TECHNICIAN, GUN FIRE CONTROL

FTG3
FTG2
FTG1
FTGC

Exhibit Dates: 6/73–12/89.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTG3:* Fire Control Technician, Gun Fire Control, Third Class (E-4). *FTG2:* Fire Control Technician, Gun Fire Control, Second Class (E-5). *FTG1:* Fire Control Technician, Gun Fire Control, First Class (E-6). *FTGC:* Chief Fire Control Technician, Gun Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on shipboard gun fire control systems including submarine weapon control systems and associated test equipment. *FTG3:* Assists in troubleshooting and repairing electrical and electronic gun fire control systems; performs preventive maintenance on weapons; follows standard checkout procedures to locate and repair system malfunctions; tests, aligns, and adjusts radar-indicating circuits and power supplies; uses test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational tests and operator adjustments on weapon equipment; operates radar equipment, fire control systems, and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; performs electro-mechanical maintenance on mechanical and electrical mechanical assemblies; completes maintenance forms; inventories parts and supplies. *FTG2:* Able to perform the duties required for FTG3; repairs, troubleshoots, and performs preventive maintenance on electrical and electronic gun fire control systems, specialized equipment, and circuits; reads schematics and block diagrams; completes maintenance reports; inventories installed equipment. *FTG1:* Able to perform the duties required for FTG2; analyzes fire control systems failures and directs corrective maintenance action; coordinates shop activities and serves as weapon systems test coordinator; diagnoses non-routine malfunctions and provides the expertise necessary to affect repairs; inspects completed work assignments; tests, analyzes, isolates faults, and adjusts digital computers; prepares weekly maintenance schedules. *FTGC:* Able to perform the duties required for FTG1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; prepares quarterly maintenance schedules.

Recommendation, FTG3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in applied mathematics (12/78).

Recommendation, FTG2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading (12/78).

Recommendation, FTG1

In the vocational certificate category, the recommendation is the same as that for FTG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, FTGC

In the vocational certificate category, the recommendation is the same as that for FTG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

NER-FTG-002

FIRE CONTROL TECHNICIAN, GUN FIRE CONTROL

FTG3
FTG2
FTG1
FTGC

Exhibit Dates: 1/90–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTG3:* Control Technician, Gun Fire Control, Third Class (E-4). *FTG2:* Fire Control Technician, Gun Fire Control, Second Class (E-5). *FTG1:* Fire Control Technician, Gun Fire Control, First Class (E-6). *FTGC:* Chief Fire Control Technician, Gun Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, tests, repairs, and performs maintenance on shipboard gun fire control systems including submarine weapons control systems and associated test equipment. *FTG3:* Assists in troubleshooing and repairing electrical and electronic gun fire control systems; performs preventive maintenance on weapons; follows standard checkout procedures to locate and repair system malfunctions; operates target bearing transmitters and digital data storage devices; loads computer programs; complies with nuclear weapons safety standards; uses test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational test and operator adjustments on weapon equipment; operates fire control systems and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; completes maintenance forms; inventories parts and supplies; performs mathematical computations as necessary in plotting targets. *FTG2:* Able to perform the duties required for FTG3; writes and installs machine-coded maintenance procedures; repairs, troubleshoots, and performs preventive maintenance on electrical and electronic gun fire control systems and circuits; prepares computer for all modes of operations; reads schematics and block diagrams; evaluates performance of digital data systems; completes maintenance reports; inventories installed equipment. *FTG1:* Able to perform the duties required for FTG2; analyzes fire control systems failures and directs corrective maintenance action; supervises work of subordinates; coordinates shop activities and serves as weapon systems test coordinator; analyzes digital data equipment trends and determines corrective action; inspects completed work assignments; supervises fire control plots; tests, analyzes, isolates faults, and adjusts digital computers; prepares planned maintenance schedules. *FTGC:* Able to perform the duties required for FTG1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; supervises torpedo/missile fire control system maintenance; prepares quarterly maintenance schedules; trains fire control plotting teams.

Recommendation, FTG3

In the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics, 2 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, and 1 in technical mathematics (12/89).

Recommendation, FTG2

In the lower-division baccalaureate/associate degree category, 4 semester hours in digital electronics, 3 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, 2 in technical mathematics, and 2 in personnel supervision (12/89).

Recommendation, FTG1

In the lower-division baccalaureate/associate degree category, 4 semester hours in digital electronics, 3 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, 2 in technical mathematics, and 3 in personnel supervision (12/89).

Recommendation, FTGC

In the lower-division baccalaureate/associate degree category, 4 semester hours in digital electronics, 3 in computer organization, 3 in basic electronics laboratory, 3 in computer systems troubleshooting and maintenance, 1 in solid state electronics, 2 in technical mathematics, 3 in personnel supervision, and 3 in maintenance management (12/89).

NER-FTM-001

FIRE CONTROL TECHNICIAN, SURFACE MISSILE FIRE CONTROL

FTM3
FTM2
FTM1
FTMC

Exhibit Dates: 6/73–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTM3:* Fire Control Technician, Surface Missile Fire Control, Third Class (E-4). *FTM2:* Fire Control Technician, Surface Missile Fire Control, Second Class (E-5). *FTM1:* Fire Control Technician, Surface Missile Fire Control, First Class (E-6). *FTMC:* Chief Fire Control Technician, Surface Missile Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on surface missile fire control systems (including weapon direction systems and search radar), telemetry equipment, missiles, and associated support equipment. *FTM3:* Assists in troubleshooting and repairing electrical and electronics surface missile fire control systems; performs preventive maintenance on weapons; follow standard checkout procedures to locate and repair system malfunctions; tests, aligns, and adjusts radar-indicating circuits and power supplies; use test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational tests and operator adjustments on weapon equipment; operates radar equipment, fire control systems, and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; performs electro-mechanical maintenance on mechanical and electrical mechanical assemblies; completes maintenance forms; inventories parts and supplies. *FTM2:* Able to perform the duties required for FTM3; repairs, troubleshoots, and performs preventive maintenance on electrical and electronics surface missile fire control systems, specialized equipment, and circuits; reads schematics and block diagrams; completes maintenance reports; inventories installed equipment. *FTM1:* Able to perform the duties required for FTM2; analyzes fire control system failures and directs corrective maintenance action; coordinates shop activities and serves as weapon systems test coordinator; diagnoses non-routine malfunctions and provides the expertise necessary to effect repairs; inspects completed work assignments; tests, analyzes, isolates faults, and adjusts digital computers; prepares weekly maintenance schedules. *FTMC:* Able to perform the duties required for FTM1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; prepares quartely maintenance schedules.

Recommendation, FTM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 3 in applied mathematics (12/78).

Recommendation, FTM2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading (12/78).

Recommendation, FTM1

In the vocational certificate category, the recommendation is the same as that for FTM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, FTMC

In the vocational certificate category, the recommendation is the same as that for FTM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

NER-GM-001

GUNNER'S MATE, SENIOR CHIEF AND MASTER CHIEF

GMCS
GMCM

Exhibit Dates: 6/71–12/89.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

May progress from either GMGC, Chief Gunner's Mate, Guns (E-7), or GMMC, Chief Gunner's Mate, Missiles (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

GMCS: Able to perform the duties required for GMGC (Chief Gunner's Mate Guns), or GMMC (Chief Gunner's Mate, Missiles); plans, organizes, implements, and controls work activities in the alignments, maintenance, repair, and operation of guns and missiles and associated equipment; organizes, schedules and evaluates effectiveness of training; administers a long-range planned maintenance program; controls expenditure of materials; prepares performance, inventory, and inspection reports on guns and missiles and associated equipment; administers a program for interviewing, evaluating, and assigning personnel. *GMCM:* Able to perform the duties required for GMCS; coordinates and manages departmental ordance safety operating budget and monitors expenditures; prepares periodic reports concerning equipment performance and maintenance.

Recommendation, GMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, use either GMGC (Chief Gunner's Mate, Guns) in exhibit NER-GMG-001, or GMMC (Chief Gunner's Mate, Missiles) in exhibit NER-GMM-001 as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in human relations (8/80).

Recommendation, GMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in human relations (8/80).

NER-GM-002

GUNNER'S MATE, CHIEF, SENIOR CHIEF, AND MASTER CHIEF

GMC
GMCS
GMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

May progress from either GMG1, Gunner's Mate, Guns, First Class (E-6), or GMM1, Gunner's Mate, Missiles, First Class (E-6). *GMC:* Chief Gunner's Mate (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

GMC: Able to perform the duties required for GMG1 (Gunner's Mate, Guns, First Class) or GMM1 (Gunner's Mate, Missiles, First Class); supervises maintenance of ordnance electrical and eletronic systems; supervises the handling and storage of explosive ordnance components; supervises training programs; analyzes discrepancy trends and determines corrective action; prepares quarterly maintenance schedules; conducts inventories; supervises the shipboard environmental pollution cotrol programs. *GMCS:* Able to perform the duties required for GMC; plans, organizes, implements, and controls work activities in the alignments, maintenance, repair and operation of guns and missiles and associated equipment; organizes, schedules and evaluates effectiveness of training; administers a long-range planned maintenance program; controls expenditure of materials; prepares performance, inventory and inspection reports on guns and missiles and associated equipment; administers a program for interviewing, evaluating and assigning personnel; writes directives and correspondence. *GMCM:* Able to perform the duties required for GMCS; coordinates and manages departmental ordnance safety program and the overhaul and repair of shipboard weapons systems; prepares operating budget and monitors expenditures; prepares periodic reports concerning equipment performance and maintenance; forecasts future requirements; plans, organizes, implements and controls activities.

Recommendation, GMC

In the lower-division baccalaureate/associate degree category, use the recommendation for either GMG1 (Gunner's Mate, Guns, First Class) in exhibit NER-GMG-003, or GMM1 (Gunner's Mate, Missiles, First Class) in exhibit NER-GMM-003, plus 3 semester hours in maintenance management (12/89).

Recommendation, GMCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, GMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

NER-GMG-001

GUNNER'S MATE, GUNS

GMG3
GMG2
GMG1
GMGC

Exhibit Dates: 6/71–12/84.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMG3:* Gunner's Mate, Guns, Third Class (E-4). *GMG2:* Gunner's Mate, Guns, Second Class (E-5). *GMG1:* Gunner's Mate, Guns, First Class (E-6). *GMGC:* Chief Gunner's Mate, Guns (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on shipboard guns, gun mounts, ammunition handling equipment and small arms weapons; inspects and repairs electric, electronic, hydraulic and mechanical systems and servo-systems in shipboard guns, gun mounts, rocket launchers and ammunition handling equipment; tests and inspects gun and rocket ammunition. *GMG3:* Tests and replaces printed circuit boards; inspects and services hydraulic equipment; handles and stows ordnance, pyrotechnics, and small arms; disassembles, inspects and assembles pistols, rifles, machine guns and other small arms; operates mechanical and electrical test equipment; tests for short circuits and grounds in electrical cables and wiring; uses technical drawings; traces circuits on schematics and drawings; completes maintenance records and forms. *GMG2:* Able to perform the duties required for GMG3; analyzes electronic and electrical systems malfunctions; installs and maintains components on the hydraulic systems; uses demolition charges for emergency destruction; interprets data from alignment and indicating equipment and makes adjustments; operates gun mount dynamic test equipment; instructs personnel in the transferring, handling, and storage of ammunition; maintains maintenance records. *GMG1:* Able to perform the duties required for GMG2; supervises crews in transferring, handling, and storage of ammunition; diagnoses electronic and electrical malfunctions; operates an oscilloscope and interprets results; prepares technical drawings; repairs and adjusts gun mount mechanical, hydraulic, and pneumatic systems; prepares periodic equipment performance and maintenance reports and environmental pollution control reports; prepares weekly maintenance schedules. *GMGC:* Able to perform the duties required for GMG1; supervises maintenance of ordnance electrical and electronic systems; supervises the handling and storage of explosive ordnance components; prepares quarterly maintenance schedules; conducts inventories; supervises the shipboard environmental pollution control programs.

Recommendation, GMG2

In the vocational certificate category, 5 semester hours in introduction to electronics, 4 in electronics systems maintenance, and 4 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronics systems maintenance, and 3 in hydraulics systems maintenance (8/80).

Recommendation, GMG2

In the vocational certificate category, 5 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 5 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, and 4 in hydraulics systems maintenance (8/80).

Recommendation, GMG1

In the vocational certificate category, 5 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 6 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 3 in personnel supervision (8/80).

Recommendation, GMGC

In the vocational certificate category, the recommendation is the same as that for GMG1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 6 in personnel supervision (8/80).

NER-GMG-002

GUNNER'S MATE, GUNS

GMG3
GMG2
GMG1
GMGC

Exhibit Dates: 1/85–12/89.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMG3:* Gunner's Mate, Guns, Third Class (E-4). *GMG2:* Gunner's Mate, Guns, Second Class (E-5). *GMG1:* Gunner's Mate, Guns, First Class (E-6). *GMGC:* Chief Gunner's Mate, Guns, (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on shipboard guns, gun mounts, ammunition handling equipment and small arms weapons; inspects and repairs electric, electronic, hydraulic and mechanical systems and servo-systems in shipboard guns, gun mounts, rocket launchers, and ammunition handling equipment; tests and inspects gun and rocket ammunition. *GMG3:* Tests and replaces printed circuit boards; inspects and services hydraulic equipment; handles and stows ordnance, pyrotechnics, and small arms; disassembles, inspects, and assembles pistols, rifles, machine guns and other small arms; operates mechanical and electrical test equipment; tests for short circuits and grounds in electrical cables and wiring; uses technical drawings; completes maintenance records and forms. *GMG2:* Able to perform the duties required for GMG3; repairs electronic and electrical systems malfunctions; installs and maintains components on the hydraulic systems; uses demolition charges for emergency destruction; aligns gun mounts and rocket launchers; operates gun mount dynamic test equipment; instructs personnel in the transferring, handling, and storage of ammunition; maintains maintenance records. *GMG1:* Able to perform the duties required for GMG2; supervises crews in transferring, handling, and storage of ammunition; troubleshoots electronic and electrical malfunctions; operates an oscilloscope and interprets results; repairs and adjusts gun mount mechanical, hydraulic, and pneumatic systems; prepares periodic equipment performance and maintenance reports and environmental pollution control reports; prepares weekly maintenance schedules. *GMGC:* Able to perform the duties required for GMG1; supervises maintenance of ordnance electrical and electronic systems; supervises the handling and storage of explosive ordnance components; prepares quarterly maintenance schedules; conducts inventories; supervises the shipboard environmental pollution control programs.

Recommendation, GMG3

In the vocational certificate category, 3 semester hours in introduction to electronics, 4 in electronics systems maintenance, and 4 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 2 in electronics systems maintenance, and 3 in hydraulics systems maintenance (8/80).

Recommendation, GMG2

In the vocational certificate category, 3 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 5 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, and 4 in hydraulics systems maintenance (8/80).

Recommendation, GMG1

In the vocational certificate category, 3 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 6 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 3 in personnel supervision (8/80).

Recommendation, GMGC

In the vocational certificate category, the recommendation is the same as that for GMG1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 6 in personnel supervision (8/80).

NER-GMG-003

GUNNER'S MATE, GUNS

GMG3
GMG2
GMG1

Exhibit Dates: 1/90–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMG3:* Gunner's Mate, Guns, Third Class (E-4). *GMG2:* Gunner's Mate, Guns, Second Class (E-5). *GMG1:* Gunner's Mate, Guns, First Class (E-6). *GMC:* Chief Gunner's Mate (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on shipboard guns, gun mounts, ammunition handling equipment and small arms weapons; inspects and repairs electric, electronic, hydraulic and mechanical systems and servo-systems in shipboard guns, gun mounts, rocket launchers and ammunition handling equipment; tests and inspects gun and rocket ammunition. *GMG3:* Tests electrical/electronic components and parts and replaces printed circuit boards; inspects and services hydraulic equipment; handles and stows ordnance, pyrotechnics, and small arms; issues, maintains, and inventories pistols, rifles, and other small arms; operates mechanical and electrical test equipment; tests for short circuits on schematics and drawings; completes maintenance records and forms. *GMG2:* Able to perform the duties required for GMG3; analyzes and repairs electronic and electrical systems malfunctions; installs and maintains components on the hydraulic systems; uses demolition charges for emergency destruction; installs, aligns and zeroes synchros; interprets data from alignment and indicating equipment and makes adjustments; repairs hydraulic pumps; operates gun mount dynamic test equipment; instructs personnel in the transferring, handling, and storage of ammunition; orders parts, supplies and equipment; maintains maintenance records. *GMG1:* Able to perform the duties required for GMG2; supervises crews in transferring, handling, and storage of ammunition; supervises maintenance and inspection procedures; diagnoses electronic and electrical malfunctions; operates an oscilloscope and interprets results; repairs power drives; repairs and adjusts gun mount mechanical, hydraulic, and pneumatic systems; prepares periodic equipment performance and maintenance reports and environmental pollution control report; prepares weekly maintenance schedules.

Recommendation, GMG3

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory, 1 in electrical systems troubleshooting and maintenance, and 1 in hydraulic systems troubleshooting and maintenance (12/89).

Recommendation, GMG2

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory, 2 in electrical systems troubleshooting and maintenance, 1 in hydraulic systems troubleshooting and maintenance, and 2 in personnel supervision (12/89).

Recommendation, GMG1

In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory, 3 in electrical systems troubleshooting and maintenance, 2 in hydraulic systems troubleshooting and maintenance, and 3 in personnel supervision (12/89).

NER-GMM-001

GUNNER'S MATE, MISSILES

GMM3
GMM2
GMM1
GMMC

Exhibit Dates: 6/71–12/84.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMM3:* Gunner's Mate, Missiles, Third Class (E-4). *GMM2:* Gunner's Mate, Missiles, Second Class (E-5). *GMM1:* Gunner's Mate, Missiles, First Class (E-6). *GMMC:* Chief Gunner's Mate, Missiles (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on guided-missile launching systems, missile launching groups, rocket launchers, guns, gun mounts, turrets, projectors, and associated handling equipment; inspects and repairs electrical, electronic, hydraulic, and mechanical systems and servosystems; tests and inspects ammunition and missiles and their components. *GMM3:* Tests and replaces circuit boards and components of electronic equipment; inspects and services hydraulic equipment; maintains hydraulic pipes, fittings, and pressure gauges; handles and stows explosive ordnances; tests for short circuits, grounds, and continuity of interconnecting cables and wiring between components of electrical and electronic equipment; cleans commutators and replaces brushes on AC and DC motors and generators; follows schematic diagrams and hydraulic system blueprints; installs mechanical alignment hardware; completes maintenance data forms; conducts supply inventories. *GMM2:* Able to perform the duties required for GMM3; performs systems operability tests; instructs crews in the handling and stowage of explosives; inspects missile-handling equipment; adjusts and aligns launch equipment; maintains shop and equipment logs; orders repair parts and special tools. *GMM1:* Able to perform the duties required for GMM2; diagnoses intermittent, recurring, and interacting electrical and electronic malfunctions; supervises crews in missile and nuclear weapon handling; prepares equipment maintenance reports. *GMMC:* Able to perform the duties required for GMM1; supervises and inspects maintenance of launch systems and missile-handling equipment; analyzes failure trends and recommends corrective measures; diagnoses effects of environmental conditions upon operation of ordnance equipment; establishes work priorities and prepares quarterly maintenance schedules; prepares reports; conducts inventories.

Recommendation, GMM3

In the vocational certificate category, 5 semester hours in introduction to electronics, 5 in electronics systems maintenance, and 5 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electronics, 3 in electronics systems maintenance, and 3 in hydraulics systems maintenance (8/80).

Recommendation, GMM2

In the vocational certificate category, 5 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 6 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electronics, 4 in electronics systems maintenance, and 4 in hydraulics systems maintenance (8/80).

Recommendation, GMM1

In the vocational certificate category, 5 semester hours in introduction to electronics, 8 in electronics systems maintenance, and 8 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electronics, 5 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 3 in personnel supervision (8/80).

Recommendation, GMMC

In the vocational certificate category, the recommendation is the same as that for GMM1. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electronics, 5 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 6 in personnel supervision (8/80).

NER-GMM-002

GUNNER'S MATE, MISSILES

GMM3
GMM2
GMM1
GMMC

Exhibit Dates: 1/85–12/89.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMM3:* Gunner's Mate, Missiles, Third Class (E-4). *GMM2:* Gunner's Mate, Missiles, Second Class (E-5). *GMM1:* Gunner's Mate, Missiles, First Class (E-6). *GMMC:* Chief Gunner's Mate, Missiles (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on guided-missile launching systems, missile launching groups, rocket launchers, guns, gun mounts, turrets, projectors, and associated handling equipment; inspects and repairs electrical, electronic, hydraulic, and mechanical systems and servosystems; tests and inspects ammunition and missiles and their components. *GMM3:* Tests and replaces circuit boards and components of electronic equipment; inspects and services hydraulic equipment; maintains hydraulic pipes, fittings, and pressure gauges; handles and stows explosive ordnances; tests for short circuits, grounds, and continuity of interconnecting cables and wiring between components of electrical and electronic equipment; follows schematic diagrams and hydraulic system blueprints; installs mechanical alignment hardware; completes maintenance data forms; conducts supply inventories. *GMM2:* Able to perform the duties required for GMM3; performs systems operability tests; instructs crews in the handling and stowage of explosives; inspects missile-handling equipment; adjusts and aligns launch equipment; maintains shop and equipment logs; orders repair parts and special tools. *GMM1:* Able to perform the duties required for GMM2; troubleshoots intermittent, recurring, and interacting electrical and electronic malfunctions; supervises crews in missile and nuclear weapon handling; prepares equipment maintenance reports. *GMMC:* Able to perform the duties required for GMM1; supervises and inspects maintenance of launch systems and missile-handling equipment; analyzes failure trends and recommends corrective measures; diagnoses effects of environmental conditions upon operation of ordnance equipment; establishes work priorities and prepares quarterly maintenance schedules; prepares reports; conducts inventories.

Recommendation, GMM3

In the vocational certificate category, 3 semester hours in introduction to electronics, 5 in electronics systems maintenance, and 5 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 3 in electronics systems maintenance, and 3 in hydraulics systems maintenance (8/80).

Recommendation, GMM2

In the vocational certificate category, 3 semester hours in introduction to electronics, 6 in electronics systems maintenance, and 6 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electronics, 4 in electronics systems maintenance, and 4 in hydraulics systems maintenance (8/80).

Recommendation, GMM1

In the vocational certificate category, 3 semester hours in introduction to electronics, 8 in electronics systems maintenance, and 8 in hydraulics systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 3 in personnel supervision (8/80).

Recommendation, GMMC

In the vocational certificate category, the recommendation is the same as that for GMM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics, 5 in electronics systems maintenance, 5 in hydraulics systems maintenance, and 6 in personnel supervision (8/80).

NER-GMM-003

GUNNER'S MATE, MISSILES

GMM3
GMM2
GMM1

Exhibit Dates: 1/90–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMM3:* Gunner's Mate, Missiles, Third Class (E-4). *GMM2:* Gunner's Mate, Missiles, Second Class (E-5). *GMM1:* Gunner's Mate, Missiles, First Class (E-6). *GMC:* Chief Gunner's Mate (E-7). *GMCS:* Master Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates and performs maintenance on guided-missile launching systems, missile launching groups, rocket launchers, guns, gun mounts, turrets, projectors, and associated handling equipment; inspects and repairs electrical, electronic, hydraulic, and mechanical systems and servo-systems; tests and inspects ammunition and missiles and their components. *GMM3:* Tests and replaces circuit boards and components of electronic equipment; inspects and services hydraulic equipment; maintains hydraulic pipes, fittings, and pressure gauges; handles and stows explosive ordnances; tests for short circuits, ground, and continuity of interconnecting cables and wiring between components of electrical and electronic equipment; follows schematic diagrams and hydraulic system blueprints; installs mechanical alignment hardware; completes maintenance data forms; conducts supply inventories. *GMM2:* Able to perform the duties required for GMM3; performs the duties required for GMM3; performs systems operability tests; instructs crews in the handling and storage of explosives; inspects missile-handling equipment; adjusts and aligns launch equipment; maintains shop and equipment logs; orders repair parts and special tools. *GMM1:* Able to perform the duties required for GMM2; diagnoses intermittent, recurring, and interacting electrical and electronic malfunctions; supervises crews in missile and nuclear weapon handling; prepares equipment maintenance reports.

Recommendation, GMM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in digital principles, 2 in computer systems and organization, and 2 in computer systems troubleshooting and maintenance (12/89).

Recommendation, GMM2

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 3 in digital principles, 1 in solid state electronics, 3 in computer systems and organization, 3 in computer systems troubleshooting and maintenance, and 2 in personnel supervision (12/89).

Recommendation, GMM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 4 in digital principles, 2 in solid state electronics, 4 in computer systems and organization, 3 in computer systems troubleshooting and maintenance, and 3 in personnel supervision (12/89).

NER-GMT-001

GUNNER'S MATE TECHNICIAN

GMT3
GMT2
GMT1
GMTC
GMTCS
GMTCM

Exhibit Dates: 6/71–12/89. (Effective 1/90, the GMT rating was discontinued.)

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMT3:* Gunner's Mate Technician, Third Class (E-4). *GMT2:* Gunner's Mate Technician, Second Class (E-5). *GMT1:* Gunner's Mate Technician, First Class (E-6). *GMTC:* Chief Gunner's Mate Technician (E-7). *GMTCS:* Senior Chief Gunner's Mate Technician (E-8). *GMTCM:* Master Chief Gunner's Mate Technician (E-9).

Description

Summary: Performs organizational, intermediate, and depot maintenance on explosive ordnance; inspects, tests, adjusts, and repairs explosive ordnance. *GMT3:* Performs hydraulic and mechanical maintenance and repair on explosive ordnance; cleans, lubricates, and preserves nuclear weapons, components, and associated equipment; replaces pipes, fittings, seals, and gaskets. *GMT2:* Able to perform the duties required for GMT3; inspects hydraulic/pneumatic systems; detects improper operational control circuits employing switches; uses working drawings in making repairs, alterations, and modifications. *GMT1:* Able to perform the duties required for GMT2; supervises crews in transferring, handling, and stowage of nuclear weapons material; prepares weekly schedules of preventive maintenance. *GMTC:* Able to perform the duties required for *GMT1:*; supervises maintenance and modernization of hydraulic equipment; organizes the receipt, maintenance, and storage of nuclear weapons and components; supervises maintenance of electrical components and nuclear and conventional ordnance handling equipment; prepares weapons department reports; prepares preventive maintenance schedules. *GMTCS:* Able to perform the duties required for GMTC, prepares ordnance loading and stowage plans; provides information and advice on utilization, capabilities, reliability, and operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes and schedules training programs, evaluates effectiveness, and initiates improvements; administers a long-range planned maintenance program. *GMTCM:* Able to perform the duties required for GMTCS, plans, organizes, implements, and controls activities; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, GMT3

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (6/81).

Recommendation, GMT2

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (6/81).

Recommendation, GMT1

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 3 in human relations, and 2 in maintenance management (6/81).

Recommendation, GMTC

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 in maintenance management (6/81).

Recommendation, GMTCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

Recommendation, GMTCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

NER-GMT-002

GUNNER'S MATE TECHNICIAN (ASROC)

GMT3
GMT2
GMT1
GMTC
GMTCS
GMTCM

Exhibit Dates: 6/71–12/89. (Effective 1/90, the GMT (ASROC) rating was discontinued.)

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *GMT3:* Gunner's Mate Technician (ASROC), Third Class (E-4). *GMT2:* Gunner's Mate Technician (ASROC), Second Class (E-5). *GMT1:* Gunner's Mate Technician (ASROC), First Class (E-6). *GMTC:* Chief Gunner's Mate Technician (ASROC) (E-7). *GMTCS:* Senior Chief Gunner's Mate Technician (ASROC) (E-8). *GMTCM:* Master Chief Gunner's Mate Technician (ASROC) (E-9).

Description

NOTE: The GMT-ASROC rating is designated on military records by NEC 0891, ASROC Launching Group MK 16 Maintenanceman; some individuals may also hold the additional NEC 0893, ASROC Weapons Handling System (AWHS). *Summary:* Performs routine and intermediate-level maintenance on ASROC (Anti-submarine rocket) equipment; operates, inspects, maintains, and repairs electric-hydraulic powered missile launching systems, missile equipment, and explosive components; prepares missile components and associated equipment for checkout and/or firing; inspects and stows missiles and components; installs explosive components in missile and operates special-handling equipment to transport missiles; services weapon system pneumatic and hydraulic components; tests and repairs electrical controls circuitry; uses standard and special test equipment. If person holds NEC 0893, ASROC Weapons Handling System (AWHS), also performs the following duties: Maintains, troubleshoots, and repairs logic computer circuitry, electronic and magnetic amplifiers, and power supplies; uses standard and special test equipment. *GMT3:* (ASROC) Performs electro-mechanical and pneumatic maintenance and repair on ASROC equipment; cleans, lubricates, and inspects hydraulic components; tests and replaces electronic printed circuits; tests and adjusts servomechanisms; maintains and repairs electrical cables and wiring, using trace and schematic diagrams; makes authorized changes to technical and maintenance publications; uses special tools, test equipment, and hand tools. If person holds NEC 0893 (AWHS) (ASROC Weapons Handling System), also performs the following duties: Operates and performs preventive and corrective maintenance on the ASROC Weapon Handling Systems; maintains, troubleshoots, and replaces components in logic computer circuitry, electronic and magnetic amplifiers; uses special tools and test equipment. *GMT2:* (ASROC) Able to perform the duties required for GMT3 (ASROC); isolates and replaces defective components; provides technical guidance to subordinate personnel. *GMT1:* (ASROC) Able to perform the duties required for GMT2 (ASROC); maintains records and reports for weapons systems, weapons, and components; organizes and supervises the maintenance of a technical library; supervises changes to technical publications; supervises systems and subsystems maintenance. *GMTC:* (ASROC) Able to perform the duties required for GMT1 (ASROC); directs and supervises repair of systems and subsystems; prepares reports; disseminates information, regulations, and policies; prepares nuclear weapons check sheets; organizes work requirements within ordnance maintenance shop; establishes work priorities and assigns work; prepares quarterly schedules of preventive maintenance; conducts maintenance inspections. *GMTCS:* (ASROC) Able to perform the duties required for GMTC (ASROC); prepares ordnance loading and stowage plans; provides information and advice on utilization, capabilities, reliability, and operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes and schedules training programs, evaluates their effectiveness,and initiates improvements; administers a long-range planned maintenance program. *GMTCM:* (ASROC) Able to perform the duties required for GMTCS (ASROC); plans, organizes, implements, and controls activities; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, GMT3

(ASROC) In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in electricity/electronics laboratory, 3 in fluid power systems, and 2 in blueprint reading; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity and electronics, 2 in electricity/electronics laboratory, 2 in fluid power laboratory, and 2 in blueprint reading; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory (11/82).

Recommendation, GMT2

(ASROC) In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in electricity/electronics laboratory, 3 in fluid power systems, and 2 in blueprint reading; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity and electronics, 2 in electricity/electronics laboratory, 2 in fluid power laboratory, and 2 in blueprint reading; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory (11/82).

Recommendation, GMT1

(ASROC) In the vocational certificate category, 3 semester hours in basic electricity and electronics, 3 in electricity/electronics laboratory, 3 in fluid power systems, and 3 in blueprint reading, if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in electricity/electronics laboratory, 3 in fluid power laboratory, 3 in blueprint reading, 2 in personnel supervision, and 2 in maintenance management; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory (11/82).

Recommendation, GMTC

(ASROC) In the vocational certificate category, the recommendation is the same as that for GMT1 (ASROC). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity and electronics, 3 in electricity/electronics laboratory, 3 in fluid power laboratory, 3 in blueprint reading, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations; if person holds NEC 0893 (AWHS), add 3 semester hours in basic computer theory (11/82).

Recommendation, GMTCS

(ASROC) In the vocational certificate category, the recommendation is the same as that for GMT1 (ASROC). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMTC (ASROC). In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (11/82).

Recommendation, GMTCM

(ASROC) In the vocational certificate category, the recommendation is the same as that for GMT1 (ASROC). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMTC (ASROC). In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (11/82).

NER-GS-001

GAS TURBINE SYSTEM TECHNICIAN,
SENIOR CHIEF AND MASTER CHIEF
GSCS
GSCM

Exhibit Dates: 1/81–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

May progress from GSEC (Chief Gas Turbine System Technician, Electrical) (E-7) or GSMC (Chief Gas Turbine System Technician, Mechanical) (E-7). *GSCS:* Senior Chief Gas Turbine System Mechanic (E-8). *GSCM:* Master Chief Gas Turbine System Mechanic (E-9).

Description

GSCS: Able to perform the duties required for GSMC (Chief Gas Turbine System Technician, Mechanical), or GSEC (Chief Gas Turbine System Technician, Electrical); provides guidance on technical information pertaining to operation, maintenance, and repair of gas turbine systems; interviews, evaluates, and assigns personnel; prepares correspondence, directives, and reports; maintains divisional training records; organizes and schedules training programs and evaluates their effectiveness; may supervise 25-30 persons. *GSCM:* Able to perform the duties required for GSCS; develops and monitors safety programs; prepares diagrams and equipment layouts; coordinates repair activities, and performs casualty analysis; forecasts future requirements; establishes goals and priorities; plans, implements, and controls activities in compliance with orders and directives; develops operating budgets and monitors expenditures.

Recommendation, GSCS

In the vocational certificate category, use the recommendation for GSM2 (Gas Turbine System Technician, Mechanical, Second Class) in exhibit NER-GSM-001, or GSE2 (Gas Turbine System Technician, Electrical, Second Class) in exhibit NER-GSE-001, as appropriate. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 1 in technical writing, and 1 additional semester hour in personnel supervision; add either the 27 semester hours for GSMC (Chief Gas Turbine System Technician, Mechanical) in exhibit NER-GSM-001, or the 32 semester hours for GSEC (Chief Gas Turbine System Technician, Electrical), in exhibit NER-GSE-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours in quality control, 3 in personnel management, and 3 for field experience in management (5/81).

Recommendation, GSCM

In the vocational certificate category, the recommendation is the same as that for GSCS. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in technical writing, and 1 additional semester hour in personnel supervision; add either the 27 semester hours for GSMC (Chief Gas Turbine System Technician, Mechanical) in exhibit NER-GSM-001, or the 32 semester hours for GSEC (Chief Gas Turbine System Technician, Electrical) in exhibit NER-GSE-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours in quality control, 3 in personnel management, and 6 for field experience in management (5/81).

NER-GSE-001

GAS TURBINE SYSTEM TECHNICIAN,
ELECTRICAL
GSE3
GSE2
GSE1
GSEC

Exhibit Dates: 1/81–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *GSE3:* Gas Turbine System Technician, Electrical, Third Class (E-4). *GSE2:* Gas Turbine System Technician, Electrical, Second Class (E-5). *GSE1:* Gas Turbine System Technician, Electrical, First Class (E-6). *GSEC:* Chief Gas Turbine System Technician, Electrical (E-7). *GSCS:* Senior Chief Gas Turbine System Technician (E-8). *GSCM:* Master Chief Gas Turbine System Technician (E-9).

Description

Summary: Operates, repairs and performs organizational and intermediate maintenance on electrical and electronic components of gas turbine engine, main propulsion machinery, auxiliary equipment and control systems; repairs and performs maintenance on assigned electrical and electronic circuitry up to printed circuit module with an ability to continue to the component level. *GSE3:* Inspects, locates, identifies, and replaces faulty components; performs preventive maintenance on control and monitoring circuits; maintains electrical equipment such as motors, batteries, and bus transfer equipment; tests alarm and indicating system and locates faults; interprets technical drawings in the form of schematics, blueprints, and charts; operates and performs mechanical maintenance on propulsion systems; operates and recognizes fault indicators from dials, gauges and controls; locates, interprets and maintains files of publications, directives, manuals, and catalogs; operates engine control systems, electrical generators, and electric plant control equipment from local operating stations or switchboards; performs maintenance and checkout procedures on power supplies, engineering control systems, and electrical generator control units; locates equipment casualties to systems, subsystems, and circuits in main gas turbine control equipment; uses necessary test equipment for troubleshooting gas turbine control equipment; checks, repairs, or adjusts alarm and indicating systems. *GSE2:* Able to perform the duties required for GSE3; inserts and monitors diagnostic programs in order to diagnose malfunctions of digital data equipment; maintains electromechanical and electro-hydraulic control systems; performs engineering system control checks and calibrations. *GSE1:* Able to perform the duties required for GSE2; diagnoses intermittent, recurring, and interacting electrical and electronic malfunctions; analyzes system control and monitoring circuit malfunctions and determines corrective action; coordinates and controls operation of engineering control system at control stations or consoles; inspects, monitors, and analyzes condition of all subsystems; trains and supervises personnel in operation, maintenance, and repair of engineering control systems; reviews completed system forms and prepares schedules for preventive maintenance. *GSEC:* Able to perform the duties required for GSE1; prepares and maintains quarterly schedules, summaries, and performance logs; monitors systems performance logs; estimates time and materials necessary for repair of gas turbine control and auxiliary systems; analyzes discrepancy trends, determines deficiencies, and develops inspection and corrective procedures; inspects installation, alteration, and repair of equipment; maintains accounting system forms, records, and reports.

Recommendation, GSE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics laboratory, 3 in basic AC/DC theory, 1 in applied physics, 2 in motors and controls, 2 in blueprint reading, and 2 in technical mathematics; add 3 semester hours in electronic systems troubleshooting on the basis of institutional evaluation (5/81).

Recommendation, GSE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics laboratory, 1 in applied physics, 3 in basic AC/DC theory, 2 in motors and controls, 2 in blueprint reading, 2 in technical mathematics, 6 in systems troubleshooting, and 2 in digital fundamentals. In the upper-division baccalaureate category, 2 semester hours in quality control (5/81).

Recommendation, GSE1

In the vocational certificate category, the recommendation is the same as that for GSE2. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics laboratory, 1 in applied physics, 3 in basic AC/DC theory, 2 in motors and controls, 2 in blueprint reading, 2 in technical mathematics, 6 in systems troubleshooting, 2 in digital fundamentals, 2 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours in quality control (5/81).

Recommendation, GSEC

In the vocational certificate category, the recommendation is the same as that for GSE2. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics laboratory, 1 in applied physics, 3 in basic AC/DC theory, 2 in motors and controls, 2 in blueprint reading, 2 in technical mathematics, 6 in systems troubleshooting, 2 in digital fundamentals, 2 in personnel supervision, 3 in maintenance management, 3 in introduction to management, and 3 in safety management. In the upper-division baccalaureate category, 3 semester hours in quality control (5/81).

NER-GSM-001

GAS TURBINE SYSTEM TECHNICIAN,
MECHANICAL
GSM3
GSM2
GSM1
GSMC

Exhibit Dates: 1/81–12/87.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *GSM3:* Gas Turbine System Technician, Mechanical, Third Class (E-4). *GSM2:* Gas Turbine System Technician, Mechanical, Second Class (E-5). *GSM1:* Gas Turbine System Technician, Mechanical, First Class (E-6). *GSMC:* Chief Gas Turbine System Technician, Mechanical (E-7). *GSCS:* Senior Chief Gas Turbine System Technician (E-8). *GSCM:* Master Chief Gas Turbine System Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on mechanical components of gas turbine engines, main propulsion machinery (including gears, shafts, and controllable pitch propellers), auxiliary equipment and propulsion control systems. *GSM3:* Troubleshoots and performs maintenance on hydraulic, electrical, and propulsion systems of a gas turbine; uses schematic diagrams, drawings, charts, and blueprints; operates various pumps, filters, and strainers; fabricates and installs both high and low pressure tubing and hose; changes lube oil, cleans or changes filters and strainers, and obtains fuel, oil and water samples; maintains logs and records. *GSM2:* Able to perform the duties required for GSM3; repairs hydraulic system components and pneumatic/hydraulic systems; repairs and maintains low-pressure air compressors, and gas turbine reduction gear clutching assemblies; tests propulsion fuels and lubricants; makes pitch and valve adjustments; replaces seal rings; overhauls pumps; prepares and maintains daily fuel and water reports; requisitions supplies and equipment. *GSM1:* Able to perform the duties required for GSM2; analyzes malfunctions of hydraulic and pneumatic systems and determines corrective action; disassembles, inspects, and repairs reducing, relief, and temperature valves; coordinates and controls operation of engineering control systems at the central control station; supervises the receiving, transferring, discharging, and storage of propulsion fuels and lubricants; trains and supervises personnel in the operation of engineering control systems; maintains, inspects, and monitors all systems; maintains records and prepares maintenance schedules. *GSMC:* Able to perform the duties required for GSM1; supervises engine change outs and shipboard mechanical alterations; prepares summaries and quarterly preventive maintenance schedules; maintains accounting system forms, records, and reports; inspects the installation, alteration, and repair of equipment.

Recommendation, GSM3

In the vocational certificate category, 1 semester hour in fundamentals of hydraulics, 6 in gas turbines, 4 in basic AC/DC theory, 2 in blueprint reading, 2 in technical mathematics, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of hydraulics, 3 in gas turbines, 2 in basic AC/DC theory, 2 in blueprint reading, 2 in technical mathematics, and 2 in applied physics (5/81).

Recommendation, GSM2

In the vocational certificate category, 4 semester hours in fundamentals of hydraulics, 6 in gas turbines, 4 in basic AC/DC theory, 2 in technical mathematics, 2 in blueprint reading, 2 in applied physics, and 2 in pneumatics. In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of hydraulics, 3 in gas turbines, 2 in basic AC/DC theory, 2 in technical mathematics, 2 in blueprint reading, 2 in applied physics, and 3 in mechanical maintenance (hydraulics and pneumatics). In the upper-division baccalaureate category, 2 semester hours in quality control (5/81).

Recommendation, GSM1

In the vocational certificate category, the recommendation is the same as that for GSM2. In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of hydraulics, 3 in gas turbines, 2 in basic AC/DC theory, 2 in technical mathematics, 2 in blueprint reading, 2 in applied physics, 3 in mechanical maintenance (hydraulics and pneumatics), 3 in maintenance management, 3 in mechanical technology, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in quality control (5/81).

Recommendation, GSMC

In the vocational certificate category, the recommendation is the same as that for GSM2. In the lower-division baccalaureate/associate degree category, 1 semester hour in fundamentals of hydraulics, 3 in gas turbines, 2 in basic AC/DC theory, 2 in technical mathematics, 2 in blueprint reading, 2 in applied physics, 3 in mechanical maintenance (hydraulics and pneumatics), 3 in maintenance management, 3 in mechanical technology, 2 in personnel supervision, 3 in safety management, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours in quality control (5/81).

NER-GSM-002

GAS TURBINE SYSTEM TECHNICIAN, MECHANICAL

GSM3
GSM2
GSM1
GSMC

Exhibit Dates: 1/88–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *GSM3:* Gas Turbine System Technician, Mechanical, Third Class (E-4). *GSM2:* Gas Turbine System Technician, Mechanical, Second Class (E-5). *GSM1:* Gas Turbine System Technician, Mechanical, First Class (E-6). *GSMC:* Chief Gas Turbine System Technician, Mechanical (E-7). *GSCS:* Senior Chief Gas Turbine System Technician (E-8). *GSCM:* Master Chief Gas Turbine System Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on mechanical components of gas turbine engines, main propulsion machinery, auxiliary equipment and propulsion control systems. *GSM3:* Troubleshoots and performs maintenance on hydraulic, electrical, and propulsion systems of a gas turbine; uses schematic diagrams, drawings, charts, and blueprints; fabricates and installs both high and low-pressure tubing and hose; maintains logs and records. *GSM2:* Able to perform the duties required for GSM3; repairs hydraulic system components and pneumatic/hydraulic systems; repairs and maintains low-pressure air compressors, and gas turbine reduction gear clutching assemblies; tests propulsion fuels and lubricants; makes pitch and valve adjustments; replaces seal rings; overhauls pumps; prepares and maintains daily fuel and water reports; requisitions supplies and equipment; operates propulsion console equipment. *GSM1:* Able to perform the duties required for GSM2; supervises propulsion machinery spaces; coordinates and controls operations of engineering control systems at the central control station; supervises the receiving, transferring, discharging, and storage of propulsion fuels and lubricants; trains and supervises personnel in the operation of engineering control systems; maintains, inspects, and monitors all systems; maintains records and prepares maintenance schedules. *GSMC:* Able to perform the duties required for GSM1; supervises engine change-outs and shipboard mechanical alterations; prepares summaries and quarterly preventive maintenance schedules; maintains accounting system forms, records, and reports; inspects the installation, alteration, and repair of equipment.

Recommendation, GSM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering (gas turbines), 3 in basic marine engineering (auxiliaries), 3 in maintenance technology, and 1 in blueprint reading (3/90).

Recommendation, GSM2

In the lower-division baccalaureate/associate degree category, 5 semester hours in basic marine engineering (gas turbines), 5 in basic marine engineering (auxiliaries), 6 in maintenance technology, 2 in blueprint reading, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, GSM1

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic marine engineering (gas turbines), 6 in basic marine engineering (auxiliaries), 9 in maintenance technology, 2 in blueprint reading, 2 in recordkeeping, 2 principles of supervision, and 1 in maintenance management (3/90).

Recommendation, GSMC

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic marine engineering (gas turbines), 6 in basic marine engineering (auxiliaries), 9 in maintenance technology, 2 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, and 2 in maintenance management (3/90).

NER-HM-001

HOSPITAL CORPSMAN

HM3
HM2
HM1
HMC
HMCS
HMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 14 (Health Care).

Career Pattern

HN: Hospitalman (E-3). *HM3:* Hospital Corpsman Third Class (E-4). *HM2:* Hospital Corpsman Second Class (E-5). *HM1:* Hospital Corpsman First Class (E-6). *HMC:* Chief Hospital Corpsman (E-7). *HMCS:* Senior Chief Hospital Corpsman (E-8). *HMCM:* Master Chief Hospital Corpsman (E-9).

Description

Summary: Serves as an assistant in the prevention and treatment of diseases and injuries, and in the administration of medical departments. *HM3:* Administers first aid; assists with physical examinations; provides nursing care to patients; administers medicine and collects specimens; assists in the transportation of the sick and injured; performs cardiopulmonary resuscitation (CPR); performs emergency procedures for the treatment of common injuries; transcribes medical orders; writes admission nursing notes; admits, transfers, and discharges patients; maintains mechanical equipment on the ward. *HM2:* Able to perform the duties required for HM3; submits routine medical reports; supervises personnel in performance of clinic or ward duties; maintains medical journals, logs, and health records; prepares, processes, controls, and transmits optical-scan documents; instructs medical and nonmedical personnel in general and emergency medical care and in self-administration of medications; performs elementary laboratory procedures, such as urinalysis, blood count, and preparation of smears. *HM1:* Able to perform the duties required for HM2; performs supervisory duties in such areas as sick call, health care inspections, preventive medicine and environmental inspections; differentiates normal and abnormal laboratory results; maintains health, dental, personnel, and accounting records; distinguishes legal implications in routine and emergency medical care situations. *HMC:* Able to perform the duties required for HM1; supervises departmental administrative procedures and patient care delivery; plans, supervises, and coordinates health care programs; compiles budgetary statistical data; orders, receives, and issues supplies. *HMCS:* Able to perform the duties required for HMC; prepares directives and instructions for attaining organization objectives and improving operations; establishes a program for interviewing, evaluating, and assigning personnel for maximum utilization; prepares correspondence; organizes and schedules training programs. *HMCM:* Able to perform the duties required for HMCS; plans, organizes, and implements activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; establishes goals, objectives, and priorities; provides counseling on medical department training opportunities; develops operating budgets and monitors expenditures.

Recommendation, HM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), and 2 in advanced first aid (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

Recommendation, HM2

In the vocational certificate category, the recommendation is the same as that for HM3. In the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 2 in advanced first aid, 3 in medical laboratory techniques, 3 in records management, and 1 in human relations (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

Recommendation, HM1

In the vocational certificate category, the recommendation is the same as that for HM3. In the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 2 in advanced first aid, 3 in introduction to medical laboratory techniques, 3 in records management, 2 in human relations, 2 in personnel supervision, 3 in sanitation/environmental control, and 3 in personnel office procedures (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

Recommendation, HMC

In the vocational certificate category, the recommendation is the same as that for HM3. In the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 2 in advanced first aid, 3 in introduction to medical laboratory techniques, 3 in records management, 3 in human relations, 3 in personnel supervision, 3 in sanitation/environmental control, 3 in personnel office procedures, 2 in communication skills, and 3 in business organization. In the upper-division baccalaureate category, 3 semester hours in personnel management (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

Recommendation, HMCS

In the vocational certificate category, the recommendation is the same as that for HM3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HMC. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in business management, 3 for field experience in management, 3 in human relations, and 3 in health care administration (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

Recommendation, HMCM

In the vocational certificate category, the recommendation is the same as that for HM3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HMC. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in business management, 6 for field experience in management, 3 in human relations, 3 in health care administration, and 3 in health care planning (12/81). NOTE: Add the credit recommended for Hospitalman (E-3) in exhibit NER-HN-001.

NER-HN-001

HOSPITALMAN

HN

Exhibit Dates: 6/71–Present.

Career Pattern

Hospitalman is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (Hospitalman apprentice), and E-3 (Hospitalman). At pay grade E-4 (petty officer third class), the person progresses to the Hospitalman Corpsman (HM) rating.

Description

Performs basic nursing care; applies bandages, splints, and dressings; takes and records vital signs; collects specimens; under direction, administers medication; identifies the basic elements and functions of the circulatory, respiratory, digestive, urogenital, musculoskeletal, and nervous systems; keeps medical department equipment and spaces clean and sanitary; performs routine clerical duties of the ward.

Recommendation

In the vocational certificate category, the training is equivalent to a one-year practical nursing program, including basic knowledge in the following areas: nursing techniques and clinical application, basic anatomy and physiology, pharmacology, and medical terminology. In the lower-division baccalaureate/associate degree category, 2 semester hours in health and hygiene, 3 in nursing techniques, 4-5 in clinical nursing, 2 in emergency medical techniques, 1 in medical terminology, and credit in anatomy and physiology on the basis of institutional evaluation (12/81). NOTE: Credit for Hospitalman (HN) should be granted only after pay grade E-3 has been achieved.

NER-HT-001

HULL MAINTENANCE TECHNICIAN

HT3
HT2
HT1
HTC
HTCS
HTCM

Exhibit Dates: 6/71–3/87.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *HT3:* Hull Maintenance Technician, Third Class (E-4). *HT2:* Hull Maintenance Technician, Second Class (E-5). *HT1:* Hull Maintenance Technician, First Class (E-6). *HTC:* Chief Hull Maintenance Technician (E-7). *HTCS:* Senior Chief Hull Maintenance Technician (E-8). *HTCM:* Master Chief Hull Maintenance Technician (E-9).

Description

Summary: Performs repairs to the ship's hull, plumbing, and piping systems; performs maintenance on firefighting equipment and damage control equipment. *HT3:* Operates, stores, and performs maintenance on firefighting equipment and damage control equipment; inspects and tests installed damage control equipment and systems; performs blazing, electrical arc welding, and oxyacetylene welding and cutting; repairs ship plumbing and piping systems; controls discharging and pumping of waste in restricted water; completes maintenance data forms; orders repairs parts and tools. *HT2:* Able to perform the duties required for HT3; performs gas-free testing of voids and compartments to assure safe entry; inspects fire main, sprinklers, and ventilation systems; performs repairs to ship structure using heavy gauge metal; completes maintenance reports; inventories installed equipment. *HT1:* Able to perform the duties required for HT2; organizes and supervises damage control and firefighting parties; prepares training records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *HTC:* Able to perform the duties required for HT1; plans and conducts damage control exercises; maintains shop records and prepares progress reports; supervises training programs; estimates time, personnel, and material requirements; prepares quarterly maintenance schedules; supervises a hull maintenance technician shop. *HTCS:* Able to perform the duties required for HTC; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence; organizes and evaluates training programs; administers a long-range planned maintenance program. *HTCM:* Able to perform the duties required for HTCS; reviews personnel, equipment, and material requirements and forcasts future requirements;

plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, HT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in arc welding, 2 in oxyacetylene welding, 4 in fire science, 2 in basic plumbing, and 2 in brazing and soldering (12/78).

Recommendation, HT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, and 1 in record keeping (12/78).

Recommendation, HT1

In the vocational certificate category, the recommendation is the same as that for HT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, HTC

In the vocational certificate category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, and 2 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, 2 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (12/78).

Recommendation, HTCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, HTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-HT-002

HULL MAINTENANCE TECHNICIAN

HT3
HT2
HT1
HTC
HTCS
HTCM

Exhibit Dates: 4/87–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *HT3:* Hull Maintenance Technician, Third Class (E-4). *HT2:* Hull Maintenance Technician, Second Class (E-5). *HT1:* Hull Maintenance Technician, First Class (E-6). *HTC:* Chief Hull Maintenance Technician (E-7). *HTCS:* Senior Chief Hull Maintenance Technician (E-8). *HTCM:* Master Chief Hull Maintenance Technician (E-9).

Description

Summary: Performs repairs to the ship's hull, plumbing and piping systems and structural members. *HT3:* Performs brazing, electrical arc welding, oxyacetylene welding and cutting, and MIG/TIG welding; repairs ship plumbing and piping systems; fabricates damage control patches, sheet metal ducting, brackets, ladders, and platforms; controls discharging and pumping of waste in restricted water; completes maintenance data forms; orders repairs parts and tools. *HT2:* Able to perform the duties required for HT3; performs gas-free testing of voids and compartments to assure safe entry; performs repairs to ship structure using heavy gauge metal; completes maintenance reports; inventories installed equipment. *HT1:* Able to perform the duties required for HT2; organizes and supervises damage repair parties; prepares training records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *HTC:* Able to perform the duties required for HT1; plans and conducts damage repair exercises; maintains shop records and prepares progress reports; supervises training programs; estimates time, personnel, and material requirements; prepares quarterly maintenance schedules; supervises a hull maintenance technician shop. *HTCS:* Able to perform the duties required for HTC; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence; organizes and evaluates training programs; administers a long-range planned maintenance program. *HTCM:* Able to perform the duties required for HTCS; reviews personnel, equipment, and material requirements and forcasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, HT3

In the lower-division baccalaureate/associate degree category, 2 semester hours in oxyacetylene welding, 2 in arc welding, 2 in MIG/TIG welding, 2 in plumbing and pipe fitting, 1 in blueprint reading, and 1 in maintenance technology (3/90).

Recommendation, HT2

In the lower-division baccalaureate/associate degree category, 3 semester hours in oxyacetylene welding, 3 in arc welding, 3 in MIG/TIG welding, 3 in plumbing and pipe fitting, 2 in blueprint reading, 2 in maintenance technology, and 1 in recordkeeping (3/90).

Recommendation, HT1

In the lower-division baccalaureate/associate degree category, 4 semester hours in oxyacetylene welding, 4 in arc welding, 4 in MIG/TIG welding, 4 in plumbing and pipe fitting, 2 in blueprint reading, 3 in maintenance technology, 1 in recordkeeping, 2 in principles of supervision, and 2 in maintenance management (3/90).

Recommendation, HTC

In the lower-division baccalaureate/associate degree category, 4 semester hours in oxyacetylene welding, 4 in arc welding, 4 in MIG/TIG wkding, 4 in plumbing and pipe fitting, 2 in blueprint reading, 3 in maintenance technology, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management (3/90).

Recommendation, HTCS

In the lower-division baccalaureate/associate degree category, 4 semester hours in oxyacetylene welding, 4 in arc welding, 4 in MIG/TIG welding, 4 in plumbing and pipe fitting, 2 in blueprint reading, 3 in maintenance technology, 2 in recordkeeping, 3 in principles of supervision, and 4 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, HTCM

In the lower-division baccalaureate/associate degree category, 4 semester hours in oxyacetylene welding, 4 in arc welding, 4 in MIG/TIG welding, 4 in plumbing and pipe fitting, 2 in blueprint reading, 3 in maintenance technology, 2 in recordkeeping, 3 in principles of supervision, and 5 in maintenance management. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 6 in management problems (3/90).

NER-IC-001

INTERIOR COMMUNICATIONS ELECTRICIAN

IC3
IC2
IC1
ICC
ICCS

Exhibit Dates: 6/73–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Firemen (E-3). *IC3:* Interior Communications Electrician, Third Class (E-4). *IC2:* Interior Communications Electrician, Second Class (E-5). *IC1:* Interior Communications Electrician, First Class (E-6). *ICC:* Chief Interior Communications Electrician (E-7). *ICCS:* Senior Chief Interior Communications Electrician (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates and performs maintenance on voice interior communications systems, alarm systems, warning systems, ship's control systems, plotting systems, gyrocompass systems, and entertainment systems. *IC3:* Operates standard test and metering equipment, including multimeter, voltmeter, ammeter, ohmmeter, oscilloscope, signal generator, frequency meter, vacuum tube voltmeter, and megger; makes standard wire splices; tests and operates alarm and indicating systems; troubleshoots and repairs synchro systems; inspects, tests, maintains, charges, and replaces batteries; repairs components of general announcing systems and sound-powered telephone systems; cleans and inspects plotters and dead-reckoning equipment; tests external circuits of interior communications equipment for continuity, short circuits, and grounds, and measures electrical quantities; reads and interprets schematic diagrams and blueprints of basic electrical, electronic, and logic circuits. *IC2:* Able to perform the duties required for IC3; troubleshoots and repairs ship's metering, alarm, and indicating systems; troubleshoots and repairs synchro-amplifiers, servo systems, and tape recorders/producers; maintains microfiche readers/printers; isolates and repairs malfunctions in common electronic circuits; inspects and cleans commutators and adjusts brushes on motors and generators; inventories installed equipment and spare part support; may supervise up to three third class Interior Communications Electricians. *IC1:* Able to perform the duties required for IC2; isolates troubles to faulty equipment in dead-reckoning systems, including gyrocompass; tests, replaces, and adjusts components on the interior communication and local switchboards; determines types of acceptable substitute components; checks operating logs and maintenance records; prepares weekly maintenance schedules; may supervise up to five Interior Communications Electricians. *ICC:* Able to perform the duties required for IC1; analyzes and evaluates electrical and electronic tests; adjusts, calibrates, and repairs interior communications equipment; plans, organizes, and directs work of personnel operating and maintaining interior communications systems; estimates time, materials, and labor required for repair of equipment. *ICCS:* Able to perform the duties required for ICC; advises on the opening and inspection of equipment, and preparation of work request; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel; administers a long-range planned maintenance program.

Recommendation, IC3

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 4 in troubleshooting techniques, 5 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, and 2 in applied mathematics (10/87).

Recommendation, IC2

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 6 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, and 1 in digital electronics; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation (10/87).

Recommendation, IC1

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 8 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 2 in maintenance management, and 2 in personnel supervision; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis on institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (10/87).

Recommendation, ICC

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 8 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, 2 in applied mathematics, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in toubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 3 in maintenance management, 3 in personnel supervision, 1 in record keeping, and 1 in report writing; if assigned to gas turbine propulsion systems, credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (10/87).

Recommendation, ICCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ICC. In the upper-division baccalaureate category, 3 semester hours in electrical curcuits, 3 for field experience in management, and 3 in management problems (10/87).

NER-IM-001

INSTRUMENTMAN

IM3
IM2
IM1
IMC
IMCS

Exhibit Dates: 6/71–12/89.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *IM3:* Instrumentman, Third Class (E-4). *IM2:* Instrumentman, Second Class (E-5). *IM1:* Instrumentman, First Class (E-6). *IMC:* Chief Instrumentman (E-7). *IMCS:* Senior Chief Instrumentman (E-8). *PICM:* Master Chief Opticalman (E-9).

Description

Summary: Performs maintenance on mechanical instruments, office machines, and navy timepieces, and implements mechanical instrument repair and calibration shop procedures. *IM3:* Uses schematic diagrams; prepares sketches of mechanical parts, using applicable symbols, and dimensional and material specifications; uses twist drills and thread tops; operates bench grinders, lathe (jeweler's lathe) and drill press; manufactures and maintains instrument repair and calibration tools; cleans and refinishes painted surfaces of instruments; solders metals using soldering iron, soldering gun, and torch; brazes brass and steel; tempers, hardens, and anneals metals; determines nominal value of measuring instruments and related test equipment; calibrates and adjusts pressure instruments and vacuum-measuring instruments, centrifugal tachometers, bimetallic thermometers, and torque measuring tools; operates the following equipment: constant temperature bath (with resistance thermometer indicators), manometers, vacuum chamber and pump, nitrogen booster pump assembly, hydraulic and pneumatic pressure gage calibration panel, tachometer calibrator, torque wrench testers, portable pneumatic calibrators, pressure test chambers, portable pneumatic amplifiers, DC volt/ohm meters, millivolt potentiometer, and pneumatic, bifluid, water, and oil dead weight testers; completes correct forms, labels, and tags during calibration; disassembles, cleans, lubricates, repairs and performs casualty analysis on: bourdon tube pressure gages, centrifugal techometers, bellows gages, torque indicating devices, diaphragm pressure gages, liquid level indicators, dial indicators, and pressure regulators; carries out hand, machine, and ultrasonic cleaning procedures; exercises precautions and safety procedures to prevent comtamination of oxygen and nitrogen test instruments; operates demagnetizers; uses feeler gages, micrometers, vernier calipers, and dial indicators; disassembles, cleans, reassembles, adjusts, and repairs addressographs, paper shredders and cutters, manual typewriters, and fluid and stencil process duplicators; replaces and aligns typeface; installs various types of tubing, pipe, and fittings; removes burrs from machine threads using taps and dies, thread combs, gravers, stones, and files; removes broken screws and studs, using drill and screw extractor or thread tap; completes maintenance data forms, maintenance requirement cards, and office machine inspection sheets. *IM2:* Able to perform the duties required for IM3; calibrates and adjusts positive displacement fluid flowmeter, depth and caisson gages, filled system and liquid-in-glass thermometers, and chronometric tachometers; operates resistance thermometer bridge and DC resistance box; performs preventive maintenance on the following equipment: pressure gage calibration panels, torque wrench calibrators, dead weight testers, tachometer calibrators, nitrogen pump assemblies, constant temperature baths, and resistance thermometers; performs contamination flushing and testing of bleeder and dead-ended type of oxygen or nitrogen bourdon tubes gages; disassembles, cleans, lubricates, and reassembles chronometric tachomters; repairs and performs casualty analysis of liquid level indicators, temperature instruments, and chronometric tachometers; disassembles, cleans, reassembles, adjusts, and repairs electric typewriters; operates and maintains jeweler's lathe and attachments; completes maintenance reports; prepares and maintains shop work records; inventories installed equipment; orders repair parts and special tools. *IM1:* Able to perform the duties required for IM2; calibrates resistance thermometer indicators and pressure working standards with the dead weight reference standards and applies appropriate correction factors; determines accuracy limitations of calibration standards to determine which standard is best suited to a particular calibration; calibrates and adjusts liquid level indicators, absolute pressure gages, hydraulic, remote reading, and liquid level systems, thermocouple and resistance thermometer systems; supervises repair of watches and clocks; disassembles, cash registers, and liquid, thermo, and coated paper reproduction equipment; instructs personnel in basic physics and mathematics pertaining to metrology, and on the characteristics, pressure limitations, and use of mechanical connectors, tubing, pipe, and hose fitting; applies quality control procedures; reviews completed forms; ensures that navy calibration procedures are current; prepares preventive maintenance schedules; plans and supervises report work. *IMC:* Able to perform the duties required for IM1; directs operation and repair of test equipment in instrument repair work center; supervises operation and use of office machine test equipment and special tools; manages the maintenance, calibration, and repair of jeweled instruments, and the maintenance, repair, procurement, and utilization of all parts and machines in stock; informs superiors about new developments and procedures pertaining to precision measuring instruments, and design, use, and support of office equipment; instructs personnel in techniques and procedures of repair of temperature, fluid, and flow measuring instruments, watches, clocks, and office machines; prepares quarterly maintenance schedules; supervises maintenance and repair of office machines and equipment, navy timepieces, and optical instruments and equipment; supervises maintenance, repair, and calibration of measuring instruments and test equipment; disassembles, cleans, reassembles, adjusts, and repairs rotary and electronic calculators, dual spectrum and electrostatic reproduction equipment. *IMCS:* Able to perform the duties required for IMC; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair and maintenance records; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; coordinates quality assurance audits; coordinates and prepares work estimates; directs quality assurance program; administers a long-range maintenance program.

Recommendation, IM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, and 3 in office machine repair; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, IM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, and 1 in shop supervision; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, IM1

In the vocational certificate category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, and 2 in shop supervision; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 1 in records administration, and 2 in personnel supervision; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, IMC

In the vocational certificate category, the recommendation is the same as that for IM1. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 3 in personnel supervision, and 2 in records administration; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, IMCS

In the vocational certificate category, the recommendation is the same as that for IM1. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 3 in personnel supervision, 2 in records administration, and 3 in human relations; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics. In the upper-division baccalaureate category, 3 semester hours for field experience in management (12/78).

NER-IM-002

INSTRUMENTMAN

IM3
IM2
IM1
IMC
IMCS

Exhibit Dates: 1/90-12/90.

Occupational Field: 4 (Ship Maintenance)

Career Pattern

SN: Seaman (E-3). *IM3:* Instrumentman, Third Class (E-4). *IM2:* Instrumentman, Second Class (E-5). *IM1:* Instrumentman, First Class (E-6). *IMC:* Chief Instrumentman (E-7). *IMCS:* Senior Chief Instrumentman (E-8). *PICM:* Master Chief Opticalman (E-9).

Description

Summary: Performs maintenance on mechanical instruments, office machines, and Navy timepieces, and implements mechanical instrument repair and calibration shop procedures. *IM3:* Uses schematic diagrams; prepares sketches of mechanical parts; manufactures and maintains instrument repair and calibration tools; brazes brass and steel; tempers, hardens, and anneals metals; determines nominal value of measuring instruments and related test equipment; calibrates and adjusts pressure instruments and vacuum-measuring instruments, centrifugal tachometers, bimetalic thermometers, and torque measuring tools; completes correct forms, labels, and tags during calibration; disassembles, cleans, lubricates, repairs and performs casualty analysis on various measurement devices; exercises precautions and safety procedures to prevent contamination of oxygen and nitrogen test instruments; operates demagnetizers; reassembles, adjusts, and repairs various types of office equipment. *IM2:* Able to perform the duties required for IM3; calibrates and adjusts flow, temperature, pressure, and level instruments; adjusts and repairs electric typewriters; operates and maintains jeweler's lathe and attachments; completes maintenance reports; prepares and maintains shop work records; inventories installed equipment; orders repair parts and special tools. *IM1:* Able to perform the duties required for IM2; calibrates resistance thermometer indicators and pressure working standards; calibrates and adjusts liquid level indicators, absolute pressure gages, hydraulic, remote reading, and liquid level systems, thermocouple and resistance thermometer systems; supervises repair of watches and clocks; disassembles cash registers, and liquid, thermo, and coated paper reproduction equipment; instructs personnel; ensures that Navy calibration procedures are current; prepares preventive maintenance schedules; plans and supervises report work. *IMC:* Able to perform the duties required for IM1; directs operations and repair of test equipment in instrument repair work center; supervises operation and use of office machine test equipment and special tools; manages the maintenance, calibration, and repair of jeweled instruments, and the maintenance, repair, procurement, and utilization of all parts and machines in stock; informs supervisors about new developments and procedures pertaining to precision measuring instruments, and design, use, and support of office equipment; instructs personnel in techniques and procedures of repair of temperature, fluid, and flow measuring instruments, watches, clocks, and office machines; prepares quarterly maintenance schedules; supervises maintenance, repair and calibration activities; disassembles, cleans, reassembles, adjusts, and repairs rotary and electronic calculators, dual spectrum and electrostatic reproduction equipment. *IMCS:* Able to perform the duties required for IMC; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair and maintenance records; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; coordinates quality assurance audits; coordinates and prepares work estimates; directs quality assurance program; administers a long-range maintenance program.

Recommendation, IM3

In the vocational certificate category, 1 semester hour in office machine repair. In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 2 in machine tool operation, 2 in instrumentation technology, and 1 in recordkeeping (3/90).

Recommendation, IM2

In the vocational certificate category, 2 semester hours in machine repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 3 in machine tool operation, 4 in instrumentation technology, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, IM1

In the vocational certificate category, 2 semester hours in office machine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 6 in instrumentation technology, 2 in maintenance management, 2 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, IMC

In the vocational certificate category, 2 semester hours in office machine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 6 in instrumentation technology, 3 in maintenance management, 2 in recordkeeping, and 3 in principles of supervision (3/90).

Recommendation, IMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for IMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

NER-IM-003

INSTRUMENTMAN

IM3
IM2
IM1
IMC
IMCS
IMCM

Exhibit Dates: 1/91–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *IM3:* Instrumentman, Third Class (E-4). *IM2:* Instrumentman, Second Class (E-5). *IM1:* Instrumentman, First Class (E-6). *IMC:* Chief Instrumentman (E-7). *IMCS:* Senior Chief Instrumentman (E-8). *IMCM:* Master Chief Instrumentman (E-9).

Description

Summary: Performs maintenance on mechanical instruments, office machines, and Navy timepieces, and implements mechanical instrument repair and calibration shop procedures. *IM3:* Uses schematic diagrams; prepares sketches of mechanical parts; manufactures and maintains instrument repair and calibration tools; brazes brass and steel; tempers, hardens, and anneals metals; determines nominal value of measuring instruments and related test equipment; calibrates and adjusts pressure instruments and vacuum-measuring instruments, centrifugal tachometers, bimetalic thermometers, and torque measuring tools; completes correct forms, labels, and tags during calibration; disassembles, cleans, lubricates, repairs and performs casualty analysis on various measurement devices; exercises precautions and safety procedures to prevent contamination of oxygen and nitrogen test instruments; operates demagnetizers; reassembles, adjusts, and repairs various types of office equipment. *IM2:* Able to perform the duties required for IM3; calibrates and adjusts flow, temperature, pressure, and level instruments; adjusts and repairs electric typewriters; operates and maintains jeweler's lathe and attachments; completes maintenance reports; prepares and maintains shop work records; inventories installed equipment; orders repair parts and special tools. *IM1:* Able to perform the duties required for IM2; calibrates resistance thermometer indicators and pressure working standards; calibrates and adjusts liquid level indicators, absolute pressure gages, hydraulic, remote reading, and liquid level systems, thermocouple and resistance thermometer systems; supervises repair of watches and clocks; disassembles cash registers, and liquid, thermo, and coated paper reproduction equipment; instructs personnel; ensures that Navy calibration procedures are current; prepares preventive maintenance schedules; plans and supervises report work. *IMC:* Able to perform the duties required for IM1; directs operations and repair of test equipment in instrument repair work center; supervises operation and use of office machine test equipment and special tools; manages the maintenance, calibration, and repair of jeweled instruments, and the maintenance, repair, procurement, and utilization of all parts and machines in stock; informs supervisors about new developments and procedures pertaining to precision measuring instruments, and design, use, and support of office equipment; instructs personnel in techniques and procedures of repair of temperature, fluid, and flow measuring instruments, watches, clocks, and office machines; prepares quarterly maintenance schedules; supervises maintenance, repair and calibration activities; disassembles, cleans, reassembles, adjusts, and repairs rotary and electronic calculators, dual spectrum and electrostatic reproduction equipment. *IMCS:* Able to perform the duties required for IMC; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair and maintenance records; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; coordinates quality assurance audits; coordinates and prepares work estimates; directs quality assurance program; administers a long-range maintenance program. *IMCM:* Able to perform the duties required for IMCS; develops procedures for conducting safety programs and monitoring compliance; plans, organizes, implements, and controls activities in accordance with policies and directives; forecasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; assists in the management of records; coordinates liaison between repair activities and ship or shipyard; manages repair division; schecules repair work; develops operating budgets and monitors expenditures.

Recommendation, IM3

In the vocational certificate category, 1 semester hour in office machine repair. In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 2 in machine tool operation, 2 in instrumentation technology, and 1 in recordkeeping (3/90).

Recommendation, IM2

In the vocational certificate category, 2 semester hours in machine repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 3 in machine tool operation, 4 in instrumentation technology, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, IM1

In the vocational certificate category, 2 semester hours in office machine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 6 in instrumentation technology, 2 in maintenance management, 2 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, IMC

In the vocational certificate category, 2 semester hours in office machine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 6 in instrumentation technology, 3 in maintenance management, 2 in recordkeeping, and 3 in principles of supervision (3/90).

Recommendation, IMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for IMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, IMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for IMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problesm (3/90). 3 in management problems (3/90).

NER-IS-001

INTELLIGENCE SPECIALIST

IS3
IS2
IS1
ISC
ISCS
ISCM

Exhibit Dates: 7/75–Present.

Occupational Field: 22 (Intelligence).

Career Pattern

SN: Seaman (E-3). *IS3:* Intelligence Specialist, Third Class (E-4). *IS2:* Intelligence Specialist, Second Class (E-5). *IS1:* Intelligence Specialist, First Class (E-6). *ISC:* Chief Intelligence Specialist (E-7). *ISCS:* Senior Chief Intelligence Specialist (E-8). *ISCM:* Master Chief Intelligence Specialist (E-9).

Description

Summary: Collects, processes, and disseminates intelligence by performing analytical and administrative duties; identifies and produces intelligence from raw information; assembles and analyzes multi-source operational intelligence in support of intelligence briefing, reporting, and analytical programs; prepares and presents intelligence briefings; prepares material for use in planning and photographic reconnaissance missions; prepares graphics including annotated photographs, mosaics, and overlays; plots and prepares multi-sensor imagery and intelligence reports; provides input to and receives data from computerized intelligence systems; maintains files including photographs, maps and charts, and photographic interpretation keys; maintains and updates intelligence libraries. NOTE: Many of the duties for this rating involve highly classified materials and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *IS3:* Files and controls intelligence reports; recognizes aerial camera capabilities; has knowledge of basic geopolitical background of assigned areas; prepares graphics; uses basic photographic interpretation instruments; employs photogrammetry skills; plots remotely sensed data; prepares mosaics and stereopairs; selects and uses photographic interpretation keys; uses topographic and cultural map symbols, distances, and scales; uses computer formats; is familiar with basic fundamentals of radar interpretation; operates and maintains office and audio-visual equipment; performs general office duties; prepares photographic interpretation reports; assists in preparation of intelligence information reports. *IS2:* Able to perform the duties required for IS3; analyzes data to produce information; develops data from non-photographic sensors, including infrared and side-looking radar. *IS1:* Able to perform the duties required for IS2; conducts briefings; plans and organizes small working groups; prepares intelligence information reports. *ISC:* Able to perform the duties required for IS1; supervises preparations of reports; conducts liaison with other agencies; applies office management concepts and skills; directs and controls administrative procedures of a division. *ISCS:* Able to perform the duties required for ISC; manages mission planning and evaluates performance of staff; directs administrative staff functions; organizes and schedules training programs; evaluates effectiveness; initiates improvements. *ISCM:* Able to perform the duties required for ISCS; plans, organizes, implements, and controls activities in compliance with policy, orders, and directives; forecasts requirements and establishes goals, objectives, and priorities; reviews personnel and equipment requirements; advises superiors on regulations, procedures and practices; develops administrative and executive department directives, regulations, and procedures; develops operating budgets and monitors expenditures.

Recommendation, IS3

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 2 in drafting and design, 3 in technical writing, and 3 in office practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 3 in introduction to maps and aerial photographs, and 3 in general cultural geography. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, and 3 in photogrammetry (9/80).

Recommendation, IS2

In the vocational certificate category, 3 semester hours in applied mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 2 in drafting and design, 3 in technical writing, and 3 in office practices. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 3 in introduction to maps and aerial photographs, and 3 in general cultural geography. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, and 3 in photogrammetry (9/80).

Recommendation, IS1

In the vocational certificate category, the recommendation is the same as that for IS2. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 3 in introduction to maps and aerial photographs, 3 in general cultural geography, 3 in public speaking, and 3 in principles and practices of personnel management. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, and 3 in photogrammetry (9/80).

Recommendation, ISC

In the vocational certificate category, the recommendation is the same as that for IS2. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in basic photography and dark room techniques, 3 in introduction to computer concepts, 3 in introduction to maps and aerial photographs, 3 in general cultural geography, 3 in public speaking, 3 in principles and practices of personnel management, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, 3 in photogrammetry, and 3 in principles of management (9/80).

Recommendation, ISCS

In the vocational certificate category, the recommendation is the same as that for IS2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ISC. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, 3 in photogrammetry, 3 in principles of management, 3 in management problems, and 3 for a practicum in management, and 3 in techniques of information analysis on the basis of institutional evaluation (9/80).

Recommendation, ISCM

In the vocational certificate category, the recommendation is the same as that for IS2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ISC. In the upper-division baccalaureate category, 3 semester hours in area studies, 3 in aerial photographic interpretation, 3 in photogrammetry, 3 in principles of management, 3 in management problems, 6 for a practicum in management, and 3 in techniques of information analysis on the basis institutional evaluation (9/80).

NER-JO-001

JOURNALIST

JO3
JO2
JO1
JOC
JOCS
JOCM

Exhibit Dates: 6/72–12/84.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *JO3:* Journalist Third Class (E-4). *JO2:* Journalist Second Class (E-5). *JO1:* Journalist First Class (E-6). *JOC:* Chief Journalist (E-7). *JOCS:* Senior Chief Journalist (E-8). *JOCM:* Master Chief Journalist (E-9).

Description

Summary: Supervises or participates in the administration of public affairs activities. *JO3:* Researches and writes news releases and feature articles; covers news events; processes news photographs and writes captions; creates and produces material for broadcast use; serves on the staff of American Forces Radio/TV (AFRT) stations; prepares official correspondence and directives; assists in speech writing and presentations on Naval topics; prepares and lays out Navy publications, including newspapers and information brochures; prepares art work and layouts for various publications; operates audio and videotape equipment; drafts correspondence; edits news copy and news releases; writes scripts and prepares visual material for radio and television programs; announces radio programs and conducts interviews; takes and processes news photographs. *JO2:* Able to perform the duties required for JO3; organizes, edits, and administers a ship or shore station newspaper; researches and prepares feature articles for Naval and commercial use; writes feature material for radio and television; administers a shipboard AFRT station. *JO1:* Able to perform the duties required for JO2; conducts and arranges news conferences; prepares slide presentations; develops public affairs plans for either a ship or small shore station; prepares and conducts audience surveys; trains and supervises personnel. *JOC:* Able to perform the duties required for JO1; manages a public affairs office; plans, establishes, and coordinates special events; prepares cost estimates for command public affairs programs; coordinates news coverage of a major event; administers a shore AFRT station. *JOCS:* Able to perform the duties required for JOC; plans administrative public affairs procedures; formulates media liaison activities; evaluates performance and utilization of personnel; organizes, schedules, and evaluates training programs. *JOCM:* Able to perform the duties required for JOCS; prepares a community relations study; analyzes effectiveness of public affairs activities at the command level; reviews personnel, equipment, and material requirements; develops and monitors operating budgets.

Recommendation, JO3

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, and 3 in writing for mass media; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, and 3 in studio techniques; if NEC was JO-8148, Photojournalist, an additional 3 semester hours in photography and 3 in layout (3/79).

Recommendation, JO2

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in technical writing, 3 in interviewing techniques, and 3 for field experience in public affairs; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, and 6 in radio/television production techniques; if NEC was JO-8148, Photojournalist, an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JO1

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 1 in speechwriting, 2 in human relations, and 2 in personnel supervision; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, 6 in radio/television production techniques, and 3 in broadcasting news and public affairs; if NEC was JO-8148, Photojournalist, an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JOC

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 2 in speech writing, 3 in human relations, 3 in personnel supervision, and 3 in office management; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, 6 in radio-television production techniques, 3 in broadcasting news and public affairs, 3 in station management, and 3 for field experience in broadcast journalism; if NEC was JO-8148, Photojournalist, an additional 3 semester hours in photography, 3 in layout, and 3 for field experience in journalism (3/79).

Recommendation, JOCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/79).

Recommendation, JOCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/79).

NER-JO-002

JOURNALIST

JO3
JO2
JO1
JOC
JOCS
JOCM

Exhibit Dates: 1/85–Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *JO3:* Journalist Third Class (E-4). *JO2:* Journalist Second Class (E-5). *JO1:* Journalist First Class (E-6). *JOC:* Chief Journalist (E-7). *JOCS:* Senior Chief Journalist (E-8). *JOCM:* Master Chief Journalist (E-9).

Description

Summary: Supervises or participates in the administration of public affairs activities. *JO3:* Researches and writes news releases and feature articles; covers news events; processes news photographs and writes captions; creates and produces material for broadcast use; serves on the staff of American Forces Radio/TV (AFRT) stations; prepares official correspondence and directives; assists in speech writing and presentations on Naval topics; prepares and lays out Navy publications, including newspaper and information brochures; prepares art work and layouts for various publications; operates audio and videotape equipment; drafts correspondence; edits news copy and news releases; writes scripts and prepares visual material for radio and television programs; announces radio programs and conducts interviews; takes and processes news photographs; organizes, edits, and administers a ship or shore station newspaper; researches and prepares feature articles for Naval and commercial use; writes feature material for radio and television; administers a shipboard AFRT station. *JO2:* Able to perform the duties required for JO3; conducts inventories and maintains custody records; administers a radio/television programming section; performs as television director for live and taped television production. *JO1:* Able to perform the duties required for JO2; conducts and arranges news conferences; prepares slide presentations; develops public affairs plans for either a ship or small shore station; prepares and conducts audience surveys; trains and supervises personnel. *JOC:* Able to perform the duties required for JO1; manages a public affairs office; plans, establishes, and coordinates special events; prepares cost estimates for command public affairs programs; coordinates news coverage of a major event; prepares cost estimates for command public affairs programs; coordinates news coverage of a major event; administers a shore AFRT station. *JOCS:* Able to perform the duties required for JOC; plans administrative public affairs procedures; formulates media liaison activities; evaluates performance and utilization of personnel; organizes, schedules, and evaluates training programs. *JOCM:* Able to perform the duties required for JOCS; prepares a community relations study; analyzes effectiveness of public affairs activities at the command level; reviews personnel, equipment, and material requirements; develops and monitors operating budgets.

Recommendation, JO3

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, and 3 in writing for mass media; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, and 3 in radio/TV production techniques; if NEC was JO-8148, Photojournalist, an additional 3 semester hours in photography and 3 in layout (3/79).

Recommendation, JO2

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in technical writing, 3 in interviewing techniques, and 3 for field experience in public affairs; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, and 6 in radio/television production techniques; if NEC was JO-8148, Photojournalist, an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JO1

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 1 in speechwriting, 2 in human relations, and 2 in personnel supervision; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, 6 in radio/television production techniques, and 3 in broadcasting news and public affairs; if NEC was JO-8148, Photojournalist, an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JOC

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 2 in speech writing, 3 in human relations, 3 in personnel supervision, and 3 in office management; if NEC was JO-3221, Radio-TV Specialist, an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, 6 in radio/television production techniques, 3 in broadcasting news and public affairs, 3 in station management, and 3 for field experience in broadcast journalism; if NEC was JO-8148, Photojournalist, an additional 3 semester hours in photography, 3 in layout, and 3 for field experience in journalism (3/79).

Recommendation, JOCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/79).

Recommendation, JOCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/79).

NER-LI-001

LITHOGRAPHER

LI3
LI2
LI1
LIC
LICS
LICM

Exhibit Dates: 6/72–12/83.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *LI3:* Lithographer, Third Class (E-4). *LI2:* Lithographer, Second Class (E-5). *LI1:* Lithographer, First Class (E-6). *LIC:* Chief Lithographer (E-7). *LICS:* Senior Chief Lithographer (E-8). *LICM:* Master Chief Lithographer (E-9).

Description

Summary: Supervises or performs lithographic, letterpress, platemaking, photography, and bindery activities. *LI3:* Reproduces printed matter by either the letterpress or lithographic method; operates graphic equipment; duties include negative stripping, line camera operation, platemaking, preparation of hot and cold composition, and preparation of copy and layouts; has knowledge of darkroom procedures and bindery operations; performs these skills at a journeyman level of proficiency. *LI2:* Able to perform the duties required for LI3; estimates time and materials required to complete a printing job order; troubleshoots equipment; times and aligns printing presses up to 17 by 22 inches. *LI1:* Able to perform the duties required for required for LI2; prepares printing specifications; requisitions and inventories supplies and equipment; interprets policies of the Navy Publication and Printing Service; performs make-ready operations and operates offset presses 17 by 22 inches and larger; times and aligns larger graphic equipment; prepares weekly maintenance schedules. *LIC:* Able to perform the duties required for LI1; plans, organizes, and supervises the operation of a lithographic and letterpress shop; performs process photography operations; prepares quarterly maintenance schedules. *LICS:* Able to perform the duties required for LIC; operates halftone cameras; prepares administrative and operational reports; requests and justifies additional graphics equipment; prepares correspondence; prepares directives and instructions for attaining organization objectives; organizes and schedules training programs; administers a long-range planned maintenance program. *LICM:* Able to perform the duties required for LICS; establishes goals and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, LI3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in offset press operation, 3 in platemaking, 2 in ink, 3 in process camera, 3 in layout, and 3 in copy preparation (3/79).

Recommendation, LI2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, and 3 for field experience in graphic arts (3/79).

Recommendation, LI1

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, 3 for field experience in graphic arts, 2 in human relations, and 3 in print shop management. In the upper-division baccalaureate category, 2 semester hours in industrial arts education (graphics) (3/79).

Recommendation, LIC

In the vocational certificate category, the recommendation is the same as that for LI2. In the upper-division baccalaureate category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, 3 for field experience in graphic arts, 3 in human relations, 4 in print shop management, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/79).

Recommendation, LICS

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 3 for field experience in management, and 3 in management problems (3/79).

Recommendation, LICM

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 6 for field experience in management, and 3 in management problems (3/79).

NER-LI-002

LITHOGRAPHER

LI3
LI2
LI1
LIC
LICS
LICM

Exhibit Dates: 1/84–Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *LI3:* Lithographer Third Class (E-4). *LI2:* Lithographer Second Class (E-5). *LI1:* Lithographer First Class (E-6). *LIC:* Chief Lithographer (E-7). *LICS:* Senior Chief Lithographer (E-8). *LICM:* Master Chief Lithographer (E-9).

Description

Summary: Performs graphic reproduction with lithographic, and related reprographic equipment; assists in determining the appropriate style or format for publication; produces and strips negatives and positives; prepares line and halftone camera copy; utilizes darkroom equipment; processes lithographic plates; operates process cameras, presses and bindery equipment; and performs organizational maintenance on reprographic equipment; these skills are applicable to single color and multicolor printing. *LI3:* Reproduces printed matter by the lithographic method; operates graphic equipment; duties include negative stripping, line camera operation, platemaking, type composition, and some preparation of copy and layouts; has knowledge of darkroom procedures and bindery operations; performs these skills at a journeyman level of proficiency. *LI2:* Able to perform the duties required for LI3; prepares color combination overlays and copy for line color separation; estimates time and materials required to complete a printing job order; troubleshoots equipment; times and aligns printing presses; prepares halftones. *LI1:* Able to perform the duties required for LI2; prepares printing specifications; requisitions and inventories supplies and equipment; interprets policies of the Navy Publication and Printing Service; performs makeready operations and operates weekly maintenance schedules. *LIC:* Able to perform the duties required for LI1; plans, organizes, and supervises the operation of a lithographic and letterpress shop; performs process photography operations; prepares quarterly maintenance schedules. *LICS:* Able to perform the duties required for LIC; prepares administrative and operational reports; requests and justifies additional graphics equipment; prepares correspondence; prepares directives and instructions for attaining organization objectives; organizes and schedules training programs; administers a long-range planned maintenance program. *LICM:* Able to perform the duties required for LICS; establishes goals and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, LI3

In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 2 in platemaking, 4 in process camera, and 2 in layout and copy preparation (10/87).

Recommendation, LI2

In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 2 in platemaking, 4 in process camera, 3 in layout and copy preparation, and 3 for field experience in graphic arts (10/87).

Recommendation, LI1

In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 2 in platemaking, 4 in process camera, 3 in layout and copy preparation, 4 for field experience in graphic arts, and 3 in print shop management (10/87).

Recommendation, LIC

In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 2 in platemaking, 4 in process camera, 3 in layout and copy preparation, 4 for field experience in graphic arts, 4 in print shop management, and 3 in personnel supervision (10/87).

Recommendation, LICS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (10/87).

Recommendation, LICM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (10/87).

NER-LN-001

LEGALMAN

LN2
LN1
LNC
LNCS
LNCM

Exhibit Dates: 6/72–12/89.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *LN2:* Legalman Second Class (E-5). *LN1:* Legalman First Class (E-6). *LNC:* Chief Legalman (E-7). *LNCS:* Senior Chief Legalman (E-8). *LNCM:* Master Chief Legalman (E-9).

Description

Summary: Performs paralegal duties under the supervision of a judge advocate (legal officer). *LN2:* Records with stenomask (closed microphone recording device) or stenotype machine; types at 40 words per minute; performs primarily military-related paralegal duties such as completing legal forms, answering inquiries on basic legal services, and assisting personnel in obtaining legal services; schedules and prepares courtroom for trials and legal proceedings; performs general legal office duties under supervision. *LN1:* Able to perform the duties required for LN2; types at 50 words per minute; performs paralegal duties pertaining to both civil and military legal matters, including interviewing witnesses, providing security for evidence, providing basic legal information, and counseling on personal legal matters; cooperates with civil authorities in legal matters concerning Navy personnel. *LNC:* Able to perform the duties required for LN1; supervises the administrative procedures of a legal office; interviews and counsels detained personnel and prisoners. *LNCS:* Able to perform the duties required for LNC; performs basic research using standard legal references such as state and federal codes, reporters, citators, legal encyclopedias, and legal digests; organizes and supervises personnel functions in a judge advocate's office; reviews reports and records for accuracy and legal adequacy. *LNCM:* Able to perform the duties required for LNCS; develops operating budgets and monitors expenditures; prepares plans for manpower, supplies, and equipment utilization in a legal office; establishes goals and objectives within own area of responsiblility; plans, organizes, and conrols activities in compliance with policy statements, operational orders, and directives.

Recommendation, LN2

In the vocational certificate category, 1 semester hour in office procedures, 2 in typing, 3 in military legal practices and procedures, and 6 in machine shorthand. In the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures, 2 in typing, 3 in social studies, and 3 in military legal practices and procedures (12/76).

Recommendation, LN1

In the vocational certificate category, 3 semester hours in typing, 3 in office procedures, 3 in military legal practices and procedures, and 6 in machine shorthand. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, and 6 in social studies (12/76).

Recommendation, LNC

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, and 6 in social studies, and additional credit for field experience in management on the basis of institutional evaluation (12/76).

Recommendation, LNCS

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 2 in personnel supervision, 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, 3 for management electives, and 6 in social studies, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, 2 semester hours in judicial process and administration, 2 in legal bibliography, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, LNCM

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 2 in personnel supervision, 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, 6 in management electives, and 6 in social studies, and credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, 2 semester hours in judicial process and administration, 2 in legal bibliography, and 3 in management problems, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation. (12/76).

NER-LN-002

Leagalman

LN2
LN1
LNC
LNCS
LNCM

Exhibit Dates: 1/90–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *LN2:* Legalman Second Class (E-5). *LN1:* Legalman First Class (E-6). *LNC:* Chief Legalman (E-7). *LNCS:* Senior Chief Legalman (E-8). *LNCM:* Master Chief Legalman (E-9).

Description

Summary: Performs paralegal duties under the supervision of a judge advocate (legal officer). *LN2:* Records with steno-mask (closed microphone recording device) or stenotype machine; types at 40 words per minute, using word processing equipment and computer and related software for automated litigation support systems; performs primarily military-related paralegal duties such as completing legal forms, answering inquiries on basic legal services, and assisting personnel in obtaining legal services; schedules and prepares courtroom for trials and legal proceedings; performs general legal office duties under supervision. *LN1:* Able to perform the duties required for LN2; types at 50 words per minute; performs paralegal duties pertaining to both civil and military legal matters, including interviewing witnesses, providing security for evidence, providing basic legal information, and counseling on personal legal matters; researches legal documents and questions and the written communications of the research findings; cooperates with civil authories in legal matters concerning Navy personnel. *LNC:* Able to perform the duties required for LN1; supervises the administrative procedures of a legal office; interviews and counsels detained personnel and prisoners. *LNCS:* Able to perform the duties required for LNC; assists in the preparation of research using standard legal references such as state and federal codes, reporters, citators, legal encyclopedias, and legal digests; organizes and supervises personnel functions in a judge advocate's office; reviews reports and records for accuracy and legal adequacy. *LNCM:* Able to perform the duties required for LNCS; develops operating budgets and monitors expenditures; prepares plans for manpower, supplies, and equipment utilization in a legal office; establishes goals and objectives within own area of responsibility; plans, organizes, and controls activities in compliance with policy statements, operational orders, and directives.

Recommendation, LN2

In the lower-division baccalaureate/associate degree category, 3 semester hours in word processing applications, 2 in computerized litigation support, 2 in law office systems, 3 in military legal practices and procedures, 3 in machine transcription, 3 in legal writing, and 2 in typing (3/90).

Recommendation, LN1

In the lower-division baccalaureate/associate degree category, 3 semester hours in word processing applications, 3 in computerized litigation support, 3 in law office systems, 3 in military legal practices and procedures, 3 in machine transcription, 3 in legal writing, 3 in typing, 2 in legal research, and 3 in litigation (3/90).

Recommendation, LNC

In the lower-division baccalaureate/associate degree category, 3 semester hours in word processing applications, 3 in computerized litigation support, 3 in law office systems, 3 in military legal practices and procedures, 3 in machine transcription, 3 in legal writing, 3 in typing, 3 in legal research, 3 in litigation, and 3 in law office administration (3/90).

Recommendation, LNCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LNC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 2 in judicial process and administration, and 3 in legal bibliography (3/90).

Recommendation, LNCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LNC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in judicial process and administration, and 3 in legal bibliography (3/90).

NER-MA-001

Master-At-Arms

MA3
MA2
MA1
MAC
MACS
MACM

Exhibit Dates: 4/73–Present.

Occupational Field: 19 (Master-At-Arms).

Career Pattern

MA3: Master-At-Arms, Third Class (E-4). *MA2:* Master-At-Arms, Second Class (E-5). *MA1:* Master-At-Arms, First Class (E-6). *MAC:* Chief Master-At-Arms (E-7). *MACS:* Senior Chief Master-At-Arms (E-8). *MACM:* Master Chief Master-At-Arms (E-9).

Description

MA3: MA2, MA1, MAC, MACS Conducts and supervises investigations, interrogations, and apprehensions; duties include crime prevention, preservation of crime scene evidence, enforcement of appropriate criminal and traffic laws, shore patrol, physical security responsibilites, crowd control, custodial operations, and other public safety duties; prepares records and reports. *MACM:* Able to perform the duties required for MA1, MAC, and MACS; plans, implements, and controls activities; establishes goals and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, MA3

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques (3/79).

Recommendation, MA2

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques (3/79).

Recommendation, MA1

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques (3/79).

Recommendation, MAC

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques (3/79).

Recommendation, MACS

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques (3/79).

Recommendation, MACM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MACS. In the upper-division baccalaureate category, 3 semester hours in administrative procedures and 3 in supervision techniques (3/79).

NER-ML-001

MOLDER

ML3
ML2
ML1
MLC

Exhibit Dates: 6/71-12/87.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *ML3:* Molder Third Class (E-4). *ML2:* Molder Second Class (E-5). *ML1:* Molder First Class (E-6). *MLC:* Chief Molder (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: Operates foundries aboard ship and at shore stations; makes molds and cores; sets up flasks; prepares heats; operates melting furnaces and pours castings of ferrous and nonferrous metals and alloys; cleans castings; casts a variety of navy equipment components, including bearings, brass and bronze fittings, and cast iron, steel, and aluminum items; operates muller and controls sand quality; performs maintenance on assigned equipment; works from shop drawings. *ML3:* Conducts bench and floor molds; makes and installs cores, rebabbits bearings, prepares and evaluates molding sands; arranges molding sequence; identifies Navy babbits; charges induction furnaces; selects casting alloys; identifies metals and alloys; selects and applies gas purging methods; repairs refractory linings; cleans furnaces and ladles; uses and maintains pyrometers, electric and pneumatic power tools, and oxyacetylene welding/cutting equipment; makes carbon dioxide process cores; reads and works from shop drawings and sketches; maintains shop files; determines weights of castings; cleans castings. *ML2:* Able to perform the duties required for ML3; makes molds directly from castings and analyzes casting quality; allows for shrinkage effects of cast steel and monel; identifies and uses bonding materials; designs gating systems; determines proper use of refractories; identifies type and effects of gas absorption; selects methods of obtaining proper casting solidification; controls the reaction of sodium silicate binders with carbon dioxide and heat; determines cause and method of detection of casting defects related to foundry sand, melting and pouring practice, and molding technique; determines and obtains proper molding pressure for metals cast; identifies abrasive materials and their uses; orders repair parts and special tools for equipment maintenance; prepares sketches from mechanical drawings and existing parts. *ML1:* Able to perform the duties required for ML2; interprets materials lists and modifications; maintains manuals; estimates time, material, and cost for foundry work; designs gating systems and special techniques for shrinkage allowance and finish machining; designs and makes internal chills; identifies types and effects of grain formation in cast metal; determines mold buoyancy; melts steel and monel; distinguishes mechanical properties of cast metals and alloys; interprets bindary phase diagrams and cooling curves for commonly used casting compositions; interprets cooling characteristics of metal microstructures; makes special mixture cores; determines gassing and baking times for carbon dioxide cores; schedules and checks maintenance work. *MLC:* Able to perform the duties required for ML1; designs castings with inserts and determines pouring rates and temperatures; trains and supervises personnel in foundry operations, metal identification, and pyrometry; prepares quarterly preventive maintenance schedules.

Recommendation, ML3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in foundry or metal casting and 1 in manufacturing processes (12/78).

Recommendation, ML2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in foundry or metal casting and 2 in manufacturing processes (12/78).

Recommendation, ML1

In the vocational certificate category, 8 semester hours in foundry or metal casting and 2 in manufacturing processes. In the lower-division baccalaureate/associate degree category, 8 semester hours in foundry or metal casting, 2 in manufacturing processes, 1 in materials science, and 1 in shop supervision (12/78).

Recommendation, MLC

In the vocational certificate category, 8 semester hours in foundry or metal casting, and 2 in manufacturing processes. In the lower-division baccalaureate/associate degree category, 8 semester hours in foundry or metal casting, 2 in manufacturing processes, 1 in materials science, 2 in personnel supervision, 2 in shop supervision, 1 in record keeping, and 1 in safety management (12/78).

NER-ML-002

MOLDER

ML3
ML2
ML1
MLC

Exhibit Dates: 1/88-Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *ML3:* Molder, Third Class (E-4). *ML2:* Molder, Second Class (E-5). *ML1:* Molder, First Class (E-5). *MLC:* Chief Molder (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: Operates foundries aboard ship and at shore stations; makes molds and cores; sets up flasks; prepares heats; operates melting furnaces and pours castings of ferrous and nonferrous metals and alloys; cleans castings; casts a variety of navy equipment components, including bearing, brass and bronze fittings, and cast iron, steel, and aluminum items; operates muller and controls sand quality; performs maintenance on assigned equipment; works from shop drawings. *ML3:* Conducts bench and floor molds; makes and installs cores, rebabbits bearings, prepares and evaluates molding sands; arranges molding sequence; identifies Navy babbits; charges induction furnaces; selects casting alloys; identifies metals and alloys; selects and applies gas purging methods; repairs refractory linings; cleans furnaces and ladles; uses and maintains pyrometers, electric and pnuematic power tools, and oxyacetylene welding/cutting equipment; makes carbon dioxide process cores; reads and works from shop drawings and sketches; maintains shop files; determines weights of castings; cleans castings. *ML2:* Able to perform the duties required for ML3; makes molds directly from castings and analyzes casting quality; allows for shrinkage effects of cast steel and monel; identifies and uses bonding materials; designs gating systems; determines proper use of refractories; identifies type and effects of gas absorption; selects methods of obtaining proper casting solidification; controls the reaction of sodium silicate binders with carbon dioxide and heat; determines cause and method of detection of casting defects related to foundry sand, melting and pouring practice, and molding technique; determines and obtains proper molding pressure for metals cast; identifies abrasive materials and their uses; orders repair parts and special tools for equipment maintenance; prepares sketches from mechanical drawings and existing parts. *ML1:* Able to perform the duties required for ML2, interprets materials lists and modifications; maintains manuals; estimates time, material, and cost for foundry work; designs gating systems and special techniques for shrinkage allowance and finish machining; designs and makes internal chills; identifies types and effects of grain formation in cast metal; determines mold buoyancy; melts steel and monel; distinguishes mechanical properties of cast metals and alloys; interprets bindary phase diagrams and cooling curves for commonly used casting compositions; interprets cooling characteristics of metal microstructures; makes special mixture cores; determines gassing and baking times for carbon dioxide cores; schedules and checks maintenance work. *MLC:* Able to perform the duties required for ML1; designs castings with inserts and determines pouring rates and temperatures; trains, manages, and supervises personnel in foundry operations, metal identification, and pyrometry; prepares quarterly preventive maintenance schedules.

Recommendation, ML3

In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 1 in welding, 2 in metallurgy, and 2 in foundry practice (3/90).

Recommendation, ML2

In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 2 in welding, 3 in metallurgy, 4 in foundry practice, 1 in record-keeping, and 2 in principles of supervision (3/90).

Recommendation, ML1

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in welding, 3 in metallurgy, 6 in foundry practice, 2 in record-keeping, and 3 in principles of supervision (3/90).

Recommendation, MLC

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in welding, 3 in metallurgy, 8 in foundry practice, 2 in record-keeping, and 4 in principles of supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 1 in management problems (3/90).

NER-ML-003

MOLDER, SENIOR CHIEF AND MASTER CHIEF

MLCS
MLCM

Exhibit Dates: 6/71-12/87.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from either MLC, Chief Molder (E-7), or PMC, Chief Patternmaker (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

MLCS: Able to perform the duties required for MLC (Chief Molder) or PMC (Chief Patternmaker); provides information and advises on utilization, capabilities, reliability, and operations of foundry; prepares local directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel for maximum utilization; serves as ship's supervisor; supervises operations of foundries and pattern shops; instructs personnel in physical and mechanical properties of metals, alloys, and plastics; coordinates construction and uses of master patterns, molds, and castings; organizes and schedules training programs and evaluates their effectiveness; initiates improvements; administers long range planned and preventive maintenance programs. *MLCM:* Able to perform the duties required for MLCS; assists repair officer in management of repair department; serves as technical advisor to repair officer; plans, organizes, implements, and controls activities in compliance with policy, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy safety requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, MLCS

In the vocational certificate category, the recommendation is the same as that for either MLC (Chief Molder) in exhibit NER-ML-001 or PMC (Chief Patternmaker) in exhibit NER-PM-001. In the lower-division baccalaureate/associate degree category, 1 additional semester hour in personnel supervision, 1 additional semester hour in record keeping, and 2 in human relations; add either the 17 semester hours for MLC (Chief Molder) in exhibit NER-ML-001, or the 16 semester hours for PMC (Chief Patternmaker) in exhibit NER-PM-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 for management problems (12/78).

Recommendation, MLCM

In the vocational certificate category, the recommendation is the same as that for MLCS. In the lower-division baccalaureate/associate degree category, 1 additional semester hour in personnel supervision, 2 additional semester hours in record keeping, and 3 semester hours in human relations; add either the 17 semester hours for MLC (Chief Molder) in exhibit NER-ML-001, or the 16 semester hours for PMC (Chief Patternmaker) in exhibit NER-PM-001. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-ML-004

MOLDER, SENIOR CHIEF AND MASTER CHIEF

MLCS
MLCM

Exhibit Dates: 1/88-Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from either MLC, Chief Molder (E-7), or PMC, Chief Pattermaker (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: MLCS: Able to perform the duties required for MLC (Chief Molder) or PMC (Chief Patternmaker); provides information and advises on utilization, capabilities, reliability, and operations of foundry; prepares local directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel for maximun utilization; serves as ship's supervisor; supervises operations of foundries and pattern shops; instructs personnel in physical and mechanical properties of metals, alloys, and plastics; coordinates construction and uses of master patterns, molds, and castings; organizes and schedules training programs and evaluates their effectiveness; initiates improvements; administers long-range preventive maintenance programs. *MLCM:* Able to perform the duties required for MLCS; assists repair officer in management of repair department; serves as technical advisor to repair officer; plans, organizes, implements, and controls activities in compliance with policy, operations orders, and directives; forecasts future requirements; plans and initiates actions to satisfy safety requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, MLCS

In the lower-division baccalaureate/associate degree category, if progressed from Molder, use the recommendation for MLC in exhibit NER-ML-002, plus 3 semester hours in materials science; if progressed from pattermaker, use the recommendation for PMC in exhibit NER-PM-002, plus 3 semester hours in materials science. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, MLCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MLCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 6 in management problems (3/90).

NER-MM-001

MACHINIST'S MATE

MM3
MM2
MM1
MMC
MMCS
MMCM

Exhibit Dates: 6/71-12/89.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *MM3:* Machinist's Mate Third Class (E-4). *MM2:* Machinist's Mate Second Class (E-5). *MM1:* Machinist's Mate First Class (E-6). *MMC:* Chief Machinist's Mate (E-7). *MMCS:* Senior Chief Machinist's Mate (E-8). *MMCM:* Master Chief Machinist's Mate (E-9).

Description

Summary: Operates, repairs, and performs maintenance on ship propulsion machinery, auxiliary equipment, outside machinery (including steering engine, windlasses, hoisting machinery, and elevators), food preparation equipment, laundry equipment, and refrigeration and air-conditioning equipment. *MM3:* Removes and replaces filters in hydraulic systems; drains and fills hydraulic systems; uses the following test equipment: freon leak detector, stroboscope, dead-weight tester, and radiac, lube oil, and feedwater equipment; uses and files blueprints, microform, aperture cards and ship's drawings; inspects, lubricates, and tests galley and laundry equipment and deck machinery; performs distillate and brine tests; operates all pumps associated with main engine operation; carries out prescribed procedures when malfunctions occur; identifies the principles of refrigeration cycles; tests for refrigerant leaks; completes maintenance data forms; exercises environmental control procedures to prevent or minimize air pollution and oil spills. *MM2:* Able to perform the duties required for MM3; calibrates pressure and temperature sensing devices; carries out chemical water treatment procedures; performs maintenance on whistles, sirens, anchor windlasses, cranes, winches, steering engines, food preparation and dishwashing machinery, and air and reefer compressors; operates and performs mechanical maintenance on propulsion system equipment including jacking gears, main engines, and steam turbine generators; adjusts thermal expansion valves, pressure switches, thermostats, and regulator valves; removes moisture from air-conditioning and refrigeration systems by evacuation; may serve as engineroom watch supervisor (in port); completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MM1:* Able to perform the duties required for MM2; performs hydrostatic tests of evaporator and heat exchanger tubes and shells; uses main circulating pump to pump engine room bilges; identifies factors governing main propulsion plant efficiency, causes of poor performance, and appropriate remedies; tests, dehydrates, and recharges refrigeration and air-conditioning systems; may serve as engineroom watch supervisor (underway); instructs engineroom personnel in casualty control and plant operation procedures; reviews completed maintenance data forms; prepares weekly schedules of preventive maintenance; prepares environmental pollution control reports. *MMC:* Able to perform the duties required for MM1; prepares equipment and machinery performance and repair reports; monitors the qualifications of engineroom watchstanders; supervises personnel in carrying out casualty control procedures; plans and schedules workload; prepares quarterly maintenance schedules; supervises and assists personnel in the repair, overhaul, and procurement of ship propulsion and auxiliary equipment. *MMCS:* Able to perform the duties required for MMC; identifies deficiencies of equipment and machinery; provides information and advises on utilization, capabilities, reliability, and operation; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; reviews requirements for watchstanding qualifications; prepares correspondence; trains and supervises personnel; organizes and schedules training programs; administers a long-range planned maintenance program; supervises environmental pollution control programs. *MMCM:* Able to perform the duties required for MMCS; develops and monitors safety programs; advises personnel about new technical information; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; prepares major maintenance and repair schedules; supervises inspections and surveys of equipment; develops operating budgets and monitors expenditures.

Recommendation, MM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in machinery maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading, and credit in air-conditioning and refrigeration on the basis of institutional evaluation (12/78).

Recommendation, MM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, and 3 in air-conditioning and refrigeration (12/78).

Recommendation, MM1

In the vocational certificate category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, and 3 in air-conditioning and refrigeration. In the lower-division baccalaureate/associate degree category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, 3 in air-conditioning and refrigeration, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, MMC

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, 3 in air-conditioning and refrigeration, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (12/78).

Recommendation, MMCS

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, MMCM

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-MM-002

MACHINIST'S MATE

MM3
MM2
MM1
MMC
MMCS
MMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *MM3:* Machinist's Mate, Third Class (E-4). *MM2:* Machinist's Mate, Second Class (E-5). *MM1:* Machinist's Mate, First Class (E-6). *MMC:* Chief Machinist's Mate (E-7). *MMCS:* Senior Chief Machinist's Mate (E-8). *MMCM:* Master Chief Machinist's Mate (E-9).

Description

Summary: Operates, repairs, and performs maintenance on ship propulsion machinery and auxiliary equipment. *MM3:* Operates main propulsion steam engines, turbo generators and associated systems (condensate circulating water, lube oil, etc); operates auxiliary systems such as compressed air potable water, air conditioning and refrigeration systems and steering systems; completes maintenance data forms; exercises environmental control procedures to prevent or minimize air pollution and oil spills. *MM2:* Able to perform the duties required for MM3; calibrates pressure and temperature sensing devices; carries out chemical water treatment procedures; performs maintenance on whistles, siren, anchor windlasses, cranes, winches, steering engines, food preparation and dishwashing machinery, and air and reefer compressors; operates and performs mechanical maintenance on propulsion system equipment; adjusts thermal expansion valves, pressure switches, thermostats, and regular valves; may serve as engineroom watch supervisor (in port); completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MM1:* Able to perform the duties required for MM2; identifies factors governing main propulsion plant efficiency, causes of poor performance, and appropriate remedies; tests, dehydrates, and recharges refrigeration and air-conditioning systems; may serve as engineroom watch supervisor (underway); instructs engineroom personnel in casualty control and plant operation procedures; reviews completed maintenance data forms; prepares weekly schedules of preventive maintenance; prepares environmental pollution control reports. *MMC:* Able to perform the duties required for MM1; prepares equipment and machinery performance and repair reports; monitors the qualifications of engineroom watchstanders; supervises personnel in carrying out casualty control procedures; plans and schedules workload; prepares quarterly maintenance schedules; supervises and assists personnel in the repair, overhaul, and procurement of ship propulsion and auxiliary equipment. *MMCS:* Able to perform the duties required for MMC; identifies deficiencies of equipment and machinery; provides information and advises on utilization, capabilities, reliability, and operation; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; reviews requirements for watchstanding qualifications; prepares correspondence; trains and supervises personnel; organizes and schedules training programs; administers a long-range planned maintenance program; supervises environmental pollution control programs. *MMCM:* Able to perform the duties required for MMCS; develops and monitors safety programs; advises personnel about new technical information; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; prepares major maintenance and repair schedules; supervises inspections and surveys of equipment; develops operating budgets and monitors expenditures.

Recommendation, MM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering (steam turbines), 3 in basic marine engineering (auxiliaries), 3 in maintenance technology, and 1 in blueprint reading (3/90).

Recommendation, MM2

In the lower-division baccalaureate/associate degree category, 5 semester hours in basic marine engineering (steam turbines), 5 in basic marine engineering (auxiliaries), 6 in maintenance technology, 2 in blueprint reading, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, MM1

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic marine engineering (steam turbines), 6 in basic marine engineering (auxiliaries), 9 in maintenance technology, 2 in blueprint reading, 2 in recordkeeping, 2 in principles of supervision, and 1 in maintenance management (3/90).

Recommendation, MMC

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic marine engineering (steam turbines), 6 in basic marine engineering (auxiliaries), 9 in maintenance technology, 2 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, and 2 in maintenance management (3/90).

Recommendation, MMCS

In the lower-division baccalaureate/associate degree category, 6 semester hours in basic marine engineering (steam turbines), 6 in basic marine engineering (auxiliaries), 9 in maintenance technology, 2 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, MMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MMCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 6 in management problems (3/90).

NER-MN-001

MINEMAN

MN3
MN2
MN1
MNC
MNCS
MNCM

Exhibit Dates: 6/73–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *MN3:* Mineman Third Class (E-4). *MN2:* Mineman Second Class (E-5). *MN1:* Mineman First Class (E-6). *MNC:* Chief Mineman (E-7). *MNCS:* Senior Chief Mineman (E-8). *MNCM:* Master Chief Mineman (E-9).

Description

Summary: Responsible for maintenance, installation, and inspection of mines (underwater explosive devices), which are loaded onto surface ships, submarines, or aircraft for placement in the water. *MN3:* Inspects and prepares mine cases for assembly; loads explosives into mine cases; installs electronic modules; stores, charges, and installs batteries; performs mechanical adjustments; checks temperatures in storage areas; uses standard hand tools, thread cutting devices, mechanical measuring devices, portable power tools, and bench tools; uses electrical, hydrostatic, and vacuum tube testing devises; prepares mines for storage. *MN2:* Able to perform the duties required for MN3; performs final preparation on mines for shipment and planting; conducts inventory and orders parts and tools. *MN1:* Able to perform the duties required for MN2; instructs personnel in handling and stowing explosives and detonating agents; supervises assembling, disassembling, handling, testing, maintaining, and issuing of mines; prepares weekly schedules of preventive maintenance. *MNC:* Able to perform the duties required for MN1; develops plans for storage or loading of mines and mine components onto aircraft or vessels; establishes and maintains filing systems; supervises upkeep and operation of a mine assembly unit; checks operating logs and maintenance records to ensure equipment is operating within prescribed limits; ensures that prescribed procedures are followed in operation of test equipment. *MNCS:* Able to perform the duties required for MNC; manages a division within a weapons department concerned with underwater mine ordnance; provides information and advises on utilization, capabilities, reliability, and operations in area of responsiblity; prepares correspondence; administers a long-range maintenance program. *MNCM:* Able to perform the duties required for MNCS; reviews personnel, equipment, and material requirements; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; analyzes records and reports; develops operating budgets and monitors expenditures.

Recommendation, MN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in the use and care of hand and power tools (9/80).

Recommendation, MN2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in the use and care of hand and power tools (9/80).

Recommendation, MN1

In the vocational certificate category, 3 semester hours in the use and care of hand and power tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in the use and care of hand and power tools and 3 in personnel supervision (9/80).

Recommendation, MNC

In the vocational certificate category, 3 semester hours in use and care of hand and power tools and 2 in records management. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of hand and power tools, 3 in personnel supervision, and 2 in records management (9/80).

Recommendation, MNCS

In the vocational certificate category, the recommendation is the same as that for MNC. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of hand and power tools, 3 in personnel supervision, 2 in records management, and 3 in operations management (9/80).

Recommendation, MNCM

In the vocational certificate category, the recommendation is the same as that for MNC. In the lower-division baccalaureate/associate degree category, 3 semester hours in use and care of hand and power tools, 3 in personnel supervision, 2 in records management, and 6 in operations management (9/80).

NER-MR-001

MACHINERY REPAIRMAN

MR3
MR2
MR1
MRC
MRCS
MRCM

Exhibit Dates: 6/72–12/89.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *MR3:* Machinery Repairman, Third Class (E-4). *MR2:* Machinery Repairman, Second Class (E-5). *MR1:* Machinery Repairman, First Class (E-6). *MRC:* Chief Machinery Repairman (E-7). *MRCS:* Senior Chief Machinery Repairman (E-8). *MRCM:* Master Chief Machinery Repairman (E-9).

Description

Summary: Performs maintenance on shipboard equipment and machinery using the following machine shop equipment: lathes, milling machines, boring mills, grinders, power hacksaws, drill presses, and other machine tools. *MR3:* Operates and performs maintenance on all machine shop equipment that is required to repair, rebuild, or fabricate parts to maintain shipboard equipment and machinery; constructs geometric forms; reads sketches, diagrams, and blueprints; solves basic algebraic and trigonometric layout problems; computes English and metric systems of measurement; operates bench or pedestal drills, pedestal grinders, machine reamers, engine lathes, planers or shapers, milling machines, pantographs, disk metal bandsaw, arbor and hydraulic presses, and oxyacetylene equipment; performs computations to make threads, press fits, tapers, and keyways; completes maintenance data forms. *MR2:* Able to perform the duties required for MR3; maintains blueprint files for machine shop; uses machine shop equipment which includes attachments with special capabilities; performs hardness tests on metals, plastics, and casting, able to select metals and plastics according to specifications; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MR1:* Able to perform the duties required for MR2; operates equipment that analyzes ferrous and non-ferrous metals; performs heat-treating operations; repairs fixed machinery and equipment; performs alignment tests on all ship equipment; reviews completed maintenance data forms; prepares weekly maintenance schedules. *MRC:* Able to perform the duties required for MR1; supervises maintenance and repair activities; estimates time and material requirements; maintains work center records; prepares quarterly maintenance schedules; directs the replacement, installation, maintenance, and repair of complex repair shop equipment; supervises inventory of tools equipment, and supplies. *MRCS:* Able to perform the duties required for MRC; provides information and advice on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence, organizes and schedules training programs; administers a long range planned maintenance program. *MECM:* Able to perform the duties required for MRCS; develops and maintains safety programs, plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections and survey of equipment; develops operating budgets and monitors expenditures.

Recommendation, MR3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in machine technology, 3 in principles and operation of machine tools, 2 in machine shop mathematics, 1 in blueprint reading, and 1 in introduction to the metric system of measurement (12/78).

Recommendation, MR2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 4 in principles and operation of machine tools, 3 in blueprint reading, 2 in machine shop mathematics, 1 in record keeping, and 1 in introduction to the metric system of measurement (12/78).

Recommendation, MR1

In the vocational certificate category, 6 semester hours in machine technology, 6 in principles and operation of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 6 in principles and operation of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, MRC

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 6 in principles and operation of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, 1 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (12/78).

Recommendation, MRCS

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MRC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, MRCM

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MRC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-MR-002

MACHINERY REPAIRMAN

MR3
MR2
MR1
MRC
MRCS
MRCM

Exhibit Dates: 1/90–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *MR3:* Machinery Repairman, Third Class (E-4). *MR2:* Machinery Repairman, Second Class (E-5). *MR1:* Machinery Repairman, First Class (E-6). *MRC:* Chief Machinery Repairman (E-7). *MRCS:* Senior Chief Machinery Repairman (E-8). *MRCM:* Master Chief Machinery Repairman (E-9).

Description

Summary: Performs maintenance on shipboard equipment and machinery using the following machine shop equipment: lathes, milling machines, boring mills, grinders, power hacksaws, drill presses, and other machine tools. *MR3:* Operates and performs maintenance on all machine shop equipment that is required to repair, rebuild, or fabricate parts to maintain shipboard equipment and machinery; reads sketches, diagrams, and blueprints; operates bench or pedestal drills, pedestal grinders, machine reamers, engine lathes, planers or shapers, milling machines, pantographs, disk metal bandsaw, arbor and hydraulic presses, and oxyacetylene equipment; performs computations to make threads, press fits, tapers and keyways; completes maintenance data forms. *MR2:* Able to perform the duties required for MR3; maintains blueprint files for machine shop; uses machine shop equipment that includes attachments with special capabilities; performs hardness tests on metals, plastics, and casting; able to select metals and plastics according to specifications; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MR1:* Able to perform the duties required for MR2; operates equipment that analyzes ferrous and non-ferrous metals; performs heat-treating operations; repairs fixed machinery and equipment; performs alignment tests on ship equipment; reviews completed maintenance data forms; prepares weekly maintenance schedules. *MRC:* Able to perform the duties required for MR1; supervises maintenance and repair activities; estimates time and material requirements; maintains work center records; prepares quarterly maintenance schedules; directs the replacement, installation, maintenance and repair of complex repair shop equipment; supervises inventory of tools, equipment, and supplies. *MRCS:* Able to perform the duties required for MRC; provides information and advice on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence, organizes and schedules training programs; administers a long-range planned maintenance program. *MRCM:* Able to perform the duties required for MRCS; develops and maintains safety programs; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections and survey of equipment; develops operating budgets and monitors expenditures.

Recommendation, MR3

In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operations, 3 in maintenance technology, 1 in blueprint reading, and 1 in metallurgy (3/90).

Recommendation, MR2

In the lower-division baccalaureate/associate degree category, 6 semester hours in machine tool operations, 6 in maintenance technology, 2 in blueprint reading, 1 in maintenance management, and 2 in metallurgy (3/90).

Recommendation, MR1

In the lower-division baccalaureate/associate degree category, 9 semester hours in machine tool operations, 9 in maintenance technology, 3 in blueprint reading, 2 in recordkeeping, 2 in principles of supervision, 2 in maintenance management, and 2 in metallurgy (3/90).

Recommendation, MRC

In the lower-division baccalaureate/associate degree category, 9 semester hours in machine tool operations, 9 in maintenance technology, 3 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, 3 in maintenance management, and 2 in metallurgy (3/90).

Recommendation, MRCS

In the lower-division baccalaureate/associate degree category, 9 semester hours in machine tool operations, 9 in maintenance technology, 3 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, 4 in maintenance management, and 2 in metallurgy. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, MRCM

In the lower-division baccalaureate/associate degree category, 9 semester hours in machine tool operations, 9 in maintenance technology, 3 in blueprint reading, 2 in recordkeeping, 3 in principles of supervision, 5 in maintenance management, and 2 in metallurgy. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 6 in management problems (3/90).

NER-MS-001

Mess Management Specialist

MS3
MS2
MS1
MSC
MSCS
MSCM

Exhibit Dates: 1/75–12/87.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *MS3:* Mess Management Specialist, Third Class (E-4). *MS2:* Mess Management Specialist, Second Class (E-5). *MS1:* Mess Management Specialist, First Class (E-6). *MSC:* Chief Mess Management Specialist (E-7). *MSCS:* Senior Chief Mess Management Specialist (E-8). *MSCM:* Master Chief Mess Management Specialist (E-9).

Description

Summary: Operates and manages Navy messes and living quarters established to subsist and accommodate Navy personnel; assists supply officers in ordering, storing, accounting for and preparing food; maintains housing facilities. *MS3:* Measures, weighs, blends, and mixes various foods; prepares fruits, vegetables, meats, and salads by roasting, frying, broiling, and boiling; operates specialized food service equipment; portions and serves prepared food to consumers; maintains and cleans food service preparation and service areas and associated equipment; knows the causes and transmission method of foodborne diseases and the relationship to safe temperatures, storage, preparation, and serving of food; staffs reception facilities and provides housekeeping services in housing facilities. *MS2:* Able to perform the duties required for MS3; applies advanced culinary techniques; establishes work schedules and serving line procedures; assists in maintaining cost control procedures and the ordering, maintenance, and rotation of stock. *MS1:* Able to perform the duties required for MS2; supervises a food service facility; assigns duties and supervises preparation and serving methodology; maintains sales analysis records and ensures that the proper relationship of cost to portion control are maintained; ensures that sanitation measures are carried out; modifies the menu and preparation methods to meet forecasts. *MSC:* Able to perform the duties required for MS1; serves as the administrator of a small food service facility or as an intermediate supervisor in a large facility; plans and conducts training programs; prepares schedules; estimates, maintains, and interprets financial records. *MSCS:* Able to perform the duties required for MSC; implements policies and procedures to attain organization objectives; selects, assigns, and evaluates personnel; establishes work priorities; organizes, schedules, and evaluates training programs; determines budgets and operating goals. *MSCM:* Able to perform the duties required for MSCS; establishes goals, objectives, and priorities in area of responsibility; reviews personnel, equipment, and material requirements and determines future requirements and space utilization; develops interdepartment training programs; develops operating budgets and monitors expenditures.

Recommendation, MS3

In the vocational certificate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 2 in sanitation. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 1 in sanitation, and 1 for a food service internship (3/79).

Recommendation, MS2

In the vocational certificate category, 9 semester hours in quantity food preparation, 3 in sanitation, 3 in kitchen operations, and 2 in food service administration. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, and 2 in food service administration. In the upper-division baccalaureate category, 2 semester hours in sanitation and 2 for a food service internship (3/79).

Recommendation, MS1

In the vocational certificate category, 9 semester hours in quantity food preparation, 3 in sanitation, 3 in kitchen operations, 2 in food service administration, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, 2 in food service administration, 1 in record keeping, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, and 2 in personnel management (3/79).

Recommendation, MSC

In the vocational certificate category, 9 semester hours in quantity food preparation, 2 in sanitation, 3 in kitchen operations, 2 in food service administration, and 2 in record keeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, 2 in food service administration, 2 in record keeping, 1 in office management, 3 in food cost control, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, 3 in personnel management, and 1 in food cost control (3/79).

Recommendation, MSCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSC. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, 3 in personnel management, 1 in food cost control, and 2 in human relations (3/79).

Recommendation, MSCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSC. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, 3 in personnel management, 1 in food cost control, and 2 in human relations (3/79).

NER-MS-002

Mess Management Specialist

MS3
MS2
MS1
MSC
MSCS
MSCM

Exhibit Dates: 1/88–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *MS3:* Mess Management Specialist, Third Class (E-4). *MS2:* Mess Management, Specialist Second Class (E-5). *MS1:* Mess Management Specialist, First Class (E-6). *MSC:* Chief Mess Management Specialist (E-7). *MSCS:* Senior Chief Mess Management Specialist (E-8). *MSCM:* Master Chief Mess Management Specialist (E-9).

Description

Summary: Operates and manages Navy messes and living quarters established to subsist and accommodate Navy personnel; assists supply officers in ordering, storing, accounting for and preparing food; maintains housing facilities. *MS3:* Understands basic service techniques; measures, weighs, blends, and mixes various foods; prepares fruits, vegetables, meats, and salads by roasting, frying, broiling, and boiling; operates specialized food service equipment; portions and serves prepared food to consumers; maintains and cleans food service preparation and service areas and associated equipment; knows the causes and transmission method of foodborne diseases and the relationship to safe temperatures, storage, preparation, and serving of food; staffs reception facilities and provides housekeeping services in housing facilities. *MS2:* Able to perform the duties required for MS3; understands advanced service techniques; applies advanced culinary techniques; establishes work schedules and serving line procedures; assists in maintaining cost control procedures and the ordering, maintenance, and rotation of stock. *MS1:* Able to perform the duties required for MS2; supervises a food service facility; assigns duties and supervises preparation and serving methodology; maintains sales analysis records and ensures that the proper relationship of cost to portion control are maintained; ensures that sanitation measures are carried out; modifies the menu and preparation methods to meet forecasts; understands the supervision of food and beverage service and lodging operations. *MSC:* Able to perform the duties required for MS1; serves as the administrator of a small food service facility or as an intermediate supervisor in a large facility; plans and conducts training programs; prepares schedules; estimates, maintains, and interprets financial records; understands food and beverage cost control to include schedule preparation and interpretation of financial records; understands the management of food and beverage service and lodging operations. *MSCS:* Able to perform the duties required for MSC; implements policies and procedures to attain organization objectives; administers a long-range planned maintenance program; selects, assigns, and evaluates personnel; establishes work priorities; organizes, schedules, and evaluates training programs; determines budgets and operating goals. *MSCM:* Able to perform the duties required for MSCS; establishes goals, objectives, and priorities in area of responsibility; reviews personnel equipment, and material requirements and determines future requirements and space utilization; develops interdepartment training programs; develops operating budgets and monitors expenditures.

Recommendation, MS3

In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation and 2 for a food service internship (2/90).

Recommendation, MS2

In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 4 for a food service internship, and 3 in advanced culinary techniques (2/90).

Recommendation, MS1

In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 4 for a food service internship, 3 in advanced culinary techniques, and 1 in principles of supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in hospitality management (2/90).

Recommendation, MSC

In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 4 for a food service internship, 3 in advanced culinary techniques, and 2 in principles of supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in hospitality management and 2 in food and beverage cost control (2/90).

Recommendation, MSCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSC. In the upper-division baccalaureate category, 3 semester hours for field experience in hospitality management, 2 in maintenance management, 3 in principles of management, and 2 in food and beverage cost control (2/90).

Recommendation, MSCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSC. In the upper-division baccalaureate category, 3 semester hours for field experience in hospitality management, 3 in maintenance management, 3 in principles of management, and 3 in food and beverage cost control (2/90).

NER-MT-001

MISSILE TECHNICIAN

MT3
MT2
MT1
MTC

Exhibit Dates: 6/73–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *MT3:* Missile Technician, Third Class (E-4). *MT2:* Missile Technician, Second Class (E-5). *MT1:* Missile Technician, First Class (E-6). *MTC:* Chief Missile Technician (E-7). *FTCS:* Senior Chief Fire Technician (E-8). *FTCM:* Master Chief Fire Technician (E-9).

Description

Summary: Operates, tests, and repairs fleet ballistic missile systems and missile launcher equipment; performs maintenance (electrical, electronic, pneumatic, and hydraulic) on ballistic missiles and associated handling and launching equipment. *MT3:* Aligns and calibrates basic electronic circuits; under supervision, performs troubleshooting, calibration, adjustments, and tests on missile launcher, and missile support equipment; uses circuit diagrams and mechanical drawings; identifies basic digital circuits; operates weapons system equipment; completes maintenance data forms. *MT2:* Able to perform the duties required for MT3; inspects and repairs pneumatic and hydraulic systems; isolates malfunctions and replaces defective electronic circuit components; performs troubleshooting, calibration, adjustments, and tests on missile, launcher and missile support equipment; maintains logs and records; completes maintenance reports; inventories installed equipment. *MT1:* Able to perform the duties required for MT2; serves as a nuclear weapons handling supervisor; supervises the maintenance and operation of missile and missile launching and handling equipment; reviews completed maintenance forms; prepares weekly maintenance schedules. *MTC:* Able to perform the duties required for MT1; coordinates and directs maintenance programs; assures compliance with nuclear weapons safety rules; prepares records and reports; prepares quarterly maintenance schedules; serves as shop supervisor.

Recommendation, MT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in applied mathematics (12/78).

Recommendation, MT2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in applied physics, and 2 in basic hydraulics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in basic hydraulics (12/78).

Recommendation, MT1

In the vocational certificate category, the recommendation is the same as that for MT2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in basic hydraulics, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (12/78).

Recommendation, MTC

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in applied physics, 2 in basic hydraulics, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in basic hydraulics, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

NER-MU-001

MUSICIAN

MU3
MU2
MU1
MUC
MUCS
MUCM

Exhibit Dates: 6/71–Present.

Occupational Field: 18 (Musician).

Career Pattern

SN: Seaman (E-3). *MU3:* Musician Third Class (E-4). *MU2:* Musician Second Class, (E-5). *MU1:* Musician First Class (E-6). *MUC:* Chief Musician (E-7). *MUCS:* Senior Chief Musician (E-8). *MUCM:* Master Chief Musician (E-9).

Description

Summary: Provides music for various functions and ceremonies as members of Navy unit bands; performs on one or more designated instruments. NOTE: Musicians are further identified by the following NEC (Navy Enlisted Classification) codes: MU-3801 Flute/Piccolo Instrumentalist; MU-3802 Oboe Instrumentalist; MU-3803 Clarinet Instrumentalist; MU-3804 Bassoon Instrumentalist; MU-3805 Saxophone Instrumentalist; MU-3806 Trumpet/Cornet Instrumentalist; MU-3807 French Horn Instrumentalist; MU-3808 Baritone/Euphonium Instrumentalist; MU-3809 Trombone Instrumentalist; MU-3811 Tuba/String Bass Instrumentalist; MU-3812 Guitar/Bass Drum Instrumentalist; MU-3813 Percussion Instrumentalist; MU-3814 Piano/Bass Drum Instrumentalist; MU-3825 Vocalist; and MU-3851 Assistant Bandleader. *MU3:* Performs as a member of a musical ensemble; performs first parts of elementary music with good intonation and characteristic tone (and with good diction, for vocalists); performs from memory all major and minor scales; is responsive to musical interpretation, including dynamics, tempo, musical terms, and devices peculiar to dance music; able to perform elementary melodic improvisation, including alphabetical chord symbols notated in standard dance and popular music; able to identify, by sound, simple chord progressions used in popular music; able to identify, by sight and sound, major, minor, diminished, and augmented triads in root position and inversions; able to notate melodic (single part) dictation of elementary music, at sight, one tone higher or lower than written. *MU2:* Able to perform the duties required for MU3; performs first parts of intermediate music; performs intermediate melodic improvision following the alphabetic chord symbols notated in standard dance and popular music; interprets chord symbols used in modern dance music up to and including seventh chords, and identifies these chords with the correct symbols; performs, from memory, ten standard dance tunes and standard advanced solos; notates melodic (single part) dictation of intermediate music; identifies, by sound, intermediate chord progression used in popular music; arranges popular melodies for a five-piece combo; rehearses and prepares a small combo for public appearances; rehearses and conducts the National Anthem and one prepared march. *MU1:* Able to perform the duties required for MU2; performs first parts of advanced music at sight; performs advanced melodic improvisation following the alphabetic chord symbols notated in standard dance and popular music;

analyzes and identifies all chords from piano 'lead sheets' and 'stock' piano parts; performs, from memory, eighteen standard dance tunes and advanced solos; harmonizes melodies in four parts, indicating figured bass and using diatonic triads, dominant and diatonic seventh chords, higher dominant dischords, simple modulation, and secondary dominants; arranges songs for an instrumental/vocal ensemble; notates melodic, single part dictation in moderately difficult music; rehearses and conducts a ceremonial band in a program of marches, popular music, and ceremonial music; rehearses and prepares for public performance a dance band of at least eight instruments; assembles and maneuvers a marching band. *MUC:* Able to perform the duties required for MU1; performs advanced solos from memory; rehearses and conducts ten marches and three difficult selections or overtures; prepares a musical program for public performance utilizing dance band and/or combo, and featuring solo or entertainment capabilities of band members; identifies, by sound, advanced chord progressions used in popular music; analyzes scores for harmonic content, modulations and nonharmonic tones, and melodic and harmonic content of piano sheet music; corrects mistakes and omissions in printing of alphabetical chord symbols; arranges 32 or more measures, including introduction and ending of a song or melody for a small concert band, and a popular song or folk song for a seventeen-piece dance band; supervises professional and military instruction; supervises the daily operation of a performing unit of a Navy band; evaluates requests for band performances; initiates and coordinates the preparation of posters, pictures, biographies, radio/TV spots, news releases, programs, and other promotional material required for a Navy band; supervises reports, records maintenance, and other personnel administration requirements; supervises the custody, care, and maintenance of music material; prepares requests for procurement and disposition of music material. *MUCS:* Able to perform the duties required for MUC; conducts a large concert band in performance of advanced literature; prepares a musical program for radio or television, utilizing dance band and/or combo, and featuring solo or entertainment capabilities of band personnel; analyses dominant and diatonic seventh chords in root position and inversions; harmonizes melodies in four parts, indicating figured bass, using diatonic triads with inversions, dominant seventh chords with inversions, and nonharmonic tones; organizes and schedules training programs and evaluates their effectiveness; manages, schedules, and coordinates the rehearsal and performance of all units of a Navy band; manages the preparation and distribution of posters, pictures, biographies, radio/TV spots, news releases, programs, and other promotional material; establishes and implements an effective community relations program; manages non-musical logistic support for Navy band; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; manages procurement, control, maintenance, and disposition of music, musical equipment, and supplies. *MUCM:* Able to perform the duties required for MUCS; plans, organizes, implements, and controls activities; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements, and forecasts future requirements; evaluates musical background proficiency and potential of applicants for the Navy music program; develops operating budgets and monitors expenditures.

Recommendation, MU3

In the lower-division baccalaureate/associate degree category, 4 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 2-4 in applied performance (individual instruction), and 2 in performing ensembles (3/79).

Recommendation, MU2

In the lower-division baccalaureate/associate degree category, 4 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4-6 in applied performance (individual instruction), 2 in performing ensembles, 1 in elementary conducting, 1 in marching band, and 1 in concert band (3/79).

Recommendation, MU1

In the lower-division baccalaureate/associate degree category, 8 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4-6 in applied performance (individual instruction), 4 in performing ensembles, 1 in elementary conducting, 2 in marching band, and 1 in concert band (3/79).

Recommendation, MUC

In the lower-division baccalaureate/associate degree category, 12 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4-6 in applied performance (individual instruction), 1 in applied performance (secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, and 1 in concert band. In the upper-division baccalaureate category, 2 semester hours in arranging (3/79).

Recommendation, MUCS

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4-6 in applied performance (individual instruction), 1 in applied performance (secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, and 1 in concert band. In the upper-division baccalaureate category, 4 semester hours in arranging, 2 in advanced conducting, 2 in band management, and 2 in personnel management (3/79).

Recommendation, MUCM

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4-6 in applied performance (individual instruction), 1 in applied performance (individual instruction in secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, 1 in concert band, 1 in elementary class piano, 1 in instrumental techniques, and 2 in public speaking. In the upper-division baccalaureate category, 6 semester hours in arranging, 4 in advanced conducting, 3 in dance band techniques, 3 in band management, and 3 in personnel management. In the graduate degree category, 2 semester hours in advanced conducting (3/79).

NER-NC-001

NAVY COUNSELOR

NC1
NCC
NCCS
NCCM

Exhibit Dates: 8/74–12/84.

Occupational Field: 15 (Administration).

Career Pattern

May have progressed from Petty Officer Second Class (E-5) of any rating. *NC1:* Navy Counselor First Class (E-6). *NCC:* Chief Navy Counselor (E-7). *NCCS:* Senior Chief Navy Counselor (E-8). *NCCM:* Master Chief Navy Counselor (E-9).

Description

Summary: Interviews, advises, and counsels enlisted personnel about career development opportunities, benefits, and regulations; organizes and implements recruiting and retention programs. *NC1:* Prepares recruiting and pre-enlistment brochures and kits; writes news releases; writes and delivers public relations and recruiting talks; participates in community events; conducts interviews, counsels, and advises enlisted personnel; administers, scores, and records results of vocational preference and aptitude tests; applies mass-media advertising; informs personnel of local agencies capable of aiding Naval personnel and their families. *NCC:* Able to perform the duties required for NC1; conducts radio and television interviews; applies Federal Communications Commission regulations and Naval policies concerning broadcasts; trains and supervises subordinates; may specialize in career counseling, recruiting, or drugs and alcohol rehabilitation counseling. *NCCS:* Able to perform the duties required for NCC; may serve as area supervisor of a large counseling program; drafts correspondence; interviews, evaluates, and assigns personnel; verifies accuracy of administrative reports; collects, develops, and disseminates career program information; develops plans for organizing and implementing surveys; develops motivation programs; organizes and schedules training program for subordinates. *NCCM:* Able to perform the duties required for NCCS; forecasts future personnel requirements; plans and initiates action to satisfy personnel requirements; provides information to the command on regulations, procedures, and practices applicable to recruiting and retention; develops written materials for counseling program; evaluates effectiveness of recruiting and retention programs; monitors, analyzes, and makes recommendations concerning personnel utilization; provides technical assistance to subordinate commands; develops operating budget and monitors expenditures.

Recommendation, NC1

In the vocational certificate category, 1 semester hour in applied psychology, 1 in community relations, 3 in communication (speech), 3 in communication (written), and 3 in human relations. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 1 in introduction to mass media techniques, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations (12/76).

Recommendation, NCC

In the vocational certificate category, the recommendation is the same as that for

NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in introduction to mass media techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation (12/76).

Recommendation, NCCS

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in introduction to mass media techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, and 3 in management electives; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in problems in human relations (12/76).

Recommendation, NCCM

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, 3 in introduction to mass media techniques, and 6 in management electives; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in vocational counseling, and 6 in problems in human relations (12/76).

NER-NC-002

Navy Counselor

NC1
NCC
NCCS
NCCM

Exhibit Dates: 1/85–Present

Occupational Field: 15 (Administration).

Career Pattern

May have progressed from Petty Officer Second Class (E-5) of any rating. *NC1:* Navy Counselor First Class (E-6). *NCC:* Chief Navy Counselor (E-7). *NCCS:* Senior Chief Navy Counselor (E-8). *NCCM:* Master Chief Navy Counselor (E-9).

Description

Summary: Interviews, advises, and counsels enlisted personnel about career development opportunities, benefits, and regulations; organizes and implements recruiting and retention programs. *NC1:* Prepares recruiting and pre-enlistment brochures and kits; writes news releases; supervises collateral duty career counselors; coordinates retention programs; instructs and trains recruiters and retention teams in counseling skills and Navy programs and benefits; writes and delivers public relations and recruiting talks; participates in community events; conducts interviews, counsels, and advises enlisted personnel; administers, scores, and records results of vocational preference and aptitude tests; informs personnel of local agencies capable of aiding Naval personnel and their families. *NCC:* Able to perform the duties required for NC1; trains and supervises subordinates; prepares and submits operating budgets for recruiting station; develops training schedules; trains recruiters in prospecting, sales, time management, recruit processing, and resource management; may specialize in career counseling, recruiting, or drugs and alcohol rehabilitation counseling. *NCCS:* Able to perform the duties required for NCC; may serve as area supervisor of a large counseling program; drafts correspondence; interviews, evaluates, and assigns personnel; verifies accuracy of administrative reports; collects, develops, and disseminates career program information; develops plans for organizing and implementing surveys; develops motivation programs; organizes and schedules training program for subordinates. *NCCM:* Able to perform the duties required for NCCS; forecasts future personnel requirements; plans and initiates action to satisfy personnel requirements; provides information to the command on regulations, procedures, and practices applicable to recruiting and retention; develops written materials for counseling program; evaluates effectiveness of recruiting and retention programs; monitors, analyzes, and makes recommendations concerning personnel utilization; provides technical assistance to subordinate commands; develops operating budget and monitors expenditures.

Recommendation, NC1

In the vocational certificate category, 1 semester hour in applied psychology, 1 in community relations, 3 in communication (speech), 3 in communication (written), and 3 in human relations. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 1 in management electives, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations (2/89).

Recommendation, NCC

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 2 in management electives, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation (2/89).

Recommendation, NCCS

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 for field experience in management, in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, and 3 in management electives; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in problems in human relations (2/89).

Recommendation, NCCM

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, 3 for field experience in management, and 6 in management electives; if the duty assignment was career counselor, additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; if the duty assignment was drugs and alcohol rehabilitation counselor, additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drug and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in vocational counseling, and 6 in problems in human relations (2/89).

NER-OM-001

Opticalman

OM3
OM2
OM1
OMC
OMCS

Exhibit Dates: 6/71–12/87.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *OM3:* Opticalman, Third Class (E-4). *OM2:* Opticalman, Second Class (E-5). *OM1:* Opticalman, First Class (E-6). *OMC:* Chief Opticalman (E-7). *OMCS:* Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Summary: Performs maintenance on small navigational instruments, binoculars, gunsights, range finders, submarine and turret periscopes, night vision sights, and other optical instruments. *OM3:* Operates lathe, milling machine, bench grinder, and drill press; uses cutting lubricants on metals; tempers, hardens, and anneals various metals; joins metal by soft and silver solder; repairs and overhauls binoculars, telescopes, marine alidades, fixed prism gunsight telescopes, azimuth and bearing circles, sextants, stadimeters, and magnetic compresses; performs maintenance on image-intensifying and night vision sights, and on external fittings of submarine periscopes; recements lenses using a lens centering instrument; uses the metric and English systems of measurement to determine focal lengths, dioptric strength, and magnifying power of a positive and negative lens; uses and maintains hand tools; completes maintenance data forms. *OM2:* Able to perform the duties required for OM3; reads blueprints and sketches; makes mechanical parts for optical instruments using lathe, milling machine, and drill press; computes calculations required for determining taper per foot, cutting speeds, and surface speeds; removes and installs submarine periscopes; repairs and overhauls ship-mounted binoculars, submarine persicopes, and tilting-prism gunsight telescopes; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *OM1:* Able to perform the duties required for OM2; establishes alignment references, autocollination, base and line transfer, and azimuth transfer; performs complete overhaul of MK21 rangefinders; prepares and maintains records, logs, reports, and work requests; maintains current naval publications concerning standard optical equipment; reviews completed maintenance data forms; prepares weekly maintenance schedule. *OMC:* Able to perform the duties required for *OM1;* coordinates repair and maintenance programs for measuring instruments; supervises equipment inspections; supervises training of personnel in repair and overhaul of optical equipment; plans, schedules, and assigns repair work; prepares quarterly maintenance schedules; supervises repair of precision measuring mechanical and optical instruments; applies laboratory calibration services providing standards for pressure, temperature, flow, and linear measurements. *OMCS:* Able to perform the duties required for OMC; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair maintenance records; organizes, schedules, and evaluates training programs; coordinates quality assurance audits; prepares work estimates; administers a long-range planned maintenance program.

Recommendation, OM3

In the vocational certificate category, 1 semester hour in machine tool operation, 2 in fabrication techniques, 3 in physics (optics), and 3 in optical laboratory. In the lower-division baccalaureate/associate degree category, 1 semester hour in machine tool operation, 2 in fabrication technology, 3 in physics (optics), and 3 in optical laboratory (12/78).

Recommendation, OM2

In the vocational certificate category, 3 semester hours in machine tool operation, 3 in fabrication techniques, 5 in physics (optics), 5 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 5 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, OM1

In the vocational certificate category, 3 semester hours in machine tool operation, 3 in fabrication techniques, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 2 in personnel supervision, and 1 in shop supervision; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, OMC

In the vocational certificate category, the recommendation is the same as that for OM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 3 in personnel supervision, and 1 in shop supervision; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics (12/78).

Recommendation, OMCS

In the vocational certificate category, the recommendation is the same as that for OM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 3 in personnel supervision, 1 in shop supervision, and 2 in human relations; if NEC was IM-1821, Precision Physical Measuring Specialist, 3 semester hours in technical mathematics. In the upper-division baccalaureate category, 3 semester hours for field experience in management (12/78).

NER-OM-002

OPTICALMAN

OM3
OM2
OM1
OMC
OMCS

Exhibit Dates: 1/88-12/90.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *OM3:* Opticalman, Third Class (E-4). *OM2:* Opticalman, Second Class (E-5). *OM1:* Opticalman, First Class (E-6). *OMC:* Chief Opticalman (E-7). *OMCS:* Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Summary: Performs maintenance on small navigational instruments, binoculars, gunsights, range finders, submarine and turret periscopes, night vision sights, and other optical instruments. *OM3:* Operates lathe, milling machine, bench grinder, and drill press; joins metal by soft and silver solder; repairs and overhauls binoculars, telescopes, marine alidades, fixed prism gunsight telescopes, azimuth and bearing circles, sextants, stadimeters, and magnetic compresses; performs maintenance on image-intensifying and night vision sights, and on external fittings of submarine periscopes; recements lenses using a lens centering instrument; uses the metric and English systems of measurement to determine focal lengths, dioptric strength, and magnifying power of a positive and negative lens; uses and maintains hand tools; completes maintenance data forms. *OM2:* Able to perform the duties required for OM3; reads blueprints and sketches; makes mechanical parts for optical instruments; removes and installs submarine periscopes; repairs and overhauls ship-mounted binoculars, submarine periscopes, and tilting-prism gunsight telescopes; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *OM1:* Able to perform the duties required for OM2; establishes alignment references, autocollination, base and line transfer, and azimuth transfer; performs complete overhaul of MK21 rangefinders; prepares and maintains records, logs, reports, and work requests; maintains current naval publications concerning standard optical equipment; reviews completed maintenance data forms; prepares weekly maintenance schedule. *OMC:* Able to perform the duties required for OM1; coordinates repair and maintenance programs for measuring instruments; supervises equipment inspections; supervises training of personnel in repair and overhaul of optical equipment; plans, schedules, and assigns repair work; prepares quarterly maintenance schedules; supervises repair of precision measuring mechanical and optical instruments; applies laboratory calibration services providing standards for pressure, temperature, flow, and linear measurements. *OMCS:* Able to perform the duties required for OMC; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair maintenance records; organizes, schedules, and evaluates training programs; coordinates quality assurance audits; prepares work estimates; administers a long-range planned maintenance program.

Recommendation, OM3

In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 2 in machine tool operation, 1 in electro-mechanical technology, 3 in optical laboratory, and 1 in recordkeeping (3/90).

Recommendation, OM2

In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 3 in machine tool operation, 2 in electronic systems troubleshooting and repair, 2 in electro-mechanical technology, 4 in optical laboratory, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, OM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 3 in electronic systems troubleshooting and repair, 3 in electro-mechanical technology, 4 in optical laboratory, 2 in maintenance management, 2 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, OMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 3 in electronic systems troubleshooting and repair, 3 in electro-mechanical technology, 4 in optical laboratory, 3 in maintenance management, 2 in recordkeeping, and 3 in principles of supervision (3/90).

Recommendation, OMCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

NER-OM-003

OPTICALMAN

OM3
OM2
OM1
OMC
OMCS
OMCM

Exhibit Dates: 1/91–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *OM3:* Opticalman, Third Class (E-4). *OM2:* Opticalman, Second Class (E-5). *OM1:* Opticalman, First Class (E-6). *OMC:* Chief Opticalman (E-7). *OMCS:* Senior Chief Opticalman (E-8). *OMCM:* Master Chief Opticalman (E-9).

Description

Summary: Performs maintenance on small navigational instruments, binoculars, gunsights, range finders, submarine and turret periscopes, night vision sights, and other optical instruments. *OM3:* Operates lathe, milling machine, bench grinder, and drill press; joins metal by soft and silver solder; repairs and overhauls binoculars, telescopes, marine alidades, fixed prism gunsight telescopes, azimuth and bearing circles, sextants, stadimeters, and magnetic compresses; performs maintenance on image-intensifying and night vision sights, and on external fittings of submarine periscopes; recements lenses using a lens centering instrument; uses the metric and English systems of measurement to determine focal lengths, dioptric strength, and magnifying power of a positive and negative lens; uses and maintains hand tools; completes maintenance data forms. *OM2:* Able to perform the duties required for OM3; reads blueprints and sketches; makes mechanical parts for optical instruments; removes and installs submarine periscopes; repairs and overhauls ship-mounted binoculars, submarine periscopes, and tilting-prism gunsight telescopes; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *OM1:* Able to perform the duties required for OM2; establishes alignment references, autocollination, base and line transfer, and azimuth transfer; performs complete overhaul of MK21 rangefinders; prepares and maintains records, logs, reports, and work requests; maintains current naval publications concerning standard optical equipment; reviews completed maintenance data forms; prepares weekly maintenance schedule. *OMC:* Able to perform the duties required for OM1; coordinates repair and maintenance programs for measuring instruments; supervises equipment inspections; supervises training of personnel in repair and overhaul of optical equipment; plans, schedules, and assigns repair work; prepares quarterly maintenance schedules; supervises repair of precision measuring mechanical and optical instruments; applies laboratory calibration services providing standards for pressure, temperature, flow, and linear measurements. *OMCS:* Able to perform the duties required for OMC; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair maintenance records; organizes, schedules, and evaluates training programs; coordinates quality assurance audits; prepares work estimates; administers a long-range planned maintenance program. *OMCM:* Able to perform the duties required for OMCS; develops procedures for conducting safety programs and monitoring compliance; plans, organizes, implements, and controls activities in accordance with policies and directives; forecasts future requirements; assists in the management of records; coordinates liaison between repair activities and ship or shipyard; manages repair division; schedules repair work; develops operating budgets and monitors expenditures.

Recommendation, OM3

In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 2 in machine tool operation, 1 in electro-mechanical technology, 3 in optical laboratory, and 1 in recordkeeping (3/90).

Recommendation, OM2

In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 3 in machine tool operation, 2 in electronic systems troubleshooting and repair, 2 in electro-mechanical technology, 4 in optical laboratory, 1 in recordkeeping, and 1 in principles of supervision (3/90).

Recommendation, OM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 3 in electronic systems troubleshooting and repair, 3 in electro-mechanical technology, 4 in optical laboratory, 2 in maintenance management, 2 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, OMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 3 in machine tool operation, 3 in electronic systems troubleshooting and repair, 3 in electro-mechanical technology, 4 in optical laboratory, 3 in maintenance management, 2 in recordkeeping, and 3 in principles of supervision (3/90).

Recommendation, OMCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/90).

Recommendation, OMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OMCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/90).

NER-OS-001

OPERATIONS SPECIALIST

OS3
OS2
OS1
OSC
OSCS
OSCM

Exhibit Dates: 6/72–12/87. NOTE: Until 6/73, the title of this rating was Radarman (RD).

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: Seaman (E-3). *OS3:* (RD3) Operations Specialist Third Class (Radarman Third Class) (E-4). *OS2:* (RD2) Operations Specialist Second Class (Radarman Second Class) (E-5). *OS1:* (RD1) Operations Specialist First Class (Radarman First Class) (E-6). *OSC:* (RDC) Chief Operations Specialist (Chief Radarman) (E-7). *OSCS:* (RDCS) Senior Chief Operations Specialist (Senior Chief Radarman) (E-8). *OSCM:* (RDCM) Master Chief Operations Specialist (Master Chief Radarman) (E-9).

Description

Summary: Operates radar and associated equipment; identifies and maintains a display (plot) of the movement of ships, aircraft, missiles, and natural objects detected by observing a radar; maintains a radar navigation plot of own ship's movement; evaluates information collected by radar and appropriately disseminates it; performs routine preventive maintenance on radar equipment; operates radiotelephones. *OS3:* (RD3) Operates a radar/console screen, observing objects detected by the radar and displayed on the radar screen; identifies the objects detected, determines their movement, and disseminates this information to users by internal communications systems; operates radiotelephones; plots and maintains current display of objects detected; determines own ship's position on nautical charts using ranges, bearing, and, standard navigational symbols; changes given positions into grid coordinates; knows the basic functions and interrelations of the modulator, receiver, antenna, control, and indicator units; reads electronic block diagrams; solves maneuvering board problems for course, speed, closest point of approach, true wind, and desired wind. *OS2:* (RD2) Able to perform the duties required for OS3 (RD3); tests radar and associated electronic equipment; supervises and trains personnel operating radar and associated electronic equipment, plotting display information, operating radiotelephones and log keeping; solves course and speed problems, using polar coordinate graph papers; performs duties of marine coaster radar navigator, using nautical charts; maintains strategic geographic and surface plots; interprets international and inland Nautical Rules of the Road. *OS1:* (RD1) Able to perform the duties required for OS2 (RD2); assigns duties to operations specialist personnel and supervises their performance; performs as supervisor of a watch section, directing the task performance of plotters, radiotelephone operators, radar operators, and other members of the watch section; prepares weekly schedules of preventive maintenance. *OSC:* (RDC) Able to perform the duties required for OS1 (RD1); supervises the training program for operation specialists; prepares quarterly preventive maintenance schedules; supervises the performance of preventive maintenance; serves as an assistant to the officer in charge of the Communications Information Center; serves as piloting officer during radar assisted piloting. *OSCS:* (RDCS) Able to perform the duties required for OSC (RDC): prepares correspondence and other wirtten instructions and directives; organizes, schedules and evaluates training program; administers long-range radar equipment maintenance program; provides superiors with information and advice on utilization and capabilities of personnel, equipment, and material in area of responsibility; interviews, evaluates, and assigns personnel; establishes work priorities. *OSCM:* (RDCM) Able to perform the duties required for OSCS (RDCS); performs technical administrative functions; establishes objectives and sets priorities; reviews personnel, equipment, and material requirements; plans, organizes, and implements activities in accordance with policies and procedures; coordinates repair and maintenance programs in accordance with ship's operating schedule, develop budgets and monitors expenditures.

Recommendation, OS3

(RD3) In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, and 2 in basic electronics. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship and 2 in basic electronics (12/76).

Recommendation, OS2

(RD2) In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 1 in record keeping, and 1 in personnel supervision (12/76).

Recommendation, OS1

(RD1) In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), and 2 in record keeping; if designated as a qualified air controller, additional credit in air traffic control on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 2 in record keeping, and 2 in personnel supervision; if designated as a qualified air controller, additional credit in air traffic control on the basis on institutional evaluation (12/76).

Recommendation, OSC

(RDC) In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 3 in personnel supervision, 3 for field experience in management, and 2 in record keeping; if designated as a qualified air controller, additional credit in air traffic control on the basis of institutional evaluation (12/76).

Recommendation, OSCS

(RDCS) In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 3 in personnel supervision, 3 for field experience in management, 3 in management electives, and 2 in record keeping; if designated as a qualified air controller, additional credit in air traffic control on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, OSCM

(RDCM) In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OSCS. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in personnel management, and additonal credit in human relations on the basis of institutional evaluation (12/76).

NER-OS-002

OPERATIONS SPECIALIST

OS3
OS2
OS1
OSC
OSCS
OSCM

Exhibit Dates: 1/88–Present.

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: Seaman (E-3). *OS3:* Operations Specialist Third Class (E-4). *OS2:* Operations Specialist Second Class (E-5). *OS1:* Operations Specialist First Class (E-6). *OSC:* Chief Operations Specialist (E-7). *OSCS:* Senior Chief Operations Specialist (E-8). *OSCM:* Master Chief Operations Specialist (E-9).

Description

Summary: Operates radar and associated equipment; identifies and maintains a display (plot) of the movement of ships, aircraft, missiles, and natural objects detected by observing a radar; maintains a radar navigation plot of own ship's movement; evaluates information collected by radar and appropriately disseminates it; performs routine preventive maintenance on radar equipment; operates radiotelephones. *OS3:* Operates a radar/console screen, observing objects detected by the radar and displayed on the radar screen; identifies the objects detected, determines their movement, and disseminates this information to users by internal communications systems; operates radiotelephones; plots and maintains current display of objects detected; determines own ship's position on nautical charts using ranges, bearing, and standard navigational symbols; changes given positions into grid coordinates, knows the basic functions and interrelations of the modulator, receiver, antenna, control, and indicator units; reads electronic block diagrams; solves maneuvering board problems for course, speed, closest point of approach, true wind, and desired wind. *OS2:* Able to perform the duties required for OS3; tests radar and associated electronic equipment; supervises and trains personnel operating radar and associated electronic equipment, plotting display information, operating radiotelephones and log keeping; solves course and speed problems, using polar coordinate graph paper; performs duties of marine coastal radar navigator, using nautical charts; maintains strategic geographic and surface plots; interprets international and inland Nautical Rules of the Road. *OS1:* Able to perform the duties required for OS2; assigns duties to operations specialist personnel and supervises their performance; performs as supervisor of a watch section, directing the task performance of plotters, radiotelephone operators, and other members of the watch section; prepares weekly schedules of preventive maintenance. *OSC:* Able to perform the duties required for OS1; supervises the training program for operation specialist; prepares quarterly preventive maintenance schedules; supervises the performance of preventive maintenance; serves as an assistant to the officer in charge of the Communications Information Center; serves as piloting officer during radar assisted piloting. *OSCS:* Able to perform the duties required for OSC; prepares correspondence and other written instructions and directives; organizes, schedules and evaluates training program; administers long-range radar equipment maintenance program; provides superiors with information and advice on utilization and capabilities of personnel, equipment, and material in area of responsibility; interviews, evaluates, and assigns personnel; establishes work priorities. *OSCM:* Able to perform the duties required for OSCS; performs technical administrative functions; establishes objectives and sets priorities; reviews personnel, equipment, and material requirements; plans, organizes, and implements activities in accordance with policies and procedures; coordinates repair and maintenance programs in accordance with ship's operating schedule; develops budgets and monitors expenditures.

Recommendation, OS3

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 2 in seamanship, 1 in computer applications, 1 in technical mathematics, and 2 in electronic systems maintenance (12/89).

Recommendation, OS2

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 3 in seamanship, 1 in computer applications, 3 in technical mathematics, 3 in electronic systems maintenance, 3 in radar navigation, 1 in personnel supervision, and 1 in recordkeeping (12/89).

Recommendation, OS1

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 3 in seamanship, 1 in computer applications, 3 in technical mathematics, 3 in electronic systems maintenance, 3 in radar navigation, 3 in personnel supervision, 1 in recordkeeping, and 1 in supply management (12/89).

Recommendation, OSC

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation, 3 in seamanship, 1 in computer applications, 3 in technical mathematics, 3 in electronic systems maintenance, 3 in radar navigation, 3 in personnel supervision, 1 in recordkeeping, 2 in supply management, and 1 in personnel administration (12/89).

Recommendation, OSCS

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, OSCM

In the vocational certificate category, 3 semester hours in radar operations. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OSC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-OT-001

OCEAN SYSTEMS TECHNICIAN

OT3
OT2
OT1
OTC
OTCS
OTCM

Exhibit Dates: 6/71-8/84.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman. *OT3:* Ocean Systems Technician, Third Class (E-4). *OT2:* Ocean Systems Technician, Second Class (E-5). *OT1:* Ocean Systems Technician, First Class (E-6). *OTC:* Chief Ocean Systems Technician (E-7). *OTCS:* Senior Chief Ocean Systems Technician (E-8). *OTCM:* Master Chief Ocean Systems Technician (E-9).

Description

NOTE: Ocean Systems Technicians follow either the OPERATIONS track or the TECHNICIAN track. Operators are identified by the following NEC's: OT-611, Improved SOSUS Operator/Analyst; OT-0612, SOSUS Operator/Analyst; OT-0613, TASS Operator/Analyst; or OT-0614, SURTASS Operator/Analyst. Technicians are identified by the following NEC's: OT00622, Ocean Systems Maintenance; OT-0623, TASS Maintenance Technician; OT-0624 SURTASS Maintenance Technician; or OT-0625, SOSUS ADP Maintenance Technician. NOTE: Many of the required duties for this rating involve classified materials, equipment, and activities; therefore, not all the competencies and knowledges associated with the rating were evaluated. *Summary:* (Operations Track) Collects oceanographic data on the underwater acoustical signals; processes this information for automatic data processing and forwards information to superiors; has knowledge of basic oceanography, underwater acoustics, sonar systems, and computer data input. *OT3:* (Operations) Analyzes various acoustic displays and converts displayed information into a format acceptable for computer input; has knowledge about the operation of computer systems. *OT2:* (Operations) Able to perform the duties required for OT3; performs plotting and navigation tasks; has knowledge of a variety of acoustic signal processors designed to collect data on underwater sound. *OT1:* (Operations) Able to perform the duties required for OT2; trains and supervises lower-level personnel; serves as watch coordinator, directing and supervising the performance of 420 personnel in the watch section. *OTC:* (Operations) Able to perform the duties required for OT1, supervises the training of personnel in the operation of underwater acoustic equipment and in the gathering and processing of oceanographic data. *OTCS:* (Operations) Able to perform the duties required for OTC, prepares correspondence and written instructions; organizes, schedules, and evaluates training programs; implements a program for evaluating and assigning personnel. *OTCM:* (Operations) Able to perform the duties required for OTCS, performs operational administrative functions; establishes objectives and sets priorities; plans and organizes activities to achieve objectives, develops budgets and monitors expenditures; serves as technical advisor for operations. *Summary:* (Maintenance Track): Performs preventive maintenance, troubleshooting, and repair of all operational systems (containing both analog and digital equipment, including digital computers) used by Ocean Systems Technicians. *OT3:* (Maintenance) Repairs and performs maintenance on several operational systems; uses basic test equipment, schematics, and instruction manuals to troubleshoot electronic equipment. *OT2:* (Maintenance) Able to perform the duties required for OT3, repairs and performs maintenance on additional operational systems; solves more complex troubleshooting problems; works with digital equipment and computers. *OT1:* (Maintenance) Able to perform the duties required for OT2; has acquired extensive background in the maintenance and repair of the operational systems; solves difficult nonroutine troubleshooting problems; supervises the maintenance and repair of oceanographic/acoustic equipment. *OTC:* (Maintenance) Able to perform the duties required for OT1; supervises the training of personnel in the maintenance and repair of oceanographic/acoustic equipment; administers a maintenance and repair program. *OTCS:* (Maintenance) Able to perform the duties required for OTC; prepares written instructions and correspondence; organizes, schedules, and evaluates training program; develops and implements a program for evaluating and assigning personnel. *OTCM:* (Maintenance) Able to perform the duties required for OTCS; performs technical administrative functions; establishes objectives and goals; plans, organizes, and controls activities to achieve objectives; serves as a technical advisor in the maintenance area; develops budgets and monitors expenditures.

Recommendation, OT3

OPERATIONS: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation. MAINTENANCE: In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 4 in circuit theory, 3 in system maintenance, 3 in digital electronics, 2 in microprocessors, and 1 in computer organization. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 3 in circuit theory, 2 in systems maintenance, 3 in digital electronics, 2 in microprocessors, and 1 in computer organization (6/81).

Recommendation, OT2

OPERATIONS: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation. MAINTENANCE: In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 4 in circuit theory, 5 in system maintenance, 3 in digital electronics, 2 in microprocessors, and 2 in computer organization. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 3 in circuit theory, 4 in system maintenance, 3 in digital electronics, 2 in microprocessors, and 2 in computer organization (6/81).

Recommendation, OT1

OPERATIONS: In the vocational certificate category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 2 in personnel supervision, 3 in human relations, and credit in oceanography on the basis of institutional evaluation. MAINTENANCE: In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 4 in circuit theory, 6 in system maintenance, 3 in digital electronics, 2 in microprocessors, and 3 in computer organization. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 3 in circuit theory, 5 in system maintenance, 3 in digital electronics, 2 in microprocessors, 3 in computer organization, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations (6/81).

Recommendation, OTC

OPERATIONS: In the vocational certificate category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in personnel supervision, 3 in human relations, and credit in oceanography on the basis of institutional evaluation. MAINTENANCE: In the vocational certificate category, the recommendation is the same as that for OT1. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 3 in circuit theory, 5 in system maintenance, 3 in digital electronics, 2 in microprocessors, 3 in computer organization, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations (6/81).

Recommendation, OTCS

OPERATIONS AND MAINTENANCE: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

Recommendation, OTCM

OPERATIONS and MAINTENANCE: In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (6/81).

NER-OT-002

Ocean Systems Technician, Master Chief

OTCM

Exhibit Dates: 9/84–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

May progress to OTCM, Master Chief Ocean Systems Technician (E-9), from either OTACS, Senior Chief Ocean Systems Technician, Analyst (E-8), or OTMCS, Senior Chief Ocean Systems Technician, Maintainer (E-8).

Description

Able to perform the duties required for OTACS, Senior Chief Ocean Systems Technician, Analyst, or OTMCS, Senior Chief Ocean Systems Technician, Maintainer; performs technical and operational administrative functions; establishes objectives and goals; plans, organizes, and controls activities to achieve objectives; serves as a technical advisor in the maintenance and operations areas; develops budgets and monitors expenditures.

Recommendation, OTCM

In the lower-division baccalaureate/associate degree category, if the individual progressed to OTCM from OTACS, Senior Chief Ocean Systems Technician, Analyst, grant the credit for OTACS in exhibit NER-OTA-001; if the individual progressed from OTMCS, Senior Chief Ocean Systems Technician, Maintainer, grant the credit for OTMCS in exhibit NER-OTM-001. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/85).

NER-OTA-001

Ocean Systems Technician, Analyst

OTA3
OTA2
OTA1
OTAC
OTACS

Exhibit Dates: 9/84–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman. *OTA3:* Ocean Systems Technician, Analyst, Third Class (E-4). *OTA2:* Ocean Systems Technician, Analyst, Second Class (E-5). *OTA1:* Ocean Systems Technician, Analyst, First Class (E-6). *OTAC:* Chief Ocean Systems Technician, Analyst (E-7). *OTACS:* Senior Chief Ocean Systems Technician, Analyst (E-8). *OTCM:* Master Chief Ocean Systems Technician (E-9).

Description

Summary: Collects oceanographic data on underwater acoustical signals; processes this information for automatic data processing and forwards information to superiors; has knowledge of basic oceanography, underwater acoustics, sonar systems, and computer data input. *OTA3:* Analyzes various acoustic displays and converts displayed information into a format acceptable for computer inputs; has knowledge about the operation of computer systems. *OTA2:* Able to perform the duties required for OTA3; performs plotting and navigation tasks; has knowledge of a variety of acoustic signal processors designed to collect data on underwater sound. *OTA1:* Able to perform the duties required for OTA2; trains and supervises lower-level personnel; serves as watch coordinator, directing and supervising the performance of 420 personnel in the watch section. *OTAC:* Able to perform the duties required for OTA1; supervises the training of personnel in the operation of underwater acoustic equipment and in the gathering and processing of oceanographic data. *OTACS:* Able to perform the duties required for OTAC; prepares correspondence and written inspections; organizes schedules and evaluates training programs; implements a program for evaluating and assigning personnel.

Recommendation, OTA3

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation (10/85).

Recommendation, OTA2

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing and credit in oceanography on the basis of institutional evaluation (10/85).

Recommendation, OTA1

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in personnel supervision, 2 in introduction to management, and credit in oceanography on the basis of institutional evaluation (10/85).

Recommendation, OTAC

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in personnel supervision, 3 in introduction to management, and credit in oceanography on the basis of institutional evaluation (10/85).

Recommendation, OTACS

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing, 3 in personnel supervision, 3 in introduction to management, and credit in oceanography on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/85).

NER-OTM-001

Ocean Systems Technician, Maintainer

OTM3
OTM2
OTM1
OTMC
OTMCS

Exhibit Dates: 9/84–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman. *OTM3:* Ocean Systems Technician, Maintainer, Third Class (E-4). *OTM2:* Ocean Systems Technician, Maintainer, Second Class (E-5). *OTM1:* Ocean Systems Technician, Maintainer, First Class (E-6). *OTMC:* Chief Ocean Systems Technician, Maintainer (E-7). *OTMCS:* Senior Chief Ocean Systems Technician, Maintainer (E-8). *OTCM:* Master Chief Ocean Systems Technician (E-9).

Description

Summary: Performs preventive maintenance, troubleshooting, and repair of all operational systems (containing both analog and digital equipment, including digital computer) used by Ocean Systems Technicians. *OTM3:* Repairs and performs maintenance on several operational systems; uses basis test equipment, schematics, and instruction manuals to troubleshoot electronic equipment. *OTM2:* Able to perform the duties required for OTM3; repairs and performs maintenance on additional operational systems; solves more complex troubleshooting problems; works with digital equipment and computers. *OTM1:* Able to perform the duties required for OTM2; has acquired extensive background in the maintenance and repair of the operational systems; solves difficult nonroutine troubleshooting problems; supervises the maintenance and repair of oceanographic/acoustic equipment. *OTMC:* Able to perform the duties required for OTM1; supervises the training of personnel in the maintenance and repair of oceanographic/acoustic equipment; administers a maintenance and repair program. *OTMCS:* Able to perform the duties required for OTMC; prepares written instructions and correspondence; organizes, schedules, and evaluates training program; develops and implements a program for evaluating and assigning personnel.

Recommendation, OTM3

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in basic electronics, 3 in circuit theory, 2 in systems maintenance, 3 in digital electronics, 2 in microprocessors, and 2 in computer organization (10/85).

Recommendation, OTM2

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in basic electronics, 3 in circuit theory, 4 in systems maintenance, 3 in digital electronics, 3 in microprocessors, and 2 in computer organization (10/85).

Recommendation, OTM1

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in basic electronics, 3 in circuit theory, 5 in systems maintenance, 3 in digital electronics, 3 in microprocessors, 3 in computer organization, 3 in personnel supervision, 2 in maintenance management, and 2 in introduction to management (10/85).

Recommendation, OTMC

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in basic electronics, 3 in circuit theory, 5 in systems maintenance, 3 in digital electronics, 3 in microprocessors, 3 in computer organization, 3 in personnel supervision, 3 in maintenance management, and 3 in introduction to management (10/85).

Recommendation, OTMCS

In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 2 in basic electronics, 3 in circuit theory, 5 in systems maintenance, 3 in digital electronics, 3 in microprocessors, 3 in computer organization, 3 in personnel supervision, 3 in maintenance management, and 3 in introduction to management. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/85).

NER-PC-001

Postal Clerk

PC3
PC2
PC1
PCC
PCCS
PCCM

Exhibit Dates: 6/72–12/87.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *PC3:* Postal Clerk Third Class (E-4). *PC2:* Postal Clerk Second Class (E-5). *PC1:* Postal Clerk First Class (E-6). *PCC:* Chief Postal Clerk (E-7). *PCCS:* Senior Chief Postal Clerk (E-8). *PCCM:* Master Chief Postal Clerk (E-9).

Description

Summary: Operates Navy post office. *PC3:* Performs postal counterwork, including selling stamps, processing international money orders, and collecting and remitting COD charges; performs general clerical duties, including mail sorting and distribution, and record maintenance; able to type 20 words per minute. *PC2:* Able to perform the duties required for PC3; establishes mail transportation schedules and routes; supervises and trains personnel in the operation of a Navy post office; supervises preparation, maintenance, and distribution of local postal records and reports. *PC1:* Able to perform the duties required for PC2; audits and reviews inspection reports of Navy post offices; prepares parent office reports; able to assume the duties, responsibilities, and functions of a postal officer when necessary. *PCC:* Able to perform the duties required for PC1; supervises postal counter and sorting activities; ensures compliance with customs procedures; supervises postal office procedures. *PCCS:* Able to perform the duties required for PCC; conducts inspections of Navy post offices and develops recommendations for the improvement of postal operations; prepares correspondence; develops evaluation programs dealing with personnel and management efficiency. *PCCM:* Able to perform the duties required for PCCS; develops and monitors operating budgets; forecasts future manpower and material requirements; develops basic plans for implementing policy statements and directives; establishes goals, objectives, and priorities in own area of responsibility.

Recommendation, PC3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in mail processing and 2 in postal customer services (12/76).

Recommendation, PC2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 2 in postal customer services, 3 in postal delivery and collection, and 4 in mail processing (12/76).

Recommendation, PC1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in postal customer services, 3 in postal delivery and collection, and 6 in mail processing (12/76).

Recommendation, PCC

In the vocational certificate category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, 3 in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, and additional credit for field experience in management on the basis of institutional evaluation (12/76).

Recommendation, PCCS

In the vocational certificate category, the recommendation is the same as that for PCC. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, 3 in office management, 3 in communication (written), 3 in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in human relations and for a practicum in management on the basis of institutional evaluation (12/76).

Recommendation, PCCM

In the vocational certificate category, the recommendation is the same as that for PCC. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, 3 in office management, 3 in communication (written), 3 for management electives, 3 in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation (12/76).

NER-PC-002

Postal Clerk

PC3
PC2
PC1
PCC
PCCS
PCCM

Exhibit Dates: 1/88–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *PC3:* Postal Clerk, Third Class (E-4). *PC2:* Postal Clerk, Second Class (E-5). *PC1:* Postal Clerk, First Class (E-6). *PCC:* Chief Postal Clerk (E-7). *PCCS:* Senior Chief Postal Clerk (E-8). *PCCM:* Master Chief Postal Clerk (E-9).

Description

Summary: Operates Navy post office. *PC3:* Performs postal counterwork, including selling stamps, processing international money orders, and collecting and remitting COD charges; performs general clerical duties, including mail sorting and distribution, and record maintenance; advises personnel on packaging and preparation of customs declarations; able to type 20 words per minute. *PC2:* Able to perform the duties required for PC3; establishes mail transportation schedules and routes; supervises and trains personnel in the operation of a Navy post office; supervises preparation, maintenance, and distribution of local postal records and reports. *PC1:* Able to perform the duties required for PC2; audits and reviews inspection reports of Navy post offices; prepares parent office reports; collects and remits postage meter funds; able to assume the duties, responsibilities, and functions of a postal officer when necessary. *PCC:* Able to perform the duties required for PC1; supervises postal counter and sorting activities; ensures compliance with customs procedures; audits Navy post offices; supervises postal office procedures in a large Navy post office. *PCCS:* Able to perform the duties required for PCC; conducts inspections of Navy post offices and develops recommendations for the improvement of postal operations; prepares correspondence; develops evaluation programs dealing with personnel and management efficiency; conduct work simplification and efficiency analysis. *PCCM:* Able to perform the duties required for PCCS; develops and monitors operating budgets; forecasts future manpower and material requirements; develops basic plans for implementing policy statements and directives; establishes goals, objectives, and priorities in own area of responsibility; develops operating budget and monitors expenditures; develops transportation plans for mail routing in bulk.

Recommendation, PC3

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 2 in interpersonal communications or postal customer services, and 3 in postal practices and procedures (3/90).

Recommendation, PC2

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 2 in interpersonal communications or postal customer services, 4 in postal practices and procedures, and 3 in postal delivery and collection (3/90).

Recommendation, PC1

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in interpersonal communications or postal customer services, 6 in postal practices and procedures, 3 in postal delivery and collection, 2 in recordkeeping, and 3 in clerical procedures. In the upper-division baccalaureate category, 2 semester hours in logistics management (3/90).

Recommendation, PCC

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in interpersonal communications or postal customer services, 6 in postal practices and procedures, 3 in postal delivery and collection, 2 in recordkeeping, 3 in clerical procedures, 3 in principles of supervision, and 3 in postal problems analysis. In the upper-division baccalaureate category, 3 semester hours in logistics management (3/90).

Recommendation, PCCS

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in interpersonal communications or postal customer services, 6 in postal practices and procedures, 3 in postal delivery and collection, 2 in recordkeeping, 3 in clerical procedures, 3 in principles of supervision, 3 in postal problems analysis, and 2 in technical writing. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 in logistics management (3/90).

Recommendation, PCCM

In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding, 3 in interpersonal communications or postal customer services, 6 in postal practices and procedures, 3 in postal delivery and collection, 2 in recordkeeping, 3 in clerical procedures, 3 principles of supervision, 3 in postal problems analysis, and 3 in technical writing. In the upper-division baccalaureate category, 3 semester hours in management problems and 3 in logistics management (3/90).

NER-PH-001

Photographer's Mate

PH3
PH2
PH1
PHC
PHCS
PHCM

Exhibit Dates: 6/71–Present.

Occupational Field: 17 (Media).

Career Pattern

AN: Airman (E-3). *PH3:* Photographer's Mate Third Class (E-4). *PH2:* Photographer's Mate Second Class (E-5). *PH1:* Photographer's Mate First Class (E-6). *PHC:* Chief Photographer's Mate (E-7). *PHCS:* Senior Chief Photographer's Mate (E-8). *PHCM:* Master Chief Photographer's Mate (E-9).

Description

Summary: Makes pictorial records of historical and newsworthy events, finished prints, strip photographs, and mosaics; maintains photographic equipment and accessories. *PH3:* Operates 16-mm silent motion picture cameras, 4' x 5' press cameras, copy cameras, view cameras, 2 1/2' format roll film cameras, 35-mm rangefinder-equipped still cameras, 35-mm single-lens-reflex cameras, contact printers, black-and white projection printers, sensitometers, densitometers, color projection printers, color analyzers, exposure meters, and automatic processing machine; photographs small metal parts, architectural structures, persons (formal and informal portraits), and interior and and exterior scenes; processes the following: black-and-white transparencies from black-and white continuous tone originals, high contract transparencies from black-and-white line originals; black-and-white transparencies from multicolored originals; high-contrast black-and-white transparencies from color line originals; color transparencies maintaining the density and color balance of original; sheet and roll film to negatives and affixes identification information; black-and-white negatives from multicolored orginals to show complete separation of the colors as tones; black-and-white contact prints from selected negatives; black-and white projection prints from negatives with variable contrast paper and the correct printing filters; and color corrected prints (custom prints) from color negatives; uses painted light techniques, filters, natural lighting, light enhancement techniques, photoflash techniques, stop motion techniques, selective focus techniques, and basic lighting arrangement; produces prints from copy negatives to show complete separation of the colors as tones; prepares stock/working solutions from prepackaged materials; prepares print rooms for printing black-and white negatives; observes copyright and reproduction regulations; performs operator maintenance on photographic equipment and accessories; performs weekly and monthly maintenance on automatic processing machines. *PH2:* Able to perform the duties required for PH3; operates and maintains portable TV cameras and portable video tape recorders; photographs the interiors of large structures, harbor and port facilities, ships, aircraft, and terrain; processes second-generation black-and-white negatives and large format (16' x 20' minimum) black-and-white, double weight prints; uses motion picture scene-sequencing technique, motion picture editing techniques (silent motion picture film), broad-, short-, and side-lighting techniques, subject posing techniques, and background selection techniques; selects equipment, scale, and coverage for hand-held aerial photographs; establishes master filter packs for printing color negatives; orders standard stock items. *PH1:* Able to perform the duties required for PH2; prepares storyboards for use in producing silent motion pictures; prepares slide presentations with taped narrative; use TV spot news motion picture coverage techniques and motion picture editing techniques; photographs cathode ray tube imager for recording and image retrieval/interpretation; evaluates control charts to determine trends, shifts, and cycles and monitors process control; prepares duplicate negatives and positives from original film for image interpretation; supervises operator maintenance or photographic equipment and accessories; supervises photographic work center. *PHC:* Able to perform the duties required for PH1; provides silent motion picture film for release to television stations for news shows; plans missions for hand-held aerial photographic coverage; supervises maintenance of photographic files and records; ensures that forwarding and releasing deadline requirements are met; schedules maintenance of photographic equipment and accessories and maintains history cards; procures non-standard stock item. *PHCS:* Able to perform the duties required for PHC; ensures compliance with copyright and reproduction regulations; prepares local directives and instructions; prepares correspondence; interviews, assigns, and evaluates personnel to assure maximum utilization; organizes, schedules, and evaluates training programs; determines photographic equipment and supply requirements and coordinates procurement. *PHCM:* Able to perform the duties required for *PHCS;:* reviews manpower authorizations; reviews personnel, equipment, and material requirements and forcasts future needs; establishes goals and sets priorities; develops operating budgets and monitors expenditures.

Recommendation, PH3

In the vocational certificate category, 6 semester hours in camera and accessories operation, 6 in photography techniques, and 6 in photo processing. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 2 in camera techniques, 2 in darkroom techniques, 2 for an internship in photography/cinema, and 1 in color photography (2/77).

Recommendation, PH2

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 2 in film production, 2 for an internship in photography/cinema, 1 in portraiture, and 1 in color photography (2/77).

Recommendation, PH1

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 1 in portraiture, 1 in color photography, 1 in technical photography, and 1 in personnel supervision (2/77).

Recommendation, PHC

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 2 in technical photography, 2 in personnel supervision, 1 in maintenance management, 1 in portraiture, and 1 in color photography (2/77).

Recommendation, PHCS

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 3 in personnel supervision, 2 in technical photography, 2 in maintenance management, 1 in portraiture, and 1 in color photography (2/77).

Recommendation, PHCM

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PHCS. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in organization and planning (2/77).

NER-PI-001

Precision Instrumentman, Master Chief

PICM

Exhibit Dates: 6/71–12/89.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from either IMCS, Senior Chief Instrumentman (E-8) or OMCS, Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Able to perform the duties required for IMCS (Senior Chief Instrumentman) or OMCS (Senior Chief Opticalman); develops procedures for conducting safety programs and monitoring compliance; plans, organizes, implements, and controls activities in accordance with policies and directives; forcasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; assists in the management of records; coordinates liaison between repair activities and ship or shipyard; manages repair division; schedules repair work; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, the recommendation is the same as that for either IM1 (Instrumentman, First Class) in exhibit NER-IM-001 or OM1 (Opticalman, First Class) in exhibit NER-OM-001, as appropriate. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for either IMCS (Senior Chief Instrumentman) in exhibit NER-IM-001 or OMCS (Senior Chief Opticalman) in exhibit NER-OM-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-PI-002

PERCISION INSTRUMENTMAN, MASTER CHIEF

PICM

Exhibit Dates: 1/90–12/90. (Effective 1/91, PICM was discontinued and its duties were incorporated into Senior Chief Opticalman (NER-OM-003) and Senior Chief Instrumentman (NER-IM-003)).

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from either IMCS, Senior Chief Instrumentman (E-8) or OMCS, Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Able to perform the duties required for IMCS (Senior Chief Instrumentman) or OMCS (Senior Chief Instrumentman) or OMCS (Senior Chief Opticalman); develops procedures for conducting safety programs and monitoring compliance; plans, organizes, implements, and controls activities in accordance with policies and directives; forecasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; assists in the management of records; coordinates liaison between repair activities and ship or shipyard; manages repair division; schedules repair work; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, if progressed from Instrumentman, use the credit recommended for IMCS in exhibit NER-IM-002. In the lower-division baccalaureate/associate degree category, if progressed from Instrumentman, use the credit recommended for IMCS in exhibit NER-IM-002; if progressed from Opticalman, use the credit recommende for OMCS in exhibit NER-OM-002. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/90).

NER-PM-001

PATTERNMAKER

PM3
PM2
PM1
PMC

Exhibit Dates: 6/71–12/89.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *PM3:* Patternmaker Third Class (E-4). *PM2:* Patternmaker Second Class (E-5). *PM1:* Patternmaker First Class (E-6). *PMC:* Chief Patternmaker (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: Makes wooden, plaster, and metal patterns, core boxes, and flasks used by molders in a Navy foundry. *PM3:* Works from shop drawings and sketches to fabricate simple templates; lays out and constructs (using shrinkage rule) simple one-piece patterns; applies standard color-code finishes; positions and mounts patterns on match boards (flat and irregular parting surfaces); identifies patternmaking woods; computes board feet of lumber; uses wood fillers; identifies glues by characteristics and uses; identifies ferrous and non-ferrours metal by chip and file test; uses and cares for pyrometers and hand tools; maintains shop files. *PM2:* Able to perform the duties required for PM3; prepares sketches from mechanical drawings; fabricates layouts from mechanical drawings, feehand sketches, and castings; constructs layout of developments and cuts templates for intersection of two cylinders and constructs master patterns and patterns used for composite casting; constructs molds using flexible molding compounds; uses principles of mold construction and foundry methods for parting core arrangement, and drawing patterns from molds; designs and constructs flasks for patterns; lays out and constructs patterns and coreboxes for flanged fittings, spool patterns, elbow patterns, handwheel, pulley, shipboard standard billets, pump castings, impellers, globe valves, gate valves, steam chests, manifolds, and louvered and jacketed end-bells; identifies lumber structure and cuts, and effects of shrinkage, swelling and warping; records measurements; computes areas, volumes, weights, and quantities of lumber for patterns; designs and manufactures labor-saving devices; completes maintenance reports. *PM1:* Able to perform the duties required for PM2; constructs patterns for carbon dioxide molding process; lays out and constructs patterns for conical stave constructed patterns and for volute pump castings; constructs patterns requiring intercasting of members; constructs intricate gypsum cement patterns and core boxes; lays out and constructs patterns and core boxes for double action impellers, and spur, bevel, and worn gear blanks; manufactures patterns using plastic materials; constructs tensile test coupon patterns with gating system and risers attached; designs and uses pattern padding required for control of solidification; determines need for and constructs full core boxes for one-piece cores; determines requirements for and constructs proper gating system attached to patterns; prepares maintenance schedules. *PMC:* Able to perform the duties required for PM1; estimates cost for patternmaking jobs; prepares and maintains records and reports required for repair department; solves problems of casting design; applies principles of mold construction and foundry methods for minimizing stresses, strains, and hot spots by using chills, risers, and fillets; controls shrinkage by the use of chills, risers and pods; conducts on-the-job-training; supervises and trains personnel in the design, construction, layout, and manufacture of patterns, in identifying metals, and in the use of immersion and optical pyrometers; prepares quarterly maintenance schedules.

Recommendation, PM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 1 in machine shop, and 1 in use and care of tools (12/78).

Recommendation, PM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 1 in machine shop, and 1 in use and care of tools (12/78).

Recommendation, PM1

In the vocational certificate category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, and 2 in use and care of tools. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, 2 in use and care of tools, and 1 in shop supervision (12/78).

Recommendation, PMC

In the vocational certificate category, the recommendation is the same as that for PM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, 2 in use and care of tools, 2 in shop supervision, 2 in personnel supervision, 1 in record keeping, and 1 in safety (12/78).

NER-PM-002

PATTERNMAKER

PM3
PM2
PM1
PMC

Exhibit Dates: 1/90–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *PM3:* Patternmaker, Third Class (E-4). *PM2:* Patternmaker, Second Class (E-5). *PN1:* Patternmaker, First Class (E-6). *PMC:* Chief Patternmaker (E-7). *PMCS:* Senior Chief Patternmaker (E-8). *PMCM:* Master Chief Patternmaker (E-9).

Description

Summary: Makes wooden, plaster, and metal patterns, core boxes, flasks used by molders in a Navy foundry. *PM3:* Works from shop drawings and sketches to fabricate simple templates; lays out and constructs simple one-piece patterns; applies standard color-code finishes; identifies patternmaking woods; identifies ferrous and non-ferrous metal by chip and files. *PM2:* Able to perform the duties required for PM3; prepares sketches from mechanical drawings; fabricates layouts from mechanical drawings, freehand sketches, and castings; constructs layout of developments and cuts templates, master patterns and patterns used for composite casting; constructs molds; designs and constructs flasks for patterns; lays out and constructs patterns and coreboxes; computes areas, volumes, weights, and quantities of lumber for patterns; designs and manufactures laborsaving devices; completes maintenance reports. *PM1:* Able to perform the duties required for PM2; constructs intricate gypsum cement patterns and coreboxes; manufactures patterns using plastic materials; constructs tensile test coupon patterns with gating system and risers attached; designs and uses pattern padding required for control of solidification; prepares maintenance schedules. *PMC:* Able to perform the duties required for PM1; estimates cost for patternmaking jobs; prepares and maintains records and reports required for repair department; solves problems of casting design; applies principles of mold construction and foundry methods for minimizing stress, strains, and hot spots by using chills, risers, and fillets; controls shrinkage by the use of chills, risers and pods; conducts on-the-job training; supervises and trains personnel in the design, construction, layout, and manufacture of patterns, in identifying metals, and in the use of immersion and optical pyrometers; prepares quarterly maintenance schedules.

Recommendation, PM3

In the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 1 in mechanical drafting, 1 in woodworking laboratory, 1 in machine tool operation, and 2 in patternmaking (3/90).

Recommendation, PM2

In the lower-division baccalaureate/associate degree category, 2 semester hours in blueprint reading, 2 in mechanical drafting, 2 in woodworking laboratory, 2 in machine tool operation, 4 in patternmaking, 1 in recordkeeping, and 2 in principles of supervision (3/90).

Recommendation, PM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 2 in mechanical drafting, 3 in woodworking laboratory, 3 in machine tool operation, 6 in patternmaking, 2 in recordkeeping, and 3 in principles of supervision (3/90).

Recommendation, PMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading, 2 in mechanical drafting, 3 in woodworking laboratory, 3 in machine tool operation, 6 in patternmaking, 2 in recordkeeping, and 4 in principles of supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 1 in management problems (3/90).

NER-PN-001

Personnelman

PN3
PN2
PN1
PNC
PNCS
PNCM

Exhibit Dates: 6/71–12/89.

Occupational Field: 15 (Aministration).

Career Pattern

SN: Seaman (E-3). *PN3:* Personnelman Third Class (E-4). *PN2:* Personnelman Second Class (E-5). *PN1:* Personnelman First Class (E-6). *PNC:* Chief Personnelman (E-7). *PNCS:* Senior Chief Personnelman (E-8). *PNCM:* Master Chief Personnelman (E-9).

Description

Summary: Performs enlisted personnel administration duties. *PN3:* Performs routine office functions; performs receptionist duties; prepares and maintains personnel records; assists personnel in completing forms, letters, and requests; operates duplicating equipment; able to type reports and correspondence at 30 words per minute; prepares correspondence. *PN2:* Able to perform the duties required for PN3; organizes and monitors maintenance of files; requisitions, maintains, issues, and accounts for educational manuals and materials; advises personnel on the availability of training and educational materials, service school eligibility, availability of duty assignments, and emergency relief agencies; able to type 35 words per minute. *PN1:* Able to perform the duties required for PN2; prepares statistical summaries and reports; applies methods of work simplification; reviews completed job orders and work requests; drafts instructions and notices; supervises the procurement, custody, and handling of publications; conducts briefings and interviews concerning dependency benefits and pre-retirement matters; able to type at 40 words per minute. *PNC:* Able to perform the duties required for *PN1:*: supervises and trains personnel in classification procedures; reviews applications for special programs leading to higher education and/or commissioned rank; serves as office manager; interprets and analyzes manpower authorizations; supervises the preparation and transmittal of documents; establishes and administers training programs for personnelmen; briefs and advises personnel; performs task analysis. *PNCS:* Able to perform the duties required for PNC; supervises, monitors, and evaluates local operations; plans staffing surveys and analyzes survey results; organizes and schedules training programs; evaluates effectiveness of programs and initiates improvements. *PNCM:* Able to perform the duties required for PNCS; performs organizational analyses; develops research reports; plans, organizes, implements, and controls activities in compliance with overall policy and directives; develops operating budgets and monitors expenditures.

Recommendation, PN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing and 1 in office procedures (12/76).

Recommendation, PN2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in filing and records management, and 3 in office procedures (12/76).

Recommendation, PN1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 3 in office procedures, and 3 in communication (written) (12/76).

Recommendation, PNC

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 3 in office procedures, 3 in communication (written), 3 in office management, and 3 in human relations, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in job analysis (12/76).

Recommendation, PNCS

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 2 in personnel supervision, 3 in office procedures, 3 in communication (written), 3 in office management, 3 in human relations, and 3 in management electives, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in job analysis, and 3 in test administration, and additional credit for a practicum in management on the basis of institutional evaluation (12/76).

Recommendation, PNCM

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PNCS. In the upper-division baccalaureate category, 3 semester hours in job analysis, 3 in test administration, and 3 in management problems, and additional credit for a practicum in management on the basis of institutional evaluation (12/76).

NER-PN-002

Personnelman

PN3
PN2
PN1
PNC
PNCS
PNCM

Exhibit Dates: 1/90–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *PN3:* Personnelman, Third Class (E-4). *PN2:* Personnelman, Second Class (E-5). *PN1:* Personnelman, First Class (E-6). *PNC:* Chief Personnelman (E-7). *PNCS:* Senior Chief Personnelman (E-8). *PNCM:* Master Chief Personnelman (E-9).

Description

Summary: Performs enlisted personnel administration duties. *PN3:* Performs routine office functions; maintains files; performs receptionist duties; prepares and maintains personnel records; assists personnel in completing forms, letters, and requests; operates office equipment; able to type reports and correspondence at 30 words per minute; prepares correspondence. *PN2:* Able to perform the duties required for PN3; requisitions, maintains, issues, and accounts for educational manuals and materials; advises personnel on the availability of training and educational materials, service school eligibility, availability of duty assignments, and emergency relief agencies; performs word processing and basic ADP functions; able to type 35 words per minute. *PN1:* Able to perform the duties required for PN2; uses interpersonal communication skills effectively; prepares statistical summaries and reports; applies methods of work simplification; reviews completed job orders and work requests; drafts instructions and notices; supervises the procurement, custody, and handling of publications; conducts briefings and interviews concerning dependency benefits and pre-retirement matters; able to type at 40 words per minute. *PNC:* Able to perform the duties required for PN1; supervises and trains personnel in classification procedures; reviews applications for special programs leading to higher education and/or commissioned rank; serves as office manager; interprets and analyzes manpower authorizations; supervises the preparation and transmittal of documents; establishes and administers training programs for personnelmen; briefs and advises personnel; performs task analysis. *PNCS:* Able to perform the duties required for *PNC;:* supervises, monitors, and evaluates local operations; plans staffing surveys and analyzes surveys results; organizes and schedules training programs; evaluates effectiveness of programs and initiates improvements. *PNCM:* Able to perform the duties required for PNCS; performs organizational analyses; uses problem solving stretegies; develops research reports; plans, organizes, implements, and controls activities in compliance with overall policy and directives; develops operating budgets and monitors expenditures.

Recommendation, PN3

In the lower-division baccalaureate/associate degree category, 2 semester hours in keyboarding, 2 in office procedures, 2 in filing and records control, and 1 in word processing (3/90).

Recommendation, PN2

In the lower-division baccalaureate/associate degree category, 2 semester hours in keyboarding, 2 in office procedures, 2 in filing and records control, 2 in word processing, 2 in interpersonal communications, and 1 in a automatic data processing (ADP) operations (3/90).

Recommendation, PN1

In the lower-division baccalaureate/associate degree category, 2 semester hours in keyboarding, 2 in office procedures, 2 in filing and records control, 2 in word processing, 3 in interpersonal communications, 1 in automatic data processing (ADP) operations, 2 in technical writing, and 3 in principles of supervision. In the upper-division baccalaureate category, 3 semester hours in job analysis and 3 in human resource management (3/90).

Recommendation, PNC

In the lower-division baccalaureate/associate degree category, 2 semester hours in keyboarding, 2 in office procedures, 2 in filing and records control, 2 in word processing, 3 in interpersonal communications, 1 in automatic data processing (ADP) operations, 3 in technical writing, and 3 in principles of supervision. In the upper-division baccalaureate category, 3 semester hours in job analysis and 3 in human resource management (3/90).

Recommendation, PNCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PNC. In the upper-division baccalaureate category, 3 semester hours in job analysis, 3 in human resource management, and 2 in training methods (3/90).

Recommendation, PNCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PNC. In the upper-division baccalaureate category, 3 semester hours in job analysis, 3 in human resource management, 2 in training methods, 3 in principles of management, and 3 in management problems (3/90).

NER-PR-001

AIRCREW SURVIVAL EQUIPMENTMAN

PR3
PR2
PR1
PRC
PRCS
PRCM

Exhibit Dates: 6/71–12/84.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *PR3:* Aircrew Survival Equipmentman Third Class (E-4). *PR2:* Aircrew Survival Equipmentman Second Class (E-5). *PR1:* Aircrew Survival Equipmentman First Class (E-6). *PRC:* Chief Aircrew Survival Equipmentman (E-7). *PRCS:* Senior Chief Aircrew Survival Equipmentman (E-8). *PRCM:* Master Chief Aircrew Survival Equipmentman (E-9).

Description

Summary: Inspects, maintains, and repairs parachutes, survival equipment, and flight and protective clothing and equipment. *PR3:* Packs and rigs parachutes; packs and equips life rafts; sews, stitches, and tacks material; installs, repairs and replaces fasteners, grommets, and speedy rivets; performs preflight, postflight, turnaround, and conditional inspections of aircrew survival equipment; maintains components of oxygen masks; operates, lubricates, and adjusts sewing machines; operates carbon dioxide recharge equipment. *PR2:* Able to perform the duties required for PR3; is first-line supervisor of 4-7 persons working in parachute lofts and survival gear work centers; operates oxygen systems components test stand and liquid oxygen conventer test stand; operates test equipment for cartridge actuated devices associated with parachute systems; inspects, cleans, tests, fits, adjusts, repairs and/or replaces aircrew protective equipment; inspects, rigs, packs, and repairs aircrew inflatable survival equipment; rigs, inspects, packs, and maintains seatcontained survival kits; tests oxygen breathing-regulators and liquid oxygen converters and components. *PR1:* Able to perform the duties required for PR2; constructs, modifies, and repairs aircrew survival and associated equipment; repairs oxygen breathing-regulators, emergency oxygen systems, and liquid oxygen converters and components; maintains carbon dioxide recharge equipment; maintains test equipment for cartridge actuated devices associated with parachute systems; maintains technical publications and directives; supervises inspections; prepares weekly schedules of preventive maintenance; inventories, orders, and turns in equipment, spare parts, and materials; troubleshoots and repairs sewing machine malfunctions. *PRC:* Able to perform the duties required for PR1; monitors compliance with safety program; interprets maintenance directives and instructions; ensures maximum utilization of personnel, equipment, and facilities; estimates material, equipment, and manpower requirements; initiates recommendations concerning work center repair capabilities and facility requirements; prepares quarterly schedules of preventive maintenance; prepares reports concerning material and equipment. *PRCS:* Able to perform the duties required for PRC; recommends changes to ground and flight safety programs; assists in aircraft accident investigations; collects, disseminates, and ensures compliance with technical information concerning assigned equipment; prepares local directives and instructions for attaining objectives and improving operations; prepares correspondence; provides information and advice regarding operations in area of responsibility; implements a program for interviewing, assigning, and evaluating personnel; organizes, schedules, and evaluates training programs; administers long-range maintenance programs. *PRCM:* Able to perform the duties required for PRCS; formulates guidelines for use in safety inspections; plans and estimates workload commitments; monitors implementation of preventive maintenance program; ensures that procedures for requisitioning,receiving, storing, and transferring equipment are followed; prepares studies concerning maintenance and staff problems; plans, organizes, and coordinates functions between work centers and branches in the maintenance department; reviews and forecasts material, equipment, and personnel requirements; establishes objectives and sets priorities in area of responsibility; reviews and evaluates inspection records and quality control reports; develops operating budgets and monitors expenditures.

Recommendation, PR3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in aviation safety equipment maintenance and repair and 3 in aviation maintenance technology (12/77).

Recommendation, PR2

In the vocational certificate category, 12 semester hours in aviation safety equipment repair and maintenance and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, and 2 personnel supervision (2/77).

Recommendation, PR1

In the vocational certificate category, 15 semester hours in aviation safety equipment repair and maintenance and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, and 3 in personnel supervision (2/77).

Recommendation, PRC

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in shop management. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, PRCS

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in shop management, 3 in maintenance management, and 2 in safety management. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in organization and planning (2/77).

Recommendation, PRCM

In the vocational certificate category, the recommendation is the same as that for PR1. In the upper-division baccalaureate category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in shop management, 3 in maintenance management, 3 in safety management, and 3 in principles of administration. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in management problems, 3 in organization and planning, and 3 in quality control (2/77).

NER-PR-002

Aircrew Survival Equipmentman

PR3
PR2
PR1
PRC
PRCS
PRCM

Exhibit Dates: 1/85–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *PR3:* Aircrew Survival Equipmentman Third CLass (E-4). *PR2:* Aircrew Survival Equipmentman Second Class (E-5). *PR1:* Aircrew Survival Equipmentman First Class (E-6). *PRC:* Chief Aircrew Survival Equipmentman (E-7). *PRCS:* Senior Chief Aircrew Survival Equipmentman (E-8). *PRCM:* Master Chief Aircrew Survival Equipmentman (E-9).

Description

Summary: Inspects, maintains, and repairs parachutes, survival equipment, and flight and protective clothing and equipment. *PR3:* Packs and rigs parachutes; packs and equips life rafts; sews, stitches, and tacks material; installs, repairs, and replaces fasteners, grommets, and speedy rivets; performs preflight, postflight, turnaround, and conditional inspections of aircrew survival equipment; maintains components of oxygen masks; operates, lubricates, and adjusts sewing machines; operates carbon dioxide recharge equipment. *PR2:* Able to perform the duties required for PR3; is a first-line supervisor of 4-7 persons working in parachute lofts and survival gear work centers; operates oxygen systems components test stand and liquid oxygen converter test stand; operates test equipment for cartridge actuated devices associated with parachute systems; inspects, cleans, tests, fits, adjusts, repairs and/or replaces aircrew protective equipment; inspects, rigs, packs, and repairs aircrew inflatable survival equipment; rigs, inspects, packs, and maintains seat-contained survival kits; tests oxygen breathing-regulators and liquid oxygen convertors and components. *PR1:* Able to perform the duties required for PR2; constructs, modifies, and repairs aircrew survival and associated equipment; repairs oxygen breathing-regulators, emergency oxygen systems, and liquid oxygen convertors and components; maintains carbon dioxide recharge equipment; maintains test equipment for cartridge actuated devices associated with parachute systems; maintains technical publications and directives; supervises inspections; prepares weekly schedules of preventive maintenance; inventories, orders, and turns in equipment, spare parts, and materials; troubleshoots and repairs sewing machine malfunctions. *PRC:* Able to perform the duties required for PR1; monitors compliance with safety program; interprets maintenance directives and instructions; ensures maximum utilization of personnel, equipment, and facilities; estimates material, equipment, and manpower requirements; initiates recommendations concerning work center repair capabilities and facility requirements; prepares quarterly schedules of preventive maintenance; prepares reports concerning material and equipment. *PRCS:* Able to perform the duties required for PRC; recommends changes to ground and flight safety programs; assists in aircraft accident investigations; collects, disseminates, and ensures compliance with technical information concerning assigned equipment; prepares local directives and instructions for attaining objectives and improving operations; prepares correspondence; provides information and advice regarding operations in area of responsibility; implements a program for interviewing, assigning, and evaluating personnel; organizes, schedules, and evaluates training programs; administers long-range maintenance programs. *PRCM:* Able to perform the duties required for PRCS; formulates guidelines for use in safety inspections; plans and estimates workload commitments; monitors implementation of preventive maintenance program; ensures that procedures for requisitioning, receiving, storing, and transferring equipment are followed; prepares studies concerning maintenance and staff problems; plans, organizes, and coordinates functions between work centers and branches in the maintenance department; reviews and forecasts material, equipment, and personnel requirements; establishes objectives and sets priorities in area of responsibility; reviews and evaluates inspection records and quality control reports; develops operating budgets and monitors expenditures.

Recommendation, PR3

In the vocational certificate category, 3 semester hours in sewing machine operations and service, 3 in fabric layout and pattern design, and 3 in parachute packing (6/87).

Recommendation, PR2

In the vocational certificate category, 3 semester hours in sewing machine operations and service, 3 in fabric layout and pattern design, 3 in parachute packing, 3 in survival equipment inspection and repair, and 3 in survival equipment testing and assembly (6/87).

Recommendation, PR1

In the vocational certificate category, 3 semester hours in sewing machine operations and service, 3 in fabric layout and pattern design, 3 in parachute packing, 3 in survival equipment inspection and repair, 3 in survival equipment testing and assembly, and 3 in industrial sewing machine repair. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision (6/87).

Recommendation, PRC

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate category, 1 semester hour in shop management (6/87).

Recommendation, PRCS

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision and 3 in safety program supervision. In the upper-division baccalaureate category, 2 semester hours in shop management, 3 in shop maintenance organization and planning, 3 in quality assurance and management control, and 3 for field experience in management (6/87).

Recommendation, PRCM

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PRCS. In the upper-division baccalaureate category, 3 semester hours in shop maintenance organization and planning, 3 in quality assurance and management control, 6 for field experience in management, and 3 in shop management (6/87).

NER-QM-001

Quartermaster

QM3
QM2
QM1
QMC
QMCS
QMCM

Exhibit Dates: 6/71–12/89.

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: Seaman (E-3). *QM3:* Quartermaster Third Class (E-4). *QM2:* Quartermaster Second Class (E-5). *QM1:* Quartermaster First Class (E-6). *QMC:* Chief Quartermaster (E-7). *QMCS:* Senior Chief Quartermaster (E-8). *QMCM:* Master Chief Quartermaster (E-9).

Description

Summary: Stands watches as assistant to officer of the deck and to the navigator; serves as ship's steerman; performs ship control, navigation, and bridge watch duties; serves as petty officer in charge of small craft. *QM3:* Inventories and procures nautical charts and publications; uses and corrects sailing directions, light lists, coast pilots, and related publications and charts; uses basic course plotting instruments, lead line, depth sounder, and compass; identifies aids to navigation; handles plain language radio communications and visual communication; maintains compass record book and weather observation sheet. *QM2:* Able to perform the duties required for QM3; uses U.S. Coast Guard publications concerning Nautical Rules of the Road, maneuvering board, and relative bearings; selects charts for voyage planning; determines danger angles and danger bearings; determines ship's position by celestial observations; recognizes the significance of dew point, relative humidity temperature, atmospheric pressure, wind force and direction, cloud formation, and sea state in general weather forcecasting; supervises bridge personnel; inventories installed equipment and spare parts; orders repair parts and tools. *QM1:* Able to perform the duties required for QM2; adjusts compasses and prepares deviation tables; adjusts and aligns sextants and stadimeters; interprets weather charts; plots probable path and location of storm centers; prepares a great circle track, using gnomonic and conformal projection charts; maintains the ship's equipment configuration accounting system; prepares weekly schedules of preventive maintenance and sees that they are implemented; prepares oceanographic reports such as wave observation log, ship's ice log, adjusted track log, and sounding journal or log; supervises and trains personnel in navigation, watchstanding, and use and care of navigational charts, tables, and publications. *QMC:* Able to perform the duties required for QM1; prepares quarterly schedules of preventive maintenance, requisitions equipment; interviews, selects, and evaluates personnel for the navigation department; plans emergency drills for navigation department personnel; conducts briefings for navigation department personnel. *QMCS:* Able to perform the duties required for QMC; prepares local directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; monitors expenditures of funds allocated to navigation department; administers long-range maintenance program. *QMCM:* Able to perform the duties required for QMCS; plans, organizes, implements, and controls activities in compliance with policies, procedures, directives, and orders; forecasts future requirements for area of responsibility and plans and initiates action to satisfy the requirements; establishes objectives and sets priorities for area of responsibility; reviews personnel, equipment, and material requirements and makes recommendations concerning them; prepares narrative reports; develops operating budgets and monitors expenditures.

Recommendation, QM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/76).

Recommendation, QM2

In the vocational certificate category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in practical mathematics, 3 in record keeping, 1 in applied meteorology, and 1 in practical marine instrumentation, and 3 in celestial navigation In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in record keeping, 2 in personnel supervision, and 1 in practical marine instrumentation, and 3 in celestial navigation. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting (12/76).

Recommendation, QM1

In the vocational certificate category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in practical mathematics, 3 in record keeping, 3 in celestial navigation, 1 in applied meteorology, and 1 in practical marine instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in celestial navigation, 3 in record keeping, 3 in personnel supervision, and 1 in practical marine instrumentation. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, and 3 in advanced navigation (12/76).

Recommendation, QMC

In the vocational certificate category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in practical mathematics, 3 in record keeping, 3 in celestial navigation, 1 in applied meteorology, and 1 in practical marine instrumentation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in celestial navigation, 3 in record keeping, 3 in personnel supervision, and 1 in practical marine instrumentation. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, and 3 in advanced navigation (12/76).

Recommendation, QMCS

In the vocational certificate category, the recommendation is the same as that for QM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in celestial navigation, 3 in record keeping, 3 in personnel supervision, 3 in management electives, and 1 in practical marine instrumentation. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, 3 in advanced navigation, and 3 for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, QMCM

In the vocational certificate category, the recommendation is the same as that for QM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for QMCS. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, 3 in advanced navigation, 3 for a practicum in management, 3 in personnel management, and 3 in management problems, and additional credit in human relations on the basis of institutional evaluation (12/76).

NER-QM-002

QUARTERMASTER

QM3
QM2
QM1
QMC
QMCS
QMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: (E-3). *QM3:* Quartermaster Third Class (E-4). *QM2:* Quartermaster Second Class (E-5). *QM1:* Quartermaster First Class (E-6). *QMC:* Chief Quartermaster (E-7). *QMCS:* Senior Chief Quartermaster (E-8). *QMCM:* Master Chief Quartermaster (E-9).

Description

Summary: Stands watches as assistant to officer of the deck and to the navigator; serves as ship's steersman; performs ship control, navigation, and bridge watch duties; serves as petty officer in charge of small craft. *QM3:* Inventories and procures nautical charts and publications; uses and corrects sailing directions, light lists, coast pilots, and related publications and charts; uses basic course plotting instruments, lead line, depth sounder, and compass; identifies aids to navigation; handles plain language radio communications and visual communication; maintains compass record book and weather observation sheet. *QM2:* Able to perform the duties required for QM3; uses U.S. Coast Guard publications concerning Nautical Rules of the Road, maneuvering board, and relative bearings; selects charts for voyage planning; determines danger angles and danger bearings; determines ship's position by celestial observations; recognizes the significance of dew point, relative humidity temperature, atmospheric pressure, wind force and direction, cloud formation, and sea state in general weather forecasting; supervises bridge personnel; inventories installed equipment and spare parts; orders repair parts and tools. *QM1:* Able to perform the duties required for QM2; adjusts compasses and prepares deviation tables; adjusts and aligns sextants and stadimeters; interprets weather charts; plots probable path and location of storm centers; prepares a great circle track, using gnomonic and conformal projection charts; maintains the ship's equipment configuration accounting system; prepares weekly schedules of preventive maintenance and sees that they are implemented; prepares oceanographic reports such as wave observation log, ship's ice log, adjusted track log, and journal or log; supervises and trains personnel in navigation, watchstanding, and use and care of navigational charts, tables, and publications. *QMC:* Able to perform the duties required for QM1; prepares quarterly schedules of preventive maintenance; requisitions equipment; interviews, selects, evaluates personnel for the navigation department; plans emergency drills for navigation department personnel; conducts briefings for navigation department personnel. *QMCS:* Able to perform the duties required for QMC; prepares local directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; monitors expenditures of funds allocated to navigation department; administers long-range maintenance program. *QMCM:* Able to perform the duties required for QMCS; plans, organizes, implements, and controls activities in compliance with policies, procedures, directives, and orders; forecasts future requirements for area of responsibility and plans and initiates action to satisfy the requirements; establishes objectives and sets priorities for area of responsibility; reviews personnel, equipment, and material requirements and makes recommendations concerning them; prepares narrative reports; develops operating budgets and monitors expenditures.

Recommendation, QM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/89).

Recommendation, QM2

In the vocational certificate category, 3 semester hours in practical mathematics, and 1 in marine instrumentation. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied meteorology, 3 in celestial navigation, 3 in coastwise navigation and piloting, and 3 in recordkeeping (12/89).

Recommendation, QM1

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied meteorology, 3 in coastwise navigation and piloting, 3 in recordkeeping, 3 in celestial navigation, 2 in marine meteorology, and 3 in personnel supervision (12/89).

Recommendation, QMC

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied meteorology, 3 in coastwise navigation and piloting, 3 in recordkeeping, 3 in celestial navigation, 2 in marine meteorology, 3 in personnel supervision, and 3 in personnel administration. In the upper-division baccalaureate category, 3 semester hours in advanced navigation (12/89).

Recommendation, QMCS

In the vocational certificate category, the recommendation is the same as that for QMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, QMCM

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for QMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-RD-001

RADARMAN

RD3
RD2
RD1
RDC
RDCS
RDCM

Exhibit Dates: **6/72–6/73. NOTE: Effective 6/73, the title of this rating was changed to Operations Specialist (OS). For occupational field, career pattern, description, and recommendations, refer to the exhibit for Operations Specialist, NER-OS-001.**

NER-RM-001

RADIOMAN

RM3
RM2
RM1
RMC
RMCS
RMCM

Exhibit Dates: 6/71–12/89.

Occupational Field: 21 (Communications).

Career Pattern

SN: Seaman (E-3). *RM3:* Radioman Third Class (E-4). *RM2:* Radioman Second Class (E-5). *RM1:* Radioman First Class (E-6). *RMC:* Chief Radioman (E-7). *RMCS:* Senior Chief Radioman (E-8). *RMCM:* Master Chief Radioman (E-9).

Description

Summary: Transmits, receives, and processes all forms of telecommunications through various transmission media; operates, monitors, and controls telecommunications transmission, reception, terminal and processing equipment. *RM3:* Identifies common electrical and electronic terms and symbols; operates general purpose electronic test equipment; operates and interprets readings of radio frequency power meters and voltage standing wave radio meters; detects intrusion, jamming, and interference; operates broadcast using multichannel system; encodes, decodes, sends, and receives messages; relates reflection, refraction, and ionosphere conditions to radiowave propagation; cleans, lubricates, and inspects equipment; prepares maintenance data forms; uses and maintains handtools. *RM2:* Able to perform the duties required for RM3; operates and interprets reading of tube testers and transistor testers, oscilloscopes, signal generators, counters, and distortion analyzers; supervises handling of telecommunications record traffic; interprets commercial traffic regulation and procedures related to Naval telecommunications; traces messages; complies with search and rescue and international radio procedures; identifies capabilities and limitations of various transmission and receiving systems; identifies composition of a teletype signal; effects operation of assigned communications facilities under simulated emergency conditions; performs operational tests and adjustments of equipment. *RM1:* Able to perform the duties required for RM2; identifies the principles of digital logic; interprets schematics and wiring diagrams; trains and instructs personnel in communications operations and procedures; reviews completed maintenance data forms; maintains records and operating logs; prepares weekly preventive maintenance schedule; identifies the principles of microwave and satellite communications; identifies the principles of modulation, heterodying, and multiplexing. *RMC:* Able to perform the duties required for RM1; organizes and supervises communication centers; prepares operational communications reports; maintains accounting procedures for equipment, inventories, and work flow; organizes duties and assigns tasks; organizes and administers a maintenance and repair program; prepares quarterly schedules of preventive maintenance. *RMCS:* Able to perform the duties required for RMC; prepares technical and administrative reports; prepares directives and instructions for attaining organization and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; evaluates new equipment; administers a long-range maintenance program. *RMCM:* Able to perform the duties required for RMCS; manages a communications center; forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, RM3

In the vocational certificate category, 2 semester hours in electronic communications systems, 3 in basic electronics, and 6 in operation of communications systems. In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications systems, 3 in basic electronics, and 4 in operation of communications systems (12/78).

Recommendation, RM2

In the vocational certificate category, 3 semester hours in electronic communications systems, 3 in basic electronics, and 8 in operation of communications systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications systems, 3 in basic electronics, and 6 in operation of communications systems (12/78).

Recommendation, RM1

In the vocational certificate category, 4 semester hours in electronic communications systems, 3 in basic electronics, 10 in operation of communications systems, and 1 in record keeping. In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic communications systems, 3 in basic electronics, 8 in operation of communications systems, 3 in human relations, 2 in maintenance management, 2 in personnel supervision, and 1 in record keeping (12/78).

Recommendation, RMC

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic communications systems, 3 in basic electronics, 8 in operation of communications systems, 3 in human relations, 3 in maintenance management, 3 in personnel supervision, 1 in report writing, and 1 in record keeping (12/78).

Recommendation, RMCS

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, RMCM

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-RM-002

RADIOMAN

RM3
RM2
RM1
RMC
RMCS
RMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 21 (Communications).

Career Pattern

SN: Seaman (E-3). *RM3:* Radioman, Third Class (E-4). *RM2:* Radioman, Second Class (E-5). *RM1:* Radioman, First Class (E-6). *RMC:* Chief Radioman (E-7). *RMCS:* Senior Chief Radioman (E-8). *RMCM:* Master Chief Radioman (E-9).

Description

Summary: Transmits, receives and processes all forms of telecommunications through various transmission media; operates, monitors, and controls telecommunication transmissions, reception, terminal, and processing equipment. *RM3:* Complies with all security requirements for secure communication; performs operational tests and required adjustments; performs maintenance on antennas; employs touch typing at or above 35 WPM; follows directives regarding modes and frequencies; recognizes and reports interference and jamming; maintains records and directives; utilizes equipment operating manuals. *RM2:* Able to perform the duties required for RM3; performs duties of traffic clerk and watch supervisor; sets up and utilizes multi-channel, diversity equipment; monitors traffic flow and, if necessary, takes corrective action; loads prepared computer programs; operates general purpose test equipment; requisitions supplies and maintains maintenance records. *RM1:* Able to perform the duties required for RM2; instructs personnel in military and technical procedures; trains personnel in quality control of telecommunications; researches applicable technical reports; prepares efficiency reports; recommends changes in operational procedures; prepares maintenance schedules and reviews results. *RMC:* Able to perform the duties required for RM1; acts as custodian of secure material; prepares telecommunication system requirements; monitors performance and frequency utilization; determines causes of interference to communications; inspects and evaluates newly installed or modified equipment; serves as supervisor at sea or ashore; maintains necessary records; prepares emergency action plans; supervises training program; reviews efficiency reports on subordinates. *RMCS:* Able to perform the duties required for RMC; evaluates operation specifications and security requirements; administer long range maintenance program; interviews, evaluates, and assigns personnel; evaluates efficiency of telecommunication center; generates directives, instructions and general correspondence; organizes, schdules and evaluates training programs; reviews efficiency reports on subordinates. *RMCM:* Able to perform the duties required for RMCS; establishes goals and priorities; plans, organizes, and controls activities of communication center; reviews policy directives and prepares staff studies.

Recommendation, RM3

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communication systems (12/89).

Recommendation, RM2

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communication systems and 2 in recordkeeping (12/89).

Recommendation, RM1

In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communication systems, 2 in record keeping, 3 in personnel supervision (12/89).

Recommendation, RMC

2 semester hours in electronic communication systems, 2 in recordkeeping, 3 in personnel supervision, and 3 in personnel administration (12/89).

Recommendation, RMCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, RMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-RP-001

RELIGIOUS PROGRAM SPECIALIST

RP3
RP2
RP1
RPC
RPCS
RPCM

Exhibit Dates: 1/79–12/89.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *RP3:* Religious Program Specialist, Third Class (E-4). *RP2:* Religious Program Specialist, Second Class (E-5). *RP1:* Religious Program Specialist, First Class (E-6). *RPC:* Chief Religious Program Specialist (E-7). *RPCS:* Senior Chief Religious Program Specialist (E-8). *RPCM:* Master Chief Religious Program Specialist (E-9).

Description

Summary: Assists in the management of religious programs and facilities. *RP3:* Performs administrative, clerical and secretarial duties; inventories ecclesiastical equipment and supplies; assists in preparation of devotional and religious educational materials; types at 30 words per minute; transcribes chaplain interview records; operates office equipment; files records and correspondence; maintains reference library; prepares religious activities reports; performs receptionist duties; types directives, correspondence and records; maintains financial and property control records; serves as a sacristan; sets up religious facilities, equipment, and liturgical appointments. *RP2:* Able to perform the duties required for *RP3:*; organizes and monitors maintenance of files; disposes of obsolete files and records; maintains a reports control system; maintains tickler and cross reference files; coordinates the maintenance of religious facilities; collects data required by chaplains; prepares and maintains a directory of religious program resources; instructs volunteers in methods of religious education and the use of related material; conducts programs to assist personnel in the use of religious facilities, equipment, and the conduct of liturgical and ceremonial acts. *RP1:* Able to perform the duties required for RP2; organizes and supervises the operation of a chaplain's office; compiles and analyzes statistical data; processes appointment and certification of lay leaders and lay eucharistic ministers; prepares correspondence and messages and drafts directives; prepares the departmental budget; determines requirements for equipment, supplies, and educational material; reviews completed job orders and work requests; maintains locator files for lay leaders; designs and lays out publicity material; determines the need for equipment and supplies. *RPC:* Able to perform the duties required for RP1; reviews reports, records, and correspondence requiring signature; provides administrative support of major support activities; prepares command briefings on religious programs; audits chapel funds and serves as custodian of chapel funds; instructs subordinate personnel, lay leaders and lay eucharistic ministers in religious education matters; analyzes requirements for religious facilities. *RPCS:* Able to perform the duties required for RPC; establishes a program for interviewing, evaluating, and assigning personnel; provides information and advice on utilization, capabilities, reliability, and operations; prepares directives; organizes and schedules training programs and evaluates their effectiveness; coordinates the public worship education materials program. *RPCM:* Able to perform the duties required for RPCS; manages religious activities in conformance with policy directives; forcasts requirements and establishes goals, objectives, and priorities; determines mobilization requirements; evaluates the programs of subordinate commands; reviews plans for religious facilities construction; develops operating budget and monitors expenditures.

Recommendation, RP3

In the vocational certificate category, 3 semester hours in typing, 3 in financial record keeping, and 3 in clerical procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in clerical procedures, 3 in record keeping, and 2 in introduction to audio-visual equipment (11/83).

Recommendation, RP2

In the vocational certificate category, 3 semester hours in typing, 3 in financial record keeping, and 3 in clerical procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in clerical procedures, 3 in record keeping, 2 in introduction to audio-visual equipment, 1 in personnel supervision, and 2 in introduction to library science (11/83).

Recommendation, RP1

In the vocational certificate category, 3 semester hours in typing, 3 in financial record keeping, 3 in clerical procedures, and 2 in business communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in clerical procedures, 3 in record keeping, 2 in introduction to audio-visual equipment, 3 in personnel supervision, 2 in introduction to library science, 3 for field experience in management, and 2 in business communications (11/83).

Recommendation, RPC

In the vocational certificate category, 3 semester hours in typing, 3 in financial record keeping, 3 in clerical procedures, and 3 in business communications. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in clerical procedures, 3 in record keeping, 2 in introduction to audio-visual equipment, 3 in personnel supervision, 2 in introduction to library science, 3 for field experience in management, 3 in business communications, 3 in oral communication, and 3 in principles of management (11/83).

Recommendation, RPCS

In the vocational certificate category, the recommendation is the same as that for RP1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RPC. In the upper-division baccalaureate category, 3 semester hours in personnel management (11/83).

Recommendation, RPCM

In the vocational certificate category, the recommendation is the same as that for RP1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RPC. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in financial management, and 3 in management problems (11/83).

NER-RP-002

Religious Program Specialist

RP3
RP2
RP1
RPC
RPCS
RPCM

Exhibit Dates: 1/90–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *RP3:* Religious Program Specialist, Third Class (E-4). *RP2:* Religious Program Specialist, Second Class (E-5). *RP1:* Religious Program Specialist, First Class (E-6). *RPC:* Chief Religious Program Specialist (E-7). *RPCS:* Senior Chief Religious Program Specialist (E-8). *RPCM:* Master Chief Religious Program Specialist (E-9).

Description

Summary: Assists in the management of religious programs and facilities. *RP3:* Performs administrative, clerical and secretarial duties; inventories ecclesiastical equipment and supplies; assists in preparation of devotional and religious educational materials; types at 30 words per minute; transcribes chaplain interview records; operates office equipment; files records and correspondence; maintains reference library; prepares religious activities reports; performs receptionist duties; types directives, correspondence and records; maintains financial and property control records; serves as a sacristan; sets up religious facilities, equipment, and liturgical appointments. *RP2:* Able to perform the duties required for RP3; organizes and monitors maintenance of files; disposes of obsolete files and records; maintains a reports control system; maintains tickler and cross reference files; coordinates the maintenance of religious facilities; collects data required by chaplains; prepares and maintains a directory of religious program resources; instructs volunteers in methods of religious education and the use of related material; conducts programs to assist personnel in the use of religious facilities, equipment, and the conduct of liturgical and ceremonial acts. *RP1:* Able to perform the duties required for RP2; organizes and supervises the operation of a chaplain's office; compiles and analyzes statistical data; processes appointment and certification of lay leaders and lay eucharistic ministers; prepares correspondence and messages and drafts directives; prepares the departmental budget; determines requirements for equipment, supplies, and educational material; reviews completed job orders and work requests; maintains locator files for lay leaders; designs and lays out publicity material; determines the need for equipment and supplies. *RPC:* Able to perform the duties required for RP1; reviews reports, records, and correspondence requiring signature; provides administrative support of major support activities; prepares command briefings on religious programs; audits chapel funds and serves as custodian of chapel funds; instructs subordinate personnel, lay leaders and lay eucharistic ministers in religious education matters; analyzes requirements for religious facilities. *RPCS:* Able to perform the duties required for RPC; establishes a program for interviewing, evaluating, and assigning personnel; provides information and advice on utilization, capabilities, reliability, and operations; prepares directives; organizes and schedules training programs and evaluates their effectiveness; coordinates the public worship education materials program. *RPCM:* Able to perform the duties required for RPCS, manages religious activities in conformance with policy directives; forcasts requirements and establishes goals, objectives, and priorities; determines mobilization requirements; evaluates the programs of subordinate commands; reviews plans for religious facilities construction, develops operating budget and monitors expenditures.

Recommendation, RP3

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in filing and records control, 3 in instructional media, 3 in interpersonal communications, and 1 in library science (3/90).

Recommendation, RP2

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in filing and records control, 3 in instructional media, 3 in interpersonal communications, and 3 in library science (3/90).

Recommendation, RP1

In the lower-division baccalaureate/associate degree category, 3 semester horus in typing, 3 in office procedures, 3 in filing and records control, 3 in instructional media, 3 in interpersonal communications, 3 in library science, 3 in principles of supervision, and 3 in budgeting procedures (3/90).

Recommendation, RPC

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office procedures, 3 in filing and records control, 3 in instructional media, 3 in interpersonal communications, 3 in library science, 3 in principles of supervision, 3 in budgeting procedures, and 3 in business communications. In the upper-division baccalaureate category, 3 semester hours in human resource management (3/90).

Recommendation, RPCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RPC. In the upper-division baccalaureate category, 3 semester hours in human resource management and 3 in principles of management (3/90).

Recommendation, RPCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RPC. In the upper-division baccalaureate category, 3 semester hours in human resource management, 3 in principles of management, and 3 in financial controls (3/90).

NER-SH-001

Ship's Serviceman

SH3 (SHT3, SHB3, SHL3, SHS3)
SH2
SH1
SHC
SHCS
SHCM

Exhibit Dates: 6/72–12/81.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SH3:* Ship's Serviceman Third Class (SHT3, Tailor; SHB3, Barber; SHL3, Laundryman; SHS3 Clerk) (E-4). *SH2:* Ship's Serviceman Second Class (E-5). *SH1:* Ship's Serviceman First Class (E-6). *SHC:* Chief Ship's Serviceman (E-7). *SHCS:* Senior Chief Ship's Serviceman (E-8). *SHCM:* Master Chief Ship's Serviceman (E-9).

Description

Summary: Able to operate barber shop, tailor shop, ship's store, laundry, dry-cleaning plant, retail store, soda fountain, and commissary store; able to operate and maintain vending machines and cash register; performs clerical and stock control functions. NOTE: Ship's Servicemen Third Class (SH3) specialize as tailors, barbers, laundrymen/dry cleaners, or store clerks. *SHT3:* Serves as tailor; operates and adjusts sewing machines; sews, performs alterations and minor repair work on garments; presses garments on mechanical steam and electric presses; installs zippers, buttons, and makes buttonholes; attaches service ribbons and badges with even stiches; sets up accounts for retail clothing, receipts, and expenditures; inventories stock; receives tags and logs items for processing. *SHB3:* Serves as barber; cuts hair; schedules appointments; maintains acceptable sanitary and health standards in barber shop; has knowledge of basic first aid; maintains shop equipment; knows medical terminology for hair and scalp diseases and sources of infection. *SHL3:* Serves as laundryman; operates and adjusts all laundry cleaning equipment; has knowledge of safety precautions, operating temperatures, and pressures of laundry equipment; removes stains; has knowledge of washing colored clothing, starching garments, using detergents, soaps, and bleaches; uses flatwork ironer and air-operated presser; has knowledge of water-pollution control; issues and records laundry markings and proper packing for laundry items; schedules laundry and dry-cleaning operations; processes claims for loss of or damage to garments; accounts for receipts and expenditures. *SH3:* Serves as store clerk; performs shipboard and shoreside supply functions; conducts inventories, orders stock, and computes standard markups; uses all memoranda, forms, and vouchers used by the Navy supply corps. *SH2:* Able to perform the duties required for SH3 (Tailor, barber, laundryman, or clerk); able to supervise the laundry, barber shop, or tailor shop; assists superiors on smaller ships without a supply corps officer. *SH1:* Able to perform the duties required for SH2; able to function as supply officer on small ships. *SHC:* Able to perform the duties required for SH1; supervises and assigns duties; order materials, prepares work requests, and audits maintenance programs; serves as a counselor on reenlistment and advancement opportunities; plans physical layouts for sales and service activities; investigates and resolves customer complaints. *SHCS:* Able to perform the duties required for SHC; supervises entire supply department; serves as liaison with other departments and supply corps; organizes and schedules training programs, evaluates effectiveness, and initiates improvements. *SHCM:* Able to perform the duties required for SHCS; serves as the administrator of an entire supply department; supervises up to 70 persons; conducts task analysis; approves procedural changes and modifications; reviews personnel evaluations and performance standards; develops operating budgets and monitors expenditures.

Recommendation, SHT3

(Tailor) In the vocational certificate category, 2 semester hours in record keeping, 3 in beginning tailoring, 3 in applied tailoring techniques (alterations, repairs, buttonholing, braiding), and 3 in small business management for tailors. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in beginning tailoring, 3 in applied tailoring techniques (alterations, repairs, buttonholing, braiding), 3 in small business management for tailors, and 3 in home economics in tailoring techniques (12/76).

Recommendation, SHB3

(Barber) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 2 in small business management for barbers, 3 in barber science (equipment and nomenclature), 3 in barber science II (sanitation, dermatology, hygiene), and 7 in applied barber shop techniques (haircuts, trims) (12/76).

Recommendation, SHL3

(Laundryman) In the vocational certificate category, 2 semester hours in record keeping, 2 in treatment of fabrics (stain removing, spotting, solutions), 3 in laundry equipment operational techniques and repair, 3 in laundry management, and 3 in dry cleaning and pressing. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 1 in environmental control (water) (12/76).

Recommendation, SHS3

(Clerk) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 3 in inventory control (12/76).

Recommendation, SH2

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk). In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus up to 2 semester hours in personnel supervision on the basis of institutional evaluation (12/76).

Recommendation, SH1

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk). In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 3 semester hours in personnel supervision (12/76).

Recommendation, SHC

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping, 3 in retail sales management, 3 in personnel supervision, and 3 for field experience in management (12/76).

Recommendation, SHCS

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping, 3 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, SHCM

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping, 6 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in management, and 3 in personnel management, and additional credit in human relations on the basis of institutional evaluation (12/76).

NER-SH-002

SHIP'S SERVICEMAN

SH3
SH2
SH1
SHC
SHCS
SHCM

Exhibit Dates: 1/82–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SH3:* Ship's Serviceman Third Class. *SH2:* Ship's Serviceman Second Class (E-5). *SH1:* Ship's Serviceman First Class (E-6). *SHC:* Chief Ship's Serviceman (E-7). *SHCS:* Senior Chief Ship's Serviceman (E-8). *SHCM:* Master Chief Ship's Serviceman (E-9).

Description

Summary: Able to operate barber shop, tailor shop, ship's store, laundry, dry-cleaning plant, retail store, soda fountain, and commissary store; able to operate and maintain vending machines and cash register; performs clerical and stock control functions. NOTE: Ship's Servicemen Third Class (SH3) specialize as tailors, barbers, laundrymen/dry cleaners, or store clerks. *SH3:* If serves as tailor, performs the following duties: operates and adjusts sewing machines; sews, performs alterations and minor repair work on garments; presses garments on mechanical steam and electric presses; installs zippers, buttons, and makes buttonholes; attaches service ribbons and badges with even stitches; sets up accounts for retail clothing, receipts, and expenditures; inventories stock; receives tags and logs items for processing. If serves as barber, performs the following duties: cuts hair, schedules appointments; maintains acceptable sanitary and health standards in barber shop; has knowledge of basic first aid; maintains shop equipment; knows medical terminology for hair and scalp diseases and sources of infection. If serves as laundryman, performs the following duties: operates and adjusts all laundry and dry cleaning equipment; has knowledge of safety precautions, operating temperatures, and pressures of laundry equipment; removes stains; has knowledge of washing colored clothing, starching garments, using detergents, soaps, and bleaches; uses flatwork ironer and air-operated presser; has knowledge of water-pollution control; issues and records laundry markings and proper packing for laundry items; schedules laundry and dry-cleaning operations; processes claims for loss of or damage to garments; accounts for receipts and expenditures. If serves as store clerk, performs the following duties: performs shipboard and shoreside supply functions; conducts inventories, orders stock and computes standard markups; uses all memoranda, forms, and vouchers used by the Navy supply corps. *SH2:* Able to perform the duties required for SH3; able to supervise the laundry, barber shop, or tailor shop; plans and schedules workloads; prepares and assembles financial returns; inventories stock; assists superiors on smaller ships without a supply corps officer. *SH1:* Able to perform the duties required for SH2; prepares planned maintenance schedules; prepares reports; able to function as supply officer on small ships. *SHC:* Able to perform the duties required for SH1; supervises and assigns duties; orders materials, prepares work requests, and audits maintenance programs; serves as a counselor on reenlistment and advancement opportunities; plans physical layouts for sales and service activities; investigates and resolves customer complaints. *SHCS:* Able to perform the duties required for SHC; supervises entire supply department; serves as liaison with other departments and supply corps; organizes and schedules training programs, evaluates effectiveness, and initiates improvements; writes correspondence, directives and instructions. *SHCM:* Able to perform the duties required for SHCS; serves as the administrator of an entire supply department; supervises up to 70 personnel; conducts task analysis; approves procedural changes and modifications; reviews personnel evaluations and performance standards; develops operating budgets and monitors expenditures.

Recommendation, SH3

If served as tailor, grant the following credit: In the lower-division baccalaureate/associate degree category, 2 semester hours in recordkeeping, 3 in beginning tailoring, 3 in applied tailoring techniques (alterations, repairs, buttonholing, braiding), 3 in small business management for tailors, and 3 in home economics in tailoring techniques. If served as a barber, grant the following credit: In the lower-division baccalaureate/associate degree category, 2 semester hours in recordkeeping, 2 in small business management for barbers, 3 in barber science (equipment and nomenclature), 3 in barber science II (sanitation, dermatology, hygiene), and 7 in applied barber shop techniques (haircuts, trims). If served as a laundry/dry cleaning specialist, grant the following credit: In the vocational certificate category, 2 semester hours in treatment of fabrics (stain removing, spotting, solutions), 3 in laundry equipment operational techniques and repair, 3 in laundry management, and 3 in dry cleaning and pressing. In the lower-division baccalaureate/associate degree category, 2 semester hours in recordkeeping and 1 in environmental control (water). If served as clerk, grant the following credit: In the lower-division baccalaureate/associate degree category, 2 semester hours in recordkeeping and 3 in inventory control (10/87).

Recommendation, SH2

Follow the credit recommendation in SH3; in the lower-division baccalaureate/associate degree category, add 1 semester hour in personnel supervision (10/87).

Recommendation, SH1

Follow the credit recommendation in SH3; in the lower-division baccalaureate/associate degree category, add 3 semester hours in personnel supervision (10/87).

Recommendation, SHC

Follow the credit recommendation in SH3; in the lower-division baccalaureate/associate degree category, 1 additional semester hour in recordkeeping, 3 in retail sales management, 3 in personnel supervision, and 3 for field experience in management (10/87).

Recommendation, SHCS

Follow the credit recommendation in SH3; in the lower-division baccalaureate/associate degree category, 1 additional semester hour in recordkeeping, 3 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for a practicum in management (10/87).

Recommendation, SHCM

Follow the credit recommendation in SH3; in the lower-division baccalaureate/associate degree category, 1 additional semester hour in recordkeeping, 6 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in management, and 3 in personnel management (10/87).

NER-SK-001

STOREKEEPER

SK3
SK2
SK1
SKC
SKCS
SKCM

Exhibit Dates: 6/72–12/89.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SK3:* Storekeeper Third Class (E-4). *SK2:* Storekeeper Second Class (E-5). *SK1:* Storekeeper First Class (E-6). *SKC:* Chief Storekeeper (E-7). *SKCS:* Senior Chief Storekeeper (E-8). *SKCM:* Master Chief Storekeeper (E-9).

Description

Summary: Orders, receives, inspects, stores, preserves, packages, ships, and issues materials and cargo; prepares and maintains forms, records, correspondence, reports, and files. *SK3:* Knows the basic organization and functions of supply departments; is familiar with the purpose and use of major components of automated data processing (ADP) equipment and knows common terms used in ADP; operates office machines; types (at 20 words per minute), routes and files forms and messages; maintains files, the requisition log, and budget records; prepares supply-related documents; identifies, receives, stows, and issues materials and stock items; prepares items for shipment; prepares shipment documents; inventories stocked material and installed equipment; operates material-handling equipment. *SK2:* Able to perform the duties required for SK3; establishes and maintains files; knows types, uses, and purposes of appropriations and funds; reconciles financial listings; prepares budget reports; requisitions repair parts, supplies, forms, and publications; supervises working parties handling stores; controls inventory; maintains and interprets reports and records; prepares open purchases documents; applies regulations to maintain the security of materials or documents. *SK1:* Able to perform the duties required for SK2; applies automated supply procedures; prepares correspondence and messages; instructs others in the use of publications and directives; supervises the maintenance of publications; reviews requisitions for non-standard materials; establishes and maintains a technical library; implements and supervises target budgeting procedures; processes bills for payment; identifies sources and uses of funds; effects supply issuance; carries out Navy supply procedures; supervises regular and special inventories. *SKC:* Able to perform the duties required for SK1; monitors outgoing correspondence, shipboard ADP, and management of fleet-controlled material; supervises the receipt of material and administrative storekeeper functions; organizes and supervises internal procedures for inventory management; prepares replenishment data for equipage, repair parts, and consumables and estimates requirements which would exist for voyages of various lengths and under various climatic conditions. *SKCS:* Able to perform the duties required for SKC; analyzes supply reports and evaluates problem areas; supervises on-the-job training programs; utilizes ADP in supply operations; monitors and directs supply functions, including those related to security, financial control, and logistics; prepares local directives and instructions. *SKCM:* Able to perform the duties required for *SKCS;:* plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; develops operating budgets and monotors expenditures; plans and develops operational requirements for service markets, supply operations assistance program, sea markets, and storage warehouses.

Recommendation, SK3

In the vocational certificate category, 2 semester hours in office machines, 1 in material handling, and 1 in general clerical procedures. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines and 1 in general clerical procedures (12/76).

Recommendation, SK2

In the vocational certificate category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 1 in material handling, and 1 in general clerical procedures. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 1 in general clerical procedures, and 1 in personnel supervision (12/76).

Recommendation, SK1

In the vocational certificate category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 2 in general clerical procedures, and 1 in material handling. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 2 in general clerical procedures, 1 in automated record keeping, and 1 in personnel supervision (12/76).

Recommendation, SKC

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 3 in communication (written), 2 in office machines, 2 in record keeping, 2 in general clerical procedures, 2 in personnel supervision, and 1 in automated record keeping, and additional credit for field experience in management on the basis of institutional evaluation (12/76).

Recommendation, SKCS

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 3 in communication (written), 3 in general clerical procedures, 3 in management electives, 2 in office machines, 2 in personnel supervision, 2 in record keeping, and 1 in automated record keeping, and additional credit for field experience in management on the basis of institutional evaluation. In the upper-division baccalaureate category, credit for a practicum in management and in human relations on the basis of institutional evaluation (12/76).

Recommendation, SKCM

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKCS. In the upper-division baccalaureate category, 3 semester hours in supply management and 3 in management problems, and additional credit for a practicum in management and in human relations on the basis of institutional evaluation (12/76).

NER-SK-002

STOREKEEPER

SK3
SK2
SK1
SKC
SKCS
SKCM

Exhibit Dates: 1/90–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SK3:* Storekeeper, Third Class (E-4). *SK2:* Storekeeper, Second Class (E-5). *SK1:* Storekeeper, First Class (E-6). *SKC:* Chief Storekeeper (E-7). *SKCS:* Senior Chief Storkeeper (E-8). *SKCM:* Master Chief Storekeeper (E-9).

Description

Summary: Orders, receives, inspects, stores, preserves, packages, ships, and issues materials and cargo; prepares and maintains forms, records, correspondence, reports, and files. *SK3:* Knows the basic organization and functions of supply departments; is familiar with the purpose and use of major components of automated data processing (ADP) equipment and knows common terms used in ADP; operates office machines; types (at 20 words per minute), routes and files forms and messages; maintains files, the requistion log, and budget records; prepares supply-related documents; identifies, receives, stows, and issues materials and stock items; prepares items for shipment; prepares shipment documents; inventories stocked material and installed equipment; operates material-handling equipment. *SK2:* Able to perform the duties required for SK3; establishes and maintains files; knows types, uses, and purpose of appropriations and funds; reconciles financial listings; prepares budget reports; requisitions repair parts, supplies, forms, and publications; supervises working parties handling stores; controls inventory using ADP procedures; maintains and interprets reports and records; prepares open purchases documents; applies regulations to maintain the security of materials or documents. *SK1:* Able to perform the duties required for SK2; applies automated supply procedures; prepares correspondence and messages; instructs others in the use of publications and directives; supervises the maintenance of publications; reviews requisitions for nonstandard materials; establishes and maintains a technical library; implements and supervises target budgeting procedures; processes bills for payment; identifies sources and uses of funds; effects supply issuance; carries out Navy supply procedures; supervises regular and special inventories; writes correspondence. *SKC:* Able to perform the duties required for SK1; monitors outgoing correspondence, shipboard ADP, and management of fleet-controlled material; supervises the receipt of material and administrative storekeeper functions; organizes and supervises internal procedures for inventory management; prepares replenishment data for equipage, repair parts, and consumables and estimates requirements which would exist for voyages of various lengths and under various climatic conditions; interviews, supervises, and evaluates personnel. *SKCS:* Able to perform the duties required for SKC; analyzes supply reports and evaluates problem areas; supervises on-the-job training programs; utilizes ADP in supply operations; monitors and directs supply functions, including those related to security, financial control, and logistics; prepares local directives and instructions. *SKCM:* Able to perform the duties required for SKCS; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; develops operationg budgets and monitors expenditures; plans and develops operational requirements for service markets, supply operations assistance program, sea markets, and storage warehouses.

Recommendation, SK3

In the lower-division baccalaureate/associate degree category, 3 semester hours in office machines, 3 in clerical procedures, and 2 in inventory control (3/90).

Recommendation, SK2

In the lower-division baccalaureate/associate degree category, 3 semester hours in office machines, 3 in clerical procedures, 2 in inventory control, 2 in supply management, and 3 in records and information management (3/90).

Recommendation, SK1

In the lower-division baccalaureate/associate degree category, 3 semester hours in office machines, 3 in clerical procedures, 3 in inventory control, 3 in supply management, 3 in records and informaton management, and 3 in business communications (3/90).

Recommendation, SKC

In the lower-division baccalaureate/associate degree category, 3 semester hours in office machines, 3 in clerical procedures, 3 in inventory control, 3 in supply management, 3 in records and information management, 3 in business communications, 3 in office procedures, and 3 in principles of supervision (3/90).

Recommendation, SKCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in logistics management (3/90).

Recommendation, SKCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in logistics management, and 3 in principles of management (3/90).

NER-SM-001

SIGNALMAN

SM3
SM2
SM1
SMC
SMCS
SMCM

Exhibit Dates: 6/71-12/89.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *SM3:* Signalman Third Class (E-4). *SM2:* Signalman Second Class (E-5). *SM1:* Signalman First Class (E-6). *SMC:* Chief Signalman (E-7). *SMCS:* Senior Chief Signalman (E-8). *SMCM:* Master Chief Signalman (E-9).

Description

Summary: Sends and receives messages by flashing light, semaphore, and flaghoist; stands watch on the signal bridge; performs lookout duties; encodes and decodes messages; maintains visual signals equipment; recognizes visual aids to navigation, such as beacons and buoys; takes bearings; serves as navigator's assistant. *SM3:* Performs basic seamanship duties; stands watches as a signal operator under way and in port; inventories equipment, performs routine maintenance on optical equipment; uses and recognizes flag, lights, international distress, emergency, and storm warning signals; transmits and receives code groups by flashing lights at 8 words per minute (WPM) and semaphore at 10 WPM; selects and displays flags and pennants; receives, sends, and handles routine message according to precedence; performs duties of a signalman as member of a boatcrew; operates infrared and flashing light equipment; performs routine maintenance of visual signaling equipment. *SM2:* Able to perform the duties required for SM3; maintains visual signal log and visual traffic files; locates ships in local formation diagrams; corrects and maintains signal publications; completes planned maintenance reports; orders repair parts and special tools required for installed equipment maintenance; constructs and uses all visual call signs, international call signs, and task organization call for ship and commands; encodes and decodes naval or international call signs, and task organization call for ship and commands; encodes and decodes naval or international signals contained in effective visual communications publications; carries out disposal and destruction of classified communications materials; ensures that correct methods of transmissions or transportation of classified information and material are followed; transmits and receives code groups by flashing light of 8 WPM, plain language message by flashing light at 10 WPM, and by semaphore at 15 WPM. *SM1:* Able to perform the duties required for SM2; prepares requests for requisition of equipment; prepares visual equipment communications standing orders for signalmen; instructs signal personnel in identification of ship and aircraft, visual communication procedures, naval communications rules, and recognition procedures and codes; prepares weekly schedules of preventive maintenance; maintains inventory files for equipment and consumable goods; administers security classification policies; authenticates authority of the releaser of visual messages; transmits and receives code group by flashing light of 10 WPM, plain language messages by flashing lights at 12 WPM, and by semaphore at 20 WPM. *SMC:* Able to perform the duties required for SM1; prepares quarterly schedules of preventive maintenance; posts changes to ship equipment configuration accounting system; administers command security education programs; performs duties of tactical communications watch officer; supervises visual communications activities; supervises signal bridge personnel. *SMCS:* Able to perform the duties required for SMC; interprets organization and functions of the communications section; provides information and advice on utilization, capability, and reliability of operations in own area of responsibility; prepares correspondence; prepares local directives and instruction concerning organization objectives and improving operations; evaluates and assigns personnel to assure maximum utilization; observes and evaluates visual exercises and drills; organizes and implements communications section of operation orders and plans; organizes, schedules, and evaluates visual communications training programs; administers long-range planned maintenance programs in accordance with Navy maintenance and material managment system; administers command security program. *SMCM:* Able to perform the duties required for SMCS; plans, organizes, and implements activities in compliance with policy statements, operation orders, and directives; forecasts future requirements and plans and initiates action to satisfy requirements in area of responsibility; establishes goals, objectives, and priorities in area of responsibility; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, SM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/76).

Recommendation, SM2

In the vocational certificate category, 3 semester hours in seamanship and 2 in record keeping; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in record keeping, and 2 in personnel supervision; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation. NOTE: Because of the shortage of signalmen, they frequently are assigned to duty positions that are normally assigned to persons in a higher pay grade. Therefore, it is recommended that the duty assignment be considered when decisions regarding the award of credit are made (12/76).

Recommendation, SM1

In the vocational certificate category, 3 semester hours in seamanship and 2 in record keeping; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in record keeping, and 2 in personnel supervision; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation. NOTE: Because of the shortage of signalmen, they frequently are assigned to duty positions that are normally assigned to persons in a higher pay grade. Therefore, it is recommended that the duty assignment be considered when decisions regarding the award of credit are made (12/76).

Recommendation, SMC

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 for field experience in management, 2 in record keeping, and 2 in personnel supervision; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation (12/76).

Recommendation, SMCS

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 for field experience in management, 3 in management electives, 2 in record keeping, and 2 in personnel supervision; if shore duty assignment was in the area of security, additional credit in law enforcement or police science on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, SMCM

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SMCS. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in management problems, 2 in personnel management, and additional credit in human relations on the basis of institutional evaluation (12/76).

NER-SM-002

SIGNALMAN

SM3
SM2
SM1
SMC
SMCS
SMCM

Exhibit Dates: 1/90–Present.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *SM3:* Signalman Third Class (E-4). *SM2:* Signalman Second Class (E-5). *SM1:* Signalman First Class (E-6). *SMC:* Chief Signalman (E-7). *SMCS:* Senior Chief Signalman (E-8). *SMCM:* Master Chief Signalman (E-9).

Description

Summary: Sends and receives messages by flashing light, semaphore, and flaghoist; stands watch on the signal bridge; performs lookout duties; encodes and decodes messages; maintains visual signal equipment; recognizes visual aids to navigation, such as beacons and buoys; takes bearings; serves as navigator's assistant. *SM3:* Performs basic seamanship duties; stands watches as a signal operator under way and in port; inventories equipment; performs routine maintenance on optical equipment; uses and recognizes flag, lights, international distress, emergency, and storm warning signals; transmits and receives code groups by flashing lights at 8 words per minute (wpm) and semaphore at 10 wpm; selects and displays flags and pennants; receives, sends, and handles routine messages according to precedence; performs duties of a signalman as member of a boatcrew; operates infrared and flashing light equipment; performs routine maintenance of visual signaling equipment. *SM2:* Able to perform the duties required for SM3; maintains visual signal log and visual traffic files; locates ships in local formation using formation diagram; corrects and maintains signal publications; completes planned maintenance reports; orders repair parts and special tools required for installed equipment maintenance; constructs and uses all visual call signs, international call signs, and task organization calls for ship and commands; encodes and decodes naval or international signals contained in effective visual communications publications; carries out disposal and destruction of classified communication materials; ensures that correct methods of tramsmissions or transportation of classified information and material are followed; transmits and receives code groups by flashing light of 8 wpm, plain language message by flashing light at 10 wpm, and by semaphore at 15 wpm. *SM1:* Able to perform the duties required for SM2; prepares requests for requisition of equipment; prepares visual equipment communications standing orders for signalmen; instructs signal personnel in identification of ships and aircraft, visual communication procedures, naval communications rules, and recognition procedures and codes; prepares weekly schedules of preventive maintenance; maintains inventory files for equipment and consumable goods; administers security classification policies; authenticates authority of the releaser of visual messages; transmits and receives code group by flashing lights of 10 wpm, plain language messages by flashing lights at 12 wpm, and semaphore at 20 wpm. *SMC:* Able to perform the duties required for SM1; prepares quarterly schedules of preventive maintenance; posts changes to ship equipment configuration accounting system; administers command security education programs; performs duties of tactical communications watch officer; supervises visual communications activities; supervises signal bridge personnel. *SMCS:* Able to perform the duties required for SMC; interprets organization and functions of the communications section; provides information and advice on utilization, capability of operations in own area of responsibility; prepares correspondence; prepares local directives and instruction concerning organization objectives and improving operations; evaluates and assigns personnel to assure maximum utilization; observes and evaluates visual exercises and drills; organizes and implements communications section of operation orders and plans; organizes, schedules, and evaluates visual communications training programs; administers long-range planned maintenance programs in accordance with Navy maintenance and material management system; administers command security program. *SMCM:* Able to perform the duties required for SMCS; plans, organizes, and implements activities in compliance with policy statements, operation orders, and directives; forecasts future requirements and plans and initiates action to satisfy requirements in area of responsibility; establishes goals, objectives, and priorities in area of responsibility; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, SM3

In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/89).

Recommendation, SM2

In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in recordkeeping, and 2 in personnel supervision (12/89).

Recommendation, SM1

In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in recordkeeping and 2 in personnel supervision (12/89).

Recommendation, SMC

In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in recordkeeping, 3 in personnel supervision, and 3 in personnel administration (12/89).

Recommendation, SMCS

In the lower-division baccalaureate/associate degree category, the recommendationis the same as that for SMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, SMCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-SN-001

SEAMAN

SN

Exhibit Dates: 6/71–12/89.

Career Pattern

Seaman (SN) is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (Seaman apprentice), and E-3 (Seaman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Boatswain's Mate (BM), Cryptologic Technician (CT) Data Processing Technician (DP), Data Systems Technician (DS), Disbursing Clerk (DK), Electronics Technician (ETN or ETR), Electronics Warfare Technician (EW), Fire Control Technician (FTB, FTG, or FTM), Gunner's Mate (GMG or GMM), Gunner's Mate Technician (GMT), Illustrator Draftsman (DM), Instrumentman (IM), Intelligence Specialist (IS), Journalist (JO), Lithographer (LI), Mess Management Specialist (MS), Mineman (MN), Missile Technician (MT), Musician (MU), Ocean Systems Technician (OT), Operations Specialist (OS), Opticalman (OM), Personnelman (PN), Postal Clerk (PC), Quartermaster (QM), Radioman (RM), Ship's Serviceman (SH), Signalman (SM), Sonar Technician (STG or STS), Storekeeper (SK), Torpedoman's Mate (TM), or Yeoman (YN).

Description

Performs all basic seamanship functions aboard ship that involve line or wire, including knot tying, whipping and seizing, and rigging used to secure the ship to a pier, moor, or anchor; is able to identify functions of navigation and shipboard equipment, including fixed or portable items and power or non-powered items; lowers, raises, and launches life saving equipment; handles small boats; navigates by using several different types of compasses; keeps records by degrees or points; knows navigational aids, Nautical Rules of the Road, and the buoys of inland waters of the U.S.; knows the nonmenclature of decks, superstructures, and parts of the hull; knows the purpose and limitations of first aid and the first aid treatments for electrical shock, simple and compound fractures, heat exhaustion, heat stroke, and burns; must be qualified as a Swimmer Fourth Class, requiring floating for a minimum of five minutes, preparing and using clothing and buoyant object for staying afloat, and swimming through oil, flames, and debris; knows how to determine the classes of fire hoses and how to use carbon dioxide, dry chemical, and water-portable fire extinguishers; knows the function of the typical fire main system, fixed carbon dioxide system, water washdown system, and magazine sprinkling system; knows the difference between flooding and progressive flooding and the dangers involved.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, and additional credit in first aid and fire science on the basis of institutional evaluation; if the duty assignment was boat coxswain, 3 additional semester hours in small boat operation; if qualified as a Swimmer First Class, 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation NOTE: Credit for Seaman (SN) should be granted only after pay grade E-3 has been achieved (12/76).

NER-SN-002

SEAMAN

SN

Exhibit Dates: 1/90–Present.

Career Pattern

Seaman (SN) is a general rate (Naval apprenticeship) for persons at paygrades E-1 (recruit), E-2 (Seaman apprentice), and E-3 (Seaman). At paygrade E-4 (petty officer third class), the person may enter any one of the following ratings: Boatswain's Mate (BM), Cryptologic Technician (CT), Data Processing Technician (DP), Data Systems Technician (DS), Disbursing Clerk (DK), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FTB or FTG), Fire Controlman (FC), Gunner's Mate (GMG or GMM), Gunner's Mate Technician (GMT), Illustrator Draftsman (DM), Instrumentman (IM), Intelligence Specialist (IS), Journalist (JO), Lithographer (LI), Mess Management Specialist (MS), Mineman (MN), Missile Technician (MT), Musician (MU), Ocean Systems Technician (OT), Operations Specialist (OS), Opticalman (OM), Personnelman (PN), Postal Clerk (PC), Quartermaster (QM), Radioman (RM), Religious Program Specialist (RP), Ship's Serviceman (SH), Signalman (SM), Sonar Technician (STG or STS), Storekeeper (SK), Torpedoman-s Mate (TM), or Yeoman (YN).

Description

Performs all basic seamanship functions aboard ship that involve lin or wire, and rigging used to secure the ship to a pier, moor, or anchor; is able to identify functions of navigation and shipboard equipment; lowers, raises, and launches lifesaving equipment; handles small boats; navigates by using several different types of compasses; keeps records by degrees or points; knows navigational aids, Nautical Rules of the Road, and the buoys of inland waters of the U.S.; knows the nonmenclature of decks; superstructures, and parts of the hull; knows the purpose and limitations of first aid and the first aid treatments for electrical shock, simple and compound fractures, heat exhaustion, heat stroke, and burns; must be qualified as a Swimmer Fourth Class; knows how to determine the classes of fire hoses and how to use carbon dioxide, dry chemical, and water-portable fire extinguishers; knows the function of the typical fire main system, fixed carbon dioxide system, water washdown system, and magazine sprinkling system; knows the difference between flooding and progressive flooding and the danger involved.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in nautical science (seamanship) and 3 in nautical science (navigation); if qualified as a Swimmer First Class, 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation. NOTE: Credit for Seaman (SN) should be granted only after paygrade E-3 has been achieved (3/90).

NER-ST-001

SONAR TECHNICIAN, MASTER CHIEF

STCM

Exhibit Dates: 7/76–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

May progress to STCM, Master Chief Sonar Technician (E-9), from either STGCS, Senior Chief Sonar Technician, Surface (E-8), or STSCS, Senior Chief Sonar Technician, Submarine (E-8).

Description

Able to perform the duties required for STGCS (Senior Chief Sonar Technician, Surface), or STSCS (Senior Chief Sonar Technician, Submarine); serves as technical advisor for operations, maintenance, and training; reviews personnel, equipment, and material requirements, and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for STG2 (Sonar Technician, Surface, Second Class) in exhibit NER-STG-001, or STS2 (Sonar Technician, Submarine, Second Class) in exhibit NER-STS-001, as appropriate. In the lower-division baccalaureate/associate degree category, use the recommendation for STGCS (Senior Chief Sonar Technician, Surface) in exhibit NER-STG-001, or STSCS (Senior Chief Sonar Technician, Submarine) in exhibit NER-STS-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-STG-001

SONAR TECHNICIAN, SURFACE

STG3
STG2
STG1
STGC
STGCS

Exhibit Dates: 7/76–12/89.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *STG3:* Sonar Technician, Surface, Third Class (E-4). *STG2:* Sonar Technician, Surface, Second Class (E-5). *STG1:* Sonar Technician, Surface, First Class (E-6). *STGC:* Chief Sonar Technician, Surface (E-7). *STGCS:* Senior Chief Sonar Technician, Surface (E-8). *STCM:* Master Chief Sonar Technician (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on shipboard sonar, oceanographic, and underwater antisubmarine weapons control systems. *STG3:* Performs operational tests and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; operates sonar equipment to detect submarines and other underwater objects; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STG2:* Able to perform the duties required for STG3; performs preventive maintenance of sonar equipment; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STG1:* Able to perform the duties required for STG2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STGC:* Able to perform the duties required for STG1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares quarterly maintenance schedules. *STGCS:* Able to perform the duties required for STGC; organizes and schedules training programs; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence.

Recommendation, STG3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in applied mathematics, and 2 in basic blueprint reading (12/78).

Recommendation, STG2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading (12/78).

Recommendation, STG1

In the vocational certificate category, the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations (12/78).

Recommendation, STGC

In the vocational certificate category, the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

Recommendation, STGCS

In the vocational certificate category, the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STGC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

NER-STG-002

SONAR TECHNICIAN, SURFACE

STG3
STG2
STG1
STGC
STGCS
STGCM

Exhibit Dates: 1/90–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *STG3:* Sonar Technician, Surface, Third Class (E-4). *STG2:* Sonar Technician, Surface, Second Class (E-5). *STG1:* Sonar Technician, Surface, First Class (E-6). *STGC:* Chief Sonar Technician, Surface (E-7). *STGCS:* Senior Chief Sonar Technician, Surface (E-8). *STGCM:* Master Chief Sonar Technician, Surface (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on shipboard sonar, oceanographic, and underwater antisubmarine weapons control systems. *STG3:* Performs operational tests and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; performs preventative and corrective maintenance on sonar equipment; operates sonar equipment to detect submarine and other underwater objects; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STG2:* Able to perform the duties required for STG3; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STG1:* Able to perform the duties required for STG2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STGC:* Able to perform the duties required for STG1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares quarterly maintenance schedules. *STGCS:* Able to perform the duties required for STGC; organizes and schedules training programs; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence. *STGCM:* Able to perform the duties required for STGCS; serves as technical advisor for operations, maintenance, and training; reviews personnel, equipment, and material requirements, and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, STG3

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 1 in digital electronics, and 1 in solid state electronics (12/89).

Recommendation, STG2

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 2 in digital electronics, and 2 in solid state electronics (12/89).

Recommendation, STG1

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 2 in digital electronics, 2 in solid state electronics, and 3 in personnel supervision (12/89).

Recommendation, STGC

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronic laboratory, 2 in digital electronics, 2 in solid state electronics, 3 in personnel supervision, and 3 in maintenance management (12/89).

Recommendation, STGCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STCG. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, STGCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STGC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-STS-001

SONAR TECHNICIAN, SUBMARINE

STS3
STS2
STS1
STSC
STSCS

Exhibit Dates: 7/76–12/89.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *STS3:* Sonar Technician, Submarine, Third Class (E-4). *STS2:* Sonar Technician, Submarine, Second Class (E-5). *STS1:* Sonar Technician, Submarine, Frist Class (E-6). *STSC:* Chief Sonar Technician, Submarine (E-7). *STSCS:* Senior Chief Sonar Technician, Submarine (E-8). *STCM:* Master Chief Sonar Technician (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on submarine sonar, oceanographic, and auxiliary sonar equipment; coordinates use of submarine sonar and underwater weapons control systems. *STS3:* Performs operational tests and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; operates sonar equipment to detect submarines and other underwater objects; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STS2:* Able to perform the duties required for STS3; performs preventive maintenance on sonar equipment; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STS1:* Able to perform the duties required for STS2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STSC:* Able to perform the duties required for STS1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares quarterly maintenance schedules. *STSCS:* Able to perform the duties required for STSC; organizes and schedules training programs; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence.

Recommendation, STS3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in applied mathematics, and 2 in basic blueprint reading (12/78).

Recommendation, STS2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading (12/78).

Recommendation, STS1

In the vocational certificate category, the recommendation is the same as that for STS2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations (12/78).

Recommendation, STSC

In the vocational certificate category, the recommendation is the same as that for STS2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping (12/78).

Recommendation, STSCS

In the vocational certificate category, the recommendation is the same as that for STS2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

NER-STS-002

SONAR TECHNICIAN, SUBMARINE

STS3
STS2
STS1
STSC
STSCS
STSCM

Exhibit Dates: 1/90–Present.

Occupational Field: 10 (Senor Operations).

Career Pattern

SN: Seaman (E-3). *STS3:* Sonar Technician, Submarine, Third Class (E-4). *STS2:* Sonar Technician, Submarine, Second Class (E-5). *STS1:* Sonar Technician, Submarine, First Class (E-6). *STSC:* Chief Sonar Technician, Submarine (E-7). *STSCS:* Senior Chief Sonar Technician, Submarine (E-8). *STSCM:* Master Chief Sonar Technician, Submarine (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on submarine sonar oceanographic, and auxiliary sonar equipment; coordinates use of submarine sonar and underwater weapons control systems. *STS3:* Performs operational test and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; does troubleshooting and repairs; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STS2:* Able to perform the duties required for STS3; performs preventive and corrective maintenance on sonar equipment; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STS1:* Able to perform the duties required for STS2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STSC:* Able to perform the duties required for STS1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence. *STSCM:* Able to perform the duties required for STSCS; serves as technical advisor for operations, maintenance, and training; reviews personnel, equipment, and material requirements and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, STS3

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronic laboratory, 2 in digital electronics, and 2 in solid state electronics (12/89).

Recommendation, STS2

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 3 in digital electronics, and 3 in solid state electronics (12/89).

Recommendation, STS1

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 3 in digital electronics, 3 in solid state electronics, and 3 in personnel supervision (12/89).

Recommendation, STSC

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance, 3 in basic electronics laboratory, 3 in digital electronics, 3 in solid state electronics, 3 in personnel supervision, and 3 in maintenance management (12/89).

Recommendation, STSCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/89).

Recommendation, STSCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STSC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/89).

NER-SW-001

STEELWORKER

SW3
SW2
SW1
SWC
SWCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *SW3:* Steelworker Third Class (E-4). *SW2:* Steelworker Second Class (E-5). *SW1:* Steelworker First Class (E-6). *SWC:* Chief Steelworker (E-7). *SWCS:* Senior Chief Steelworker (E-8). *CUCM:* Master Chief Constructionman (E-9).

Description

Summary: Fabricates, assembles, erects, positions, and joins structural members and fabricated sections. *SW3:* Reads shop drawings and sketches; uses simple hoisting devices; cuts, forms, places, and ties reinforcing steel; works with erection crew as a connector or tagman; performs gas cutting, gas welding, and electric arc welding in all positions; identifies types and uses of electrodes, gas rods, and fluxes for welding, soldering, and brazing; identifies types of welded joints; identifies compressed gas cylinders; splices line and wire rope; computes safe working load of lines, wire rope, and block and tackle arrangements; erects common types of metal and swinging scaffolds; identifies types and shapes of structural and reinforcing steel; identifies types of pre-engineered buildings and structures; computes areas of polygons, circles, and cylinders; computes volume of prisms, pyramids, cones, spheres, and cylinders; fabricates elementary designs and shapes in sheet metal by using soldering, brazing and riveting. *SW2:* Able to perform the duties required for SW3; draws simple shop drawings and sketches; prepares requisitions; welds ferrous/nonferrous matels in all positions, using gas metal arc and gas tungsten arc welding procedures; applies methods of controlling metal expansion during welding operations; applies field straightening techniques to damaged structural shapes; applies principles and methods of cutting, chamfering, and scarfing metal, using carbon-arc chamfer-type rod and air-arc processes; performs gas-welding and electric arc welding to build up and wearface metal parts; determines mechanical advantage of block and tackle arrangements; determines types and use of drive pins, studs, and power charges for powder-assisted or powder-actuated tools; performs layout and fabrication of simple steel structures for teams and crews; rigs wire rope, using poured sockets, clips, and related attachments; performs operator maintenance on powder-actuated (low and high velocity) stud guns and on diesel or gasoline driven air compressors. *SW1:* Able to perform the duties required for SW2;

prepares as-built drawings; prepares work progress reports; provides material usage data; conducts training for teams and crews; designs and erects simple hoisting devices, such as 'A' frames, ginpoles, tripods, and derricks; directs the movement of cranes and other hoisting devices in moving and positioning objects; directs crews involved in cutting, bending, and placing reinforcing steel; directs teams and crews in erecting rigid frame and other pre-engineered buildings, structures, and airfield matting; directs teams and crews engaged in metal work and fabrication; knows the principles and assembly methods of the various pontoon systems; assigns daily work to teams and crews; prepares equipment, manpower, and material estimates from drawings and specifications; uses principles and techniques of Critical Path Method (CPM) scheduling; performs duties of shop planner or maintenance scheduler; performs construction and maintenance inspections; performs non-destructive metal tests. *SWC:* Able to perform the duties required for SW1; drafts letters and instructions; prepares reports; administers accident prevention program; makes personnel assignments; provides technical advice on plans and specifications and on construction and maintenance techniques; implements maintenance and cost control program; prepares and uses network analysis; prepares and maintains project progress charts; organizes and controls the site development of materials and equipment. *SWCS:* Able to perform the duties required for SWC; prepares correspondence and local directives and instructions for attaining organizational objectives and improving operations; provides information and advice on utilization, capabilities, reliability, and operations in own area of responsibility; implements a program for assigning and evaluating personnel; coordinates equipment assignment among various projects; administers construction force tool inventory and inspection program; prepares and maintains visual status boards; is capable of directing the operation and maintenance of all utilities in the Public Works Department; directs transportation and equipment services; establishes a maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage, and maintenance data and coordinates the preparation and submission of related reports; organizes, schedules, and evaluates training programs.

Recommendation, SW3

In the vocational certificate category, 9 semester hours in welding, 1 in rigging, and 1 in steel layout and fabrication. In the lower-division baccalaureate/associate degree category, 3 semester hours in welding and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SW2

In the vocational certificate category, 15 semester hours in welding, 2 in rigging, and 2 in steel layout and fabrication. In the lower-division baccalaureate/associate degree category, 5 semester hours in welding and 1 in steel layout and fabrication, and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SW1

In the vocational certificate category, 15 semester hours in welding, 6 in advanced welding, 3 in rigging, 3 in technical mathematics, and 3 in steel layout and fabrication. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 2 in steel layout and fabrication, and 2 in personnel supervision, and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SWC

In the vocational certificate category, the recommendation is the same as that for SW1. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 3 in personnel supervision, 3 in industrial technology, 2 in steel layout and fabrication, and 1 in technical writing, and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SWCS

In the vocational certificate category, the recommendation is the same as that for SW1. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 3 in personnel supervision, 3 in records administration, 3 in technical writing, 3 in industrial technology, and 2 in steel layout and fabrication, and additional credit in welding on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in construction management, and 3 in human relations (1/77).

NER-TD-001

TRADEVMAN

TD3
TD2
TD1
TDC
TDCS
TDCM

Exhibit Dates: 6/71–Present.

Occupational Field: 11 (Weapons System Support).

Career Pattern

AN: Airman (E-3). *TD3:* Tradevman Third Class (E-4). *TD2:* Tradevman Second Class (E-5). *TD1:* Tradevman First Class (E-6). *TDC:* Chief Tradevman (E-7). *TDCS:* Senior Chief Tradevman (E-8). *TDCM:* Master Chief Tradevman (E-9).

Description

Summary: Operates, maintains, and installs training equipment; supervises maintenance; uses equipment in training programs; plans and develops training programs and training aids. *TD3:* Performs maintenance on electronic, hydraulic, and electrical training equipment; prepares computers for operation; records information on training devices; performs electromechanical maintenance; operates and repairs audio-visual training equipment and other training devices. *TD2:* Able to perform the duties required for TD3; analyzes and repairs electronic and hydraulic systems of training devices; operates and maintains sensor equipment; repairs analog computers; prepares computer program tapes and interprets print-outs; organizes and maintains technical files; troubleshoots and maintains servo-systems used in training devices; locates and corrects defects in mechanical computing elements. *TD1:* Able to perform the duties required for TD2; analyzes and corrects computer system mulfunctions; supervises tests and measurements on training devices; prepares maintenance troubleshooting programs for ADP/EDP operations; verifies computer tapes; prepares drawings from mechanical, electrical, and electronic schematics; inspects maintenance work; prepares maintenance schedules; orders technical publications or manuals; orders parts, tools, equipment and material; maintains and repairs air-conditioning systems. *TDC:* Able to perform the duties required for TD1; assists in selection and development of training aids; coordinates scheduling of training devices; supervises training programs; assigns job priorities; analyzes discrepancy trends; directs and monitors installation, operation, and maintenance of assigned equipment; schedules preventive maintenance; develops and directs closed-circuit television programs. *TDCS:* Able to perform the duties required for TDC; provides utilization information; prepares correspondence and local directives; establishes a program for interviewing, evaluating, and assigning personnel; organizes, schedules, and evaluates training programs; evaluates requirements and administers a long-range planned maintenance program. *TDCM:* Able to perform the duties required for *TDCS;:* plans, organizes, and controls activities; forecasts future requirements and plans for personnel, equipment, and materials; establishes goals and priorities; develops operating budgets and monitors expenditures.

Recommendation, TD3

In the vocational certificate category, 2 semester hours in blueprint reading and schematics, 3 in basic electricity, 3 in basic electronics, 3 in technical mathematics, and 6 in applied physics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics (2/77).

Recommendation, TD2

In the vocational certificate category, 2 semester hours in blueprint reading and schematics, 3 in basic electricity, 3 in basic electronics, 3 in technical mathematics, and 6 in applied physics. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics (2/77).

Recommendation, TD1

In the vocational certificate category, 2 semester hours in blueprint reading and schematics, 2 in record keeping, 3 in basic electricity, 3 in basic electronics, 3 in technical mathematics, 6 in applied physics, and additional credit in air conditioning and refrigeration on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 2 in personnel supervision, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics. In the upper-division baccalaureate category, 3 semester hours in audio-visual education (2/77).

Recommendation, TDC

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in personnel supervision, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics. In the upper-division baccalaureate category, 3 semester hours in audio-visual education and 3 in instructional techniques and materials (2/77).

Recommendation, TDCS

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in personnel supervision, 3 for management electives, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics. In the upper-division baccalaureate category, 3 semester hours in audio-visual education, 3 in instructional techniques and materials, and 3 for field experience in management (2/77).

Recommendation, TDCM

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TDCS. In the upper-division baccalaureate category, 3 semester hours in audio-visual education, 3 in instructional techniques and materials, 3 in management problems, and 3 for field experience in management, and additional credit in human relations, personnel management, and for a practicum in management on the basis of institutional evaluation (2/77).

NER-TM-001

TORPEDOMAN'S MATE (TECHNICIAN)

TM3
TM2
TM1
TMC
TMCS
TMCM

Exhibit Dates: 6/71-Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *TM3:* Torpedoman's Mate, Third Class (E-4). *TM2:* Torpedoman's Mate, Second Class (E-5). *TM1:* Torpedoman's Mate, First Class (E-6). *TMC:* Chief Torpedoman's Mate (E-7). *TMCS:* Senior Chief Torpedoman's Mate (E-8). *TMCM:* Master Chief Torpedoman's Mate (E-9).

Description

NOTE: Torpedoman's Mates may serve as either Technicians or Operators. Technicians are identified by a four-digit NEC code which indicates the weapons systems specialty. Operators are identified by an NEC code of '0000.' (See Appendix A for information about NEC's.) Refer to exhibit NER-TM-002 for Torpedoman's Mate (Operator). *Summary:* Assembles, repairs, and performs maintenance on underwater electronics torpedoes that are launched from surface ships and submarines; troubleshoots, tests, and replaces defective elements and components in the torpedo electronic systems; uses instrumentation and test equipment. TM3 (Technician) Handles, transfers, loads, and off-loads torpedoes; operates oscilloscopes, frequency counters, and signal generators; uses multimeter; solders electrical leads and terminals; tests and replaces electronic components; uses technical maintenance publications, schematics, and drawings; maintains torpedo records; uses and cares for handtools. *TM2:* (Technician) Able to perform the duties required for TM3; performs electronic mantenance; disassembles, cleans, adjusts, reassembles, and tests propulsion and control mechanisms of torpedoes; effects all electronic and electrical circuit tests and makes required adjustments; completes deficiency reports on torpedoes and associated equipment. *TM1:* (Technician) Able to perform the duties required for TM2; tests internal circuits of major units; uses working drawing in making modification to torpedo; maintains a technical library; trains subordinates to perform maintenance on weapons; prepares preventive maintenance schedule. NOTE: If NEC was TM-0747, Advanced Undersea MK 46 Test Equipment Weaponsman, or TM-0749, Advanced Undersea MK 48 Test Equipment Weaponsman, also performs the following duties: Performs maintenance on test equipment (a sophisticated computer system with a number of interfaces to the torpedoes and instrumentation) used by Torpedoman's Mates Technicians; has a thorough knowledge of interfacing, of the interfaced equipment, and of digital and computer electronics. *TMC:* (Technician) Able to perform the duties required for TM1; supervises the upkeep and assembly of torpedoes; administers periodic inspection to ensure quality control. NOTE: If NEC was TM-0747, Advanced Undersea MK 46 Test Equipment Weaponsman, or TM-0749, Advanced Undersea MK 48 Test Equipment Weaponsman, refer to the note in the TM1 (Technician) description. *TMCS:* (Technician) Able to perform the duties required for TMC; prepares local directives and correspondence; organizes and schedules training programs; administers long-range planned maintenance programs; controls expenditure of material and funds used in procurement. NOTE: If NEC was TM-0747, Advanced Undersea MK 46 Test Equipment Weaponsman, or TM-0749, Advanced Undersea MK 48 Test Equipment Weaponsman, refer to the note in the TM1 (Technician) description. *TMCM:* (Technician) Able to perform the duties required for TMCS; plans, organizes, implements, and controls activities in compliance with policies and directives; establishes goals and objectives in area of responsibility; develops operating budgets and monitors expenditures. NOTE: If NEC was TM-0747, Advanced Undersea MK 48 Test Equipment Weaponsman, refer to the note in the TM1 (Technician) description.

Recommendation, TM3

(Technician) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in computer operations (10/87).

Recommendation, TM2

(Technician) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics and 3 in computer operations (10/87).

Recommendation, TM1

(Technician) In the vocational certificate category, 3 semester hours in basic electricity/electronics and 3 in computer operations. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in computer operations, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations; if NEC was TM-0747, Advanced Undersea MK 46 Test Equipment Weaponsman, or TM-0749, Advanced Undersea MK 48 Test Equipment Weaponsman, additional credit as follows: 2 semester hours in applied mathematics, 4 in digital electronics, 4 in computer organization, 3 in electromechanical systems, and 8 in systems maintenance (10/87).

Recommendation, TMC

(Technician) In the vocational certificate category, the recommendation is the same as that for TM1 (Technician). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in computer operations, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations; if NEC was TM-0747, Advanced Undersea MK 46 Test Equipment Weaponsman, or TN-0749, Advanced, Undersea MK 48 Test Equipment Weaponsman, additional credit as follows: 2 semester hours in applied mathematics, 4 in digital electronics, 4 in computer organization, 3 in electromechanical systems, and 8 in systems maintenance (10/87).

Recommendation, TMCS

(Technician) In the vocational certificate category, the recommendation is the same as that for TM1 (Technician). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TMC (Technician). In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/87).

Recommendation, TMCM

(Technician) In the vocational certificate category, the recommendation is the same as that for TM1 (Technician). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TMC (Technician). In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/87).

NER-TM-002

TORPEDOMAN'S MATE (OPERATOR)

TM3
TM2
TM1
TMC
TMCS
TMCM

Exhibit Dates: 6/71-Present.

Occupational Field: 9 (Ordance Systems).

Career Pattern

SN: Seaman (E-3). *TM3:* Torpedoman's Mate, Third Class (E-4). *TM2:* Torpedoman's Mate, Second Class (E-5). *TM1:* Torpedoman's Mate, First Class (E-6). *TMC:* Chief Torpedoman's Mate (E-7). *TMCS:* Senior Chief Torpedoman's Mate (E-8). *TMCM:* Master Chief Torpedoman's Mate (E-9).

Description

NOTE: Torpedoman's Mates may serve as either Technicians or Operators. Technicians are identified by a four-digit NEC code which indicates the weapons systems specialty. Operators are indentified by the NEC code of '0000.' (See Appendix A for information about NEC's.) Refer to exhibit NER-TM-001 for Torpedoman's Mate (Technician). *Summary:* Assembles, operates, repairs, and performs electrical, mechanical, and hydraulic maintenance on underwater electronics torpedoes that are launched from surface ships and submarines; uses instrumentation and test equipment. *TM3:* (Operator) Handles, transfers, loads, and off-loads torpedoes; uses multimeter; solders electrical leads and terminals; tests and replaces electronic components; uses technical maintenance publications, schematics, and drawings; maintains torpedo records; uses and cares for handtools. *TM2:* (Operator) Able to perform the duties required for TM3; performs electrical, mechanical, and hydraulic maintenance; disassembles, cleans, adjusts, and tests propulsion and control mechanisms of torpedoes and launching systems; completes deficiency reports on torpedoes and associated equipment. *TM1:* (Operator) Able to perform the duties required for TM2; uses working drawings in making modification to torpedo systems; maintains a technical library; trains subordinates to perform maintenance on weapon systems; prepares preventive maintenance schedule. *TMC:* (Operator) Able to perform the duties required for TM1; supervises the upkeep and assembly of torpedo maintenance systems; administers periodic inspection to insure quality control. *TMCS:* (Operator) Able to perform the duties required for TMC; prepares local directives and correspondence; organizes and schedules training programs; administers long-range planned maintenance programs; controls expenditures of materials and funds used in procurement. *TMCM:* (Operator) Able to perform the duties required for TMCS; plans, organizes, implements, and controls activities in compliance with policies and directives; establishes goals and objectives in area of responsibility; develops operating budgets and monitors expenditures.

Recommendation, TM3

(Operator) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic mechanical systems and 3 in hydraulic/pneumatic systems (10/87).

Recommendation, TM2

(Operator) In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic mechanical systems and 3 in hydraulic/pneumatic systems (10/87).

Recommendation, TM1

(Operator) In the vocational certificate category, the recommendation is the same as that for TM2 (Operator). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic mechanical systems, 3 in hydraulic/pneumatic systems, 2 in personnel supervision, 2 in maintenance management, 3 in human relations, and 3 in system maintenance (10/87).

Recommendation, TMC

(Operator) In the vocational certificate category, the recommendation is the same as that for TM2 (Operator). In the lower-division baccalaureate/associate degree category, 3 semester hours in basic mechanical systems, 3 in hydraulic/pneumatic systems, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 3 in system maintenance (10/87).

Recommendation, TMCS

(Operator) In the vocational certificate category, the recommendation is the same as that for TM2 (Operator). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TMC (Operator). In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/87).

Recommendation, TMCM

(Operator) In the vocational certificate category, the recommendation is the same as that for TM2 (Operator). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TMC (Operator). In the upper-division baccalaureate category, 6 semester hours for field experience in managemant, 3 in personnel management, and 3 in management problems (10/87).

NER-UT-001

UTILITIESMAN

UT3
UT2
UT1
UTC
UTCS
UTCM

Exhibit Dates: 6/72–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *UT3:* Utilitiesman Third Class (E-4). *UT2:* Utilitiesman Second Class (E-5). *UT1:* Utilitiesman First Class (E-6). *UTC:* Chief Utilitiesman (E-7). *UTCS:* Senior Chief Utilitiesman (E-8). *UTCM:* Master Chief Utilitiesman (E-9).

Description

Summary: Plans, supervises, and performs tasks involved in the installation, maintenance, and repair of plumbing, heating, steam, compressed-air, fuel storage, and distribution systems, water treatment and distribution systems, air-conditioning and refrigeration equipment, and sewage collection and disposal facilities. *UT3:* Installs immersion can heaters and space heaters, fuel lines, and piping and pressure vessel insulation materials; performs pre-start checks, and maintains and operates assigned vehicles; maintains boilers, water plants, air-conditioning and refrigeration equipment, and pumps and air compressors; performs minor repairs on immersion can heaters and space heaters; solders/brazes soft and hard drawn copper tubing and fittings; measures, cuts, and threads galvanized steel pipe, cast iron soil pipe, black iron gas pipe, cast iron water pipe, clay and concrete pipe, cement-asbestos pipe, and plastic pipe; identifies color coding used on piping systems and compressed gas cylinders; cleans watersides and firesides of boilers; handles chemicals used in treating water and sewage. *UT2:* Able to perform the duties required for UT3; reads and works from drawings and specifications; prepares simple shop drawings and sketches; prepares time cards and material requisitions; installs water systems, packaged refrigeration and air-conditioning systems, and pressure, check, and shut-off valves; installs laundry equipment, heating systems, galley equipment, plumbing fixtures, water heaters, and sewage systems; performs water treatment and purification tests; maintains and repairs laundry equipment; tests, adjusts, and recalibrates gauges; repairs valves. *UT1:* Able to perform the duties required for UT2; prepares work progress and material usage reports; conducts personnel readiness interviews; implements training for team/crew members; constructs septic tanks, cess pools, and leaching fields; installs fire protection systems, advanced-base type boilers and pressure vessels, stationary refrigeration and air-conditioning systems, and compressed air systems; organizes work schedules; prepares estimates; performs inspections; tests boilers and pressure vessels; serves as supervisor for steam, sewage, and water plants. *UTC:* Able to perform the duties required for UT1; drafts letters and reports; administers safety program; assigns personnel based on readiness reports; supervises and coordinates all unit tasks; provides technical advice; implements maintenance and cost control program; organizes and controls the site deployment of materials and equipment. *UTCS:* Able to perform the duties required for UTC; provides information and advice on utilization, capabilities, reliability, and operations in area of responsibility; prepares local directives and instructions for attaining objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel for maximum utilization; determines requirement for advanced base planning; coordinates equipment assignment; directs operation and maintenance of all utilities; establishes a maintenance/cost control program. *UTCM:* Able to perform the duties required for UTCS or CECS (Senior Chief Construction Electrician); plans, organizes, implements, and controls work activities in compliance with policy statements and directives; establishes goals and sets priorities; reviews personnel, equipment, and material requirements; develops procedures for work improvement and simplification through organizational analysis; serves as a construction inspector; manages a contract inspection branch; implements energy conservation and pollution control programs; assists in the management and operation of a public works department; develops operating budgets and monitors expenditures; forecasts future personnel, equipment, and material requirements and takes action necessary to satisfy them; is responsible for the administration of a department or company.

Recommendation, UT3

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in utilities maintenance, and 3 in plumbing. In the lower-division baccalaureate/associate degree category, 3 semester hours in utilities construction and maintenance (1/77).

Recommendation, UT2

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in utilities maintenance, 3 in plumbing, 3 in utilities installation, and 2 in blueprint reading and sketching. In the lower-division baccalaureate/associate degree category, 3 semester hours in utilities construction and maintenance, 3 in applied science, and 2 in general plans and specifications (1/77).

Recommendation, UT1

In the vocational certificate category, 6 semester hours in utilities installation, 3 in introduction to construction, 3 in utilities maintenance, 3 in plumbing, and 2 for blueprint reading and sketching. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 2 in general plans and specifications, and 2 in personnel supervision (1/77).

Recommendation, UTC

In the vocational certificate category, the recommendation is the same as that for UT1. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 3 in personnel supervision, 2 in general plans and specifications, 2 in shop management, and 1 in safety management (1/77).

Recommendation, UTCS

In the vocational certificate category, the recommendation is the same as that for UT1. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 3 in personnel supervision, 2 in introduction to management, 2 in general plans and specifications, 2 in shop management, and 1 in safety management. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

Recommendation, UTCM

In the vocational certificate category, use the recommendation for UT1 or CE1 (Construction Electrician First Class) in exhibit NER-CE-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting; add either the 23 semester hours for UTCS, or the 17 semester hours for CECS (Senior Chief Construction Electrician) in exhibit NER-CE-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in human relations, 3 in management problems, and 3 in forecasting (1/77).

NER-WT-001

WEAPONS TECHNICIAN

WT3
WT2
WT1
WTC
WTCS
WTCM

Exhibit Dates: 1/86–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *WT3:* Weapons Technician Third Class (E-4). *WT2:* Weapons Technician Second Class (E-5). *WT1:* Weapons Technician First Class (E-6). *WTC:* Chief Weapons Technician (E-7). *WTCS:* Senior Chief Weapons Technician (E-8). *WTCM:* Master Chief Weapons Technician (E-9).

Description

Summary: Performs organizational, intermediate and depot maintenance on nuclear weapons and components; stores, inspects, tests, adjusts, repairs, and packages nuclear weapon components and associated equipment; assembles, disassembles, and converts nuclear weapons, warheads, and/or components; maintains magazines, assembly and stowage areas; maintains sprinkler and alarm systems. *WT3:* Packages, unpackages, handles and stows nuclear weapons; operates handling equipment applicable to nuclear weapons; inspects magazines and records temperatures; performs modernization and stowage monitoring tests on nuclear weapons and components; operates torquing tools; repairs sealing surfaces, mating areas and threads; replaces fastening hardware and seals, pipe, fittings, seals and gaskets; inspects and cleans components of electrical equipment; solders, wire wraps connections, tests for shorts, grounds, and continuity; replaces electrical components; installs and removes dust covers and shorting plugs; uses and cares for pneumatic and electrical power tools; operates measuring devices; detects and treats corrosion; performs preventive maintenance; operates magazine firefighting systems; performs nuclear weapons accident response and decontamination procedures; completes maintenance data system forms; uses drawings; inventories tools and portable test equipment. *WT2:* Able to perform the duties required for WT3; replaces nuclear weapons components; inspects nuclear weapons, components and equipment; tests alarm and sensing devices; troubleshoots and repairs ordnance electrical systems; maintains nuclear weapons test equipment; installs components in hydraulic systems; troubleshoots and repairs hydraulic pumps; repairs magazine firefighting systems; maintains publications; complies with requirements for nuclear weapons tactical inspections. *WT1:* Able to perform the duties required for WT2; identifies damaged explosive ordnance components; repairs hydraulic system components; prepares planned maintenance schedules; supervises response to nuclear accidents and incidents; supervises modernizations, alterations and modifications. *WTC:* Able to perform the duties required for WT1; inspects completed modernizations; inspects nuclear weapons material stowage, space layout and storeroom maintenance; coordinates repair and calibration of test equipment; prepares reports; supervises training programs. *WTCS:* Able to perform the duties required for WTC; administers long-range planned maintenance programs; prepares ordnance loading and stowage plans; coordinates weapon overhaul and repair; writes correspondence, directives and instructions; organizes and schedules training programs and evaluates effectiveness. *WTCM:* Able to perform the duties required for WTCS; establishes goals, objectives and priorities; plans, organizes, implements and controls activities; reviews personnel, equipment and material requirements; evaluates new trends in weapons systems; develops operating budgets and monitors expenditures; forecasts future requirements.

Recommendation, WT3

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (10/87).

Recommendation, WT2

Credit is not recommended because of the limited or specialized nature of the skills, competencies, and knowledge (10/87).

Recommendation, WT1

In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 3 in human relations, and 2 in maintenance management (10/87).

Recommendation, WTC

In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in human relations, and 3 in maintenance management (10/87).

Recommendation, WTCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for WTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems (10/87).

Recommendation, WTCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same is that for WTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (10/87).

NER-YN-001

YEOMAN

YN3
YN2
YN1
YNC
YNCS
YNCM

Exhibit Dates: 6/72–12/89.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *YN2:* Yeoman Second Class (E-5). *YN1:* Yeoman First Class (E-6). *YNC:* Chief Yeoman (E-7). *YNCS:* Senior Chief Yeoman (E-8). *YNCM:* Master Chief Yeoman (E-9).

Description

Summary: Performs general office clerical duties, including typewriting, office machine operations, office communications, and filing and records maintenence. *YN3:* Maintains files; operates duplicating, adding, calculating, and copying machines; types correspondence, reports, and other communications from rough draft (a stright-copy typing rate of at least 30 words per minute is required). *YN2:* Able to perform the duties required for *YN3*,: organizes and monitors filing and records maintenance, retention, and disposal; maintains officer personnel records; routes correspondence; types records, correspondence, and reports (a straight-copy typing rate of at least 40 words per minute is required); sends, receives, and accounts for official and registered mail. *YN1:* Able to perform the duties required for YN2; drafts correspondence, instructions, and notices (a straight-copy typing rate of at least 50 words per minute is required); verifies accuracy of job orders and work requests; assists in the supervision of clerical functions. *YNC:* Able to perform the duties required for YN1; maintains classified materials control system; verifies accuracy of official correspondence and reports; monitors submission and maintenance of officer fitness reports; supervises and directs clerical functions. *YNCS:* Able to perform the duties required for YNC; interviews, assigns, supervises, and evaluates office personnel; recommends office procedures improvements; procures and allocates office materials and equipment; supervises and controls the security of sensitive records; trains office personnel; functions as office supervisor. *YNCM:* Able to perform the duties required for YNCS; establishes goals, objectives, and priorities in the administration of the office function; reviews and makes recommendations concerning office personnel, equipment, and supply requirements, develops operating budget for the office and monitors office expenditures.

Recommendation, YN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in filing and records management, 1 in general clerical procedures, and 1 in office machines (12/76).

Recommendation, YN2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in filing and records management, 2 in general clerical procedures, and 1 in office machines (12/76).

Recommendation, YN1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in filing and records management, 2 in general clerical procedures, 2 in communication (written), and 1 in office machines, and additional credit in typing on the basis of institutional evaluation (12/76).

Recommendation, YNC

In the vocational certificate category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication (written), 2 in filing and records management, 1 in office machines, and 1 in office management, and additional credit in typing on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication (written), 2 in filing and records management, 1 in personnel supervision, 1 in office machines, and 1 in office management, and additional credit for field experience in management and typing on the basis of institutional evaluation (12/76).

Recommendation, YNCS

In the vocational certificate category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication (written), 3 in office management, 3 in administration electives, 2 in filing and records management, and 1 in office machines, and additional credit in typing on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication (written), 3 in office management, 3 in management electives, 3 in personnel supervision, 2 in filing and records management, and 1 in office machines, and additional credit for field experience in management and in typing on the basis of institutional evaluation. In the upper-division baccalaureate category, credit in human relations and for a practicum in management on the basis of institutional evaluation (12/76).

Recommendation, YNCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for YNCS. In the upper-division baccalaureate category, 3 semester hours in management problems, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation (12/76).

NER-YN-002

YEOMAN

YN3
YN2
YN1
YNC
YNCS
YNCM

Exhibit Dates: 1/90–Present

Occupational Field: 1* (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman, Third Class (E-4). *YN2:* Yeoman, Second Class (E-5). *YN1:* Yeoman, First Class (E-6). *YNC:* Chief Yeoman (E-7). *YNCS:* Senior Chief Yeoman (E-8). *YNCM:* Master Chief Yeoman (E-9).

Description

Summary: Performs general office clerical and administrative duties, including typewriting, office machine operations, office communications, filing and records maintenance. *YN3:* Maintains files; operates duplicating, adding, calculating, and copying machines; serves as paralegal counselor when a legalman is not available; types correspondence, reports, and other communications from rough draft (a straight-copy typing rate of at least 30 words per minute is required). *YN2:* Able to perform the duties required for YN3; organizes and monitors filing and records; maintenance, retention, and disposal; maintains officer personnel records; routes correspondence; types records, correspondence, and reports (a straight-copy typing rate of at least 40 words per minute is required); sends, receives, and accounts for official and registered mail; advises personnel of benefits, types of duty, and resolution of personal problems. *YN1:* Able to perform the duties required for YN2; drafts correspondence, instructions, and notices (a straight-copy typing rate of at least 50 words per minute is required); verifies accuracy of job orders and work requests; assists in the supervision of clerical functions. *YNC:* Able to perform the duties required for YN1; maintains classified materials controls system; verifies accuracy of official correspondence and reports; monitors submission and maintenance of officer fitness reports; supervises and directs clerical functions. *YNCS:* Able to perform the duties required for YNC; interviews, assigns, supervises, and evaluates office personnel; recommends office procedures improvements; procures and allocates office materials and equipment; supervises and controls the security of sensitive records; trains office personnel; functions as office supervisor. *YNCM:* Able to perform the duties required for YNCS; establishes goals, objectives, and priorities in the administration of the office function; plans, organizes, implements, coordinates, and controls activities; reviews and makes recommendations concerning office personnel, equipment, and supply requirements; develops operating budget for the office and monitors office expenditures; prepares staff studies.

Recommendation, YN3

In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in recordkeeping, 1 in clerical procedures, 1 in automatic data processing (ADP) operations, 1 in interpersonal communications, and 1 in military legal practices and procedures (3/90).

Recommendation, YN2

In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in recordkeeping, 2 in clerical procedures, 2 in automatic data processing (ADP) operations, 1 in interpersonal communications, and 1 in military legal practices and procedures (3/90).

Recommendation, YN1

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in recordkeeping, 2 in clerical procedures, 2 in automatic data processing (ADP) operations, 2 in technical writing, 2 in interpersonal communications, and 2 in military legal practices and procedures. In the upper-division baccalaureate category, 2 semester hours in management problems (3/90).

Recommendation, YNC

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in recordkeeping, 3 in clerical procedures, 2 in automatic data processing (ADP) operations, 3 in technical writing, 1 in office administration, 1 in principles of supervision, 2 in interpersonal communications, and 2 in military legal practices and procedures. In the upper-division baccalaureate category, 2 semester hours for field experience in management, 2 in management problems, and 2 in human resource management (3/90).

Recommendation, YNCS

In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in recordkeeping, 3 in clerical procedures, 2 in automatic data processing (ADP) operations, 3 in technical writing, 2 in office administration, 2 in principles of supervision, 3 in interpersonal communications, and 3 in military legal practices and procedures. In the upper-division baccalaureate category, 2 semester hours for field experience in management, 3 in management problems, and 3 in human resource management (3/90).

Recommendation, YNCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for YNCS. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in management problems, and 3 in human resource management (3/90).

Navy Warrant Officer Exhibits

NWO-711X-001

Boatswain (Surface)

711X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Boatswain (Surface) Warrant Officer from Boatswain's Mate (BM), Quartermaster (QM), or Signalman (SM).

Description

Serves as an officer technical specialist in the field of seamanship and navigation; plans, supervises and directs activities of deck and navigation personnel in performance of operational and maintenance functions; plans, develops, and administers deck navigation training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in general ship operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-712X-001

Operations Technician Surface
Operations Technician
(Operations Technician (Surface))

712X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Operations Technician (Surface) Warrant Officer from: Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems, and procedures in operations and communications; supervises and trains personnel in the operation and maintenance of operations and communications equipment and systems; plans, directs, and controls operations and communication activities; advises and assists commands in the above areas and in the employment and utilization of associated facilities and installations.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-713X-001

Boatswain (Surface)

713X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Boatswain (Surface) Warrant Officer from Boatswain's Mate (BM), Quartermaster (QM), or Signalman (SM).

Description

Serves as an officer technical specialist in the field of seamanship and navigation; plans, supervises and directs activities of deck and navigation personnel in performance of operational and maintenance functions; plans, develops, and administers deck navigation training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in general ship operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-713X-002

Boatswain (Submarine)

713X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Boatswain (Submarine) Warrant Officer from Boatswain's Mate (BM), Quartermaster (QM), or Signalman (SM).

Description

Serves as an officer technical specialist in the field of seamanship, navigation, and deep sea diving; plans, supervises, and directs activities of deck, navigation, and deep sea diving personnel in performance of operational and maintenance functions; plans, develops, and administers deck, navigation, and diver programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their commmand.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in general ship operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-713X-003

Engineering Technician (Surface)

713X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Engineering Technician (Surface) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems, and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-714X-001

Operations Technician (Surface)

714X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Operations Technician (Surface) Warrant Officer from: Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems, and procedures in operations and communications; supervises and trains personnel in the operation and maintenance of operations and communications equipment and systems; plans, directs, and controls operations and communication activities; advises and assists commands in the above areas and in the employment and utilization of associated facilities and installations.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-714X-002

Operations (Submarine)

714X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Operations Technician (Submarine) Warrant Officer from Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in operations and communications, with practical experience in these areas; assists and advises commands in operations and communications planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of operations and communications personnel; assists in the administration of onboard taining programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 in field experience for management (10/85).

NWO-714X-003

Repair Technician (Surface)

714X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Repair Technician (Surface) Warrant Officer from: Hull Maintenance Technician (HT), Molder (MT), or Patternmaker (PM).

Description

Serves as officer technical specialist in ship repair and maintenance, damage control, and firefighting procedures, techniques, and equipment; supervises and trains personnel whose duties involve electric arc-welding, oxyacetalene welding and cutting, woodworking, metalworking, boat repairs, foundry operations, patternmaking, piping and drainage, and nuclear, biological, and chemical warfare defense; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-715X-001

Nuclear Power Technician, Surface

715X

Description

Use the recommendation in exhibit NWO-740X-001.

NWO-715X-002

Special Warfare Technician

715X

Exhibit Dates: 3/90–Present. Pending evaluation.

NWO-716X-001

Explosive Ordnance Disposal
Technician

716X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Explosive Ordnance Disposal Technician Warrant Officer from any rating; must be qualified in Explosive Ordnance Disposal (EOD).

Description

Serves as an officer technical specialist in the methods of detection, identification, field evaluation, recovery, removal, disposal, and rendering safe of all types of U.S. and foreign explosive ordnance, explosives, and demolition materials and in the technical escort of chemical and biological warfare agents; plans and supervises the activities of personnel engaged in diving and explosive ordnance disposal operations, involving all types of U.S. and foreign munitions, conventional and improvised; supervises the repair and modification of explosive ordnance disposal tools, equipment, and material; supervises the procurement, storage, issue, security, and preservation of explosive ordnance disposal equipment, material, and components; inspects and evaluates unidentified explosive ordnance items and determines the proper method of recovery, removal, disposal, or rendering safe of such items; supervises technical escort missions; performs airborne techniques; provides Secret Service with explosive ordnance disposal support for presidential and other VIP protection; supervises the activities of personnel engaged in diving and/or underwater recovery operations; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-716X-002

Surface Ordnance Technician

716X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Surface Ordance Technician Warrant Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in ballistic missile weapons systems including missile, missile launch, missile fire control and warhead subsystems; trains and supervises personnel engaged in assembly, installation, operations, testing, maintenance and repair of ballistic missile systems; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-717X-001

Surface Underwater Ordnance
Technician

717X

Exhibit Dates: 4/75–6/86. (Effective 6/86, 717X was discontinued.)

Career Pattern

May have progressed to Surface Underwater Ordnance Technician Warrant Officer from Mineman (MN) or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in underwater mines, including the MK 60 anti-submarine mine; trains and supervises personnel engaged in assembly, installation, operation, test, maintenance, and repair of bottom and moored mines, mobile mine propulsion units, and mine surface launch equipment; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-718X-001

Electronics Technician (Surface)
718X

Exhibit Dates: 4/75–Present.

Career Pattern
May have progressed to Electronics Technician (Surface) Warrant Officer from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control Technician, (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), or Sonar Technician (ST).

Description
Serves as an officer technical specialist in the field of non-nuclear electronics including electronic theory and equipment and systems used in navigation; directs the detection, tracking, recognition and identification of ship, aircraft and missiles; supervises the installation, operation, and maintenance of all non-nuclear electronics systems installed in units of the surface force; supervises those persons involved in installing, modifying, testing, calibrating, maintaining, and repairing electronics equipment; serves as expert troubleshooter who analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques and communication methods; writes reports and provides technical advice about electronic systems.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 2 for field experience in electronics (1/84).

NWO-719X-001

Surface Communications Technician
719X

Exhibit Dates: 5/84–1/87. (Effective 1/87, the designator 719X was combined with the discontinued designator 729X; see exhibit NWO-719X-002.)

Career Pattern
May have progressed to Surface Communications Technician Warrant Officer from Radioman (RM).

Description
Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in surface communications, with practical experience in these areas; assists and advices commands in communication planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of communication personnel; assists in administration of on-board training programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-719X-002

Communications Technician
719X

Exhibit Dates: 1/87–Present.

Career Pattern
May have progressed to Communications Technician Warrant Officer from Radioman (RM).

Description
Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in surface communications, with practical experience in these areas; assists and advices commands in communication planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of communication personnel; assists in administration of on-board training programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-720X-001

Diving Officer
720X

Exhibit Dates: 3/90–Present. Pending evaluation.

NWO-721X-001

Aviation Ordnance Technician
721X

Exhibit Dates: 1/65–3/75.

Career Pattern
May have progressed to Aviation Ordnance Technician Warrant Officer from Aviation Ordnanceman (AO) or Gunner's Mate Technician (GMT).

Description
Serves as an officer technical specialist in the uses, capabilities, limitations, and reliability of aviation ordnance, handling equipment, and aircraft armament; supervises and directs the arming/dearming of aircraft and the requistioning, stowing, handling, testing, disassembly, assembly, installation, operation, maintenance, and repair of aviation ordnance, handling equipment and aircraft armament; supervises and directs the stowage, testing, and installation of aircraft missiles; interprets, publicizes, and ensures compliance with regulations and safety precautions governing the handling and stowing of aircraft ammunition, aircraft missiles, pyrotechnics, and explosives; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates the activities of technical personnel.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-721X-002

Boatswain (Submarine)
721X

Exhibit Dates: 4/75–Present.

Career Pattern
May have progressed to Boatswain (Submarine) Warrant Officer from Boatswain's Mate (BM), Quartermaster (QM), or Signalman (SM).

Description
Serves as an officer technical specialist in the field of seamanship, navigation, and deep sea diving; plans, supervises, and directs activities of deck, navigation, and deep sea diving personnel in performance of operational and maintenance functions; plans, develops, and administers deck, navigation, and diver programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their commmand.

Recommendation
In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in general ship operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-722X-001

Operations Technician (Submarine)
722X

Exhibit Dates: 4/75–4/84.

Career Pattern

May have progressed to Operations Technician (Submarine) Warrant Officer from Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in operations and communications, with practical experience in these areas; assists and advises commands in operations and communications planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of operations and communications personnel; assists in the administration of onboard training programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience for management (10/85).

NWO-723X-001

Ordnance Technican (Surface)

723X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Surface Ordnance Technician Warrant Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in ballistic missile weapons systems including missile, missile launch, missile fire control and warhead subsystems; trains and supervises personnel engaged in assembly, installation, operations, testing, maintenance and repair of ballistic missile systems; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-723X-002

Engineering Technician (Submarine)

723X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Engineering Technician (Submarine) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-724X-001

Ordnance Technician (Surface)

724X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Surface Ordnance Technician Warrant Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in ballistic missile weapons systems including missile, missile launch, missile fire control and warhead subsystems; trains and supervises personnel engaged in assembly, installation, operations, testing, maintenance and repair of ballistic missile systems; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-724X-002

Ordnance Technician (Submarine)

724X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Submarine Ordnance Technician Warrant Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in ballistic missile weapons systems including missile, missile launch, missile fire control and warhead subsystems; trains and supervises personnel engaged in assembly, installation, operation, testing, maintenance and repair of ballistic missile systems; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-724X-003

Repair Technician (Submarine)

724X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Repair Technician (Submarine) Warrant Officer from Hull Maintenance Technician (HT), Molder (ML), or Patternmaker (PM).

Description

Serves as an officer technical specialist in the maintenance and repair of submarine hull, structure, and associated fittings; supervises and trains personnel whose duties involve woodworking, metalworking, foundry operations, patternmaking, piping and drainage, plate welding, pressure hull welding, high pressure pipe welding, nuclear power plant component welding, nondestructive test inspections, visual test, magnetic particle test, penetrant test, and ultrasonic test operations and radiography; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-725X-001

Nuclear Power Technician, Submarine

725X

Description

Use the recommendation in exhibit NOW-740X-001.

NWO-726X-001

Submarine Ordnance Technician

726X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Submarine Ordnance Technician Warrant Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in ballistic missile weapons systems including missile, missile launch, missile fire control and warhead subsystems; trains and supervises personnel engaged in assembly, installation, operation, testing, maintenance and repair of ballistic missile systems; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-727X-001

Submarine Underwater Ordnance Technician

727X

Exhibit Dates: 4/75–6/86. (Effective 6/86, 727X was discontinued.)

Career Pattern

May have progressed to Submarine Underwater Ordnance Technician Warrant Officer from Mineman (MN) or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in submarine underwater ordnance, including torpedoes, nuclear weapons, mines, signalling and evasion devices; trains and supervises personnel engaged in assembly, installation, operation, testing, maintenance, and repair of torpedoes, torpedo tubes, torpedo handling equipment, nuclear weapons, mines, signalling and evasion devices; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-728X-001

Electronics Technician (Submarine)

728X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Electronics Technician (Submarine) Warrant Officer from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface MIssile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the field of electronics; supervises those persons involved with the installation, operation, and maintenance of electronic systems; plans, organizes, and manages the activities of technical personnel; provides leadership necessary to guide personnel and develop individual responsibility; provides technical expertise to lower level personnel; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 for field experience in management, and 4 for field experience in electronics (1/84).

NWO-729X-001

Submarine Communication Technician

729X

Exhibit Dates: 6/83–1/87. (Effective 1/87, the designator 729X was combined with 719X; see exhibit NWO-719X-002.)

Career Pattern

May have progressed to Submarine Communication Technician Warrant Officer from Radioman (RM).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in submarine communications, with practical experience in these areas; assists and advises commands in communication planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of communications personnel; assists in the administration of on-board training programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-731X-001

Aviation Boatswain

731X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Boatswain Warrant Officer from: Aviation Boatswain's Mate (AB), Aviation Boatswain's Mate, Launching and Recovery Equipment (ABE), Aviation Boatswain's Mate Fuels (ABF), or Aviation Boatswain's Mate, Aircraft Handling (ABH).

Description

Serves as an officer technical specialist in aircraft handling and support operations aboard ship; plans and supervises loading, spotting, launching, recovering, and fueling aboard aircraft carriers and other aircraft-capable ships; supervises the maintenance and operation of aircraft catapults, arresting gear, aircraft fueling systems, and aircraft crash, fire, and salvage operations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-732X-001

Aviation Operations Technician

732X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Operations Technician Warrant Officer from: Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter.

Description

Serves as a officer technical specialist in either the field or air traffic control or air antisubmarine welfare. If serves in the field of air traffic control, control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs for qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recording equipment, teletype and land line communications, navigational aids and weather. IF serves in the field of air antisubmarine warfare, performs the following duties: briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of Antisubmarine warfare equipment, collection, preparation and transmisson of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has board knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-733X-001

UNDERWATER ORDNANCE TECHNICIAN (SURFACE)

733X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Surface Underwater Ordnance Technician Warrant Officer from Mineman (MN) or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in underwater mines, including the MK 60 Anti-Submarine mine; trains and supervises personnel engaged in assembly, installation, operation, test, maintenance, and repair of bottom and moored mines, mobile mine propulsion units, and mine surface launch equipment; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-733X-002

UNDERWATER ORDNANCE TECHNICIAN (SUBMARINE)

733X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Submarine Underwater Ordnance Technician Warrant Officer from Mineman (MN) or Torpedoman's Mate (TM).

Description

Serves as an officer technical specialist in submarine underwater ordnance, including torpedoes, nuclear weapons, mines, signalling and evasion devices; trains and supervises personnel engaged in assembly, installation, operation, testing, maintenance, and repair of torpedoes, torpedo tubes, torpedo handling equipment, nuclear weapons, mines, signalling and evasion devices; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-734X-001

AVIATION MAINTENANCE TECHNICIAN

734X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Maintenance Technician Warrant Officer from: Aviation Machinist's Mate (AD), Aviation Machinist's Mate, Jet Engine Mechanic (ADJ), Aviation Machinist's Mate, Reciprocating Engine Mechanic (ADR), Aviation Structural Mechanic (AM), Aviation Structural Mechanic, Safety Equipment (AME), Aviation Structural Mechanic, Hydraulics (AMH), Aviation Structural Mechanic, Structures (AMS), Aviation Support Equipment Technician (AS), Aviation Support Equipment Technician, Electrical (ASE), Aviation Support Equipment Technician, Hydraulics and Structures (ASH), Aviation Support Equipment Technician, Mechanical (ASM), Aviation Maintenance Administrationman (AZ), Aircraft Maintenanceman (AF), or Aircrew Survival Equipmentman (PR).

Description

Serves as an officer technical specialist in the field of aircraft maintenance aboard ship and ashore; plans, organizes, and manages the activities of aviation maintenance personnel; may serve as assistant to aircraft maintenance officers or as power plant division officers; may work as technical advisors concerning the capabilities, limitations and reliability of aircraft engines, accessories, air frames and ground support, safety and survival equipment; has responsibility for the operation and upkeep of the aircraft shops and for the coordination of shop activities; plans and directs schedules of maintenance of aircraft; conducts inspections and provides necessary training; writes technical reports and personnel evaluation reports; keeps equipment maintenance records; develops operating budgets and monitors expenditures, may supervise and evaluate from 30-200 personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in personnel supervision, 3 in human relations, 3 in technical report writing, and 3 in record keeping. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and additional credit for field experience in management on the basis of institutional evaluation (5/83).

NWO-736X-001

AVIATION ORDNANCE TECHNICIAN

736X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Ordnance Technician Warrant Officer from Aviation Ordnanceman (AO) or Gunner's Mate Technician (GMT).

Description

Serves as an officer technical specialist in the uses, capabilities, limitations, and reliability of aviation ordnance, handling equipment, and aircraft armament; supervises and directs the arming/dearming of aircraft and the requisitioning, stowing, handling, testing, disassembly, assembly, installation, operation, maintenance, and repair of aviation ordnance, handling equipment and aircraft armament; supervises and directs the stowage, testing, and installation of aircraft missiles; interprets, publicizes, and ensures compliance with regulations and safety precautions governing the handling and stowing of aircraft ammunition, aircraft missiles, pyrotechnics, and explosives; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates the activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-738X-001

AVIATION ELECTRONICS TECHNICIAN

738X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Electronics Technician Warrant Officer from:

Aviation Electrician's Mate (AE), Aviation Electronic's Technician (AT), Aviation Fire Control Technician (AQ), Aviation Antisubmarine Warfare Technician (AX), or Tradevman (TD).

Description

Serves as an officer technical specialist in the field of aviation electronics (avionics) in supervisory positions on aircraft aboard ship and at shore facilities; serves as technical specialist/advisor to higher authority; supervises and directs practices and procedures for servicing, testing, and maintaining aviation electrical, electronic, instrument, and test equipment; serves as avionic officer, support officer, electronics officer, and avionic/weapons division officer; organizes, supervises, and directs avionic/electronic maintenance facilities; conducts active maintenance and repair programs; coordinates avionic work with other aircraft maintenance work; trains others in the use of avionic equipment, their capabilities, and limitations; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in aviation maintenance systems. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (1/84).

NWO-739X-001

AIR TRAFFIC CONTROL TECHNICIAN

739X

Exhibit Dates: 1/78–6/86. (Effective 6/86, 739X was discontinued.)

Career Pattern

May have progressed to Air Traffic Control Technician Warrant Officer from Air Traffic Controller (AC).

Description

Serves as an officer technical specialist in the field of air traffic control; supervises control towers, base operations, heliport operations, surveillance and precision approach radars, approach/departure control radars, carrier air traffic control center (CATTC) operations, airspace acquisition, training programs for qualifications of air traffic controllers; assists in planning air traffic control procedures; assists in coordination of operational procedures with FAA, U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures, air traffic control planning, and Navy procedural criteria, and international civil aviation organization procedures; demonstrates knowledge of ground to air communications, radar operations, recording equipment, teletype and land line communications, navigational aids and weather; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in air traffic management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management. In addition, see the credit recommendation in exhibit NER-AC-001; grant credit for the most recent enlisted rank the individual held before progressing to warrant officer (10/85).

NWO-740X-001

NUCLEAR POWER TECHNICIAN

740X

Exhibit Dates: 4/75–Present.

Career Pattern

This LDO designator was formerly 715X, Nuclear Power Technician, Surface and 725X Nuclear Power Technician, Submarine. May have progressed to Nuclear Power Technician Warrant Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), or Machinist's Mate (MM).

Description

Serves as an officer technical specialist in the repair, maintenance, and operation of Naval nuclear propulsion plants, nuclear ship systems, and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling, and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis and chemistry control practices and procedures, as well as quality assurance of nuclear work; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision,and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-741X-001

AVIATION MAINTENANCE TECHNICIAN

741X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Aviation Maintenance Technician Warrant Officer from: Aviation Machinist's Mate (AD), Aviation Machinist's Mate, Jet Engine Mechanic (ADJ), Aviation Machinist's Mate, Reciprocating Engine Mechanic (ADR), Aviation Structural Mechanic (AM), Aviation Structural Mechanic, Safety Equipment (AME), Aviation Structural Mechanic, Hydraulics (AMH), Aviation Structural Mechanic, Structures (AMS), Aviation Support Equipment Technician (AS), Aviation Support Equipment Technician, Electrical (ASE), Aviation Support Equipment Technician, Hydraulics and Structures (ASH), Aviation Support Equipment Technician, Mechanical (ASM), Aviation Maintenance Administrationman (AZ), Aircraft Maintenanceman (AF), or Aircrew Survival Equipmentman (PR).

Description

Serves as an officer technical specialist in the field of aircraft maintenance aboard ship and ashore; plans, organizes, and manages the activities of aviation maintenance personnel; may serve as assistant to aircraft maintenance officers or as power plant division officers; may work as technical advisors concerning the capabilities, limitations and reliability of aircraft engines, accessories, air frames and ground support, safety and survival equipment; has responsibility for the operation and upkeep of the aircraft shops and for the coordination of shop activities; plans and directs schedules of maintenance of aircraft; conducts inspections and provides necessary training; writes technical reports and personnel evaluation reports; keeps equipment maintenance records; develops operating budgets and monitors expenditures; may supervise and evaluate from 30-200 personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 6 semester hours in personnel supervision, 3 in human relations, 3 in technical report writing, and 3 in record keeping. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and additional credit for field experience in management on the basis of institutional evaluation (5/83).

NWO-741X-002

SHIP'S CLERK

741X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Ship's Clerk from Lithographer (LI), Journalist (JO), Postal Clerk (PC), Personnelman (PN), Yeoman (YN), Legalman (LN), or Religious Program Specialist (RP).

Description

Serves as an officer technical specialist in manpower arrangement or general administration; plans, organizes, and manages activities of personnel in one or more related management areas such as postal office, print shops, or mail department; develops management plans; reviews records and assigns personnel; prepares reports; writes directives and correspondence; serves as administrator of captain's office; reviews and edits regulations; may plan training programs and assist in career planning; analyzes data and makes recommendations; serves as specialist in Naval administration, personnel administration, and office organization.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in human relations, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, 3 in management problems, and 3 in principles of management (11/83).

NWO-742X-001

DATA PROCESSING TECHNICIAN

742X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Data Processing Technician from Data Processing Technician (DP) or Data Systems Technician (DS).

Description

Serves as an officer technical specialist in the field of automatic data processing utilizing both electronic digital computer and electronic accounting machine equipment; supervises personnel concerned with the preparation of data processing and operation of all automatic data processing equipment; programs, debugs, and operates interactive and batch programs; develops policy for job processing priorities; develops processing evaluation methods, work standards, and procedures manuals for programmers and analysts; prepares budgets and performs cost analysis for computer operations; provides leadership necessary to guide personnel and develop individual responsibility; responsibilities include strategic and tactical, scientific, business, and logistics data; provides technical advice on equipment and processing techniques; prepares an automatic data processing site and monitors the installation of computer hardware; ensures data integrity and computer security; orders, issues, and inventories computer supplies and repair parts; handles cost control duties; writes reports on operations; conducts training for staff and systems users in specific applications; duties vary depending on the size of the organization and the specific computer installation; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in college algebra, and 1 in statistics. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in principles of management, 3 for field experience in data processing, and 3 for field experience in management (11/83).

NWO-743O-001

NUCLEAR POWER TECHNICIAN

7430

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power Technician Warrant Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), or Machinist's Mate (MM).

Description

Serves as an officer technical specialist in the repair, maintenance, and operation of Naval nuclear propulsion plants, nuclear ship systems, and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling, and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis and chemistry control practices and procedures, as well as quality assurance of nuclear work; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-743X-001

ENGINEERING TECHNICIAN (SURFACE)

743X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering Technician (Surface) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems, and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-743X-002

ENGINEERING (SUBMARINE)

743X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering Technician (Submarine) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-743X-003

BANDMASTER

743X

Exhibit Dates: 4/75–6/86. (Effective 6/86, 743X was discontinued.)

Career Pattern

May have progressed to Bandmaster Warrant Officer from Musician (MU).

Description

Serves as a specialist in the fields of music and management; responsible for equipment, personnel budgets, public relations, and operations; employs a broad knowledge of instrumental and vocal techniques, band administration, musical techniques, theories, and literature; may serve as program managers, leaders of Navy bands, officers-in-charge of Navy bands providing information and administrative assistance in music matters.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of public relations and 3 in operational management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in financial and budget management, 3 in advanced conducting, and 3 in score reading and analysis (2/86).

NWO-744X-001

CRYPTOLOGIC TECHNICIAN

744X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Cryptologic Technician Warrant Officer from Cryptologic Technician, Administrative (CTA), Cryptologic Technician, Interpretive (CTI), Crypotologic Technician, Maintenance (CTM), Cryptologic Technician, Communications (CTO), Cryptologic Technician, Collection (CTR), or Cryptologic Technician, Technical (CTT).

Description

Serves as an officer technical specialist in all phase of operations conducted by the Naval Security Group Command, including signals intelligence, signals security and electronic warfare; responsible for administration, personnel support, electronic maintenance, communications, and technical research in support of the operating forces and the national cryptologic effort; provides the overall technical supervision, in accordance with appropriate directives required in employing equipment and manpower resources; supervises the installation and maintenance of electrical, electro-mechanical, and electronic equipment, and the conduct of communications, administrative, or communications security functions; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (2/86).

NWO-745X-001

Aviation Operations Technician

745X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Aviation Operations Technician Warrant Officer from: Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter.

Description

Serves as an officer technical specialist in either the field of air traffic control or air antisubmarine warfare. If serves in the field of air traffic control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs for qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recording equipment, teletype and land line communications, navigational aids and weather. If serves in the field of air antisubmarine warfare, performs the following duties: briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of Antisubmarine warfare equipment, collection, preparation and transmisson of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has board knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-745X-002

Intelligence Technician

745X

Exhibit Dates: 4/75-Present.

Career Pattern

Progressed to Intelligence Technician Warrant Officer from Intelligence Specialist (IS).

Description

Supervises and directs personnel in assembling and analyzing data from a wide variety of sources and the application and employment of such data; supervises and directs personnel in preparation of material and use in planning missions and preparation of graphics including annotated photographs, plot sheets, mosaics, and overlays; plots and prepares imagery and intelligence reports; provides input to and receives data from computerized intelligence systems; maintains files including photographs, maps and charts, and photographic interpretation keys; maintains and updates intelligence libraries.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision; and based on institutional evaluation of the student's experiences, an additional 3 semester hours in any of the following areas: computer science, cultural geography, political science, or principles of cartography. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (4/86).

NWO 746X-001

Aerographer

746X

Exhibit Dates: 4/75-6/86. (Effective 6/86, 746X was discontinued.)

Career Pattern

May have progressed to Aerographer Warrant Officer from Aerographer's Mate (AG).

Description

Serves as an officer technical specialist in the field of meteorology; directs, supervises, and trains military and civilian meteorological personnel in the use, operation, and operational maintenance of meteorological and oceanographic equipment, in the observation, recording, computation, analysis and prognosis of meteorological and oceanographic data, and in the preparation and dissemination of information on current and forecast meteorological and oceanographic conditions; provides technical advice concerning the capabilities, limitations, installation modification, operation, and operational maintenance of meteorological and oceanographic equipment; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (2/86).

NWO-747X-001

Photography

747X

Exhibit Dates: 4/75-Present.

Career Pattern

May have progressed to Photography Warrant Officer from Illustrator Draftsman (DM), Intelligence Specialist (IS), Journalist (JO), and Photographer's Mate (PH).

Description

Serves as an officer technical specialist in the field of photographic and other imaging systems and equipment; directs, supervises, and trains military personnel in the use of still, motion picture, and video systems in aerial, surface and sub-surface imaging; supervises in the operation of imaging commands and activities, combat camera groups and aerial reconnaissance imaging systems; provides technical advice and assistance on all photographic and other imaging and imaging support matters; write technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in photographic (or image) theory and technology. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/86).

NWO-748X-001

Explosive Ordnance Disposal
Technician

748X

Exhibit Dates: 4/75-Present.

Career Pattern

May have progressed to Explosive Ordnance Disposal Technician Warrant Officer from any rating; must be qualified in Explosive Ordnance Disposal (EOD).

Description

Serves as an officer technical specialist in the methods of detection, identification, field evaluation, recovery, removal, disposal, and rendering safe of all types of U.S. and foreign explosive ordnance, explosives, and demolition materials and in the technical escort of chemical and biological warfare agents; plans and supervises the activities of personnel engaged in diving and explosive ordnance disposal operations, involving all types of U.S. and foreign munitions, conventional and improvised; supervises the repair and modification of explosive ordnance disposal tools, equipment, and material; supervises the procurement, storage, issue, security, and preservation of explosive ordnance disposal equipment, material, and components; inspects and evaluates unidentified explosive ordnance items and determines the proper method of recovery, removal, disposal, or rendering safe of such items; supervises technical escort missions; performs airborne techniques; provides Secret Service with explosive ordnance disposal support for presidential and other VIP protection; supervises the activities of personnel engaged in diving and/or underwater recovery operations; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-749X-001

Security Technician

749X

Exhibit Dates: 4/81–Present.

Career Pattern

May have progressed to Security Technician Warrant Officer from Master-At-Arms (MA).

Description

Serves as an officer technical specialist in matters of law enforcement, physical security, and corrections; plans, organizes, and supervises physical security programs aboard naval ships and activities; establishes and maintains access/egress systems providing for detection/prevention of sabotage and theft; plans and directs law enforcement programs to include aggressive contraband control initiatives; supervises operations of brigs afloat; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of security organization and administration and 3 in personnel distribution and deployment. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in budget administration, and 6 for field experience in management (12/85).

NWO-751X-001

Supply Corps

751X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Supply Corps Warrant Officer from Aviation Storekeeper (AK), Disbursing Clerk (DK) Mess Management Specialist (MS), Ship's Serviceman (SH), or Storekeeper (SK).

Description

Serves as an officer technical specialist in the field of supply, including fiscal accounting and disbursing, material distribution and control, operation of ship's stores, Navy exchanges, and commissary stores; directs and administers supply activities; interprets department regulations and determines policies and procedures; responsible for the accounting and disbursing of funds and distribution of supplies; develops and maintains proper budgeting fiscal policies; directs stock accounting systems and inventory control methods and systems; disposes of excess and obsolete stock; stores and distributes material; utilizes a broad knowledge of logistics procedures, transportation systems, distribution concepts, budgeting and accounting policies, retail operations, inventory control techniques, and material management; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in supply management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

NWO-752X-001

Food Service

752X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Food Service Warrant Officer from Mess Management Specialist (MS).

Description

Serves as an officer technical specialist in the field of food service and the administration of messing activities afloat and ashore; directs and administers food service activities; interprets department regulations, and determines policies and procedures; responsible for the receipt, issue, storage, and preservation of food items; administers financial and operational controls of food service operations; responsible for the auditing and rendering of financial returns; manages food service operations; utilizes a broad knowledge of proper budgeting and fiscal policies, management accounting, progress and statistical reporting, menu and nutritional planning, food handling and storage, and sanitation requirements and techniques.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in nutrition planning and menu planning, and 3 for field experience in food service operations. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in food service management, 3 in budget administration, and 3 for field experience in management (3/86).

NWO-753X-001

Civil Engineer Corps

753X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Civil Engineer Corps Warrant Officer from Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Illustrator Draftsman (DM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), Utilitiesman (UT), Master Chief Constructionman (CUCM), or Master Chief Equipmentman (EQCM).

Description

Serves as an officer technical specialist in the field of horizontal and vertical construction, facilities maintenance, utilities, and automotive and construction equipment; helps plan, coordinate, direct and supervise the technical, operational, training and administrative responsibilities of Naval construction force units; assists in the planning, scheduling, operational and technical responsibilities of public works departments within the Navy shore establishment; supervises personnel engaged in horizontal and vertical construction, maintenance, and repair of buildings, airfields, hardstands, waterfront structures, and utilities systems, and in the operation, testing, maintenance, and repair of allied plants and automotive and construction equipment; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in civil engineering. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

NWO-754O-001

Nuclear Power Technician

7540

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power Technician Warrant Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), or Machinist's Mate (MM).

Description

Serves as an officer technical specialist in the repair, maintenance, and operation of Naval nuclear propulsion plants, nuclear ship systems, and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling, and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis and chemistry control practices and procedures, as well as quality assurance of nuclear work; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision,and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-754X-001

Engineering Technician (Surface)

754X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering Technician (Surface) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery

Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems, and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-754X-002

Engineering Technician (Submarine)

754X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering Technician (Submarine) Warrant Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Opticalman (OM), or Precision Instrumentman, Master Chief (PICM).

Description

Serves as an officer technical specialist in ship's machinery, electrical power, lighting, and interior communications systems, maintenance of optical equipment, instruments, and office machinery; supervises and trains personnel in the operation and maintenance of main propulsion systems (gas turbine, diesel, and steam), refrigeration systems, fuel systems and shipboard electrical systems; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-754X-003

Physician's Assistant

754X

Exhibit Dates: 4/75–4/89. (Effective 4/89, 754X was discontinued.)

Career Pattern

May have progressed to Physician's Assistant Warrant Officer from Hospital Corpsman (HM).

Description

Serves as an officer technical specialist, qualified by academic and practical training to provide patient service under the supervision and direction of a licensed physician; performs diagnostic and therapeutic tasks; in support of a primary care physician, engages in continuing medical education, health maintenance, and community health; has practical training in principles of education and applied psychology as it relates to their day-to-day clinical activities; may serve in Naval hospitals, clinics, and branch clinics. NOTE: Appointment to Physician's Assistant Warrant Officer is based upon graduation from an accredited Physician's Assistant program and satisfactory completion of the appropriate licensing examination.

Recommendation

In the upper-division baccalaureate category, 6 semester hours for field experience in management, 6 in methods of instruction, and 2 in applied psychology. In the graduate degree category, 3 semester hours in educational principles (2/86).

NWO-757X-001

Operations Technician (Submarine)

757X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Operations Technician (Submarine) Warrant Officer from Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the operation, employment, and application of techniques, equipment, systems and procedures in operations and communications, with practical experience in these areas; assists and advises commands in operations and communications planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of operations and communications personnel; assists in the administration of onboard training programs, facilities, and services; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience for management (10/85).

NWO-760X-001

Aviation Boatswain

760X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Aviation Boatswain Warrant Officer from: Aviation Boatswain's Mate (AB), Aviation Boatswain's Mate, Launching and Recovery Equipment (ABE), Aviation Boatswain's Mate Fuels (ABF), or Aviation Boatswain's Mate, Aircraft Handling (ABH).

Description

Serves as an officer technical specialist in aircraft handling and support operations aboard ship; plans and supervises loading, spotting, launching, recovering, and fueling aboard aircraft carriers and other aircraft-capable ships; supervises the maintenance and operation of aircraft catapults, arresting gear, aircraft fueling systems, and aircraft crash, fire, and salvage operations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-761X-001

Aviation Electronics Technician

761X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Aviation Electronics Technician Warrant Officer from: Aviation Electrician's Mate (AE), Aviation Electronic's Technician (AT), Aviation Fire Control Technician (AQ), Aviation Antisubmarine Warfare Technician (AX), or Tradevman (TD).

Description

Serves as an officer technical specialist in the field of aviation electronics (avionics) in supervisory positions on aircraft aboard ship and at shore facilities; serves as technical specialist/advisor to higher authority; supervises and directs practices and procedures for servicing, testing, and maintaining aviation electrical, electronic, instrument, and test equipment; serves as avionic officer, support officer, electronics officer, and avionic/weapons division officer; organizes, supervises, and directs avionic/electronic maintenance facilities; conducts active maintenance and repair programs; coordinates avionic work with other aircraft maintenance work; trains others in the use of avionic equipment, their capabilities, and limitations; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in aviation maintenance systems. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (1/84).

NWO-762X-001

INTELLIGENCE TECHNICIAN

762X

Exhibit Dates: 1/65–3/75.

Career Pattern

Progressed to Intelligence Technician Warrant Officer from Intelligence Specialist (IS).

Description

Supervises and directs personnel in assembling and analyzing data from a wide variety of sources and the application and employment of such data; supervises and directs personnel in preparation of material and use in planning missions and preparation of graphics including annotated photographs, plot sheets, mosaics, and overlays; plots and prepares imagery and intelligence reports; provides input to and receives data from computerized intelligence systems; maintains files including photographs, maps and charts, and photographic interpretation keys; maintains and updates intelligence libraries.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision; and based on institutional evaluation of the student's experiences, an additional 3 semester hours in any of the following areas: computer science, cultural geography, political science, or principles of cartography. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (4/86).

NWO-763X-001

AVIATION OPERATIONS TECHNICIAN

763X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Aviation Operations Technician Warrant Officer from Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter.

Description

Serves as an officer technical specialist in either the field or air traffic control or air antisubmarine welfare. If serves in the field of air traffic control, control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs for qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recording equipment, teletype and land line communications, navigational aids and weather. If serves in the field of air antisubmarine warfare, performs the following duties: briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of antisubmarine warfare equipment, collection, preparation and transmisson of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has broad knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/85).

NWO-764X-001

COMMUNICATIONS TECHNICIAN

764X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Cryptologic Technician Warrant Officer from Cryptologic Technician, Administrative (CTA), Cryptologic Technician, Interpretive (CTI), Crypotologic Technician, Maintenance (CTM), Cryptologic Technician, Communications (CTO), Cryptologic Technician, Collection (CTR), or Cryptologic Technician, Technical (CTT).

Description

Serves as an officer technical specialist in all phase of operations conducted by the Naval Security Group Command, including signals intelligence, signals security and electronic warfare; responsible for administration, personnel support, electronic maintenance, communications, and technical research in support of the operating forces and the national cryptologic effort; provides the overall technical supervision, in accordance with appropriate directives required in employing equipment and manpower resources; supervises the installation and maintenance of electrical, electro-mechanical, and electronic equipment, and the conduct of communications, administrative, or communications security functions; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (2/86).

NWO-766O-001

NUCLEAR POWER TECHNICIAN

766O

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power Technician Warrant Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), or Machinist's Mate (MM).

Description

Serves as an officer technical specialist in the repair, maintenance, and operation of Naval nuclear propulsion plants, nuclear ship systems, and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling, and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis and chemistry control practices and procedures, as well as quality assurance of nuclear work; plans, develops, and administers training programs; writes technical reports and personnel evaluation reports; develops operating budgets and monitors expenditures; provides leadership and coordinates activities of technical personnel.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (10/85).

NWO-766X-001

ELECTRONICS TECHNICIAN (SURFACE)

766X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Electronics Technician (Surface) Warrant Officer from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control Technician, (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the field of non-nuclear electronics including electronic theory and equipment and systems used in navigation; directs the detection, tracking, recognition and identification of ship, aircraft and missiles; supervises the installation, operation, and maintenance of all non-nuclear electronics systems installed in units of the surface force; supervises those persons involved in installing, modifying, testing, calibrating, maintaining, and repairing electronics equipment; serves as expert troubleshooter who analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques and communication methods; writes reports and provides technical advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 2 for field experience in electronics (1/84).

NWO-766X-002

ELECTRONICS TECHNICIAN (SUBMARINE)

766X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Electronics Technician (Submarine) Warrant Officer from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface MIssile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), or Sonar Technician (ST).

Description

Serves as an officer technical specialist in the field of electronics; supervises those persons involved with the installation, operation, and maintenance of electronic systems; plans, organizes, and manages the activities of technical personnel; provides leadership necessary to guide personnel and develop individual responsibility; provides technical expertise to lower level personnel; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 1 semester hour in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 for field experience in management, and 4 for field experience in electronics (1/84).

NWO-774X-001

REPAIR TECHNICIAN (SURFACE)

774X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Repair Technician (Surface) Warrant Officer from Hull Maintenance Technician (HT), Molder (ML), or Patternmaker (PM).

Description

Serves as an officer technical specialist in ship repair and maintenance, damage control, and firefighting procedures, techniques, and equipment; supervises and trains personnel whose duties involve electric arc-welding, oxyacetalene welding and cutting, woodworking, metalworking, boat repairs, foundry operations, patternmaking, piping and drainage, and nuclear, biological, and chemical warfare defense; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-774X-002

REPAIR TECHNICIAN (SUBMARINE)

774X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Repair Technician (Submarine) Warrant Officer from Hull Maintenance Technician (HT), Molder (ML), or Patternmaker (PM).

Description

Serves as an officer technical specialist in the maintenance and repair of submarine hull, structure, and associated fittings; supervises and trains personnel whose duties involve woodworking, metalworking, foundry operations, patternmaking, piping and drainage, plate welding, pressure hull welding, high pressure pipe welding, nuclear power plant component welding, nondestructive test inspections, visual test, magnetic particle test, penetrant test, and ultrasonic test operations and radiography; analyzes problems with equipment and operations, finds solutions, and takes corrective action; has knowledge of supervision and training, personnel policies, legal procedures, leadership and management techniques, and communication methods; writes reports and provides technical advice.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management (10/84).

NWO-782X-001

SHIP'S CLERK

782X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Ship's Clerk from Lithographer (LI), Journalist (JO), Postal Clerk (PC), Personnelman (PN), Yeoman (YN), Legalman (LN), or Religious Program Specialist (RP).

Description

Serves as an officer technical specialist in manpower arrangement or general administration; plans, organizes, and manages activities of personnel in one or more related management areas such as postal office, print shops, or mail department; develops management plans; reviews records and assigns personnel; prepares reports; writes directives and correspondence; serves as administrator of captain's office; reviews and edits regulations; may plan training programs and assist in career planning; analyzes data and makes recommendations; serves as specialist in Naval administration, personnel administration, and office organization.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in human relations, and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 for field experience in management, 3 in management problems, and 3 in principles of management (11/83).

NWO-783X-001

DATA PROCESSING TECHNICIAN

783X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Data Processing Technician from Data Processing Technician (DP) or Data Systems Technician (DS).

Description

Serves as an officer technical specialist in the field of automatic data processing utilizing both electronic digital computer and electronic accounting machine equipment; supervises personnel concerned with the preparation of data processing and operation of all automatic data processing equipment; programs, debugs, and operates interactive and batch programs; develops policy for job processing priorities; develops processing evaluation methods, work standards, and procedures manuals for programmers and analysts; prepares budgets and performs cost analysis for computer operations; provides leadership necessary to guide personnel and develop individual responsibility; responsibilities include strategic and tactical, scientific, business, and logistics data; provides technical advice on equipment and processing techniques; prepares an automatic data processing site and monitors the installation of computer hardware; ensures data integrity and computer security; orders, issues, and inventories computer supplies and repair parts; handles cost control duties; writes reports on operations; conducts training for staff and systems users in specific applications; duties vary depending on the size of the organization and the specific computer installation; write technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in college algebra, and 1 in statistics. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in principles of management, 3 for field experience in data processing, and 3 for field experience in management (11/83).

NWO-785X-001

BANDMASTER

785X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Bandmaster Warrant Officer from Musician (MU).

Description

Serves as a specialist in the fields of music and management; responsible for equipment, personnel budgets, public relations, and operations; employs a broad knowledge of instrumental and vocal techniques, band administration, musical techniques, theories, and literature; may serve as program managers, leaders of Navy bands, officers-in-charge of Navy bands providing information and administrative assistance in music matters.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of public relations and 3 in operational management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in financial and budget management, 3 in advanced conducting, and 3 in score reading and analysis (2/86).

NWO-798X-001

Supply Corps

798X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Supply Corps Warrant Officer from Aviation Storekeeper (AK), Disbursing Clerk (DK) Mess Management Specialist (MS), Ship's Serviceman (SH), or Storekeeper (SK).

Description

Serves as an officer technical specialist in the field of supply, including fiscal accounting and disbursing, material distribution and control, operation of ship's stores, Navy exchanges, and commissary stores; directs and administers supply activities; interprets department regulations and determines policies and procedures; responsible for the accounting and disbursing of funds and distribution of supplies; develops and maintains proper budgeting fiscal policies; directs stock accounting systems and inventory control methods and systems; disposes of excess and obsolete stock; stores and distributes material; utilizes a broad knowledge of logistics procedures, transportation systems, distribution concepts, budgeting and accounting policies, retail operations, inventory control techniques, and material management; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in supply management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

NWO-799X-001

Food Service

799X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Food Service Warrant Officer from Mess Management Specialist (MS).

Description

Serves as an officer technical specialist in the field of food service and the administration of messing activities afloat and ashore; directs and administers food service activities; interprets department regulations, and determines policies and procedures; responsible for the receipt, issue, storage, and preservation of food items; administers financial and operational controls of food service operations; responsible for the auditing and rendering of financial returns; manages food service operations; utilizes a broad knowledge of proper budgeting and fiscal policies, management accounting, progress and statistical reporting, menu and nutritional planning, food handling and storage, and sanitation requirements and techniques.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in nutrition planning and menu planning, and 3 for field experience in food service operations. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in food service management, 3 in budget administration, and 3 for field experience in management (3/86).

NWO-816X-001

Physician's Assistant

816X

Exhibit Dates: 4/71-3/75.

Career Pattern

May have progressed to Physician's Assistant Warrant Officer from Hospital Corpsman (HM).

Description

Serves as an officer technical specialist, qualified by academic and practical training to provide patient service under the supervision and direction of a licensed physician; performs diagnostic and therapeutic tasks; in support of a primary care physician, engages in continuing medical education, health maintenance, and community health; has practical training in principles of education and applied psychology as it relates to their day-to-day clinical activities; may serve in Naval hospitals, clinics, and branch clinics. NOTE: Appointment to Physician's Assistant Warrant Officer is based upon graduation from an accredited Physician's Assistant program and satisfactory completion of the appropriate licensing examination.

Recommendation

In the upper-division baccalaureate category, 6 semester hours for field experience in management, 6 in methods of instruction, and 2 in applied psychology. In the graduate degree category, 3 semester hours in educational principles (2/86).

NWO-821X-001

Aerographer

821X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Aerographer Warrant Officer from Aerographer's Mate (AG).

Description

Serves as an officer technical specialist in the field of meteorology; directs, supervises, and trains military and civilian meteorological personnel in the use, operation, and operational maintenance of meteorological and oceanographic equipment, in the observation, recording, computation, analysis and prognosis of meteorological and oceanographic data, and in the preparation and dissemination of information on current and forecast meteorological and oceanographic conditions; provides technical advice concerning the capabilities, limitations, installation, modification, operation, and operational maintenance of meteorological and oceanographic equipment; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (2/86).

NWO-831X-001

Photography

831X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Photography Warrant Officer from Illustrator Draftsman (DM), Intelligence Specialist (IS), Journalist (JO), or Photographer's Mate (PH).

Description

Serves as an officer technical specialist in the field of photographic and other imaging systems and equipment; directs, supervises, and trains military personnel in the use of still, motion picture, and video systems in aerial, surface and sub-surface imaging; supervises in the operation of imaging commands and activities, combat camera groups and aerial reconnaissance imaging systems, provides technical advice and assistance on all photographic and other imaging and imaging support matters, write technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in photographic (or image) theory and technology. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management (3/86).

NWO-849X-001

Civil Engineer

849X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Civil Engineer Warrant Officer from Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Illustrator Draftsman (DM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), Utilitiesman (UT), Master Chief Constructionman (CUCM), or Master Chief Equipmentman (EQCM).

Description

Serves as an officer technical specialist in the field of horizontal and vertical construction, facilities maintenance, utilities, and automotive and construction equipment; helps plan, coordinate, direct and supervise the technical, operational, training and administrative responsibilities of Naval construction force units; assists in the planning, scheduling, operational and technical responsibilities of public works departments within the Navy shore establishment; supervises personnel engaged in horizontal and vertical construction, maintenance, and repair of buildings, airfields, hardstands, waterfront structures, and utilities systems, and in the operation, testing, maintenance, and repair of allied plants and automotive and construction equipment; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in civil engineering. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

Navy Limited Duty Officer Exhibits

LDO-370X-001

SUPPLY CORPS

370X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Supply Corps Limited Duty Officer from Aviation Storekeeper (AK), Disbursing Clerk (DK), Mess Management Specialist (MS), Ship's Serviceman (SH), Storekeeper (SK), Supply Corps Warrant Officer (798X), or Food Service Warrant Officer (799X).

Description

Serves as an officer technical manager in the field or supply, including fiscal accounting and disbursing, material distribution and control, food service, ships' exchanges, and commissary stores; directs and administers supply activities; interprets department regulations and determines policies and procedures; responsible for the accounting and disbursing of funds and the distribution of supplies; develops and maintains proper budgeting and fiscal policies; directs stocks accounting system and inventory control methods and systems; disposes of excess and obsolete stock; stores and distributes material; utilizes a broad knowledge of logistics procedures, transportation systems, distribution concepts, budgeting and accounting policies, retail operations, inventory control techniques, and material management.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-570X-001

CIVIL ENGINEER CORPS

570X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Civil Engineer Corps Limited Duty Officer from Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Illustrator Draftsman (DM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), Utilitiesman (UT), Master Chief Equipmentman (EQCM), or Civil Engineer Corps Warrant Officer (849X).

Description

Serves as an officer technical manager in the operational field of horizontal and vertical construction, facilities maintenance, utilities, and automotive and construction equipment; helps to plan, coordinate, direct, and supervise the technical, operational, training, and administrative responsibilities of Naval construction force (NCF) units; assists in the planning, scheduling, operational and technical responsibilities of public works departments within the Navy shore establishment; supervises personnel engaged in horizontal and vertical construction, maintenance and repair of buildings, airfields, hardstands, waterfront structures, and utilities systems, and in the operation, testing, maintenance, and repair of allied plants and automotive and construction equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semesters hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget management, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: leadership, project management, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-600X-001

DECK (SURFACE)

600X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Deck (Surface) Limited Duty Officer from Boatswain's Mate (BM), Quartermaster (QM), Signalman (SM), or Boatswain (Surface) Warrant Officer (713X).

Description

Serves as an officer technical manager in the field of seamanship and navigation; plans, supervises, and directs activities of deck and navigation personnel in performance of operational and maintenance functions; plans, develops, and administers deck navigation training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-600X-002

DECK (SUBMARINE)

600X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Deck (Submarine) Limited Duty Officer from Boatswain's Mate (BM), Quartermaster (QM), Signalman (SM), or Boatswain (Submarine) Warrant Officer (713X).

Description

Serves as an officer technical manager in the field of seamanship, navigation, and deep sea diving; plans, supervises, and directs activities of deck, navigation, and deep sea diving personnel in performance of operational and maintenance functions; plans, develops, and administers deck, navigation, and diver training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-601X-001

OPERATIONS (SURFACE)

601X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Operations (Surface) Limited Duty Officer from: Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), Sonar Technician (ST), or Operations Surface Technician Warrant Officer (714X).

Description

Serves as an officer technical manager in the operation, employment, and application of techniques, equipment, systems, and procedures in operations and communications;

supervises and trains personnel in the operation and maintenance of operations and communications equipment and systems; plans, directs, and controls operations and communications activities; advises and assists commands in the above areas and in the employment and utilization of associated facilities and installations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-611X-001

Deck (Surface)

611X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Deck (Surface) Limited Duty Officer from Boatswain's Mate (BM), Quartermaster (QM), Signalman (SM), or Boatswain (Surface) Warrant Officer (711X).

Description

Serves as an officer technical manager in the field of seamanship and navigation; plans, supervises, and directs activities of deck and navigation personnel in performance of operational and maintenance functions; plans, develops, and administers deck navigation training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-612X-001

Operations
(Operations (Surface))

612X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Operations (Surface) Limited Duty Officer from: Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), Sonar Technician (ST), or Operations Surface Technician Warrant Officer (712X).

Description

Serves as an officer technical manager in the operation, employment, and application of techniques, equipment, systems, and procedures in operations and communications; supervises and trains personnel in the operation and maintenance of operations and communications equipment and systems; plans, directs, and controls operations and communications activities; advises and assists commands in the above areas and in the employment and utilization of associated facilities and installations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-613X-001

Engineering/Repair (Surface)

613X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Engineering/Repair (Surface) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (723X), Engineering Technician (Surface) Warrant Officer (713X), Repair Technician (Submarine) Warrant Officer (724X), or Repair Technician (Surface) Warrant Officer (714X).

Description

Serves as an officer technical manager in the field of surface ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control procedures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alterations or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes, and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-615X-001

Nuclear Power, Surface

615X

Recommendation

Use the recommendation in exhibit LDO-640X-003.

LDO-615X-002

Surface Ordnance

615X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Surface Ordnance Limited Duty Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), Torpedoman's Mate (TM), or Ordnance Technician Warrant Officer (723X or 724X).

Description

Serves as an officer technical manager with practical experience in ordnance operations; plans, supervises, trains, and directs subordinates in the operation, maintenance, and repair of ordnance equipment and related systems; assists, plans, coordinates, and advises commands and staffs in ordnance management, logistics, repair, and safety; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-615X-003

Ordnance (Submarine)

615X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Submarine Ordnance Limited Duty Officer from Fire Control technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), Torpedoman's Mate (TM), or Submarine Ordnance Technician Warrant Officer (724X).

Description

Serves as an officer technical manager in the strategic weapons and ordnance field, with practical experience in related areas; plans, supervises, trains, and directs subordinate personnel in the operation and maintenance of ordnance and related equipment; assists, plans, coordinates, advises, commands in operational, maintenance, and technical ordnance related matters; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-616X-001

Explosive Ordnance Disposal

616X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Explosive Ordnance Disposal Limited Duty Officer from any enlisted rating or Warrant Officer Explosive Ordnance Disposal Technician (716X); must be qualified in Explosive Ordnance Disposal (EOD).

Description

Serves as an officer technical manager in the methods of detection, identification, field evaluation, rendering safe, recovery, and disposal of all types of U.S. and foreign ordnance, explosives, and demolition materials; provides technical escort for transportation or movement, detoxification, and disposal of chemical, biological, toxicological, and etiological agents; conducts technical evaluations or ordnance for intelligence information through disassembly and stripping; may perform airborne techniques, and provide U.S. Secret Service with explosive ordnance disposal support for presidential and other VIP protection as directed; provides fleet training services on emergency destruct procedures, detection and monitoring of nuclear, biological or chemical agents; provides technical guidance, training assistance in minor underwater repair, hull inspection, and propeller replacements; plans and supervises the activities of personnel engaged in diving and explosive ordnance disposal operations, involving all types of U.S. and foreign munitions, conventional and improvised; supervises the repair and modification of explosive ordnance disposal tools, equipment and material; supervises the stowage, issue, procurement, security and preservation of explosive ordnance disposal equipment, materials and components; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-616X-002

Surface Ordnance

616X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Surface Ordnance Limited Duty Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), Torpedoman's Mate (TM), or Ordnance Technician Warrant Officer (716X).

Description

Serves as an officer technical manager with practical experience in ordnance operations; plans, supervises, trains, and directs subordinates in the operation, maintenance, and repair of ordnance equipment and related systems; assists, plans, coordinates, and advises commands and staffs in ordnance management, logistics, repair, and safety; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-618X-001

Electronics (Surface)

618X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Electronics (Surface) Limited Duty Officer from Data Systems Technician (DS), Electronic Warfare Technician (EW), Electronics Technician (ET), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Ocean Systems Technician (OT), Operations Specialist (OS), Sonar Technician (ST), or Electronics Technician (Surface) Warrant Officer (718X).

Description

Serves as an officer technical manager in the field of non-nuclear electronics; plans, coordinates, directs, and supervises the installation, operation, and maintenance of all non-nuclear electronics systems installed in units of the surface force; conducts operational evaluations of new installations and modifications to existing systems; provides operational and technical input to the research and development community for consideration in the design and testing of electronics systems or components; prepares and distributes operator training courses and operation guidance for electronics systems; plans, schedules, and conducts training for electronics personnel; writes reports and provides technical advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 5 for field experience in management, and 2 for field experience in electronics. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-619X-001

Surface Communications

619X

Exhibit Dates: 5/84–Present.

Career Pattern

May have progressed to Surface Communications Limited Duty Officer from Radioman (RM), or Surface Communications Technician Warrant Officer (719X).

Description

Serves as an officer technical manager in the operation, employment, and application of techniques, equipment, systems, and procedures in surface communications, with practical experience in these areas; assists and advises commands in communication planning, direction and control, and in the employment and utilization of associated facilities and installations; organizes, supervises, and directs performance of communications personnel; assists in the administration of on-board training programs, facilities, and services; formulates, directs, and evaluates training program; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-620X-001

ADMINISTRATION

620X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Administration Limited Duty Officer from Lithographer (LI), Journalist (JO), Postal Clerk (PC), Personnelman (PN), Yeoman (YN), Legalman (LN), Religious Program Specialist (RP) or Ship's Clerk Warrant Officer (782X).

Description

Serves as an officer technical manager in the fields of Naval and personnel administration; directs administrative and personnel offices employing a broad knowledge of navy department/fleet staff organizations and regulations; personnel responsibilities include recruitment, selection, promotion, transfer, career development, training, job analysis and discipline; administrative tasks include office organization and procedures, legal work, budget and fiscal control, space planning, work progress reporting and information dissemination, public relations activities and liaison with other military services; responsible for the preparation, publication, and distribution of manuals, handbooks, reports, newspapers and correspondence; duties vary depending on technical experience and the size of the organization; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in office management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 6 for field experience in management, and 3 in principles of management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (11/83).

LDO-621X-001

DECK (SUBMARINE)

621X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Deck (Submarine) Limited Duty Officer from Boatswain's Mate (BM), Quartermaster (QM), Signalman (SM), or Boatswain (Submarine) Warrant Officer (721X).

Description

Serves as an officer technical manager in the field of seamanship, navigation, and deep sea diving; plans, supervises, and directs activities of deck, navigation, and deep sea diving personnel in performance of operational and maintenance functions; plans, develops, and administers deck, navigation, and diver training programs; assists in organizing, scheduling, and supervising seamanship and navigation exercises and drills; assigns and coordinates activities of personnel under their command; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experinece in management. If the rank of lieutenant commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-623X-001

DATA PROCESSING

623X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Data Processing Limited Duty Officer from Data Processing Technician (DP), Data Systems Technician (DS), or Data Processing Technician Warrant Officer (783X).

Description

Serves as an officer technical specialist in the field of automatic data processing utilizing both electronic digital computer and electronic accounting machine equipment; administers the operation and maintenance of data processing installations; programs, debugs, and operates interactive and batch programs; advises in the selection of equipment; develops policy for job processing priorities; ensures data integrity and computer security; develops processing evaluation methods, work standards, and procedures manuals for programmers and analysts; conducts training for staff and for systems users; analyzes costs and prepares budget estimates for computer operations; reviews equipment design and updates hardware in use; provides the leadership necessary to guide personnel and develop individual responsibility; duties vary depending on the size of the organization and the specific computer installation; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in college algebra, and 1 in statistics. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in principles of management, 3 for field experience in management, and 5 for field experience in data processing. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (11/83).

LDO-623X-002

ENGINEERING/REPAIR (SUBMARINE)

623X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Engineering/Repair (Submarine) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MN), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (723X), Engineering Technician (Surface) Warrant Officer (713X), Repair Technician (Submarine) Warrant Officer (724X), or Repair Technician (Surface) Warrant Officer (714X).

Description

Serves as an officer technical manager in the field of ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control proceures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alteration or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work at auxiliary or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-625X-001

NUCLEAR POWER, SUBMARINE

625X

Recommendation

Use the recommendation in exhibit LDO-640X-003.

LDO-626X-001

BANDMASTER

626X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Bandmaster Limited Duty Officer from Musician (MU) or Bandmaster Warrant Officer (785X).

Description

Serves as a specialist in the fields of music and management; responsible for equipment, personnel, budgets, public relations, and operations; employs a broad knowledge of instrumental and vocal techniques, band administration, musical techniques, theories, and literature; may serve as program managers, leaders of Navy bands, officers-in-charge of Navy bands providing information and administration and assistance in music matters.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of public relations and 3 in operational management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in financial and budget management, 3 in advanced conducting, and 3 in score reading and analysis. If the rank of Lieutenant Commander has been attained, add 3 semester hours in advanced management problems; if the rank of Commander has been attained, add 6 semester hours in advanced management problems (2/86).

LDO-626X-002

SUBMARINE ORDNANCE

626X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Submarine Ordnance Limited Duty Officer from Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Gunner's Mate (GM), Gunner's Mate, Guns (GMG), Gunner's Mate, Missiles (GMM), Gunner's Mate Technician (GMT), Missile Technician (MT), Torpedoman's Mate (TM), or Submarine Ordnance Technician Warrant Officer (726X).

Description

Serves as an officer technical manager in the strategic weapons and ordnance field, with practical experience in related areas; plans, supervises, trains, and directs subordinate personnel in the operation and maintenance of ordnance and related equipment; assists, plans, coordinates, advises, commands in operational, maintenance, and technical ordnance related matters; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-628X-001

ELECTRONICS (SUBMARINE)

628X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Electronics Technician (Submarine) Limited Duty Officer 628X from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), Sonar Technician (ST), or Electronics Technician (Submarine) Warrant Officer (728X).

Description

Serves as an officer technical manager in the field of electronics; plans, coordinates, directs, and supervises the installation, operation, and maintenance of electronics systems; plans, organizes, and manages the activities of technical personnel; provides the leadership necessary to guide personnel and develop individual responsiblity for the training and growth of assigned personnel; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 4 for field experience in electronics. If the rank of lieutenant commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-629X-001

SUBMARINE COMMUNICATIONS

629X

Exhibit Dates: 6/83–Present.

Career Pattern

May have progressed to Submarine Communications Limited Duty Officer from Radioman (RM), or Submarine Communication Technician Warrant Officer (729X).

Description

Serves as an officer technical manager in the operation, employment, and application of techniques, equipment, systems and procedures in submarine communications, with practical experience in these areas; assists and advises commands in communication planning, direction and control, and in the employment and utilization of associated performance of communications personnel; assists in administration of on-board training programs, facilities, and services; formulates, directs, and evaluates training program; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-630O-001

NUCLEAR POWER (SURFACE)

6300

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power (Surface) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM) or Nuclear Power Technician Warrant Officer (Surface) (7430, 7540, 7250 or 7660).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-630O-002

Nuclear Power (Submarine)

630O

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Nuclear Power (Submarine) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM) or Nuclear Power Technician Warrant Officer (Submarine) (743X, 754X, or 766X).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-630X-001

Engineering/Repair (Surface)

630X

Exhibit Dates: 1/65-3/75. (Effective 4/75, LDO 630X was redesignated 613X (see exhibit LDO-613X-001); effective 4/81, the Aviator LDO was designated 630X (see exhibit LDO-630X-003).

Career Pattern

May have progressed to Engineering/Repair (Surface) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of surface ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control procedures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alterations or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes, and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-630X-002

Engineering/Repair (Submarine)

630X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Engineering/Repair (Submarine) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MN), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control procedures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alteration or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work at auxiliary or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-630X-003

Aviator

630X

Exhibit Dates: 4/81-5/86. (Effective 5/86, 630X was discontinued.)

Career Pattern

May have progressed to Aviator Limited Duty Officer from any enlisted rating or Warrant Officer Speciality.

Description

Serves as a flight training specialist in naval aviation flight training programs; provides flight instruction in aircraft and ground (academic and simulator) training for prospective naval aviators in the primary flight training environment; writes reports and provides assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

Aviation programs vary considerably at different institutions. Forty to sixty semester hours in an aviation flight technology program may be awarded. In the lower-division baccalaureate/associate degree category, 3 semester hours may be awarded in some or all of the following areas, which are generally included in aviation programs: history of aviation, aviation safety, safety of flight, physiology of flight, general aviation, aircraft weather, airframe structures and/or systems, powerplant structures and/or systems, federal aviation regulations, aircraft transportation, aircraft business organization and management, corporate and business aviation, government and aviation, aviation insurance, aviation law, air cargo operation, air carrier operation, aircraft navigation, advanced aircraft navigation, and air traffic control procedures. (See NOTE.) For individuals holding military pilot ratings (equivalent to FAA ratings), 3 semester hours may be awarded in some or all of the following areas: student pilot rating, private pilot ground school, private pilot rating, commercial pilot ground school, commercial pilot rating (up to 9 semester hours), instrument pilot ground school, and instrument pilot rating. For individuals holding military instructor pilot ratings (equivalent to FAA ratings), an additional 3 semester hours may be awarded in some or all of the following areas: flight instructor FAA regulations, flight instructor rating, instrument flight instructor ground school, instrument flight instructor rating, and multi-engine flight instructor rating. NOTE: All Aviator LDO's should receive the following credit: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 in general mathematics. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 3 for field experience in aviation administration. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-631X-001

Aviation (Deck)

631X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation (Deck) Limited Duty Officer from: Aviation Boatswain's Mate (AB), Aviation Boatswain's Mate, Launching and Recovery Equipment (ABE), Aviation Boatswain's Mate, Fuels (ABF), Aviation Boatswain's Mate, Aircraft Handling (ABH), or Aviation Boatswain Warrant Officer (731X).

Description

Serves as an officer technical manager in aircraft handling and support operations aboard ship; plans and supervises loading, spotting, launching, recovering, and fueling aboard aircraft carriers and other aircraft-capable ships; supervises the maintenance and operation of aircraft catapults, arresting gear, aircraft fueling systems, and aircraft crash, fire, and salvage operations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in managememt problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-632X-001

Aviation Operations

632X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Operations Limited Duty Officer from Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter, or Aviation Operations Technician Warrant Officer (732X).

Description

Serves as an officer technical manager in either the field of air traffic control or air antisubmarine warfare. If serves in the field of air traffic control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs from qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recoding equipment, teletype and land line communications, navigational aids and weather. If serves in the field of air antisubmarine warfare, performs the following duties: assists in organization, supervision, and direction of tactical support center operations; briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of antisubmarine warfare equipment, collection, preparation and transmission of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has broad knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-633X-001

Aviation Maintenance

633X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Maintenance Limited Duty Officer from Aviation Machinist's Mate (AD), Master Chief Aircraft Maintenanceman (AFCM), Aviation Structural Mechanic (AM), Aviation Structural Mechanic, Safety Equipment (AME), Aviation Structural Mechanic, Hydraulics (AMH), Aviation Structural Mechanic, Structures (AMS), Aviation Support Equipment Technician (AS), Aviation Maintenance Administrationman (AZ), Aircrew Survival Equipmentman (PR), or Aviation Maintenance Technician Warrant Officer (734X).

Description

Serves as an officer technical manager in the field of aviation maintenance; plans and supervises the execution of aviation maintenance programs at the organizational, intermediate, and depot levels; develops quality assurance standards and procedures to ensure flight safety and proper material condition of aircraft; develops and administers programs for the development, testing, and evaluation of aircraft maintenance systems and methods; develops, reviews, and verifies aircraft maintenance logs, records, and reports; analyzes new developments and technological advances in aviation maintenance; administers aeronautical material procurement programs; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-635X-001

Engineering/Repair (Surface)

635X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering/Repair (Surface) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of surface ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control procedures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alterations or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes, and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-635X-002

ENGINEERING/REPAIR (SUBMARINE)

635X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering/Repair (Submarine) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control proceures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alteration or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work at auxiliary or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-636X-001

AVIATION ORDNANCE

636X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Aviation Ordnance Limited Duty Officer from Aviation Ordnanceman (AO), Gunner's Mate Technician (GMT), or Aviation Ordnance Technician Warrant Officer (736X).

Description

Serves as an officer technical manager in the field of operations and maintenance of aviation ordnance and aircraft armament; manages and directs the activities of aviation ordnance personnel in the performance of aviation operational, test, research, and maintenance functions involving aviation ordnance and aircraft armament; establishes new aviation ordnance and armament maintenance procedures and methods; plans, organizes and directs the operation of aviation ordnance activities; provides technical assistance and advice pertaining to aviation ordnance and armament; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-637O-001

NUCLEAR POWER (SURFACE)

6370

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power (Surface) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM) or Nuclear Power Technician Warrant Officer (Surface) (7430, 7540, 7250 or 7660).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-637O-002

NUCLEAR POWER (SUBMARINE)

637O

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power (Submarine) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM) or Nuclear Power Technician Warrant Officer (Submarine) (743X, 754X, or 766X).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-637X-001

ENGINEERING/REPAIR (SURFACE)

637X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering/Repair (Surface) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of surface ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control procedures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alterations or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes, and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-637X-002

ENGINEERING/REPAIR (SUBMARINE)

637X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Engineering/Repair (Submarine) Limited Duty Officer from: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician, Electrical (GSE), Gas Turbine System Technician, Mechanical (GSM), Hull Maintenance Technician (HT), Instrumentman (IM), Interior Communications Electrician (IC), Machinery Repairman (MR), Machinist's Mate (MM), Molder (ML), Opticalman (OM), Patternmaker (PM), Precision Instrumentman, Master Chief (PICM), Engineering Technician (Submarine) Warrant Officer (743X or 754X), Engineering Technician (Surface) Warrant Officer (743X or 754X), Repair Technician (Submarine) Warrant Officer (774X), or Repair Technician (Surface) Warrant Officer (774X).

Description

Serves as an officer technical manager in the field of ship marine engineering including maintenance and repair of main propulsion (gas turbine, diesel, and steam), electrical, and auxiliary machinery and systems, ship's hull, structure and associated fittings, and practical and theoretical damage control proceures; plans, administers, and supervises the installation, operation, maintenance, and repair of equipment; makes ship alteration or designs modification; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, organizes and controls industrial shop production; develops and administers policy and procedures for regulating and integrating work at auxiliary or repair facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 4 for field experience in management. IF the rank of lieutenant commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; IF the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/84).

LDO-638X-00

AVIATION ELECTRONICS (AVIONICS)

638X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Avionics Limited Duty Officer from: Aviation Electronics Technician (AT), Aviation Electrician's Mate (AE), Aviation Fire Control Technician (AQ), Aviation Antisubmarine Warfare Technician (AX), Tradevman (TD), or Aviation Electronics Technician Warrant Officer (738X).

Description

Serves as an officer technical manager in the field of avionics and aircraft systems operation and maintenance; organizes, manages, and directs all phases of installation, maintenance, repair, and operation of avionics equipment and other aircraft systems/components; participates in programs for the development, testing, and evaluation of equipment and systems; establishes new maintenance procedures and methods; directs the assignment of material, equipment, and systems; plans, develops, and administers training programs for systems and maintenance; writes reports and provides technical advice about aircraft systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in aviation maintenance systems. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in aviation maintenance management, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-639X-001

AIR TRAFFIC CONTROL

639X

Exhibit Dates: 1/78–Present.

Career Pattern

May have progressed to Air Traffic Control Limited Duty Officer from Air Traffic Controller (AC) or Air Traffic Control Technician Warrant Officer (739X).

Description

Serves as an officer technical manager in the field or air traffic control; responsible for control tower operation, base operations, heliport operations, surveillance and precision approach radars, approach/departure control radars and airspace acquisition, training programs for qualifications of air traffic controllers, and developing air traffic control procedures; coordinates operational procedures with FAA and U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures, air traffic control (ATC) planning, Navy procedural criteria, and international civil aviation organization procedures; demonstrates knowledge of ground to air communications, radar operations, recording equipment, teletype and land line communications, navigational aids, and weather; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, 3 for field experience in management, and 3 for field experience in aviation administration. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration. In addition, see the credit recommendation in exhibit NER-AC-001; grant credit for the most recent enlisted rank the individual held before progressing to Limited Duty Officer (10/85).

LDO-640O-001

NUCLEAR POWER (SURFACE)

6400

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power (Surface) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM) or Nuclear Power Technician Warrant Officer (Surface) (7430, 7540, 7250 or 7660).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-640O-002

NUCLEAR POWER (SUBMARINE)

640O

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Nuclear Power (Submarine) Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM), or Nuclear Power Technician Warrant Officer (Submarine) (743X, 754X, or 766X).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-640X-001

ELECTRONICS (SURFACE)

640X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Electronics (Surface) Limited Duty Officer from Data Systems Technician (DS), Electronic Warfare Technician (EW), Electronics Technician (ET), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Ocean Systems Technician (OT), Operations Specialist (OS), Sonar Technician (ST), or Electronics Technician (Surface) Warrant Officer (766X).

Description

Serves as an officer technical manager in the field of non-nuclear electronics; plans, coordinates, directs, and supervises the installation, operation, and maintenance of all non-nuclear electronics systems installed in units of the surface force; conducts operational evaluations of new installations and modifications to existing systems; provides operational and technical input to the research and development community for consideration in the design and testing of electronics systems or components; prepares and distributes operator training courses and operation guidance for electronics systems; plans, schedules, and conducts training for electronics personnel; writes reports and provides technical advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 5 for field experience in management, and 2 for field experience in electronics. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-640X-002

ELECTRONICS (SUBMARINE)

640X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Electronics Technician (Submarine) Limited Duty Officer 640X from: Data Systems Technician (DS), Electronics Technician (ET), Electronics Warfare Technician (EW), Fire Control Technician (FT), Fire Control Technician, Ballistic Missile Fire Control (FTB), Fire Control Technician, Gun Fire Control (FTG), Fire Control Technician, Surface Missile Fire Control (FTM), Operations Specialist (OS), Ocean Systems Technician (OT), Sonar Technician (ST), or Electronics Technician (Submarine) Warrant Officer (766X).

Description

Serves as an officer technical manager in the field of electronics; plans, coordinates, directs, and supervises the installation, operation, and maintenance of electronics systems; plans, organizes, and manages the activities of technical personnel; provides the leadership necessary to guide personnel and develop individual responsibility for the training and growth of assigned personnel; writes reports and provides advice about electronic systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 4 for field experience in electronics. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-640X-003

NUCLEAR POWER

640X

Exhibit Dates: 4/75–Present.

Career Pattern

This LDO designator was formerly 615X, Nuclear Power, Surface or 625X, Nuclear Power, Submarine. May have progressed to Nuclear Power Limited Duty Officer from Electrician's Mate (EM), Electronics Technician (ET), Interior Communications Electrician (IC), Machinist's Mate (MM), or Nuclear Power Technician Warrant Officer (740X, 715X, or 725X).

Description

Serves as an officer technical manager in the repair, maintenance, and operation of naval nuclear propulsion plants, nuclear ship systems and associated equipment; coordinates and supervises skilled craftsmen and administrative support personnel; provides technical assistance in the overhaul, refueling and decontamination of nuclear propulsion plants; monitors and supervises nuclear propulsion plant, chemical analysis, and chemistry control practices and procedures as well as quality assurance of nuclear work; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-641X-001

Administration

641X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Administration Limited Duty Officer from Lithographer (LI), Journalist (JO), Postal Clerk (PC), Personnelman (PN), Yeoman (YN), Legalman (LN), Religious Program Specialist (RP) or Ship's Clerk Warrant Officer (741X).

Description

Serves as an officer technical manager in the fields of Naval and personnel administration; directs administrative and personnel offices employing a broad knowledge of navy department/fleet staff organizations and regulations; personnel responsibilities include recruitment, selection, promotion, transfer, career development, training, job analysis and discipline; administrative tasks include office organization and procedures, legal work, budget and fiscal control, space planning, work progress reporting and information dissemination, public relations activities and liaison with other military services; responsible for the preparation, publication, and distribution of manuals, handbooks, reports, newspapers and correspondence; duties vary depending on technical experience and the size of the organization; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in office management, and 3 in human relations. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in management problems, 6 for field experience in management, and 3 in principles of management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (11/83).

LDO-642X-001

Data Processing

642X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Data Processing Limited Duty Officer from Data Processing Technician (DP), Data Systems Technician (DS), or Data Processing Technician Warrant Officer (742X).

Description

Serves as an officer technical specialist in the field of automatic data processing utilizing both electronic digital computer and electronic accounting machine equipment; administers the operation and maintenance of data processing installations; programs, debugs, and operates interactive and batch programs; advises in the selection of equipment; develops policy for job processing priorities; ensures data integrity and computer security; develops processing evaluation methods, work standards, and procedures manuals for programmers and analysts; conducts training for staff and for systems users; analyzes costs and prepares budget estimates for computer operations; reviews equipment design and updates hardware in use; provides the leadership necessary to guide personnel and develop individual responsibility; duties vary depending on the size of the organization and the specific computer installation; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in college algebra, and 1 in statistics. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in principles of management, 3 for field experience in management, and 5 for field experience in data processing. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (11/83).

LDO-643X-001

Bandmaster

643X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Bandmaster Limited Duty Officer from Musician (MU) or Bandmaster Warrant Officer (743X).

Description

Serves as a specialist in the fields of music and management; responsible for equipment, personnel, budgets, public relations, and operations; employs a broad knowledge of instrumental and vocal techniques, band administration, musical techniques, theories, and literature; may serve as program managers, leaders of Navy bands, officers-in-charge of Navy bands providing information and administration and assistance in music matters.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of public relations and 3 in operational management. In the upper-division baccalaureate category, 3 semester hours in personnel management, 3 in financial and budget management, 3 in advanced conducting, and 3 in score reading and analysis. If the rank of Lieutenant Commander has been attained, add 3 semester hours in advanced management problems; if the rank of Commander has been attained, add 6 semester hours in advanced management problems (2/86).

LDO-644X-001

Cryptology

644X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Cryptology Limited Duty Officer from Cryptologic Technician, Administrative (CTA), Cryptologic Technician, Interpretive (CTI), Cryptologic Technician, Maintenance (CTM), Cryptologic Technician, Communications (CTO), Cryptologic Technician, Collection (CTR), Cryptologic Technician, Technical (CTT), or Crypotologic Technician Warrant Officer (744X).

Description

Serves as an officer technical specialist in all phases of operations conducted by the Naval Security Group Command, including signals intelligence, signals security, and electronic warfare; responsible for administration, personnel support, electronic maintenance, communications, and technical research in support of the operating forces and the national cryptologic effort; plans and manages in accordance with appropriate directives, the employment of equipment and manpower resources; has managerial responsibility for the installation and maintenance of electrical, electro-mechanical, and electronic equipment, and the conduct of communications, administrative or communications security functions.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (2/86).

LDO-645X-001

Intelligence

645X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Intelligence Limited Duty Officer from Intelligence Specialist (IS) or Intelligence Technician Warrant Officer (745X).

Description

Serves as an officer technical manager responsible for the material readiness of the intelligence collection equipment, publications, and supplies; supervises enlisted Intelligence Specialists in their various intelligence collection, processing, dissemination duties and in the preparation of intelligence materials for briefings.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision; and based on institutional evaluation of the student's experiences, an additional 3 semester hours in any of the following areas: computer science, cultural geography, political science or principles of cartography. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (4/86).

LDO-646X-001

METEOROLOGY/OCEANOGRAPHY

646X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Meteorology/Oceanography Limited Duty Officer from Aerographer's Mate (AG) or Aerographer Warrant Officer (746X).

Description

Serves as an officer technical manager, providing meteorological and oceanographic support for fleet operations, and for planning and directing various activities within the Naval Oceanography Command; trains military and civilian meteorological/oceanographic personnel in the use and operational maintenance of meteorological and oceanographic equipment; trains and supervises Navy weather observers and forecasters; performs regional coordination for operational and administrative matters within regional areas of responsibility; manages the Meteorological and Oceanographic Equipment Program.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (2/86).

LDO-646X-002

CRYPTOLOGY

646X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Cryptology Limited Duty Officer from Cryptologic Technician, Administrative (CTA), Cryptologic Technician, Interpretive (CTI), Crypotologic Technician, Maintenance (CTM), Cryptologic Technician, Communications (CTO), Cryptologic Technician, Collection (CTR), Cryptologic Technician, Technical (CTT), or Crypotologic Technician Warrant Officer (764X).

Description

Serves as an officer technical specialist in all phases of operations conducted by the Naval Security Group Command, including signals intelligence, signals security, and electronic warfare; responsible for administration, personnel support, electronic maintenance, communications, and technical research in support of the operating forces and the national cryptologic effort; plans and manages in accordance with appropriate directives, the employment of equipment and manpower resources; has managerial responsibility for the installation and maintenance of electrical, electro-mechanical, and electronic equipment, and the conduct of communications, administrative or communications security functions.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (2/86).

LDO-647X-001

PHOTOGRAPHY

647X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Photography Limited Duty Officer from Illustrator Draftsman (DM), Intelligence Specialist (IS), Journalist (JO), Photographer's Mate (PH), or Photography Warrant Officer (747X).

Description

Serves as an officer technical manager responsible for all photographic, optical, digital, electronic, and other imaging systems and equipment, including still, motion picture, and video systems used in aerial, surface, and sub-surface imaging; plans and manages the operation of imaging commands and activities, combat camera groups, and aerial reconnaissance imaging systems; develops, reviews, and maintains support facilities which deal with photographic and image recording requirements; provides technical advice and assistance on all photographic and other imaging support matters to commanders and subordinate units; requires an extensive photographic background and technical knowledge in all phases of imaging theory and technology, equipment, support equipment, image recording and processing and the application and employment of imaging systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 3 in budget management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-648X-001

EXPLOSIVE ORDNANCE DISPOSAL

648X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Explosive Ordnance Disposal Limited Duty Officer from any enlisted rating or Warrant Officer Explosive Ordnance Disposal Technician (748X), must be qualified in Explosive Ordnance Disposal (EOD).

Description

Serves as an officer technical manager in the methods of detection, identification, field evaluation, rendering safe, recovery, and disposal of all types of U.S. and foreign ordnance, explosives, and demolition materials; provides technical escort for transportation or movement, detoxification, and disposal of chemical, biological, toxicological, and etiological agents; conducts technical evaluations or ordnance for intelligence information through disassembly and stripping; may perform airborne techniques, and provide U.S. Secret Service with explosive ordnance disposal support for presidential and other VIP protection as directed; provides fleet training services on emergency destruct procedures, detection and monitoring of nuclear, biological or chemical agents; provides technical guidance, training assistance in minor underwater repair, hull inspection, and propeller replacements; plans and supervises the activities of personnel engaged in diving and explosive ordnance disposal operations, involving all types of U.S. and foreign munitions, conventional and improvised; supervises the repair and modification of explosive ordnance disposal tools, equipment and material; supervises the stowage, issue, procurement, security and preservation of explosive ordnance disposal equipment, materials and components; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-649X-001

SECURITY

649X

Exhibit Dates: 4/81–Present.

Career Pattern

May have progressed to Security Limited Duty Officer from Master-At-Arms (MA) or Security Technician Warrant Officer (749X).

Description

Serves as an officer technical manager in matters of law enforcement, physical security, and corrections; plans, organizes and supervises physical security programs and activities aboard ships; establishes and maintains access/egress system providing for detection/prevention of sabotage and theft; plans and directs law enforcement programs to include aggressive contraband control initiatives; supervises operation of brigs afloat; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of security organization and administration and 3 in personnel distribution and deployment. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in budget administration, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (12/85).

LDO-651X-001

SUPPLY (SC)
(SUPPLY CORPS)
651X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Supply Corps Limited Duty Officer from Aviation Storekeeper (AK), Disbursing Clerk (DK), Mess Management Specialist (MS), Ship's Serviceman (SH), Storekeeper (SK), Supply Corps Warrant Officer (751X), or Food Service Warrant Officer (752X).

Description

Serves as an officer technical manager in the field of supply, including fiscal accounting and disbursing, material distribution and control, food service, ships' exchanges, and commissary stores; directs and administers supply activities; interprets department regulations and determines policies and procedures; responsible for the accounting and disbursing of funds and the distribution of supplies; develops and maintains proper budgeting and fiscal policies; directs stocks accounting system and inventory control methods and systems; disposes of excess and obsolete stock; stores and distributes material; utilizes a broad knowledge of logistics procedures, transportation systems, distribution concepts, budgeting and accounting policies, retail operations, inventory control techniques, and material management.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-653X-001

CIVIL ENGINEER CORPS (CEC)
653X

Exhibit Dates: 4/75–Present.

Career Pattern

May have progressed to Civil Engineer Corps Limited Duty Officer from Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Illustrator Draftsman (DM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), Utilitiesman (UT), Master Chief Equipmentman (EQCM), or Civil Engineer Corps Warrant Officer (753X).

Description

Serves as an officer technical manager in the operational field of horizontal and vertical construction, facilities maintenance, utilities, and automotive and construction equipment; helps to plan, coordinate, direct, and supervise the technical, operational, training, and administrative responsibilities of Naval construction force (NCF) units; assists in the planning, scheduling, operational and technical responsibilities of public works departments within the Navy shore establishment; supervises personnel engaged in horizontal and vertical construction, maintenance and repair of buildings, airfields, hardstands, waterfront structures, and utilities systems, and in the operaion, testing, maintenance, and repair of allied plants and automotive and construction equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semesters hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget management, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: leadership, project management, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-655X-001

LAW
655X

Exhibit Dates: 3/82–Present.

Career Pattern

May have progressed to Limited Duty Officer Law from Legalman (LN).

Description

Serves as an officer technical manager in the legal field, specializing in the administration of legal services; advises and assists commanding officers in matters pertaining to military law and the administration of military justice; directs or conducts investigations; drafts charges; makes recommendations concerning forum selection for the disposition of offenses; serves as trial counsel and conducts prosecutions of persons brought to trial by special court-martial; prepares records of proceedings and post trial actions; acts as summary courts-martial; conducts Article 32, Uniform Code of Military Justice (UCMJ) investigations; acts as recorder for administrative discharge boards, and supervises personnel performing legal duties; performs other non-lawyer paralegal functions including claims, civilian personnel matters, and financial and budgetary matters; provides legal assistance; plans and manages the employment of equipment and manpower.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in case analysis and reasoning, 3 in law office management, 3 for field experience in management, 3 in trial and case preparation, and credit in legal research on the basis of institutional evaluation. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (12/85).

LDO-657X-001

OPERATIONS (SURFACE)
657X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Operations (Surface) Limited Duty Officer from Electronics Warfare Technician (EW), Operations Specialist (OS), Ocean Systems Technician (OT), Quartermaster (QM), Radioman (RM), Signalman (SM), Sonar Technician (ST), or Operations Surface Technician Warrant Officer (714X).

Description

Serves as an officer technical manager in the operation, employment, and application of techniques, equipment, systems, and procedures in operations and communications; supervises and trains personnel in the operation and maintenance of operations and communications equipment and systems; plans, directs, and controls operations and communications activities; advises and assists commands in the above areas and in the employment and utilization of associated facilities and installations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-660X-001

AVIATION (DECK)
660X

Exhibit Dates: 1/65–3/75

Career Pattern

May have progressed to Aviation (Deck) Limited Duty Officer from: Aviation Boatswain's Mate (AB), Aviation Boatswain's Mate, Launching and Recovery Equipment (ABE), Aviation Boatswain's Mate, Fuels (ABF), Aviation Boatswain's Mate, Aircraft Handling (ABH), or Aviation Boatswain Warrant Officer (760X).

Description

Serves as an officer technical manager in aircraft handling and support operations aboard ship; plans and supervises loading, spotting, launching, recovering, and fueling aboard aircraft carriers and other aircraft-capable ships; supervises the maintenance and operation of aircraft catapults, arresting gear, aircraft fueling systems, and aircraft crash, fire, and salvage operations; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in managememt problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-661X-001

AVIATION OPERATIONS

661X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Aviation Operations Limited Duty Officer from Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter, or Aviation Operations Technician Warrant Officer (745X or 763X).

Description

Serves as an officer technical manager in either the field of air traffic control or air antisubmarine warfare. If serves in the field of air traffic control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs from qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recoding equipment, teletype and land line communications, navigational aids and weather. If serves in the field of air antisubmarine warfare, performs the following duties: assists in organization, supervision, and direction of tactical support center operations; briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of antisubmarine warfare equipment, collection, preparation and transmission of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has broad knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-662X-001

INTELLIGENCE

662X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Intelligence Limited Duty Officer from Intelligence Specialist (IS) or Intelligence Technician Warrant Officer (762X).

Description

Serves as an officer technical manager responsible for the material readiness of the intelligence collection equipment, publications, and supplies; supervises enlisted Intelligence Specialists in their various intelligence collection, processing, dissemination duties and in the preparation of intelligence materials for briefings.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision; and based on institutional evaluation of the student's experiences, an additional 3 semester hours in any of the following areas: computer science, cultural geography, political science, or principles of cartography. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (4/86).

LDO-663X-001

PHOTOGRAPHY

663X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Photography Limited Duty Officer from Illustrator Draftsman (DM), Intelligence Specialist (IS), Journalist (JO), Photographer's Mate (PH), or Photography Warrant Officer (831X).

Description

Serves as an officer technical manager responsible for all photographic, optical, digital, electronic, and other imaging systems and equipment, including still, motion picture, and video systems used in aerial, surface, and sub-surface imaging; plans and manages the operation of imaging commands and activities, combat camera groups, and aerial reconnaissance imaging systems; develops, reviews, and maintains support facilities which deal with photographic and image recording requirements; provides technical advace and assistance on all photographic and other imaging support matters to commanders and subordinate units; requires an extensive photographic background and technical knowledge in all phases of imaging theory and technology, equipment, support equipment, image recording and processing and the application and employment of imagin systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 3 in budget management. IF the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; IF the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/86).

LDO-665X-001

METEOROLOGY/OCEANOGRAPHY

665X

Exhibit Dates: 1/65–3/75.

Career Pattern

May have progressed to Meteorology/Oceanography Limited Duty Officer from Aerographer's Mate (AG) or Aerographer Warrant Officer (821X).

Description

Serves as an officer technical manager, providing meteorological and oceanographic support for fleet operations, and for planning and directing various activities within the Naval Oceanography Command; trains military and civilian meteorological/oceanographic personnel in the use and operational maintenance of meteorological and oceanographic equipment; trains and supervises Navy weather observers and forecasters; performs regional coordination for operational and administrative matters within regional areas of responsibility; manages the Meteorological and Oceanographic Equipment Program.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (2/86).

LDO-670X-001

Aviation Ordnance

670X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Aviation Ordnance Limited Duty Officer from Aviation Ordnanceman (AO), Gunner's Mate Technician (GMT), or Aviation Ordnance Technician Warrant Officer (721X).

Description

Serves as an officer technical manager in the field of operations and maintenance of aviation ordnance and aircraft armament; manages and directs the activities of aviation ordnance personnel in the performance of aviation operational, test, research, and maintenance functions involving aviation ordnance and aircraft armament; establishes new aviation ordnance and armament maintenance procedures and methods; plans, organizes and directs the operation of aviation ordnance activities; provides technical assistance and advice pertaining to aviation ordnance and armament; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. IF the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; IF the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

LDO-680X-001

Avionics

680X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Avionics Limited Duty Officer from: Aviation Electronics Technician (AT), Aviation Electrician's Mate (AE), Aviation Fire Control Technician (AQ), Aviation Antisubmarine Warfare Technician (AX), Tradevman (TD), or Aviation Electronics Technician Warrant Officer (761X).

Description

Serves as an officer technical manager in the field of avionics and aircraft systems operation and maintenance; organizes, manages, and directs all phases of installation, maintenance, repair, and operation of avionics equipment and other aircraft systems/components; participates in programs for the development, testing, and evaluation of equipment and systems; establishes new maintenance procedures and methods; directs the assignment of material, equipment, and systems; plans, develops, and administers training programs for systems and maintenance; writes reports and provides technical advice about aircraft systems.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in aviation maintenance systems. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in aviation maintenance management, and 3 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (1/84).

LDO-681X-001

Aviation Operations

681X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Aviation Operations Limited Duty Officer from Aviation Antisubmarine Warfare Operator (AW) Acoustic, Non-acoustic, or Helicopter, or Aviation Operations Technician Warrant Officer (745X or 763X).

Description

Serves as an officer technical manager in either the field of air traffic control or air antisubmarine warfare. If serves in the field of air traffic control, performs the following duties: organizes and supervises control tower operations, base operations, heliport operations, surveillance and approach radars, approach/departure control radars, planning airspace utilization, air traffic control procedures and training programs from qualifications of air traffic controller; coordinates operational procedures with F.A.A., U.S. military and foreign air traffic control facilities; employs a broad knowledge of federal air regulations, terminal and enroute air traffic control procedures and planning, and must have a knowledge of ground to air communications, radar operations, recoding equipment, teletype and land line communications, navigational aids and weather. If serves in the field of air antisubmarine warfare,performs the following duties: assists in organization, supervision, and direction of tactical support center operations; briefs and debriefs operational flight crews; evaluates and determines inflight operational efficiency of sensor system components and sensor operations; supervises preflight, inflight, and postflight inspections of antisubmarine warfare equipment, collection, preparation and transmission of data to appropriate analysis agencies; flies in support of mission of unit to which assigned; has broad knowledge of the characteristics and employment of U.S. and foreign submarines, warships, small craft, merchant ships and principles of radar, magnetic detection, electronic countermeasures, and underwater acoustics; writes technical reports and personnel evaluation reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (3/85).

LDO-685X-001

Aviation Maintenance

685X

Exhibit Dates: 1/65-3/75.

Career Pattern

May have progressed to Aviation Maintenance Limited Duty Officer from Aviation Machinist's Mate (AD), Master Chief Aircraft Maintenanceman (AFCM), Aviation Structural Mechanic (AM), Aviation Structural Mechanic, Safety Equipment (AME), Aviation Structural Mechanic, Hydraulics (AMH), Aviation Structural Mechanic, Structures (AMS), Aviation Support Equipment Technician (AS), Aviation Maintenance Administrationman (AZ), Aircrew Survival Equipmentman (PR), or Aviation Maintenance Technician Warrant Officer (741X).

Description

Serves as an officer technical manager in the field of aviation maintenance; plans and supervises the execution of aviation maintenance programs at the organizational, intermediate, and depot levels; develops quality assurance standards and procedures to ensure flight safety and proper material condition of aircraft; develops and administers programs for the development, testing, and evaluation of aircraft maintenance systems and methods; develops, reviews, and verifies aircraft maintenance logs, records, and reports; analyzes new developments and technological advances in aviation maintenance; administers aeronautical material procurement programs; formulates, directs, and evaluates training programs; writes reports and provides technical assistance and advice; plans, supervises, and directs activities of personnel under their command.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in principles of management, 4 in management problems, and 6 for field experience in management. If the rank of Lieutenant Commander has been attained, 3 additional semester hours in any of the following areas: project management, leadership, or budget administration; if the rank of Commander has been attained, 6 additional semester hours in any of the following areas: project management, leadership, or budget administration (10/85).

Navy Enlisted Classification (NEC) Exhibits

The Navy Enlisted Classification (NEC) structure supplements the enlisted rating structure in identifying personnel with special qualifications. NECs can be earned either through formal training, on-the-job training, or factory training (if appropriate). The code consists of four digits which follow the individual's rating. For example, on military records a code of EA-5501 indicates that the individual holds the rating of Engineering Aid and the NEC Construction Inspector.

Documentation for verifying NECs includes:

NAVPERS 1616/24, Enlisted Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the NEC title.

Letter of Designation. Letter from the commanding officer designating the NEC title.

For sample copies of these forms see Appendix G.

NEC-2186-001

Career Recruiter

Exhibit Dates: 12/75–Present.

Career Pattern

NEC 2186 is awarded to proven successful recruiters (NEC 9585) who are selected for assignment to recruiting duty for the remainder of their naval career. Individuals with NEC 9585 may apply to the Career Recruiting Force and are chosen by a Selection Board. Four steps are involved in the certification process toward the award of the NEC:

1. Successful completion of the Navy Recruiter Orientation course (NV-1406-0016)
2. A minimum of six months of supervised on-the-job training; during this time the Recruiter Qualification Standards must be completed and verified by the immediate supervisor
3. Completion of an open-book test
4. A two-hour oral examination before the Qualification Board.

Advancement within the NEC is achieved through a certification process. The four levels in the NEC are: Recruiter, Recruiter-In-Charge, Zone Supervisor, and Chief Recruiter. Before advancing to the next level, the individual must meet the qualification standards and pass an oral examination before the Qualification Board.

Advancement as a petty officer is separate from advancement in the NEC. Individuals must maintain the skills and competencies necessary to perform the occupational standards required for their rating. The rating advancement examination must be passed in order to qualify for advancement.

Documentation

NAVPERS 1070/604, Navy Occupation/Training and Awards History. See Section 1 for the NEC designator and the date it was awarded. This form is commonly referred to as page 4 of the service record.

NAVPERS 1616/24, Enlisted Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the title.

Letter of Designation. Letter from the Commanding Officer designating NEC and/or position title.

Descriptions and Recommendations

Recruiter. Provides qualified civilians for enlistment into the Navy; identifies target market populations; selects and uses appropriate supporting resources; prospects recruits; conducts interviews; enlists individuals; completes enlistment records; counsels rejected applicants; analyzes recruiting results and formulates plans for improving recruiting, marketing, and processing. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques and 3 in oral communications. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing (2/88).

Recruiter-In-Charge. Able to perform the duties required for recruiter; provides leadership and supervision of Navy Recruiters at a recruiting station; utilizes resources to provide sufficient numbers of qualified applicants for enlistment; supervises office routines; directs office personnel; manages resources; conducts training of recruiters; processes documents; supervises the use of government vehicles; insures the orderly flow of qualified applicants into the Navy. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing (2/88).

Zone Supervisor. Able to perform the duties required for Recruiter-In-Charge; manages and supervises use of resources in assigned recruiting zone; performs administrative and management functions; supervises subordinates at recruiting stations within a geographic region; develops and conducts training programs; provides input for budget; manages procurement effort within the region; evaluates functions of recruiting stations and their personnel. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 2 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in vocational counseling, 3 in operations management, 3 in personnel management, and 4 for field experience in marketing (2/88).

Chief Recruiter. Able to perform the duties required for Zone Supervisor; manages, supervises and coordinates the use of all resources in a recruiting district, which may include portions of several states; performs administrative and management functions of planning, organizing, coordinating, training and evaluating; writes reports; manages current budget and submits proposed budget; plans recruiting program; counsels zone and regional personnel; inspects recruiting stations; manages regional office. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in sales management, 2 in vocational counseling, 3 in operations management, 3 in personnel management, and 6 for field experience in marketing (2/88).

NEC-2612-001

Classification Interviewer

Exhibit Dates: 12/75–Present.

Career Pattern

Classification Interviewers are selected from the top 10% of any rating (paygrade E-4 through E-9). Four steps are involved in the certification process toward the award of the NEC:

1. Successful completion of the Classification Interviewer course
2. A minimum of six months of supervised on-the-job training; during this time the Qualification Standards must be completed and verified by the immediate supervisor
3. Completion of an open-book test
4. A two-hour oral examination before the Qualification Board.

Serves as a member of a staff of a Navy Recruiting District; a district comprises parts of one or more states, based on population centers. The district staff may have responsibility for assisting from 30 to 100 recruiting centers in matters of training, analyzing, processing, and managing resources. Specific staff assignments include: Classifier, Enlisted Processing Division Supervisor, and Military Entrance Processing System (MEPS) Liaison Petty Officer.

Advancement as a petty officer is separate from advancement in the NEC. Individuals must maintain the skills and competencies necessary to perform the occupational standards required for their rating. The rating advancement examination must be passed in order to qualify for advancement.

Documentation

NAVPERS 1070/604, Navy Occupation/Training and Awards History. See Section 1 for the NEC designator and the data it was awarded. The form is commonly referred to as page 4 of the service record.

NAVPERS 1616/24, Enlisted Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the title.

Letter of Designation. Letter from the Commanding Officer designating NEC and/or position title.

Descriptions and Recommendations

Classifier. Interviews potential enlistees to determine aptitudes and interests for military assignments; determines educational and occupational background, hobbies, abilities, and interests of personnel; administers and scores basic battery and other classification tests; screens personnel training assignments; makes reservations for training program. ***Recommendation:*** In the upper-division baccalaureate category, 2 semester hours in vocational counseling and 2 for field experience in sales techniques (6/89).

Enlisted Processing Division Supervisor. Manages and supervises the processing of qualified applicants for enlistments within a district; interprets and submits reports; supervises and counsels assigned personnel; submits input to annual training plans, including an evaluation of training effectiveness; monitors production and statistical evaluation; prepares the workload schedule for processing applicants. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision. In the upper-division baccalaureate/associate degree category, 1 semester hour in training and development (6/89).

Military Entrance Processing Station (MEPS) Liaison Petty Officer. Coordinates prequalification processing of potential recruits, and is the final "quality control" checkpoint prior to actual enlistment or re-enlistment; performs liaison functions between the Military Entrance Processing Station (MEPS) and the Recruiting district; verifies accuracy and completeness of applicant paperwork; identifies enlistment requirements, waiver requirements, and specific program eligibility requirements; explains enlistment obligations to applicants. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (6/89).

NEC-9502-001

Instructor

Exhibit Dates: 1/80–Present.

Career Pattern

Individuals holding NEC 9502 generally volunteer for instructor duty. Persons selected are in paygrade E-6 or above, and must be mature, stable, outgoing individuals who communicate effectively and are strongly motivated. A screening process for suitability is followed by interview with and recommendation by the Commanding Officer. Five steps are part of the certification process for award of the NEC:

1. Successful completion of Basic Instructor Training Course (A-012-0011)
2. Successful completion of a curriculum development course
3. Favorable interview by a Qualification Board
4. Attendance at instructor workshops, with accompanying classroom observations
5. Six months of successful supervised teaching.

The regular tour in the NEC is three or four years. Advancement as a petty officer is separate from advancement in the NEC. Individuals must maintain the skills and competencies necessary to perform the occupational standards required for their rating. The rating advancement examination must be passed in order to qualify for advancement.

Documentation

NAVPERS 1070/640, Navy Occupation/Training and Awards History. See Section 1 for the NEC designator and the date it was awarded. This form is commonly referred to as page 4 of the service record.

NAVPERS 1616/24, Enlistment Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the title.

Letter of Designation. Letter from the Commanding Officer designating NEC and/or position title.

Description

Knows lesson planning, instructional strategies, selection of visual aids, and teaching skills; can design lessons from a body of content; develops behavioral objectives; prepares test items; evaluates instructional materials and the results of instruction; presents material clearly and possesses platform (teaching) skills.

Recommendation

In the lower-division baccalaureate/associate degree category, 2 semester hours in learning theory, 3 in interpersonal communications, 3 in principles of speech, and 3 in instructional media. In the upper-division baccalaureate category, 1 semester hour in curriculum design and 2 in instructional strategy (3/90).

NEC-9519-001

Certified Navy Drug and Alcoholism Counselor

Exhibit Dates: 1/87–Present.

Career Pattern

May have been selected for NEC 9519 from paygrade E-4 through E-9 in any rating; will have completed all the requirements of the Navy Drug and Alcoholism Certification Program, including successful completion of the Navy Drug and Alcohol Counselor school (NV-0801-0011), a minimum one-year internship as a Drug and Alcoholism Counselor Intern (NEC 9522), and successful completion of comprehensive oral and written certification examinations.

Description

Serves as a drug and alcoholism counselor; conducts assessment and intake interviews; conducts group counseling; prepares aftercare planning and referrals; conducts prevention, outreach, and other educational services related to alcohol and drug abuse, and eating disorders; conducts program management and referral activities as required; must maintain the highest code of standards as required by the Counselor Code of Ethics; must maintain a current knowledge about alcohol abuse, alcoholism, drug abuse and addiction, and eating disorders.

Recommendation

In the upper-division baccalaureate category, 6 semester hours in a counseling or social work practicum (7/87).

NEC-9585-001

Recruiter Canvasser

Exhibit Dates: 12/75–Present.

Career Pattern

Recruiter Canvassers are selected from the top 10% of any rating (paygrade E–4 through E–9). Four steps are involved in the certification process toward the award of the NEC:

1. Successful completion of the Navy Recruiter Orientation course (NV-1406-0016)
2. A minimum of six months of supervised on-the-job training; during this time the Recruiter Qualification Standards must be completed and verified by the immediate supervisor
3. Completion of an open-book test
4. A two-hour oral examination before the Qualification Board.

The regular tour in this NEC is three years. Individuals in paygrade E–6 and above wishing to continue working in NEC 9585 may apply to the Career Recruiting Force and are chosen by a Selection Board. Advancement within the NEC is achieved through a certification process. The four levels in the NEC are: Recruiter, Recruiter-In-Charge, Zone Supervisor, and Chief Recruiter. Before advancing to the next level, the individual must meet the qualification standards and pass an oral examination before the Qualification Board.

May also have served as a member of a staff of a Navy Recruiting District; a district comprises parts of one or more states, based on population centers. The district staff may have responsibility for assisting from 30 to 100 recruiting centers in matters of training, analyzing, processing and managing resources. Specific staff assignments include: 6-year Obligor/Nuclear Field Recruiter; Prior Service (RZ) Recruiter; Leads Supervisor; and Delayed Entry Program (DEP) Coordinator.

Advancement as a petty officer is separate from advancement in the NEC. Individuals must maintain the skills and competencies necessary to perform the occupational standards required for their rating. The rating advancement examination must be passed in order to qualify for advancement.

Documentation

NAVPERS 1070/604, Navy Occupation/Training and Awards History. See Section 1 for the NEC designator and the date it was awarded. The form is commonly referred to as page 4 of the service record.

NAVPERS 1616/24, Enlisted Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the title.

Letter of Designation. Letter from the Commanding Officer designating NEC and/or position title.

Descriptions and Recommendations

Recruiter: Provides qualified civilians for enlistment into the Navy; identifies target market populations; selects and uses appropriate supporting resources; prospects recruits; conducts interviews; enlists individuals; completes enlistment records; counsels rejected applicants; analyzes recruiting results and formulates plans for improving recruiting, marketing, and processing. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques and 3 in oral communications. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing (2/88).

Recruiter-In-Charge: Able to perform the duties required for recruiter; provides leadership and supervision of Navy Recruiters at a recruiting station; utilizes resources to provide sufficient numbers of qualified applicants for enlistment; supervises office routines; directs office personnel; manages resources; conducts training of recruiters; processes documents; supervises the use of government vehicles; insures the orderly flow of qualified applicants into the Navy. ***Recommendation:*** In the lower-division baccalaureate/associate degree, 3 semester hours in sales techniques, 3 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing (2/88).

Zone Supervisor: Able to perform the duties required for Recruiter-In-Charge; manages and supervises use of resources in assigned recruiting zone; performs administrative and management functions; supervises subordinates at recruiting stations within a geographic region; develops and conducts training programs; provides input for budget; manages procurement effort within the region; evaluates functions of recruiting stations and their personnel. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours in vocational counseling, 3 in operations management, 3 in personnel management, and 4 for field experience in marketing (2/88).

Chief Recruiter: Able to perform the duties required for Zone Supervisor; manages, supervises and coordinates the use of all resources in a recruiting district, which may include portions of several states; performs administrative and management functions of planning, organizing, coordinating, training and evaluating; writes reports; manages current budget and submits proposed budget; plans recruiting program; counsels zone and regional personnel; inspects recruiting stations; manages regional office. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, 3 in office administration, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in sales management, 2 in vocational counseling, 3 in operations management, 3 in personnel management, and 6 for field experience in marketing (2/88).

6-Year Obligor/Nuclear Field Recruiter. Manages and coordinates the use of Navy recruiting resources to provide sufficient numbers of qualified applicants for enlistment in all six-year advanced programs, including nuclear field programs; submits input to annual training plan; uses sales skills from pre-approach to closing the sale; submits funding requests; directs activities to enhance recruiting efforts including local advertising, planning and implementing promotional activities and conducting market analysis; manages the processing of waivers and qualifies applicants for selected programs. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, and 3 in oral communications. In the upper-division baccalaureate category, 3 semester hours for field experience in sales techniques and 4 for field experience in marketing (6/89).

NF/Prior Service (RZ) Recruiter. Manages the processing of qualified prior-service applicants for re-enlistment; submits input to annual training plans; conducts market analysis and provides input to district marketing plans; verifies accuracy and completeness of applicants' paperwork; processes waiver requirements. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, and 2 in office administration. In the upper-division baccalaureate category, 5 semester hours for field experience in marketing (6/89).

Leads Supervisor. Supervises the processing and tracking of all national and local leads forwarded to the field as prospects for enlistment/selection; compiles and submits reports; supervises personnel and operations in the Tracking Center; submits input to annual training plan including determining level of on-the-job training required; schedules and implements training and determines training effectiveness; manages resources including budget and personnel; monitors the accuracy and completeness of advertising and direct mail campaigns. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing, 1 in advertising, and 1 in training and development (6/89).

Delayed Entry Program (DEP) Coordinator. Provides liaison with recruiters involving persons who will have delayed entry into the Navy; establishes and maintains positive relationships on behalf of the recruiting district with members of the DEP; identifies potential problems with individuals in the DEP in order to retain enlisted personnel. ***Recommendation:*** In the lower-division baccalaureate/associate degree category, 3 semester hours in sales techniques, 3 in oral communications, and 2 in office administration. In the upper-division baccalaureate category, 3 semester hours for field experience in marketing, 1 in vocational counseling (6/89).

NEC-9588-01

Collateral Duty Career Information Coordinator

Exhibit Dates: 12/75–Present.

Description

Counsels individuals and presents information concerning career opportunities, incentives, rights and benefits, and advantages of a Navy career; processes forms, documents, and records; advises and assists commands in organizing and implementing an agressive enlisted retention program.

Recommendation

In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 1 in sales techniques. In the upper-division baccalaureate category, 3 semester hours for field experience in vocational counseling (6/89).

NEC-9589-00

Command Career Information Retention Counselor/Coordinator

Exhibit Dates: 12/75–Present.

Career Pattern

Individuals holding NEC 9589 are selected from the top 10% of any rating (paygrade E-4 through E-9). Four steps are involved in the certification process toward the award of the NEC:

1. Successful completion of course # A-501-0011
2. A minimum of six months of supervised on-the-job training; during this time the Qualification Standards must be completed and verified by the immediate supervisor
3. Completion of an open-book test
4. A two-hour oral examination before the Qualification Board.

The regular tour in this NEC is three years. Advancement as a petty officer is separate from advancement in the NEC. Individuals must maintain the skills and competencies necessary to perform the occupational standards required for their rating. The rating advancement examination must be passed in order to qualifiy for advancement.

Documentation

NAVPERS 1070/604, Navy Occupation/Training and Awards History. See Section 1 for the NEC designator and the date it was awarded. The form is commonly referred to as page 4 of the service record.

NAVPERS 1616/24, Enlisted Performance Evaluation Report. See Section 54 for the NEC title and description of duties; Section 2 carries the rating designator, but the evaluation is based on performance in the NEC.

NAVPERS 1070/613, Page 13, Administrative Remarks. Indicates the date of certification and the title.

Letter of Designation. Letter from the Commanding Officer designating NEC and/or position title.

Description

Performs career retention duties afloat and ashore and coordinates the Navy-wide career retention program; explains re-enlistment options, benefits, and obligations; and discusses individual goals, job satisifaction, and military life with enlisted personnel; supervises and instructs career counselor; maintains a tickler file system to ensure that all personnel are counseled; processes forms, documents, and records for re-enlistment; maintains command retention statistics; maintains publications and materials; coordinates and arranges for group interviews; serves as the command's principal advisor on policies and regulations related to Navy career planning matters.

Recommendation

In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional methods. In the upper-division baccalaureate category, 3 semester hours for field experience in counseling and 3 for field experience in management (6/89).

Appendix A

The Evaluation Systems

The American Council on Education has developed and refined comprehensive procedures and criteria for the evaluation of military learning experiences. This appendix outlines the historical development of the *Guide;* defines which courses can be found in the *Guide;* provides background information on Navy general rates, ratings, and limited duty and warrant officer specialties; describes the evaluation systems used to prepare the recommendations for military formal courses and Navy ratings; and includes definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

BACKGROUND

Early editions of the *Guide to the Evaluation of Educational Experiences in the Armed Services* were prepared in response to specific needs. Immediately after World War II, the consensus in the civilian educational community was that the practice of granting blanket credit to World War I veterans as a reward for length of service was educationally unsound. Educators concluded that military learning experiences applicable to civilian curricula should be assessed by faculty for potential credit. Therefore, in December 1945, at the request of civilian educational institutions and the regional accrediting associations, the American Council on Education established the Commission on Accreditation of Service Experiences—renamed the Commission on Educational Credit and Credentials in 1979—to evaluate military educational programs and to assist institutions in granting credit for such experiences. Accordingly, the first edition of the *Guide* was published to assist educational institutions in evaluating service courses completed by returning veterans.

The extension of the World War II G.I. Bill to include veterans of the Korean conflict, and the subsequent enrollment of many veterans in colleges and universities, created a need for the second edition, published in 1954.

The 1968 edition was prepared in anticipation of the increased enrollment of veterans resulting from the educational assistance provided under the Veterans Readjustment Benefits Act of 1966, and with the expectation that many would apply for educational credit for their learning experiences in the armed services. In addition, technological advances had necessitated major changes in service training, with a resuting need for new or revised educational credit recommendations.

The 1974 edition was prepared primarily to respond to three emerging considerations. First, because of the growth in vocational and technical programs and the emergence of the concept of postsecondary education, there was a need to evaluate courses for possible credit in the vocational and technical categories in addition to the baccalaureate and graduate categories of previous editions. Second, active-duty service men and women were enrolling in increasing numbers in civilian educational programs and were seeking credit for military formal courses soon after completing their service school training. Third, credit recommendations were needed for the many courses initiated or revised by the military since 1968.

The 1974 edition marked the beginning of a new approach to reporting evaluations of formal military training. At its fall 1973 meeting, the Commission approved the concept of an ongoing *Guide* system. Elements of that system include the publication of biennial editions of the *Guide* through computerized composition, continual staff review of courses, and the computerized storage of course information for a more rapid updating of credit recommendations and for an improved ability to respond to inquiries related to course identification and credit recommendations.

Over the years the recommendations contained in the *Guide* have assisted education institutions in granting credit to hundreds of thousands of service men and women. Surveys conducted by ACE showed that most of the nation's colleges and universities use the formal course recommendations in awarding credit to veterans and active-duty service personnel. The recommendations have been widely accepted because military formal courses share certain key elements with traditional postsecondary programs: they are formally approved and administered, are designed for the express purpose of achieving learning outcomes, are conducted by qualified persons with specific subject-matter expertise, and are structured to provide for the reliable and valid assessment of student learning.

Until 1975, however, no mechanism existed for providing recognition for the learning a service man or woman attained through such learning experiences as self-instruction, on-the-job training, and work experience. As a first step in providing recognition for such learning experiences, the Commission in 1975 implemented a program for the evaluation of learning represented by demonstrated proficiency in Army enlisted military occupational

specialties (MOS's). The MOS evaluation procedures were developed, tested, and refined during a feasibility study conducted by the Council and sponsored by the U.S. Department of the Army. Evaluators made recommendations for educational credit and advanced standing in apprentice training programs. Subsequently, the occupational assessment program of the Commission was expanded to include Navy general rates, ratings, warrant officers and limited duty officers, Army warrant officer MOS's, Navy warrant officer and limited duty officer specialties, Coast Guard enlisted ratings and warrant officers and selected Marine Corps MOS's. A small number of Navy Enlisted Classifications (NECs) have also been evaluated.

The recommendations for advanced standing in apprentice training programs are the result of the cooperative efforts of the American Council on Education and labor and industry. Since the Navy programs are now registered with the Bureau of Apprenticeship and Training, recommendations are no longer made for advanced standing in apprenticeship programs.

The recommendations reflect the Commission's belief that it is sound educational practice to give recognition for learning, no matter how or where that learning has been attained, provided that the learning is at the appropriate level, is in the appropriate area, and is applicable to an individual's postsecondary program of study or apprenticeship program.

THE COURSES

Courses listed in the *Guide* are normally service school courses conducted on a formal basis, i.e., approved by a central authority within each service and listed by the service in its catalog. These courses are conducted for a specified period of time with a prescribed course of instruction, in a structured learning situation, and with qualified instructors.

Most courses are given on a full-time basis. After 1981 The Center began limited evaluation of courses that are 45 academic hours in length. Prior to that time courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the course had to include a minimum of sixty contact hours of instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours.

Recommendations for formal courses offered between World War II and 1954 are available in the 1954 edition of the *Guide* or from The Center for Adult Learning and Educational Credentials upon written request by education officials. Courses in this *Guide* have a start date no earlier than 1954. In addition, military Subject Standardized Tests (SSTs) are evaluated by the American Council on Education, and are found in the *Handbook to the Guide*.

THE COURSE EVALUATION SYSTEM

In the fall of 1973, the Commission on Educational Credit and Credentials of the American Council on Education approved the following procedures and guidelines for the evaluation of military formal courses.

The Evaluation Process

Courses are evaluated by teams of at least three subject-matter specialists (college and university professors, deans, and other academicians). Through discussion and the application of evaluation procedures and guidelines, team members reach a consensus on the amount and category of credit to be recommended.

Evaluation materials include the course syllabus, training materials, tests, textbooks, technical manuals, and examinations. Additional information is obtained from interviews with instructors and program administrators, classroom observations, and examination of instructional equipment and laboratory facilities.

Each team of evaluators has two major tasks for each course: the formulation of a credit recommendation and the preparation of the course's description. The credit recommendation consists of the category of credit, the number of semester hours recommended, and the appropriate subject area. Using the information provided in the military syllabus, evaluators phrase the course description (which appears in the *Guide* exhibits under the headings "Objectives" or "Learning Outcomes" and "Instruction") in terms meaningful to civilian educators. The course description supplements the credit recommendations by summarizing the nature of a given course.

Throughout the evaluation process, evaluators exercise professional judgment in applying the evaluative criteria and procedures. This position reflects the Commission's belief that sound educational evaluation is more dependent on professional judgment and expertise than on rigid application of criteria.

The Commission on Educational Credit and Credentials continually reviews its criteria and procedures. Evaluators are encouraged to provide feedback and recommendations for consideration by the Commission.

Selection of Evaluators

Nominations for course evaluators are requested from postsecondary institutions, professional and disciplinary societies, education associations, and regional accrediting associations.

The criteria for the selection of formal course evaluators are as follows:

1. Area of an evaluator's competence, as evidenced by formal training and experiences, will closely approximate area of student training to be evaluated.

2. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.

3. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

THE NAVY ENLISTED OCCUPATIONAL CLASSIFICATION SYSTEM

The Navy Enlisted Rating Structure is used for classifying enlisted personnel, identifying personnel qualifications, and reporting personnel requirements and resources. It also provides the framework for enlisted career development through paths of advancement from paygrades E–1 (recruit) through E–9 (master chief petty officer). For ACE purposes, there are two main types of occupational classifications in the Enlisted Ratings Structure:

1. *General Rates (Apprenticeships)*—Identifications assigned to personnel at paygrades E–1, E–2, and E–3. There are six general rates: Airman, Constructionman, Dentalman, Fireman, Hospitalman, and Seaman. Each general rate involves the performance of entry-level tasks and leads to one or more ratings.

2. *Ratings*—Broad enlisted occupations that encompass similar duties and functions and that, in most instances, provide paths of advancement and career development for personnel from paygrades E–4 (petty officer third class) to E–9 (master chief petty officer). **Figure 1** shows the relationships between petty officer designations and paygrades. A complete list of ratings and the occupational fields to which they belong are included as **Appendix B**. Ratings require performance of routine tasks at the lower paygrades and more difficult tasks at progressively higher paygrades.

General rates and ratings are organized in career patterns. A career pattern provides the normal path of advancement from recruit (paygrade E–1) to master chief petty officer (paygrade E–9). An example of a career pattern is shown in **Figure 2**.

Figure 1: *Relationships between petty officer designations and paygrades*

Petty officer classifications:	Paygrade
Petty Officer Third Class (PO3)	E–4
Petty Officer Second Class (PO2)	E–5
Petty Officer First Class (PO1)	E–6
Chief Petty Officer (CPO)	E–7
Senior Chief Petty Officer (SCPO)	E–8
Master Chief Petty Officer (MCPO)	E–9

Figure 2: *Example of a Navy enlisted career pattern*

General rate:		Paygrade
Airman (AN)	Airman Recruit	E–1
	Airman Apprentice	E–2
	Airman	E–3
Rating:		
Air Controlman (AC)	Air Controlman Third Class (AC3)	E–4
	Air Controlman Second Class (AC2)	E–5
	Air Controlman First Class (AC1)	E–6
	Chief Air Controlman (ACC)	E–7
	Senior Chief Air Controlman (ACCS)	E–8
	Master Chief Air Controlman (ACCM)	E–9

To supplement occupational information contained in the Navy Enlisted Rating Structure and to provide the necessary requirements for general rates and ratings, the Navy has developed two sets of standards: naval standards and occupational standards. Naval standards are tasks that are essential to the overall effectiveness of enlisted personnel in the performance of their duties. They include standards pertaining to military requirements, professional development, and naval tradition. Occupational standards identify the minimum tasks required for proficiency in general rates and ratings and provide the basis for the development of training and advancement requirements and of personnel policies and procedures. For both naval standards and occupational standards, each higher paygrade represents more complex duties, increased skills, and greater responsibility. Proficiency in a higher paygrade includes the ability to perform the tasks and meet the standards required for the preceding paygrades, as well as those required for the higher paygrade. The naval standards for all paygrades are given in **Appendix D**. A complete set of occupational standards for one rating, Air Controlman, is given in **Appendix C**.

In addition to the Enlisted Rating Structure, the Navy Enlisted Occupational Classification System includes two other subsystems: The Navy Enlisted Classification (NEC) Structure and Special Qualifications. The NEC Structure supplements the Enlisted Rating Structure by identifying skills requiring more specific identification than that provided by general rates and ratings and which are not rating-wide requirements. Special Qualifications identify highly specialized occupational entities which cross several occupational areas and define the requirements of these areas. Selected NECs have been evaluated by ACE.

The Navy Enlisted Evaluation and Advancement System

The Navy regularly evaluates the occupational proficiency of its men and women. In fact, the demonstration of occupational proficiency is directly linked to the *advancement system*. Only those individuals who have (1) demonstrated that they can perform the tasks required for the next higher paygrade, (2) completed the appropriate correspondence and/or residence courses for the next higher paygrade, (3) served a minimum length of time in their paygrade and in the service, and (4) been recommended by their commanding officer are allowed to take the advancement examination.

One of the primary advancement processes is the Navy-wide written examination for paygrades E-4 through E-7 of each rating. It is a 150-item multiple choice test that is based on the occupational standards and tasks for each paygrade of a given rating. In addition, the applicable military/leadership examination must also be passed by the candidates. Personnel are not advanced in their rating until they have demonstrated that they are proficient in the next higher paygrade of the rating.

Examinations for Petty Officer Third Class, Petty Officer Second Class, and Petty Officer First Class (paygrades E-4, E-5, and E-6) are administered semiannually. For Chief Petty Officer (E-7), the examination is administered annually and determines whether the person's military record will be screened by the Chief Petty Officer Selection Board. This selection board, which meets annually, ultimately determines a person's advancement to paygrade E-7. Promotion to Senior Chief Petty Officer (E-8) and Master Chief Petty Officer (E-9) is through the Senior/Master Chief Petty Officers Selection Board which meets annually. Examinations for paygrade E-3 are administered by unit commanding officers when the individual has demonstrated readiness to take it. Written examinations are not used for paygrade E-2. Make-up tests are made available for personnel who cannot take the test on the specified date because of extenuating circumstances.

A final multiple score is computed for each individual who takes the Navy-wide advancement examination. The final multiple score is composed of the following factors:

Factor	*E–4/5*	*E–6*	*E–7*
Written Examination Score	80	80	80
Performance Examination Score	70	92	52
Number of Years in Service	30	34	—
Number of Years in Paygrade	30	34	—
Medals and Awards	10	12	—
Passed-but-not-advanced (PNA) Points	10	12	—
TOTAL	230	264	132

The last factor included above, PNA points, applies to those individuals who passed the previous written examination and demonstrated they were qualified for advancement but were not advanced. This situation occurs when there is a scarcity of openings for advancement in a paygrade of a given rating and a person's final multiple score is not high enough for him or her to compete successfully with others in that paygrade.

It was determined by The Center staff that the written testing techniques and procedures used by the Army and Navy are very similar. Because of the similarities and because the Army testing system had already been favorably reviewed by measurement specialists retained by ACE, it was not necessary to have them review the Navy written tests. As with the Army, subject-matter and apprenticeship specialists confirmed the content validity of the tests in the course of conducting evaluations.

Further information about the Navy Enlisted Occupational Classification System and the Navy Advancement System can be obtained by contacting the Advisory Service.

THE NAVY WARRANT OFFICER AND LIMITED DUTY OFFICER CLASSIFICATION SYSTEM

Warrant officers are technical officer specialists who perform duties that are technically oriented and acquired through experience and training, and that are limited in scope in relation to other officer categories.

Limited duty officers (LDOs) are technically oriented officers who perform duties that are limited to specific occupational fields, that require authority greater than that normally expected of a warrant officer, and that require strong managerial skills.

Warrant officer and LDO specialties are normally identified by four digits, with each successively providing more precise identification of the individual holder.

As shown in **Figure 4**, a warrant officer can be identified by a "7" in the first digit, and an LDO by a "6". Only the first three characters are evaluated by ACE; the fourth digit, representing Naval status, appears in the exhibits as an "X". (See Appendixes E and F for information on occupational fields and status in the Navy.)

There are four grades of warrant officers: Warrant Officer, W–1 (WO1) (discontinued in 1975); Chief Warrant Officer, W–2 (CWO-2); Chief Warrant Officer, W–3, (CWO-3); and Chief Warrant Officer, W–4 (CWO-4).

Skills, Competencies, and Knowledge Evaluated			
1st character	2nd character	3rd character	4th character
number 6 or 7	number 1–5	number 1–8	number 0–9
Designator 6 = Limited Duty Officer 7 = Warrant Officer	Platform of Operation 1 = Surface 2 = Submarine 3 = Aviation 4 = General 5 = Staff Corps	Occupational Field See Appendix E	Status in Navy Or Naval Reserve See Appendix F

Figure 4: *Navy Warrant Officer and Limited Duty Officer Structure*

The grades reflect salary increases and are normally indicative of the length of time a person has served as a warrant officer. The grades do not signify differences in job duties. A position requiring a warrant officer may be filled by any qualified warrant from CWO-2 to CWO-4.

LDOs are commissioned officers in the ranks of ensign (0–1) through captain (0–6).

Selection and Evaluation

The warrant officer program provides an opportunity for appointment to commissioned warrant officer status for select senior enlisted personnel. The LDO program provides an opportunity for appointment to regular commissioned status for selected male warrant officers and senior male enlisted personnel. Competition is keen and individuals generally start preparing early in their careers. Potential candidates normally improve their skills through on-the-job training and specialized training through schools and correspondence courses.

Selection boards, composed of senior officers of experience, maturity, and varied backgrounds, are convened by the Secretary of the Navy annually. Each candidate's qualfications are evaluated and the board recommends those deemed best qualified.

Selection boards also meet annually to recommend those qualified for promotion. Performance is the major key to promotion. The Navy's selection procedure for promotion has always recognized the outstanding performer; mediocre performers are judged not to be competitive enough. Evaluations are recorded on *Fitness Reports*, an objective appraisal of performance by the senior reporting officer.

Time-in-grade is another criterion for promotion. Until 1975, the time-in-grade requirements were:

Promotion to W–2: 1 year in grade W–1
Promotion to W–3: 4 years in grade W–2
Promotion to W–4: 4 years in grade W–3.

After 1975, grade W–1 was discontinued; time-in-grade requirements are now:

Promotion to CW0–3 (temporary):
3 years in grade CWO–2
Promotion to CW0–3 (permanent):
6 years in grade CWO–2
Promotion to CW0–4 (temporary):
3 years in grade CWO–3
Promotion to CW0–4 (permanent):
6 years in grade CWO–3.

ACE OCCUPATIONS EVALUATION SYSTEM

The ACE evaluation system for occupations has three major components: the selection of evaluators, the materials required for evaluation, and the procedures and guidelines evaluators use in reaching decisions and making recommendations.

Selection of Evaluators

Nominations for evaluators are requested from postsecondary institutions; professional associations; disciplinary societies; education associations; regional accrediting associations; state departments of education; and state credentialing, licensing, and certifying agencies.

The criteria for selection of evaluators are as follows:

1. The area of an evaluator's competency, as evidenced by formal occupational training, knowledge, and experience, will closely approximate the skills, competencies, and knowledge required for proficiency in the occupation being evaluated.

2. When recommendations were made for apprenticeship programs, preference was given to candidates who were experienced in administration of apprentice training programs when an occupation was related to an apprenticeable trade.

3. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.

4. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

An evaluator candidate is interviewed by a staff member to determine whether the individual meets the selection criteria.

Evaluations are conducted by teams of at least three specialists. An effort is also made to attain a diverse geographic representation among evaluators. Teams are formed based on the occupations to be evaluated. Because skills required for proficiency in an occupational specialty do not always fall neatly into civilian educational and occupational fields and often encompass two or more fields, most evaluation teams include a curriculum generalist. Provision is also made for an evaluation team, when it finds it cannot thoroughly evaluate a specialty, to refer it to another team or other specialists for further evaluation.

Materials Required for Evaluation

In order to make a recommendation, evaluators first identify the skills, competencies, and knowledge associated with a given occupational specialty. The materials relevant for each evaluation are made available to staff members and evaluators by the Navy. Materials include the official Navy manuals that describe the duties and qualifications for each occupation; the ***Bibliography for Advancement Study;*** rate training manuals and other publications used by Navy enlisted men and women in the day-to-day performance of their duties and to prepare for their advancement examinations; and the advancement examination. Additional information is obtained by observing and interviewing Navy men and women during site visits to bases and units.

Evaluation Procedures and Guidelines

Evaluators identify the skills, competencies, and knowledge required of Navy men and women who are qualified in a given occupational specialty and relate that demonstrated learning to the same attributes acquired by students who have completed a comparable postsecondary course or curriculum and by tradesmen and apprentices who have completed a related apprentice training program. Because the evaluations are based on a comparison of learning outcomes, the amount of time a given enlisted man or woman may have spent acquiring occupational proficiency is not taken into consideration. The emphasis is on translating the learning demonstrated through occupational proficiency into terms used in formal civilian postsecondary education systems to recognize the same learning. This reflects the belief of the Commission on Educational Credit and Credentials that the value of learning is not dependent on where or how the learning occurs.

Evaluation teams are assigned four tasks in the evaluation process: (1) to identify the learning represented by occupational proficiency by reviewing the pertinent written materials and by observing men and women performing their occupation and interviewing them and their supervisors; (2) to prepare a description of the duties, skills, competencies, and knowledge required for each specialty; (3) to make recommendations for each specialty based on discussion and consensus; and (4) to make specific comments and suggestions about the specialties (especially in those instances when neither educational credit nor advanced standing in an apprentice training program is recommended), which are forwarded to the Chief of Naval Education and Training.

THE RECOMMENDATIONS

In order to interpret exhibits correctly, readers should become thoroughly familiar with the definitions and guidelines utilized by evaluators in formulating the recommendations. The following paragraphs include definitions and guidelines pertaining to categories of educational credit, and the semester hour standard.

Categories of Credit

Educational credit is a concept used by postsecondary institutions to quantify and record a student's successful completion of a unit of study. Postsecondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. ACE evaluators utilize the following categories of educational credit when formulating credit recommendations:

Vocational Certificate. This category describes course work of the type normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied science. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

Lower-Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degree, the traditional transfer associate degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper-Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed a baccalaureate program.

Semester Hours

Credit recommendations for courses are not derived by simple arithmetic conversion. Evaluators exercise professional judgment and consider only those portions of a course that can be equated with civilian postsecondary curricula. Intensive courses offered by the military do not necessarily require as much outside preparation as many regular college courses. Evaluators consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

The recommendations for Navy ratings are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in the rating, without reference to how much time elapsed during the learning process. The semester hour is used as a standard to express how many semester hours of appropriate course work a student would normally complete to attain the same learning outcomes or attest to the same level of competency.

Credit recommendations are expressed in semester credit hours. In determining semester hour recommendations, evaluators will be guided by, but not restricted to, the following standard definitions:

1. One semester credit hour for the equivalent of 15 hours of classroom contact plus 30 hours of outside preparation; or
2. One semester credit hour for the equivalent of 30 hours of laboratory work plus necessary outside preparation, normally expected to be 15 hours; or
3. One semester credit hour for the equivalent of not less than 45 hours (contact hours) of shop instruction.

Apprentice Training

Apprentice training is the composite series of progressively more difficult learning experiences in the technology and skills of a tradesman. Apprentice training may be identified in clock hours or years of reasonably continuous on-the-job training and in contact hours of related instruction. On-the-job training and work experience focus on the performance of basic skills under the direct supervision of a journeyman. Related and supplemental instruction is normally closely correlated with on-the-job training, and the subject matter stresses practical application of technology. An *apprentice* is a person who is engaged in learning a trade by working with, and under the direct supervision of, a qualified journeyman in all phases of the trade for a specified period of time. A *journeyman* is a tradesman who has satisfactorily completed an apprentice training program or achieved proficiency in a given industry and who works without direct job supervision.

Clock Hours and Contact Hours

A recommendation for advanced standing in an apprentice training program is stated in clock hours of occupational experience and contact hours of related instruction. *Clock hours* are based on hours worked at a trade; *Contact hours* are based on hours spent in the presence of a qualified instructor.

The Navy ratings recommendations are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in the rating, without reference to how much time elapsed during the learning process. Clock hours and contact hours are used to express how much of an apprentice training program an apprentice would normally complete to attain the same learning outcomes or attest to the same level of competency.

Since Navy apprenticeship programs are now registered with the U.S. Bureau of Apprenticeship and Training (BAT), general rates and ratings are no longer evaluated in terms of apprenticeship programs, although academic credit recommendations are still provided.

Other Recommendations

The Defense Activity for Non-Traditional Education Support (DANTES) maintains the educational records of the service men and women who have completed SSTs, CLEP examinations, and GED Tests.

The results of courses and tests that were taken under the auspices of USAFI (United States Armed Forces Institute, disestablished 1974) which carry academic credit and were submitted prior to June 30, 1974, are available from DANTES Contractor Representative (transcripts), P.O. Box 2879, Princeton, New Jersey 08541. Service members and veterans are required to pay a $10.00 fee for USAFI transcripts. Military education personnel can obtain them free of charge.

Results of Subject Standardized Tests and CLEP examinations taken under the auspices of DANTES after July 1, 1974, are available at a nominal charge from DANTES Contractor Representative (CLEP), Educational Testing Service, P.O. Box 2819, Princeton, New Jersey 08541.

Test reports for GED Tests taken after July 1, 1974, can be obtained from DANTES Contractor Representative (GED), GED Testing Service, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

In addition, credit recommendations for USAFI courses and tests and for DANTES Subject Standardized Tests are available from The Center and are published in the *Handbook to the Guide*.

Appendix B

Navy Enlisted Occupational Fields and Ratings

Navy enlisted ratings are grouped into 24 occupational fields. Each field provides opportunities for advancement and career progression among closely related ratings. The 24 occupational fields and the ratings which each field encompasses are as follows:

1 **General Seamanship**
Boatswain's Mate (BM)
Signalman (SM)

2 **Ship Operations**
Operations Specialist (OS)
Quartermaster (QM)

3 **Marine Engineering**
Boiler Technician (BT)
Electrician's Mate (EM)
Engineman (EN)
Gas Turbine System Technician (GS)
Interior Communications Electrician (IC)
Machinist's Mate (MM)

4 **Ship Maintenance**
Damage Controlman (DC)
Hull Maintenance Technician (HT)
Instrumentman (IM)
Machinery Repairman (MR)
Molder (ML)
Opticalman (OM)
Patternmaker (PM)

5 **Aviation Maintenance/Weapons**
Aircrew Survival Equipmentman (PR)
Aviation Antisubmarine Warfare Technician (AX)
Aviation Electrician's Mate (AE)
Aviation Electronics Technician (AT)
Aviation Fire Control Technician (AQ)
Aviation Machinist's Mate (AD)
Aviation Maintenance Administrationman (AZ)
Aviation Ordnanceman (AO)
Aviation Structural Mechanic (AM)

6 **Aviation Ground Support**
Aviation Boatswain's Mate (AB)
Aviation Support Equipment Technician (AS)

7 **Air Traffic Control**
Air Controlman (AC)

8 **Weapons Control**
Electronics Technician (ET)
Fire Control Technician (FT)
Fire Controlman (FC)

9 **Ordnance Systems**
Gunner's Mate (GM)
Mineman (MN)
Missile Technician (MT)
Torpedoman's Mate (TM)
Weapons Technician (WT)

10 **Sensor Operations**
Electronics Warefare Technician (EW)
Ocean Systems Technician (OT)
Sonar Technician (ST)

11 **Weapons Systems Support**
Tradevman (TD)

12 **Data Systems**
Data Processing Technician (DP)
Data Systems Technician (DS)

13 **Construction**
Builder (BU)
Construction Electrician (CE)
Construction Mechanic (CM)
Engineering Aid (EA)
Equipment Operator (EO)
Steelworker (SW)
Utilitiesman (UT)

14 **Health Care**
Dental Technician (DT)
Hospital Corpsman (HM)

15 **Administration**
Legalman (LN)
Navy Counselor (NC)
Personnelman (PN)
Postal Clerk (PC)
Yeoman (YN)
Religious Program Specialist (RP)

16 **Logistics**
Aviation Storekeeper (AK)
Disbursing Clerk (DK)
Mess Management Specialist (MS)
Ship's Serviceman (SH)
Storekeeper (SK)

17 **Media**
Illustrator Draftsman (DM)
Journalist (JO)
Lithographer (LI)
Photographer's Mate (PH)

18 **Musician**
Musician (MU)

19 **Master-at-Arms**
Master-at-Arms (MA)

20 **Cryptology**
Cryptologic Technician (CT)

21 **Communications**
Radioman (RM)

22 **Intelligence**
Intelligence Specialist (IS)

23 **Meteorology and Oceanography**
Aerographer's Mate (AG)

24 **Aviation Sensor Operations**
Aviation Antisubmarine Warfare Operator (AW)

Appendix C

Naval Occupational Standards

Occupational Standards define the tasks enlisted personnel must perform to be proficient in their ratings. Knowledge required to perform a given task is assumed to be inherent in the proper performance of the task. Occupational Standards are written as task statements which are derived by personnel experts from the data resulting from a thorough analysis of the task and the rating.

The task statements are listed under topic titles. The topic titles provide a method of grouping similar standards for various ratings. Examples of topic titles are administration, publications, and maintenance planning and quality assurance. An example of a task statement for the air traffic controller second class administration is: "maintain air traffic operations logs and records."

Task statements are identified by five-digit numbers. The first two digits identify the topic title (38 for administration, for example). The remaining three digits identify the specific task statement. For example, the five-digit number that identifies the topic title and task statement for the air traffic controller second class mentioned in the preceding paragraph is 38235.

The occupational standards for the general rating, Air Traffic Controller, follow:

GENERAL INFORMATION

Career Pattern

ACCM

ACCS

ACC

AC1

AC2

AC3

Airman Apprenticeship

Normal path of advancement to Warrant Officer and Limited Duty Officer categories is to Aviation Operations Technician (732X) and LDO Aviation Operations (632X).

Special Physical Requirements

Vision 20/200 correctable in each eye to 20/20; normal color perception; normal hearing; no speech impediment; pass examination for Class II FAA Medical Certificate (Part 67, FAA Regulations). Refer to Articles 15.10, 15.13A, 15.21 and 15.69 of the Manual of the Medical Department, U.S. Navy for details on hearing, color perception and speech requirements.

Citizenship/Security Requirements

Must be eligible for access to classified information.

Air Traffic Controllers (AC) perform air traffic control duties in air control towers, radar air traffic control facilities, and air operations offices ashore and afloat; operate radiotelephones, light signals and systems, and direct aircraft under VFR and IFR conditions; operate surveillance radar, precision radar, and identification equipment (IFF); operate ground- and carrier-controlled approach systems; assist pilots in the preparation and processing of flight plans and clearances; and maintain current flight planning information and reference materials.

Air Traffic Controller Third Class (AC3)

12 AIR TRAFFIC CONTROL

12251	Perform flight following, provide advisory services and control aircraft using air surveillance radar
12252	Process flight plans
12257	Inform necessary units and direct fire, crash and rescue personnel to emergency sites
12258	Issue instructions to and coordinate communications between vehicular traffic and aircraft on the ground
12259	Locate, identify and track aircraft
12260	Maintain flight data and status board
12261	Obtain, record and relay air traffic control clearances to aircraft
12266	Control aircraft using precision approach radar
12270	Correct for effects of weather and topography on radar, IFF and related equipment
12271	Direct air traffic under instrument flight rules
12272	Direct air traffic under visual flight rules
12273	Direct ground and air traffic using signal light gun
12275	Provide Air Traffic Control (ATC) services to aircraft that have experienced an emergency situation in flight
12276	Identify standard airfield requirements and associated equipment
12277	Select various radar presentations that will reduce clutter

32 SECURITY

32002	Comply with communications security requirements

33 COMMUNICATIONS

33323	Obtain and relay weather information to aircraft and local weather facilities

40 ELECTRICAL SYSTEMS OPERATIONS

40283	Operate airfield lighting systems

43 ELECTRONIC SYSTEMS OPERATION

43251	Perform equipment operation checks
43268	Monitor electronic aids to air navigation

46 ELECTRO/MECHANICAL MAINTENANCE

46254	Perform operator preventive maintenance on ATC control tower equipment
46255	Perform operator preventive maintenance on ATC radar equipment
46256	Perform operator preventive maintenance on telecommunications equipment

68 GENERAL ADMINISTRATION

68023	Maintain logs
68026	Maintain records
68049	Use publications
68546	Make corrections to publications

69 TECHNICAL ADMINISTRATION

69067	Use charts
69267	Prepare and process ATC data
69268	Prepare and process notices to all airmen (NOTAMS)

79 LOGISTICS

79379	Issue flight planning material, charts and publications

Air Traffic Controller Second Class (AC2)

12 AIR TRAFFIC CONTROL

12254	Supervise air traffic control (ATC) facility base operations
12269	Coordinate search and rescue operations
12278	Direct aircraft under special VFR conditions
12279	Coordinate air space usage within restricted/warning areas

68 GENERAL ADMINISTRATION

68033	Order publications

69 TECHNICAL ADMINISTRATION

69052	Order charts

70 TRAINING

70281	Conduct ATC Training

Air Traffic Controller First Class (AC1)

12 AIR TRAFFIC CONTROL

12256	Supervise control tower operations
12268	Coordinate functions of radar air traffic control (ATC) facility
12280	Provide ATC services to aircraft conducting flight checks
12281	Apply non-radar separation to IFR aircraft

67 MANAGEMENT AND SUPERVISION

67353	Schedule operator preventive maintenance on ATC facility equipment

68 GENERAL ADMINISTRATION

68024	Maintain publications

70 TRAINING

70355	Supervise ATC training
70356	Evaluate controllers on each position within the facility for qualification

Chief Air Traffic Controller (ACC)

12 AIR TRAFFIC CONTROL

12253	Serve as air traffic control (ATC) facility watch supervisor
12255	Supervise ATC facility flight checks

67 MANAGEMENT AND SUPERVISION

67004	Conduct and supervise safety and inspection programs
67284	Serve as ATC facility branch manager
67364	Supervise radar ATC operations
67647	Supervise use, filing and maintenance of publication, logs and records

68 GENERAL ADMINISTRATION

68051	Write correspondence
68066	Prepare reports

69 TECHNICAL ADMINISTRATION

69415	Coordinate work within a division
69423	Disseminate U.S. Navy and FAA regulations, directives, correspondence and other information governing the operations of ATC facilities
69527	Conduct controller proficiency reviews

70 TRAINING

70260	Supervise the ATC facility training program
70357	Test/qualify tower and radar controllers for position qualifications

79 LOGISTICS

79299	Requisition and account for ATC equipment
79403	Prepare operational capability improvement request (OCIR)

Senior Chief Air Traffic Controller (ACCS)

12 AIR TRAFFIC CONTROL

12267	Coordinate Air Traffic Control (ATC) facility flight checks

57 MAINTENANCE PLANNING

57269	Coordinate and ensure maintenance of ATC facility equipment

67 MANAGEMENT AND SUPERVISION

67015	Establish and implement a program for interviewing, evaluating and assigning personnel
67017	Evaluate effectiveness of safety and inspection programs
67031	Provide information and advise on utilization, capabilities, reliability and operations
67474	Evaluate existing airspace requirements and provide recommendations for restructuring airspace to meet a facility's operational requirements

68 GENERAL ADMINISTRATION

68052	Write directives and instructions

69 TECHNICAL ADMINISTRATION

69259	Plan, organize and prepare runway use and noise abatement programs
69340	Review and process ATC facility reports
69347	Review and verify facility compliance with planning standards for approach zone criteria, obstruction lighting and field marking

70 TRAINING

70015	Organize and schedule training programs and evaluate effectiveness

Master Chief Air Traffic Controller (ACCM)

12 AIR TRAFFIC CONTROL

11262	Administer an air traffic control (ATC) facility

67 MANAGEMENT AND SUPERVISION

67016	Establish goals, objectives and priorities
67030	Plan, organize, implement and control activities
67032	Review personnel, equipment and material requirements
67033	Review policy statements, operation orders and directives

68 GENERAL ADMINISTRATION

68067	Prepare staff studies
68297	Prepare and interpret letters of agreement, directives and memoranda

78 FINANCIAL CONTROL

78001	Develop operating budgets and monitor expenditures

98 PLANNING AND ESTIMATING

98003	Forecast furture requirements

Appendix D

Naval Standards

Naval standards are tasks—skills and knowledge—other than those defined by occupational standards, that are essential to the overall effectiveness of enlisted personnel in the performance of their duties. They pertain to general rates and ratings for paygrades E-2 through E-9. They include standards pertaining to military requirements, professional development, and Naval tradition.

Naval standards are identified by six-digit numbers. The first three digits, always in the 900s, identify the standard topic title. The remaining three digits identify the specific task statement. For example, the number 901 indicates that the standard topic title is "Watch, Quarter and Station Bill" and the specific task is "Purpose and content of watch, quarter and station bill."

Apprentice (E-2)

900 Military Requirements

901 WATCH, QUARTER AND STATION BILL

901201 Purpose and content of watch, quarter and station bill

902 SEAMANSHIP

902201 Terminology used in deck and boat seamanship

902202 Procedures for locating and reporting an object by relative bearing and position angle

902203 Difference between true and relative bearings

902204 Nomenclature of deck equipment

902205 Splicing line and tying basic knots

902206 Types, sizes and maintenance of line

903 DRILL

903201 Individual positions and facings without arms

904 UNIFORMS

904201 Meaning and significance of the service stripes

904202 Sleeve insignia and collar device identification of U.S. Navy enlisted rates and ratings

904203 Grade insignia and corps devices of U.S. Naval officers

904204 Regulations for correct upkeep, wearing and marking of U.S. Navy enlisted uniforms

904205 Regulations concerning identification tags and identification cards

904206 Rank insignia of other U.S. armed service paygrades and comparative U.S. Navy officer ranks and enlisted rates

904207 Regulations for correct wearing of U.S. Navy awards

904208 Regulations concerning proper grooming standards

905 SMALL ARMS

905201 Procedures for firing the service rifle and pistol in prescribed positions

905202 Precautions required to prevent hearing loss when exposed to small arms fire

906 WATCHSTANDING

906201 Procedures for relieving an armed watch

906202 Procedures for standing a proper military watch

906203 Eleven general orders of a sentry (watch)

906204 Duties and responsibilities of a lookout

906205 Duties and responsibilities of a military watch

907 COMMUNICATIONS

907201 Standard telephone procedures and phraseology when using sound-powered telephones, dial telephones and intercoms

907202 Procedures to break-out, man, test and secure a shipboard sound-powered headset

907203 Pronunciation of numbers and phonetic alphabet

907204 Communications security

907205 General administrative and emergency signal flags and pennants

908 SHIPS AND AIRCRAFT CHARACTERISTICS

908201 Major types of ships and aircraft of the U.S. Navy

908202 Nomenclature of superstructure, decks and components of the hull

908203 Numbering system for decks

908204 General characteristics and mission of U.S. ships and aircraft

908205 Lettering and numbering system for compartments

910 Personnel Safety

911 SAFETY

911201 Hazards when entering or working in unventilated spaces

911202 Hazards when using CO_2 and Halon 1301 as fire extinguishing agents

911203 Precautions when handling and stowing fire extinguishers

911204 Dangers involved in handling a charged fire hose

911205 Dangers involved in the operations of an internal combustion engine in an unventilated space

911206 Dangers of energizing and using electrical equipment in a space filled with explosive vapors

911207 Safety precautions when embarked in small boats

911208 Safety precautions for recreation and sports

911209 Safety precautions when in the vicinity of aircraft

911210 Safety precautions involved in working with or in the vicinity of:

A. fuels, paints, approved cleaning agents and flammables
B. weapons, ammunition and pyrotechnics
C. electric and electronic equipment
D. compressed gases
E. compressed air
F. liquids under pressure
G. steam
H. lifelines, ladders and scaffolding
I. heavy weight and moving equipment
J. personnel aloft or over the side
K. voids, tanks and closed compartments
L. cutting and welding operations
M. power tools
N. antennas
O. suspended loads
P. fiberglass and asbestos
Q. high noise level

  R. lines under tension
  S. rotating machinery
  T. caustic liquids
  U. marine sanitation systems
  V. electromagnetic radiation
  W. heat and cold stress areas

911211 Safety precautions when operating motor vehicles
911212 Deck safety precautions
911213 Hazards when entering spaces where CO_2 or Halon 1301 extinguishers have been discharged
911214 Labels, signs and symbols used to identify hazardous material
911215 Procedures for reporting safety hazards and violations
911216 Use and maintenance of personal protective equipment
911217 Purpose, use and procedures of the Navy tag out system
911218 Safety procedures to follow when lifting objects
911219 Safety precautions in handling firearms

912 FIRST AID AND PERSONAL HYGIENE

912201 Procedures for applying a battle dressing
912202 Procedures for control of arterial and venous bleeding by compress, finger pressure and tourniquet
912203 Symptoms of and procedures to prepare and apply an improvised splint for closed and open fractures
912204 Procedures for cardiopulmonary resuscitation
912205 Procedures to transport an injured person by fireman's lift, tied-hands crawl and standard shipboard litters
912206 Prevention and symptoms of sexually transmitted diseases
912207 Purpose, general rules and limitations of first aid
912208 Symptoms of and immediate treatment for shock
912209 Procedures for rescuing a person in contact with an energized electrical circuit and subsequent treatment for electrical shock
912210 Symptoms of and first aid treatment for heat exhaustion and heat stroke
912211 Symptoms, classification and first aid treatment of burns
912212 Reasons for maintaining sanitary conditions
912213 Body cleanliness and personal care of the feet, hair and scalp
912214 Procedures and required equipment to maintain good oral hygiene
912215 Procedures for abdominal/chest thrust to remove foreign body obstruction
912216 Procedures for artificial ventilation by mouth-to-mouth and alternate methods

913 SURVIVAL

913201 Perform prescribed minimum swimming qualifications
913202 Use of clothing and buoyant objects for staying afloat
913203 Care and use of personal flotation devices
913204 Techniques of swimming through oil, flames and debris
913205 Preparation and methods for abandoning ships
913206 Use of desalting equipment and methods of obtaining fresh water
913207 Evasion, resistance and escape while in enemy-held territory
913208 Use of life boats and associated survival gear
913209 Concepts of land and sea survival

914 CHEMICAL, BIOLOGICAL AND RADIOLOGICAL (CBR) DEFENSE

914201 Care and use of protective mask
914202 Use of equipment and clothing to protect against CBR contamination
914203 Markers used to indicate CBR contamination
914204 Purpose of monitoring and decontamination teams
914205 Methods of dissemination of chemical and biological agents
914206 Personnel decontamination
914207 Use of atropine as an antidote for nerve agents
914208 Self aid and first aid methods in countering the effects of nerve, blister, blood, choking and chemical agents
914209 Effects of nuclear radiation (alpha, beta, gamma and neutrons)
914210 Area decontamination procedures ashore and afloat
914211 Properties of chemical warfare (CW) agents
914212 Protection afforded by each level of mission oriented protective posture (MOPP)

920 Material Condition

921 DAMAGE CONTROL

921201 The four classes of fire and how each class is determined
921202 Recommended extinguishing agents for each class of fire
921203 Procedures to report a fire or other casualty
921204 Letters and symbols that designate the material conditions of readiness
921205 Compartmentation and its use in maintaining watertight integrity
921206 Fire triangle in terms of fire prevention and firefighting
921207 Conditions that cause spontaneous combustion
921208 Good housekeeping practices for fire prevention
921209 Duties and responsibilities of a repair party
921210 Shipboard piping identification coding system
921211 Use and stowage of damage control equipment and systems
921212 Function and use of the oxygen breathing apparatus (OBA)
921213 The three major material conditions of readiness
921214 Procedures for breaking watertight integrity and darken ship
921215 Damage control organization
921216 Identification of damage control lockers and use of contents
921217 Methods and procedures for communications in a damage control situation
921218 Procedure and reason for setting material conditions of readiness
921219 Use and stowage of emergency escape breathing device (EEBD)
921220 Shipboard emergency procedures
921221 Purpose and precedence of shipboard emergency alarms
921222 Action taken when emergency alarm is sounded

922 SURFACE PRESERVATION

922201 Cleaning and stowing of painting equipment
922202 Purpose for cleaning and preservation
922203 Equipment, methods and procedures for preparing and painting a surface
922204 Methods and procedures for preserving surfaces not to be painted

930 Military Conduct and Justice

930201 Authority and functions of military police
930202 Content and responsibilities stated in Articles I through VI of the code of conduct for members of the Armed Forces of the United States
930203 General content of Navy Regulations, Chapter 8 (Articles 0801–0803, 0810–0816, 0825–0826, 0829–0830, 0834 and 0847) and Chapter 11
930204 Purpose of military discipline and punishment
930205 General content of UCMJ Articles 2, 3, 7–15, 25, 27, 31, 37, 38, 55, 77–134 and 137–139

940 Professional Development

941 CAREER INFORMATION

941201 Personal financial management
941202 Reasons for and consequences of the various types of discharges
941203 Enlisted career structure
941204 Enlisted performance evaluation system
941206 Requirements for advancement of nonrated personnel
941207 Educational and training opportunities

941208 Contents of the enlisted service record
941210 Government insurance benefits
941212 Incentives for a Navy career
941213 Sea duty, shore duty and neutral duty
941214 Purpose of professional development board
941215 Military pay entitlements and leave and earnings statement content
941216 Requirements for good conduct medal
941217 Leave and liberty procedures
941218 Dependents rights, privileges and benefits
941219 Duty preference forms
941221 Career reenlistment objectives (CREO)

942 TRAINING

942201 Personnel qualifications standards (PQS) system

944 MANAGEMENT INFORMATION

944201 Accountability for signing official documentation

950 Naval Tradition

951 SEA POWER

951201 Naval history and the evolution of today's Navy
951202 Roles and mission of the Navy

952 CUSTOMS AND COURTESIES

952201 Procedures for conducting colors
952202 Military courtesies required during colors
952203 Procedures for proper handling of the ensign and jack
952204 How, when and to whom the individual hand salute is rendered
952205 Military courtesies required when:
  A. boarding and leaving a Naval vessel
  B. crossing or being in the vicinity of the quarterdeck
  C. the National Ensign passes or the National Anthem is played
  D. passing, meeting, addressing, introducing, replying to, waking or riding with an officer of the U.S. or foreign armed forces
  E. addressing and introducing enlisted personnel of the U.S. armed forces
  F. ship and boat passing honors are rendered and when in the vicinity of a gun salute

953 ORGANIZATION

953201 Purpose and function of the chain of command
953202 Scope and purpose of the standard organization and regulations of the U.S. Navy
953203 Standard unit organization and responsibility of each department
953204 Purpose and content of the ship or command's organization and regulations manual

960 Leadership

960201 Followership and leadership

970 International Agreements

970201 General provisions of the Geneva Conventions concerning treatment and rights of prisoners of war
970202 General purpose of the Status of Forces Agreement concerning members of the armed forces in foreign countries
970203 Information prisoners of war are required to provide when questioned
970204 General provisions of the Law of Armed Conflict

980 Security Requirements

980201 General scope and principles of security requirements and procedures pertaining to classified information and material
  A. purpose of security bill
  B. security of classified matter
  C. security classifications
  D. compromise of classified matter
  E. security clearances
  F. security areas
  G. marking of classified material
  H. personal censorship
  I. reporting security violations
  J. reporting subversive activities

990 Programs and Policies

990201 Navy sponsor program
990202 Energy conservation
990203 Environmental conditions and pollution control
990204 Military cash awards
990205 Overseas duty support
990206 Health and physical readiness program
990207 Provisions of the Privacy Act
990208 Public affairs and community relations
990209 Sexual harrassment
990210 Standards of conduct and professional ethics
990211 Navy integrity and efficiency program
990212 State and national voting procedures
990213 Educational opportunities program
990214 Family Ombudsman program
990215 Policy for equal opportunity and human rights
990216 Policy regarding personal responsibilities and consequences for drug and alcohol abuse
990217 Naval officer commission programs
990218 Reenlistment quality control program

Apprentice (E-3)

900 Military Requirements

906 WATCHSTANDING

906301 Watch organization for afloat and ashore commands

910 Personnel Safety

914 CHEMICAL, BIOLOGICAL AND RADIOLOGICAL (CBR) DEFENSE

914301 Meaning of the terms radiac, radiation dose, radiation dose rate, safe stay time and material condition of "Circle William"
914302 Differences between radiation and radiological contamination
914303 Purpose and use of dosimeters

920 Material Condition

921 DAMAGE CONTROL

921301 Purpose and use of compartment check-off list
921302 Purpose and use of damage control closure log
921303 Purpose of primary and secondary fire and flooding boundaries
921304 Methods of controlling temperature in the vicinity of a fire

922 SURFACE PRESERVATION

922301 Equipment and materials used for preparing and painting a surface

940 Professional Development

944 MANAGEMENT INFORMATION

944301 Purpose of the maintenance and material management (3M) system

990 Programs and Policies

990301 Suitability for overseas duty

Petty Officer Third Class (E-4)

900 Military Requirements

903 DRILL

903401 Conduct close-order drill

904 UNIFORMS

904401 Qualifications to earn and wear service stripes

906 WATCHSTANDING

906401 Duties of petty officer of the watch, section leader, master-at-arms, police petty officer and shore patrol

910 Personnel Safety

911 SAFETY

911401 Safety instructions and publications

911402 Hazardous material identification, handling and stowing procedures

911403 Unit safety organization

913 SURVIVAL

913401 Responsibilities and authority of the senior person in a survival situation

914 CHEMICAL, BIOLOGICAL AND RADIOLOGICAL (CBR) DEFENSE

914401 Duties and responsibilities of monitoring and decontamination teams

914402 Purpose of the collective protection system (CPS)

914403 Procedures for entering, exiting and personal cleansing in the CPS

920 Material Condition

921 DAMAGE CONTROL

921403 Use of damage control reporting symbols

921404 Duties and responsibilities of the damage control emergency parties

922 SURFACE PRESERVATION

922401 Approved cleaning solvents for use in interior and exterior spaces

922402 Fixtures and devices to which paint or liquid cleaners should not be applied

930 Military Conduct and Justice

930401 Purpose and preparation of report of offense

940 Professional Development

941 CAREER INFORMATION

941401 Requirements for advancement in rate and selection of petty officers

941402 Enlisted assignment procedures

941404 Awards and commendations

941405 Requirements for enlisted warfare specialist designation

941407 Special programs and projects duty assignments

941408 Function and use of the Navy enlisted classification system

942 TRAINING

942401 Procedures for indoctrinating personnel reporting for duty

944 MANAGEMENT INFORMATION

944401 Procedures for requisitioning and obtaining supplies and material through the Navy supply system

944402 Basic procedures used in the maintenance and material management (3M) system

950 Naval Tradition

951 SEA POWER

951401 Components of United States sea power: Navy, Merchant Marine, Coast Guard and Military Sea Lift Command

960 Leadership

960401 Fundamentals of leadership

960402 Authority and responsibility of a petty officer

960403 Equal opportunity and human rights as an element of leadership

990 Programs and Policies

990401 Purpose and organization of the Navy's Human Resources Management/Quality of Life programs

990402 Petty officer responsibility in the Navy's Drug and Alcohol Abuse Prevention and Control program

990403 Counseling and treatment programs for drug and alcohol abusers

990404 Veterans Administration program

990405 Naval Reserve program

Petty Officer Second Class (E-5)

910 Personnel Safety

911 SAFETY

911501 Procedures for instructing personnel on the use and maintenance of personal protective equipment and clothing

911502 Supervisory responsibilities for work center and job site safety awareness

914 CHEMICAL, BIOLOGICAL AND RADIOLOGICAL (CBR) DEFENSE

914501 Procedures for instructing personnel in the correct use of CBR protective clothing and equipment for each level of MOPP

921 Material Condition

921 DAMAGE CONTROL

921501 Duties and responsibilities of section leaders as duty division damage control petty officer (Duty DDCPO)

940 Professional Development

941 CAREER INFORMATION

941504 Reenlistment, education and special duty incentives

941505 Petty officer quality control review board

942 TRAINING

942501 Duties and responsibilities of the training petty officer

942502 Presentation of training using demonstration, discussion and lecture methods

942503 Procedures for the maintenance of division training records

944 MANAGEMENT INFORMATION

944501 Procedures for repairing inputs for enlisted performance evaluations

950 Naval Tradition

951 SEA POWER

951501 U.S. Navy's peacetime and wartime roles and responsibilities

953 ORGANIZATION

953501 Names, abbreviations and broad responsibilities of commands within Department of the Navy: Navy Department, Shore Establishment and Operating Forces

960 Leadership

960501 Meaning and application of the following leadership and management competencies:
- A. setting goals and performance standards
- B. planning and organizing
- C. taking initiative
- D. optimizing use of resources
- E. delegating authority
- F. rewarding
- G. monitoring progress and results
- H. disciplining
- I. influencing
- J. team building
- K. developing subordinates
- L. self control
- M. positive expectations
- N. realistic expectations
- O. understanding
- P. conceptualizing

990 Programs and Policies

990501 Programs and policies of command managed equal opportunity

Petty Officer First Class (E–6)

900 Military Requirements

901 WATCH, QUARTER AND STATION BILL

901601 Procedures for preparation and maintenance of the watch, quarter and station bill

903 DRILL

903601 Procedures for presenting personnel for ceremonies, inspections and quarters

906 WATCHSTANDING

906601 Duties and responsibilities of officer of the deck and junior officer of the deck in port

910 Personnel Safety

911 SAFETY

911601 Duties and responsibilities of a safety petty officer

911602 Procedures for conducting job safety analysis

911603 Supervisory responsibilities for the Navy Occupational Safety and Health (NAVOSH) program

920 Material Condition

921 DAMAGE CONTROL

921602 Duties and responsibilities of the work center supervisor as the damage control petty officer for the work center (WCDCPO)

921603 Duties and responsibilities of the Division Damage Control Petty Officer (DDCPO)

921604 Duties and responsibilities of the on-scene leader

921605 Duties and responsibilities of disaster control teams ashore

940 Professional Development

941 CAREER INFORMATION

941602 Supervisory responsibilities for providing career information to junior personnel

941603 Application and selection procedures for commission as a limited duty officer (LDO) and chief warrant officer (CWO)

942 TRAINING

942601 Supervisory responsibilities regarding divisional personnel qualifications standards (PQS) system

944 MANAGEMENT INFORMATION

944601 Procedures for preparing enlisted performance evaluations

944602 Responsibility of signature authority

944603 Procedures for extra military instruction (EMI), extension of working hours and withholding of privileges

944604 Duties and responsibilities of the leading petty officer

944605 Effective Naval writing

950 Naval Tradition

951 SEA POWER

951601 Operational components of U.S. Navy in sea power: striking forces, triad, weapons and systems, geographic areas of concern and operational readiness

960 Leadership

960601 Supervisory responsibilities in implementing leadership and management competencies

960602 Self assessment of leadership and management competencies

980 Security Requirements

980601 Security requirements regarding:
- A. casual visits to ship or command
- B. visitors with and without visit clearances
- C. unauthorized visitors
- D. security watches in U.S. and foreign ports

990 Programs and Policies

990601 Procedures for indoctrinating personnel on Navy programs and policies

990602 Supervisory responsibilities for command managed equal opportunity program

990603 Programs and policies for identification of and providing treatment for drug and alcohol abusers

Chief Petty Officer (E–7)

900 Military Requirements

904 UNIFORMS

904701 Regulations for correct upkeep and wearing of CPO uniforms

910 Personnel Safety

911 SAFETY

911701 Procedures for preliminary investigation of personal injury or death including completion of mishap report forms

911703 Safety organization roles and responsibilities

911705 Supervisory responsibilities in the Navy's safety programs

911706 Safety awareness education and training program implementation

920 Material Condition

921 DAMAGE CONTROL

921701 Duties and responsibilities of the Departmental Damage Control Chief Petty Officer (DDCCPO)

921702 Duties and responsibilities of the repair party leader

930 Military Conduct and Justice

930701 Procedures for conducting preliminary investigation of offenses

903702 Conduct of mast proceedings

903703 Purpose and content of Navy regulations

940 Professional Development

941 CAREER INFORMATION

941701 Supervisory responsibility for career counseling program
941702 Purpose and procedures for reviewing the enlisted service record
941703 Role and function of chief, senior chief and master chief petty officers
941704 Advancement and selection procedures for chief, senior chief and master chief petty officers

942 TRAINING

942701 Procedures for planning and directing personnel training
942702 Function of command training team

944 MANAGEMENT INFORMATION

944701 Procedures for preparing and submitting budget requests
944702 Administration of the procurement, care, preservation, stowage, inventory, and disposal of stores, equipment and repair parts
944703 Provide guidance on professional and personal matters
944704 Procedures for preparing and presenting briefings
944705 Procedures for preparing correspondence and messages
944706 Supervisory responsibilities in reviewing and providing guidance to personnel preparing enlisted performance evaluations
944707 Procedures for counseling personnel on their enlisted performance evaluations
944708 General scope and use of official Navy publications
944709 Supervisory responsibilities for interviewing, evaluating and assigning personnel

950 Naval Tradition

951 SEA POWER

951701 Challenges to United States sea power

953 ORGANIZATION

953701 Purpose and content of standard organization and regulations of the U.S. Navy (OPNAVINST 3120.32)

960 Leadership

960701 Supervisory responsibilities for supporting command effectiveness by:
    A. managing subordinates effectively
    B. applying sound leadership practices to managerial abilities
    C. demonstrating personal characteristics that support comand leadership and management policies

970 International Agreements

970701 General provisions of the Status of Forces Agreement concerning members of armed forces in foreign countries

980 Security Requirements

980701 Provisions of the U.S. Navy information and personnel security program:
    A. basic policy
    B. compromise and other security violations
    C. counterintelligence matters to be reported to Naval investigative service
    D. classification, declassification, downgrading and upgrading of classified matter
    E. marking of classified material
    F. dissemination of classified material
    G. safeguarding of classified material
    H. disposal of classified material
    I. destruction of classified material
    J. personnel clearances
    K. access to classified material

990 Programs and Policies

990701 Casualty assistance calls program
990702 Supervisory responsibilities in implementing overseas duty support initiatives
990703 Supervisory responsibilities in the Navy's Human Resource Management/Quality of Life programs
990704 Navy Fleet Reserve and Retirement programs
990705 Supervisory responsibilities in the Navy's Integrity and Efficiency (I & E) programs

Senior Chief Petty Officer (E–8)

910 Personnel Safety

911 SAFETY

911803 Procedures for organizing, scheduling and evaluating safety and inspection programs in areas of own responsibility

940 Professional Development

942 TRAINING

942801 Procedures for organizing, scheduling and evaluating training programs

944 MANAGEMENT INFORMATION

944801 Administrative, material and operational readiness inspection procedures
944802 School quotas and NEC assignment procedures
944803 Management techniques for fiscal responsibility, production efficiency and personnel administration
944804 Duties and responsibilities of division officers
944805 Procedures for changing manpower authorization (OPNAV Form 1000/2) and Enlisted Distribution and Verification Report (EPMAC 1080)
944806 Procedures for coordinating, preparing and implementing directives, instructions, regulations, bills, reports and training plans
944807 Procedures for monitoring assignment and utilization of personnel

950 Naval Tradition

953 ORGANIZATION

953801 Mission and functions of:
    A. Secretary of Defense
    B. Secretaries of the military departments
    C. Joint Chiefs of Staff
    D. Unified and specified commands
    E. U.S. Armed Forces

990 Programs and Policies

990801 Procedures for establishing programs of individual and group counseling for:
    A. drug and alcohol abuse
    B. personal financial management
    C. equal opportunity and human rights precepts
    D. health and physical readiness
990802 Fleet or Force and Command Master Chief programs
990803 Sources of information concerning services available to families

Master Chief Petty Officer (E–9)

910 Personnel Safety

911 SAFETY

911901 Procedures for developing and monitoring safety and inspection programs in areas of own responsibility

911902 Procedures for implementing the Navy Occupational Safety and Health (NAVOSH) program in areas of own responsibility

940 Professional Development

941 CAREER INFORMATION

941901 Roles and functions of the Master Chief Petty Officer of the Navy (MCPON) and the Chief of Naval Operations Master Chief Petty Officer (MCPO) advisory panel

942 TRAINING

942901 Procedures for developing and monitoring training programs

944 MANAGEMENT INFORMATION

944901 Purpose and content of Ship's Manning Document (SMD)/ Squadron Manning Document (SQMD)

944902 Procedures for forecasting requirements for personnel equipment material

944903 Procedures for monitoring budgets in areas of own responsibility

944904 Procedures for preparing staff studies

944905 Procedures for reviewing and monitoring implementation of policy statements, operation orders and directives

944906 Procedures for developing, establishing and monitoring goals and objectives

Appendix E

Navy Warrant Officer and Limited Duty Officer Occupational Fields

The third digit of a warrant officer and limited duty officer designator code represents the occupational field. It is always a number from 1–8. This third digit will represent one of three different occupational fields. Depending on the second digit, (the platform of operation), the title of the occupational field will vary. Refer to **Figure 1**. If a person's specialty is 741X, the "4" indicates that the platform of operation is "general," and the "1" stands for "Ship's Clerk." However, if the specialty is 731X, the "3" represents "aviation," and the "1" will stand for "Boatswain." The five platforms of operation are: 1 = surface; 2 = submarine; 3 = aviation; 4 = general; and 5 = staff corps.

The following figure lists the definitions for the occupational field designator according to the platform of operation for warrant officers.

Occ. Field	Platform of Operation		
	1 Surface 2 Submarine 3 Aviation	**4 General**	**5 Staff Corps**
1	Boatswain	Ship's Clerk	Supply Corps
2	Operations Technician	Data Processing	Food Service
3	Engineering Technician (surface and submarine)	Bandmaster	Civil Engineer Corps
4	Repair Technician (surface and submarine) Maintenance Technician (aviation)	Cryptologic Technician	Physician's Assistant
5	Nuclear Power Technician (surface and submarine)	Intelligence Technician	
6	Ordnance Technician	Aerographer	
7	Underwater Ordnance Technician	Photographer	
8	Electronics Technician	Explosive Ordance Disposal Technician	

Figure 1: *Warrant Officer Occupational Fields*

The following figure lists the definitions for the occupational field designator according to the platform of operation for limited duty officers.

Occ. Field	Platform of Operation		
	1 Surface 2 Submarine 3 Aviation	**4 General**	**5 Staff Corps**
1	Deck	Administration	Supply Corps
2	Operations	Data Processing	Mess Management (Supply Corps)
3	Engineering (surface) Repair (submarine) Maintenance (aviation)	Bandmaster	Civil Engineering Corps
4		Cryptology	
5	Nuclear Power (surface and submarine)	Intelligence	
6	Ordance	Meteorology	
7		Photography	
8	Electronics (surface and submarine) Avionics (aviation)	Explosive Ordance Disposal	

Figure 2: *Limited Duty Officer Occupational Fields*

Appendix F

Navy Warrant Officer and Limited Duty Officer Status Codes

The fourth digit of a warrant officer and limited duty officer designator code represents the individuals status in the Navy or Naval Reserve. A digit from 0–9, it appears in the exhibits as an "X."

Officer Designator Code	Status
0	An officer of the Regular Navy whose permanent grade is Ensign or above.
1	An officer of the Regular Navy whose permanent status is warrant officer.
2	A temporary officer of the Regular Navy whose permanent status is enlisted.
3	An officer of the Regular Navy who is on the retired list.
4	An officer of the Naval Reserve whose permanent status is enlisted.
5	An officer of the Naval Reserve. Exceptions: note fourth digit 4, 6, 7, and 8.
6	An officer of the Naval Reserve who was appointed in the Naval Reserve Integration Program from enlisted status.
7	An officer of the Naval Reserve on active duty in the TAR program (Training and Administration of Reserves), including officers of the TAR program rotated to other TAR billets.
8	An officer of the Naval Reserve whose permanent status is warrant officer.
9	An officer of the Naval Reserve who is on the retired list.

Appendix G

Sample Military Records

- DD Form 295 (November 1986) Application for the Evaluation of Learning Experiences During Military Service, page G-2
- DD Form 214 (July 1979) Certificate of Release or Discharge from Active Duty, page G-6
- Sample Course Completion Certificate, page G-7
- NAVPERS 1070/604 (November 1981) Navy Occupational/Training and Awards History, page G-8
- NAVPERS 1611/1 (1982) Report on the Fitness of Officers, page G-11
- NAVPERS 1616/24 (1983) Enlisted Performance Evaluation Report, page G-13
- NAVPERS 1070/613 (1981) Administrative Remarks, page G-15
- Letter of Designation, page G-16

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

(Date)

TO: (Name and address of educational institution, agency, or employer)

EVALUATION REQUEST FOR:

(Name of Applicant)

(Social Security Number)

ATTENTION:

Dear Official:

The applicant named above has requested that the attached summary of educational achievements, accomplished while in the Armed Forces of the United States, be forwarded to you for review and evaluation.

The American Council on Education publishes the *Guide to the Evaluation of Educational Experiences in the Armed Services* which includes postsecondary credit evaluations of military learning experiences. The 1954 edition of the *Guide* contains recommendations for formal courses offered by the Armed Services during the period 1941 to 1954. The current edition contains credit recommendations for (1) military training courses offered after 1954; (2) Army military occupational specialties (MOS's) for enlisted personnel and warrant officers; (3) ratings held by Navy and Coast Guard enlisted personnel; and (4) occupational designators held by Navy and Coast Guard warrant officers and Navy limited duty officers. In addition to recommendations for semester hour credits, some Army enlisted MOS's and Navy ratings also have recommendations for advanced standing in apprentice training programs.

The American Council on Education maintains an advisory service to provide credit recommendations for courses and tests, MOS's, ratings, and other occupations evaluated after the publication date of the current *Guide*. Credit recommendations are provided to officials of schools, state departments of education or other educational institutions, employers, apprenticeship training directors, labor union and trade association officials, military education officers and applicants. *Credit recommendations are not provided to officials at the applicant's request.* Authorized persons may write directly to the Military Evaluations Program Office, American Council on Education, One Dupont Circle, N.W., Washington, D.C. 20036-1193.

The evaluation of this applicant's learning experiences, as well as any guidance which you may provide, should be sent directly to the applicant at the address shown in block 6 on page 3. Your interest is genuinely appreciated.

Sincerely,

(Education Officer)

DD Form 295, NOV 86 *Previous editions are obsolete* Page 1 of 4 Pages
1207/330

Privacy Act Statement

AUTHORITY: 5 USC 301 and EO 9397, November 1943 (SSN).

PRINCIPAL PURPOSE: To permit authorized agencies to evaluate military experience for academic placement and/or employment.

ROUTINE USES: Used at the request of the individual for the evaluation of military training.

DISCLOSURE: Voluntary; however, failure to provide requested information impedes the evaluation process by educational institutions or potential employers.

INSTRUCTIONS TO APPLICANT

DD Form 295 is for your convenience in applying for evaluation of your educational experiences during military service. Give as much detailed information as possible. Include additional information on separate sheets, if necessary.

You are encouraged to write a preliminary letter to the school or agency concerned, explaining your interest in its evaluation of your records for the continuance of your education. Training, correspondence study, or special experiences not described on this form, which you believe would be of interest to those reviewing your case, should be included in this letter.

The applicant should:

a. Complete items 1 through 15.

b. If you have attended college or completed any college correspondence courses, ask that college to send a transcript to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY COLLEGE OR UNIVERSITY COURSES ON THIS FORM.

c. If you have completed any college-level standardized examinations for credit, such as USAFI or DANTES Subject Standardized Tests, or CLEP, ask the appropriate agency to send a score report to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY EXAMINATIONS ON THIS FORM.

d. After completion, submit this DD Form 295 to the Certifying Officer.

INSTRUCTIONS TO CERTIFYING OFFICER

(Custodian of Personnel Records)

DD Form 295 is intended to provide factual information that schools and other evaluating agencies require for evaluation of the applicant's educational achievement. CERTIFYING OFFICERS WILL NOT MAKE RECOMMENDATIONS REGARDING CREDIT TO BE AWARDED.

The certifying officer should:

a. Complete items 16 through 18.

b. Insure that the information provided in Section II is documented in the applicant's Service Record. Names of schools or courses should not be abbreviated.

c. Send this DD Form 295 to the Education Officer.

INSTRUCTIONS TO EDUCATION OFFICER

The education officer should:

a. Complete item 19.

b. Counsel the service member.

c. Complete page 1. The name and address of the evaluating agency should be the same as that listed at the top of page 3 of this form.

PAGE 1 IS IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THE LETTER TO BE WRITTEN TO THE EVALUATING AGENCY BY THE APPLICANT.

d. Mail DD Form 295 directly to the designated evaluating agency.

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

TO *(Name and address of educational institution, agency, or employer)*

SECTION I - TO BE COMPLETED BY APPLICANT

1. NAME *(Last, First, Middle Initial)*	2. GRADE/RANK OR RATING	3. SOCIAL SECURITY NO.	4. PREVIOUS SERVICE NUMBER(S)

5. PRESENT BRANCH OF SERVICE *(Includes National Guard and Reserve components)*
☐ a. ARMY ☐ b. NAVY ☐ c. AIR FORCE ☐ d. MARINE CORPS ☐ e. COAST GUARD

6. APPLICANT'S MAILING ADDRESS FOR REPLY FROM EDUCATIONAL INSTITUTION

7. DATE OF BIRTH	8. PERMANENT HOME ADDRESS

CIVILIAN EDUCATION

9. HIGHEST GRADE OF SCHOOL COMPLETED *(X one)*
☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

10. HIGHEST YEAR OF COLLEGE COMPLETED *(X one)*
☐ a. NONE ☐ b. FRESHMAN ☐ c. SOPHOMORE ☐ d. JUNIOR ☐ e. SENIOR

11. COLLEGE DEGREE EARNED *(X if applicable)*
☐ a. ASSOCIATE ☐ b. BACHELOR

12. EDUCATIONAL INSTITUTION LAST ATTENDED

a. NAME	b. MAILING ADDRESS

13. USAFI COURSES COMPLETED IN SERVICE (Prior to 1974)
(The applicant should request a transcript for all courses to be forwarded directly to the evaluating agency.)

a. CATALOG NUMBER AND TITLE OF COURSE *(If no courses were taken, print NONE)*	b. METHOD OF STUDY *(Correspondence, self-teaching, locally conducted classes, etc.)*	c. LOCATION WHERE COMPLETED	d. DATE COURSE COMPLETED
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			

14. MILITARY CORRESPONDENCE COURSE COMPLETED
(The applicant should attach a copy of the course completion letter or certificate.)

a. COURSE NAME *(If no courses were taken, print NONE)*	b. COURSE SPONSOR *(AIPD, MCI, ECI, CGI)*	c. DATE COURSE COMPLETED
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		

15. APPLICANT CERTIFICATION: I have read the Privacy Act Statement on Page 2.

a. SIGNATURE	b. DATE SIGNED

SECTION II - TO BE COMPLETED BY CERTIFYING OFFICER

(Read Instructions on Page 2 before completing this page)

16. FORMAL SERVICE SCHOOLS ATTENDED (If longer than one week) *(If none, print NONE)*

a COURSE TITLE	b MILITARY COURSE NUMBER	c NAME OF SCHOOL, CITY, STATE	d DATE ENTERED	e LENGTH[1] *(In weeks)*	f DATE COMPLETED	g FINAL MARK AND/OR CLASS STANDING[2]	**19. ACE GUIDE COURSE OR OCCUPATION IDENTIFICATION NO.** *(To be filled out in Education Center)*
(1)							
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

17. MILITARY OCCUPATIONAL HISTORY

a MILITARY SPEC. CODE *(MOS, AFSC, Rate, etc.)*[3]	b MILITARY OCCUPATIONAL TITLE *(Do Not Abbreviate)*	c. DATES HELD		d MOS/SQT SCORE *(For Army Enlisted Personnel[4])*
		From *(Mo/yr)*	To *(Mo/yr)*	
(1)				
(2)				
(3)				

NOTES:

[1] Print **SP** if course length was self paced

[2] If information is available, give grade received. If class standing is shown, give number in class, e.g., 10 in 241

[3] List most recent skill levels or grade

[4] MOS/SQT Evaluation Score and Date of evaluation

THIS APPLICATION MUST BE SIGNED BY AN OFFICER OR A DULY AUTHORIZED NONCOMMISSIONED OFFICER.

I certify that the information contained herein has been compared with official records, and that this information is correct.

18. CERTIFYING OFFICER

a NAME *(Print or Type)*	b GRADE/RANK	c MILITARY ADDRESS *(Include ZIP Code)*
d SIGNATURE	e DATE SIGNED	

DD Form 295, NOV 86

☆ U.S. Government Printing Office 1988—201-424/70787

CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD
SAFEGUARD IT

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

DD FORM 1 JUL 79 214 PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY

1. NAME *(Last, first, middle)*

2. DEPARTMENT, COMPONENT AND BRANCH: NAVY - USN

3. SOCIAL SECURITY NO: 189 | 32 | 1767

4a. GRADE, RATE OR RANK: EWCM

4b. PAY GRADE: E9

5. DATE OF BIRTH: 14 AUG 42

6. PLACE OF ENTRY INTO ACTIVE DUTY: San Diego, California

7. LAST DUTY ASSIGNMENT AND MAJOR COMMAND: USS ALBANY (CG-10)

8. STATION WHERE SEPARATED: USS ALBANY (CG-10) at Gaeta, Italy

9. COMMAND TO WHICH TRANSFERRED: Not applicable

10. SGLI COVERAGE AMOUNT $ 20,000 ☐ NONE

11. PRIMARY SPECIALTY NUMBER, TITLE AND YEARS AND MONTHS IN SPECIALTY *(Additional specialty numbers and titles involving periods of one or more years)*

EW-1774 Electronics Warfare Systems
Technician (SLQ-22/24)

12. RECORD OF SERVICE	YEAR(s)	MON(s)	DAY(s)
a. Date Entered AD This Period	74	01	04
b. Separation Date This Period	80	05	13
c. Net Active Service This Period	06	04	10
d. Total Prior Active Service	13	03	22
e. Total Prior Inactive Service	00	00	00
f. Foreign Service	00	00	00
g. Sea Service	03	01	07
h. Effective Date of Pay Grade	79	12	16
i. Reserve Oblig. Term. Date	NA	NA	NA

13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED *(All periods of service)*

Good Conduct Award (FIFTH)
Navy Expeditionary Medal
Armed Forces Expeditionary Medal
National Defense Service Medal
Republic of Viet-Nam Campaign Medal w/device
Viet-Nam Service Medal (7 awards)
Navy Unit Commendation Medal (2 awards)
Joint Service Commendation Medal

14. MILITARY EDUCATION *(Course Title, number weeks, and month and year completed)*

Instructor Basic - 4 weeks - Mar 74
OHS Advanced - 2 weeks - Apr 77
RD "B" School - 32 weeks - Apr 71
Electronics Warfare Operator "C" - 6 weeks - May 71
CET WLR-1 Series (7107) - 7 weeks - Jul 71
CET AN/ULQ-6 - 8 weeks - Sep 71
ASW Tactical Course - 1 week - Jan 63
RD "A" - 24 weeks - Jan 62

15. MEMBER CONTRIBUTED TO POST-VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM ☐ YES ☒ NO

16. HIGH SCHOOL GRADUATE OR EQUIVALENT ☒ YES ☐ NO

17. DAYS ACCRUED LEAVE PAID "NONE"

18. REMARKS

Immediate reenlistment, 14 May 1980. This form was administratively issued 14 May 1980.
Block 13 continued: Combat Action Ribbon - Navy "E" Ribbon (2 awards).X X
X X X X X X X X X X
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X X X X X X X X X
X X X X X X X X X

19. MAILING ADDRESS AFTER SEPARATION: 404 Twin Oaks Drive, Havertown, PA 19083

20. MEMBER REQUESTS COPY 6 BE SENT TO DIR. OF VET AFFAIRS ☐ YES ☒ NO

21. SIGNATURE OF MEMBER BEING SEPARATED

22. TYPED NAME, GRADE, TITLE AND SIGNATURE OF OFFICIAL AUTHORIZED TO SIGN

Assistant Personnel Officer

S/N 0102-LF-000-2140

MEMBER - 1

NAVTECHTRACEN CORRY STATION

Department Of The Navy

Graduate Certificate

Awarded To

____

In recognition for successfully completing a 160 (Clock Hours) *course entitled* Group Paced Instructor Course *and was graduated this* 22nd *day of* July *19*88

Accredited By
Southern Association
Of Colleges & Schools

JP Burns
Commanding Officer

Sample Course Completion Certificate

G-7

NAVY OCCUPATION/TRAINING AND AWARDS HISTORY

NAVPERS 1070/604 (REV. 11-81) S/N 0106-LF-010-6048

36

1. NAVY ENLISTED CLASSIFICATION RECORD

DATE	PRIMARY CODE	SECONDARY CODE	*OFFICER'S INITIALS

2. DESIGNATOR RECORD

DATE	DESIGNATOR	QUALIFICATION OR REVOCATION	*OFFICERS INITIALS

3. RECORD OF NAVY SERVICE SCHOOLS ATTENDED (CLASS R, A, C, F, P, V AND E)

COURSE TITLE AND SCHOOL LOCATION

EARNED NEC	COURSE LENGTH	DATE ENROLLED
DATE COMPLETED	FINAL MARK	CLASS STANDING ______ in a class of ______

MANNER OF COMPLETION

☐ GRADUATED ☐ DROPPED FOR

SIGNATURE*

COURSE TITLE AND SCHOOL LOCATION

EARNED NEC	COURSE LENGTH	DATE ENROLLED
DATE COMPLETED	FINAL MARK	CLASS STANDING ______ in a class of ______

MANNER OF COMPLETION

☐ GRADUATED ☐ DROPPED FOR

SIGNATURE*

COURSE TITLE AND SCHOOL LOCATION

EARNED NEC	COURSE LENGTH	DATE ENROLLED
DATE COMPLETED	FINAL MARK	CLASS STANDING ______ in a class of ______

MANNER OF COMPLETION

☐ GRADUATED ☐ DROPPED FOR

SIGNATURE*

COURSE TITLE AND SCHOOL LOCATION

EARNED NEC	COURSE LENGTH	DATE ENROLLED
DATE COMPLETED	FINAL MARK	CLASS STANDING ______ in a class of ______

MANNER OF COMPLETION

☐ GRADUATED ☐ DROPPED FOR

SIGNATURE*

4. TRAINING COURSES COMPLETED

DESCRIPTION OF COURSE RATE OR NAVPERS NUMBER	DATE COMPLETED	*OFF INIT	DESCRIPTION OF COURSE, RATE OR NAVPERS NUMBER	DATE COMPLETED	*OFF INIT

5. EDUCATIONAL EXPERIENCE LEVEL

GED (HS) EQUIVALENT TEST

DATE PASSED	OFF INITIALS

STATE THAT ISSUED DIPLOMA OR CERTIFICATE

COLLEGE LEVEL GENERAL EXAMS

DATE PASSED	OFF INITIALS

PRESENT LEVEL OF EDUCATION

12 13 14 15 16 17+

NAME (Last First Middle)	SOCIAL SECURITY NO	BRANCH AND CLASS

4 ☐

NAVPERS 1070/604 (REV. 11-81)
S/N 0106-LF-010-[illegible]

PAGE 2

6. PERSONNEL ADVANCEMENT REQUIREMENT

DESCRIPTION	DATE COMPLETED	*OFF INIT.

7. PERFORMANCE TESTS

DESCRIPTION	DATE COMPLETED	*OFF. INIT.

8. ADVANCEMENT, REDUCTION OR CHANGE IN RATING

RATE ADVANCED, REDUCED OR CHANGED		EFFECTIVE	TIME IN RATE COMPUTED FROM	*OFF. INIT.

9. RECORD OF OFF-DUTY EDUCATION AND VOC/TECH TRAINING

DATE COMPLETED	NUMBER AND TITLE OF COURSE OR TEST	SCHOOL	GRADE	*OFF. INIT.	DATE COMPLETED	NUMBER AND TITLE OF COURSE OR TEST	SCHOOL	GRADE	*OFF. INIT.

10. GOOD CONDUCT AWARDS

AWARD NUMBER	DATE EARNED	*OFF INIT.

11. DECORATIONS; UNIT; AND MARKSMANSHIP AWARDS

AWARD	ACTIVITY	DATE OF AWARD	*OFF. INIT.

12. CAMPAIGN/SERVICE AND OTHER AWARDS

AWARD	ENGAGEMENT(S)	*OFF. INIT.	AWARD	ENGAGEMENT(S)	*OFF. INIT.

13. OTHER TRAINING COURSES/INSTRUCTIONS COMPLETED

DATE COMPLETED	TYPE OF COURSE AND/OR INSTRUCTION	DURATION	LOCATION	*OFF. INIT.

NAVY OCCUPATION/TRAINING AND AWARDS HISTORY
NAVPERS 1070/604 (REV. 11-81) S/N 0106-LF-010-6046

14. PERSONNEL QUALIFICATION STANDARDS COMPLETED

DATE COMPLETED	PQS TITLE/WATCH STATION TITLE	PQS/WATCH STATION NO	*OFFICER'S INITIALS

NAME *(Last First Middle)*	SOCIAL SECURITY NO	BRANCH AND CLASS

4 ☐

4138899

P1611-1

03

REPORT ON THE FITNESS OF OFFICERS

1 NAME (LAST FIRST MIDDLE) | 2 GRADE | 3 DESIG | 4 SSN

5 ACDUTRA TEMAC ☐ | 6 UIC | 7 SHIP STATION | 8 DATE REPORTED

OCCASION FOR REPORT: ☐ 9 PERIODIC | ☐ 10 DETACHMENT OF REPORTING SENIOR | ☐ 11 DETACHMENT OF OFFICER | PERIOD OF REPORT 12 FROM | 13 TO

TYPE OF REPORT: ☐ 14 REGULAR | ☐ 15 CONCURRENT | ☐ 16 SPECIAL | ☐ 17 OPS CDR | BASIS FOR OBSERVATION: ☐ 18 CLOSE | ☐ 19 FREQUENT | ☐ 20 INFREQUENT

21 EMPLOYMENT OF COMMAND (CONTINUED ON REVERSE SIDE OF RECORD COPY) | 22 DAYS OF COMBAT

23 REPORTING SENIOR (LAST NAME, FI, MI) | 24 TITLE | 25 GRADE | 26 DESIG | 27 SSN

28 DUTIES ASSIGNED (CONTINUED ON REVERSE SIDE OF RECORD COPY)

SPECIFIC ASPECTS OF PERFORMANCE (TYPE IN OCR CODE LETTER FROM WORK SHEET)

29 GOAL SETTING & ACHIEVEMENT | 30 SUBORDINATE MANAGEMENT & DEVELOPMENT | 31 WORKING RELATIONS | 32 EQUIP & MATERIAL MANAGE | 33 NAVY ORGAN SUPPORT

34 RESPONSE IN STRESSFUL SITUATIONS | 35 EQUAL OPPORTUNITY | 36 SPEAKING ABILITY | 37 WRITING ABILITY

WARFARE SPECIALTY SKILLS (FROM OCR WORK SHEET)

38 SEAMANSHIP | 39 AIRMANSHIP | 40 WATCH STANDING | 41 TACTICAL PROFICIENCY | 42 LEADERSHIP | 43

44 SUBSPECIALTY CODE | REQUIRED BY BILLET: ☐ 45 YES | ☐ 46 NO | UTILIZATION: ☐ 47 FREQUENT | ☐ 48 INFREQUENT | ☐ 49 NONE | (WORK SHEET CODE) 50 PERFORMANCE

MISSION CONTRIBUTION	NOT OBS	HIGH				MID		LOW	
								MARG	UNSAT*
51 EVALUATION									
52 SUMMARY									

TREND OF PERFORMANCE: ☐ 53 FIRST REPORT | ☐ 54 CONSISTENT | ☐ 55 IMPROVING | ☐ 56 DECLINING*

DESIRABILITY (TYPE IN OCR CODE FROM WORK SHEET): 57 COMMAND | 58 OPERATIONAL | 59 STAFF | 60 JOINT OSD | 61 FOREIGN SHORE

RECOMMENDATION FOR PROMOTION: ☐ 62 EARLY | ☐ 63 REGULAR | ☐ 64 NO* | RANKING FOR EARLY PROMOTION: 65 NUMBER RECOMMENDED | 66 RANKING

PERSONAL TRAITS (TYPE IN OCR CODE FROM WORK SHEET): 67 JUDGMENT | 68 IMAGINATION | 69 ANALYTIC ABILITY | 70 PERSONAL BEHAVIOR | 71 FORCEFULNESS | 72 MILITARY BEARING

☐ 73 | ☐ 74 | ☐ 75 | ☐ 76

WEAKNESSES DISCUSSED? ☐ 77 NONE NOTED | ☐ 78 YES | ☐ 79 NO* | STATEMENT: 80 NOT DESIRED | 81 ATTACHED

82 SIGNATURE OF OFFICER EVALUATED (IAW BUPERS INST 1611.12 SERIES) I ACKNOWLEDGE THAT I HAVE SEEN THIS REPORT, HAVE BEEN APPRISED OF MY PERFORMANCE AND RIGHT TO MAKE A STATEMENT

83 DATE FORWARDED | 84 RESTART ☐ | 85 SIGNATURE OF REPORTING SENIOR

86 DATE FORWARDED | 87 SIGNATURE OF REGULAR REPORTING SENIOR ON CONCURRENT AND CONCURRENT SPECIAL REPORT

NAVPERS 1611/1 (REV. 7-84) S/N 0106-LF-016-1102

☆U.S. GOVERNMENT PRINTING OFFICE: 1989 — 229-815

REPORTING SENIOR'S COPY

21 EMPLOYMENT OF COMMAND (Continued)

28 DUTIES ASSIGNED (Continued)

88 COMMENTS Particularly comment upon the officer's combat leadership ability, personal traits not listed on the reverse side and estimated or actual performance in combat. Include comments pertaining to unique skills and distinctions that may be important to career development and future assignment. A mark in boxes with an asterisk (*) indicates adversely and supporting comments are required.

1616-1

ENLISTED PERFORMANCE EVALUATION REPORT

1 NAME *(Last, First, Middle or Middle Initial)*
2 RATE/RATING
3 SSN

BRANCH/CLASS 4 ☐ USN 5 ☐ USNR

STATUS 6 ☐ ACTIVE 7 ☐ INACTIVE 8 ☐ TEMAC 9 ☐ ACDUTRA

10 MEMBER'S SHIP OR STATION
11 MEMBER'S UIC
12 DATE REPORTED

OCCASION FOR REPORT 13 ☐ Periodic 14 ☐ Transfer 15 Other

PERIOD OF REPORT 16 From 17 To

TYPE OF REPORT 18 ☐ Regular 19 ☐ Con-Current

20 HEIGHT & WEIGHT/PHYS. QUAL.
21 RESERVE PART
22 EFF DATE OF RATE

23 REPORTING SENIOR'S NAME *(Last and Initials)*
24 RANK
25 TITLE
26 SSN

EVALUATION SECTION **Requires Comment*		NOT OBS	4.0	3.8	3.6	3.4	3.2	3.0	2.8*	2.6*	2.0*	1.0*
PROFESSIONAL FACTORS	27 MILITARY KNOWLEDGE/PERFORMANCE											
	28 RATING KNOWLEDGE/PERFORMANCE											
PERSONAL TRAITS	29 INITIATIVE											
	30 RELIABILITY											
	31 MILITARY BEARING											
	32 PERSONAL BEHAVIOR											
	33 HUMAN RELATIONS INCL EQUAL OPPORTUNITY											
SELF EXPRESSION	34 SPEAKING ABILITY											
	35 WRITING ABILITY											
LEADERSHIP	36 DIRECTING											
	37 COUNSELING											
38 MANAGEMENT *(E-7/8/9 Only)*												
39 OVERALL EVALUATION												
40 SUMMARY *(Required for E-4 & Above)*												

ADVANCEMENT RECOMMENDATION 41 ☐ Recommended 42 ☐ Progress Toward 43 ☐ Not Recom *

44 SIGNATURE OF MEMBER

I acknowledge that I have seen this evaluation report and understand my rights under Article 1110, U.S. Navy Regulations (1973) to submit a statement.

Statement: Desired/Not Desired (cross out as appropriate)

45 SIGNATURE OF REPORTING SENIOR

46 ADDRESS OF REPORTING SENIOR

47 TYPED NAME AND SIGNATURE OF REGULAR REPORTING SENIOR ON CONCURRENT REPORT

48 DATE FORWARDED

49 DATE FWD *(If 47 Used)*

NAVPERS 1616/24 (Rev. 6-83) S/N 0106-LF-016-1721
Report NMPC 1616-1

G-14 NAVPERS 1616/24—page 2 of 2 pages

OCR TYPING FONT NOT REQUIRED FOR COMPLETION OF THIS SIDE

50 MEMBER'S LAST NAME, INITIALS	51 SSN	PERIOD OF REPORT 52 From	53 To

54 DUTIES AND RESPONSIBILITIES

55 SPECIAL ACHIEVEMENTS

56 EVALUATION COMMENTS

ADMINISTRATIVE REMARKS
NAVPERS 1070/613 (REV. 10-81)
S/N 0106-LF-010-6961

E-32

SHIP OR STATION
Naval Reserve Center Pensacola

3MAY90: Qualified for Recruiter in Charge in accordance with COMNAVRESFORINST 1130.11

Commanding Officer

NAME *(Last First Middle)*	**SSN**	**BRANCH AND CLASS** USN

13 ☐

G-16 Letter of Designation

DEPARTMENT OF THE NAVY
NAVAL RESERVE CENTER
PENSACOLA, FLORIDA 32509

IN REPLY REFER TO

1100
Ser 08/17
3 May 90

From: Commanding Officer, Naval Reserve Center Pensacola
To:

Subj: DESIGNATION AS RECRUITER IN CHARGE (RINC)

Ref: (a) COMNAVRESFORINST 1130.11
(b) COMNAVRESFORINST 1133.1A

1. In accordance with reference (a), you are designated as the Recruiter in Charge (RINC) for the Naval Reserve Center, Pensacola, Florida. You will report directly to the Commanding Officer in all matters concerning recruiting and other recruiters assigned to this command. Additionally, you will be responsible for the following:

a. Thoroughly familiarize yourself with references (a) and (b) and information pertaining to the qualifications for enlistments, reenlistments, and affiliations.

b. Be familiar with all aspects of the recruiting mission.

2. As Recruiter in Charge, it is your primary responsibility to provide the best quality of applicants for an enlistment in the U. S. Navy while accomplishing your assigned yearly goals.

Copy to:
Service Record
File

OCCUPATIONAL TITLE INDEX

The following columnscross-reference Navy enlisted, Navy warrant officer, and Navy limited duty officer occupations to exhibit ID numbers. Titles are listed alphabetically.

Administration (Limited Duty Officer) LDO-620X-001, LDO-641X-001
Aerographer (Warrant Officer) NWO-746X-001, NWO-821X-001
Aerographer's Mate NER-AG-001
Air Controlman NER-AC-001
Air Traffic Control (Limited Duty Officer) LDO-639X-001
Air Traffic Control Technician (Warrant Officer) NWO-739X-001
Air Traffic Controller NER-AC-001
Aircraft Maintenanceman, Master Chief NER-AF-001
Aircrew Survival Equipmentman NER-PR-001, NER-PR-002
Airman NER-AN-001
Aviation (Deck) (Limited Duty Officer) LDO-631X-001, LDO-660X-001
Aviation Antisubmarine Warfare Operator (Non-Acoustic) NER-AW-002
Aviation Antisubmarine Warfare Operator (Acoustic) NER-AW-001
Aviation Antisubmarine Warfare Operator (Helicopter) NER-AW-003
Aviation Antisubmarine Warfare Technician NER-AX-001, NER-AX-002
Aviation Boatswain (Warrant Officer) NWO-731X-001, NWO-760X-001
Aviation Boatswain's Mate NER-AB-001
Aviation Boatswain's Mate, Aircraft Handling NER-ABH-001
Aviation Boatswain's Mate, Fuels NER-ABF-001
Aviation Boatswain's Mate, Launching and Recovery Equipment NER-ABE-001
Aviation Electrician's Mate NER-AE-001, NER-AE-002, NER-AE-003
Aviation Electronics (Limited Duty Officer) LDO-638X-001
Aviation Electronics Technician NER-AT-001, NER-AT-002, NER-AT-003
Aviation Electronics Technician (Warrant Officer) NWO-738X-001, NWO-761X-001
Aviation Fire Control Technician NER-AQ-001, NER-AQ-002
Aviation Machinist's Mate NER-AD-003
Aviation Machinist's Mate, Jet Engine Mechanic NER-ADJ-001
Aviation Machinist's Mate, Reciprocating Engine Mechanic NER-ADR-001
Aviation Machinist's Mate, Senior Chief NER-AD-001, NER-AD-002
Aviation Maintenance (Limited Duty Officer) LDO-633X-001, LDO-685X-001
Aviation Maintenance Administrationman NER-AZ-001
Aviation Maintenance Technician (Warrant Officer) NWO-734X-001, NWO-741X-001
Aviation Operations (Limited Duty Officer) LDO-632X-001, LDO-661X-001, LDO-681X-001
Aviation Operations Technician (Warrant Officer) NWO-732X-001, NWO-745X-001, NWO-763X-001
Aviation Ordnance (Limited Duty Officer) LDO-636X-001, LDO-670X-001
Aviation Ordnance Technician (Warrant Officer) NWO-721X-001, NWO-736X-001
Aviation Ordnanceman NER-AO-001, NER-AO-002
Aviation Storekeeper NER-AK-001
Aviation Structural Mechanic, Hydraulics NER-AMH-001
Aviation Structural Mechanic, Safety Equipment NER-AME-001
Aviation Structural Mechanic, Senior Chief NER-AM-001
Aviation Structural Mechanic, Structures NER-AMS-001
Aviation Support Equipment Technician NER-AS-001, NER-AS-002, NER-AS-003
Aviation Support Equipment Technician, Electrical NER-ASE-001
Aviation Support Equipment Technician, Hydraulics and Structures NER-ASH-001
Aviation Support Equipment Technician, Mechanical NER-ASM-001, NER-ASM-002
Aviator (Limited Duty Officer) LDO-630X-003
Avionics (Limited Duty Officer) LDO-638X-001, LDO-680X-001
Avionics Maintenance Technician NER-AV-002
Avionics Technician, Master Chief NER-AV-001

Bandmaster (Limited Duty Officer) LDO-626X-001, LDO-643X-001
Bandmaster (Warrant Officer) NWO-743X-003, NWO-785X-001
Boatswain (Submarine) (Warrant Officer) NWO-713X-002, NWO-721X-002
Boatswain (Surface) (Warrant Officer) NWO-711X-001, NWO-713X-001
Boatswain's Mate NER-BM-001, NER-BM-002
Boiler Technician NER-BT-001, NER-BT-002
Builder NER-BU-001

Civil Engineer (Warrant Officer) NWO-849X-001

Civil Engineer Corps (CEC) (Limited Duty Officer)	LDO-653X-001
Civil Engineer Corps (Limited Duty Officer)	LDO-570X-001
Civil Engineer Corps (Warrant Officer)	NWO-753X-001
Communications Technician (Warrant Officer)	NWO-719X-002 NWO-764X-001
Communications Technician, Administrative	NER-CTA-001
Communications Technician, Collection	NER-CTR-001
Communications Technician, Communications	NER-CTO-001
Communications Technician, Interpretive	NER-CTI-001
Communications Technician, Maintenance	NER-CTM-001
Communications Technician, Technical	NER-CTT-001
Construction Electrician	NER-CE-001
Construction Mechanic	NER-CM-001
Constructionman	NER-CN-001
Constructionman, Master Chief	NER-CU-001
Cryptologic Technician (Warrant Officer)	NWO-744X-001
Cryptologic Technician, Administrative	NER-CTA-001
Cryptologic Technician, Collection	NER-CTR-001
Cryptologic Technician, Communications	NER-CTO-001
Cryptologic Technician, Interpretive	NER-CTI-001
Cryptologic Technician, Maintenance	NER-CTM-001
Cryptologic Technician, Technical	NER-CTT-001
Cryptology (Limited Duty Officer)	LDO-644X-001 LDO-646X-002
Damage Controlman	NER-DC-001
Data Processing (Limited Duty Officer)	LDO-623X-001 LDO-642X-001
Data Processing Technician	NER-DP-001 NER-DP-002
Data Processing Technician (Warrant Officer)	NWO-742X-001 NWO-783X-001
Data Systems Technician	NER-DS-001
Deck (Submarine) (Limited Duty Officer)	LDO-600X-002 LDO-621X-001
Deck (Surface) (Limited Duty Officer)	LDO-600X-001 LDO-611X-001
Dental Technician, General	NER-DTG-001
Dental Technician, Prosthodontics	NER-DTP-001
Dental Technician, Repair	NER-DTR-001
Dental Technician, Senior Chief and Master Chief	NER-DT-001
Dentalman	NER-DN-001
Disbursing Clerk	NER-DK-001 NER-DK-002
Diving Officer (Warrant Officer)	NWO-720X-001
Electrician's Mate	NER-EM-001 NER-EM-002
Electrician's Mate Master Chief	NER-EM-003
Electrician's Mate, Master Chief	NER-EM-004
Electronics (Submarine) (Limited Duty Officer)	LDO-628X-001 LDO-640X-002
Electronics (Surface) (Limited Duty Officer)	LDO-618X-001 LDO-640X-001
Electronics Technician	NER-ET-001 NER-ET-002 NER-ET-003
Electronics Technician (Submarine) (Warrant Officer)	NWO-728X-001 NWO-766X-002
Electronics Technician (Surface) (Warrant Officer)	NWO-718X-001 NWO-766X-001
Electronics Technician, Communications	NER-ETN-001
Electronics Technician, Radar	NER-ETR-001
Electronics Warfare Technician	NER-EW-001
Engineering (Submarine) (Warrant Officer)	NWO-743X-002
Engineering Aid	NER-EA-001 NER-EA-002
Engineering Technician (Submarine) (Warrant Officer)	NWO-723X-002 NWO-754X-002
Engineering Technician (Surface) (Warrant Officer)	NWO-713X-003 NWO-743X-001 NWO-754X-001
Engineering/Repair (Submarine) (Limited Duty Officer)	LDO-623X-002 LDO-630X-002 LDO-635X-002 LDO-637X-002
Engineering/Repair (Surface) (Limited Duty Officer)	LDO-613X-001 LDO-630X-001 LDO-635X-001 LDO-637X-001
Engineman	NER-EN-001 NER-EN-002
Equipment Operator	NER-EO-001
Equipmentman, Master Chief	NER-EQ-001
Explosive Ordnance Disposal (Limited Duty Officer)	LDO-616X-001 LDO-648X-001
Explosive Ordnance Disposal Technician (Warrant Officer)	NWO-716X-001 NWO-748X-001
Fire Control Technician	NER-FT-001 NER-FT-002
Fire Control Technician, Ballistic Missile Fire Control	NER-FTB-002
Fire Control Technician, Ballistic Missile Fire Control	NER-FTB-001
Fire Control Technician, Gun Fire Control	NER-FTG-001 NER-FTG-002
Fire Control Technician, Surface Missile Fire Control	NER-FTM-001
Fire Controlman	NER-FC-001
Fireman	NER-FN-001 NER-FN-002
Food Service (Warrant Officer)	NWO-752X-001 NWO-799X-001
Gas Turbine System Technician, Electrical	NER-GSE-001
Gas Turbine System Technician, Mechanical	NER-GSM-001 NER-GSM-002
Gas Turbine System Technician, Senior Chief and Master Chief	NER-GS-001

Gunner's Mate Technician	NER-GMT-001
Gunner's Mate Technician (ASROC)	NER-GMT-002
Gunner's Mate, Chief, Senior Chief, and Master Chief	NER-GM-002
Gunner's Mate, Guns	NER-GMG-001 NER-GMG-002 NER-GMG-003
Gunner's Mate, Missiles	NER-GMM-001 NER-GMM-002 NER-GMM-003
Gunner's Mate, Senior Chief and Master Chief	NER-GM-001
Hospital Corpsman	NER-HM-001
Hospitalman	NER-HN-001
Hull Maintenance Technician	NER-HT-001 NER-HT-002
Illustrator Draftsman	NER-DM-001 NER-DM-002
Instrumentman	NER-IM-001 NER-IM-002 NER-IM-003
Intelligence (Limited Duty Officer)	LDO-645X-001 LDO-662X-001
Intelligence Specialist	NER-IS-001
Intelligence Technician (Warrant Officer)	NWO-745X-002 NWO-762X-001
Interior Communications Electrician	NER-IC-001
Journalist	NER-JO-001 NER-JO-002
Law (Limited Duty Officer)	LDO-655X-001
Leagalman	NER-LN-002
Legalman	NER-LN-001
Lithographer	NER-LI-001 NER-LI-002
Machinery Repairman	NER-MR-001 NER-MR-002
Machinist's Mate	NER-MM-001 NER-MM-002
Master-At-Arms	NER-MA-001
Mess Management Specialist	NER-MS-001 NER-MS-002
Meteorology/Oceanography (Limited Duty Officer)	LDO-646X-001 LDO-665X-001
Mineman	NER-MN-001
Missile Technician	NER-MT-001
Molder	NER-ML-001 NER-ML-002
Molder, Senior Chief and Master Chief	NER-ML-003 NER-ML-004
Musician	NER-MU-001
Navy Counselor	NER-NC-001 NER-NC-002
Nuclear Power (Limited Duty Officer)	LDO-640X-003
Nuclear Power (Submarine) (Limited Duty Officer)	LDO-630O-002 LDO-637O-002 LDO-640O-002
Nuclear Power (Surface) (Limited Duty Officer)	LDO-630O-001 LDO-637O-001 LDO-640O-001
Nuclear Power Technician (Warrant Officer)	NWO-740X-001 NWO-743O-001 NWO-754O-001 NWO-766O-001
Nuclear Power Technician, Submarine (Warrant Officer)	NWO-725X-001
Nuclear Power Technician, Surface (Warrant Officer)	NWO-715X-001
Nuclear Power, Submarine (Limited Duty Officer)	LDO-625X-001
Nuclear Power, Surface (Limited Duty Officer)	LDO-615X-001
Ocean Systems Technician	NER-OT-001
Ocean Systems Technician, Analyst	NER-OTA-001
Ocean Systems Technician, Maintainer	NER-OTM-001
Ocean Systems Technician, Master Chief	NER-OT-002
Operations (Limited Duty Officer)	LDO-612X-001
Operations (Submarine) (Warrant Officer)	NWO-714X-002
Operations (Surface) (Limited Duty Officer)	LDO-601X-001 LDO-612X-001 LDO-657X-001
Operations Specialist	NER-OS-001 NER-OS-002
Operations Technician (Submarine) (Warrant Officer)	NWO-722X-001 NWO-757X-001
Operations Technician (Surface) (Warrant Officer)	NWO-712X-001 NWO-714X-001
Operations Technician Surface Operations Technician (Warrant Officer)	NWO-712X-001
Opticalman	NER-OM-001 NER-OM-002 NER-OM-003
Ordnance (Submarine) (Limited Duty Officer)	LDO-615X-003
Ordnance Technican (Surface) (Warrant Officer)	NWO-723X-001
Ordnance Technician (Submarine) (Warrant Officer)	NWO-724X-002
Ordnance Technician (Surface) (Warrant Officer)	NWO-724X-001
Patternmaker	NER-PM-001 NER-PM-002

Percision Instrumentman, Master Chief NER-PI-002

Personnelman NER-PN-001, NER-PN-002

Photographer's Mate NER-PH-001

Photography (Limited Duty Officer) LDO-647X-001, LDO-663X-001

Photography (Warrant Officer) NWO-747X-001, NWO-831X-001

Physician's Assistant (Warrant Officer) NWO-754X-003, NWO-816X-001

Postal Clerk NER-PC-001, NER-PC-002

Precision Instrumentman, Master Chief NER-PI-001

Quartermaster NER-QM-001, NER-QM-002

Radarman NER-RD-001

Radioman NER-RM-001, NER-RM-002

Religious Program Specialist NER-RP-001, NER-RP-002

Repair Technician (Submarine) (Warrant Officer). NWO-724X-003, NWO-774X-002

Repair Technician (Surface) (Warrant Officer) NWO-714X-003, NWO-774X-001

Seaman NER-SN-001, NER-SN-002

Security (Limited Duty Officer) LDO-649X-001

Security Technician (Warrant Officer) NWO-749X-001

Ship's Clerk (Warrant Officer) NWO-741X-002, NWO-782X-001

Ship's Serviceman NER-SH-001, NER-SH-002

Signalman NER-SM-001, NER-SM-002

Sonar Technician, Master Chief NER-ST-001

Sonar Technician, Submarine NER-STS-001, NER-STS-002

Sonar Technician, Surface NER-STG-001, NER-STG-002

Special Warfare Technician (Warrant Officer) NWO-715X-002

Steelworker NER-SW-001

Storekeeper NER-SK-001, NER-SK-002

Submarine Communication Technician (Warrant Officer) NWO-729X-001

Submarine Communications (Limited Duty Officer) LDO-629X-001

Submarine Ordnance (Limited Duty Officer) LDO-626X-002

Submarine Ordnance Technician (Warrant Officer) NWO-726X-001

Submarine Underwater Ordnance Technician (Warrant Officer) NWO-727X-001

Supply (SC) (Limited Duty Officer) LDO-651X-001

Supply Corps (Limited Duty Officer) LDO-370X-001, LDO-651X-001

Supply Corps (Warrant Officer) NWO-751X-001, NWO-798X-001

Surface Communications (Limited Duty Officer).. LDO-619X-001

Surface Communications Technician (Warrant Officer) NWO-719X-001

Surface Ordnance (Limited Duty Officer) LDO-615X-002, LDO-616X-002

Surface Ordnance Technician (Warrant Officer) ... NWO-716X-002

Surface Underwater Ordnance Technician (Warrant Officer) NWO-717X-001

Torpedoman's Mate (Operator) NER-TM-002

Torpedoman's Mate (Technician) NER-TM-001

Tradevman NER-TD-001

Underwater Ordnance Technician (Submarine) (Warrant Officer) NWO-733X-002

Underwater Ordnance Technician (Surface) (Warrant Officer) NWO-733X-001

Utilitiesman NER-UT-001

Weapons Technician NER-WT-001

Yeoman NER-YN-001, NER-YN-002

Navy Enlisted Classification Index

(Exhibits begin on page 5–1.)

Career Recruiter*	NEC-2186-001
Certified Navy Drug and Alcoholism Counselor	NEC-9519-001
Classification Interviewer**	NEC-2612-001
Collateral Duty Career Information Coordinator	NEC-9588-001
Command Career Information Retention Counselor/Coordinator	NEC-9589-001
Instructor	NEC-9502-001
Recruiter Canvasser***	NEC-9585-001

* Includes descriptions and recommendations for *Recruiter, Recruiter-In-Charge, Zone Supervisor,* and *Chief Recruiter.*

** Includes descriptions and recommendations for *Classifier, Enlisted Processing Division Supervisor,* and *Military Entrance Processing Station (MEPS) Liaison Petty Officer.*

*** Includes descriptions and recommendations for *Recruiter, Recruiter-In-Charge, Zone Supervisor, Chief Recruiter, 6-Year Obligor/Nuclear Field Recruiter, NF/Prior Service (RZ) Recruiter, Leads Supervisor,* and *Delayed Entry Program (DEP) Coordinator.*

Keyword Index

This index is designed to provide rapid access to the courses described in the course exhibit section. Titles of courses are arranged alphabetically under keywords which have been extracted verbatim from the titles. For example, the keyword *Data Processing* is followed by all titles containing the words *Data Processing.*

To locate a specific course, identify a word or group of words in the title which seems to be unique of descriptive. For example, the title *Data Processing Specialist, COBOL* can be found under the keywords *Data Processing* or *COBOL.* Similarly, the title *Russian Technician* can be found under the keyword *Russian.*

The ID number for each course is displayed to the right of the title. Refer to that number in the course exhibit section for a full description of the course.

A-3
- A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance NV-1715-0263
- A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance NV-1715-0279
- A-3 Related Avionics System (AT/AQ) Organizational Maintenance NV-1715-0279
- A-3 S-5 Auto Pilot Maintenance NV-1704-0198
- Missile Technician Mk 84 Polaris (A-3) NV-1715-0607

A-3B
- A-3B AN/ASB-1A System Maintenance (Less Computer CP-66A) NV-1715-0281
- A-3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363
- A-3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

A-4
- A-4 Armament System Organizational Maintenance NV-1715-0631
- A-4 Automatic Flight Control System Intermediate Maintenance NV-1704-0015
- A-4 Automatic Flight Control System Organizational Maintenance NV-1704-0035
- A-4 AN/AJB-3/3A Organizational Maintenance NV-1715-0294
- A-4 Conventional Weapons Training NV-2202-0077
- A-4 Integrated Electrical Systems Organizational Maintenance NV-1704-0185
- A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
- A-4 Walleye Weapon Delivery System NV-1715-0733
- A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance NV-1704-0170

A-4C/E
- A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615

A-4C/E/F
- A-4C/E/F AN/APG-53A Radar Intermediate Maintenance NV-1715-0280

A-4E
- A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098
- A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452

A-4E/F/TA-4F
- A-4E/F/TA-4F Aircraft Mechanic Organizational Maintenance NV-1704-0023

A-4F/L/TA-4F
- A-4F/L/TA-4F Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383

A-4M
- A-4M Aircraft Mechanics NV-1704-0065
- A-4M Electrical Systems Organizational Maintenance NV-1704-0102

A-5A
- A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521

A-6
- A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406
- A-6 Avionics Systems Organizational Level Maintenance NV-1715-0474
- A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302
- A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
- A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
- A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance NV-1715-0475
- A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
- A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 AN/ASQ-61A Ballistics Computer Theory NV-1715-0067
- A-6 Ballistics Computer Test Console Intermediate Maintenance NV-1715-0342
- A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance NV-1715-0336
- A-6 Electronic Module Test Console Intermediate Maintenance NV-1715-0451
- A-6 Maintenance Supervisors Familiarization NV-1704-0165
- A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance NV-1715-0071
- A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
- A-6 Plane Captain NV-1704-0118
- A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance NV-1715-0335
- A-6 Search Radar Module Analyzer Test Console NV-1715-0530
- A-6 Ship and Shore Inertial Platform

Test Station Intermediate Maintenance NV-1715-0177
A-6 Terrain Clearance Test Bench Intermediate Maintenance NV-1715-0953
A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429

A-6/KA-6D
A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097

A-6A
A-6A Armament Systems Organizational Maintenance NV-1704-0167
A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699
A-6A Automatic Flight Control System Organizational Maintenance NV-1704-0022
A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435
A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance NV-1715-0476
A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159
A-6A Conventional Weapons NV-2202-0015
A-6A Electrical Systems Intermediate Maintenance NV-1704-0108
A-6A Electrical Systems Maintenance NV-1704-0088
A-6A Electrical Systems Organizational Maintenance NV-1704-0100
A-6A Environmental, Escape and Survival Systems Organizational Maintenance NV-1704-0085
A-6A Hydraulics and Flight Controls Organizational Maintenance NV-1704-0129
A-6A Maintenance Supervisors Familiarization NV-1704-0078
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109
A-6A Power Plants and Related Systems Organizational Level Maintenance NV-1704-0164
A-6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance NV-1715-0074
A-6A Shoehorn Organizational Maintenance NV-1715-0458
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429
A-6A Weapons System Specialist Organizational Maintenance NV-1715-0691
A-6A, KA-6D, A-6E Electrical Systems Organizational Maintenance NV-1704-0240

A-6E
A-6A, KA-6D, A-6E Electrical Systems Organizational Maintenance NV-1704-0240
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance NV-1715-0937
A-6E Automatic Carrier Loading System Organizational Maintenance NV-1715-0957
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940
A-6E TRAM Weapons System Technician Organizational Maintenance NV-1715-0942

A-7
A-7 Armament Systems Maintenance NV-1704-0084
A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
A-7 AN/APQ-116 Radar Set Intermediate Maintenance NV-1715-0408
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617
A-7 Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7 M61A1 Gun and Associated Systems Intermediate Maintenance NV-2202-0097
A-7A/B Armament System Organizational Maintenance NV-1704-0084
A-7A/B Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807

A-7A/B
A-7A/B Armament System Organizational Maintenance NV-1704-0084
A-7A/B Attitude Heading and Reference System Intermediate Maintenance NV-1721-0006
A-7A/B AN/APQ-116 Radar Set Organizational Maintenance NV-1704-0251
A-7A/B Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7A/B Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0190
A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance NV-1715-0450
A-7A/B Power Plant and Related Systems Organizational Maintenance NV-1704-0135
A-7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance NV-1704-0135
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807

A-7B/TA-7C
A-7B/TA-7C Power Plant and Related Systems Organizational Maintenance NV-1704-0135

A-7E
A-7E Armament System Organizational Maintenance NV-1704-0173
A-7E AN/APQ-126 Radar Set Intermediate Maintenance NV-1715-0260
A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance NV-1715-0146
A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance NV-1715-0070
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203
A-7E Communication, Navigation, Identification and Countermeasures Organizational Maintenance NV-1704-0250
A-7E Electrical and Instrument Systems Organizational Maintenance NV-1704-0080
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0013
A-7E Hydraulic, Pneumatic and Airframe Systems Organizational Maintenance NV-1704-0013
A-7E Integrated Weapons Systems Technician Organizational Level Maintenance NV-1704-0252
A-7E Power Plant and Related Systems Organizational Maintenance NV-1704-0140
A-7E Weapons System Specialist Organizational Maintenance NV-1704-0254
AN/AVM-11 (V) Head Up Display Test

Set Intermediate Maintenance (A-7E) NV-1704-0229

A/A24G-13
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460

A/S 32P-16
Aviation Support Equipment A/S 32P-16 Fire Fighting Truck Intermediate Maintenance NV-1703-0016

A/S32A-33
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance NV-1703-0015

A/W42U-1(V)
Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical) NV-1715-1288

Abuse
Drug Abuse Education Specialist NV-0799-0004
Drug Abuse Program Officers NV-0801-0006
Navy Drug Abuse Counselor NV-0801-0007
Navy Substance Abuse Prevention Program NV-0799-0007

Academic
Academic Instructor Training NV-1406-0003

Access
Ultra High Frequency-Demand Assigned Multiple Access (DAMA) NV-1715-1347

Accounting
Automated Supply and Accounting Systems Afloat (AN/UYK-5(V)) NV-1401-0003

Acoustic
Acoustic Anti-Submarine Operator Transition NV-1715-0676
Advanced Acoustic Analysis Class C NV-1715-1505
Antisubmarine Warfare (ASW) Module Acoustic Systems NV-1715-1174
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive) NV-2202-0096
Intermediate Surface Acoustic Analysis NV-2202-0146
P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance NV-1715-0256
Surface Acoustic Analysis Specialist NV-2202-0145
Time Series Acoustic Recall System Maintenance NV-1715-1113

Acoustics
Ocean Systems Advanced Acoustics NV-1304-0010

Acquisition
Mk 23 Mod 0/1 Target Acquisition System (TAS) Maintenance NV-1715-1037
OUTBOARD Maintenance Acquisition Technician NV-1715-1246
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693

Administration
Administration, Training and Advisor (ATA) NV-0801-0006
Aviation Maintenance Administration, Class A NV-1409-0003
Aviation Maintenance Administrationman, Class A NV-1409-0003
Aviation Maintenance Control Administration NV-1717-0008
Communications Technician Administration Branch Class A NV-1715-0400
Construction Contract Administration and Management NV-1408-0009
Contract Administration—Accelerated NV-1408-0009
Cryptologic Technician A (Administration)—Class A NV-1715-0400
Engineering Maintenance Principles, Practices, and Administration NV-1710-0108
Food Service Administration NV-1729-0014
Instructor, Class C-1 Administration and Counseling NV-1408-0008
Naval School of Hospital Administration NV-0799-0001
School Administration, Class C1, Course "Golf" NV-0326-0002
Sensitive Compartmented Information (SCI) Administration and Physical Security NV-1728-0022

Administrationman
Aviation Maintenance Administrationman, Class A NV-1409-0003

Administrative
Dental Administrative Technician Class C NV-0701-0013
Electronics Officers Administrative NV-1715-0721
Medical Administrative Technic NV-1408-0021
Medical Administrative Technic, Dental NV-1408-0021
Medical Administrative Technician, Class C NV-1408-0021
Medical Administrative Technician, Dental, Class C NV-1408-0021

Advanced
Advanced Course Class B NV-1205-0002
Advanced Phase, Pilot Training NV-1606-0050
Music Advanced, Class C-7 NV-1205-0002
Music, Class B, Advanced NV-1205-0002
Naval School of Music, Class B, Advanced NV-1205-0002

Advisor
Administration, Training and Advisor (ATA) NV-0801-0006
Drug and Alcohol Program Advisor NV-0799-0005
Intelligence Advisor Vietnam NV-1606-0001
Intercultural Relations—Vietnam Advisor Training NV-1513-0003
Naval Advisor NV-1513-0002
Naval Staff Advisor NV-1513-0001
Riverine/Coastal Advisor Training NV-0602-0001

Aegis
Aegis Combat System Maintenance Supervisor NV-1715-1117
Aegis Computer Fundamentals NV-1402-0059
Aegis Computer System Operation and Maintenance NV-1402-0060
Aegis Display System Operation and Maintenance NV-1715-1115
NV-1715-1301
Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance NV-1402-0058
Aegis Fire Control System/ORTS Operation and Maintenance NV-1715-1304
Aegis Fundamentals NV-1402-0120
Aegis Radar System AN/SPY-1A Operation and Maintenance NV-1715-1118
NV-1715-1303
Aegis Weapon System Mk 7 Operation and Maintenance NV-1715-1116
Aegis Weapon System Operation and Maintenance (AN/SPY-1A/B) NV-1715-1302

Aerial
Photographer's Mate A (Aerial Cameraman) NV-1709-0001

Aerographer's
Aerographer's Mate, Class A NV-1304-0004
Aerographer's Mate, Class B NV-1304-0005

Aerospace
Aerospace Medical Technician, Class C NV-0709-0003
Aerospace Medicine Technician NV-0709-0003
Aerospace Physiology Technician NV-0709-0004

Afloat
- Afloat Storage and Retrieval Operator NV-1402-0100
- Afloat Tactical Reconnaissance Intelligence (TACRECCE) Analyst NV-1709-0026
- Automated Tactical Reconnaissance Systems (TACRECCE) Support Afloat NV-1709-0040
- AN/URN-25 Afloat TACAN Maintenance NV-1715-1137
- Junior Afloat Intelligence Officer NV-1606-0069
- Landing Helo Auxiliary (LHA) Afloat Intelligence Specialist NV-1606-0070
- Landing Helo Auxiliary (LHA) Intelligence Center (IC) Afloat Automatic Data Processing (ADP) Operator NV-1402-0101
- Landing Helo Auxiliary (LHA)/CVN Afloat Intelligence Specialist NV-1606-0070
- Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator NV-1402-0100
- Senior Afloat Intelligence Officer NV-1606-0068
- Ship's Store Afloat Resale Operation Management (ROM) System Supervisor NV-1408-0031
- Ship's Store Afloat Resale Operation Management System User NV-1405-0023
- Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat NV-1402-0152

Aftercare
- Aftercare Program Management NV-0801-0010

Aids
- Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion NV-1715-1132
- Marine Air Traffic Control Navigational Aids Technician Class C1 NV-1715-0962
- Marine Air Traffic Control Navigational Aids Technician, Class C1 NV-1715-1442
- Navigational Aids (NAVAIDS) Technician Replacement NV-1715-1126
- Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement NV-1715-1370

Air
- (Lithium Bromide Air Conditioning) NV-1701-0002
- A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
- Air Compressor and Compressed Air System Component Maintenance NV-1601-0029
- Air Compressors and Compressed Air Systems Component Maintenance NV-1601-0021
- Air Conditioning and Refrigeration NV-1730-0011
- Air Conditioning and Refrigeration Operation and Maintenance NV-1701-0005
- Air Conditioning and Refrigeration, Class C NV-1701-0005
- Air Conditioning and Refrigeration, Class C-1 NV-1701-0005
- Air Conditioning Refrigerant 11 NV-1730-0006
- Air Control, Class O NV-1704-0011
- Air Controlman (Radar), Class A NV-1704-0010
- Air Controlman T (Tower), Class A NV-1704-0008
- Air Controlman W (Early Warning), Class A NV-1704-0009
- Air Controlman–Carrier Air Traffic Control Center Utilization–Operator NV-1704-0220
- Air Controlman, Class B NV-1704-0007
- Air Intercept Control (Requalification), Class O/C NV-1704-0115
- Air Intercept Control (Supervisor), Class C/O NV-1704-0117
- Air Intercept Control Supervisor NV-2202-0126
- Air Intercept Control, Class O NV-1704-0001
- Air Intercept Controller NV-1704-0002
- Air Intercept Controller Supervisor NV-1704-0005
- Air Intercept Controller, Conventional Qualification NV-2202-0131
- Air Launched Weapons Guided Missile Intermediate Maintenance NV-1715-0589
- Air Navigation by Correspondence NV-1606-0071
- Air Ocean Environment Course, Class C NV-1304-0002
- Air Traffic Management NV-0419-0013
- Air Watch Officer NV-2202-0074 NV-2202-0124
- Amphibious Tactical Air Control Party NV-2202-0006
- Anti-Submarine Air Control (Officer and Enlisted) NV-2202-0052
- Antisubmarine Air Control Naval Tactical Data System (NTDS) NV-2202-0120
- Antisubmarine Air Control, Class C/O NV-2202-0052
- Antisubmarine Air Control, Class O NV-2202-0052
- Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance NV-1715-0741
- Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance NV-1701-0008
- AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance NV-1715-0434
- AN/SPS-40E Air Search Radar Set Maintenance NV-1715-1335
- AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer Intelligence Analyst NV-1402-0104
- AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System Maintenance NV-1402-0103
- AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator NV-1402-0102
- C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
- Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
- Centrifugal Air Conditioning Plant Operation and Maintenance, Class C1 NV-1701-0006
- CV Air Operations Closed Circuit Television (ILARTS) Maintenance NV-1715-1229
- CV Class Ship Air Compressor Maintenance, Class F NV-1710-0020
- CV/CVN (Class) Air Compressor NV-1710-0020
- CVA/CVS Air Launched Weapons NV-0802-0009
- CVA/CVS Air Launched Weapons General Ordnance NV-2202-0024
- CVA/CVS Air Launched Weapons Supervisor NV-0802-0009
- Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance NV-1704-0046
- E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460
- E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478
- F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552
- F/RF-4B Air Data Computer Set Maintenance NV-1715-0209
- Fleet Air Intelligence Officer NV-2202-0023
- Fleet Officer and Fleet Enlisted Air Intelligence NV-2202-0022
- I/R High Pressure Air Compressor Combined Maintenance NV-1601-0030
- Intelligence Man (Air/Ground) NV-1606-0006

Lithium Bromide Air Conditioning Plant Operator
NV-1701-0002
Marine Air Ground Task Force Intelligence Officer
NV-1511-0018
Marine Air Ground Task Force Intelligence Specialist Reserve (Phases 1 and 2)
NV-1511-0030
Marine Air-Ground Task Force Counterintelligence
NV-1511-0028
Marine Air-Ground Task Force Intelligence Officer Reserve (Phases 1 and 2)
NV-1511-0029
Marine Air/Ground Task Force Intelligence Specialist Entry
NV-1511-0019
Marine Air/Ground Task Force Intelligence Specialist Intermediate
NV-1511-0020
Naval Air Weapons Systems Orientation, Class O
NV-1715-0743
Naval Gunfire Air Spotter
NV-2202-0053
NV-2202-0059
P-3 Air Conditioning, Pressurization and Utilities Systems Organizational Maintenance
NV-1701-0001
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance
NV-1701-0004
R-114 Air Conditioning System York 150 Ton
NV-1701-0009
R-114 York 200 Ton Air Conditioning Technician
NV-1701-0012
Refrigerant 11 Air Conditioning
NV-1730-0006
Reserve Air Intelligence (RAI)
NV-1606-0055
RA-5C Air Data and Flight Reference Systems
NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance
NV-1715-0454
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance
NV-1715-0542
Submarine Refrigeration and Air Conditioning R-12
NV-1730-0003
Tactical Air Control Party
NV-2202-0006
110 Ton R11 Centrifugal Air Conditioning Unit (York)
NV-1701-0004

Air Traffic Control

Air Controlman-Carrier Air Traffic Control Center Utilization-Operator
NV-1704-0220
Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C
NV-1715-0771
Air Traffic Control Class A
NV-1704-0004
Air Traffic Control Electronics Maintenance Officers, Class O
NV-1715-0670
Air Traffic Control Equipment Maintenance Interrogator Set AN/TPX-42A(V)5 Class C1
NV-1704-0243
Air Traffic Control Equipment Maintenance Management
NV-1715-0292
Air Traffic Control Facility Management/TERPS, Class C1
NV-1715-0123
Air Traffic Control Maintenance AN/FPN-63(V) Precision Approach Radar, Class C1
NV-1715-0960
Air Traffic Control Maintenance, Interrogator Set AN/TPX-42A BASIC DAIR, Class C1
NV-1715-0959
Air Traffic Control Maintenance, Radar Set AN/CPN-4A
NV-1715-0961
Air Traffic Control Officers, Class C2
NV-1704-0003
Air Traffic Control Officers, Class O
NV-1704-0003
Air Traffic Controller Class A
NV-1704-0004
Air Traffic Controller Class A1
NV-1704-0004
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1
NV-1715-1435
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1
NV-1715-1434
Carrier Air Traffic Control Center Controller Class C/O
NV-1704-0012
Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C
NV-1715-0293
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C
NV-1715-0337
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-41, Class C1
NV-1715-0230
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44, Class C1
NV-1715-0234
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C
NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C
NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C
NV-1715-0715
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C
NV-1715-0236
Carrier Air Traffic Control Center Maintenance ACLS AN/SPN-42A
NV-1715-0286
Carrier Air Traffic Control Center Operations Class C1
NV-1704-0245
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O
NV-1715-0670
Marine Air Traffic Control Advanced Technician, Class C1
NV-1704-0330
NV-1715-1189
Marine Air Traffic Control Communications Repairman, Class C
NV-1715-0799
Marine Air Traffic Control Communications Technician Class C1
NV-1715-0963
Marine Air Traffic Control Communications Technician, Class C1
NV-1715-1441
Marine Air Traffic Control Maintenance Supervisor Training, Class C
NV-1715-0742
Marine Air Traffic Control Navigational Aids Maintenance
NV-1715-0037
Marine Air Traffic Control Navigational Aids Repairman, Class C
NV-1715-0037
Marine Air Traffic Control Navigational Aids Technician Class C1
NV-1715-0962
Marine Air Traffic Control Navigational Aids Technician, Class C1
NV-1715-1442
Marine Air Traffic Control Radar Technician Class C1
NV-1715-0965
Marine Air Traffic Control Radar Technician, Class C1
NV-1715-1443
Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C
NV-1715-0669
Marine Air Traffic Control Unit Equipment Maintenance, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class O
NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C
NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C
NV-1715-0038
Radar Air Traffic Control Facility Operations Class C1
NV-1704-0244
15G21 Carrier Air Traffic Control Simulator Maintenance Class C1
NV-1715-1187

Airborne

Advanced Airborne ELINT Evaluator
NV-1715-0215
Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase
NV-1715-0569

Airborne Communicator NV-1409-0004
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O NV-1715-0599
Airborne Early Warning, Class O NV-2202-0036
Airborne Electronic Warfare, Class O NV-1715-0002
Airborne Radar Intercept Operator NV-1715-0635
Airborne Radio Communications Operator (ARCO) NV-1715-0481
Airborne Systems NV-1606-0061
Airborne Tactical Data System Operations, Class O NV-1402-0036
A' /SRQ-4 Light Airborne Multipurpose System (LAMPS) Mk3 Maintenance NV-1715-1328
Basic Airborne Radio Communications Operator NV-1715-0481
E-2B Airborne Tactical Data Systems NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
Introduction to the Airborne Loran AN/ARN-81 Maintenance NV-1715-0247
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697
SH-60B Light Airborne Multipurpose System (LAMPS) Mk III Weapons System Technician Organizational Maintenance NV-1715-1198

Aircraft
A-4E/F/TA-4F Aircraft Mechanic Organizational Maintenance NV-1704-0023
A-4M Aircraft Mechanics NV-1704-0065
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance NV-1715-0937
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C) NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Aircraft Launch and Recovery Equipment Maintenance Officers NV-1704-0308
Aircraft Launch and Recovery Equipment Officer NV-1704-0300
Aircraft Launch and Recovery Equipment, Class C1, C13 Mod O Track NV-1704-0305
Aircraft Launch and Recovery Equipment, Class C1, C7/C11 Track NV-1710-0011
Aircraft Launch and Recovery Equipment, Class O NV-1704-0184
Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042
Aviation Boatswain's Mate H (Aircraft Handling), Class A NV-1728-0014
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance NV-1703-0015
Aviation Support Equipment SDID Aircraft Spotting Dolly Intermediate Maintenance NV-1704-0256
C-130 Aircraft Mechanic Organizational Maintenance NV-1704-0237
C-2A Aircraft Familiarization (Pilots) NV-1704-0121
E-1B Aircraft Pilot Training NV-1606-0053
E-2A Aircraft Familiarization (Pilots) NV-1704-0054
E-2B Aircraft Pilot Training NV-1606-0054
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014
F-4B Aircraft Electrical System Organizational Maintenance NV-1704-0092
F-4J Aircraft Electrical System Organizational Maintenance NV-1704-0094
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104
F/RF-4B/J Aircraft Mechanics Organizational Maintenance NV-1704-0192
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061
Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance NV-1715-1061
P-3 Aircraft Familiarization (Pilots) NV-1704-0039
P-3 Aircraft Familiarization, No. 2 NV-1704-0039
RA-5C Aircraft Familiarization NV-1606-0022
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022
Ship's Navigation and Aircraft Inertial Alignment Systems Maintenance NV-1715-1061

Aircraft Maintenance
Aircraft Maintenance Nondestructive Inspection School, Class C NV-1704-0156
Aircraft Maintenance Officers, Class O NV-1704-0142
Aircraft Maintenance Radiography School, Class C NV-1704-0156
Naval Aircraft Maintenance Management NV-1717-0011

Aircrew
Advanced Aircrew Survival Equipmentman NV-1704-0208
Aircrew Survival Equipmentman School, Class B NV-1704-0208
Aircrew Survival Equipmentman, Class A NV-1704-0234
Aircrew Survival Equipmentman, Class A1 NV-1704-0304
Aircrew Survival Equipmentman, Class A1 (Basic Aircrew Survival Equipmentman) NV-1704-0234
Aircrew Survival Equipmentman, Class C1 NV-1704-0303
Aircrew Survival Equipmentman, Class C7 NV-1704-0208

Aircrewman
E-1B Naval Flight Officer and Aircrewman NV-1704-0233
VS CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments NV-2202-0039

Airfield
Marine Corps Short Airfield For Tactical Support, Class C NV-1710-0014
Marine Expeditionary Airfield Equipment NV-1710-0019

Airframe
A-7E Hydraulic, Pneumatic and Airframe Systems Organizational Maintenance NV-1704-0013
E-1B Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0195
F-14A Airframe and Hydraulic Systems

Specialist (Crew Leader) Organizational Maintenance NV-1704-0215
F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance NV-1704-0216
F-4B/J Airframe and Hydraulic Systems Maintenance NV-1704-0056
F-4B/J Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0056
QH-50C Airframe and Related Systems Intermediate Maintenance NV-1704-0051
QH-50D Airframe and Related System Intermediate Maintenance NV-1704-0052
QH-50D Airframe, Power Plant and Related Systems Organizational Maintenance NV-1704-0052
SH-3 Airframe and Hydraulic Systems Maintenance NV-1704-0124
UH-1E Airframe and Related Systems Intermediate Maintenance NV-1704-0043
UH-1E Airframe and Related Systems Organizational Maintenance NV-1704-0043
UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

Airframes
C-2A Hydraulics/Airframes System Maintenance NV-1704-0143
C-2A Hydraulics/Airframes System Organizational Maintenance NV-1704-0143
E-2A Hydraulics/Airframes System Maintenance NV-1704-0155
E-2A Hydraulics/Airframes Systems Organizational Maintenance NV-1704-0155
F-8 Airframes/Hydraulic Systems Organizational Maintenance NV-1704-0120
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058
KC-130F Airframes and Hydraulics Organizational Maintenance NV-1704-0191
S-2D/E Airframes and Hydraulics Systems Maintenance NV-1704-0066
SH-2F Airframes, Hydraulics and Flight Control Organizational Maintenance NV-1704-0290
SH-3 Airframes and Hydraulic Systems Organizational Maintenance NV-1704-0047
SH-60B Airframes and Related Systems Organizational Maintenance NV-1704-0292
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057

Airport
AN/GPN-27 Airport Surveillance Radar Maintenance Class C NV-1715-1188

Airspeed
P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322

Alarm
Clutter Suppressor and Automatic Alarm for the AN/SPS-10 NV-1715-0433
Common Alarm, Temperature Monitoring and Salinity Systems Equipment Maintenance NV-1715-1306
Propulsion Alarm and Indicating Systems Maintenance NV-1710-0089

Alcohol
Drug and Alcohol Program Advisor NV-0799-0005
Navy Alcohol Safety Action Program (NASAP) NV-0799-0002
Navy Drug and Alcohol Counselor School NV-0801-0011

Alcoholism
Alcoholism Treatment Specialist (ATS) NV-0801-0008

Alfa
Instructor, Class 1, Course "Alfa" NV-1406-0008

Alfred
Cable Tester Alfred Model 9500 Intermediate Maintenance NV-1715-0397

Alignment
Alignment Group Mk 1 Mods 0 and 1, Class F-1 NV-1715-0891
Dynamics Alignment Test Set (DATS) Intermediate Maintenance NV-1715-1199
Dynamics Alignment Test Set (DATS) Operator NV-1715-1200
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014

Allison
Detroit Diesel Allison 16V149TI Ships Service Diesel Generator Maintenance NV-1712-0023
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1 NV-1703-0009

Alternating
Alternating Current Power Systems NV-1715-0490

Altimeter
AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0144
AN/APN-141(V) Radar Altimeter Intermediate Maintenance NV-1715-1031
AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance NV-1715-0359
AN/APN-171(V) Radar Altimeter (Low Level) and AN/APQ-107 Radar Altimeter Warning Set Intermediate Maintenance NV-1715-0493
AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance NV-1715-0493
RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479
RF-4B AN/APN-159 Radar Altimeter Maintenance NV-1715-0223

Altitude
AN/TPX-42A Basic Direct Altitude Identity Readout (DAIR) Maintenance, Class, C1. NV-1715-1432
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1 NV-1715-1435
AN/TPX-42A(V)5 Direct Altitude Identity Readout (DAIR) Maintenance, Class C1 NV-1715-1433
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1 NV-1715-1434

Amphibious
Amphibious Command Indoctrination NV-2202-0005
Amphibious Intelligence Staff Officer NV-1606-0004
Amphibious Junior Division Officer Indoctrination NV-2202-0090
Amphibious Junior Officer Indoctrination NV-2202-0046
Amphibious Planning NV-2202-0031
Amphibious Reconnaissance NV-0803-0001
Amphibious Staff Intelligence Officer (ASIO) NV-1606-0059
Amphibious Support Information System Operator NV-1402-0034
Amphibious Tactical Air Control Party NV-2202-0006
Amphibious Transport/Cargo Ship Embarkation NV-0419-0005
Amphibious Warfare Indoctrination NV-2202-0045
Battalion Staff Officers (Amphibious Planning) NV-2202-0025
Data Base Management—LCC Amphibious Support Information System Language—Operator NV-1402-0034
Embarkation for Amphibious Operations NV-0419-0004
Engineer Officer (Amphibious Ship) NV-1710-0059
Enlisted Basic Amphibious Embarkation NV-0419-0003
LCC Amphibious Support Information System Operator NV-1402-0034

Naval Amphibious Communications NV-1404-0006

Amplifier
AM-2310-ASQ AM-2349-ASQ-19 Amplifier (Power Supply) Receiver Intermediate Maintenance NV-1715-1060

Analog
Analog-to-Digital Converter Mk 65 Mods 1 and 2 Maintenance NV-1715-1452
CV-2036 Analog Digital Converter (KCMX) Maintenance NV-1715-1045
Digital and Analog Computer Fundamentals NV-1402-0012
Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013
IP-722F/AVA-1 Analog Display Indicator Intermediate Maintenance NV-1715-1420

Analysis
Advanced Acoustic Analysis Class C NV-1715-1505
Aviation Maintenance Data Analysis, Class C NV-1402-0018
Data Analysis (Ship's 3-M System) Class C NV-1408-0005
Data Analysis Class C1 NV-1402-0018
Data Analysis, Class C NV-1402-0018
Data Processing Systems Analysis, Class C NV-1402-0001
Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001
Fundamental Analysis Techniques (P-3) NV-1715-0275
Intermediate Maintenance Level Data Analysis, Class C NV-1115-0001
Intermediate Surface Acoustic Analysis NV-2202-0146
Management Analysis, Class C NV-1115-0002
Management Analysis, Class O NV-1115-0002
Naval Aviation Logistics Data Analysis (NALDA) NV-1402-0154
Senior Non-Morse Analysis NV-1715-1258
Ship's Inertial Navigation System (SINS) Theory and Analysis NV-1107-0002
Sound Analysis, Noise and Vibration Reduction (Enlisted) NV-1721-0010
Surface Acoustic Analysis Specialist NV-2202-0145
Tactical Data Systems Analysis NV-1402-0042

Analyst
Intermediate Non-Morse Analyst NV-1715-1248
Ocean Systems Technician Analyst, Class A NV-1704-0333
Strike Warfare Operational Intelligence (OPINTEL) Analyst NV-1606-0067

Analytical
Modular Image Interpretation System and Analytical Photogrammetric Positioning System Maintenance NV-1709-0024

Analyzer
A-6 Search Radar Module Analyzer Test Console NV-1715-0530
Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1 NV-1715-0496
Aviation Electronic Warfare, Receivers, Analyzer, Recorder and Display Intermediate Level Maintenance NV-1715-1149
AN/AMP-225 Module Analyzer Test Console Intermediate Maintenance NV-1715-0944
AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum Analyzer (DSA) Advanced Maintenance NV-1715-1318
AN/ULA-2 Pulse Analyzer Group Intermediate Maintenance NV-1715-1016
Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance NV-1715-1139
Fire Control System (FCS) Mk 113 Mod 9 Mk 78 Analyzer Maintenance NV-1715-1008
Mk 81 Analyzer Basic Maintenance NV-1715-1005
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1 NV-1715-0344
Mk 9 MOD-4 Dead Reckoning Analyzer Indicator (DRAI) Combined Maintenance NV-1715-1222
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238

Analyzers
Mk V Atmosphere Analyzers NV-1715-0551

Announcing
AN/WIC Integrated Announcing System NV-1715-1472
Integrated Announcing System NV-1715-1310
Integrated Announcing System AN/WIC-2 Combined Maintenance NV-1715-0319

Anomaly
AN/ASQ-10 Magnetic Anomaly Detector Intermediate Maintenance NV-1715-0178
AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance NV-1715-0178
AN/ASQ-81(V) Magnetic Anomaly Detection Set Intermediate Maintenance NV-1715-0559
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42 NV-1715-0178

Antenna
A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
Antenna Coupler CU-1441 Combined Maintenance NV-1715-0132
Antenna Group AN/BRA-16 Functional Check-Out and Maintenance NV-1715-0161
Antenna Multicoupler AN/BRA-16 Combined Maintenance NV-1715-0161
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132
AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C NV-1715-0056
AN/WSC-3 Communications Set, OE-82B/WSC-1 Antenna Group and AN/SRA-33 Antenna Coupler Group NV-1715-0876
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876
Combined Integrated Submarine Communications Antenna Subsystem Maintenance NV-1715-1451
Coupler, Antenna CU-1441/BRR Checkout and Maintenance NV-1715-0132
CU-2070/ARC Automatic Antenna Coupler Intermediate Maintenance NV-1715-1020
Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088
F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance NV-1715-0611
F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance NV-1715-0594
Trident Exterior Communications System (ECS) Antennas/Antenna Interface System NV-1715-1358
490T-1/1A Antenna Coupler Intermediate Maintenance NV-1715-0314

Antennas
Antennas and Coupler Combined Maintenance NV-1715-0983
Trident Exterior Communications System (ECS) Antennas/Antenna Interface System NV-1715-1358

Antisubmarine
Antisubmarine Air Control Naval Tactical Data System (NTDS) NV-2202-0120
Antisubmarine Air Control, Class C/O NV-2202-0052
Antisubmarine Air Control, Class O NV-2202-0052
Antisubmarine Warfare (ASW) Centers Command and Control System Operator NV-2202-0122
Antisubmarine Warfare (ASW) Module Acoustic Systems NV-1715-1174
Antisubmarine Warfare (ASW) Module Data Processing Technician NV-1402-0090
Antisubmarine Warfare (ASW) Module Data Systems Technician NV-1402-0091
Antisubmarine Warfare (ASW) Module Operator NV-1715-1234
Antisubmarine Warfare (ASW) Module Watch Officer NV-2202-0128
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Acoustic System NV-1402-0092
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Data Systems NV-1402-0093
Antisubmarine Warfare (ASW) Operations Center (ASWOC) System Operator NV-1715-1233
Antisubmarine Warfare (ASW) Operations Center Data Processing Technician NV-1715-1238
Antisubmarine Warfare (ASW) Support Communications Maintenance Technician NV-1715-1175
Antisubmarine Warfare (ASW) Support Communications Operator NV-1715-1176
Antisubmarine Warfare (ASW) Tactics—First Tour VP Pilot NV-2202-0043
Antisubmarine Warfare (ASW) Tactics—VS Pilot/Naval Flight Officer NV-2202-0042
Antisubmarine Warfare Operations Center Watch Officer NV-2202-0116
Antisubmarine Warfare Operator, Class A1 NV-1715-1436
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D) NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C NV-1304-0003
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Operator, Class A NV-1715-0536
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P-3C NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Technician, Class A NV-1715-0154
Aviation Electronics Technician S (Antisubmarine), Class A NV-1715-0154
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive) NV-2202-0096
Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics NV-2202-0001
Helicopter (HS) Antisubmarine Warfare (ASW) Operator NV-2202-0080
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13) NV-2202-0080
Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B NV-1715-0167
Nonacoustic Antisubmarine Operator Transition P-3C NV-1715-0679
Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft) NV-1606-0020
Rotary Wing Antisubmarine Warfare Tactics NV-2202-0008
VP CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments NV-2202-0044
VP CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0040
VP CRAG Tactical Coordinator Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0041
VS CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments NV-2202-0039
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft NV-2202-0042
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft NV-2202-0043

Antisubmarine Warfare
Antisubmarine Warfare (ASW) Evaluator Common Core NV-1715-1509
Antisubmarine Warfare (ASW) Officer NV-1715-1510
AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C NV-1715-1508
AN/SQQ-89(V)2 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C NV-1715-1507

Appliance
Orthopedic Appliance Mechanics NV-0704-0001
Orthopedic Appliance Technic NV-0704-0001
Orthopedic Appliance Technician, Class C NV-0704-0001

Approach
Ground Controlled Approach Controller, Class C NV-1715-0123
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C NV-1715-0217
Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C NV-1715-0079
Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C NV-1715-0078
Ground Controlled Approach Engineman, Class C, AN/MPN-5 NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Class C NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C NV-1715-0081
Ground Controlled Approach Operator, Class C NV-1715-0122
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670

Arc
Shielded Metal Arc Welding NV-1710-0115

Architectural
Illustrative/Architectural Photography NV-1709-0032

Armament
A-4 Armament System Organizational Maintenance NV-1715-0631
A-6A Armament Systems Organizational Maintenance NV-1704-0167
A-7 Armament Systems Maintenance NV-1704-0084

A-7A/B Armament System Organizational Maintenance
NV-1704-0084
A-7E Armament System Organizational Maintenance
NV-1704-0173
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance
NV-1704-0203
Aviation Fire Control Technician F (Armament Control), Class A
NV-1715-0140
AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance
NV-1715-0174
C-8610/AWE Armament Control Panel Intermediate Maintenance Course.
NV-1715-1413
F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance
NV-1704-0221
F-4B/J Armament, Missile and Weapons Control System Maintenance
NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance
NV-1715-0632
F-8 Armament System Organizational Maintenance
NV-1715-0181
RA-5C Armament Intermediate Maintenance
NV-1704-0166
S-3A Armament Control and Delivery System Organizational Maintenance
NV-2202-0111
Strike Armament Intermediate Maintenance Repair
NV-1715-0571

Arms
Supporting Arms Coordination
NV-2202-0055
Supporting Arms Coordinator
NV-2202-0055

Arresting
Catapult and Arresting Gear, Class C
NV-1710-0009
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C
NV-1710-0006
Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear)
NV-1710-0029
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk 7 Arresting Gear), Class C
NV-1710-0005
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C
NV-1710-0005
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C.
NV-1710-0007

Ashore
Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore)
NV-0801-0005
Supply Ashore Refresher
NV-1405-0011

Aspect
Sonar AN/SQS-39 Through 46 and Aspect Maintenance
NV-1715-0783

Asphalt
Equipment Operators/Asphalt Paving and Plant Operation, Class C
NV-1710-0062
EO "C" Asphalt
NV-1710-0062

Assault
Assault Boat Coxswain
NV-1708-0006
Assault Boat Engineer
NV-1712-0009
NV-1712-0016
River Assault Craft Training
NV-1708-0001

Assembler
Computer Programming AN/UYK-20 Assembler Language - Basic
NV-1402-0096
Computer Programming AN/UYK-7 Assembler Language - Basic
NV-1402-0095

Assembly
Advanced Electronic Assembly Repair Intermediate Maintenance
NV-1715-1028
ASROC Missile Assembly and Maintenance
NV-1715-0630
Electronic Assembly Repair
NV-1715-1021
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language)
NV-1402-0033

Atmosphere
Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1
NV-1715-0496
Atmosphere Support Equipment Maintenance
NV-1715-1307
Mk V Atmosphere Analyzers
NV-1715-0551
Trident Ship Control and Atmosphere Support Technician Level I
NV-1715-1309
Trident Ship's Control Level I/ Atmosphere Support
NV-1715-1171

Atmospheric
Trident Submarine Atmospheric Support System Maintenance
NV-1731-0001

Atomic
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001
Atomic, Biological and Chemical (ABC) Warfare Defense Afloat
NV-0802-0008

Attitude
A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator
NV-1715-0615
A-7A/B Attitude Heading and Reference System Intermediate Maintenance
NV-1721-0006
AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance
NV-1715-0534
EA-6B Course Attitude Data Transmitter Intermediate Maintenance
NV-1715-0192
RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance
NV-1715-0468
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B)
NV-1715-0192

Audio-Visual
Audio-Visual Managers
NV-1709-0036

Auto
A-3 S-5 Auto Pilot Maintenance
NV-1704-0198
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7
NV-1715-0472

Automated
Automated Propulsion System Maintenance
NV-1710-0090
Automated Propulsion System Operator, Class C
NV-1710-0056
Automated Supply and Accounting Systems Afloat (AN/UYK-5(V))
NV-1401-0003
Automated Tactical Reconnaissance Systems (TACRECCE) Support Afloat
NV-1709-0040
Automated Telecommunications Systems Technician, Class C7
NV-1408-0030
AN/SYQ-7(V)3 Naval Modulated Automated Communications System Operator
NV-0505-0002
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0168
Integrated Submarine Automated Broadcast Processing System
NV-1402-0132
Shipboard Non-Tactical Automated Data Processing (SNAP)
NV-1715-1265
Shipboard Uniform Automated Data Processing System (SUADPS) 207/ AV207
NV-1402-0149
Shipboard Uniform Automated Data Processing System- Real Time Operations and Management
NV-1402-0149
Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator
NV-0505-0001

Automated Data Processing
Uniform Automated Data Processing (ADP) System-Stock Points
NV-1408-0025

Automatic
A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699
A-6E Automatic Carrier Loading System Organizational Maintenance NV-1715-0957
A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42A, Class C1 NV-1715-0286
Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735
Automatic Flight Control System AN/ASW-40, AN/ASW-41 and AN/ASW-42 Intermediate Maintenance NV-1715-0952
Automatic Telephones, Class C NV-1715-0546
Aviation Support Equipment Automatic Transmission Intermediate Maintenance NV-1703-0010
AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance NV-1704-0241
AN/ASW-31 Automatic Flight Control System Intermediate Maintenance NV-1715-1018
AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator NV-1402-0102
AN/USM-403 Hybrid Automatic Test Set (HATS) Operator NV-1715-1193
Bailey Automatic Boiler Control Console Operator NV-1710-0085
Bailey Automatic Boiler Control Maintenance NV-1710-0074
Construction Mechanic/Automatic Transmissions, Class C NV-1703-0003
CU-2070/ARC Automatic Antenna Coupler Intermediate Maintenance NV-1715-1020
Dynalec Automatic Telephone System Maintenance, Class C1 NV-1404-0007
Dynalec 200/700 Line Automatic Telephone Maintenance NV-1404-0010
F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737
F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613
Fully Automatic Switching Terminal NV-1715-1110
General Regulator Automatic Boiler Control Console Operator NV-1710-0079
General Regulator Automatic Boiler Control Maintenance NV-1710-0072
H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133
H-53 Automatic Flight Controls Systems Intermediate Maintenance NV-1715-0738
Hagan Automatic Boiler Control Console (ACC) Operator NV-1710-0078
Hagan Automatic Boiler Control Maintenance NV-1710-0073
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1704-0205
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736
Landing Helo Auxiliary (LHA) Intelligence Center (IC) Afloat Automatic Data Processing (ADP) Operator NV-1402-0101
P-3 PB-20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074
Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072
Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073
Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661
SH-2F Automatic Stabilization NV-1704-0291
SH-3 Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0621
SH-3 Automatic Stabilization Equipment Organizational Maintenance NV-1704-0006 NV-1704-0096
SH-3A Automatic Stabilization Equipment Maintenance NV-1715-0616
SH-60B Automatic Flight Control System Organizational Maintenance NV-1715-1197
UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Organizational Maintenance NV-1715-0464
UH-2C Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

Automatic Data Processing
Automatic Data Processing Maintenance NV-1402-0130
Shipboard Non-Tactical Automatic Data Processing (ADP) Program II (SNAP II) AN/UYK-62(V) Maintenance NV-1402-0131
Shipboard Non-Tactical Automatic Data Processing (SNAP I) System Enlisted Supervisor/Operator NV-1402-0150
Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat NV-1402-0152
Shipboard Non-Tactical Automatic Data Processing (SNAP) II System Coordinator NV-1402-0151
Shipboard Non-Tactical Automatic Data Processing (SNAP) 3-M Coordinator/Inspector NV-1402-0153

Automotive
Construction Mechanic/Automotive Electrical Maintenance, Class C NV-1703-0001
CM"C" Automotive Electrical Maintenance NV-1703-0001

Autopilot
P-3 PB-20N Autopilot System Intermediate Maintenance NV-1715-0462

Auxiliary
Advanced Auxiliary Equipment Package NV-1723-0016
Auxiliary Equipment Package NV-1730-0002
Auxiliary Machinery Controls, Governors and Regulators Maintenance NV-1710-0086
Auxiliary Machinery Turbine Maintenance NV-1704-0321
DD-963 Auxiliary Systems Technician NV-1704-0265
FFG-7 Auxiliary Electrical Subsystem Maintenance Class C1 NV-1714-0022
FFG-7 Auxiliary Electrical Systems Maintenance NV-1714-0031
FFG-7 Auxiliary Mechanical Subsystem Technician NV-1704-0270
FFG-7 Auxiliary Mechanical Subsystem Technician Class C1 NV-1715-1073
FFG-7 Auxiliary Mechanical System Technician NV-1704-0271

FFG-7 Auxiliary 16V149TI Diesel Engine Maintenance
NV-1712-0027

FFG-7 Class Ship Auxiliary Electrical Subsystem Technician
NV-1714-0030

FFG-7 Class Ship Auxiliary Electrical Subsystems
NV-1714-0043

FFG-7 Class Ship Auxiliary Electrical System Technician
NV-1732-0010

FFG-7/Auxiliary Systems Operations GS
NV-1710-0098

Sonar Auxiliary Equipment Combined Maintenance Revision A
NV-1715-1270

Trident Submarine Auxiliary Equipment Technician Level II
NV-1704-0318

Trident Submarine Auxiliary Equipment Technician Level III
NV-1712-0030

Trident Submarine Auxiliary Equipment Technician Replacement Level I
NV-1732-0016

WR-27 Auxiliary Power Unit Intermediate Maintenance
NV-1704-0296

Aviation

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C
NV-1606-0028

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)
NV-1715-0555

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C
NV-1304-0003

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C
NV-2202-0021

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D)
NV-2202-0032

Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C
NV-1715-0696

Aviation Antisubmarine Warfare (AASW) Operator, Class A
NV-1715-0536

Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P-3C
NV-1715-0696

Aviation Boatswain's Mate Aircraft Handling, Class A1
NV-1728-0020

Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A
NV-1704-0042

Aviation Boatswain's Mate E (Equipments), Class A
NV-1704-0042

Aviation Boatswain's Mate E Launching and Recovery Equipment, Class A1 Common Core
NV-1704-0310

Aviation Boatswain's Mate Equipment, Class A1 Common Core
NV-1704-0310

Aviation Boatswain's Mate Equipment, Class A1, C13 Track
NV-1704-0302

Aviation Boatswain's Mate Equipment, Class A1, C7/C11 Track
NV-1704-0311

Aviation Boatswain's Mate Equipment, Class C1, C113 Mod 1 Track
NV-1704-0307

Aviation Boatswain's Mate F (Fuels), Class A
NV-1728-0005

Aviation Boatswain's Mate Fuels, Class A1
NV-1704-0306

Aviation Boatswain's Mate G (Gasoline) Class A
NV-1722-0001

Aviation Boatswain's Mate H (Aircraft Handling), Class A
NV-1728-0014

Aviation Boatswain's Mate H (Handling), Class A
NV-1728-0014

Aviation Boatswain's Mate Handling, Class A1
NV-1728-0020

Aviation Boatswain's Mate Handling, Class A1 (Sea Track)
NV-1728-0019

Aviation Boatswain's Mate Handling, Class A1 (Shore Track)
NV-1728-0018

Aviation Boatswain's Mate Handling, Class C1, Sea Track
NV-1704-0301

Aviation Boatswain's Mate U (Utility), Class A
NV-1728-0013

Aviation Crash Crewman Class C
NV-1728-0006

Aviation Electrican's Mate, Class A1
NV-1714-0051

Aviation Electrician Conversion
NV-1704-0068
NV-1704-0070

Aviation Electrician's Mate I (Instrument), Class A
NV-1704-0068

Aviation Electrician's Mate Intermediate, Class C7
NV-1714-0052
NV-1715-0135

Aviation Electrician's Mate M (Electrician), Class A
NV-1704-0070

Aviation Electrician's Mate, Class A
NV-1704-0068

Aviation Electrician's Mate, Class B
NV-1715-0134

Aviation Electrician's Mate, Class B (Advanced)
NV-1715-0134

Aviation Electrician's Mate, Class B (Intermediate)
NV-1715-0135

Aviation Fire Control Technician (B) Conversion (Class C)
NV-1715-0139

Aviation Fire Control Technician (F) Conversion (Class C)
NV-1715-0138

Aviation Fire Control Technician B (Bomb Director), Class A
NV-1715-0141

Aviation Fire Control Technician F (Armament Control), Class A
NV-1715-0140

Aviation Fire Control Technician, Class A
NV-1715-0537

Aviation Fleet Preparatory Course I and II
NV-1606-0058

Aviation Fleet Preparatory Course I and II, Class P
NV-1606-0051

Aviation Fuel Systems, Class C
NV-1704-0186
NV-1704-0199

Aviation Fuel Systems, Class C1
NV-1704-0309

Aviation Fundamentals Class AP
NV-1704-0157

Aviation Indoctrination, Limited Duty Officer (LDO)
NV-2202-0087

Aviation Limited Duty Officer (LDO) Indoctrination
NV-1606-0044

Aviation Machinist's Mate (AD) Class A1
NV-1704-0148

Aviation Machinist's Mate Class A (S-3A) Power Plant Systems
NV-1703-0014

Aviation Machinist's Mate H (Helicopter), Class A
NV-1704-0238

Aviation Machinist's Mate J (Jet Engine), Class A
NV-1704-0148

Aviation Machinist's Mate J (Jet Engine), Class B
NV-1704-0159

Aviation Machinist's Mate J (Jet Engine), Class C7
NV-1704-0159

Aviation Machinist's Mate J (Turbo-Jet), (Class A)
NV-1704-0148

Aviation Machinist's Mate R (Reciprocating), Class A
NV-1704-0149

Aviation Machinist's Mate R (Reciprocating), Class B
NV-1704-0158

Aviation Machinist's Mate, Class A1
NV-1704-0324

Aviation Maintenance Administration, Class A
NV-1409-0003

Aviation Maintenance Administrationman, Class A
NV-1409-0003

Aviation Maintenance Control Administration
NV-1717-0008

Aviation Maintenance Data Analysis, Class C
NV-1402-0018

Aviation Management
NV-1717-0001

Aviation Mechanical Fundamentals, Class A
NV-1704-0157

Aviation Mechanical Fundamentals, Class P
NV-1704-0157

Aviation Medicine Technic
NV-0709-0003

Aviation Medicine Technician, Class C NV-0709-0003
Aviation Officer Candidate NV-2202-0033
Aviation Ordnance Officers (Management), Class O (AOM(O)) NV-1405-0010
Aviation Ordnance Officers, Class O NV-1715-0744
Aviation Ordnance, Class A1 NV-1715-1437
Aviation Ordnanceman (Turret), Class A NV-1714-0007
Aviation Ordnanceman (Utility), Class A NV-1714-0006
Aviation Ordnanceman, Class A NV-1715-0648
Aviation Ordnanceman, Class B NV-1717-0010
Aviation Ordnanceman, Class C7 NV-1717-0010
Aviation Reserve Officer Candidate (AVROC) NV-2202-0088
Aviation Squadron Electronic Warfare (EW) Officer, Class A2 NV-1715-0831
Aviation Storekeeper Advanced Training Class C NV-1405-0020
Aviation Storekeeper, Class A NV-1405-0004
Aviation Storekeeper, Class B NV-1408-0019
Aviation Structural Mechanic (Hydraulic) Class A1 NV-1704-0128
Aviation Structural Mechanic (Safety Equipment), Class A1 NV-1704-0325
Aviation Structural Mechanic (Structures) Class A1 NV-1704-0132
Aviation Structural Mechanic E (Safety Equipment) Class C7 NV-1704-0116
Aviation Structural Mechanic E (Safety Equipment), Class A NV-1704-0130
Aviation Structural Mechanic E (Safety Equipment), Class B NV-1704-0116
Aviation Structural Mechanic H (Hydraulics), Class A NV-1704-0128
Aviation Structural Mechanic H (Hydraulics), Class B NV-1704-0087
Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177
Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
Aviation Structural Mechanic, Class B NV-1704-0239
Aviation Support Equipment A/S 32P-16 Fire Fighting Truck Intermediate Maintenance NV-1703-0016
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance NV-1703-0015
Aviation Support Equipment Automatic Transmission Intermediate Maintenance NV-1703-0010
Aviation Support Equipment Cryogenic Intermediate Maintenance NV-1704-0255
Aviation Support Equipment LHA-1 Pallet Transporter Intermediate Maintenance NV-1703-0017
Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance NV-1701-0008
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
Aviation Support Equipment Technician (Mechanical) Class A NV-1704-0246
Aviation Support Equipment Technician Electrical NV-1714-0019
Aviation Support Equipment Technician, Class A (Electrical Specialty) NV-1704-0111
Aviation Support Equipment Technician, Class A1 NV-1704-0326
Basic Naval Aviation Officer NV-1606-0044
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive) NV-2202-0096
Class A Aviation Guided Missileman NV-1715-0629
E-2A Aviation Electrician Organizational Maintenance NV-1704-0081
E-2B/C-2A Aviation Electrician Organizational Maintenance NV-1704-0224
Enlisted Basic Aviation Training NV-1704-0157
Flight Preparation, Naval Aviation Cadet and Aviation Officer Candidate NV-1606-0046
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13) NV-2202-0080
Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B NV-1715-0167
Intermediate Aviation Fire Control Technician, Class B NV-1715-0646
Joint Aviation Supply and Maintenance Material Management NV-1405-0009
Marine Aviation Operations Clerical, Class C NV-1409-0008
Marine Aviation Supply (Manual), Class C NV-1409-0005
Marine Aviation Supply (Mechanized), Class C NV-1405-0007
Marine Aviation Supply, Class C NV-1405-0008
Marine Corps Aviation Supply Officer Qualification NV-1408-0024
Naval Aviation Logistics Data Analysis (NALDA) NV-1402-0154
Naval Aviation Maintenance/Material Management, Class B NV-1717-0003
Naval Aviation Observer (Controller), Class O NV-1704-0197
P-3 Aviation Machinist's Mate (AD) Entry Level NV-1715-1026
Pre-flight, Naval Aviation Cadets and Aviation Officer Candidates NV-1606-0046
Supply Corps Officer Basic Qualification - Aviation Management NV-1405-0012
SH-2 Aviation Machinist's Mate Power Plant System NV-1704-0289
SH-3 Aviation Machinist's Mate Class A Power Plant Systems NV-1704-0297
Warrant Officer (WO) Aviation Indoctrination NV-2202-0016

Aviation Electronics
Aviation Electronics Fundamentals, Class A NV-1715-0380
Aviation Electronics Intelligence, Class O/C NV-1715-0504
Aviation Electronics Officers, Class O NV-1715-0522
Aviation Electronics Technician N (Navigation), Class A NV-1715-0097
Aviation Electronics Technician R (Radar), Class A NV-1715-0295
Aviation Electronics Technician S (Antisubmarine), Class A NV-1715-0154
Aviation Electronics Technician/ Aviation Fire Control Technician, Advanced Class B NV-1715-0137
Aviation Electronics Technician, Class A NV-1715-0289
Aviation Electronics Technician, Class B NV-1715-0137
Aviation Electronics Warfare Fundamentals NV-1715-1146
Aviation Electronics Warfare Intermediate Level Maintenance NV-1715-1149
Aviation Electronics Warfare O Level Maintenance NV-1715-1147

Aviation Electronics Warfare Tactical Operator
NV-1715-1148

Aviation Support
Aviation Support Equipment Detroit Series 53 Diesel Intermediate Maintenance
NV-1712-0021
Aviation Support Equipment Gasoline Engine Intermediate Maintenance
NV-1703-0006
Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance
NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance
NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0700
Aviation Support Equipment SDID Aircraft Spotting Dolly Intermediate Maintenance
NV-1704-0256
Aviation Support Equipment Technician (Mechanical) Class A
NV-1704-0246
Aviation Support Equipment Technician Hydraulics and Structures, Class A
NV-1704-0138
Aviation Support Equipment Technician Mechanical, Class A
NV-1704-0145
Aviation Support Equipment Technician, Class A (Hydraulic Specialty)
NV-1704-0112
Aviation Support Equipment Technician, Class A (Mechanical Speciality)
NV-1704-0113
Aviation Support Equipment UD-282 and Detroit Series 53 Diesel Engines Intermediate Maintenance
NV-1712-0021

Aviator
Advanced Navigation Training (Postgraduate Coast Guard Aviator)
NV-1606-0033
Advanced Navigation Training (Postgraduate Naval Aviator)
NV-1606-0032
Navigation Flight Training, Naval Aviator and Naval Flight Officer
NV-1606-0045

Avionic
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance
NV-1715-0697

Avionics
A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance
NV-1715-0279
A-3 Related Avionics System (AT/AQ) Organizational Maintenance
NV-1715-0279
A-6 Avionics Systems Organizational Level Maintenance
NV-1715-0474
A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance
NV-1715-0450
Advanced First Term Avionics, Class A1
NV-1715-0556
NV-1715-1424
Advanced First Term Avionics, Class B (AFTA)
NV-1715-0556
Avionics Advanced, Class B
NV-1715-0137
Avionics Advanced, Class C7
NV-1715-0137
Avionics Fundamentals, Class A
NV-1715-0049
NV-1715-0380
Avionics Intermediate, Class B
NV-1715-0102
Avionics Intermediate, Class C7
NV-1715-0102
NV-1715-1438
Avionics Officers, Class O
NV-1715-0170
Avionics Repairman, Class C
NV-1704-0228
Avionics Technician (AV), Class A
NV-1715-0380
Avionics Technician Class A1, Modules 1-9
NV-1715-0380
Avionics Technician, Class A
NV-1715-0380
Avionics Technician, Class A1
NV-1715-1439
NV-1715-1440
Avionics, Class B
NV-1715-0137
C-2A Avionics Systems Organizational Maintenance
NV-1715-1217
Integrated Avionics Radar System Technician
NV-1715-0035
Integrated Avionics Weapons System Specialist
NV-1715-0266
Integrated Avionics Weapons System Technician
NV-1715-0267
Intermediate Avionics, Class B
NV-1715-0102
P-3C Integrated Avionics System (Update I) Organizational Maintenance
NV-1715-1025
P-3C Integrated Avionics System Technician
NV-1715-0329
RA-5C Avionics Officers/Supervisors Familiarization
NV-1704-0038
S-2D/E Avionics Systems Organizational Maintenance
NV-1715-0641
S-3A Copilot Avionics
NV-1606-0057
TACAMO Communication and Avionics System Operation
NV-1715-1182

Azimuth
AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1)
NV-1715-0175

AASW
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D)
NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C
NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)
NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C
NV-1304-0003
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C
NV-2202-0021
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D)
NV-2202-0032
Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Operator, Class A
NV-1715-0536
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P-3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Technician, Class A
NV-1715-0154
Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics
NV-2202-0001
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13)
NV-2202-0080
Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B
NV-1715-0167

ABC
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001
Atomic, Biological and Chemical (ABC) Warfare Defense Afloat
NV-0802-0008

ADP
Uniform Automated Data Processing (ADP) System-Stock Points
NV-1408-0025

AFTA
Advanced First Term Avionics, Class B (AFTA)
NV-1715-0556

AH-1J
AH-1J Electrical Organizational Maintenance
NV-1704-0105
AH-1J Power Plant and Related Systems Organizational Maintenance
NV-1704-0162
AH-1J Powertrain and Rotors

Organizational Maintenance
NV-1704-0153

AIMS
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1)
NV-1715-0812
AIMS Mk XII System Differences Equipment Maintenance, Class C-1
NV-1715-0813

ALCO 251-C
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine
NV-1712-0010

AM-2310-ASQ
AM-2310-ASQ AM-2349-ASQ-19 Amplifier (Power Supply) Receiver Intermediate Maintenance
NV-1715-1060

AM-2310/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746

AM-2349-ASQ-19
AM-2310-ASQ AM-2349-ASQ-19 Amplifier (Power Supply) Receiver Intermediate Maintenance
NV-1715-1060

AN/AAM-60(V)2
AN/AAM-60(V)2 Electro-Optical Systems Test Set Intermediate Maintenance
NV-1715-1027

AN/AAM-60(V)6
AN/AAM-60(V)6 Electro-Optical Test Set Intermediate
NV-1715-1190

AN/AAS-18
RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance
NV-1715-0225

AN/AAS-21
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance
NV-1715-0222

AN/AAS-33A
AN/AAS-33A Detecting and Ranging Set Receiver Group/Reciprocating Compressor/Infrared Indicator Intermediate Maintenance Course
NV-1715-1411
AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course
NV-1715-1419

AN/AAS-33A WRAS
AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course
NV-1715-1419

AN/AAS-36
AN/AAS-36 Infrared Detecting System (IRDS) and AN/AAS-371R/LORTS Common Infrared Detection System Intermediate Maintenance
NV-1715-1029

AN/AAS-371R
AN/AAS-36 Infrared Detecting System (IRDS) and AN/AAS-371R/LORTS Common Infrared Detection System Intermediate Maintenance
NV-1715-1029

AN/ACQ-2
AN/ACQ-2/2A Data Communications Systems and Associated Test Set Equipment Intermediate Maintenance
NV-1715-0254
E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance
NV-1715-0254

AN/AIC-14
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance
NV-1715-0370
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance
NV-1715-0370

AN/AJA-2
Central Gyro Reference System (AN/AJA-2), Class C
NV-1715-0708

AN/AJB-3
A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator
NV-1715-0615

AN/AJB-3/3A
A-4 AN/AJB-3/3A Organizational Maintenance
NV-1715-0294

AN/AJB-3A
A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational)
NV-1704-0098
F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance
NV-1715-0151

AN/AJB-7
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549

AN/AJM-32(V)
AN/AJM-32(V) Intermediate Maintenance
NV-1715-0069
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RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance
NV-1715-0468

AN/ASN-66B
EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance
NV-1715-0505

AN/ASN-70
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549

AN/ASN-90
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
NV-1715-0388
AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
NV-1715-0388

AN/ASN-91
A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance
NV-1715-0070

AN/ASN-99
AN/ASN-99 Projected Map Display Set Intermediate Maintenance
NV-1715-0162
AN/ASN-99(V) Projected Map Display Set Intermediate Maintenance
NV-1715-0162

AN/ASN-99(V)
AN/ASN-99(V) Projected Map Display Set Intermediate Maintenance
NV-1715-0162

AN/ASQ-10A
AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance
NV-1715-0178
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42
NV-1715-0178

AN/ASQ-108
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

AN/ASQ-133
AN/ASQ-155 and AN/ASQ-133 Ballistics Computer Set
NV-1715-0950

AN/ASQ-155
AN/ASQ-155 and AN/ASQ-133 Ballistics Computer Set
NV-1715-0950

AN/ASQ-17B
AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance
NV-1715-0515

AN/ASQ-19
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394

AN/ASQ-52
E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate
NV-1715-0382
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527
E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance
NV-1715-0379

AN/ASQ-56A
AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0540
RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0145

AN/ASQ-57
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance
NV-1715-0370
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance
NV-1715-0370

AN/ASQ-58
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0377
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746
E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance
NV-1715-0376

AN/ASQ-61
A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance
NV-1715-0068
A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance
NV-1715-0068

AN/ASQ-61A
A-6 AN/ASQ-61A Ballistics Computer Theory
NV-1715-0067

AN/ASQ-80
S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance
NV-1715-0331

AN/ASQ-81(V)
AN/ASQ-81(V) Magnetic Anomaly Detection Set Intermediate Maintenance
NV-1715-0559

AN/ASQ-88
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562

AN/ASQ-90
RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance
NV-1715-0240

AN/ASW-14A
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance
NV-1715-0347

AN/ASW-15
Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance
NV-1715-0741
AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance
NV-1704-0241
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance
NV-1715-0461
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)
NV-1715-0460

AN/ASW-16
AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance
NV-1704-0241

AN/ASW-26
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance
NV-1715-0617
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance
NV-1715-0807

AN/ASW-31
AN/ASW-31 Automatic Flight Control System Intermediate Maintenance
NV-1715-1018

AN/ASW-39
AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance
NV-1704-0241

AN/ASW-40

Automatic Flight Control System AN/ASW-40, AN/ASW-41 and AN/ASW-42 Intermediate Maintenance NV-1715-0952

AN/ASW-41

Automatic Flight Control System AN/ASW-40, AN/ASW-41 and AN/ASW-42 Intermediate Maintenance NV-1715-0952

AN/ASW-42

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AN/AVA-1

A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159

AN/AVA-1 Vertical Display Indicator Group Intermediate Maintenance NV-1715-0159

AN/AVM-11

AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E) NV-1704-0229

AN/AVQ-7A/B

AN/AVQ-7A/B Head Up Display Set Intermediate Maintenance NV-1704-0253

AN/AWG-10

AN/AWG-10 Receiver, Intermediate Maintenance NV-1715-0350

F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371

F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance NV-1715-0611

F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706

F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231

F-4J AN/AWG-10 Receiver Intermediate Maintenance NV-1715-0350

F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance NV-1715-0594

AN/AWM-55(V)

AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174

AN/AXR-13

P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358

AN/AYA-1

RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance NV-1715-0424

AN/AYK-2

AN/AYK-2 Navigation Computer Group and OA-1768A Plotter Board Group Intermediate Maintenance NV-1715-0227

SH-3 AN/AYK-2 Navigation System Intermediate Maintenance NV-1715-0227

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AN/BPS

AN/BPS Radar Combined Maintenance NV-1715-1363

AN/BPS-12

AN/BPS-12, 13, 14 Radar System Maintenance NV-1715-0312

Radar AN/BPS-12, 13, 14 Combined Maintenance NV-1715-0312

AN/BPS-13

AN/BPS-13 Radar Maintenance NV-1715-0312

AN/BPS-14

AN/BPS-14 Radar Combined Maintenance NV-1715-1459

AN/BPS-15

AN/BPS-15 Radar Combined Maintenance NV-1715-0491

AN/BQG

Sonar Receiving Set AN/BQG PUFS Maintenance NV-1715-0261

Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261

AN/BQG-4/4A

Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261

AN/BQH-2D/E

Sonar Classification Set AN/BQH-2D/E Combined Maintenance NV-1715-0503

AN/BQH-5(V)2

Data Gathering Set AN/BQH-5(V)2 Basic Maintenance NV-1715-0502

AN/BQH-5(V)4

AN/BQH-5(V)4 Combined Maintenance NV-1715-1485

AN/BQN-17

AN/BQN-17 Combined Maintenance NV-1715-1003

Sonar Sounding Set AN/BQN-17 Combined Maintenance NV-1715-1003

AN/BQN-3

AN/BQN-3 Sonar Sounding Set Advanced Training NV-1715-0987

Sonar Sounding Set AN/BQN-3 Maintenance NV-1715-0987

AN/BQQ-3A

AN/BQQ-3A Sonar Maintenance NV-1715-0307

AN/BQQ-5

AN/BQQ-5 Combined Basic Maintenance Revision A NV-1715-1271

Sonar Detecting-Ranging Sets AN/BQQ-5 Advanced Maintenance Revision A NV-1715-1281

Sonar Detecting/Ranging Sets, AN/BQQ-5 Series Combined Advanced Maintenance NV-1715-1281

Sonar Detecting/Ranging Sets, AN/BQQ-5 Series Combined Basic Maintenance NV-1715-1271

AN/BQQ-6

AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance NV-1715-1320

AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum Analyzer (DSA) Advanced Maintenance NV-1715-1318

AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/Spherical Array, Passive Beamforms (SAPB) Maintenance NV-1715-1316

AN/BQQ-6 Group A Primary Power Control (PCC)/SSDC Advanced Maintenance NV-1715-1317

AN/BQQ-6 Sonar Set Detection Tracking NV-1715-1319

AN/BQR-15

AN/BQR-15 SPALT 9080 Operations and Maintenance NV-1715-1467

Sonar Receiving Set AN/BQR-15 Combined Maintenance NV-1715-0912

Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1 NV-1715-0912

Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance NV-1715-0912

AN/BQR-19

Sonar Receiving Set AN/BQR-19 Combined Maintenance NV-1715-0990

AN/BQR-21(V)

Sonar Receiving Set AN/BQR-21(V) Combined Maintenance NV-1715-0992

AN/BQR-23

Sonar Receiving Set AN/BQR-23 Basic Maintenance NV-1715-1466

AN/BQS-11

Sonar AN/BQS-11/12/13 Maintenance NV-1715-0865

Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance NV-1715-0865

Submarine Sonar AN/BQS-11/12/13 System Maintenance NV-1715-0865

AN/BQS-4

AN/BQS-4 Sonar Maintenance NV-1715-0303

AN/BQS-8

AN/BQS-8 (Series) Sonar Maintenance NV-1715-0124

AN/BQS-8B, 10A, 14A Sonar System Maintenance
NV-1715-0868
Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance
NV-1715-0868

AN/BRA-16
Antenna Group AN/BRA-16 Functional Check-Out and Maintenance
NV-1715-0161
Antenna Multicoupler AN/BRA-16 Combined Maintenance
NV-1715-0161

AN/BRD-6
AN/BRD-6B Combined Maintenance, Class F1
NV-1715-0903
Radio Direction Finder AN/BRD-6 Combined Maintenance
NV-1715-0903
Radio Direction Finder AN/BRD-6 Operational Maintenance
NV-1715-0903

AN/BRD-7
AN/BRD-7 Combined Maintenance, Class C1
NV-1715-0449
AN/BRD-7 Radio Direction Finder Set Combined Operator/Maintenance
NV-1715-0449
AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1
NV-1715-0445

AN/BRN-3
AN/BRN-3 Computer Advanced Training
NV-1715-0925
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1
NV-1715-0911
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1
NV-1715-0915
Radio Navigation Set AN/BRN-3/3A Computer Advanced Training
NV-1715-0925

AN/BRN-3/3A
Radio Navigation Set AN/BRN-3/3A Computer Advanced Training
NV-1715-0925

AN/BRN-3B
Radio Navigation Set AN/BRN-3B Data Processor Maintenance
NV-1402-0142
Radio Navigation Set AN/BRN-3B Maintenance
NV-1715-1455

AN/BRN-6
AN/BRN-6/SRN-9A Combined Maintenance
NV-1715-1476

AN/BRQ-1
AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1
NV-1715-0445
AN/BRQ-1, AN/WYQ-1 Operator
NV-1715-0445
AN/WYQ-1 and AN/BRQ-1 Combined Maintenance Class C-1
NV-1715-0494

AN/BSC-2
AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance
NV-1715-1469

AN/BST-1
AN/BST-1 SECT Maintenance for Submarine Tender Technician
NV-1715-0900
AN/BST-1 Tender Maintenance
NV-1715-0588
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
NV-1715-0900
SECT Buoy AN/BST-1 Basic Maintenance, Class F1
NV-1715-0900

AN/CPN-4A
Air Traffic Control Maintenance, Radar Set AN/CPN-4A
NV-1715-0961
Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C
NV-1715-0079
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
NV-1715-0081

AN/DPM-7
AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0628
Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7
NV-1715-0628

AN/DSM-32
AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0446

AN/FGC-60
Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment
NV-1715-0194

AN/FGC-73
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer
NV-1715-0019

AN/FLR-11
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
NV-1715-0840

AN/FLR-15
Cryptologic Technician M AN/FLR-15 Maintenance, Class C3
NV-1715-0835

AN/FPN-36
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C
NV-1715-0217

AN/FPN-63(V)
Air Traffic Control Maintenance AN/FPN-63(V) Precision Approach Radar, Class C1
NV-1715-0960
AN/FPN-63(V) Maintenance, Class C1
NV-1715-1425

AN/FRT-83
AN/FRT-83, 84 and 85 Radio Transmitters Maintenance, Class C1
NV-1715-0325

AN/FTA-15
Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment
NV-1715-0194

AN/GPN-27
AN/GPN-27 Airport Surveillance Radar Maintenance Class C
NV-1715-1188
AN/GPN-27 Maintenance, Class C1
NV-1715-1426

AN/GRC-27A
AN/GRC-27A Maintenance
NV-1715-0106
AN/GRC-27A Radio Equipment Maintenance
NV-1715-0106

AN/GYK-22
AN/GYK-22 (BITMAN) Maintenance
NV-1402-0063

AN/GYK-3
AN/GYK-3 Computer Maintenance
NV-1715-0958
Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer
NV-1402-0049

AN/GYK-9
AN/GYK-9 (FLEXSCOP) Maintenance
NV-1715-0828

AN/MPN-1B
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C
NV-1715-0078

AN/MPN-5
Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C
NV-1715-0080
Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C
NV-1715-0080
Ground Controlled Approach Engineman, Class C, AN/MPN-5
NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
NV-1715-0081

AN/SKQ-2
Telemetering Ground Station AN/SKQ-2
NV-1715-0791

AN/SKR-4
AN/SQS-54B and AN/SKR-4 (LAVA) Maintenance
NV-1715-0320
Sonar AN/SQR-17 and AN/SKR-4 Organizational Maintenance
NV-1715-0862

AN/SLD-1
AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance
NV-1715-0842

AN/SLQ-17
Electronic Warfare Technician AN/SLQ-17 Equipment Operations NV-1402-0074
Electronic Warfare Technician AN/SLQ-17 Maintenance NV-1715-1151

AN/SLQ-19
AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance NV-1715-0842

AN/SLQ-22A(V)2
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2 NV-1715-0781

AN/SLQ-26
AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance NV-1715-0842
Countermeasures Set AN/SLQ-26, Class C-1 NV-1715-0842

AN/SLQ-32
AN/SLQ-32(V) Presail/Underway Operations NV-1715-1144
Electronic Warfare Technician AN/SLQ-32 Operator NV-1715-1144

AN/SLQ-32(V)
AN/SLQ-32(V) Presail/Underway Operation NV-1715-1144

AN/SLQ-32(V)3
AN/SLQ-32(V)3 ECM Maintenance NV-1715-1145

AN/SPA-25
AN/SPA-25/-25(B) Radar Indicator and SB-1505 Switchboard Maintenance NV-1715-0029
Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance NV-1715-0510

AN/SPA-25G
AN/SPA-25G Radar Indicator Group Maintenance NV-1715-1337

AN/SPA-34
Electronics Technician, AN/SPA-34 Indicator Group, Class C NV-1715-0310

AN/SPA-40
Electronics Technician, Indicator Group AN/SPA-40, Class C NV-1715-0013

AN/SPA-41
Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance NV-1715-0018

AN/SPA-50
AN/SPA-50, AN/SPA-50B Radar Indicator Maintenance NV-1715-1096

AN/SPA-50B
AN/SPA-50, AN/SPA-50B Radar Indicator Maintenance NV-1715-1096

AN/SPA-62
AN/SPA-62 Countermeasures Receiving Group, Class C NV-1715-0645

AN/SPA-63
AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences NV-1715-0790
Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
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AN/SPA-66
AN/SPA-66 Radar Indicator Maintenance NV-1715-1094

AN/SPG-49B
Talos Radar AN/SPG-49B, Class C NV-1715-0282

AN/SPG-50
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AN/SPG-51B
Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C NV-1715-0421

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Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C NV-1715-0421
Tartar Radar AN/SPG-51C Digital NV-1715-0512
Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1 NV-1715-0512

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AN/SPG-53A Radar Maintenance NV-1715-0283
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AN/SPG-53F
AN/SPG-53F Modified Radar Maintenance NV-1715-1066
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Radar Set AN/SPG-53F With AN/SPG-53A Differences Maintenance C1 NV-1715-0239

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AN/SPG-55B Mod 9 Radar Difference NV-1715-1386
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AN/SPH-2
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296

AN/SPN-10
AN/SPN-10 Operator NV-1715-0482
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C NV-1715-0337

AN/SPN-12 (XN-4)
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C NV-1715-0715

AN/SPN-35
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C NV-1715-0713
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AN/SPN-35A
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AN/SPN-38
Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance NV-1715-0364
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AN/SPN-41
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Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-41, Class C1 NV-1715-0230

AN/SPN-42
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C NV-1715-0286
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Carrier Air Traffic Control Center

Maintenance ACLS AN/SPN-42A
NV-1715-0286

AN/SPN-42A
AN/SPN-42A Maintenance, Class C1
NV-1715-1429

AN/SPN-43
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C
NV-1715-0236

AN/SPN-43A
AN/SPN-43A Maintenance, Class C1
NV-1715-1430

AN/SPN-44
AN/SPN-44 Maintenance, Class C1
NV-1715-1431
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44, Class C1
NV-1715-0234

AN/SPN-6
Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C
NV-1715-0293
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C
NV-1715-0715

AN/SPQ-5A
Terrier Radar AN/SPQ-5A
NV-1715-0291

AN/SPS-T3
AN/SPS-T3 Radar Trainer Class C Maintenance
NV-1715-0199

AN/SPS-10
Clutter Suppressor and Automatic Alarm for the AN/SPS-10
NV-1715-0433

AN/SPS-29
Electronics Technician, Class C, AN/SPS-29 Radar Set
NV-1715-0024

AN/SPS-29C
AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0756

AN/SPS-29E
AN/SPS-29E Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0749

AN/SPS-37
Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group
NV-1715-0298
Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group
NV-1715-0298

AN/SPS-39
AN/SPS-39 Radar Set
NV-1715-0233
AN/SPS-39A Radar Operation and Maintenance (AN/SPS-39 Radar Maintenance)
NV-1715-0233
AN/SPS-39A Radar Set
NV-1715-0233

AN/SPS-39A
AN/SPS-39A Radar Operation and Maintenance (AN/SPS-39 Radar Maintenance)
NV-1715-0233
AN/SPS-39A Radar Set
NV-1715-0233
3D Radar Search AN/SPS-39A
NV-1715-1390

AN/SPS-40
AN/SPS-40 Radar System
NV-1715-0557
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NV-1715-0557

AN/SPS-40A
Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance
NV-1715-0006

AN/SPS-40B
AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0809
AN/SPS-40B/C/D Radar Set Maintenance
NV-1715-0809

AN/SPS-40B/C/D
AN/SPS-40B/C/D DMTI Radar Set Maintenance
NV-1715-1351
AN/SPS-40B/C/D Radar Set Difference Maintenance
NV-1715-0745
AN/SPS-40B/C/D Radar Set Maintenance
NV-1715-0809

AN/SPS-40E
AN/SPS-40E Air Search Radar Set Maintenance
NV-1715-1335

AN/SPS-43A
AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0790

AN/SPS-48
AN/SPS-48 Radar Set
NV-1715-0304

AN/SPS-48(V)
AN/SPS-48(V) Radar Maintenance
NV-1715-1056

AN/SPS-48C
AN/SPS-48C Radar
NV-1715-1133
AN/SPS-48C Radar Difference
NV-1715-1059

AN/SPS-49(V)
AN/SPS-49(V) Radar Set Maintenance
NV-1715-1093

AN/SPS-49(V)5
AN/SPS-49(V)5 ATD Operation and Maintenance
NV-1715-1336

AN/SPS-52
AN/SPS-52 Radar Set
NV-1715-0524

AN/SPS-52C
AN/SPS-52C Radar Set Maintenance
NV-1715-1268

AN/SPS-55
AN/SPS-55 Radar Set Maintenance
NV-1715-1095

AN/SPS-58A
AN/SPS-58A Radar Maintenance
NV-1715-1057

AN/SPS-64(V)9
AN/SPS-64(V)9 Radar Set Maintenance
NV-1715-1333

AN/SPS-65(V)1
AN/SPS-65(V)1 Radar Set Maintenance
NV-1715-1097

AN/SPS-67(V)1
AN/SPS-67(V)1 Radar Set Maintenance
NV-1715-1332

AN/SPS-8
Electronics Technician, Class C, AN/SPS-8 Radar Maintenance
NV-1715-0305

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Talos Radar AN/SPW-2B
NV-1715-0793
Talos Radar AN/SPW-2B, Class C
NV-1715-0278

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Aegis Radar System AN/SPY-1A Operation and Maintenance
NV-1715-1118
NV-1715-1303

AN/SPY-1A/B
Aegis Weapon System Operation and Maintenance (AN/SPY-1A/B)
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AN/SQA-13
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance
NV-1715-0772
Independent Variable Depth Sonar Hoist AN/SQA-13 Maintenance
NV-1715-0772

AN/SQQ-14
AN/SQQ-14 Maintenance Enlisted
NV-1715-0290

AN/SQQ-23
AN/SQQ-23 PAIR Operations Basic
NV-1715-1501
Sonar AN/SQQ-23 (PAIR) Operator Basic
NV-1715-0860

AN/SQQ-23A
Sonar AN/SQQ-23A (PAIR) Organizational Maintenance
NV-1715-0859
Sonar AN/SQQ-23A PAIR Organizational Maintenance
NV-1715-1279

AN/SQQ-28(V)
Sonar AN/SQQ-28(V) Maintenance
NV-1715-1280

AN/SQQ-89(V)1
AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C
NV-1715-1508

AN/SQQ-89(V)1/3
AN/SQQ-89(V)1/3 Sonar Watch Supervisor
NV-1715-1504

AN/SQQ-89(V)2
AN/SQQ-89(V)2 Sonar Watch Supervisor
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NV-1715-1507

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AN/SQR-15 Maintenance Training NV-1715-1405

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AN/SQR-17A(V) Difference Maintenance NV-1715-1409

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Sonar AN/SQR-18A(V)1 Maintenance NV-1715-1284

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Sonar AN/SQS-23 Operator NV-1715-0857
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Sonar AN/SQS-26 Series Sonar Operator Basic NV-1715-0420
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Sonar AN/SQS-26CX Maintenance NV-1715-0405
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Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic NV-1715-0858

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Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic NV-1715-0858
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AN/SRC-20, Operation and Maintenance, Enlisted NV-1715-0089
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AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance NV-1715-1051

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Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C NV-1715-0566

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(Enlisted)
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AN/URC-58
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NV-1715-0095

AN/URC-85
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AN/URC-9
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NV-1715-0088

AN/URN-20
AN/URN-20 Radio Set Maintenance
NV-1715-0193
AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1
NV-1715-0193
Electronics Technician AN/URN-20 Radio Set Class C Maintenance
NV-1715-0193

AN/URN-25
AN/URN-25 Afloat TACAN Maintenance
NV-1715-1137

AN/URT-23
AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1)
NV-1715-0056
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C
NV-1715-0056

AN/URT-23(V)
AN/URT-23(V) Radio Transmitter Maintenance
NV-1715-0531

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NV-1715-1342

AN/USH-17
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AN/USM-449 (V)
AN/USM-449 (V) Intermediate Maintenance
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(AN/USQ-20 Machine Language Programming)
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AN/USQ-20 Basic Programming
NV-1402-0002
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NV-1402-0019

AN/USQ-36
AN/USQ-36 Data Terminal Set Maintenance
NV-1715-1055

AN/USQ-59
AN/USQ-59 Data Terminal Set Maintenance
NV-1715-1047

AN/USQ-64(V)
AN/USQ-64(V) CUDIXIS Maintenance
NV-1715-0872

AN/USQ-74
AN/USQ-74 Link Data Terminal Maintenance
NV-1715-1338
AN/USQ-74 Link System Maintenance
NV-1715-1350

AN/UXH-2B
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance
NV-1715-0012

AN/UYA-4
AN/UYA-4 Display Maintenance Includes Beacon Video Processor
NV-1715-1259
Basic AN/UYA-4 Display Equipment Maintenance
NV-1715-1049

AN/UYA-4(V)
Basic FFG-7 Class AN/UYA-4(V) Equipment Maintenance
NV-1715-1041

AN/UYK-20
AN/UYK-20 Maintenance
NV-1715-1249
Computer Programming AN/UYK-20 Assembler Language - Basic
NV-1402-0096

AN/UYK-20(V)
AN/UYK-20(V) Basic Maintenance
NV-1402-0145

AN/UYK-3
Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer
NV-1402-0049

AN/UYK-5(V)
Automated Supply and Accounting Systems Afloat (AN/UYK-5(V))
NV-1401-0003
AN/UYK-5(V) (3-M System) Operator, Class C
NV-1402-0028
Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance
NV-1715-0087

AN/UYK-62(V)
Shipboard Non-Tactical Automatic Data Processing (ADP) Program II (SNAP II) AN/UYK-62(V) Maintenance
NV-1402-0131

AN/UYK-7
AN/UYK-7 CMS-2 (Y) Compiler Language Programming
NV-1402-0046
AN/UYK-7 Digital Computer Maintenance
NV-1715-1048
NV-1715-1262
AN/UYK-7 DD 963 Computer/Peripheral Technician
NV-1715-1261
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NV-1402-0095
Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic
NV-1402-0046

AN/UYK-7(V)
AN/UYK-7(V) Data Maintenance Class C-7
NV-1402-0106

AN/UYQ-8
AN/UYQ-8 Data Processing Set Intermediate Maintenance
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AN/UYY-20X(V)
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance
NV-1715-1354

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AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System
NV-1715-0249
Electronics Technician Class C, AN/VCC-2 Shipboard System
NV-1715-0016

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AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System
NV-1715-0249
AN/VRC-46 and RT-46 Transceiver System Maintenance
NV-1715-0249
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NV-1715-0095

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NV-1715-1472

AN/WIC-2
Integrated Announcing System AN/WIC-2 Combined Maintenance
NV-1715-0319
System AN/WIC-2(V) Combined Maintenance
NV-1715-0319

AN/WIC-2(V)
System AN/WIC-2(V) Combined Maintenance
NV-1715-0319

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AN/WLQ-4(V) Direct Support Element Basic Operator NV-1715-1463
AN/WLQ-4(V) N-Suite Combined Maintenance NV-1715-1447
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(Electronic Surveillance Measures (ESM) AN/WLR-6 Basic Operator) NV-1715-0500
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Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance NV-1715-0501

AN/WLR-8(V)2
AN/WLR-8(V)2 Basic Operation NV-1715-0989
Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Basic Operator NV-1715-0989
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Special Communications Equipment AN/WRA-3 Maintenance NV-1715-0251

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Electronics Technician Class C, AN/WRT-2 and AN/WRR-2 NV-1715-0011

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Special Communications Equipment AN/WRT-4 Maintenance NV-1715-0250
Transmitter AN/WRT-4 Combined Maintenance NV-1715-0250

AN/WSC-3
AN/WSC-3 Communications Set, OE-82B/WSC-1 Antenna Group and AN/SRA-33 Antenna Coupler Group NV-1715-0876
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876
AN/WSC-3 Stand-Alone Maintenance NV-1715-0876

AN/WSC-5
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

AN/WSC-6(V)
AN/WSC-6(V) Operator NV-1402-0133

AN/WSC-6(V)2
AN/WSC-6(V)2 Maintenance NV-1715-1344

AN/WSN-1(V)2
AN/WSN-1(V)2 Combined Maintenance NV-1715-0994
Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance NV-1715-0994

AN/WSN-2
AN/WSN-2 Stabilized Gyrocompass Maintenance Class C1 NV-1715-1067

AN/WSN-3A(V)2
Inertial Navigation System (ESGN) AN/WSN-3A(V)2 Combined Maintenance NV-1715-1462

AN/WSN-5
AN/WSN-5 Inertial Navigation System Maintenance NV-1715-1119

AN/WYQ-1
AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1 NV-1715-0445
AN/BRQ-1 AN/WYQ-1 Combined Maintenance NV-1715-1445
AN/BRQ-1, AN/WYQ-1 Operator NV-1715-0445
AN/WYQ-1 and AN/BRQ-1 Combined Maintenance Class C-1 NV-1715-0494
Electronic Surveillance Measures (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance NV-1715-0494

APA-56
APA-56 Indicator Assembly NV-1715-0707

AQA-4(V)
•S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance NV-1715-0561

AQQ
Test Bench Intermediate Maintenance AQQ NV-1715-0953

ARC-97
E-1B ARC-97 Radio Repeater System Maintenance NV-1715-0195

ARCO
Airborne Radio Communications Operator (ARCO) NV-1715-0481

ASA-16
P-3 ASA-16 System Maintenance, No. 50 NV-1715-0477

ASA-27
ASA-27 Computer Detector and ASM-76

Test Console Intermediate Maintenance NV-1715-0111
Computer Detector (CP-413/ASA-27) Intermediate Maintenance NV-1715-0111

ASA-48
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109

ASB-7
A-3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363

ASM-144
ASM-144 On Board Memory Tester Digital Volt Ohmmeter Intermediate Maintenance NV-1715-1210

ASM-76
ASA-27 Computer Detector and ASM-76 Test Console Intermediate Maintenance NV-1715-0111
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798
OA-3732/ASM-76 Computer Indicator Intermediate Maintenance NV-1715-0318

ASMD-70
Terrier ASMD-70 55B Radar Update NV-1715-0801

ASPECT
AN/SQS-23, 23A, 23B, 23C Maintenance and ASPECT NV-1715-0277

ASQ
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

ASR
Model 28 ASR Teletype Maintenance NV-1715-0662

ASROC
ASROC Launching Group Mk 16 Maintenance, Class C1 (ASROC Launching Group Mk 16) NV-1715-0770
ASROC Missile Assembly and Maintenance NV-1715-0630
ASROC Missile Intermediate Maintenance NV-1715-1101
ASROC Weapons Handling System Maintenance NV-1704-0259
Gunner's Mate Class C ASROC Launching Group NV-1715-0626

ASTOR
ASTOR/SUBROC Operator Maintenance NV-2202-0084

ASW
Antisubmarine Warfare (ASW) Centers Command and Control System Operator NV-2202-0122
Antisubmarine Warfare (ASW) Evaluator Common Core NV-1715-1509
Antisubmarine Warfare (ASW) Module Acoustic Systems NV-1715-1174
Antisubmarine Warfare (ASW) Module Data Processing Technician NV-1402-0090
Antisubmarine Warfare (ASW) Module Data Systems Technician NV-1402-0091
Antisubmarine Warfare (ASW) Module Operator NV-1715-1234
Antisubmarine Warfare (ASW) Module Watch Officer NV-2202-0128
Antisubmarine Warfare (ASW) Officer NV-1715-1510
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Acoustic System NV-1402-0092
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Data Systems NV-1402-0093
Antisubmarine Warfare (ASW) Operations Center (ASWOC) System Operator NV-1715-1233
Antisubmarine Warfare (ASW) Operations Center Data Processing Technician NV-1715-1238
Antisubmarine Warfare (ASW) Support Communications Maintenance Technician NV-1715-1175
Antisubmarine Warfare (ASW) Support Communications Operator NV-1715-1176
Antisubmarine Warfare (ASW) Tactics—First Tour VP Pilot NV-2202-0043
Antisubmarine Warfare (ASW) Tactics—VS Pilot/Naval Flight Officer NV-2202-0042
AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C NV-1715-1508
AN/SQQ-89(V)2 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C NV-1715-1507
Helicopter (HS) Antisubmarine Warfare (ASW) Operator NV-2202-0080
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13) NV-2202-0080
Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft) NV-1606-0020
VP CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments NV-2202-0044
VP CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0040
VP CRAG Tactical Coordinator Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0041
VS CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments NV-2202-0039
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft NV-2202-0042
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft NV-2202-0043

AT/AQ
A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance NV-1715-0279
A-3 Related Avionics System (AT/AQ) Organizational Maintenance NV-1715-0279

ATDS
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B ATDS Operator (Naval Flight Officer) NV-1704-0225

AUTODIN
AUTODIN/DSTE/DSSCS/Mode V Maintenance, Class C1 NV-1715-0284

AVQ-2
P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659

AVROC
Aviation Reserve Officer Candidate (AVROC) NV-2202-0088

AWTT
Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance NV-1715-0785

AXR/CX
Sonar AN/SQS-26 AXR/CX Maintenance NV-1715-1275

A6441FN-248
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance NV-1704-0029
T56-A-8/8A Engine and A6441FN-248 Propeller NV-1704-0029

B/UYK
Computer CP-890A, B/UYK Input/Output Controller Maintenance NV-1402-0079
Computer CP-890A, B/UYK Processor Maintenance I NV-1402-0025
Computer DP-890A and B/UYK Processor Maintenance II NV-1402-0080
Digital-to-Digital Converter CV-2342 B/UYK Maintenance NV-1402-0138

Bachelor
Bachelor Quarters Management NV-0401-0001

Bailey
- Bailey Automatic Boiler Control Console Operator NV-1710-0085
- Bailey Automatic Boiler Control Maintenance NV-1710-0074
- Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074

Ballast
- Steering/Diving Ship's Control Station and Variable Ballast and Trim Electrical Maintenance NV-1715-1312

Ballistic
- Fleet Ballistic Missile (FBM) Navigation Officer NV-1715-0456
- Fleet Ballistic Missile Navigation Maintenance NAVAIDS NV-1715-1383
- Fleet Ballistic Missile Tender Navigation Maintenance Computer NV-1715-1402
- OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

Ballistics
- A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 AN/ASQ-61A Ballistics Computer Theory NV-1715-0067
- A-6 Ballistics Computer Test Console Intermediate Maintenance NV-1715-0342
- AN/ASQ-155 and AN/ASQ-133 Ballistics Computer Set NV-1715-0950

Band
- Band Group Leader (Army) NV-1205-0003
- Band Instrumentalist (Army) NV-1205-0001
- Bandsman Basic (Army) NV-1205-0001

Bandleader
- Assistant Bandleader NV-1205-0002

Bandsman
- Bandsman Basic (Army) NV-1205-0001

Barber
- Ship Serviceman Class C Shipboard Barber NV-1726-0001

Basal
- Electrocardiography and Basal Metabolism Technic NV-0709-0010
- Electrocardiography and Basal Metabolism Technician, Class C NV-0709-0010

Baseline
- Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User NV-1402-0117
- Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management NV-1402-0119

Basic
- Basic Military Training NV-2202-0014
- Basic Phase, Pilot Training NV-1606-0049

Battalion
- Battalion Staff Officers (Amphibious Planning) NV-2202-0025

Beacon
- AN/APN-154(V) Radar Beacon Intermediate Maintenance NV-1715-0584
- AN/UYA-4 Display Maintenance Includes Beacon Video Processor NV-1715-1259

Biological
- Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors NV-0802-0001
- Atomic, Biological and Chemical (ABC) Warfare Defense Afloat NV-0802-0008
- Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001
- Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
- Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore) NV-0801-0005

Blasting
- Equipment Operators/Blasting and Quarry Operations, Class C NV-1710-0064
- EO "C" Blasting and Quarry Operations NV-1710-0064

Blood
- Blood Bank and Clinical Laboratory Technic NV-0702-0003

Blower
- Forced Draft Blower Maintenance NV-1710-0087 NV-1710-0110

Boat
- Assault Boat Coxswain NV-1708-0006
- Assault Boat Engineer NV-1712-0009 NV-1712-0016
- Boat Group Officers NV-2202-0066
- Depot Level Boat Repairman (Engineman) NV-1712-0013
- Swift Boat Crew Training NV-1722-0009

Boatswain's
- Aviation Boatswain's Mate Aircraft Handling, Class A1 NV-1728-0020
- Aviation Boatswain's Mate E Launching and Recovery Equipment, Class A1 Common Core NV-1704-0310
- Aviation Boatswain's Mate Equipment, Class A1 Common Core NV-1704-0310
- Aviation Boatswain's Mate Equipment, Class A1, C13 Track NV-1704-0302
- Aviation Boatswain's Mate Equipment, Class A1, C7/C11 Track NV-1704-0311
- Aviation Boatswain's Mate Equipment, Class C1, C113 Mod 1 Track NV-1704-0307
- Aviation Boatswain's Mate F (Fuels), Class A NV-1728-0005
- Aviation Boatswain's Mate Fuels, Class A1 NV-1704-0306
- Aviation Boatswain's Mate G (Gasoline) Class A NV-1722-0001
- Aviation Boatswain's Mate H (Aircraft Handling), Class A NV-1728-0014
- Aviation Boatswain's Mate H (Handling), Class A NV-1728-0014
- Aviation Boatswain's Mate Handling, Class A1 NV-1728-0020
- Aviation Boatswain's Mate Handling, Class A1 (Sea Track) NV-1728-0019
- Aviation Boatswain's Mate Handling, Class A1 (Shore Track) NV-1728-0018
- Aviation Boatswain's Mate Handling, Class C1, Sea Track NV-1704-0301
- Aviation Boatswain's Mate U (Utility), Class A NV-1728-0013
- Basic Boatswain's Mate (General) NV-1722-0005
- Boatswain's Mate Training NV-1722-0002

Boiler
- Bailey Automatic Boiler Control Console Operator NV-1710-0085
- Boiler Repair Technician NV-1710-0022
- Boiler Technician (1200 PSI), Class A1 NV-1710-0084
- Boiler Technician Advanced Maintenance NV-1710-0088
- Boiler Technician Six Year Obligator (BT 6YO) Advanced Operator Course NV-1710-0104
- Boiler Technician Six Year Obligator (BT6YO) Advanced Operator NV-1710-0080
- Boiler Technician Steam Propulsion Maintenance Supervisor NV-1710-0109
- Boiler Technician 6 Year Option (6YO) Advanced Maintenance) Phase 3 Class C1 NV-1710-0081
- Boiler Technician 6 Year Option (6YO) Operator Advanced Class A1 NV-1710-0080
- Boiler Technician/Maintenance Management Six Year Option NV-1710-0081 NV-1710-0094

Boiler Technician, Class A1 (600 PSI)
NV-1710-0001
Boiler Water/Feed Water Test and Treatment Instructor Certification
NV-1601-0022
Boilermen, Class A
NV-1710-0001
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025
General Regulator Automatic Boiler Control Console Operator
NV-1710-0079
Hagan Automatic Boiler Control Console (ACC) Operator
NV-1710-0078
Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer
NV-1717-0022
Pressure Fired Boiler Operator, Class C
NV-1710-0003
Utilitiesman, Shore Based Boiler Controls, Class C
NV-1710-0027
1200 PSI Boiler Technician (BT) Orientation/Operation
NV-1710-0021
600 PSI Boiler Technician (BT) Maintenance
NV-1710-0031

Boilerman
Boilerman Enlisted Maintenance
NV-1710-0002
Boilerman, Class B
NV-1710-0033
1200 PSI BT Maintenance (Boilerman)
NV-1710-0032

Boilermen
Boilermen, Class A
NV-1710-0001

Bomb
Aviation Fire Control Technician B (Bomb Director), Class A
NV-1715-0141
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549
RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance
NV-1715-0579
RA-5C Semi-Automatic Test Equipment Bomb Director
NV-1715-0547

Bombardier
Bombardier Navigator
NV-1606-0036

Bombing
A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance
NV-1715-0263
A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator
NV-1715-0615
A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational)
NV-1704-0098

Bowsprit
Universal Cryptologic Processor Training Classic Bowsprit Sail Maintenance
NV-1402-0107

Brazing
Fuel Gas Welding, Brazing, and Cutting
NV-1710-0116

Broadcast
Broadcast Control Authority (BCA) Operational Control Center Operator
NV-1715-1138
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1)
NV-1715-0874
Integrated Submarine Automated Broadcast Processing System
NV-1402-0132
Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator
NV-0505-0001

Bromide
(Lithium Bromide Air Conditioning)
NV-1701-0002
Lithium Bromide Air Conditioning Plant Operator
NV-1701-0002
Lithium Bromide Maintenance F-1
NV-1730-0010
Lithium Bromide Plant Maintenance
NV-1701-0007

Builder
Builder—Tool and Equipment Maintenance (BU "C")
NV-1002-0001
Builder/Concrete, Class C
NV-1710-0040
Builder/Heavy Construction Technician, Class C
NV-1710-0034
Builder/Masonry, Class C
NV-1710-0038
Builder/Millworker, Class C
NV-1736-0001
Builder, Class B
NV-1710-0042
Builder, Class J (BU "J")
NV-1710-0042

Builders
Builders, Class A (BU "A")
NV-1710-0063

Bullpup
AN/ARW-77 Bullpup Guidance Control System
NV-1715-0627

Bullseye
Bullseye Narrowband Maintenance Technician
NV-1715-0819
Bullseye Net Control Computer Maintenance
NV-1715-0958
Bullseye System Basic Maintenance
NV-1715-0818
Bullseye Wideband Maintenance Technician, Class C3
NV-1715-0830
Cryptologic Technician M, Basic Bullseye Maintenance
NV-1715-0818
Cryptologic Technician M, Bullseye Narrowband Maintenance
NV-1715-0819
Cryptologic Technician M, Bullseye Wideband DF Maintenance
NV-1715-0818
Cryptologic Technician M, Bullseye Wideband Maintenance
NV-1715-0830

Buoy
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
NV-1715-0900
SECT Buoy AN/BST-1 Basic Maintenance, Class F1
NV-1715-0900

Burner
Carbon Dioxide Scrubber and Carbon Monoxide/Hydrogen Burner Combined Maintenance
NV-1732-0013

BCA
Broadcast Control Authority (BCA) Operational Control Center Operator
NV-1715-1138

BIT
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance
NV-1715-0706

BITCS
Reserve Basic Intelligence Training Subjects (BITCS)
NV-1606-0056

BITMAN
AN/GYK-22 (BITMAN) Maintenance
NV-1402-0063

BRN-6
Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1
NV-1715-0492

BU
Builder—Tool and Equipment Maintenance (BU "C")
NV-1002-0001
Builder, Class J (BU "J")
NV-1710-0042
Builders, Class A (BU "A")
NV-1710-0063
BU "C" Concrete
NV-1710-0040
BU "C" Heavy Construction
NV-1710-0034
BU "C" Masonry
NV-1710-0038
BU "C" Millworker
NV-1736-0001

C-121
C-121 Electrical Systems
NV-1704-0178
C-121 Electronic Systems
NV-1704-0179
Pilots C-121 Simulator and Advanced Flight
NV-1606-0034
Pilots C-121 Simulator and Basic Flight
NV-1606-0035

C-13
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C
NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C)
NV-1704-0187
Aircraft Launch and Recovery

Equipment Maintenance Officer (C-13 Catapult), Class O
NV-1704-0200
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C
NV-1710-0006
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
NV-1710-0006

C-130
C-130 Aircraft Mechanic Organizational Maintenance
NV-1704-0237

C-2A
C-2A Aircraft Familiarization (Pilots)
NV-1704-0121
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance
NV-1715-0461
C-2A Avionics Systems Organizational Maintenance
NV-1715-1217
C-2A AN/ARN-81 Loran Intermediate Maintenance
NV-1715-0247
C-2A Electrical and Instruments Organizational Maintenance
NV-1715-0150
C-2A Environmental Systems Organizational Maintenance
NV-1730-0005
C-2A Hydraulics/Airframes System Maintenance
NV-1704-0143
C-2A Hydraulics/Airframes System Organizational Maintenance
NV-1704-0143
C-2A Power Plant and Related Systems Organizational Maintenance
NV-1704-0127
E-2B and C-2A Environmental Systems Organizational Maintenance
NV-1701-0003
E-2B/C-2A Aviation Electrician Organizational Maintenance
NV-1704-0224

C-7/11
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C
NV-1710-0071
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O
NV-1704-0183
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C
NV-1710-0005

C-8185
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance
NV-1704-0203

C-8610/AWE
C-8610/AWE Armament Control Panel Intermediate Maintenance Course
NV-1715-1413

Cabinet
Passive Equipment Cabinet (PEC) Operation and Maintenance
NV-1715-1502

Cable
Cable Tester Alfred Model 9500 Intermediate Maintenance
NV-1715-0397
Construction Electrician Cable Splicer (Class C)
NV-1714-0015
Construction Electrician—Power and Communications Cable Splicing
NV-1714-0015
CE "C" Cable Splicing
NV-1714-0015

Calculator
Calculator Repair Class C
NV-1706-0001
Instrumentman (Calculator Repair), Class C
NV-1706-0001

Caliber
16"/50 Caliber Gun System
NV-1715-1293
5"38 Caliber Gun System
NV-1715-1292
76mm/62 Caliber Mk 75 Mods 0/1 Gun Operation and Maintenance
NV-1715-1179

Calibration
Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration
NV-1715-1374
Electrostatically Supported Gyro Monitor (ESGM) Calibration
NV-1715-1375
NV-1715-1458
Intermediate Level Calibration of Physical/Dimensional Test and Measuring Systems Phases B/D
NV-1715-1495
Intermediate Level Test Equipment Calibration
NV-1715-1496
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician)
NV-1715-0171
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Calibration
NV-1715-0202

Camera
Camera Repair, Class C
NV-1715-0354
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance
NV-1715-0358
RA-5C Panoramic Camera Shop Maintenance
NV-1715-0143
RA-5C Still Picture Camera Shop Maintenance
NV-1715-0439
RF-4B Camera Control System Intermediate Maintenance
NV-1715-0752
RF-4B Camera Control System Organizational Maintenance
NV-1715-0750

Cameraman
Motion Picture Cameraman
NV-1709-0009
Photographer's Mate A (Aerial Cameraman)
NV-1709-0001
Photographer's Mate G (Cameraman)
NV-1709-0001

Canvasser
Recruiter Canvasser
NV-1406-0016

Carbon
Carbon Dioxide Scrubber and Carbon Monoxide/Hydrogen Burner Combined Maintenance
NV-1732-0013

Card
A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance
NV-1715-0336
RD-293/UYK-5 Card Reader Punch Maintenance
NV-1715-0031

Cardiopulmonary
Cardiopulmonary Technic
NV-0709-0006
Cardiopulmonary Technician Class C
NV-0709-0018
Cardiopulmonary Technician, Class C
NV-0709-0006

Career
Command Career Counselor
NV-1406-0020
Instructor, Class C (Career Information and Counseling)
NV-1406-0004
Personnelman, Class C (Career Information and Counseling)
NV-1406-0004

Cargo
Amphibious Transport/Cargo Ship Embarkation
NV-0419-0005
Cargo Weapons Elevator Maintenance
NV-1704-0258
NV-1704-0323

Carrier
A-6E Automatic Carrier Loading System Organizational Maintenance
NV-1715-0957
Air Controlman-Carrier Air Traffic Control Center Utilization-Operator
NV-1704-0220
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C
NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C
NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42A, Class C1
NV-1715-0286
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1
NV-1715-1434
Carrier Air Traffic Control Center Controller Class C/O
NV-1704-0012
Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C
NV-1715-0293
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C
NV-1715-0337

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-41, Class C1 NV-1715-0230
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44, Class C1 NV-1715-0234
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C NV-1715-0715
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C NV-1715-0236
Carrier Air Traffic Control Center Maintenance ACLS AN/SPN-42A NV-1715-0286
Carrier Air Traffic Control Center Operations Class C1 NV-1704-0245
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive) NV-2202-0096
Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics NV-2202-0001
Carrier Gasoline and Inert Gas Systems, Class C NV-1405-0018
15G21 Carrier Air Traffic Control Simulator Maintenance Class C1 NV-1715-1187

Cascadex
Cascadex 100 Pound Washer/Extractor Maintenance, Class C NV-1702-0001

Catapult
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C) NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Catapult and Arresting Gear, Class C NV-1710-0009
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C NV-1710-0006
Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear) NV-1710-0029
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk 7 Arresting Gear), Class C NV-1710-0005
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C NV-1710-0005
CV Catapult Electrician NV-1714-0042
CVA Catapult Electrician, Class C NV-1710-0010
CVA Catapult Steam and Drain System, Class C NV-1710-0008
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C. NV-1710-0007

Celestial
Navigation Officer (Shipboard) and Celestial Class C2 NV-2202-0107

Central
Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1 NV-1715-0496
Central Computer Complex Combined Maintenance and Software NV-1402-0047
Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion NV-1715-1131
FFG-7 Central Control Station Maintenance Class C1 NV-1715-1074
FFG-7 Central Control Station Operation, Class C1 NV-1703-0012
SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047

Centrifugal
Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
Centrifugal Air Conditioning Plant Operation and Maintenance, Class C1 NV-1701-0006
Centrifugal Air Conditioning System Operation and Maintenance NV-1701-0013
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance NV-1701-0004
110 Ton R11 Centrifugal Air Conditioning Unit (York) NV-1701-0004

Chaplain
Chaplain School Advanced NV-1408-0020
Chaplain School Basic NV-1513-0004

Check-Out
Antenna Group AN/BRA-16 Functional Check-Out and Maintenance NV-1715-0161
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance NV-1715-0318
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance NV-1715-0348

Checkout
Semi-Automatic Checkout Equipment (SACE) with INS/AFCS/ ADC/UE Test Benches Intermediate Maintenance NV-1715-1205
TS-2109/ASA-48 Semi-Automatic Checkout Equipment (SACE) Programmer Intermediate Maintenance NV-1715-1206
TS-2109/OA-3739/OA-ASA 48 Semi-Automatic Checkout Equipment (SACE) Operator Intermediate Maintenance NV-1715-1209

Chemical
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors NV-0802-0001
Atomic, Biological and Chemical (ABC) Warfare Defense Afloat NV-0802-0008
Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore) NV-0801-0005

Chemistry
Clinical Chemistry Technic NV-0702-0006
Clinical Chemistry Technician, Class C NV-0702-0006
Operational Water Chemistry and Radiological Controls NV-0801-0009

Cinema
Cinema Television/Production Specialist NV-1709-0027
Cinema/Television (TV) Production Specialist C1 NV-1709-0009

Circuit
AN/SXQ-8(V)2 Secure Closed Circuit Television System Maintenance NV-1709-0021
Basic Circuit Concepts NV-1715-1294
Circuit Breakers and Controllers NV-1715-0898
Closed Circuit Television Maintenance, Class C1 NV-1715-0407
Controllers and Circuit Breakers Combined Maintenance NV-1715-0898

Controllers Circuit Breakers, Class F1
NV-1715-0898
CV Air Operations Closed Circuit Television (ILARTS) Maintenance
NV-1715-1229
DD-963 Basic Circuit Concepts for Gas Turbine Controls, Class C1
NV-1402-0020
Electronics Technician, Class A—A-2 (Electronic Circuit Applications)
NV-1715-0723
Integrated Circuit Components (Microelectronics) Intermediate Maintenance
NV-1715-1022
Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance
NV-1715-1230
Solid State Circuit Troubleshooting Techniques
NV-1715-0149

Circuitry
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance
NV-1715-0371

Circuits
Advanced Undersea Weapons Circuits
NV-1715-0717
Basic Undersea Weapons Circuits
NV-1715-0716
Electronic Special Circuits
NV-1715-1401
KC-130F Electrical Systems and Circuits Maintenance
NV-1704-0071

Civil
Civil Engineer Corps Officer Basic—Contract Administration Specialty
NV-1408-0013
Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty
NV-1408-0015
Civil Engineer Corps Officer Basic—Public Works Management Specialty
NV-1408-0014

Classic
Universal Cryptologic Processor Training Classic Bowsprit Sail Maintenance
NV-1402-0107

Classification
Interviewing and Classification
NV-1406-0018
Personnelman, Class C-1, Interviewing and Classification
NV-1406-0018
Self-Noise Determination and Classification
NV-1601-0012

Clerical
Marine Aviation Operations Clerical, Class C
NV-1409-0008
Neuropsychiatric Clerical Technic
NV-1403-0001

Clerk
Disbursing Clerk (Pay Records Maintenance) Class C
NV-1401-0001
Disbursing Clerk Financial Returns
NV-1408-0001
Disbursing Clerk Financial Returns Class C
NV-1408-0001
Disbursing Clerk Travel Payments
NV-1408-0002
Disbursing Clerk, Class C (Financial Returns)
NV-1408-0001
Disbursing Clerk, Class C (Travel Payments)
NV-1408-0002
Legal Clerk and Court Reporting
NV-1407-0002
Postal Clerk, Class A
NV-1404-0001

Clinical
Blood Bank and Clinical Laboratory Technic
NV-0702-0003
Clinical Chemistry Technic
NV-0702-0006
Clinical Chemistry Technician, Class C
NV-0702-0006
Clinical Laboratory Assistant Technic
NV-0702-0008
Clinical Laboratory Technician, Class C
NV-0702-0003
Clinical Nuclear Medicine Technician
NV-0705-0002
Clinical Nuclear Medicine Technique
NV-0705-0002

Clock
Watch and Clock Repair, Class C
NV-1721-0005

Close
Close-In Weapons System 15-1, Class C1
NV-1715-1068

Close-In
Close-In Weapon System Mk 15 Block 0/1 Difference
NV-1715-1387
Close-In Weapon System Mk 15 Mod 11/14 Operation and Maintenance
NV-1715-1388

Closed
AN/SXQ-8(V)2 Secure Closed Circuit Television System Maintenance
NV-1709-0021
Closed and Semiclosed Scuba
NV-1606-0012
Closed Circuit Television Maintenance, Class C1
NV-1715-0407
Closed Circuit TV Maintenance, Class C1
NV-1715-0189
Commissioned Officers' Mess Closed Mess Management
NV-1729-0008
CV Air Operations Closed Circuit Television (ILARTS) Maintenance
NV-1715-1229
Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance
NV-1715-1230

Clubs
Management of Marine Corps Clubs
NV-0902-0001

Clutter
Clutter Suppressor and Automatic Alarm for the AN/SPS-10
NV-1715-0433

Coastal
Coastal Patrol Craft Training
NV-1722-0003

Cold
F/RF-4B J79-GE-8/8A Cold Section Repair
NV-1704-0201

Collection
Cryptologic Technician Collection Branch
NV-1715-0836

Combat
Aegis Combat System Maintenance Supervisor
NV-1715-1117
AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C
NV-1715-1508
AN/SQQ-89(V)2 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C
NV-1715-1507
Combat Control Subsystems Mk 1 Mod 0 Pipeline Maintenance
NV-1402-0144
Combat Information Center (CIC) Officer
NV-2202-0125
Combat Information Center (CIC) Officer, Class O
NV-2202-0069
Combat Information Center (CIC) Procedures Advanced
NV-2202-0130
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Combat Sensor Warfare Training
NV-2202-0071
Combat Systems Maintenance Management for the CGN-38
NV-1715-1043
CGN-38/DDG-993 (SM-2) Combat Systems Operator
NV-2202-0119
Digital Combat Systems Common Core
NV-1402-0148
DD-963 Combat System Maintenance Management
NV-1715-1046
DLG 6-16 Combat System
NV-1715-0764
FC-1114 Combat System Computer System Maintenance Technician
NV-1402-0121
FFG-7 Class Combat System Officer
NV-1715-1232
Guided Missile Frigate (FFG-7) Combat Systems Maintenance
NV-1715-1036
Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training
NV-1715-0509
Marine Enlisted Basic Combat Intelligence
NV-1606-0005

Command
Amphibious Command Indoctrination
NV-2202-0005
Antisubmarine Warfare (ASW) Centers Command and Control System Operator
NV-2202-0122
College of Naval Command and Staff
NV-1511-0003
Command and Control System (CCS)

Advanced Level III NV-1402-0134
Command and Staff NV-1511-0003
Command Career Counselor NV-1406-0020
Command Intelligence Officer (CIO) NV-1606-0024
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Command Replacement/Navigation NV-1715-1397
Encapsulated Harpoon Command and Launch Subsystem Combined Maintenance NV-1715-1011
Harpoon Ship Command Launch Control Set Maintenance NV-1715-1063
Maritime Operations for College of Naval Command and Staff NV-2202-0133
National Security Decision Making for College of Naval Command and Staff NV-1511-0015
National Security Decision Making for College of Naval Warfare and Naval Command College NV-1511-0014
Officer in Tactical Command Information Exchange System NV-1715-1343
School of Naval Command and Staff NV-1511-0003
Strategic Weapons System (SWS) Command Polaris NV-1715-0573
Strategy and Policy (College of Naval Command and Staff) NV-1511-0013
Strategy and Policy (College of Naval Warfare/Naval Command College) NV-1511-0012
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
Trident (ECS) Electronics Command and Control System Technician Conversion NV-1715-1362
Trident Command and Control (CCS) Operation and Maintenance Conversion Level I NV-1402-0084
Trident Command and Control System (CCS) Advanced Level III NV-1402-0078
Trident Command and Control System (CCS) Electronics Technician Conversion NV-1715-1364
Trident Command and Control System (CCS) Electronics Technician Conversion, Class C NV-1715-1165
Trident Command and Control System (CCS) Operation and Maintenance Level II NV-1402-0085
Trident Command and Control System Level One NV-1402-0135
Trident Command and Control System Level 2 NV-1402-0136
Trident Defensive Weapons Subsystem/Command Subsystem (DWS/CS) Level I NV-1402-0123
Trident Defensive Weapons Subsystem/Command Subsystem Level I NV-1402-0086
Trident Defensive Weapons Subsystem/Command Subsystem Level II NV-1402-0087
Trident Defensive Weapons Subsystem/Command Subsystem Level III NV-1402-0088
Trident 1 Backfit Strategic Weapon Systems Command Replacement NV-1715-1398

Commissary
Commissary Store Management NV-1408-0010
Navy Exchange/Commissary Store Middle Management, Class C NV-1408-0027

Commissaryman
Commissaryman Class A NV-1729-0004
Commissaryman-Steward Management Principles, Class C NV-1729-0002
Commissaryman-Steward, Class A NV-1729-0004
Commissaryman-Steward, Class C NV-1729-0003

Common
Common User Digital Information Exchange System (CUDIXS) Maintenance NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators NV-1715-0879

Communication
A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452
A-4F/L/TA-4F Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance NV-1715-0937
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940
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AN/ARC-51, 51A, 51AX, 51B, RT-793/ASQ and RT-1010/ASQ-140 Communication Systems Intermediate Maintenance (AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance) NV-1715-0710
AN/ARC-54 VHF Communication Set Intermediate Maintenance NV-1715-0098
AN/USM-467 Radar Communication Test Station Operator Intermediate Maintenance NV-1715-1417
Communication Officer Afloat NV-1404-0003
Communication Officer Fleet NV-1404-0003
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101
E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate NV-1715-0382
F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4B Communication, Navigation, Identification (CNI) Organizational Maintenance NV-1715-0255
F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication, Navigation, Identification (CNI) Organizational Maintenance NV-1715-0612
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
Integrated Voice Communication System AN/STC-1 Maintenance NV-1715-1091
OM-55/USC Super High Frequency Satellite Communication Modular Demodulator Group Maintenance NV-1715-1346
P-3 AN/ARC-51A Communication Systems Maintenance, No. 22 NV-1715-0710
P-3 Communication/Navigation Organizational Maintenance NV-1715-0739
P-3C Communication/Navigation Organizational Maintenance NV-1715-0533
RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357
Submarine Communication Application and Theory Module 1 NV-1715-0927
Submarine Communication Application

and Theory Module 2 NV-1715-0928
Submarine Communication Application and Theory Module 3, Class A-1 NV-1715-0929
Submarine Communication Application and Theory Module 4 NV-1715-0930
Submarine Communication Application and Theory Module 5 NV-1715-0931
Submarine Communication Application and Theory Module 6 NV-1715-0932
Trident Exterior Communication System Level I NV-1715-1167
Trident Exterior Communication System Level II NV-1715-1154
Trident Exterior Communication System Level III NV-1715-1168
Trident Exterior Communication System, Level I NV-1715-1361
Trident Exterior Communications Subsystem Advanced Maintenance Level III NV-1715-1360
Trident Exterior Communications System (ECS) Level II HF/VHF NV-1715-1359
TACAMO Communication and Avionics System Operation NV-1715-1182
UH-1N Communication/Navigation Systems Organizational Maintenance NV-1704-0274

Communications
Airborne Radio Communications Operator (ARCO) NV-1715-0481
An/USM-467 Radar Communications Test Station Maintainer Intermediate Maintenance NV-1715-1418
Antisubmarine Warfare (ASW) Support Communications Maintenance Technician NV-1715-1175
Antisubmarine Warfare (ASW) Support Communications Operator NV-1715-1176
AN/ARC-101 VHF Communications System Intermediate Maintenance NV-1715-1015
AN/ARC-142 HF Communications System Intermediate Maintenance NV-1715-0058
AN/ARC-143 Communications System Intermediate Maintenance NV-1715-0059
AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance NV-1715-1469
AN/SYQ-7(V)3 Naval Modular Automated Communications Systems NAVMACS V3 Maintenance NV-1715-0875
AN/SYQ-7(V)3 Naval Modulated Automated Communications System Operator NV-0505-0002
AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator NV-1402-0102
AN/WSC-3 Communications Set, OE-82B/WSC-1 Antenna Group and AN/SRA-33 Antenna Coupler Group NV-1715-0876
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
Basic Airborne Radio Communications Operator NV-1715-0481
Basic Counterintelligence Communications (CIC) Techniques for Enlisted Personnel NV-2202-0038
Combined Integrated Submarine Communications Antenna Subsystem Maintenance NV-1715-1451
Communications Maintenance Class C NV-1715-1329
Communications Officer (Short Course) NV-1404-0005
Communications Officer Ashore NV-1715-0113
Communications Quality Monitoring System Operator NV-1715-0690
Communications Receiver Site Systems Maintenance, Class C1 NV-1715-0356
Communications Systems Technician, Class C NV-1715-0105
Communications Technical Controller NV-1715-1242
Communications Technician (M) Class A NV-1715-0651
Communications Technician (M), Class A NV-1715-0544
Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800
Communications Technician Administration Branch Class A NV-1715-0400
Communications Technician T and R Basic Preparatory, Class A NV-1404-0004
Communications Transmitter Site Systems Maintenance, Class C1 NV-1715-0387
Communications Yeoman, Class A NV-1409-0007
Cryptologic Technician Communications Rating, Class A NV-1715-0850
Cryptologic Technician Communications-Communications Systems Operations, Control and Management NV-1402-0065
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
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DD-963 Spruance Class Destroyer Radio Communications Systems Maintenance NV-1715-0870
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance NV-1715-0527
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347
E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance NV-1715-0379
Electronics Technician A, Communications NV-1715-0851
Electronics Technician Communications Basic, Class A1 NV-1715-0851
Electronics Technician Communications Equipment Fundamentals, Class A1 NV-1715-0852
Electronics Technician Communications—Nuclear Field, Class A1 NV-1715-0853
Electronics Technician, Class A (Communications) NV-1715-0730
Electronics Technician, Class A (Communications, Radar and Sonar Specialties) NV-1715-0727
Electronics Technician, Class A—A-3 (Communications) NV-1715-0724
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639
Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications) NV-1715-0639
EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217
First Tour Pilot P-3C Communications Operator NV-1704-0213
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874
Fleet Satellite Communications Spectrum Monitor System Equipment NV-1715-1099
FFG-7 Class Ship Interior Communications (IC) Subsystems Technician NV-1715-1075
High Frequency Direction Finding (HFDF) Communications Technical

Control NV-1715-0800

High Frequency Surface Communications System Operator NV-1715-1348

Interior Communications (IC) Electrician Class A NV-1714-0026

Interior Communications (IC) Electrician, Class B NV-1715-0755

Interior Communications (IC) Electrician, Class C7 NV-1715-0755

Interior Communications (IC) Electricians, Class A (A-1) NV-1715-0729

Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886

Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173

Interior Communications Electrician Advanced Maintenance Training NV-1715-1296

Marine Air Traffic Control Communications Repairman, Class C NV-1715-0799

Marine Air Traffic Control Communications Technician Class C1 NV-1715-0963

Marine Air Traffic Control Communications Technician, Class C1 NV-1715-1441

Multi-User Special Intelligence Communications Maintenance NV-1402-0113

Naval Amphibious Communications NV-1404-0006

Naval Flight Officer P-3C Communications Operator NV-1704-0219

Naval Modular Automated Communications System (NAVMACS) A Maintenance NV-1715-0875

P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346

P-3 AN/ARC-94 Communications System Maintenance, No. 19 NV-1715-0374

P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance NV-1715-0096

Radio Communications System Maintenance for DD-963 Class Ships, Class C-1 NV-1715-0870

Reserve Cryptologic Technician Communications Technical Control, Class F1 NV-1715-0848

Reserve Naval Security Group-7 Communications Technical Control NV-1715-0848

Sonar Communications Set AN/WQC-2/2A Operation and Maintenance NV-1715-0166

Sonar Communications Set AN/WQC-2/2A Operation and Maintenance (Surface) NV-1715-0166

Sonar Communications Set AN/WQC-5 Basic Maintenance NV-1715-0051

Special Communications Equipment AN/WRA-3 Maintenance NV-1715-0251

Special Communications Equipment AN/WRT-4 Maintenance NV-1715-0250

Special Communications Equipment Combined Maintenance NV-1715-0982 NV-1715-1475

Submarine Communications Equipment NV-1715-0885

Submarine Communications Equipment Combined Maintenance NV-1715-0885 NV-1715-1474

Submarine Digital Communications Equipment Combined Maintenance NV-1715-0981

Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900

Submarine Interior Communications (IC) Systems NV-1715-0642

Submarine Tactical Communications Equipment Combined Maintenance NV-1715-1477

SH-3 Communications/Navigation Systems Organizational Maintenance NV-1715-1195

Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

Trident Exterior Communications System (ECS) Antennas/Antenna Interface System NV-1715-1358

Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance NV-1715-1354

Trident Exterior Communications System (ECS) Data Switching Subsystem Basic Maintenance NV-1715-1356

Trident Exterior Communications System (ECS) Level II Basic Maintenance NV-1715-1353

Trident Exterior Communications System (ECS) Level II VLF/LF Subsystem NV-1715-1355

Trident Exterior Communications System (ECS) Support Subsystem Basic Maintenance NV-1715-1357

TACAMO Communications System Maintenance NV-1715-1183

TACAMO UHF/HF Communications System Intermediate Maintenance NV-1715-1184

TACAMO VLF Communications and Verdin System Intermediate Maintenance NV-1715-1185

Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator NV-0505-0001

WDS Mk 14 Communications Tracking Set SYR-1 Maintenance Tartar NV-1715-1266

Communicator

Airborne Communicator NV-1409-0004

Comparator

OQ-35A/ASM-347 (V) Programmer Comparator Intermediate Maintenance NV-1715-1412

Compiler

AN/UYK-7 CMS-2 (Y) Compiler Language Programming NV-1402-0046

Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic NV-1402-0046

Computer Programming USQ-20 Compiler Language - Basic NV-1402-0094

CMS-2 Compiler Language Programming NV-1402-0017

Component

Electrical Component Maintenance (UNREP) NV-1715-0025

Fundamental Hydraulic Component Maintenance NV-1704-0272

Microminiature Component Repair Intermediate Maintenance NV-1715-0157

Miniature Component Repair NV-1715-0156

Non-Nuclear Component Welding NV-1710-0051

UNREP Electrical Component Maintenance United Controls NV-1715-0025

Components

Integrated Circuit Components (Microelectronics) Intermediate Maintenance NV-1715-1022

Compressed

Air Compressor and Compressed Air System Component Maintenance NV-1601-0029

Air Compressors and Compressed Air Systems Component Maintenance NV-1601-0021

Compressed Gases Cryogenerator Maintenance, Class C NV-1601-0001

Compressed Gases, Class C NV-1601-0010

Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant NV-1601-0010

Compression

Vapor Compression Distiller Maintenance and Operation NV-1601-0028

Compressor

Air Compressor and Compressed Air System Component Maintenance NV-1601-0029

Air Compressors and Compressed Air Systems Component Maintenance NV-1601-0021

CV Class Ship Air Compressor Maintenance, Class F NV-1710-0020

CV/CVN (Class) Air Compressor NV-1710-0020

I/R High Pressure Air Compressor Combined Maintenance
NV-1601-0030

Computation

Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895

Computer

A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance
NV-1715-0263

A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance
NV-1715-0068

A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance
NV-1715-0068

A-6 AN/ASQ-61A Ballistics Computer Theory
NV-1715-0067

A-6 Ballistics Computer Test Console Intermediate Maintenance
NV-1715-0342

A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance
NV-1715-0070

Aegis Computer Fundamentals
NV-1402-0059

Aegis Computer System Operation and Maintenance
NV-1402-0060

Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance
NV-1715-0741

AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance
NV-1715-0774

AN/AQA-7(V) 1,2 and 3 Sonar Computer Recorder Group and AN/ASA-76 Generator-Transmitter Group Intermediate Maintenance
NV-1715-0774

AN/AQA-7(V)4 and AN/AQA-7(V)5 Sonar Computer Recorder Group Difference Data Intermediate Maintenance
NV-1715-1017

AN/AQA-7(V)6/7 Sonar Computer Recorder Group Difference Data Intermediate Maintenance
NV-1715-0567

AN/AQM-18(V)1 Thru (V)5 Sonar Computer Recorder Group Test Central and AN/AQM-20 Computer Group Power Systems Test Set Intermediate Maintenance
NV-1715-0539

AN/ASA-13A Navigational Computer Group Intermediate Maintenance
NV-1715-0326

AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance
NV-1715-0582

AN/ASN-39/39A and AN/ASN-41 Navigational Computer Systems Intermediate Maintenance
NV-1715-1204

AN/ASQ-155 and AN/ASQ-133 Ballistics Computer Set
NV-1715-0950

AN/BRN-3 Computer Advanced Training
NV-1715-0925

AN/GYK-3 Computer Maintenance
NV-1715-0958

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System Maintenance
NV-1402-0103

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator
NV-1402-0102

AN/UYK-7 Computer - Diagnostic Maintenance
NV-1715-1226

AN/UYK-7 Digital Computer Maintenance
NV-1715-1048
NV-1715-1262

AN/UYK-7 DD 963 Computer/Peripheral Technician
NV-1715-1261

ASA-27 Computer Detector and ASM-76 Test Console Intermediate Maintenance
NV-1715-0111

Basic Computer Theory
NV-1402-0038

Basic Digital Computer Theory
NV-1715-0904

Bullseye Net Control Computer Maintenance
NV-1715-0958

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance
NV-1715-0461

Central Computer Complex Combined Maintenance and Software
NV-1402-0047

Central Navigation Computer (CNC) (Input/Output)
NV-1402-0026

Central Navigation Computer (CNC) (Processor II)
NV-1402-0024

Central Navigation Computer (CNC) Technician
NV-1715-0085
NV-1715-1402

Central Navigation Computer (CNC) Technician Replacement
NV-1715-1392

Central Navigation Computer (Processor I)
NV-1402-0025

Computer Basics Class C Electronics
NV-1402-0011
NV-1402-0012
NV-1402-0013

Computer CP-890 A&B/UYK Processor Maintenance 1
NV-1402-0141

Computer CP-890A, B/UYK Input/Output Controller Maintenance
NV-1402-0079

Computer CP-890A, B/UYK Processor Maintenance I
NV-1402-0025

Computer Detector (CP-413/ASA-27) Intermediate Maintenance
NV-1715-0111

Computer DP-890A and B/UYK Processor Maintenance II
NV-1402-0080

Computer Intermediate Level Maintenance
NV-1715-1402

Computer Mk 1A Maintenance
NV-1715-0086

Computer Programming AN/USQ-20 Machine Language - Basic
NV-1402-0019

Computer Programming AN/UYK-20 Assembler Language - Basic
NV-1402-0096

Computer Programming AN/UYK-7 Assembler Language - Basic
NV-1402-0095

Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic
NV-1402-0046

Computer Programming Orientation
NV-1402-0014

Computer Programming USQ-20 Compiler Language - Basic
NV-1402-0094

Computer Theory, Basic
NV-1402-0038

Computer/Microprocessor Fundamentals
NV-1402-0116

Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer
NV-1402-0049

CP-789(V)/UYK Computer
NV-1715-1044

CP-967/UYK Computer Maintenance (Electronics Technician, Class C1)
NV-1402-0016

CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance
NV-1715-0954

Data Systems Technician, Class A (Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance
NV-1715-0044

Digital and Analog Computer Fundamentals
NV-1402-0012

Digital Computer Microprocessor Basics
NV-1402-0097

Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1
NV-1402-0050

Digital Control Computer Missile Interface FCS Mk 88 Mod 1
NV-1402-0147

Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1
NV-1402-0143

Digital, Analog, and Hybrid Computer Fundamentals
NV-1402-0013

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)
NV-1715-0460

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance
NV-1715-0478

E-2A Computer Detector (CP-413/ASA-

27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340

E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349

E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance NV-1715-0046

E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance NV-1715-0318

Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0168

Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion NV-1715-1131

EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance NV-1715-0505

F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552

F/RF-4B Air Data Computer Set Maintenance NV-1715-0209

Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance NV-1715-1007

Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353

Fleet Ballistic Missile Tender Navigation Maintenance Computer NV-1715-1402

FC-1114 Combat System Computer System Maintenance Technician NV-1402-0121

IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007

Mardan Computer Theory and Maintenance I NV-1715-0447

Mardan Computer Theory and Maintenance II NV-1715-0448

Mardan/Verdan Computer Theory NV-1715-0657

Mk 152 Computer and Peripheral Equipment/Common Core NV-1715-0586

Mk 152 Computer Common Core NV-1715-0136

Mk 152 Digital Computer NV-1715-1408

Mk 152 Digital Computer Complex NV-1715-1086

Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271

Naval Data Automated Computer (NAVDAC) Advanced Training NV-1715-0926

Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User NV-1402-0117

OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

OA-3732/ASM-76 Computer Indicator Intermediate Maintenance NV-1715-0318

OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16 NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15 NV-1715-0324

P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322

P-3C CP-901/ASQ-114 Computer Organizational Maintenance NV-1402-0040

Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893

Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894

Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training NV-1715-0925

RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0228

RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0465

S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance NV-1715-0331

S-3A Computer System Specialist Organizational Maintenance NV-1715-1194

SH-3A AN/ASA-13A Navigational Computer Maintenance NV-1715-0333

SSBN Naval Data Assimilation Computer (NAVDAC) Mk 2 Mod 4, SDC Mk 2 Mod 1 NV-1715-0242

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1 NV-1715-0242

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1 NV-1715-0427

SSN Central Computer Complex (CCC) Maintenance - Software NV-1402-0098

SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047

Talos Computer Mk 111 Mod 1, Class C NV-1715-0419

Tartar Computer Mk 118 NV-1715-0343

Tartar Computer Mk 118 Mod 0 NV-1715-0343

Tartar Mk 152 Computer Complex NV-1715-0792

Terrier Computer Mk 100 Mod 2 NV-1715-0398

Terrier Computer Mk 119 Mod 5 NV-1715-0334

Terrier Computer Mk 119 Mod 5 (Fleet Inputs) NV-1715-0334

Terrier Computer Mk 119 Mods 3 and 4 NV-1715-0334

Terrier Mk 152 Computer Complex NV-1715-0391
NV-1715-1382

Trident Central Navigation Computer Technician Conversion NV-1715-1163

Trident Central Navigation Computer Technician Replacement NV-1715-1164
NV-1715-1381

UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326

Verdan Computer Theory and Maintenance I NV-1715-0923

Verdan Computer Theory and Maintenance II NV-1715-0924

Concrete

Builder/Concrete, Class C NV-1710-0040

BU "C" Concrete NV-1710-0040

Conditioning

Air Conditioning and Refrigeration NV-1730-0011

Air Conditioning Refrigerant 11 NV-1730-0006

Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance NV-1701-0008

Centrifugal Air Conditioning System Operation and Maintenance NV-1701-0013

R-114 Air Conditioning System York 150 Ton NV-1701-0009

R-114 York 200 Ton Air Conditioning Technician NV-1701-0012

Refrigerant 11 Air Conditioning NV-1730-0006

Console

AN/ALM-138, AN/ALM-143, AN/ALM-155 Subassembly Test Console T, S, and C Intermediate Maintenance NV-1715-0956

AN/AMP-225 Module Analyzer Test Console Intermediate Maintenance NV-1715-0944

AN/ASM 459 Mini-SACE Flight System Test Console Intermediate Maintenance NV-1715-0948
AN/ASM-461 Mini-SACE Display Test Console Intermediate Maintenance NV-1715-0949
Bailey Automatic Boiler Control Console Operator NV-1710-0085
Damage Control/Fuel Control Console Operator Course NV-1710-0100
Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I NV-1402-0127
DD-963 Centralized Damage Control Console Operator, Class C1 NV-1601-0015
DD-963 Centralized Damage Control System Console Maintenance, Class C1 NV-1601-0016
FFG-7 Electrical Plant Control Console Operator Electrical Maintenance NV-1714-0039
FFG-7 Electrical Plant Control Console Operator Mechanical Maintenance NV-1714-0040
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators NV-1710-0101
General Regulator Automatic Boiler Control Console Operator NV-1710-0079
Hagan Automatic Boiler Control Console (ACC) Operator NV-1710-0078
Machinery Systems Console Maintenance NV-1402-0115
Navigation Control Console Mk 3 Mod 2 Maintenance NV-1715-1367
Navigation Control Console Mk 3 Mods 1 and 2 Maintenance NV-1715-1453
Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance NV-1715-0128
Operations Summary Console Difference Maintenance NV-1715-1034
OJ-615/ALM Countermeasures Test Console Intermediate Maintenance NV-1715-1421
Subassembly Test Console (SATC) Intermediate Maintenance NV-1715-0956
Weapon Direction System (WDS) MK-14 Terrier Console Operator NV-1715-1239

Consoles
Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance NV-1402-0114

Construction
Builder/Heavy Construction Technician, Class C NV-1710-0034
BU "C" Heavy Construction NV-1710-0034
Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty NV-1408-0015
Construction Contract Administration and Management NV-1408-0009
Construction Electrician Cable Splicer (Class C) NV-1714-0015
Construction Electrician—Power and Communications Cable Splicing NV-1714-0015
Construction Electrician, Class A (CE "A") NV-1714-0008
Construction Electrician, Class B NV-1714-0010
Construction Electrician, Class J (CE "J") NV-1714-0010
Construction Mechanic/Automatic Transmissions, Class C NV-1703-0003
Construction Mechanic/Automotive Electrical Maintenance, Class C NV-1703-0001
Construction Mechanic, Class A1 (CM"A") NV-1710-0035
Construction Mechanic, Class B NV-1710-0065
Construction Mechanic, Class J (CM"J") NV-1710-0065
Planning and Estimating Construction Group Ratings, Class C NV-1408-0012

Continuous
Continuous Wave Illuminator (CWI) Common Core NV-1715-0163
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693

Contract
Civil Engineer Corps Officer Basic—Contract Administration Specialty NV-1408-0013
Construction Contract Administration and Management NV-1408-0009
Contract Administration—Accelerated NV-1408-0009

Control
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203
Air Control, Class O NV-1704-0011
Air Intercept Control Supervisor NV-2202-0126
Antisubmarine Warfare (ASW) Centers Command and Control System Operator NV-2202-0122
Application of Static Control Devices NV-1715-1449
AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance NV-1715-0052
AN/ALQ-99 Tracking Receivers Control Modulators, Exciters with AN/ALM-109C Tracking Receiver Test Station and TS 3517/ALM RF Oscillator Rom Linearizer Test Set Intermediate Maintenance NV-1715-0052
AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174
Broadcast Control Authority (BCA) Operational Control Center Operator NV-1715-1138
C-8610/AWE Armament Control Panel Intermediate Maintenance Course. NV-1715-1413
Combat Control Subsystems Mk 1 Mod 0 Pipeline Maintenance NV-1402-0144
Command and Control System (CCS) Advanced Level III NV-1402-0134
Control Panel Mk 309 Mod 0 Operation and Maintenance NV-1715-0381
Cryptologic Technician Communications-Communications Systems Operations, Control and Management NV-1402-0065
Digital Control Computer Missile Interface FCS Mk 88 Mod 1 NV-1402-0147
Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1 NV-1402-0143
Electrical Control Devices NV-1714-0050
F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance NV-1715-0362
F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706
F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231
FFG-7 Central Control Station Maintenance Class C1 NV-1715-1074
FFG-7 Central Control Station Operation, Class C1 NV-1703-0012
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators NV-1710-0101
H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133
Harpoon Ship Command Launch Control Set Maintenance NV-1715-1063
Hovering and Missile Compensation and Associated Position Control Units (PCU's) Electrical Maintenance NV-1715-1311
Launcher Control and Monitoring Equipment NV-1402-0083
Launcher Control Group Mk 13 Mod O

Advanced
NV-1715-1323

Missile Launcher Control and Monitoring Equipment
NV-1402-0083

Navigation Control Console Mk 3 Mod 2 Maintenance
NV-1715-1367

Navigation Control Console Mk 3 Mods 1 and 2 Maintenance
NV-1715-1453

OA-9008 Magnetic Tape Control Unit and Magnetic Tape Transport
NV-1715-1033

QH-50C Target Control System AN/SRW-4B Intermediate Maintenance
NV-1715-0418

S-3A Armament Control and Delivery System Organizational Maintenance
NV-2202-0111

Senior Enlisted Damage Control
NV-1728-0023

Ship Control System Maintenance
NV-1715-1308

Static Control Device Theory
NV-1715-1468

Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance
NV-1715-0871

Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Operator
NV-1715-0878

Trident (ECS) Electronics Command and Control System Technician Conversion
NV-1715-1362

Trident Command and Control (CCS) Operation and Maintenance Conversion Level I
NV-1402-0084

Trident Command and Control System (CCS) Advanced Level III
NV-1402-0078

Trident Command and Control System (CCS) Electronics Technician Conversion
NV-1715-1364

Trident Command and Control System (CCS) Electronics Technician Conversion, Class C
NV-1715-1165

Trident Command and Control System (CCS) Operation and Maintenance Level II
NV-1402-0085

Trident Command and Control System Level One
NV-1402-0135

Trident Command and Control System Level 2
NV-1402-0136

Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance
NV-1715-1354

Trident Ship Control and Atmosphere Support Technician Level I
NV-1715-1309

Trident Ship Control and Atmosphere Support Technician Level III
NV-1715-1173

Trident Ship's Control Level I/Atmosphere Support
NV-1715-1171

Trident Ship's Control Level III
NV-1715-1173

Controllable

KAMEWA Controllable Pitch Propeller Maintenance
NV-1710-0106

Controller

Air Intercept Controller
NV-1704-0002

Air Intercept Controller Naval Tactical Data Systems (NTDS) Qualification
NV-1715-0674

Air Intercept Controller Supervisor
NV-1704-0005

Air Intercept Controller, Conventional Qualification
NV-2202-0131

Air Traffic Controller Class A
NV-1704-0004

Air Traffic Controller Class A1
NV-1704-0004

Basic Naval Tactical Data System (NTDS) Air Intercept Controller
NV-1715-0674

Carrier Air Traffic Control Center Controller Class C/O
NV-1704-0012

Communications Technical Controller
NV-1715-1242

Ground Controlled Approach Controller, Class C
NV-1715-0123

GT-3 OK-441/ALM Controller Intermediate Maintenance
NV-1715-1415

Naval Aviation Observer (Controller), Class O
NV-1704-0197

Three Winch Controller Using Standard Electronic Modules (SEM) and Controls for Logic Elevators
NV-1710-0077
NV-1710-0111

Controllers

Circuit Breakers and Controllers
NV-1715-0898

Controllers and Circuit Breakers Combined Maintenance
NV-1715-0898
NV-1715-1324

Controllers Circuit Breakers, Class F1
NV-1715-0898

Variable Speed Controllers Combined Maintenance
NV-1714-0018

Controlman

Air Controlman (Radar), Class A
NV-1704-0010

Air Controlman T (Tower), Class A
NV-1704-0008

Air Controlman W (Early Warning), Class A
NV-1704-0009

Air Controlman-Carrier Air Traffic Control Center Utilization-Operator
NV-1704-0220

Air Controlman, Class A
NV-1704-0004

Air Controlman, Class B
NV-1704-0007

Damage Controlman Class 'A' School
NV-1728-0009

Controlmen

Damage Controlmen Class A HT-A
Phase I
NV-1728-0012

Controls

Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892

Denison Electrical and Electronics Control Maintenance and Controls for Logic Elevators
NV-1704-0257

Steam Plant Automatic Controls Maintenance (Bailey Meter)
NV-1710-0074

Steam Plant Automatic Controls Maintenance (General Regulator)
NV-1710-0072

Steam Plant Automatic Controls Maintenance (Hagan)
NV-1710-0073

Conventional

A-4 Conventional Weapons Training
NV-2202-0077

A-6A Conventional Weapons
NV-2202-0015

Conversion

Trident (ECS) Electronics Command and Control System Technician Conversion
NV-1715-1362

Trident Command and Control System (CCS) Electronics Technician Conversion
NV-1715-1364

3306/3309 FTB Conversion Training
NV-1715-0887

Converter

Analog-to-Digital Converter Mk 65 Mods 1 and 2 Maintenance
NV-1715-1452

CV-2036 Analog Digital Converter (KCMX) Maintenance
NV-1715-1045

Digital to Digital Converter CV-2342/UYK Maintenance
NV-1402-0146

Digital-to-Digital Converter Advanced Training
NV-1402-0053

Digital-to-Digital Converter CV-2342 B/UYK Maintenance
NV-1402-0138

FFG-7/DD-963 60/40 Hz Static Frequency Converter Maintenance
NV-1714-0029

RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance
NV-1715-0032

60/400 Hz Power Converter Maintenance, Class C1
NV-1715-0301

Copilot

S-3A Copilot Avionics
NV-1606-0057

Corpsman

Advanced Hospital Corpsman
NV-0709-0008

Advanced Hospital Corpsman Class C
NV-0709-0019

Hospital Corpsman, Advanced
NV-0709-0008

Correlator

RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate

Maintenance
NV-1715-0751

Correspondence
Air Navigation by Correspondence
NV-1606-0071
Naval War College Correspondence Course in National Security Decision Making
NV-1511-0010
Naval War College Correspondence Course in Strategy and Policy
NV-1511-0011
Naval War Correspondence Course in Maritime Operations (Employment of Naval Forces)
NV-2202-0135

Counseling
Instructor, Class C (Career Information and Counseling)
NV-1406-0004
Instructor, Class C-1 Administration and Counseling
NV-1408-0008
Personnelman, Class C (Career Information and Counseling)
NV-1406-0004

Counselor
Command Career Counselor
NV-1406-0020
Navy Drug and Alcohol Counselor School
NV-0801-0011
Navy Drug Abuse Counselor
NV-0801-0007

Counterinsurgency
Counterinsurgency Orientation
NV-2202-0081
Counterinsurgency Pre-Deployment
NV-1728-0003
Counterinsurgency Training
NV-1728-0001
Counterinsurgency/Self-Protection/SERE
NV-1511-0001

Counterintelligence
Basic Counterintelligence Communications (CIC) Techniques for Enlisted Personnel
NV-2202-0038
Marine Air-Ground Task Force Counterintelligence
NV-1511-0028

Countermeasure
AN/ALQ-108 Countermeasure Set Intermediate Maintenance
NV-1715-0285
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance
NV-1715-0371
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance
NV-1715-0367

Countermeasures
A-7E Communication, Navigation, Identification and Countermeasures Organizational Maintenance
NV-1704-0250
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O
NV-1715-0599
AN/ALQ Countermeasures Set Intermediate Maintenance
NV-1715-0196
AN/ALQ-51A Countermeasures Internal Set Maintenance
NV-1715-0187
AN/ALQ-51A Countermeasures Set
NV-1715-0528
AN/ALQ-81/100 Countermeasures Set Maintenance
NV-1715-0196
AN/ALQ-92 Countermeasures Set Intermediate Maintenance
NV-1715-0055
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance
NV-1715-0053
AN/ALQ-99 Jamming Transmitters and AN/ALM-107B Countermeasures Test Station Intermediate Maintenance
NV-1715-0053
AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-0935
NV-1715-1062
AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-0775
AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance
NV-1715-0842
AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences
NV-1715-0790
AN/SPA-62 Countermeasures Receiving Group, Class C
NV-1715-0645
Countermeasures Receiving Set AN/WLR-1C (IV) Class F-1
NV-1715-0817
Countermeasures Receiving Set AN/WLR-11A
NV-1715-0841
Countermeasures Set AN/SLQ-26, Class C-1
NV-1715-0842
Countermeasures Set AN/ULQ-6C Maintenance
NV-1715-1150
Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance
NV-1715-0781
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance
NV-1715-0028
EA-6B ICAP Electronic Countermeasures Analyst Organizational Maintenance
NV-1715-0955
EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance
NV-1715-0361
F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance
NV-1715-0393
OJ-615/ALM Countermeasures Test Console Intermediate Maintenance
NV-1715-1421
RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment
NV-1715-0686
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance
NV-1715-0366
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance
NV-1715-0176
Trident Countermeasures O/M
NV-1704-0275

Coupler
Antenna Coupler CU-1441 Combined Maintenance
NV-1715-0132
Antennas and Coupler Combined Maintenance
NV-1715-0983
AN/SRC-23 HF Transceiver AN/SRA-34 Coupler Maintenance
NV-1715-1050
AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance
NV-1715-1051
Coupler, Antenna CU-1441/BRR Checkout and Maintenance
NV-1715-0132
CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance
NV-1715-0954
CU-2070/ARC Automatic Antenna Coupler Intermediate Maintenance
NV-1715-1020
Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/SRA-33 Antenna Coupler Maintenance
NV-1715-0088

Court
Legal Clerk and Court Reporting
NV-1407-0002

Coxswain
Assault Boat Coxswain
NV-1708-0006

Craft
Landing Craft Beach and Surf Salvage
NV-1708-0002
River Assault Craft Training
NV-1708-0001
River Patrol Craft Training
NV-1722-0010

Crash
Aviation Crash Crewman Class C
NV-1728-0006

Crew
FFG-7 Class Ship Replacement Crew Training
NV-1715-1231
FFG-7 Replacement Crew Training
NV-1715-1231
Swift Boat Crew Training
NV-1722-0009
Weapon System Specialist (Crew Leader) Maintenance
NV-1715-0410
Weapons Systems Technician (Crew Member) Organizational Maintenance
NV-1715-0411

Crushing
Equipment Operators/Crushing and Screening Plant Operations, Class C
NV-1710-0043
EO "C" Crushing and Screening

Operations
NV-1710-0043

Cryogenerator
Compressed Gases Cryogenerator Maintenance, Class C
NV-1601-0001

Cryogenic
Aviation Support Equipment Cryogenic Intermediate Maintenance
NV-1704-0255

Cryogenics
Advanced Cryogenics Equipment Technician
NV-1720-0003
Cryogenics Equipment Technician
NV-1720-0002
Cryogenics, Class C
NV-1601-0010
Electro-Optics/Cryogenics Fundamentals
NV-1715-1414

Cryptanalysis
Reserve Cryptologic Technician, Basic Cryptanalysis
NV-1715-0824
Reserve Cryptologic Technician, Intermediate Cryptanalysis
NV-1715-0820
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis
NV-1715-0820

Cryptologic
Cryptologic Maintenance Technician AN/WLQ-4(V) Subsystem Maintenance Pipeline
NV-1715-1446
Cryptologic Maintenance Technician Electronic Technology
NV-1402-0064
Cryptologic Systems Software
NV-1402-0048
Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer
NV-1402-0049
Cryptologic Technician (Technical) ELINT Operator
NV-1402-0066
Cryptologic Technician A (Administration)—Class A
NV-1715-0400
Cryptologic Technician Collection Branch
NV-1715-0836
Cryptologic Technician Communications Rating, Class A
NV-1715-0850
Cryptologic Technician Communications-Communications Systems Operations, Control and Management
NV-1402-0065
Cryptologic Technician M AN/FLR-15 Maintenance, Class C3
NV-1715-0835
Cryptologic Technician M-OUTBOARD Maintenance
NV-1402-0067
Cryptologic Technician M-Universal Cryptologic Processor Wideband Subsystem Maintenance, Class C
NV-1402-0070
Cryptologic Technician M, Basic Bullseye Maintenance
NV-1715-0818
Cryptologic Technician M, Bullseye Narrowband Maintenance
NV-1715-0819
Cryptologic Technician M, Bullseye Wideband DF Maintenance
NV-1715-0818
Cryptologic Technician M, Bullseye Wideband Maintenance
NV-1715-0830
Cryptologic Technician M, Class A3
NV-1715-0829
Cryptologic Technician M, Flexscop Maintenance, Class C3
NV-1715-0828
Cryptologic Technician M, Universal Cryptologic Processor Maintenance
NV-1402-0069
Cryptologic Technician M, Wideband System Maintenance
NV-1402-0068
Cryptologic Technician Maintenance
NV-1715-0829
Cryptologic Technician O, Class A
NV-1402-0071
Cryptologic Technician O, Class A3
NV-1715-0850
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1
NV-1715-0800
Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3
NV-1715-0849
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator
NV-1715-0833
Cryptologic Technician R, Class A3
NV-1715-0836
Cryptologic Technician T, Class A3 Preparatory
NV-1715-0837
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
NV-1715-0840
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
NV-1715-0839
Cryptologic Technician T, Flexscop Operator
NV-1715-0843
Cryptologic Technician T, Flexscop Programmer, Class C3
NV-1715-0846
Cryptologic Technician Technical Basic Preparatory, Class A
NV-1715-0837
Cryptologic Technician Technical Field Operations, Type One
NV-1715-0838
Cryptologic Technician Technical Field Operations, Type Three
NV-1715-0840
Cryptologic Technician Technical Field Operations, Type Two
NV-1715-0839
Master Cryptologic Systems Technician
NV-1715-1257
Reserve Cryptologic Technician Communications Technical Control, Class F1
NV-1715-0848
Reserve Cryptologic Technician Direct Support
NV-1715-0834
Reserve Cryptologic Technician Naval Security Group Orientation
NV-1715-0823
Reserve Cryptologic Technician Processing and Reporting, Phase I
NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II
NV-1715-0822
Reserve Cryptologic Technician Signal Analysis, Class F1
NV-1715-0845
Reserve Cryptologic Technician Simulated Operational Training Phase I
NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II
NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III
NV-1715-0827
Reserve Cryptologic Technician T, Advanced, Class F1
NV-1715-0844
Reserve Cryptologic Technician, Basic Cryptanalysis
NV-1715-0824
Reserve Cryptologic Technician, Intermediate Cryptanalysis
NV-1715-0820
Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline
NV-1715-1480
NV-1715-1481
NV-1715-1482
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance
NV-1402-0112
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C
NV-1402-0110
Universal Cryptologic Processor Training Classic Bowsprit Sail Maintenance
NV-1402-0107
Universal Cryptologic Processor Training PDP-11/70 Maintenance
NV-1402-0108

Culture
Tissue Culture Technic
NV-0702-0001
Tissue Culture Technician, Class C
NV-0702-0001

Curriculum
Curriculum Development for Submarine Systems Training Program (and Introduction to Submarine Systems Training Program)
NV-1406-0014

Cutting
Fuel Gas Welding, Brazing, and Cutting
NV-1710-0116

Cytology
Cytology Technician
NV-0702-0009

Cytotechnologist
Cytotechnologist
NV-0702-0009

CATCC
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1
NV-1715-1434

CCS
Trident Command and Control (CCS) Operation and Maintenance Conversion Level I
NV-1402-0084
Trident Command and Control System (CCS) Advanced Level III
NV-1402-0078
Trident Command and Control System (CCS) Electronics Technician Conversion, Class C
NV-1715-1165
Trident Command and Control System (CCS) Operation and Maintenance Level II
NV-1402-0085

CE
Construction Electrician, Class A (CE "A")
NV-1714-0008
Construction Electrician, Class J (CE "J")
NV-1714-0010
CE "C" Cable Splicing
NV-1714-0015

CGN-38
Combat Systems Maintenance Management for the CGN-38
NV-1715-1043
CGN-38/DDG-993 (SM-2) Combat Systems Operator
NV-2202-0119

CGN/SM-2
CGN/SM-2 Medium Range Missile System Technician
NV-1715-1260

CH-46A
CH-46A Electrical and Instrument Systems
NV-1704-0077
CH-46A Rotors and Related Systems Maintenance
NV-1704-0060

CH-53
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance
NV-1715-0101
CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0032

CHAFFROC
CHAFFROC Mk 28 Mod 1 Launcher Systems Maintenance
NV-1715-0148
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5
NV-1715-0684

CI
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance
NV-1715-0318

CIC
Basic Counterintelligence Communications (CIC) Techniques for Enlisted Personnel
NV-2202-0038
Combat Information Center (CIC) Officer
NV-2202-0125
Combat Information Center (CIC) Officer, Class O
NV-2202-0069
Combat Information Center (CIC) Procedures Advanced
NV-2202-0130
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training
NV-1715-0509

CM
Construction Mechanic, Class A1 (CM"A")
NV-1710-0035
Construction Mechanic, Class J (CM"J")
NV-1710-0065
CM"C" Auto Trans
NV-1703-0003
CM"C" Automotive Electrical Maintenance
NV-1703-0001

CMS-2
AN/UYK-7 CMS-2 (Y) Compiler Language Programming
NV-1402-0046
Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic
NV-1402-0046
CMS-2 Compiler Language Programming
NV-1402-0017
CMS-2 Programming (CP-642 A&B/USQ-20)
NV-1402-0009

CNC
Central Navigation Computer (CNC) Technician
NV-1715-1402

CNI
A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance
NV-1715-0452
A-4F/L/TA-4F Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance
NV-1715-0383
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance
NV-1715-0370
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance
NV-1715-0370
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance
NV-1715-0937
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance
NV-1715-0940
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance
NV-1715-0101
F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0076
F-4B Communication, Navigation, Identification (CNI) Organizational Maintenance
NV-1715-0255
F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0074
F-4J Communication, Navigation, Identification (CNI) Organizational Maintenance
NV-1715-0612
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance
NV-1715-0688
RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance
NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

COBOL
IBM System 360 Computer System Programming (COBOL Language), Class C
NV-1402-0007
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C
NV-1402-0030

CONALOG
CONALOG (Norden) Refresher Maintenance and Troubleshooting
NV-1715-0253
CONALOG II Maintenance (SPERRY)
NV-1715-0636
CONALOG Maintenance Norden (Enlisted)
NV-1715-0252

CP-413/ASA-27
Computer Detector (CP-413/ASA-27) Intermediate Maintenance
NV-1715-0111
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance
NV-1715-0340

CP-642A
Data Systems Technician, Class A (Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance
NV-1715-0044
Data Systems Technicians, Class A,

(Phase A-2)—Part III, CP-642A
NV-1715-0045

CP-642B
Data Systems Technician, Class A(A-2), Part II CP-642B
NV-1715-0044

CP-66A
A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance
NV-1715-0263
A-3B AN/ASB-1A System Maintenance (Less Computer CP-66A)
NV-1715-0281

CP-789(V)/UYK
CP-789(V)/UYK Computer
NV-1715-1044

CP-890
Computer CP-890 A&B/UYK Processor Maintenance 1
NV-1402-0141

CP-890A
Computer CP-890A, B/UYK Input/Output Controller Maintenance
NV-1402-0079
Computer CP-890A, B/UYK Processor Maintenance I
NV-1402-0025

CP-901/ASQ-114
P-3C CP-901/ASQ-114 Computer Organizational Maintenance
NV-1402-0040

CP-926A
CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance
NV-1715-0954

CP-967/UYK
CP-967/UYK Computer Maintenance (Electronics Technician, Class C1)
NV-1402-0016

CT
Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline
NV-1715-1480
NV-1715-1481
NV-1715-1482

CU-1441
Antenna Coupler CU-1441 Combined Maintenance
NV-1715-0132
Antenna Series (CU-1441/BRR Multicoupler)
NV-1715-0132
Coupler, Antenna CU-1441/BRR Checkout and Maintenance
NV-1715-0132

CU-1441/BRR
Antenna Series (CU-1441/BRR Multicoupler)
NV-1715-0132
Coupler, Antenna CU-1441/BRR Checkout and Maintenance
NV-1715-0132

CU-1559
AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance
NV-1715-1051

CU-1768A
CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance
NV-1715-0954

CU-2070/ARC
CU-2070/ARC Automatic Antenna Coupler Intermediate Maintenance
NV-1715-1020

CUDIXS
Common User Digital Information Exchange System (CUDIXS) Maintenance
NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators
NV-1715-0879

CV
CV Catapult Electrician
NV-1714-0042
CV Class Ship Air Compressor Maintenance, Class F
NV-1710-0020
CV/CVN (Class) Air Compressor
NV-1710-0020

CV-2036
CV-2036 Analog Digital Converter (KCMX) Maintenance
NV-1715-1045

CV-2342
Digital to Digital Converter CV-2342/UYK Maintenance
NV-1402-0146

CV/CVN
CV/CVN (Class) Air Compressor
NV-1710-0020

CVA
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
NV-1710-0006
CVA Catapult Electrician, Class C
NV-1710-0010
CVA Catapult Steam and Drain System, Class C
NV-1710-0008
CVA IOIC Storage and Retrieval Officer
NV-1402-0043
Nuclear Weapons Technical (CVA)
NV-0802-0006

CVA/CVS
CVA/CVS Air Launched Weapons
NV-0802-0009
CVA/CVS Air Launched Weapons General Ordnance
NV-2202-0024
CVA/CVS Air Launched Weapons Supervisor
NV-0802-0009

CVS
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C
NV-1710-0007

CVS/MAUW
CVS/MAUW Shop Nuclear Weapons Technical
NV-0802-0005

CWAT
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT)
NV-1715-0693

D-399
Caterpillar D-399 Diesel Engine Maintenance
NV-1712-0022

D-704
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance
NV-1704-0046

Damage
Damage Control Assistant
NV-1710-0092
NV-1728-0011
Damage Control/Fuel Control Console Operator Course
NV-1710-0100
Damage Controlman Class 'A' School
NV-1728-0009
Damage Controlmen Class A HT-A Phase I
NV-1728-0012
DD-963 Centralized Damage Control Console Operator, Class C1
NV-1601-0015
DD-963 Centralized Damage Control System Console Maintenance, Class C1
NV-1601-0016
DD-963 Centralized Damage Control/Fuel Control System Operator
NV-1601-0015
Officer Damage Control
NV-1710-0058
Senior Enlisted Damage Control
NV-1728-0023

Data
A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance
NV-1715-0263
Air Intercept Controller Naval Tactical Data Systems (NTDS) Qualification
NV-1715-0674
Airborne Tactical Data System Operations, Class O
NV-1402-0036
Antisubmarine Air Control Naval Tactical Data System (NTDS)
NV-2202-0120
Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance
NV-1715-0741
Aviation Maintenance Data Analysis, Class C
NV-1402-0018
AN/ACQ-2/2A Data Communications Systems and Associated Test Set Equipment Intermediate Maintenance
NV-1715-0254
AN/AKT-22(V) Telemetric Data Transmitting Set and AN/UKM-2A Telemetric Data Test Set Intermediate Maintenance
NV-1715-0538
AN/AQA-7(V)6/7 Sonar Computer Recorder Group Difference Data Intermediate Maintenance
NV-1715-0567
AN/ASA-16 Data Display Group Maintenance Training
NV-1715-0488
AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance
NV-1715-1320
AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance
NV-1715-1469
AN/SSQ-29 Data Terminal Set

Maintenance-Difference NV-1715-1052

AN/SSW-1 Data Terminal Set Maintenance NV-1715-1053

AN/USQ-36 Data Terminal Set Maintenance NV-1715-1055

AN/USQ-59 Data Terminal Set Maintenance NV-1715-1047

AN/USQ-74 Link Data Terminal Maintenance NV-1715-1338

AN/UYK-7(V) Data Maintenance Class C-7 NV-1402-0106

Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461

CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance NV-1715-0954

CV Naval Tactical Data System (NDTS) Data Utilization NV-2202-0114

CV Naval Tactical Data System Input Basic NV-1715-1236

Data Analysis (Ship's 3-M System) Class C NV-1408-0005

Data Analysis Class C1 NV-1402-0018

Data Analysis, Class C NV-1402-0018

Data Base Management—LCC Amphibious Support Information System Language—Operator NV-1402-0034

Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1 NV-1715-0895

Data Gathering Set AN/BQH-5(V)2 Basic Maintenance NV-1715-0502

Data Processing Systems Analysis, Class C NV-1402-0001

Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001

Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C NV-1402-0041

Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C NV-1402-0041

Data Systems Technician Class C NV-1715-1085

Data Systems Technician Class C Data Display Group Maintenance NV-1715-0108

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C NV-1715-0083

Data Systems Technician, Class C, Data Transmission Group, Data Terminal NV-1715-0091

DD-963 Naval Tactical Data System (NTDS) Data Utilization NV-1402-0023

DD-963 Naval Tactical Data Systems (NTDS) Data Input NV-1402-0010

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478

E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance NV-1715-0254

E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate NV-1715-0382

E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance NV-1715-0527

E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347

E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296

Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance NV-1715-0026

Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0168

EA-6B Course Attitude Data Transmitter Intermediate Maintenance NV-1715-0192

F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552

F-4J Data Link System Intermediate Maintenance NV-1715-0499

Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance NV-1402-0114

Intermediate Maintenance Level Data Analysis, Class C NV-1115-0001

IOIC Intelligence Data System (Storage and Retrieval) Maintenance NV-1715-0030

Mk 152 Data NV-1402-0105

Naval Aviation Logistics Data Analysis (NALDA) NV-1402-0154

Naval Data Automated Computer (NAVDAC) Advanced Training NV-1715-0926

Naval Tactical Data System (NTDS) (Data Utilization) NV-1402-0023

Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002

Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032

Naval Tactical Data System (NTDS) Tracker/Supervisor NV-1715-0673

Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005

Naval Tactical Data System Input NV-1715-1235

Naval Tactical Data System Operations, Class O NV-1402-0037

Naval Tactical Data Systems (NTDS) Data Link Terminal Maintenance Class C NV-1715-1267

Naval Tactical Data Systems (NTDS) Data Transmission Group Maintenance NV-1715-0273

Naval Tactical Data Systems (NTDS) Data Utilization NV-1402-0006

Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006

Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004

Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted) NV-1402-0003

NTDS Data Utilization NV-1402-0005

P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121

P-3C Digital Data Handling Organizational Maintenance NV-1715-0330

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915

Radio Navigation Set AN/BRN-3B Data Processor Maintenance NV-1402-0142

RA-5C Air Data and Flight Reference Systems NV-1715-0454

RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454

RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance NV-1715-0424

RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542

RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance NV-1715-0032

RF-4B AN/ASQ-90 Airborne Data

Annotation System Maintenance NV-1715-0240
Shipboard Tactical Data Systems Maintenance NV-1402-0041
SSBN Naval Data Assimilation Computer (NAVDAC) Mk 2 Mod 4, SDC Mk 2 Mod 1 NV-1715-0242
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1 NV-1715-0242
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1 NV-1715-0427
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B) NV-1715-0192
Tactical Data Systems Maintenance Officer/Program Officer NV-1402-0041
Talos Telemetering Data Reduction NV-2202-0082
Target Data Processing (TDP) Maintenance Class C NV-1402-0129
Terrier Telemetering Data Reduction NV-2202-0083
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance NV-1715-1354
Trident Exterior Communications System (ECS) Data Switching Subsystem Basic Maintenance NV-1715-1356
Walleye II Extended Range Data Link Intermediate Maintenance NV-1715-1032

Data Processing
Antisubmarine Warfare (ASW) Module Data Processing Technician NV-1402-0090
Antisubmarine Warfare (ASW) Operations Center Data Processing Technician NV-1715-1238
AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator NV-1402-0102
AN/UYQ-8 Data Processing Set Intermediate Maintenance NV-1715-1019
Data Processing Systems Analysis, Class C NV-1402-0001
Data Processing Technician, Class A NV-1402-0022
Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001
Fleet Data Processing Officers Training NV-1402-0008
IOIC Electronic Data Processing Maintenance NV-1715-0581
Landing Helo Auxiliary (LHA) Intelligence Center (IC) Afloat Automatic Data Processing (ADP) Operator NV-1402-0101
Shipboard Non-Tactical Automated Data Processing (SNAP) NV-1715-1265
Shipboard Uniform Automated Data Processing System (SUADPS) 207/AV207 NV-1402-0149
Shipboard Uniform Automated Data Processing System- Real Time Operations and Management NV-1402-0149
Storage and Retrieval Data Processing (DP) Operator and Programmer NV-1402-0035

Data Systems
Antisubmarine Warfare (ASW) Module Data Systems Technician NV-1402-0091
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Data Systems NV-1402-0093
Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C NV-1402-0041
Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C NV-1402-0041
Data Systems Technician Class A NV-1715-1263
Data Systems Technician Class C NV-1715-1085
Data Systems Technician Class C Data Display Group Maintenance NV-1715-0108
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110
Data Systems Technician School, Class A (Phase A-2)—Part I, CP-789 NV-1715-0043
Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C NV-1715-0083
Data Systems Technician—Peripheral Equipment Maintenance, Class C NV-1715-0047
Data Systems Technician, Class A NV-1715-0753
Data Systems Technician, Class A (DS "A") NV-1715-0753
Data Systems Technician, Class A (Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044
Data Systems Technician, Class A(A-2), Part II CP-642B NV-1715-0044
Data Systems Technician, Class A, Phase A-1 NV-1715-0753
Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance NV-1715-0087
Data Systems Technician, Class C, Data Transmission Group, Data Terminal NV-1715-0091
Data Systems Technician, Class C, Mk 11, Mod 2/4 Systems Group Maintenance NV-1715-0048
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance NV-1715-0656
Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training NV-1715-0385
Data Systems Technicians, Class A, (Phase A-2)—Part III, CP-642A NV-1715-0045
E-2B Airborne Tactical Data Systems NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
Force High Level Terminal Data Systems Maintenance Technician NV-1715-1177
Naval Tactical Data Systems (NTDS) Data Link Terminal Maintenance Class C NV-1715-1267
Naval Tactical Data Systems (NTDS) Data Transmission Group Maintenance NV-1715-0273
Naval Tactical Data Systems Maintenance (NTDS) NV-1715-0274
Programming, Naval Tactical Data Systems (NTDS) Operational (Officer and Enlisted) NV-1402-0031
Shipboard Tactical Data Systems Maintenance NV-1402-0041
Tactical Data Systems Analysis NV-1402-0042
Tactical Data Systems Maintenance Officer/Program Officer NV-1402-0041

Deception
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2 NV-1715-0781
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1 NV-1715-0781
Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance NV-1715-0781

Decision
Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
National Security Decision Making for College of Naval Command and Staff NV-1511-0015
National Security Decision Making for College of Naval Warfare and Naval Command College NV-1511-0014
National Security Decision Making

Nonresident Seminar NV-1511-0026
Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005

Deck
Officer of the Deck-Basic NV-1722-0008
Prospective Officer of the Deck NV-1722-0008

Decoder
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

Decoy
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5 NV-1715-0684

Defense
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors NV-0802-0001
Atomic, Biological and Chemical (ABC) Warfare Defense Afloat NV-0802-0008
Basic Point Defense Officer NV-1715-0570
Basic Point Defense Surface Missile System NV-1715-0778
Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore) NV-0801-0005

Defensive
Advanced Defensive Weapons Subsystem Command Subsystem Operator NV-1402-0125
Trident Defensive Weapons Ordinance Subsystem (DWOS) Replacement NV-1715-1365
Trident Defensive Weapons Subsystem/Command Subsystem (DWS/CS) Level I NV-1402-0123
Trident Defensive Weapons Subsystem/Command Subsystem Level I NV-1402-0086
Trident Defensive Weapons Subsystem/Command Subsystem Level II NV-1402-0087
Trident Defensive Weapons Subsystem/Command Subsystem Level III NV-1402-0088

Degaussing
FFG-7 Class Degaussing System Maintenance NV-1601-0026
SSM Automatic Degaussing Equipment Maintenance for the DD-963 NV-1601-0017
SSM Degaussing System for DD-963 Class Destroyer, Class C1 NV-1601-0017

Delivery
S-3A Armament Control and Delivery System Organizational Maintenance NV-2202-0111
Weapons Delivery System (Officers) NV-2202-0047

Demolition
Basic Underwater Demolition/Seal Team Training NV-1606-0007
Basic Underwater Demolition/Seal Training NV-1606-0007
Underwater Demolition Training NV-1606-0007
Underwater Demolition Training (Enlisted) NV-1606-0007
Underwater Demolition Training (Officer) NV-1606-0007

Dental
Basic Dental Repair Technician NV-1715-0680
Class A General Dental Technician School NV-0701-0006
Class B General Dental Technician NV-0701-0009
Class B General Dental Technician School NV-0701-0005
Dental Administrative Technician Class C NV-0701-0013
Dental Administrative Technician, Class C NV-0701-0005
Dental Assistant Basic Class A NV-0701-0012
Dental Assistant, Basic, Class A NV-0701-0006
Dental Equipment Repair Technology Class C NV-1715-1511
Dental Equipment Repair Technology, Class C NV-1715-0680
Dental Laboratory Technology Advanced Class C NV-0701-0011
Dental Laboratory Technology Advanced, Class C NV-0701-0003
Dental Laboratory Technology Basic Class C NV-0701-0010
Dental Laboratory Technology Basic, Class C NV-0701-0007
Dental Officer Indoctrination NV-0701-0002
Dental Prosthetic Technician School, Class C NV-0701-0007
Dental Repair Technician, Basic NV-1715-0680
Dental Technician Repair, Class C NV-1715-0680
Dental Technician Research Assistant, Class C NV-0701-0004
Dental Technician, Advanced General, Class B NV-0701-0009
Dental Technician, Advanced Prosthetic, Class B NV-0701-0003
Dental Technician, Basic, Class A NV-0701-0006
Dental Technician, General, Advanced, Class B NV-0701-0005
Dental Technician, General, Class A NV-0701-0006
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001
Dental Technician, Prosthetic (Class C) NV-0701-0007
Dental Technician, Prosthetic, Advanced, Class B NV-0701-0003
Dental Technician, Prosthetic, Class C NV-0701-0007
General Dental Technician Advanced, Class B NV-0701-0005
General Dental Technician School, Class B NV-0701-0005
Maxillofacial Dental Laboratory Technician, Class C NV-0701-0001
Medical Administrative Technic, Dental NV-1408-0021
Medical Administrative Technician, Dental, Class C NV-1408-0021

Depot
Depot Level Boat Repairman (Engineman) NV-1712-0013

Depth
Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934
SSN/SSBN Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934

Dermatology
Dermatology Technic NV-0709-0013
Dermatology Technician Class C NV-0709-0017
Dermatology Technician, Class C NV-0709-0013

Design
Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001

Designation
Target Designation System Mk 5 Maintenance NV-1715-0264
Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315

Destroyer
Destroyer Officer NV-1722-0006
SSM Degaussing System for DD-963 Class Destroyer, Class C1 NV-1601-0017

Detecting
AN/AAS-33A Detecting and Ranging Set Receiver Group/Reciprocating Compressor/Infrared Indicator Intermediate Maintenance Course NV-1715-1411
AN/AAS-36 Infrared Detecting System (IRDS) and AN/AAS-371R/LORTS Common Infrared Detection System Intermediate Maintenance NV-1715-1029
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance NV-1715-0222
Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance NV-1715-0865
Sonar Detecting-Ranging Set AN/SQS-26CX NV-1715-0405
Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance NV-1715-0868

Detection
AN/ASQ-81(V) Magnetic Anomaly Detection Set Intermediate Maintenance NV-1715-0559
AN/BQQ-6 Sonar Set Detection Tracking NV-1715-1319
E-2B Detection System Organizational Maintenance NV-1715-0769

Detector
ASA-27 Computer Detector and ASM-76 Test Console Intermediate Maintenance NV-1715-0111
Computer Detector (CP-413/ASA-27) Intermediate Maintenance NV-1715-0111
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

Determination
Self-Noise Determination and Classification NV-1601-0012

Detroit
Aviation Support Equipment Detroit Series 53 Diesel Intermediate Maintenance NV-1712-0021
Aviation Support Equipment UD-282 and Detroit Series 53 Diesel Engines Intermediate Maintenance NV-1712-0021

Device
Magnetic Tape Input/Output Device MX-7988A,B UYK Maintenance NV-1715-1454
Static Control Device Theory NV-1715-1468

Devices
Application of Static Control Devices NV-1715-1449
Electrical Control Devices NV-1714-0050

Dewey
Dewey Underwater Log Maintenance C-1 NV-1715-1042

Diagnostic
AN/UYK-7 Computer - Diagnostic Maintenance NV-1715-1226

Dial
Telephone Dial-X System Combined Maintenance NV-1715-1009

Diesel
American Locomotive (ALCO 251C) Diesel Engine, Class C1 NV-1712-0010
Aviation Support Equipment Detroit Series 53 Diesel Intermediate Maintenance NV-1712-0021
Aviation Support Equipment UD-282 and Detroit Series 53 Diesel Engines Intermediate Maintenance NV-1712-0021
Caterpillar D-399 Diesel Engine Maintenance NV-1712-0022
Detroit Diesel Allison 16V149TI Ships Service Diesel Generator Maintenance NV-1712-0023
Detroit Diesel V71 Series Engine Maintenance, Class C1 NV-1712-0019
Diesel Engine Technician, Class C1 NV-1712-0020
Diesel Engine/Fairbanks Morse Maintenance Technician NV-1712-0002
Engineman Class C, General Motors 8-268A Diesel Engine NV-1712-0007
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine NV-1712-0014
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010
Enginemen, Class C, General Motors 12-567E Diesel Engine NV-1712-0006
Enginemen, Class C, General Motors 16-278A Diesel Engine NV-1712-0005
Enginemen, Diesel Engine, Class C NV-1712-0017
Fairbanks-Morse 38F 5 1/4 Diesel Maintenance Technician NV-1712-0031
Fairbanks-Morse 38F5 1/4 Diesel Engine NV-1712-0003
FFG-7 Auxiliary 16V149TI Diesel Engine Maintenance NV-1712-0027
FM38D8 1/8 DR Diesel Engine, Class C1 NV-1712-0014
GM-12-567E/645E Diesel Engine Maintenance, Class C1 NV-1712-0006
GM-16-278A Diesel Engine Maintenance, Class C1 NV-1712-0005
GM8-268A Diesel Engine Maintenance, Class C1 NV-1712-0007
Master Marine Diesel Mechanic Maintenance NV-1712-0026
Mine Warfare Packard Diesel Engineman (Class C) NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C NV-1712-0004
Model 114 Ship Service Diesel Generator Set Maintenance Class C1 NV-1712-0023
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel) NV-1732-0014
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance NV-1712-0002
Trident Diesel Engine Supervisor NV-1712-0029
Trident Submarine Diesel Engine Maintenance NV-1712-0028
Waukesha Diesel Engine NV-1712-0001

Difference
AN/SPS-40B/C/D Radar Set Difference Maintenance NV-1715-0745
AN/SPS-48C Radar Difference NV-1715-1059
AN/SRC-16, AN/SRC-13 Transceiver Maintenance Differences NV-1715-1058
AN/SSQ-29 Data Terminal Set Maintenance-Difference NV-1715-1052
E-2B OA-8206/ASA-27A Difference Organizational Maintenance NV-1715-0508
Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271
Operations Summary Console Difference Maintenance NV-1715-1034

Differences
AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813

Digital
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
Advanced Digital Theory NV-1715-1500
Analog-to-Digital Converter Mk 65 Mods 1 and 2 Maintenance NV-1715-1452
AN/ALM-117 Digital Test Station Operator NV-1715-0943
AN/ALM-163 Digital Module Test Console Intermediate Maintenance NV-1715-0936
AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum

Analyzer (DSA) Advanced Maintenance NV-1715-1318
AN/UYK-7 Digital Computer Maintenance NV-1715-1048
ASM-144 On Board Memory Tester Digital Volt Ohmmeter Intermediate Maintenance NV-1715-1210
Basic Digital Computer Theory NV-1715-0904
Basic Digital Fundamentals, Class F1 NV-1715-0904
Common User Digital Information Exchange System (CUDIXS) Maintenance NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators NV-1715-0879
CU-1768A Computer Data Coupler and CP-926A Digital Data Computer Intermediate Maintenance NV-1715-0954
CV-2036 Analog Digital Converter (KCMX) Maintenance NV-1715-1045
Data Systems Technician, Class A (Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044
Digital and Analog Computer Fundamentals NV-1402-0012
Digital and Electronics Training NV-1715-0050
Digital to Digital Converter CV-2342/UYK Maintenance NV-1402-0146
Digital Combat Systems Common Core NV-1402-0148
Digital Computer Microprocessor Basics NV-1402-0097
Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1 NV-1402-0050
Digital Control Computer Missile Interface FCS Mk 88 Mod 1 NV-1402-0147
Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1 NV-1402-0143
Digital Fundamentals NV-1402-0011 NV-1402-0057
Digital Fundamentals, Basic NV-1715-0904
Digital Interface Unit/Message Interface Unit (DIU/MIU) NV-1402-0081
Digital Principles and Techniques (Electronics Technician, Class C1) NV-1402-0027
Digital Training NV-1402-0072
Digital-to-Digital Converter Advanced Training NV-1402-0053
Digital-to-Digital Converter CV-2342 B/UYK Maintenance NV-1402-0138
Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013
Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I NV-1402-0127
Display Console OJ-326(V)/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase III NV-1402-0128
Display Console OJ-326(V)/UYK and Digital Display Indicator IR-1181/UYK Maintenance Phase II NV-1402-0126
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347
Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance NV-1715-1007
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Mk 113 Mod 10 Digital Display Subsystem NV-1715-1013
Mk 152 Digital Computer NV-1715-1408
Mk 152 Digital Computer Complex NV-1715-1086
P-3C Digital Data Handling Organizational Maintenance NV-1715-0330
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance NV-1402-0044
Solid State Theory and Digital Electronics NV-1715-0103
Submarine Digital Communications Equipment Combined Maintenance NV-1715-0981
Submarine Digital Teletype Combined Maintenance NV-1404-0011
Tartar Radar AN/SPG-51C Digital NV-1715-0512
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658

Dimensional
Intermediate Level Calibration of Physical/Dimensional Test and Measuring Systems Phases B/D NV-1715-1495

Direction
AN/ALD-2B Direction Finder System Intermediate Maintenance NV-1715-1030
AN/SYR-1 Weapons Direction System (WDS) Mk 14 Maintenance NV-1402-0062
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800
High Frequency Direction Finding (HFDF) Maintenance NV-1715-1256
OUTBOARD Maintenance Direction Finding (DF) Technician NV-1715-1241
Radio Direction Finder AN/BRD-6 Combined Maintenance NV-1715-0903
Radio Direction Finder AN/BRD-6 Operational Maintenance NV-1715-0903
Tartar Weapons Direction System (WDS) Mk 4 WDE Mk 1 NV-1715-1121 NV-1715-1391
Tartar Weapons Direction System Mk 13 Mod 4 NV-1715-1264
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance NV-1402-0112

Director
Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271
Mk 68 Gun Director and AN/SPG-53F Radar Maintenance NV-1715-0239

Disaster
Disaster Recovery Training I and II NV-0801-0003
Staff Disaster Preparedness Officer NV-0801-0002

Disbursing
Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001
Disbursing Clerk Financial Returns NV-1408-0001
Disbursing Clerk Financial Returns Class C NV-1408-0001
Disbursing Clerk Travel Payments NV-1408-0002
Disbursing Clerk, Class C (Financial Returns) NV-1408-0001
Disbursing Clerk, Class C (Travel Payments) NV-1408-0002
Disbursing Clerks, Class A NV-1401-0002
Food Services and Disbursing NV-1729-0001
Senior Disbursing Clerk (DK) Enlisted Refresher NV-1401-0005

Disease
Disease Vector and Pest Control Technology NV-0101-0001

Disk
Data Systems Technician, Class C,

Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance
NV-1715-0656
Magnetic Disk File (MDF) Theory and Electrical Maintenance
NV-1402-0082
NV-1715-1464
Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88
NV-1715-1484
Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0.
NV-1402-0140
Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1
NV-1715-1001
Magnetic Disk File Theory and Mechanical Maintenance FCS Mk Mod 0
NV-1402-0122

Display
Aegis Display System Operation and Maintenance
NV-1715-1115
NV-1715-1301
Aviation Electronic Warfare, Receivers, Analyzer, Recorder and Display Intermediate Level Maintenance
NV-1715-1149
AN/ASA-16 Data Display Group Maintenance Training
NV-1715-0488
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance
NV-1715-0529
AN/ASM-461 Mini-SACE Display Test Console Intermediate Maintenance
NV-1715-0949
AN/ASN-99 Projected Map Display Set Intermediate Maintenance
NV-1715-0162
AN/ASN-99(V) Projected Map Display Set Intermediate Maintenance
NV-1715-0162
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)
NV-1704-0229
AN/AVQ-7A/B Head Up Display Set Intermediate Maintenance
NV-1704-0253
AN/UYA-4 Display Maintenance Includes Beacon Video Processor
NV-1715-1259
Basic AN/UYA-4 Display Equipment Maintenance
NV-1715-1049
Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I
NV-1402-0127
Display Console OJ-326(V)/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase III
NV-1402-0128
Display Console OJ-326(V)/UYK and Digital Display Indicator IR-1181/UYK Maintenance Phase II
NV-1402-0126
Flat Panel Display Terminal Maintenance
NV-1402-0139
IP-722F/AVA-1 Analog Display Indicator Intermediate Maintenance
NV-1715-1420
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1
NV-1715-0908
Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted)
NV-1402-0003
P-3 AN/ASA-16 Display System Intermediate Maintenance
NV-1715-0463
Plotting System PT-512/S Tactical Display Maintenance
NV-1715-1136

Displays
F-14A Communications, Navigation/ Displays, Electronic Warfare Organizational Maintenance Technician
NV-1704-0217

Disposal
Nuclear Weapons Disposal
NV-0802-0007

Distiller
Vapor Compression Distiller Maintenance and Operation
NV-1601-0028

Distilling
Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted
NV-1710-0025

Distribution
Electrical Distribution and Control
NV-1714-0005
Electrical Distribution and Control Equipment Combined Maintenance
NV-1714-0005
Submarine Electrical Control and Distribution Equipment Combined Maintenance
NV-1714-0054

Distributor
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

Disturbed
Disturbed Line of Sight Gunfire Control System Maintenance
NV-1715-0759

Diver
Diver First Class
NV-1606-0008
EOD Diver Candidates
NV-1606-0010
Master Diver Evaluation
NV-1606-0016
Master Diver Qualification
NV-1606-0016
Navy Diver Second Class
NV-1606-0010
Scuba Diver
NV-1606-0011
Underwater Photographer/Scuba Diver
NV-1606-0013

Divers
Deep Sea Divers
NV-1606-0014

Diving
Basic Diving Officer
NV-1606-0064
Deep Sea Helium-Oxygen Diving Officer
NV-1606-0009
Medical Deep Sea Diving Technic
NV-1606-0014
Medical Deep Sea Diving Technician
NV-1606-0014
Medical Department Diving Officers
NV-1606-0017
Ship Salvage Diving Officer
NV-1606-0015
NV-1606-0065
Steering/Diving Ship's Control Station and Variable Ballast and Trim Electrical Maintenance
NV-1715-1312

Documentary
Still Documentary Photography
NV-1709-0031
Still Documentary Photography C1
NV-1709-0010

Doppler
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0200
AN/APM 341 (V) Doppler Test Set Intermediate Maintenance
NV-1715-0360
AN/APN-122 Doppler Navigation System Maintenance
NV-1715-0483
AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0507
AN/APN-190(V) Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0200
AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance
NV-1715-0582
S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance
NV-1715-0422
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237

Douglas
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance
NV-1704-0046

Draft
Forced Draft Blower Maintenance
NV-1710-0087
NV-1710-0110

Draftsman
Illustrator Draftsman, Class A
NV-1713-0002

Drone
Target Drone, Class C
NV-1704-0044

Drug
Drug and Alcohol Program Advisor
NV-0799-0005

Drug Abuse Education Specialist
NV-0799-0004
Drug Abuse Program Officers
NV-0801-0006
Navy Alcohol/Drug Safety Action Program (NASAP/NDSAP)
NV-0799-0007
Navy Drug and Alcohol Counselor School
NV-0801-0011
Navy Drug Abuse Counselor
NV-0801-0007
Navy Drug Safety Action Program (NDSAP)
NV-0799-0006

Duplex
Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer
NV-1715-1157

Dynalec
Dynalec Automatic Telephone System Maintenance, Class C1
NV-1404-0007
Dynalec 200/700 Line Automatic Telephone Maintenance
NV-1404-0010

Dynamics
Dynamics Alignment Test Set (DATS) Intermediate Maintenance
NV-1715-1199
Dynamics Alignment Test Set (DATS) Operator
NV-1715-1200

DAIR
Air Traffic Control Maintenance, Interrogator Set AN/TPX-42A BASIC DAIR, Class C1
NV-1715-0959
AN/TPX-42A Basic Direct Altitude Identity Readout (DAIR) Maintenance, Class, C1.
NV-1715-1432
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1
NV-1715-1435
AN/TPX-42A(V)10 RATCF DAIR, Class C1
NV-1704-0282
AN/TPX-42A(V)5 Direct Altitude Identity Readout (DAIR) Maintenance, Class C1
NV-1715-1433
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1
NV-1715-1434

DAME
AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1)
NV-1715-0175

DATC
DATC Machinist's Mate Maintenance
NV-1732-0005

DD 963
AN/UYK-7 DD 963 Computer/Peripheral Technician
NV-1715-1261

DD-963
DD-963 Auxiliary Systems Technician
NV-1704-0265
DD-963 Basic Circuit Concepts for Gas Turbine Controls, Class C1
NV-1402-0020
DD-963 Centralized Damage Control Console Operator, Class C1
NV-1601-0015
DD-963 Centralized Damage Control System Console Maintenance, Class C1
NV-1601-0016
DD-963 Centralized Damage Control/Fuel Control System Operator
NV-1601-0015
DD-963 Combat System Maintenance Management
NV-1715-1046
DD-963 Engineering Department Division Officer
NV-1704-0267
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1
NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators
NV-1715-0869
DD-963 Main Propulsion Assistant
NV-1704-0267
DD-963 Naval Tactical Data System (NTDS) Data Utilization
NV-1402-0023
DD-963 Naval Tactical Data Systems (NTDS) Data Input
NV-1402-0010
DD-963 PCO/PXO Gas Turbine Engineering
NV-1601-0024
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025
DD-963 Spruance Class Destroyer Radio Communications Systems Maintenance
NV-1715-0870
FFG-7/DD-963 60/40 Hz Static Frequency Converter Maintenance
NV-1714-0029
Radio Communications System Maintenance for DD-963 Class Ships, Class C-1
NV-1715-0870
SSM Automatic Degaussing Equipment Maintenance for the DD-963
NV-1601-0017
SSM Degaussing System for DD-963 Class Destroyer, Class C1
NV-1601-0017

DDG-993
CGN-38/DDG-993 (SM-2) Combat Systems Operator
NV-2202-0119

DECM
A-3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance
NV-1715-0525
RA-5C AN/ALQ-55 DECM System
NV-1715-0687
RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance
NV-1704-0075

DIFAR
DIFAR Training for Acoustic Operators P-3A/B(D) and P3C
NV-1715-0704
Jezebel Gram Analysis for AW's P-3A/B (DIFAR Retrofit)
NV-1715-0704
P-3A/B (DIFAR) Weapons Systems Technician Organizational Maintenance
NV-1715-1024

DIU/MIU
Digital Interface Unit/Message Interface Unit (DIU/MIU)
NV-1402-0081

DLCS
AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance
NV-1715-1469

DLG
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073
DLG 6-16 Combat System
NV-1715-0764
DLG-16 (MOD) Terrier Weapons System
NV-2202-0073

DLG-28
Terrier Weapon System DLG-28 (Class System Level Maintenance)
NV-1715-0804

DMINS
Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance
NV-1715-0994

DP-890A
Computer DP-890A and B/UYK Processor Maintenance II
NV-1402-0080

DRAI
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1
NV-1715-0344

DRT
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1
NV-1715-0344

DS
Data Systems Technician, Class A (DS "A")
NV-1715-0753

DSOT
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072

DSSCS
AUTODIN/DSTE/DSSCS/Mode V Maintenance, Class C1
NV-1715-0284

DSTE
AUTODIN/DSTE/DSSCS/Mode V Maintenance, Class C1
NV-1715-0284

DVARS
AN/APN-187 DVARS Intermediate Maintenance
NV-1715-0299

E-1B
E-1B Aircraft Pilot Training
NV-1606-0053
E-1B Airframe and Hydraulic Systems Organizational Maintenance
NV-1704-0195
E-1B AN/APS-82 Radar System Maintenance
NV-1715-0287
E-1B AN/ASN-28 Central Gyro Reference System Maintenance
NV-1715-0164
E-1B ARC-97 Radio Repeater System Maintenance
NV-1715-0195
E-1B Electrical and Instrument Systems Organizational Maintenance
NV-1714-0013
E-1B Electronic Systems Organizational Maintenance
NV-1715-0498
E-1B Integrated Electrical System Organizational Maintenance
NV-1715-0498
E-1B MH-67 Automatic Flight Control System Intermediate Maintenance
NV-1704-0034
E-1B Naval Flight Officer and Aircrewman
NV-1704-0233
E-1B Power Plants and Related Systems Organizational Maintenance
NV-1704-0227

E-2A
E-2A Aircraft Familiarization (Pilots)
NV-1704-0054
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)
NV-1715-0460
E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance
NV-1715-0478
E-2A Aviation Electrician Organizational Maintenance
NV-1704-0081
E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance
NV-1715-0254
E-2A AN/APS-96 Search Radar Intermediate Maintenance
NV-1715-0672
E-2A AN/ARC-80 Radio Set Intermediate Maintenance
NV-1715-0190
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance
NV-1715-0471
E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate
NV-1715-0382
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0377
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance
NV-1715-0340
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance
NV-1715-0349
E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance
NV-1715-0046
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance
NV-1715-0318
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance
NV-1715-0347
E-2A Electrical and Instruments Maintenance
NV-1704-0093
E-2A Flight Technician Organizational Level Maintenance, No. 4
NV-1704-0036
E-2A Hydraulics/Airframes System Maintenance
NV-1704-0155
E-2A Hydraulics/Airframes Systems Organizational Maintenance
NV-1704-0155
E-2A Inertial Navigation System AN/ASN-36 Maintenance
NV-1715-0709
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance
NV-1715-0323
E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance
NV-1715-0376
E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance
NV-1715-0379
E-2A Power Plant and Related Systems Maintenance No. 8
NV-1704-0152
E-2A Power Plant and Related Systems Organizational Maintenance
NV-1704-0151
E-2A Radio Set AN/ARC-80 Intermediate Maintenance
NV-1715-0190
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance
NV-1715-0348
E-2A Weapon System Special, No. 5
NV-1715-0459
E-2A Weapon System Specialist
NV-1715-0459

E-2B
E-2B and C-2A Environmental Systems Organizational Maintenance
NV-1701-0003
E-2B Airborne Tactical Data Systems
NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training
NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer)
NV-1704-0225
E-2B Aircraft Pilot Training
NV-1606-0054
E-2B AN/APS-96 Radar Organizational Maintenance
NV-1715-1203
E-2B ATDS Operator (Naval Flight Officer)
NV-1704-0225
E-2B Detection System Organizational Maintenance
NV-1715-0769
E-2B Electronic Systems Organizational Maintenance
NV-1715-0776
E-2B Naval Flight Officer
NV-1704-0226
E-2B Navigational Systems Organizational Maintenance
NV-1715-1215
E-2B OA-8206/ASA-27A Difference Organizational Maintenance
NV-1715-0508
E-2B Weapon System Specialist Organizational Maintenance
NV-1715-0757
E-2B Weapon System Trainer (WST)
NV-1704-0232
E-2B/C-2A Aviation Electrician Organizational Maintenance
NV-1704-0224

E, E & H
Electricity, Electronics and Hydraulics, Class P (E, E & H, Class P)
NV-1715-0565

Ear
Eye, Ear, Nose and Throat Technician, Class C
NV-0709-0009

Early Warning
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O
NV-1715-0599
Airborne Early Warning, Class O
NV-2202-0036

Echo
AN/UQN-4 Echo Sounder Maintenance
NV-1715-0425

Economics
Defense Economics and Decision Making Off-Campus Graduate Seminar
NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College)
NV-1511-0008
Naval War College Correspondence Course in Defense Economics and Decision Making
NV-1511-0005

Education
Drug Abuse Education Specialist
NV-0799-0004
Leadership and Management Education and Training (LMET) for Machinist's

Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022
Leadership Management Education and Training (LMET) Instructor NV-1717-0021
Leadership Management Education and Training, Class C1 NV-1717-0021

Effectiveness
Organizational Effectiveness Advanced Consultant Course NV-0326-0004
Organizational Effectiveness Specialist NV-0326-0003

Egress
F-4B/J Egress and Environmental Control Systems Maintenance NV-1704-0106
F-4B/J Egress and Environmental Control Systems Organizational Maintenance NV-1704-0106
S-3A Environmental Control, Miscellaneous Utilities and Egress Systems Organizational Maintenance NV-1730-0007

Electric
Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount NV-2202-0075
Electric Motor Rewind, Class C NV-1714-0016
FFG-7 Electric Plant Operations G5 NV-1710-0099
MMG-1A Mobile Electric Power Plant Intermediate Maintenance NV-1714-0038
NC-8A Mobile Electric Power Plant Intermediate Maintenance NV-1732-0007

Electrical
A-4 Integrated Electrical Systems Organizational Maintenance NV-1704-0185
A-4M Electrical Systems Organizational Maintenance NV-1704-0102
A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097
A-6A Electrical Systems Intermediate Maintenance NV-1704-0108
A-6A Electrical Systems Maintenance NV-1704-0088
A-6A Electrical Systems Organizational Maintenance NV-1704-0100
A-6A, KA-6D, A-6E Electrical Systems Organizational Maintenance NV-1704-0240
A-7 Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7A/B Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7E Electrical and Instrument Systems Organizational Maintenance NV-1704-0080
Aviation Support Equipment Technician Electrical NV-1714-0019
Aviation Support Equipment Technician, Class A (Electrical Specialty) NV-1704-0111
AH-1J Electrical Organizational Maintenance NV-1704-0105
AN/USM-403 Electrical System Equipment Test Set Intermediate Maintenance NV-1714-0032
C-121 Electrical Systems NV-1704-0178
C-2A Electrical and Instruments Organizational Maintenance NV-1715-0150
Construction Mechanic/Automotive Electrical Maintenance, Class C NV-1703-0001
CH-46A Electrical and Instrument Systems NV-1704-0077
CM"C" Automotive Electrical Maintenance NV-1703-0001
Denison Electrical and Electronics Control Maintenance and Controls for Logic Elevators NV-1704-0257
E-1B Electrical and Instrument Systems Organizational Maintenance NV-1714-0013
E-1B Integrated Electrical System Organizational Maintenance NV-1715-0498
E-2A Electrical and Instruments Maintenance NV-1704-0093
Electrical Component Maintenance (UNREP) NV-1715-0025
Electrical Control Devices NV-1714-0050
Electrical Distribution and Control NV-1714-0005
Electrical Distribution and Control Equipment Combined Maintenance NV-1714-0005
Electrical Gyrocompass Operation Maintenance Technician, Class C NV-1715-0587
Electrical/Electronics Fundamentals, Class P NV-1715-0352
EA-6B Electrical Systems Organizational Maintenance NV-1704-0242
EC-130 Electrical and Instruments Maintenance NV-1715-1181
EC-130Q Electrical Systems and Circuits Organizational Maintenance NV-1714-0001
F-14A Electrical Systems Technician (Crew Member) Organizational Maintenance NV-1704-0218
F-4 Basic Electrical Systems Organizational Maintenance NV-1715-0142
F-4B Aircraft Electrical System Organizational Maintenance NV-1704-0092
F-4B Electrical Systems Organizational Maintenance NV-1704-0092
F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance NV-1715-0151
F-4B/J Advanced Electrical Organizational Maintenance NV-1715-0153
F-4J Aircraft Electrical System Organizational Maintenance NV-1704-0094
F-4J Electrical Systems Organizational Maintenance NV-1704-0094
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104
FFG-7 Auxiliary Electrical Subsystem Maintenance Class C1 NV-1714-0022
FFG-7 Auxiliary Electrical Systems Maintenance NV-1714-0031
FFG-7 Class Ship Auxiliary Electrical Subsystem Technician NV-1714-0030
FFG-7 Class Ship Auxiliary Electrical Subsystems NV-1714-0043
FFG-7 Class Ship Auxiliary Electrical System Technician NV-1732-0010
FFG-7 Electrical Maintenance NV-1715-1227
FFG-7 Electrical Plant Control Console Operator Electrical Maintenance NV-1714-0039
FFG-7 Electrical Plant Control Console Operator Mechanical Maintenance NV-1714-0040
FFG-7 Electrical Systems Maintenance NV-1714-0041
FFG-7 Engineering System Maintenance Management, Electrical, Class C1 NV-1714-0023
Gas Turbine Electrical, Class A NV-1710-0102
Gas Turbine Systems Technician Electrical Class A1 NV-1714-0024
Gyrocompass Technician Electrical, Class C1 NV-1715-0587
Gyrocompass Technician—Electrical,

Class C NV-1715-0587

H-46 Electrical and Instrument Systems Organizational Maintenance NV-1714-0011

H-53 Electrical and Instrument Systems Organizational Maintenance NV-1704-0235

H-53 Electrical and Instruments Intermediate Maintenance NV-1704-0236

Hovering and Missile Compensation and Associated Position Control Units (PCU's) Electrical Maintenance NV-1715-1311

KA-3A/KA-3B Electrical and Instruments Organizational Maintenance NV-1714-0014

KC-130F Electrical Systems and Circuits Maintenance NV-1704-0071

KC-130F Electrical Systems Organizational Maintenance NV-1704-0071

Magnetic Disk File (MDF) Theory and Electrical Maintenance NV-1402-0082 NV-1715-1464

Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0 NV-1402-0140

Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1 NV-1715-1001

Missile Launcher System Mk 24 Maintenance - Electrical NV-1714-0004

Oxygen Generator Electrical Model 6L16 (Enlisted) NV-1715-0560

OV-10A Electrical Systems Organizational Maintenance NV-1704-0095

P-3 Electrical Components Intermediate Maintenance NV-1704-0072

P-3 Electrical System Maintenance, No. 12 NV-1704-0073

P-3 Electrical System Organizational Maintenance NV-1704-0073

P-3 Electrical Systems Intermediate Maintenance NV-1704-0072

P-3 Integrated Electrical System Organizational Maintenance NV-1704-0101

P-3A/B Integrated Electrical System Organizational Maintenance NV-1704-0101

P-3C Integrated Electrical Systems Organizational Maintenance NV-1704-0089

Recovery Assist Securing and Traversing (RAST) A/W 42U-1(V) Maintenance (Electrical) NV-1715-1287

RA-5C Electrical and Indicating Systems (Intermediate Maintenance) NV-1704-0099

RA-5C Electrical and Indicating Systems Organizational Maintenance NV-1704-0069

RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601

S-2D/E Electrical and Instruments Maintenance, No. 6 NV-1704-0086

S-3A Electrical System Intermediate Maintenance NV-1714-0034

S-3A Electrical Systems Organizational Maintenance NV-1714-0033

Steering/Diving Ship's Control Station and Variable Ballast and Trim Electrical Maintenance NV-1715-1312

Submarine Electrical Control and Distribution Equipment Combined Maintenance NV-1714-0054

SH-2F Electrical Component Intermediate Maintenance NV-1714-0035

SH-2F Electrical System Organizational Maintenance NV-1714-0036

SH-3 Electrical Components Intermediate Maintenance NV-1704-0031

SH-3 Electrical Systems Organizational Maintenance NV-1704-0114

SH-3A Electrical Systems Maintenance NV-1704-0083

SH-3A/D Electrical Systems Organizational Maintenance NV-1704-0114

SH-60B Electrical System Organizational Maintenance NV-1714-0037

UH-1N Electrical Systems Organizational Maintenance NV-1704-0207

UH-1N Electrical/Instrument Systems Organizational Maintenance NV-1704-0273

UH-2A/B Electrical System Maintenance NV-1704-0091

UH-2C Electrical System Organizational Maintenance NV-1704-0090

UNREP Electrical Component Maintenance United Controls NV-1715-0025

400 HZ Motor Generator Electrical System Maintenance NV-1714-0025

500 KW 60 HZ Motor Generator Set Electrical Maintenanece NV-1714-0046

6L16 Oxygen Generator Electrical Technician NV-1715-0918

7L16 Oxygen Generator Electrical Support Technician NV-1714-0017

Electrician

Aviation Electrician Conversion NV-1704-0070

Aviation Electrician's Mate M (Electrician), Class A NV-1704-0070

Construction Electrician Cable Splicer (Class C) NV-1714-0015

Construction Electrician—Power and Communications Cable Splicing NV-1714-0015

Construction Electrician, Class A (CE "A") NV-1714-0008

Construction Electrician, Class B NV-1714-0010

Construction Electrician, Class J (CE "J") NV-1714-0010

CV Catapult Electrician NV-1714-0042

CVA Catapult Electrician, Class C NV-1710-0010

E-2A Aviation Electrician Organizational Maintenance NV-1704-0081

E-2B/C-2A Aviation Electrician Organizational Maintenance NV-1704-0224

Interior Communications (IC) Electrician Class A NV-1714-0026

Interior Communications (IC) Electrician, Class B NV-1715-0755

Interior Communications (IC) Electrician, Class C7 NV-1715-0755

Interior Communications Electrician Advanced Maintenance Training NV-1715-1296

Electrician's

Aviation Electrician's Mate I (Instrument), Class A NV-1704-0068

Aviation Electrician's Mate Intermediate, Class C7 NV-1714-0052 NV-1715-0135

Aviation Electrician's Mate M (Electrician), Class A NV-1704-0070

Aviation Electrician's Mate, Class A NV-1704-0068

Aviation Electrician's Mate, Class B NV-1715-0134

Aviation Electrician's Mate, Class B (Advanced) NV-1715-0134

Aviation Electrician's Mate, Class B (Intermediate) NV-1715-0135

Electrician's Mate Enlisted Maintenance NV-1714-0002

Electrician's Mate Maintenance, Class C1 NV-1714-0003

Electrician's Mate Maintenance, Class P NV-1714-0003

Electrician's Mate, Class A NV-1714-0012

Electrician's Mate, Class A1 NV-1714-0012

Electrician's Mate, Class B NV-1715-0104

Electrician's Mate, Class C7 NV-1715-0104

Electrician's Mates, Class A NV-1714-0012

Electrician's Mates, Class A, Part II Power and Lighting Equipment NV-1714-0012

Minesweeping Electrician's Mate NV-1714-0027

Electrician's Mate
- Electrician's Mate Advanced Maintenance Training NV-1715-1295

Electricians
- Interior Communications (IC) Electricians, Class A (A-1) NV-1715-0729

Electricity
- Basic Electricity and Electronics - Modules 15-25 NV-1714-0020
- Basic Electricity and Electronics - Modules 30-34 NV-1714-0021
- Basic Electricity and Electronics for Torpedoman's Mate NV-1715-0532
- Basic Electricity and Electronics, (Modules 1-14) NV-1714-0009
- Basic Electricity and Electronics, Class AP (Modules 0-25) NV-1714-0009
- Basic Electricity and Electronics, Class P NV-1714-0009
- Basic Electricity Phase of Class A Electronics Technician School NV-1714-0009
- Electricity, Electronics and Hydraulics Class AP NV-1715-0565
- Electricity, Electronics and Hydraulics, Class P (E, E & H, Class P) NV-1715-0565
- Submarine Radioman Electricity and Electronics NV-1715-0316

Electro-Optical
- AN/AAM-60(V)2 Electro-Optical Systems Test Set Intermediate Maintenance NV-1715-1027
- AN/AAM-60(V)6 Electro-Optical Test Set Intermediate NV-1715-1190

Electro-Optics
- Electro-Optics/Cryogenics Fundamentals NV-1715-1414

Electrocardiography
- Electrocardiography and Basal Metabolism Technic NV-0709-0010
- Electrocardiography and Basal Metabolism Technician, Class C NV-0709-0010
- Electrocardiography Technician, Class C NV-0709-0010
- Electrocardiography Technique NV-0709-0010

Electroencephalography
- Electroencephalography Technic NV-0709-0011
- Electroencephalography Technician, Class C NV-0709-0011

Electrolytic
- Electrolytic Oxygen Generator Operators NV-1601-0008
- Electrolytic Oxygen Generator 7L16 NV-1601-0002

Electromagnetic
- Electromagnetic Compatability Technician NV-1715-1349

Electronic
- (Electronic Surveillance Measures (ESM) AN/WLR-6 Basic Operator) NV-1715-0500
- A-6 Electronic Module Test Console Intermediate Maintenance NV-1715-0451
- Advanced Electronic Assembly Repair Intermediate Maintenance NV-1715-1028
- Airborne Electronic Warfare, Class O NV-1715-0002
- Aviation Squadron Electronic Warfare (EW) Officer, Class A2 NV-1715-0831
- AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0144
- AN/SQS-26 AXR Electronic Maintenance NV-1715-0300
- Basic Electronic Test Equipment NV-1715-1325
- C-121 Electronic Systems NV-1704-0179
- Cryptologic Maintenance Technician Electronic Technology NV-1402-0064
- DD-063 Class Electronic Warfare Suite NV-1715-0817
- E-1B Electronic Systems Organizational Maintenance NV-1715-0498
- E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0377
- E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375
- E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746
- E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance NV-1715-0376
- E-2B Electronic Systems Organizational Maintenance NV-1715-0776
- Electronic Assembly Repair NV-1715-1021
- Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934
- Electronic Hovering and Missile Compensation NV-1715-0934
- Electronic Special Circuits NV-1715-1401
- Electronic Support Measures 637 Class Type 2 Combined Maintenance Pipeline NV-1715-1483
- Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Basic Operator NV-1715-0989
- Electronic Surveillance Measures (ESM) AN/WLR-1G Combined Maintenance NV-1715-0995
- Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance NV-1715-0501
- Electronic Surveillance Measures (ESM) AN/WLR-8(V)2 Combined Operator Maintenance NV-1715-0469
- Electronic Surveillance Measures (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance NV-1715-0494
- Electronic Surveillance Measures (ESM) ELINT Technician SSN 637 Class, Class C-1 NV-1715-0888
- Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883
- Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889
- Electronic Technology, Class A1 NV-1715-1252 NV-1715-1253 NV-1715-1254
- Electronic Test Equipment Basic Operator, Class F1 NV-1715-0896
- Electronic Test Equipment Operation NV-1715-0896
- Electronic Test Equipment Operation/Operational Use NV-1715-0005
- Electronics Technician, Class A—A-2 (Electronic Circuit Applications) NV-1715-0723
- Electronics Technician, Class C, Solid State Fundamentals NV-1715-0103
- EA-6B ICAP Electronic Countermeasures Analyst Organizational Maintenance NV-1715-0955
- F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217
- F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371
- Fleet Electronic Support Maintenance, Class C1 NV-1715-1251
- General Purpose Electronic Test Equipment Functional and Operational Use NV-1715-1331
- General Purpose Electronic Test Equipment Repair Intermediate Maintenance NV-1715-1494
- IOIC Electronic Data Processing Maintenance NV-1715-0581
- Miniature Electronic Repair Program, Class F-1 NV-1715-0815
- Miniature/Microminiature Electronic Repair (2M) NV-1715-0815
- Ocean Systems Technician Electronic NV-1715-1114
- Polaris Electronics, Class A NV-1715-0705
- QH-50D Weapons System Electronic . Intermediate Maintenance NV-1715-0633

RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance
NV-1715-0479
RA-5C Electronic Reconnaissance Organizational Maintenance
NV-1715-0224
S-3A Electronic Systems Organizational Maintenance
NV-1715-1196
Solid State Theory and Digital Electronics
NV-1715-0103
Solid State Theory for Electronic Equipment
NV-1715-0103
Strategic Weapons (SWS) System Electronic A School
NV-1715-0705
Strategic Weapons System Electronic A School
NV-1715-1400
Submarine Electronic Technician Electronic Warfare Technology
NV-1402-0076
Surface Electronic Warfare Operations Intermediate
NV-1715-1334
SSN/SSBN Electronic Hovering and Depth Control Combined Maintenance
NV-1715-0934
Three Winch Controller Using Standard Electronic Modules (SEM) and Controls for Logic Elevators
NV-1710-0077
NV-1710-0111
585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician
NV-1715-0882
637 Class Electronic Surveillance Measures (ESM) ELINT Technician
NV-1715-0888

Electronic Warfare

Advanced Electronic Warfare Applications
NV-1715-1143
Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase
NV-1715-0569
Airborne Electronic Warfare, Class O
NV-1715-0002
Aviation Electronic Warfare Intelligence Operator
NV-1715-1148
Aviation Electronic Warfare, Receivers, Analyzer, Recorder and Display Intermediate Level Maintenance
NV-1715-1149
Aviation Squadron Electronic Warfare (EW) Officer, Class A2
NV-1715-0831
Basic Electronic Warfare (EW) Equipment Operator
NV-1715-0017
DD-063 Class Electronic Warfare Suite
NV-1715-0817
Electronic Warfare for Nonacoustic Operator, P3A/B(D)
NV-1715-0020
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2
NV-1715-0781
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1
NV-1715-0781
Electronic Warfare Electronic Support Measures System Maintenance, Class A
NV-1715-0780
Electronic Warfare Fundamentals and Preventive Maintenance Technology
NV-1715-0779
Electronic Warfare Fundamentals/Technology, Class A1
NV-1715-0779
Electronic Warfare Intelligence Operator
NV-1715-0021
Electronic Warfare Officer Surface
NV-2202-0115
Electronic Warfare Officers and Supervisors Course
NV-1715-0022
Electronic Warfare Technician
NV-1402-007
Electronic Warfare Technician AN/SLQ-17 Equipment Operations
NV-1402-0074
Electronic Warfare Technician AN/SLQ-17 Maintenance
NV-1715-1151
Electronic Warfare Technician AN/SLQ-32 Operator
NV-1715-1144
Electronic Warfare Technician AN/SLQ-32(V2) Electronic Surveillance Measures (ESM) Maintenance
NV-1402-0075
Electronic Warfare Technician AN/WLR-1 Electronic Support Measures System Maintenance
NV-1715-0780
Electronic Warfare Technician Class A, Preventive Maintenance Technology
NV-1715-0779
Electronic Warfare Technician WLR-1H Maintenance
NV-1715-1250
Electronic Warfare Technician, Class A (A-1), Fundamentals
NV-1715-0779
Electronic Warfare Technician, Class A (A-1), Fundamentals/Basic Operator
NV-1715-0779
Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance
NV-1715-0780
Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance
NV-1715-0781
Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance
NV-1715-0781
Electronic Warfare Technician, Class A (A-4), Tactical Operations
NV-1715-0782
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance
NV-1715-0296
Electronic Warfare Watch Supervisor-Surface
NV-1715-1237
F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician
NV-1704-0217
Intelligence/Electronic Warfare Officer
NV-1715-0332
Naval and Marine Electronic Warfare Officer
NV-2202-0108
Officer Electronic Warfare Operations
NV-1715-0023
Submarine Electronic Technician Electronic Warfare Technology
NV-1402-0076
Surface Electronic Warfare Officer
NV-2202-0115
Tactical Electronic Warfare
NV-1715-0768
Tactical Electronic Warfare (EW) Support Measures STMAN/SSQ-80(V) Maintenance
NV-1402-0077
VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer
NV-1606-0066

Electronics

Air Traffic Control Electronics Maintenance Officers, Class O
NV-1715-0670
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O
NV-1715-0599
Aviation Electronics Fundamentals, Class A
NV-1715-0380
Aviation Electronics Intelligence, Class O/C
NV-1715-0504
Aviation Electronics Officers, Class O
NV-1715-0522
AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance
NV-1715-0515
AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0540
AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1)
NV-1715-0088
Basic Electricity and Electronics - Modules 15-25
NV-1714-0020
Basic Electricity and Electronics - Modules 30-34
NV-1714-0021
Basic Electricity and Electronics for Torpedoman's Mate
NV-1715-0532
Basic Electronics (MA-40)
NV-1715-0001
Basic Electronics Orientation
NV-1715-0480
Basic Electronics Rate Training
NV-1715-1444
Digital and Electronics Training
NV-1715-0050
Electrical/Electronics Fundamentals, Class P
NV-1715-0352
Electricity, Electronics and Hydraulics Class AP
NV-1715-0565
Electricity, Electronics and Hydraulics, Class P (E, E & H, Class P)
NV-1715-0565
Electronics Maintenance (Officers)
NV-1715-0766
Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5,

Class C
NV-1715-0566

Electronics Officers (Maintenance)
NV-1715-0766

Electronics Officers Administrative
NV-1715-0721

Electronics Specialized Training
NV-1715-0169

Electronics Technical Officer, Class O
NV-1715-0345

Electronics Technician Maintenance
NV-1715-1010

Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance
NV-1715-0088

Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance
NV-1715-0088

Electronics Technician, Class C, Solid State Fundamentals
NV-1715-0103

Ground Controlled Approach Electronics Maintenance (Radar Set AN/ FPN-36), Class C
NV-1715-0217

Ground Controlled Approach Electronics Maintenance, Radar Set AN/ CPN-4A, Class C
NV-1715-0079

Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O
NV-1715-0670

Microminiature Electronics Repair
NV-1715-1330

Miniature Electronics Repair
NV-1715-1345
NV-1715-1410

Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician)
NV-1715-0171

Periscope Set Type 15 Electronics Combined Maintenance
NV-1715-0988

Photographic Electronics Systems, Class C
NV-1715-0354

Polaris Electronics, Class A
NV-1715-0705

Prospective Electronics Material Officer—Pacific Fleet, Class C2
NV-1715-0816

QH-50C Weapons System Intermediate Electronics Maintenance
NV-1715-0568

RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance
NV-1715-0366

RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0145

RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance
NV-1715-0601

RA-5C Flight Control System Electronics (Intermediate Maintenance)
NV-1715-0732

RA-5C Photo Systems Electronics
NV-1715-0543

RA-5C Photographic Electronics Fundamentals
NV-1715-0152

Solid State Theory and Digital Electronics
NV-1715-0103

Sonar Electronics Intermediate (SEI)
NV-1715-0867

Sonar Technician Class A-1 (Basic Electronics)
NV-1715-0580

Sonar Technician Class A-2 (Intermediate Electronics)
NV-1715-0578

Submarine Electronics Technical Training Module 1
NV-1715-0967

Submarine Electronics Technical Training Module 11
NV-1715-0977

Submarine Electronics Technical Training Module 12
NV-1715-0978

Submarine Electronics Technical Training Module 2
NV-1715-0968

Submarine Electronics Technical Training Module 3
NV-1715-0969

Submarine Electronics Technical Training Module 4
NV-1715-0970

Submarine Electronics Technical Training Module 5
NV-1715-0971

Submarine Electronics Technical Training Module 6
NV-1715-0972

Submarine Electronics Technical Training Module 7
NV-1715-0973

Submarine Electronics Technical Training Module 8
NV-1715-0974

Submarine Electronics Technical Training Module 9
NV-1715-0975

Submarine Electronics Technical Training Modules 1-12
NV-1715-0966

Submarine Radioman Electricity and Electronics
NV-1715-0316

Trident (ECS) Electronics Command and Control System Technician Conversion
NV-1715-1362

Trident Command and Control System (CCS) Electronics Technician Conversion
NV-1715-1364

Electronics Technician

Aviation Electronics Technician N (Navigation), Class A
NV-1715-0097

Aviation Electronics Technician R (Radar), Class A
NV-1715-0295

Aviation Electronics Technician/ Aviation Fire Control Technician, Advanced Class B
NV-1715-0137

Aviation Electronics Technician, Class A
NV-1715-0289

Aviation Electronics Technician, Class B
NV-1715-0137

AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1)
NV-1715-0812

AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1)
NV-1715-0015

AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0756

AN/SPS-29E Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0749

AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0809

AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1)
NV-1715-0790

AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1)
NV-1715-0088

AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1)
NV-1715-0099

AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1)
NV-1715-0009

AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1)
NV-1715-0814

AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1)
NV-1715-0004

AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1
NV-1715-0193

AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1)
NV-1715-0056

AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1)
NV-1715-0010

AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1)
NV-1715-0011

Basic Electricity Phase of Class A Electronics Technician School
NV-1714-0009

CP-967/UYK Computer Maintenance (Electronics Technician, Class C1)
NV-1402-0016

Digital Principles and Techniques (Electronics Technician, Class C1)
NV-1402-0027

Electronics Technician (Class C) AN/ URC-58, AN/VRC-46 Radio Sets Maintenance
NV-1715-0095

Electronics Technician (ET) Senior Conversion
NV-1715-0554

Electronics Technician A, Communications
NV-1715-0851

Electronics Technician Advanced Electronics Field/ Marine Corps/Foreign

Class A1
NV-1715-1069

Electronics Technician Air Force Class A1
NV-1715-1072

Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance
NV-1715-0510

Electronics Technician AN/SPS-40 Radar Set Maintenance
NV-1715-0557

Electronics Technician AN/URN-20 Radio Set Class C Maintenance
NV-1715-0193

Electronics Technician Class A
NV-1715-1489

Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer
NV-1715-0019

Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance
NV-1715-0006

Electronics Technician Class C, AN/VCC-2 Shipboard System
NV-1715-0016

Electronics Technician Class C, AN/WRT-2 and AN/WRR-2
NV-1715-0011

Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance
NV-1715-0026

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30)
NV-1715-0027

Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance
NV-1715-0028

Electronics Technician Communications Basic, Class A1
NV-1715-0851

Electronics Technician Communications Equipment Fundamentals, Class A1
NV-1715-0852

Electronics Technician Communications—Nuclear Field, Class A1
NV-1715-0853

Electronics Technician Maintenance
NV-1715-1010

Electronics Technician Nuclear Field Class A1
NV-1715-1070

Electronics Technician Radar Basic
NV-1715-0854

Electronics Technician Radar Equipment Fundamentals, Class A1
NV-1715-0855

Electronics Technician Radar—Nuclear Field, Class A1
NV-1715-0856

Electronics Technician Radar, Class A1
NV-1715-0854

Electronics Technician Submarine/Reserve Class A1
NV-1715-1071

Electronics Technician, AN/SPA-34 Indicator Group, Class C
NV-1715-0310

Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance
NV-1715-0088

Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C
NV-1715-0590

Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance
NV-1715-0088

Electronics Technician, Class A (Communications)
NV-1715-0730

Electronics Technician, Class A (Communications, Radar and Sonar Specialties)
NV-1715-0727

Electronics Technician, Class A (Radar)
NV-1715-0731

Electronics Technician, Class A—A-1 (Electronic Fundamentals)
NV-1715-0722

Electronics Technician, Class A—A-2 (Electronic Circuit Applications)
NV-1715-0723

Electronics Technician, Class A—A-3 (Communications)
NV-1715-0724

Electronics Technician, Class A—A-3 (Radar)
NV-1715-0725

Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications)
NV-1715-0639

Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar)
NV-1715-0638

Electronics Technician, Class B
NV-1715-0754

Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications)
NV-1715-0639

Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment
NV-1715-0194

Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance
NV-1715-0364

Electronics Technician, Class C, AN/SPS-29 Radar Set
NV-1715-0024

Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group
NV-1715-0298

Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group
NV-1715-0298

Electronics Technician, Class C, AN/SPS-8 Radar Maintenance
NV-1715-0305

Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance
NV-1715-0201

Electronics Technician Class C, AN/SRN-9 Radio Navigation Set
NV-1715-0099

Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance
NV-1715-0008

Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1
NV-1715-0814

Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance
NV-1715-0012

Electronics Technician, Class C, Electronics Material Officer
NV-1715-0007

Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0182

Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance
NV-1715-0018

Electronics Technician, Class C, Microwave Fundamentals
NV-1715-0186

Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar)
NV-1715-0638

Electronics Technician, Class C, Solid State Fundamentals
NV-1715-0103

Electronics Technician, Class C, SSBN CNC Technician Maintenance
NV-1715-0085

Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0168

Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance
NV-1715-0063

Electronics Technician, Class C, SSBN Navigation Aids, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0064

Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician
NV-1715-0066

Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130

Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065

Electronics Technician, Class C, TACAN Maintenance
NV-1715-0197

Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver
NV-1715-0523

Electronics Technician, Class C1
NV-1715-0745

Electronics Technician, Class C7
NV-1715-0754

Electronics Technician, Indicator Group AN/SPA-40, Class C
NV-1715-0013

Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator

Maintenance
NV-1715-0014
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1)
NV-1715-0874
Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C
NV-1715-0080
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C
NV-1715-0078
Radar Repeater Systems Maintenance (Electronics Technician, Class C1)
NV-1715-0029
Trident Command and Control System (CCS) Electronics Technician Conversion, Class C
NV-1715-1165

Electrostatically
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion
NV-1715-1132
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem
NV-2205-0002
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem Theory
NV-1715-1457
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Command Replacement/Navigation
NV-1715-1397
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Navigation Officer Replacement
NV-2205-0001
Electrostatically Supported Gyro Monitor (ESGM) Calibration
NV-1715-1375
NV-1715-1458
Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer
NV-1715-1157
Electrostatically Supported Gyro Monitor (ESGM) Theory and Maintenance
NV-1715-1158
Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement
NV-1715-1370
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement
NV-1715-1166
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements
NV-1715-1371
Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion
NV-1715-1153

Elevator
Cargo Weapons Elevator Maintenance
NV-1704-0258
NV-1704-0323
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1
NV-1715-0392
SD/P Elevator System Maintenance Technician
NV-1714-0045

Elevators
Denison Electrical and Electronics Control Maintenance and Controls for Logic Elevators
NV-1704-0257
Three Winch Controller Using Standard Electronic Modules (SEM) and Controls for Logic Elevators
NV-1710-0077
NV-1710-0111

Embarkation
Amphibious Transport/Cargo Ship Embarkation
NV-0419-0005
Embarkation for Amphibious Operations
NV-0419-0004
Enlisted Basic Amphibious Embarkation
NV-0419-0003
Enlisted Embarkation (Basic)
NV-0419-0003
Officers Embarkation (Basic)
NV-0419-0001
Staff Embarkation
NV-0419-0002

Encoder
A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance
NV-1715-0335
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance
NV-1715-0109
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance
NV-1715-0323
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1
NV-1715-0392

Engine
American Locomotive (ALCO 251C) Diesel Engine, Class C1
NV-1712-0010
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109
Caterpillar D-399 Diesel Engine Maintenance
NV-1712-0022
CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0032
Detroit Diesel V71 Series Engine Maintenance, Class C1
NV-1712-0019
Diesel Engine Technician, Class C1
NV-1712-0020
Diesel Engine/Fairbanks Morse Maintenance Technician
NV-1712-0002
Engineman Class C, General Motors 8-268A Diesel Engine
NV-1712-0007
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine
NV-1712-0014
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine
NV-1712-0010
Enginemen, Class C, General Motors 12-567E Diesel Engine
NV-1712-0006
Enginemen, Class C, General Motors 16-278A Diesel Engine
NV-1712-0005
Enginemen, Diesel Engine, Class C
NV-1712-0017
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair
NV-1704-0163
Fairbanks-Morse 38F5 1/4 Diesel Engine
NV-1712-0003
FFG-7 Auxiliary 16V149TI Diesel Engine Maintenance
NV-1712-0027
FM38D8 1/8 DR Diesel Engine, Class C1
NV-1712-0014
GM-12-567E/645E Diesel Engine Maintenance, Class C1
NV-1712-0006
GM-16-278A Diesel Engine Maintenance, Class C1
NV-1712-0005
GM8-268A Diesel Engine Maintenance, Class C1
NV-1712-0007
H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair
NV-1704-0049
J52-P408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0024
J52-P6A/8A Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0119
J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0037
J79-GE-8/10 Engine Intermediate Maintenance
NV-1704-0055
J85-GE-4 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0026
KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0014
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance
NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
NV-1704-0125
LM2500 Engine Changeout
NV-1703-0013
Main Engine and Lube Oil Purifier
NV-1601-0027
OV-10A T-76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance
NV-1704-0137
P-3 T-56-A-14 Engine and Related Systems Maintenance
NV-1704-0019
P-3 T56-A-10/14 Engine and Related

Systems Organizational Maintenance
NV-1704-0019
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56
NV-1704-0017
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance
NV-1712-0002
T-41-A-2 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0123
T-53-L-13 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0150
T-58 Engines First Degree Intermediate Maintenance T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0027
Trident Diesel Engine Supervisor
NV-1712-0029
Trident Submarine Diesel Engine Maintenance
NV-1712-0028
TF30-P-6 Intermediate Maintenance/Complete Engine Repair
NV-1704-0033
TF30-P-8 Intermediate Maintenance/Complete Engine Repair
NV-1704-0016
TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0016
TF41-A-2 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0123
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance
NV-1704-0029
T56-A-8/8A Engine and A6441FN-248 Propeller
NV-1704-0029
T58-GE-8B Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0021
T58-GE-8F Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0020
UH-1E T-53-L-11 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0025
UH-1E T53-L-11 Engine Organizational Maintenance
NV-1704-0018
Waukesha Diesel Engine
NV-1712-0001

Engineer
Assault Boat Engineer
NV-1712-0009
NV-1712-0016
Civil Engineer Corps Officer Basic—Contract Administration Specialty
NV-1408-0013
Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty
NV-1408-0015
Civil Engineer Corps Officer Basic—Public Works Management Specialty
NV-1408-0014
Engineer Officer
NV-1712-0008
Engineer Officer (Amphibious Ship)
NV-1710-0059
Engineering Officer
NV-1712-0008
FFG-7 Engineer Division Officer
NV-1704-0268
P-3 Flight Engineer System, No. 6
NV-1704-0048
P-3 Flight Engineers System
NV-1704-0048
Prospective Engineer Officers
NV-1717-0006
Prospective Nuclear Engineer Officer
NV-1732-0011
Surface Warfare Split Tour Engineer Officer
NV-1717-0016

Engineering
Basic Propulsion Engineering, Class A
NV-1715-0714
DD-963 Engineering Department Division Officer
NV-1704-0267
DD-963 PCO/PXO Gas Turbine Engineering
NV-1601-0024
Engineering Aid, Class A1 (EA "A")
NV-1601-0003
Engineering Aid, Class C, Planning and Estimating
NV-1408-0012
Engineering Aids, Class B
NV-1713-0001
Engineering Control and Surveillance System Maintenance, Class C1
NV-1601-0014
Engineering Control and Surveillance System Operator, Class C1
NV-1601-0013
Engineering Maintenance Principles, Practices, and Administration
NV-1710-0108
Engineering Officer
NV-1712-0008
Engineering Principles and Practices
NV-1601-0020
Engineering Watch Officer
NV-1710-0012
FFG-7 Engineering System Maintenance Management, Electrical, Class C1
NV-1714-0023
FFG-7 Engineering System Maintenance Management, Mechanical, Class C1
NV-1704-0260
FFG-7 Introduction to Engineering Maintenance Management, Class C1
NV-1704-0262
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators
NV-1710-0101
FFG-7 PCO/PXO Gas Turbine Engineering
NV-1601-0023
Introduction to Ocean Engineering
NV-1304-0001
Management Engineering
NV-1406-0012
Methods Engineering
NV-1408-0018
Patrol Gunboat/PG/Engineering Systems Operator and Maintenance
NV-1712-0018
Propulsion Engineering Basics, Class AP
NV-1704-0263
Prospective Engineering Officer Orientation
NV-1710-0013
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel)
NV-1732-0014
Senior Enlisted Steam Engineering
NV-1732-0009

Engineers
P-3 Flight Engineers Operational Maintenance, No. 5
NV-1704-0067

Engineman
Basic Engineman, Class C1
NV-1712-0015
Depot Level Boat Repairman (Engineman)
NV-1712-0013
Engineman Basic
NV-1703-0005
Engineman Class A, Class A1
NV-1712-0024
Engineman Class C, Controllable Pitch Propeller
NV-1704-0174
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine
NV-1712-0014
Engineman, Class A1
NV-1712-0011
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine
NV-1712-0010
Ground Controlled Approach Engineman, Class C, AN/MPN-5
NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Class C
NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
NV-1715-0081
Mine Warfare Engineman Basic
NV-1703-0005
Mine Warfare Packard Diesel Engineman (Class C)
NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C
NV-1712-0004

Enginemen
Enginemen Class C Basic Enginemen
NV-1712-0015
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System
NV-1710-0023
Enginemen, Diesel Engine, Class C
NV-1712-0017
Enginemen, Gas Turbine Engines, Class C
NV-1703-0002

Engines
General Motors Engines (16-278A)
NV-1703-0004

Enlisted
Basic Enlisted Submarine
NV-2202-0029
Enlisted Basic Aviation Training
NV-1704-0157
Enlisted Sonar Principles
NV-1715-0991
Enlisted Submarine Indoctrination
NV-2202-0092

Senior Enlisted Academy
NV-2202-0110

Entertainment
Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance
NV-1715-1230

Entitlements
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures
NV-1401-0004

Environment
Air Ocean Environment Course, Class C
NV-1304-0002

Environmental
A-6A Environmental, Escape and Survival Systems Organizational Maintenance
NV-1704-0085
C-2A Environmental Systems Organizational Maintenance
NV-1730-0005
E-2A Environmental Systems Organizational Maintenance
NV-1701-0003
E-2B and C-2A Environmental Systems Organizational Maintenance
NV-1701-0003
Environmental Indoctrination
NV-2202-0068
Environmental Sanitation Technic
NV-0707-0001
EC-130 Environmental Systems Maintenance
NV-1704-0279
F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0210
F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance
NV-1704-0209
F-4B/J Egress and Environmental Control Systems Maintenance
NV-1704-0106
F-4B/J Egress and Environmental Control Systems Organizational Maintenance
NV-1704-0106
RA-5C Survival and Environmental Systems
NV-1704-0040
RA-5C Survival and Environmental Systems Organizational Maintenance
NV-1704-0040
S-3A Environmental Control, Miscellaneous Utilities and Egress Systems Organizational Maintenance
NV-1730-0007

Equalizer
AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/ Spherical Array, Passive Beamforms (SAPB) Maintenance
NV-1715-1316

Equipment
Advanced Auxiliary Equipment Package
NV-1723-0016
Advanced Cryogenics Equipment Technician
NV-1720-0003
Auxiliary Equipment Package
NV-1730-0002
Aviation Support Equipment Technician (Mechanical) Class A
NV-1704-0246
Aviation Support Equipment Technician Hydraulics and Structures, Class A
NV-1704-0138
Aviation Support Equipment Technician Mechanical, Class A
NV-1704-0145
Aviation Support Equipment Technician, Class A (Electrical Specialty)
NV-1704-0111
Aviation Support Equipment Technician, Class A (Hydraulic Specialty)
NV-1704-0112
Aviation Support Equipment Technician, Class A (Mechanical Speciality)
NV-1704-0113
Aviation Support Equipment Technician, Class A1
NV-1704-0326
AIMS Mk XII System Differences Equipment Maintenance, Class C-1
NV-1715-0813
AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance
NV-1715-0939
Basic Electronic Warfare (EW) Equipment Operator
NV-1715-0017
Builder—Tool and Equipment Maintenance (BU "C")
NV-1002-0001
Cryogenics Equipment Technician
NV-1720-0002
Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C
NV-1715-0083
Data Systems Technician—Peripheral Equipment Maintenance, Class C
NV-1715-0047
Dental Equipment Repair Technology Class C
NV-1715-1511
Electronics Technician Communications Equipment Fundamentals, Class A1
NV-1715-0852
Electronics Technician Radar Equipment Fundamentals, Class A1
NV-1715-0855
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications)
NV-1715-0639
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar)
NV-1715-0638
Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications)
NV-1715-0639
Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar)
NV-1715-0638
Equipment Operator, Class B (EO "B")
NV-1710-0018
Equipment Operator, Class J (EO "J")
NV-1710-0018
Equipment Operators Gradework, Class C
NV-1710-0037
Equipment Operators/Asphalt Paving and Plant Operation, Class C
NV-1710-0062
Equipment Operators/Blasting and Quarry Operations, Class C
NV-1710-0064
Equipment Operators/Crushing and Screening Plant Operations, Class C
NV-1710-0043
Equipment Operators, Class A
NV-1710-0017
Launcher Control and Monitoring Equipment
NV-1402-0083
Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C
NV-1715-0669
Meteorological Equipment Maintenance, Class C
NV-1721-0009
Missile Launcher Control and Monitoring Equipment
NV-1402-0083
Missile Test and Readiness Equipment Mk 7 Mod 4 Advanced Circuitry
NV-1402-0089
Missile Test and Rediness Equipment (MTRE) MK7 Mod 4 Advanced Theory and Maintenance
NV-1402-0089
NAVAIDS Equipment Technician Replacement
NV-1715-1404
Ocean Systems Technician Equipment Maintenance
NV-1304-0007
Ordnance Handling Equipment Intermediate Maintenance
NV-1710-0026
Oxygen Equipment Class C
NV-1601-0007
Passive Equipment Cabinet (PEC) Operation and Maintenance
NV-1715-1502
Passive Equipment Cabinet Operation and Maintenance
NV-1715-1111
Photographic Equipment Maintenance
NV-1715-0160
Photographic Equipment Maintenance and Repair, Class C
NV-1715-0160
Photographic Equipment Preventive/ Operational Maintenance
NV-1709-0028
Photographic Equipment Repair, Class C
NV-1715-0160
Photographic Equipment Repair, Class C-1
NV-1709-0029
Polaris Target Card Computer System Peripheral Equipment, Class C1
NV-1715-0897
Sonar Auxiliary Equipment Combined Maintenance Revision A
NV-1715-1270
Special Communications Equipment Combined Maintenance
NV-1715-1475
Trident I Ships Inertial Navigation System (SINS) Equipment
NV-1715-1379

Equipmentman
Advanced Aircrew Survival

Equipmentman
NV-1704-0208
Aircrew Survival Equipmentman School, Class B
NV-1704-0208
Aircrew Survival Equipmentman, Class A
NV-1704-0234
Aircrew Survival Equipmentman, Class A1 (Basic Aircrew Survival Equipmentman)
NV-1704-0234
Aircrew Survival Equipmentman, Class C7
NV-1704-0208

Escape
A-6A Environmental, Escape and Survival Systems Organizational Maintenance
NV-1704-0085
F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0210
F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance
NV-1704-0209

Estimating
Engineering Aid, Class C, Planning and Estimating
NV-1408-0012
EA "C" Planning and Estimating
NV-1408-0012
Planning and Estimating Construction Group Ratings, Class C
NV-1408-0012

Evaluation
ELINT Evaluation Operator/Officer
NV-1715-0003
Master Diver Evaluation
NV-1606-0016

Evaluator
Antisubmarine Warfare (ASW) Evaluator Common Core
NV-1715-1509
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C
NV-1402-0032
Naval Tactical Data Systems (NTDS) Evaluator/Supervisor
NV-1402-0006

Exchange
Navy Exchange Management
NV-1408-0023
Navy Exchange/Commissary Store Middle Management, Class C
NV-1408-0027
Officer in Tactical Command Information Exchange System
NV-1715-1343
Submarine Satellite Information Exchange Subsystem Combined Maintenance
NV-1715-1471

Exciter
OJ-511/ALM Exciter Test Station Intermediate Maintenance
NV-1715-1416

Executive
Surface Warfare Officers Advanced Executive Command
NV-1717-0020

Expeditionary
Marine Expeditionary Airfield Equipment
NV-1710-0019

Explosive
Explosive Ordnance Disposal Navy Basic
NV-2202-0020
Explosive Ordnance Disposal—Reserve Officer Training
NV-2202-0019
Surface Explosive Ordnance Disposal (EOD) Advanced Refresher
NV-0802-0003
Surface Explosive Ordnance Disposal Basic
NV-2202-0017
UDT-SEAL Explosive Ordnance Disposal Indoctrination
NV-2202-0018

Extended
Walleye II Extended Range Data Link Intermediate Maintenance
NV-1715-1032

Eye
Eye, Ear, Nose and Throat Technician, Class C
NV-0709-0009

EA
Engineering Aid, Class A1 (EA "A")
NV-1601-0003
EA "C" Planning and Estimating
NV-1408-0012
EA "J"
NV-1713-0001

EA-3B
VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer
NV-1606-0066

EA-6A
EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance
NV-1715-0198

EA-6B
EA-6B Communications, Navigation and Radar System Organizational Maintenance
NV-1715-0311
EA-6B Course Attitude Data Transmitter Intermediate Maintenance
NV-1715-0192
EA-6B Electrical Systems Organizational Maintenance
NV-1704-0242
EA-6B Hydraulics and Flight Control Organizational Maintenance
NV-1704-0223
EA-6B ICAP Electronic Countermeasures Analyst Organizational Maintenance
NV-1715-0955
EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance
NV-1704-0222
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B)
NV-1715-0192

EA3B
A-3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance
NV-1715-0525

EC-130
EC-130 Airfame and Hydraulic Systems Maintenance
NV-1704-0278
EC-130 Electrical and Instruments Maintenance
NV-1715-1181
EC-130 Environmental Systems Maintenance
NV-1704-0279
EC-130 Power Plant and Related Systems Maintenance
NV-1704-0280

EC-130Q
EC-130Q Electrical Systems and Circuits Organizational Maintenance
NV-1714-0001

ECM
AN/SLQ-32(V)3 ECM Maintenance
NV-1715-1145
EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance
NV-1715-0198

EH-38D
EH-38D Photographic Quality Control/Maintenance
NV-1709-0023

EH-73
EH-73 Photographic Quality Control Maintenance (Kodak Ektachrome RT Processor Quality Control Maintenance)
NV-1709-0022

EKA-3B
EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance
NV-1715-0361
EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance
NV-1715-0505

ELINT
Advanced Airborne ELINT Evaluator
NV-1715-0215
Cryptologic Technician (Technical) ELINT Operator
NV-1402-0066
Electronic Surveillance Measures (ESM) ELINT Technician SSN 637 Class, Class C-1
NV-1715-0888
ELINT Evaluation Operator/Officer
NV-1715-0003
637 Class Electronic Surveillance Measures (ESM) ELINT Technician
NV-1715-0888

EO
Equipment Operator, Class B (EO "B")
NV-1710-0018
Equipment Operator, Class J (EO "J")
NV-1710-0018
EO "A"
NV-1710-0017
EO "C" Asphalt
NV-1710-0062
EO "C" Blasting and Quarry Operations
NV-1710-0064
EO "C" Crushing and Screening Operations
NV-1710-0043
EO "C" Gradework
NV-1710-0037
EO "C" Water Well Drilling and Development
NV-1601-0004

EOD

EOD Diver Candidates
NV-1606-0010

Surface Explosive Ordnance Disposal (EOD) Advanced Refresher
NV-0802-0003

ES-55A

RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance
NV-1715-0751

ESGM

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion
NV-1715-1132

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem
NV-2205-0002

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem Theory
NV-1715-1457

Electrostatically Supported Gyro Monitor (ESGM) Calibration
NV-1715-1375
NV-1715-1458

Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer
NV-1715-1157

Electrostatically Supported Gyro Monitor (ESGM) Theory and Maintenance
NV-1715-1158

Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion
NV-1715-1131

Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement
NV-1715-1370

Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement
NV-1715-1166

Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements
NV-1715-1371

Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion
NV-1715-1153

ESM

(Electronic Surveillance Measures (ESM) AN/WLR-6 Basic Operator)
NV-1715-0500

Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Basic Operator
NV-1715-0989

Electronic Surveillance Measures (ESM) AN/WLR-1G Combined Maintenance
NV-1715-0995

Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance
NV-1715-0501

Electronic Surveillance Measures (ESM) AN/WLR-8(V)2 Combined Operator Maintenance
NV-1715-0469

Electronic Surveillance Measures (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance
NV-1715-0494

Electronic Surveillance Measures (ESM) ELINT Technician SSN 637 Class, Class C-1
NV-1715-0888

Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1
NV-1715-0883

Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1
NV-1715-0889

Electronic Warfare Technician AN/SLQ-32(V2) Electronic Surveillance Measures (ESM) Maintenance
NV-1402-0075

585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician
NV-1715-0882

637 Class Electronic Surveillance Measures (ESM) ELINT Technician
NV-1715-0888

F-14

F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance
NV-1704-0221

F-14 Weapons System Technician Organizational Maintenance
NV-1704-0214

F-14A

F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance
NV-1704-0215

F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0216

F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician
NV-1704-0217

F-14A Electrical Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0218

F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0210

F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance
NV-1704-0209

F-14A Organizational Maintenance Supervisor's Familiarization
NV-1704-0211

F-14A Power Plant and Related System Organizational Maintenance Technician (Crew Member)
NV-1704-0212

F-4

F-4 Basic Electrical Systems Organizational Maintenance
NV-1715-0142

F-4B

F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance
NV-1715-0362

F-4B Aircraft Electrical System Organizational Maintenance
NV-1704-0092

F-4B AN/APA-157 Radar Set Group Intermediate Maintenance
NV-1715-0257

F-4B AN/APQ-72 Radar Set Intermediate Maintenance
NV-1715-0430

F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394

F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0076

F-4B Communication, Navigation, Identification (CNI) Organizational Maintenance
NV-1715-0255

F-4B Electrical Systems Organizational Maintenance
NV-1704-0092

F-4B Shoehorn Organizational Maintenance
NV-1715-0457

F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance
NV-1715-0151

F-4B/J

F-4B/J Advanced Electrical Organizational Maintenance
NV-1715-0153

F-4B/J Air Data Computer Set Intermediate Maintenance
NV-1715-0552

F-4B/J Airframe and Hydraulic Systems Maintenance
NV-1704-0056

F-4B/J Airframe and Hydraulic Systems Organizational Maintenance
NV-1704-0056

F-4B/J Armament, Missile and Weapons Control System Maintenance
NV-1715-0632

F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance
NV-1715-0632

F-4B/J Egress and Environmental Control Systems Maintenance
NV-1704-0106

F-4B/J Egress and Environmental Control Systems Organizational Maintenance
NV-1704-0106

F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance
NV-1715-0309

F-4B/J Maintenance Supervisor Familiarization
NV-1704-0126

F-4B/J Power Generating System Intermediate Maintenance
NV-1704-0189

F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance
NV-1715-0393

F-4J

F-4J Aircraft Electrical System Organizational Maintenance
NV-1704-0094

F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549

F-4J AN/ARN-86 TACAN Intermediate Maintenance NV-1715-0409
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371
F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance NV-1715-0611
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706
F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231
F-4J AN/AWG-10 Receiver Intermediate Maintenance NV-1715-0350
F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication, Navigation, Identification (CNI) Organizational Maintenance NV-1715-0612
F-4J Data Link System Intermediate Maintenance NV-1715-0499
F-4J Electrical Systems Organizational Maintenance NV-1704-0094
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance NV-1715-0701
F-4J Shoehorn Organizational Maintenance NV-1715-0395
F-4J Weapon System Specialist Organizational Maintenance NV-1715-0308

F-8
F-8 Airframes/Hydraulic Systems Organizational Maintenance NV-1704-0120
F-8 Armament System Organizational Maintenance NV-1715-0181
F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737
F-8 AN/APQ-124 Radar Intermediate Maintenance NV-1715-0428
F-8 AN/APQ-83B Radar Intermediate Maintenance NV-1715-0214
F-8 AN/APQ-94 Radar Intermediate Maintenance NV-1715-0365
F-8 AN/APR-30(V) Radar Set Intermediate Maintenance NV-1715-0116
F-8 AN/ARN-52 TACAN Intermediate Maintenance NV-1715-0204
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
F-8 J57-P-16/20 Intermediate Maintenance NV-1704-0163
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair NV-1704-0163
F-8 Power Plants and Related Systems NV-1704-0180

F/RF-4B
F/RF-4B Air Data Computer Set Maintenance NV-1715-0209
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104
F/RF-4B J79-GE-8/8A Cold Section Repair NV-1704-0201
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance NV-1704-0202
F/RF-4B Power Generating System Maintenance NV-1715-0682
F/RF-4B Structures and Hydraulics Maintenance NV-1704-0122

F/RF-4B/J
F/RF-4B/J Aircraft Mechanics Organizational Maintenance NV-1704-0192
F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613
F/RF-4B/J Hydraulic Organizational Maintenance NV-1704-0030
F/RF-4B/J Power Plant and Related Systems Maintenance NV-1704-0182

F/RF-8
F/RF-8 Shoehorn Organizational Maintenance NV-1715-0644

Facilitator
Intercultural Relations—Facilitator Training NV-1512-0003

Facilities
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators NV-1715-0869

Facsimile
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance NV-1715-0012

Fairbanks-Morse
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine NV-1712-0014
Fairbanks-Morse 38F 5 1/4 Diesel Maintenance Technician NV-1712-0031
Fairbanks-Morse 38F5 1/4 Diesel Engine NV-1712-0003
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance NV-1712-0002

Fallout
Fallout Shelter Analysis NV-0802-0010

Field
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations NV-1715-0840
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse NV-1715-0839
Cryptologic Technician Technical Field Operations, Type One NV-1715-0838
Cryptologic Technician Technical Field Operations, Type Three NV-1715-0840
Cryptologic Technician Technical Field Operations, Type Two NV-1715-0839
Field Medical Service Officer NV-0709-0015
Field Medical Service Technic, Enlisted NV-0709-0015
Field Medical Service Technician NV-0709-0015

File
Magnetic Disk File (MDF) Theory and Electrical Maintenance NV-1402-0082 NV-1715-1464
Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88 NV-1715-1484
Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0. NV-1402-0140
Magnetic Disk File Theory and Mechanical Maintenance FCS Mk Mod 0 NV-1402-0122

Filter
AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/Spherical Array, Passive Beamforms (SAPB) Maintenance NV-1715-1316

Fin
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1 NV-1722-0004

Financial
Disbursing Clerk Financial Returns NV-1408-0001
Disbursing Clerk Financial Returns Class C NV-1408-0001
Disbursing Clerk, Class C (Financial Returns) NV-1408-0001

Fire
Aviation Support Equipment A/S 32P-16 Fire Fighting Truck Intermediate Maintenance NV-1703-0016

Fire Fighter Instructor NV-1728-0004
Fire Fighting Instructor NV-1728-0004
Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount NV-1715-0147
3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35) NV-1715-0655
3"/50 Rapid Fire Twin Mount Power Drive and Gun Maintenance NV-1715-0655
5"/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance NV-1715-0668
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System) NV-1715-0667

Fire Control
Advanced Fire Control System (FCS) Mk 106 Mod 5 NV-1715-0384
Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance NV-1402-0058
Aegis Fire Control System/ORTS Operation and Maintenance NV-1715-1304
Aviation Fire Control Technician (B) Conversion (Class C) NV-1715-0139
Aviation Fire Control Technician (F) Conversion (Class C) NV-1715-0138
Aviation Fire Control Technician B (Bomb Director), Class A NV-1715-0141
Aviation Fire Control Technician F (Armament Control), Class A NV-1715-0140
Aviation Fire Control Technician, Class A NV-1715-0537
Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1 NV-1715-0892
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1 NV-1715-0895
Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1 NV-1402-0050
Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1 NV-1402-0143
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 NV-2202-0073
Fire Control System (FCS) Mk 113 All Models Common Equipment Combined Maintenance NV-1715-1006
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis) NV-1715-0412
Fire Control System (FCS) Mk 113 Mod 9 Mk 78 Analyzer Maintenance NV-1715-1008
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099
Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance NV-1715-1007
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353
Fire Control System (FCS) Mk 92 Mod 2 Maintenance NV-1715-1087
Fire Control System (FCS) Technician Mk 80 NV-1715-0211
Fire Control System (FCS) Technician Mk 80 Replacement NV-1715-0211
Fire Control System (FCS) Technician Mk 88 Conversion (Mod 0 to Mod 1) NV-1715-0203
Fire Control System (FCS) Technician Mk 88 Mod 1 Replacement NV-1715-0341
Fire Control System (FCS) Technician Mk 88 Mod 1 Tender Maintenance NV-1715-0205
Fire Control System Mk 88 Mod 2 Advanced Technician NV-1715-1399
Fire Control System Mk 98 Mod O Maintenance Procedures NV-1715-1321
Fire Control System Mk 98 Mod O Rev A Advanced Operations NV-1715-1322
Fire Control System Mk 98 Mod 0 Advanced Technician NV-1402-0137
Fire Control System Technician Mk 88 Mod 1 Replacement NV-1715-1385
Fire Control Technician Class A, Phase 2SS NV-1715-0808
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 NV-1715-0218
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 and Target Designation System Mk 5 NV-1715-0216
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68 NV-1715-0219
Fire Control Technician Class C, Target Designation System (TDS) Mk 5 NV-1715-0212
Fire Control Technician Class C, Target Designation System Mk 6 NV-1715-0213
Fire Control Technician Mk 88 Intermediate Level Maintenance NV-1715-1129
Fire Control Technician Mk 88 Mod 2 Replacement NV-1715-1128
Fire Control Technician Mk 88 Replacement NV-1715-0341
Fire Control Technician, Class A (Phases I and II) NV-1715-0155
Fire Control Technician, Class B NV-1715-0185
Gun Fire Control Radar Mk 25 Mod 3 Maintenance NV-1715-0127
Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance NV-1715-0210
Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210
Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1 NV-1715-0221
Gun Fire Control System (GFCS) Mk 56 Maintenance NV-1715-0207
Gun Fire Control System (GFCS) Mk 63 Maintenance NV-2202-0028
Gun Fire Control System (GFCS) Mk 68 Maintenance NV-1715-0220
Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance NV-1715-0208
Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance NV-1402-0114
Gun Fire Control System (GFCS) Mk 86 Mod 3 Maintenance Class C NV-1715-1076
Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar NV-1715-1228
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
Intermediate Aviation Fire Control Technician, Class B NV-1715-0646
Launcher Technician Mk 88 Fire Control Conversion NV-1715-0623
Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88 NV-1715-1484
Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1 NV-1715-1001
Missile and Guidance System Testing, Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0999
Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C1 NV-1715-0803
Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1 NV-1715-0890
Mk 113 Mod 7 Fire Control System (FCS) Maintenance NV-1715-0760
Mk 116 MOD 4 Underwater Fire Control System (FCS) Maintenance NV-1715-0268

Mk 117 Fire Control System (FCS) Basic Operation NV-1715-1219
Mk 118 Fire Control System (FCS) Advanced Maintenance NV-1715-1159
Mk 118 Fire Control System (FCS) Basic Maintenance NV-1715-1160
Mk 118 Fire Control System Advanced Maintenance NV-1402-0124
Mk 118 Fire Control System Basic Maintenance NV-1715-1326
Mk 37 Gun Fire Control System (FCS) NV-1715-1291
Mk 38 Gun Fire Control System (FCS) NV-1715-1290
Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1 NV-1715-0218
Mk 84 Fire Control System (FCS) Technician NV-1715-0535
Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88) NV-1715-0585
Mk 91 Mod 0/1 NATO Seasparrow Guided Missile Fire Control System) (FCS) NV-1715-1040
Multiplexed Equipment Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0996
Platform Positioning Subsystem Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0997
Poseidon Trident 1 Backfit Intermediate Level Fire Control Technician FCS 88 Mod 1/2 NV-1715-1129
Shore Fire Control Party NV-2202-0037
Shore Fire Control Party Enlisted NV-2202-0062
Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve) NV-2202-0061
Subsystem Interface Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0986
Talos Weapons/Fire Control/Missile Battery NV-1715-0608
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072
Tartar Fire Control and Missile Officer NV-1715-0703
Tartar Missile Fire Control Systems (MFCS) Mk 74 Mods 4/5/8 NV-1715-0847
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
Tartar Weapons System Mk 74 Mod 6
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805
Terrier Fire Control and Missile Officer NV-1715-0328
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658
Trident Fire Control Technician Replacement C1 NV-1715-1155
Trident-I Fire Control Technician Replacement NV-1715-1377
Underwater Fire Control Group Mk 111 Maintenance NV-1715-0119
Underwater Fire Control Group Mk 114 Maintenance NV-1715-0133
Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7 NV-1715-0760
Underwater Fire Control Systems Technician (Mk 113 Mod 9) NV-1715-0313
Underwater Fire Control Systems(FCS) Technician (Target Motion Analysis Subsystem) NV-1715-0313
Underwater Fire Control Technician, Class A NV-1715-1004
Underwater Fire Control, Class A NV-1715-1473

First Degree
T-58 Engines First Degree Intermediate Maintenance T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0027
TF-34 First Degree Intermediate Maintenance NV-1704-0295

First Term
Advanced First Term Avionics, Class A1 NV-1715-0556 NV-1715-1424
Advanced First Term Avionics, Class B (AFTA) NV-1715-0556

First Tour
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D) NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C NV-1606-0028
First Tour Pilot P-3C Communications Operator NV-1704-0213

Fixed
Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics NV-2202-0001
Fixed Wing Flight Mechanics NV-1606-0062

Flag
Public Quarter/Flag Operations NV-0401-0002

Flagwriter
Yeoman Flagwriter, Class C NV-1408-0028

Fleet
Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0182
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0168
Electronics Technician, Class C, SSBN Navigation Aids, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0064
Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0065
Fleet Air Intelligence Officer NV-2202-0023
Fleet Ballistic Missile (FBM) Navigation Officer NV-1715-0456
Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0065
Fleet Ballistic Missile (FBM) Tender Navigation Maintenance Computer NV-1715-0182
Fleet Ballistic Missile Tender Navigation Maintenance Computer NV-1715-1402
Fleet Ballistic Missile Tender Navigation Maintenance Ship's Inertial Navigation System NV-1715-0065
Fleet Data Processing Officers Training NV-1402-0008
Fleet Electronic Support Maintenance, Class C1 NV-1715-1251
Fleet Officer and Fleet Enlisted Air Intelligence NV-2202-0022
Fleet Replacement Radar Navigator NV-1606-0036
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874
Fleet Satellite Communications Spectrum Monitor System Equipment NV-1715-1099
Fleet Work Study NV-1406-0012
585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician NV-1715-0882

Flexscop
Cryptologic Technician M, Flexscop Maintenance, Class C3 NV-1715-0828
Cryptologic Technician T, Flexscop Operator NV-1715-0843
Cryptologic Technician T, Flexscop Programmer, Class C3 NV-1715-0846
Flexscop Operator, Class C3 NV-1715-0843

Flight
Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase NV-1715-0569
Advanced Navigation Training (Student Naval Flight Officer) NV-1606-0031
AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230
AN/ASM 459 Mini-SACE Flight System Test Console Intermediate Maintenance NV-1715-0948
Basic Prop Flight Instructor NV-1606-0018
E-1B MH-67 Automatic Flight Control System Intermediate Maintenance NV-1704-0034
E-1B Naval Flight Officer and Aircrewman NV-1704-0233
E-2A Flight Technician Organizational Level Maintenance, No. 4 NV-1704-0036
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
E-2B ATDS Operator (Naval Flight Officer) NV-1704-0225
E-2B Naval Flight Officer NV-1704-0226
EA-6B Hydraulics and Flight Control Organizational Maintenance NV-1704-0223
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance NV-1715-0549
Fixed Wing Flight Mechanics NV-1606-0062
Flight Instructor Indoctrination Group NV-1606-0042
Flight Instructor Training NV-1606-0019
Flight Preparation, Naval Aviation Cadet and Aviation Officer Candidate NV-1606-0046
Flight Preparation, Officer NV-1606-0047
Flight Systems NV-1606-0047
Naval Flight Officer P-3C Communications Operator NV-1704-0219
Naval Flight Officer Training (Flight, Academic, Flight Support) NV-1606-0044
Navigation Flight Training, Naval Aviator and Naval Flight Officer NV-1606-0045
Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator) NV-1606-0045
P-3 Flight Engineer System, No. 6 NV-1704-0048
P-3 Flight Engineers Operational Maintenance, No. 5 NV-1704-0067
P-3 Flight Engineers System NV-1704-0048
P-3 Hydraulics and Flight Controls System Maintenance, No. 10 NV-1704-0050
P-3C Tactical Coordinator Positional Training for Naval Flight Officers NV-1606-0043
Pilots C-121 Simulator and Advanced Flight NV-1606-0034
Pilots C-121 Simulator and Basic Flight NV-1606-0035
Prospective Advanced Navigation Flight Instructor NV-1606-0038
Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft) NV-1606-0020
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft) NV-1606-0020
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor NV-1606-0037
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor NV-1606-0041
Prospective Prop Flight Instructor NV-1606-0020
Prospective TA-4J Flight Instructor NV-1606-0021
Prospective TF/TAF-9J Flight Instructor NV-1506-0039
Prospective VA (Prop) Tactical Flight Instructor NV-1606-0040
Rotary Wing Flight Mechanics NV-1606-0063
RA-5C Air Data and Flight Reference Systems NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director NV-1715-0562
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057
UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

Flight Control
A-4 Automatic Flight Control System Intermediate Maintenance NV-1704-0015
A-4 Automatic Flight Control System Organizational Maintenance NV-1704-0035
A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699
A-6A Automatic Flight Control System Organizational Maintenance NV-1704-0022
A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807
Automatic Flight Control System (AN/ASW-15) and Air Data Computer (560T27-1) Organizational Maintenance NV-1715-0741
Automatic Flight Control System AN/ASW-40, AN/ASW-41 and AN/ASW-42 Intermediate Maintenance NV-1715-0952
AN/ASW-15, AN/ASW-16, AN/ASW-39 Automatic Flight Control Systems Intermediate Maintenance NV-1704-0241
AN/ASW-31 Automatic Flight Control System Intermediate Maintenance NV-1715-1018
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
E-1B MH-67 Automatic Flight Control System Intermediate Maintenance NV-1704-0034
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460
E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478
F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737
F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613
H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133
OV-10A Flight Control and Hydraulic Systems Organizational Maintenance NV-1704-0103
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161
P-3 PB-20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
RA-5C Flight Control Intermediate Maintenance NV-1715-0453
RA-5C Flight Control System Electronics (Intermediate Maintenance) NV-1715-0732
RA-5C Flight Control System Organizational Maintenance NV-1715-0455
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
S-3A Structure, Hydraulic and Flight Control Systems Organizational Maintenance NV-1704-0288
SH-2F Airframes, Hydraulics and Flight Control Organizational Maintenance NV-1704-0290
SH-60B Automatic Flight Control

System Organizational Maintenance
NV-1715-1197

Flight Controls
A-6A Hydraulics and Flight Controls Organizational Maintenance
NV-1704-0129
H-53 Automatic Flight Controls Systems Intermediate Maintenance
NV-1715-0738
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance
NV-1704-0058
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance
NV-1704-0206

Food
Advanced Food Preparation
NV-1729-0017
Food Service Administration
NV-1729-0014
Food Service Management
NV-1729-0013
Food Service Records and Returns
NV-1729-0012
Food Services and Disbursing
NV-1729-0001
Submarine Food Service Watchstander
NV-1729-0010

Force
Force/Ship Weapons Coordinator Tactical Training
NV-2202-0121

Freight
Freight Transportation and Traffic Management
NV-0419-0008

Frequency
AN/TRQ-35(V) Tactical Frequency Management System
NV-1715-1352
AN/USM-402(V) Swept Frequency Measurement (SEFT Cart) Test Set Intermediate Maintenance
NV-1715-1208
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1
NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator
NV-1715-0833
FFG-7/DD-963 60/40 Hz Static Frequency Converter Maintenance
NV-1714-0029
High Frequency Direction Finder Operator, Class C3
NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control
NV-1715-0800
High Frequency Direction Finding (HFDF) Maintenance
NV-1715-1256
High Frequency Surface Communications System Operator
NV-1715-1348
High Frequency Systems Technician Maintenance
NV-1715-1340
OM-55/USC Super High Frequency Satellite Communication Modular Demodulator Group Maintenance
NV-1715-1346
Radio Frequency Distribution Maintenance C1
NV-1402-0109
Ultra High Frequency-Demand Assigned Multiple Access (DAMA)
NV-1715-1347
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance
NV-1402-0112

Frigate
Guided Missile Frigate (FFG-7) Combat Systems Maintenance
NV-1715-1036

Fuel
Aviation Boatswain's Mate Fuels, Class A1
NV-1704-0306
Aviation Fuel Systems, Class C
NV-1704-0186
NV-1704-0199
Aviation Fuel Systems, Class C1
NV-1704-0309
Damage Control/Fuel Control Console Operator Course
NV-1710-0100
DD-963 Centralized Damage Control/ Fuel Control System Operator
NV-1601-0015
Fuel Gas Welders
NV-1710-0052
FFG-7 Fuel Systems, Mechanical, Class C1
NV-1704-0261
UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance
NV-1704-0176
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance
NV-1704-0061

Fuels
Aviation Boatswain's Mate F (Fuels), Class A
NV-1728-0005

Fundamental
Fundamental Analysis Techniques (P-3)
NV-1715-0275
Fundamental Hydraulic Component Maintenance
NV-1704-0272

Fundamentals
Aegis Computer Fundamentals
NV-1402-0059
Aviation Electronics Warfare Fundamentals
NV-1715-1146
Basic Digital Fundamentals, Class F1
NV-1715-0904
Digital and Analog Computer Fundamentals
NV-1402-0012
Digital Fundamentals
NV-1402-0011
NV-1402-0057
Digital Fundamentals, Basic
NV-1715-0904
Digital, Analog, and Hybrid Computer Fundamentals
NV-1402-0013
Electronic Warfare Fundamentals and Preventive Maintenance Technology
NV-1715-0779
Electronic Warfare Fundamentals/ Technology, Class A1
NV-1715-0779
Electronic Warfare Technician, Class A (A-1), Fundamentals
NV-1715-0779
Electronic Warfare Technician, Class A (A-1), Fundamentals/Basic Operator
NV-1715-0779

Fuzesetter
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System)
NV-1715-0667

FBM
Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0182
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0168
Electronics Technician, Class C, SSBN Navigation Aids, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0064
Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065
Fleet Ballistic Missile (FBM) Navigation Officer
NV-1715-0456
Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065
Fleet Ballistic Missile (FBM) Tender Navigation Maintenance Computer
NV-1715-0182
585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician
NV-1715-0882

FC-1114
FC-1114 Combat System Computer System Maintenance Technician
NV-1402-0121

FCS
Advanced Fire Control System (FCS) Mk 106 Mod 5
NV-1715-0384
Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance
NV-1402-0058
Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895
Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1
NV-1402-0050
Fire Control System (FCS) Mk 113 All Models Common Equipment Combined

Maintenance
NV-1715-1006
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)
NV-1715-0412
Fire Control System (FCS) Mk 113 Mod 9 Mk 78 Analyzer Maintenance
NV-1715-1008
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization
NV-2202-0099
Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance
NV-1715-1007
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer
NV-1715-0353
Fire Control System (FCS) Technician Mk 80
NV-1715-0211
Fire Control System (FCS) Technician Mk 80 Replacement
NV-1715-0211
Fire Control System (FCS) Technician Mk 88 Conversion (Mod 0 to Mod 1)
NV-1715-0203
Fire Control System (FCS) Technician Mk 88 Mod 1 Replacement
NV-1715-0341
Fire Control System (FCS) Technician Mk 88 Mod 1 Tender Maintenance
NV-1715-0205
Mk 116 MOD 4 Underwater Fire Control System (FCS) Maintenance
NV-1715-0268
Mk 118 Fire Control System (FCS) Advanced Maintenance
NV-1715-1159
Mk 118 Fire Control System (FCS) Basic Maintenance
NV-1715-1160
Mk 37 Gun Fire Control System (FCS)
NV-1715-1291
Mk 38 Gun Fire Control System (FCS)
NV-1715-1290
Mk 84 Fire Control System (FCS) Technician
NV-1715-0535
Platform Positioning Subsystem Fire Control System (FCS) Mk 88 MOD 1
NV-1715-0997

FF-1052
FF-1052 Sonar Supervisor
NV-1715-1503

FFG-7
Basic FFG-7 Class AN/UYA-4(V) Equipment Maintenance
NV-1715-1041
FFG-7 Auxiliary Electrical Subsystem Maintenance Class C1
NV-1714-0022
FFG-7 Auxiliary Electrical Systems Maintenance
NV-1714-0031
FFG-7 Auxiliary Mechanical Subsystem Technician
NV-1704-0270
FFG-7 Auxiliary Mechanical Subsystem Technician Class C1
NV-1715-1073
FFG-7 Auxiliary Mechanical System Technician
NV-1704-0271
FFG-7 Auxiliary 16V149TI Diesel Engine Maintenance
NV-1712-0027
FFG-7 Central Control Station Maintenance Class C1
NV-1715-1074
FFG-7 Central Control Station Operation, Class C1
NV-1703-0012
FFG-7 Class Combat System Officer
NV-1715-1232
FFG-7 Class Degaussing System Maintenance
NV-1601-0026
FFG-7 Class Ship Auxiliary Electrical Subsystem Technician
NV-1714-0030
FFG-7 Class Ship Auxiliary Electrical Subsystems
NV-1714-0043
FFG-7 Class Ship Auxiliary Electrical System Technician
NV-1732-0010
FFG-7 Class Ship Interior Communications (IC) Subsystems Technician
NV-1715-1075
FFG-7 Class Ship Replacement Crew Training
NV-1715-1231
FFG-7 Electric Plant Operations G5
NV-1710-0099
FFG-7 Electrical Maintenance
NV-1715-1227
FFG-7 Electrical Plant Control Console Operator Electrical Maintenance
NV-1714-0039
FFG-7 Electrical Plant Control Console Operator Mechanical Maintenance
NV-1714-0040
FFG-7 Electrical Systems Maintenance
NV-1714-0041
FFG-7 Engineer Division Officer
NV-1704-0268
FFG-7 Engineering System Maintenance Management, Electrical, Class C1
NV-1714-0023
FFG-7 Engineering System Maintenance Management, Mechanical, Class C1
NV-1704-0260
FFG-7 Fuel Systems, Mechanical, Class C1
NV-1704-0261
FFG-7 Introduction to Engineering Maintenance Management, Class C1
NV-1704-0262
FFG-7 Main Propulsion Assistant
NV-1704-0268
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators
NV-1710-0101
FFG-7 Propulsion Systems Monitor
NV-1704-0299
FFG-7 PCO/PXO Gas Turbine Engineering
NV-1601-0023
FFG-7 Replacement Crew Training
NV-1715-1231
FFG-7 Weapons System Officer
NV-1715-1232
FFG-7/Auxiliary Systems Operations GS
NV-1710-0098
FFG-7/DD-963 60/40 Hz Static Frequency Converter Maintenance
NV-1714-0029

FORTRAN
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C
NV-1402-0110

FTB
3306/3309 FTB Conversion Training
NV-1715-0887

F11A
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor
NV-1606-0041

F8
F8 AN/APQ-83A Radar Intermediate Maintenance
NV-1715-0206

Gas
Carrier Gasoline and Inert Gas Systems, Class C
NV-1405-0018
DD-963 Basic Circuit Concepts for Gas Turbine Controls, Class C1
NV-1402-0020
DD-963 PCO/PXO Gas Turbine Engineering
NV-1601-0024
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025
Enginemen, Class C, Marine Gas Turbine Basic
NV-1710-0066
Enginemen, Gas Turbine Engines, Class C
NV-1703-0002
Fuel Gas Welders
NV-1710-0052
Fuel Gas Welding, Brazing, and Cutting
NV-1710-0116
FFG-7 PCO/PXO Gas Turbine Engineering
NV-1601-0023
Gas Turbine Electrical, Class A
NV-1710-0102
Gas Turbine Fundamentals
NV-1710-0097
Gas Turbine Mechanical, Class A
NV-1710-0103
Gas Turbine Systems Technician Electrical Class A1
NV-1714-0024
Gas Turbine Systems Technician Fundamentals Class A1
NV-1710-0082
Gas Turbine Systems Technician Mechanical Class A1
NV-1710-0083
LM2500 Gas Turbine Module Maintenance, Class C1
NV-1703-0008
Marine Gas Turbine Basic, Class C1
NV-1710-0066
Model 104 Gas Turbine Generator Set Maintenance
NV-1703-0009
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel)
NV-1732-0014
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1
NV-1703-0009
Solar T-1020S-100B Gas Turbine

Generator Set Operator and Maintenance
NV-1710-0095

Gases

Compressed Gases Cryogenerator Maintenance, Class C
NV-1601-0001

Compressed Gases, Class C
NV-1601-0010

Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant
NV-1601-0010

Gasoline

Aviation Boatswain's Mate G (Gasoline) Class A
NV-1722-0001

Aviation Support Equipment Gasoline Engine Intermediate Maintenance
NV-1703-0006

Carrier Gasoline and Inert Gas Systems, Class C
NV-1405-0018

Gasoline Handling
NV-1722-0001

General

General Maintenance Welder, Class C1
NV-1710-0050

General Motors Engines (16-278A)
NV-1703-0004

General Pump Maintenance
NV-1710-0070

General Regulator Automatic Boiler Control Maintenance
NV-1710-0072

Steam Plant Automatic Controls Maintenance (General Regulator)
NV-1710-0072

Generating

F/RF-4B Power Generating System Maintenance
NV-1715-0682

Steam Generating Plant Inspector
NV-1732-0001

1200 PSI Steam Generating Plant Operator
NV-1710-0075

Generator

AN/AQA-7(V) 1,2 and 3 Sonar Computer Recorder Group and AN/ASA-76 Generator-Transmitter Group Intermediate Maintenance
NV-1715-0774

Detroit Diesel Allison 16V149TI Ships Service Diesel Generator Maintenance
NV-1712-0023

DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025

Electrolytic Oxygen Generator Operators
NV-1601-0008

Electrolytic Oxygen Generator 7L16
NV-1601-0002

Generator Regulators, Class F-1
NV-1715-0901

Model 104 Gas Turbine Generator Set Maintenance
NV-1703-0009

Model 114 Ship Service Diesel Generator Set Maintenance Class C1
NV-1712-0023

Oxygen Generator (Mechanical)
NV-1601-0005

Oxygen Generator Electrical Model 6L16 (Enlisted)
NV-1715-0560

Oxygen Generator Mechanical Model 6L16 (Enlisted)
NV-1601-0006

Oxygen Generator Operator 6L16
NV-1601-0018

Oxygen Generator Operator/Mechanical Technician
NV-1601-0019

Oxygen Generator 6L16 Operator
NV-1601-0018

Pressure Fired Steam Generator Console Operator
NV-1710-0003

Ship Service Turbo Generator Maintenance
NV-1704-0320

Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1
NV-1703-0009

Solar T-1020S-100B Gas Turbine Generator Set Operator and Maintenance
NV-1710-0095

Steam Generator Maintenance
NV-1732-0008
NV-1732-0017

Submarine Main Power Generator
NV-1732-0012

Treadwell Oxygen Generator Operation/Maintenance 6L16
NV-1601-0018

400 HZ Motor Generator Electrical System Maintenance
NV-1714-0025

500 KW 60 HZ Motor Generator Set Electrical Maintenanece
NV-1714-0046

500 KW 60 HZ Motor Generator Set Mechanical Maintenance
NV-1714-0047

6L16 Oxygen Generator Technician
NV-1601-0009

7L16 Oxygen Generator Electrical Support Technician
NV-1714-0017

7L16 Oxygen Generator Technician
NV-1714-0017

Gradework

Equipment Operators Gradework, Class C
NV-1710-0037

EO "C" Gradework
NV-1710-0037

Gram

Jezebel Gram Analysis for AW's P-3A/B (DIFAR Retrofit)
NV-1715-0704

Grinding

Precision Grinding and Balancing Class C1
NV-1736-0002

Ground

AN/APS-116 Search Radar and Peculiar Ground Support Equipment Intermediate Maintenance
NV-1715-1191

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer Intelligence Analyst
NV-1402-0104

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System Maintenance
NV-1402-0103

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator
NV-1402-0102

AN/USH-17(V-3)(V-7) Mission Recorder Set and AN/UPQ-5 Display Set with Ground Support Equipment Intermediate Maintenance
NV-1715-0951

Ground Controlled Approach Controller, Class C
NV-1715-0123

Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C
NV-1715-0217

Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C
NV-1715-0079

Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C
NV-1715-0080

Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C
NV-1715-0080

Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C
NV-1715-0078

Ground Controlled Approach Engineman, Class C, AN/MPN-5
NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Class C
NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
NV-1715-0081

Ground Controlled Approach Operator, Class C
NV-1715-0122

Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O
NV-1715-0670

Ground Support Equipment GTC-85 Intermediate Maintenance
NV-1703-0011

Ground Support Equipment Tow Tractor Charging, Starting and Ignition Systems Intermediate Maintenance
NV-1704-0028

Marine Air Ground Task Force Intelligence Officer
NV-1511-0018

Marine Air Ground Task Force Intelligence Specialist Reserve (Phases 1 and 2)
NV-1511-0030

Marine Air-Ground Task Force Counterintelligence
NV-1511-0028

Marine Air-Ground Task Force Intelligence Officer Reserve (Phases 1 and 2)
NV-1511-0029

Marine Air/Ground Task Force

Intelligence Specialist Entry NV-1511-0019

Marine Air/Ground Task Force Intelligence Specialist Intermediate NV-1511-0020

Telemetering Ground Station AN/SKQ-2 NV-1715-0791

Group VIII

Group VIII E-6/E-7 Management NV-1408-0006

Group VIII E8/E9 Advanced Management NV-1408-0006

Guard

Navy Security Guard (Class C1) NV-1728-0021

Guidance

AN/ARW-77 Bullpup Guidance Control System NV-1715-0627

Guidance System Mk 3 Mod 0 Theory and Maintenance NV-1715-1456

Guidance System, Mk 3 Mod 0, Operation and Maintenance NV-1715-0245

Missile and Guidance System Testing, Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0999

Guided Missile

Air Launched Weapons Guided Missile Intermediate Maintenance NV-1715-0589

AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0628

AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0446

Guided Missile Frigate (FFG-7) Combat Systems Maintenance NV-1715-1036

Guided Missile Launcher System Mk 26 NV-1704-0315

Guided Missile Launching System (GMLS) Mk 13 Mod 4 Maintenance NV-1715-1077

Guided Missile Launching System Mk 10 Solid State Control System Difference NV-1715-1298

Gunner's Mate Class C Guided Missile Launching System (GMLS) NV-1715-0620

Mk 91 Mod 0/1 NATO Seasparrow Guided Missile Fire Control System) (FCS) NV-1715-1040

Mk-25 Guided Missile Launching System (GMLS) NV-1715-1038

MK-29 Mod 0 Guided Missile Launching System (GMLS) Maintenance NV-1715-1039

Radar Set AN/SPG-51D Gun and Guided Missile Director Mk 73 Mod 2 and Ancillary Equipments Operation and Maintenance NV-1715-1035

Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance NV-1715-0619

Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702

Talos Guided Missile and Guided Missile Test Set Maintenance NV-1715-0622

Tartar Guided Missile Launching System (GMLS) Mk 11 Maintenance Class C1 NV-1715-1081

Tartar Guided Missile System Mk 13 Maintenance Class C1 NV-1715-1082

Terrier Guided Missile Launching System (GMLS) Mk 10 Maintenance Class C1 NV-1715-1083

Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance NV-1715-0467

Gun

A-7 M61A1 Gun and Associated Systems Intermediate Maintenance NV-2202-0097

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 NV-1715-0218

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 an Target Designation System Mk 5 NV-1715-0216

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68 NV-1715-0219

Gun Fire Control Radar Mk 25 Mod 3 Maintenance NV-1715-0127

Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance NV-1715-0210

Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1 NV-1715-0221

Gun Fire Control System (GFCS) Mk 56 Maintenance NV-1715-0207

Gun Fire Control System (GFCS) Mk 63 Maintenance NV-2202-0028

Gun Fire Control System (GFCS) Mk 68 Maintenance NV-1715-0220

Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance NV-1715-0208

Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance NV-1402-0114

Gun Fire Control System (GFCS) Mk 86 Mod 3 Maintenance Class C NV-1715-1076

Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar NV-1715-1228

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728

Gun Maintenance 5"/54 Caliber Rapid Fire Mk 42 NV-1715-0179

Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1 NV-2202-0104

Gun Mount 5"/54 Mk 42 Mods 7 and 8 NV-1715-0520

Gun Mount 5"/54 Mk 42 Mods 9 and 10 Maintenance Class C1 NV-1715-1078

Gun Mount 5"/54 Mk 45 Maintenance Class C1 NV-1715-1080

Gun Mount 5'/54 Mk 45 Mod 1 NV-1715-1297

Gun 5"/54 Mk 45 Mod 0 Operational Maintenance NV-1715-1178

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount NV-1715-0147

Mk 37 Gun Fire Control System (FCS) NV-1715-1291

Mk 38 Gun Fire Control System (FCS) NV-1715-1290

Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1 NV-1715-0218

Mk 68 Gun Director and AN/SPG-53F Radar Maintenance NV-1715-0239

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance NV-1715-0654

Radar Set AN/SPG-51D Gun and Guided Missile Director Mk 73 Mod 2 and Ancillary Equipments Operation and Maintenance NV-1715-1035

16"/50 Caliber Gun System NV-1715-1293

3"/50 Caliber Rapid Fire Gun Mount Maintenance NV-2202-0085

3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35) NV-1715-0655

3"/50 Rapid Fire Twin Mount Power Drive and Gun Maintenance NV-1715-0655

5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1 NV-1715-0520

5"38 Caliber Gun System NV-1715-1292

76mm/62 Caliber Mk 75 Mods 0/1 Gun Operation and Maintenance NV-1715-1179

Gunboat

Patrol Gunboat/PG/Engineering Systems Operator and Maintenance NV-1712-0018

Gunfire

Disturbed Line of Sight Gunfire Control System Maintenance NV-1715-0759

Naval Gunfire Air Spotter NV-2202-0053
NV-2202-0059

Naval Gunfire Liaison Officer NV-2202-0058
NV-2202-0060

Naval Gunfire Spotters (Troop Officers) NV-2202-0064
Naval Gunfire Staff Officer NV-2202-0067
Naval Gunfire Support Planning NV-2202-0089
Troop Naval Gunfire Spotter NV-2202-0057

Gunner's
Gunner's Mate Class A Phase II NV-1715-1079
Gunner's Mate Class A, Phase I (A-1) NV-1715-0652
Gunner's Mate Class A, Phase II (A-2) NV-1715-0653
Gunner's Mate Class C ASROC Launching Group NV-1715-0626
Gunner's Mate Class C Guided Missile Launching System (GMLS) NV-1715-0620
Gunner's Mate Class C Rocket Launcher Mk 108 NV-1715-0618
Gunner's Mate Specialized Training NV-2202-0063
Gunner's Mate, Class A1 NV-1715-0652
Gunner's Mate, Class A1, Phase I NV-1715-0652
Gunner's Mate, Class B NV-1715-0802
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171
Talos Gunner's (Missile) Handling NV-1715-0602
Terrier/Tartar Gunner's Mate NV-1715-0603

Gunnery
Gunnery Officers (Relative Rate) NV-1715-0624
Gunnery Officers—Weapons Department Officers NV-1715-0625
Gunnery Petty Officer NV-2201-0113

Gynecology
Obstetrics/Gynecology (OB/GYN) Nurse Clinician NV-0703-0001
Obstetrics/Gynecology (OB/GYN) Nurse Practitioner NV-0703-0001

Gyro
Central Gyro Reference System (AN/AJA-2), Class C NV-1715-0708
E-1B AN/ASN-28 Central Gyro Reference System Maintenance NV-1715-0164
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion NV-1715-1132
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem NV-2205-0002
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem Theory NV-1715-1457
Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion NV-1715-1130
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Command Replacement/Navigation NV-1715-1397
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Navigation Officer Replacement NV-2205-0001
Electrostatically Supported Gyro Monitor (ESGM) Calibration NV-1715-1375
NV-1715-1458
Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer NV-1715-1157
Electrostatically Supported Gyro Monitor (ESGM) Theory and Maintenance NV-1715-1158
Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion NV-1715-1131
Gyro Compass Technician Mk 27 Maintenance Class C1 NV-1715-1089
Mechanical Gyro Maintenance and Repair C1 NV-1715-1090
Mk 19/27 Gyro Operator NV-1715-1223
Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement NV-1715-1370
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement NV-1715-1166
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements NV-1715-1371
Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion NV-1715-1153

Gyrocompass
AN/WSN-2 Stabilized Gyrocompass Maintenance Class C1 NV-1715-1067
Electrical Gyrocompass Operation Maintenance Technician, Class C NV-1715-0587
Gyrocompass Technician Electrical, Class C1 NV-1715-0587
Gyrocompass Technician Mechanical, Class C1 NV-1721-0008
Gyrocompass Technician—Electrical, Class C NV-1715-0587
Mk 19 Gyrocompass Systems Maintenance NV-1715-1141
Mk 23 Gyrocompass Systems Maintenance NV-1715-1120
Mk 27 Gyrocompass Maintenance, Class C NV-1715-0762
Mk 27 Mod 1 Mk 19 Gyrocompass Systems Advanced Theory and Maintenance NV-1715-1224
Sperry Mk XIX Mod III Gyrocompass NV-1715-0062
Submarine Gyrocompass Mk 19 Mod 3 NV-1715-0062
Submarine Gyrocompass Mk 19 Mod 3 Combined Maintenance NV-1715-0062

GFCS
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 NV-1715-0218
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 and Target Designation System Mk 5 NV-1715-0216
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68 NV-1715-0219
Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance NV-1715-0210
Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210
Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1 NV-1715-0221
Gun Fire Control System (GFCS) Mk 56 Maintenance NV-1715-0207
Gun Fire Control System (GFCS) Mk 63 Maintenance NV-2202-0028
Gun Fire Control System (GFCS) Mk 68 Maintenance NV-1715-0220
Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance NV-1715-0208
Gun Fire Control System (GFCS) Mk 86 Mod 3 Maintenance Class C NV-1715-1076
Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar NV-1715-1228
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1 NV-1715-0218

GT-3
GT-3 OK-441/ALM Controller Intermediate Maintenance NV-1715-1415

GTC-85
Ground Support Equipment GTC-85 Intermediate Maintenance NV-1703-0011

GTCP-100
Aviation Support Equipment GTCP-100

and Enclosures Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109

H-1
Basic Helicopter (H-1) Class A1
NV-1704-0283
Basic Helicopter (H-1), Class A1
NV-1704-0327

H-46
Basic Helicopter (H-46) Class A1
NV-1704-0284
Basic Helicopter (H-46), Class A1
NV-1704-0329
H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance
NV-1715-0034
H-46 Electrical and Instrument Systems Organizational Maintenance
NV-1714-0011
H-46 Hydraulic System Organizational Maintenance
NV-1704-0194
H-46 Rotors and Related Systems Organizational Maintenance Course
NV-1704-0154
H-46 Stabilization Systems Intermediate Maintenance
NV-1704-0136

H-53
Basic Helicopter (H-53) Class A1
NV-1704-0285
Basic Helicopter (H-53), Class A1
NV-1704-0328
H-53 Automatic Flight Control System Organizational Maintenance
NV-1704-0133
H-53 Automatic Flight Controls Systems Intermediate Maintenance
NV-1715-0738
H-53 Electrical and Instrument Systems Organizational Maintenance
NV-1704-0235
H-53 Electrical and Instruments Intermediate Maintenance
NV-1704-0236
H-53 Helicopter Maintenance
NV-1704-0147
H-53 Hydraulic Systems Organizational Maintenance
NV-1704-0063
H-53 Power Plants and Related Systems Organizational Maintenance
NV-1704-0168
H-53 Rotor and Related Systems Organizational Maintenance
NV-1704-0062
H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair
NV-1704-0049

Hagan
Hagan Automatic Boiler Control Console (ACC) Operator
NV-1710-0078
Hagan Automatic Boiler Control Maintenance
NV-1710-0073
Steam Plant Automatic Controls Maintenance (Hagan)
NV-1710-0073

Harpoon
Encapsulated Harpoon Command and Launch Subsystem Combined Maintenance
NV-1715-1011

Hazardous
Transportation and Storage of Hazardous Material
NV-0419-0007

Head Up
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)
NV-1704-0229
AN/AVQ-7A/B Head Up Display Set Intermediate Maintenance
NV-1704-0253

Heading
A-7A/B Attitude Heading and Reference System Intermediate Maintenance
NV-1721-0006
AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance
NV-1715-0534

Heat
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025
Heat Treatment of Metals, Class C
NV-1724-0001

Heavy
Builder/Heavy Construction Technician, Class C
NV-1710-0034
BU "C" Heavy Construction
NV-1710-0034

Helicopter
Aviation Machinist's Mate H (Helicopter), Class A
NV-1704-0238
Basic Helicopter (H-1) Class A1
NV-1704-0283
Basic Helicopter (H-1), Class A1
NV-1704-0327
Basic Helicopter (H-46) Class A1
NV-1704-0284
Basic Helicopter (H-46), Class A1
NV-1704-0329
Basic Helicopter (H-53) Class A1
NV-1704-0285
Basic Helicopter (H-53), Class A1
NV-1704-0328
Basic Helicopter, Class A
NV-1704-0059
Basic Helicopter, Class C
NV-1704-0059
H-53 Helicopter Maintenance
NV-1704-0147
Helicopter (HS) Antisubmarine Warfare (ASW) Operator
NV-2202-0080
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13)
NV-2202-0080
Senior Officer Helicopter Training
NV-1704-0196

Helium
Deep Sea Helium-Oxygen Diving Officer
NV-1606-0009

High
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1
NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator
NV-1715-0833
Force High Level Terminal Data Systems Maintenance Technician
NV-1715-1177
High Frequency Direction Finder Operator, Class C3
NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control
NV-1715-0800
High Frequency Direction Finding (HFDF) Maintenance
NV-1715-1256
High Frequency Surface Communications System Operator
NV-1715-1348
High Frequency Systems Technician Maintenance
NV-1715-1340
High Impact Personnel Overseas Duty Training
NV-1512-0002
High Pressure Pipe Welders
NV-1710-0051
I/R High Pressure Air Compressor Combined Maintenance
NV-1601-0030
OM-55/USC Super High Frequency Satellite Communication Modular Demodulator Group Maintenance
NV-1715-1346
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance
NV-1715-0368
Ultra High Frequency-Demand Assigned Multiple Access (DAMA)
NV-1715-1347
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance
NV-1402-0112

Horizon
LAMPS Mk 3 Horizon Reference Set Maintenance,
NV-1714-0048

Horizontal
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance
NV-1715-0297

Hospital
Advanced Hospital Corps
NV-0709-0008
Advanced Hospital Corps Technician, Class B
NV-0709-0008
Advanced Hospital Corpsman
NV-0709-0008
Advanced Hospital Corpsman Class C
NV-0709-0019
Basic Hospital Corps School, Class A
NV-0703-0005
Hospital Corpsman
NV-0703-0008
Hospital Corpsman, Advanced
NV-0709-0008
Hospital Corpsman, Basic
NV-0703-0005
Hospital Corpsman, Class A
NV-0703-0005

Naval School of Hospital Administration
NV-0799-0001

Hot
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance
NV-1704-0202

Housing
Unaccompanied Personnel Housing Management, Class C
NV-1405-0021

Hovering
Electronic Hovering and Depth Control Combined Maintenance
NV-1715-0934
Electronic Hovering and Missile Compensation
NV-1715-0934
Hovering and Missile Compensation and Associated Position Control Units (PCU's) Electrical Maintenance
NV-1715-1311
SSN/SSBN Electronic Hovering and Depth Control Combined Maintenance
NV-1715-0934

Hull
Hull Technician Class A, Phase I/II
NV-1723-0013
Pressure Hull Welders
NV-1710-0049
Shipfitters Hull Maintenance Technician, Class A, Phase 2
NV-1723-0005

Human
Human Resource Management Instructor
NV-1512-0006
Human Resource Management Specialist
NV-0326-0003
NV-1512-0005
Intercultural Relations—Human Resources Development
NV-1512-0004

Hybrid
AN/USM-403 Hybrid Automatic Test Set (HATS) Operator
NV-1715-1193
Digital, Analog, and Hybrid Computer Fundamentals
NV-1402-0013

Hydraulic
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance
NV-1704-0013
A-7E Hydraulic, Pneumatic and Airframe Systems Organizational Maintenance
NV-1704-0013
Aviation Support Equipment Technician, Class A (Hydraulic Specialty)
NV-1704-0112
Basic Hydraulic Systems and Components
NV-1704-0264
E-1B Airframe and Hydraulic Systems Organizational Maintenance
NV-1704-0195
Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount
NV-2202-0075
EC-130 Airfame and Hydraulic Systems Maintenance
NV-1704-0278
F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance
NV-1704-0215
F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance
NV-1704-0216
F-4B/J Airframe and Hydraulic Systems Maintenance
NV-1704-0056
F-4B/J Airframe and Hydraulic Systems Organizational Maintenance
NV-1704-0056
F-8 Airframes/Hydraulic Systems Organizational Maintenance
NV-1704-0120
F/RF-4B/J Hydraulic Organizational Maintenance
NV-1704-0030
Fundamental Hydraulic Component Maintenance
NV-1704-0272
H-46 Hydraulic System Organizational Maintenance
NV-1704-0194
H-53 Hydraulic Systems Organizational Maintenance
NV-1704-0063
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance
NV-1704-0058
OV-10A Flight Control and Hydraulic Systems Organizational Maintenance
NV-1704-0103
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance
NV-1704-0206
RA-5C Structures and Hydraulic Sub-Systems
NV-1704-0041
RA-5C Structures and Hydraulic Sub-Systems Organizational Maintenance
NV-1704-0041
S-3A Structure, Hydraulic and Flight Control Systems Organizational Maintenance
NV-1704-0288
SH-3 Airframe and Hydraulic Systems Maintenance
NV-1704-0124
SH-3 Airframes and Hydraulic Systems Organizational Maintenance
NV-1704-0047
Trident Submarine Hydraulic Combined Maintenance
NV-1704-0316
Underwater Hydraulic Tools
NV-1723-0014
Underway Replenishment Mechanical and Hydraulic Component Maintenance
NV-1710-0016
NV-1710-0113
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance
NV-1704-0057
UNREP Hydraulic and Mechanical Component Maintenance (Sending Units)
NV-1710-0016

Hydraulics
A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance
NV-1704-0129
A-6A Hydraulics and Flight Controls Organizational Maintenance
NV-1704-0129
A-7A/B Structures, Hydraulics and Pneumatic Systems Maintenance
NV-1704-0190
Aviation Structural Mechanic H (Hydraulics), Class A
NV-1704-0128
Aviation Structural Mechanic H (Hydraulics), Class B
NV-1704-0087
Aviation Support Equipment Technician Hydraulics and Structures, Class A
NV-1704-0138
Basic Hydraulics
NV-1704-0269
C-2A Hydraulics/Airframes System Maintenance
NV-1704-0143
C-2A Hydraulics/Airframes System Organizational Maintenance
NV-1704-0143
E-2A Hydraulics/Airframes System Maintenance
NV-1704-0155
E-2A Hydraulics/Airframes Systems Organizational Maintenance
NV-1704-0155
Electricity, Electronics and Hydraulics Class AP
NV-1715-0565
Electricity, Electronics and Hydraulics, Class P (E, E & H, Class P)
NV-1715-0565
EA-6B Hydraulics and Flight Control Organizational Maintenance
NV-1704-0223
F/RF-4B Structures and Hydraulics Maintenance
NV-1704-0122
KC-130F Airframes and Hydraulics Organizational Maintenance
NV-1704-0191
P-3 Hydraulics and Flight Controls System Maintenance, No. 10
NV-1704-0050
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance
NV-1704-0161
S-2D/E Airframes and Hydraulics Systems Maintenance
NV-1704-0066
Submarine 3000 PSI Hydraulics Combined Maintenance
NV-1704-0247
SH-2F Airframes, Hydraulics and Flight Control Organizational Maintenance
NV-1704-0290
UH34D Airframe, Hydraulics and Flight Controls
NV-1704-0064

Hydrogen
Carbon Dioxide Scrubber and Carbon Monoxide/Hydrogen Burner Combined Maintenance
NV-1732-0013

HF
AN/ARC-142 HF Communications System Intermediate Maintenance
NV-1715-0058
AN/ARC-161 HF Radio Set Intermediate Maintenance
NV-1715-0058
AN/SRC-23 HF Transceiver AN/SRA-34 Coupler Maintenance
NV-1715-1050

RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance NV-1715-0373
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance NV-1715-0369
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance NV-1715-0244

HF/VHF
Trident Exterior Communications System (ECS) Level II HF/VHF NV-1715-1359

HFDF
Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800
High Frequency Direction Finding (HFDF) Maintenance NV-1715-1256
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance NV-1402-0112

HH-2C
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

HH-2D
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1704-0205
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

HH-2D/SH-2D
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058

HT-A
Damage Controlmen Class A HT-A Phase I NV-1728-0012

Ice
Ice Observer, Class C NV-2202-0070

Identification
A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance NV-1715-0937
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940
A-7E Communication, Navigation, Identification and Countermeasures Organizational Maintenance NV-1704-0250
AN/APX-72 Radar Identification System Intermediate Maintenance NV-1715-0591
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101
F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4B Communication, Navigation, Identification (CNI) Organizational Maintenance NV-1715-0255
F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication, Navigation, Identification (CNI) Organizational Maintenance NV-1715-0612
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance NV-1715-0034
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance NV-1715-0118
RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357

Identity
AN/TPX-42A Basic Direct Altitude Identity Readout (DAIR) Maintenance, Class, C1. NV-1715-1432
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1 NV-1715-1435
AN/TPX-42A(V)5 Direct Altitude Identity Readout (DAIR) Maintenance, Class C1 NV-1715-1433
AN/TPX-42A(V)8 Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) Maintenance Class C1 NV-1715-1434

Ignition
Ground Support Equipment Tow Tractor Charging, Starting and Ignition Systems Intermediate Maintenance NV-1704-0028

Illuminator
Continuous Wave Illuminator (CWI) Common Core NV-1715-0163

Illustration
Medical Illustration Technic NV-0202-0001
Medical Illustration Technician, Class C NV-0202-0001

Illustrative
Illustrative Photography C1 NV-1709-0017
Illustrative/Architectural Photography NV-1709-0032

Illustrator
Illustrator Draftsman, Class A NV-1713-0002

Imagery
Imagery Interpretation (IIC) NV-1606-0074
Intelligence Specialist Class A Imagery Interpretation NV-1709-0039

In-Flight
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance NV-1715-0471

Independent
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance NV-1715-0772
Independent Duty Technician NV-0709-0008
Independent Variable Depth Sonar Hoist AN/SQA-13 Maintenance NV-1715-0772

Indicating
Propulsion Alarm and Indicating Systems Maintenance NV-1710-0089
RA-5C Electrical and Indicating Systems (Intermediate Maintenance) NV-1704-0099
RA-5C Electrical and Indicating Systems Organizational Maintenance NV-1704-0069

Indicator
A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098
A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159
AN/AVA-1 Vertical Display Indicator

Group Intermediate Maintenance
NV-1715-0159

AN/SPA-25G Radar Indicator Group Maintenance
NV-1715-1337

AN/SPA-50, AN/SPA-50B Radar Indicator Maintenance
NV-1715-1096

AN/SPA-66 Radar Indicator Maintenance
NV-1715-1094

APA-56 Indicator Assembly
NV-1715-0707

Bright Radar Indicator Tower Equipment Maintenance, Class C
NV-1715-0276

Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance
NV-1715-1139

E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance
NV-1715-0046

Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance
NV-1715-0510

Electronics Technician, AN/SPA-34 Indicator Group, Class C
NV-1715-0310

Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance
NV-1715-0018

Electronics Technician, Indicator Group AN/SPA-40, Class C
NV-1715-0013

Mk 9 MOD-4 Dead Reckoning Analyzer Indicator (DRAI) Combined Maintenance.
NV-1715-1222

P-3 AN/APA-125A Indicator Group Intermediate Maintenance
NV-1715-0172

P-3 AN/APA-125A Indicator Maintenance, No. 48
NV-1715-0172

P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance
NV-1715-0120

P-3 AN/ASA-16 Indicator Group Organizational Maintenance
NV-1715-0115

S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance
NV-1715-0561

Indicators

Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892

Indoctrination

Limited Duty Officer (LDO) and Chief Warrant Officer (CWO) Indoctrination Training
NV-1408-0029

Limited Duty Officer (LDO) Indoctrination
NV-2202-0094

Officer Instructor Indoctrination
NV-1406-0009

Inertial

A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance
NV-1715-0475

A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance
NV-1715-0177

A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance
NV-1715-0146

Advanced Theory and Maintenance I Ships Inertial Navigation System (SINS) Mk 2 Mods 6/7
NV-1715-1376

Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration
NV-1715-1374

AN/ASN-31/36/92 Inertial Platform Maintenance Technician Intermediate Maintenance
NV-1715-1214

AN/WSN-5 Inertial Navigation System Maintenance
NV-1715-1119

Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance
NV-1715-0994

Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician
NV-1715-0066

Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065

Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion
NV-1715-1130

Fleet Ballistic Missile Tender Navigation Maintenance Ship's Inertial Navigation System
NV-1715-0065

Inertial Navigation System (ESGN) AN/WSN-3A(V)2 Combined Maintenance
NV-1715-1462

Inertial Platform Test Station (IPTS) Intermediate Maintenance
NV-1715-1207

Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1402-0051

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1715-1461

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Operations (Enlisted)
NV-1715-0339

Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance
NV-1715-1061

RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Calibration
NV-1715-0202

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory
NV-1715-0232

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance I
NV-1715-0232

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II
NV-1715-1002

Ship's Inertial Navigation System (SINS) Mk 2 Mod 7 Technician Conversion
NV-1715-1161

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I
NV-1715-0919

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II
NV-1715-0920

Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance
NV-1402-0052

Ship's Inertial Navigation System (SINS) Mk 3 Mod 6 Combined Maintenance
NV-1715-0985

Ship's Inertial Navigation System (SINS) Theory and Analysis
NV-1107-0002

Ship's Navigation and Aircraft Inertial Alignment Systems Maintenance
NV-1715-1061

Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Equipment Technician Replacement
NV-1715-1393

Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement
NV-1715-1380

Ships Inertial Navigation System (SINS) Technician Poseidon Replacement
NV-1715-0066

Ships Inertial Navigation System Theory and Maintenance II
NV-1715-1369

SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician
NV-1715-0440

SSN Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Trident I Ships Inertial Navigation System (SINS) Equipment
NV-1715-1379

Information

Amphibious Support Information System Operator
NV-1402-0034

Combat Information Center (CIC) Officer
NV-2202-0125

Combat Information Center (CIC)

Officer, Class O
NV-2202-0069
Combat Information Center (CIC) Procedures Advanced
NV-2202-0130
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Common User Digital Information Exchange System (CUDIXS) Maintenance
NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators
NV-1715-0879
Data Base Management—LCC Amphibious Support Information System Language—Operator
NV-1402-0034
Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training
NV-1715-0509
Information Officer
NV-0504-0001
LCC Amphibious Support Information System Operator
NV-1402-0034
Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User
NV-1402-0117
Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management
NV-1402-0119
Officer in Tactical Command Information Exchange System
NV-1715-1343
Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance
NV-1715-1230
Submarine Satellite Information Exchange Subsystem Combined Maintenance
NV-1715-1471
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance
NV-1715-0871
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Operator
NV-1715-0878

Infrared
AN/AAS-33A Detecting and Ranging Set Receiver Group/Reciprocating Compressor/Infrared Indicator Intermediate Maintenance Course
NV-1715-1411
AN/AAS-36 Infrared Detecting System (IRDS) and AN/AAS-37IR/LORTS Common Infrared Detection System Intermediate Maintenance
NV-1715-1029
IP-1214/AA Infrared Viewer Intermediate Maintenance
NV-1715-1201
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance
NV-1715-0222
RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance
NV-1715-0225

Inktronic
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer
NV-1715-0019

Input
Central Navigation Computer (CNC) (Input/Output)
NV-1402-0026

Inspection
Aircraft Maintenance Nondestructive Inspection School, Class C
NV-1704-0156

Inspector
Safety Inspector Class C
NV-1728-0007
Shipboard Non-Tactical Automatic Data Processing (SNAP) 3-M Coordinator/Inspector
NV-1402-0153

Installations
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873

Instruction
Individualized Instruction Techniques
NV-1406-0006
Programmed Instruction Techniques
NV-1406-0006
Programmed Instruction Writer
NV-1406-0006

Instructional
Instructional Programmers (Class C)
NV-1406-0005

Instructor
Academic Instructor Training
NV-1406-0003
Basic Prop Flight Instructor
NV-1606-0018
Boiler Water/Feed Water Test and Treatment Instructor Certification
NV-1601-0022
Fire Fighter Instructor
NV-1728-0004
Fire Fighting Instructor
NV-1728-0004
Flight Instructor Indoctrination Group
NV-1606-0042
Flight Instructor Training
NV-1606-0019
Group-Paced Instructor
NV-1406-0019
Human Resource Management Instructor
NV-1512-0006
Instructor Basic
NV-1406-0008
Instructor Training School Class C
NV-1406-0001
Instructor Training, Class C
NV-1406-0001
Instructor, Class C (Career Information and Counseling)
NV-1406-0004
Instructor, Class C-1 Administration and Counseling
NV-1408-0008
Instructor, Class 1, Course "Alfa"
NV-1406-0008
Leadership Management Education and Training (LMET) Instructor
NV-1717-0021
Officer Instructor Indoctrination
NV-1406-0009
Prospective Advanced Navigation Flight Instructor
NV-1606-0038
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor
NV-1606-0037
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor
NV-1606-0041
Prospective TA-4J Flight Instructor
NV-1606-0021
Prospective TF/TAF-9J Flight Instructor
NV-1606-0039
Prospective VA (Prop) Tactical Flight Instructor
NV-1606-0040
Shipboard Instructor
NV-1406-0013
Tradevman I (Instructor) Class A
NV-1406-0002

Instructors
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001
Television Instructors
NV-1406-0007

Instrument
A-7 Electrical and Instrument Systems Organizational Maintenance
NV-1704-0079
A-7A/B Electrical and Instrument Systems Organizational Maintenance
NV-1704-0079
A-7E Electrical and Instrument Systems Organizational Maintenance
NV-1704-0080
Aviation Electrician's Mate I (Instrument), Class A
NV-1704-0068
CH-46A Electrical and Instrument Systems
NV-1704-0077
E-1B Electrical and Instrument Systems Organizational Maintenance
NV-1714-0013
E-2A Electrical and Instruments Maintenance
NV-1704-0093
H-46 Electrical and Instrument Systems Organizational Maintenance
NV-1714-0011
H-53 Electrical and Instrument Systems Organizational Maintenance
NV-1704-0235
RADIAC Instrument Maintenance
NV-1715-0545
UH-1N Electrical/Instrument Systems Organizational Maintenance
NV-1704-0273

Instrumentalist
Band Instrumentalist (Army)
NV-1205-0001

Instrumentman
Instrumentman (Calculator Repair), Class C
NV-1706-0001

Instrumentmen
Instrumentmen—Watch Repair
NV-1721-0005

Instrumentmen, Class A
NV-1721-0004

Instruments

C-2A Electrical and Instruments Organizational Maintenance
NV-1715-0150

EC-130 Electrical and Instruments Maintenance
NV-1715-1181

F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance
NV-1715-0183

H-53 Electrical and Instruments Intermediate Maintenance
NV-1704-0236

KA-3A/KA-3B Electrical and Instruments Organizational Maintenance
NV-1714-0014

S-2D/E Electrical and Instruments Maintenance, No. 6
NV-1704-0086

Insulation

Shipboard Thermal Insulation (Lagging)
NV-1710-0039

Integrated

A-4 Integrated Electrical Systems Organizational Maintenance
NV-1704-0185

A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance
NV-1715-0450

AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance
NV-1715-0515

AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0540

AN/WIC Integrated Announcing System
NV-1715-1472

E-1B Integrated Electrical System Organizational Maintenance
NV-1715-0498

E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746

Integrated Announcing System
NV-1715-1310

Integrated Announcing System AN/WIC-2 Combined Maintenance
NV-1715-0319

Integrated Avionics Radar System Technician
NV-1715-0035

Integrated Avionics Weapons System Specialist
NV-1715-0266

Integrated Avionics Weapons System Technician
NV-1715-0267

Integrated Shipboard Maintenance Support
NV-1405-0022

Integrated Submarine Automated Broadcast Processing System
NV-1402-0132

P-3 Integrated Electrical System Organizational Maintenance
NV-1704-0101

P-3A/B Integrated Electrical System Organizational Maintenance
NV-1704-0101

P-3C Integrated Avionics System (Update I) Organizational Maintenance
NV-1715-1025

P-3C Integrated Avionics System Technician
NV-1715-0329

P-3C Integrated Electrical Systems Organizational Maintenance
NV-1704-0089

Intelligence

Afloat Tactical Reconnaissance Intelligence (TACRECCE) Analyst
NV-1709-0026

Amphibious Intelligence Staff Officer
NV-1606-0004

Amphibious Staff Intelligence Officer (ASIO)
NV-1606-0059

Aviation Electronic Warfare Intelligence Operator
NV-1715-1148

Aviation Electronics Intelligence, Class O/C
NV-1715-0504

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer Intelligence Analyst
NV-1402-0104

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System Maintenance
NV-1402-0103

AN/TYQ-19(V), Marine Air-Ground Intelligence System (MAGIS) Intelligence Analysis Center (IAC) Computer System, Automatic Data Processing (ADP) Communications Operator
NV-1402-0102

Basic Intelligence Training Subjects
NV-1511-0016

Basic Navy Operational Intelligence
NV-1511-0027

Basic Reserve Intelligence Training - Enlisted
NV-1511-0023

Basic Shipboard Intelligence
NV-1606-0072

Command Intelligence Officer (CIO)
NV-1606-0024

Electronic Warfare Intelligence Operator
NV-1715-0021

Fleet Air Intelligence Officer
NV-2202-0023

Fleet Officer and Fleet Enlisted Air Intelligence
NV-2202-0022

Intelligence Advisor Vietnam
NV-1606-0001

Intelligence Man (Air/Ground)
NV-1606-0006

Intelligence Officer Refresher
NV-1511-0031

Intelligence Officer, Vietnam
NV-1606-0003

Intelligence Photography
NV-1709-0038

Intelligence Specialist A - Reserve (ISA-RES)
NV-1606-0075

Intelligence Specialist Class A
NV-1511-0017

Intelligence Specialist Class A - Operational Intelligence Reserve (Phases 1 and 2)
NV-1511-0032

Intelligence Specialist Class A Imagery Interpretation
NV-1709-0039

Intelligence Specialist Class A Operational Intelligence
NV-1606-0073

Intelligence/Electronic Warfare Officer
NV-1715-0332

IOIC Intelligence Data System (Storage and Retrieval) Maintenance
NV-1715-0030

Junior Afloat Intelligence Officer
NV-1606-0069

Landing Helo Auxiliary (LHA) Afloat Intelligence Specialist
NV-1606-0070

Landing Helo Auxiliary (LHA)/CVN Afloat Intelligence Specialist
NV-1606-0070

Marine Air Ground Task Force Intelligence Officer
NV-1511-0018

Marine Air Ground Task Force Intelligence Specialist Reserve (Phases 1 and 2)
NV-1511-0030

Marine Air-Ground Task Force Intelligence Officer Reserve (Phases 1 and 2)
NV-1511-0029

Marine Air/Ground Task Force Intelligence Specialist Entry
NV-1511-0019

Marine Air/Ground Task Force Intelligence Specialist Intermediate
NV-1511-0020

Marine Enlisted Basic Combat Intelligence
NV-1606-0005

Multi-User Special Intelligence Communications Maintenance
NV-1402-0113

Naval Field Intelligence Officer, Vietnam
NV-1606-0003

Naval Intelligence Mid-Career
NV-1511-0033

Naval Intelligence Officer
NV-1511-0022

Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator
NV-1402-0100

Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer
NV-1709-0025

Naval Intelligence Processing System (NIPS) System Maintenance
NV-1402-0099

Operational Intelligence Analysis
NV-1511-0024

Radar (Target) Intelligence
NV-1709-0015

Reserve Air Intelligence (RAI)
NV-1606-0055

Reserve Basic Intelligence Training Subjects (BITCS)
NV-1606-0056

Senior Afloat Intelligence Officer
NV-1606-0068

Shipboard Intelligence Analyst NV-1511-0021
Strike Warfare Operational Intelligence (OPINTEL) Analyst NV-1606-0067
Tactical Intelligence (TACINTEL) System Maintenance NV-1715-1247
Tactical Intelligence Subsystem Maintenance NV-1715-1152

Intelligenceman
Photographic Intelligenceman (PT) NV-1606-0030

Intercept
Air Intercept Control (Requalification), Class O/C NV-1704-0115
Air Intercept Control (Supervisor), Class C/O NV-1704-0117
Air Intercept Control Supervisor NV-2202-0126
Air Intercept Control, Class O NV-1704-0001
Air Intercept Controller NV-1704-0002
Air Intercept Controller Naval Tactical Data Systems (NTDS) Qualification NV-1715-0674
Air Intercept Controller Supervisor NV-1704-0005
Air Intercept Controller, Conventional Qualification NV-2202-0131
Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674

Intercultural
Intercultural Relations—Facilitator Training NV-1512-0003
Intercultural Relations—Human Resources Development NV-1512-0004
Intercultural Relations—Overseas Duty Training NV-1512-0002
Intercultural Relations—Race Relations Specialist Training NV-1512-0001
Intercultural Relations—Vietnam Advisor Training NV-1513-0003

Interior
FFG-7 Class Ship Interior Communications (IC) Subsystems Technician NV-1715-1075
Interior Communications (IC) Electrician Class A NV-1714-0026
Interior Communications (IC) Electrician, Class B NV-1715-0755
Interior Communications (IC) Electrician, Class C7 NV-1715-0755
Interior Communications (IC) Electricians, Class A (A-1) NV-1715-0729
Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173
Interior Communications Electrician Advanced Maintenance Training NV-1715-1296
Submarine Interior Communications (IC) Systems NV-1715-0642

Intermediate
Avionics Intermediate, Class B NV-1715-0102
Avionics Intermediate, Class C7 NV-1715-0102
Intermediate Avionics, Class B NV-1715-0102
Intermediate Level Maintenance Navigation Technician NV-1723-0010
Intermediate Maintenance Level Data Analysis, Class C NV-1115-0001
Intermediate Welding NV-1710-0054
Music Intermediate, Class C NV-1205-0003
Music Intermediate, Class C-1 NV-1205-0003
Navigation Technician Intermediate Level Maintenance NV-1723-0010
Poseidon Intermediate Level Missile Maintenance Technician NV-1715-1125
Reserve Cryptologic Technician, Intermediate Cryptanalysis NV-1715-0820
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820

International
Advanced International Morse Code Operator NV-1404-0012
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse NV-1715-0839

Interpretation
Imagery Interpretation (IIC) NV-1606-0074
Intelligence Specialist Class A Imagery Interpretation NV-1709-0039
IOIC Photo Interpretation Officer NV-1709-0006
IOIC Photo Interpretation Operator NV-1709-0007
Metrical Photographic Interpretation NV-1709-0014
Modular Image Interpretation System and Analytical Photogrammetric Positioning System Maintenance NV-1709-0024
Photographic Interpretation/Radar Target Analysis NV-1606-0030
Strategic Photographic Interpretation NV-1709-0012
Tactical Photographic Interpretation NV-1709-0011

Interrogator
Air Traffic Control Equipment Maintenance Interrogator Set AN/TPX-42A(V)5 Class C1 NV-1704-0243
Air Traffic Control Maintenance, Interrogator Set AN/TPX-42A BASIC DAIR, Class C1 NV-1715-0959
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance NV-1715-0434
Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C NV-1715-0566
Interrogator Set AN/TPX-42A(V)8 CATOC DAIR Class C1 NV-1715-0933

Interviewing
Interviewing and Classification NV-1406-0018
Personnelman, Class C-1, Interviewing and Classification NV-1406-0018

Inverter
5 Kw Static Inverter Combined Maintenance NV-1715-1460

Ionospheric
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1) NV-1715-0004

Isotope
Radioactive Isotope Technic NV-0705-0002
Radioactive Isotope Technician, Class C NV-0705-0002

IBM
IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007

IC
FFG-7 Class Ship Interior Communications (IC) Subsystems Technician NV-1715-1075
Interior Communications (IC) Electrician Class A NV-1714-0026
Interior Communications (IC) Electrician, Class B NV-1715-0755
Interior Communications (IC) Electrician, Class C7 NV-1715-0755
Interior Communications (IC) Electricians, Class A (A-1) NV-1715-0729
Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173
Submarine Interior Communications (IC) Systems NV-1715-0642

ICAP
EA-6B ICAP Electronic Countermeasures Analyst Organizational Maintenance NV-1715-0955

ICR
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
NV-1715-0839

IFF
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1)
NV-1715-0812
AN/APX-64(V) IFF Transponder Set Intermediate Maintenance
NV-1715-0563
AN/APX-72 Series IFF Transponder System Maintenance
NV-1715-0811
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance
NV-1715-0434
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance
NV-1715-0309
IFF AN/APX-72 and AN/UPX-17 Combined Maintenance
NV-1715-0914
IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1
NV-1715-0914
KY-532A/KY-533A IFF Transponder Intermediate Maintenance
NV-1715-0184
Mk XII IFF Systems, Class C
NV-1715-0033
P-3 Radar and IFF Systems Organizational Maintenance
NV-1715-0114

ILM
Universal ILM Tender
NV-1715-1406

IMA
Intermediate Maintenance Activity (IMA) Machinery Maintenance
NV-1715-1486

IOIC
CVA IOIC Storage and Retrieval Officer
NV-1402-0043
IOIC Electronic Data Processing Maintenance
NV-1715-0581
IOIC Intelligence Data System (Storage and Retrieval) Maintenance
NV-1715-0030
IOIC Maintenance Officer
NV-1402-0029
IOIC Photo Interpretation Officer
NV-1709-0006
IOIC Photo Interpretation Operator
NV-1709-0007
IOIC Photographic Processing Officer
NV-1709-0013
IOIC Photographic Processing/Maintenance
NV-1709-0008
IOIC Storage and Retrieval Operator/Officer Course
NV-1402-0035
IOIC Supervisor
NV-1606-0002
IOIC Systems Maintenance
NV-1715-0084

IP-1181/UYK
Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I
NV-1402-0127
Display Console OJ-326(V)/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase III
NV-1402-0128

IP-1214/AA
IP-1214/AA Infrared Viewer Intermediate Maintenance
NV-1715-1201

IP-722F/AVA-1
IP-722F/AVA-1 Analog Display Indicator Intermediate Maintenance
NV-1715-1420

Jamming
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance
NV-1715-0053
AN/ALQ-99 Jamming Transmitters and AN/ALM-107B Countermeasures Test Station Intermediate Maintenance
NV-1715-0053

Jet
Aviation Machinist's Mate J (Jet Engine), Class A
NV-1704-0148
Aviation Machinist's Mate J (Jet Engine), Class B
NV-1704-0159
Aviation Machinist's Mate J (Jet Engine), Class C7
NV-1704-0159
Aviation Machinist's Mate J (Turbo-Jet), (Class A)
NV-1704-0148
Basic Jet Navigation, Class O
NV-1606-0023
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor
NV-1606-0041
TA-4J Advanced Jet
NV-1606-0025

Jezebel
Advanced Jezebel (VP)
NV-2202-0105
Jezebel Gram Analysis for AW's P-3A/B (DIFAR Retrofit)
NV-1715-0704
S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance
NV-1715-0243

Joint
Joint Aviation Supply and Maintenance Material Management
NV-1405-0009
Joint Military Operations for College of Naval Warfare
NV-2202-0132
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures
NV-1401-0004

Journalism
Recruiters Journalism, Class C-1
NV-0504-0002

Journalists
Journalists, Class A
NV-0504-0003
Journalists, Class B
NV-0504-0004

Judge
Judge Advocate General's Corps Indoctrination
NV-2202-0051

Jumpmaster
Jumpmaster Naval Parachutist, Class C1
NV-1733-0004
NV-2202-0026
Naval Jumpmaster Class C
NV-2202-0026

Junior
Amphibious Junior Division Officer Indoctrination
NV-2202-0090
Amphibious Junior Officer Indoctrination
NV-2202-0046
Junior Afloat Intelligence Officer
NV-1606-0069

Justice
Military Justice (Lawyer)
NV-1728-0016
Military Justice (Non-Lawyer)
NV-1728-0015
Military Justice (Officers)
NV-1728-0017

JUMPS
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures
NV-1401-0004

J52-P-6A/8A
A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance
NV-1704-0170

J52-P408
J52-P408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0024

J52-P6/6A/8A
J52-P6/6A/8A Intermediate Maintenance
NV-1704-0181

J52-P6A/8A
J52-P6A/8A Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0119

J57-P-16/20
F-8 J57-P-16/20 Intermediate Maintenance
NV-1704-0163
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair
NV-1704-0163

J60-P-3A/6
J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0037

J79-GE-8/10
J79-GE-8/10 Engine Intermediate Maintenance
NV-1704-0055
J79-GE-8/10 Intermediate Maintenance
NV-1704-0055

J79-GE-8/8A
F/RF-4B J79-GE-8/8A Cold Section Repair
NV-1704-0201
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance
NV-1704-0202

J85-GE-4
J85-GE-4 Engine Intermediate

Maintenance/Complete Engine Repair NV-1704-0026

Keying
Teletype Maintenance, Class C, Low Level Keying Teletype Maintenance NV-1715-0663

KA-3A
KA-3A/KA-3B Electrical and Instruments Organizational Maintenance NV-1714-0014

KA-3B
KA-3A/KA-3B Electrical and Instruments Organizational Maintenance NV-1714-0014

KA-6D
A-6A, KA-6D, A-6E Electrical Systems Organizational Maintenance NV-1704-0240
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance NV-1715-0937

KAMEWA
KAMEWA Controllable Pitch Propeller Maintenance NV-1710-0106

KC-130-F
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736

KC-130F
KC-130F Airframes and Hydraulics Organizational Maintenance NV-1704-0191
KC-130F AN/APN-59 Radar Maintenance NV-1715-0036
KC-130F AN/APN-59B Radar Intermediate Maintenance NV-1715-0041
KC-130F Electrical Systems and Circuits Maintenance NV-1704-0071
KC-130F Electrical Systems Organizational Maintenance NV-1704-0071
KC-130F Propeller Intermediate Maintenance NV-1704-0193
KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0014
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance NV-1704-0125

KY-308/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0377

KY-309
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

KY-312
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance NV-1715-0394
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

KY-531
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director NV-1715-0562
RT-736 and KY-531 Tactical Air Navigation (TACAN) Intermediate Maintenance NV-1715-0796

KY-532A/ASQ
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance NV-1715-0309

KY-532A/KY-533A
KY-532A/KY-533A IFF Transponder Intermediate Maintenance NV-1715-0184

Laboratory
Blood Bank and Clinical Laboratory Technic NV-0702-0003
Clinical Laboratory Assistant Technic NV-0702-0008
Clinical Laboratory Technician, Class C NV-0702-0003
Dental Laboratory Technology Advanced Class C NV-0701-0011
Dental Laboratory Technology Basic Class C NV-0701-0010
Medical Laboratory Technician Advanced NV-0702-0003
Medical Laboratory Technician, Advanced NV-0702-0012
Optician Laboratory Technician, Class C NV-0706-0002
Optician Technic Laboratory NV-0706-0002
Photographic Laboratory Technician C1 NV-1709-0018

Landing
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42A, Class C1 NV-1715-0286
Landing Craft Beach and Surf Salvage NV-1708-0002
Optical Landing System Maintenance NV-1715-1240
Optical Landing Systems Maintenance, Class C NV-1715-0609
Ship Landing Party Indoctrination NV-2202-0049

Lathes
Turret Lathes and Metal Build-up Class C1 NV-1736-0003

Launch
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C) NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Aircraft Launch and Recovery Equipment Maintenance Officers NV-1704-0308
Aircraft Launch and Recovery Equipment Officer NV-1704-0300
Aircraft Launch and Recovery Equipment, Class C1, C13 Mod O Track NV-1704-0305
Aircraft Launch and Recovery Equipment, Class C1, C7/C11 Track NV-1710-0011
Aircraft Launch and Recovery Equipment, Class O NV-1704-0184
Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042
Encapsulated Harpoon Command and Launch Subsystem Combined Maintenance NV-1715-1011
Harpoon Ship Command Launch Control Set Maintenance NV-1715-1063
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061

Launcher
CHAFFROC Mk 28 Mod 1 Launcher Systems Maintenance NV-1715-0148
Guided Missile Launcher System Mk 26 NV-1704-0315
Gunner's Mate Class C Rocket Launcher Mk 108 NV-1715-0618
Launcher Control and Monitoring Equipment NV-1402-0083
Launcher Control Group Mk 13 Mod O Advanced NV-1715-1323

Launcher Mk 21 Mod 2 Advanced Training, Class F1 NV-1715-0917
Launcher Technician NV-1715-0763
Launcher Technician (Tender) NV-1710-0030
Launcher Technician Mk 88 Fire Control Conversion NV-1715-0623
Missile Launcher Control and Monitoring Equipment NV-1402-0083
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1 NV-1715-0910
Missile Launcher Mk 21 Mod 2 Theory and Operation NV-1715-0575
Missile Launcher System Mk 24 Maintenance - Electrical NV-1714-0004
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5 NV-1715-0684

Launching
ASROC Launching Group Mk 16 Maintenance, Class C1 (ASROC Launching Group Mk 16) NV-1715-0770
Guided Missile Launching System (GMLS) Mk 13 Mod 4 Maintenance NV-1715-1077
Guided Missile Launching System Mk 10 Solid State Control System Difference NV-1715-1298
Gunner's Mate Class C ASROC Launching Group NV-1715-0626
Gunner's Mate Class C Guided Missile Launching System (GMLS) NV-1715-0620
Mk-25 Guided Missile Launching System (GMLS) NV-1715-1038
MK-29 Mod 0 Guided Missile Launching System (GMLS) Maintenance NV-1715-1039
Tartar Guided Missile Launching System (GMLS) Mk 11 Maintenance Class C1 NV-1715-1081
Terrier Guided Missile Launching System (GMLS) Mk 10 Maintenance Class C1 NV-1715-1083

Lawyer
Military Justice (Lawyer) NV-1728-0016

Leadership
Chief Petty Officer Leadership, Class C NV-2202-0050
Leadership and Management for Officers (LMT) NV-1717-0013
Leadership and Management for Petty Officers (LMT) NV-1717-0013
Leadership and Management Education and Training (LMET) for Chief Petty Officers NV-1717-0015
Leadership and Management Education and Training (LMET) for Leading Petty Officers NV-1717-0014
Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022
Leadership and Management Education and Training (LMET) For Leading Chief Petty Officers NV-1717-0015
Leadership Management Education and Training (LMET) Instructor NV-1717-0021
Leadership Management Education and Training, Class C1 NV-1717-0021
Leadership Schools Class C-1 NV-2202-0065
PHIBLANT Petty Officer Leadership NV-2202-0091

Legal
Legal Clerk and Court Reporting NV-1407-0002

Level
Trident Ship Control and Atmosphere Support Technician Level II NV-1715-1172
Trident Ship's Control Level II NV-1715-1172

Liaison
Naval Gunfire Liaison Officer NV-2202-0058 NV-2202-0060

Light
AN/SRQ-4 Light Airborne Multipurpose System (LAMPS) Mk3 Maintenance NV-1715-1328
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697

Limited
Aviation Indoctrination, Limited Duty Officer (LDO) NV-2202-0087
Aviation Limited Duty Officer (LDO) Indoctrination NV-1606-0044
Limited Duty Officer (LDO) and Chief Warrant Officer (CWO) Indoctrination Training NV-1408-0029
Limited Duty Officer (LDO) Indoctrination NV-2202-0094

Line
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
Disturbed Line of Sight Gunfire Control System Maintenance NV-1715-0759
Dynalec 200/700 Line Automatic Telephone Maintenance NV-1404-0010
Line Officer Supply (LOS) NV-1405-0006
Supply Indoctrination for Line Officers NV-1408-0026

Link
AN/BSC-2 Data Link Communications System (DLCS) Equipment Combined Maintenance NV-1715-1469
AN/USQ-74 Link Data Terminal Maintenance NV-1715-1338
AN/USQ-74 Link System Maintenance NV-1715-1350
Naval Tactical Data Systems (NTDS) Data Link Terminal Maintenance Class C NV-1715-1267

Liquid
Nondestructive Testing of Metals Visual, Magnetic Particle and Liquid Penetrants Operator/Inspector NV-1724-0006
Remote Pressure/Tank Level/Liquid Airflow Indicating Equipment Maintenance NV-1715-1305

Lithium
(Lithium Bromide Air Conditioning) NV-1701-0002
Lithium Bromide Air Conditioning Plant Operator NV-1701-0002
Lithium Bromide Maintenance F-1 NV-1730-0010
Lithium Bromide Plant Maintenance NV-1701-0007

Locator
AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230

Locomotive
American Locomotive (ALCO 251C) Diesel Engine, Class C1 NV-1712-0010
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010

Log
Dewey U/W Log Combined Maintenance NV-1715-1012
Dewey Underwater Log Combined Maintenance NV-1715-1012

Logic
Denison Electrical and Electronics Control Maintenance and Controls for Logic Elevators NV-1704-0257
Three Winch Controller Using Standard Electronic Modules (SEM) and Controls for Logic Elevators NV-1710-0077 NV-1710-0111

Logistics
Missile Technician Poseidon Logistics NV-1715-0470
Naval Aviation Logistics Data Analysis (NALDA) NV-1402-0154

Loran
AN/APN-70B Loran System Intermediate Maintenance NV-1715-0112
AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247
AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1) NV-1715-0814
C-2A AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247
Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance NV-1715-0364
Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1 NV-1715-0814
Introduction to the Airborne Loran AN/ARN-81 Maintenance NV-1715-0247
Loran "C" Advanced Maintenance NV-1715-0899
Loran "C" AN/WPN Refresher Maintenance Class F1 NV-1715-0899
Loran AN/WRN-5 Combined Maintenance NV-1715-0913
Loran Maintenance Enlisted NV-1715-0338
Loran Receiving Set AN/WPN-5 Operation and Maintenance NV-1715-0131
Loran Receiving Sets AN/SPN-38 and AN/WPN-5 Operation, Maintenance and Functional Checkout NV-1715-0131
P-3 AN/APN-70 Loran System Intermediate Maintenance NV-1715-0112
Polaris Loran "C" Advanced Training NV-1715-0899

Lube
Main Engine and Lube Oil Purifier NV-1601-0027

LAMPS
AN/SRQ-4 Light Airborne Multipurpose System (LAMPS) Mk3 Maintenance NV-1715-1328
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
LAMPS Mk 3 Horizon Reference Set Maintenance. NV-1714-0048
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance NV-1715-1288
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance Technician NV-1715-1287
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697
SH-60B Light Airborne Multipurpose System (LAMPS) Mk III Weapons System Technician Organizational Maintenance NV-1715-1198

LAVA SQS-54
LAVA SQS-54 Maintenance NV-1715-0320

LDO
Aviation Indoctrination, Limited Duty Officer (LDO) NV-2202-0087
Aviation Limited Duty Officer (LDO) Indoctrination NV-1606-0044
Limited Duty Officer (LDO) Indoctrination NV-2202-0094

LHA-1
Aviation Support Equipment LHA-1 Pallet Transporter Intermediate Maintenance NV-1703-0017

LMET
Leadership and Management Education and Training (LMET) for Chief Petty Officers NV-1717-0015
Leadership and Management Education and Training (LMET) for Leading Petty Officers NV-1717-0014
Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022
Leadership and Management Education and Training (LMET) For Leading Chief Petty Officers NV-1717-0015
Leadership Management Education and Training (LMET) Instructor NV-1717-0021

LMT
Leadership and Management for Officers (LMT) NV-1717-0013
Leadership and Management for Petty Officers (LMT) NV-1717-0013

LM2500
LM2500 Engine Changeout NV-1703-0013
LM2500 Gas Turbine Module Maintenance, Class C1 NV-1703-0008

LN-66HP
LN-66HP Radar Intermediate Maintenance NV-1715-1202

LORA
Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance NV-1715-0864

LST
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023
LST 1182 Propulsion Technician, Class C1 NV-1703-0007

Machine
(AN/USQ-20 Machine Language Programming) NV-1402-0019
Advanced Office Machine Repair, Class C NV-1706-0003
Computer Programming AN/USQ-20 Machine Language - Basic NV-1402-0019
Machine Tool Operations NV-1723-0001
Machine Tool Operator NV-1723-0001 NV-1723-0015
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033

Machinery
Auxiliary Machinery Controls, Governors and Regulators Maintenance NV-1710-0086
Auxiliary Machinery Turbine Maintenance NV-1704-0321
Intermediate Maintenance Activity (IMA) Machinery Maintenance NV-1715-1486
Machinery Repairmen, Class A NV-1723-0002
Machinery Repairmen, Class B NV-1723-0011
Machinery Systems Console Maintenance NV-1402-0115
Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance NV-1730-0004

Machinist's Mate
Aviation Machinist's Mate (AD) Class A1 NV-1704-0148
Aviation Machinist's Mate Class A (S-3A) Power Plant Systems NV-1703-0014
Aviation Machinist's Mate H (Helicopter), Class A NV-1704-0238
Aviation Machinist's Mate J (Jet Engine), Class A NV-1704-0148
Aviation Machinist's Mate J (Jet Engine), Class B NV-1704-0159
Aviation Machinist's Mate J (Jet Engine), Class C7 NV-1704-0159
Aviation Machinist's Mate J (Turbo-Jet), (Class A) NV-1704-0148

Aviation Machinist's Mate R (Reciprocating), Class A NV-1704-0149
Aviation Machinist's Mate R (Reciprocating), Class B NV-1704-0158
Aviation Machinist's Mate, Class A1 NV-1704-0324
DATC Machinist's Mate Maintenance NV-1732-0005
Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022
Machinist's Mate Advanced Maintenance NV-1704-0266
NV-1710-0094
Machinist's Mate Class A1 (1200 PSI) NV-1303-0002
Machinist's Mate Enlisted Maintenance NV-1710-0060
Machinist's Mate Six Year Obligator (MM6YO) Advanced NV-1710-0096
Machinist's Mate Six-Year Obligator (MM6YO) NV-1710-0105
Machinist's Mate Steam Propulsion Maintenance Supervisor NV-1704-0319
Machinist's Mate, (600 PSI) Class A1 NV-1303-0001
Machinist's Mate, Class A NV-1303-0001
Machinist's Mate, Class A1 (600 PSI) NV-1303-0001
Machinist's Mates, Class A NV-1303-0001
P-3 Aviation Machinist's Mate (AD) Entry Level NV-1715-1026
SH-2 Aviation Machinist's Mate Power Plant System NV-1704-0289
SH-3 Aviation Machinist's Mate Class A Power Plant Systems NV-1704-0297

Magnetic
AN/ASQ-10 Magnetic Anomaly Detector Intermediate Maintenance NV-1715-0178
AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance NV-1715-0178
AN/ASQ-81(V) Magnetic Anomaly Detection Set Intermediate Maintenance NV-1715-0559
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance NV-1715-0656
Magnetic Disk File (MDF) Theory and Electrical Maintenance NV-1402-0082
NV-1715-1464
Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88 NV-1715-1484
Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0 NV-1402-0140
Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1 NV-1715-1001
Magnetic Disk File Theory and Mechanical Maintenance FCS Mk Mod 0 NV-1402-0122
Magnetic Tape Input/Output Device MX-7988A,B UYK Maintenance NV-1715-1454
Magnetic Tape Unit Advanced Training NV-1715-1000
Nondestructive Testing of Metals Visual, Magnetic Particle and Liquid Penetrants Operator/Inspector NV-1724-0006
OA-9008 Magnetic Tape Control Unit and Magnetic Tape Transport NV-1715-1033
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42 NV-1715-0178

Maintenance
A-6 Maintenance Supervisors Familiarization NV-1704-0165
A-6A Maintenance Supervisors Familiarization NV-1704-0078
Aviation Maintenance Control Administration NV-1717-0008
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1) NV-1715-0812
AN/AJM-32(V) Intermediate Maintenance NV-1715-0069
AN/AJM-32(V) Special Support Equipment Intermediate Maintenance NV-1715-0069
AN/ALQ-76 Intermediate Maintenance NV-1715-0057
AN/APX-72 Maintenance, Class C-1 NV-1715-0811
AN/APX-72 Series IFF Transponder System Maintenance NV-1715-0811
AN/ARC-101 Intermediate Maintenance NV-1715-0077
AN/BRD-7 Combined Maintenance, Class C1 NV-1715-0449
AN/BRD-7 Radio Direction Finder Set Combined Operator/Maintenance NV-1715-0449
AN/SPG-50 Maintenance NV-1715-0306
AN/SQQ-14 Maintenance Enlisted NV-1715-0290
AN/UGA-3A Maintenance NV-1715-0107
AN/WPN-4 Maintenance NV-1715-0390
Basic Refrigeration Theory and Maintenance NV-1730-0001
Cryptologic Technician Maintenance NV-1715-0829
F-14A Organizational Maintenance Supervisor's Familiarization NV-1704-0211
F-4B/J Maintenance Supervisor Familiarization NV-1704-0126
General Maintenance Welder, Class C1 NV-1710-0050
General Mechanical Maintenance Skills NV-1704-0332
Intermediate Maintenance Activity (IMA) Machinery Maintenance NV-1715-1486
IOIC Maintenance Officer NV-1402-0029
IOIC Systems Maintenance NV-1715-0084
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902
Naval Aircraft Maintenance Management NV-1717-0011
RA-5C Maintenance Supervisors Familiarization NV-1717-0005

Management
Advanced Milling and Shop Management Class C1 NV-1736-0004
Aftercare Program Management NV-0801-0010
Air Traffic Control Equipment Maintenance Management NV-1715-0292
Air Traffic Control Facility Management/TERPS, Class C1 NV-1715-0123
Air Traffic Management NV-0419-0013
Aviation Management NV-1717-0001
Aviation Ordnance Officers (Management), Class O (AOM(O)) NV-1405-0010
AN/TRQ-35(V) Tactical Frequency Management System NV-1715-1352
Bachelor Quarters Management NV-0401-0001
Basic Programming Orientation for Middle Management NV-1402-0015
Boiler Technician/Maintenance Management Six Year Option NV-1710-0081
NV-1710-0094
Civil Engineer Corps Officer Basic—Public Works Management Specialty NV-1408-0014
Combat Systems Maintenance Management for the CGN-38 NV-1715-1043
Commissary Store Management NV-1408-0010
Commissaryman-Steward Management Principles, Class C NV-1729-0002
Commissioned Officers' Mess Closed Mess Management NV-1729-0008
Construction Contract Administration and Management NV-1408-0009
Cryptologic Technician Communications-Communications Systems Operations, Control and Management NV-1402-0065

Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3 NV-1715-0849

Data Base Management—LCC Amphibious Support Information System Language—Operator NV-1402-0034

Food Service Management NV-1729-0013

Freight Transportation and Traffic Management NV-0419-0008

FFG-7 Introduction to Engineering Maintenance Management, Class C1 NV-1704-0262

Group VIII E-6/E-7 Management NV-1408-0006

Group VIII E8/E9 Advanced Management NV-1408-0006

Human Resource Management Instructor NV-1512-0006

Human Resource Management Specialist NV-0326-0003
NV-1512-0005

Intermediate Transportation Management NV-0419-0010

Introduction to Traffic and Terminal Management NV-0419-0014

Introduction to Transportation Management NV-0419-0006

Joint Aviation Supply and Maintenance Material Management NV-1405-0009

Leadership and Management for Officers (LMT) NV-1717-0013

Leadership and Management for Petty Officers (LMT) NV-1717-0013

Leadership and Management Education and Training (LMET) for Chief Petty Officers NV-1717-0015

Leadership and Management Education and Training (LMET) for Leading Petty Officers NV-1717-0014

Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022

Leadership and Management Education and Training (LMET) For Leading Chief Petty Officers NV-1717-0015

Leadership Management Education and Training (LMET) Instructor NV-1717-0021

Leadership Management Education and Training, Class C1 NV-1717-0021

Management and Supervision of Naval Personnel NV-1408-0007

Management of Marine Corps Clubs NV-0902-0001

Management of Navy OPEN Messes NV-1729-0009

Management of Officers and Petty Officers' Messes NV-1729-0009

Management Analysis, Class C NV-1115-0002

Management Analysis, Class O NV-1115-0002

Management Engineering NV-1406-0012

Marine Terminal Management NV-0419-0012

Mess Management Specialist 'A' NV-1729-0011

Naval Aircraft Maintenance Management NV-1717-0011

Naval Aviation Maintenance/Material Management, Class B NV-1717-0003

Navy Advanced Management NV-0326-0001

Navy Exchange Management NV-1408-0023

Navy Exchange/Commissary Store Middle Management, Class C NV-1408-0027

Navy Schools Management NV-0326-0002

Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management NV-1402-0119

Operating Room Technic and Management NV-0703-0002

Personal Property Traffic Management NV-0419-0011

Personnelman, Class C, Naval Management Analysis NV-1408-0016

Recreation Management NV-0902-0002

Seabee Chief Petty Officer Management NV-1408-0006

Ship's Store Afloat Resale Operation Management (ROM) System Supervisor NV-1408-0031

Ship's Store Afloat Resale Operation Management System User NV-1405-0023

Shipboard Uniform Automated Data Processing System- Real Time Operations and Management NV-1402-0149

Station Management Systems NV-1408-0004

Supervision and Management, Class C NV-1406-0011

Supply Corps Officer Basic Qualification - Aviation Management NV-1405-0012

Transportation Management NV-0419-0008

Transportation Management Advanced NV-0419-0009

Unaccompanied Personnel Housing Management, Class C NV-1405-0021

Warehouse Operations Management NV-1717-0007

Map

AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance NV-1715-0529

AN/ASN-99 Projected Map Display Set Intermediate Maintenance NV-1715-0162

AN/ASN-99(V) Projected Map Display Set Intermediate Maintenance NV-1715-0162

Mardan

Mardan Computer Theory and Maintenance I NV-1715-0447

Mardan Computer Theory and Maintenance II NV-1715-0448

Mardan/Verdan Computer Theory NV-1715-0657

Marine

Electronics Technician Advanced Electronics Field/ Marine Corps/Foreign Class A1 NV-1715-1069

Enginemen, Class C, Marine Gas Turbine Basic NV-1710-0066

Management of Marine Corps Clubs NV-0902-0001

Marine Air Ground Task Force Intelligence Officer NV-1511-0018

Marine Air Ground Task Force Intelligence Specialist Reserve (Phases 1 and 2) NV-1511-0030

Marine Air Traffic Control Advanced Technician, Class C1 NV-1704-0330
NV-1715-1189

Marine Air Traffic Control Communications Technician Class C1 NV-1715-0963

Marine Air Traffic Control Communications Technician, Class C1 NV-1715-1441

Marine Air Traffic Control Navigational Aids Maintenance NV-1715-0037

Marine Air Traffic Control Navigational Aids Repairman, Class C NV-1715-0037

Marine Air Traffic Control Navigational Aids Technician Class C1 NV-1715-0962

Marine Air Traffic Control Navigational Aids Technician, Class C1 NV-1715-1442

Marine Air Traffic Control Radar Technician Class C1 NV-1715-0965

Marine Air Traffic Control Radar Technician, Class C1 NV-1715-1443

Marine Air Traffic Control Unit Equipment Maintenance, Class C NV-1715-0039

Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0039

Marine Air Traffic Control Unit Maintenance Management, Class O NV-1715-0039

Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038

Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038

Marine Air-Ground Task Force Counterintelligence NV-1511-0028

Marine Air-Ground Task Force Intelligence Officer Reserve (Phases 1

and 2) NV-1511-0029
Marine Air/Ground Task Force Intelligence Specialist Entry NV-1511-0019
Marine Air/Ground Task Force Intelligence Specialist Intermediate NV-1511-0020
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061
Marine Aviation Operations Clerical, Class C NV-1409-0008
Marine Aviation Supply (Manual), Class C NV-1409-0005
Marine Aviation Supply (Mechanized), Class C NV-1405-0007
Marine Aviation Supply, Class C NV-1405-0008
Marine Corps Aviation Supply Officer Qualification NV-1408-0024
Marine Enlisted Basic Combat Intelligence NV-1606-0005
Marine Gas Turbine Basic, Class C1 NV-1710-0066
Marine Mechanical School, Class P NV-1704-0131
Marine Terminal Management NV-0419-0012
Master Marine Diesel Mechanic Maintenance NV-1712-0026
Naval and Marine Electronic Warfare Officer NV-2202-0108
U.S. Marine Corps Remote Sensor Operator NV-1715-1300
U.S. Marine Corps Remote Sensor Operator Reserve (Phases 1 and 2) NV-1715-1299

Maritime
Maritime Operations for College of Naval Command and Staff NV-2202-0133
Maritime Operations Employment of Naval Forces Nonresident Seminar NV-2202-0134
Naval War Correspondence Course in Maritime Operations (Employment of Naval Forces) NV-2202-0135

Masonry
Builder/Masonry, Class C NV-1710-0038
BU "C" Masonry NV-1710-0038

Master
Master Cryptologic Systems Technician NV-1715-1257
Master Diver Evaluation NV-1606-0016
Master Diver Qualification NV-1606-0016

Material
Electronics Technician, Class C, Electronics Material Officer NV-1715-0007
Naval Aviation Maintenance/Material Management, Class B NV-1717-0003
Prospective Electronics Material Officer—Pacific Fleet, Class C2 NV-1715-0816

Mathematics
Strategic Weapons System (SWS) Electronic Mathematics NV-1107-0001

Matrix
Radio Frequency Switch Matrix System Maintenance C1 NV-1402-0111

Maxillofacial
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001
Maxillofacial Dental Laboratory Technician, Class C NV-0701-0001

Measurement
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
AN/USM-402(V) Swept Frequency Measurement (SEFT Cart) Test Set Intermediate Maintenance NV-1715-1208
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908

Measuring
Intermediate Level Calibration of Physical/Dimensional Test and Measuring Systems Phases B/D NV-1715-1495

Mechanic
Construction Mechanic, Class A1 (CM"A") NV-1710-0035

Mechanical
Aviation Mechanical Fundamentals, Class A NV-1704-0157
Aviation Mechanical Fundamentals, Class P NV-1704-0157
Aviation Support Equipment Technician, Class A (Mechanical Speciality) NV-1704-0113
FFG-7 Auxiliary Mechanical Subsystem Technician NV-1704-0270
FFG-7 Auxiliary Mechanical Subsystem Technician Class C1 NV-1715-1073
FFG-7 Auxiliary Mechanical System Technician NV-1704-0271
FFG-7 Engineering System Maintenance Management, Mechanical, Class C1 NV-1704-0260
FFG-7 Fuel Systems, Mechanical, Class C1 NV-1704-0261
Gas Turbine Systems Technician Mechanical Class A1 NV-1710-0083
General Mechanical Maintenance Skills NV-1704-0332
Gyrocompass Technician Mechanical, Class C1 NV-1721-0008
Marine Mechanical School, Class P NV-1704-0131
Missile Tube Support Equipment (Mechanical) NV-1710-0107
Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical) NV-1715-1288
Underway Replenishment Mechanical and Hydraulic Component Maintenance NV-1710-0016 NV-1710-0113
UNREP Hydraulic and Mechanical Component Maintenance (Sending Units) NV-1710-0016

Mechanics
P-3 Second Mechanics Systems NV-1704-0053

Medical
Aerospace Medical Technician, Class C NV-0709-0003
Field Medical Service Officer NV-0709-0015
Field Medical Service Technic, Enlisted NV-0709-0015
Field Medical Service Technician NV-0709-0015
Medical Administrative Technic NV-1408-0021
Medical Administrative Technic, Dental NV-1408-0021
Medical Administrative Technician, Class C NV-1408-0021
Medical Administrative Technician, Dental, Class C NV-1408-0021
Medical Deep Sea Diving Technic NV-1606-0014
Medical Deep Sea Diving Technician NV-1606-0014
Medical Department Diving Officers NV-1606-0017
Medical Illustration Technic NV-0202-0001
Medical Illustration Technician, Class C NV-0202-0001
Medical Laboratory Technician Advanced NV-0702-0003
Medical Laboratory Technician, Advanced NV-0702-0012
Medical Officer Indoctrination NV-2202-0004
Medical Photography Technic NV-1709-0016
Medical Photography Technician, Class C NV-1709-0016
Medical Services Technic NV-0709-0008
Medical Services Technician, Class C NV-0709-0008

Medical Technologist Technician, Class C NV-0702-0002
Medical Technology NV-0702-0002
Medical Technology Technician, Class C NV-0702-0002
Submarine Medical Officer (Candidates) NV-0705-0001

Medicine
Aerospace Medicine Technician NV-0709-0003
Aviation Medicine Technic NV-0709-0003
Aviation Medicine Technician, Class C NV-0709-0003
Clinical Nuclear Medicine Technician NV-0705-0002
Clinical Nuclear Medicine Technique NV-0705-0002
Nuclear Medicine Technic NV-0705-0004
Nuclear Medicine Technician NV-0705-0004
Nuclear Medicine Technician, Surface NV-0705-0004
Nuclear Submarine Medicine Technic NV-0709-0001
Nuclear Submarine Medicine Technician NV-0709-0001
Nuclear Submarine Medicine Technician, Class C NV-0709-0001
Nuclear Submarine Medicine Technique NV-0709-0001
Preventive Medicine Technic NV-0707-0001
Preventive Medicine Technician NV-0707-0001
Preventive Medicine Technician Class C NV-0707-0002
Preventive Medicine Technician, Class C NV-0707-0001
Submarine Medicine Technic NV-0709-0001
Submarine Medicine Technician, Class C NV-0709-0001

Memory
A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance NV-1715-0071
ASM-144 On Board Memory Tester Digital Volt Ohmmeter Intermediate Maintenance NV-1715-1210
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1 NV-1715-0392

Mess
Commissioned Officers' Mess Closed Mess Management NV-1729-0008
General Mess Operatons NV-1729-0015
Mess Management Specialist 'A' NV-1729-0011
Private Mess Operations NV-1729-0016

Message
Digital Interface Unit/Message Interface Unit (DIU/MIU) NV-1402-0081
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869

Messes
Management of Navy OPEN Messes NV-1729-0009
Management of Officers and Petty Officers' Messes NV-1729-0009

Metabolism
Electrocardiography and Basal Metabolism Technic NV-0709-0010
Electrocardiography and Basal Metabolism Technician, Class C NV-0709-0010

Metal
Shielded Metal Arc Welding NV-1710-0115
Turret Lathes and Metal Build-up Class C1 NV-1736-0003

Metals
Heat Treatment of Metals, Class C NV-1724-0001
Nondestructive Testing of Metals NV-1724-0002
Nondestructive Testing of Metals Eddy Current Inspection Class C1 NV-1724-0008
Nondestructive Testing of Metals Radiographic Inspector Class C1 NV-1724-0007
Nondestructive Testing of Metals Radiographic Operator NV-1724-0009
Nondestructive Testing of Metals Ultrasonic Shearwave Inspection, Class C1 NV-1724-0005
Nondestructive Testing of Metals Ultrasonic Silver Braze Inspection, Class C1 NV-1724-0004
Nondestructive Testing of Metals Ultrasonic Thickness Inspection Class C1 NV-1724-0003
Nondestructive Testing of Metals Visual, Magnetic Particle and Liquid Penetrants Operator/Inspector NV-1724-0006

Metalsmith
Shipfitters, Class A (Metalsmith) NV-1723-0006

Meteorological
Meteorological Equipment Maintenance, Class C NV-1721-0009
Meteorological Satellite, Class C NV-1304-0006
Meteorological/Oceanographic Equipment Maintenance, Class C NV-1715-0564

Methods
Methods Engineering NV-1408-0018
Standard Tensional Replenishment Alongside Methods (STREAM) Operator NV-1710-0112

Metrical
Metrical Photographic Interpretation NV-1709-0014

Microcomponent
Surface Microcomponent Repair Course NV-1715-1092

Microelectronics
Integrated Circuit Components (Microelectronics) Intermediate Maintenance NV-1715-1022

Microminiature
Microminiature Component Repair Intermediate Maintenance NV-1715-0157
Microminiature Electronics Repair NV-1715-1330
Miniature/Microminiature Electronic Repair (2M) NV-1715-0815

Microprocessor
Computer/Microprocessor Fundamentals NV-1402-0116
Digital Computer Microprocessor Basics NV-1402-0097

Microwave
Electronics Technician, Class C, Microwave Fundamentals NV-1715-0186

Mid-Band
AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance NV-1715-0060

Military
Joint Military Operations for College of Naval Warfare NV-2202-0132
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures NV-1401-0004
Military Justice (Lawyer) NV-1728-0016
Military Justice (Non-Lawyer) NV-1728-0015
Military Justice (Officers) NV-1728-0017

Milling
Advanced Milling and Shop Management Class C1 NV-1736-0004

Millworker
Builder/Millworker, Class C NV-1736-0001
BU "C" Millworker NV-1736-0001

Mine
Mine Detection Sonar Technical Maintenance NV-1715-0740
Mine Hunting Sonar Familiarization (Reserve) NV-2202-0098
Mine Mk 60 Mod 0 Weapons Systems Technician NV-2202-0106
Mine Warfare Engineman Basic NV-1703-0005
Mine Warfare Packard Diesel Engineman (Class C) NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C NV-1712-0004

Mineman
Mineman Class A NV-1714-0028
Mineman Supervisory and Advanced

Technical Training NV-1715-1109
Mineman Test Set Repair and Maintenance Training NV-1715-1108

Minesweeping
Minesweeping Electrician's Mate NV-1714-0027

Mini-Sace
AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course NV-1715-1419

Mini-SACE
AN/APM-375 Mini-SACE Search Radar Test Console Intermediate Maintenance NV-1715-0941
AN/ASM 459 Mini-SACE Flight System Test Console Intermediate Maintenance NV-1715-0948
AN/ASM-461 Mini-SACE Display Test Console Intermediate Maintenance NV-1715-0949

Miniature
Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance NV-1715-0994
Miniature Component Repair NV-1715-0156
Miniature Electronic Repair Program, Class F-1 NV-1715-0815
Miniature Electronics Repair NV-1715-1345 NV-1715-1410
Miniature/Microminiature Electronic Repair (2M) NV-1715-0815

Missile
(SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance) NV-1715-0795
ASROC Missile Assembly and Maintenance NV-1715-0630
ASROC Missile Intermediate Maintenance NV-1715-1101
Basic Point Defense Surface Missile System NV-1715-0778
Class B Guided Missileman NV-1715-0712
CGN/SM-2 Medium Range Missile System Technician NV-1715-1260
Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1 NV-1402-0050
Digital Control Computer Missile Interface FCS Mk 88 Mod 1 NV-1402-0147
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 NV-2202-0073
Electronic Hovering and Missile Compensation NV-1715-0934
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0168
F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance NV-1715-0362
F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance NV-1715-0611
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706
F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231
Fleet Ballistic Missile (FBM) Navigation Officer NV-1715-0456
Fleet Ballistic Missile Navigation Maintenance NAVAIDS NV-1715-1383
Fleet Ballistic Missile Tender Navigation Maintenance Computer NV-1715-1402
Hovering and Missile Compensation and Associated Position Control Units (PCU's) Electrical Maintenance NV-1715-1311
Missile and Guidance System Testing, Fire Control System (FCS) Mk 88 MOD 1 NV-1715-0999
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1 NV-1715-0910
Missile Launcher Mk 21 Mod 2 Theory and Operation NV-1715-0575
Missile Launcher System Mk 24 Maintenance - Electrical NV-1714-0004
Missile Technician Mk 84 Polaris (A-3) NV-1715-0607
Missile Technician Polaris NV-1715-0574
Missile Technician Polaris Conversion NV-1715-0880
Missile Technician Polaris, 598/608 Class NV-1715-0574
Missile Technician Poseidon NV-1715-1127
Missile Technician Poseidon Logistics NV-1715-0470
Missile Technician Poseidon Replacement NV-1715-1127
Missile Technician, Class B NV-1715-0712
Missile Technician, Class C (1), Polaris NV-1715-0574
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory) NV-1715-0998
Missile Test and Readiness Equipment Mk 7 Mod 4 Advanced Circuitry NV-1402-0089
Missile Test and Rediness Equipment (MTRE) MK7 Mod 4 Advanced Theory and Maintenance NV-1402-0089
Missile Tube Support Equipment (Mechanical) NV-1710-0107
MTC1 Polaris Missile Technician Maintenance, Class C NV-1715-0574
NATO Seasparrow Surface Missile System Officer NV-1715-1389
Polaris A3 Missile Advanced Training NV-1715-0909
Poseidon Intermediate Level Missile Maintenance Technician NV-1715-1125
Poseidon Missile Technician NV-1715-0604
Poseidon Missile Technician Conversion (A-2/A-3 to C-3) NV-1715-0576
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702
Surface Missile Systems, Officer NV-1715-0758
SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance NV-1715-0794
SUBROC Missile Mk 28 Mod 1 Test Equipment Intermediate Maintenance NV-1715-0795
Talos Gunner's (Missile) Handling NV-1715-0602
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072
Tartar Fire Control and Missile Officer NV-1715-0703
Tartar Missile Fire Control Systems (MFCS) Mk 74 Mods 4/5/8 NV-1715-0847
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
Tartar Weapons System Mk 74 Mod 6 Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805
Terrier CG/DDG Standard Missile (ER) Officer Advanced NV-1715-1396
Terrier Fire Control and Missile Officer NV-1715-0328
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442

Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443

Tomahawk Missile Intermediate Maintenance NV-1715-1490

Trident Missile Technician Conversion NV-1715-1169

Trident Missile Technician Replacement NV-1715-1170

Trident I Backfit Missile Technician (MT) Conversion NV-1715-1134

Trident I Backfit Missile Technician (MT) Replacement NV-1715-1135

Trident-I Missile Technician Conversion NV-1715-1378

Missileman

Class A Aviation Guided Missileman NV-1715-0629

Class A Guided Missileman NV-1715-0647

Class B Guided Missileman NV-1715-0712

Mk

Magnetic Disk File Theory and Mechanical Maintenance FCS Mk Mod 0 NV-1402-0122

Mk III

SH-60B Light Airborne Multipurpose System (LAMPS) Mk III Weapons System Technician Organizational Maintenance NV-1715-1198

Mk NC-2

Mk NC-2 Mod 2/2A Plotting System Maintenance NV-1715-1339

Mk NC-2 Plotter Mod 0 Maintenance, Class C NV-1715-0082

Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C NV-1715-0075

Mk NC-2 Plotter Mod 2/2A Maintenance, Class C NV-1715-0076

Plotting System Mk NC-2 Mod 0 Maintenance NV-1715-0082

Plotting System Mk NC-2 Mod 2/2A Maintenance NV-1715-0076

Mk V

Mk V Atmosphere Analyzers NV-1715-0551

Mk XI

Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training NV-1715-0385

Mk XII

AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1) NV-1715-0812

AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813

Mk XII IFF Systems, Class C NV-1715-0033

Mk 1

Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance NV-1402-0058

Alignment Group Mk 1 Mods 0 and 1, Class F-1 NV-1715-0891

Combat Control Subsystems Mk 1 Mod 0 Pipeline Maintenance NV-1402-0144

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance NV-1715-0128

Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods 1-5 NV-1715-0403

Tartar Weapons Direction System (WDS) Mk 4 WDE Mk 1 NV-1715-1121
NV-1715-1391

Mk 1A

Computer Mk 1A Maintenance NV-1715-0086

Mk 10

Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance NV-1715-1139

Guided Missile Launching System Mk 10 Solid State Control System Difference NV-1715-1298

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance NV-1715-0654

Terrier Guided Missile Launching System (GMLS) Mk 10 Maintenance Class C1 NV-1715-1083

Mk 100

Terrier Computer Mk 100 Mod 2 NV-1715-0398

Mk 101

Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C1 NV-1715-0803

Mk 106

Advanced Fire Control System (FCS) Mk 106 Mod 5 NV-1715-0384

Mk 108

Gunner's Mate Class C Rocket Launcher Mk 108 NV-1715-0618

Mk 11

Data Systems Technician, Class C, Mk 11, Mod 2/4 Systems Group Maintenance NV-1715-0048

Tartar Guided Missile Launching System (GMLS) Mk 11 Maintenance Class C1 NV-1715-1081

Mk 111

Talos Computer Mk 111 Mod 1, Class C NV-1715-0419

Underwater Fire Control Group Mk 111 Maintenance NV-1715-0119

Mk 112

Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1 NV-1715-0890

Mk 113

Fire Control System (FCS) Mk 113 All Models Common Equipment Combined Maintenance NV-1715-1006

Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis) NV-1715-0412

Fire Control System (FCS) Mk 113 Mod 9 Mk 78 Analyzer Maintenance NV-1715-1008

Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099

Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance NV-1715-1007

Mk 113 Mod 10 Digital Display Subsystem NV-1715-1013

Mk 113 Mod 7 Fire Control System (FCS) Maintenance NV-1715-0760

Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7 NV-1715-0760

Mk 114

Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9-12 NV-1715-0389

Underwater Fire Control Group Mk 114 Maintenance NV-1715-0133

Mk 116

Mk 116 MOD 4 Underwater Fire Control System (FCS) Maintenance NV-1715-0268

Mk 117

Mk 117 All Mods Combined Maintenance NV-1715-0993

Mk 117 Fire Control System (FCS) Basic Operation NV-1715-1219

Mk 118

Mk 118 Fire Control System (FCS) Advanced Maintenance NV-1715-1159

Mk 118 Fire Control System (FCS) Basic Maintenance NV-1715-1160

Mk 118 Fire Control System Advanced Maintenance NV-1402-0124

Mk 118 Fire Control System Basic Maintenance NV-1715-1326

Tartar Computer Mk 118 NV-1715-0343

Tartar Computer Mk 118 Mod 0 NV-1715-0343

Mk 119

Terrier Computer Mk 119 Mod 5 NV-1715-0334

Terrier Computer Mk 119 Mod 5 (Fleet Inputs) NV-1715-0334

Terrier Computer Mk 119 Mods 3 and 4 NV-1715-0334

Mk 13

Guided Missile Launching System (GMLS) Mk 13 Mod 4 Maintenance NV-1715-1077

Launcher Control Group Mk 13 Mod O

Advanced
NV-1715-1323
Tartar Guided Missile System Mk 13 Maintenance Class C1
NV-1715-1082
Tartar Weapons Direction System Mk 13 Mod 4
NV-1715-1264

Mk 130
Fire Control System (FCS) Mk 113 Mods 6/8 Mk 130 Digital Computer Maintenance
NV-1715-1007

Mk 14
AN/SYR-1 Weapons Direction System (WDS) Mk 14 Maintenance
NV-1402-0062
Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance
NV-1601-0011
WDS Mk 14 Communications Tracking Set SYR-1 Maintenance Tartar
NV-1715-1266

Mk 148
Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1
NV-1715-0893
Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1
NV-1715-0894

Mk 15
Close-In Weapon System Mk 15 Block 0/1 Difference
NV-1715-1387
Close-In Weapon System Mk 15 Mod 11/14 Operation and Maintenance
NV-1715-1388

Mk 152
Mk 152 Computer and Peripheral Equipment/Common Core
NV-1715-0586
Mk 152 Computer Common Core
NV-1715-0136
Mk 152 Data
NV-1402-0105
Mk 152 Digital Computer
NV-1715-1408
Mk 152 Digital Computer Complex
NV-1715-1086
Tartar Mk 152 Computer Complex
NV-1715-0792
Terrier Mk 152 Computer Complex
NV-1715-0391
NV-1715-1382

Mk 16
ASROC Launching Group Mk 16 Maintenance, Class C1 (ASROC Launching Group Mk 16)
NV-1715-0770

Mk 17
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1
NV-1715-0910

Mk 19
Mk 19 Gyrocompass Systems Maintenance
NV-1715-1141
Mk 27 Mod 1 Mk 19 Gyrocompass Systems Advanced Theory and Maintenance.
NV-1715-1224
Submarine Gyrocompass Mk 19 Mod 3
NV-1715-0062
Submarine Gyrocompass Mk 19 Mod 3 Combined Maintenance
NV-1715-0062

Mk 19/27
Mk 19/27 Advanced Theory and Maintenance
NV-1715-1450
Mk 19/27 Gyro Operator
NV-1715-1223

Mk 2
Advanced Theory and Maintenance I Ships Inertial Navigation System (SINS) Mk 2 Mods 6/7
NV-1715-1376
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130
Mk 2 Mod 1 Ship's Inertial Navigation System (SINS) Maintenance
NV-1402-0039
Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1402-0051
Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921
Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Calibration
NV-1715-0202
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II
NV-1715-1002
Ship's Inertial Navigation System (SINS) Mk 2 Mod 7 Technician Conversion
NV-1715-1161
Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I
NV-1715-0919
Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II
NV-1715-0920
Ship's Interial Navigation System (SINS) Mk 2 Mod 7 Technician Replacement
NV-1715-1162
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Equipment Technician Replacement
NV-1715-1393
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1
NV-1715-0427
Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C
NV-1715-0259

Mk 21
Launcher Mk 21 Mod 2 Advanced Training, Class F1
NV-1715-0917
Missile Launcher Mk 21 Mod 2 Theory and Operation
NV-1715-0575

Mk 23
Mk 23 Gyrocompass Systems Maintenance
NV-1715-1120
Mk 23 Mod 0/1 Target Acquisition System (TAS) Maintenance
NV-1715-1037

Mk 24
Missile Launcher System Mk 24 Maintenance - Electrical
NV-1714-0004

Mk 25
Gun Fire Control Radar Mk 25 Mod 3 Maintenance
NV-1715-0127
Radar Mk 25 Mod 3 Maintenance
NV-1715-0129

Mk 26
Guided Missile Launcher System Mk 26
NV-1704-0315

Mk 27
Gyro Compass Technician Mk 27 Maintenance Class C1
NV-1715-1089
Mk 27 Gyrocompass Maintenance, Class C
NV-1715-0762
Mk 27 Mod 1 Mk 19 Gyrocompass Systems Advanced Theory and Maintenance
NV-1715-1224

Mk 28
(SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance)
NV-1715-0795
CHAFFROC Mk 28 Mod 1 Launcher Systems Maintenance
NV-1715-0148
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5
NV-1715-0684
SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance
NV-1715-0794
SUBROC Missile Mk 28 Mod 1 Test Equipment Intermediate Maintenance
NV-1715-0795

Mk 3
Guidance System Mk 3 Mod 0 Theory and Maintenance
NV-1715-1456
Guidance System, Mk 3 Mod 0, Operation and Maintenance
NV-1715-0245
LAMPS Mk 3 Horizon Reference Set Maintenance,
NV-1714-0048
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1
NV-1715-0884
Mk 3 Mod 6 Ship's Inertial Navigation

System (SINS) Combined Maintenance
NV-1715-1461

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Operations (Enlisted)
NV-1715-0339

Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance
NV-1715-1061

Navigation Control Console Mk 3 Mods 1 and 2 Maintenance
NV-1715-1453

Poseidon Mk 3 Renetry System Tender Transfer and Handling
NV-2203-0143

Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance
NV-1402-0052

Ship's Inertial Navigation System (SINS) Mk 3 Mod 6 Combined Maintenance
NV-1715-0985

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1
NV-1715-0427

SSN Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Terrier Weapon Direction System Mk 3 (DE Mk 9)
NV-1715-0649

Mk 309

Control Panel Mk 309 Mod 0 Operation and Maintenance
NV-1715-0381

Mk 32

Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance
NV-1715-0785

Mk 35

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount
NV-1715-0147

3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35)
NV-1715-0655

Mk 352

Maintenance Analysis Test Set (MATS) Mk 352, Class F1
NV-1715-0902

Mk 37

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221

Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar)
NV-1715-0210

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1
NV-1715-0221

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728

Mk 37 Gun Fire Control System (FCS)
NV-1715-1291

Torpedo Mk 37 Mods 0, 1, 2, and 3 Organizational Maintenance
NV-1715-0787

Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance
NV-1715-0789

Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance
NV-1715-0788

Torpedo Mk 37 Mods 2 and 3 Intermediate Maintenance
NV-1715-0789

Torpedo Mk 37 Mods 2 and 3 Test Equipment Intermediate Maintenance
NV-1715-0788

Mk 38

Mk 38 Gun Fire Control System (FCS)
NV-1715-1290

Mk 4

Tartar Weapon Direction System (WDS) Mk 4, Class C
NV-1715-0436

Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C
NV-1715-0437

Tartar Weapons Direction System (WDS) Mk 4 WDE Mk 1
NV-1715-1121
NV-1715-1391

Trident Mk 4 Reentry System Tender Transfer and Handling
NV-2202-0144

Mk 41

Vertical Laucher System Mk 41
NV-1715-1407

Mk 42

Gun Maintenance 5"/54 Caliber Rapid Fire Mk 42
NV-1715-0179

Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1
NV-2202-0104

Gun Mount 5"/54 Mk 42 Mods 9 and 10 Maintenance Class C1
NV-1715-1078

5"/54 Gun Mount Mk 42 Mod 7/9 Differences
NV-1715-0180

5"/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance
NV-1715-0668

Mk 44

Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance
NV-1715-0785

Mk 45

Gun Mount 5"/54 Mk 45 Mod 1
NV-1715-1297

Gun 5"/54 Mk 45 Mod 0 Operational Maintenance
NV-1715-1178

Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance
NV-1715-0786

Mk 46

Torpedo Mk 46 Mod 5 Intermediate Maintenance
NV-1715-1103

Torpedo Mk 46 Mod 5 Test Equipment Intermediate Maintenance
NV-1715-1104

Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance
NV-1715-0785

Mk 47

Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance
NV-1715-0271

Mk 474

Tartar Radar Test Set Mk 474 Mod 2
NV-1715-0396

Mk 48

Torpedo Mk 48 Advanced Capability (ADCAP) Intermediate Maintenance
NV-1715-1493

Torpedo Mk 48 Mods 1 and 3 Intermediate Maintenance
NV-1715-1105

Torpedo Mk 48 Mods 1 and 3 Test Equipment Intermediate Maintenance
NV-1715-1106

Mk 5

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 and Target Designation System Mk 5
NV-1715-0216

Fire Control Technician Class C, Target Designation System (TDS) Mk 5
NV-1715-0212

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1
NV-1715-0221

Target Designation System Mk 5 Maintenance
NV-1715-0264

Target Designation System Mk 5 Shipboard Maintenance
NV-1715-0315

Mk 56

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56
NV-1715-0218

Gun Fire Control System (GFCS) Mk 56 Maintenance
NV-1715-0207

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728

Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1
NV-1715-0218

Mk 57

NATO Seasparrow Surface Missile System Mk 57 Mod 0/1/2/3 Maintenance
NV-1715-1040

Mk 6

Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance
NV-1715-1139

Fire Control Technician Class C, Target Designation System Mk 6
NV-1715-0213

Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1
NV-1715-0344

Talos Weapon Direction System Mk 6

(WDE Mk 2) Class C
NV-1715-0259

Mk 60
Mine Mk 60 Mod 0 Weapons Systems Technician
NV-2202-0106
Relay Transmitter Mk 60 Maintenance
NV-1715-0389
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12
NV-1715-0389

Mk 63
Gun Fire Control System (GFCS) Mk 63 Maintenance
NV-2202-0028
Mk 63 Torpedo Tube Basic Maintenance
NV-1715-1225

Mk 65
Analog-to-Digital Converter Mk 65 Mods 1 and 2 Maintenance
NV-1715-1452

Mk 68
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68
NV-1715-0219
Gun Fire Control System (GFCS) Mk 68 Maintenance
NV-1715-0220
Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance
NV-1715-0208
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728
Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance
NV-1715-0271
Mk 68 Gun Director and AN/SPG-53F Radar Maintenance
NV-1715-0239

Mk 7
Aegis Weapon System Mk 7 Operation and Maintenance
NV-1715-1116
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk 7 Arresting Gear), Class C
NV-1710-0005
Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory)
NV-1715-0998
Missile Test and Readiness Equipment Mk 7 Mod 4 Advanced Circuitry
NV-1402-0089
Terrier Weapon Direction System Mk 7 (WDE Mk 8)
NV-1715-0473
Weapons Direction System (WDS) Mk 7 Mod 3 (Career)
NV-1715-0413
Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligator)
NV-1715-0414

Mk 73
Radar Set AN/SPG-51D Gun and Guided Missile Director Mk 73 Mod 2 and Ancillary Equipments Operation and Maintenance
NV-1715-1035
Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1
NV-1715-0512
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73
NV-1715-0442

Mk 74
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072
Tartar Missile Fire Control Systems (MFCS) Mk 74 Mods 4/5/8
NV-1715-0847
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0681
Tartar Weapons System Mk 74 Mod 6
NV-1715-1384
Tartar Weapons System Mk 74 Mod 6 Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7
NV-1715-0805

Mk 75
76mm/62 Caliber Mk 75 Mods 0/1 Gun Operation and Maintenance
NV-1715-1179

Mk 76
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76
NV-1715-0443
Terrier Weapons System Mk 76 Mod 8
NV-1715-0658
Terrier Weapons System Mk 76 Mod 9
NV-1715-0443
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS)
NV-1715-0658

Mk 77
Talos Weapons System Mk 77 Mod 2 (Class C)
NV-1715-0444

Mk 78
Fire Control System (FCS) Mk 113 Mod 9 Mk 78 Analyzer Maintenance
NV-1715-1008

Mk 8
Terrier Weapon Direction System Mk 7 (WDE Mk 8)
NV-1715-0473

Mk 80
Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895
Fire Control System (FCS) Technician Mk 80
NV-1715-0211
Fire Control System (FCS) Technician Mk 80 Replacement
NV-1715-0211
Mk 80 Weapons Officer
NV-1715-0606

Mk 81
Mk 81 Analyzer Basic Maintenance
NV-1715-1005

Mk 84
Missile Technician Mk 84 Polaris (A-3)
NV-1715-0607
Mk 84 Fire Control System (FCS) Technician
NV-1715-0535
SSBN Mk 84 Polaris Weapons Officer
NV-1715-0577

Mk 86
Gun Fire Control System (GFCS) Mk 86 Consoles and Data Group Equipment Maintenance
NV-1402-0114
Gun Fire Control System (GFCS) Mk 86 Mod 3 Maintenance Class C
NV-1715-1076
Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar
NV-1715-1228
GFCS) Mk 86 Radar Group Equipment Maintenance
NV-1715-1289

Mk 88
Digital Control Computer Missile Interface Fire Control System (FCS) Mk 88 MOD 1
NV-1402-0050
Digital Control Computer Missile Interface FCS Mk 88 Mod 1
NV-1402-0147
Digital Control Computer Peripheral Equipment Advanced Maintenance Fire Control System Mk 88 Mod 1
NV-1402-0143
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer
NV-1715-0353
Fire Control System (FCS) Technician Mk 88 Conversion (Mod 0 to Mod 1)
NV-1715-0203
Fire Control System (FCS) Technician Mk 88 Mod 1 Replacement
NV-1715-0341
Fire Control System (FCS) Technician Mk 88 Mod 1 Tender Maintenance
NV-1715-0205
Fire Control System Mk 88 Mod 2 Advanced Technician
NV-1715-1399
Fire Control System Technician Mk 88 Mod 1 Replacement
NV-1715-1385
Fire Control Technician Mk 88 Intermediate Level Maintenance
NV-1715-1129
Fire Control Technician Mk 88 Mod 2 Replacement
NV-1715-1128
Fire Control Technician Mk 88 Replacement
NV-1715-0341
Launcher Technician Mk 88 Fire Control Conversion
NV-1715-0623
Magnetic Disk File (MDF) Theory and Mechanical Maintenance Fire Control (FC) Mk 88
NV-1715-1484
Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1
NV-1715-1001
Missile and Guidance System Testing, Fire Control System (FCS) Mk 88 MOD 1
NV-1715-0999
Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88)
NV-1715-0585
Multiplexed Equipment Fire Control

System (FCS) Mk 88 MOD 1
NV-1715-0996
Platform Positioning Subsystem Fire Control System (FCS) Mk 88 MOD 1
NV-1715-0997
Subsystem Interface Fire Control System (FCS) Mk 88 MOD 1
NV-1715-0986

Mk 9
Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance
NV-1715-0654
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1
NV-1715-0344
Mk 9 MOD-4 Dead Reckoning Analyzer Indicator (DRAI) Combined Maintenance.
NV-1715-1222
Terrier Weapon Direction System Mk 3 (DE Mk 9)
NV-1715-0649

Mk 91
Mk 91 Mod 0/1 NATO Seasparrow Guided Missile Fire Control System) (FCS)
NV-1715-1040

Mk 92
Fire Control System (FCS) Mk 92 Mod 2 Maintenance
NV-1715-1087

Mk 98
Fire Control System Mk 98 Mod O Maintenance Procedures
NV-1715-1321
Fire Control System Mk 98 Mod O Rev A Advanced Operations
NV-1715-1322
Fire Control System Mk 98 Mod 0 Advanced Technician
NV-1402-0137
Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0.
NV-1402-0140

Mk 99
Aegis Fire Control System (FCS) Mk 99/ORTS Mk 1 Operation and Maintenance
NV-1402-0058

Mk2
Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement
NV-1715-1380

Mk3
AN/SPQ-4 Light Airborne Multipurpose System (LAMPS) Mk3 Maintenance
NV-1715-1328

Mobile
Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance
NV-1701-0008
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance
NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance
NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0700
Mobile Riverine Force Staff Officer Training
NV-2202-0048
MMG-1A Mobile Electric Power Plant Intermediate Maintenance
NV-1714-0038
NC-8A Mobile Electric Power Plant Intermediate Maintenance
NV-1732-0007

Mode V
AUTODIN/DSTE/DSSCS/Mode V Maintenance, Class C1
NV-1715-0284

Model 104
Model 104 Gas Turbine Generator Set Maintenance
NV-1703-0009

Model 28
Model 28 ASR Teletype Maintenance
NV-1715-0662

Modular
AN/SYQ-7(V)3 Naval Modular Automated Communications Systems NAVMACS V3 Maintenance
NV-1715-0875
Naval Modular Automated Communications System (NAVMACS) A Maintenance
NV-1715-0875

Module
A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance)
NV-1715-0429
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance
NV-1715-0429
AN/ALM-163 Digital Module Test Console Intermediate Maintenance
NV-1715-0936
AN/AMP-225 Module Analyzer Test Console Intermediate Maintenance
NV-1715-0944
AN/ASM-33B AN/ASM-122 Portable Module Test (PMT) Intermediate Maintenance
NV-1715-1211
LM2500 Gas Turbine Module Maintenance, Class C1
NV-1703-0008

Molders
Molders, Class B
NV-1723-0003

Monitor
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance
NV-1715-0471
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion
NV-1715-1132
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem
NV-2205-0002
Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem Theory
NV-1715-1457
Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion
NV-1715-1130
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Command Replacement/Navigation
NV-1715-1397
Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Navigation Officer Replacement
NV-2205-0001
Electrostatically Supported Gyro Monitor (ESGM) Calibration
NV-1715-1375
NV-1715-1458
Electrostatically Supported Gyro Monitor (ESGM) Duplex Platform Interface Buffer
NV-1715-1157
Electrostatically Supported Gyro Monitor (ESGM) Theory and Maintenance
NV-1715-1158
Electrosticaliy Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion
NV-1715-1131
Fleet Satellite Communications Spectrum Monitor System Equipment
NV-1715-1099
FFG-7 Propulsion Systems Monitor
NV-1704-0299
Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement
NV-1715-1370
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement
NV-1715-1166
Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements
NV-1715-1371
Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion
NV-1715-1153
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance
NV-1715-1354

Monitoring
Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1
NV-1715-0496
Common Alarm, Temperature Monitoring and Salinity Systems Equipment Maintenance
NV-1715-1306
Launcher Control and Monitoring Equipment
NV-1402-0083
Missile Launcher Control and Monitoring Equipment
NV-1402-0083
Noise Reduction/Structure Borne Monitoring (Noise and Vibration

Monitoring System (NVMS) NV-1721-0011

Morse
Advanced International Morse Code Operator NV-1404-0012
Intermediate Morse Code Operator, Class C NV-1404-0002
International Morse Code Operator NV-1404-0002

Motion
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099
Motion Picture Cameraman NV-1709-0009
Motion Picture Projection System Maintenance, Class C NV-1715-0660
Motion Picture School, Class C NV-1709-0009

Motor
Electric Motor Rewind, Class C NV-1714-0016
400 HZ Motor Generator Electrical System Maintenance NV-1714-0025
500 KW 60 HZ Motor Generator Set Electrical Maintenanece NV-1714-0046
500 KW 60 HZ Motor Generator Set Mechanical Maintenance NV-1714-0047

Mount
Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1 NV-2202-0104
Gun Mount 5"/54 Mk 42 Mods 7 and 8 NV-1715-0520
Gun Mount 5"/54 Mk 42 Mods 9 and 10 Maintenance Class C1 NV-1715-1078
Gun Mount 5"/54 Mk 45 Maintenance Class C1 NV-1715-1080
Gun Mount 5'/54 Mk 45 Mod 1 NV-1715-1297
Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount NV-1715-0147
3"/50 Caliber Rapid Fire Gun Mount Maintenance NV-2202-0085
3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35) NV-1715-0655
3"/50 Rapid Fire Twin Mount Power Drive and Gun Maintenance NV-1715-0655
5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1 NV-1715-0520

Multichannel
Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment NV-1715-0194

Multicoupler
Antenna Multicoupler AN/BRA-16 Combined Maintenance NV-1715-0161
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132

Multimeter
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884

Multiple
Ultra High Frequency-Demand Assigned Multiple Access (DAMA) NV-1715-1347

Multipurpose
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
RO-358/AQS-13A Multipurpose Recorder Intermediate Maintenance NV-1715-0558

Music
Music Advanced, Class C-7 NV-1205-0002
Music Intermediate, Class C NV-1205-0003
Music Intermediate, Class C-1 NV-1205-0003
Music, Class A, Basic NV-1205-0001
Music, Class B, Advanced NV-1205-0002
Music, Class C, Refresher NV-1205-0003
Naval School of Music, Class A, Basic NV-1205-0001
Naval School of Music, Class B, Advanced NV-1205-0002
Naval School of Music, Class C, Refresher NV-1205-0003

MA-40
Basic Electronics (MA-40) NV-1715-0001

MATS
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902

MFCS
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 NV-2202-0073
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072
Tartar Missile Fire Control Systems (MFCS) Mk 74 Mods 4/5/8 NV-1715-0847
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
Tartar Weapons System Mk 74 Mod 6 Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443

MH-67
E-1B MH-67 Automatic Flight Control System Intermediate Maintenance NV-1704-0034
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7 NV-1715-0472

MIP
Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance NV-1715-0864

MK-14
Weapon Direction System (WDS) MK-14 Terrier Console Operator NV-1715-1239

MMG-1A
MMG-1A Mobile Electric Power Plant Intermediate Maintenance NV-1714-0038

MTC1
MTC1 Polaris Missile Technician Maintenance, Class C NV-1715-0574

MTRE
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory) NV-1715-0998

M61A1
A-7 M61A1 Gun and Associated Systems Intermediate Maintenance NV-2202-0097

Narrowband
Bullseye Narrowband Maintenance Technician NV-1715-0819
Cryptologic Technician M, Bullseye Narrowband Maintenance NV-1715-0819
Narrowband Secure Voice Stand Alone Maintenance NV-1715-1100
Narrowband System Operator (NBS OPS) Class C School NV-1715-1245

National
National Security Decision Making for College of Naval Command and Staff NV-1511-0015
National Security Decision Making Nonresident Seminar NV-1511-0026
Naval War College Correspondence Course in National Security Decision

Making
NV-1511-0010

Naval
College of Naval Command and Staff
NV-1511-0003
College of Naval Warfare
NV-1511-0002
Defense Economics and Decision Making Self-Administered Seminar (Naval War College)
NV-1511-0008
Naval and Marine Electronic Warfare Officer
NV-2202-0108
Naval Intelligence Mid-Career
NV-1511-0033
Naval Intelligence Officer
NV-1511-0022
Naval Preparatory School
NV-2202-0007
Naval Science Institute
NV-2202-0109
Naval Staff College
NV-1511-0034
Naval War College Correspondence Course in Defense Economics and Decision Making
NV-1511-0005
Naval War College Correspondence Course in Strategy and Policy
NV-1511-0004
Naval Warfare Course
NV-1511-0002
School of Naval Command and Staff
NV-1511-0003
School of Naval Warfare
NV-1511-0002
Strategy and Policy Self-Administered Seminar (Naval War College)
NV-1511-0009

Navigation
A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0288
A-4E Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance
NV-1715-0452
A-4F/L/TA-4F Communication, Navigation, Identification (CNI)/Weapons Systems Organizational Maintenance
NV-1715-0383
A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance
NV-1715-0475
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance
NV-1715-0370
A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance
NV-1715-0476
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance
NV-1715-0370
A-6E (M1-M120 and 158041-1595079) and KA-6D Aircraft Communication, Navigation, Identification (CNI) and Intercommunication and Related Systems Organizational Maintenance
NV-1715-0937
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance
NV-1715-0940
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0200
A-7E Communication, Navigation, Identification and Countermeasures Organizational Maintenance
NV-1704-0250
Advanced Navigation Training (Postgraduate Coast Guard Aviator)
NV-1606-0033
Advanced Navigation Training (Postgraduate Naval Aviator)
NV-1606-0032
Advanced Navigation Training (Student Naval Flight Officer)
NV-1606-0031
Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration
NV-1715-1374
Air Navigation by Correspondence
NV-1606-0071
Aviation Electronics Technician N (Navigation), Class A
NV-1715-0097
AN/APN-122 Doppler Navigation System Maintenance
NV-1715-0483
AN/APN-130 Radar Navigation Set Intermediate Maintenance
NV-1715-0553
AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0507
AN/APN-190(V) Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0200
AN/ARN-21D TACAN Navigation Set Maintenance
NV-1715-0487
AN/ARN-52 (V), AN/ARN-105 and AN/ARN-86 TACAN Navigation Sets Intermediate Maintenance
NV-1715-1014
AN/AYK-2 Navigation Computer Group and OA-1768A Plotter Board Group Intermediate Maintenance
NV-1715-0227
AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1)
NV-1715-0015
AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1
NV-1715-0810
AN/SRN-19(V)2 Radio Navigation Set Maintenance
NV-1715-1341
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1)
NV-1715-0099
AN/SRN-9/18 Satellite Radio Navigation Sets Combined Maintenance
NV-1715-1098
AN/SRN-9A, Radio Navigation Set, Operation and Maintenance
NV-1715-0441
AN/WSN-5 Inertial Navigation System Maintenance
NV-1715-1119
Basic Jet Navigation, Class O
NV-1606-0023
Basic Navigation Watchstander
NV-1715-0125
Central Navigation Computer (CNC) (Input/Output)
NV-1402-0026
Central Navigation Computer (CNC) (Processor II)
NV-1402-0024
Central Navigation Computer (CNC) Technician
NV-1715-0085
NV-1715-1402
Central Navigation Computer (CNC) Technician Replacement
NV-1715-1392
Central Navigation Computer (Processor I)
NV-1402-0025
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance
NV-1715-0101
Dual Miniature Inertial Navigation System (DMINS) AN/WSN-1(V)2 Combined Maintenance
NV-1715-0994
E-2A Inertial Navigation System AN/ASN-36 Maintenance
NV-1715-0709
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance
NV-1715-0323
Electronics Technician, Class C, AN/SRN-9 Radio Navigation Set
NV-1715-0099
Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0182
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0168
Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance
NV-1715-0063
Electronics Technician, Class C, SSBN Navigation Aids, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0064
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician
NV-1715-0066
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130
Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance
NV-1715-0014

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Aids Technician Conversion
NV-1715-1132

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem
NV-2205-0002

Electrostatically Supported Gyro Monitor (ESGM) Backfit Navigation Subsystem Theory
NV-1715-1457

Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion
NV-1715-1130

Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Command Replacement/Navigation
NV-1715-1397

Electrostatically Supported Gyro Monitor (ESGM) Backfit Strategic Weapon System Navigation Officer Replacement
NV-2205-0001

Electrostically Supported Gyro Monitor (ESGM) Backfit Central Navigation Computer Technician Conversion
NV-1715-1131

EA-6B Communications, Navigation and Radar System Organizational Maintenance
NV-1715-0311

F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician
NV-1704-0217

F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0076

F-4B Communication, Navigation, Identification (CNI) Organizational Maintenance
NV-1715-0255

F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0074

F-4J Communication, Navigation, Identification (CNI) Organizational Maintenance
NV-1715-0612

F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance
NV-1715-0688

Fleet Ballistic Missile (FBM) Navigation Officer
NV-1715-0456

Fleet Ballistic Missile (FBM) Tender Navigation Maintenance
NV-1715-0065

Fleet Ballistic Missile (FBM) Tender Navigation Maintenance Computer
NV-1715-0182

Fleet Ballistic Missile Navigation Maintenance NAVAIDS
NV-1715-1383

Fleet Ballistic Missile Tender Navigation Maintenance Computer
NV-1715-1402

Fleet Ballistic Missile Tender Navigation Maintenance Ship's Inertial Navigation System
NV-1715-0065

Inertial Navigation System (ESGN) AN/WSN-3A(V)2 Combined Maintenance
NV-1715-1462

Intermediate Level Maintenance Navigation Technician
NV-1723-0010

Mk 2 Mod 1 Ship's Inertial Navigation System (SINS) Maintenance
NV-1402-0039

Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1402-0051

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1715-1461

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Operations (Enlisted)
NV-1715-0339

Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance
NV-1715-1061

Navigation Control Console Mk 3 Mod 2 Maintenance
NV-1715-1367

Navigation Control Console Mk 3 Mods 1 and 2 Maintenance
NV-1715-1453

Navigation Flight Training, Naval Aviator and Naval Flight Officer
NV-1606-0045

Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator)
NV-1606-0045

Navigation Officer (Shipboard) and Celestial Class C2
NV-2202-0107

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance
NV-1715-0128

Navigation Satellite Receiver AN/WRN-5 Combined Maintenance
NV-1715-0913

Navigation Set Operation and Maintenance
NV-1715-0913

Navigation Technician Intermediate Level Maintenance
NV-1723-0010

Navigation Technician SSN 668 Class
NV-1715-0881

Navigation Technician Type I SSN-593 Class
NV-1402-0039

Navigation Technician Type I SSN637
NV-1715-0979

Navigation Technician Type 2 637 Class Pipeline
NV-1715-1487

Navigation Technician 594/688 Class Pipeline
NV-1715-1478

Navigation Technician 637/688 Class Pipeline
NV-1715-1479

Navigational Technician Watchstander (Enlisted)
NV-1715-0125

P-3 Communication/Navigation Organizational Maintenance
NV-1715-0739

P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance
NV-1715-0096

P-3C Communication/Navigation Organizational Maintenance
NV-1715-0533

Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1
NV-1715-0911

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1
NV-1715-0915

Prospective Advanced Navigation Flight Instructor
NV-1606-0038

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training
NV-1715-0925

Radio Navigation Set AN/BRN-3B Data Processor Maintenance
NV-1402-0142

Radio Navigation Set AN/BRN-3B Maintenance
NV-1715-1455

Replacement Navigation Tender Technician
NV-1715-1123

RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance
NV-1704-0075

RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228

RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0465

RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

RF-4B Inertial Navigation System Intermediate Maintenance
NV-1715-0465

RF-4B Inertial Navigation System Organizational Maintenance
NV-1715-0614

RT-736 and KY-531 Tactical Air Navigation (TACAN) Intermediate Maintenance
NV-1715-0796

S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance
NV-1715-0422

Satellite Navigation System AN/WRN-5
NV-1715-0913

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922

Ship's Inertial Navigation System (SINS)

Mk 2 Mod 6 Control Theory
NV-1715-0232
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance I
NV-1715-0232
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II
NV-1715-1002
Ship's Inertial Navigation System (SINS) Mk 2 Mod 7 Technician Conversion
NV-1715-1161
Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I
NV-1715-0919
Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II
NV-1715-0920
Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance
NV-1402-0052
Ship's Inertial Navigation System (SINS) Mk 3 Mod 6 Combined Maintenance
NV-1715-0985
Ship's Inertial Navigation System (SINS) Theory and Analysis
NV-1107-0002
Ship's Interial Navigation System (SINS) Mk 2 Mod 7 Technician Replacement
NV-1715-1162
Ship's Navigation and Aircraft Inertial Alignment Systems Maintenance
NV-1715-1061
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Equipment Technician Replacement
NV-1715-1393
Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement
NV-1715-1380
Ships Inertial Navigation System (SINS) Technician Poseidon Replacement
NV-1715-0066
Ships Inertial Navigation System Theory and Maintenance II
NV-1715-1369
SH-3 AN/ASA-13A Navigation System Intermediate Maintenance
NV-1715-0241
SH-3 AN/AYK-2 Navigation System Intermediate Maintenance
NV-1715-0227
SH-3 Communications/Navigation Systems Organizational Maintenance
NV-1715-1195
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237
SH-3A AN/ASA-13A Navigation System Mantenance
NV-1715-0241
SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance
NV-1715-0227
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1
NV-1715-0242
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1
NV-1715-0427
SSBN Navigation Officer
NV-1606-0026
SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician
NV-1715-0440
SSN Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426
Trident Central Navigation Computer Technician Conversion
NV-1715-1163
Trident Central Navigation Computer Technician Replacement
NV-1715-1164
NV-1715-1381
Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement
NV-1715-1370
Trident I Ships Inertial Navigation System (SINS) Equipment
NV-1715-1379
Trident I-Navigation Subsystems
NV-1715-1372
Trident Navigation Subsystem Theory
NV-1715-1366
UH-1N Communication/Navigation Systems Organizational Maintenance
NV-1704-0274
UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0761

Navigational
AN/APN-182(V) Radar Navigational Set Intermediate Maintenance
NV-1715-0583
AN/ASA-13A Navigational Computer Group Intermediate Maintenance
NV-1715-0326
AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance
NV-1715-0582
AN/ASN-39/39A and AN/ASN-41 Navigational Computer Systems Intermediate Maintenance
NV-1715-1204
E-2B Navigational Systems Organizational Maintenance
NV-1715-1215
EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance
NV-1715-0505
Marine Air Traffic Control Navigational Aids Maintenance
NV-1715-0037
Marine Air Traffic Control Navigational Aids Repairman, Class C
NV-1715-0037
Marine Air Traffic Control Navigational Aids Technician Class C1
NV-1715-0962
Marine Air Traffic Control Navigational Aids Technician, Class C1
NV-1715-1442
Navigational Aids (NAVAIDS) Technician Replacement
NV-1715-1126
Navigational Technician Watchstander (Enlisted)
NV-1715-0125
P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16
NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance
NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15
NV-1715-0324
RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228
S-2D/E AN/ARN-52(V) Navigational TACAN Maintenance
NV-1715-0637
S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance
NV-1715-0331
SH-3A AN/ASA-13A Navigational Computer Maintenance
NV-1715-0333
UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance
NV-1715-0326

Navigator
Bombardier Navigator
NV-1606-0036
Fleet Replacement Radar Navigator
NV-1606-0036
Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator)
NV-1606-0045
VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer
NV-1606-0066

Navy
Basic Navy Operational Intelligence
NV-1511-0027
Navy Advanced Management
NV-0326-0001
Navy Schools Management
NV-0326-0002

Neuropsychiatric
Neuropsychiatric Clerical Technic
NV-1403-0001

Neuropsychiatry
Neuropsychiatry Technic
NV-0703-0003
Neuropsychiatry Technician, Class C
NV-0703-0003

Noise
Noise and Vibration Measurement
NV-1721-0003
Noise Measurement and Reduction
NV-1721-0002
Noise Reduction/Structure Borne Monitoring (Noise and Vibration Monitoring System (NVMS)
NV-1721-0011
Sound Analysis, Noise and Vibration Reduction (Enlisted)
NV-1721-0010

Non-Lawyer
Military Justice (Non-Lawyer)
NV-1728-0015

Non-Morse
- Basic Non-Morse Operator NV-1715-1243
- Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse NV-1715-0838
- Intermediate Non-Morse Analyst NV-1715-1248
- Senior Non-Morse Analysis NV-1715-1258

Non-Photographic
- Special Photographic Course for Non-Photographic Personnel, Class C NV-1709-0005

Non-Tactical
- Shipboard Non-Tactical Automatic Data Processing (SNAP I) System Enlisted Supervisor/Operator NV-1402-0150
- Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat NV-1402-0152
- Shipboard Non-Tactical Automatic Data Processing (SNAP) II System Coordinator NV-1402-0151
- Shipboard Non-Tactical Automatic Data Processing (SNAP) 3-M Coordinator/Inspector NV-1402-0153

Nonacoustic
- Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C NV-1715-0696
- Electronic Warfare for Nonacoustic Operator, P3A/B(D) NV-1715-0020
- Nonacoustic Antisubmarine Operator Transition P-3C NV-1715-0679
- Nonacoustic Operator Transition NV-1715-0679
- RADAR/MAD for Nonacoustic Operator P3A/B(D) NV-1715-0678

Nondestructive
- Aircraft Maintenance Nondestructive Inspection School, Class C NV-1704-0156
- Nondestructive Testing of Metals NV-1724-0002
- Nondestructive Testing of Metals Eddy Current Inspection Class C1 NV-1724-0008
- Nondestructive Testing of Metals Radiographic Inspector Class C1 NV-1724-0007
- Nondestructive Testing of Metals Radiographic Operator NV-1724-0009
- Nondestructive Testing of Metals Ultrasonic Shearwave Inspection, Class C1 NV-1724-0005
- Nondestructive Testing of Metals Ultrasonic Silver Braze Inspection, Class C1 NV-1724-0004
- Nondestructive Testing of Metals Ultrasonic Thickness Inspection Class C1 NV-1724-0003
- Nondestructive Testing of Metals Visual, Magnetic Particle and Liquid Penetrants Operator/Inspector NV-1724-0006

Nonresident
- Maritime Operations Employment of Naval Forces Nonresident Seminar NV-2202-0134
- National Security Decision Making Nonresident Seminar NV-1511-0026
- Strategy and Policy Nonresident Seminar NV-1511-0025

Norden
- CONALOG (Norden) Refresher Maintenance and Troubleshooting NV-1715-0253
- CONALOG Maintenance Norden (Enlisted) NV-1715-0252

Nose
- Eye, Ear, Nose and Throat Technician, Class C NV-0709-0009

Nuclear
- Advanced Nuclear Power NV-1732-0003
- Basic Nuclear Power NV-1732-0002
- Clinical Nuclear Medicine Technician NV-0705-0002
- Clinical Nuclear Medicine Technique NV-0705-0002
- CVS/MAUW Shop Nuclear Weapons Technical NV-0802-0005
- Electronics Technician Communications—Nuclear Field, Class A1 NV-1715-0853
- Electronics Technician Nuclear Field Class A1 NV-1715-1070
- Electronics Technician Radar—Nuclear Field, Class A1 NV-1715-0856
- Marine Nuclear Ordnance Platoon (NOP) NV-2202-0100
- Navy Nuclear Weapons Advanced Maintenance NV-2202-0086
- Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171
- Nuclear Medicine Technic NV-0705-0004
- Nuclear Medicine Technician NV-0705-0004
- Nuclear Medicine Technician, Surface NV-0705-0004
- Nuclear Power Plant Components Welder, Class C1 NV-1710-0069
- Nuclear Power Plant Welder NV-1710-0114
- Nuclear Power Plant Welder Requalification NV-1732-0019
- Nuclear Propulsion Plant Operators Welding NV-1710-0046
- Nuclear Propulsion Plant Refresher Training NV-1732-0015
- Nuclear Submarine Medicine Technic NV-0709-0001
- Nuclear Submarine Medicine Technician NV-0709-0001
- Nuclear Submarine Medicine Technician, Class C NV-0709-0001
- Nuclear Submarine Medicine Technique NV-0709-0001
- Nuclear Weapons Disposal NV-0802-0007
- Nuclear Weapons Disposal Advanced Refresher NV-0802-0002
- Nuclear Weapons Technical (CVA) NV-0802-0006
- Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001
- Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
- Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore) NV-0801-0005
- Prospective Nuclear Engineer Officer NV-1732-0011
- Welding for Nuclear Power Plant Operators, Course V NV-1710-0046

Nurse
- Nurse Corps Indoctrination NV-2202-0003
- Obstetrics/Gynecology (OB/GYN) Nurse Clinician NV-0703-0001
- Obstetrics/Gynecology (OB/GYN) Nurse Practitioner NV-0703-0001

NASAP
- Navy Alcohol Safety Action Program (NASAP) NV-0799-0002
- Navy Alcohol/Drug Safety Action Program (NASAP/NDSAP) NV-0799-0007

NAVAIDS
- ESGM/NAVAIDS Intermediate Level Maintenance Technician NV-1715-1142
- Fleet Ballistic Missile Navigation Maintenance NAVAIDS NV-1715-1383
- Navigational Aids (NAVAIDS) Technician Replacement NV-1715-1126
- NAVAIDS Equipment Technician Replacement NV-1715-1404
- Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement NV-1715-1166
- Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion NV-1715-1153

NAVDAC
- Naval Data Automated Computer (NAVDAC) Advanced Training NV-1715-0926
- SSBN Naval Data Assimilation Computer (NAVDAC) Mk 2 Mod 4.

SDC Mk 2 Mod 1 NV-1715-0242

NAVMACS
AN/SYQ-7(V)3 Naval Modular Automated Communications Systems NAVMACS V3 Maintenance NV-1715-0875
Naval Modular Automated Communications System (NAVMACS) A Maintenance NV-1715-0875

NBC
Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore) NV-0801-0005

NC-10B
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698

NC-10B/C
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698

NC-2A
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700

NC-8A
NC-8A Mobile Electric Power Plant Intermediate Maintenance NV-1732-0007

NDSAP
Navy Alcohol/Drug Safety Action Program (NASAP/NDSAP) NV-0799-0007
Navy Drug Safety Action Program (NDSAP) NV-0799-0006

NESEP
Naval Enlisted Scientific Education Program (NESEP) NV-2202-0101
NESEP Basic NV-2202-0101

NOP
Marine Nuclear Ordnance Platoon (NOP) NV-2202-0100

NP-II
Advanced Naval Parachutist, NP-II Class C NV-0803-0002

NTDS
Air Intercept Controller Naval Tactical Data Systems (NTDS) Qualification NV-1715-0674
Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674
DD-963 Naval Tactical Data System (NTDS) Data Utilization NV-1402-0023
DD-963 Naval Tactical Data Systems (NTDS) Data Input NV-1402-0010
Naval Tactical Data System (NTDS) (Data Utilization) NV-1402-0023
Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032
Naval Tactical Data System (NTDS) Tracker/Supervisor NV-1715-0673
Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005
Naval Tactical Data Systems (NTDS) Data Transmission Group Maintenance NV-1715-0273
Naval Tactical Data Systems (NTDS) Data Utilization NV-1402-0006
Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006
Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004
Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted) NV-1402-0003
Naval Tactical Data Systems Maintenance (NTDS) NV-1715-0274
NTDS Data Utilization NV-1402-0005
Programming, Naval Tactical Data Systems (NTDS) Operational (Officer and Enlisted) NV-1402-0031

Obligator
Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligator) NV-1715-0414

Observer
Ice Observer, Class C NV-2202-0070
Naval Aviation Observer (Controller), Class O NV-1704-0197

Obstetrics
Obstetrics/Gynecology (OB/GYN) Nurse Clinician NV-0703-0001
Obstetrics/Gynecology (OB/GYN) Nurse Practitioner NV-0703-0001

Occupational
Occupational Therapy Technic NV-0704-0003
Occupational Therapy Technician, Class C NV-0704-0003
Physical and Occupational Therapy Technic NV-0704-0002
Physical and Occupational Therapy Technician, Class C NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II NV-0704-0002

Ocean
Air Ocean Environment Course, Class C NV-1304-0002
Introduction to Ocean Engineering NV-1304-0001
Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User NV-1402-0117
Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management NV-1402-0119
Ocean Systems Advanced Acoustics NV-1304-0010
Ocean Systems Operational Procedures Enlisted NV-1304-0009
Ocean Systems Operational Procedures Officer NV-1304-0008
Ocean Systems Technician Analyst, Class A NV-1704-0333
Ocean Systems Technician Electronic NV-1715-1114
Ocean Systems Technician Equipment Maintenance NV-1304-0007
Ocean Systems Technician Maintainer Class A NV-1715-1327
Prototype Ocean Surveillance Terminal User NV-1402-0118

Ocean Systems
Ocean Systems Advanced Acoustics NV-1304-0010
Ocean Systems Operational Procedures Enlisted NV-1304-0009
Ocean Systems Operational Procedures Officer NV-1304-0008
Ocean Systems Technician Analyst, Class A NV-1704-0333
Ocean Systems Technician Electronic NV-1715-1114
Ocean Systems Technician Equipment Maintenance NV-1304-0007
Ocean Systems Technician Maintainer Class A NV-1715-1327

Oceanographic
Meteorological/Oceanographic Equipment Maintenance, Class C NV-1715-0564

Ocular
Advanced Ocular Technician NV-0706-0004
Ocular Technician NV-0706-0003 NV-0706-0006

Office
Advanced Office Machine Repair, Class C NV-1706-0003

Officer
Officer of the Deck-Basic NV-1722-0008

Officer Candidate School NV-2202-0102
Officer Direct Support Operations, Class C4 NV-1715-0832
Prospective Officer of the Deck NV-1722-0008
Reserve Officer Candidate (ROC II and ROC I) NV-2202-0103
Women Officer Candidate School NV-2202-0093

Oil
Main Engine and Lube Oil Purifier NV-1601-0027

Omega
AN/SRN-12/12A Omega Receiving Set Maintenance NV-1715-1064
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C NV-1715-0590
Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance NV-1715-0201

Operating
Operating Room Technic NV-0703-0004
Operating Room Technic and Management NV-0703-0002
Operating Room Technician Class C NV-0703-0007
Operating Room Technician, Class C NV-0703-0004

Operational
Basic Navy Operational Intelligence NV-1511-0027
Intelligence Specialist Class A Operational Intelligence NV-1606-0073
Ocean Systems Operational Procedures Enlisted NV-1304-0009
Ocean Systems Operational Procedures Officer NV-1304-0008
Operational Intelligence Analysis NV-1511-0024

Operations
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations NV-1715-0840
Cryptologic Technician Technical Field Operations, Type One NV-1715-0838
Cryptologic Technician Technical Field Operations, Type Three NV-1715-0840
Naval Security Group Direct Support Operations NV-1715-0832
Officer Direct Support Operations, Class C4 NV-1715-0832
Operations Specialist, Class A1 NV-1606-0060
Operations Summary Console Difference Maintenance NV-1715-1034
Reserve Training Officer Direct Support Operations, Class F1 NV-1715-0834
Special Operations Technic NV-0709-0005
Special Operations Technician NV-0709-0005

Optical
Optical Landing System Maintenance NV-1715-1240
Optical Landing Systems Maintenance, Class C NV-1715-0609

Opticalmen
Opticalmen, Class A NV-1721-0007

Optician
Optician (General) Technician, Class C NV-0706-0001
Optician Class C NV-0706-0005
Optician Laboratory Technician, Class C NV-0706-0002
Optician Technic Laboratory NV-0706-0002
Optician Technician, Class C NV-0706-0002

Ordinance
Trident Defensive Weapons Ordinance Subsystem (DWOS) Replacement NV-1715-1365

Ordnance
Aviation Ordnance Officers (Management), Class O (AOM(O)) NV-1405-0010
Aviation Ordnance Officers, Class O NV-1715-0744
Aviation Ordnance, Class A1 NV-1715-1437
CVA/CVS Air Launched Weapons General Ordnance NV-2202-0024
Explosive Ordnance Disposal Navy Basic NV-2202-0020
Explosive Ordnance Disposal—Reserve Officer Training NV-2202-0019
Marine Nuclear Ordnance Platoon (NOP) NV-2202-0100
Ordnance Handling Equipment Intermediate Maintenance NV-1710-0026
P-3 Ordnance Systems Organizational Maintenance NV-1704-0160
Surface Explosive Ordnance Disposal (EOD) Advanced Refresher NV-0802-0003
Surface Explosive Ordnance Disposal Basic NV-2202-0017
Trident Defensive Weapons Ordnance Subsystem O/M NV-1704-0276
UDT-SEAL Explosive Ordnance Disposal Indoctrination NV-2202-0018

Ordnanceman
Aviation Ordnanceman (Turret), Class A NV-1714-0007
Aviation Ordnanceman (Utility), Class A NV-1714-0006
Aviation Ordnanceman, Class A NV-1715-0648
Aviation Ordnanceman, Class B NV-1717-0010
Aviation Ordnanceman, Class C7 NV-1717-0010

Organizational
Organizational Effectiveness Advanced Consultant Course NV-0326-0004
Organizational Effectiveness Specialist NV-0326-0003

Orientation
Reserve Cryptologic Technician Naval Security Group Orientation NV-1715-0823

Orthopedic
Orthopedic Appliance Mechanics NV-0704-0001
Orthopedic Appliance Technic NV-0704-0001
Orthopedic Appliance Technician, Class C NV-0704-0001

Otolaryngology
Otolaryngology Technician NV-0709-0009
Otolaryngology Technician Class C NV-0709-0016

Overseas
High Impact Personnel Overseas Duty Training NV-1512-0002
Intercultural Relations—Overseas Duty Training NV-1512-0002

Oxygen
Deep Sea Helium-Oxygen Diving Officer NV-1606-0009
Electrolytic Oxygen Generator Operators NV-1601-0008
Electrolytic Oxygen Generator 7L16 NV-1601-0002
Oxygen Equipment Class C NV-1601-0007
Oxygen Generator (Mechanical) NV-1601-0005
Oxygen Generator Electrical Model 6L16 (Enlisted) NV-1715-0560
Oxygen Generator Mechanical Model 6L16 (Enlisted) NV-1601-0006
Oxygen Generator Operator 6L16 NV-1601-0018
Oxygen Generator Operator/Mechanical Technician NV-1601-0019
Oxygen Generator Technician 6L16 NV-1715-0918
Oxygen Generator 6L16 Operator NV-1601-0018
Treadwell Oxygen Generator Operation/Maintenance 6L16 NV-1601-0018
6L16 Oxygen Generator Electrical Technician NV-1715-0918
6L16 Oxygen Generator Technician NV-1601-0009
7L16 Oxygen Generator Electrical Support Technician NV-1714-0017

7L16 Oxygen Generator Technician
NV-1714-0017

OA-1768A/ASA-13
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance
NV-1715-0117

OA-3731
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance
NV-1715-0798

OA-3731/ASM-76
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance
NV-1715-0349

OA-3732
OA-3732/ASM-76 Computer Indicator Intermediate Maintenance
NV-1715-0318

OA-3734/ASM-77
OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance
NV-1715-0548

OA-3738/ASA-48
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance
NV-1715-0348

OA-6672
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance
NV-1715-0109

OA-8206/ASA-27A
E-2B OA-8206/ASA-27A Difference Organizational Maintenance
NV-1715-0508

OA-9008
OA-9008 Magnetic Tape Control Unit and Magnetic Tape Transport
NV-1715-1033

OB/GYN
Obstetrics/Gynecology (OB/GYN) Nurse Clinician
NV-0703-0001
Obstetrics/Gynecology (OB/GYN) Nurse Practitioner
NV-0703-0001

OE-159
OE-159 Reel Operator/Maintenance
NV-1704-0281

OE-82B/WSC-1(V)
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group
NV-1715-0876

OJ-326(V)
Display Console OJ-326(V) 1-4/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase I
NV-1402-0127
Display Console OJ-326(V)/UYK and Digital Display Indicator IP-1181/UYK Maintenance Phase III
NV-1402-0128
Display Console OJ-326(V)/UYK and Digital Display Indicator IR-1181/UYK Maintenance Phase II
NV-1402-0126

OJ-511/ALM
OJ-511/ALM Exciter Test Station Intermediate Maintenance
NV-1715-1416

OJ-615/ALM
OJ-615/ALM Countermeasures Test Console Intermediate Maintenance
NV-1715-1421

OM-55/USC
OM-55/USC Super High Frequency Satellite Communication Modular Demodulator Group Maintenance
NV-1715-1346

OQ-35A/ASM-347
OQ-35A/ASM-347 (V) Programmer Comparator Intermediate Maintenance
NV-1715-1412

ORTS
Aegis Fire Control System/ORTS Operation and Maintenance
NV-1715-1304

OUTBOARD
Cryptologic Technician M-OUTBOARD Maintenance
NV-1402-0067
OUTBOARD Maintenance Acquisition Technician
NV-1715-1246
OUTBOARD Maintenance Direction Finding (DF) Technician
NV-1715-1241

OV-10A
OV-10A Electrical Systems Organizational Maintenance
NV-1704-0095
OV-10A Flight Control and Hydraulic Systems Organizational Maintenance
NV-1704-0103
OV-10A T-76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance
NV-1704-0137

P-3
AD "A" (P-3) Power Plant System Class A1
NV-1715-1026
Fundamental Analysis Techniques (P-3)
NV-1715-0275
P-3 Air Conditioning, Pressurization and Utilities Systems Organizational Maintenance
NV-1701-0001
P-3 Aircraft Familiarization (Pilots)
NV-1704-0039
P-3 Aircraft Familiarization, No. 2
NV-1704-0039
P-3 Aviation Machinist's Mate (AD) Entry Level
NV-1715-1026
P-3 AN/APA-125A Indicator Group Intermediate Maintenance
NV-1715-0172
P-3 AN/APA-125A Indicator Maintenance, No. 48
NV-1715-0172
P-3 AN/APN-70 Loran System Intermediate Maintenance
NV-1715-0112
P-3 AN/APS-80 Search Radar System Maintenance, 49
NV-1715-0695
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance
NV-1715-0118
P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance
NV-1715-0511
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance
NV-1715-0120
P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46
NV-1715-0121
P-3 AN/ARC-51A Communication Systems Maintenance, No. 22
NV-1715-0710
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21
NV-1715-0346
P-3 AN/ARC-94 Communications System Maintenance, No. 19
NV-1715-0374
P-3 AN/ARN-52 TACAN Maintenance, No. 30
NV-1715-0262
P-3 AN/ASA-16 Display System Intermediate Maintenance
NV-1715-0463
P-3 AN/ASA-16 Indicator Group Organizational Maintenance
NV-1715-0115
P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No 16
NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance
NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15
NV-1715-0324
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42
NV-1715-0178
P-3 ASA-16 System Maintenance, No. 50
NV-1715-0477
P-3 Communication/Navigation Organizational Maintenance
NV-1715-0739
P-3 Electrical Components Intermediate Maintenance
NV-1704-0072
P-3 Electrical System Maintenance, No. 12
NV-1704-0073
P-3 Electrical System Organizational Maintenance
NV-1704-0073
P-3 Electrical Systems Intermediate Maintenance
NV-1704-0072
P-3 Flight Engineer System, No. 6
NV-1704-0048
P-3 Flight Engineers Operational Maintenance, No. 5
NV-1704-0067
P-3 Flight Engineers System
NV-1704-0048
P-3 Hydraulics and Flight Controls System Maintenance, No. 10
NV-1704-0050
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance
NV-1704-0161
P-3 Integrated Electrical System Organizational Maintenance
NV-1704-0101
P-3 Ordnance Systems Organizational Maintenance
NV-1704-0160

P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance
NV-1715-0659
P-3 PB-20N Automatic Flight Control System Maintenance, No. 13
NV-1715-0600
P-3 PB-20N Autopilot System Intermediate Maintenance
NV-1715-0462
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance
NV-1715-0117
P-3 Radar and IFF Systems Organizational Maintenance
NV-1715-0114
P-3 Second Mechanics Systems
NV-1704-0053
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance
NV-1704-0206
P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance
NV-1715-0322
P-3 T-56-A-14 Engine and Related Systems Maintenance
NV-1704-0019
P-3 T56-A-10/14 Engine and Related Systems Organizational Maintenance
NV-1704-0019
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56
NV-1704-0017
P-3A/B Integrated Electrical System Organizational Maintenance
NV-1704-0101
P-3TT-264/AG Teletypewriter Group Maintenance, No. 20
NV-1715-0666
2F69D P-3 Weapon System Follow-on-Training
NV-2202-0078
2F87 P-3 Weapon System Follow-on-Training
NV-2202-0079

P-3A/B
DIFAR Training for Acoustic Operators P-3A/B(D) and P3C
NV-1715-0704
Jezebel Gram Analysis for AW's P-3A/B (DIFAR Retrofit)
NV-1715-0704
P-3A/B (DIFAR) Weapons Systems Technician Organizational Maintenance
NV-1715-1024
P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance
NV-1715-0096
P-3A/B Integrated Electrical System Organizational Maintenance
NV-1704-0101
P-3A/B TAC/NAV MOD Organizational Maintenance
NV-1402-0055

P-3C
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C
NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C
NV-2202-0021
Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P-3C
NV-1715-0696
First Tour Pilot P-3C Communications Operator
NV-1704-0213
Naval Flight Officer P-3C Communications Operator
NV-1704-0219
Nonacoustic Antisubmarine Operator Transition P-3C
NV-1715-0679
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance
NV-1715-0358
P-3C Communication/Navigation Organizational Maintenance
NV-1715-0533
P-3C CP-901/ASQ-114 Computer Organizational Maintenance
NV-1402-0040
P-3C Digital Data Handling Organizational Maintenance
NV-1715-0330
P-3C Integrated Avionics System (Update I) Organizational Maintenance
NV-1715-1025
P-3C Integrated Avionics System Technician
NV-1715-0329
P-3C Integrated Electrical Systems Organizational Maintenance
NV-1704-0089
P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance
NV-1715-0256
P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance
NV-1715-0640
P-3C Sensor Station Three (Radar/Display)Technician Organization Maintenance
NV-1715-0640
P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance
NV-1715-0640
P-3C Tactical Coordinator Positional Training for Naval Flight Officers
NV-1606-0043

Packard
Mine Warfare Packard Diesel Engineman (Class C)
NV-1712-0012

Panel
Control Panel Mk 309 Mod 0 Operation and Maintenance
NV-1715-0381
Flat Panel Display Terminal Maintenance
NV-1402-0139

Panoramic
RA-5C Panoramic Camera Shop Maintenance
NV-1715-0143

Parachute
Parachute Rigger (Maintenance), Class A
NV-1704-0234
Parachute Rigger (Survival), Class A
NV-1733-0001
Parachute Rigger School, Class B
NV-1717-0012
Parachute Rigger, Class A
NV-1704-0234

Parachutist
Advanced Naval Parachutist, Class C1
NV-0803-0002
NV-1733-0005
Advanced Naval Parachutist, NP-II Class C
NV-0803-0002
Basic Naval Parachutist Course, NP-1 Class C
NV-2202-0030
Basic Naval Parachutist, Class C1
NV-1733-0003
NV-2202-0030
Jumpmaster Naval Parachutist, Class C1
NV-1733-0004
NV-2202-0026
Naval Parachutist, Advanced, Class C
NV-0803-0002
Naval Parachutist, Basic, Class C
NV-2202-0030

Party
Repair Party Leader
NV-1710-0076

Passive
AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/ Precision Data Recorder (PDR) Advanced Maintenance
NV-1715-1320
AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/ Spherical Array, Passive Beamforms (SAPB) Maintenance
NV-1715-1316
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive)
NV-2202-0096
Passive Equipment Cabinet (PEC) Operation and Maintenance
NV-1715-1502
Passive Equipment Cabinet Operation and Maintenance
NV-1715-1111
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance
NV-1715-0366

Patrol
Coastal Patrol Craft Training
NV-1722-0003
Patrol Gunboat/PG/Engineering Systems Operator and Maintenance
NV-1712-0018
River Patrol Craft Training
NV-1722-0010

Patternmaker
Patternmaker, Class A
NV-1723-0004

Pay
Disbursing Clerk (Pay Records Maintenance) Class C
NV-1401-0001
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures
NV-1401-0004

Perforator
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and

AN/UGC-5 TT-252 Typing Perforator NV-1715-0665

Peripheral
AN/UYK-7 DD 963 Computer/Peripheral Technician NV-1715-1261
Data Systems Technician—Peripheral Equipment Maintenance, Class C NV-1715-0047
Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance NV-1715-0087
Mk 152 Computer and Peripheral Equipment/Common Core NV-1715-0586
Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

Periscope
Periscope Photography NV-1709-0020
Periscope Set Type 15 Electronics Combined Maintenance NV-1715-0988
Periscope Type 15 Combined Maintenance NV-1715-0988
Periscope Type 18 Combined Maintenance NV-1715-1221
Submarine Periscope Repair Class C1 NV-1715-1065
Type 18 Submarine Periscope Repair Class C1 NV-1715-1084

Personal
Personal Property Traffic Management NV-0419-0011

Personnel
High Impact Personnel Overseas Duty Training NV-1512-0002
Personnel Men School, Class C-1, Enlisted Classification NV 1406-0015
Unaccompanied Personnel Housing Management, Class C NV-1405-0021

Personnelman
Personnelman, Class A NV-1409-0001
Personnelman, Class C (Career Information and Counseling) NV-1406-0004
Personnelman, Class C-1, Interviewing and Classification NV-1406-0018
Personnelman, Class C, Naval Management Analysis NV-1408-0016

Pest
Disease Vector and Pest Control Technology NV-0101-0001

Petty
Gunnery Petty Officer NV-2201-0113
Leadership and Management Education and Training (LMET) for Chief Petty Officers NV-1717-0015
Leadership and Management Education and Training (LMET) for Leading Petty Officers NV-1717-0014
Leadership and Management Education and Training (LMET) for Machinist's Mate/Boiler Technician Six-Year Obligator (6YO) Petty Officer NV-1717-0022
Leadership and Management Education and Training (LMET) For Leading Chief Petty Officers NV-1717-0015

Pharmacy
Pharmacy Technic NV-0799-0003
Pharmacy Technician NV-0799-0003
Pharmacy Technician Class C NV-0799-0008
Pharmacy Technician, Class C NV-0799-0003

Photo
IOIC Photo Interpretation Officer NV-1709-0006
IOIC Photo Interpretation Operator NV-1709-0007
RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748
RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748
RA-5C Photo Systems Electronics NV-1715-0543

Photogrammetric
Modular Image Interpretation System and Analytical Photogrammetric Positioning System Maintenance NV-1709-0024

Photographer
Underwater Photographer/Scuba Diver NV-1606-0013

Photographer's
Advanced Photographer's Mate School Class B NV-1709-0003
Photographer's Mate A (Aerial Cameraman) NV-1709-0001
Photographer's Mate G (Cameraman) NV-1709-0001
Photographer's Mate School Class A NV-1709-0037
Photographer's Mate School Class B NV-1709-0003
Photographer's Mate School, Class A NV-1709-0001
Photographer's Mate School, Class A, Basic NV-1709-0001

Photographic
EH-38D Photographic Quality Control/Maintenance NV-1709-0023
EH-73 Photographic Quality Control Maintenance (Kodak Ektachrome RT Processor Quality Control Maintenance) NV-1709-0022
IOIC Photographic Processing Officer NV-1709-0013
IOIC Photographic Processing/Maintenance NV-1709-0008
Metrical Photographic Interpretation NV-1709-0014
Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer NV-1709-0025
Photographic Electronics Systems, Class C NV-1715-0354
Photographic Equipment Maintenance NV-1715-0160
Photographic Equipment Maintenance and Repair, Class C NV-1715-0160
Photographic Equipment Preventive/Operational Maintenance NV-1709-0019 NV-1709-0028
Photographic Equipment Repair, Class C NV-1715-0160
Photographic Equipment Repair, Class C-1 NV-1709-0029
Photographic Intelligenceman (PT) NV-1606-0030
Photographic Interpretation/Radar Target Analysis NV-1606-0030
Photographic Laboratory Technician C1 NV-1709-0018
Photographic Officers Class O NV-1709-0002
Photographic Quality Control NV-1709-0033
Photographic Reconnaissance Class O NV-1709-0004
Photographic Reconnaissance Officers, Class O NV-1709-0004
RA-5C Photographic Electronics Fundamentals NV-1715-0152
RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance NV-1715-0751
Special Photographic Course for Non-Photographic Personnel, Class C NV-1709-0005
Strategic Photographic Interpretation NV-1709-0012
Tactical Photographic Interpretation NV-1709-0011

Photography
Advanced Photography Training NV-1709-0030
Color Photography C1 NV-1709-0035
Illustrative Photography C1 NV-1709-0017
Illustrative/Architectural Photography NV-1709-0032
Intelligence Photography NV-1709-0038
Medical Photography Technic NV-1709-0016
Medical Photography Technician, Class C NV-1709-0016
Periscope Photography NV-1709-0020
Still Documentary Photography NV-1709-0031
Still Documentary Photography C1 NV-1709-0010

Physical
Intermediate Level Calibration of Physical/Dimensional Test and

Measuring Systems Phases B/D NV-1715-1495
Physical and Occupational Therapy Technic NV-0704-0002
Physical and Occupational Therapy Technician, Class C NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II NV-0704-0002
Physical Therapy Technic NV-0704-0002
Physical Therapy Technician, Class C NV-0704-0002
Sensitive Compartmented Information (SCI) Administration and Physical Security NV-1728-0022

Physician's
Physician's Assistant NV-0709-0012

Physiology
Aerospace Physiology Technician NV-0709-0004

Pilot
A-3 S-5 Auto Pilot Maintenance NV-1704-0198
Advanced Phase, Pilot Training NV-1606-0050
Antisubmarine Warfare (ASW) Tactics—First Tour VP Pilot NV-2202-0043
Antisubmarine Warfare (ASW) Tactics—VS Pilot/Naval Flight Officer NV-2202-0042
Basic Phase, Pilot Training NV-1606-0049
E-1B Aircraft Pilot Training NV-1606-0053
E-2B Aircraft Pilot Training NV-1606-0054
First Tour Pilot P-3C Communications Operator NV-1704-0213
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736
Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator) NV-1606-0045
Primary Phase, Basic Pilot Training NV-1606-0048
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7 NV-1715-0472
VP CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0040
VP Pilot P3A/B NV-2202-0043
VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer NV-1606-0066
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft NV-2202-0042
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft NV-2202-0043

Pilots
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D) NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
C-2A Aircraft Familiarization (Pilots) NV-1704-0121
E-2A Aircraft Familiarization (Pilots) NV-1704-0054
P-3 Aircraft Familiarization (Pilots) NV-1704-0039
Pilots C-121 Simulator and Advanced Flight NV-1606-0034
Pilots C-121 Simulator and Basic Flight NV-1606-0035

Pipe
High Pressure Pipe Welders NV-1710-0051
Pipe Welders NV-1710-0050

Pipefitters
Shipfitters, Class A (Pipefitters) NV-1710-0041

Plane
A-6 Plane Captain NV-1704-0118
RA-5C Plane Captains Organizational Maintenance NV-1717-0002
SP-2E Systems Familiarization, Plane Captains NV-1704-0107
SP-2H Systems Familiarization, Plane Captains NV-1704-0082

Planning
Amphibious Planning NV-2202-0031
Battalion Staff Officers (Amphibious Planning) NV-2202-0025
Engineering Aid, Class C, Planning and Estimating NV-1408-0012
EA "C" Planning and Estimating NV-1408-0012
Planning and Estimating Construction Group Ratings, Class C NV-1408-0012
Shore Facilities Planning NV-1408-0017

Plant
AD "A" (A7) Power Plant System NV-1704-0249
AD "A" (P-3) Power Plant System Class A1 NV-1715-1026
Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
Centrifugal Air Conditioning Plant Operation and Maintenance, Class C1 NV-1701-0006
EC-130 Power Plant and Related Systems Maintenance NV-1704-0280
FFG-7 Electric Plant Operations G5 NV-1710-0099
FFG-7 Electrical Plant Control Console Operator Electrical Maintenance NV-1714-0039
FFG-7 Electrical Plant Control Console Operator Mechanical Maintenance NV-1714-0040
Lithium Bromide Plant Maintenance NV-1701-0007
MMG-1A Mobile Electric Power Plant Intermediate Maintenance NV-1714-0038
Nuclear Power Plant Welder NV-1710-0114
Nuclear Power Plant Welder Requalification NV-1732-0019
Nuclear Propulsion Plant Refresher Training NV-1732-0015
NC-8A Mobile Electric Power Plant Intermediate Maintenance NV-1732-0007
S-3A Power Plant and Related Systems Organizational Maintenance NV-1704-0287
Steam Generating Plant Inspector NV-1732-0001
Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074
Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072
Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073
SH-60B Power Plant and Related Systems Organizational Maintenance NV-1704-0293
1200 PSI Steam Generating Plant Operator NV-1710-0075

Plate
Plate Welders, Class C NV-1710-0044

Platform
Inertial Platform Test Station (IPTS) Intermediate Maintenance NV-1715-1207

Plotter
Mk NC-2 Plotter Mod 0 Maintenance, Class C NV-1715-0082
Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C NV-1715-0075
Mk NC-2 Plotter Mod 2/2A Maintenance, Class C NV-1715-0076
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117

Plotting
Mk NC-2 Mod 2/2A Plotting System Maintenance NV-1715-1339

Pneumatic
A-7A/B Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0190
A-7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0013
A-7E Hydraulic, Pneumatic and Airframe Systems Organizational Maintenance NV-1704-0013
Trident Pneumatic Subsystem Maintenance NV-1704-0317

Point
Basic Point Defense Officer NV-1715-0570
Basic Point Defense Surface Missile System NV-1715-0778

Polaris
Missile Technician Mk 84 Polaris (A-3) NV-1715-0607
Missile Technician Polaris NV-1715-0574
Missile Technician Polaris Conversion NV-1715-0880
Missile Technician Polaris, 598/608 Class NV-1715-0574
Missile Technician, Class C (1), Polaris NV-1715-0574
MTC1 Polaris Missile Technician Maintenance, Class C NV-1715-0574
Polaris A3 Missile Advanced Training NV-1715-0909
Polaris Electronics, Class A NV-1715-0705
Polaris Loran "C" Advanced Training NV-1715-0899
Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893
Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894
Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1 NV-1715-0911
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915
Strategic Weapons System (SWS) Command Polaris NV-1715-0573
Strategic Weapons System (SWS) Weapons Officer Polaris NV-1715-0606
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
SSBN Mk 84 Polaris Weapons Officer NV-1715-0577

Policy
Naval War College Correspondence Course in Strategy and Policy NV-1511-0004 NV-1511-0011
Strategy and Policy (College of Naval Command and Staff) NV-1511-0013
Strategy and Policy (College of Naval Warfare/Naval Command College) NV-1511-0012
Strategy and Policy Nonresident Seminar NV-1511-0025
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

Portable
AN/ASM-33B AN/ASM-122 Portable Module Test (PMT) Intermediate Maintenance NV-1715-1211

Portraiture
Portraiture NV-1709-0034

Poseidon
Missile Technician Poseidon NV-1715-1127
Missile Technician Poseidon Logistics NV-1715-0470
Missile Technician Poseidon Replacement NV-1715-1127
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1 NV-1715-0911
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915
Poseidon Intermediate Level Missile Maintenance Technician NV-1715-1125
Poseidon Missile Technician NV-1715-0604
Poseidon Missile Technician Conversion (A-2/A-3 to C-3) NV-1715-0576
Poseidon Mk 3 Renetry System Tender Transfer and Handling NV-2203-0143
Poseidon Trident 1 Backfit Intermediate Level Fire Control Technician FCS 88 Mod 1/2 NV-1715-1129
Ships Inertial Navigation System (SINS) Technician Poseidon Replacement NV-1715-0066
Strategic Weapon System Command Poseidon Weapons Officer NV-1715-1395
Strategic Weapons System Assistant Weapons Officer Poseidon NV-2202-0142
Strategic Weapons System Officer Poseidon NV-2202-0141

Position
Hovering and Missile Compensation and Associated Position Control Units (PCU's) Electrical Maintenance NV-1715-1311

Postal
Postal Clerk, Class A NV-1404-0001

Postgraduate
Advanced Navigation Training (Postgraduate Coast Guard Aviator) NV-1606-0033
Advanced Navigation Training (Postgraduate Naval Aviator) NV-1606-0032

Power
A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance NV-1704-0170
A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097
A-6A Power Plants and Related Systems Organizational Level Maintenance NV-1704-0164
A-7A/B Power Plant and Related Systems Organizational Maintenance NV-1704-0135
A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance NV-1704-0135
A-7B/TA-7C Power Plant and Related Systems Organizational Maintenance NV-1704-0135
A-7E Power Plant and Related Systems Organizational Maintenance NV-1704-0140
Advanced Nuclear Power NV-1732-0003
Alternating Current Power Systems NV-1715-0490
Aviation Machinist's Mate Class A (S-3A) Power Plant Systems NV-1703-0014
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-10B/C Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
AD "A" (A7) Power Plant System NV-1704-0249
AD "A" (P-3) Power Plant System Class A1 NV-1715-1026
AH-1J Power Plant and Related Systems Organizational Maintenance NV-1704-0162
Basic Nuclear Power NV-1732-0002
C-2A Power Plant and Related Systems Organizational Maintenance NV-1704-0127
Construction Electrician—Power and Communications Cable Splicing NV-1714-0015
E-1B Power Plants and Related Systems Organizational Maintenance NV-1704-0227
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ

Intermediate Maintenance
NV-1715-0746

E-2A Power Plant and Related Systems Maintenance No. 8
NV-1704-0152

E-2A Power Plant and Related Systems Organizational Maintenance
NV-1704-0151

Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount
NV-2202-0075

Electrician's Mates, Class A, Part II Power and Lighting Equipment
NV-1714-0012

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30)
NV-1715-0027

EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance
NV-1704-0222

EC-130 Power Plant and Related Systems Maintenance
NV-1704-0280

F-14A Power Plant and Related System Organizational Maintenance Technician (Crew Member)
NV-1704-0212

F-4B/J Power Generating System Intermediate Maintenance
NV-1704-0189

F-8 Power Plants and Related Systems
NV-1704-0180

F/RF-4B Power Generating System Maintenance
NV-1715-0682

F/RF-4B/J J79-GE-8/10 Power Plant Organizational Maintenance
NV-1704-0188

F/RF-4B/J Power Plant and Related Systems Maintenance
NV-1704-0182

H-53 Power Plants and Related Systems Organizational Maintenance
NV-1704-0168

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount
NV-1715-0147

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance
NV-1715-0654

MMG-1A Mobile Electric Power Plant Intermediate Maintenance
NV-1714-0038

Nuclear Power Plant Components Welder, Class C1
NV-1710-0069

Nuclear Power Plant Welder
NV-1710-0114

Nuclear Power Plant Welder Requalification
NV-1732-0019

NC-8A Mobile Electric Power Plant Intermediate Maintenance
NV-1732-0007

P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance
NV-1715-0659

QH-50D Airframe, Power Plant and Related Systems Organizational Maintenance
NV-1704-0052

RA-5C Power Plants and Related Systems
NV-1704-0045

RA-5C Power Plants and Related Systems Organizational Maintenance
NV-1704-0045

S-2D/E Power Plant and Related Systems Maintenance
NV-1704-0171

S-3A Power Plant and Related Systems Organizational Maintenance
NV-1704-0287

Submarine Main Power Generating Equipment
NV-1714-0053

Submarine Main Power Generator
NV-1732-0012

SH-2 Aviation Machinist's Mate Power Plant System
NV-1704-0289

SH-2F Power Plants, Related Systems and Rotor Systems Organizational Maintenance
NV-1704-0172

SH-3 Aviation Machinist's Mate Class A Power Plant Systems
NV-1704-0297

SH-3 Power Plants and Related Systems Organizational Maintenance
NV-1704-0139

SH-3A Power Plants and Related Systems Maintenance
NV-1704-0134
NV-1704-0144

SH-3A/G Power Plants and Related Systems Organizational Level Maintenance
NV-1704-0146

SH-3D/H Power Plants and Related Systems Organizational Maintenance Course
NV-1704-0139

SH-60B Power Plant and Related Systems Organizational Maintenance
NV-1704-0293

SH/HH-2D Power Plant and Related Systems Organizational Maintenance
NV-1704-0172

T-2C Power Plants and Related Systems Maintenance
NV-1704-0169

UH-1N Power Package Organizational Maintenance
NV-1704-0204

UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance
NV-1704-0176

UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance
NV-1704-0141

UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance
NV-1704-0061

Welding for Nuclear Power Plant Operators, Course V
NV-1710-0046

WR-27 Auxiliary Power Unit Intermediate Maintenance
NV-1704-0296

60/400 Hz Power Converter Maintenance, Class C1
NV-1715-0301

Powertrain

AH-1J Powertrain and Rotors Organizational Maintenance
NV-1704-0153

UH-1N Powertrain and Rotors Organizational Maintenance
NV-1704-0175

Pre-flight

Pre-flight, Naval Aviation Cadets and Aviation Officer Candidates
NV-1606-0046

Pre-flight, Officer
NV-1606-0047

Preamplifier

AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/Spherical Array, Passive Beamforms (SAPB) Maintenance
NV-1715-1316

Precision

AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance
NV-1715-1320

Precision Grinding and Balancing Class C1
NV-1736-0002

Preparation

Advanced Food Preparation
NV-1729-0017

Flight Preparation, Officer
NV-1606-0047

Preparatory

Aviation Fleet Preparatory Course I and II
NV-1606-0058

Aviation Fleet Preparatory Course I and II, Class P
NV-1606-0051

Communications Technician T and R Basic Preparatory, Class A
NV-1404-0004

Cryptologic Technician T, Class A3 Preparatory
NV-1715-0837

Cryptologic Technician Technical Basic Preparatory, Class A
NV-1715-0837

Naval Preparatory School
NV-2202-0007

Preparedness

Staff Disaster Preparedness Officer
NV-0801-0002

Pressure

I/R High Pressure Air Compressor Combined Maintenance
NV-1601-0030

Pressure Fired Boiler Operator, Class C
NV-1710-0003

Pressure Fired Steam Generator Console Operator
NV-1710-0003

Pressure Hull Welders
NV-1710-0049

Remote Pressure/Tank Level/Liquid Airflow Indicating Equipment Maintenance
NV-1715-1305

Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted
NV-1710-0025

Pressurization

P-3 Air Conditioning, Pressurization and

Utilities Systems Organizational Maintenance
NV-1701-0001

Preventive
Photographic Equipment Preventive/Operational Maintenance
NV-1709-0019
NV-1709-0028
Preventive Medicine Technic
NV-0707-0001
Preventive Medicine Technician
NV-0707-0001
Preventive Medicine Technician Class C
NV-0707-0002
Preventive Medicine Technician, Class C
NV-0707-0001
Radarman, Class A, Basic Preventive Maintenance and Operators
NV-1715-0401

Primary
Primary Phase, Basic Pilot Training
NV-1606-0048

Processing
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1
NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators
NV-1715-0869
Integrated Submarine Automated Broadcast Processing System
NV-1402-0132
IOIC Photographic Processing Officer
NV-1709-0013
IOIC Photographic Processing/Maintenance
NV-1709-0008
Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator
NV-1402-0100
Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer
NV-1709-0025
Naval Intelligence Processing System (NIPS) System Maintenance
NV-1402-0099
Processing and Reporting
NV-1715-0821
NV-1715-0822
Reserve Cryptologic Technician Processing and Reporting, Phase I
NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II
NV-1715-0822
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance
NV-1715-1354
Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator
NV-0505-0001

Processor
AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance
NV-1715-1320
Computer CP-890 A&B/UYK Processor Maintenance I
NV-1402-0141
Computer DP-890A and B/UYK Processor Maintenance II
NV-1402-0080
Cryptologic Technician M-Universal Cryptologic Processor Wideband Subsystem Maintenance, Class C
NV-1402-0070
Cryptologic Technician M, Universal Cryptologic Processor Maintenance
NV-1402-0069
Radio Navigation Set AN/BRN-3B Data Processor Maintenance
NV-1402-0142
Synchronous Distributed Processor II
NV-1715-1112

Procurement
Recruit Procurement, Class C
NV-1406-0010

Production
Cinema Television/Production Specialist
NV-1709-0027

Programmed
Programmed Instruction Techniques
NV-1406-0006
Programmed Instruction Writer
NV-1406-0005

Programmer
A-6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance
NV-1715-0074
Cryptologic Technician (R) AN/GYK-3 CP-813 and AN/UYK-3 CP-771 HFDF Computer Programmer
NV-1402-0049
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance
NV-1715-0348
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1
NV-1715-0884
Naval Tactical Data System (NTDS) Basic Programmer (Operational)
NV-1402-0002
Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1)
NV-1402-0004
OQ-35A/ASM-347 (V) Programmer Comparator Intermediate Maintenance
NV-1715-1412
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance
NV-1715-0238
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance
NV-1715-0176
Storage and Retrieval Data Processing (DP) Operator and Programmer
NV-1402-0035
TS-2109/ASA-48 Semi-Automatic Checkout Equipment (SACE) Programmer Intermediate Maintenance
NV-1715-1206

Programmers
Instructional Programmers (Class C)
NV-1406-0005

Programming
(AN/USQ-20 Machine Language Programming)
NV-1402-0019
AN/USQ-20 Basic Programming
NV-1402-0002
AN/UYK-7 CMS-2 (Y) Compiler Language Programming
NV-1402-0046
Basic Programming Concepts, Class C
NV-1402-0021
Basic Programming Orientation for Middle Management
NV-1402-0015
Computer Programming AN/USQ-20 Machine Language - Basic
NV-1402-0019
Computer Programming AN/UYK-20 Assembler Language - Basic
NV-1402-0096
Computer Programming AN/UYK-7 Assembler Language - Basic
NV-1402-0095
Computer Programming AN/UYK-7 CMS-2 (Y) Compiler Language Basic
NV-1402-0046
Computer Programming Orientation
NV-1402-0014
Computer Programming USQ-20 Compiler Language - Basic
NV-1402-0094
CMS-2 Compiler Language Programming
NV-1402-0017
CMS-2 Programming (CP-642 A&B/USQ-20)
NV-1402-0009
IBM System 360 Computer System Programming (COBOL Language), Class C
NV-1402-0007
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language)
NV-1402-0033
Programming, Naval Tactical Data Systems (NTDS) Operational (Officer and Enlisted)
NV-1402-0031
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C
NV-1402-0030

Projection
Motion Picture Projection System Maintenance, Class C
NV-1715-0660

Prop
Basic Prop Flight Instructor
NV-1606-0018
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft)
NV-1606-0020
Prospective Prop Flight Instructor
NV-1606-0020
Prospective VA (Prop) Tactical Flight Instructor
NV-1606-0040

Propeller
Controllable Pitch Propeller, Class C
NV-1704-0174

Engineman Class C, Controllable Pitch Propeller NV-1704-0174
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023
KAMEWA Controllable Pitch Propeller Maintenance NV-1710-0106
KC-130F Propeller Intermediate Maintenance NV-1704-0193
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance NV-1704-0029
T56-A-8/8A Engine and A6441FN-248 Propeller NV-1704-0029
54H60-77 Propeller Intermediate Maintenance NV-1704-0248

Property
Personal Property Traffic Management NV-0419-0011

Propulsion
Automated Propulsion System Maintenance NV-1710-0090
Automated Propulsion System Operator, Class C NV-1710-0056
Basic Propulsion Engineering, Class A NV-1715-0714
Boiler Technician Steam Propulsion Maintenance Supervisor NV-1710-0109
DD-963 Main Propulsion Assistant NV-1704-0267
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023
FFG-7 Main Propulsion Assistant NV-1704-0268
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators NV-1710-0101
FFG-7 Propulsion Systems Monitor NV-1704-0299
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023
LST 1182 Propulsion Technician, Class C1 NV-1703-0007
Machinist's Mate Steam Propulsion Maintenance Supervisor NV-1704-0319
Nuclear Propulsion Plant Operators Welding NV-1710-0046
Nuclear Propulsion Plant Refresher Training NV-1732-0015
Propulsion Alarm and Indicating Systems Maintenance NV-1710-0089
Propulsion Engineering Basics, Class AP NV-1704-0263
Propulsion Shaft Components NV-1710-0057
Propulsion Shaft Components Combined Maintenance NV-1710-0057
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel) NV-1732-0014
Surface Warfare Officer Specialty Course Steam Main Propulsion Assistant NV-1710-0093
1182 Propulsion System Technician NV-1712-0025

Prospective
Prospective Advanced Navigation Flight Instructor NV-1606-0038
Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft) NV-1606-0020
Prospective Electronics Material Officer—Pacific Fleet, Class C2 NV-1715-0816
Prospective Engineer Officers NV-1717-0006
Prospective Engineering Officer Orientation NV-1710-0013
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft) NV-1606-0020
Prospective Officer of the Deck NV-1722-0008
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor NV-1606-0037
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor NV-1606-0041
Prospective Prop Flight Instructor NV-1606-0020
Prospective TA-4J Flight Instructor NV-1606-0021
Prospective TF/TAF-9J Flight Instructor NV-1606-0039
Prospective VA (Prop) Tactical Flight Instructor NV-1606-0040

Prosthetic
Dental Prosthetic Technician School, Class C NV-0701-0007
Dental Technician, Advanced Prosthetic, Class B NV-0701-0003
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001
Dental Technician, Prosthetic (Class C) NV-0701-0007
Dental Technician, Prosthetic, Advanced, Class B NV-0701-0003
Dental Technician, Prosthetic, Class C NV-0701-0007

Prototype
Prototype Ocean Surveillance Terminal User NV-1402-0118

Public
Civil Engineer Corps Officer Basic—Public Works Management Specialty NV-1408-0014
Public Quarter/Flag Operations NV-0401-0002

Pulse
AN/ULA-2 Pulse Analyzer Group Intermediate Maintenance NV-1715-1016
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

Pump
General Pump Maintenance NV-1710-0070
Pump Maintenance NV-1710-0091

Purchase
Navy Purchase NV-1405-0005

Purifier
Main Engine and Lube Oil Purifier NV-1601-0027

PAIR
AN/SQQ-23 PAIR Operations Basic NV-1715-1501
Sonar AN/SQQ-23 (PAIR) Operator Basic NV-1715-0860
Sonar AN/SQQ-23A (PAIR) Organizational Maintenance NV-1715-0859
Sonar AN/SQQ-23A PAIR Organizational Maintenance NV-1715-1279

PB-20N
P-3 PB-20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
P-3 PB-20N Autopilot System Intermediate Maintenance NV-1715-0462

PDP-11/70
Universal Cryptologic Processor Training PDP-11/70 Maintenance NV-1402-0108

PG
Patrol Gunboat/PG/Engineering Systems Operator and Maintenance NV-1712-0018

PHIBLANT
PHIBLANT Petty Officer Leadership NV-2202-0091

PMDS
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance NV-1715-0529

PT-396/AS
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117

PUFS
Sonar Receiving Set AN/BQG PUFS Maintenance NV-1715-0261
Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261

P3A/B(D)
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
Electronic Warfare for Nonacoustic Operator, P3A/B(D) NV-1715-0020
RADAR/MAD for Nonacoustic Operator P3A/B(D) NV-1715-0678

Qualification
Air Intercept Controller, Conventional Qualification NV-2202-0131
Supply Corps Officer–Basic Qualification NV-1405-0019

Quality
Communications Quality Monitoring System Operator NV-1715-0690
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators NV-1715-0869
EH-38D Photographic Quality Control/Maintenance NV-1709-0023
EH-73 Photographic Quality Control Maintenance (Kodak Ektachrome RT Processor Quality Control Maintenance) NV-1709-0022
Photographic Quality Control NV-1709-0033

Quarry
Equipment Operators/Blasting and Quarry Operations, Class C NV-1710-0064
EO "C" Blasting and Quarry Operations NV-1710-0064

Quarter
Public Quarter/Flag Operations NV-0401-0002

Quartermaster
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Advanced Submarine Quartermaster School NV-1708-0003
Basic Quartermaster NV-1708-0005
NV-2202-0076
Basic Quartermaster, Enlisted NV-1708-0004
Basic Submarine Quartermaster, Class A NV-1722-0007
Senior Quartermaster Refresher NV-2202-0150

Quarters
Bachelor Quarters Management NV-0401-0001

QH-50C
QH-50C Airframe and Related Systems Intermediate Maintenance NV-1704-0051
QH-50C Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0418
QH-50C Weapons System Intermediate Electronics Maintenance NV-1715-0568

QH-50D
QH-50D Airframe and Related System Intermediate Maintenance NV-1704-0052
QH-50D Airframe, Power Plant and Related Systems Organizational Maintenance NV-1704-0052
QH-50D Operational Telemetry Maintenance NV-1715-0592
QH-50D Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0417
QH-50D Weapons System Electronic Intermediate Maintenance NV-1715-0633

R-11
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance NV-1701-0004

R-114
R-114 Air Conditioning System York 150 Ton NV-1701-0009
R-114 York 200 Ton Air Conditioning Technician NV-1701-0012

R-12
R-12 SS 4K Combined Maintenance NV-1730-0003
Ship's Stores Refrigeration System R-12 Combined Maintenance NV-1730-0009
Ships Stores Refrigeration R-12/York/Combined Maintenance NV-1730-0003
Submarine Refrigeration and Air Conditioning R-12 NV-1730-0003

R-1524(P)/WRR
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance NV-1715-0028

Race
Intercultural Relations—Race Relations Specialist Training NV-1512-0001

Radar
A-3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363
A-4C/E AN/APG-53A Radar Maintenance NV-1715-0280
A-4C/E/F AN/APG-53A Radar Intermediate Maintenance NV-1715-0280
A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406
A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302
A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
A-6 Search Radar Module Analyzer Test Console NV-1715-0530
A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429
A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435
A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
A-7 AN/APQ-116 Radar Set Intermediate Maintenance NV-1715-0408
A-7A/B AN/APQ-116 Radar Set Organizational Maintenance NV-1704-0251
A-7E AN/APQ-126 Radar Set Intermediate Maintenance NV-1715-0260
Aegis Radar System AN/SPY-1A Operation and Maintenance NV-1715-1118
NV-1715-1303
Air Controlman (Radar), Class A NV-1704-0010
Air Traffic Control Maintenance AN/FPN-63(V) Precision Approach Radar, Class C1 NV-1715-0960
Air Traffic Control Maintenance, Radar Set AN/CPN-4A NV-1715-0961
Airborne Radar Intercept Operator NV-1715-0635
An/USM-467 Radar Communications Test Station Maintainer Intermediate Maintenance NV-1715-1418
Aviation Electronics Technician R (Radar), Class A NV-1715-0295
AN/ALR-50(V) Radar Receiver Intermediate Maintenance NV-1715-0938
AN/APD-7 Side Looking Radar Intermediate Maintenance NV-1715-0248
AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course NV-1715-1419
AN/APM-375 Mini-SACE Search Radar

Test Console Intermediate Maintenance NV-1715-0941
AN/APN-130 Radar Navigation Set Intermediate Maintenance NV-1715-0553
AN/APN-141(V) Radar Altimeter Intermediate Maintenance NV-1715-1031
AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance NV-1715-0507
AN/APN-154(V) Radar Beacon Intermediate Maintenance NV-1715-0584
AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance NV-1715-0359
AN/APN-171(V) Radar Altimeter (Low Level) and AN/APQ-107 Radar Altimeter Warning Set Intermediate Maintenance NV-1715-0493
AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance NV-1715-0493
AN/APN-182(V) Radar Navigational Set Intermediate Maintenance NV-1715-0583
AN/APN-190(V) Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
AN/APQ-124A Radar Set Intermediate Maintenance NV-1715-0428
AN/APQ-126 (V) Radar Set Intermediate Maintenance NV-1715-0260
AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance NV-1715-0513
AN/APQ-126(V) Radar Set Special Support Equipment Intermediate Maintenance NV-1715-0513
AN/APQ-148/156 Search Radar Intermediate Maintenance NV-1715-0945
AN/APS-115 Search Radar System Intermediate Maintenance NV-1715-0516
AN/APS-115(B) Search Radar System Intermediate Maintenance NV-1715-0516
AN/APS-116 Search Radar and Peculiar Ground Support Equipment Intermediate Maintenance NV-1715-1191
AN/APS-20E Radar System Maintenance NV-1715-0484
AN/APS-38B Radar System Maintenance NV-1715-0485
AN/APS-82 Radar System Intermediate Maintenance NV-1715-0287
AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511
AN/APX-72 Radar Identification System Intermediate Maintenance NV-1715-0591
AN/ASB-1A Radar Sub-System Intermediate Maintenance NV-1715-0226
AN/BPS Radar Combined Maintenance NV-1715-1363
AN/BPS-12, 13, 14 Radar System Maintenance NV-1715-0312
AN/BPS-13 Radar Maintenance NV-1715-0312
AN/BPS-14 Radar Combined Maintenance NV-1715-1459
AN/BPS-15 Radar Combined Maintenance NV-1715-0491
AN/GPN-27 Airport Surveillance Radar Maintenance Class C NV-1715-1188
AN/SPA-25/-25(B) Radar Indicator and SB-1505 Switchboard Maintenance NV-1715-0029
AN/SPA-25G Radar Indicator Group Maintenance NV-1715-1337
AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences NV-1715-0790
AN/SPA-50, AN/SPA-50B Radar Indicator Maintenance NV-1715-1096
AN/SPA-66 Radar Indicator Maintenance NV-1715-1094
AN/SPG-53A Radar Maintenance NV-1715-0283
AN/SPG-53F Modified Radar Maintenance NV-1715-1066
AN/SPG-55B Mod 9 Radar Difference NV-1715-1386
AN/SPS-T3 Radar Trainer Class C Maintenance NV-1715-0199
AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0756
AN/SPS-29E Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0749
AN/SPS-39 Radar Set NV-1715-0233
AN/SPS-39A Radar Operation and Maintenance (AN/SPS-39 Radar Maintenance) NV-1715-0233
AN/SPS-39A Radar Set NV-1715-0233
AN/SPS-40 Radar System NV-1715-0557
AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0809
AN/SPS-40B/C/D DMTI Radar Set Maintenance NV-1715-1351
AN/SPS-40B/C/D Radar Set Difference Maintenance NV-1715-0745
AN/SPS-40B/C/D Radar Set Maintenance NV-1715-0809
AN/SPS-40E Air Search Radar Set Maintenance NV-1715-1335
AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0790
AN/SPS-48 Radar Set NV-1715-0304
AN/SPS-48(V) Radar Maintenance NV-1715-1056
AN/SPS-48C Radar NV-1715-1133
AN/SPS-48C Radar Difference NV-1715-1059
AN/SPS-49(V) Radar Set Maintenance NV-1715-1093
AN/SPS-52 Radar Set NV-1715-0524
AN/SPS-52C Radar Set Maintenance NV-1715-1268
AN/SPS-55 Radar Set Maintenance NV-1715-1095
AN/SPS-58A Radar Maintenance NV-1715-1057
AN/SPS-64(V)9 Radar Set Maintenance NV-1715-1333
AN/SPS-65(V)1 Radar Set Maintenance NV-1715-1097
AN/SPS-67(V)1 Radar Set Maintenance NV-1715-1332
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1 NV-1715-1435
AN/USM-467 Radar Communication Test Station Operator Intermediate Maintenance NV-1715-1417
Bright Radar Indicator Tower Equipment Maintenance, Class C NV-1715-0276
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C NV-1715-0236
E-1B AN/APS-82 Radar System Maintenance NV-1715-0287
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672
E-2B AN/APS-96 Radar Organizational Maintenance NV-1715-1203
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296
Electronics Technician AN/SPS-40 Radar Set Maintenance NV-1715-0557
Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance NV-1715-0006
Electronics Technician Radar Basic NV-1715-0854
Electronics Technician Radar Equipment Fundamentals, Class A1 NV-1715-0855
Electronics Technician Radar—Nuclear Field, Class A1 NV-1715-0856
Electronics Technician Radar, Class A1 NV-1715-0854
Electronics Technician, Class A

(Communications, Radar and Sonar Specialties) NV-1715-0727
Electronics Technician, Class A (Radar) NV-1715-0731
Electronics Technician, Class A—A-3 (Radar) NV-1715-0725
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638
Electronics Technician, Class C, AN/SPS-29 Radar Set NV-1715-0024
Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician, Class C, AN/SPS-8 Radar Maintenance NV-1715-0305
Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar) NV-1715-0638
EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
F-4B AN/APA-157 Radar Set Group Intermediate Maintenance NV-1715-0257
F-4B AN/APQ-72 Radar Set Intermediate Maintenance NV-1715-0430
F-8 AN/APQ-124 Radar Intermediate Maintenance NV-1715-0428
F-8 AN/APQ-83B Radar Intermediate Maintenance NV-1715-0214
F-8 AN/APQ-94 Radar Intermediate Maintenance NV-1715-0365
F-8 AN/APR-30(V) Radar Set Intermediate Maintenance NV-1715-0116
Fleet Replacement Radar Navigator NV-1606-0036
F8 AN/APQ-83A Radar Intermediate Maintenance NV-1715-0206
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C NV-1715-0217
Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C NV-1715-0079
Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C NV-1715-0078
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C NV-1715-0081
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670
Gun Fire Control Radar Mk 25 Mod 3 Maintenance NV-1715-0127
Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance NV-1715-0210
Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210
Gun Fire Control System (GFCS) Mk 86 Mods 8,9,10 Radar NV-1715-1228
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
GFCS) Mk 86 Radar Group Equipment Maintenance NV-1715-1289
Integrated Avionics Radar System Technician NV-1715-0035
KC-130F AN/APN-59 Radar Maintenance NV-1715-0036
KC-130F AN/APN-59B Radar Intermediate Maintenance NV-1715-0041
LN-66HP Radar Intermediate Maintenance NV-1715-1202
Marine Air Traffic Control Radar Technician Class C1 NV-1715-0965
Marine Air Traffic Control Radar Technician, Class C1 NV-1715-1443
Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038
Marine Corps Surveillance Radar, Class C1 NV-1715-0964
Mk 68 Gun Director and AN/SPG-53F Radar Maintenance NV-1715-0239
P-3 AN/APS-80 Search Radar System Maintenance, 49 NV-1715-0695
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance NV-1715-0118
P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511
P-3 Radar and IFF Systems Organizational Maintenance NV-1715-0114
P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance NV-1715-0640
P-3C Sensor Station Three (Radar/Display)Technician Organization Maintenance NV-1715-0640
P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance NV-1715-0640
Photographic Interpretation/Radar Target Analysis NV-1606-0030
Radar (Target) Intelligence NV-1709-0015
Radar Air Traffic Control Facility Operations Class C1 NV-1704-0244
Radar AN/BPS-12, 13, 14 Combined Maintenance NV-1715-0312
Radar Mk 25 Mod 3 Maintenance NV-1715-0129
Radar Repeater Systems Maintenance (Electronics Technician, Class C1) NV-1715-0029
Radar Set AN/SPG-51D Gun and Guided Missile Director Mk 73 Mod 2 and Ancillary Equipments Operation and Maintenance NV-1715-1035
Radar Set AN/SPG-53F (Modified) Operational Maintenance NV-1715-1180
Radar Set AN/SPG-53F With AN/SPG-53A Differences Maintenance C1 NV-1715-0239
Radar Set AN/SPG-55B Terrier Operation and Maintenance NV-1715-1124
Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0402
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods 1-5 NV-1715-0403
RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance NV-1715-0248
RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance NV-1715-0248
RF-4B AN/APN-159 Radar Altimeter Maintenance NV-1715-0223
RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance NV-1715-0399
RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance NV-1715-0415
S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance NV-1715-0422
S-2D/E AN/APS-88/88A Radar Set Maintenance NV-1715-0438
Submarine Radar Maintenance (Enlisted) NV-1715-0061
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance NV-1715-0237
SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course NV-1715-0671
Talos Radar AN/SPG-49B, Class C NV-1715-0282
Talos Radar AN/SPW-2B NV-1715-0793
Talos Radar AN/SPW-2B, Class C NV-1715-0278

Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C NV-1715-0421
Tartar Radar AN/SPG-51C Digital NV-1715-0512
Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1 NV-1715-0512
Tartar Radar Test Set Mk 474 Mod 2 NV-1715-0396
Terminal Radar Approach Control Class C1 NV-1704-0244
Terrier AN/SPG-55B ASMD 70 Radar Update NV-1715-0801
Terrier AN/SPG-55B Mod 9 Radar Maintenance NV-1715-1122
Terrier ASMD-70 55B Radar Update NV-1715-0801
Terrier Radar AN/SPQ-5A NV-1715-0291
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693
Terrier Radar Set AN/SPG-55B Mod 5 NV-1715-0526
Terrier Radar Set AN/SPG-55B Mod 5 (Fleet Input) NV-1715-0597
3D Radar Search AN/SPG-39A NV-1715-0233
3D Radar Search AN/SPS-39A NV-1715-1390

Radarman
Class A Radarman School (Operational Course) NV-1715-0643
Radarman, Class A NV-1715-0643
Radarman, Class A, Basic Preventive Maintenance and Operators NV-1715-0401
Radarman, Class B NV-1715-0593
Radarman, Class B, Maintenance Phase NV-1715-0593
Radarman, Class B, Operational Phase NV-1715-0593

Radio
Airborne Radio Communications Operator (ARCO) NV-1715-0481
AN/ARC-143 and AN/ARC-143A UHF Radio Set Intermediate Maintenance NV-1715-0059
AN/ARC-161 HF Radio Set Intermediate Maintenance NV-1715-0058
AN/ARC-27 UHF Radio Set Intermediate Maintenance NV-1715-0351
AN/ARC-52 Radio Set Intermediate Maintenance NV-1715-0773
AN/ARC-94 Radio Transceiver Intermediate Maintenance NV-1715-0100
AN/BRD-7 Radio Direction Finder Set Combined Operator/Maintenance NV-1715-0449
AN/FRT-83, 84 and 85 Radio Transmitters Maintenance, Class C1 NV-1715-0325
AN/GRC-27A Radio Equipment Maintenance NV-1715-0106
AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1) NV-1715-0015
AN/SRC-20 Radio Transceiver NV-1715-0089
AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1) NV-1715-0088
AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1 NV-1715-0810
AN/SRN-19(V)2 Radio Navigation Set Maintenance NV-1715-1341
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1) NV-1715-0099
AN/SRN-9/18 Satellite Radio Navigation Sets Combined Maintenance NV-1715-1098
AN/SRN-9A, Radio Navigation Set, Operation and Maintenance NV-1715-0441
AN/URN-20 Radio Set Maintenance NV-1715-0193
AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/URT-23(V) Radio Transmitter Maintenance NV-1715-0531
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C NV-1715-0056
AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1) NV-1715-0010
AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1) NV-1715-0011
Basic Airborne Radio Communications Operator NV-1715-0481
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse NV-1715-0839
DD-963 Spruance Class Destroyer Radio Communications Systems Maintenance NV-1715-0870
E-1B ARC-97 Radio Repeater System Maintenance NV-1715-0195
E-2A AN/ARC-80 Radio Set Intermediate Maintenance NV-1715-0190
E-2A Radio Set AN/ARC-80 Intermediate Maintenance NV-1715-0190
Electronics Technician (Class C) AN/URC-58, AN/VRC-46 Radio Sets Maintenance NV-1715-0095
Electronics Technician AN/URN-20 Radio Set Class C Maintenance NV-1715-0193
Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance NV-1715-0088
Electronics Technician, AN/URC-9, AN/SRC-20, AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088
Electronics Technician, Class C, AN/SRN-9 Radio Navigation Set NV-1715-0099
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1 NV-1715-0911
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915
Radio Aids Unit (Device 1-D-5), Class C NV-1715-0372
Radio Communications System Maintenance for DD-963 Class Ships, Class C-1 NV-1715-0870
Radio Direction Finder AN/BRD-6 Combined Maintenance NV-1715-0903
Radio Direction Finder AN/BRD-6 Operational Maintenance NV-1715-0903
Radio Equipment Submarine Maintenance NV-1715-0885
Radio Frequency Distribution Maintenance C1 NV-1402-0109
Radio Frequency Switch Matrix System Maintenance C1 NV-1402-0111
Radio Navigation Set AN/BRN-3/3A Computer Advanced Training NV-1715-0925
Radio Navigation Set AN/BRN-3B Data Processor Maintenance NV-1402-0142
Radio Navigation Set AN/BRN-3B Maintenance NV-1715-1455
Radio Receiving Set AN/WRR-7 Verdin Combined Maintenance NV-1715-0980
Radio Transceiver AN/SRC-20 Maintenance NV-1715-0089
Radio Transceiver AN/WRC-1 Family Equipment NV-1715-0531
Radio Transmitting Set AN/URT-23 (V) Maintenance (Enlisted) NV-1715-0378

Radioactive
Radioactive Isotope Technic NV-0705-0002
Radioactive Isotope Technician, Class C NV-0705-0002

Radiographic
Nondestructive Testing of Metals Radiographic Inspector Class C1 NV-1724-0007
Nondestructive Testing of Metals Radiographic Operator NV-1724-0009
Radiographic Safety Officer NV-0802-0004

Radiography
Aircraft Maintenance Radiography School, Class C
NV-1704-0156

Radiological
Operational Water Chemistry and Radiological Controls
NV-0801-0009
Submarine Tender Radiological Controls
NV-1720-0001
Submarine Tender Radiological Controls (Enlisted)
NV-0705-0005

Radioman
Radioman Class A Sea Duty
NV-1404-0009
Radioman Class A Shore Duty
NV-1404-0008
Radioman, Class A
NV-1715-0595
Radioman, Class B
NV-1715-0317
Radioman, Class C7
NV-1715-0317
Submarine Radioman Electricity and Electronics
NV-1715-0316

Radiomen
Class B, Radiomen
NV-1715-0317

Radiosonde
Radiosonde Set Operator, Class C
NV-1606-0052
Rawin-Radiosonde Set Operator, Class C
NV-1606-0027

Range
CGN/SM-2 Medium Range Missile System Technician
NV-1715-1260

Ranging
AN/AAS-33A Detecting and Ranging Set Receiver Group/Reciprocating Compressor/Infrared Indicator Intermediate Maintenance Course
NV-1715-1411

Rapid
Gun Maintenance 5"/54 Caliber Rapid Fire Mk 42
NV-1715-0179
3"/50 Caliber Rapid Fire Gun Mount Maintenance
NV-2202-0085
5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1
NV-1715-0520

Rate
Basic Electronics Rate Training
NV-1715-1444

Rawin
Rawin Set Operator, Class C
NV-1606-0029
Rawin-Radiosonde Set Operator, Class C
NV-1606-0027

Reader
RD-293/UYK-5 Card Reader Punch Maintenance
NV-1715-0031

Readiness
Missile Test and Readiness Equipment Mk 7 Mod 4 Advanced Circuitry
NV-1402-0089

Receiver
A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance
NV-1715-0514
AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance
NV-1715-0054
AN/ALM-108 Surveillance Receiver Test Station AN/ALQ-99 Surveillance Receivers Intermediate Maintenance
NV-1715-0054
AN/ALR-50(V) Radar Receiver Intermediate Maintenance
NV-1715-0938
AN/ARC-131 Receiver Transmitter Intermediate Maintenance
NV-1715-0188
AN/ARN-52(V) TACAN Receiver Intermediate Maintenance
NV-1715-0519
AN/ARN-84(V) TACAN Receiver Intermediate Maintenance
NV-1715-0947
AN/AWG-10 Receiver, Intermediate Maintenance
NV-1715-0350
AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1)
NV-1715-0814
Communications Receiver Site Systems Maintenance, Class C1
NV-1715-0356
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance
NV-1715-0028
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C
NV-1715-0590
Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver
NV-1715-0523
F-4J AN/AWG-10 Receiver Intermediate Maintenance
NV-1715-0350
Navigation Satellite Receiver AN/WRN-5 Combined Maintenance
NV-1715-0913
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1
NV-1715-0911
Receiver Combined Maintenance
NV-1715-0984
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance
NV-1715-0244
Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1
NV-1715-0913

Receivers
AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance
NV-1715-0052
AN/ALQ-99 Tracking Receivers Control Modulators, Exciters with AN/ALM-109C Tracking Receiver Test Station and TS 3517/ALM RF Oscillator Rom Linearizer Test Set Intermediate Maintenance
NV-1715-0052

Receiving
AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-1062
AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-0775
AN/SRN-12/12A Omega Receiving Set Maintenance
NV-1715-1064
Countermeasures Receiving Set AN/WLR-1C (IV) Class F-1
NV-1715-0817
Countermeasures Receiving Set AN/WLR-11A
NV-1715-0841
Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance
NV-1715-0364
Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance
NV-1715-0201
Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1
NV-1715-0814
Loran Receiving Set AN/WPN-5 Operation and Maintenance
NV-1715-0131
Loran Receiving Sets AN/SPN-38 and AN/WPN-5 Operation, Maintenance and Functional Checkout
NV-1715-0131
Sonar Receiving Set AN/BQG PUFS Maintenance
NV-1715-0261
Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance
NV-1715-0261
Sonar Receiving Set AN/BQR-15 Combined Maintenance
NV-1715-0912
Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1
NV-1715-0912
Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance
NV-1715-0912
Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance
NV-1715-0265

Reciprocating
Aviation Machinist's Mate R (Reciprocating), Class A
NV-1704-0149
Aviation Machinist's Mate R (Reciprocating), Class B
NV-1704-0158

Reckoning
Dead Reckoning Analyzer Indicator Mk 10 Mod 0/Dead Reckoning Tracer Mk 6 Mod 4B (DRAI/DRT) Maintenance
NV-1715-1139
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT) Maintenance, Class C1
NV-1715-0344

Recognition

A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940

AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511

P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511

Reconnaissance

Afloat Tactical Reconnaissance Intelligence (TACRECCE) Analyst NV-1709-0026

Amphibious Reconnaissance NV-0803-0001

Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer NV-1709-0025

Photographic Reconnaissance Class O NV-1709-0004

Photographic Reconnaissance Officers, Class O NV-1709-0004

RA-5C Electronic Reconnaissance Organizational Maintenance NV-1715-0224

RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748

RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748

RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance NV-1715-0225

Recorder

Aviation Electronic Warfare, Receivers, Analyzer, Recorder and Display Intermediate Level Maintenance NV-1715-1149

AN/ALH-6 Recorder/Reproducer Intermediate Maintenance NV-1715-0073

AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance NV-1715-0774

AN/AQA-7(V) 1,2 and 3 Sonar Computer Recorder Group and AN/ASA-76 Generator-Transmitter Group Intermediate Maintenance NV-1715-0774

AN/AQA-7(V)4 and AN/AQA-7(V)5 Sonar Computer Recorder Group Difference Data Intermediate Maintenance NV-1715-1017

AN/AQA-7(V)6/7 Sonar Computer Recorder Group Difference Data Intermediate Maintenance NV-1715-0567

AN/AQH-1 Tape Recorder/Reproducer Set Intermediate Maintenance NV-1715-0191

AN/AQH-4 Sound Recorder/Reproducer Set Intermediate Maintenance NV-1715-0093

AN/AQM-18(V)1 Thru (V)5 Sonar Computer Recorder Group Test Central and AN/AQM-20 Computer Group Power Systems Test Set Intermediate Maintenance NV-1715-0539

AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230

AN/USH-17(V-3)(V-7) Mission Recorder Set and AN/UPQ-5 Display Set with Ground Support Equipment Intermediate Maintenance NV-1715-0951

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296

RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368

RO-358/AQS-13A Multipurpose Recorder Intermediate Maintenance NV-1715-0558

Recording

Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance NV-1715-0012

P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121

0A-8962/ASH Recording Group Intermediate Maintenance NV-1715-1023

Records

Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001

Food Service Records and Returns NV-1729-0012

Recordskeeper

Ship's Servicemen Recordskeeper NV-1405-0001

Recovery

Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187

Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C) NV-1704-0187

Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071

Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200

Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183

Aircraft Launch and Recovery Equipment Maintenance Officers NV-1704-0308

Aircraft Launch and Recovery Equipment Officer NV-1704-0300

Aircraft Launch and Recovery Equipment, Class C1, C13 Mod O Track NV-1704-0305

Aircraft Launch and Recovery Equipment, Class C1, C7/C11 Track NV-1710-0011

Aircraft Launch and Recovery Equipment, Class O NV-1704-0184

Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042

Disaster Recovery Training I and II NV-0801-0003

LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance NV-1715-1288

LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance Technician NV-1715-1287

Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061

Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical) NV-1715-1288

Recovery Assist Securing and Traversing (RAST) A/W 42U-1(V) Maintenance (Electrical) NV-1715-1287

Recreation

Recreation Management NV-0902-0002

Recruit

Recruit Procurement, Class C NV-1406-0010

Recruit Training NV-2202-0014

Recruiter

Recruiter Canvasser NV-1406-0016

Recruiters

Recruiters Journalism, Class C-1 NV-0504-0002

Reel

OE-159 Reel Operator/Maintenance NV-1704-0281

Reentry

Trident Mk 4 Reentry System Tender Transfer and Handling NV-2202-0144

Reference

A-7A/B Attitude Heading and Reference System Intermediate Maintenance NV-1721-0006

Central Gyro Reference System (AN/AJA-2), Class C NV-1715-0708

Refrigerant

Air Conditioning Refrigerant 11 NV-1730-0006

Refrigerant 11 Air Conditioning NV-1730-0006

Refrigeration

Air Conditioning and Refrigeration NV-1730-0011

Air Conditioning and Refrigeration Operation and Maintenance NV-1701-0005

Air Conditioning and Refrigeration, Class C NV-1701-0005

Air Conditioning and Refrigeration, Class

C-1
NV-1701-0005
Basic Refrigeration Theory and Maintenance
NV-1730-0001
Ship's Stores Refrigeration System R-12 Combined Maintenance
NV-1730-0009
Ships Stores Refrigeration R-12/York/ Combined Maintenance
NV-1730-0003
Submarine Refrigeration and Air Conditioning R-12
NV-1730-0003
Submarine Ships Stores Refrigeration R-12 Combined Maintenance
NV-1701-0010
Trident Refrigeration Systems Supervisor
NV-1701-0011

Regulator
General Regulator Automatic Boiler Control Console Operator
NV-1710-0079

Regulators
Auxiliary Machinery Controls, Governors and Regulators Maintenance
NV-1710-0086
Generator Regulators, Class F-1
NV-1715-0901

Relay
Relay Transmitter Mk 60 Maintenance
NV-1715-0389
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12
NV-1715-0389

Remote
A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator
NV-1715-0615
A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational)
NV-1704-0098
Remote Pressure/Tank Level/Liquid Airflow Indicating Equipment Maintenance
NV-1715-1305
Remote Sensor System for Physical Security, Class C1
NV-1721-0001
U.S. Marine Corps Remote Sensor Operator
NV-1715-1300
U.S. Marine Corps Remote Sensor Operator Reserve (Phases 1 and 2)
NV-1715-1299

Repair
Repair Party Leader
NV-1710-0076

Repeater
E-1B ARC-97 Radio Repeater System Maintenance
NV-1715-0195
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2
NV-1715-0781
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1
NV-1715-0781
Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance
NV-1715-0781
Radar Repeater Systems Maintenance (Electronics Technician, Class C1)
NV-1715-0029

Reperforator
Teletype Reperforator TT-253/UGC Combined Maintenance
NV-1715-0664
Teletypewriter Reperforator TT-253/UG
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

Replenishment
Standard Tensional Replenishment Alongside Methods (STREAM) Operator
NV-1710-0112
Standard Tensioned Replenishment Alongside Methods (STREAM) Operator
NV-1710-0015
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing
NV-1710-0015
Underway Replenishment Mechanical and Hydraulic Component Maintenance
NV-1710-0016

Reporting
Processing and Reporting
NV-1715-0821
NV-1715-0822
Reserve Cryptologic Technician Processing and Reporting, Phase I
NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II
NV-1715-0822

Research
Dental Technician Research Assistant, Class C
NV-0701-0004

Reserve
Aviation Reserve Officer Candidate (AVROC)
NV-2202-0088
Basic Reserve Intelligence Training - Enlisted
NV-1511-0023
Electronics Technician Submarine/ Reserve Class A1
NV-1715-1071
Intelligence Specialist A - Reserve (ISA-RES)
NV-1606-0075
Intelligence Specialist Class A - Operational Intelligence Reserve (Phases 1 and 2)
NV-1511-0032
Marine Air Ground Task Force Intelligence Specialist Reserve (Phases 1 and 2)
NV-1511-0030
Marine Air-Ground Task Force Intelligence Officer Reserve (Phases 1 and 2)
NV-1511-0029
Naval Reserve Senior Officer Tactics
NV-2202-0117
Reserve Air Intelligence (RAI)
NV-1606-0055
Reserve Basic Intelligence Training Subjects (BITCS)
NV-1606-0056
Reserve Cryptologic Technician Communications Technical Control, Class F1
NV-1715-0848
Reserve Cryptologic Technician Direct Support
NV-1715-0834
Reserve Cryptologic Technician Naval Security Group Orientation
NV-1715-0823
Reserve Cryptologic Technician Processing and Reporting, Phase I
NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II
NV-1715-0822
Reserve Cryptologic Technician Signal Analysis, Class F1
NV-1715-0845
Reserve Cryptologic Technician Simulated Operational Training Phase I
NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II
NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III
NV-1715-0827
Reserve Cryptologic Technician T, Advanced, Class F1
NV-1715-0844
Reserve Cryptologic Technician, Basic Cryptanalysis
NV-1715-0824
Reserve Cryptologic Technician, Intermediate Cryptanalysis
NV-1715-0820
Reserve Naval Security Group Simulated Operational Training Phase I
NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II
NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III
NV-1715-0827
Reserve Naval Security Group-1
NV-1715-0823
Reserve Naval Security Group-10-T
NV-1715-0844
Reserve Naval Security Group-13
NV-1715-0824
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis
NV-1715-0820
Reserve Naval Security Group-3
NV-1715-0821
Reserve Naval Security Group-4
NV-1715-0822
Reserve Naval Security Group-5 Signal Analysis
NV-1715-0845
Reserve Naval Security Group-7 Communications Technical Control
NV-1715-0848
Reserve Officer Candidate (ROC II and ROC I)
NV-2202-0103
Reserve Training Officer Direct Support Operations, Class F1
NV-1715-0834
Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps

Reserve) NV-2202-0061
U.S. Marine Corps Remote Sensor Operator Reserve (Phases 1 and 2) NV-1715-1299

Retrieval
Afloat Storage and Retrieval Operator NV-1402-0100
CVA IOIC Storage and Retrieval Officer NV-1402-0043
Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator NV-1402-0100

Retrofit
Sonar AN/SQS-26AX Retrofit Maintenance NV-1715-0806

Returns
Food Service Records and Returns NV-1729-0012

Rigger
Parachute Rigger (Maintenance), Class A NV-1704-0234
Parachute Rigger School, Class B NV-1717-0012
Parachute Rigger, Class A NV-1704-0234

Rigging
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing NV-1710-0015
UNREP Rigging Procedures NV-1710-0015

Right
A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance NV-1715-0335

River
River Assault Craft Training NV-1708-0001
River Patrol Craft Training NV-1722-0010

Riverine
Mobile Riverine Force Staff Officer Training NV-2202-0048
Riverine/Coastal Advisor Training NV-0602-0001

Rocket
Gunner's Mate Class C Rocket Launcher Mk 108 NV-1715-0618

Rotary
Rotary Wing Antisubmarine Warfare Tactics NV-2202-0008
Rotary Wing Flight Mechanics NV-1606-0063

Rotor
H-53 Rotor and Related Systems Organizational Maintenance NV-1704-0062
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058
SH-2F Power Plants, Related Systems and Rotor Systems Organizational Maintenance NV-1704-0172
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance NV-1704-0061

Rotors
AH-1J Powertrain and Rotors Organizational Maintenance NV-1704-0153
CH-46A Rotors and Related Systems Maintenance NV-1704-0060
H-46 Rotors and Related Systems Organizational Maintenance Course NV-1704-0154
UH-1N Powertrain and Rotors Organizational Maintenance NV-1704-0175

RA-5C
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
RA-5C Air Data and Flight Reference Systems NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454
RA-5C Aircraft Familiarization NV-1606-0022
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022
RA-5C Armament Intermediate Maintenance NV-1704-0166
RA-5C Avionics Officers/Supervisors Familiarization NV-1704-0038
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance NV-1715-0222
RA-5C AN/ALQ-55 DECM System NV-1715-0687
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance NV-1715-0367
RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment NV-1715-0686
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366
RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance NV-1715-0248
RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479
RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance NV-1715-0579
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance NV-1402-0044
RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance NV-1715-0145
RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance NV-1715-0424
RA-5C Communication, Navigation, Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
RA-5C Electrical and Indicating Systems (Intermediate Maintenance) NV-1704-0099
RA-5C Electrical and Indicating Systems Organizational Maintenance NV-1704-0069
RA-5C Electronic Reconnaissance Organizational Maintenance NV-1715-0224
RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
RA-5C Flight Control Intermediate Maintenance NV-1715-0453
RA-5C Flight Control System Electronics (Intermediate Maintenance) NV-1715-0732
RA-5C Flight Control System Organizational Maintenance NV-1715-0455
RA-5C Maintenance Supervisors Familiarization NV-1717-0005
RA-5C Panoramic Camera Shop Maintenance NV-1715-0143
RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748
RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748
RA-5C Photo Systems Electronics NV-1715-0543
RA-5C Photographic Electronics Fundamentals NV-1715-0152
RA-5C Plane Captains Organizational Maintenance NV-1717-0002
RA-5C Power Plants and Related Systems NV-1704-0045
RA-5C Power Plants and Related Systems Organizational Maintenance NV-1704-0045
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
RA-5C Semi-Automatic Test Equipment Bomb Director NV-1715-0547
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176
RA-5C Shoehorn Organizational

Maintenance
NV-1715-0269
RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance
NV-1715-0248
RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance
NV-1715-0032
RA-5C Still Picture Camera Shop Maintenance
NV-1715-0439
RA-5C Structures and Hydraulic Sub-Systems
NV-1704-0041
RA-5C Structures and Hydraulic Sub-Systems Organizational Maintenance
NV-1704-0041
RA-5C Survival and Environmental Systems
NV-1704-0040
RA-5C Survival and Environmental Systems Organizational Maintenance
NV-1704-0040

RADAR/MAD
RADAR/MAD for Nonacoustic Operator P3A/B(D)
NV-1715-0678

RADCOM
AN/USM-467 RADCOM Test Station Intermediate Maintenance Course
NV-1715-1213

RADIAC
RADIAC Instrument Maintenance
NV-1715-0545

RAST
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance
NV-1715-1288
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance Technician
NV-1715-1287
Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical)
NV-1715-1288
Recovery Assist Securing and Traversing (RAST) A/W 42U-1(V) Maintenance (Electrical)
NV-1715-1287

RATCF
AN/TPX-42A(V)10 Radar Air Traffic Control Facility (RATCF) Direct Altitude Identity Readout (DAIR) Maintenance, Class C1
NV-1715-1435

RA3B
A-3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance
NV-1715-0525

RD-281(V)/UYK
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance
NV-1715-0656

RD-293/UYK-5
RD-293/UYK-5 Card Reader Punch Maintenance
NV-1715-0031

RD-294/UYK
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C
NV-1715-0110

RF-4B
F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance
NV-1715-0393
RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance
NV-1715-0225
RF-4B AN/APN-159 Radar Altimeter Maintenance
NV-1715-0223
RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance
NV-1715-0399
RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance
NV-1715-0415
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance
NV-1715-0368
RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228
RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0465
RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance
NV-1715-0468
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562
RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance
NV-1715-0240
RF-4B Camera Control System Intermediate Maintenance
NV-1715-0752
RF-4B Camera Control System Organizational Maintenance
NV-1715-0750
RF-4B Inertial Navigation System Intermediate Maintenance
NV-1715-0465
RF-4B Inertial Navigation System Organizational Maintenance
NV-1715-0614
RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance
NV-1715-0751
RF-4B Shoehorn Organizational Maintenance
NV-1715-0765

RO-254/ASQ
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance
NV-1715-0368

RO-358/AQS-13A
RO-358/AQS-13A Multipurpose Recorder Intermediate Maintenance
NV-1715-0558

ROC
Reserve Officer Candidate (ROC II and ROC I)
NV-2202-0103

ROM
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1
NV-1715-0392

RSPE
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728
Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0402
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods 1-5
NV-1715-0403

RSX-11M
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C
NV-1402-0110

RT 648/698
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance
NV-1715-0373

RT-1010
AN/ARC-51, 51A, 51AX, 51B, RT-793/ASQ and RT-1010/ASQ-140 Communication Systems Intermediate Maintenance (AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance)
NV-1715-0710

RT-46
AN/VRC-46 and RT-46 Transceiver System Maintenance
NV-1715-0249

RT-541
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

RT-541/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375

RT-542/ASQ
RT-542/ASQ, RT-546/ASQ-19, AN/ARC-52 Receiver Transmitter Intermediate Maintenance
NV-1715-1218

RT-546/ASQ-19
RT-542/ASQ, RT-546/ASQ-19, AN/ARC-52 Receiver Transmitter Intermediate Maintenance
NV-1715-1218

RT-547
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-

547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

RT-559/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746

RT-648/ARC-94
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance
NV-1715-0369

RT-698/ARC-102
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance
NV-1715-0369

RT-736
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562
RT-736 and KY-531 Tactical Air Navigation (TACAN) Intermediate Maintenance
NV-1715-0796

RT-793
AN/ARC-51, 51A, 51AX, 51B, RT-793/ASQ and RT-1010/ASQ-140 Communication Systems Intermediate Maintenance (AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance)
NV-1715-0710

RT-793/ASQ
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance
NV-1715-0701

S-2
Prospective Antisubmarine Warfare (ASW) Flight Instructor (S-2 Type Aircraft)
NV-1606-0020
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft)
NV-1606-0020

S-2D
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft
NV-2202-0043

S-2D/E
S-2D/E Airframes and Hydraulics Systems Maintenance
NV-1704-0066
S-2D/E Avionics Systems Organizational Maintenance
NV-1715-0641
S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance
NV-1715-0243
S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance
NV-1715-0422
S-2D/E AN/APS-88/88A Radar Set Maintenance
NV-1715-0438
S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance
NV-1715-0331
S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance
NV-1715-0561
S-2D/E Electrical and Instruments Maintenance, No. 6
NV-1704-0086
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7
NV-1715-0472
S-2D/E Power Plant and Related Systems Maintenance
NV-1704-0171

S-2E
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance
NV-1715-0244
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft
NV-2202-0042

S-2G
S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance
NV-1715-0258
VS AW Sensor Operator S-2G
NV-1715-0517

S-3A
Aviation Machinist's Mate Class A (S-3A) Power Plant Systems
NV-1703-0014
S-3A Armament Control and Delivery System Organizational Maintenance
NV-2202-0111
S-3A Computer System Specialist Organizational Maintenance
NV-1715-1194
S-3A Copilot Avionics
NV-1606-0057
S-3A Electrical System Intermediate Maintenance
NV-1714-0034
S-3A Electrical Systems Organizational Maintenance
NV-1714-0033
S-3A Electronic Systems Organizational Maintenance
NV-1715-1196
S-3A Environmental Control, Miscellaneous Utilities and Egress Systems Organizational Maintenance
NV-1730-0007
S-3A Power Plant and Related Systems Organizational Maintenance
NV-1704-0287
S-3A Structure, Hydraulic and Flight Control Systems Organizational Maintenance
NV-1704-0288

S-5
A-3 S-5 Auto Pilot Maintenance
NV-1704-0198
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance
NV-1715-0736

Safety
Aviation Structural Mechanic (Safety Equipment), Class A1
NV-1704-0325
Aviation Structural Mechanic E (Safety Equipment) Class C7
NV-1704-0116
Aviation Structural Mechanic E (Safety Equipment), Class A
NV-1704-0130
Aviation Structural Mechanic E (Safety Equipment), Class B
NV-1704-0116
Navy Alcohol Safety Action Program (NASAP)
NV-0799-0002
Navy Alcohol/Drug Safety Action Program (NASAP/NDSAP)
NV-0799-0007
Navy Drug Safety Action Program (NDSAP)
NV-0799-0006
Radiographic Safety Officer
NV-0802-0004
Safety Inspector Class C
NV-1728-0007

Salinity
Common Alarm, Temperature Monitoring and Salinity Systems Equipment Maintenance
NV-1715-1306

Salvage
Landing Craft Beach and Surf Salvage
NV-1708-0002
Ship Salvage Diving Officer
NV-1606-0015
NV-1606-0065

Sanitation
Environmental Sanitation Technic
NV-0707-0001

Sargent-Fletcher
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance
NV-1704-0046

Satellite
AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1
NV-1715-0810
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1)
NV-1715-0099
AN/SRN-9/18 Satellite Radio Navigation Sets Combined Maintenance
NV-1715-1098
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group
NV-1715-0876
AN/WSC-5 Tactical Satellite Communications System Maintenance
NV-1715-0877
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1)
NV-1715-0874
Fleet Satellite Communications Spectrum Monitor System Equipment
NV-1715-1099
Meteorological Satellite, Class C
NV-1304-0006
Navigation Satellite Receiver AN/WRN-5 Combined Maintenance
NV-1715-0913
OM-55/USC Super High Frequency Satellite Communication Modular Demodulator Group Maintenance
NV-1715-1346
Satellite Navigation System AN/WRN-5
NV-1715-0913
Satellite Receiver AN/SRN-9A

Combined Maintenance NV-1715-0492
Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1 NV-1715-0492
Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1 NV-1715-0913
Submarine Satellite Information Exchange Subsystem Combined Maintenance NV-1715-1471
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Operator NV-1715-0878
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

Saturn
Enginemen, Class C, Solar T-10205-11A Saturn Engine NV-1710-0067
Solar T-10205-11A Saturn Engine, Class C1 NV-1710-0067

School
Navy Schools Management NV-0326-0002
School Administration, Class C1, Course "Golf" NV-0326-0002

Science
Naval Science Institute NV-2202-0109

Scientific
Naval Enlisted Scientific Education Program (NESEP) NV-2202-0101

Screening
Equipment Operators/Crushing and Screening Plant Operations, Class C NV-1710-0043
EO "C" Crushing and Screening Operations NV-1710-0043

Scuba
Closed and Semiclosed Scuba NV-1606-0012
Scuba Diver NV-1606-0011
Underwater Photographer/Scuba Diver NV-1606-0013

Sea
Aviation Boatswain's Mate Handling, Class A1 (Sea Track) NV-1728-0019
Aviation Boatswain's Mate Handling, Class C1, Sea Track NV-1704-0301
Deep Sea Divers NV-1606-0014
Deep Sea Helium-Oxygen Diving Officer NV-1606-0009
Medical Deep Sea Diving Technic NV-1606-0014
Medical Deep Sea Diving Technician NV-1606-0014

Seabee
Seabee Chief Petty Officer Management NV-1408-0006

Seal
Basic Underwater Demolition/Seal Team Training NV-1606-0007
Basic Underwater Demolition/Seal Training NV-1606-0007

Search
A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
A-6 Search Radar Module Analyzer Test Console NV-1715-0530
A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
AN/APM-375 Mini-SACE Search Radar Test Console Intermediate Maintenance NV-1715-0941
AN/APQ-148/156 Search Radar Intermediate Maintenance NV-1715-0945
AN/APS-115 Search Radar System Intermediate Maintenance NV-1715-0516
AN/APS-115(B) Search Radar System Intermediate Maintenance NV-1715-0516
AN/APS-116 Search Radar and Peculiar Ground Support Equipment Intermediate Maintenance NV-1715-1191
AN/SPS-40E Air Search Radar Set Maintenance NV-1715-1335
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672
P-3 AN/APS-80 Search Radar System Maintenance, 49 NV-1715-0695
3D Radar Search AN/SPS-39A NV-1715-1390

Searchlight
P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659

Seasparrow
Mk 91 Mod 0/1 NATO Seasparrow Guided Missile Fire Control System) (FCS) NV-1715-1040
NATO Seasparrow Surface Missile System Mk 57 Mod 0/1/2/3 Maintenance NV-1715-1040
NATO Seasparrow Surface Missile System Officer NV-1715-1389
NATO Seasparrow 7M Difference Maintenance NV-1715-1403
NATO Seasparrow 7M Maintenance NV-1715-1394

Second Tour
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032

Secure
Narrow Band Secure Voice Stand Alone Maintenance NV-1715-1100
Narrowband Secure Voice Stand Alone Maintenance NV-1715-1100

Securing
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance NV-1715-1288
LAMPS Mk 3 Recovery Assist Securing and Traversing (RAST) Maintenance Technician NV-1715-1287
Recovery Assist Securing and Traversing (RAST) (A/W42U-1(V)) Maintenance (Mechanical) NV-1715-1288
Recovery Assist Securing and Traversing (RAST) A/W 42U-1(V) Maintenance (Electrical) NV-1715-1287

Security
National Security Decision Making for College of Naval Command and Staff NV-1511-0015
National Security Decision Making for College of Naval Warfare and Naval Command College NV-1511-0014
National Security Decision Making Nonresident Seminar NV-1511-0026
Naval Internal Security Force Training NV-1728-0002
Naval Security Group Direct Support Operations NV-1715-0832
Naval War College Correspondence Course in National Security Decision Making NV-1511-0010
Navy Security Guard (Class C1) NV-1728-0021
Remote Sensor System for Physical Security, Class C1 NV-1721-0001
Reserve Cryptologic Technician Naval Security Group Orientation NV-1715-0823
Reserve Naval Security Group Simulated Operational Training Phase I NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III NV-1715-0827
Reserve Naval Security Group-1 NV-1715-0823
Reserve Naval Security Group-10-T NV-1715-0844
Reserve Naval Security Group-13 NV-1715-0824
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820

Reserve Naval Security Group-3 NV-1715-0821
Reserve Naval Security Group-4 NV-1715-0822
Reserve Naval Security Group-5 Signal Analysis NV-1715-0845
Reserve Naval Security Group-7 Communications Technical Control NV-1715-0848
Sensitive Compartmented Information (SCI) Administration and Physical Security NV-1728-0022

Self-Noise
Self-Noise Determination and Classification NV-1601-0012

Semi-Automatic
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
RA-5C Semi-Automatic Test Equipment Bomb Director NV-1715-0547
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176
Semi-Automatic Checkout Equipment (SACE) with INS/AFCS/ ADC/UE Test Benches Intermediate Maintenance NV-1715-1205
TS-2109/ASA-48 Semi-Automatic Checkout Equipment (SACE) Programmer Intermediate Maintenance NV-1715-1206
TS-2109/OA-3739/OA-ASA 48 Semi-Automatic Checkout Equipment (SACE) Operator Intermediate Maintenance NV-1715-1209
TS-2109/OA-3742/OA-6672 Semi-Automatic Checkoput Equipment (SACE) Intermediate Operators NV-1715-1216

Seminar
Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

Senior
Naval Reserve Senior Officer Tactics NV-2202-0117
Senior Afloat Intelligence Officer NV-1606-0068
Senior Disbursing Clerk (DK) Enlisted Refresher NV-1401-0005
Senior Enlisted Academy NV-2202-0110
Senior Enlisted Damage Control NV-1728-0023
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel) NV-1732-0014
Senior Non-Morse Analysis NV-1715-1258
Senior Officer Helicopter Training NV-1704-0196
Senior Officers Orientation NV-1704-0196
Senior Quartermaster Refresher NV-2202-0150

Sensor
Combat Sensor Warfare Training NV-2202-0071
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance NV-1715-0256
P-3C Sensor Station Three (Radar/ Display Technician) Organizational Maintenance NV-1715-0640
P-3C Sensor Station Three (Radar/ Display)Technician Organization Maintenance NV-1715-0640
P-3C Sensor Station Three (Radar/ Displays) Integrated System Organizational Maintenance NV-1715-0640
Remote Sensor System for Physical Security, Class C1 NV-1721-0001
Surveillance Towed Array Sensor System (SURTASS) Shore NV-1715-1499
U.S. Marine Corps Remote Sensor Operator NV-1715-1300
U.S. Marine Corps Remote Sensor Operator Reserve (Phases 1 and 2) NV-1715-1299
VS AW Sensor Operator S-2G NV-1715-0517

Service
Food Service Administration NV-1729-0014
Food Service Management NV-1729-0013

Shaft
Propulsion Shaft Components NV-1710-0057
Propulsion Shaft Components Combined Maintenance NV-1710-0057

Sheetmetal
Steelworker/Sheetmetal, Class C NV-1723-0007

Ship
A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance NV-1715-0177
Detroit Diesel Allison 16V149TI Ships Service Diesel Generator Maintenance NV-1712-0023
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator NV-1601-0025
Force/Ship Weapons Coordinator Tactical Training NV-2202-0121
FFG-7 Class Ship Auxiliary Electrical Subsystem Technician NV-1714-0030
FFG-7 Class Ship Auxiliary Electrical Subsystems NV-1714-0043
FFG-7 Class Ship Auxiliary Electrical System Technician NV-1732-0010
FFG-7 Class Ship Interior Communications (IC) Subsystems Technician NV-1715-1075
Model 114 Ship Service Diesel Generator Set Maintenance Class C1 NV-1712-0023
Ship Control System Maintenance NV-1715-1308
Ship Landing Party Indoctrination NV-2202-0049
Ship Salvage Diving Officer NV-1606-0015
NV-1606-0065
Ship Service Turbo Generator Maintenance NV-1704-0320
Ship Serviceman Class C Shipboard Barber NV-1726-0001
Trident Ship Control and Atmosphere Support Technician Level I NV-1715-1309

Ship's
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician NV-1715-0066
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician NV-1715-0130
Electronics Technician, Class C, SSBN Ship's Inertial Navigation, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0065
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014
Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion NV-1715-1130
Fleet Ballistic Missile Tender Navigation Maintenance Ship's Inertial Navigation System NV-1715-0065
Mk 2 Mod 1 Ship's Inertial Navigation System (SINS) Maintenance NV-1402-0039
Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance NV-1402-0051
Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Combined Maintenance NV-1715-1461

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance NV-1715-0426

Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted) NV-1715-0426

Mk 3 Mod 7 Ship's Navigation and Aircraft Inertial Alignment Systems (SNAIAS) Operation and Maintenance NV-1715-1061

Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II NV-1715-0922

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory NV-1715-0232

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1 NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance I NV-1715-0232

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II NV-1715-1002

Ship's Inertial Navigation System (SINS) Mk 2 Mod 7 Technician Conversion NV-1715-1161

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I NV-1715-0919

Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II NV-1715-0920

Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance NV-1402-0052

Ship's Inertial Navigation System (SINS) Mk 3 Mod 6 Combined Maintenance NV-1715-0985

Ship's Inertial Navigation System (SINS) Theory and Analysis NV-1107-0002

Ship's Navigation and Aircraft Inertial Alignment Systems Maintenance NV-1715-1061

Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1 NV-1703-0009

Ship's Serviceman Class A NV-1405-0001

Ship's Servicemen Recordskeeper NV-1405-0001

Ship's Store Afloat Resale Operation Management (ROM) System Supervisor NV-1408-0031

Ship's Store Afloat Resale Operation Management System User NV-1405-0023

Ship's Stores Refrigeration System R-12 Combined Maintenance NV-1730-0009

Steering/Diving Ship's Control Station and Variable Ballast and Trim Electrical Maintenance NV-1715-1312

SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician NV-1715-0440

SSN Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance NV-1715-0426

Trident Ship's Control Level I/ Atmosphere Support NV-1715-1171

Trident Ship's Control Level II NV-1715-1172

Trident Ship's Control Level III NV-1715-1173

Shipboard

Basic Shipboard Intelligence NV-1606-0072

Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C NV-1402-0041

Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C NV-1402-0041

Electronics Technician Class C, AN/ VCC-2 Shipboard System NV-1715-0016

Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639

Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638

Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications) NV-1715-0639

Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar) NV-1715-0638

Integrated Shipboard Maintenance Support NV-1405-0022

Navigation Officer (Shipboard) and Celestial Class C2 NV-2202-0107

Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001

Ship Serviceman Class C Shipboard Barber NV-1726-0001

Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5 NV-1715-0684

Shipboard Instructor NV-1406-0013

Shipboard Intelligence Analyst NV-1511-0021

Shipboard Non-Tactical Automated Data Processing (SNAP) NV-1715-1265

Shipboard Non-Tactical Automatic Data Processing (ADP) Program II (SNAP II) AN/UYK-62(V) Maintenance NV-1402-0131

Shipboard Non-Tactical Automatic Data Processing (SNAP I) System Enlisted Supervisor/Operator NV-1402-0150

Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat NV-1402-0152

Shipboard Non-Tactical Automatic Data Processing (SNAP) II System Coordinator NV-1402-0151

Shipboard Non-Tactical Automatic Data Processing (SNAP) 3-M Coordinator/ Inspector NV-1402-0153

Shipboard Tactical Data Systems Maintenance NV-1402-0041

Shipboard Thermal Insulation (Lagging) NV-1710-0039

Shipboard Uniform Automated Data Processing System (SUADPS) 207/ AV207 NV-1402-0149

Shipboard Uniform Automated Data Processing System- Real Time Operations and Management NV-1402-0149

Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873

Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315

Shipfitters

Shipfitters Hull Maintenance Technician, Class A, Phase 2 NV-1723-0005

Shipfitters, Class A (Metalsmith) NV-1723-0006

Shipfitters, Class A (Pipefitters) NV-1710-0041

Shiploading

Shiploading and Stowage NV-1708-0007

Ships

Advanced Theory and Maintenance I Ships Inertial Navigation System (SINS) Mk 2 Mods 6/7 NV-1715-1376

Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration NV-1715-1374

Radio Communications System Maintenance for DD-963 Class Ships, Class C-1 NV-1715-0870

Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Equipment Technician Replacement NV-1715-1393

Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement NV-1715-1380

Ships Inertial Navigation System Theory and Maintenance II NV-1715-1369

Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance NV-1715-1230

Trident I Ships Inertial Navigation System (SINS) Equipment NV-1715-1379

Shoehorn

A-6A Shoehorn Organizational Maintenance NV-1715-0458

F-4B Shoehorn Organizational

Maintenance NV-1715-0457
F-4J Shoehorn Organizational Maintenance NV-1715-0395
F/RF-8 Shoehorn Organizational Maintenance NV-1715-0644
RA-5C Shoehorn Organizational Maintenance NV-1715-0269
RF-4B Shoehorn Organizational Maintenance NV-1715-0765

Shop
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
Advanced Milling and Shop Management Class C1 NV-1736-0004
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance NV-1715-0367
RA-5C Still Picture Camera Shop Maintenance NV-1715-0439
Shop Stores Procedures, Class C NV-1405-0003

Shore
Radioman Class A Shore Duty NV-1404-0008
Shore Facilities Planning NV-1408-0017
Shore Fire Control Party NV-2202-0037
Shore Fire Control Party Enlisted NV-2202-0062
Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve) NV-2202-0061
Surveillance Towed Array Sensor System (SURTASS) Shore NV-1715-1499
Utilitiesman, Shore Based Boiler Controls, Class C NV-1710-0027

Short
Marine Corps Short Airfield For Tactical Support, Class C NV-1710-0014

Shrike
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702

Sideband
Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver NV-1715-0523

Sidewinder
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702

Signal
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0402
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods 1-5 NV-1715-0403
Reserve Cryptologic Technician Signal Analysis, Class F1 NV-1715-0845
Reserve Naval Security Group-5 Signal Analysis NV-1715-0845
RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance NV-1715-0424
RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance NV-1715-0032

Signalman
(Basic Signalman) NV-2202-0054
Advanced Signalman NV-2202-0149
Signalman Class A NV-2202-0054

Simulated
Reserve Cryptologic Technician Simulated Operational Training Phase I NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III NV-1715-0827
Reserve Naval Security Group Simulated Operational Training Phase I NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III NV-1715-0827

Simulation
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908

Simulator
Pilots C-121 Simulator and Advanced Flight NV-1606-0034
Pilots C-121 Simulator and Basic Flight NV-1606-0035
15G20 Simulator Maintenance Class C1 NV-1715-1186
15G21 Carrier Air Traffic Control Simulator Maintenance Class C1 NV-1715-1187
15G21 Simulator Maintenance Class C1 NV-1715-1187

Single
AN/ARC-38A Single Side Band Transceiver Intermediate Maintenance NV-1715-0094
AN/ARC-94 Single Side Band Transceiver Maintenance NV-1715-0489
Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30) NV-1715-0027

Site
Communications Receiver Site Systems Maintenance, Class C1 NV-1715-0356
Communications Transmitter Site Systems Maintenance, Class C1 NV-1715-0387

Sniper
Navy Sniper Training NV-2202-0002

Software
Central Computer Complex Combined Maintenance and Software NV-1402-0047
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SSN Central Computer Complex (CCC) Maintenance - Software NV-1402-0098
SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047

Solar
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Solar T-1020S-100B Gas Turbine Generator Set Operator and Maintenance NV-1710-0095
Solar T-10205-11A Saturn Engine, Class C1 NV-1710-0067

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Basic Solid State Devices Class F1 NV-1715-1088
Electronics Technician, Class C, Solid State Fundamentals NV-1715-0103
Guided Missile Launching System Mk 10 Solid State Control System Difference NV-1715-1298
Solid State Circuit Troubleshooting Techniques NV-1715-0149
Solid State Theory NV-1715-0103
Solid State Theory and Digital Electronics NV-1715-0103
Solid State Theory for Electronic Equipment NV-1715-0103

Sonar
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Advanced Sonar Maintenance, 561 NV-1715-0685
Advanced Sonar, 557 NV-1715-0694

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NV-1715-0692
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NV-1715-0158
AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance
NV-1715-0774
AN/AQA-7(V) 1,2 and 3 Sonar Computer Recorder Group and AN/ASA-76 Generator-Transmitter Group Intermediate Maintenance
NV-1715-0774
AN/AQA-7(V)4 and AN/AQA-7(V)5 Sonar Computer Recorder Group Difference Data Intermediate Maintenance
NV-1715-1017
AN/AQA-7(V)6/7 Sonar Computer Recorder Group Difference Data Intermediate Maintenance
NV-1715-0567
AN/AQM-18(V)1 Thru (V)5 Sonar Computer Recorder Group Test Central and AN/AQM-20 Computer Group Power Systems Test Set Intermediate Maintenance
NV-1715-0539
AN/AQS-13B Sonar Intermediate Maintenance
NV-1715-0550
AN/AQS-13E Sonar Organizational Maintenance
NV-1715-1192
AN/BQN-3 Sonar Sounding Set Advanced Training
NV-1715-0987
AN/BQQ-3A Sonar Maintenance
NV-1715-0307
AN/BQQ-6 Sonar Set Detection Tracking
NV-1715-1319
AN/BQS-4 Sonar Maintenance
NV-1715-0303
AN/BQS-8 (Series) Sonar Maintenance
NV-1715-0124
AN/BQS-8B, 10A, 14A Sonar System Maintenance
NV-1715-0868
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance
NV-1715-0772
AN/SQQ-89(V)1/3 Sonar Watch Supervisor
NV-1715-1504
AN/SQQ-89(V)2 Sonar Watch Supervisor
NV-1715-1506
AN/UQN-4 Sonar Sounding Set Maintenance
NV-1715-0425
Basic Surface Sonar Technician, Class A Core Phase
NV-1715-0423
Class B Sonarman
NV-1715-0685
Electronics Technician, Class A (Communications, Radar and Sonar Specialties)
NV-1715-0727
Enlisted Sonar Principles
NV-1715-0991
FF-1052 Sonar Supervisor
NV-1715-1503
General Submarine Sonar Maintenance
NV-1715-0126
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13)
NV-2202-0080
Independent Variable Depth Sonar Hoist AN/SQA-13 Maintenance
NV-1715-0772
Independent Variable-Depth Sonar Hoist AN/SQA-13(V) Maintenance
NV-1715-1285
Mine Detection Sonar Technical Maintenance
NV-1715-0740
Mine Hunting Sonar Familiarization (Reserve)
NV-2202-0098
P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46
NV-1715-0121
S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance
NV-1715-0258
Sonar Auxiliary Equipment Combined Maintenance Revision A
NV-1715-1270
Sonar AN/BQS-11/12/13 Maintenance
NV-1715-0865
Sonar AN/SQQ-23 (PAIR) Operator Basic
NV-1715-0860
Sonar AN/SQQ-23A (PAIR) Organizational Maintenance
NV-1715-0859
Sonar AN/SQQ-23A PAIR Organizational Maintenance
NV-1715-1279
Sonar AN/SQQ-28(V) Maintenance
NV-1715-1280
Sonar AN/SQR-17 and AN/SKR-4 Organizational Maintenance
NV-1715-0862
Sonar AN/SQR-17 Organizational Maintenance
NV-1715-0862
Sonar AN/SQR-17(V)/17A(V) Series Maintenance
NV-1715-1278
Sonar AN/SQR-18A(V)1 Maintenance
NV-1715-1284
Sonar AN/SQR-19(V) Maintenance
NV-1715-1283
Sonar AN/SQS-23 D-G Series (TRAM) Maintenance
NV-1715-0864
Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance
NV-1715-0864
Sonar AN/SQS-23 D-L Series Maintenance
NV-1715-0246
Sonar AN/SQS-23 Operator
NV-1715-0857
Sonar AN/SQS-23 Series (Sonar) Operator Basic
NV-1715-0857
Sonar AN/SQS-26 AX(R) and CX Operations Basic
NV-1715-0420
Sonar AN/SQS-26 AXR/CX Maintenance
NV-1715-1275
Sonar AN/SQS-26 BX Maintenance
NV-1715-0863
NV-1715-1277
Sonar AN/SQS-26 Series Sonar Operator Basic
NV-1715-0420
Sonar AN/SQS-26AX Retrofit Maintenance
NV-1715-0806
Sonar AN/SQS-26CX and AN/SQS-53 Maintenance
NV-1715-0405
Sonar AN/SQS-26CX Maintenance
NV-1715-0405
Sonar AN/SQS-35 (V) Maintenance
NV-1715-1272
Sonar AN/SQS-35(IVDS) Operator
NV-1715-0858
Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic
NV-1715-0858
Sonar AN/SQS-35(V) Maintenance
NV-1715-0866
Sonar AN/SQS-38 Maintenance
NV-1715-1282
Sonar AN/SQS-38 Maintenance (USCG)
NV-1715-0404
Sonar AN/SQS-39 Through 46 and Aspect Maintenance
NV-1715-0783
Sonar AN/SQS-53 Maintenance
NV-1715-1276
Sonar AN/SQS-53 Operator Basic
NV-1715-0861
Sonar AN/SQS-53B Maintenance Level 2
NV-1715-1273
Sonar AN/SQS-54B Organizational Maintenance
NV-1715-0320
Sonar AN/SQS-54B/SKR-4 Maintenance
NV-1715-0320
Sonar Classification Set AN/BQH-2D/E Combined Maintenance
NV-1715-0503
Sonar Communications Set AN/WQC-2/2A Operation and Maintenance
NV-1715-0166
Sonar Communications Set AN/WQC-2/2A Operation and Maintenance (Surface)
NV-1715-0166
Sonar Communications Set AN/WQC-5 Basic Maintenance
NV-1715-0051
Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance
NV-1715-0865
Sonar Detecting-Ranging Set AN/SQS-26CX
NV-1715-0405
Sonar Detecting-Ranging Sets AN/BQQ-5 Advanced Maintenance Revision A
NV-1715-1281
Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance
NV-1715-0868
Sonar Detecting/Ranging Sets, AN/BQQ-5 Series Combined Advanced Maintenance
NV-1715-1281
Sonar Electronics Intermediate (SEI)
NV-1715-0867
Sonar Receiving Set AN/BQG PUFS Maintenance
NV-1715-0261
Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance
NV-1715-0261
Sonar Receiving Set AN/BQR-15

Combined Maintenance
NV-1715-0912
Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1
NV-1715-0912
Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance
NV-1715-0912
Sonar Receiving Set AN/BQR-19 Combined Maintenance
NV-1715-0990
Sonar Receiving Set AN/BQR-21(V) Combined Maintenance
NV-1715-0992
Sonar Receiving Set AN/BQR-23 Basic Maintenance
NV-1715-1466
Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance
NV-1715-0265
Sonar Sounding Set AN/BQN-17 Combined Maintenance
NV-1715-1003
Sonar Sounding Set AN/BQN-3 Maintenance
NV-1715-0987
Sonar Sounding Set AN/UQN-4
NV-1715-0425
Sonar Surface Technican Class A
NV-1715-0423
Sonar Technician Class A-1 (Basic Electronics)
NV-1715-0580
Sonar Technician Class A-1 (Surface)
NV-1715-0423
Sonar Technician Class A-2 (Intermediate Electronics)
NV-1715-0578
Sonar Technician Submarine STS Class A
NV-1715-1274
Sonar Technician, Class B
NV-1715-0158
Sonar Watch Supervisor and Advanced Watchstander Training
NV-2202-0012
Submarine Sonar AN/BQS-11/12/13 System Maintenance
NV-1715-0865
Submarine Sonar Subjective Analysis (SSSA)
NV-1715-0689
Submarine Sonar Technician A-1
NV-1715-0040
Surface Sonar AN/SQS-56 Operations
NV-1715-0235
Surface Sonar Set AN/SQS-56 Maintenance
NV-1715-0272
Surface Sonar Technician, Class A
NV-1715-0423
SH-3 AN/AQS-13 Sonar Maintenance
NV-1715-0677
SH-3A AN/AQS-10 Sonar Intermediate Maintenance
NV-1715-0231
SH-3A AN/AQS-10 Sonar Maintenance
NV-1715-0231
SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance
NV-1715-0747
SSBN Sonar Combined Maintenance
NV-1715-1269
Trident Sonar Advanced Operator
NV-2202-0136
Trident Sonar Subsystem Operation and Maintenance Level I
NV-1715-1313
Trident Sonar Subsystem Operation and Maintenance Level II
NV-1715-1315
Trident Sonar Subsystem Operation and Maintenance Level III
NV-1715-1314
Trident Sonar Supervisor
NV-2202-0137

Sonarman
Advanced Sonarman
NV-1715-0158
Basic Sonarman
NV-1715-0042
Class B Sonarman
NV-1715-0685
Sonarman, Class A
NV-1715-0042

Sono
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance
NV-1715-0120

Sound
AN/AQH-4 Sound Recorder/Reproducer Set Intermediate Maintenance
NV-1715-0093
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance
NV-1715-0368
Sound Analysis, Noise and Vibration Reduction (Enlisted)
NV-1721-0010

Sounder
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1)
NV-1715-0004

Sparrow
AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0628
AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0446
Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7
NV-1715-0628
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702

Special
Special Operations Technic
NV-0709-0005
Special Operations Technician
NV-0709-0005
Special Photographic Course for Non-Photographic Personnel, Class C
NV-1709-0005
Special Technology (Enlisted)
NV-1715-0321
Special Technology I
NV-1715-0905
Special Technology II
NV-1715-0906
Special Technology III
NV-1715-0907
SSN/CVA Special Technology (Enlisted)
NV-1715-0416

Spectrum
AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum Analyzer (DSA) Advanced Maintenance
NV-1715-1318

Sperry
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1
NV-1722-0004
Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C
NV-1715-0075
Sperry Mk XIX Mod III Gyrocompass
NV-1715-0062

Spherical
AN/BQQ-6 Group A Interference Rejection Processor (IRP)/Spherical Array, Passive Processor (SAPP)/Precision Data Recorder (PDR) Advanced Maintenance
NV-1715-1320
AN/BQQ-6 Group A Preamplifier, Filter, Equalizer, Clipper (PFEC)/Spherical Array, Passive Beamforms (SAPB) Maintenance
NV-1715-1316

Spotter
Naval Gunfire Air Spotter
NV-2202-0053
NV-2202-0059
Troop Naval Gunfire Spotter
NV-2202-0057

Spotters
Naval Gunfire Spotters (Troop Officers)
NV-2202-0064

Stabilization
A-3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122)
NV-1715-0363
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance
NV-1715-0183
H-46 Stabilization Systems Intermediate Maintenance
NV-1704-0136
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance
NV-1704-0205
SH-2F Automatic Stabilization
NV-1704-0291
SH-3 Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0621
SH-3 Automatic Stabilization Equipment Organizational Maintenance
NV-1704-0006
NV-1704-0096
SH-3A Automatic Stabilization Equipment Maintenance
NV-1715-0616
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1
NV-1715-0427
UH-2A/B Automatic Stabilization

Equipment Intermediate Maintenance
NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Maintenance
NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Organizational Maintenance
NV-1715-0464
UH-2C Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance
NV-1715-0683

Stabilized
AN/WSN-2 Stabilized Gyrocompass Maintenance Class C1
NV-1715-1067

Stabilizer
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1
NV-1722-0004

Staff
Maritime Operations for College of Naval Command and Staff
NV-2202-0133
Mobile Riverine Force Staff Officer Training
NV-2202-0048
National Security Decision Making for College of Naval Command and Staff
NV-1511-0015
Naval Gunfire Staff Officer
NV-2202-0067
Naval Staff Advisor
NV-1513-0001
Naval Staff College
NV-1511-0034
Strategy and Policy (College of Naval Command and Staff)
NV-1511-0013

Stainless
Stainless Steel Welding (Requalification)
NV-1710-0047
Stainless Steel Welding Requalification—Phase I (Enlisted)
NV-1710-0045
Stainless Steel Welding Requalification—Phase III (Enlisted)
NV-1710-0048

Stand-Alone
AN/WSC-3 Stand-Alone Maintenance
NV-1715-0876

Standard
Standard Tensioned Replenishment Alongside Methods (STREAM) Operator
NV-1710-0015
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing
NV-1710-0015

Static
Application of Static Control Devices
NV-1715-1449
Static Control Device Theory
NV-1715-1468
5 Kw Static Inverter Combined Maintenance
NV-1715-1460

Station
Station Management Systems
NV-1408-0004

Steam
Boiler Technician Steam Propulsion Maintenance Supervisor
NV-1710-0109
CVA Catapult Steam and Drain System, Class C
NV-1710-0008
Machinist's Mate Steam Propulsion Maintenance Supervisor
NV-1704-0319
Pressure Fired Steam Generator Console Operator
NV-1710-0003
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel)
NV-1732-0014
Senior Enlisted Steam Engineering
NV-1732-0009
Steam Components (Enlisted)
NV-1710-0024
Steam Generating Plant Inspector
NV-1732-0001
Steam Generator Maintenance
NV-1732-0008
NV-1732-0017
Steam Plant Automatic Controls Maintenance (Bailey Meter)
NV-1710-0074
Steam Plant Automatic Controls Maintenance (General Regulator)
NV-1710-0072
Steam Plant Automatic Controls Maintenance (Hagan)
NV-1710-0073
Surface Warfare Officer Specialty Course Steam Main Propulsion Assistant
NV-1710-0093
Valve and Steam Trap Maintenance
NV-1732-0018
1200 PSI Steam Generating Plant Operator
NV-1710-0075

Steelworker
Steelworker/Sheetmetal, Class C
NV-1723-0007
Steelworker/Welding Certification, Class C
NV-1710-0053
Steelworker, Class J (SW)
NV-1723-0008
Steelworker, Maintenance Welding Techniques, Class C
NV-1710-0068

Steelworkers
Steelworkers Class A
NV-1723-0009

Steering
Steering/Diving Ship's Control Station and Variable Ballast and Trim Electrical Maintenance
NV-1715-1312

Stenography
Stenography, Class C
NV-1407-0003

Steward
Class P Steward's Apprentice
NV-1729-0007
Commissaryman-Steward Management Principles, Class C
NV-1729-0002
Commissaryman-Steward, Class A
NV-1729-0004
Commissaryman-Steward, Class C
NV-1729-0003
Steward Apprentice, Class P
NV-1729-0007
Stewards, Class A
NV-1729-0005

Stewards
Stewards
NV-1729-0008

Still
RA-5C Still Picture Camera Shop Maintenance
NV-1715-0439
Still Documentary Photography C1
NV-1709-0010

Stock
Uniform Automated Data Processing (ADP) System-Stock Points
NV-1408-0025

Storage
Afloat Storage and Retrieval Operator
NV-1402-0100
CVA IOIC Storage and Retrieval Officer
NV-1402-0043
IOIC Intelligence Data System (Storage and Retrieval) Maintenance
NV-1715-0030
IOIC Storage and Retrieval Operator/Officer Course
NV-1402-0035
Naval Intelligence Processing System (NIPS) Afloat Storage and Retrieval Operator
NV-1402-0100
Storage and Retrieval Data Processing (DP) Operator and Programmer
NV-1402-0035
Transportation and Storage of Hazardous Material
NV-0419-0007

Store
Commissary Store Management
NV-1408-0010
Ship's Store Afloat Resale Operation Management (ROM) System Supervisor
NV-1408-0031
Ship's Store Afloat Resale Operation Management System User
NV-1405-0023

Storekeeper
Aviation Storekeeper Advanced Training Class C
NV-1405-0020
Aviation Storekeeper, Class A
NV-1405-0004
Aviation Storekeeper, Class B
NV-1408-0019
Shipboard Non-Tactical Automatic Data Processing (SNAP II) Storekeeper Afloat
NV-1402-0152
Storekeeper Supply Afloat (Dependent Duty) Class C
NV-1405-0002
Storekeeper Supply Afloat (Independent Duty), Class C
NV-1405-0017
Storekeeper, Class A
NV-1409-0006
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships)
NV-1402-0045
Storekeepers (Independent Duty), Class

C NV-1405-0017

Storekeepers
Storekeepers (Independent Duty), Class C NV-1405-0017
Storekeepers (Repair Parts), Class C NV-1405-0013
Supply Storekeepers (Repair Parts), Class C-1 NV-1405-0013

Stores
Ship's Stores Refrigeration System R-12 Combined Maintenance NV-1730-0009
Shop Stores Procedures, Class C NV-1405-0003

Stowage
Shiploading and Stowage NV-1708-0007

Strategic
Strategic Photographic Interpretation NV-1709-0012
Strategic Weapon System Command Poseidon Weapons Officer NV-1715-1395
Strategic Weapon System Officer Trident 1 NV-2202-0138
Strategic Weapons (SWS) System Electronic A School NV-1715-0705
Strategic Weapons System (SWS) Electronic Mathematics NV-1107-0001
Strategic Weapons System Assistant Weapons Officer (AWEPS) Trident 1 Backfit NV-2202-0139
Strategic Weapons System Assistant Weapons Officer Poseidon NV-2202-0142
Strategic Weapons System Electronic A School NV-1715-1400
Strategic Weapons System Officer Poseidon NV-2202-0141
Trident 1 Backfit Strategic Weapon Systems Command Replacement NV-1715-1398

Strategy
Naval War College Correspondence Course in Strategy and Policy NV-1511-0004 NV-1511-0011
Strategy and Policy (College of Naval Command and Staff) NV-1511-0013
Strategy and Policy (College of Naval Warfare/Naval Command College) NV-1511-0012
Strategy and Policy Nonresident Seminar NV-1511-0025
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
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Strike
Strike Armament Intermediate Maintenance Repair NV-1715-0571
Strike Warfare Operational Intelligence (OPINTEL) Analyst NV-1606-0067

Stromberg Carlson
Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661

Strowger
Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735

Structural
Aviation Structural Mechanic (Hydraulic) Class A1 NV-1704-0128
Aviation Structural Mechanic (Safety Equipment), Class A1 NV-1704-0325
Aviation Structural Mechanic (Structures) Class A1 NV-1704-0132
Aviation Structural Mechanic E (Safety Equipment) Class C7 NV-1704-0116
Aviation Structural Mechanic E (Safety Equipment), Class A NV-1704-0130
Aviation Structural Mechanic E (Safety Equipment), Class B NV-1704-0116
Aviation Structural Mechanic H (Hydraulics), Class A NV-1704-0128
Aviation Structural Mechanic H (Hydraulics), Class B NV-1704-0087
Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177
Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
Aviation Structural Mechanic, Class B NV-1704-0239

Structure
S-3A Structure, Hydraulic and Flight Control Systems Organizational Maintenance NV-1704-0288

Structures
A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance NV-1704-0129
A-7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
Aviation Structural Mechanic (Structures) Class A1 NV-1704-0132
Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177
Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
Aviation Support Equipment Technician Hydraulics and Structures, Class A NV-1704-0138
F/RF-4B Structures and Hydraulics Maintenance NV-1704-0122
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance NV-1704-0206

Subassembly
AN/ALM-138, AN/ALM-143, AN/ALM-155 Subassembly Test Console T, S, and C Intermediate Maintenance NV-1715-0956
Subassembly Test Console (SATC) Intermediate Maintenance NV-1715-0956

Submarine
Advanced Submarine Quartermaster NV-2202-0112
Advanced Submarine Quartermaster School NV-1708-0003
AN/BST-1 SECT Maintenance for Submarine Tender Technician NV-1715-0900
Basic Enlisted Submarine NV-2202-0029 NV-2202-0148
Basic Submarine Officer NV-1408-0022
Basic Submarine Quartermaster, Class A NV-1722-0007
Combined Integrated Submarine Communications Antenna Subsystem Maintenance NV-1715-1451
Curriculum Development for Submarine Systems Training Program (and Introduction to Submarine Systems Training Program) NV-1406-0014
Electronics Technician Submarine/Reserve Class A1 NV-1715-1071
Enlisted Submarine Indoctrination NV-2202-0092
General Submarine Sonar Maintenance NV-1715-0126
Integrated Submarine Automated Broadcast Processing System NV-1402-0132
Nuclear Submarine Medicine Technic NV-0709-0001
Nuclear Submarine Medicine Technician NV-0709-0001
Nuclear Submarine Medicine Technician, Class C NV-0709-0001
Nuclear Submarine Medicine Technique NV-0709-0001
Radio Equipment Submarine Maintenance NV-1715-0885
Sonar Technician Submarine STS Class A NV-1715-1274
Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance NV-1730-0004
Submarine Communication Application

and Theory Module 1
NV-1715-0927
Submarine Communication Application and Theory Module 2
NV-1715-0928
Submarine Communication Application and Theory Module 3, Class A-1
NV-1715-0929
Submarine Communication Application and Theory Module 4
NV-1715-0930
Submarine Communication Application and Theory Module 5
NV-1715-0931
Submarine Communication Application and Theory Module 6
NV-1715-0932
Submarine Communications Equipment
NV-1715-0885
Submarine Communications Equipment Combined Maintenance
NV-1715-0885
NV-1715-1474
Submarine Digital Communications Equipment Combined Maintenance
NV-1715-0981
Submarine Digital Teletype Combined Maintenance
NV-1404-0011
Submarine Electrical Control and Distribution Equipment Combined Maintenance
NV-1714-0054
Submarine Electronic Technical Training Module 10
NV-1715-0976
Submarine Electronic Technician Electronic Warfare Technology
NV-1402-0076
Submarine Electronics Technical Training Module 1
NV-1715-0967
Submarine Electronics Technical Training Module 11
NV-1715-0977
Submarine Electronics Technical Training Module 12
NV-1715-0978
Submarine Electronics Technical Training Module 2
NV-1715-0968
Submarine Electronics Technical Training Module 3
NV-1715-0969
Submarine Electronics Technical Training Module 4
NV-1715-0970
Submarine Electronics Technical Training Module 5
NV-1715-0971
Submarine Electronics Technical Training Module 6
NV-1715-0972
Submarine Electronics Technical Training Module 7
NV-1715-0973
Submarine Electronics Technical Training Module 8
NV-1715-0974
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Submarine Electronics Technical Training Modules 1-12
NV-1715-0966
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
NV-1715-0900
Submarine Food Service Watchstander
NV-1729-0010
Submarine Gyrocompass Mk 19 Mod 3
NV-1715-0062
Submarine Gyrocompass Mk 19 Mod 3 Combined Maintenance
NV-1715-0062
Submarine Interior Communications (IC) Systems
NV-1715-0642
Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted
NV-1710-0025
Submarine Main Power Generating Equipment
NV-1714-0053
Submarine Main Power Generator
NV-1732-0012
Submarine Medical Officer (Candidates)
NV-0705-0001
Submarine Medicine Technic
NV-0709-0001
Submarine Medicine Technician, Class C
NV-0709-0001
Submarine Officer Basic
NV-1408-0022
Submarine Officers Advanced
NV-2202-0013
Submarine Officers Indoctrination
NV-2202-0056
Submarine Periscope Repair Class C1
NV-1715-1065
Submarine Radar Maintenance (Enlisted)
NV-1715-0061
Submarine Radioman Electricity and Electronics
NV-1715-0316
Submarine Refrigeration and Air Conditioning R-12
NV-1730-0003
Submarine Satellite Information Exchange Subsystem Combined Maintenance
NV-1715-1471
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance
NV-1715-0871
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Operator
NV-1715-0878
Submarine Sonar AN/BQS-11/12/13 System Maintenance
NV-1715-0865
Submarine Sonar Subjective Analysis (SSSA)
NV-1715-0689
Submarine Sonar Technician A-1
NV-1715-0040
Submarine Tactical Communications Equipment Combined Maintenance
NV-1715-1477
Submarine Tender Radiological Controls
NV-1720-0001
Submarine Tender Radiological Controls (Enlisted)
NV-0705-0005
Submarine 3000 PSI Hydraulics Combined Maintenance
NV-1704-0247
Torpedoman's Mate Submarine Operator Special
NV-1715-0720
Torpedoman's Mate, Class A, Submarine
NV-1715-0720
Torpedoman's Mate, Class A, Submarine and Surface Prerequisite
NV-1715-0784
Trident Submarine Atmospheric Support System Maintenance
NV-1731-0001
Trident Submarine Auxiliary Equipment Technician Level II
NV-1704-0318
Trident Submarine Auxiliary Equipment Technician Level III
NV-1712-0030
Trident Submarine Auxiliary Equipment Technician Replacement Level I
NV-1732-0016
Trident Submarine Diesel Engine Maintenance
NV-1712-0028
Trident Submarine Hydraulic Combined Maintenance
NV-1704-0316
Type 18 Submarine Periscope Repair Class C1
NV-1715-1084
Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator
NV-0505-0001

Substance
Navy Substance Abuse Prevention Program
NV-0799-0007

Subsurface
Subsurface Cryptologic Technician (CT) Augmentee Operator Pipeline
NV-1715-1480
NV-1715-1481
NV-1715-1482
Subsurface Direct Support Maintenance
NV-1715-1465

Supervision
Management and Supervision of Naval Personnel
NV-1408-0007
Supervision and Management, Class C
NV-1406-0011

Supervisor
Air Intercept Control Supervisor
NV-2202-0126
AN/SQQ-89(V)2 Sonar Watch Supervisor
NV-1715-1506
Electronic Warfare Watch Supervisor-Surface
NV-1715-1237
IOIC Supervisor
NV-1606-0002
Torpedo MK 48 Intermediate Maintenance Activity Supervisor
NV-1715-1491
Track Supervisor/Tadil A Track Coordinator (Advanced)
NV-2202-0118

Supervisory
Mineman Supervisory and Advanced Technical Training
NV-1715-1109

Supply
Automated Supply and Accounting Systems Afloat (AN/UYK-5(V))
NV-1401-0003
Basic Qualification Course of the Supply Corps
NV-1405-0014
NV-1405-0015
NV-1405-0016
Joint Aviation Supply and Maintenance Material Management
NV-1405-0009
Line Officer Supply (LOS)
NV-1405-0006
Marine Aviation Supply (Manual), Class C
NV-1409-0005
Marine Aviation Supply (Mechanized), Class C
NV-1405-0007
Marine Aviation Supply, Class C
NV-1405-0008
Marine Corps Aviation Supply Officer Qualification
NV-1408-0024
Storekeeper Supply Afloat (Dependent Duty) Class C
NV-1405-0002
Storekeeper Supply Afloat (Independent Duty), Class C
NV-1405-0017
Supply Ashore Refresher
NV-1405-0011
Supply Corps Officer Basic Qualification - Aviation Management
NV-1405-0012
Supply Corps Officer-Basic Qualification
NV-1405-0019
Supply Indoctrination for Line Officers
NV-1408-0026
Supply Storekeepers (Repair Parts), Class C-1
NV-1405-0013

Support
Atmosphere Support Equipment Maintenance
NV-1715-1307
Aviation Support Equipment A/S 32P-16 Fire Fighting Truck Intermediate Maintenance
NV-1703-0016
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance
NV-1703-0015
Aviation Support Equipment Automatic Transmission Intermediate Maintenance
NV-1703-0010
Aviation Support Equipment Cryogenic Intermediate Maintenance
NV-1704-0255
Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment LHA-1 Pallet Transporter Intermediate Maintenance
NV-1703-0017
Aviation Support Equipment Mobile Air Conditioning Intermediate Maintenance
NV-1701-0008
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0541
Aviation Support Equipment Technician (Mechanical) Class A
NV-1704-0246
Aviation Support Equipment Technician Electrical
NV-1714-0019
Aviation Support Equipment Technician, Class A1
NV-1704-0326
AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance
NV-1715-0939
AN/ALR-50 Support Equipment Intermediate Maintenance
NV-1715-1422
AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance
NV-1715-0513
AN/APQ-126(V) Radar Set Special Support Equipment Intermediate Maintenance
NV-1715-0513
AN/WLQ-4(V) Direct Support Element Basic Operator
NV-1715-1463
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527
Electronic Support Measures 637 Class Type 2 Combined Maintenance Pipeline
NV-1715-1483
Electronic Warfare Electronic Support Measures System Maintenance, Class A
NV-1715-0780
Electronic Warfare Technician AN/WLR-1 Electronic Support Measures System Maintenance
NV-1715-0780
Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance
NV-1715-0780
Ground Support Equipment Tow Tractor Charging, Starting and Ignition Systems Intermediate Maintenance
NV-1704-0028
Naval Gunfire Support Planning
NV-2202-0089
Naval Security Group Direct Support Operations
NV-1715-0832
Officer Direct Support Operations, Class C4
NV-1715-0832
Reserve Cryptologic Technician Direct Support
NV-1715-0834
Reserve Training Officer Direct Support Operations, Class F1
NV-1715-0834
Subsurface Direct Support Maintenance
NV-1715-1465
Tactical Electronic Warfare (EW) Support Measures STMAN/SSQ-80(V) Maintenance
NV-1402-0077
Trident Exterior Communications System (ECS) Support Subsystem Basic Maintenance
NV-1715-1357

Supporting
Supporting Arms Coordination
NV-2202-0055
Supporting Arms Coordinator
NV-2202-0055

Surface
AN/SQQ-89(V)1 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C
NV-1715-1508
AN/SQQ-89(V)2 Surface Antisubmarine Warfare (ASW) Combat System Operator Class C
NV-1715-1507
Basic Point Defense Surface Missile System
NV-1715-0778
Basic Surface Sonar Technician, Class A Core Phase
NV-1715-0423
Electronic Warfare Officer Surface
NV-2202-0115
Electronic Warfare Watch Supervisor-Surface
NV-1715-1237
High Frequency Surface Communications System Operator
NV-1715-1348
Intermediate Surface Acoustic Analysis
NV-2202-0146
NATO Seasparrow Surface Missile System Mk 57 Mod 0/1/2/3 Maintenance
NV-1715-1040
NATO Seasparrow Surface Missile System Officer
NV-1715-1389
Sonar Surface Technician Class A
NV-1715-0423
Sonar Technician Class A-1 (Surface)
NV-1715-0423
Surface Acoustic Analysis Specialist
NV-2202-0145
Surface Electronic Warfare Officer
NV-2202-0115
Surface Electronic Warfare Operations Intermediate
NV-1715-1334
Surface Explosive Ordnance Disposal Basic
NV-2202-0017
Surface Microcomponent Repair Course
NV-1715-1092
Surface Missile Systems, Officer
NV-1715-0758
Surface Sonar AN/SQS-56 Operations
NV-1715-0235
Surface Sonar Set AN/SQS-56 Maintenance
NV-1715-0272
Surface Sonar Technician, Class A
NV-1715-0423
Surface Warfare Officer Advanced Command
NV-1717-0018
Surface Warfare Officer Basic
NV-1717-0017
Surface Warfare Officer Department Head
NV-1717-0019
Surface Warfare Officer School
NV-2202-0027
Surface Warfare Officer Specialty Course Steam Main Propulsion Assistant
NV-1710-0093
Surface Warfare Officers Advanced

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Torpedoman's Mate Surface Operator Special NV-1715-0719
Torpedoman's Mate, Class A, Submarine and Surface Prerequisite NV-1715-0784
Torpedoman's Mate, Class A, Surface NV-1715-0719

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AN/GPN-27 Airport Surveillance Radar Maintenance Class C NV-1715-1188
Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Basic Operator NV-1715-0989
Electronic Surveillance Measures (ESM) AN/WLR-1G Combined Maintenance NV-1715-0995
Electronic Surveillance Measures (ESM) AN/WLR-8(V)2 Combined Operator Maintenance NV-1715-0469
Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883
Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889
Electronic Warfare Technician AN/SLQ-32(V2) Electronic Surveillance Measures (ESM) Maintenance NV-1402-0075
Engineering Control and Surveillance System Maintenance, Class C1 NV-1601-0014
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Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User NV-1402-0117
Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management NV-1402-0119
Prototype Ocean Surveillance Terminal User NV-1402-0118
Surveillance Towed Array Sensor System (SURTASS) Shore NV-1715-1499
585/594 Fleet Ballistic Missile (FBM) Electronic Surveillance Measures (ESM) Technician NV-1715-0882

Survival
A-6A Environmental, Escape and Survival Systems Organizational Maintenance NV-1704-0085
Advanced Aircrew Survival Equipmentman NV-1704-0208
Aircrew Survival Equipmentman School, Class B NV-1704-0208
Aircrew Survival Equipmentman, Class A NV-1704-0234
Aircrew Survival Equipmentman, Class A1 NV-1704-0304
Aircrew Survival Equipmentman, Class A1 (Basic Aircrew Survival Equipmentman) NV-1704-0234
Aircrew Survival Equipmentman, Class C1 NV-1704-0303
Aircrew Survival Equipmentman, Class C7 NV-1704-0208
Parachute Rigger (Survival), Class A NV-1733-0001
RA-5C Survival and Environmental Systems NV-1704-0040
RA-5C Survival and Environmental Systems Organizational Maintenance NV-1704-0040

Swift
Swift Boat Crew Training NV-1722-0009

Switch
Radio Frequency Switch Matrix System Maintenance C1 NV-1402-0111

Switchboard
AN/SPA-25/-25(B) Radar Indicator and SB-1505 Switchboard Maintenance NV-1715-0029

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Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735
Fully Automatic Switching Terminal NV-1715-1110
Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661
Trident Exterior Communications System (ECS) Data Switching Subsystem Basic Maintenance NV-1715-1356

Synchronous
Synchronous Distributed Processor II NV-1715-1112

Synchrophaser
P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322

System 360
IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007

Systems
Data Processing Systems Analysis, Class C NV-1402-0001
Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001
Ocean Systems Technician Maintainer Class A NV-1715-1327

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E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349
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Semi-Automatic Checkout Equipment (SACE) with INS/AFCS/ ADC/UE Test Benches Intermediate Maintenance NV-1715-1205
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SATC
Subassembly Test Console (SATC) Intermediate Maintenance NV-1715-0956

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SCATMOD 3 NV-1715-0929
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SECT
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Transmitter (SECT) Buoy AN/BST-1 Maintenance
NV-1715-0900
SECT Buoy AN/BST-1 Basic Maintenance, Class F1
NV-1715-0900

SEI
Sonar Electronics Intermediate (SEI)
NV-1715-0867

SEIN
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications)
NV-1715-0639

SEIR
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar)
NV-1715-0638

SERE
Counterinsurgency/Self-Protection/SERE
NV-1511-0001

SH-2
SH-2 Aviation Machinist's Mate Power Plant System
NV-1704-0289

SH-2D
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance
NV-1704-0205
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance
NV-1715-0697

SH-2F
SH-2F Airframes, Hydraulics and Flight Control Organizational Maintenance
NV-1704-0290
SH-2F Automatic Stabilization
NV-1704-0291
SH-2F Electrical Component Intermediate Maintenance
NV-1714-0035
SH-2F Electrical System Organizational Maintenance
NV-1714-0036
SH-2F Power Plants, Related Systems and Rotor Systems Organizational Maintenance
NV-1704-0172

SH-3
SH-3 Airframe and Hydraulic Systems Maintenance
NV-1704-0124
SH-3 Airframes and Hydraulic Systems Organizational Maintenance
NV-1704-0047
SH-3 Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0621
SH-3 Automatic Stabilization Equipment Organizational Maintenance
NV-1704-0006
NV-1704-0096
SH-3 Aviation Machinist's Mate Class A Power Plant Systems
NV-1704-0297
SH-3 AN/AQS-13 Sonar Maintenance
NV-1715-0677
SH-3 AN/ASA-13A Navigation System Intermediate Maintenance
NV-1715-0241
SH-3 AN/AYK-2 Navigation System Intermediate Maintenance
NV-1715-0227
SH-3 Communications/Navigation Systems Organizational Maintenance
NV-1715-1195
SH-3 Electrical Components Intermediate Maintenance
NV-1704-0031
SH-3 Electrical Systems Organizational Maintenance
NV-1704-0114
SH-3 Power Plants and Related Systems Organizational Maintenance
NV-1704-0139
SH-3A AN/ASA-13A Navigation System Mantenance
NV-1715-0241
SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance
NV-1715-0227
SH-3A/D Electrical Systems Organizational Maintenance
NV-1704-0114
SH-3D/H Power Plants and Related Systems Organizational Maintenance Course
NV-1704-0139

SH-3A
SH-3A Automatic Stabilization Equipment Maintenance
NV-1715-0616
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237
SH-3A AN/AQS-10 Sonar Intermediate Maintenance
NV-1715-0231
SH-3A AN/AQS-10 Sonar Maintenance
NV-1715-0231
SH-3A AN/ASA-13A Navigational Computer Maintenance
NV-1715-0333
SH-3A Electrical Systems Maintenance
NV-1704-0083
SH-3A Power Plants and Related Systems Maintenance
NV-1704-0134
NV-1704-0144

SH-3A/D
SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance
NV-1715-0227
SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance
NV-1715-0747
SH-3A/D Electrical Systems Organizational Maintenance
NV-1704-0114

SH-3A/G
SH-3A/G Power Plants and Related Systems Organizational Level Maintenance
NV-1704-0146

SH-3D/H
SH-3D/H Power Plants and Related Systems Organizational Maintenance Course
NV-1704-0139

SH-60B
SH-60B Airframes and Related Systems Organizational Maintenance
NV-1704-0292
SH-60B Automatic Flight Control System Organizational Maintenance
NV-1715-1197
SH-60B Electrical System Organizational Maintenance
NV-1714-0037
SH-60B Light Airborne Multipurpose System (LAMPS) Mk III Weapons System Technician Organizational Maintenance
NV-1715-1198
SH-60B Power Plant and Related Systems Organizational Maintenance
NV-1704-0293

SH/HH-2D
SH/HH-2D Power Plant and Related Systems Organizational Maintenance
NV-1704-0172

SINS
Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration
NV-1715-1374
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 0-6 Technician
NV-1715-0066
Electronics Technician, Class C, SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130
Electrostatically Supported Gyro Monitor (ESGM) Backfit Ship's Inertial Navigation System (SINS) Technician Conversion
NV-1715-1130
Mk 2 Mod 1 Ship's Inertial Navigation System (SINS) Maintenance
NV-1402-0039
Mk 2 Mod 1/1A Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1402-0051
Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Combined Maintenance
NV-1715-1461
Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance
NV-1715-0426
Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426
Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Operations (Enlisted)
NV-1715-0339
Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921
Ship's Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922
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Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
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Ship's Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I NV-1715-0919
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Ship's Inertial Navigation System (SINS) Mk 3 Mod 4 Combined Maintenance NV-1402-0052
Ship's Inertial Navigation System (SINS) Mk 3 Mod 6 Combined Maintenance NV-1715-0985
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Ship's Interial Navigation System (SINS) Mk 2 Mod 7 Technician Replacement NV-1715-1162
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Equipment Technician Replacement NV-1715-1393
Ships Inertial Navigation System (SINS) Mk2 Mod 7 Technician Replacement NV-1715-1380
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SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician NV-1715-0440
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Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance NV-1715-1230

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SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course NV-1715-0671

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SSBN Ship's Inertial Navigation System (SINS) Mk 2 Mod 4 Technician NV-1715-0440
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Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871
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SSM
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SSM Degaussing System for DD-963 Class Destroyer, Class C1 NV-1601-0017

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SSN Mk 3 Mod 6 Ship's Inertial Navigation System (SINS) Maintenance NV-1715-0426

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Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883

SSN 668
Navigation Technician SSN 668 Class NV-1715-0881

SSN 688
Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889

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Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
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Tactical Electronic Warfare (EW) Support Measures STMAN/SSQ-80(V)

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ASTOR/SUBROC Operator Maintenance NV-2202-0084

SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance NV-1715-0794

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Surveillance Towed Array Sensor System (SURTASS) Shore NV-1715-1499

SW

Steelworker, Class J (SW) NV-1723-0008

SW Maintenance Welding NV-1710-0068

SW Welding Certification NV-1710-0053

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Strategic Weapons System (SWS) Command Polaris NV-1715-0573

Strategic Weapons System (SWS) Weapons Officer Polaris NV-1715-0606

T-1073A/A

T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B) NV-1715-0192

T-2C

T-2C Power Plants and Related Systems Maintenance NV-1704-0169

T-41-A-2

T-41-A-2 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0123

T-53-L-11

UH-1E T-53-L-11 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0025

T-53-L-13

T-53-L-13 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0150

T-56-A-14

P-3 T-56-A-14 Engine and Related Systems Maintenance NV-1704-0019

T-56-A-16

KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0014

T-56-A-7

KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance NV-1704-0125

KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance NV-1704-0125

T-58

T-58 Engines First Degree Intermediate Maintenance T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0027

T-64-GE-413

CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0032

T-64-GE-6/6A

H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair NV-1704-0049

T-700-GE

T-700-GE 401 Intermediate Maintenance First Degree NV-1704-0294

T-76-G-10/12

OV-10A T-76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance NV-1704-0137

Tactical

Afloat Tactical Reconnaissance Intelligence (TACRECCE) Analyst NV-1709-0026

Air Intercept Controller Naval Tactical Data Systems (NTDS) Qualification NV-1715-0674

Airborne Tactical Data System Operations, Class O NV-1402-0036

Amphibious Tactical Air Control Party NV-2202-0006

Antisubmarine Air Control Naval Tactical Data System (NTDS) NV-2202-0120

Automated Tactical Reconnaissance Systems (TACRECCE) Support Afloat NV-1709-0040

AN/TRQ-35(V) Tactical Frequency Management System NV-1715-1352

AN/WLR-6(V)4 Tactical Operator NV-1715-0500

AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877

Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674

Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3 NV-1715-0849

CV Naval Tactical Data System (NDTS) Data Utilization NV-2202-0114

CV Naval Tactical Data System Input Basic NV-1715-1236

Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C NV-1402-0041

Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C NV-1402-0041

DD-963 Naval Tactical Data System (NTDS) Data Utilization NV-1402-0023

DD-963 Naval Tactical Data Systems (NTDS) Data Input NV-1402-0010

E-2B Airborne Tactical Data Systems NV-1704-0226

E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777

E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225

Electronic Warfare Technician, Class A (A-4), Tactical Operations NV-1715-0782

Enlisted Tactical Applications NV-2202-0129

Force/Ship Weapons Coordinator Tactical Training NV-2202-0121

Marine Corps Short Airfield For Tactical Support, Class C NV-1710-0014

Naval Intelligence Processing System (NIPS) Photographic Processing/Tactical Air Reconnaissance Pod System (TARPS) Reconnaissance Coordinator Officer NV-1709-0025

Naval Tactical Data System (NTDS) (Data Utilization) NV-1402-0023

Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002

Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032

Naval Tactical Data System (NTDS) Tracker/Supervisor NV-1715-0673

Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005

Naval Tactical Data System Input NV-1715-1235

Naval Tactical Data System Operations, Class O NV-1402-0037

Naval Tactical Data Systems (NTDS) Data Transmission Group Maintenance NV-1715-0273

Naval Tactical Data Systems (NTDS) Data Utilization NV-1402-0006

Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006

Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004

Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted) NV-1402-0003

Naval Tactical Data Systems Maintenance (NTDS) NV-1715-0274

Officer in Tactical Command Information

Exchange System NV-1715-1343
P-3C Tactical Coordinator Positional Training for Naval Flight Officers NV-1606-0043
Plotting System PT-512/S Tactical Display Maintenance NV-1715-1136
Programming, Naval Tactical Data Systems (NTDS) Operational (Officer and Enlisted) NV-1402-0031
P3A/B VP Readiness Tactical Coordinator NV-2202-0041
RT-736 and KY-531 Tactical Air Navigation (TACAN) Intermediate Maintenance NV-1715-0796
Shipboard Tactical Data Systems Maintenance NV-1402-0041
Submarine Tactical Communications Equipment Combined Maintenance NV-1715-1477
Tactical Action Officer NV-2202-0123
Tactical Air Control Party NV-2202-0006
Tactical Data Systems Analysis NV-1402-0042
Tactical Data Systems Maintenance Officer/Program Officer NV-1402-0041
Tactical Electronic Warfare NV-1715-0768
Tactical Electronic Warfare (EW) Support Measures STMAN/SSQ-80(V) Maintenance NV-1402-0077
Tactical Intelligence (TACINTEL) System Maintenance NV-1715-1247
Tactical Intelligence Subsystem Maintenance NV-1715-1152
Tactical Photographic Interpretation NV-1709-0011
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877
VP CRAG Tactical Coordinator Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics NV-2202-0041

Tactics
Naval Reserve Senior Officer Tactics NV-2202-0117

Talos
Talos Computer Mk 111 Mod 1, Class C NV-1715-0419
Talos Guided Missile and Guided Missile Test Set Maintenance NV-1715-0622
Talos Gunner's (Missile) Handling NV-1715-0602
Talos Officers NV-1715-0608
Talos Radar AN/SPG-49B, Class C NV-1715-0282
Talos Radar AN/SPW-2B NV-1715-0793
Talos Radar AN/SPW-2B, Class C NV-1715-0278
Talos Telemetering Data Reduction NV-2202-0082
Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C NV-1715-0259
Talos Weapons System Mk 77 Mod 2 (Class C) NV-1715-0444
Talos Weapons/Fire Control/Missile Battery NV-1715-0608

Tank
Remote Pressure/Tank Level/Liquid Airflow Indicating Equipment Maintenance NV-1715-1305

Tape
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110
Magnetic Tape Input/Output Device MX-7988A,B UYK Maintenance NV-1715-1454
Magnetic Tape Unit Advanced Training NV-1715-1000
OA-9008 Magnetic Tape Control Unit and Magnetic Tape Transport NV-1715-1033

Target
A-6E Target Recognition Attack MultiSensor Aircraft Communication, Navigation, Identification (CNI) and Intercommunication Systems Organizational Maintenance NV-1715-0940
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis) NV-1715-0412
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 and Target Designation System Mk 5 NV-1715-0216
Fire Control Technician Class C, Target Designation System (TDS) Mk 5 NV-1715-0212
Fire Control Technician Class C, Target Designation System Mk 6 NV-1715-0213
Mk 23 Mod 0/1 Target Acquisition System (TAS) Maintenance NV-1715-1037
Photographic Interpretation/Radar Target Analysis NV-1606-0030
Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893
Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894
Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897
QH-50C Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0418
QH-50D Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0417
Radar (Target) Intelligence NV-1709-0015
Target Data Processing (TDP) Maintenance Class C NV-1402-0129
Target Designation System Mk 5 Maintenance NV-1715-0264
Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315
Target Drone, Class C NV-1704-0044
Underwater Fire Control Systems(FCS) Technician (Target Motion Analysis Subsystem) NV-1715-0313

Tartar
Tartar Computer Mk 118 NV-1715-0343
Tartar Computer Mk 118 Mod 0 NV-1715-0343
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072
Tartar Fire Control and Missile Officer NV-1715-0703
Tartar Guided Missile Launching System (GMLS) Mk 11 Maintenance Class C1 NV-1715-1081
Tartar Guided Missile System Mk 13 Maintenance Class C1 NV-1715-1082
Tartar Missile Fire Control Systems (MFCS) Mk 74 Mods 4/5/8 NV-1715-0847
Tartar Mk 152 Computer Complex NV-1715-0792
Tartar Officer Advanced NV-1715-0572
Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C NV-1715-0421
Tartar Radar AN/SPG-51C Digital NV-1715-0512
Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1 NV-1715-0512
Tartar Radar Test Set Mk 474 Mod 2 NV-1715-0396
Tartar Weapon Direction System (WDS) Mk 4, Class C NV-1715-0436
Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C NV-1715-0437
Tartar Weapons Control System NV-1715-0466
Tartar Weapons Direction System (WDS) Mk 4 WDE Mk 1 NV-1715-1121 NV-1715-1391
Tartar Weapons Direction System Mk 13 Mod 4 NV-1715-1264
Tartar Weapons Officer NV-1715-0572
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
Tartar Weapons System Mk 74 Mod 6 NV-1715-1384
Tartar Weapons System Mk 74 Mod 6

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805
Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance NV-1715-0467
Terrier/Tartar Gunner's Mate NV-1715-0603
WDS Mk 14 Communications Tracking Set SYR-1 Maintenance Tartar NV-1715-1266

Technical
Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Electronics Technical Officer, Class O NV-1715-0345
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800

Technician
Navigation Technician Type I SSN-593 Class NV-1402-0039

Technology
Special Technology I NV-1715-0905
Special Technology II NV-1715-0906
Special Technology III NV-1715-0907

Telecommunications
Automated Telecommunications Systems Technician, Class C7 NV-1408-0030
Telecommunications Operations Specialist NV-1715-1244

Telegraph
AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1) NV-1715-0009
AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249

Telemetering
Talos Telemetering Data Reduction NV-2202-0082
Telemetering Ground Station AN/SKQ-2 NV-1715-0791
Terrier Telemetering Data Reduction NV-2202-0083

Telemetric
AN/AKT-22(V) Telemetric Data Transmitting Set and AN/UKM-2A Telemetric Data Test Set Intermediate Maintenance NV-1715-0538

Telemetry
QH-50D Operational Telemetry Maintenance NV-1715-0592

Telephone
Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735
AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249
Dynalec Automatic Telephone System Maintenance, Class C1 NV-1404-0007
Dynalec 200/700 Line Automatic Telephone Maintenance NV-1404-0010
Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661
Telephone Dial-X System Combined Maintenance NV-1715-1009

Telephones
Automatic Telephones, Class C NV-1715-0546

Teletype
Model 28 ASR Teletype Maintenance NV-1715-0662
Submarine Digital Teletype Combined Maintenance NV-1404-0011
Teletype Maintenance, Class C, Low Level Keying Teletype Maintenance NV-1715-0663

Teletypewriter
AN/UGC-20/25 Teletypewriter Set Maintenance NV-1715-0090
AN/UGC-20A/25A Teletypewriter Set Maintenance NV-1715-0090
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer NV-1715-0019
P-3TT-264/AG Teletypewriter Group Maintenance, No. 20 NV-1715-0666
Teletypewriter AN/UGC-20B/25 Combined Maintenance NV-1715-0090
Teletypewriter Reperforator TT-253/UG NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines NV-1715-0664
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator NV-1715-0665
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance NV-1706-0002
TT-264/AG Teletypewriter Group Intermediate Maintenance NV-1715-0666
TT-299B/UG Teletypewriter Set Maintenance (Enlisted) NV-1715-0734

Television
AN/SXQ-8(V)2 Secure Closed Circuit Television System Maintenance NV-1709-0021
Cinema Television/Production Specialist NV-1709-0027
Cinema/Television (TV) Production Specialist C1 NV-1709-0009
Closed Circuit Television Maintenance, Class C1 NV-1715-0407
CV Air Operations Closed Circuit Television (ILARTS) Maintenance NV-1715-1229
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358
Ships Information, Training and Entertainment (SITE II) Closed Circuit Television Maintenance NV-1715-1230
Television Instructors NV-1406-0007

Temperature
Common Alarm, Temperature Monitoring and Salinity Systems Equipment Maintenance NV-1715-1306

Tender
AN/BST-1 Tender Maintenance NV-1715-0588
Electronics Technician, Class C, Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0182
Electronics Technician, Class C, SSBN Naval Data Automated Computer (NAVDAC) Fleet Ballistic Missile (FBM) Tender Navigation Maintenance NV-1715-0168
Fire Control System (FCS) Technician Mk 88 Mod 1 Tender Maintenance NV-1715-0205
Fleet Ballistic Missile (FBM) Tender Navigation Maintenance Computer NV-1715-0182
Fleet Ballistic Missile Tender Navigation Maintenance Computer NV-1715-1402
Launcher Technician (Tender) NV-1710-0030
Poseidon Mk 3 Reentry System Tender Transfer and Handling NV-2203-0143
Replacement Navigation Tender Technician NV-1715-1123
Submarine Tender Radiological Controls NV-1720-0001
Submarine Tender Radiological Controls (Enlisted) NV-0705-0005
Trident Mk 4 Reentry System Tender Transfer and Handling NV-2202-0144
Trident 1 Backfit MT Tender Technician NV-1402-0061
Universal ILM Tender NV-1715-1406

Tenders
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships) NV-1402-0045

Tensional

Standard Tensional Replenishment Alongside Methods (STREAM) Operator
NV-1710-0112

Terminal

AN/SSQ-29 Data Terminal Set Maintenance-Difference
NV-1715-1052

AN/SSW-1 Data Terminal Set Maintenance
NV-1715-1053

AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1)
NV-1715-0009

AN/USQ-36 Data Terminal Set Maintenance
NV-1715-1055

AN/USQ-59 Data Terminal Set Maintenance
NV-1715-1047

AN/USQ-74 Link Data Terminal Maintenance
NV-1715-1338

E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance
NV-1715-0254

Flat Panel Display Terminal Maintenance
NV-1402-0139

Force High Level Terminal Data Systems Maintenance Technician
NV-1715-1177

Fully Automatic Switching Terminal
NV-1715-1110

Introduction to Traffic and Terminal Management
NV-0419-0014

Marine Terminal Management
NV-0419-0012

Prototype Ocean Surveillance Terminal User
NV-1402-0118

Terrain

A-6 Terrain Clearance Test Bench Intermediate Maintenance
NV-1715-0953

Terrier

DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073

DLG-16 (MOD) Terrier Weapons System
NV-2202-0073

Radar Set AN/SPG-55B Terrier Operation and Maintenance
NV-1715-1124

Terrier AN/SPG-55B ASMD 70 Radar Update
NV-1715-0801

Terrier AN/SPG-55B Mod 9 Radar Maintenance
NV-1715-1122

Terrier ASMD-70 55B Radar Update
NV-1715-0801

Terrier Computer Mk 100 Mod 2
NV-1715-0398

Terrier Computer Mk 119 Mod 5
NV-1715-0334

Terrier Computer Mk 119 Mod 5 (Fleet Inputs)
NV-1715-0334

Terrier Computer Mk 119 Mods 3 and 4
NV-1715-0334

Terrier CG/DDG Standard Missile (ER) Officer Advanced
NV-1715-1396

Terrier Fire Control and Missile Officer
NV-1715-0328

Terrier Guided Missile Launching System (GMLS) Mk 10 Maintenance Class C1
NV-1715-1083

Terrier Mk 152 Computer Complex
NV-1715-0391
NV-1715-1382

Terrier New Threat Upgrade (NTU) Advanced Officer
NV-2202-0140

Terrier Radar AN/SPQ-5A
NV-1715-0291

Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT)
NV-1715-0693

Terrier Radar Set AN/SPG-55B Mod 5
NV-1715-0526

Terrier Radar Set AN/SPG-55B Mod 5 (Fleet Input)
NV-1715-0597

Terrier Telemetering Data Reduction
NV-2202-0083

Terrier Weapon Direction System Mk 3 (DE Mk 9)
NV-1715-0649

Terrier Weapon Direction System Mk 7 (WDE Mk 8)
NV-1715-0[illegible]3

Terrier Weapon System DLG-28 (Class System Level Maintenance)
NV-1715-0804

Terrier Weapons
NV-1715-0605

Terrier Weapons System Missile Fire Control System (MFCS) Mk 73
NV-1715-0442

Terrier Weapons System Missile Fire Control System (MFCS) Mk 76
NV-1715-0443

Terrier Weapons System Mk 76 Mod 8
NV-1715-0658

Terrier Weapons System Mk 76 Mod 9
NV-1715-0443

Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS)
NV-1715-0658

Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance
NV-1715-0467

Terrier/Tartar Gunner's Mate
NV-1715-0603

Weapon Direction System (WDS) MK-14 Terrier Console Operator
NV-1715-1239

Test

A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance
NV-1715-0475

A-6 Ballistics Computer Test Console Intermediate Maintenance
NV-1715-0342

A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance
NV-1715-0336

A-6 Electronic Module Test Console Intermediate Maintenance
NV-1715-0451

A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance
NV-1715-0297

A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance
NV-1715-0335

A-6 Search Radar Module Analyzer Test Console
NV-1715-0530

A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance
NV-1715-0177

A-6 Terrain Clearance Test Bench Intermediate Maintenance
NV-1715-0953

A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance)
NV-1715-0429

A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance
NV-1715-0435

A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance
NV-1715-0431

A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance
NV-1715-0109

A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance
NV-1715-0429

A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance
NV-1715-0146

An/USM-467 Radar Communications Test Station Maintainer Intermediate Maintenance
NV-1715-1418

AN/AAM-60(V)2 Electro-Optical Systems Test Set Intermediate Maintenance
NV-1715-1027

AN/AAM-60(V)6 Electro-Optical Test Set Intermediate
NV-1715-1190

AN/AKT-22(V) Telemetric Data Transmitting Set and AN/UKM-2A Telemetric Data Test Set Intermediate Maintenance
NV-1715-0538

AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance
NV-1715-0054

AN/ALM-108 Surveillance Receiver Test Station AN/ALQ-99 Surveillance Receivers Intermediate Maintenance
NV-1715-0054

AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance
NV-1715-0052

AN/ALM-117 Digital Test Station Operator
NV-1715-0943

AN/ALM-138, AN/ALM-143, AN/ALM-155 Subassembly Test Console T, S, and C Intermediate Maintenance
NV-1715-0956

AN/ALM-163 Digital Module Test Console Intermediate Maintenance NV-1715-0936
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053
AN/ALQ-99 Jamming Transmitters and AN/ALM-107B Countermeasures Test Station Intermediate Maintenance NV-1715-0053
AN/ALQ-99 Tracking Receivers Control Modulators, Exciters with AN/ALM-109C Tracking Receiver Test Station and TS 3517/ALM RF Oscillator Rom Linearizer Test Set Intermediate Maintenance NV-1715-0052
AN/AMP-225 Module Analyzer Test Console Intermediate Maintenance NV-1715-0944
AN/APM 341 (V) Doppler Test Set Intermediate Maintenance NV-1715-0360
AN/APM-375 Mini-Sace Search Radar Test Console AN/APQ-156 and AN/APS-130 Search Radar Systems and MSRTC Tested AN/AAS-33A WRAS Intermediate Maintenance Course NV-1715-1419
AN/APM-375 Mini-SACE Search Radar Test Console Intermediate Maintenance NV-1715-0941
AN/AQM-18(V)1 Thru (V)5 Sonar Computer Recorder Group Test Central and AN/AQM-20 Computer Group Power Systems Test Set Intermediate Maintenance NV-1715-0539
AN/ARM-155 and AN/ARM-156 TACAN Test Equipment Intermediate Maintenance NV-1715-0946
AN/ASM 459 Mini-SACE Flight System Test Console Intermediate Maintenance NV-1715-0948
AN/ASM-33B AN/ASM-122 Portable Module Test (PMT) Intermediate Maintenance NV-1715-1211
AN/ASM-461 Mini-SACE Display Test Console Intermediate Maintenance NV-1715-0949
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E) NV-1704-0229
AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174
AN/USM-402(V) Swept Frequency Measurement (SEFT Cart) Test Set Intermediate Maintenance NV-1715-1208
AN/USM-403 Electrical System Equipment Test Set Intermediate Maintenance NV-1714-0032
AN/USM-403 Hybrid Automatic Test Set (HATS) Operator NV-1715-1193
AN/USM-467 Radar Communication Test Station Operator Intermediate Maintenance NV-1715-1417
AN/USM-467 RADCOM Test Station Intermediate Maintenance Course NV-1715-1213
Basic Electronic Test Equipment NV-1715-1325
Boiler Water/Feed Water Test and Treatment Instructor Certification NV-1601-0022
Dynamics Alignment Test Set (DATS) Intermediate Maintenance NV-1715-1199
Dynamics Alignment Test Set (DATS) Operator NV-1715-1200
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance NV-1715-0008
General Purpose Electronic Test Equipment Functional and Operational Use NV-1715-1331
Inertial Platform Test Station (IPTS) Intermediate Maintenance NV-1715-1207
Intermediate Level Calibration of Physical/Dimensional Test and Measuring Systems Phases B/D NV-1715-1495
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902
Mineman Test Set Repair and Maintenance Training NV-1715-1108
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory) NV-1715-0998
Missile Test and Readiness Equipment Mk 7 Mod 4 Advanced Circuitry NV-1402-0089
Missile Test and Rediness Equipment (MTRE) MK7 Mod 4 Advanced Theory and Maintenance NV-1402-0089
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798
OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548
OJ-511/ALM Exciter Test Station Intermediate Maintenance NV-1715-1416
OJ-615/ALM Countermeasures Test Console Intermediate Maintenance NV-1715-1421
Semi-Automatic Checkout Equipment (SACE) with INS/AFCS/ ADC/UE Test Benches Intermediate Maintenance NV-1715-1205
Subassembly Test Console (SATC) Intermediate Maintenance NV-1715-0956
Talos Guided Missile and Guided Missile Test Set Maintenance NV-1715-0622
Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance NV-1715-0467
Test Bench Intermediate Maintenance AQQ NV-1715-0953
Torpedo Mk 46 Mod 5 Test Equipment Intermediate Maintenance NV-1715-1104
Torpedo Mk 48 Mods 1 and 3 Test Equipment Intermediate Maintenance NV-1715-1106
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance NV-1715-1354

Test Equipment

(SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance) NV-1715-0795
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406
A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302
A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159
A-6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance NV-1715-0074
AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0628
AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0446
Electronic Test Equipment Basic Operator, Class F1 NV-1715-0896
Electronic Test Equipment Operation NV-1715-0896
Electronic Test Equipment Operation/Operational Use NV-1715-0005
General Purpose Electronic Test Equipment Repair Intermediate Maintenance NV-1715-1494
Intermediate Level Test Equipment

Calibration
NV-1715-1496
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance
NV-1402-0044
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance
NV-1715-0542
RA-5C Semi-Automatic Test Equipment Bomb Director
NV-1715-0547
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance
NV-1715-0238
Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7
NV-1715-0628
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702
SUBROC Missile Mk 28 Mod 1 Test Equipment Intermediate Maintenance
NV-1715-0795
Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance
NV-1715-0788
Torpedo Mk 37 Mods 2 and 3 Test Equipment Intermediate Maintenance
NV-1715-0788
Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance
NV-1715-0786

Testing
Nondestructive Testing of Metals
NV-1724-0002
Nondestructive Testing of Metals Eddy Current Inspection Class C1
NV-1724-0008
Nondestructive Testing of Metals Radiographic Inspector Class C1
NV-1724-0007
Nondestructive Testing of Metals Radiographic Operator
NV-1724-0009
Nondestructive Testing of Metals Ultrasonic Shearwave Inspection, Class C1
NV-1724-0005
Nondestructive Testing of Metals Ultrasonic Silver Braze Inspection, Class C1
NV-1724-0004
Nondestructive Testing of Metals Ultrasonic Thickness Inspection Class C1
NV-1724-0003
Nondestructive Testing of Metals Visual, Magnetic Particle and Liquid Penetrants Operator/Inspector
NV-1724-0006

Theory
Advanced Theory and Maintenance I Ships Inertial Navigation System (SINS) Mk 2 Mods 6/7
NV-1715-1376
Advanced Theory of Ships Inertial Navigation Systems (SINS) Calibration
NV-1715-1374
Basic Computer Theory
NV-1402-0038
Computer Theory, Basic
NV-1402-0038
Magnetic Disk File (MDF), Theory and Electrical Maintenance FLS Mk 98 Mod 0
NV-1402-0140
Magnetic Disk File Theory and Electrical Maintenance Fire Control System Mk 88 MOD 1
NV-1715-1001
Magnetic Disk File Theory and Mechanical Maintenance FCS Mk Mod 0
NV-1402-0122
Mardan Computer Theory and Maintenance I
NV-1715-0447
Mardan Computer Theory and Maintenance II
NV-1715-0448
Missile Test and Readiness Equipment (MTRE) Mk 7 Mod 2 Advanced Maintenance (Theory)
NV-1715-0998
Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Theory and Maintenance II
NV-1715-1002
Ship's Inertial Navigation System (SINS) Theory and Analysis
NV-1107-0002
Ships Inertial Navigation System Theory and Maintenance II
NV-1715-1369
Trident Navigation Subsystem Theory
NV-1715-1366

Therapy
Occupational Therapy Technic
NV-0704-0003
Occupational Therapy Technician, Class C
NV-0704-0003
Physical and Occupational Therapy Technic
NV-0704-0002
Physical and Occupational Therapy Technician, Class C
NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II
NV-0704-0002
Physical Therapy Technic
NV-0704-0002
Physical Therapy Technician, Class C
NV-0704-0002

Thermal
Shipboard Thermal Insulation (Lagging)
NV-1710-0039

Threat
Terrier New Threat Upgrade (NTU) Advanced Officer
NV-2202-0140

Throat
Eye, Ear, Nose and Throat Technician, Class C
NV-0709-0009

Time
Time Series Acoustic Recall System Maintenance
NV-1715-1113

Tissue
Tissue Bank Technic
NV-0702-0005
Tissue Bank Technician, Class C
NV-0702-0005
Tissue Culture Technic
NV-0702-0001
Tissue Culture Technician, Class C
NV-0702-0001

Tomahawk
Tomahawk Missile Intermediate Maintenance
NV-1715-1490

Tool
Builder—Tool and Equipment Maintenance (BU "C")
NV-1002-0001
Machine Tool Operations
NV-1723-0001
Machine Tool Operator
NV-1723-0001
NV-1723-0015

Tools
Underwater Hydraulic Tools
NV-1723-0014

Torpedo
Mk 63 Torpedo Tube Basic Maintenance
NV-1715-1225
Torpedo Mk 37 Mods 0, 1, 2, and 3 Organizational Maintenance
NV-1715-0787
Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance
NV-1715-0789
Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance
NV-1715-0788
Torpedo Mk 37 Mods 2 and 3 Intermediate Maintenance
NV-1715-0789
Torpedo Mk 37 Mods 2 and 3 Test Equipment Intermediate Maintenance
NV-1715-0788
Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance
NV-1715-0786
Torpedo Mk 46 Mod 5 Intermediate Maintenance
NV-1715-1103
Torpedo Mk 46 Mod 5 Test Equipment Intermediate Maintenance
NV-1715-1104
Torpedo Mk 48 Advanced Capability (ADCAP) Intermediate Maintenance
NV-1715-1493
Torpedo Mk 48 Mods 1 and 3 Intermediate Maintenance
NV-1715-1105
Torpedo Mk 48 Mods 1 and 3 Test Equipment Intermediate Maintenance
NV-1715-1106
Torpedo MK 48 Intermediate Maintenance Activity Supervisor
NV-1715-1491
Torpedo Technician Advanced
NV-1715-1107
NV-1715-1492

Torpedoes
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)
NV-1715-0412
Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance
NV-1601-0011
Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance
NV-1715-0785

Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7
NV-1715-0760

Torpedoman's Mate
Basic Electricity and Electronics for Torpedoman's Mate
NV-1715-0532
Torpedoman's Mate Basic Class A1
NV-1715-1102
Torpedoman's Mate Class A1
NV-1715-1488
Torpedoman's Mate Submarine Operator Special
NV-1715-0720
Torpedoman's Mate Surface Operator Special
NV-1715-0719
Torpedoman's Mate, Class A
NV-1715-0718
NV-1715-0719
NV-1715-0720
Torpedoman's Mate, Class A, Intermediate Maintenance Prerequisite
NV-1715-0718
Torpedoman's Mate, Class A, Submarine
NV-1715-0720
Torpedoman's Mate, Class A, Submarine and Surface Prerequisite
NV-1715-0784
Torpedoman's Mate, Class A, Surface
NV-1715-0719
Trident Torpedoman's Mate Replacement
NV-1704-0277

Towed Array
Surveillance Towed Array Sensor System (SURTASS) Shore
NV-1715-1499

Tower
Air Controlman T (Tower), Class A
NV-1704-0008
Bright Radar Indicator Tower Equipment Maintenance, Class C
NV-1715-0276

Towing
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance
NV-1703-0015

Track
Track Supervisor/Tadil A Track Coordinator (Advanced)
NV-2202-0118

Tracker
Naval Tactical Data System (NTDS) Tracker/Supervisor
NV-1715-0673

Tracking
WDS Mk 14 Communications Tracking Set SYR-1 Maintenance Tartar
NV-1715-1266

Tractor
Aviation Support Equipment A/S32A-33 Aircraft Towing Tractor Intermediate Maintenance
NV-1703-0015

Tradevman
Class A Tradevman School
NV-1715-0497
Tradevman I (Instructor) Class A
NV-1406-0002
Tradevman R (Repairman) Class A
NV-1715-0495
Tradevman School, Class A
NV-1715-0497
Tradevman School, Class B
NV-1715-0598
Tradevman, Class A
NV-1715-0497
Tradevman, Class C7
NV-1715-0598

Traffic
Air Controlman-Carrier Air Traffic Control Center Utilization-Operator
NV-1704-0220
Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C
NV-1715-0771
Air Traffic Control Electronics Maintenance Officers, Class O
NV-1715-0670
Air Traffic Control Officers, Class C2
NV-1704-0003
Air Traffic Control Officers, Class O
NV-1704-0003
Air Traffic Management
NV-0419-0013
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C
NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C
NV-1715-0713
Freight Transportation and Traffic Management
NV-0419-0008
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O
NV-1715-0670
Introduction to Traffic and Terminal Management
NV-0419-0014
Marine Air Traffic Control Communications Repairman, Class C
NV-1715-0799
Marine Air Traffic Control Maintenance Supervisor Training, Class C
NV-1715-0742
Marine Air Traffic Control Navigational Aids Maintenance
NV-1715-0037
Marine Air Traffic Control Navigational Aids Repairman, Class C
NV-1715-0037
Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C
NV-1715-0669
Marine Air Traffic Control Unit Equipment Maintenance, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class O
NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C
NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C
NV-1715-0038
Personal Property Traffic Management
NV-0419-0011

Train
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System)
NV-1715-0667

Transceiver
AN/ARC-38A Single Side Band Transceiver Intermediate Maintenance
NV-1715-0094
AN/ARC-38A SSB Transceiver Maintenance
NV-1715-0486
AN/ARC-94 Radio Transceiver Intermediate Maintenance
NV-1715-0100
AN/ARC-94 Single Side Band Transceiver Maintenance
NV-1715-0489
AN/SRC-16, AN/SRC-13 Transceiver Maintenance Differences
NV-1715-1058
AN/SRC-20 Radio Transceiver
NV-1715-0089
AN/SRC-23 HF Transceiver AN/SRA-34 Coupler Maintenance
NV-1715-1050
AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance
NV-1715-1051
AN/URC-85 UHF Transceiver Maintenance
NV-1715-1054
AN/VRC-46 and RT-46 Transceiver System Maintenance
NV-1715-0249
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance
NV-1715-0701
Radio Transceiver AN/SRC-20 Maintenance
NV-1715-0089
Radio Transceiver AN/WRC-1 Family Equipment
NV-1715-0531
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance
NV-1715-0373
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance
NV-1715-0369
Transceiver AN/SRC-20 Combined Maintenance
NV-1715-0089
Transceiver AN/URC-32 Maintenance (Enlisted)
NV-1715-0229

Transistor
Advanced Transistor Theory
NV-1715-0165

Transmission
Aviation Support Equipment Automatic Transmission Intermediate Maintenance
NV-1703-0010
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895
Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance
NV-1715-0026
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems

Maintenance
NV-1704-0061

Transmissions

Construction Mechanic/Automatic Transmissions, Class C
NV-1703-0003

UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance
NV-1704-0176

Transmitter

AN/AQA-7(V) 1,2 and 3 Sonar Computer Recorder Group and AN/ASA-76 Generator-Transmitter Group Intermediate Maintenance
NV-1715-0774

AN/ARC-131 Receiver Transmitter Intermediate Maintenance
NV-1715-0188

AN/FRT-83, 84 and 85 Radio Transmitters Maintenance, Class C1
NV-1715-0325

AN/URT-23 Radio Transmitter Set With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1)
NV-1715-0056

AN/URT-23(V) Radio Transmitter Maintenance
NV-1715-0531

AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1)
NV-1715-0011

Communications Transmitter Site Systems Maintenance, Class C1
NV-1715-0387

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30)
NV-1715-0027

EA-6B Course Attitude Data Transmitter Intermediate Maintenance
NV-1715-0192

F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance
NV-1715-0594

Relay Transmitter Mk 60 Maintenance
NV-1715-0389

Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9-12
NV-1715-0389

RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

RT-542/ASQ, RT-546/ASQ-19, AN/ARC-52 Receiver Transmitter Intermediate Maintenance
NV-1715-1218

Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
NV-1715-0900

T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B)
NV-1715-0192

Transmitter AN/WRT-4 Combined Maintenance
NV-1715-0250

Transmitters

AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance
NV-1715-0053

AN/ALQ-99 Jamming Transmitters and AN/ALM-107B Countermeasures Test Station Intermediate Maintenance
NV-1715-0053

Transmitting

Radio Transmitting Set AN/URT-23 (V) Maintenance (Enlisted)
NV-1715-0378

Transplantation

Transplantation Technician Training
NV-0702-0010

Transponder

AN/APX-64(V) IFF Transponder Set Intermediate Maintenance
NV-1715-0563

AN/APX-72 Series IFF Transponder System Maintenance
NV-1715-0811

F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance
NV-1715-0309

IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1
NV-1715-0914

KY-532A/KY-533A IFF Transponder Intermediate Maintenance
NV-1715-0184

Transport

Amphibious Transport/Cargo Ship Embarkation
NV-0419-0005

Transportation

Freight Transportation and Traffic Management
NV-0419-0008

Intermediate Transportation Management
NV-0419-0010

Introduction to Transportation Management
NV-0419-0006

Transportation and Storage of Hazardous Material
NV-0419-0007

Transportation Management
NV-0419-0008

Transportation Management Advanced
NV-0419-0009

Transporter

Aviation Support Equipment LHA-1 Pallet Transporter Intermediate Maintenance
NV-1703-0017

Travel

Disbursing Clerk Travel Payments
NV-1408-0002

Disbursing Clerk, Class C (Travel Payments)
NV-1408-0002

Treadwell

Treadwell Oxygen Generator Operation/Maintenance 6L16
NV-1601-0018

Treatment

Alcoholism Treatment Specialist (ATS)
NV-0801-0008

Trident

Poseidon Trident 1 Backfit Intermediate Level Fire Control Technician FCS 88 Mod 1/2
NV-1715-1129

Trident (ECS) Electronics Command and Control System Technician Conversion
NV-1715-1362

Trident Central Navigation Computer Technician Conversion
NV-1715-1163

Trident Central Navigation Computer Technician Replacement
NV-1715-1164
NV-1715-1381

Trident Command and Control (CCS) Operation and Maintenance Conversion Level I
NV-1402-0084

Trident Command and Control System (CCS) Advanced Level III
NV-1402-0078

Trident Command and Control System (CCS) Electronics Technician Conversion
NV-1715-1364

Trident Command and Control System (CCS) Electronics Technician Conversion, Class C
NV-1715-1165

Trident Command and Control System (CCS) Operation and Maintenance Level II
NV-1402-0085

Trident Command and Control System Level One
NV-1402-0135

Trident Command and Control System Level 2
NV-1402-0136

Trident Countermeasures O/M
NV-1704-0275

Trident Defensive Weapons Ordinance Subsystem (DWOS) Replacement
NV-1715-1365

Trident Defensive Weapons Ordnance Subsystem O/M
NV-1704-0276

Trident Defensive Weapons Subsystem/Command Subsystem (DWS/CS) Level I
NV-1402-0123

Trident Defensive Weapons Subsystem/Command Subsystem Level I
NV-1402-0086

Trident Defensive Weapons Subsystem/Command Subsystem Level II
NV-1402-0087

Trident Defensive Weapons Subsystem/Command Subsystem Level III
NV-1402-0088

Trident Diesel Engine Supervisor
NV-1712-0029

Trident Electrostatically Supported Gyro Monitor (ESGM) Navigation Aids Technician Replacement
NV-1715-1370

Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacement
NV-1715-1166

Trident Electrostatically Supported Gyro Monitor (ESGM) NAVAIDS Technician Replacements
NV-1715-1371

Trident Electrostatically Supported Gyro Monitor ESGM/NAVAIDS Technician Conversion
NV-1715-1153

Trident Exterior Communication System Level I NV-1715-1167
Trident Exterior Communication System Level II NV-1715-1154
Trident Exterior Communication System Level III NV-1715-1168
Trident Exterior Communication System, Level I NV-1715-1361
Trident Exterior Communications Subsystem Advanced Maintenance Level III NV-1715-1360
Trident Exterior Communications System (ECS) Antennas/Antenna Interface System NV-1715-1358
Trident Exterior Communications System (ECS) AN/UYY-20X(V) Data Processing Set/Control, Monitor and Test Subsystem Maintenance NV-1715-1354
Trident Exterior Communications System (ECS) Data Switching Subsystem Basic Maintenance NV-1715-1356
Trident Exterior Communications System (ECS) Level II Basic Maintenance NV-1715-1353
Trident Exterior Communications System (ECS) Level II HF/VHF NV-1715-1359
Trident Exterior Communications System (ECS) Level II VLF/LF Subsystem NV-1715-1355
Trident Exterior Communications System (ECS) Support Subsystem Basic Maintenance NV-1715-1357
Trident Fire Control Technician Replacement C1 NV-1715-1155
Trident I CNC Equipment Replacement NV-1715-1373
Trident I Ships Inertial Navigation System (SINS) Equipment NV-1715-1379
Trident I-Navigation Subsystems NV-1715-1372
Trident Missile Technician Conversion NV-1715-1169
Trident Missile Technician Replacement NV-1715-1170
Trident Mk 4 Reentry System Tender Transfer and Handling NV-2202-0144
Trident Navigation Subsystem Theory NV-1715-1366
Trident Pneumatic Subsystem Maintenance NV-1704-0317
Trident Refrigeration Systems Supervisor NV-1701-0011
Trident Ship Control and Atmosphere Support Technician Level I NV-1715-1309
Trident Ship Control and Atmosphere Support Technician Level II NV-1715-1172
Trident Ship Control and Atmosphere Support Technician Level III NV-1715-1173
Trident Ship's Control Level I/ Atmosphere Support NV-1715-1171
Trident Ship's Control Level II NV-1715-1172
Trident Ship's Control Level III NV-1715-1173
Trident Sonar Advanced Operator NV-2202-0136
Trident Sonar Subsystem Operation and Maintenance Level I NV-1715-1313
Trident Sonar Subsystem Operation and Maintenance Level II NV-1715-1315
Trident Sonar Subsystem Operation and Maintenance Level III NV-1715-1314
Trident Sonar Supervisor NV-2202-0137
Trident Submarine Atmospheric Support System Maintenance NV-1731-0001
Trident Submarine Auxiliary Equipment Technician Level II NV-1704-0318
Trident Submarine Auxiliary Equipment Technician Level III NV-1712-0030
Trident Submarine Auxiliary Equipment Technician Replacement Level I NV-1732-0016
Trident Submarine Diesel Engine Maintenance NV-1712-0028
Trident Submarine Hydraulic Combined Maintenance NV-1704-0316
Trident Torpedoman's Mate Replacement NV-1704-0277
Trident 1 Backfit Missile Technician (MT) Conversion NV-1715-1134
Trident 1 Backfit Missile Technician (MT) Replacement NV-1715-1135
Trident 1 Backfit MT Tender Technician NV-1402-0061
Trident 1 Backfit Strategic Weapon Systems Command Replacement NV-1715-1398
Trident-I Fire Control Technician Replacement NV-1715-1377
Trident-1 Missile Technician Conversion NV-1715-1378

Trident 1
Strategic Weapon System Officer Trident 1 NV-2202-0138
Strategic Weapons System Assistant Weapons Officer (AWEPS) Trident 1 Backfit NV-2202-0139

Troop
Naval Gunfire Spotters (Troop Officers) NV-2202-0064
Troop Naval Gunfire Spotter NV-2202-0057

Troubleshooting
CONALOG (Norden) Refresher Maintenance and Troubleshooting NV-1715-0253
F-4B Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4J Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication, Navigation, Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357
Solid State Circuit Troubleshooting Techniques NV-1715-0149

Truck
Aviation Support Equipment A/S 32P-16 Fire Fighting Truck Intermediate Maintenance NV-1703-0016

Tube
Missile Tube Support Equipment (Mechanical) NV-1710-0107

Tuner
AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance NV-1715-0060

Turbine
Auxiliary Machinery Turbine Maintenance NV-1704-0321
DD-963 Basic Circuit Concepts for Gas Turbine Controls, Class C1 NV-1402-0020
DD-963 PCO/PXO Gas Turbine Engineering NV-1601-0024
DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator NV-1601-0025
Enginemen, Class C, Marine Gas Turbine Basic NV-1710-0066
Enginemen, Gas Turbine Engines, Class C NV-1703-0002
FFG-7 PCO/PXO Gas Turbine Engineering NV-1601-0023
Gas Turbine Electrical, Class A NV-1710-0102
Gas Turbine Fundamentals NV-1710-0097
Gas Turbine Mechanical, Class A NV-1710-0103
Gas Turbine Systems Technician Electrical Class A1 NV-1714-0024
Gas Turbine Systems Technician Fundamentals Class A1 NV-1710-0082
Gas Turbine Systems Technician Mechanical Class A1 NV-1710-0083
LM2500 Gas Turbine Module Maintenance, Class C1 NV-1703-0008
Marine Gas Turbine Basic, Class C1 NV-1710-0066
Model 104 Gas Turbine Generator Set Maintenance NV-1703-0009
Senior Enlisted Propulsion Engineering (Steam, Gas Turbine, Diesel) NV-1732-0014

Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1
NV-1703-0009

Solar T-1020S-100B Gas Turbine Generator Set Operator and Maintenance
NV-1710-0095

Turbo

Ship Service Turbo Generator Maintenance
NV-1704-0320

Turbo-Jet

Aviation Machinist's Mate J (Turbo-Jet), (Class A)
NV-1704-0148

Turboprop

KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance
NV-1704-0125

KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
NV-1704-0125

Turret

Aviation Ordnanceman (Turret), Class A
NV-1714-0007

Turret Lathes and Metal Build-up Class C1
NV-1736-0003

Typewriter

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916

Ship's Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916

TA-4J

Prospective TA-4J Flight Instructor
NV-1606-0021

TA-4J Advanced Jet
NV-1606-0025

TAC/NAV

P-3A/B TAC/NAV MOD Organizational Maintenance
NV-1402-0055

TACAMO

TACAMO Communication and Avionics System Operation
NV-1715-1182

TACAMO Communications System Maintenance
NV-1715-1183

TACAMO UHF/HF Communications System Intermediate Maintenance
NV-1715-1184

TACAMO VLF Communications and Verdin System Intermediate Maintenance
NV-1715-1185

TACAN

A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0288

AN/ARM-155 and AN/ARM-156 TACAN Test Equipment Intermediate Maintenance
NV-1715-0946

AN/ARN-21B/D TACAN Intermediate Maintenance
NV-1715-0518

AN/ARN-21D TACAN Navigation Set Maintenance
NV-1715-0487

AN/ARN-21D TACAN Receiver Maintenance
NV-1715-0487

AN/ARN-52 (V), AN/ARN-105 and AN/ARN-86 TACAN Navigation Sets Intermediate Maintenance
NV-1715-1014

AN/ARN-52(V) TACAN Receiver Intermediate Maintenance
NV-1715-0519

AN/ARN-84(V) TACAN Receiver Intermediate Maintenance
NV-1715-0947

AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1)
NV-1715-0175

AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1
NV-1715-0193

AN/URN-25 Afloat TACAN Maintenance
NV-1715-1137

E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375

Electronics Technician, Class C, TACAN Maintenance
NV-1715-0197

F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394

F-4J AN/ARN-86 TACAN Intermediate Maintenance
NV-1715-0409

F-8 AN/ARN-52 TACAN Intermediate Maintenance
NV-1715-0204

P-3 AN/ARN-52 TACAN Maintenance, No. 30
NV-1715-0262

RT-736 and KY-531 Tactical Air Navigation (TACAN) Intermediate Maintenance
NV-1715-0796

S-2D/E AN/ARN-52(V) Navigational TACAN Maintenance
NV-1715-0637

TACAN Maintenance, Class C1
NV-1715-0197

UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0761

TAS

Mk 23 Mod 0/1 Target Acquisition System (TAS) Maintenance
NV-1715-1037

TDS

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221

Fire Control Technician Class C, Target Designation System (TDS) Mk 5
NV-1715-0212

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1
NV-1715-0221

TERPS

Air Traffic Control Facility Management/TERPS, Class C1
NV-1715-0123

TF-34

TF-34 First Degree Intermediate Maintenance
NV-1704-0295

TF/AF-9J

Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor
NV-1606-0037

TF/TAF-9J

Prospective TF/TAF-9J Flight Instructor
NV-1606-0039

TF30-P-6

TF30-P-6 Intermediate Maintenance/Complete Engine Repair
NV-1704-0033

TF30-P-6/408

A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance
NV-1704-0135

TF30-P-8

TF30-P-8 Intermediate Maintenance/Complete Engine Repair
NV-1704-0016

TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0016

TF30-P-8/408

TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0016

TF41-A-2

TF41-A-2 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0123

TMA

Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization
NV-2202-0099

TRAM

A-6E TRAM Weapons System Technician Organizational Maintenance
NV-1715-0942

Sonar AN/SQS-23 D-G Series (TRAM) Maintenance
NV-1715-0864

Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance
NV-1715-0864

TS 3517/ALM

AN/ALQ-99 Tracking Receivers Control Modulators, Exciters with AN/ALM-109C Tracking Receiver Test Station and TS 3517/ALM RF Oscillator Rom Linearizer Test Set Intermediate Maintenance
NV-1715-0052

TS-2A

Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft)
NV-1606-0020

TS-2109

TS-2109/ASA-48 Semi-Automatic Checkout Equipment (SACE) Programmer Intermediate Maintenance
NV-1715-1206

TS-2109/OA-3739/OA-ASA 48 Semi-Automatic Checkout Equipment (SACE) Operator Intermediate Maintenance
NV-1715-1209

TS-2109/OA-3742/OA-6672 Semi-Automatic Checkoput Equipment (SACE) Intermediate Operators
NV-1715-1216

TSEC/KY-65A/75A
TSEC/KY-65A/75A AN/USC-43 ANDVT Limited Maintenance
NV-1715-1342

TT-187/UG
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

TT-252
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator
NV-1715-0665

TT-253/UG
Teletype Reperforator TT-253/UGC Combined Maintenance
NV-1715-0664
Teletypewriter Reperforator TT-253/UG
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

TT-253/UGC
Teletype Reperforator TT-253/UGC Combined Maintenance
NV-1715-0664

TT-264/AG
P-3TT-264/AG Teletypewriter Group Maintenance, No. 20
NV-1715-0666
TT-264/AG Teletypewriter Group Intermediate Maintenance
NV-1715-0666

TT-299 B/UG
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance
NV-1706-0002

TT-299B/UG
TT-299B/UG Teletypewriter Set Maintenance (Enlisted)
NV-1715-0734

TT70A/UG
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator
NV-1715-0665

TV
Closed Circuit TV Maintenance, Class C1
NV-1715-0189

T53-L-11
UH-1E T53-L-11 Engine Organizational Maintenance
NV-1704-0018

T56-A-10/14
P-3 T56-A-10/14 Engine and Related Systems Organizational Maintenance
NV-1704-0019

T56-A-10W
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56
NV-1704-0017

T56-A-8/8A
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance
NV-1704-0029
T56-A-8/8A Engine and A6441FN-248 Propeller
NV-1704-0029

T58-GE-10
T-58 Engines First Degree Intermediate Maintenance T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0027

T58-GE-8B
T58-GE-8B Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0021

T58-GE-8F
T58-GE-8F Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0020

U-1700
U-1700 Maintenance
NV-1715-0726

Ultrasonic
Nondestructive Testing of Metals Ultrasonic Shearwave Inspection, Class C1
NV-1724-0005
Nondestructive Testing of Metals Ultrasonic Silver Braze Inspection, Class C1
NV-1724-0004
Nondestructive Testing of Metals Ultrasonic Thickness Inspection Class C1
NV-1724-0003

Underwater
Basic Underwater Demolition/Seal Team Training
NV-1606-0007
Basic Underwater Demolition/Seal Training
NV-1606-0007
Dewey Underwater Log Combined Maintenance
NV-1715-1012
Dewey Underwater Log Maintenance C-1
NV-1715-1042
Mk 116 MOD 4 Underwater Fire Control System (FCS) Maintenance
NV-1715-0268
Underwater Demolition Training
NV-1606-0007
Underwater Demolition Training (Enlisted)
NV-1606-0007
Underwater Demolition Training (Officer)
NV-1606-0007
Underwater Fire Control Group Mk 111 Maintenance
NV-1715-0119
Underwater Fire Control Group Mk 114 Maintenance
NV-1715-0133
Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7
NV-1715-0760
Underwater Fire Control Systems Technician (Mk 113 Mod 9)
NV-1715-0313
Underwater Fire Control Systems(FCS) Technician (Target Motion Analysis Subsystem)
NV-1715-0313
Underwater Fire Control Technician, Class A
NV-1715-1004
Underwater Fire Control, Class A
NV-1715-1473
Underwater Hydraulic Tools
NV-1723-0014
Underwater Photographer/Scuba Diver
NV-1606-0013

Underway
AN/SLQ-32(V) Presail/Underway Operations
NV-1715-1144
Underway Replenishment Mechanical and Hydraulic Component Maintenance
NV-1710-0016
NV-1710-0113

Uniform
Joint Uniform Military Pay System (JUMPS) Pay Entitlements and Procedures
NV-1401-0004
Shipboard Uniform Automated Data Processing System (SUADPS) 207/AV207
NV-1402-0149
Shipboard Uniform Automated Data Processing System- Real Time Operations and Management
NV-1402-0149
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships)
NV-1402-0045
Uniform Automated Data Processing (ADP) System-Stock Points
NV-1408-0025

Unit
AN/BQQ-6 Group A Multipurpose Interface Unit (MIU) Digital Spectrum Analyzer (DSA) Advanced Maintenance
NV-1715-1318
Digital Interface Unit/Message Interface Unit (DIU/MIU)
NV-1402-0081
Marine Air Traffic Control Unit Equipment Maintenance, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C
NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class O
NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C
NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C
NV-1715-0038
Radio Aids Unit (Device 1-D-5), Class C
NV-1715-0372
WR-27 Auxiliary Power Unit Intermediate Maintenance
NV-1704-0296

Universal
Cryptologic Technician M-Universal Cryptologic Processor Wideband Subsystem Maintenance, Class C
NV-1402-0070
Cryptologic Technician M, Universal

Cryptologic Processor Maintenance NV-1402-0069
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance NV-1402-0112
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C NV-1402-0110
Universal Cryptologic Processor Training Classic Bowsprit Sail Maintenance NV-1402-0107
Universal Cryptologic Processor Training PDP-11/70 Maintenance NV-1402-0108
Universal ILM Tender NV-1715-1406

Upgrade
Ocean Surveillance Information System (OSIS) Baseline Upgrade Computer User NV-1402-0117
Ocean Surveillance Information System (OSIS) Baseline Upgrade System Management NV-1402-0119

Urologic
Urologic Technic NV-0702-0004
Urologic Technician, Class C NV-0702-0004
Urological Technic NV-0702-0004
Urological Technician NV-0702-0004
Urological Technician, Class C NV-0702-0004

Urological
Urological Technic NV-0702-0004
Urological Technician NV-0702-0004
Urological Technician, Class C NV-0702-0004

Urology
Urology Technician NV-0702-0011

Utilities
P-3 Air Conditioning, Pressurization and Utilities Systems Organizational Maintenance NV-1701-0001
S-3A Environmental Control, Miscellaneous Utilities and Egress Systems Organizational Maintenance NV-1730-0007

Utilitiesman
Utilitiesman, Class A1 (UT"A") NV-1732-0006
Utilitiesman, Class B NV-1710-0036
Utilitiesman, Class J (UT"J") NV-1710-0036
Utilitiesman, Shore Based Boiler Controls, Class C NV-1710-0027

Utility
Aviation Boatswain's Mate U (Utility), Class A NV-1728-0013
Aviation Ordnanceman (Utility), Class A NV-1714-0006

Utilization
Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005
NTDS Data Utilization NV-1402-0005

UD-282
Aviation Support Equipment UD-282 and Detroit Series 53 Diesel Engines Intermediate Maintenance NV-1712-0021

UDT-SEAL
UDT-SEAL Explosive Ordnance Disposal Indoctrination NV-2202-0018

UH-1E
UH-1E Airframe and Related Systems Intermediate Maintenance NV-1704-0043
UH-1E Airframe and Related Systems Organizational Maintenance NV-1704-0043
UH-1E T-53-L-11 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0025
UH-1E T53-L-11 Engine Organizational Maintenance NV-1704-0018

UH-1N
UH-1N Communication/Navigation Systems Organizational Maintenance NV-1704-0274
UH-1N Electrical Systems Organizational Maintenance NV-1704-0207
UH-1N Electrical/Instrument Systems Organizational Maintenance NV-1704-0273
UH-1N Power Package Organizational Maintenance NV-1704-0204
UH-1N Powertrain and Rotors Organizational Maintenance NV-1704-0175

UH-2A/B
UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Organizational Maintenance NV-1715-0464
UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326
UH-2A/B Electrical System Maintenance NV-1704-0091
UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0761

UH-2C
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057
UH-2C Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C Electrical System Organizational Maintenance NV-1704-0090
UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance NV-1704-0176
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

UHF
AN/ARC-143 and AN/ARC-143A UHF Radio Set Intermediate Maintenance NV-1715-0059
AN/ARC-27 UHF Radio Set Intermediate Maintenance NV-1715-0351
AN/SRC-31 A/B UHF Transceiver and CU-1559 Coupler Maintenance NV-1715-1051
AN/URC-85 UHF Transceiver Maintenance NV-1715-1054
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance NV-1715-0701
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346

UHF/HF
TACAMO UHF/HF Communications System Intermediate Maintenance NV-1715-1184

UH2-A/B
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance NV-1704-0061

UH34D
UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

UNCRYPT
Universal Cryptologic Processor Training (UNCRYPT) High Frequency Direction Finding (HFDF) Maintenance NV-1402-0112
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C NV-1402-0110

UNIVAC
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C NV-1402-0030

UNREP
Electrical Component Maintenance (UNREP) NV-1715-0025
UNREP Electrical Component Maintenance United Controls NV-1715-0025
UNREP Hydraulic and Mechanical

Component Maintenance (Sending Units)
NV-1710-0016
UNREP Rigging Procedures
NV-1710-0015

USER
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C
NV-1402-0032

USQ-20
Computer Programming USQ-20 Compiler Language - Basic
NV-1402-0094

UT
Utilitiesman, Class A1 (UT"A")
NV-1732-0006
Utilitiesman, Class J (UT"J")
NV-1710-0036

Valve
Valve and Steam Trap Maintenance
NV-1732-0018

Vapor
Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted
NV-1710-0025
Vapor Compression Distiller Maintenance and Operation
NV-1601-0028

Variable
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance
NV-1715-0772
Independent Variable Depth Sonar Hoist AN/SQA-13 Maintenance
NV-1715-0772
Independent Variable-Depth Sonar Hoist AN/SQA-13(V) Maintenance
NV-1715-1285
Variable Speed Controllers Combined Maintenance
NV-1714-0018

Verdan
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment
NV-1402-0044
Mardan/Verdan Computer Theory
NV-1715-0657
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance
NV-1402-0044
Verdan Computer Theory and Maintenance I
NV-1715-0923
Verdan Computer Theory and Maintenance II
NV-1715-0924
Verdan Theory and Maintenance I, Class F1
NV-1715-0923
Verdan Theory and Maintenance, Class F1
NV-1715-0924

Verdin
Radio Receiving Set AN/WRR-7 Verdin Combined Maintenance
NV-1715-0980
TACAMO VLF Communications and Verdin System Intermediate Maintenance
NV-1715-1185
Verdin Integrated Submarine Automated Broadcast Processing System (ISABPS) Shore Communications System Operator
NV-0505-0001

Vertical
A-6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance
NV-1715-0159
AN/AVA-1 Vertical Display Indicator Group Intermediate Maintenance
NV-1715-0159
Vertical Laucher System Mk 41
NV-1715-1407

Vibration
Noise and Vibration Measurement
NV-1721-0003
Noise Reduction/Structure Borne Monitoring (Noise and Vibration Monitoring System (NVMS)
NV-1721-0011
Sound Analysis, Noise and Vibration Reduction (Enlisted)
NV-1721-0010

Video
AN/UYA-4 Display Maintenance Includes Beacon Video Processor
NV-1715-1259
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance
NV-1715-0296

Vietnam
Intelligence Advisor Vietnam
NV-1606-0001
Intelligence Officer, Vietnam
NV-1606-0003
Intercultural Relations—Vietnam Advisor Training
NV-1513-0003
Naval Field Intelligence Officer, Vietnam
NV-1606-0003
Vietnam Orientation
NV-2202-0010
NV-2202-0011

Visual
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C
NV-1710-0006
Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear)
NV-1710-0029
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk 7 Arresting Gear), Class C
NV-1710-0005
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C
NV-1710-0005
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C
NV-1710-0007

Voice
Integrated Voice Communication System AN/STC-1 Maintenance
NV-1715-1091
Narrow Band Secure Voice Stand Alone Maintenance
NV-1715-1100
Narrowband Secure Voice Stand Alone Maintenance
NV-1715-1100

Volt
ASM-144 On Board Memory Tester Digital Volt Ohmmeter Intermediate Maintenance
NV-1715-1210

VHF
AN/ARC-101 VHF Communications System Intermediate Maintenance
NV-1715-1015
AN/ARC-54 VHF Communication Set Intermediate Maintenance
NV-1715-0098

VLF
TACAMO VLF Communications and Verdin System Intermediate Maintenance
NV-1715-1185

VLF/LF
Trident Exterior Communications System (ECS) Level II VLF/LF Subsystem
NV-1715-1355

VMS
Universal Cryptologic Processor Training (UNCRYPT) RSX-11M/VMS FORTRAN, Class C
NV-1402-0110

VP CRAG
VP CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments
NV-2202-0044
VP CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics
NV-2202-0040
VP CRAG Tactical Coordinator Antisubmarine Warfare (ASW) Indoctrination, Equipments and Tactics
NV-2202-0041

VQ/VAQ/VMAQ
VQ/VAQ/VMAQ Pilot and EA-3B Navigator Electronic Warfare (EW) Officer
NV-1606-0066

VS AW
VS AW Sensor Operator S-2G
NV-1715-0517

VS CRAG
VS CRAG Enlisted Aircrewman Antisubmarine Warfare (ASW) Indoctrination and Equipments
NV-2202-0039
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination Equipments and Tactics—S-2E Aircraft
NV-2202-0042
VS CRAG Pilot Antisubmarine Warfare (ASW) Indoctrination, Equipments, and Tactics—S-2D Aircraft
NV-2202-0043

V71 Series
Detroit Diesel V71 Series Engine Maintenance, Class C1
NV-1712-0019

Walleye
A-4 Walleye Weapon Delivery System
NV-1715-0733
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and

Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702
Walleye II Extended Range Data Link Intermediate Maintenance
NV-1715-1032

War

Defense Economics and Decision Making Self-Administered Seminar (Naval War College)
NV-1511-0008
Naval War College Correspondence Course in Defense Economics and Decision Making
NV-1511-0005
Naval War College Correspondence Course in National Security Decision Making
NV-1511-0010
Naval War College Correspondence Course in Strategy and Policy
NV-1511-0004
NV-1511-0011
Naval War Correspondence Course in Maritime Operations (Employment of Naval Forces)
NV-2202-0135
Strategy and Policy Self-Administered Seminar (Naval War College)
NV-1511-0009

Warehouse

Warehouse Operations Management
NV-1717-0007

Warfare

Amphibious Warfare Indoctrination
NV-2202-0045
Antisubmarine Warfare (ASW) Centers Command and Control System Operator
NV-2202-0122
Antisubmarine Warfare (ASW) Module Acoustic Systems
NV-1715-1174
Antisubmarine Warfare (ASW) Module Data Processing Technician
NV-1402-0090
Antisubmarine Warfare (ASW) Module Data Systems Technician
NV-1402-0091
Antisubmarine Warfare (ASW) Module Operator
NV-1715-1234
Antisubmarine Warfare (ASW) Module Watch Officer
NV-2202-0128
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Acoustic System
NV-1402-0092
Antisubmarine Warfare (ASW) Operations Center (ASWOC) Data Systems
NV-1402-0093
Antisubmarine Warfare (ASW) Operations Center (ASWOC) System Operator
NV-1715-1233
Antisubmarine Warfare (ASW) Operations Center Data Processing Technician
NV-1715-1238
Antisubmarine Warfare (ASW) Support Communications Maintenance Technician
NV-1715-1175
Antisubmarine Warfare (ASW) Support Communications Operator
NV-1715-1176
Antisubmarine Warfare Operations Center Watch Officer
NV-2202-0116
Antisubmarine Warfare Operator, Class A1
NV-1715-1436
Atomic, Biological and Chemical (ABC) Warfare Defense Afloat
NV-0802-0008
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P-3C
NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)
NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D)
NV-2202-0032
Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P-3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Operator, Class A
NV-1715-0536
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P-3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Technician, Class A
NV-1715-0154
Carrier Aviation Antisubmarine Warfare Acoustic Operator (Passive)
NV-2202-0096
College of Naval Warfare
NV-1511-0002
Combat Sensor Warfare Training
NV-2202-0071
Helicopter (HS) Antisubmarine Warfare (ASW) Operator
NV-2202-0080
Helicopter Aviation Antisubmarine Warfare (AASW) Air Sonar Operator (AN/AQS-13)
NV-2202-0080
Joint Military Operations for College of Naval Warfare
NV-2202-0132
Mine Warfare Engineman Basic
NV-1703-0005
Mine Warfare Packard Diesel Engineman (Class C)
NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C
NV-1712-0004
National Security Decision Making for College of Naval Warfare and Naval Command College
NV-1511-0014
Naval Warfare Course
NV-1511-0002
Naval Warfare Operations Specialist-Advanced
NV-2202-0127
Nuclear, Biological and Chemical (NBC) Defense Ashore (Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore)
NV-0801-0005
School of Naval Warfare
NV-1511-0002
Strategy and Policy (College of Naval Warfare/Naval Command College)
NV-1511-0012
Strike Warfare Operational Intelligence (OPINTEL) Analyst
NV-1606-0067
Surface Electronic Warfare Operations Intermediate
NV-1715-1334
Surface Warfare Officer Advanced Command
NV-1717-0018
Surface Warfare Officer Basic
NV-1717-0017
Surface Warfare Officer Department Head
NV-1717-0019
Surface Warfare Officer School
NV-2202-0027
Surface Warfare Officer Specialty Course Steam Main Propulsion Assistant
NV-1710-0093
Surface Warfare Officers Advanced Executive Command
NV-1717-0020
Surface Warfare Split Tour Engineer Officer
NV-1717-0016

Warning

AN/APN-171(V) Radar Altimeter (Low Level) and AN/APQ-107 Radar Altimeter Warning Set Intermediate Maintenance
NV-1715-0493

Warrant

Limited Duty Officer (LDO) and Chief Warrant Officer (CWO) Indoctrination Training
NV-1408-0029
Surface Warrant Officer Indoctrination
NV-1408-0011
Warrant Officer (WO) Aviation Indoctrination
NV-2202-0016
Warrant Officer Indoctrination
NV-1408-0011

Washer

Cascadex 100 Pound Washer/Extractor Maintenance, Class C
NV-1702-0001

Waste

DD-963 Ship Service Gas Turbine Generator Set Operator and Waste Heat Boiler Operator
NV-1601-0025

Watch

Air Watch Officer
NV-2202-0074
NV-2202-0124
Antisubmarine Warfare (ASW) Module Watch Officer
NV-2202-0128
Antisubmarine Warfare Operations Center Watch Officer
NV-2202-0116
AN/SQQ-89(V)2 Sonar Watch Supervisor
NV-1715-1506
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Electronic Warfare Watch Supervisor-Surface
NV-1715-1237

Engineering Watch Officer NV-1710-0012
FFG-7 Propulsion Control Console Engineering Officer of the Watch Operators NV-1710-0101
Instrumentmen—Watch Repair NV-1721-0005
Sonar Watch Supervisor and Advanced Watchstander Training NV-2202-0012
Watch and Clock Repair, Class C NV-1721-0005

Watchstander
Basic Navigation Watchstander NV-1715-0125
Navigational Technician Watchstander (Enlisted) NV-1715-0125
Sonar Watch Supervisor and Advanced Watchstander Training NV-2202-0012
Submarine Food Service Watchstander NV-1729-0010

Watchstanders
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance NV-1706-0002

Water
Boiler Water/Feed Water Test and Treatment Instructor Certification NV-1601-0022
Equipment Operators, Water Well Drilling and Development, Class C NV-1601-0004
EO "C" Water Well Drilling and Development NV-1601-0004
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NV-1402-0086

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NV-1402-0088

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NV-2202-0047

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NV-1715-0414

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NV-1715-0286

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NV-1710-0051

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NV-1710-0050

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NV-1710-0049

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NV-1710-0047

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NV-1710-0046

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NV-1710-0047

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NV-1710-0053

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NV-1710-0068

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NV-1710-0068

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NV-1710-0046

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NV-1402-0070

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NV-1715-0830

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NV-1402-0068

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NV-1715-0523

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NV-2202-0093

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NV-1406-0012
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NV-1406-0012

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NV-1406-0006

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NV-1715-1250

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NV-1704-0296

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NV-0705-0007
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NV-0705-0006
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NV-0705-0003
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NV-0705-0003
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NV-0705-0003
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NV-0705-0003

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NV-1407-0001
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NV-1409-0007
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NV-1407-0001
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NV-1701-0009
R-114 York 200 Ton Air Conditioning Technician
NV-1701-0012

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0A-8962/ASH Recording Group Intermediate Maintenance
NV-1715-1023

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NV-1701-0004
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NV-1701-0004

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NV-1712-0025

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NV-1712-0006

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NV-1710-0021
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NV-1710-0032
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NV-1710-0075

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NV-1715-1186

15G21
15G21 Carrier Air Traffic Control Simulator Maintenance Class C1
NV-1715-1187
15G21 Simulator Maintenance Class C1
NV-1715-1187

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NV-1701-0009

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NV-1712-0005
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NV-1703-0004
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NV-1712-0005

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NV-1715-1293

17A(V)
Sonar AN/SQR-17(V)/17A(V) Series Maintenance
NV-1715-1278

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2F69D P-3 Weapon System Follow-on-Training
NV-2202-0078

2F87
2F87 P-3 Weapon System Follow-on-Training
NV-2202-0079

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F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance
NV-1715-0151

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NV-1712-0007
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3"/50 Caliber Rapid Fire Gun Mount Maintenance
NV-2202-0085
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NV-1715-0655

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NV-1704-0247

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NV-1715-0887

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NV-1712-0003

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NV-1714-0049

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490T-1/1A Antenna Coupler Intermediate Maintenance
NV-1715-0314

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NV-2202-0075
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NV-1715-0654

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NV-2202-0104
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NV-1715-0520
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NV-1715-0667

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NV-1715-0179

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NV-1715-1297

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NV-1714-0046
500 KW 60 HZ Motor Generator Set Mechanical Maintenance
NV-1714-0047

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54H60-77 Propeller Intermediate Maintenance
NV-1704-0248

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NV-1715-0741

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NV-1715-0882

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Oxygen Generator 6L16 Operator
NV-1601-0018
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NV-1715-0918
6L16 Oxygen Generator Technician
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NV-1710-0104
Boiler Technician Six Year Obligator (BT6YO) Advanced Operator
NV-1710-0080
Boiler Technician 6 Year Option (6YO) Advanced Maintenance) Phase 3 Class C1
NV-1710-0081
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NV-1710-0080
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NV-1710-0096
Machinist's Mate Six-Year Obligator (MM6YO)
NV-1710-0105

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NV-1714-0046
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NV-1714-0047

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NV-1714-0029

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NV-1715-0301

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NV-1710-0001
600 PSI Boiler Technician (BT) Maintenance
NV-1710-0031
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NV-1732-0005

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NV-1715-0888
637 Class Electronic Surveillance Measures (ESM) ELINT Technician
NV-1715-0888

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NV-1714-0017
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AR—Army
CG—Coast Guard
DD—Department of Defense
MC—Marine Corps
NV—Navy

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A-101-0137	NV-1715-0983 NV-1715-1451
A-101-0138	NV-1715-0876
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D-150-0015 NV-1606-0067
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D-150-0119 NV-1402-0099
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D-150-017 NV-1402-0035
D-150-019 NV-1715-0084

D-2A-0003 NV-2202-0068
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D-2A-0013 NV-2202-0042
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D-2A-013 NV-2202-0042
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D-2B-0016 NV-1606-0053
D-2B-012 NV-1606-0034
D-2B-013 NV-1606-0035
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D-210-0020 NV-1715-0767
D-221-0016 NV-1704-0233
D-222-010 NV-1715-0482
D-240-0101 NV-1402-0104
D-243-0120 NV-1606-0070

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D-3A-0113 NV-1606-0068
D-3A-0117 NV-1709-0025
D-3A-012 NV-1402-0043
D-3A-013 NV-1606-0002

D-400-0101 NV-1709-0022

D-530-0101 NV-1402-0102
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E-2D-0201 NV-1704-0226
E-2D-0202 NV-1704-0232
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E-2D-066 NV-1715-0555
E-2D-070 NV-1606-0028
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E-2D-074 NV-1715-0215
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E-201-10 NV-1409-0004
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E-210-0050 NV-1715-0696
E-210-0057 NV-2202-0034
E-210-050 NV-1715-0696
E-210-32 NV-2202-0080
E-210-42 NV-1715-0704
E-210-44 NV-2202-0105
E-210-45 NV-1715-0678
E-210-48 NV-1715-0020
E-210-51 NV-2202-0096
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E-210-57 NV-2202-0034
E-221-34 NV-1715-0021

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E-601-1910 NV-1704-0180
E-602-1080 NV-1704-0161
E-646-0640 NV-1704-0167

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F-000-0070 NV-1729-0010
F-000-0076 NV-1710-0039
F-000-0080 NV-1715-0904
F-000-010 NV-2202-0029
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NV-1720-0001
F-000-035 NV-1710-0024
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F-000-076 NV-1710-0039

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F-130-020 NV-1715-0689
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F-160-010 NV-1715-0107
F-160-011 NV-1715-0090
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F-193-032 NV-1715-0426
F-193-072 NV-1715-0416
F-193-076 NV-1715-0125
F-193-080 NV-1715-0426
F-193-082 NV-1715-0339
F-193-084 NV-1715-0657
F-193-086 NV-1715-0232
F-193-088 NV-1715-0128
F-193-089 NV-1402-0025
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F-193-091 NV-1402-0026

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F-210-013 NV-1601-0012
F-210-014 NV-1721-0002
F-210-015 NV-1721-0010

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F-4E-013 NV-2202-0047

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F-623-015 NV-1715-0062
F-623-016 NV-1715-0642
F-623-025 NV-1715-0252
F-623-027 NV-1715-0636
F-623-029 NV-1715-0560
F-623-031 NV-1715-0551
F-623-035 NV-1715-0588
F-623-044 NV-1601-0009
F-633-013 NV-1715-0575
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F-652-015 NV-1601-0002
F-652-018 NV-1703-0004
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F-652-026 NV-1710-0025
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F-662-011 NV-1714-0005

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F-701-015 NV-1710-0045
F-701-016 NV-1710-0048
F-772-010 NV-1722-0007
F-772-011 NV-1708-0003

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G-00-6518 NV-2202-0090
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G-000-6583 NV-2202-0091
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G-010-4610 NV-0803-0001
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G-041-6436 NV-2202-0037
G-060-6305 NV-1722-0002
G-062-6358 NV-1708-0006

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G-2E-4606 NV-2202-0049
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G-2E-6244 NV-1606-0007
G-2E-6303 NV-2202-0005
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G-2G-4314 NV-2202-0006
G-2G-6432 NV-2202-0006
G-2G-6434 NV-2202-0058
G-2G-6435 NV-2202-0057
G-2G-6438 NV-2202-0059
G-2G-6449 NV-2202-0055
G-2G-6510 NV-2202-0031
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G-243-4212 NV-1606-0005

G-4H-6190 NV-1710-0059
G-4H-6191 NV-1710-0012
G-431-6244 NV-1606-0007

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G-551-4418 NV-0419-0005

G-651-6191 NV-1710-0012
G-652-6160 NV-1712-0009

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G-8B-4418 NV-0419-0005
G-813-6358 NV-1708-0006

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H-00-1500 NV-1708-0001
H-00-1501 NV-2202-0048
H-00-1600 NV-1722-0010
H-00-1800 NV-1722-0003
H-00-1940 NV-2202-0071
H-00-5219 NV-2202-0081
H-00-5221 NV-1728-0003
H-00-5222 NV-1511-0001
H-00-5223 NV-2202-0046
H-00-5240 NV-1728-0002
H-00-5324 NV-1722-0009
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H-041-5442A NV-2202-0061

H-2E-3923 NV-0803-0001
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H-2G-5443 NV-2202-0053
H-2G-5444 NV-2202-0067
H-2G-5445 NV-2202-0064
H-2G-5447 NV-2202-0089
H-243-3167 NV-1606-0006

H-3A-5515 .... NV-1606-0004
H-3A-5516 .... NV-1606-0003

H-4C-5215 .... NV-1404-0006
H-431-5311 .... NV-1606-0007

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H-652-5317 .... NV-1712-0016

H-8B-3551 .... NV-0419-0004
H-813-5316 .... NV-1708-0006

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J-041-0130 .... NV-1715-1178
J-041-1032 .... NV-1715-0684
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J-060-6221 .... NV-1722-0005
J-061-2207 .... NV-2202-0150

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J-100-0707 .... NV-1715-1331
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J-130-0298 .... NV-1402-0130
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J-130-0500 .... NV-2202-0145
J-130-0505 .... NV-1715-0423
J-130-0515 .... NV-1715-0040
J-130-052 .... NV-1715-0578
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J-130-0865 .... NV-1715-0405
J-130-0875 .... NV-1715-0420
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J-150-0372 .... NV-1402-0091
J-150-0962 .... NV-1606-0067
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NV-1709-0040
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J-150-0989 .... NV-1709-0021
J-150-0990 .... NV-1709-0024
J-150-0992 .... NV-1402-0103

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J-2E-0155 .... NV-1715-1232
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J-2E-101 .... NV-1715-0624
J-2G-0074 .... NV-1402-0023
J-2G-0093 .... NV-1402-0005
J-2G-0210 .... NV-2202-0115
J-2G-0322 .... NV-2202-0074
NV-2202-0124
J-2G-0325 .... NV-2202-0125
J-2G-0367 .... NV-2202-0116
J-2G-0369 .... NV-2202-0128
J-2G-0380 .... NV-2202-0117
J-2G-0536 .... NV-1715-1510
J-2G-0539 .... NV-1715-1509
J-2G-0618 .... NV-2202-0107
J-2G-3212 .... NV-2202-0052
J-2G-352 .... NV-1402-0003
J-2G-353 .... NV-1402-0005
J-2G-420 .... NV-0801-0001
J-201-0816 .... NV-1715-1176
J-201-615 .... NV-2202-0054
J-203-0803 .... NV-2202-0149
J-210-0011 .... NV-1704-0333
J-210-0363 .... NV-1715-1233
J-210-0368 .... NV-1715-1234
J-210-0529 .... NV-1715-1505
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J-221-0075 .... NV-1402-0010
J-221-0094 .... NV-1715-1235
J-221-0305 .... NV-2202-0130
J-221-0308 .... NV-2202-0118
J-221-0309 .... NV-2202-0119
J-221-0321 .... NV-2202-0052
J-221-0323 .... NV-2202-0120
J-221-0324 .... NV-2202-0121
J-221-0362 .... NV-2202-0122
J-221-0389 .... NV-1715-1177
J-221-3212 .... NV-2202-0052
J-221-352 .... NV-1402-0003
J-221-353 .... NV-1402-0005
J-221-3532 .... NV-1402-0005
J-233-0211 .... NV-1715-1237
J-240-0976 .... NV-1402-0104
J-242-0010 .... NV-1511-0017
NV-1511-0023
J-242-0030 .... NV-1606-0075
J-242-0993 .... NV-1709-0039
J-242-0994 .... NV-1606-0073
J-242-2014 .... NV-1511-0032
J-243-0940 .... NV-1402-0118
J-243-0941 .... NV-1715-1300
J-243-0968 .... NV-1606-0070
J-243-0969 .... NV-1511-0021
J-243-0972 .... NV-1511-0024
J-243-0974 .... NV-1709-0038
J-243-0981 .... NV-1606-0072
J-243-0991 .... NV-1402-0119
J-243-0995 .... NV-1402-0117
J-243-2014 .... NV-1715-1299
J-243-4207 .... NV-1511-0019
J-243-4208 .... NV-1511-0020
J-243-4213 (Phase 1) NV-1511-0030
J-243-4223 (Phase 2) NV-1511-0030
J-244-0944 .... NV-1511-0028

J-3A-0010 .... NV-1511-0022
J-3A-0030 .... NV-1511-0027
J-3A-0950 .... NV-1511-0016
J-3A-0952 .... NV-1511-0031
J-3A-0954 .... NV-1606-0074
J-3A-0955 .... NV-1606-0055
J-3A-0956 .... NV-1606-0068
J-3A-0961 .... NV-1606-0069
J-3A-0984 .... NV-1728-0022
J-3A-0998 .... NV-1511-0033
J-3A-4214 .... NV-1511-0029
J-3A-4334 .... NV-1511-0029

J-4E-9122 .... NV-0802-0006
J-4E-9142 .... NV-0802-0005

J-500-0029 .... NV-1402-0153
J-500-0041 .... NV-1405-0022
J-530-0978 .... NV-1402-0102
J-531-0365 .... NV-1715-1238
J-531-0373 .... NV-1402-0090
J-531-0971 .... NV-1402-0101
J-532-0002 .... NV-1402-0019
J-532-0063 .... NV-1402-0095
J-532-0064 .... NV-1402-0096
J-532-0375 .... NV-1402-0031
J-532-3752 .... NV-1402-0031
J-532-3762 .... NV-1402-0033
J-532-3772 .... NV-1402-0009

J-623-0016 .... NV-1715-1339
J-644-0914 .... NV-0802-0005
J-644-9122 .... NV-0802-0006
J-644-9142 .... NV-0802-0005
J-647-0016 .... NV-1714-0028
J-647-0017 .... NV-1715-1109
J-647-0018 .... NV-1715-1108
J-647-0019 .... NV-1714-0027
J-647-0036 .... NV-2202-0106
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J-651-0473 .... NV-1712-0001
J-651-0475 .... NV-1712-0012
J-651-0477 .... NV-1712-0001
J-651-0488 .... NV-1601-0028
J-652-0474 .... NV-1703-0005
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J-662-0044 .... NV-1714-0050

J-7E-0330 .... NV-1402-0094
J-7E-0331 .... NV-1402-0046
J-7E-3752 .... NV-1402-0031
J-7E-3762 .... NV-1402-0033
J-7E-3772 .... NV-1402-0009
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J-750-0485 .... NV-1720-0003
J-772-620 .... NV-1708-0004
J-780-420 .... NV-0801-0001

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K-00-1013 .... NV-2202-0052
K-00-2044 .... NV-1728-0017
K-00-556 .... NV-2202-0052
K-000-0042 .... NV-1402-0034
K-000-947 .... NV-2202-0084
K-012-2068 .... NV-1408-0007
K-041-124 .... NV-1715-0772
K-041-2010 .... NV-1715-0148
K-041-2019 .... NV-1715-0772
NV-1715-1285
K-041-2029 .... NV-1715-0667
K-041-2050 .... NV-2202-0075
K-041-2051 .... NV-1715-0147
K-041-2052 .... NV-2202-0085
K-041-2056 .... NV-1715-0668
K-041-2060 .... NV-1715-0654

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K-113-0108 .... NV-1715-1292
K-113-1185 .... NV-1715-1290
K-113-158 .... NV-1715-0728
K-113-180 .... NV-1715-0210
K-113-2024 .... NV-1715-0129
K-113-2026 .... NV-1715-0306
K-113-2027 .... NV-1715-0283
K-113-2033 .... NV-1715-0402
K-113-2067 .... NV-1715-0103
K-113-2071 .... NV-1715-0210
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K-123-571 .... NV-1715-0532
K-123-592 .... NV-1601-0011
K-130-0037 .... NV-1715-0423
K-130-0046 .... NV-1715-1277
K-130-0047 .... NV-1715-1275
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K-130-1119 NV-1715-1503
K-130-559 NV-1715-0578
K-130-560 NV-1715-0580
K-130-567 NV-1715-0126
K-130-570 NV-1715-0158
K-160-262 NV-1715-0665

K-2E-2103 NV-1722-0008
K-2G-0007 NV-1704-0002
K-2G-0008 NV-1402-0042
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K-2G-0026 NV-1715-0023
K-2G-0027 NV-1715-0674
K-2G-0033 NV-2202-0123
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K-2G-0074 NV-1402-0023
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K-2G-1026 NV-1402-0004
K-2G-351 NV-2202-0074
K-2G-352 NV-2202-0074
K-2G-353 NV-2202-0074
K-2G-3532 NV-1402-0005
K-2G-362 NV-1704-0002
K-2G-363 NV-1704-0005
K-201-2115 NV-2202-0054
K-221-0007 NV-2202-0131
K-221-0015 NV-2202-0126
K-221-0019 NV-2202-0038
K-221-0027 NV-1715-0674
K-221-0039 NV-1715-0673
K-221-0042 NV-1402-0034
K-221-0053 NV-2202-0127
K-221-0075 NV-1402-0010
K-221-0092 NV-1715-1236
K-221-1010 NV-1715-0673
K-221-1012 NV-1402-0034
K-222-0051 NV-1704-0220
K-233-0022 NV-1715-1334
K-233-0025 NV-1715-0017
K-233-281 NV-1715-0017

K-3A-5002 NV-2202-0023
K-3A-5005 NV-1606-0024
K-3A-5006 NV-1606-0059
K-3A-5010 NV-1606-0056
K-3A-5011 NV-1606-0055
K-3A-516 NV-2202-0023
K-3A-526 NV-1606-0056
K-3A-527 NV-1606-0055
K-301-840 NV-2202-0054

K-4H-2008 NV-1712-0008
K-4H-465 NV-1717-0006

K-532-0001 NV-1402-0015
K-532-0002 NV-1402-0019
K-532-0003 NV-1402-0017
K-532-0043 NV-1402-0046

K-651-0109 NV-1710-0022
K-651-2151 NV-1732-0001
K-652-2146 NV-1704-0264
K-652-2167 NV-1704-0265
K-652-2203 NV-1714-0048
K-652-2204 NV-1715-1287
K-652-2205 NV-1715-1288
K-670-2152 NV-1715-1089

K-7E-0043 NV-1402-0046
K-772-2101 NV-1708-0005
K-772-600 NV-2202-0076

L-000-0033 NV-1715-0905
L-000-0034 NV-1715-0906
L-000-0035 NV-1715-0907
L-000-0058 NV-1715-0904

L-101-0013 NV-1715-0900
L-101-0015 NV-1715-0089
L-101-0031 NV-1715-0132
L-101-0039 NV-1715-0531
L-101-028 NV-1715-0250
L-101-029 NV-1715-0251
L-102-0020 NV-1715-0903
L-104-0010 NV-1715-0312
L-121-0030 NV-1715-0902
L-121-0048 NV-1715-0895
L-121-0049 NV-1715-0894
L-121-0051 NV-1715-0897
L-121-0053 NV-1715-0892
L-121-0056 NV-1715-0891
L-123-0014 NV-1715-1225
L-150-0001 NV-1402-0098
L-150-0002 NV-1715-1226
L-160-0012 NV-1715-0664
L-160-011 NV-1706-0002
L-160-012 NV-1715-0664
L-191-0010; NV-1715-1010
L-191-011 NV-1715-0253
L-193-0011 NV-1715-0899
L-193-026 NV-1715-0131
L-198-0012 NV-1715-0896

L-210-015 NV-1721-0003

L-4H 0026 NV-1732-0011
L-4H-0027 NV-0801-0009

L-652-0010 NV-1730-0006
L-652-010 NV-1730-0006
L-652-012 NV-1601-0005
L-652-021 NV-1730-0001
L-661-020 NV-1710-0057
L-662-0013 NV-1715-0898
L-662-0023 NV-1715-0901

L-701-0014 NV-1710-0047
L-701-014 NV-1710-0047
L-702-010 NV-1723-0001

NAV AIR 00-80V-49 NV-1606-0071

P-00-1101 NV-1511-0002
P-00-1201 NV-1511-0003
P-00-1300 NV-2202-0110
P-00-3307 NV-0326-0001
P-00-4300 NV-1408-0032
P-00-4307 NV-2202-0109

Q-2A-0060 NV-1606-0018
Q-2A-0061 NV-1606-0020
Q-2A-0065 NV-1406-0003
Q-2D-0023 NV-1606-0031
Q-2D-0064 NV-1606-0038

Q-9B-0021 NV-2202-0033
Q-9B-0023 NV-1408-0029

R-100-6209 NV-1715-0001

S-101-0172 NV-1715-1357
S-104-0191 NV-1715-1303
S-104-0192 NV-1715-1304
S-121-0483 NV-1715-1117
S-121-0551 NV-1715-1302
S-150-0238 NV-1715-1301
S-150-0239 NV-1402-0121
S-150-0240 NV-1402-0120

S-2G-0405 NV-1304-0008
S-210-0400 NV-1304-0009
S-210-0401 NV-1304-0010

S-500-0029 NV-1406-0012
S-501-0001 NV-0801-0006
NV-0801-0010
S-501-0002 NV-0801-0011

S-8E-0010 NV-1729-0009
S-8E-0013 NV-0902-0001
S-8E-0015 NV-0902-0002

1-193-0391 NV-1715-1393

450-F1 NV-1205-0001
450-F2 NV-1205-0003

557 NV-1715-0694

560 NV-1715-0042

561 NV-1715-0685

566 NV-1715-0711

567 NV-1715-0692

REQUEST FOR COURSE RECOMMENDATION

The applicant for credit must fill out one form for *each* service school course completed. The institutional official is responsible for verifying from official military records that the student completed the entire course, and for submitting the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193. ATTN: Military Evaluations. *Please Print.*

1. *Exact* course title *(do not abbreviate)* ______________________

2. Service branch offering the course:
   - ☐ Air Force
   - ☐ Army
   - ☐ Coast Guard
   - ☐ Department of Defense
   - ☐ Marine Corps
   - ☐ Navy

3. Name of service school attended: ______________________

4. Location (installation, state): ______________________

5. Length of course *(in weeks):* ______________________

6. Dates of attendance: From: __________ (day/month/year) To: __________ (day/month/year)

7. Official military course number: ______________________

8. MOS/AFSC/Rating: ______________________

9. Course was designed for:
   - ☐ Warrant Officers
   - ☐ Officer Candidates
   - ☐ Commissioned Officers
   - ☐ Enlisted Personnel
   - ☐ Aviation Cadets
   - ☐ Noncommissioned Officers

10. Rank or rating upon completion of the course: ______________________

11. Please give some indication of subjects studied in course: ______________________

____
NAME OF STUDENT

____
STATUS (FRESHMAN, SOPHOMORE, ETC.)

DO NOT WRITE IN THIS SPACE
STAFF USE

____
SIGNATURE OF COLLEGE OFFICIAL

____
NAME OF COLLEGE OFFICIAL

____
TITLE

____
INSTITUTION

____
STREET

____
CITY STATE ZIP CODE

____
AREA CODE NUMBER EXT.

REQUEST FOR NAVY GENERAL RATE, RATING, WARRANT OFFICER, AND LIMITED DUTY OFFICER EXHIBITS

Officials should use this form only for requesting exhibits that contain the phrase, "Pending evaluation." As general rate or rating are evaluated, they will be listed in the *Update*. When you want to obtain the recommendation for a newly-evaluated general rate or rating, identify the exhibit you are requesting by using the complete *exhibit I.D. number* (e.g., NER-BT-001), and the title of the occupation. Include the applicant's name if you would like the name mentioned in the reply. Submit the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, ATTN: Military Evaluations.

Exhibit I.D. Number	Title of Occupation Please print; do not abbreviate.	Name of Applicant

DO NOT WRITE IN THIS SPACE
STAFF USE

SIGNATURE OF OFFICIAL

NAME OF OFFICIAL

TITLE

INSTITUTION OR ORGANIZATION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

Please retain file copies of any recommendations received from the Advisory Service.

U.S. GOVERNMENT PRINTING OFFICE 1991 — 735-446

4 Air Force
Coast Guard
Department
of Defense
Marine Corps

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

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AMERICAN COUNCIL ON EDUCATION One Dupont Circle • Washington, D.C. 20036-1193

BEST COPY AVAILABL

THE CHAIRMAN, JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20318

5 October 1990

Dear Service Member,

I support the DOD policy of providing postsecondary education opportunities for all active duty and Reserve Service members. I strongly advise you to take advantage of the voluntary education program to catch up with your education before you leave the military. The Military Services need well-trained, educated people. Your pursuit of higher education will not only enhance your military job performance and chance for promotion, but will also improve your job opportunities when you return to civilian life.

The Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education, describes how you can receive college credits for your military training and experience and is widely recognized by the colleges and universities that grant credit for this training and experience. This guide is available for your reference at your base or post Education Center.

A number of programs are available through education centers on military installations, including courses taught in the classroom, independent study, testing of all kinds, and education guidance. Take advantage of these resources and educational programs during your military tour, and continue to use educational and Montgomery GI Bill benefits when you return to civilian life.

I wish you good luck and success in pursuit of your educational goals.

Sincerely,

COLIN L. POWELL
Chairman
Joint Chiefs of Staff

4 Air Force
Coast Guard
Department
of Defense
Marine Corps

The 1990 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

AMERICAN COUNCIL ON EDUCATION One Dupont Circle • Washington, D.C. 20036-1193

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1990

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19' 8

Foreword

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in military life. ACE has worked cooperatively with the Department of Defense and the armed services in assisting hundreds of thousands of service men and women to achieve recognition for their learning. The long-term success of the *Guide* evaluation system for military training has resulted in its serving as a model for the evaluation of programs offered by other noncollegiate organizations, including business, industry, government agencies, voluntary and professional associations, and labor unions. These formalized efforts to evaluate noncollegiate-sponsored programs enable students to combine their extrainstitutional learning with study at postsecondary institutions to achieve degree-related educational objectives. Not only is this sound educational practice, it is also an efficient use of educational resources and an incentive for the persons affected to undertake further study.

Special recognition must be paid to hundreds of individuals who have served as evaluators and the many educational institutions, professional and disciplinary associations, and the apprenticeship training community for their wholehearted cooperation in this endeavor. Without their support and assistance, the *Guide* would not have been possible. We are greatly indebted to them.

Once again, we are pleased to commend this work to you in your continuing work with service men and women and veterans.

ROBERT H. ATWELL
President
American Council on Education

How to Find and Use Course Exhibits

This volume contains recommendations for formal courses offered by the Air Force, the Coast Guard, the Marine Corps, and the Department of Defense that have been evaluated through June 1990.

The instructions that follow provide a step-by-step procedure for finding and using the exhibits and recommendations. Readers unfamiliar with the ACE evaluation procedures should read Appendix A. Additional information on using the *Guide* and awarding credit is provided in the Questions and Answers section.

Step 1

Have the applicant complete a Request for Course Recommendation form.

A Request for Course Recommendation form appears at the back of this volume. It may be reproduced and should always be filled out by the applicant, using the information provided on official and personal records, as well as the applicant's own knowledge of the service course. *Applicants should not refer to the **Guide** while completing the form.* (See questions 4–7 in Questions and Answers.)

Step 2

Verify course completion from military records.

It is the responsibility of the school official to verify course completion. The following military records are normally used to verify successful completion of course requirements:

1. DD Form 295, Application for the Evaluation of Educational Experiences During Military Service or Application for the Evaluation of Learning Experiences During Military Service—available to active-duty service personnel from military education officers. (Form must be certified by an authorized commissioned officer or his/her designee in order to be official.)
2. DD Form 214, Armed Forces of the United States Report of Transfer or Discharge—available to veterans, together with other in-service training records, from the General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132.
3. Course Completion Certificates—may be used to complement other records or when service courses are not recorded on official records.

(See questions 1, 3, 11 and 17 in Questions and Answers.)

The following steps refer to a course exhibit. See sample course exhibit, page xi.

Step 3

Find the course exhibit by identifying the American Council on Education (ACE) ID number in the Course Number Index or the Keyword Index.

A. *Course Number Index.* All available military course numbers are listed in the Course Number Index in alphanumeric sequence. If the applicant's military course number cannot be located in the Course Number Index, search for the course title in the Keyword Index.

B. *Keyword Index.* Identify all possible keywords within a formal course title. For example, the keywords in the title "Digital, Analog, and Hybrid Computer Fundamentals" are *Digital, Analog, Hybrid,* and *Computer.* Find one or all of those keywords in the Keyword Index and search the listing under the keyword for the course title. *If the title cannot be found under one keyword, search all other possible keywords.* (See question 16 in Questions and Answers.)

C. *Identify ACE ID number.* When the title or military course number has been located, note the corresponding ACE ID number. This number refers to the course exhibit's location in the *Guide.* The two-letter prefix refers to the section of the Course Exhibits chapter, i.e., CG = Coast Guard section, DD = Department of Defense section, MC = Marine Corps section, AF = Air Force section. Within each section, ACE ID numbers are presented in numeric sequence. (See question 2 in Questions and Answers.)

Step 4

Match the course-identifying information with the corresponding data in the course exhibit.

Course-identifying information includes the official military title, military course number, length of course, dates of attendance, location, etc., and is provided by the applicant on the Request for Course Recommendation form. When the course exhibit consists of multiple versions, determine which version applies to the applicant's course by considering exhibit dates and course length. (See questions 6, 7, 9 and 13 in Questions and Answers.) It is important to match all items.

Step 5

Read the course description.

Consideration should be given not only to the amount of credit and to the subject area, but also to the course objectives, or learning outcomes, and instruction which are part of the course exhibit. (See question 8 in Questions and Answers.) These portions of the exhibit outline the course content and scope and also provide essential information about the nature of the course. (See question 10 in Questions and Answers.) This information will help you determine the appropriate placement of credit for each individual student within the requirements and programs at your school.

Step 6

Award credit as appropriate.

Users are free to modify the credit recommendations in accordance with institutional policy and the educational goals of each individual applicant. (See questions 13–15 in Questions and Answers.)

Step 7

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

Whenever problems arise and assistance is desired, you may submit a properly completed Request for Course Recommendation form (Questions 4–7) to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036-1193
ATTN: Military Evaluations
(202) 939-9470

Sample Course Exhibit

ID Number. A number assigned by ACE to identify each course.

Military Course Number. The number assigned to the course by the military.

Length. The length of the course in weeks.

Exhibit Dates. The start and end dates, by month and year. Date of course materials when the course was first evaluated, and, if applicable, when it was eliminated. "Present" denotes publication cut off for this edition of the *Guide* (6/90).

Instruction. Description of instruction, including teaching methods, facilities, equipment, major subject areas covered.

AF-1728-0045

SECURITY SPECIALIST BY CORRESPONDENCE

Course Number: 81150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to carry out security police functions, observation and investigation, deal with hostage situations, hijacking operations, terrorism, and deal with nuclear security accidents.

Instruction: This is a monitored home study program, including reading, written exercises, and proctored examinations. Topics include requirements of integrity and ethics, legality, conduct of searches, maintaining systems security, how and when to use dogs, methods of riot control, and dealing with terrorism.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in criminal justice (5/88).

Course Title. The official title during the period of the exhibit dates.

Location. The service school, military installation, state, and continent if applicable.

Learning Outcomes. Competencies students acquire through the course. Older courses have *Objectives*. (See question 8 in Questions and Answers.)

Credit Recommendation. Given in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. Expressed in semester hours. (See Appendix A for detailed explanation of credit categories.)

Evaluation Date. Date when the credit recommendation was established. Month and year are given in parentheses following each recommendation.

How to Find and Use Coast Guard Occupation Exhibits

This volume contains exhibits for Coast Guard occupations evaluated through June 30, 1990.

The following instructions provide a step-by-step procedure for finding and using exhibits for Coast Guard ratings and warrant officer specialties. If you are unfamiliar with the Coast Guard enlisted and warrant officer systems—how they are structured and how occupational proficiency is demonstrated—you should read Appendix A. Additional information is provided in the Questions and Answers section.

Step 1

Have the applicant submit official documentation to you.

For Coast Guard enlisted personnel, institution officials should request DD Form 295 or DD Form 214. Applicants may also submit their Achievement Sheets. Ratings are listed in Section 1 on page 3.

Veterans may obtain copies of the DD Form 214 from General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132.

For Coast Guard warrant officers, occupational history is recorded on Form CG-5316, Warrant Officer Officer Evaluation Report (OER). Refer to Section 1-i for the title of the specialty.

Step 2

By referring to military records, verify each occupational specialty the person has successfully held.

A. Eligibility for the recommendation for ratings is easily determined. Advancement means that the person is automatically eligible for the rating recommendation; that is, to be advanced, the person had to demonstrate occupational proficiency by meeting all the requirements for advancement, including passing written and performance tests. (See questions 18 and 19 in Questions and Answers.)

Warrant officers have normally progressed through the enlisted ranks and are technical specialists in their fields. Determine eligibility by consulting the Warrant Officer Officer Evaluation Report.

B. Find the information necessary for locating the correct exhibit(s): occupational designations and the date of advancement to each. (See question 22 in Questions and Answers.)

Step 3

Find the appropriate exhibit in the Guide.

The exhibit can easily be found when the designation is known. Each exhibit is assigned an ACE ID number that has three components. The first component in a Coast Guard rating exhibit is *CGR*. This identifies the exhibit as one that pertains to Coast Guard enlisted ratings. The second component consists of the rating designation, e.g., AT, GM or ASM. The third component, a three-digit sequentially assigned number, e.g., 001, uniquely identifies the exhibit. The exhibit ID numbers have either eight or nine characters, depending on the rating designation, e.g., CGR-QM-001 and CGR-MST-001. The first component of a warrant officer exhibit is *CGW*. The second component consists of the designator, e.g., ENG, MED. As with the enlisted exhibits, the third component is a three-digit number that uniquely identifies the exhibit (CGW-PERS-001, CGW-FS-001).

When the title of an occupational specialty is known, the exhibit ID number can be found by referring to the *Coast Guard Occupational Title Index*.

Step 4

Read the entire exhibit.

In order to apply a given recommendation to the student's program of study at your institution, you must first read the entire exhibit. Each item in the exhibit has been prepared to help you identify or interpret the recommendations. (See the sample exhibit.) Two items, "Career Pattern" and "Description," will be particularly helpful to you.

The descriptions, which are similar to learning outcome statements of postsecondary courses and programs of study, will provide you with essential information about the learning required for proficiency in the occupation. Comparing the "Description" with a description of the course or program of study that the student will pursue will help you

- determine how much of the recommended credit applies to the course or program of study at your institution;
- identify additional areas of possible credit;
- resolve problems with duplication of credit, when the applicant has applied for credit for more than one military learning experience;
- place the student at the appropriate point in the course sequence or program of study.

Step 5

Award credit as appropriate.

The credit recommendations are advisory. They are intended to assist in formally recognizing the learning of Coast Guard men and women and veterans and in placing them in postsecondary programs of study, apprenticeship programs, and jobs. The recommendations may be modified.

When an applicant has applied for credit for more than one military learning experience, you may find that you will have to reduce the total amount of credit recommended to avoid granting duplicate credit. (See questions 24 and 25 in Questions and Answers.)

You may also wish to increase the recommended credit to account for the learning that the applicant may have acquired in other military or nonmilitary settings. (See questions 27 and 28 in Questions and Answers.)

Step 6

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

The Center operates an advisory service to assist education officials, apprenticeship and training officials, and employers in evaluating the learning experiences of military personnel. Publication of the *Guide* is part of that service. However, there are instances when additional assistance is needed.

When requesting an exhibit, complete the Request for Coast Guard Occupation Exhibits form that appears at the back of this volume. *Use the form only to request recommendations for those that are listed as "Pending evaluation."* (See question 23 in Questions and Answers.)

When assistance in interpretation is needed and it appears that official military records will help staff members in responding to an inquiry, copies should be attached to the letter of inquiry. *Do not send original records.*

When an exhibit or assistance in interpretation is needed urgently, you may telephone The Center at (202) 939-9470. Whether inquiring by letter or telephone, you should always obtain information directly from The Center, not the applicant. (See question 9 in Questions and Answers.)

Inquiries concerning rating exhibits should be addressed to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036-1193
ATTN: Military Evaluations Program

Sample Coast Guard Rating Exhibit

ID Number. A code number assigned by ACE to identify each exhibit.

Exhibit Dates. Start and end dates by month and year. The earliest start date is 6/71, the effective date of the Coast Guard manual regulating the ratings that have been evaluated (start dates may be later than 6/71). The term "Present" indicates that the exhibit is current as of June 1986. "Pending evaluation" means that the rating is scheduled to be evaluated.

Career Pattern. Path of advancement. Shows prerequisite general rate and subsequent progression in a rating; the designation is provided for each rate, followed by the title and paygrade (in parentheses).

Recommendation. By rate. Only the recommendation for the *highest* rate held should be used; the recommendations should not be added.

Educational credit is expressed in semester hours and recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

CGR-MST-001

MARINE SCIENCE TECHNICIAN

MST3
MST2
MST1
MSTC
MSTCS
MSTCM

Exhibit Dates: 1/71–Present

Occupational Group: I (Deck)

Career Pattern

SN: Seaman (E-3). *MST3:* Marine Science Technician, Third Class (E-4). *MST2:* Marine Science Technician, Second Class (E-5). *MST1:* Marine Science Technician, First Class (E-6). *MSTC:* Chief Marine Science Technician (E-7). *MSTCS:* Senior Chief Marine Science Technician (E-8). *MSTCM:* Master Chief Marine Science Technician (E-9).

Description

Summary: Observes, records, and analyzes environmental and scientific data; conducts field monitoring and laboratory analysis for chemical and oil identification; operates and maintains Coast Guard data processing systems; retrieves and assimilates data from remote sensing and local observations; employs numerical models and provides environmental information for conducting Coast Guard operations. *MST3:* Prepares and maintains user documentation of basic data processing procedures; operates small programmable computers; uses standard meteorological equipment; conducts meteorological observations; works with and maintains standard oceanographic instrumentation; demonstrates safety precautions in operation of a chemistry laboratory in accordance with Coast Guard regulations. *MST2:* Able to perform the duties required for MST3; maintains a tape or disk collection. ... *MSTCS:* Able to perform the duties required for MSTC; serves as enlisted technical or specialty expert; plans ...

Recommendation, MST3

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, and 3 in basic meteorology (7/84).

Recommendation, MST2

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, 3 in basic meteorology, 3 in physical science, and 2 in meteorology (7/84).

Recommendation, MST1

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, 3 in basic meteorology, 3 in physical science, 2 in meteorology, and 2 in personnel supervision (7/84).

Important: Read entire exhibit before awarding educational credit.

Title. The official Coast Guard title of the rating during the period of the exhibit dates.

Rating Designation. The official Coast Guard system of identifying occupations and their levels, listed in ascending order according to rate. (See question 19 in Questions and Answers for definitions of the Coast Guard identifiers.)

Occupational Field. Number and title designating a group of related ratings.

Description. Summary applying to all rates and a separate description of the skills, competencies, and knowledge required for proficiency in each rate.

Date of Evaluation. By month and year. Appears in parentheses following the recommendation for each rate.

Sample Coast Guard Warrant Officer Exhibit

ID Number: A code number assigned by ACE to identify each exhibit. The first three digits for warrant officers are "CGW."

Exhibit Dates: Start and end dates by month and year. The term "Present" indicates that the exhibit is current as of June 1990. "Pending evaluation" means that an evaluation is scheduled.

Career Pattern: Shows the various possible career paths for the warrant officer. Titles and designators are provided.

Description: The skills, competencies, and knowledge required for proficiency in the officer specialty.

CGW-PERS-001

PERSONNEL ADMINISTRATION

Exhibit Dates: 1/65–Present.

Career Pattern

May have progressed to Personnel Administration Warrant Officer from Data Processing Technician (Emergency Rating) or Yeoman (YN).

Description

Serves as a technical specialist in general and personnel administration; provides technical advice and information concerning officer and enlisted personnel regulations and administration; organizes and supervises personnel in an administrative or personnel office of up to 20 persons; supervises personnel in preparing and processing correspondence, reports, personnel records, and accounts; knows and uses computers and their programs for records; administers funds for travel and procurement, and the allocation of officer materials and equipment; prepares office organization, work flow, and layout charts; prescribes procedures and techniques for work improvement; prepares official correspondence, administrative directives, regulations, and orders.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in business communications, 3 in personnel supervision, and 3 for field experience in office management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

Important: Read entire exhibit before awarding educational credit.

Title: The official Coast Guard title during the period of the exhibit dates.

Recommendation: Educational credit is expressed in semester hours and recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree (see Appendix A for category definitions). The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

Date of Evaluation: By month and year. Appears in parentheses following the recommendation.

How to Find and Use Marine Corps MOS Exhibits

This volume contains exhibits for selected Marine Corps enlisted Military Occupational Specialties (MOS's) evaluated through June 1990.

The following instructions provide a step-by-step procedure for finding and using Marine Corps MOS exhibits. If you are unfamiliar with the Marine Corps enlisted MOS system—how they are structured and how occupational proficiency is demonstrated—you should read Appendix A. Additional information is provided in the Questions and Answers section.

Step 1

Have the applicant submit official documentation to you.

Institution officials should request the summary sheet for the ITSS MATMEP (Individual Training Standards Systems, Maintenance Training Management and Evaluation Program). See Appendix B for a copy of the form.

Step 2

By referring to the ITSS MATMEP, Individual Duty Area Qualification Summary, verify each MOS the person has successfully held.

When verifying Marine Corps MOS's in the aircraft maintenance and avionics fields, it is important to identify the *level* (I–IV) of training the individual has completed. Refer to the summary sheet and locate the phrase "Completed Level —." When the summary sheet indicates that the Level III has been completed, this indicates that *all* the MOS-requisite tasks have been certified. Credit is only recommended for Levels III and IV.

Step 3

Find the appropriate exhibit in the Guide.

The exhibit can be found when the designation is known. Each exhibit is assigned an ACE ID number that has three components. The first component in a Marine Corps MOS exhibit is *MCE*. This identifies the exhibit as one that pertains to Marine Corps enlisted MOS's. The second component consists of four-digit MOS designation, e.g., 6052 or 6053. The third component, a three-digit sequentially assigned number, e.g., 001, uniquely identifies the exhibit. The exhibit ID numbers have ten characters.

When the title of an MOS is known, the exhibit ID number can be found by referring to the Marine Corps Occupational Title Index.

Step 4

Read the entire exhibit.

In order to apply a given recommendation to the student's program of study at your institution, you must first read the entire exhibit. Each item in the exhibit has been prepared to help you identify or interpret the recommendations. (See the sample exhibit.) Two items, "Career Pattern" and "Description," will be particularly helpful to you.

The "NOTE" found in the item "Career Pattern" explains the levels. The description, which is similar to learning outcome statements of postsecondary courses and programs of study, will provide you with essential information about the learning required for proficiency in the MOS. Comparing the exhibit description with a description of the course or program of study that the student will pursue will help you:

- determine how much of the recommended credit applies to the course or program of study at your institution;
- identify additional areas of possible credit;
- resolve problems with duplication of credit, when the applicant has applied for credit for more than one military learning experience;
- place the student at the appropriate point in the course sequence or program of study.

Step 5

Award credit as appropriate.

The credit recommendations are advisory. They are intended to assist in formally recognizing the learning of Marines in placing them in postsecondary programs of study, apprenticeship programs, and jobs. The recommendations may be modified.

When an applicant has applied for credit for more than one military learning experience, you may find that you will have to reduce the total amount of credit recommended to avoid granting duplicate credit. (See questions 24 and 25 in Questions and Answers.)

You may also wish to increase the recommended credit to account for the learning that the applicant may have acquired in other military or nonmilitary settings. (See questions 27 and 28 in Questions and Answers.)

Step 6

When assistance is required, contact The Center for Adult Learning and Educational Credentials.

The Center operates an advisory service to assist education officials, apprenticeship and training officials, and employers in evaluating the learning experiences of military personnel. Publication of the *Guide* is part of that service. However, there are instances when additional assistance is needed.

When requesting an exhibit, complete the Request for Marine Corps Enlisted MOS Exhibits form that appears at the back of this volume.

When assistance in interpretation is needed and it appears that official military records will help staff members in responding to an inquiry, copies should be attached to the letter of inquiry. *Do not send original records.*

When an exhibit or assistance in interpretation is needed urgently, you may telephone The Center at (202) 939-9470. Whether inquiring by letter or telephone, you should always obtain information directly from The Center, not the applicant. (See question 9 in Questions and Answers.)

Inquiries concerning MOS exhibits should be addressed to:

The Center for Adult Learning and Educational
Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036-1193
ATTN: Military Evaluations Program

Sample Marine Corps Enlisted MOS Exhibit

ID Number: A code number assigned by ACE to identify each exhibit.

MCE-6052-001

Title: The official Marine Corps title during the period of the exhibit dates.

AIRCRAFT HYDRAULIC/PNEUMATIC MECHANIC, A-4/TA-4/OA4

Exhibit Dates: Start and end dates by month and year. The term "Present" indicates that the exhibit is current as of June 1990.

Exhibit Dates: 4/87–Present.

Occupational Field: Number and title designating a group of related MOS's.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern: Path of advancement. Indicates military rank and paygrade. Special note defines the levels which are the basis for the credit recommendations.

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergent (E-6). *GYSG:* Gunnery Sergent (E-7). **NOTE:** MOS duties are not defined in terms of rank or paygrade, but by levels. *Level I* identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. *Level II* identifies those tasks that are part of on-the-job training; the trainee can do most tasks pertaining to a particular system . . . *Level III* indicates that the individual can perform all essential tasks without supervision. *Level IV* indicates a high level of proficiency in job performance . . .

Description: Summary applying to all levels and a separate description of the skills, competencies, and knowledge required for proficiency in each level.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines . . . *Level III:* Able to perform duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment . . . *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit . . .

Recommendation: Evaluation credit is expressed in semester hours and recommended in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate, and graduate degree. (See Appendix A for category definitions.) The recommendation normally specifies the number of semester hours recommended and the appropriate subject area, program of study, or discipline in which the credit might be applied.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Date of Evaluation: By month and year. Appears in parentheses following the recommendation.

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management . . .

Important: Read entire exhibit before awarding educational credit.

Questions and Answers

This section is designed to answer questions that may arise about using the Guide *and awarding credit.*

1

An applicant at my institution has submitted a DD Form 214 that lists abbreviated course titles which I cannot decipher. The form does not contain enough information for me to find the courses in the *Guide*. What should I do?

Military records often provide insufficient information for civilian education officials to properly identify courses. For that reason, The Center has designed the Request for Course Recommendation form, which can be used to supplement records. Applicants for credit should be responsible for interpreting the information on their records and presenting the data in readable form. You may also use course completion certificates and other training records to verify entries on the DD Forms 214 and 295. It is recommended that you automatically require students to complete the Request for Course Recommendation form. Then, if you need help, authorize the form and submit it to The Center. *No abbreviations please.*

2

When an applicant submits information on a number of courses completed, I can usually find exhibits for only some of the courses in the *Guide*. Am I doing something wrong?

The course evaluations done by The Center probably represent about 60 percent of the total number of courses currently offered by the armed services. The remaining 40 percent cannot be evaluated for one reason or another. In general, courses evaluated and published in the *Guide* are those offered on a full-time basis. After 1981 The Center began evaluation of courses that are 45 academic hours in length. Prior to that time, courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the courses had to include a minimum total of sixty contact hours of academic instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours. Another requirement for evaluation is that a course be formal as defined by the services, i.e., offered to meet servicewide training requirements and cited in the formal school listing for the service. This requirement generally excludes locally organized and command-level training programs, as well as courses offered on a one-time basis.

Correspondence courses were not evaluated until the mid-1970s. We have begun to evaluate selected Air Force, Coast Guard, and Marine Corps correspondence courses. These courses will be listed in the Keyword Index under "Correspondence" for easy identification. One criterion for reviewing correspondence courses is the establishment of an ongoing proctored end-of-course examination program.

You will find no courses conducted prior to 1954 listed in this guide. You must always submit a Request for Course Recommendation form to this office for assistance with courses taken from the 1940s through 1954. When in doubt about the availability of any evaluation for any service course, contact the Advisory Service by telephone or by submitting a Request for Course Recommendation form.

Keep in mind that the *Guide* is constantly being updated. New courses evaluated after the publication date may be found in the *Handbook to the Guide* or you may obtain them by submitting a Request for Course Recommendation form.

3

I understand many military records were destroyed in a fire at the General Services Administration a number of years ago. What should I do if the applicant's military records were among those destroyed?

Many records were reclaimed or reconstructed and are now available. In addition, the applicant's copies of certificates may be used in lieu of records destroyed in the GSA fire.

4

May I submit a Request for Course Recommendation form that the student has filled out with information from the *Guide*?

A form filled out by a student who copies information from the *Guide* cannot be used by the Advisory Service staff for research purposes because that information only duplicates published data. One of the purposes of the Request for Course Recommendation form is to secure information about a course from students, ideally through official records, but also from their personal knowledge or memory of the course. With this firsthand information, you may find the correct course exhibit in the *Guide*. If you cannot find it, you may send the request form to the Advisory Service.

The Center staff can then use this additional information to search its extensive files for matching information. When students attempt to identify a course taken years ago by extracting *current* titles or course numbers from the *Guide*, they may in fact be identifying a *similar* course but not the one they took. Therefore, a form filled out with material copied from the *Guide* can be misleading and can seriously handicap the research staff. *Only accurate and verified information is to be submitted.*

5

Who should send in the Request for Course Recommendation form?

The form should be completed by the applicant and authorized by you, the institution official or military representative. Credit recommendations will be forwarded to you only when you authorize us to do so. While we do provide credit recommendations to applicants upon receipt of their requests, we encourage them to apply through their schools. We do not normally send a credit recommendation to a college at the request of a student applicant or a military counselor.

6

Why is so much information needed on the Request for Course Recommendation form?

You cannot be sure that you have identified the correct exhibit in the *Guide* unless all the information on the form matches the corresponding items in the course exhibit. The course title, course number, name and location of the service school, and length of the course shown on the form should be identical to the information in the exhibit. In addition, the dates of attendance must fall within the exhibit dates. Credit recommendations are for *specific* courses; therefore, all items must be identical if a positive identification is to be made.

A complete and accurate form will also help the Advisory Service research the course.

7

What do I do when the information on the Request for Course Recommendation form does not exactly match the information in the course exhibit?

Send an authorized form to the Advisory Service. Send the form in yourself; do not give it to the student to submit. If just one item differs from that in the exhibit you have located (for example, "Length"), you should circle the item to bring it to the attention of the research staff. Send *copies* of military records only if you think they will provide useful additional information. If the staff cannot identify the course and supply a credit recommendation, you may still grant credit to the applicant by conducting your own assessment of the applicant's learning. (See question 28 for information about assessment techniques.)

8

I've come across a few exhibits with *Learning Outcomes* instead of *Objectives*. Why the change?

Institutions are increasingly using learning outcomes in their own course descriptions. To make it easier for institutional decision makers to compare competencies acquired in a military course to those competencies acquired in courses offered at their own institutions, the Military Evaluations program adopted this new format in courses evaluated since 1987.

The Council on Postsecondary Accreditation (COPA) and its Committee on Recognition (the committee which recognizes the various accrediting bodies in this country) are placing more emphasis on the use of learning outcomes. The committee expects recognized accrediting bodies to apply COPA's provision regarding the use of learning outcomes and their assessment.

9

How long does it take to receive a response if I submit a properly completed request form?

About three weeks for most requests, longer for those requiring extensive research. Every effort will be made to respond as quickly as possible. If you wish, you may call in requests; be sure to have all pertinent information (see question 6) available to give to the staff person.

10

How can I get additional information about the courses in the *Guide*? Sometimes the descriptive material in the exhibit is not detailed enough for me to make a decision about granting credit. What do I do then?

With the exception of a few computer-taught or classified courses, The Center has the programs of instruction on file for most courses listed in the *Guide*. When necessary, The Center can provide the topic outline from the military syllabus; and when an entire program of instruction is needed, arrangements can be made to photocopy the complete syllabus. Please note that the credit recommendations are based on more information than that cited in the syllabus.

11

What are USAFI and DANTES? Can I grant credit for the courses and tests listed on an applicant's USAFI or DANTES military test reports?

USAFI was the United States Armed Forces Institute, which offered an extensive educational program to active-duty personnel. USAFI correspondence, seminar, and self-study courses, end-of-course tests, and Subject

Standardized Tests (SSTs) were made available to service personnel worldwide until 1974, when USAFI was disestablished. Credit recommendations for USAFI courses and examinations may be found in the *Handbook to the Guide*. Subsequently, the Defense Activity for Non-Traditional Education Support (DANTES) was established in 1974, and that agency continued the development and administration of Subject Standardized Tests and other educational services. The Center continues to recommend credit for USAFI offerings and DANTES SSTs. Credit recommendations for DANTES SSTs are found in the *Handbook to the Guide*. In addition, detailed descriptions are provided in the *Guide to Educational Credit by Examination*, which can be purchased through ACE Publications.

In verifying completion of USAFI or DANTES courses or tests, the military test report should not be considered official. That report is given to all service personnel who have taken a course or test. To obtain official USAFI or DANTES transcripts, refer to the addresses provided in Appendix A, under "Other Recommendations."

12

What is the significance of the date which appears after each credit recommendation?

That date is called the "evaluation date" and represents the month and year the credit recommendation was established. Each time a course or occupation is evaluated, a date is provided to indicate when the course or occupation was last considered for a credit equivalency. The date tells you how recently a recommendation was established so that you can judge the currency of the credit recommended. This information is particularly useful in subject areas where "state of the art" is important in determining the applicability of credit. You can also use the evaluation date when your institution has established a "statute of limitations" for acceptance of transfer credit. The date is provided purely for your information; do not confuse the date with exhibit dates.

13

An applicant completed a course in 1973, but the *Guide* exhibit dates are 5/74 to Present. Should I grant credit based on the *Guide*?

The exhibit dates shown in the *Guide* indicate the time period for which The Center has information on the course. The course may have been offered for several years prior to the exhibit "start" date, but since the service branch did not submit information on the course during that time period, we are not able to backdate the exhibit to cover it. If you can be reasonably sure, from other information provided by the applicant (length, course content description), that the course was the same or similar to the course listed in the *Guide*, then you may want to grant credit based on the *Guide* recommendation. If the applicant's course was a number of weeks longer or shorter than the one covered in the *Guide* exhibit, you may be able to grant credit based on a comparison of the applicant's information with the descriptive information in the *Guide*. The Center encourages you to conduct your own assessment of courses for which no credit recommendation is available. (See question 28 for information about assessment techniques; for information on rating exhibit dates, see questions 22 and 23.) ACE staff may be able to provide you with military formal school catalog course descriptions for periods of time outside the rating exhibit dates. This should help you determine whether you might apply the credit listed in the *Guide* exhibit based on your own comparison.

14

Several courses that I've looked up have an end-date of 12/73, but the student took them in 1976. Why do so many Air Force courses carry an end-date of 12/73?

The courses that are end-dated are part of the Community College of the Air Force (CCAF). ACE has no direct knowledge of the content of the courses beyond December 1973. Accredited by the Southern Association's Commission on Colleges, CCAF grants an Associate in Applied Science degree. Lower-division credit recommendations are no longer listed for those courses. However, you may grant the upper-division credit if the student took the course within the exhibit dates.

Anyone attending an Air Force school or course can obtain a Community College of the Air Force (CCAF) transcript which documents that training if the school or course is recognized by CCAF for credit. The transcript may be used to request transfer of credit to another institution or otherwise document college credit, since non-Air Force personnel cannot enroll in CCAF. CCAF does not award credit for all Air Force courses, but only those regularly attended by Air Force enlisted personnel and taught by CCAF-affiliated schools.

A CCAF transcript may be obtained by sending a completed AF Form 2099 or a brief letter requesting transcript service to CCAF/RRRA, Maxwell Air Force Base, AL 36112-6655. A certificate of training must accompany the request. DD Form 214 is not acceptable. Specify the type of transcript (personal or official) and the address to which the transcript is to be mailed. Provide full name, social security number, and ensure that the person whose transcript is requested signs the request form. The transcripts are free. Official transcripts will be mailed only to institutions.

15

I found the correct exhibit in my 1990 *Guide*, but under "Credit Recommendation" it says "Pending evaluation." My student cannot wait for the 1992 *Guide* to find out what credit she might receive. What should I do in such a case?

Staff members regularly schedule site evaluations. We publish a list of military schools and occupations in the office newsletter so that you may be aware of the availability of recommendations. In addition, colleges and military counselors on The Center and military mailing lists should receive updates for the *Handbook to the Guide*. These updates contain credit recommendations for courses and occupations evaluated since the 1990 *Guide*. (See question 32.) When a course or occupation is listed as "Pending evaluation," and does not appear in the *Handbook*, you may call the office to find out if a credit recommendation is available, or you may simply send in your authorized Request for Course Recommendation or Request for Coast Guard occupations form. The *Guide* system is constantly growing as courses and occupations are added to the data base.

16

The Keyword Index is somewhat confusing. Can you offer some tips on locating courses by title?

You can generally locate an exhibit by searching in the *Keyword Index* under the main words of the title. Generic terms such as "Repair," "Technician," and "Officer" are not keywords.

Some keywords may consist of two words. For example, "Electronics Technician," "Aviation Electronics," and "Aviation Support" are keywords.

The computer's system of alphabetizing places abbreviations and acronyms at the end of a sequence. Numbers are arranged in the following manner:

Mk 1
Mk 1A
Mk 10
Mk 100
Mk 108
Mk 11
Mk 111
Mk 119
Mk 12

As you can see, Mk 12 appears *after* Mk 100. Letters alphabetize before numbers.

It is important to check under more than just one word if you cannot locate a course right away.

17

One of my students completed a formal military course but does not have a DD Form 295 or DD Form 214 because he was not on active-duty service. Can I grant credit for the course, and how can I verify that he actually completed the course?

We recommend that school officials use the DD 295 or DD 214 whenever it is available to verify successful completion of a service course. This suggestion is not intended to exclude those individuals who do not have access to the forms because the individuals were (1) on reserve status, (2) in the National Guard, or (3) civilians attending military courses. In such cases, we suggest that alternative forms of certification, such as course completion certificates or other acceptable records of training, be used to verify eligibility for credit.

Veterans may use *Request Pertaining to Military Records*, Standard form 180, available from Veterans Administration offices to obtain records of their military training.

18

How can I distinguish among the terms paygrade, general rate, rating, and rate?

A *paygrade* is a position from 1 to 9 on the Coast Guard's pay scale for enlisted personnel; in referring to a paygrade, the letter E (enlisted) precedes the number (E–1, E–2, E–3, E–4, E–5, E–6, E–7, E–8, and E–9). A *general rate* is an apprenticeship that indicates eligibility for entrance into various ratings. A *rating* is an occupation composed of a number of related jobs. A *rate* is an identifying term or title associated with a given paygrade, for example, the rate petty officer third class for paygrade E–4. A rate may also be associated with a specific rating; for example, a petty officer third class (paygrade E–4) whose rating is Radioman will usually refer to his or her rate as "Radioman Third Class." Coast Guard men and women usually refer to themselves by their rate. Refer to Appendix A for a description of the Coast Guard Enlisted Rating structure. (See questions 20 and 21 for information on warrant officer and limited duty officer evaluations.)

19

Do all ratings provide paths of advancement and career development for paygrades E–4 through E–9

Although most ratings begin at paygrade E–4 and terminate at paygrade E–9, there are some exceptions. For example, the Legalman rating consists of paygrades E–5 through E–9. In this case, a person progresses to paygrade E–5 from paygrade E–4 of the Yeoman rating. At the other end of the spectrum, some ratings are structured so that a person holding a rating which consists only of paygrade E-9 (e.g., Master Chief Constructionman) may have progressed from any one of several related ratings that terminate at paygrade E-8. This allows personnel who are assigned to ratings that are low in density and in which occupational content is similar to progress to higher levels and scopes of authority and responsibility. Paths of progression are provided in each exhibit in the "Career Pattern" section.

20

Have Coast Guard warrant officer specialties been evaluated?

Yes. Coast Guard warrant officer specialties have been evaluated. The exhibits begin on page 3-1. See Appendix A for more information.

21

May I also grant credit for a warrant officer's enlisted rating?

Yes. You may award credit for any combination of learning experiences. (See question 25.)

22

If a person held an occupational specialty prior to the start date of the exhibit, can I still use the recommendation?

Probably not. You need to do some additional investigating to help you decide whether to accept or modify the recommendation. The start date established by The Center is based on how far back we can verify that the occupation was the same as it was when our evaluation team evaluated it. The verification is based on official documentation given to us by the military services. We do not have the means to confirm that an occupation was the same before the start date, but you might. There are two steps you will need to follow in making your decision:

1. Ask the person to provide a copy of the military regulation pertaining to occupational qualifications or standards that were in effect when he or she held the specialty. Use the qualifications or standards to identify the learning outcomes represented by the general rate or rating.
2. Determine how much credit may be granted to the person. (Remember that advancement connotes occupational proficiency.) A careful comparison of the description in the occupation exhibit and the qualifications or standards obtained in step one may reveal whether there was a substantive difference. If not, the credit recommendation in the exhibit may be used. If specific differences are identified, then the recommended credits may need to be modified accordingly. One approach to modifying the credit recommendation is to have faculty members in appropriate subject areas assess the person's learning. In assessing the learning for educational credit, they should identify the discrete learning outcomes achieved by the person and relate them to the educational objectives of their courses and programs of study. Equivalent credit should be granted when the person has demonstrated the achievement of the same learning outcomes for which the faculty members grant credit to their students. (See question 28 for information about assessment techniques.)

23

When an occupation exhibit includes the statement "Pending evaluation," how will I know when the ACE recommendations will be available?

The abbreviated exhibit format was developed to inform you of the evaluation status of the occupations. Such exhibits include only the ACE ID number, the title, the designation(s), and the exhibit dates with the statement "Pending evaluation." When you encounter this statement, two things are certain: (1) the occupation is one that was in use as of the publication cut-off date of June 1990 and (2) that ACE plans to evaluate it. As recommendations become available, they will be announced in the office newsletter. Inquiries about the evaluation status of an occupation should be directed to the Advisory Service. (See Step 6 in How to Find and Use Coast Guard Exhibits and Step 6 in How to Find and Use Marine Corps MOS Exhibits.)

24

Why is the number of credits recommended for the occupation I just looked up greater than the number recommended for the course that leads to it?

It is rare for the subject matter covered in a course to perfectly coincide with the learning represented by occupational proficiency. In most cases, there is quite a difference in scope: difference in the subject matter mastered by the learner and, when the subject matter is the same, a difference in the depth and breadth of the learning.

Usually the scope of a course is narrower than that of the job. Most military courses are designed to prepare service members to function on the job or to take on additional tasks. As such, the courses normally provide entry-level occupational skills and competencies. Occupational proficiency is predicated on the additional factor(s) of work experience and/or extensive self-instruction.

In awarding credit for related occupations and courses, you need to be aware of the likelihood of overlapping credit recommendations. The term "overlapping" means that at least part of the learning represented by demonstrated occupational proficiency in the occupation is the same as that for the course; therefore, some of the credits recommended may duplicate each other. A suggested procedure for resolving duplication is given in the answer to question 25.

25

I have looked up the exhibits for several courses and occupations for one person. Several of the credit recommendations within a given credit category are in the same subject areas. How can I avoid granting too much or duplicate credit to this person?

In this instance, you have an example of overlapping credit recommendations. Awarding a simple total of the recommended credits could result in the award of more credit than the learning merits.

Credit recommendations may overlap between (1) related courses, (2) related occupations, and (3) related courses and occupations.

Course recommendations will overlap when the individual has participated in several military courses in the same subject area and at the same level. Recommendations (both credit and apprenticeship) for occupations will overlap when the individual has advanced to two or more specialties that require related qualifications and the performance of related or similar duties. Course recommendations and occupation recommendations will overlap when the individual has acquired his or her occupational proficiency, or a significant portion of it, through completion of one or more formal service school courses.

In all the instances cited, when the learning outcomes and courses or programs of study in which recommendations are made are the same or very similar, there is overlap, and you should modify the credit recommendations to avoid granting duplicate credit. To reconcile the overlap in the recommendations, compare the descriptions and recommendations and interview the applicant to obtain additional information. To determine how much credit may be awarded without duplication, use the following steps:

1. Identify the appropriate occupations held and/or formal courses completed by the individual from the official military records the individual provides.
2. Locate all pertinent and available occupation exhibits and/or course exhibits in the *Guide*.
3. Locate the appropriate occupation and course exhibits.
4. Read and compare all the descriptions.
5. On the basis of the person's program of study, identify the appropriate recommendations in each exhibit.
6. Read and compare all the pertinent recommendations. It may be helpful to list the amount of credit and the subject areas or programs of study of each recommendation.
7. If necessary, obtain additional information from the individual through interview or further assessment.
8. When the nature and extent of the individual's learning has been identified, refer to all pertinent recommendations and make decisions on how much credit may be awarded without duplication. Credit should be awarded as appropriate to the educational goals of the individual and the policies of the institution.

If you cannot determine whether duplication exists, write to the Advisory Service.

26

When credit is recommended in more than one category, what should I do?

Credit has frequently been recommended in more than one category. One reason for multiple-category recommendations is that the scope of a given rating or course reflects learning in several subject fields at different levels of complexity. The learning outcomes acquired in a course or rating in one subject field may apply to courses normally included in lower-division baccalaureate/associate degree programs, while those in another subject field may apply to courses normally included in upper-division baccalaureate programs. Another reason for multiple-category recommendations is that learning in a given subject field can be applied to courses and programs of study encompassed by more than one of the categories. That is, learning in business, for example, may apply to the vocational certificate category and to the upper-division baccalaureate category. A thorough reading of the exhibit will help you to determine which category or categories is the best for you to apply. You will need to read the exhibit and compare learning outcomes achieved and course objectives and content with those of your own institution.

In the first instance—learning in several subject fields—the recommended credits may be added as long as all the subjects are applicable to the student's program of study at your institution.

Example A:

In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/75).

In Example A, up to 5 semester hours may be awarded if they apply to the student's program: 1 in communication skills, 1 in principles of management, and 3 in personnel management.

In the second instance—learning in a given subject field that is applied to two or more categories—the recommended credits probably should not be added. You will have to determine how they apply to the student's program of study at your institution.

Example B:

In the vocational certificate category, 15 semester hours in electricity or electronics. In the lower-division baccalaureate/associate degree category, 10 semester hours in electricity or electronics. In the upper-division baccalaureate category, 5 semester hours in electricity or electronics (6/75).

In Example B, to determine how many credits to award, compare the information in the exhibit description with the desired outcomes of electricity or electronics or related courses and programs of study at your institution. Award credit based on comparison of these outcomes.

In the third instance—a combination of Examples A and B—you may combine the credit categories when the subject areas are different, but should not add subject areas with the same titles.

> *Example C:*
> In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in management (11/75).

The 3 semester hours in office management recommended in the lower-division baccalaureate/associate degree category and the 3 in office management recommended in the upper-division baccalaureate category should not be combined for a total of 6. Eight semester hours might be granted if they apply to the student's program: 3 in typing, 3 in office management, and 2 for field experience in management. The evaluators have described the course content, and using that description from the course exhibit, you must determine the appropriate application of the credit recommendation.

All three examples are from early evaluations. In recent evaluations, evaluators place the credit in a given subject area in the highest, appropriate category. If credit is placed in more than one category, specific subjects will be cited. For example, if credit in the lower division is in personnel supervision, credit in the upper division might be in human resource management.

As a general rule, you should read the exhibit description and then award credit as it best applies to the student's program of study, as determined through academic counseling.

Credit may be applied to a student's program in various ways: (1) applied to the major to replace a required course, (2) applied as an optional course within the major, (3) applied as a general elective, (4) applied to meet basic degree requirements, or (5) applied to waive a prerequisite. Credit granted by a postsecondary institution will depend on institutional policies and degree requirements.

For additional help in this area, see the Model Policy on page xxxix.

27

Do I have to grant credit *exactly* as it appears in the recommendation?

No. You are under no obligation to grant credit, although most colleges do recognize learning that occurs in a military setting. The use of ACE recommendations is the prerogative of education officials and employers. The recommendations are provided to assist you in assessing the applicability of military learning experiences to educational program or occupation. *You may modify the recommendations in accordance with your institution's policies and practices.*

You should keep in mind that the recommendations are advisory and are designed as a tool for use in giving due recognition to individuals for their learning experiences in the armed services. You should also keep in mind that the learning of some service personnel may exceed the skills, competencies, and knowledge evaluated for a specific course or occupation. In these cases, you may wish to conduct further assessment. (See question 28 for information about assessment techniques.)

28

May I conduct my own assessment of an applicant's learning?

Yes. In a sense, you are *always* conducting your own assessment, even when you use the recommendations in this book. The *Guide* is one of many tools you can use to assess what an applicant has learned and how that learning can be applied to a specific program of study at your institution. When you cannot find a recommendation in the *Guide* or cannot obtain one from the Advisory Service, we encourage you to use other means to assess what the person has learned.

There is a wide variety of assessment techniques that you can use, e.g., written examinations, oral examinations, faculty committee assessment, evaluation of materials supplied by the applicant, personal interviews, performance tests, and standardized examinations such as CLEP. A combination of several techniques will usually result in a reliable assessment of the person's learning.

You may learn more about assessment techniques through the publications of the Council for Adult and Experiential Learning (CAEL), formerly the Cooperative Assessment of Experiential Learning. Their publications may be purchased from CAEL, 223 W. Jackson Blvd., Suite 510, Chicago, IL 60606 (312-922-5909).

The *ACE Guide Series* now comprises this *Guide* and companion volumes, *The National Guide to Educational Credit for Training Programs* (which lists recommendations for courses offered by business and industry, government agencies, professional and voluntary associations, and labor unions), and the *Guide to Educational Credit by Examination* (which provides descriptions and credit recommendations for nationally recognized testing programs). This *Guide* and the *National Guide* may be purchased through Macmillan Professional Books Division, Macmillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022 (800-257-5755). The *Guide to Educational Credit by Examination* may be purchased from ACE Publications.

29

Should a two-year college use only the lower-division credit recommendations? And, should a four-year college use only upper-division credit recommendations?

Not necessarily. Depending on the recommendation, the programs of study available at the institution, and the objectives of the student, all types of institutions can use any or *all* of the four categories used in the *Guide*, namely the vocational certificate category, the lower-division baccalaureate/associate degree category, the upper-division baccalaureate category, and the graduate degree category. Evaluators now place credit recommendations in the highest appropriate credit category and are instructed to be as general as possible. That is, they place a course recommendation in the category in which it is *generally* taught at most institutions. If your institution teaches a given course at a different level, you are encouraged to grant the credit at that level. Please see "Categories of Credit" in Appendix A.

30

I am an employer. How will the *Guide* be useful to me?

You may find the exhibits helpful in identifying the skills and knowledge of veterans and placing them in jobs. The recommendations and descriptions enable you to compare a veteran's training and experience with the qualifications and requirements for jobs. The recommendations relate learning to postsecondary courses and curricula and, in some cases, to apprentice training programs.

31

We have received a transcript from a military service school listing semester credits and carrying the statement that the school is accredited by one of the six regional accrediting associations. How do we handle this?

At this time we know of no military schools that are accredited above the certificate level other than the following: Community College of the Air Force, which is accredited at the two-year community college level; Army Command and General Staff College at Fort Leavenworth, Kansas, which is accredited to grant an M.A. degree; Air Force Institute of Technology at Wright-Patterson Air Force Base, which is accredited through the doctoral level; Defense Intelligence College, Washington, DC, accredited to grant an M.A. degree; Naval Postgraduate School, Monterey, CA, accredited through the doctoral level; Uniformed Services University of the Health Sciences School of Medicine, Bethesda, MD, accredited through the doctoral level; and the service academies.

We recommend that you handle the certificate-level credit listings in accordance with your institutional policy regarding certificate-level credit.

32

What is the *Handbook to the Guide to the Evaluation of Educational Experiences in the Armed Services?*

The *Handbook to the Guide* was designed to keep institutional and military representatives up to date on the activities of ACE and The Center as well as to provide credit recommendations for courses and occupations evaluated since the latest *Guide* was printed. Revisions are mailed to military education personnel and civilian institutions. Sections most likely to be revised are those on exams, other aids, and evaluation updates.

33

A Coast Guard student I'm counseling has taken an Air Force course. It's not in Volume 4 of the *Guide*. What should I do?

Anyone attending an Air Force school or course can obtain a Community College of the Air Force (CCAF) transcript which documents that training if the school or course is recognized by CCAF for credit. The transcript may be used to request transfer of credit to another institution or otherwise document college credit, since non-Air Force personnel cannot enroll in CCAF. CCAF does not award credit for all Air Force courses, but only those regularly attended by Air Force enlisted personnel and taught by CCAF-affiliated schools.

A CCAF transcript may be obtained by sending a completed AF Form 2099 or a brief letter requesting transcript service to CCAF/RRRA, Maxwell Air Force Base, AL 36112–6655. A certificate of training must accompany the request. A DD Form 214 is not acceptable. Specify the type of transcript (personal or official) and the address to which the transcript is to be mailed. Provide full name, social security number, and ensure that the person whose transcript is requested signs the request form. The transcripts are free. Official transcripts will be mailed only to institutions.

34

I've found exhibits for most enlisted occupations, but not for the Air Force and Marine Corps. How come?

The student may write to the Community College of the Air Force (CCAF) to obtain a transcript which will include credit for the AFSCs held, reported as internship.

The student should write to CCAF/RRRA, Office of the Registrar, Maxwell AFB, AL 36112–6655.

Marine Corps MOS recommendations are included in the *Guide*. Recent evaluations have been conducted for MOS's in the aircraft maintenance and avionics occupational fields. The exhibits begin on page 4-1. Refer to How to Find and Use Marine Corps MOS Exhibits and Appendix A for information on the Marine Corps MOS system.

If you are not already receiving the newsletter, write to the Editor, Update, The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

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Awarding Credit for Extrainstitutional Learning

The following statement by the ACE Commission on Educational Credit and Credentials has been approved by the ACE Board of Directors and endorsed by the Council on Postsecondary Accreditation.

The American Council on Education recommends that postsecondary education institutions develop policies and procedures for measuring and awarding credit for learning attained outside their sponsorship.[1]

American society abounds in resources for learning at the postsecondary level. Public, private, and proprietary education institutions exercise the central but not exclusive responsibility for instruction and learning. Associations, business, government, industry, the military, and unions sponsor formal instruction. In addition, independent study and reading, work experiences, the mass media, and social interaction contribute to learning and competency.

Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning:

- Educational credentials have a significant bearing on the economic, professional, and social status of the individual. Thus, social equity requires that equivalent learning, regardless of where and how it is achieved, be incorporated into the system of rewards for learning and competency.
- Recognition encourages learning and contributes to pedagogical effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

In the development of institutional policies and procedures, the American Council on Education recommends the following guidelines and resources.

Guidelines

1.

Reliable and valid evaluation of student achievement is the sine qua non in awarding credit. Experience, whether acquired at work, in social settings, in the library, at home, or in the formal classroom, is in itself an inadequate basis for awarding credit. Increased attention in choosing evaluation procedures and techniques and more thorough evaluation are necessary when learning has been attained without participation in a program of study prescribed by an educational institution and offered by its faculty.

2.

In determining whether it is appropriate to accept a student's extrainstitutional learning for credit, the governing considerations should be its applicability to the student's program of study, including graduation requirements, and the relationship of the learning to the institution's mission, curricula and standards for student achievement. Learning should be articulated, documented and measured in these terms.

3.

Institutions should evaluate extrainstitutional learning only in subject-matter fields in which they have or can arrange for faculty expertise or where they can rely on nationally validated examinations or other procedures for establishing credit equivalencies. Institutions should award credit in these areas only if the quality of learning meets their standards for student achievement. Normally, institutions should evaluate learning and award credit only in subject fields in which they offer courses or curricula. However, if the acquisition of college level learning outcomes has been demonstrated in an area not taught by the institution, but related to the student's program of study, an exception may and ought to be made.

4.

Institutions awarding credit for extrainstitutional learning should develop clearly stated policies regarding administrative responsibility, student eligibility, means of assessment, recording of results on transcripts, storage of documentation, student fees, and maximum number of credits allowable. Information on these and related institutional policies and procedures should be disseminated to students and faculty for maximum awareness and utilization.

5.

Institutional policy should include provision that the institution's policies and procedures for awarding credit for extrainstitutional learning should be subject to periodic reevaluation.

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[1] "Extrainstitutional learning" is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and unions.

Resources

1.

Guide to the Evaluation of Educational Experiences in the Armed Services, published by the American Council on Education and available from Macmillan Publishing Company.

2.

The National Guide to Educational Credit for Training Programs, published by the American Council on Education and available from Macmillan Publishing Company.

3.

Credentialing Educational Accomplishment, edited by Jerry W. Miller and Olive Mills, published by the American Council on Education and available from Macmillan Publishing Company.

4.

Guide to Educational Credit by Examination, published by the American Council on Education and available from ACE Publications.

5.

Publications of the Council for Adult and Experiential Learning, 223 W. Jackson Blvd., Suite 510, Chicago, IL, 60606.

Transfer and Award of Credit

The following set of guidelines was developed by the three national associations whose member institutions are directly involved in the transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation. The need for such a statement came from an awareness of the growing complexity of transfer policies and practices, which have been brought about, in part, by the changing contours of postsecondary education. With increasing frequency, students are pursuing their education in a variety of institutional and extrainstitutional settings. Social equity and the intelligent use of resources require that validated learning be recognized wherever it takes place.

The statement is intended to serve as a guide for institutions developing or reviewing policies dealing with transfer and award of credit. The statement is under periodic review by the three associations, and reactions to it would, of course, be welcome. Comments may be directed to Henry Spille, Vice President, ACE, and Director, The Center for Adult Learning and Educational Credentials.

Robert H. Atwell, President
American Council on Education

This statement is directed to institutions of postsecondary education and others concerned with the transfer of academic credit among institutions and award of academic credit for extrainstitutional learning. Basic to this statement is the principle that each institution is responsible for determining its own policies and practices with regard to the transfer and award of credit. Institutions are encouraged to review their policies and practices periodically to assure that they accomplish the institutions' objectives and that they function in a manner that is fair and equitable to students. Any statements, this one or others referred to, should be used as guides, not as substitutes, for institutional policies and practices.

Transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extrainstitutional learning, as well as transfer between institutions and curricula with similar characteristics. As their personal circumstances and educational objectives change, students seek to have their learning, wherever and however attained, recognized by institutions where they enroll for further study. It is important for reasons of social equity and educational effectiveness, as well as the wise use of resources, for all institutions to develop reasonable and definitive policies and procedures for acceptance of transfer credit. Such policies and procedures should provide maximum consideration for the individual student who has changed institutions or objectives. It is the receiving institution's responsibility to provide reasonable and definitive policies and procedures for determining a student's knowledge in required subject areas. All institutions have a responsibility to furnish transcripts and other documents necessary for a receiving institution to judge the quality and quantity of students' work. Institutions also have a responsibility to advise the students that the work **reflected** on the transcript **may or may not** be accepted by a receiving institution.

INTERINSTITUTIONAL TRANSFER OF CREDIT

Transfer of credit from one institution to another involves at least three considerations:

(1) the educational quality of the institution from which the student transfers

(2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution

(3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.

Accredited Institutions

Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Users of accreditation are urged to give careful attention to the accreditation conferred by accrediting bodies recognized by the Council on Postsecondary Accreditation (COPA). COPA has a formal process of recognition which requires that all accrediting bodies so recognized must meet the same standards. Under these standards, COPA has recognized a number of accrediting bodies, including:

(1) regional accrediting commissions (which historically accredited the more traditional colleges and universities but which now accredit proprietary, vocational-technical, and single-purpose institutions as well)

(2) national accrediting bodies that accredit various kinds of specialized institutions

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(3) certain professional organizations that accredit free-standing professional schools, in addition to programs within multipurpose institutions (COPA annually publishes a list of recognized accrediting bodies, as well as a directory of institutions accredited by these organizations).

Although accrediting agencies vary in the ways they are organized and in their statements of scope and mission, all accrediting bodies that meet COPA's standards for recognition function to assure that the institutions or programs they accredit have met generally accepted minimum standards for accreditation.

Accreditation affords reason for confidence in an institution's or a program's purposes, in the appropriateness of its resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals, insofar as these things can be judged. Accreditation speaks to the probability, but does not guarantee, that students have met acceptable standards of educational accomplishment.

Comparability and Applicability

Comparability of the nature, content, and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by the receiving institution are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from catalogues and other materials and from direct contact between knowledgeable and experienced faculty and staff at both the receiving and sending institutions. When such considerations as comparability and appropriateness of credit are satisfied, however, the receiving institution should have reasonable confidence that students from accredited institutions are qualified to undertake the receiving institution's educational program.

Admissions and Degree Purposes

At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may accept previous work, place a credit value on it, and enter it on the transcript. However, that previous work, because of its nature and not its inherent quality, may be determined to have no applicability to a specific degree to be pursued by the student.

Institutions have a responsibility to make this distinction, and its implications, clear to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind. Institutions also should make every reasonable effort to reduce the gap between credits accepted and credits applied toward an educational credential.

Unaccredited Institutions

Institutions of postsecondary education that are not accredited by COPA-recognized accrediting bodies may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards. That being the case, students transferring from such institutions may encounter special problems in gaining acceptance and transferring credits to accredited institutions. Institutions admitting students from unaccredited institutions should take special steps to validate credits previously earned.

Foreign Institutions

In most cases, foreign institutions are chartered and authorized by their national governments, usually through a ministry of education. Although this policy provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to voluntary accreditation. The Division of Higher Education of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is engaged in a project to develop international compacts for the acceptance of educational credentials. At the operational level, four organizations—the Council on International Educational Exchange (CIEE), the National Council on the Evaluation of Foreign Student Credentials (CEC), the National Association for Foreign Student Admissions (NAFSA), and the National Liaison Committee on Foreign Student Admissions (NLC)—often can assist institutions by distributing general guidelines on admission and placement of foreign students. Equivalency or placement recommendations are to be evaluated in terms of the programs and policies of the individual receiving institution.

VALIDATION OF EXTRAINSTITUTIONAL AND EXPERIENTIAL LEARNING FOR TRANSFER PURPOSES

Transfer-of-credit policies should encompass educational accomplishment attained in extrainstitutional settings as well as at accredited postsecondary institutions. In deciding on the award of credit for extrainstitutional learning, institutions will find the services of the American Council on Education's Center for Adult Learning and Educational Credentials helpful. One of The Center's functions is to operate and foster programs to determine credit equivalencies for various modes of extrainstitutional learning. The Center maintains evaluation programs for formally structured courses offered by the military, and civilian noncollegiate sponsors such as business, corporations, government agencies, and labor unions. Evaluation services are also available for examination programs, for occupations with validated job proficiency evaluation

systems, and for correspondence courses offered by schools accredited by the National Home Study Council. The results are published in a Guide series. Another resource is the General Education Development (GED) Testing Program, which provides a means for assessing high school equivalency.

For learning that has not been validated through the ACE formal credit recommendations process or through credit-by-examination programs, institutions are urged to explore the Council for Adult and Experiential Learning (CAEL) procedures and processes.

USES OF THIS STATEMENT

This statement has been endorsed by the three national associations most concerned with practices in the area of transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation.

Institutions are encouraged to use this statement as a basis for discussions in developing or reviewing institutional policies with regard to transfer. If the statement reflects an institution's policies, that institution might want to use this publication to inform faculty, staff, and students.

It is recommended that accrediting bodies reflect the essential precepts of this statement in their criteria.

Approved by the Executive Committee, American Association of Collegiate Registrars and Admissions Officers
November 21, 1978 and reaffirmed in 1989.

Approved by the American Council on Education/Commission on Educational Credit and Credentials
December 5, 1978 and reaffirmed in 1989.

Approved by the COPA Board
October 10, 1978

Elements of a Model Policy on Awarding Credit for Extrainstitutional Learning

Extrainstitutional learning is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary education institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military and unions.

I. Example Statement of General Policy

Degree credit shall be awarded for postsecondary-level extrainstitutional learning. Such credit awards shall be made under protocols designed to assure that reliable and valid measures of learning outcomes are or have been applied.

Rationale

Adult students are demanding that their learning acquired in extrainstitutional settings be assessed and that appropriate degree-related credit be awarded. This is a reasonable request and also one in keeping with the national interest. Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning.

American society abounds in resources for learning at the postsecondary level. Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials accordingly have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

Educational credentials have a significant bearing on the economic, professional, and social status of the individual. It follows that social equity requires that equivalent learning regardless of where and how it is achieved be incorporated into the system of rewards for learning and competency. Recognition encourages learning and contributes to teaching effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Through reliable and valid assessment of extrainstitutional learning, more persons can be enabled to enter college and work successfully toward degrees and other academic goals. Many of these individuals are those who have been educationally disadvantaged in the past.

II. Example Policy for Administrative Responsibility

Responsibility for administering policies and procedures for awarding credit for extrainstitutional learning rests with the Academic Vice President (or other designated senior academic official).

Rationale

Awarding credit is an academic matter. Therefore, administrative responsibility for the policies and procedures pertaining to awarding credit for extrainstitutional learning should be assigned to the institution's senior academic official. Policy implementation and application may be delegated to other institutional officials such as deans, department chairpersons, and registrars. However, oversight of their policy implementation and application is performed by a senior academic official.

Example of Application of the Policy

The academic vice president delegates to the institutional registrar the responsibility for transcripting credit awarded on the basis of recommendations in the ACE Guides (the policy was approved through the institution's usual governance procedures) and provides the registrar with guidelines for performing this responsibility. Included in the guidelines are a series of steps to follow in determining how to apply the ACE credit recommended for a course whose title is not the same as the title of any course offered by the institution.

The ACE *Guide* recommends 3 semester hours in automotive maintenance, but the institution's courses are more specific and carry titles such as Tune-Up I, Auto Brakes, and Automatic Transmission I. In accordance with the guidelines, the registrar compares course descriptions in the institution's catalog with the course description in the *Guide*, finds that the learning outcomes acquired through Tune-Up I match very closely the learning outcomes acquired through the military's automotive maintenance course, and transcripts 3 semester hours in Tune-Up I.

III. Example Policy on Learning That Will Be Evaluated and Who Will Conduct the Evaluations

Extrainstitutional learning related to subject areas, courses and programs of study will be evaluated for registered students. Established institutional evaluation procedures will be followed, using one or more of the authorized publications and methods for effecting assessment. Students of any age may apply for credit for extrainstitutional learning at any time during a period of enrollment.

Rationale

The learning that is evaluated must be in subject areas in which faculty expertise is available or in which expertise can be arranged. This expertise is essential for conducting evaluations and making credit-award decisions. If subject-matter experts do not conduct the evaluations and make the decisions, the credibility of the activity is suspect.

While the great majority of students requesting credit for extrainstitutional learning will be of relatively mature years, it is possible that "young students" may have acquired learning in extrainstitutional settings. Providing a student can document the attainment of appropriate learning outcomes, he or she should receive credit regardless of age. While most applications for award of extrainstitutional learning credit will be received at the time of enrollment from new students, it is possible that students already enrolled may realize that they, too, have extrainstitutional learning experiences that might qualify for credit awards. It is also possible that enrolled students, especially those who are employed, will continue to learn in noncollegiate settings, and will want their learning assessed. Student initiatives with respect to extrainstitutional learning assessment shall not be limited or restricted to the initial term of enrollment.

Example of Application of the Policy

A 19-year old student has been enrolled at Local College for two years and is about to enter her junior year. At the time of enrollment, it did not occur to her that the foreign language requirement might be satisfied with a language other than one of those taught at the institution. This student's parents were refugees from Hungary who entered the United States in 1958. The Hungarian language is spoken in the home and the student speaks the language fluently. The student is able to document to the satisfaction of the institution's language faculty, through evaluation done by a person in the community fluent in Hungarian, that she is, indeed, proficient in Hungarian. She received 6 credits in Hungarian that satisfy the foreign language requirement for the bachelor's degree.

IV. Example Policy on Publications and Methods for Use in Awarding Credit for Extrainstitutional Learning

Nine publications and methods are permitted for use in awarding credit for extrainstitutional learning. These publications and methods are: (1) ACE *Guide to the Evaluation of Educational Experiences in the Armed Services*, (2) ACE *National Guide to Educational Credit for Training Programs*, (3) ACE *Guide to Educational Credit by Examination*, (4) New York Regents *Guide to Educational Programs in Noncollegiate Organizations*, (5) College Entrance Examination Board Advanced Placement Program (CEEB/AP), (6) department challenge examinations and/or faculty end-of-course examinations, (7) degree-relevant extrainstitutional learning credit awarded and transcripted by other accredited institutions, as well as that credit transcripted by ACE on the Army/ACE Registry Transcript System (AARTS) and the Registry of Credit Recommendations (ROCR), (8) subject-matter experts who are not members of the institution's faculty but who evaluate extrainstitutional learning at the faculty's request, and (9) individual portfolios using Council for Adult and Experiential Learning (CAEL) or other standardized guidelines.

In addition, advice on using other publications and methods for awarding credit for extrainstitutional learning may be sought from the American Council on Education.

Rationale

For nearly 50 years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in the military. More recently, the *National Guide to Educational Credit for Training Programs* and the *Guide to Educational Credit by Examination* have attained similar stature. ACE has worked cooperatively with the Department of Defense, the armed services, business, industry, labor unions, other organizations providing education and training, and test publishers, as well as with accredited colleges and universities in developing the credit recommendations presented in the *Guide* series. All recommendations carried are the result of careful and periodic review by evaluation teams that consist of university and college faculty members who are subject-matter experts. All evaluation teams work under policies and procedures approved by the ACE Commission on Educational Credit and Credentials and under protocols and supervision provided by the staff of the ACE Center for Adult Learning and Educational Credentials.

The policies and procedures used to develop the exhibits in the New York Regents *Guide to Educational Programs in Noncollegiate Organizations* are similar to those used by the American Council on Education.

The CEEB/AP program permits high school students to demonstrate the attainment of college-level learning outcomes; the important factor is that learning outcomes are attained, not where the learning took place (in a high school) or who taught the course (usually a high school teacher).

The practice of administering departmental or individual faculty member challenge examinations or end-of-course examinations is long-standing and permits the faculty members to make direct judgements about the equivalence of learning for specific courses.

Credit transcripted on the basis of extrainstitutional learning should be treated the same as that transcripted for courses; in both instances the faculty of the sending institution has attested to the student's attainment of required learning outcomes. Credit transcripted on ACE's Army/ACE Registry Transcript System (AARTS) and Registry of Credit Recommendations (ROCR) for the Army component of the Military Evaluations Program and participants in the Program on Noncollegiate Sponsored Instruction (PONSI) should also be treated as that transcripted for courses; in these instances, teams of fac-

ulty members from accredited colleges and universities have evaluated the learning and judged its equivalence to learning acquired on campuses.

Sometimes the expertise to evaluate extrainstitutional learning is not available on the faculty; in these instances, the faculty can designate an expert to conduct the evaluation. Criteria for selection of "outside" experts should be established.

The portfolio assessment guidelines promulgated by CAEL are widely accepted by faculty assessors and are considered exemplary. The portfolio provides a reliable method for evaluating learning outcomes acquired individually, as opposed to a set of learning outcomes acquired by large numbers of persons, such as through a course offered by the U.S. Army for soldiers.

Example of Application of the Policy

A student (soldier), upon entering Local College, provides an AARTS transcript that confirms completion of a course entitled "Advanced Geodetic Surveyor" at the Engineer School, Ft. Belvoir, Virginia, in October 1981, while holding the rank of sergeant in the U.S. Army. Information on the transcript and in the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services* indicates that the soldier completed this course when it was taught at Ft. Belvoir between January 1977 and November 1983. Its objectives were to train warrant officers and senior noncommissioned officers in advanced geodetic survey techniques. The course was delivered by means of lectures and practical exercises in advanced geodetic surveying techniques including map compiling, vertical and horizontal control surveys, gravity, astronomic observations, and mathematics. The *Guide* recommends that a college or university award 6 semester hours in geodesy at the upper-division baccalaureate level; this recommendation also appears on the AARTS transcript. After review of this recommendation, Local College awards this student 6 semester hours of credit in geodesy toward completion of a planned major in mathematics.

V. Example Policy on Maximum Number of Credits That May Be Awarded for Extrainstitutional Learning

The maximum number of credits that may be awarded for extrainstitutional learning is three-fourths the number required for a degree.

Rationale

Most postsecondary education institutions have a requirement that stipulates that a minimum of one-fourth of the credits required for a degree must be earned in residence. The balance of the required credits could be awarded on the basis of extrainstitutional learning. However, the credits awarded for extrainstitutional learning and those earned in residence would have to satisfy all degree requirements before a degree could be awarded. In the absence of a residency requirement, all degree requirements conceivably could be met through extrainstitutional learning.

Example of Application of the Policy

John Smith is a newly registered student at Local College. He is a financial vice president of a major U.S. corporation, CPA, and licensed realtor; he is fluent in three foreign languages—German, French, and Spanish; he has published seven articles in domestic and foreign journals and has contributed chapters in two books on international economics; he is knowledgeable about foreign countries and cultures as a result of having lived abroad for eleven years; and he is proficient in computer programming (COBOL and FORTRAN).

On the basis of Mr. Smith's demonstrated knowledge, skills, and competencies, the faculty awarded him 106 credits. The college requires 124 credits for a degree and has a 24 credit residency requirement. Therefore, Mr. Smith must earn 24 credits in residence. What courses does he take to earn 24 credits? His academic advisers decided, and Mr. Smith concurred, that he lacked knowledge about the environment, a special focus and thrust of the college's general education requirement. He took courses to satisfy this requirement and was awarded a degree.

VI. Example Policy on Recording Credits Awarded for Extrainstitutional Learning on Transcripts

The credit awarded for extrainstitutional learning shall be transcripted in the same manner as credits awarded for course completions.

Rationale

The faculty members have either evaluated the learning or approved the other means by which credit can be awarded. They have verified that learning has occurred and is equivalent to the learning acquired in their courses and programs. Therefore, special notation or differentiation of courses and credits awarded on the basis of extrainstitutional learning is unnecessary.

Example of the Application of the Policy

Examples of the way in which Mr. Smith's credit was transcripted are:

Accounting 261	—Financial Information Systems—3 semester hours
Accounting 360	—Financial Reporting Theory and Practice—3 semester hours
Computer Science 251	—Principles of Programming—FORTRAN—4 semester hours
Computer Science 252	—Principles of Programming—COBOL—4 semester hours
German 101	—Elementary German—4 semester hours
German 201	—Intermediate German—4 semester hours
German 309	—Advanced Conversation—3 semester hours

VII. Example Policy on Retention of the Documentation of Extrainstitutional Learning

Documents used to verify the award of credit for extrainstitutional learning shall be retained for one calendar year.

Rationale

The length of time documentation for the credits awarded for extrainstitutional learning shall be retained should be consistent with the length of time documentation for credits awarded for classroom learning are retained. Consistency facilitates equitable handling of student documents and represents sound recordkeeping practices.

Example of Application of the Policy

Local College keeps students' final exams on file for one calendar year, after which they are shredded. Mr. Smith's documentation—copies of articles and chapters he authored, copies of his computer programs, notes and summaries of interviews faculty members had with him, etc.—were kept on file for one calendar year and were then shredded.

VIII. Student Fees for Assessing Extrainstitutional Learning

A fee for the assessment of extrainstitutional learning shall be charged.

Rationale

Assessing extrainstitutional learning, transcripting the credits awarded, etc., are valuable services to students. These services require faculty and staff time. Students should therefore pay a fee for these services just as they pay fees for other institutional services.

Example of Application of the Policy

The fee for assessing extrainstitutional learning and transcripting the results at Local College is based on its average hourly salaries for various faculty ranks (assistant professor, professor, etc.) and administrative positions plus the costs for benefits and administrative services which are computed as percentages of salaries. The average hourly salaries are multiplied by the amount of time spent in performing the evaluation and administrative functions, rounded up to the half-hour. The fee for assessing Mr. Smith's extrainstitutional learning and transcripting the results was $880.

IX. Example Policy on Oversight of the "Program"/Activity

An Oversight Committee, broadly representative of the institution's divisions/departments, shall be appointed (by the "program" administrator or through the institution's usual means of appointing committees). The major function of this committee is to review the credit award decisions to assure consistency across the institution.

Rationale

To protect the integrity and credibility of the activity, consistency is absolutely necessary. If either the faculty or the students perceive that credit awards are made capriciously, their confidence in the activity will be lost. When this occurs, the activity will no longer be viable.

Example Application of the Policy

The Oversight Committee detected that, when a faculty evaluation team for portfolio assessment was comprised of three specific faculty members, the credit awards seemed overly "generous." The Oversight Committee recommended to the administrator that these three faculty members not comprise a team. The administrator discussed the credit-award information with the three faculty members, and they agreed with the Oversight Committee's recommendation, which was then implemented.

X. Example Policy on "Program" Evaluation

The "program" for assessing extrainstitutional learning shall be evaluated on an annual basis by the academic vice-president or his designee(s).

Rationale

It is sound administrative practice to evaluate "programs" on a regular basis to determine if "program" objectives are being met. It is especially important to evaluate new "programs" so that problems are detected early on and changes can be made, if necessary. Evaluation should probably be done jointly by "program" staff and the staff of the Office of Institutional Research.

Example of Application of the Policy

At Local College, responsibility for "program" evaluation is assigned to the Office of Institutional Research, but the Office involves the "program" staff. "Program" evaluation includes but is not limited to, an indepth look at the academic performance of students who have received credit for extrainstitutional learning. Recent data showed that their overall performance, in terms of GPA, was higher than that of the student body as a whole; the average number of credits carried each semester was equivalent to the average number carried by the student body as a whole; they were enrolled in all academic departments of the college, etc. Credit awards were examined by age categories and by assessment instrument used. This information was useful to the college faculty and administrators in deciding to continue the "program."

Course Exhibits

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NOTE: The Community College of the Air Force has been accredited by the Soutern Association's Commision on Colleges and grants an Associate in Applied Science degree. CCAF transcripts should be treated in the same manner as transcripts from institutions granting similar degrees. Official copies of transcripts may be obtained from Registrar, Community College of the Air Force, Maxwell AFB, Alabama 36112.

AF-0101-0001

Disease Vector and Pest Control Technology

Course Number: 3AZR56650.
Location: Sheppard Technical Training Center, Sheppard AFB, TX.
Length: 5 weeks (132 hours).
Exhibit Dates: 10/71-12/73.
Objectives: To train enlisted personnel in the basic principles of pest control.
Instruction: Lectures and practical experience in the basic principles of pest control, including the classification and characteristics of insects; mosquito abatement procedures; field ecology; control of flies, fleas, lice, ticks, and mites; formulation, evaluation, and proper use of pesticides; operation and maintenance of insecticide dispersal equipment; and epidemiology of vector-borne diseases.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in entomology (1/74).

AF-0101-0002

Engineering Entomology Specialist

Course Number: ABR56630.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 6 weeks (180 hours).
Exhibit Dates: 8/65-12/73.
Objectives: To train enlisted personnel in the basic principles of animal and vegetable pest control.
Instruction: Lectures and practical experience in the basic principles of animal and vegetable pest control, including ecology and epidemiology of vector-borne diseases; pesticide classification, safety, dispersal, and disposal; fumigation techniques; sanitation; mosquito control; and control of venomous animals, rodents, and other vertebrates.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in community sanitation or agricultural pest control (2/74).

AF-0101-0003

Engineering Entomology Specialist/Technician
(Entomology Specialist)

Course Number: 3ABR56630.
Location: Sheppard Technical Training Center, Sheppard AFB, TX.
Length: 6 weeks (240 hours).
Exhibit Dates: 4/73-12/73.
Objectives: To train enlisted personnel in the basic principles of animal and vegetable pest control.
Instruction: Lectures and practical experience in the basic principles of animal and vegetable pest control, including ecology and epidemiology of vector-borne diseases; pesticide classification, safety, dispersal, and disposal; fumigation techniques; sanitation; mosquito control; and control of venomous animals, rodents, and other vertebrates.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in community sanitation or agricultural pest control (1/74).

AF-0101-0004

Pest Control (SEA)

Course Number: 2ASR56650-2.
Location: Sheppard Technical Training Center, Sheppard AFB, TX.
Length: 2 weeks (80 hours).
Exhibit Dates: 4/73-12/73.
Objectives: To train enlisted personnel to identify and control pest problems.
Instruction: Lectures and practical experience in the basic principles of pest control, including epidemiology of vector-borne diseases; use and evaluation of various pest control methods; operation of pest control equipment; and safety procedures for mixing, handling, and storing insecticides.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in entomology (1/74).

AF-0102-0001

Animal Specialist

Course Number: 5ALY90831.
Location: School of Aerospace Medicine, Brooks AFB, TX.
Length: 8 weeks (259-276 hours).
Exhibit Dates: 5/72-11/77.
Objectives: To provide enlisted personnel with the skills required in zoonosis control clinics, working dog programs, and veterinary support of biomedical research.
Instruction: Lectures and laboratory in all facets of animal care, including anatomy and physiology, clinical laboratory procedures, necropsy, animal diseases, pharmacology, sanitation, zoonosis control clinic management, and military dog care.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in laboratory animal management (2/74).

AF-0102-0002

Animal Technician
(Laboratory Animal Technician)

Course Number: *Version 1:* 5AZY90850. *Version 2:* AAY90871.
Location: School of Aerospace Medicine, Brooks AFB, TX.
Length: *Version 1:* 6 weeks (204 hours). *Version 2:* 8 weeks (308 hours).
Exhibit Dates: *Version 1:* 9/77-1/89. *Version 2:* 1/67-8/77.
Objectives: To provide the skills necessary to manage, handle, and care for laboratory animals.
Instruction: Lectures and laboratories in animal care and handling, including anatomy and physiology, pharmacology, clinical laboratory procedures, necropsy, animal nutrition, surgery and aseptic techniques, and laboratory animal diseases.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in laboratory animal management, 3 in basic animal medical sciences (2/78). *Version 2:* In the vocational certificate category, 4 semester hours in laboratory animal management (1/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in laboratory animal management (1/74); in the upper-division baccalaureate category, 4 semester hours in laboratory animal management (1/74).

AF-0102-0003

1. Veterinary Specialist
   (Veterinary Specialist Phase II)
2. Veterinary Specialist
3. Veterinary Specialist
4. Veterinary Specialist
   (Apprentice Veterinary Specialist)
5. Apprentice Veterinary Specialist

Course Number: *Version 1:* 5ABY90830. *Version 2:* 3ABR90830. *Version 3:* 3ABR90830. *Version 4:* ABR90830; AB90830. *Version 5:* AB90830.
Location: *Version 1:* School of Aerospace Medicine, Brooks AFB, TX. *Version 2:* Sheppard Technical Training Center, Sheppard AFB, TX. *Version 3:* Sheppard Technical Training Center, Sheppard AFB, TX. *Version 4:* Medical Service School, Gunter AFB, AL. *Version 5:* Medical Service School, Gunter AFB, AL.
Length: *Version 1:* 3-4 weeks (113 hours). *Version 2:* 16 weeks (518 hours). *Version 3:* 13 weeks (390 hours). *Version 4:* 10-11 weeks (402-429 hours). *Version 5:* 13 weeks (507 hours).
Exhibit Dates: *Version 1:* 8/77-1/89. *Version 2:* 10/70-2/77. *Version 3:* 1/69-9/70. *Version 4:* 10/57-12/68. *Version 5:* 5/54-9/57.
Objectives: To train airmen in food inspection procedures, sanitary surveillance of food processing and storage facilities, and veterinary support of combat operations.
Instruction: *All Versions:* Lectures and practical exercises in the fundamentals of medical service, veterinary administration, microbiology, technical inspection procedures, veterinary field training, animal service, and zoonosis control activities. *Version 1:* Phase I training (8 weeks) is at Ft. Sam Houston, TX at the Academy of Health Sciences. See exhibit AR-0104-0002.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in administration and management, 2 in food sanitation, 2 in laboratory animal management (2/78). *Version 2:* In the lower-division

baccalaureate/associate degree category, 3 semester hours in food science and meat and dairy hygiene (2/74); in the upper-division baccalaureate category, 3 semester hours in food science and meat and dairy hygiene (2/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene (1/69). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene (5/63).

AF-0104-0001

VETERINARY TECHNICIAN

Course Number: *Version 1:* 3AAR90870-1; AAR90870-1. *Version 2:* AAR90870; AA90870. *Version 3:* AA90870.

Location: *Version 1:* Medical Service School, Sheppard AFB, TX. *Version 2:* Medical Service School, Gunter AFB, AL; *Version 2:* School of Aviation Medicine, Gunter AFB, AL. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 12-14 weeks (434-499 hours). *Version 3:* 15 weeks (585 hours).

Exhibit Dates: *Version 1:* 11/68-12/73. *Version 2:* 7/65-10/68. *Version 3:* 10/56-6/65.

Objectives: To present a comprehensive program in food microbiology, animal service, and zoonotic disease control to qualified enlisted personnel.

Instruction: Practical experience in the inspection of meat and meat products; supervision of sanitary handling; inspection of fruits; sanitary surveillance of food processing establishments; basic principles of food microbiology; statistical inspection procedures; and food preservation and storage.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in meat and dairy hygiene (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in meat and dairy hygiene (12/68).

AF-0202-0001

GRAPHICS PREPARATION AND ILLUSTRATION TECHNIQUES

Course Number: 3AZR22351.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/68-12/73.

Objectives: To provide trainees with skills in illustration fundamentals, layout and media techniques, and reproduction methods and processes.

Instruction: Illustration fundamentals, including care and use of equipment and materials, lettering, figure drawing, cartooning, layout, still life drawing; illustration layout and media techniques, including sketched layouts, line and tone media, color media, visual communication techniques; reproduction methods and processes, including printing and reproduction processes, projection transparencies and slides, silkscreen, shop operation, and production controls.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in graphic material preparation (12/73).

AF-0306-0001

MAINTENANCE ANALYSIS TECHNICIAN

Course Number: *Version 1:* 3AAR39170. *Version 2:* 3AAR39170; 3AAR43470. *Version 3:* AAR43470.

Location: *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL. *Version 2:* School of Applied Aerospace Sciences, Chanute AFB, IL; *Version 2:* 3345th Technical School, Chanute AFB, IL. *Version 3:* 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 6-7 weeks (180-210 hours). *Version 3:* 7-8 weeks (198-228 hours).

Exhibit Dates: *Version 1:* 8/73-12/73. *Version 2:* 4/68-7/73. *Version 3:* 1/64-3/68.

Objectives: To train enlisted personnel to be maintenance analysis technicians.

Instruction: *All Versions:* Lectures and laboratory in advanced analytical methods used in data collection assembly and analysis techniques, including communications security, maintenance management, supervision, data presentation, use of TV cameras and video tape recorders, and maintenance and man-hour data analysis. *Version 2:* Instruction includes business statistics and probability.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in business report writing (6/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business statistics (6/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in statistical report writing (6/74).

AF-0326-0001

INDUSTRIAL PROPERTY ADMINISTRATION (JT)

Course Number: 160.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (75-114 hours).

Exhibit Dates: 12/69-6/74.

Objectives: To provide industrial property administrators with advanced training in industrial property administration.

Instruction: Lectures and practical exercises in industrial property administration. Course includes property law and procurement regulations, property administrator's responsiblities and duties, contract administration and inventory management, controls audit, statistical sampling, and selected property administration problems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial management (6/74).

AF-0326-0003

CONTRACT ADMINISTRATION

Course Number: 175.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3-4 weeks (90-120 hours).

Exhibit Dates: 12/69-6/74.

Objectives: To provide selected personnel with knowledge and skills essential to performance as contracting officers or contracting administrators.

Instruction: Lectures and practical exercises to include organization for contract administration; types of contracts; cost analysis, pricing, and profit; contract modification; production and progress evaluation; funding and financing; quality assurance; inspection and acceptance; warranties; negotiation of changes, disputes, and claims; and termination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in contract administration (8/74); in the upper-division baccalaureate category, 2 semester hours in contract administration (8/74).

AF-0331-0001

REAL ESTATE—COST-MANAGEMENT ANALYSIS SPECIALIST

(Real Estate and Cost Management Analysis Specialist)

Course Number: 3ALR55430.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/68-2/73.

Objectives: To train enlisted personnel to be real-estate and cost-management analysis specialists.

Instruction: Lectures in cost accounting and management analysis procedures as applied to real-property management, including publications, automatic data processing, establishment and maintenance of automated cost and real-property files, labor accounting, work control, real-property accounting, and cost procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in real estate and cost accounting (12/68).

AF-0332-0001

SUPPLY SERVICES SUPERVISOR

Course Number: AAR61170.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 6 weeks (180 hours).

Exhibit Dates: 1/66-1/68.

Objectives: To train enlisted personnel as supply services supervisors.

Instruction: Lectures and practical exercises in supply services supervision, including personnel relations and management practices, OJT training, clothing sales store management, stock control and pricing, requisitioning, receiving and shipping, merchandising, inventory, accounting and reporting, commissary management, laundry and dry-cleaning management, and organization and equipment required for various supply services. Includes redistribution and marketing management.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply services management (12/68).

AF-0406-0001

COMMISSARY OPERATIONS

(Commissary Noncommissioned Officer (NCO))

(Commissary NCOIC)

Course Number: AZR61170; AZR64270-1; AZR64270; OTS6444-1.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 3-4 weeks (90-120 hours).

Exhibit Dates: 2/60-12/68.

Objectives: To train officers and noncommissioned officers in commissary operations.

Instruction: Lectures and practical exercises in commissary operations, including property accounting and supply discipline, subsistence supply procedures, pricing, inventory procedures, sales, accounting and reporting, sales forecasting, and subsistence and sales report analysis.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in store management (12/68).

AF-0419-0002

AIR PASSENGER SPECIALIST
(Air Passenger and Operations Specialist)

Course Number: 3ABR60530; ABR60530; ABR60130; AB60130.

Location: Technical Training Center, Sheppard AFB, TX, Technical Training Center, Keesler AFB, MS.

Length: 5-8 weeks (90-240 hours).

Exhibit Dates: 11/54-12/73.

Objectives: To provide enlisted personnel with the skills and knowledge necessary to perform as apprentice air passenger specialists.

Instruction: Lectures and practical experience in the basic principles of air transportation, including effective communication, human relations, customer service, air terminal organization, air traffic records and reports, airlift and airspace requirements, aircraft weight and balance, and customs regulations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in transportation (12/68).

AF-0419-0004

AIR CARGO SPECIALIST BY CORRESPONDENCE

Course Number: 60551.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84-Present.

Objectives: This course provides a basic introduction of air cargo policies and procedures material handling equipment and occupational safety standards.

Instruction: Course instruction covers career opportunities, terminology, shipping and receiving documents, storage, hazardous materials, loading and unloading procedures, weight limitations and various equipment handling systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basics in air cargo (10/85).

AF-0419-0005

SURFACE TRANSPORTATION OFFICER

Course Number: OBR6031; OB6031.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 10 weeks (300 hours).

Exhibit Dates: 6/55-12/62.

Objectives: To train officers for managerial positions in the surface transportation field.

Instruction: Lectures and practical exercises in principles of surface transportation management, including passenger and freight terminal operations, airlift operations and management, aircraft load planning, weight and balance problems, and aerial delivery procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation (11/62).

AF-0419-0007

AIR FREIGHT SPECIALIST

Course Number: ABR60531; AB60132.

Location: Technical Training school, Sheppard AFB, TX.

Length: 7-9 weeks (180-210 hours).

Exhibit Dates: 7/55-6/69.

Objectives: To provide enlisted personnel with basic knowledge and technical skill in air cargo transportation and handling.

Instruction: Lectures and practical demonstrations in basic air cargo transportation and handling, including air transportation activities fundamentals; military air command airlift systems; materials-handling vehicle operation; aircraft loading techniques; weight and balance computation; dangerous cargo processing and handling; and processing, documentation, and warehousing of general cargo and mail.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in transportation (12/68).

AF-0419-0009

FREIGHT TRAFFIC SPECIALIST

Course Number: AB60231.

Location: Technical Training Wing, Sheppard AFB, TX.

Length: 9 weeks (180-240 hours).

Exhibit Dates: 9/56-12/68.

Objectives: To provide enlisted personnel with basic training in freight operations management and commercial transportation.

Instruction: Lectures and practical demonstrations in the basic principles of transportation and freight traffic management, including classification of freight; tariffs; bill-of-lading procedures; various modes of transportation; duties of traffic managers; and special transportation problems, such as carrier liability, transit privileges, reconsignment, diversion, demurrage, and routing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in traffic operation or transportation management (12/68).

AF-0419-0010

TRANSPORTATION OFFICER
(Air Transportation Officer)

Course Number: 3OBR6041; OBR6041; OBR6021; OB6021.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 10-16 weeks (270-480 hours).

Exhibit Dates: 8/55-12/73.

Objectives: To train officers in the duties and responsibilities of a transportation officer.

Instruction: Lectures and practical experience in the management of all facets of air and surface transportation, including operation of a commercial transportation office; airlift terminal organization and operation; movement and storage of household goods; personnel transportation; transportation budget; movement of materials by air, water, rail, and pipeline.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (12/68).

AF-0419-0012

1. TRANSPORTATION STAFF OFFICER
2. TRANSPORTATION STAFF OFFICER
(Transportation Officer)

Course Number: *Version 1:* 3OAR6011. *Version 2:* OAR6011.

Location: Air Training Command, Sheppard AFB, TX.

Length: *Version 1:* 10-12 weeks (330-390 hours). *Version 2:* 12-24 weeks (360-720 hours).

Exhibit Dates: *Version 1:* 6/68-12/73. *Version 2:* 1/56-5/68.

Objectives: To train transportation officers in all aspects of advanced transportation management.

Instruction: Lectures and supervised student projects in procedures and techniques of advanced traffic management; military traffic management; air transportation management; vehicle operation and maintenance; transportation fund management; development of transportation systems, plans, and programs; data automation and systems analysis; commercial transportation services; packing, packaging, and marking materials; military and commercial air, motor, rail, water, and pipeline movement.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 8 semester hours in transportation management (1/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in transportation management (12/68).

AF-0419-0019

MOTOR VEHICLE MAINTENANCE MANAGEMENT

Course Number: 3AZR47000.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: 4 weeks (148 hours).

Exhibit Dates: 7/73-12/73.

Objectives: To train enlisted personnel to supervise and manage motor vehicle maintenance activities.

Instruction: Lectures and practical exercises in motor vehicle maintenance management. Course includes administration and supervision techniques, maintenance scheduling, quality and material control, vehicle safety, and parts supply management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in transportation management (7/74).

AF-0419-0021

AIR PASSENGER SPECIALIST BY CORRESPONDENCE

Course Number: 60550.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/83-Present.

Objectives: This course provides background information related to the duties and responsibilities of a military air passenger specialist. Procedures for processing passenger reservations are detailed. Supervision and employee/customer relations are also discussed.

Instruction: Course instruction covers management/supervisory functions, passenger safety, air transport regulations, documentation, aircraft indentification and automated data processing of passenger reservations.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-0419-0022

AIR PASSENGER SPECIALIST (RESERVE)

Course Number: 3ARR60550.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX.

Length: 2 weeks (72 hours).

Exhibit Dates: 8/73-12/73.

Objectives: To train airmen as air passenger specialists.

Instruction: Lectures and practical exercises in duties of air passenger specialists, including scheduling and processing passengers for flight, organization of air terminals, flight schedules, industrial funding and reimbursable traffic procedures, passenger eligibility, acceptance, processing, manifesting, and passenger baggage-handling equipment operation.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in transportation and air passenger traffic management (7/74).

AF-0419-0023

VEHICLE OPERATIONS SUPERVISOR BY CORRESPONDENCE

Course Number: 60370.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/78–Present.

Objectives: This course provides initial training for vehicle operations supervisors in planning and scheduling of vehicle activities, personnel management, inspection and evaluations and maintenance operations.

Instruction: Course instruction covers care and servicing of wheeled vehicles, personnel employment standards, fuel consumption, maintenance checks, on-the-job training needs, as well as supervisory management policies and practices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision (10/85).

AF-0419-0025

PASSENGER AND HOUSEHOLD GOODS SPECIALIST

(Passenger Traffic Specialist)

Course Number: AB60230.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 4–9 weeks (120–180 hours).

Exhibit Dates: 9/56–12/68.

Objectives: To train airmen in passenger traffic management and the movement of household goods and baggage.

Instruction: Lectures and practical exercises in passenger traffic management and the movement of household goods and baggage, including transportation agencies, regulations of carriers, travel orders, modes and classes available for passenger transportation, passenger routing, preparation of transportation requests, transportation costs, and movement, storage, and documentation of household goods.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in transportation (12/68).

AF-0419-0026

APPRENTICE VEHICLE OPERATOR/DISPATCHER BY CORRESPONDENCE

Course Number: 60330.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/83–Present.

Objectives: To provide apprentice training in passanger/cargo vehicle selection and operation. General upkeep and maintenance training are also included.

Instruction: Course training covers vehicle operations, defensive driving, emergency repairs, passenger/cargo load factors and dispatching procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-0419-0027

LOGISTICS PLANS SPECIALIST BY CORRESPONDENCE

Course Number: 66150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 2/89–Present. *Version 2:* 11/84–1/89.

Learning Outcomes: At the conclusion of the course the student will be able to comprehend and utilize the principles of logistics in the retail and wholesale areas of distribution, comprehend and manage facilities, manpower, finances, and war reserve materials, prepare planning processes and support plans with manpower and equipment, make site and installation surveys and follow through with support efforts in mobility training and operations.

Instruction: Instruction covers logistic management at retail and wholesale levels of distribution, site surveying for warehousing and storage and the proper management procedures utilizing manpower, facilities, equipment, external and inernal support and finances needed to conduct the total job of logistics starting with the planning processes, the series of four volumes levels through planning, supporting, equipment, manpower, feasibility studies and surveys.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in logistics management/transportation (marketing management major area (2/87).

AF-0419-0028

SERVICES SUPERVISOR BY CORRESPONDENCE

Course Number: 61170.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to comprehend management activities of resources and assets of equipment, supplies, furnishings and services readiness mission, follow government procedures dealing in safety, operational publications, billeting and mortuary affairs.

Instruction: Includes the management of resources and assets, supervisory responsibilities for safety, operational publications, mortuary affairs, billeting financial management, front desk procedures and administration of equipment, supplies, furnishing and service readiness missions.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-0419-0029

APPRENTICE AIR CARGO SPECIALIST BY CORRESPONDENCE

Course Number: 60531.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/84–Present.

Learning Outcomes: Upon completion of this course the student will have the skill required to function as a beginning air cargo specialist with knowledge of materials handling cargo documentation, cargo storage and cargo handling.

Instruction: Topics included in this course are military airlift services, aerial port work centers, cargo storage and handling, palletization, load planning procedures, aircraft loading and offloading and aircraft ground servicing.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-0419-0030

TRAFFIC MANAGEMENT SUPERVISOR BY CORRESPONDENCE

Course Number: 60271.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/83–6/89.

Learning Outcomes: Upon completion of this course the student will have knowledge of the principles of transportation, traffic management transportation documents, movement of personal property, storage and quality control.

Instruction: Topics included in this course are an introduction to transportation, supervision, documentation, shipping and storage methods and quality control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of transportation/traffic management (2/87).

AF-0419-0031

PASSENGER AND HOUSEHOLD GOODS SPECIALIST BY CORRESPONDENCE

Course Number: 60250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/81–Present.

Learning Outcomes: Upon completion of this course the student will be able to function as a specialist in moving people and personal property transportation throughout the world.

Instruction: Topics covered include passenger transportation and supervision, safety, supervision and security, movement of personal property, and transportation documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semster hours in introduction to transportation (2/87).

AF-0419-0032

FREIGHT TRAFFIC SPECIALIST BY CORRESPONDENCE

Course Number: 60251.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/81–Present.

Learning Outcomes: At the completion of this course the student will have knowledge of the fundamentals of freight traffic management, traffic, safety, planning and packaging of shipments and freight routing, documentation, and expediting.

Instruction: Topics covered include transportation planning, packaging, modes of transportation, preparation of transportation documents, scheduling and routing, freight expediting and training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of transportation/traffic management (2/87).

AF-0504-0002

Ground Radio Operator by Correspondence

Course Number: 29353.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/84–8/88.

Objectives: This course is designed to teach basic operational concepts in air ground operations, system structure and radio transmission fundamentals.

Instruction: This course provides a basic understanding of the various agencies which manage communications-electronics matters throughout the world. It includes command, control and communication countermeasures, frequency usages and administration of various types of radio stations. Radio propogation theory, antenna systems, weather, aircraft emergencies and logkeeping are also included.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radio/television communication concepts or 1 in electronics (10/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in media operations (10/95).

AF-0504-0003

Telecommunications Operations Specialist by Correspondence

Course Number: 29150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/84–Present.

Objectives: The purpose of this course is to provide information about the composition, organization, and utilization of communication systems.

Instruction: This course covers communication security, publications, telephone operations, budgeting, and processing of messages by teletypewriter, magnetic tape, keypunch and standard remote terminals. Instruction includes a basic understanding of the main components and peripheral devices of a computerized communications network.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications or, in the lower-division baccalaureate/associate degree category, 2 semester in information processing theory (10/85).

AF-0504-0004

Apprentice Telecommunications Operations Specialist by Correspondence

Course Number: 29130.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/81–1/85.

Objectives: This course provides training in communications fundamentals and telephone operations, message formats and procedures, and in communications equipments.

Instruction: The course is an introduction to basic communication skills and includes publications, security, telecommunication systems, telephone operations, message format and preparation. It describes basic communication equipment including communication circuits and automated systems operated in relay and terminal stations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications (10/85).

AF-0505-0001

Television Production Specialist

Course Number: ATS 72151-1.

Location: 3415th Technical School, Lowry AFB, TX.

Length: 7 weeks (210 hours).

Exhibit Dates: 5/61–12/68.

Objectives: To train personnel for assignment in television services.

Instruction: Topics include the television system, video and audio switching, staging and principles of lighting, directing concepts, recording processes, practical television production, and the television script.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in television production (11/77).

AF-0701-0002

Dental Assistant by Correspondence

Course Number: 98150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 10/80–1/85.

Objectives: To prepare the person to serve as an assistant in a basic dental office, engaging in general dental tasks including the exposure and processing of x-rays, and the treatment of patients.

Instruction: The correspondence course includes general office assistant responsibilities in four-handed dentistry to include dental records, safety, equipment maintenance, and supervision; student will learn oral anatomy and physiology, dental therapeutics, dental pathology and microbiology, sterilization, principles of dental radiology, dental instruments and materials and instruments of oral surgery and prophylaxis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to anatomy or 3 semester hours in instruments of oral prophylaxis. Course concludes with a proctored examination (9/84).

AF-0701-0003

Dental Assistant Specialist by Correspondence

Course Number: 98150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and explain the duties of the dental assistant specialist.

Instruction: Monitored home study including readings, written exercises, on-the-job training and proctored examinations. Topics include role and scope of the dental assistant specialist, interpersonal communication, basic sciences, chemistry, histology, dental materials, therapeutic agents, dental instruments, preventive dentistry, nutrition, prophylaxis, dental radiography, and chairside assisting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in oral anatomy and physiology, 3 in instruments of oral prophylaxis (5/88).

AF-0701-0005

Dental Assistant (Phase I)

Course Number: 3ALR98330.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 18 weeks (540 hours).

Exhibit Dates: 7/72–12/73.

Objectives: To provide enlisted personnel with auxiliary training in the field of dental assisting.

Instruction: Lectures and practical experience in advanced dental assisting, including postoperative treatment; making impressions; placing and removing sutures; irrigating and medicating root canals; constructing and placing temporary crowns and temporary fixed partial dentures; and placing, carving, and finishing temporary and permanent restorations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in dental assisting, 3 in dental hygiene, all on the basis of institutional evaluation (2/74).

AF-0701-0006

Dental Assistant (Phase II)

Course Number: 3AAR98370.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 8 weeks (320 hours).

Exhibit Dates: 11/72–12/73.

Objectives: To provide enlisted personnel with auxiliary training in the field of dental assisting.

Instruction: Lectures and practical experience in advanced dental assisting, including postoperative treatment; making impressions; placing and removing sutures; irrigating and medicating root canals; constructing and placing temporary crowns and temporary fixed partial dentures; and placing, carving, and finishing temporary and permanent restorations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in dental assisting, 2 in dental hygiene, all on the basis of institutional evaluation (2/74).

AF-0701-0008

Preventive Dentistry Specialist

Course Number: 3ALR98131.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: *Version 1:* 7 weeks (228 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 8/72–12/73. *Version 2:* 4/69–7/72.

Objectives: To train enlisted personnel as preventive dentistry specialists.

Instruction: *All Versions:* Lectures and practical exercises in preventive dentistry, including pathology, elementary chairside assisting, clinical procedures, oral hygiene, prosthetic procedures, periodontal anatomy, microscopy, and communicative skills. *Version 1:* Instruction includes radiology.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in oral and written communication (1/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in oral and written communication (1/74).

AF-0701-0010

Complete Denture Prosthetics

Course Number: 3AZR98270-4.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/73–12/73.

Objectives: To train dental technicians in complete denture prosthetics.

Instruction: Lectures and practical exercises in the fabrication of dentures. Course includes baseplates and occlusion rims, cast mounting, tooth arrangement, wax up and festoon, flasking and boilout, packing and curing, deflasking and remounting, selective grinding, and finishing and polishing.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in complete denture prosthetics (7/74).

AF-0701-0012

REMOVABLE PARTIAL DENTURE PROSTHETICS

Course Number: 3AZR98270-6.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 3 weeks (138 hours).

Exhibit Dates: 7/73–12/73.

Objectives: To provide enlisted personnel with the skills necessary to cast removable dentures.

Instruction: Lectures and practical experience in the basic principles of casting chrome-cobalt removable dentures, including design and duplication; setting up, polishing, finishing, and repairing completed dentures; and preventive maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in dental laboratory technology on the basis of institutional evaluation (2/74).

AF-0701-0016

DENTAL LABORATORY SPECIALIST

Course Number: 3ABR98230.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 27–29 weeks (878 hours).

Exhibit Dates: 9/69–12/73.

Objectives: To provide enlisted personnel with a basic knowledge of dental technology.

Instruction: Lectures and laboratory in the fundamentals of dental technology, including dental anatomy; complete denture construction; cast removable partial denture construction; construction of gold crowns and inlays, fixed partial dentures, and acrylic resin jacket crowns; and maintenance of dental laboratory equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in dental laboratory technology on the basis of institutional evaluation (2/74).

AF-0701-0018

DENTAL LABORATORY SPECIALIST BY CORRESPONDENCE

Course Number: 98250.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to identify and explain the correct procedures, techniques, devices, and appliances developed in the general dental laboratory.

Instruction: Monitored home study including readings, written exercises, on-the-job supervision and proctored examinations. Topics include tooth anatomy, mandibular movement, articulation, occlusion, crown and fixed dentures, waxing, spruing, investing, burnout, casting, finishing, polishing, denture construction, and removable partial dentures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in oral anatomy and physiology and 5 in dental laboratory technology (5/88).

AF-0702-0003

CLINICAL LABORATORY OFFICER

Course Number: OBR9151.

Location: Medical Service School, Gunter AFB, AL.

Length: 16 weeks (624–640 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To provide the student with the skills necessary to supervise and administer a medical laboratory.

Instruction: Lectures and practical clinical exercises in electrocardiography, bacteriology, chemistry, hematology, histology, parasitology, immunohematology, urinalysis, preventive medicine, veterinary service, and laboratory administration.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced clinical laboratory techniques (12/68).

AF-0702-0004

MEDICAL LABORATORY TECHNICIAN

Course Number: *Version 1:* 5AZY90470. *Version 2:* AA90470.

Location: *Version 1:* School of Aerospace Medicine, Brooks AFB, TX. *Version 2:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 25 weeks (972 hours).

Exhibit Dates: *Version 1:* 12/71–12/73. *Version 2:* 2/54–11/71.

Objectives: To provide the medical laboratory technician with current information in medical laboratory methods and equipment.

Instruction: Lectures and practical experience in quality control methods, bacteriology, medical mycology methods and techniques, parasitology, serology, hematology, clinical chemistry, virology, forensic toxicology, drug abuse detection, laboratory management, and military public health programs.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 10 semester hours in medical technology or 10 in biology or chemistry (2/74). *Version 2:* In the upper-division baccalaureate category, 10 semester hours in science for non-science majors or 5 in biology or chemistry for science majors (12/68).

AF-0702-0005

1. MEDICAL LABORATORY SPECIALIST, PHASE I
2. MEDICAL LABORATORY SPECIALIST, PHASE I
3. APPRENTICE MEDICAL LABORATORY SPECIALIST

Course Number: *Version 1:* ABR90430-2. *Version 2:* ABR90430. *Version 3:* AB90430.

Location: *Version 1:* Medical Service School, Sheppard AFB, TX; *Version 1:* Medical Service School, Gunter AFB, AL. *Version 2:* Medical Service School, Gunter AFB, AL. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 14–17 weeks (510–596 hours). *Version 2:* 16 weeks (596 hours). *Version 3:* 19–21 weeks (741–819 hours).

Exhibit Dates: *Version 1:* 9/65–8/68. *Version 2:* 6/62–8/65. *Version 3:* 6/54–5/62.

Objectives: To train personnel as medical laboratory specialists.

Instruction: *All Versions:* Lectures and practical exercises in medical laboratory technology, including clinical chemistry, bacteriology, hematology, and disaster medicine. *Version 1:* Topics include microbiology. *Version 2:* Topics include biochemistry, urinalysis, microbiology, preventive medicine, serology, and histological techniques. *Version 3:* Topics include aviation medicine, medical material, serology, transfusions, histological techniques, parasitology, urinalysis, virology, nuclear medicine.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 30 semester hours applied to a major in medical technology OR 10 semester hours applied to a minor in chemistry or biology (12/68). NOTE: Granting of this credit is contingent upon completion of this course and either AF-0702-0006 or AF-0702-0007. No credit is recommended for completion of this course alone. *Version 2:* In the upper-division baccalaureate category, 30 semester hours applied to a major in medical technology OR 10 applied to a minor in chemistry or biology (12/68). NOTE: Granting of this credit is contingent upon completion of this course and either AF-0702-0006 or AF-0702-0007. No credit is recommended for completion of this course alone. *Version 3:* In the upper-division baccalaureate category, 5 semester hours in basic science for non-science majors, 2 in biology or chemistry for science majors (12/68).

AF-0702-0006

HISTOPATHOLOGY/CYTOTECHNOLOGY SPECIALIST

(Alternate Phase II of Medical Laboratory Specialist Course)

Course Number: 5ALO90431.

Location: Selected Air Force Hospitals, U.S.A.

Length: 36 weeks (1440 hours).

Exhibit Dates: 10/68–1/88.

Objectives: To train airmen as histopathology and cytotechnology specialists.

Instruction: Lectures and practical exercises in histopathology and cytotechnology including histopathology procedures; decalcifying procedures; dehydration procedures; normal staining procedures; using the microtome and cryostat and sharpening blades for the two instruments; coverslipping microscopic slides; assisting in morgue duties; cytotechnology procedures; facts about normal vaginal, cervical, and uterine cytology, prepuberty smears, postpartum smears, menopausal smears, and postmenopausal smears; preparing biological stains and staining prepared slides; normal, atypical, and abnormal vaginal, cervical and uterine cells; therapeutic changes; maturation index and fluid cytology; and screening of female genital tract slide-specimen materials to differentiate the normal from atypical and abnormal cell patterns.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in chemistry or biology (7/74); in the upper-division baccalaureate category, 20 semester hours in histopathology/cytotechnology for medical technology majors, 8 in chemistry or biology (12/68). NOTE: Granting of this credit is contingent upon completion of Medical Laboratory Specialist, Phase I (AF-0702-0005) and this course.

AF-0702-0007

MEDICAL LABORATORY SPECIALIST, PHASE II

Course Number: 5AZO90450; AZR90450.

Location: Selected Air Force Hospitals, U.S.A.

Length: 36 weeks (1440 hours).

Exhibit Dates: 9/60–1/88.

Objectives: To train airmen as medical laboratory specialists.

Instruction: Lectures and practical exercises in medical laboratory technology, including introduction to the clinical laboratory, hematology, urinalysis, blood banking and immunohematology, serology, clinical chemistry, microbiology (bacteriology, mycology, and virology), parasitology, histopathology, special chemistry, laboratory administration, and night duty training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in clinical laboratory techniques, 8 in hematology, 3 in clinical microscopy, 5 in blood bank and immunohematology (7/74); in the upper-division baccalaureate category, 30 semester hours in medical technology for medical technology majors or 10 in biology or chemistry for medical technology minors (12/68). NOTE: Credit is contingent upon completion of this course and Phase I (AF-0702-0005). No credit is recommended for either phase considered separately (12/68).

AF-0703-0002

Nurse-Midwifery Residency

Course Number: 5OZO9776.

Location: Malcolm Grow USAF Medical Center, Andrews AFB, MD.

Length: 30 weeks (1350 hours).

Exhibit Dates: 1/73-1/88.

Objectives: To train qualified registered nurses in the management of a patient's normal obstetrical and gynecological needs during the maternity cycle.

Instruction: Lectures and clinical residency experience in the practice of nurse-midwifery including antepartum care; physical examinations; sociological, cultural, and marital attitudes and influences; human growth and development; labor, delivery and puerperium; community aspects of nurse-midwifery; supervised clinical practice in labor and delivery methods; postpartum care; and management of minor gynecological problems.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in clinical practicum on the basis of institutional evaluation (6/75).

AF-0703-0003

Nursing Service Administration

Course Number: OZR9711.

Location: Medical Service School, Gunter AFB, AL.

Length: 24 weeks (920-946 hours).

Exhibit Dates: 12/62-12/68.

Objectives: To prepare staff nurses to assume administrative duties.

Instruction: Lectures and discussions in personnel management, human relations, communication skills, principles and methods of in-service education, legal responsibilities, and financial management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in nursing administration, 2 in personnel management (2/74).

AF-0703-0005

Operating Room Supervisor

Course Number: 3OZR9736.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 22 weeks (837 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To prepare registered nurses to supervise surgical services.

Instruction: Lectures and practical exercises in interpersonal relationships; guidance and counseling; job descriptions and performance standards; in-service education; safety; infection control; nursing processes and care evaluation; management principles and organization; budget; disaster planning; collective bargaining; and nursing service evaluation.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in nursing management (2/74).

AF-0703-0006

Nursing Service Management

Course Number: 3OZR9711-3.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 17 weeks (632 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To train registered nurses for managerial and supervisory duties in military facilities.

Instruction: Lectures and practical exercises in research; problem-solving techniques; work simplification; data processing; human relations; in-service education; evaluation of nursing care; budget control; disaster planning; and collective bargaining and standards of accreditation.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in nursing management (2/74).

AF-0703-0007

Medical Service Fundamentals

Course Number: 3AQR90010.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 4 weeks (128 hours).

Exhibit Dates: 5/70-12/73.

Objectives: To train auxiliary medical support personnel in basic medical fundamentals as a prerequisite for advanced specialties.

Instruction: Lectures and practical exercises in basic medical fundamentals, including basic hospital procedures, field casualty care, and anatomy and physiology. Topics include medical terminology, medical ethics, safety practices, facilities, emergency treatment for shock and hemorrhage, vital signs, resuscitation, emergency treatment for wounds, field dressings, fractures and dislocations, toxic agents, head and back injuries, chest and abdominal injuries, thermal injuries and heat disorders, disaster medicine, supplies and equipment, and resuscitation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 3 in basic nurse skills, 3 in medical-surgical procedures (7/74).

AF-0703-0008

Flight Nurse

Course Number: 5OLY9761; OLY9761; OZY9700.

Location: School of Aerospace Medicine, Brooks AFB, TX; School of Aviation Medicine, Gunter AFB, AL.

Length: 5-6 weeks (170-234 hours).

Exhibit Dates: 4/75-6/83.

Objectives: To train personnel in the duties and responsibilities necessary to perform patient care during aeromedical evacuation.

Instruction: Lectures and practical exercises in physiological education, aerospace nursing, survival, preventive medicine, and flying safety.

Credit Recommendation: In the upper-division baccalaureate category, credit in general and advanced nursing on the basis of institutional evaluation or 5 semester hours as electives in the biological sciences (2/78).

AF-0703-0009

Pediatrics Nurse Practitioner

Course Number: OAY9755.

Location: Wilford Hall Medical Center, Lackland AFB, TX.

Length: 21 weeks (840 hours).

Exhibit Dates: 7/71-12/73.

Objectives: To prepare nurse corps officers to assume an expanded role in providing comprehensive health services to children.

Instruction: Lectures and practical exercises in pediatric physical examinations, newborn care, growth and development, nutrition, immunizations, prematurity, infectious disease, behavioral problems, mental retardation, neurology, allergy, hematology, poisoning, dermatology, and pediatric gynecology.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in clinical practicum (6/75).

AF-0703-0011

Medical Service Technician by Correspondence

Course Number: 90270.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 11/77-Present.

Objectives: To prepare personnel to assist in patient treatment and to learn supervisory management skills at the unit level.

Instruction: This correspondence course includes the teaching of administrative skills; administration of medications; management functions and techniques of patient care; field medical care and sanitation, field preparation and disaster preparedness; oxygen therapy and resusitation, therapy techniques; supervision of medical service activities; and preoperative and postoperative nursing. This course includes procedures found inlicensed practical nursing programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in nursing care. Course concludes with a proctored examination (7/84).

AF-0703-0012

Medical Service Specialist by Correspondence

Course Number: 90250.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 4/77-Present.

Objectives: To prepare personnel to assist in nursing care and treatment of patients.

Instruction: This correspondence course teaches principles of general nursing care techniques; the student learns to assist in medical examinations and treatments; perform procedures using therapeutic equipment; peform aeromedical evacuation duties and independent duties; and learns body systems and their disorders, signs and symptoms; student also covers principles of diagnostic and therapeutic procedures; adult, geriatric,amd pediatric medicine are introduced as well as mental illness, burned patient trauma, critical care, and chronic diseases; and pathophysiology of common disorders. The course is equivalent to the basic courses commonly found in LPN programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic principles of nursing assisting. Course concludes with a proctored examination (7/84).

AF-0703-0013

NURSE ANESTHETIST

Course Number: 50AY9746.

Location: Wilford Hall USAF Medical Center, Lackland AF, TX.

Length: 104 weeks (5069-5246 hours).

Exhibit Dates: 4/84–Present.

Objectives: To instruct qualified USAF nurse corps officers in both the art and science of anesthesia so that they may become certified registed nurse anesthetists, CRNA's.

Instruction: Areas of instruction include: Hospital orientation; professional aspects of anesthesiology; anatomy and physilogy and pathophysiology; chemistry and physics and biochemistry; pharmacology; principles of anesthesia practice; basic life support, advanced cardiac life support, EKG, research paper, educational review; clinical conference, journal club, seminars; clinical experience.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in anatomy/physiology I, 6 in anatomy/physiology II, 3 in pathophysiology, 4 in chemistry/physics/biochemistry; of digestive, neval, and respiratory systems. in the graduate degree category, 8 in pharmacology, 8 in principles of anesthesia practice, 8 semester credit hours in clinical conference/journal club, 6 in clinical experience (9/85).

AF-0703-0014

NURSING SERVICE MANAGEMENT BY CORRESPONDENCE

Course Number: 9711.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/76–Present.

Learning Outcomes: Upon completion of the course the student will understand theory and principles of management of a nursing unit, personnel evaluation, and assignment and supervision of staff for patient care.

Instruction: Monitored home study including reading, written exercises, on-the-job supervision and proctored examination. Topics include administration, management, personnel evaluation and management of patient centered nursing care. The nursing process includes patient assessment for patient care plans and staf assignment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in nursing management (5/88).

AF-0703-0015

SURGICAL SERVICE SPECIALIST BY CORRESPONDENCE

Course Number: 90252.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course the student will be able to assist in operating room aeseptic techniques, manage operating room supplies and equipment, and deliver pre- and post-operative patient care.

Instruction: Monitored home study including reading, written exercises, on-the-job supervision and proctored examinations. Topics include, introduction to the study of aeseptic techniques, operating room procedures, operating room equipment and supplies, and pre- and post-operative patient care. Also includes basic medical terminology and anatomy and physiology in relation to surgical procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in operating room techniques and procedures (5/88).

AF-0704-0001

PHYSICAL THERAPY TECHNICIAN

Course Number: 3AZR91370.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 6 weeks (180 hours).

Exhibit Dates: 6/70–12/73.

Objectives: To provide physical therapy assistants with advanced training in physical therapy techniques and clinic management.

Instruction: Lectures include administrative procedures, personnel supervision, advanced anatomy, patient treatment and prognosis, and clinical procedures and therapeutic exercises.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in anatomy and physiology, 6 in physical therapy, 3 in management (2/74).

AF-0704-0002

PHYSICAL THERAPY SPECIALIST

Course Number: 3ABR91330.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: *Version 1:* 15 weeks (428 hours). *Version 2:* 10 weeks (300 hours).

Exhibit Dates: *Version 1:* 9/69–12/73. *Version 2:* 6/67–8/69.

Objectives: To train enlisted personnel to assist physical therapists in clinics.

Instruction: Lectures and practical exercises in neurological system and musculo-skeletal system anatomy, rehabilitation procedures, exercises and other therapeutic procedures, and medical and surgical conditions necessary in treating musculo-skeletal and neurological disorders.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in first aid or disaster training, 30 in physical therapy assisting, and credit in nursing on the basis of institutional evaluation (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in anatomy or physiology, and credit in physical therapy on the basis of institutional evaluation (12/68).

AF-0704-0004

PHYSICAL THERAPY SPECIALIST BY CORRESPONDENCE

Course Number: [illegible]1350.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to list, describe and explain the general duties of the physical therapy student.

Instruction: Monitored home study including readings, written exercises, on-the-job supervision and proctored examinations. Topics include osteology and myology of all joints; joint pathology; indications, contraindications, hazards, and goals of all major therapeutic modalities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in neuromusculoskeletal pathology, 3 in therapeutic exercise, 7 in treatment modalities, and 2 in introduction to physical therapy (5/88).

AF-0705-0001

RADIOLOGY TECHNICIAN

Course Number: AAR90370-1; AAR90370; AA90370.

Location: Medical Service School, Sheppard AFB, TX; School of Aviation Medicine, Gunter AFB, AL.

Length: 9-16 weeks (270-624 hours).

Exhibit Dates: 10/56-12/73.

Objectives: To provide radiology personnel with advanced training in radiologic technology.

Instruction: Lectures and practical exercises in radiographic fundamentals, anatomy and physiology, radiographic techniques, special radiographic positions, special equipment and procedures, radiation protections, and administration.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in elementary anatomy and physiology (12/68).

AF-0705-0002

1. RADIOLOGY SPECIALIST
2. RADIOLOGY SPECIALIST

Course Number: *Version 1:* 3ABR90330. *Version 2:* ABR90330-1; ABR90330.

Location: *Version 1:* 3750th Technical School, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX.

Length: *Version 1:* 18 weeks (545 hours). *Version 2:* 12–14 weeks (420–439 hours).

Exhibit Dates: *Version 1:* 9/71–12/73. *Version 2:* 1/63-8/71.

Objectives: To train airmen as radiology specialists.

Instruction: *All Versions:* Lectures and practical exercises in radiology, including radiographic fundamentals and procedures. *Version 1:* Topics include medical service fundamentals, osteology and radiographic considerations of the upper extremity, control of film quality, osteology and radiographic consideration of the lower extremity and pelvic girdle, osteology and radiographic considerations of the thorax, osteology and radiographic considerations of the skull and facial bones, and anatomy and physiology. *Version 2:* Topics include disaster medicine.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in physics, 2 in anatomy and physiology (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in anatomy and physiology (12/68).

AF-0705-0003

RADIOLOGY TECHNICIAN BY CORRESPONDENCE

Course Number: 90370.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course the student will understand the basic functions of a radiology technician which include management of the radiology department, diagnostic radiology, plus imaging and contrast studies procedures.

Instruction: Monitored home study including reading, written exercises, on-the-job supervision and proctored examination. Topics include management of the radiology department, anatomy and physiology related to positioning, physics, radiation safety and special techniques and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radiation physics and 7 in radiography (5/88).

AF-0706-0001

OPHTHALMOLOGY SURGICAL TECHNICIAN

Course Number: AZY91270.

Location: School of Aerospace Medicine, Brooks AFB, TX.

Length: 5 weeks (200 hours).

Exhibit Dates: 7/69–1/89.

Objectives: To prepare ophthalmology assistants to aid, under supervision, in the diagnosis, care, and treatment of ophthalmology patients.

Instruction: Practical application of routine visual testing; fitting and adjusting glasses; administration of eye drops and ointments; emergency care and dressings; preoperative preparation; assisting the ophthalmologist in surgical procedures; and care and maintenance of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photography, 2 in anatomy and physiology of the eye, 2 in ophthalmic dispensing, 1 in optics, and 2 in clinical assisting (2/78).

AF-0706-0002

OPTOMETRY SPECIALIST

Course Number: 3ABR91235.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 14 weeks (425 hours).

Exhibit Dates: 6/71–12/73.

Objectives: To train airmen to assist in an ophthalmological clinic or physician's office.

Instruction: Lectures and practical exercises in basic ocular anatomy and physiology; basic optics; use and maintenance of optometric testing equipment; visual therapy; medical ethics; asepsis; ocular first aid and emergency treatment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (5/73).

AF-0706-0003

OPTOMETRY SPECIALIST BY CORRESPONDENCE

Course Number: 91255.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/83–Present.

Learning Outcomes: Upon completion of the course the student will understand and be able to describe the procedures of the general optometric specialist.

Instruction: Monitored home study, including readings, written exercises, on-the-job supervision and proctored examinations. Topics include clinic safety, scheduling, maintenance of optometric equipment, record keeping, ocular anatomy and physiology, screening tests, lenses, prescription verification, dispensing, vision training, tonometry, and the instillation of opthalmic drugs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in optometric technology (5/88).

AF-0707-0001

MILITARY ASPECTS OF SANITARY AND INDUSTRIAL HYGIENE ENGINEERING

Course Number: OBR9121.

Location: Medical Service School, Gunter AFB, AL.

Length: 8 weeks (320 hours).

Exhibit Dates: 8/62–12/68.

Objectives: To provide the essential knowledge and skills necessary to perform sanitary and industrial hygiene duties.

Instruction: Aerospace medicine, including aviation medicine training; entomology; principles of medicine and surgery; veterinary training; and radiological health, including disaster medicine.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in community sanitation (12/68).

AF-0707-0003

BIO-ENVIRONMENTAL ENGINEERING

Course Number: OBY9121.

Location: School of Aerospace Sciences, Brooks AFB, TX.

Length: *Version 1:* 16 weeks (608 hours). *Version 2:* 16 weeks (605–608 hours).

Exhibit Dates: *Version 1:* 3/75–3/88. *Version 2:* 9/68–2/75.

Objectives: To prepare engineers to practice bioenvironmental engineering in support of the Air Force aerospace medicine program.

Instruction: *All Versions:* Lectures on acoustics, physiology, biometrics, sanitary engineering and hygiene, general and environmental chemistry, and human engineering, and the application of biological and engineering principles to aviation environments. *Version 1:* Includes ecology.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in physical sciences, 4 in chemistry, 4 in biological sciences, 3 in occupational health, and 3 in administration (2/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in physical science, 4 in chemistry, 4 in biological science, 4 in aviation science, 2 in industrial psychology, and additional credit in aviation science on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 4 semester hours in physical science, 4 in chemistry, 4 in biological science, 4 in aviation science, 2 in industrial psychology, and additional credit in aviation science on the basis of institutional evaluation (2/74).

AF-0707-0004

PREVENTIVE MEDICINE TECHNICIAN

Course Number: AAY90770; AA90770.

Location: School of Aerospace Medicine, Brooks AFB, TX; Medical Service School, Gunter AFB, AL.

Length: 11–12 weeks (407–495 hours).

Exhibit Dates: 2/55–2/78.

Objectives: To train enlisted personnel as preventive medicine technicians.

Instruction: Lectures and practical exercises in preventive medicine, including management of the aerospace medicine program, military public health, water and waste disposal, medical entomology, occupational health, atmospheric sampling, and radiological health.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in sanitary bacteriology, 2 in elementary preventive medicine (7/74); in the upper-division baccalaureate category, 3 semester hours in sanitary bacteriology, 2 in elementary preventive medicine (12/68).

AF-0707-0005

1. PREVENTIVE MEDICINE SPECIALIST
2. PREVENTIVE MEDICINE SPECIALIST
3. APPRENTICE PREVENTIVE MEDICINE SPECIALIST
4. APPRENTICE PREVENTIVE MEDICINE SPECIALIST

Course Number: *Version 1:* ABY90730. *Version 2:* ABY90730; ABR90730. *Version 3:* AB90730. *Version 4:* AB90730.

Location: *Version 1:* School of Aerospace Medicine, Brooks AFB, TX. *Version 2:* School of Aerospace Medicine, Brooks AFB, TX. *Version 3:* Medical Service School, Gunter AFB, AL. *Version 4:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 10 weeks (358 hours). *Version 2:* 10 weeks (371–376 hours). *Version 3:* 14 weeks (546 hours). *Version 4:* 16 weeks (624 hours).

Exhibit Dates: *Version 1:* 11/68–8/73. *Version 2:* 5/62–10/68. *Version 3:* 11/57–4/62. *Version 4:* 2/55–10/57.

Objectives: To train personnel as preventive medicine specialists.

Instruction: *All Versions:* Lectures and practical exercises in the duties of preventive medicine specialists, including bio-environmental engineering, disaster medicine, medical entomology, occupational health programs, radiological health programs, and sanitary engineering. *Version 1:* Topics include acoustics, basic orientation, disease epidemiology, educational methods, environmental surveys, fundamentals of science, illumination, medical aspects of missile operations, and ventilation. *Version 2:* Topics include preventive medicine, aircraft accident investigation, medical administration, field training, and military public health. *Version 3:* Topics include aeromedical evacuation, aeronautical sciences, aviation medicine, dental administration, educational advisory staff, medical materiel, typing, unit and personnel administration, medical laboratory, medical passive defense, nursing, preventive medicine, biostatistics, basic mathematics and chemistry, industrial hygiene, water supply and swimming pool sanitation, food service, military epidemiology, and veterinary service. *Version 4:* Topics include aeromedical evacuation, anatomy and physiology, aviation medicine, clinical dentistry, medicine and surgery, nursing preventive medicine, medical administration, unit and personnel administration, typing, medical materiel, medical laboratory, preventive medicine, military epidemiology, basic mathematics and chemistry, industrial hygiene, water supply and swimming pool sanitation, biostatistics, food service facilities, radiobiology, leadership and training management, leadership through group control, and veterinary service.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in public health, 3 in OSHA/radiological control, and 3 in sanitary engineering (7/74); in the upper-division baccalaureate category, 4 semester hours in public health, 3 in OSHA/radiological control, and 3 in sanitary engineering (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in preventive medicine and 2 in sanitary bacteriology (7/74); in the upper-division baccalaureate category, 2 semester hours in elementary preventive medicine and 2 in sanitary bacteriology (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in elementary preventive medicine and 2 in sanitary bacteriology (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in elementary preventive medicine and 2 in sanitary bacteriology (12/68).

AF-0707-0006

INDUSTRIAL HYGIENE MEASUREMENTS

Course Number: 5AZY907X0-2.

Location: School of Aerospace Medicine, Brooks AFB, TX.

Length: 2 weeks (61-72 hours).

Exhibit Dates: 7/76-1/89.

Objectives: To provide training of officers in the evaluation and control of industrial hazards.

Instruction: Lectures and practical exercises in occupational health, atmospheric sampling, toxicology, ventilation, and illumination.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial hygiene (2/78).

AF-0707-0007

ENVIRONMENTAL PROTECTION

Course Number: 5AZY907X0-1.

Location: School of Aerospace Medicine, Brooks AFB, TX.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/76-12/79.

Objectives: To train personnel in environmental monitoring techniques.

Instruction: Lectures and practical exercises in federal, state, and local regulations, and sampling techniques in relation to solid waste disposal and air, water, and noise pollution.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in environmental monitoring techniques (2/78).

AF-0707-0008

ENVIRONMENTAL HEALTH SPECIALIST

Course Number: 5ABY90730.

Location: School of Aerospace Medicine, Brooks AFB, TX.

Length: 11 weeks (339 hours).

Exhibit Dates: 9/73-1/89.

Objectives: To train personnel to develop knowledge for public health and occupational health surveys.

Instruction: Lectures and practical exercises in fundamentals of science, acoustics, epidemiology, environmental engineering, medical zoology, and pesticide technology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in medical zoology, 2 in sanitation, 2 in acoustics, 5 in health, 2 in industrial hygiene, and 2 in physical sciences (2/78).

AF-0708-0002

MENTAL HEALTH UNIT SPECIALIST BY CORRESPONDENCE

Course Number: 91451.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84-Present.

Learning Outcomes: Upon completion of the course the student will understand the basic mental health concepts necessary to provide diagnostic and therapeutic nursing for psychiatric patient care.

Instruction: Monitored home study including reading, written exercises, on-the-job supervision and proctored examination. Topics include basic concepts of mental health, diagnostic nomenclature of mental disorders, basic vital signs, diagnostic and therapeutic physical nursing procedures, patient care, and communication skills.

Credit Recommendation: In the vocational certificate category, 3 semester hours in nursing assistant (5/88); In the lower-division baccalaureate/associate degree category, 3 semester hours in mental health associate (5/88).

AF-0709-0001

DIET THERAPY SPECIALIST

Course Number: 3ABR62231-1; 3ABR62231.

Location: Technical Training Center, Sheppard AFB, TX.

Length: 11-13 weeks (338-428 hours).

Exhibit Dates: 9/69-12/73.

Objectives: To train enlisted personnel in food service administration.

Instruction: Lectures and practical exercises in medical food service administration; basic and applied clinical nutrition; diet modifications and revisions, introduction to cooking standard recipes, food production, and services; and food ordering and purchasing.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in food service, hotel-motel management, or diet therapy, 3 in nutrition nursing (2/74).

AF-0709-0003

PHARMACY TECHNICIAN

Course Number: *Version 1:* 3AAR90570-1. *Version 2:* AAR90570.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX. *Version 2:* Medical Service School, Gunter AFB, AL.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 16 weeks (584-594 hours).

Exhibit Dates: *Version 1:* 2/72-12/73. *Version 2:* 7/63-1/72.

Objectives: To train airmen in the compounding, dispensing, and manufacturing of pharmaceutical preparations.

Instruction: Lectures and practical exercises in pharmacy management and administration, pharmaceutical calculations and chemistry, pharmacological principles, and pharmaceutical dispensing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in pharmacology nursing, 10 in pharmacy, additional credit on the basis of institutional evaluation (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in pharmaceutical chemistry, 2 in pharmacy laboratory, 1 in pharmaceutical mathematics (12/68).

AF-0709-0009

1. MEDICAL MATERIEL SPECIALIST
2. MEDICAL MATERIEL SPECIALIST (Apprentice Medical Materiel Specialist)

Course Number: *Version 1:* 3ABR91530. *Version 2:* ABR91530-1; ABR90631; AB90631.

Location: *Version 1:* Technical Training Center, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX; *Version 2:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 10 weeks (305-308 hours). *Version 2:* 6-10 weeks (180-390 hours).

Exhibit Dates: *Version 1:* 2/71-12/73. *Version 2:* 5/54-1/71.

Objectives: To train airmen in the procedures and methodology of accounting, requisitioning, document control, stock control, equipment management, and related procedures of a medical supply account.

Instruction: *All Versions:* Organization of medical materiel; procurement procedures; inventory control; equipment management and maintenance. *Version 1:* This version includes data processing. *Version 2:* Data processing and maintenance of office machines are included.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 10 semester hours in hospital administration, 2 in first aid (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-0709-0010

OPERATING ROOM SPECIALIST

Course Number: *Version 1:* ABR90232-1; ABR90232. *Version 2:* ABR90232.

Location: *Version 1:* Medical Service School, Sheppard AFB, TX; *Version 1:* Medical Service School, Gunter AFB, AL. *Version 2:* 3275th Technical School, Lackland AFB, TX.

Length: *Version 1:* 10-11 weeks (300-415 hours). *Version 2:* 12 weeks (436 hours).

Exhibit Dates: *Version 1:* 6/62-3/70. *Version 2:* 1/59-5/62.

Objectives: To train airmen to function in surgery as operating room technicians.

Instruction: Lectures and practical exercises in aseptic techniques; cleaning and preparation of packs and supplies; sterilization, care, and use of instruments; care and use of equipment; operative procedures; and care of the patient.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in anatomy, physiology, and hygiene (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (12/68).

AF-0709-0011

AEROMEDICAL EVACUATION TECHNICIAN

Course Number: 5AZY902X0.

Location: School of Aerospace Medicine, Brooks AFB, TX.

Length: 5-6 weeks (171-196 hours).

Exhibit Dates: 7/70-1/89.

Objectives: To provide airmen with skills and knowledge necessary to function as members of an aerospace evacuation team.

Instruction: Lectures and practical exercises covering physiological education, aerospace nursing, preventive medicine, flying safety, and administration and training in survival.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in health science and 1 in administration/management (2/78).

AF-0709-0012

Aeromedical Technician

Course Number: AA90170.

Location: School of Aerospace Medicine, Brooks AFB, TX. School of Aviation Medicine, Gunter AFB, AL.

Length: 11 weeks (429 hours).

Exhibit Dates: 5/55–4/68.

Objectives: To train aeromedical specialists or aeromedical evacuation specialists to assume supervisory duties in a flight surgeon's office or to perform air evacuation duties.

Instruction: Lectures and practical exercises in aeronautical sciences, aviation medicine, clinical dentistry, medicine and surgery, preventive medicine, nursing, and medical administration.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in first aid and hygiene (12/68).

AF-0709-0014

1. Pharmacy Specialist
2. Pharmacy Specialist
3. Pharmacy Specialist
4. Pharmacy Specialist
   (Apprentice Pharmacy Specialist)

Course Number: *Version 1:* 3ABR90530. *Version 2:* 3ABR90530. *Version 3:* ABR90530-1. *Version 4:* ABR90530; AB90530.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX. *Version 3:* Medical Service School, Sheppard AFB, TX. *Version 4:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 15 weeks (488 hours). *Version 3:* 12 weeks (360 hours). *Version 4:* 14–18 weeks (571–702 hours).

Exhibit Dates: *Version 1:* 7/73–12/73. *Version 2:* 1/71–6/73. *Version 3:* 7/67–12/70. *Version 4:* 8/55–6/67.

Objectives: To provide students with specialized training in the dispensing, compounding, and proper use of drugs.

Instruction: Lectures on anatomy and physiology; basic pharmacology mathematics; inorganic and organic chemistry; effects of drugs on human systems; practical exercises in the compounding and dispensing of drugs; and pharmacy maintenance and operation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 15 semester hours in pharmacy, 3 in physiology and anatomy, 3 in nursing pharmacology, and additional credit in pharmacy on the basis of institutional evaluation (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene, 2 in pharmaceutical mathematics, 2 in pharmaceutical chemistry, 3 in pharmacology (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in pharmaceutical mathematics, 2 in pharmaceutical chemistry, 1 in pharmacology (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in pharmaceutical mathematics, 2 in pharmaceutical chemistry, 1 in pharmacology (12/68).

AF-0709-0015

1. Medical Service Specialist
2. Medical Service Specialist
3. Apprentice Medical Service Specialist

Course Number: *Version 1:* 3ABR90230. *Version 2:* ABR90230. *Version 3:* AB90230.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX. *Version 2:* Medical Service School, Gunter AFB, AL; *Version 2:* Medical Service School, Sheppard AFB, TX. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 10–13 weeks (308–398 hours). *Version 2:* 9–10 weeks (351–360 hours). *Version 3:* 11–13 weeks (429–507 hours).

Exhibit Dates: *Version 1:* 6/69–12/73. *Version 2:* 5/62–5/69. *Version 3:* 3/54–4/62.

Objectives: To train airmen as professional assistants in medical and clinical patient care and treatment.

Instruction: First aid and disaster treatment; nursing fundamentals; medical and surgical nursing; obstetrical and pediatric nursing; outpatient and emergency services.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in nursing on the basis of institutional evaluation (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in physiology and hygiene (12/68).

AF-0709-0016

1. Physiological Training Specialist
2. Physiological Training Specialist
3. Physiological Training Specialist
   (Apprentice Physiological Training Specialist)

Course Number: *All Versions:* ABY91130. *Version 1:* 5ABY91130. *Version 2:* 5ABY91130. *Version 3:* ABR90132; AB90130.

Location: School of Aerospace Medicine, Brooks AFB, TX. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 5 weeks (157 hours). *Version 2:* 5–6 weeks (196–236 hours). *Version 3:* 6–7 weeks (214–236 hours).

Exhibit Dates: *Version 1:* 5/75–1/89. *Version 2:* 11/68–4/75. *Version 3:* 7/54–10/68.

Objectives: To train qualified airmen to assist supervisors in the operation of a physiological training unit.

Instruction: Lectures and practical experience in operation of physiological training devices; inside observation during low pressure chamber flights; conduct of lectures, discussions, and demonstrations for flying personnel; and preparation and maintenance of records.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in administration, 2 in environmental physiology, 4 in operating special instruments (2/78). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in aviation physiology (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in aviation physiology (12/68)

AF-0709-0017

Physiological Training Officer

Course Number: *All Versions:* OBY9161. *Version 1:* 5OBY9161.

Location: *Version 1:* School of Aerospace Medicine, Brooks AFB, TX. *Version 2:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 6–7 weeks (235–315 hours). *Version 2:* 7 weeks (258–312 hours).

Exhibit Dates: *Version 1:* 7/68–10/78. *Version 2:* 9/54–6/68.

Objectives: To develop the skills and knowledge to assist supervisory physiological training personnel in operating a physiological training unit.

Instruction: *Version 1:* Lectures and practical experiences in altitude physiology, operation of training devices and instruments, instructional techniques, protective equipment and unit management. *Version 2:* Lectures in physics of the atmosphere and gases; general anatomy and medical terminology; the nervous system and special senses; respiration and circulation; biodynamics; hyperbaric physiology; additional lectures and practical exercises in clinical medicine; aircraft escape, accident prevention and investigation; and oxygen equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in operation of special instrumentation (2/78); in the upper-division baccalaureate category, 1 semester hour in administration/management, 2 in cardiopulmonary anatomy and physiology, and 1 in physiology of special senses (2/78). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in aviation physiology (2/74).

AF-0709-0018

Medical Aspects of Food Handling

Course Number: 3AZR90870-2.

Location: School of Aerospace Medicine, Brooks AFB, TX; School of Health Care Sciences, Sheppard AFB, TX.

Length: 2 weeks (60–64 hours).

Exhibit Dates: 9/72–1/89.

Objectives: To train enlisted personnel in food handling and food service sanitation.

Instruction: Lectures and practical exercises in food microbiology, preservation, and facility sanitation; environmental hygiene; and pathology of food-borne diseases.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food sanitation (2/78).

AF-0709-0019

Electroencephalographic Specialist

Course Number: AZR90237.

Location: Air Training Command, Lackland AFB, TX.

Length: 9 weeks (270 hours).

Exhibit Dates: 7/59–12/68.

Objectives: To provide airmen with the skills and knowledge required to perform as electroencephalographic specialists.

Instruction: Lectures on the principles of neurological anatomy, physiology, pathology, neuropsychiatric diseases and disorders, management of electroencephalographic equipment, and laboratory procedures; and clinical practice in all electroencephalographic duties.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in neurological anatomy, physiology, and pathology, additional credit in clinical practice for EEG specialist on the basis of institutional evaluation (2/74).

AF-0709-0021

Orthopaedic Appliance Specialist

Course Number: ABY91332.

Location: Wilford Hall Hospital, Lackland AFB, TX.

Length: 50 weeks (1960 hours).

Exhibit Dates: 3/67–12/73.

Objectives: To train airmen as orthopedic appliance specialists.

Instruction: Lectures and practical exercises in the duties of orthopedic appliance specialists, including anatomy and physiology, arch supports, back braces, introduction to materials, application of plaster of Paris, lower and upper extremity appliances, leather technique, miscellaneous appliances, shop equipment, shoe modification, and patient relationships.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, and credit in industrial arts on the basis of institutional evaluation (7/74).

AF-0709-0022

Physiological Training Supervisor

Course Number: 5AAY91170; AAY91170; AA90172.

Location: School of Aerospace Medicine, Brooks AFB, TX; School of Aviation Medicine, Gunter AFB, AL.

Length: 4-6 weeks (141-234 hours).

Exhibit Dates: 9/56-12/75.

Objectives: To train enlisted personnel to supervise physiological training.

Instruction: Lectures and practical exercises in the supervision of physiological training. Course includes a review of basic physiological principles; extensive indoctrination in the more advanced practices and procedures of aviation physiology; and new equipment used in coordinating the physiological training program.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aviation physiology (12/68).

AF-0709-0023

Medical Service Technician

Course Number: *Version 1:* 3AZR90270-1. *Version 2:* AAR90270. *Version 3:* AA90270.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX. *Version 2:* Medical Service School, Gunter AFB, AL. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 13 weeks (390 hours). *Version 2:* 17 weeks (600-680 hours). *Version 3:* 19 weeks (741 hours).

Exhibit Dates: *Version 1:* 4/69-12/73. *Version 2:* 1/63-3/69. *Version 3:* 8/55-12/62.

Objectives: To train enlisted personnel to supervise medical treatment facilities.

Instruction: *All Versions:* Lectures and practical exercises in preventive medicine, medical administration, nursing principles, and psychiatric nursing. *Version 1:* Instruction includes personal, family, and community health; and care of mothers and newborn babies. *Version 2:* Instruction includes anatomy and physiology, medicine and surgery, disaster medicine, and surgical nursing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in medical nursing, 6 in surgical nursing, 3 in maternal child care, 3 in community public health (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in elementary anatomy, 2 in elementary physiology, 1 in preventive medicine (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in elementary anatomy, 2 in elementary physiology, 1 in preventive medicine (12/68).

AF-0709-0024

1. Aeromedical Specialist
2. Aeromedical Specialist
3. Aeromedical Specialist
   (Apprentice Aeromedical Specialist)
4. Apprentice Aeromedical Specialist

Course Number: *Version 1:* 5ABY90130. *Version 2:* 5ABY90130; ABY90130. *Version 3:* ABY90130; AB90130. *Version 4:* AB90130.

Location: *Version 1:* School of Aerospace Medicine, Brooks AFB, TX. *Version 2:* School of Aerospace Medicine, Brooks AFB, TX. *Version 3:* School of Aerospace Medicine, Brooks AFB, TX. *Version 4:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 7 weeks (272 hours). *Version 2:* 7-9 weeks (227-342 hours). *Version 3:* 7-9 weeks (265-351 hours). *Version 4:* 7-9 weeks (265-351 hours).

Exhibit Dates: *Version 1:* 10/77-6/80. *Version 2:* 5/68-9/77. *Version 3:* 8/54-4/68. *Version 4:* 8/54-4/68.

Objectives: To train enlisted personnel to the semi-skilled level in the aerospace medicine career specialty.

Instruction: Lectures and practical exercises in aerospace medicine, including anatomy and physiology, aerospace personnel care and treatment, aerospace physiology, military public health and occupational medicine, and disaster casualty control.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 1 in administration/management, 5 in first aid and hygiene, and 1 in audiometry (2/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in first aid and hygiene, both on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in first aid and hygiene, both on the basis of institutional evaluation (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in first aid and hygiene (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in first aid and hygiene (12/68).

AF-0709-0026

Basic Pararescueman

Course Number: 92330.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 8 weeks (408 hours).

Exhibit Dates: 9/74-1/90.

Objectives: To provide training in basic pararescue procedures.

Instruction: Training in recognition and treatment of a full range of medical emergency situations, including shock, chest injuries, occular injuries, spinal and head injuries, comas, gastric ulcers and poisons, burns, fractures, childbirth, wounds, and infections; jump training to include care and preparation of equipment, day jumps, night jump, scuba jump, and tree jump; and mountain rescue and ground operations to include mountaineering knots, rope management, rappeling, and mountain navigation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency medical technician (6/75).

AF-0709-0027

Medical Administrative Specialist by Correspondence

Course Number: 90650.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 7/83-6/90.

Objectives: To prepare the student to serve as a medical officer or unit manager.

Instruction: This correspondence course includes organization of facilities, personnel administration, written and oral communication, medical terminology, data collection and reporting to include biostatistical data collection, supply equipment,and bookkeeping control. Course is similar to those found in programs for medical office assistants.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in principles of medical office management. Course concludes with a proctored end of course examination (9/84).

AF-0709-0028

Apprentice Medical Administrative Specialist by Correspondence

Course Number: 90630.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 4/77-3/87.

Objectives: To teach enlisted personnel to serve as medical administrators.

Instruction: This correspondence course includes administration organization and controls, covering interpersonal relations, telecommunications, official mail, eligibility and appointments for medical care; also covers introduction to medical records to include movement of inpatient records between facilities, inpatient treatment forms, coding inpatient treatment forms; admission procedures, notification procedures, line of duty, third-party liability, and injury reporting for outpatients; also covers introduction to typing and unit clerk functions in bookkeeping including medical resource management and first aid.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to medical administration. Course concludes with a proctored examination (9/84).

AF-0709-0029

Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence

Course Number: 90411.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/85-6/89.

Learning Outcomes: Upon completion of the course the student will understand the theory and basic fundamentals of clinical chemistry and urinalysis.

Instruction: A monitored home study course including reading and written exercises and proctored written examinations. Topics include the theoretical concepts of the review of basic chemistry, and introduction to clinical chemistry and urinalysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours for clinical chemistry and 3 for urinalysis (5/88).

AF-0709-0030

Medical Laboratory Technician (Microbiology) by Correspondence

Course Number: 90412.

Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/82-Present.
Learning Outcomes: Upon completion of the course the student will understand the theory and basic fundamentals of microbiology and parasitology.
Instruction: A monitored home study course including reading and written exercises and written proctored examination. Topics include the theoretical concepts of basic and clinical microbiology, parasitology, and clinical mycology.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in microbiology (lecture course without lab) (5/88).

AF-0709-0031

Medical Laboratory Technician
(Hematology, Serology, Blood Banking and Immunohematology) by Correspondence

Course Number: 90413.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/77-Present.
Learning Outcomes: Upon completion of the course the student will understand the theory and basic fundamentals of hematology, serology, blood banking and immunohematology.
Instruction: A monitored home study course including reading and written exercises and proctored written examination. Introduction to the theoretical concepts of the Complete Blood Count (CBC), blood coagulation studies, serological studies, blood grouping, typing and transfusion practices, agglutination, latex-fixation, precipitin and ASO tests.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours for hematology, 2 for serology, 2 for blood banking, and 2 for immunohematology (5/88).

AF-0709-0032

Aerospace Physiology Specialist by Correspondence

Course Number: 91150.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/82-Present.
Learning Outcomes: Upon completion of the course, the student will understand the theory and basic fundamentals of aerospace physiology consisting of duties, supervision and training, first aid procedures, medical terminology and cardio-pulmonary physiology related to altitude problems.
Instruction: A monitored home study course including reading and written exercises, and proctored written examinations. Topics include introduction to the theoretical concepts of aerospace physiology, fundamentals of first aid, utilization of life support, equipment and hyperboric chamber operation, maintenance and inspection and overview of cardio-pulmonary physiology as it relates to aerospace applications.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid (5/88).

AF-0799-0001

Global Medicine

Course Number: 5OZY9336.
Location: School of Aerospace Medicine, Brooks AFB, TX.
Length: 2 weeks (78 hours).
Exhibit Dates: 4/72-1/88.
Objectives: To inform medical officers of significant disease problems of importance to military operations throughout the world.
Instruction: Lectures on certain diseases (particularly those not normally familiar to American physicians) and their epidemiology; disease management, treatment, and control measures; area studies; drug abuse; combat psychiatry; arthropod and rodent control; burn treatment; surgical care for missile wounds; nutrition and population; and preventive medicine.
Credit Recommendation: In the graduate degree category, 3 semester hours in public health epidemiology (2/78).

AF-0799-0003

Pharmacy Specialist by Correspondence

Course Number: 90550.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/83-Present.
Learning Outcomes: Upon completion of the course the student will understand the basics of pharmacy guidelines, law, quality control, procurement, principles of compounding, dispensing of unit dose, and intravenous admixtures.
Instruction: Monitored home study including reading, written exercises, on-the-job supervision and proctored examination. Topics include quality control, phamaceutical calculations, chemistry and pharmacology.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in pharmacy technology (5/88).

AF-0799-0004

1. Medical Administrative Specialist
2. Medical Administrative Specialist
3. Apprentice Medical Administrative Specialist

Course Number: *Version 1:* 3ABR90630. *Version 2:* ABR90630-1; ABR90630. *Version 3:* AB90630; AB90631.
Location: *Version 1:* Sheppard Technical Training Center, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.
Length: *Version 1:* 9 weeks (308 hours). *Version 2:* 6 weeks (180-240 hours). *Version 3:* 7-9 weeks (273-351 hours).
Exhibit Dates: *Version 1:* 4/70-12/73. *Version 2:* 10/65-3/70. *Version 3:* 4/54-9/65.
Objectives: To train airmen in the fundamental duties of medical administrative specialists.
Instruction: Lectures and practical exercises in general administration; typing and formats; administrative control of patients and beds; and medical service fundamentals, including field casualty care and medical field exercises.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in office procedures (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in office procedures (2/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in office procedures (2/74).

AF-0799-0005

Basic Course in Medical Service Administration
(Basic Course in Medical Administration)

Course Number: OBR9021.
Location: Medical Service School, Gunter AFB, AL; School of Aviation Medicine, Gunter AFB, AL.
Length: 15 weeks (585-600 hours).
Exhibit Dates: 1/55-12/68.
Objectives: To train newly commissioned officers in medical services administration, including the operation of medical care facilities and the supervision of direct support activities.
Instruction: Lectures and practical exercises in management, material and food service, housekeeping, administrative assistance to specialized medical services, and patient care administration.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in medical administration (12/68).

AF-0799-0007

Compression Chamber Team Training

Course Number: 5OZY9300-7.
Location: School of Aerospace Medicine, Brooks AFB, TX.
Length: 2 weeks (76-78 hours).
Exhibit Dates: *Version 1:* 12/77-1/89. *Version 2:* 3/72-11/77.
Objectives: To train a technical team to operate and maintain compression chambers, to act as observers during chamber operation, and to participate in the treatment of patients by compression therapy.
Instruction: *All Versions:* Lectures in hyperbaric physiology and clinical medicine; practical exercises in high-pressure chambers and unit administration. *Version 1:* Includes chamber operation and maintenance.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in biological sciences, 1 in physical sciences, and 2 in operating special instrumentation (2/78). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in physical science (2/74).

AF-0801-0001

Air Force Joint Service Supervisor Safety by Correspondence

Course Number: 1900.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 1/82-Present.
Learning Outcomes: At the conclusion of the course the student will know the role of the supervisor as it relates to safety, be able to prepare the worker for the job, be able to supervise the job, know how to identify and correct hazards, know the safety considerations in the workplace environment, know the issues related to fire protection, and be able to identify off-duty safety concerns.
Instruction: Topics include the major issues and concerns related to safety on the job. Students learn to identify unsafe conditions, develop and implement safety training programs, and the specific role of the supervisor in the administration of the safety function in the workplace.
Credit Recommendation: In the vocational certificate category, 1 semester hour in safety (2/87).

AF-0801-0002

Army Joint Service Supervisor Safety by Correspondence

Course Number: 1901.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/82–Present.
Learning Outcomes: At the conclusion of this course students will know the role of the supervisor as it relates to safety, be able to prepare the worker for the job, be able to supervise the job, know how to identify and correct hazards, know the safety considerations in the workplace, know fire protection issues, and be able to identify off-duty safety concerns.
Instruction: This course covers the major issues and concerns related to safety on the job. Students learn to identify unsafe conditions, develop and implement safety training programs, and the specific role of the supervisor in the administration of the safety function in the workplace.
Credit Recommendation: In the vocational certificate category, 1 semester hour in safety (2/87).

AF-0801-0003

Navy Joint Service Supervisor Safety by Correspondence

Course Number: 1902.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/82–Present.
Learning Outcomes: At the conclusion of the course the students will know the role of the supervisor as it relates to safety, be able to prepare the worker for the job, be able to supervise the job, know how to identify and correct hazards, know the safety considerations in the work place, know fire protection issues, and be able to identify off-duty safety concerns.
Instruction: This course covers the major issues and concerns related to safety on the job. Students learn to identify unsafe conditions, develop and implement safety training programs, and the specific role of the supervisor in the administration of the safety function in the workplace.
Credit Recommendation: In the vocational certificate category, 1 semester hour in safety (2/87).

AF-0801-0004

Coast Guard Joint Service Supervisor Safety by Correspondence

Course Number: 1903.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/82–Present.
Learning Outcomes: At the conclusion of this course students will know the role of the supevisor as it relates to safety, be able to prepare the worker for the job, be able to supervise the job, know how to identify and correct hazards, know the safety considerations in the workplace, know fire protection issues, and be able to identify off-duty safety concerns.
Instruction: This course covers the major issues and conerns related to safety on the job. Students learn to identify unsafe conditions, develop and implement safety training programs, and the specific role of the supervisor in the administration of the safety function in the workplace.
Credit Recommendation: In the vocational certificate category, 1 semester hour in safety (2/87).

AF-0801-0005

Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence

Course Number: 02170.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/86–Present.
Learning Outcomes: At the conclusion of this course, the student will know the general responsibilities of commanding officers at all levels with regards to the safety function, know the criteria for the administration of safety programs, know the principles and philosophy of accident prevention, know the duties of the safety officer, and know the various safety awards in the Civil Air Patrol.
Instruction: This course covers the general safety responsibilities of the various levels of commanding officers, establishing a safety program, the practice and philosophy of accident prevention, specific accident procedures and safety awards.
Credit Recommendation: In the vocational certificate category, 1 semester hour in safety management (2/87).

AF-0802-0001

1. Disaster Preparedness Specialist (Remote Duty)
   (Disaster Preparedness Specialist (Additional Duty))
   (Disaster Control Specialist)
2. Disaster Control Specialist
   (Disaster Preparedness Specialist)
3. Disaster Control Instructor
4. Disaster Control Instructor

Course Number: *Version 1:* 3AZR24230. *Version 2:* AZR24230. *Version 3:* AZR46150. *Version 4:* AZR46150; SS46150-11.
Location: 3415th Technical School, Lowry AFB, CO.
Length: *Version 1:* 4–5 weeks (120–150 hours). *Version 2:* 8 weeks (240 hours). *Version 3:* 15 weeks (450 hours). *Version 4:* 6 weeks (180 hours).
Exhibit Dates: *Version 1:* 7/68–12/73. *Version 2:* 12/66–6/68. *Version 3:* 7/60–11/66. *Version 4:* 3/58–6/60.
Objectives: To train enlisted personnel to be disaster preparedness specialists and disaster control instructors.
Instruction: *All Versions:* Lectures and practical exercises in disaster preparedness and control operations, individual and collective protection, decontamination and monitoring procedures, and weapons effects. *Version 2:* Instruction includes radiological safety practices and procedures. *Version 3:* Instruction includes casualty and damage prevention, with emphasis on instructor training fundamentals and application. *Version 4:* Instruction includes a brief introduction to biological, chemical, and radiological defense, and instructor training in these areas.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in occupational health and safety on the basis of institutional evaluation (5/74). *Version 2:* In the upper-division baccalaureate category, credit in protective service on the basis of institutional evaluation (12/68). *Version 3:* In the upper-division baccalaureate category, credit in instructional methods, speech, and protective service on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, credit in instructional methods and protective service on the basis of institutional evaluation (12/68).

AF-0802-0002

1. Disaster Preparedness Specialist
2. Disaster Control Specialist
   (Disaster Preparedness Specialist)
3. Disaster Control Specialist

Course Number: *Version 1:* 3ALR24230. *Version 2:* 3ALR24230; ALR24230. *Version 3:* ALR24230.
Location: 3415th Technical School, Lowry AFB, CO.
Length: *Version 1:* 6 weeks (192–198 hours). *Version 2:* 10 weeks (300 hours). *Version 3:* 17 weeks (510 hours).
Exhibit Dates: *Version 1:* 10/70–12/73. *Version 2:* 12/66–9/70. *Version 3:* 1/63–11/66.
Objectives: To train enlisted personnel in aspects of disaster preparedness and control.
Instruction: *All Versions:* Lectures and practical exercises in disaster preparedness, effects of nuclear and nonnuclear weapons and dangerous materials, decontamination and monitoring, and individual and collective protection. *Version 2:* Includes instruction in the conducting of formal classes in disaster preparedness or control, and in the development of training aids for these classes. *Version 3:* Includes instruction in the conducting of formal classes in disaster preparedness or control, and in the development of training aids for these classes.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in occupational health and safety on the basis of institutional evaluation (5/74). *Version 2:* In the upper-division baccalaureate category, credit in instructional methods and protective service on the basis of institutional evaluation (12/68). *Version 3:* In the upper-division baccalaureate category, credit in institutional methods, speech, and protective service on the basis of institutional evaluation (12/68).

AF-0802-0004

Passive Defense Instructor

Course Number: XX46132; AL46172.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 6–7 weeks (180–210 hours).
Exhibit Dates: 4/55–12/68.
Objectives: To train airmen in defense measures against possible chemical, biological, and radiological warfare.
Instruction: Lectures and practical exercises in defense measures against possible chemical, biological, and radiological warfare, including detection and classification of chemical agents, first aid, outline of basic nuclear physics, radioactive emissions, radiation effects, dosage, monitoring, and biological defense.
Credit Recommendation: In the upper-division baccalaureate category, credit in instructional methods and protective service occupations on the basis of institutional evaluation (12/68).

AF-0802-0007

Missile Safety Technician

Course Number: ATS24170-2.
Location: 3345th Technical School, Chanute AFB, IL.
Length: 15 weeks (450 hours).
Exhibit Dates: 6/62–12/68.

Objectives: To train enlisted personnel to perform missile safety surveillance duties at ballistic missile sites.

Instruction: Lectures and practical exercises in missile safety surveillance at ballistic missile sites, including basic mathematics, physics, fluid mechanics, electricity, chemistry, construction practices applicable to construction and operation of missile facilities, propulsion systems principles, industrial safety, industrial hygiene and human factors, and safety management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial safety management (12/68).

AF-0802-0008

Ballistic Missile Safety

Course Number: AZR24130B.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/63-12/68.

Objectives: To train enlisted personnel as ballistic missile safety surveillance technicians.

Instruction: Lectures and practical exercises in ballistic missile safety surveillance. Topics include missile terminology, missile structures, constructional features, safety associated with missile maintenance and aerospace ground equipment, monitoring of hazardous missile operations, and nuclear safety familiarization.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in safety management (6/74).

AF-0802-0009

Air Launched Missile Safety Officer

Course Number: 3OZR1945; OZR1945.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3 weeks (78-90 hours).

Exhibit Dates: 6/66-9/68.

Objectives: To train officers as air launch missile safety officers.

Instruction: Lectures and practical exercises in missile safety, including fundamentals; environmental, explosives, and nuclear safety; aircraft and missile loading hazards; aircraft and missile accident investigation, surveys and survey guides and board proceedings; and safety applications.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in safety education (12/68).

AF-0802-0011

Air Launched Missile Safety Technician

Course Number: AAR24170-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 1-3 weeks (90 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train enlisted personnel to be air launch missile safety technicians.

Instruction: Lectures and practical exercises in missile safety, including human engineering, first aid, missile explosive hazards, aircraft loading hazards, safety management and supervision, physiology, missile fundamentals, environmental safety, and aircraft and missile accident prevention.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in safety management (12/68).

AF-0802-0016

General Safety Specialist
(Ground Safety Specialist)

Course Number: ALR24130; ALR24130A.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8-10 weeks (258-300 hours).

Exhibit Dates: 12/62-4/68.

Objectives: To train Air Force personnel to conduct installation safety programs.

Instruction: Course covers safety education, communication, and human factors; high pressure and explosive safety; industrial hygiene and safety; traffic and off-duty safety; and accident investigation and reporting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in industrial safety (12/68).

AF-0802-0018

Survival Instructor Training

Course Number: S-V81-A; 140001.

Location: Air Training Command, Fairchild AFB, WA; Air Training Command, Stead AFB, NV.

Length: 21-24 weeks (613-628 hours).

Exhibit Dates: 6/65-1/90.

Objectives: To qualify selected airmen as instructors in the techniques and procedures of global survival and as rescue and survival specialists.

Instruction: Lectures and practical exercises in the principles and techniques of survival; anatomy, physiology, first aid; global geography; evasion, resistance, and escape; and survival teaching methods.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in instructional methods, 3 in survival techniques including woodcraft and camp training, winter survival, and recreation (7/74).

AF-0802-0025

Munitions and Weapons Maintenance by Correspondence

Course Number: 46150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/65-4/86.

Objectives: To train personnel in munition and weapons systems maintenance.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home study. Instruction includes an overview of the AF internals managements system and the identification and use of hand tools and test equipment. The primary direction of this course is toward military ordnance handling, maintenance and arming.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/86).

AF-0802-0026

Disaster Preparedness Specialist by Correspondence

Course Number: 24250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/81-Present.

Objectives: To train disaster/safety personnel in procedures for response to chemical, biological and nuclear warfare situations.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at home study. The course of instruction includes topics in disaster preparedness as military career field, methods of managing and planning for disaster situations, use of equipment specific to disaster created by nuclear, biological and chemical warfare situations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/86).

AF-0802-0027

Nuclear Weapons Specialist by Correspondence

Course Number: 46350.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/68-3/85.

Objectives: To train personnel in the handling and maintenance of nuclear weapons systems.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home study. The course includes an overview of internal maintenance management systems and use of AF technical manuals. A study of hand tools, impact tools, micrometers, feeler gauges and tap and dies is included. The remainder of the course is directed toward the specific maintenance of nuclear bombs, missiles and rockets, and nuclear reentry systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in general shop (9/86).

AF-0802-0028

Disaster Preparedness Technician by Correspondence

Course Number: 24270.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/84-8/88.

Objectives: To provide upgrade training in the field of disaster preparedness plans, checklists, and inspection of personnel and equipment.

Instruction: This correspondence course consists of on-the-job supervision and at-home studies. Subject matter consists of disaster preparedness organization, preparedness operations site and personnel inspections.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/86).

AF-0802-0029

Safety Specialist by Correspondence

Course Number: 24150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 8/88-Present. *Version 2:* 7/81-7/88.

Objectives: To provide upgrade training for entry level safety specialists consistant with the provisions of the Occupational Safety and Health Act of 1970.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. The home study provides the basic knowledge of safety regulations and the on-the-job supervision provides training to reinforce and apply the home studies. The course contains safety program, elements, traffic safety, OSDA provisions and comparable Air Force occupations safety and health program requirements. Included in the instruction are electrical, chemical, pressure system and construction safety, explosive, missile and nuclear safety, and mishap investigation, reporting and analysis.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory industrial safety (9/86).

AF-0802-0030

Explosive Development by Correspondence

Course Number: 46450.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/72–1/83.

Objectives: To provide upgrade in munitions maintenance training to personnel assigned to munitions maintenance.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home study. Instruction includes an introduction to explosive ordnance disposal, a study of the elements of electricity including circuits both series and parallel, application of ohms law and use of ohmmeter. The remainder of the course is specific to the programmed maintenance of conventional, nuclear and chemical ordnance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in the fundamentals of electricity (9/86).

AF-0803-0003

Survival Training
(Survival Training (SEA))
(Advanced Survival Training)
(USAF Combat Survival Training)

Course Number: S-V80-A; S-V85-A; 140000.

Location: Air Training Command, Fairchild AFB, WA; Air Training Command, Stead AFB, NV.

Length: 2–4 weeks (94–216 hours).

Exhibit Dates: 2/55–1/90.

Objectives: To prepare selected flying personnel in the principles, procedures, and equipment necessary to survive in any climate.

Instruction: Lectures and practical exercises in survival principles and procedures; recovery and evasion; code of conduct; survival factors; psychological aspects of survival; special problems; medicine and hygiene; parachuting principles and practice; maps; and food procurement.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camp training and survival techniques (10/77).

AF-0902-0001

Executive Hospital Housekeeper

Course Number: 3AZR90670.

Location: Medical Service School, Sheppard AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/68–12/73.

Objectives: To train enlisted personnel in the supervision of housekeeping personnel in medical treatment facilities.

Instruction: Lectures in organization and management of housekeeping services, maintenance, sanitation, and safety.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial hygiene (12/68).

AF-1113-0001

Ground C-E-M Maintenance Analysis Technician

Course Number: ALR30950.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/67–12/73.

Objectives: To train maintenance personnel as ground C-E-M maintenance analysis technicians.

Instruction: Lectures and practical exercises in ground C-E-M maintenance analysis, including analysis, interpretation, and summary of data from data collection systems, monitoring and direction of analysis activities, identification of areas for development; charts, tables, graphs, and related visual media for presentation of analysis results, summary preparation, presentation of results, determination of effectiveness and efficiency, and analysis of status and configuration management system reports.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in statistical analysis (12/68).

AF-1115-0001

1. Maintenance Analysis Specialist
2. Maintenance Analysis Specialist (Aircraft and Missile Maintenance Analysis Specialist)

Course Number: *Version 1:* 3ABR39130. *Version 2:* 3ABR43430; ABR43430; ALR43430.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 11 weeks (330 hours). *Version 2:* 7–13 weeks (228–360 hours).

Exhibit Dates: *Version 1:* 7/70–12/73. *Version 2:* 2/61–6/70.

Objectives: To train enlisted personnel in basic statistical analysis and its application to aerospace weapons systems and motor transportation.

Instruction: Lectures and practical demonstrations in basic statistical analysis and maintenance analysis, including frequency distribution, dispersion, points and curves, control charts, maintenance documentation, data systems, management concepts, graphic presentations, and data processing for maintenance reporting.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in introductory statistics (2/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in statistical analysis (12/68).

AF-1115-0002

Reliability

Course Number: 435.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (96 hours).

Exhibit Dates: 1/69–6/74.

Objectives: To provide officers and civilian personnel with an understanding of the theory of reliability, and the skills to employ the techniques of reliability in solving problems and carrying out reliability programs.

Instruction: Lectures and practical exercises in the study of statistical distributions; reliability allocation and distribution techniques; test plans, O.C. curves, and the use of Mil Standards; data analysis; construction and interpretation of confidence intervals; applications of mathematical models; and reliability program management.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in quality control or applied statistics (2/74).

AF-1115-0003

Reliability Maintainability

Course Number: 3OZR2895G.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/68–12/73.

Objectives: To train enlisted personnel in developing, monitoring, and contracting reliability and maintainability of systems and subsystems from drawing board to operation.

Instruction: Lectures in basic statistics, probability functions, nonparametric estimation, mathematical estimation of parameters, stress/strength analysis, and reliability maintainability management.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in applied statistics (2/74).

AF-1115-0004

1. Advanced Quantitative Methods in Cost Analysis
2. Advanced Quantitative Methods in Cost Analysis
3. Quantitative Methods in Cost Analysis

Course Number: 189.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: *Version 1:* 4 weeks (111 hours). *Version 2:* 4 weeks (105 hours). *Version 3:* 9 weeks (200 hours).

Exhibit Dates: *Version 1:* 4/73–6/74. *Version 2:* 1/72–3/73. *Version 3:* 1/69–12/71.

Objectives: Advanced training in nonlinear and multivariate regression analysis for officers and civilian personnel having six semester hours in college-level algebra and statistics and some experience in cost analysis.

Instruction: Lectures in advanced nonlinear and multivariate regression analysis, including quadratic equations, logarithms, matrix inversions, linear and curvilinear regression, and net scatter diagrams.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in advanced quantitative methods (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced quantitative methods (2/74); in the upper-division baccalaureate category, 3 semester hours in business statistics or economic statistics, and credit in mathematics on the basis of institutional evaluation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced quantitative methods (2/74); in the upper-division baccalaureate category, 3 semester hours in business statistics or economic statistics (12/68).

AF-1115-0005

Basic Quantitative Methods in Cost Analysis

Course Number: 188.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/72–6/74.

Objectives: To provide officers with a basic understanding of the quantitative tools and techniques employed in cost estimating and analysis.

Instruction: Lectures and applications in algebraic operations, elementary statistical methods, probability, curve and sample theory, interval estimates, linear equations and regression, and variance analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic statistics (2/74); in the upper-division baccalaureate category, credit in basic statistics on the basis of institutional evaluation (12/68).

AF-1115-0006

DATA SERVICES SPECIALIST
(Statistical Specialist)

Course Number: ABR68130; AB68130.

Location: 3750th Technical School, Sheppard AFB, TX; 3415th Technical School, Lowry AFB, CO.

Length: 9-13 weeks (240-360 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train personnel in the functions and techniques of data services.

Instruction: Lectures and practical exercises in administrative procedures, Air Force reports management systems, functional area concepts and reports, punched card accounting machines and data processing familiarization, and data services case problems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in statistical methods (12/68).

AF-1115-0007

MANAGEMENT ENGINEERING OFFICER

Course Number: *Version 1:* 3OBR7461. *Version 2:* OBR7431.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 10 weeks (300 hours).

Exhibit Dates: *Version 1:* 5/68-12/73. *Version 2:* 4/64-4/68.

Objectives: To train officers as management engineering officers.

Instruction: Lectures and practical exercises in the development and application of manning standards. Course includes methods, techniques, and procedures used in attaining objectives of the management engineering program; operations analysis, linear programming, engineering theory, performance rating, time study, work sampling, operational audit, and allowance computation; linear, multiple linear, and curvilinear correlation and regression analysis; and manpower allocation systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in statistics, 3 in quantitative methods (8/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in statistics, 3 in business organization and management (12/68).

AF-1115-0008

POWER MEASUREMENTS BY CORRESPONDENCE

Course Number: 3037.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks

Exhibit Dates: 6/88-Present.

Learning Outcomes: Upon completion of the course, the student willunderstand the unique mathematical concepts used in electronic power level measurement: namely the logarithm and the manipulation of powers of ten. Other competencies include the use units of measurement and the specialized test equipment appropriate to determine signal power relationships and noise at any test point.

Instruction: A review of basic mathematics including logarithms and the use of the powers of ten. Decibel and noise weighting network characteristics and computations are covered. Principles and use of measuring devices appropriate for freqencies from the low range to the microwave range are presented.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in applied physics, electronic measurement (12/89).

AF-1303-0001

SPACE SYSTEMS ANALYST

Course Number: 3OBR2021.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 7-8 weeks (216-246 hours).

Exhibit Dates: 5/68-12/73.

Objectives: To provide commissioned officers with training in satellite motion, orbital analysis, data acquisition, and basic tracking concepts.

Instruction: Lectures and practical exercises in the analysis of satellite motion and orbits, and in data acquisition and basic tracking concepts. Course includes radar theory and analysis of satellite motion and orbital determination and upper-level college mathematics through numerical analysis and differential equations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in applied physics, 2 in mathematical analysis (6/74).

AF-1304-0001

WEATHER OBSERVER

Course Number: 3ABR25231; AB25231; AB25230.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 15-22 weeks (426-570 hours).

Exhibit Dates: 4/55-12/73.

Objectives: To train airmen to perform as weather observers.

Instruction: Lectures and practical exercises in weather observation, including introduction to meteorology; observing, recording, and encoding weather elements; plotting weather maps, charts, and diagrams; care and operation of weather instruments; electronic weather equipment; weather radar; data evaluation; noninstrumental observation; and operation of standard weather communications equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in meteorology (12/68).

AF-1304-0002

WEATHER FORECASTER
(Weather Technician)
(Weather Forecaster Technician)

Course Number: 3ALR25330; ALR25330; AL25330.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 32-44 weeks (960-1320 hours).

Exhibit Dates: 3/56-12/73.

Objectives: To train weather observers and airborne weather operators in meteorological theory and forecasting procedures.

Instruction: Lectures and practical exercises in meteorological theory and forecasting procedures, including climatology, mathematics and physics, weather data analysis, synoptic meteorology, operational weather, advanced weather analysis, and weather equipment and facilities.

Credit Recommendation: In the upper-division baccalaureate category, 17 semester hours in meteorology (12/68).

AF-1304-0003

GROUND WEATHER OBSERVING PROCEDURES

Course Number: XX25251-1A.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 2/58-12/68.

Objectives: To train personnel in observing, recording, and encoding weather phenomena and in plotting weather maps and charts.

Instruction: Lectures and practical exercises in ground weather observation procedures, including surface weather observations; observing, recording, and encoding cloud forms, states of the sky, and obscuring phenomena; observing, recording, and encoding visibility, present weather, and obstructions to vision; determination of temperature, humidity, and pressure data; surface observation equipment; and plotting weather maps and charts, constant pressure, winds aloft, and thermodynamic diagrams.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in meteorology (12/68).

AF-1304-0005

RAWINSONDE OPERATION

Course Number: 3AZR25251-1; AZR25251-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/60-12/73.

Objectives: To train weather observers in rawinsonde operation and observations.

Instruction: Lectures and practical exercises in rawinsonde operation and observations, including rawinsonde equipment, recorder and record evaluation, radiosonde charts and codes, winds-aloft observations and calculations, and upper-air observation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in meteorology (12/68).

AF-1304-0008

WEATHER OBSERVER TECHNICIAN

Course Number: 3AAR25271; AA25271; AAR25271.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 16-25 weeks (480-750 hours).

Exhibit Dates: 4/58-12/73.

Objectives: To provide weather observer technicians with advanced training in weather observation.

Instruction: Lectures and practical experience in elementary mathematics, general meteorology and map analysis, operation and supervision of surface observing activities, electronic observations and equipment, office procedures, upper-air observations, management for the observer technician, communications skills, data dissemination and chart preparation, supply and maintenance forms and administrative procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in meteorology, 3 in business organization and management (12/68).

AF-1304-0009

Advanced Meteorological Applications

Course Number: 3OZR2524-4.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/72-12/73.

Objectives: To train personnel to perform as detachment forecasters.

Instruction: Lectures and practical exercises in advanced meteorological applications, including development of forecast methods, use of computer weather products, findings from environmental research projects, special forecasts for allied agencies, the latest developments in highly specialized meteorological programs, meteorological physics, air-sea interaction, environmental meteorology, and severe-weather applications.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in meteorology or general science (5/74).

AF-1304-0013

Weather Specialist by Correspondence

Course Number: 25150.

Location: Extension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84-Present.

Objectives: This is a home study course designed to instruct the weather observer in the fundamentals of general meteorology, air weather communications, the analyses of weather satellite data, upper air and surface codes, and the procedures used to make simple forecasts of synoptic conditions.

Instruction: This correspondence course covers the Air Weather Service procedures, the composition, structure, behavior, fundamental processes of the atmosphere, description of methods of weather observations, the principles and techniques of synoptic weather analysis, as well as the fundamentals of data analyses of remotely determined parameters of the atmosphere as detected by spacecraft and weather radars.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamental of meteorology, 3 in meteorological observation (9/85).

AF-1304-0014

Weather Equipment Specialist by Correspondence

Course Number: 30250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/85-Present.

Objectives: To provide instruction in principles of design and operational techniques of weather measuring equipment.

Instruction: This correspondence course covers general need for weather instrumentation, fundamentals and prevention of corrosion, design of instrumentation to measure temperature, dew point, wind, ceiling heights, fundamentals of digital techniques, numbering systems, fundamentals of Boolean algebra, transistor logic, operational amplifiers, fundamentals of FPS-77 weather radar and use of oscilloscope.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorological instrumentation, and 3 in digital techniques (11/86).

AF-1304-0015

Meterological Technician by Correspondence (Specialized)

Course Number: 2570.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a forecaster or station chief in the air weather service (AWS). This course is also applicable to commissioned officers newly entering the weather career field.

Instruction: Includes study of history and administration of the air weather service (AWS). Weather Station Management, Meteorology, climatology, weather data analysis, forecasting techniques and AWS support to the mission of the USAF.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology/climatology and 3 in administrative management (12/89).

AF-1304-0016

Weather Specialist by Correspondence

Course Number: 25150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to make and report accurate weather observations utilizing visual and radar techniques, plot weather charts and diagrams, and assist the forecaster in preparing necessary forecasts.

Instruction: Includes background and history of the air weather service, surface visual and radar observations, recording meteorologic phenomena and measurements, weather codes, communications, weather station operations, structure and movement of the atmosphere, basic meteorology, and climatology data analysis, satellite observations and basic mathematics and physics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of meteorology and 1 in general mathematics (12/89).

AF-1401-0001

1. Accounting and Finance Specialist
2. Accounting and Finance Specialist
3. Finance Specialist

Course Number: *Version 1:* ABR67130. *Version 2:* ABR67130. *Version 3:* AB67130.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 16 weeks (450 hours). *Version 2:* 27 weeks (720 hours). *Version 3:* 11 weeks (300 hours).

Exhibit Dates: *Version 1:* 6/60-12/68. *Version 2:* 3/58-5/60. *Version 3:* 7/57-2/58.

Objectives: To train airmen as accounting and finance specialists.

Instruction: *Version 1:* Discussions and practical exercises in accounting principles, general ledger controls and subsidiaries, commercial services, military pay, travel and accounts control. *Version 2:* Discussions and practical exercises in accounting principles, inventory accounting (monetary), appropriation expense and general ledger, stock funds, military and civilian pay, travel allowances, commercial accounts, and accounting for public funds. *Version 3:* Discussions and practical exercises in the computation of military pay and allowances, travel allowances, payment of commercial accounts, and accounting for public funds.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in elementary accounting, 2 in general business practice (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in elementary accounting , 3 in general business practice (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in disbursing and finance (12/68).

AF-1401-0003

Accounting Specialist

Course Number: AB67230.

Location: 3750th Technical Training Center, Sheppard AFB, TX.

Length: 15 weeks (450 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train enlisted personnel in elementary accounting procedures.

Instruction: Lectures and on-the-job training in elementary accounting procedures, inventory accounting, military accounting procedures, and stock funds and nonappropriated funds procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in elementary accounting (12/68).

AF-1401-0004

Accountant

Course Number: SS6884.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/58-12/68

Objectives: To provide officers with a basic knowledge of government accounting procedures.

Instruction: Lectures in basic government accounting procedures, including general military and civilian accounting procedures, expense accounting, inventory accounting, appropriation accounting, stock fund and nonappropriated funds accounting, and a review of commercial accounting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in government accounting (12/68).

AF-1401-0005

General Accounting Specialist

Course Number: 3ABR67131; ABR67131.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 11-12 weeks (330 hours).

Exhibit Dates: 11/62-12/73.

Objectives: To provide enlisted personnel with a working knowledge of elementary accounting.

Instruction: Lectures in the basic principles of accounting, including payment vouchers and financial reports, appropriations and funds systems, materiel and commercial services systems, and the stock fund and general ledger systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in elementary accounting (12/68).

AF-1401-0006

Disbursement Accounting Specialist

Course Number: 3ABR67133; ABR67133.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 11 weeks (300-330 hours).
Exhibit Dates: 11/62-12/73.
Objectives: To provide enlisted personnel with a basic knowledge of business finance.
Instruction: Lectures and practical exercises in business finance and accounting fundamentals, with emphasis on financial disbursement procedures involving personnel, materiel, and commercial services.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general business practice and credit in finance and accounting on the basis of institutional evaluation (12/68).

AF-1401-0007

Accounting Technician

Course Number: AA67270.
Location: 3750th Technical Training Center, Sheppard AFB, TX.
Length: 16-18 weeks (430-540 hours).
Exhibit Dates: 12/54-12/68.
Objectives: To train selected airmen in commercial and Air Force accounting systems.
Instruction: Lectures and practical exercises in managerial functions, graphic presentation, principles of accounting and the accounting cycle, merchandising, valuation of assets, stock funds, and cost-accounting processes.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cost accounting (2/74).

AF-1401-0008

Accountant

Course Number: OB6881.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 12 weeks (360 hours).
Exhibit Dates: 9/55-12/68.
Objectives: To train officers to organize, direct, and coordinate accounting activities.
Instruction: Lectures in appropriation accounting, cost accounting, consolidation accounting, operating and capital accounting, budgeting, and preparation and analysis of financial statements.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cost accounting, 3 in government accounting (12/68).

AF-1401-0009

Accounting and Finance Officer

Course Number: OBR6721.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 18-19 weeks (540-570 hours).
Exhibit Dates: 5/58-8/65.
Objectives: To train officers as accounting and finance officers.
Instruction: Lectures and practical exercises in the duties of an accounting and finance officer. Course includes accounting and finance systems, paying and collecting, commercial services and materiel, travel, civilian pay and military pay, accounting procedures and document flow, and financial accountability.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general accounting, 2 in cost accounting (12/68).

AF-1401-0010

Accounting and Finance Supervisor

Course Number: AAR67170.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 19 weeks (570 hours).
Exhibit Dates: 11/59-12/68.
Objectives: To provide finance and accounting supervisors with advanced training in accounting and finance.
Instruction: Lectures on accounting and finance activities, appropriation accounting, financial inventory accounting, expense and general ledger systems, stock funds, and civilian and military pay procedures.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cost accounting, 4 in finance and disbursing (12/68).

AF-1401-0013

Auditor

Course Number: OB6781; OB6871.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 15 weeks (450 hours).
Exhibit Dates: 12/55-12/68.
Objectives: To train officers to be auditors.
Instruction: Lectures and practical exercises in organization and management, job order and standard cost accounting, contracts, internal audit, appropriation accounting, military accounting system, functional and stock fund accounting and auditing techniques, and data processing.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in general accounting, 4 in auditing (12/68).

AF-1401-0014

Disbursing Officer

Course Number: OB6771.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 13 weeks (390 hours).
Exhibit Dates: 12/54-12/68.
Objectives: To train officers to manage financial accounts and services.
Instruction: Lectures in the management and operation of financial accounts and services, including maintenance of pay records; preparation, computation, and processing of vouchers for pay allowances (per diem and mileage); accounting for public funds; finance office administration and control of financial operations; and organization of finance functions and activities.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in disbursing and finance (12/68).

AF-1401-0015

Accounting and Finance Supervisor (Disbursement Accounting)

Course Number: AAR67170-3.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 10 weeks (300 hours).
Exhibit Dates: 8/67-12/73.
Objectives: To train personnel to supervise the disbursement functions of accounting and finance activities.
Instruction: Lectures on accounting and finance disbursement functions in areas of travel, military pay, civilian pay, and paying and collecting.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in disbursement accounting (12/68).

AF-1401-0016

Accounting and Finance Automated Materiel System
(Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II))

Course Number: 3AZR67170; AZR67170.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 3 weeks (72-90 hours).
Exhibit Dates: 10/66-12/73.
Objectives: To train enlisted personnel to perform as accounting and finance specialists at base supply installations using UNIVAC 1050 II computers.
Instruction: Lectures and practical exercises in the duties and skills necessary to perform as accountants and finance specialists or supervisors at base supply installations using UNIVAC 1050 II computers. Course includes materiel supply; materiel system and the UNIVAC 1050 II, categories and sources of inventory; local procurement; issues, turn-ons, and receipt of materiel; accounting and finance; UNIVAC 1050 II output; adjustments, system failure, and recovery; and practical applications to the materiel system.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in procurement accounting (8/74).

AF-1401-0017

Health Services Administration

Course Number: 3OBR9021-1.
Location: School of Health Care Sciences, Sheppard AFB, TX.
Length: 11 weeks (440 hours).
Exhibit Dates: 6/72-12/73.
Objectives: To train newly commissioned Medical Service Corps officers in the skills and knowledge necessary to perform as Air Force Health Service administrators.
Instruction: Lectures and practical exercises in planning, directing, coordinating and controlling administrative and materiel activities of medical facility units, including financial management and general administration.
Credit Recommendation: In the upper-division baccalaureate category, 7 semester hours in financial management, hospital organization and administration (6/75).

AF-1402-0001

1. Data Systems and Statistics Officer
2. Data Systems and Statistics Officer
3. Statistical Services Officer

Course Number: *Version 1:* OBR6831. *Version 2:* OBR6831. *Version 3:* OBR6831; OB6831.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: *Version 1:* 11 weeks (330 hours). *Version 2:* 11 weeks (330 hours). *Version 3:* 10-13 weeks (300-390 hours).
Exhibit Dates: *Version 1:* 1/64-12/68. *Version 2:* 9/63-12/63. *Version 3:* 1/55-8/63.
Objectives: To train personnel in the use of electrical accounting machines, the management of data systems, and the principles of data processing.
Instruction: Lectures on basic data processing machines; data systems analysis and design; accounting machine operation; and

calculating, punch, type 602, and reporting systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in data processing : unit record and computer management (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in data processing: unit record and computer management (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in methods of statistical analysis, 2 in office management (12/68).

AF-1402-0002

Automated Systems Programming Technician (Management Support Systems)

Course Number: 3AZR06789-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 7 weeks (210 hours).
Exhibit Dates: 9/67-12/73.
Objectives: To train airmen to write computer programs (Assembler and COBOL) utilizing a UNIVAC 1050 II computer.
Instruction: Lectures and practical exercises in the theory and operating principles of computers, symbolic programming, input/output directives, utility programs, subroutines, COBOL programming, and flow charting.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0003

Computer Systems Analyst

Course Number: 3OZR5135B; 3OZR5135.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 5 weeks (150 hours).
Exhibit Dates: 10/70-12/73.
Objectives: To train officers in the techniques of computer system analysis and design.
Instruction: Lectures and practical exercises in preparation, analysis, and design steps of a system study; flowcharting techniques; forms of design; development of programming specifications; development of system performance specifications; system implementation considerations; and management of system development activities.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business systems analysis (2/74).

AF-1402-0004

Phase II General Accounting Applications

Course Number: 3AZR67170-10.
Location: Technical Training Center, Sheppard AFB, TX.
Length: 2 weeks (60 hours).
Exhibit Dates: 12/72-12/73.
Objectives: To provide personnel with the skills and knowledge necessary to perform as accounting and finance technicians at installations using Phase II computers (Burroughs 3500).
Instruction: Discussions and practical exercises in Phase II accounting applications, data elements and codes, established records, processing of daily transactions, processing of reject and management notices, remote operation, batch and interface processing, accounting and finance output from the system, and system recovery procedures.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer operations (2/74).

AF-1402-0005

Supply Systems Specialist
(Supply Systems Specialist)
(Supply Computer System Specialist)

Course Number: 3ALR64830-1; 3ALR64830A-1; ALR64830A.
Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3320th Technical School, Amarillo AFB, TX.
Length: 6 weeks (180-191 hours).
Exhibit Dates: 11/66-12/73.
Objectives: To train enlisted personnel in the use of the Burroughs 1050-II computer and support equipment as applied to the operation of base-level supply systems.
Instruction: Lectures and practical exercises in the Burroughs 1050-II computer system, including assembly language, hands-on computer training, central processor functions, various numbering systems, and utility and report program generator processing.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer principles (12/68).

AF-1402-0007

FORTRAN Programming

Course Number: 3AZR68750-2; AZR68750-2.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 3 weeks (90 hours).
Exhibit Dates: 10/64-12/73.
Objectives: To train officers, airmen, and civilians in the techniques of programming in FORTRAN.
Instruction: Lectures and practical exercises in coding conventions; constants, variables, and subscripts; control statements and end statements; input/output statements; specification statements; and subroutines as related to FORTRAN programming language.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0008

Computer Programming

Course Number: 3AZR68750; AZR68750.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 7 weeks (210 hours).
Exhibit Dates: 4/64-12/73.
Objectives: To train airmen in the principles and techniques of computer programming (COBOL).
Instruction: Discussions and practical exercises, including an introduction to data processing; programming logic; COBOL instruction set; and processing using card, tape, and disc files.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming (12/68).

AF-1402-0009

NCMC Computer Programmer

Course Number: 4OZF0123-4.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 20 weeks (600 hours).
Exhibit Dates: 2/69-12/73.
Objectives: To provide enlisted personnel with the knowledge and skills necessary to write programs in several computer languages.
Instruction: Lectures and practical exercises in computer programming, including input/output programming, JOVIAL programming, COSMOS (Colorado Springs Maintenance Operations program System) programming and utility programming using COSMOS, and NOCOPS (NORAD Combat Operations Program System).
Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in computer programming (2/74).

AF-1402-0010

1. Automated Systems Program Designer (Management Support Systems)
2. Automated Systems Program Designer

Course Number: *All Versions:* 3OZR0678-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 9 weeks (270 hours).
Exhibit Dates: *Version 1:* 8/69-12/73. *Version 2:* 9/67-7/69.
Objectives: To train personnel in the principles and capabilities of punched card equipment, electronic data processing, and machine language programming.
Instruction: Orientation to automatic data processing, principles and capabilities of unit record equipment, basic components of electronic data processing systems, system concepts of third-generation computers (Burroughs 3500), and COBOL programming.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in computer programming, 2 in unit data record processing (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in computer operations (12/68).

AF-1402-0011

COBOL Programming

Course Number: 3AZR51151-1; AZR68750-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 3 weeks (90 hours).
Exhibit Dates: 10/64-12/73.
Objectives: To train personnel in the techniques of COBOL programming.
Instruction: Lectures and practical exercises in characteristics of Burroughs 3500 computer, and COBOL language structure, coding form, divisions, flowcharting, processing, control cards, declaratives, and programming.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0012

Programming Technician by Correspondence

Course Number: 51171.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/79-4/88.
Objectives: To teach the student to analyze, design, and implement a computer system.
Instruction: This correspondence course includes systems study and objectives, systems survey, analysis of present systems,

and new system design and implementation. Course concludes with a proctored examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in systems analysis (9/84).

AF-1402-0013

JOVIAL PROGRAMMING

Course Number: 3AZR68750-3; AZR68750-3.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/64-12/73.

Objectives: To train officers, airmen, and civilians in the techniques of programming in a high-level language (JOVIAL).

Instruction: Lectures and practical exercises in coding constants, assignment and exchange statements, decision-making statements, compound statements, modifiers, indexing and subscripts, subroutines, and strings and arrays.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0014

COMPUTER PRINCIPLES

Course Number: ABR305XX.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 20-21 weeks (600-630 hours).

Exhibit Dates: 10/64-12/68.

Objectives: To train airmen in electricity and electronics fundamentals and in computer principles.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and computer principles, including DC and AC, resonance, magnetism, motors, synchros, diodes, transistors, and electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM modulation and demodulation systems; binary and octal numbers; logic functions; truth tables; Boolean algebra; logic diagrams and circuits; counters and storage devices; digital techniques; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; computer circuits; coding and memory circuits; electro-mechanical input-output devices; and programming principles.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, 3 in digital computer maintenance (2/74).

AF-1402-0015

B 263 COMPUTER PROGRAMMING AND OPERATION
(Computer Operation)

Course Number: 3AZR51150; 3AZR68550; AZR68550.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 6/65-12/73.

Objectives: To train enlisted personnel in the basic principles of data processing and computer operations.

Instruction: Lectures and practical exercises in basic data processing and computer operations, including computer components, number systems, flowcharting, stored program instructions, data processing procedures, and Burroughs 263 computer operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer operation (12/68).

AF-1402-0017

COMPUTER OPERATOR BY CORRESPONDENCE

Course Number: 51150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 5/70-10/88.

Objectives: To provide the knowledge necessary to become a computer operator.

Instruction: This correspondence course includes computer systems, computer systems security, safety, supervision and training, unit-record and peripheral equipment, computer systems basics, computer operations, production control, and data processing activities management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in computer operations, 1 in introduction to data processing. Course concludes with a proctored examination (9/84).

AF-1402-0018

STORE AND FORWARD COMMUNICATIONS SYSTEM COMPUTER PROGRAMMER

Course Number: 3OZR3024D; 3OZR0124-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 16-17 weeks (474-510 hours).

Exhibit Dates: 9/66-12/73.

Objectives: To train officers, airmen, and civilians as communications system computer programmers.

Instruction: Lectures and practical exercises in computer principles, computer mathematics, basic programming concepts and techniques, compiler language (COBOL) programming techniques, and theory of real-time programming systems.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in programming (12/68).

AF-1402-0019

COMPUTER OPERATOR
(Data Processing Machine Operator)

Course Number: 3ABR51130; 3ABR68530; ABR68530.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 9-11 weeks (270-300 hours).

Exhibit Dates: 5/65-12/73.

Objectives: To train enlisted personnel in the operation of digital computers, punched card accounting machines, and collators.

Instruction: Lectures and exercises in card punch operation; alphabetic interpretation; sorting; collating; wiring of control panels; computer components; coding systems; flow charting; stored program instructions; programming language; and computer operations.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in data processing, unit record, or computer operations (12/68).

AF-1402-0020

AUTOMATIC DIGITAL SWITCHING TECHNICIAN

Course Number: 4ALT29530-1.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX.

Length: 11 weeks (320 hours).

Exhibit Dates: 8/72-12/73.

Objectives: To train airmen in the principles of operation and the operating characteristics of data processing and digital switching equipment.

Instruction: Lectures and practical exercises in the AUTODIN system, messages, and codes; paper tape reader/punch; card reader/punch; magnetic tape equipment; memory units; system operation; service routines; and UNIVAC Set-8 operation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours as an elective in computers or data processing (3/74).

AF-1402-0022

DIGITAL TECHNIQUES

Course Number: 2ASR30151-4.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/68-12/73.

Objectives: To train enlisted personnel in the principles of digital data processing circuitry.

Instruction: Lectures and practical exercises in digital techniques; review of transistor principles; numbering systems, logic, and Boolean expression; analysis of digital computer circuits; and functional analysis of computers.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computers (3/74).

AF-1402-0023

ELECTRONIC DIGITAL COMPUTER REPAIRMAN (DISPLAY EQUIP/465L)

Course Number: ABR30533-4.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 15 weeks (450 hours).

Exhibit Dates: 9/64-12/68.

Objectives: To train enlisted personnel to operate, inspect, and maintain electronic data display equipment.

Instruction: Lectures and practical exercises in electronic digital computer data display central equipment operation, inspection, and maintenance procedures, including electronic and data processing principles, digital techniques, circuit logic, maintenance concepts, test routines, malfunction analysis, components isolation and repair, and use of associated aerospace ground equipment.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1402-0024

F-111A COMPUTER/NAVIGATION TEST STATION TECHNICIAN

Course Number: 3ALR30174-3.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 12 weeks (360 hours).

Exhibit Dates: 5/68-12/73.

Objectives: To train airmen to perform maintenance and shop repair on computer/navigation test stations.

Instruction: Lectures and practical exercises in digital fundamentals, binary and octal numbers, algebra, logic symbols, functions and circuits, signal flow analysis, equipment operation principles.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer operations (3/74).

AF-1402-0030

SAGE Computer Programmer

Course Number: 3OZR0123-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 18 weeks (522 hours).

Exhibit Dates: 5/68-12/73.

Objectives: To train officers to perform as SAGE computer programmers.

Instruction: Lectures and practical exercises in the functions of SAGE computer programmers, including computer principles, computer mathematics, programming concepts and compiler language programming techniques, machine language coding, peripheral equipment programming, interpretation of programs, and modification and adoption of existing programs.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 3 in data processing (12/68).

AF-1402-0031

Computer Maintenance Officer

Course Number: 3OLR3061; 3OZR3061.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 12 weeks (360 hours).

Exhibit Dates: 10/71-12/73.

Objectives: To train officers to supervise the maintenance of computers.

Instruction: Lectures and practical exercises in the maintenance of computers, including computer principles, numbering systems, storage principles, basic programming, read/write operations, internal logic of computer, hardware routines, input/output terminal equipment (emphasis on display consoles), and maintenance program development and analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer maintenance, 3 in data processing principles (4/74).

AF-1402-0032

Computer Systems Programming Officer, SAGE

Course Number: 3OZR5144-1.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 8 weeks (228-254 hours).

Exhibit Dates: 1/71-12/73.

Objectives: To train officers to program the SAGE system computer.

Instruction: Lectures and practical exercises in SAGE system computer programming, including basic assembly programming, fundamentals of radar, air surveillance, weapons, real-time control, operational program analysis, I/O methods and equipment, program documentation and debugging, and functions of utility, simulation, and data reduction programs.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming (4/74).

AF-1402-0033

HM4118 Computer Programmer Tactical and Control System

Course Number: 3AZR51151-4.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 12 weeks (360 hours).

Exhibit Dates: 2/73-12/73.

Objectives: To train enlisted personnel who have had training in basic computer programming to operate computers in the tactical air control system.

Instruction: Lectures and practical exercises in the operation of computers in the tactical air control system, including computer system specifications, signal flow analysis, program module function, computer programming, symbolic language, word format and subsystem unit identification, real-time programming, operation of the tactical air control data recording, data reduction, and system software application and assembly.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (4/74).

AF-1402-0034

Air Force Integrated Command and Control System Computer Programmer

Course Number: 3OZR5144-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 13 weeks (402 hours).

Exhibit Dates: 3/71-12/73.

Objectives: To train officers and airmen to perform as computer programmers on IBM 1410 equipment.

Instruction: Lectures and practical exercises in computer programming on IBM 1410 equipment, including computer principles, basic programming concepts and techniques, assembler language programming, machine language coding, peripheral equipment programming (magnetic disks, line printers, magnetic tapes, display consoles, and miscellaneous input/output devices), data storage files, and program assembly, operation, and debugging.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in computer programming (4/74).

AF-1402-0035

Computer Systems Programming Officer

Course Number: 3OBR5141.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 12 weeks (360 hours).

Exhibit Dates: 9/70-12/73.

Objectives: To train officers to program computer systems and design automated systems programs.

Instruction: Lectures and practical exercises in computer systems programming and automated systems program design, including programming techniques, computer mathematics, operating principles, flow charting methods and applications, program testing and debugging, machine language programming, assembler language programming, compiler theory and languages (FORTRAN, COBOL and JOVIAL), online and real-time systems, principles of system analysis and design, and management and direction of programming activities.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 2 in business systems analysis (4/74).

AF-1402-0036

1. Data Processing Machine Supervisor
2. Data Processing Machine Supervisor
3. Data Processing Machine Supervisor (Punched Card) (Machine Accounting Supervisor)
4. Data Processing Machine Supervisor (Punched Card) (Machine Accounting Supervisor)

Course Number: *Version 1:* 3AAR68570. *Version 2:* AAR68570. *Version 3:* AAR68570A; AA68270A; AA68270; AA83270. *Version 4:* AAR68570A; AA68270A; AA68270; AA83270.

Location: *Version 1:* 3750th Technical School, Sheppard AFB, TX. *Version 2:* 3750th Technical School, Sheppard AFB, TX. *Version 3:* 3750th Technical School, Sheppard AFB, TX. *Version 4:* 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 12 weeks (360 hours). *Version 3:* 12-14 weeks (360-420 hours); 12-14 weeks (360-420 hours).

Exhibit Dates: *Version 1:* 7/69-12/73. *Version 2:* 5/65-6/69. *Version 3:* 2/54-4/65. *Version 4:* 2/54-4/65.

Objectives: To train noncommissioned officers and enlisted personnel to supervise data processing and computer operations.

Instruction: *All Versions:* Lectures and practical exercises in unit record equipment programming and operation, computer operations and management, data systems analysis and design, collator wiring, and logical analysis. *Version 1:* Instruction includes some introductory business systems analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in unit record data processing, 2 in data processing management, 2 in business systems analysis (4/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in computer operation (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in office management (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in office management (12/68).

AF-1402-0037

Programming Specialist

Course Number: 3ABR68730; ABR68730.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 7-9 weeks (210-240 hours).

Exhibit Dates: 1/64-12/73.

Objectives: To train enlisted personnel in data processing principles and computer programming in a compiler language.

Instruction: Lectures in data processing introduction, including data organization, computer and components, programming logic applications, and COBOL language programming techniques and requirements. Seven-week course includes detailed training in COBOL, including magnetic tape and disk applications. Nine-week course includes basic computer programming and a complete assembly language instruction set.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming (12/68).

AF-1402-0038

Management/Supervision of a Data Processing Installation (DPI)

Course Number: 3AZR51170.

Location: 3750th Technical School, Sheppard AFB, TX.
Length: 4 weeks (132 hours).
Exhibit Dates: 2/72-12/73.
Objectives: To train enlisted personnel to be computer operations supervisors.
Instruction: Lectures, demonstrations, and practical exercises in data processing activities organization; data processing installation evaluation; production control; security procedures; personnel supervision; and data processing management, including equipment operation and maintenance, storage, supplies, reporting procedures, and facilities management.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in data processing management (4/74).

AF-1402-0039

Data Systems Analysis and Design (Officer)

Course Number: 3OZR6854; OZR6834; OTS6854-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 4 weeks (120 hours).
Exhibit Dates: 12/60-12/73.
Objectives: To train officers in data systems analysis and design.
Instruction: Lectures in data systems study preparation, initial survey, interviewing, systems flow charting, analysis of present system resources, decision logic tables, electronic data processing equipment, computer programming introduction, optimum systems design characteristics and design requirements, data system specifications, and proposed system follow-up.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer systems (12/68).

AF-1402-0040

1. Computer Systems Analysis and Design (Enlisted)
2. Data Systems Analysis and Design (Enlisted)

Course Number: *Version 1:* 3AZR51172. *Version 2:* 3AZR68670; AZR68670; ATS68570B-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: *Version 1:* 5 weeks (150 hours). *Version 2:* 4-5 weeks (120-150 hours).
Exhibit Dates: *Version 1:* 12/71-12/73. *Version 2:* 2/61-11/71.
Objectives: To train enlisted personnel in systems analysis and design techniques.
Instruction: Lectures in data systems concepts, systems study techniques, system flow charting, document analysis, item analysis, decision logic tables, system design characteristics, and designing, presenting, and flow charting the proposed system.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business systems analysis (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in computer systems (2/74).

AF-1402-0041

Advanced Data Processing Audit Analysis

Course Number: 3OZR6784-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 6 weeks (180 hours).
Exhibit Dates: 3/70-12/73.
Objectives: To train auditors to evaluate automated data systems.
Instruction: Lectures in computer processes review; advanced computer programming techniques; in-depth analysis and evaluation of data systems; computer flow charts; remote input/inquiry language and techniques; COBOL programming; and audit theory, tools, and techniques.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in data processing principles, 2 in computer programming (4/74).

AF-1402-0042

Auditing Data Processing Systems

Course Number: 3OZR6784.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 3-4 weeks (90-108 hours).
Exhibit Dates: 8/68-12/73.
Objectives: To train auditors to audit and evaluate operational automated data processing systems.
Instruction: Lectures and laboratory in automated data processing systems concepts, flow charting, computer programming techniques, computer processes, computer assisted audit techniques, and automated data processing equipment.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in data processing principles (4/74).

AF-1402-0043

IDHS 1410 FFS Operations and Specifications II

Course Number: 3AZR20450-3.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 3 weeks (90 hours).
Exhibit Dates: 1/70-12/73.
Objectives: To train enlisted personnel to structure and maintain a data file and to retrieve records using a data management system.
Instruction: Lectures in file structuring, file maintenance, data retrieval, output card specifications, conditional and computation statements, extracting an output mode, correction and analysis of output computer run, and operational concepts of IBM 1410 system.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming (4/74).

AF-1402-0044

Automated Systems Program Designer

Course Number: 3OZR5141-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 12 weeks (360 hours).
Exhibit Dates: 9/71-12/73.
Objectives: To train officers as computer systems programming officers and automated systems program designers.
Instruction: Lectures and practical exercises in the design and programming of business data systems, including fundamentals of computer programming, machine and assembler language programming, compiler theory and higher-level languages using FORTRAN IV and COBOL, computer mathematics, use of magnetic tape files and disk files, and basic JOVIAL procedures.
Credit Recommendation: In the upper-division baccalaureate category, 3 in computer programming — assembler language, 3 in computer programming — compiler languages (FORTRAN and COBOL), 3 in systems analysis (7/74).

AF-1402-0046

Computer Systems Operations Officer
(Data Automation Officer)
(Electronic Data Processing Officer)

Course Number: 3OBR5151; 3OBR6851; OBR6851.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 8-11 weeks (240-330 hours).
Exhibit Dates: 9/58-12/73.
Objectives: To train officers to manage electronic data processing activities.
Instruction: Lectures and practical exercises in the management of electronic data processing activities and punched-card equipment, including data representation, computer components, assembler language programming, compiler languages, data communications, system characteristics of advanced computer systems, production control, advanced computer hardware and software, card punch and associated equipment, electrical accounting machines, data systems analysis, design and implementation, and personnel management.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming and management (12/68).

AF-1402-0048

Computer Systems Programming Officer

Course Number: 3OBR0121.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 16 weeks (656 hours).
Exhibit Dates: 12/69-12/73.
Objectives: To train officers to program electronic digital computer systems.
Instruction: Lectures and practical exercises in programming electronic digital computer systems, including flow diagramming; preparation, assembly, operation, and correction of compiler language (FORTRAN, JOVIAL, and COBOL) and assembler language programs; input/output equipment; interrogating typewriters; line printers; magnetic tapes, disks, and drums; display devices; advanced concepts of multi-programming, time-sharing, and real-time; principles of computer system management and development of a complete medium-scale programming system.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of data processing, 3 in computer programming—assembler, 3 in computer programming—FORTRAN, 3 in computer programming—COBOL (7/74).

AF-1402-0049

Advanced COBOL Programming Techniques

Course Number: 3AZR68770-1.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 3 weeks (90 hours).
Exhibit Dates: 10/70-12/73.
Objectives: To train officers and airmen to program at an advanced level using COBOL language.
Instruction: Lectures and practical exercises in programming using COBOL language, including multiprogramming and multiprocessing, B 3500 computer system, segmentation, sequential file organization, table handling, immediate-access storage de-

vices, disk file organization, B 3500 library, sorting, debugging aids, programming applications, data communications, and B 3500 software.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0050

Electronic Computer Systems Supervisor/Technician

Course Number: 3AAR30500.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 47–52 weeks (1410–1500 hours).

Exhibit Dates: 4/70–12/73.

Objectives: To train enlisted personnel as electronic computer and data processing maintenance superintendents.

Instruction: Lectures and practical exercises in duties of electronic computer and data processing maintenance superintendents, including basic mathematics, algebra, logarithms, imaginary numbers, trigonometric functions; DC and AC circuit analysis, vacuum tube and solid-state devices, semiconductors, power supplies and oscillators; principles of electronic computers, numbering systems, logic circuits and Boolean algebra; counters and storage devices, timing, and computer language; indicators, generators, motors, and synchros and servo systems; personnel and maintenance management; and flow charting and programming, memory systems, central computer analysis, input/output control, magnetic drums, discs, tape units, printers and readers, keyboard assembly, data display, message processor, printout interpretation, data processor, electromagnetic compatibility, and systems analysis.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in computer principles, and 2 in maintenance management (7/74).

AF-1402-0051

BUIC Systems Computer Programmer

Course Number: 3OZR5144.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 10 weeks (300–302 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 7/72–12/73. *Version 2:* 1/71–6/72.

Objectives: To train enlisted personnel as computer programmers on the BUIC systems computer.

Instruction: Lectures and practical exercises in computer programming. Course includes computer mathematics, assembly language programming, program terminal devices, and program maintenance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of data processing, 3 in assembly language programming (7/74); *Version 2:* In the upper-division baccalaureate category, 3 semester hours in principles of data processing, 2 in assembly language programming (7/74).

AF-1402-0052

BUIC III Computer Programmer

Course Number: 2OSR0123-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 18 weeks (540 hours).

Exhibit Dates: 12/67–12/73.

Objectives: To train enlisted personnel to perform as computer programmers in the BUIC III system.

Instruction: Lectures and practical exercises in computer programming, including computer principles, basic programming concepts and techniques, central processor programming, I/O programming, program maintenance testing, and compiler language techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming in the field of computer sciences (12/68).

AF-1402-0053

Advanced Data Automation Analysis and Design

Course Number: 3OZR6854-1; 3OZR6855-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/67–12/73.

Objectives: To train personnel in advanced data automation analysis and design.

Instruction: Lectures and practical exercises in advanced automation analysis and design, including capabilities and limitations of EDPE, data systems concepts, preparation for a systems study, survey of present systems study, analysis of the present system, design of a proposed system, and follow-up of proposed system.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming and systems analysis (12/68).

AF-1402-0055

Operation and Maintenance of UNIVAC 1218 Computer

Course Number: AZR31672H-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 10 weeks (300 hours).

Exhibit Dates: 4/67–12/68.

Objectives: To train airmen to operate, program, troubleshoot, and maintain UNIVAC 1218 digital computers.

Instruction: Lectures and practical exercises in operation, programming, troubleshooting, and maintenance of UNIVAC 1218 digital computers, including block diagramming, computer logic, analysis of computer components and circuitry, computer arithmetic section, input/output section, wire-wrapping techniques, and computer memory section analysis.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer operation in the field of data processing (12/68).

AF-1402-0057

Store and Forward Communications System Computer Programmer

Course Number: 3OZR0123-3; OZR0123-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 17 weeks (510 hours).

Exhibit Dates: 9/66–12/73.

Objectives: To train officers to program real-time command and control systems using a compiler language (JOVIAL).

Instruction: Lectures and practical exercises in programming real-time command and control systems using a compiler language (JOVIAL). Topics include introduction to computers and computer terminology, binary and octal mathematics, coding schemes, computer elements and system organization, flow charting, information organization and storage, data retrieval and manipulation, digital techniques (computer logic, digital devices, Boolean algebra), and extensive programming in JOVIAL language, including input/output operations, symbology, various conventions and techniques, and analysis and debugging of programs.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming in the field of computer science (12/68).

AF-1402-0058

1. Command and Control Systems Computer Programmer
2. Command and Control Systems Computer Programmer
   (Weapon Support Systems Computer Programmer)

Course Number: *Version 1:* 3OZR0124-2. *Version 2:* OZR0123; OZR0005; OZR0076.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 16 weeks (474 hours). *Version 2:* 15 weeks (450–480 hours).

Exhibit Dates: *Version 1:* 10/69–12/73. *Version 2:* 6/61–9/69.

Objectives: To train officers to program command and control systems computers.

Instruction: Lectures and practical exercises in computer principles, computer mathematics, Boolean logic, flow chart design and analysis, machine language and computer language programming, program maintenance and testing, and data reduction techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of data processing, 3 in computer programming—assembler, and 3 in computer programming—compiler (7/74)/ *Version 2:* In the upper-division baccalaureate category, 5 semester hours in computer science or computer programming (12/68).

AF-1402-0060

Base Level Military Personnel System (BLMPS), Phase II

(Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II)

(BLMPS/PDS Work Center Operations, Phase II)

Course Number: 3AZR73270-6.

Location: 3380th Technical School, Keesler AFB, MS; School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 3–4 weeks (102 hours).

Exhibit Dates: 7/72–12/73.

Objectives: To train enlisted personnel to perform as operators of the Phase II Base Level Military Personnel System (BLMPS).

Instruction: Lectures and practical exercises in the operation of the Phase II BLMPS, including PDS; card formats; edits; the weighted-data reporting system; operation of data communications system equipment; data maintenance techniques; and direct English statement information system.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in introduction to computer science (7/74).

AF-1402-0061

BUIC Computer Programming

Course Number: *Version 1:* 3AZR68770-2. *Version 2:* 3AZR27370-D.

Location: 3380th Technical School, Keesler AFB, MS.
Length: *Version 1:* 15 weeks (450 hours). *Version 2:* 18 weeks (534 hours).
Exhibit Dates: *Version 1:* 1/71-12/73. *Version 2:* 3/70-12/70.
Objectives: To train noncommissioned officers to perform as BUIC III computer programmers.
Instruction: Lectures and practical exercises in the skills necessary to perform as BUIC III computer programmers. Course includes computer principles, computer mathematics, basic programming concepts and techniques, BUIC assembler language programming, BUIC compiler language programming, analysis of the BUIC system equipment training, and preparation, assembly, and debugging of assembler and compiler language programs.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in principles of data processing, 4 in assembly language (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in programming in the field of computer science (12/68).

AF-1402-0062

Digital Computer Principles
Course Number: 3AZR34250.
Location: School of Applied Aerospace Sciences, Chanute AFB, IL.
Length: 7 weeks (280 hours).
Exhibit Dates: 7/73-12/73.
Objectives: To train enlisted personnel to apply digital computers to flight simulation.
Instruction: Lectures and practical exercises in the application of digital computers to flight simulation. Course includes computer mathematics, flow charting, computer programming fundamentals, input/output devices, memory and arithmetic units, and utility programs.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of data processing, 3 in computer architecture (7/74).

AF-1402-0064

Automated Systems Analyst
(Management Support Systems)
Course Number: 3OZR0678-2.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 4 weeks (120 hours).
Exhibit Dates: 9/67-12/68.
Objectives: To train selected officers to analyze and use data systems.
Instruction: Lectures and practical exercises in the techniques of analysis and use of automated data systems. Course includes techniques for conducting a data systems study, flow charting, data analysis, application of automatic data processing equipment, and systems implementation.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/68).

AF-1402-0065

Programming Specialist by Correspondence
Course Number: 51151.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum of 52 weeks.
Exhibit Dates: 4/79-10/87.
Objectives: To train the student in computer programming logic, fundamentals, and design.
Instruction: This correspondence course includes computer systems security, supervision, and training, safety, computer systems components, data representation and number conversion, flow charting, IBM 360 assembler, COBOL and FORTRAN programming, top down design, documentation, testing and analysis, and computer systems management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming. Course concludes with a proctored examination (9/84).

AF-1402-0066

Automated Systems Analyst
(Management Support Systems)
Course Number: 3AZRO6789-2.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 5 weeks (150 hours).
Exhibit Dates: 9/67-12/73.
Objectives: To train enlisted personnel as automated systems analysts.
Instruction: Lectures and practical exercises in data systems analysis. Course includes data systems concepts, systems analysis, equipment and communications concepts, computer programming techniques, and systems design and implementation.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming and systems analysis (12/68).

AF-1402-0068

Computer Operations Supervisor by Correspondence
Course Number: 51170.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum of 52 weeks.
Exhibit Dates: 2/83-4/88.
Objectives: To teach the student to become a computer operations supervisor.
Instruction: This correspondence course includes computer systems, computer principles, computer preparation and operation, data processing activities management, and program and data management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations and management. Course concludes with a proctored examination (9/84).

AF-1402-0069

Maintenance Systems Analysis Specialist by Correspondence
Course Number: 39150.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/84-Present.
Learning Outcomes: Upon completion of this course the student will have knowledge of concepts of maintenance management, oral and written communications, fundamentals of statistics and statistical analysis, data collection and reporting and data processing.
Instruction: Topics covered include maintenance management, oral and written communications, fundamentals of statistics, statistical analysis, probability distributions, correlation, data collection and reporting and data processing.
Credit Recommendation: In the vocational certificate category, 5 semester hours in maintenance management, and 1 in data processing (2/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in business communications or technical writing, and 2 in statistics (2/87).

AF-1402-0070

Information Systems Operator by Correspondence
Course Number: 49151.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/86-Present.
Learning Outcomes: At the conclusion of this course the student will understand the safety, security and maintenance issues in computer center installation, understand data processing terminology and have a working knowledge of computer equipment concepts and operation of a computer room, and know the concepts of the Air Force's automated communications system.
Instruction: This course provides the student with a working knowledge of the production control and computer room functions of a computer facility. Topics include data processing terminology, storage media and equipment concepts, library management, and production control functions; also covered is an overview of the Air Force's automated communication system.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to computers or introduction to data processing (2/87).

AF-1402-0071

Information Systems Programming Specialist by Correspondence
Course Number: 49152.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/86-Present.
Learning Outcomes: At the conclusion of this course the student will understand the safety and security issues in computer operations; understand data processing terminology; know how data is stored in computers; know flowcharting techniques; be able to code elementary assembly language, COBOL and FORTRAN programs; understand system analysis and design concepts; understand the programming cycle.
Instruction: This course provides the student with a working knowledge of data processing concepts and terminology, flowcharting techniques, the programming function, the assembler, COBOL and FORTRAN programming languages, and the systems analysis and design function.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to computers or introduction to data processing or introduction to computer programming (2/87).

AF-1402-0072

Fundamental Principles of Electronic Data Processing Equipment by Correspondence
Course Number: 5123.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 3/83-Present.
Learning Outcomes: At the conclusion of this course the student will have an under-

standing of data processing terminology and concepts.

Instruction: This course covers data processing terminology and programming concepts. A survey of the COBOL and FORTRAN programming languages is presented.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to data processing or introduction to computer programming (2/87).

AF-1402-0073

Apprentice Operations Resource
Management Specialist by
Correspondence

Course Number: 27132.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will have a basic level of understanding of duties related to an entry level in flight operations management. The ability to prepare and retain historical documents with minimal direct supervision will have been achieved.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas include introduction to tasks related to administrative control and accountability of flight records. Topics include aircrew schedule and training, aircraft schedule, and data processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to data processing and 1 in clerical procedures (business) (12/89).

AF-1403-0002

Administration Management
Specialist by Correspondence

Course Number: 70250A.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84–5/87.

Objectives: To provide specialty knowledge of the administrative career field, particularly in the area of the management and processing of internal documentation.

Instruction: The course instructs administrative management specialists in all aspects of internal document processing, including the objectives of such documents, preparation procedures, storage and distribution, updating of records and the impact of the Privacy and Freedom of Information Acts on specific documents.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office procedures (10/85).

AF-1403-0003

Staff Support Administration
Specialist by Correspondence

Course Number: 70250B.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84–4/87.

Objectives: To provide specialty knowledge of the administrative career field, particularly in the area of processing internal documentation.

Instruction: The course instructs administrative support specialists in all aspects of internal document processing, including the documents, preparation procedures, storage and distribution, updating of records and the impact of the Privacy and Freedom of Information Acts on specific documents.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office procedures (10/85).

AF-1403-0004

Unit Orderly Room Administration
Specialist by Correspondence

Course Number: 70250C.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84–4/87.

Objectives: To provide specialty knowledge of the administrative career field, particularly in the area of processing internal documentation.

Instruction: The course instructs administrative support specialists in all aspects of internal document processing, including the objectives of such documents, preparation procedures, storage and distribution, updating of records and the impact of the Privacy and Freedom of Information Acts on specific documents.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office procedures (10/85).

AF-1404-0004

Apprentice Telecommunications
Operations Specialist by
Correspondence

Course Number: 29130.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/85–6/89.

Learning Outcomes: At the conclusion of this course the student will have a good working knowledge of the Air Force communications systems, protocols, communication equipment, message formats, procedures, and security provisions.

Instruction: This is a comprehensive course on the methods, protocols, procedures, formats, data classifications, and use of equipment for communications. Special attention is given to the operating characteristics of a wide range of telecommunications equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing, and 1 in telecommunications (2/87).

AF-1405-0001

Base Supply Management

Course Number: 550.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/70–6/74.

Objectives: To provide warrant officers and civilian personnel with training in the principles and procedures of resource management.

Instruction: Lectures and workshops in the principles of resource management, including logistic policies and processes, data processing, weapons system acquisition, equipment management, personnel management, maintenance and procurement procedures within supply organizations, and a logistic management exercise.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (2/74); in the upper-division baccalaureate category, 1 semester hour in supply management (2/74).

AF-1405-0003

Logistics Specialist

Course Number: 3ALR66130.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 6 weeks (180 hours).

Exhibit Dates: 1/70–12/73.

Objectives: To train airmen in the management and control of material support functions and activities.

Instruction: Lectures and practical exercises in the management and control of supply, maintenance, transportation, procurement, and production functions at command and base levels; financial management; and employment and phase-out of weapon systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AF-1405-0006

Medical Supply Officer

Course Number: None.

Location: School of Aviation Medicine, Gunter AFB, AL.

Length: 7 weeks (273 hours).

Exhibit Dates: 10/55–12/68.

Objectives: To train officers of the Medical Service Corps as base and unit medical supply officers, with emphasis on efficient management and economical use of personnel, materiel, and facilities.

Instruction: Lectures on medical supply service organization; inventory management, including requisition, stock control, requirements determination, and related accounting for medical equipment and supplies; and medical administration.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0007

Logistics Management

Course Number: 580.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 4–5 weeks (117–135 hours).

Exhibit Dates: 3/69–6/74.

Objectives: To train officer and civilian personnel in logistics management principles.

Instruction: Lectures in logistics introduction; economics and national defense; logistics planning theory; integrated logistics support; stock control and distribution systems; basic statistics; logistics management techniques; problem solving and decision analysis; group dynamics; gaming and simulation; maintenance, transportation, procurement, and financial management; and current and future developments in logistics.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in survey of logistics (6/74).

AF-1405-0008

Supply Operations Officer
(Supply Officer)

Course Number: 3OBR6421-1; OBR6421; OB6421.

Location: 3415th Technical School, Lowry AFB, CO; 3320th Technical School, Amarillo AFB, TX; 3450th Technical School, Warren AFB, WY.

Length: 8-12 weeks (234-360 hours).

Exhibit Dates: 2/54-12/73.

Objectives: To train officers in supply management practices and procedures.

Instruction: Lectures and practical exercises in materials management and control principles; technical aspects of reference data and inventory record keeping; supply organization; warehousing methods; cataloging; and supplies and equipment receiving, storage, and distribution procedures.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

AF-1405-0011

Inventory Management Supervisor

Course Number: AAR64570.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 5-7 weeks (150-210 hours).

Exhibit Dates: 12/59-7/68.

Objectives: To train airmen to perform as inventory management supervisors.

Instruction: Lectures and practical exercises in inventory management supervision, including personnel relations, supply systems, equipment and maintenance management, demand processing, equipment transfer, requisitioning and inventory, stock maintenance, processing of receipts, use of automatic data processing for item accounting, and inventory transactions. Includes property accounting, communications, budget preparation, and data elements, codes, and formats.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0013

Materiel Facilities Specialist by Correspondence

Course Number: 64551.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84-Present.

Objectives: This course provides the student with the basic fundamentals of materiel supply systems, inspection and equipment handling operations and the storing and issuing of supplies.

Instruction: Instruction cover security operations, materiel sources, storage and distribution systems and records control. Documentation, storage procedures and the proper selection of materials handling equipment are also discussed.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials handling and inventory control (2/87).

AF-1405-0014

Base Procurement Officer

Course Number: 3OZR6531.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train commissioned officers to perform as base procurement officers.

Instruction: Lectures and practical exercises in procurement procedures and practices. Course includes organization; nonappropriated funds; purchase requests; imprest funds; contracting for supplies, services, construction, and engineering; and contract administration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in purchasing and contracting (6/74).

AF-1405-0015

Central Procurement Officer

Course Number: 3OBR6531-3.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 6-9 weeks (168-270 hours).

Exhibit Dates: 4/70-12/73.

Objectives: To train personnel as systems procurement officers.

Instruction: Lectures and practical exercises in systems procurement, including procurement and production fundamentals; procurement methods and management; specialized training in base, central, contract, systems, and research and development procurement; procurement by advertising and negotiating; interdepartmental and coordinated procurement; organization and policy formulation; precontract analysis; and postcontract functions.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in purchasing management (6/74).

AF-1405-0016

Systems Procurement Officer

Course Number: 3OZR6531-3.

Location: 3415th Technical School, Lowry AFB, CO; School of Applied Aerospace Science, Lowry AFB, CO.

Length: 3 weeks (90-104 hours).

Exhibit Dates: 6/69-12/73.

Objectives: To train personnel as systems procurement officers.

Instruction: Lectures and practical exercises on systems procurement, including procurement and production fundamentals, procurement methods and management; specialized training in base, central, contract, systems, and research and development procurement; procurement by advertising and negotiating; interdepartmental and coordinated procurement; organization and policy formulation; precontract analysis; and postcontract functions.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in purchasing management (6/74).

AF-1405-0017

Systems Procurement Officer

Course Number: 3OBR6531-5.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 8 weeks (240 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train commissioned officers in procurement systems and functions.

Instruction: Lectures and practical exercises in procurement systems and operations. Course includes principles of system procurement, system program management, system life cycle, system program documentation, and programming and financial management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in purchasing management (6/74).

AF-1405-0018

Apprentice Materiel Facilities Specialist by Correspondence

Course Number: 64531.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84-Present.

Learning Outcomes: Upon completion of this course the student will have knowledge of the standard base supply system, receiving and materials handling operations and storage function.

Instruction: The instruction in this course provides an introduction to the supply distribution system, supply publications, supply classifications; property receipt procedures, internal and external records; material handling principles and equipment; pickup and delivery functions; storage functions; material locator system; inventory procedures, special storage procedures; and shipments and transfers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in materials handling (10/85).

AF-1405-0019

1. Motor Vehicle Management Officer
2. Motor Vehicle Maintenance Officer
3. Motor Vehicle Maintenance Officer

Course Number: *Version 1:* 3OBR6021. *Version 2:* OBR4721. *Version 3:* OBR4721.

Location: 3345th Technical School, Chanute AFB, IL. *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: *Version 1:* 6-7 weeks (210-268 hours). *Version 2:* 6 weeks (180 hours). *Version 3:* 8-9 weeks (240-270 hours).

Exhibit Dates: *Version 1:* 7/68-12/73. *Version 2:* 3/67-6/68. *Version 3:* 2/61-2/67.

Objectives: To train officers to perform as motor vehicle management or maintenance officers.

Instruction: *All Versions:* Lectures and practical exercises in motor vehicle management or maintenance, including personnel administration, supervision, and training; miscellaneous vehicular equipment; and shop procedures, including budgeting. *Version 1:* Includes motor vehicle operation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in supply management (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in supply management (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0020

Procurement Specialist

Course Number: ATS65150-1.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 6 weeks (180 hours).

Exhibit Dates: 3/59-12/68.

Objectives: To train officers and civilian personnel in procurement procedures.

Instruction: Lectures and practical exercises in procurement procedures, including procurement organization and publications, contracts, negotiation, advertising, bonds and securities, construction contracts, registers and reports, and termination procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement policies (12/68).

AF-1405-0021

Supply Records Supervisor

Course Number: AA64174.

Location: 3450th Technical School, Warren AFB, WY.

Length: 7 weeks (210 hours).

Exhibit Dates: 5/56–12/68.

Objectives: To train enlisted personnel to maintain and control supply records.

Instruction: Lectures and practical exercises in the maintenance and control of supply records. Course includes methods of research in supply procedures, organization, data measurement, personnel management, inventory accounting, procurement, and special supply procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0026

Logistics Officer

Course Number: 3OBR6621.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/69–12/73.

Objectives: To train commissioned officers to manage and control the supply, maintenance, transportation, procurement, and production functions of logistics at a military headquarters.

Instruction: Lectures and practical exercises in the management and control of the supply, maintenance, transportation, procurement, and production functions of logistics at a military headquarters. Course includes planning, programming, budgeting, financial management, and the logistics cycle; implementation, support, employment and phase-out of weapons systems; logistics at the wholesale and retail level; and quantitative logistics methods.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in logistics management, 2 in quantitative methods in logistics (8/74).

AF-1405-0027

AMA/Directorate of Materiel Management

Course Number: 130.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 4 weeks (110–117 hours).

Exhibit Dates: 3/69–6/74.

Objectives: To train selected enlisted personnel to manage materiel support functions.

Instruction: Lectures and practical exercises in the management of materiel support functions. Course includes planning and programming cycles, logistic programs management system, materiel utilization and disposition, and materiel management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in logistics (8/74).

AF-1405-0029

Advanced Base Procurement Management

Course Number: 3OZR6534-1; OZR6534-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/67–12/73.

Objectives: To train enlisted personnel and civilians to manage procurement functions on a military base.

Instruction: Lectures and practical exercises in the management of procurement functions on a military base. Course includes office management, policy decisions, human relations, and contract law related to the procurement field.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in procurement management (12/68).

AF-1405-0032

Central Procurement Officer

Course Number: 3OZR6531-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3–4 weeks (90–120 hours).

Exhibit Dates: 6/69–12/73.

Objectives: To train selected enlisted personnel as central procurement officers.

Instruction: Lectures and practical exercises in the duties of a central procurement officer. Course includes government contracting policies and procedures, purchase requests, procurement planning, documentation, procurement sources, evaluation of offers, cost and price analysis, contract award, and modification and termination.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in procurement (8/74).

AF-1405-0033

Materiel Facilities Supervisor by Correspondence

Course Number: 64571.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/83–Present.

Objectives: This course is a comprehensive coverage of the operational and supervisory functions of a supply distribution system. It emphasizes the importances of a computer system for purchasing, storing, controlling and distributing materiels.

Instruction: This course covers supply sources, correspondence, requisitions support services, inventory controls, storage facilities and equipment and hazardous materiels. Included also are management and supervisory responsibilities, computerizing control systems, and documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in materiels management (10/85); in the upper-division baccalaureate category, 3 semester hours in material control systems (10/85).

AF-1405-0034

Fuel Supply Officer

Course Number: OTS6451-1.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 5 weeks (150 hours).

Exhibit Dates: 8/58–12/68.

Objectives: To train personnel as fuel supply officers.

Instruction: Lectures and practical exercises in the supervision of fuel supply activities, including duties and responsibilities of fuel supply officers; characteristics of petroleum products and fuel-handling safety; fuel accounting procedures; estimation of fuel requirements; inspection, operation, and operator maintenance of receiving, storing, and dispensing systems and packaged products facilities; commercial and military pipelines; inspection and operator maintenance of vehicular equipment; fueling and defueling of aircraft; coordination of fuel supply functions; tank cleaning; and control of quantity and quality.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in handling and storage of petroleum products (12/68).

AF-1405-0035

Initial Provisioning

Course Number: 150.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/70–6/74.

Objectives: To train supply and maintenance personnel in initial provisioning.

Instruction: Lectures and practical exercises in initial provisioning, including basic principles of logistics, the provisioning process, responsibilities of other commands and agencies, functions of initial provisioning, advancements in initial provisioning, and initial provisioning under the Air Force advanced logistics system master plan.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (8/74); in the upper-division baccalaureate category, 1 semester hour in supply management (8/74).

AF-1405-0036

Research and Development Procurement Officer

Course Number: 3OZR6531-4.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO.

Length: 3 weeks (78–104 hours).

Exhibit Dates: 6/69–12/73.

Objectives: To train commissioned officers to serve as research and development procurement officers.

Instruction: Lectures and practical exercises in the duties of a research and development officer. Course includes acquisition methods, patents, source selection procedures, solicitation requirements, proposal evaluations, and negotiations and contract administration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in supply management (8/74).

AF-1405-0037

Systems Procurement Officer

Course Number: 3OBR6531-5.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 6 weeks (168 hours). *Version 2:* 8–9 weeks (240–270 hours).

Exhibit Dates: *Version 1:* 9/72–12/73. *Version 2:* 4/70–8/72.

Objectives: To train officers as systems procurement officers.

Instruction: *All Versions:* Lectures and practical exercises in procurement fundamentals and system program management. *Version 1:* Course includes life-cycle phases, system program office functions, advanced planning, negotiated procurement, source selection, contracting for a major system, contract administration functions, and production surveillance. *Version 2:* Course includes statutes and publications governing procurement, procurement and production authorities and delegation, formal advertising and negotiation, procurement management, fundamentals of procurement and production, system life-cycle phases, system programming, program documentation, system contracting, and evaluation of contractor performance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours as an elective in procurement or management (8/74). *Version 2:* In the upper-division baccalaureate category, 5 semester hours as an elective in procurement or management (8/74).

AF-1405-0038

BASE PROCUREMENT OFFICER

Course Number: 3OBR6531-2.

Location: *Version 1:* School of Applied Aerospace Sciences, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 5 weeks (165 hours). *Version 2:* 7-9 weeks (222-252 hours).

Exhibit Dates: *Version 1:* 11/72-12/73. *Version 2:* 4/70-10/72.

Objectives: To train officers to perform as base procurement officers.

Instruction: *All Versions:* Lectures and practical exercises in the fundamentals, policies, and procedures of procurement. *Version 1:* Course includes procurement fundamentals, formal advertising and negotiation, specialized procurement procedures and administration. *Version 2:* Course includes statutes and publications governing procurement, procurement and production authorities and delegations, programming, budgeting and funding, value engineering, quality assurance, disputes and appeals, formal advertising, and negotiation; procurement management; base procurement organization; vendor-procurement personnel relationship; types of base procurement contracts; and contract administration.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in procurement or purchasing (8/74). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in procurement or purchasing (8/74).

AF-1405-0039

LOGISTICS PLANNER

Course Number: 3AZR66000.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 6 weeks (156 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To train enlisted personnel to serve as logistics planners for supply, maintenance, transportation, procurement, and service functions.

Instruction: Lectures and practical exercises in logistics planning for supply, maintenance, transportation, procurement, and service functions. Course includes introduction to logistics planning, programming and budgeting management of war reserve materiel, and mobility concepts and procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in logistics (8/74).

AF-1405-0040

CHIEF OF SUPPLY MANAGEMENT

Course Number: 3OZR6411.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/71-12/73.

Objectives: To train selected commissioned officers to perform as supply managers.

Instruction: Lectures and practical exercises in the management of supply functions. Course includes supply management responsibilities, repair cycles, bench stock, materiel facilities, equipment management, stock control, stock funds, data analysis, fuels and munitions.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in supply management (8/74).

AF-1405-0043

RESEARCH AND DEVELOPMENT PROCUREMENT OFFICER

Course Number: 3OBR6531-6.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 6-9 weeks (180-258 hours).

Exhibit Dates: 4/70-12/73.

Objectives: To train selected commissioned officers to perform duties in the procurement of research and development services.

Instruction: Lectures and practical exercises in the procurement of research and development services. Course includes fundamentals of procurement and production; planning, programming and budgeting; processing of purchase requests; evaluation of proposals and work statements; technical coordination; funding; and selection of contracts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in research and development procurement (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in research and development procurement (8/74); in the upper-division baccalaureate category, 2 semester hours in research and development procurement (8/74).

AF-1405-0045

1. MEDICAL MATERIEL SUPERVISOR (B-3500)
2. MEDICAL MATERIEL SUPERVISOR
3. MEDICAL MATERIEL SUPERVISOR

Course Number: *Version 1:* 3AZR71570. *Version 2:* AAR91570-1; AAR91570; AAR90671. *Version 3:* AA90671.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX; *Version 2:* Medical Service School, Gunter AFB, AL. *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 5 weeks (150 hours). *Version 2:* 6-7 weeks (210-258 hours). *Version 3:* 10 weeks (390 hours).

Exhibit Dates: *Version 1:* 5/71-12/73. *Version 2:* 5/62-4/71. *Version 3:* 7/55-4/62.

Objectives: To train enlisted personnel to perform supervisory and managerial duties in medical materiel services.

Instruction: *All Versions:* Lectures and practical exercises in the supervision and management of medical materiel services. *Version 1:* Course includes electronic data processing systems; processing and quality control of computer input and output; inventory control; inventory management; equipment control; and budgetary control. *Version 2:* Course includes accounting and document control; acquisition and management of medical materiel stocks; administrative practices and procedures, principles of management and personnel; and principles of effective communication.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in introduction to computer science, 3 in business administration (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in supply administration(12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0047

AMMUNITION OFFICER (MUNITIONS) (Ammunition Officer)

Course Number: OBR3251A; OB3251.

Location: 3425th Technical School, Lowry AFB, CO.

Length: 8-12 weeks (240-360 hours).

Exhibit Dates: 10/54-12/68.

Objectives: To train officers as ammunition officers.

Instruction: Lectures and practical exercises in the duties of ammunition officers, including air armament administration and management; ammunition general familiarization; CW-BW agents, munitions, and protective measures; decontamination; supply, storage, and disposal of ammunition and explosives; and nuclear weapons.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AF-1405-0048

PURCHASING AND CONTRACTING OFFICER (Procurement Officer)

Course Number: OB6441.

Location: 3450th Technical School, Warren AFB, WY.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 11/55-12/68. *Version 2:* 12/54-10/55.

Objectives: To train officers and civilian personnel in purchasing and contracting.

Instruction: *All Versions:* Lectures and practical exercises in purchasing and contracting, including introduction to procurement, and procurement policies and procedures. *Version 2:* Topics include contract administration and termination.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in principles of contract negotiation (12/68). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in principles of contract negotiation (12/68).

AF-1405-0049

AUTOMOTIVE SHOP MANAGEMENT

Course Number: AZR47170; ATS47000-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 12/58-12/68.

Objectives: To train personnel in automotive shop management.

Instruction: Lectures and practical exercises in automotive shop management, including publications and related maintenance subjects; shop organization, supply functions, and shop layout; inspection and production control operations; and administration, supervision and training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0050

WAREHOUSING SUPERVISOR

Course Number: AA64171.

Location: 3450th Technical School, Warren AFB, WY.

Length: 6-7 weeks (180-210 hours).

Exhibit Dates: 8/54–12/68.

Objectives: To train warehouse specialists to supervise warehouse activities.

Instruction: Lectures and practical exercises in the supervision of warehouse activities. Course includes classification of equipment, use of supply catalogs, technical publications, planning and arrangement of storage facilities, WNK measurement, inventory preparation, and disposal procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

AF-1405-0051

INVENTORY MANAGEMENT SPECIALIST BY CORRESPONDENCE

Course Number: 64550.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 11/86–Present. *Version 2:* 10/83–10/86.

Objectives: The inventory management course provides information regarding inventory procedures, recordkeeping and filing of records concerning materials and equipment in stock.

Instruction: The course content provides background information and specific procedures for completing inventory records, requisitioning materials, preparing stock control records and reports, issuing supplies and materials, handling retail sales, preparing cash receipts, and filing various records.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in inventory control (2/87), in the lower-division baccalaureate/associate degree category, 2 semester hours in records management, 1 in filing, 1 in data processing (2/87). *Version 2:* In the vocational certificate category, 2 semester hours in inventory of material (10/85), in the lower-division baccalaureate/associate degree category, 2 semester hours in records management, 1 semester hour in filing (10/85).

AF-1405-0052

1. SUPPLY MANAGEMENT STAFF OFFICER
2. SUPPLY MANAGEMENT STAFF OFFICER
3. SUPPLY MANAGEMENT STAFF OFFICER
4. SUPPLY MANAGEMENT STAFF OFFICER (Supply Staff Officer)
5. SUPPLY STAFF OFFICER (Supply Officer) (Advanced Supply Officer)
6. SUPPLY STAFF OFFICER (Supply Officer) (Advanced Supply Officer)

Course Number: *Version 1:* 3OAR6411-1. *Version 2:* 3OAR6411-1. *Version 3:* 3OAR6411-1. *Version 4:* OAR6411-1; OAR6411. *Version 5:* OAR6411; OA6411. *Version 6:* OA6411; OAR6411.

Location: *Version 1:* 3415th Technical School, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO. *Version 3:* 3415th Technical School, Lowry AFB, CO. *Version 4:* 3415th Technical School, Lowry AFB, CO. *Version 5:* 3320th Technical School, Amarillo AFB, TX. *Version 6:* 3450th Technical School, Warren AFB, WY.

Length: *Version 1:* 5 weeks (150 hours). *Version 2:* 6–8 weeks (244 hours). *Version 3:* 6 weeks (180 hours). *Version 4:* 8–9 weeks (234–267 hours). *Version 5:* 10 weeks (294–300 hours). *Version 6:* 10 weeks (294–300 hours).

Exhibit Dates: *Version 1:* 9/70–12/73. *Version 2:* 12/69–8/70. *Version 3:* 6/68–11/69. *Version 4:* 11/63–5/68. *Version 5:* 8/55–10/63. *Version 6:* 8/55–10/63.

Objectives: To train personnel as supply staff officers or to give supply officers advanced training.

Instruction: *All Versions:* Lectures and practical exercises in supply, including allied supply support, supply services, management, and base supply accounting. *Version 1:* Topics include control of the supply system, analysis of major command management objectives, applied management principles and techniques, analysis of supply management reports and listings, interrelationships between various base support functions and base supply, relationship of base supply to AFLC depots, general techniques of internal operation for base supply branches and sections, and specific techniques for management of functional areas. *Version 2:* Topics include control of the supply system, analysis of major command management objectives, applied management principles and techniques, analysis of supply management reports and listings, interrelationships between various base support functions and base supply, relationship of base supply to AFLC depots, general techniques of internal operation for base supply branches and sections, and specific techniques for management of functional areas. *Version 3:* Topics include staff study reports and staff visits, supply financial management systems, supply improvement and work measurement programs, management controls, placement and management of Air Force assets, supply sources, prescribed storage procedures, monetary and item accounting, ground communications and electronics, management techniques, disposition of excesses and electronic data processing, operational plans and programs, budget and funding, and weapon and ballistic missile support systems. *Version 4:* Topics include staff study reports and staff visits, supply financial management systems, supply improvement and work measurement programs, management controls, placement and management of Air Force assets, supply sources, prescribed storage procedures, monetary and item accounting, ground communications and electronics, selective management techniques, disposition of excesses, mechanized and electronic data processing, operational plans and programs, budget and funding, weapon and ballistic missile support systems, and facilities planning. *Version 5:* Topics include publications in supply management, inventory control, and the management process. *Version 6:* Topics include publications, inventory control, and the management process.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in supply management (8/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in supply management (8/74). *Version 3:* In the upper-division baccalaureate category, 1 semester hour in supply management (8/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in supply management (8/74). *Version 5:* In the upper-division baccalaureate category, 2 semester hours in supply management (8/74). *Version 6:* In the upper-division baccalaureate category, 2 semester hours in supply management (8/74).

AF-1405-0055

PROCUREMENT OFFICER

Course Number: *Version 1:* 3OBR6531-1. *Version 2:* OBR6531; OBR6621; OB6621. *Version 3:* OBR6531; OBR6621; OB6621.

Location: *Version 1:* 3415th Technical School, Lowry AFB, CO. *Version 2:* 3320th Technical School, Amarillo AFB, TX. *Version 3:* 3450th Technical School, Warren AFB, WY.

Length: *Version 1:* 7 weeks (204 hours). *Version 2:* 6–7 weeks (180–240 hours). *Version 3:* 6–7 weeks (180–240 hours).

Exhibit Dates: *Version 1:* 9/68–12/73. *Version 2:* 6/56–8/68. *Version 3:* 6/56–8/68.

Objectives: To train commissioned officers to perform as procurement officers.

Instruction: Lectures and practical exercises in the duties of a procurement officer. Topics include procurement procedures, methods of procurement, types of contracts, contract preparation, and administrative procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in procurement management (8/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in principles of contract negotiation (12/68). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in principles of contract negotiation (12/68).

AF-1405-0056

DISPOSAL MANAGEMENT

Course Number: OTS6631-1.

Location: 3320th Technical School, Amarillo AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/58–12/68.

Objectives: To train selected commissioned officers to manage and dispose of excess and surplus personal property.

Instruction: Lectures and practical exercises in the disposal and management of excess and surplus personal property. Course includes storage procedures; facilities; materials handling; establishment of records; reporting of excess property; planning and conducting spot bid sales, sealed bid sales, auctions, and retail and negotiated sales.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

AF-1405-0059

INVENTORY MANAGEMENT SUPERVISOR BY CORRESPONDENCE

Course Number: 64570.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84–Present.

Objectives: This courses provides a review of functions and procedures regarding inventory management in the Air Force and it provides information for supervisors in supervising, training, and assigning of personnel in inventory control.

Instruction: This course includes a review of various functions involved in inventory management such as completing inventory records, requisitioning materials, preparing stock control records and reports, issuing supplies and materials, handling retail sales and manual accounting procedures. In addition, it provides information for assigning, training and evaluating of personnel; for identifying, planning, developing, and changing procedures concerning inventory management; for interpreting policies; and for developing inventory schedules.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in record management (10/85). In the upper-division baccalaureate category, 2 semester hours in principles of supervision (10/85).

AF-1405-0060

PRODUCTION CONTROL SPECIALIST BY CORRESPONDENCE

Course Number: 55530.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 8/86-Present.

Objectives: To provide specialty knowledge and upgrade training as an apprentice production control specialist.

Instruction: This correspondence course consists of basic organization and supervision in production control; basic civil engineer automated management systems, work control and labor subsystems and maintnance; and work authorization and work planning.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/86).

AF-1405-0061

APPRENTICE PACKAGING SPECIALIST BY CORRESPONDENCE

Course Number: 60232.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84-6/89.

Learning Outcomes: At the conclusion of the course the student will be able to understand the packaging process and role of packaging control.

Instruction: Topics covered include general packaging, packaging control, the packaging process, documentation and specialized packaging requirements.

Credit Recommendation: In the vocational certificate category, 1 semester hour in warehouse supervision (2/87).

AF-1405-0062

PACKAGING SPECIALIST BY CORRESPONDENCE

Course Number: 60252.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/85-6/89.

Learning Outcomes: At the conclusion of the course the student will have an understanding of the packaging process and the role of packing control.

Instruction: Topics covered include general packaging, packaging control, the packaging process, documentation and specialized packaging requirements.

Credit Recommendation: In the vocational certificate category, 1 semester hour in warehouse supervision (2/87).

AF-1405-0064

INVENTORY MANAGEMENT SPECIALIST (MUNITIONS) BY CORRESPONDENCE

Course Number: 64550A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide information on supply systems, procedures, inventory management and automation procedures in munitions management.

Instruction: Instruction includes elements of data processing, records management inventory control, requisitioning procedures, shipping and receiving, documents control and preparation of reports.

Credit Recommendation: In the vocational certificate category, 1 semester hour in data processing, 1 in records management and 1 in report writing (2/87).

AF-1405-0065

INVENTORY MANAGEMENT SUPERVISOR (MUNITIONS) BY CORRESPONDENCE

Course Number: 64570A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/86-6/89.

Learning Outcomes: Upon completion of the course, the student will be able to provide information of supply systems, procedures, inventory management and automation procedures in munitions management.

Instruction: Instruction includes elements of data processing, records management, inventory management and control, requisitioning procedures, documents control and preparation of reports.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing and 1 in records management (2/87).

AF-1405-0066

SUPPLY SYSTEMS ANALYSIS SUPERVISOR BY CORRESPONDENCEE

Course Number: 64572.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the components of the Air Force Logistics system, understand the automated standard base supply system and its interfacing systems, be able to code Sperry job control language, understand data base concepts and operations and be able to access, update and maintain a complex computerized data base of supply information.

Instruction: Instruction includes two separate subject areas. One topic involves the specific components, jobs, procedures, and policies of Air Force Logistics and Supply. The other topic presented is data processing. This topic is introduced at the conceptual level and quickly progresses into the area of data base management systems. The student learns the commands to access, update and maintain the complex computerized data bases supporting Air Force supply systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing and 3 in data base management systems (2/87).

AF-1405-0067

INTRODUCTION TO THE QUALITY FUNCTION BY CORRESPONDENCE

Course Number: 6601.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/78-Present.

Learning Outcomes: At the conclusion of the course student will understand the function of quality control and assurance; know the components of a quality control program; have gained an appreciation of the special problems of quality control and assurance; and be able to evaluate and measure quality control.

Instruction: This course covers the quality control and assurance function, the various problems of quality control and assurance, developing a quality control program, and methods for evaluating and measuring quality. Although much of the orientation is on quality control in defense logistics, the instruction parallels the logistics cycle in industry.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in production control (2/87).

AF-1405-0068

MANAGEMENT OF VALUE ENGINEERING BY CORRESPONDENCE

Course Number: 6603.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the necessity of obtaining top quality products and services at the lowest prices, understand the need for cost reduction without sacrificing necessary functions and performance, understand the need for creative problem solving techniques, understand the need for studying problem analysis and functional cost analysis, and understand the need for minute planning in determining job, product and service specifications.

Instruction: Instruction includes creative thinking and and brainstorming techniques in the acquisition of products and services and how they relate to DOD activities. Also included are cost estimating, bid functions, contractual aspects and value judgement methodology and incentives in value engineering.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-1405-0069

INTEGRATED ORGANIZATIONAL AVIONIC SYSTEMS SPECIALIST BY CORRESPONDENCE

Course Number: 45250A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/89-Present.

Learning Outcomes: Upon completion of the course, the student will comprehend material management procedures, and indentify aircraft tools and hardware, perform solderless wire connections and understand the operating principles of a voltmeter, ohmmeter and ammeter.

Instruction: The student will receive instruction concerning material management procedures, various tools and hardware used on aircraft, indentification and construction of solderless electrical connections and the care and use of electrical measuring instruments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in materials management (12/89).

AF-1406-0003

RECRUITER

Course Number: 3AZR99120.

Location: School of Applied Aerospace Sciences (ATC), Lackland AFB, TX; 3275th Technical School, Lackland AFB, TX.

Length: 7 weeks (391 hours).

Exhibit Dates: 8/73-12/73.

Objectives: To train noncommissioned officers in the procedures and techniques of recruiting.

Instruction: Lectures in principles of recruiting, including sales techniques, record keeping, advertising principles and merchandising techniques, public relations, speech fundamentals and practice speaking, classifying and processing applicants, eligibility requirements, and techniques in qualifying a prospect.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in public relations or marketing (2/74).

AF-1406-0004

1. Manpower Management Technician
2. Management Technician

Course Number: *Version 1:* AL73330. *Version 2:* AL80170.

Location: 3310th Technical School, Scott AFB, IL. *Version 1:* 3700th Technical School, Lackland AFB, TX.

Length: *Version 1:* 6-8 weeks (180-240 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 9/55-12/68. *Version 2:* 5/54-8/55.

Objectives: To train airmen to perform studies of management methods, organizational structures, and manpower utilization and allocation.

Instruction: *All Versions:* Lectures and practical exercises in analysis of organizational structures, and in utilization of manning tables, personnel methods, and management techniques. *Version 1:* Lectures on conducting management training and on management engineering techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in management analysis, and 2 in principles of personnel management (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in personnel administration (12/68).

AF-1406-0005

Personnel Specialist
(Classification Specialist)

Course Number: 3ABR73230; 3ABR73230-1; ABR73230-1; ABR73230; AB73230; AB73231.

Location: 3380th Technical School, Keesler AFB, MS; 3320th Technical School, Amarillo AFB, TX; 3505th Technical School, Greenville AFB, MS; 3700th Technical School, Lackland AFB, TX; 3310th Technical School, Scott AFB, IL.

Length: 7-18 weeks (306-480 hours).

Exhibit Dates: 5/54-12/73.

Objectives: To provide airmen with the knowledge and skills of apprentice personnel specialists.

Instruction: Lectures in career assistance and counseling; personnel records; data control; typing; and pay, allowances, and personal affairs procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel classification, and credit in typing on the basis of institutional evaluation (12/68).

AF-1406-0006

Recruiter
(USAF Recruiter)

Course Number: AZR99120; XX99020; SS99020.

Location: 3275th Technical School, Lackland AFB, TX; 3700th Technical School, Lackland AFB, TX.

Length: 8-9 weeks (228-308 hours).

Exhibit Dates: 1/55-12/68.

Objectives: To train enlisted personnel to be recruiters.

Instruction: Lectures in recruiting, including information dissemination, speech fundamentals, telephone techniques, processing applicants, counseling, service benefits, eligibility requirements, selective recruiting concepts, reporting for the press, community relations, radio and TV, high school program, printed publicity, practice speaking, and practice selling.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in salesmanship (6/74).

AF-1406-0009

Criterion Referenced Instruction (CRI) Workshop

Course Number: CRI-1; 120010.

Location: Tactical Air Command, Nellis AFB, NV; Strategic Training Squadron (SAC), Patrick AFB, FL; Strategic Training Squadron (SAC), Shaw AFB, SC; Strategic Training Squadron (SAC), Luke AFB, AZ; Strategic Training Squadron (SAC), Holloman AFB,NM; Strategic Training Squadron (SAC), Hill AFB, UT; Strategic Training Squadron (SAC), Luke AFB, AZ; Strategic Training Squadron (SAC), Davis-Monthan AFB, AZ; Strategic Training Squadron (SAC), Cannon AFB,NM; Strategic Training Squadron (SAC), Mt. Home AFB, ID; Strategic Training Squadron (SAC), George AFB, CA; Strategic Training Squadron (SAC), Tinker AFB, OK; Strategic Training Squadron (SAC), Eglin AFB, FL; Strategic Training Squadron (SAC), Carswell AFB, TX.

Length: Self-paced 3 weeks (120 hours).

Exhibit Dates: 4/76-1/88.

Objectives: The course is designed for U.S. Air Force officers, airmen and civilian personnel to teach the preparation of criterion-referenced instruction to support Instructional System.

Instruction: Training includes performing task and goal analyses, preparing criterion objectives and tests, identifying relevant course aterials, designing course control documents, and applying performance management principles. Emphasis is placed on anaysis, design, and implementation. Course is conducted in a self-paced workshop format in a 3-week, 120-hour design and provides learning materials, multi-media instruction, and resource persons to enrollees.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in instructional design (8/77); In the graduate degree category, credit may be considered on the basis of individual institutional policy and evaluation (9/79).

AF-1406-0010

Pilot Instructor Training (T-38)

Course Number: F-V5A-B.

Location: Air Training Command, Randolph AFB, TX; Air Training Command, Tyndall AFB, FL.

Length: 13 weeks (210 hours).

Exhibit Dates: 2/73-2/90.

Objectives: To train pilots as instructor pilots.

Instruction: Lectures and practical exercises in pilot instructor training, including policies and procedures, contact flying, formation flying, synthetic instrument training, instrument flying, principles of instruction, aircraft systems, applied aerodynamics, flight planning, air traffic control, pilot procedures, flight rules, and methods and techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods (6/75).

AF-1406-0011

Pilot Instructor Training (T-41)

Course Number: F-V5C-B; F-V5C-B-O.

Location: Air Training Command, Petersen Field, CO.

Length: 5 weeks (93-97 hours).

Exhibit Dates: 9/67-5/74.

Objectives: To train pilots as aircraft instructor pilots.

Instruction: Lectures and practical exercises in instructional methods as applied to flight training. Course includes flight training, aircraft systems, flying safety, and principles of instruction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in teacher education (6/74); in the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (12/68).

AF-1406-0021

Pilot Instructor Training (T-37)

Course Number: F-V5A-A; F111507Q.

Location: Air Training Command, Randolph AFB, TX; Air Training Command, Perrin AFB, TX; Air Training Command, James Connally AFB, TX; Air Training Command, Williams AFB, AZ.

Length: 9-13 weeks (192-224 hours).

Exhibit Dates: 4/63-2/90.

Objectives: To train pilots as flight instructors in T-37 aircraft.

Instruction: Lectures and practical exercises in methods of instruction, grading and testing techniques, aircraft systems, applied aerodynamics, flight planning, flying safety, base management system, and contact, instrument and formation flying.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods (6/75).

AF-1406-0023

Technical Instructor

Course Number: 5AIK75100.

Location: Security Service School, Goodfellow AFB, TX.

Length: *Version 1:* 16 weeks (480 hours). *Version 2:* 6 weeks (172 hours).

Exhibit Dates: *Version 1:* 4/71-12/73. *Version 2:* 4/68-3/71.

Objectives: To train newly assigned instructor personnel to perform classroom instruction.

Instruction: Lectures and practical exercises in instructional methods. Course includes principles of learning, communication skills, instructional aids, evaluation techniques, instructional management, and a wide range of material in the psychology and philosophy of education.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in tests and measurement, 6 in instructional methods (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

AF-1406-0024

1. INSTRUCTIONAL SYSTEMS MATERIALS DEVELOPMENT
   (Instructional Programmer)
2. INSTRUCTIONAL PROGRAMMER

Course Number: *Version 1:* 3AZR75100. *Version 2:* AZR75100.

Location: *Version 1:* 3275th Technical School, Lackland AFB, TX; *Version 1:* 3375th Technical School, Lackland AFB, TX. *Version 2:* 3375th Technical School, Lackland AFB, TX.

Length: 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 1/71-12/73. *Version 2:* 11/65-12/70.

Objectives: To train airmen and officers in instructional systems technology.

Instruction: *All Versions:* Lectures and practical exercises in instructional programming/systems technology, including theory of programmed/systems instruction, program planning and writing, test development, editing instructional materials, and task/subject analysis. *Version 1:* Includes development of learning objectives, theory of self-instruction and self-instructional programs, instructor-presented programs, audiovisual programs, and validation and implementation. *Version 2:* Includes stimulus-response inventory and teaching points, chaining procedures, and terminal and subterminal frames.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 10 semester hours in instructional technology with emphasis on programmed instruction (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in instructional programming in the field of teacher education (12/68).

AF-1406-0027

OTS INSTRUCTOR TRAINING

Course Number: 3OIR0904-1; 3OIR7531-1.

Location: Officer Training School, Lackland AFB, TX.

Length: 3 weeks (80-98 hours).

Exhibit Dates: 6/69-12/73.

Objectives: To train officers as instructors for officer training school.

Instruction: Lectures and practical exercises in the duties of instructors for officer training school, including psychology of learning, communications, practice teaching using lectures, discussion and demonstration/performance methods, measurement and evaluation procedures, sports refereeing, and school administrative procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in instructional technology (7/74).

AF-1406-0028

MULTI-MEDIA TEACHING SYSTEM
(DEVELOPMENT)

Course Number: 3AZR75173-1.

Location: Training Center, Lackland AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/69-12/73.

Objectives: To train enlisted personnel as traffic safety assistants capable of using multimedia teaching systems.

Instruction: Lectures and practical exercises in preparation of multimedia training materials for traffic safety courses, including curriculum analysis, learning objectives, teaching points and sequencing of teaching points, preparation of visual aids, selection of visual aids, script and audio track preparation, and visual assembly.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in instructional media methodology on the basis of institutional evaluation (7/74).

AF-1406-0029

INSTRUMENT PILOT INSTRUCTOR
(HELICOPTER)

Course Number: F-V5G-G.

Location: Air Training Command, Randolph AFB, TX.

Length: 6 weeks (188-195 hours).

Exhibit Dates: 8/72-1/88.

Objectives: To train rated helicopter pilots to perform as instrument flight instructors.

Instruction: Lectures and practical exercises in instrument flight instruction techniques and procedures. Course includes principles of instruction/evaluation, navigational aids, weather, and FAA regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in teacher education (7/74).

AF-1406-0030

TECHNICAL INSTRUCTOR

Course Number: *Version 1:* 3AIR75100-X; 3AIR75100-2; 3AIR75100-4; 3AIR75100-5; 3AIR75100-6. *Version 2:* 3AIR75100-6; AIR75100-1; AIR75100-2; AIR75100-3; AIR75100-4; AIR75100-6; IT75100-1; IT75100-4; IT75100-6; IT75100.

Location: Technical School, Lowry AFB, CO; Technical School, Lackland AFB, TX; Technical School, Amarillo AFB, TX; Technical School, Warren AFB, WY; Technical School, Parks AFB, CA; Technical School, Sheppard AFB, TX; Technical School, Keesler AFB, MS; Technical School, Scott AFB, IL; Technical School, Chanute AFB, IL; Technical School, Randolph AFB, TX.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 8 weeks (240-246 hours).

Exhibit Dates: *Version 1:* 3/68-1/87. *Version 2:* 11/54-2/68.

Objectives: To train enlisted personnel as technical instructors.

Instruction: *All Versions:* Lectures and practical exercises in instructional methods and techniques, including communication, learning principles, developmental teaching concepts, preparing objectives and lessons, various methods of teaching, instructional aids, counseling, measurement procedures, study techniques, and administration and practice teaching. *Version 1:* Includes programmed instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in observation and methods, 2 in instructional technology, and 3 in practice teaching (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

AF-1406-0031

PERSONNEL STAFF OFFICER

Course Number: 3OAR7311; OAR7311.

Location: 3380th Technical School, Keesler AFB, MS; 3320th Technical School, Amarillo AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/67-12/73.

Objectives: To train personnel staff officers to manage personnel and to perform numerous personnel functions.

Instruction: Lectures and practical exercises in personnel management. Topics include human relations and management; personnel data systems; planning and programming; performance evaluation systems; and military-related personnel subjects.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel management (12/68).

AF-1406-0032

MAJOR COMMAND (MAJCOM)
MANPOWER PROCEDURES

Course Number: 2ASR73370-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 5 weeks (150 hours).

Exhibit Dates: 5/68-2/71.

Objectives: To train enlisted personnel as manpower specialists.

Instruction: Lectures and practical exercises in data code and allocation routines, basic authorization and unit control routines, balance routine, manpower reports, and inquiry routines.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in manpower management (12/68).

AF-1406-0033

PROFESSIONAL PERSONNEL MANAGEMENT

Course Number: LMDC 501.

Location: Leadership and Management Development Center, Air University, Maxwell AFB, AL.

Length: 6 weeks (204-248 hours).

Exhibit Dates: 6/66-1/88.

Objectives: To train senior personnel in advanced management techniques.

Instruction: Lectures and practical exercises in the skills necessary to manage and handle facets of personnel management. Course includes Department of Defense management environment, management processes, human relations, management systems and quantitative methods, and personnel processes.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in management, 3 in labor relations (2/74).

AF-1406-0034

ACADEMIC INSTRUCTOR

Course Number: None.

Location: Air University, Maxwell AFB, AL.

Length: *Version 1:* 5-6 weeks (200-240 hours). *Version 2:* 6 weeks (260 hours). *Version 3:* 6 weeks (260-264 hours).

Exhibit Dates: *Version 1:* 6/68-1/88. *Version 2:* 1/64-5/68. *Version 3:* 1/54-12/63.

Objectives: To train commissioned officers to improve their effectiveness as academic instructors.

Instruction: Lectures and practical exercises in the improvement of academic instruction techniques. Course includes educational foundations and philosophy, communication techniques, test and measurement, educational methodology, instructional technology, and instructional television.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in educational foundations and philosophy, 1 in communication techniques, 4 in educational methodology, 2 in instructional technology, 2 in tests and measurement, 3 in instructional television (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in educational foundations and philosophy, 1 in communication techniques, 4 in educational methodology,2 in instructional technology, 2 in tests and measurements, 3 in instructional television (7/74); in the upper-division baccalaureate category, 3 semester hours in instructional methods (12/68). *Version 2:* In the vocational certificate category, 2 semester hours in educational foundations and philosophy, 1 in communication techniques, 1 in tests and measurements, 5 in educational methodology, 2 in instructional technology, 3 in instructional television (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in educational foundations and philosophy, 1 in communication techniques, 1 in tests and measurement, 5 in educational methodology, 2 in instructional technology, 3 in instructional television (7/74); in the upper-division baccalaureate category, 3 semester hours in instructional methods (12/68). *Version 3:* In the vocational certificate category, 2 semester hours in educational foundations and philosophy, 1 in communication and techniques, 1 in tests and measurement, 5 in educational methodology, 2 in instructional technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in educational foundations and philosophy, 1 in communication techniques, 1 in tests and measurement, 5 in educational methodology, 2 in instructional technology (7/74); in the upper-division baccalaureate category, 3 semester hours in instructional methods (12/68).

AF-1406-0035

MANPOWER MANAGEMENT OFFICER

Course Number: OL7331.

Location: 3310th Technical School, Scott AFB, IL.

Length: 7 weeks (210 hours).

Exhibit Dates: 12/54-12/68.

Objectives: To train selected officers and civilians to perform as manpower managers.

Instruction: Lectures and practical exercises in the duties of a manpower manager. Course includes manpower management and program planning; conference leadership; executive development and human relations; work simplification and measurement, production planning and industrial organization; mission organization analysis and management review; and manning procedures and classification and assignment of military personnel.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in manpower management methods (12/68).

AF-1406-0036

PERSONNEL OFFICER

Course Number: *Version 1:* 3OBR7321. *Version 2:* OBR7321-1. *Version 3:* OBR7321. *Version 4:* OBR7321. *Version 5:* OB7321. *Version 6:* OB7321.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3320th Technical School, Amarillo AFB, TX. *Version 3:* 3505th Technical School, Greenville AFB, MS. *Version 4:* 3505th Technical School, Greenville AFB, MS. *Version 5:* 3275th Technical School, Lackland AFB, TX. *Version 6:* 3310th Technical School, Scott AFB, IL.

Length: *Version 1:* 8 weeks (228 hours). *Version 2:* 8-9 weeks (240-264 hours). *Version 3:* 12 weeks (360 hours). *Version 4:* 8-9 weeks (240-270 hours). *Version 5:* 12-15 weeks (360-450 hours). *Version 6:* 12-15 weeks (360-450 hours).

Exhibit Dates: *Version 1:* 3/71-12/73. *Version 2:* 7/65-2/71. *Version 3:* 9/63-6/65. *Version 4:* 7/61-8/63. *Version 5:* 6/54-6/61. *Version 6:* 6/54-6/61.

Objectives: To train officers as personnel officers.

Instruction: *All Versions:* Lectures and practical exercises in supervising and coordinating the classification and assignment of military and civilian personnel, including personnel fundamentals and procedures. *Version 1:* Topics include personnel data systems; career control; quality control; and processing section, personal affairs section and administration. *Version 2:* Topics include career control and administration, quality control, and data control and personal affairs. *Version 3:* Topics include personal affairs fundamentals and procedures, and personnel administration and data systems. *Version 5:* Topics include personnel administration and control methods. *Version 6:* Topics include personnel administration and control methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in personnel administration (8/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in personnel classification (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in personnel classification (12/68). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in personnel classification (12/68). *Version 5:* In the upper-division baccalaureate category, 6 semester hours in personnel classification (12/68). *Version 6:* In the upper-division baccalaureate category, 6 semester hours in personnel classification (12/68).

AF-1406-0037

RECRUITING OFFICER

Course Number: 3OZR0902.

Location: School of Applied Aerospace Sciences, Lackland AFB, TX.

Length: 3 weeks (90-118 hours).

Exhibit Dates: 4/73-12/73.

Objectives: To train selected commissioned officers to manage recruiting activities.

Instruction: Lectures and practical exercises in the management of recruiting activities. Course includes salesmanship, sales management, sales training, and sales promotion.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in salesmanship (8/74).

AF-1406-0038

AIR NATIONAL GUARD RECRUITER

Course Number: 3AZR99120-2.

Location: School of Applied Aerospace Sciences, Lackland AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/73-12/73.

Objectives: To train commissioned and noncommissioned officers to recruit personnel for the armed services.

Instruction: Lectures and practical exercises in the recruitment of personnel into the armed services. Course includes speech fundamentals; sales fundamentals; practice selling; community relations; advertising and publicity; eligibility requirements; and processing and classification.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in salesmanship (8/74).

AF-1406-0039

1. ATC INSTRUCTOR TRAINING
   (ATC Instructor Training (Navigator))
2. ATC INSTRUCTOR TRAINING
   (NAVIGATOR)
3. ATC INSTRUCTOR TRAINING
   (NAVIGATOR)
   (Navigator Instructor Training)
   (Instructor Training for Aircraft Observer)

Course Number: *Version 1:* B-V7D-A. *Version 2:* B-V7D-A. *Version 3:* 753101-N; 753100; 51-33.

Location: Air Training Command, Mather AFB, CA. *Version 3:* Air Training Command, Scott AFB, IL.

Length: *Version 1:* 10-14 weeks (261-403 hours). *Version 2:* 8 weeks (95 hours). *Version 3:* 5-6 weeks (104-200 hours).

Exhibit Dates: *Version 1:* 5/74-1/88. *Version 2:* 8/70-4/74. *Version 3:* 1/51-7/70.

Objectives: To train enlisted personnel to perform the duties of flight trainer and academic instructor in a navigator training program.

Instruction: Lectures and practical exercises in the duties of an instructor in a navigator flight training program. Course includes psychology of learning, oral and written communications techniques, evaluation and measurement of student achievement, instructional technology, and practice teaching.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods and/or technology, 1 in observation and methods (7/74); in the upper-division baccalaureate category, 3 semester hours in instructional methods and/or instructional technology, 1 in observation and methods (7/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods and/or technology, 1 in observation and methods (7/74); in the upper-division baccalaureate category, 2 semester hours in instructor training (12/68).

AF-1406-0040

PERSONNEL TECHNICIAN

Course Number: AAR73270-1; AAR73270; AA73270.

Location: *Version 1:* 3320th Technical School, Amarillo AFB, TX. *Version 2:* 3505th Technical School, Greenville AFB, MS. *Version 3:* 3275th Technical School, Lackland AFB, TX. *Version 4:* 3310th Technical School, Scott AFB, IL.

Length: 8-11 weeks (240-330 hours).

Exhibit Dates: 9/54-12/68.

Objectives: To train enlisted personnel as personnel administration technicians.

Instruction: Lectures and practical exercises in personnel administration, including interviewing and counseling techniques, job analysis, personnel testing, classification and assignment of officer and enlisted personnel, military records, personnel actions, personnel evaluation, pay and benefits, accounting, and personnel data system.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in personnel classification (12/68).

AF-1406-0041

ATC Instructor Training

Course Number: S-V8D-A.

Location: Air Training Command, Randolph AFB, TX.

Length: 3-4 weeks (96-98 hours).

Exhibit Dates: 1/75-1/88.

Objectives: To train technically qualified personnel to teach and supervise the instruction of academic and technical subjects.

Instruction: Lectures and practical exercises in course curriculum development; psychology of learning; communications; methods and techniques of instruction; practice teaching; and techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in teacher education (6/75); in the upper-division baccalaureate category, 2 semester hours in teacher education (6/75).

AF-1406-0043

Personnel Technician by Correspondence

Course Number: 73270.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/83-4/87.

Objectives: To provide specialty training in the management of personnel control systems.

Instruction: This course is designed to provide personnel technicians with an overview of a personnel data system and its interface with the organization's computer system, with assessment techniques for selection, and with procedures for maximizing personnel utilization including placement, advancement, transfer, and separation.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in personnel management or human resource management (10/85).

AF-1406-0044

Personnel Specialist by Correspondence

Course Number: 73250.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 2/82-9/88.

Objectives: To train personnel technicians in the basic areas of human resource management and to familiarize them with the policies and procedures relating to evaluation, placement and movement of personnel.

Instruction: The course addresses the duties and responsibilities of the personnel technician in the areas of interviewing, position classification, auditing of personnel records and reports, career motivation counseling, data collection, and the conducting of occupational surveys.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration or human resource management (10/85).

AF-1406-0045

Administration Specialist by Correspondence

Course Number: 70250.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of this course the student will have knowledge of the flow of communications in administration offices, administration correspondence, documentation, word processing and records management.

Instruction: Topics included in this course are objectives of publications management, freedom of information act, administrative correspondence, preparation of performance reports, documentation, word processing, records, and forms management, preparing publications and distributing administrative communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications (2/87).

AF-1406-0046

Administration Technician by Correspondence

Course Number: 70270.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of this course the student will have knowledge of the communications process, the flow of communications, administrative correspondence, documentation, word processing and records management.

Instruction: Topics in this course include objectives of publications management, administrative correspondence, preparation of performance reports, documentation, word processing, records management and distributing administrative communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business communications (2/87).

AF-1406-0047

Legal Services Specialist by Correspondence

Course Number: 70550.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of this course the student will have knowledge of legal office administration and management, legal reserach, claims procedures, the tort claims act and claims investigations.

Instruction: Topics in this course include legal office administration and management, military justice administration, automated military justice analysis and management systems, claims procedures, federal tort act and property damage tort claims.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in business management (2/87).

AF-1406-0048

Career Advisory Specialist by Correspondence

Course Number: 73234.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 11/88-Present. *Version 2:* 9/85-11/88.

Learning Outcomes: At the conclusion of this course the student will know the duties of the career advisor, know the re-enlistment and bonus programs, know the interview techniques to optimize retention, and become aware of the various publicity and advertising programs.

Instruction: This course covers the specialized area of the recruitment and retention of Air Force personnel. Instruction includes the role of the career advising specialist, Air Force re-enlistment options and the various retention techniques, publicity and advertising programs used by the Air Force.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in personnel supervision (2/87).

AF-1406-0049

Personal Affairs Specialist by Correspondence

Course Number: 73251.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84-Present.

Learning Outcomes: At the conclusion of this course the student will understand the benefits, support services, and various aid groups in order to assist and advise Air Force personnel in their personal affairs; and understand the duties and responsibilities of a supervisor.

Instruction: This course covers the benefit programs, support services and various assistance groups available to Air Force personnel concerning their personal affairs. Topics include insurance programs, hospitalization coverage, awards and decorations, legal issues, payroll, retirement, and training. Also covered are interviewing and briefing techniques and a survey of supervision and training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (2/87).

AF-1406-0050

Personal Affairs Technician by Correspondence

Course Number: 73271.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/82-4/87.

Learning Outcomes: At the conclusion of this course the student will understand the benefits, support services, and various aid groups in order to assist and advise Air Force personnel in their personal affairs, and understand the duties and responsibility of a supervisor.

Instruction: Topics include insurance programs, hospitalization, awards and decorations, legal issues, payroll, retirement, and training. Also covered are interviewing and briefing techniques and a survey of supervision and training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (2/87).

AF-1406-0051

Career Advisory Technician by Correspondence

Course Number: 73274.

Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/83–Present.
Learning Outcomes: At the conclusion of the course the student will know the duties of the Career Assistance Unit, know the components of the Air Force re-enlistment and bonus programs, understand the various Air Force publicity and advertising initiatives, understand the factors affecting human behavior and motivation, and know various selling and interview techniques.
Instruction: Instruction covers the specialized area of the recruitment and retention of Air Force personnel. Instruction includes the specific duties of the Career Assistant Unit, the psychology of human behavior and motivation, various selling and interview techniques, and a detailed presentation on the re-enlistment options and bonus programs in the Air Force.
Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel supervision (2/87).

AF-1406-0052

Manpower Management Technician by Correspondence

Course Number: 73371.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/86–Present.
Learning Outcomes: At the conclusion of this course the student will have a thorough understanding of the organizational structure of the Air Force and a thorough knowledge of the function of personnel administration/management.
Instruction: Subject areas include career opportunities, planning, budgeting, supervision, training, human relations, employee standards development theory and practice, work measurement, time studies, data analysis and presentation through probability, statistics and queing theory, interviewing techniques, conducting workshops.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in statistics and probability or quantitative methods (2/87); in the upper-division baccalaureate category, 3 semester hours in personnel administration/management (2/87).

AF-1406-0053

Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence

Course Number: 73470A.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 4/86–Present.
Learning Outcomes: Upon completion of this course the student will be able to function as a social actions technician; interpret the freedom of information act; prepare lesson plans and and teaching materials; provide counseling on social problems; and handle human relations problems in the Air Force.
Instruction: Topics included in this course are the Freedom of Information Act, teaching methods, communicative skills, lesson planning, the lecture method, guided discussion group leadership, instructional aids, organizational assessment, the interview process, survey techniques organizational management tools, personal growth and development, types of counseling, recognition of social problems, social tensions, racism, sexism, minority awareness and prevention and treatment of social prblems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in methods of teaching vocational education, and 1 in personnel management (2/87).

AF-1406-0054

Social Actions Technician (Drugs/Alcohol) by Correspondence

Course Number: 73470B.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 3/86–Present.
Learning Outcomes: Upon completion of the course, the student will be able to function as a social action technician, prepare lesson plans and teaching materials, provide counseling in social problems, and handle human relations problems.
Instruction: Instruction includes tracking methods, communication skills, lesson planning, the lecture method, guided discussions, group leadership, instructional aids, organizational assessment, the interview process, survey techniques, organizational management tools, personal growth and development, types of counseling, recognition of social problems, social tensions, prevention and treatment of social problems and program management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in methods of teaching vocational education and 1 in personnel administration (2/87).

AF-1406-0055

Apprentice Fitness and Recreation Specialist by Correspondence

Course Number: 74131.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to have a basic understanding of recreational programming.
Instruction: Instruction includes a survey level course which introduces students to the field of recreational and sports programs. Topics include Air Force recreation policies and procedures, recreational program bookkeeping, and a discussion on types of recreational activities, planning recreation programs, rules of select games, and tournament play.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recreation/recreational programming (2/87).

AF-1406-0056

Fitness and Recreation Specialist by Correspondence

Course Number: 74151.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to be knowledgeable in the mission, policies, procedures, and practices of the Air Force's recreational programs.
Instruction: Instruction includes the concepts of recreational programs with an emphasis on specific Air Force policies, procedures and forms in the morale, welfare, and recreation section.
Credit Recommendation: In the vocational certificate category, 1 semester hour in recordkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in recreation/recreational programming (2/87).

AF-1406-0057

Fitness and Recreation Supervisor by Correspondence

Course Number: 74171.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/85–Present.
Learning Outcomes: At the conclusion of the course the student will have a thorough understanding of the Air Force's morale, welfare and recreation programs and the supervisors duties and responsibilities.
Instruction: The course presents detailed coverage in the administration and operation of Air Force's morale, welfare and recreation programs. Specific tropics covered include the recordkeeping, accounting, budgeting, personnel management, training, program development necessary for an effective program.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recreation/recreation programming/recreation services (2/87).

AF-1406-0058

Open Mess Management Specialist by Correspondence

Course Number: 74250.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/82–Present.
Learning Outcomes: At the conclusion of the course the student will be able to have a working knowledge of the areas involved in the administration and operation of open mess facilities.
Instruction: This is a comprehensive course in the administration and operation of an open mess (food service) facility. The broad range of materials covered includes the administrative topics of food service such as supervision, budgeting, food costing techniques, inventory control, safety, insurance, facility issues, and promotion. The operational topics include nutrition, food preparation, serving techniques, identification and classification of food products and sanitation. Students are also introduced to special retail activities such as bar, package goods, and barbershop operations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to food service or introduction to restaurant management and 1 in retail management (2/87).

AF-1406-0059

Club Management Supervisor by Correspondence

Course Number: 74270.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/83–Present.
Learning Outcomes: At the conclusion of the course the student will have a working

knowledge in the many areas of club administration including principles of supervision, food service budgeting and costing concepts, and the fundamentals of food service and special activities management.

Instruction: This course covers the duties and responsibilities of the club management supervisor. Subject matter includes fundamentals of supervision, budgeting, food costing techniques, inventory control, safety issues, insurance, facility considerations and promotion.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to food service or introduction to restaurant management, and 1 in retail management (2/87).

AF-1406-0060

USAF Supervisor's by Correspondence

Course Number: 01100.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/85-6/89.

Learning Outcomes: At the conclusion of the course the student will know the duties and responsibilities of a supervisor, understand behavior psychology as it pertains to the role of the supervisor, understand the principles of management theory, organizational theory, and labor relations.

Instruction: This is a comprehensive principles of supervisors course. The course covers the behavior psychology issues affecting individuals in their role as a supervisor. Topics include management and organization theory, leadership development, motivation counseling, interpersonal skills and communication, words ethics and value identification. Instruction also includes a discussion on the duties and responsibilities of the supervisor. Topics such as production, scheduling, training, safety, labor relations and employee development are presented. The course uses case studies as an instructional aid.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management, or principles of supervision, or principles of management (2/87).

AF-1406-0061

Fighter Weapons Instructor A-10

Course Number: A10001DOPN.

Location: Fighter Weapons School, Nellis Air Force Base, NV.

Length: *Version 1:* 14 weeks (439-464 hours). *Version 2:* 12-13 weeks (387 hours). *Version 3:* 15 weeks (378 hours).

Exhibit Dates: *Version 1:* 7/4-Present. *Version 2:* 6/82-6/84. *Version 3:* 6/79-5/82.

Learning Outcomes: Upon completion of the course, the student will be able to design and participate in instructional programs for aircrew members relating to the function and capabilities of the A-10 aircraft and its systems. The student evaluates systems and advises regarding deficiencies, including such areas as application and maintenance; participates in and monitors training programs. Develop skills in communication and instructional areas.

Instruction: This course is specifically designed to provide the experienced Air Force pilot with a comprehensive pattern of academic study, independent research and appropriate laboratory activity (flight) in the A-10 weapons system. Major segments of this course address the technical subjects of aerodynamics/performance and avionics/electronics. In addition, a comprehensive treatment of teaching techniques and methodology as related to the presentation of technical data is included.

Credit Recommendation: *Version 1:* In the graduate degree category, 3 semester hours in applied aerodynamics in high performance aircraft, 3 in advanced avionics/electronics, and 2 in instructional methodology (5/89). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in applied aerodynamics in high performance aircraft, 3 in advanced avionics/electronics, and 2 in instructional methodology (5/89). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in applied aerodynamics in high performance aircraft and 1 in instructional methodology (5/89).

AF-1406-0062

Fighter Weapons Instructor - Air Weapons Controller

Course Number: 1745IDWN.

Location: Fighter Weapons School, Nellis Air Force Base, NV.

Length: *Version 1:* 14 weeks (277 hours). *Version 2:* 11 weeks (289 hours).

Exhibit Dates: *Version 1:* 6/86-Present. *Version 2:* 7/84-5/86.

Learning Outcomes: Upon completion of the course, the student will be able to instruct radar theory and systems for F-15 and F-16 aircraft plus AWACS, ground TACS radar and HORAD radar systems. Student will be able to apply and integrate all radar systems specified in the course.

Instruction: The course consists of classroom lectures, hand-ons application of radar scopes in a laboratory situation, student independent research leading to a paper and presentation in appropriate radar systems with teaching techniques and methodology of these subjects. Information systems management approach is stressed throughout the course.

Credit Recommendation: *Version 1:* In the graduate degree category, 5 semester hours in information systems and 2 in instructional methodology (9/87). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in instructional methodology and 2 in information systems (9/87).

AF-1406-0064

Fighter Weapons Instructor F-16

Course Number: F1600I0DPN.

Location: Fighter Weapons School, Nellis Air Force Base, NV.

Length: 15 weeks (487 hours).

Exhibit Dates: 2/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to instruct aerodynamics, aircraft systems and avionics/electronics as they apply to the F-16 aircraft.

Instruction: The course consists of classroom lectures, in-flight laboratories and independent student research into all aspects of the F-16 aircraft. Particular emphasis is directed at the study of aerodynamics, advanced systems and avionics/electronics as they apply to the operational mission of the F-16 aircraft. Teaching techniques and methodology, as they relate to the subjects listed above, are developed throughout the course.

Credit Recommendation: In the graduate degree category, 3 semester hours in applied aerodyamics in high performance aircraft, 3 in advanced aircraft systems and components, 3 in advanced avionics/electronics, and 2 in instructional methodology (3/89).

AF-1406-0065

Adversary Tactics Instructor (AFSC K1115H)

Course Number: F50000A1AN.

Location: Fighter Weapons School, Nellis Air Force Base, NV.

Length: *Version 1:* 13-15 weeks (532 hours). *Version 2:* 13-15 weeks (402 hours).

Exhibit Dates: *Version 1:* 9/81-Present. *Version 2:* 8/79-8/81.

Learning Outcomes: Upon completion of the course, the student will be able to function as a USAF aggressor pilot. This assignment will require providing academic instruction on and airborn emulation of enemy tactical fighter pilots, aircraft avionics, weapons, formations, tactics and employment philosophy.

Instruction: This course has been developed to present an advanced program including academic and laboratory experience (flight) to a select group of Air Force pilots. The curriculum includes specialized work in applied aerodynamics/performance and aircraft systems and components that are readily equated to university topics. Class sizes are very small and the level of support, both staff and facilities, is very high. It is well to note that appreciable emphasis is placed on the comparison between U.S. and foreign equipment, systems and philosophy.

Credit Recommendation: *Version 1:* In the graduate degree category, 3 semester hours in applied aerodynamics in high performance aircraft and 2 in advanced aircraft systems. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in applied aerodynamics in high performance aircraft and 2 in advanced aircraft systems and components (9/87).

AF-1406-0066

Fighter Weapons Instructor F-15

Course Number: F1500IDOPN.

Location: Fighter Weapons School, Nellis Air Force Base, NV.

Length: 15 weeks (409-423 hours).

Exhibit Dates: 8/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to instruct aerodynamics, aircraft systems, and avionics/electronics as they apply to the F-15 aircraft.

Instruction: The course consists of classroom lectures, in-flight laboratories and independent student research into all aspects of the F-15 aircraft. Particular emphasis is directed at the study of aerodynamics, advanced systems and avionics/electronics as they apply to the operational mission of the F-15 aircraft. Teaching techniques and methodology, as they relate to the subjects listed above, are developed throughout the course.

Credit Recommendation: In the graduate degree category, 3 semester hours in applied aerodynamics in high performance aircraft, 3 in advanced aircraft systems and components, 3 in advanced avionics/electronics, and 2 in instructional methodology (6/89).

AF-1406-0067

Adversary Tactics Instructor (AFSC K1745)

Course Number: 174501AA.

Location: Fighter Weapons School, Nellis Air Force Base, NV.
Length: 10 weeks (196-206 hours).
Exhibit Dates: 7/82-Present.
Learning Outcomes: Upon completion of the course, the student will be able to provide academic instruction on radar theory and aircraft control and communications.
Instruction: The course consists of classroom lectures and student independent research leading to a paper and presentation in appropriate radar systems. Information systems management approach is stressed throughout the course.
Credit Recommendation: In the graduate degree category, 3 semester hours in information systems (6/89).

AF-1406-0068

Tactical Air Command and Control Specialist by Correspondence

Course Number: 27550.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 12/83-Present.
Learning Outcomes: Upon completion of the course, the student will be familiar with personnel supervision techniques appropriate to the management of any organization. Skills are included in the use and application of radio equipment as well as weather reporting. The graduate will have an understanding of the infrastructure between the tactical air control system and the U.S. Army Structure and can function at a entry management level.
Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas have been costructed to provide study in the broad area of responsibility encompassed by the tactical air command and control specialist - Basic management techniques such as employee relations, conflict solving and performance evaluation. In addition, publications and communications as well as safety are included. Basic radio communication theory, field utilization and military systems comprise a portion of the required study. Specific military topics relate to tatical air control, surface navigation (compass/map), Russian political philosophy and specialized equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervison management and 1 in radio communication (12/89).

AF-1406-0069

Education Specialist by Correspondence

Course Number: 75150.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/84-Present.
Learning Outcomes: Upon completion of the course, the student will understand the various programs of education available in the Air Force and provide advisement and counseling services in the area of education.
Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Course covers the Air Force Education Services Program to include education assistance programs, Veteran Administration educational allowances, and Air Force preparatory programs. Testing and test security is addressed, as well as educational advisement and counseling. Finally, basic education office administration practices are studied.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in educational counseling (12/89).

AF-1406-0070

Training Technician by Correspondence

Course Number: 75172.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 12/83-Present.
Learning Outcomes: Upon completion of the course, the student will be able to develop an instrumental system and operate and manage a formal training program with no supervision.
Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content includes fundamentals of instruction, conduct of training, training aids and equipment, and evaluation and measurement.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in educational system/program development (12/89).

AF-1406-0071

Training Specialist by Correspondence

Course Number: 75132.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 1/85-Present.
Learning Outcomes: Upon completion of the course, the student will be able to support the establishment and maintenance of a training program for a work unit related to a job location or class environment.
Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content includes role of on-the-job training, management and control for on-the-job training, administration and supervisory responsibilities pertaining to training programs, fundamentals of instruction, instructional techniques, training aids and materials, and tests and measurement.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in principles of instruction (12/89).

AF-1406-0072

Training Systems Technician by Correspondence

Course Number: 75171.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/87-Present.
Learning Outcomes: Upon completion of the course, the student will understand theory of instruction and instructional system development and apply that understanding in the establishment and management of an effective on-the-job training program.
Instruction: This course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas include instructional theory, application of instructional system development principles, establishment control and operation of a visable on-the-job training program and related administrative tasks are included.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours for field training program development (12/89).

AF-1406-0094

Medical Materiel Specialist by Correspondence

Course Number: 91550.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/86-Present.
Learning Outcomes: Upon completion of the course the student will be able to describe the general duties of the medical materiel management specialist.
Instruction: Monitored home study including readings, written exercises, on-the-job supervision, and proctored examinations. Topics include regulations, computerization, basic first aid, record keeping, control, requisitions, warehouse operation, stock rotation, excess management, financial management, and bio-medical equipment repair.
Credit Recommendation: In the vocational certificate category, 6 semester hours in central supply technology (5/88).

AF-1408-0002

Financial Administration

Course Number: 3OAR6711.
Location: 3750th Technical School, Sheppard AFB, TX.
Length: 11 weeks (342 hours).
Exhibit Dates: 1/72-12/73.
Objectives: To train career officers and key civilian personnel for positions in financial administration.
Instruction: Lectures on management theory, planning, programming, and budgeting systems; quantitative analysis techniques; resource management accounting systems; and automated systems.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in financial administration (2/74).

AF-1408-0003

Defense Contract Pricing Techniques

Course Number: 142.
Location: School of Systems and Logistics, Wright-Patterson AFB, OH.
Length: 4 weeks (120 hours).
Exhibit Dates: 9/71-6/74.
Objectives: To provide selected military and civilian personnel with the analytical tools and techniques required to apply economics and statistics to cost-price problems in procurement.
Instruction: Lectures on quantitative review; cost/volume/profit analysis; cost element analysis; make or buy determinations; profit analysis; contract pricing arrangements.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business economics (12/68).

AF-1408-0004

Professional Military Comptroller

Course Number: LMDC 400.

Location: Leadership and Management Development Center, Air University, Maxwell AFB, AL.

Length: *Version 1:* 8 weeks (233 hours). *Version 2:* 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 9/72–1/90. *Version 2:* 1/68–8/72.

Objectives: To train officers to serve as comptrollers or resource managers.

Instruction: Lectures, seminars and case studies in economics, finance, managerial accounting, human relations, computer management including theories and concepts relating to research techniques, executive expression, quantitative methods and resource management. Programs include individual research and application of computer techniques in the subject areas.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 19 semester hours in business administration (2/74); in the graduate degree category, 3 semester hours in organizational management, 3 in financial and economic analysis (4/76). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in business administration (2/74).

AF-1408-0006

Maintenance Engineering Production Analysis
(Maintenance Analysis)

Course Number: 3OZR4344; OZR4344; XX4344.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 6–8 weeks (180–228 hours).

Exhibit Dates: 3/58–12/68.

Objectives: To train officers and civilians in the techniques of maintenance data analysis.

Instruction: Lectures on the function and responsibilities of maintenance staff activities, statistical methods, data systems, data processing, and analytical methods.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in statistical analysis (12/68).

AF-1408-0007

Maintenance Engineering Production Analysis

Course Number: AZR45170.

Location: Technical Training Center, Chanute AFB, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 3/60–12/68.

Objectives: To train airmen to work with statistical methods in the analysis of maintenance production data.

Instruction: Lectures on practical mathematics and statistics, control charts and standards, and analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in statistical analysis (12/68).

AF-1408-0008

Defense Advance Procurement Pricing

Course Number: 145.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (102 hours).

Exhibit Dates: 12/68–6/74.

Objectives: To train officers and civilian personnel to serve as cost estimators and price analysts.

Instruction: Practical exercises in quantitative methods, including risk and financial analysis; index numbers; parametric, direct, and indirect cost models; and forecasting techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in quantitative methods (2/74).

AF-1408-0009

1. Management Analysis Specialist
2. Management Analysis Specialist
3. Management Analysis Technician

Course Number: *Version 1:* 3ABR69130. *Version 2:* 3ALR69130. *Version 3:* ALR68330; AZR68370.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX; 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 10–11 weeks (300–342 hours). *Version 2:* 10 weeks (300 hours). *Version 3:* 9–10 weeks (270–300 hours).

Exhibit Dates: *Version 1:* 2/70–12/73. *Version 2:* 3/68–1/70. *Version 3:* 9/63–2/68.

Objectives: To provide enlisted personnel with basic training in management analysis.

Instruction: Lectures and practical exercises in management concepts and techniques, including program, progress, mission, statistical, and financial analysis, and application of analytical methods to decisive areas.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic statistics, 2 in applied statistical analysis (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in basic statistics, 2 in financial analysis, 2 in applied management analysis (12/68). *Version 3:* In the upper-division baccalaureate category, 1 semester hour in oral/written communication, 5 in financial analysis, 3 in applied management analysis (12/68).

AF-1408-0010

Quantitative Methods for Advanced Procurement Pricing

Course Number: 144.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/73–6/74.

Objectives: To provide experienced procurement officers with advanced training in applied statistical analysis.

Instruction: Lectures in statistical analysis as applied to advanced procurement-pricing techniques, including fundamentals of computer programming, systems analysis, sampling techniques, curvilinear regression and multiple regression analysis, and statistics and mathematics review.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in applied statistics (2/74); in the upper-division baccalaureate category, 1 semester hour in applied statistics (2/74).

AF-1408-0011

Defense Weapons Systems Management

Course Number: None.

Location: Air Force Institute of Technology, Wright-Patterson AFB, OH.

Length: 10 weeks (250 hours).

Exhibit Dates: 1/64–6/71.

Objectives: To provide senior military and civilian personnel with knowledge of the concepts and activities involved in the design, engineering, acquisition, and support of major weapon systems.

Instruction: Lectures on the functions of national defense weapon systems; planning for system design, selection, and acquisition; contract definition and procurement policies; and management of acquisition and support, including design control, engineering, testing, production, logistics and support services, contract administration, and cost measurement and control.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in business administration (12/68).

AF-1408-0012

Management Engineering Specialist

Course Number: *Version 1:* 3ALR73331. *Version 2:* ALR73331.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 8–10 weeks (240–288 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/68–12/73. *Version 2:* 12/63–4/68.

Objectives: To train enlisted personnel as management engineering specialists.

Instruction: Lectures in mathematics, statistics, automatic data processing, queuing theory, motion study and time study, work sampling and simplification procedures, human relations, and correlation and regression analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in industrial management (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hour in statistics (12/68).

AF-1408-0013

Maintenance Management and Information Systems

Course Number: 210.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (104–120 hours).

Exhibit Dates: 4/69–6/74.

Objectives: To provide maintenance managers with supplementary training in maintenance management and information systems.

Instruction: Lectures and practical exercises in maintenance management and information systems, including maintenance policies and requirements, management concepts and research procedures, maintenance management information systems, financial management systems, data processing and computer logic, and quantity theory.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1408-0014

Production Management II
(Advanced Production Management)

Course Number: 279.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3 weeks (157 hours).

Exhibit Dates: 12/69–6/74.

Objectives: To provide production personnel with advanced training in defense production management.

Instruction: Lectures and seminars in principles of production management, production technology, procurement, problem and decision analysis techniques, and analysis of current management policy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in production management (2/74); in the upper-division baccalaureate category, 2 semester hours in production management (2/74).

AF-1408-0015

STATISTICAL SERVICES SUPERVISOR

Course Number: AA68170; 83170.

Location: 3750th Technical School, Sheppard AFB, TX; 3415th Technical School, Lowry AFB, CO.

Length: 10–12 weeks (300 hours).

Exhibit Dates: 12/53–12/68.

Objectives: To train airmen in the organization, management, and supervision of statistical services activities.

Instruction: Lectures and practical exercises in an introduction to statistical services, methods of statistical analysis and presentation, personnel reporting, and material and operational statistics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization/statistical analysis (12/54).

AF-1408-0016

ADVANCED COST AND ECONOMIC ANALYSIS

Course Number: 191.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 4–7 weeks (117–120 hours).

Exhibit Dates: 3/69–6/74.

Objectives: To provide experienced cost analysts with specialized training in advanced economic analysis.

Instruction: Lectures and practical exercises in mathematics and statistics, use of regression and regression models, aircraft systems cost estimation, sensitivity analysis, problems of airlift and sealift, and cost effectiveness techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in cost analysis (2/74); in the upper-division baccalaureate category, 2 In the upper-division baccalaureate category, 2 semester hours in cost analysis (12/68).

AF-1408-0017

BUDGET SPECIALIST

Course Number: *Version 1:* 3ALR67230. *Version 2:* ALR67230; AZR67152.

Location: *Version 1:* School of Applied Aerospace Sciences, Sheppard AFB, TX. 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 8 weeks (228–240 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/71–12/73. *Version 2:* 2/64–4/71.

Objectives: To train airmen in budgeting, financial planning, and financial management for Air Force personnel.

Instruction: Lectures and practical exercises in the fundamentals of Air Force budgeting, principles and procedures of budget administration, developing estimates of requirements, and preparation of operating budgets and financial plans.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in budgeting and financial administration (2/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in finance and budget planning (12/68).

AF-1408-0018

DISBURSING SUPERVISOR

Course Number: AA81170.

Location: 3415th Technical Training Center, Lowry AFB, CO.

Length: 13 weeks (390 hours).

Exhibit Dates: 3/54–12/68.

Objectives: To train enlisted personnel to supervise disbursing activities.

Instruction: Lectures in the duties of a disbursing supervisor. Course includes introduction to disbursing, military pay, travel allowances, commercial accounts, accounting for public funds, and financial office management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in general business practice (12/68).

AF-1408-0019

DISBURSING CLERK

Course Number: AB81130.

Location: 3415th Technical Training Group, Lowry AFB, CO.

Length: 10 weeks (300 hours).

Exhibit Dates: 3/54–12/54.

Objectives: To train enlisted personnel in disbursing and accounting procedures.

Instruction: Lectures in the duties of a disbursing clerk. Course includes introduction to disbursing, military pay, travel allowances, commercial accounts, accounting for public funds, and financial office management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general business practice (12/68).

AF-1408-0021

FINANCIAL SERVICES SPECIALIST BY CORRESPONDENCE

Course Number: 67252.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/84–5/87.

Objectives: To train the student to complete basic, standardized compensation statements and reports.

Instruction: This course prepares the student to complete both military and civilian compensation statements and reports in the areas of travel, leave, retirement, pensions, and insurance, to manipulate such statements and reports so as to interface with automated compensation systems, and to be familiar with control procedures for the disbursement of cash and negotiable instruments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in introduction to finance or principles of finance (10/85).

AF-1408-0023

PERSONNEL SERVICES OFFICER

Course Number: OB7341.

Location: 3310th Technical School, Scott AFB, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 6/55–12/68.

Objectives: To train officers to manage personnel services activities for Air Force personnel and their dependents.

Instruction: Lectures and laboratories in personnel management, including human relations, vocational and educational guidance, personal affairs activities, character guidance, community services, and dependents education; and the personnel services organization, including funds, supplies, communications, and entertainment and recreational activities and facilities.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in applied sociology (12/68).

AF-1408-0024

EXECUTIVE ENGINEERING

Course Number: None.

Location: Civil Engineering School, Wright-Patterson AFB, OH.

Length: 3 weeks (115 hours).

Exhibit Dates: 2/73–6/74.

Objectives: To provide officers and civilian personnel with advanced training in civil engineering management.

Instruction: Lectures on motivational theory; communication; economics; leadership dynamics and creativity; and organizing, planning, and decision-making techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management (2/74).

AF-1408-0025

ADVANCED SYSTEMS BUYING

Course Number: 172.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/69–6/74.

Objectives: To teach officers and civilian personnel the basic principles of procurement management.

Instruction: Lectures in the principles of procurement management, including Army project procurement; economics; cost estimating, programming, scheduling, and controlling defense systems procurement; and leadership, decision-making, and communication techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial procurement (2/74).

AF-1408-0028

ADVANCED PERSONNEL OFFICER

Course Number: OA7311.

Location: 3310th Technical School, Scott AFB, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To provide officers with advanced training in personnel administration.

Instruction: Lectures on human relations, oral and written communications, and personnel management, including evaluation, training, separations, promotions, classifications, interviewing, and counseling.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in personnel classification (12/54).

AF-1408-0032

MAINTENANCE SCHEDULING SPECIALIST

Course Number: 3ALR43330; ALR43330.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8–10 weeks (240–288 hours).

Exhibit Dates: 11/63–4/70.

Objectives: To train airmen in the maintenance management functions of planning, scheduling, and controlling.

Instruction: Lectures and practical exercises in maintenance control mathematics; data systems and reports; forecasting operational support requirements and projecting capabilities; shop scheduling; controlling workload requirements; aerospace vehicle and equipment status reporting; and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in maintenance management (12/68).

AF-1408-0033

Contract Administration

Course Number: *Version 1:* 3AZR65170-2. *Version 2:* 3AZR65170-2; 3AZR65170-6. *Version 3:* AZR65170-3.

Location: *Version 1:* 3415th Technical School, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO. *Version 3:* 3320th Technical School, Amarillo AFB, TX.

Length: *Version 1:* 5-6 weeks (150-184 hours). *Version 2:* 4-5 weeks (120-150 hours). *Version 3:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 3/71-12/73. *Version 2:* 7/68-2/71. *Version 3:* 3/66-6/68.

Objectives: To provide procurement personnel with advanced training in the principles and practices of government contracting and contract administration.

Instruction: Lectures on principles of government contracting, basis for administration, contract administration procedures, contract cost principles and procedures, and tools of administration.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of contracting (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in principles of contracting(12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in principles of contracting (12/68).

AF-1408-0034

Procurement Supervisor

Course Number: 3AAR65170-1; AAR65170.

Location: School of Applied Aerospace Science, Lowry AFB, CO; 3415th Technical School, Amarillo AFB, TX; 3320th Technical School, Amarillo AFB, TX.

Length: 6-7 weeks (180-206 hours).

Exhibit Dates: 2/62-12/73.

Objectives: To train first-line supervisors and technicians to conduct and supervise procurement operations.

Instruction: Practical experience in contract administration, advertising, personnel planning and scheduling, and technical procurement performance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement policies (12/68).

AF-1408-0035

Work Control Specialist

Course Number: ALR55630.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 5 weeks (150 hours).

Exhibit Dates: 8/65-12/68.

Objectives: To train enlisted personnel to perform as work control specialists.

Instruction: Lectures and practical exercises in supervision and management of work control centers; planning and scheduling procedures; publications and forms; preventive maintenance; service calls; and planning of annual maintenance and repair programs.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1408-0037

Contract Management

Course Number: 3OZR6531-2.

Location: Technical Training Center, Lowry AFB, CO.

Length: 3 weeks (90 hours).

Exhibit Dates: 6/69-12/73.

Objectives: To provide defense personnel with knowledge and understanding of the principles of defense contract management.

Instruction: Lectures on contract administration, development engineering, quality assurance, property administration, and production and pricing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in contract management (2/74).

AF-1408-0038

Financial Management Supervisor by Correspondence

Course Number: 67273.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/84-10/87.

Objectives: Provides an overview of the financial management function with emphasis on the determination of compensation levels, and the establishment and monitoring of control systems.

Instruction: This course prepares the student to oversee and administer accounting and budget systems in the areas of material control, accounts control, distribution of compensation (including automated pay systems), and supplemental compensation systems such as insurance pensions.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in financial accounting, 3 hours in managerial accounting (10/85).

Related Occupation Codes: 85/10.

AF-1408-0039

Advanced Contract Administration

Course Number: 178.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 2-3 weeks (60-128 hours).

Exhibit Dates: 1/69-6/74.

Objectives: To provide procurement management personnel with advanced training in defense contract administration.

Instruction: Lectures and seminars in advanced defense contract administration, including contractor technical and financial capability review and analysis, contractor performance evaluation, data management, accounting systems, performance, and progress management tools, and basic managerial principles and techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in contract management (12/68).

AF-1408-0040

Basic Orientation Course for Officers of the Medical Service

Course Number: OBM0104.

Location: Medical Service School, Gunter AFB, AL; School of Aviation Medicine, Gunter AFB, AL.

Length: 3-4 weeks (110-175 hours).

Exhibit Dates: 9/55-12/68.

Objectives: To train newly commissioned officers to serve as personnel administrators in Air Force medical facilities.

Instruction: Lectures and practical exercises in medical and personnel administration; nursing services; organization of USAF medical services; disaster, nuclear, preventive, and occupational medicine; and dental services.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in medical administration (12/68).

AF-1408-0042

Contract Law

Course Number: 3AZR65170-5.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3 weeks (90 hours).

Exhibit Dates: 7/69-12/73.

Objectives: To provide procurement personnel with advanced training in legal principles related to government contracts.

Instruction: Lectures on contract law; labor law; law of agencies; governmental procurement, methods and procedures; disputes and remedies; and terminations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business law/contracts (2/74).

AF-1408-0043

Medical Administrative Supervisor

Course Number: *Version 1:* 3AAR90670-1. *Version 2:* AAR90670-1. *Version 3:* AAR90670. *Version 4:* AA90670.

Location: *Version 1:* Technical Training Center, Sheppard AFB, TX. *Version 2:* Medical Service School, Sheppard AFB, TX. *Version 3:* Medical Service School, Gunter AFB, AL. *Version 4:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 6 weeks (180 hours). *Version 2:* 6 weeks (180 hours). *Version 3:* 8 weeks (287-289 hours). *Version 4:* 12 weeks (468 hours).

Exhibit Dates: *Version 1:* 2/71-12/73. *Version 2:* 7/67-1/71. *Version 3:* 1/62-6/67. *Version 4:* 6/55-12/61.

Objectives: To provide airmen with supervisory-level training in medical administration.

Instruction: Lectures on the planning and scheduling of administrative work in medical services activities, supervision of medical administrative personnel, conducting on-the-job training for medical administrative personnel, and the performance of technical, medical administrative functions.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in hospital and/or business administration (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in medical administration (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in medical administration (12/68). *Version 4:* In the upper-division baccalaureate category, 5 semester hours in medical administration (12/68).

AF-1408-0044

Weather Chief Observer

Course Number: 3AZR25271.

Location: *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL. *Version 2:* 3345th Technical School, Chanute AFB, IL.

Length: 6-7 weeks (210-280 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To qualify airmen with prior training to perform as weather chief observers.

Instruction: Lectures and practical exercises in weather observation and station administration, including management of observation functions, weather radar scope camera, radar observation, supervision of weather equipment and communications functions, and driver training.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in management (5/74).

AF-1408-0048

Communications-Electronics Staff Officer

(Communications-Electronics Officer)

Course Number: OAR3011; OA3011.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 25-34 weeks (870-1292 hours).

Exhibit Dates: 1/56-12/68.

Objectives: To train officers to operate and monitor communications-electronics programs and to formulate policies and procedures.

Instruction: Lectures and seminars in radioelectronics, staff management, wire and multiplexing systems, automatic data systems, supply and maintenance techniques, tactical and electronic warfare equipment, air defense systems, management principles, leadership, logistics management, communications techniques, and human relations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management principles, 3 in radio engineering (12/68).

AF-1408-0049

Aircraft/Avionics Maintenance Staff Officer

(Avionics Staff Officer)

Course Number: 3OAR4000; 3OAR3211.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 5-7 weeks (168-210 hours).

Exhibit Dates: 2/70-12/73.

Objectives: To train commissioned officers to supervise aircraft and avionics maintenance units and armament control and support units.

Instruction: Lectures and practical exercises in management principles, effective communication, logistics, resource management, systems development, and management informational systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in principles of management (6/74).

AF-1408-0051

Contract Management Officer

Course Number: 3OBR6531-4.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 6-9 weeks (180-270 hours).

Exhibit Dates: 4/70-12/73.

Objectives: To train officers to perform as contract managers.

Instruction: Lectures and practical exercises in contract management. Course includes fundamentals of procurement and production, contract administrative responsibilities, development engineering, quality assurance procedures, production planning, evaluation of work statements, contractor's proposals in support of system procurement, and industrial preparedness planning.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in contract management or purchasing (6/74).

AF-1408-0052

Contract Management Officer

Course Number: 3OZR6531-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3 weeks (90 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train personnel to serve as contract managers.

Instruction: Lectures and practical exercises in contract management. Course includes introduction to contract management, plant office contract management mission and organization, contract administration, development engineering, quality assurance administration, production and property administration, systems procurement support and negotiation, contract control system, and measurement and test critique.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in contract management (6/74).

AF-1408-0053

General Accounting Specialist by Correspondence

(Financial Management Specialist by Correspondence)

Course Number: 67251.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/83-5/87.

Objectives: To train the student to complete basic, standardized accounting statements and reports, and to understand the basis of an accounting control system.

Instruction: This course prepares the student to complete and interpret accounting statements and reports in the areas of material control and accounts control, and to manipulate such statements and reports so as to interface with automated accounting systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in general accounting or introductory accounting (10/85).

AF-1408-0057

Procurement and Production Officer Fundamentals

Course Number: 3OQR6500.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 6 weeks (180 hours).

Exhibit Dates: 6/69-12/73.

Objectives: To train enlisted personnel in procurement and production policies and procedures.

Instruction: Lectures and practical exercises in procurement and production policies and procedures. Topics include statutes and regulations governing; procurement; funding cycle; processing purchase requests; evaluation; procurement and production authorities and delegation; organization of a procurement function; formal advertising and negotiation; procurement ethics; types and kinds of contracts; contract award; products and services inspection; acceptance and payment; and production management.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in procurement management and methods (8/74).

AF-1408-0058

Laboratory Management of Research and Development

Course Number: 475.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 3-7 weeks (90-210 hours).

Exhibit Dates: 7/69-6/74.

Objectives: To train enlisted personnel to manage research and development activities.

Instruction: Lectures and practical exercises in the management of research and development activities. Course includes instruction in the planning, programming, budgeting, controlling, evaluating, and procurement aspects of research and development.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in general management (8/74).

AF-1408-0059

Production Management

Course Number: 269.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 7 weeks (232 hours).

Exhibit Dates: 4/70-6/74.

Objectives: To train enlisted personnel to manage production-procurement functions.

Instruction: Lectures and practical exercises in the management of production-procurement functions. Course includes an introduction to management principles, contracting, break-even analysis, value engineering, automatic data processing, economic order quantity and inventory control, program evaluation review techniques, and labor relations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in production managemenent (8/74).

AF-1408-0060

System Program Management

Course Number: 570.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 7-11 weeks (198-308 hours).

Exhibit Dates: 1/69-6/74.

Objectives: To train enlisted personnel in systems program management.

Instruction: Lectures and practical exercises in systems program management. Course includes an overview of the climate and environment for systems acquisition; policies, procedures and functional interrelationship governing their procedures; and role and responsibilities of using and participating commands and agencies supporting the program office.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in systems management (8/74).

AF-1408-0061

Budget Officer

Course Number: *All Versions:* 3OBR6731. *Version 2:* OAR6731, OA6731.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 10-11 weeks (300-330 hours).

Exhibit Dates: *Version 1:* 10/68-12/73. *Version 2:* 12/55-9/68.

Objectives: To train personnel as budget officers.

Instruction: *All Versions:* Lectures and practical exercises in the duties of budget officers, including introduction to Air Force budgeting, and budget formulation. *Version 1:* Topics include Air Force financial planning systems; developing estimates of requirements; preparation of the budget for operations; Air Force financial management; development of financial plans; and administration. *Version 2:* Topics include preparation of wing/base budgets.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in budgeting and financial management (8/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in finance and budget planning (12/68).

AF-1408-0062

Finance Supervisor

Course Number: SS67170-2.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 5 weeks (150 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train airmen and civilian personnel in the operation of Air Force finance activities.

Instruction: Lectures and practical exercises on Air Force finance activities, including introduction, finance procedures, military pay and allowances, travel allowances, commercial accounts, and disbursements and collections.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in finance and disbursing (12/68).

AF-1408-0063

Management Analysis Officer

Course Number: *Version 1:* 3OBR6921. *Version 2:* 3OBR6921; OBR6891. *Version 3:* OA6891. *Version 4:* OAR6891; OA6891; OA6741. *Version 5:* OAR6891; OA6891; OA6741.

Location: *Version 1:* 3750th Technical School, Sheppard AFB, TX. *Version 2:* 3750th Technical School, Sheppard AFB, TX. *Version 3:* 3750th Technical School, Sheppard AFB, TX. *Version 4:* 3750th Technical School, Sheppard AFB, TX. *Version 5:* 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 9 weeks (270 hours). *Version 2:* 10 weeks (300 hours). *Version 3:* 6 weeks (180 hours). *Version 4:* 10–11 weeks (300–330 hours). *Version 5:* 10–11 weeks (300–330 hours).

Exhibit Dates: *Version 1:* 7/70–12/73. *Version 2:* 1/67–6/70. *Version 3:* 7/64–12/66. *Version 4:* 4/54–6/64. *Version 5:* 4/54–6/64.

Objectives: To train officers as management analysis officers.

Instruction: *All Versions:* Lectures and practical exercises in applied management analysis. *Version 1:* Topics include introduction to analysis, descriptive statistics, inferential statistics, performance evaluation, forecasting techniques, trend analysis, program analysis, and financial analysis. *Version 2:* Topics include preparation for analysis, introduction to data automation, and analytical techniques of management science. *Version 3:* Topics include preparation for analysis, introduction to data automation, and analytical techniques and management science. *Version 4:* Topics include preparation for analysis, source data and analytical processes, and managerial accounting. *Version 5:* Topics include preparation for analysis, source data and analytical processes, and managerial accounting.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in principles of management (8/74). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in applied management analysis, 4 in management control systems (12/68). *Version 3:* In the upper-division baccalaureate category, 1 semester hour in oral and written communication, 2 in managerial statistics, 3 in management control systems (12/68). *Version 4:* In the upper-division baccalaureate category, 1 semester hour in oral and written communication, 5 in financial analysis, 3 in applied management analysis (12/68). *Version 5:* In the upper-division baccalaureate category, 1 semester hour in oral and written communication, 5 in financial analysis, 3 in applied management analysis (12/68).

AF-1408-0064

Special Services Officer

Course Number: 3OBR7341.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 4 weeks (138 hours).

Exhibit Dates: 6/73–12/73.

Objectives: To train officers to perform functions of special services officers.

Instruction: Lectures and practical exercises in the functions and duties of special service officers. Course includes management of special services activities, budgeting, control of funds, and training methods.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in principles of management (8/74).

AF-1408-0065

Finance Supervisor

Course Number: AA67170.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 13 weeks (390 hours).

Exhibit Dates: 2/55–12/68.

Objectives: To train personnel as finance supervisors.

Instruction: Lectures and practical exercises in the duties of finance supervisors, including finance office management, military pay, travel allowances, commercial accounts, accounting for public funds, and finance office administration.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours as an elective in disbursing and finance (12/68).

AF-1408-0067

Administration Management/Executive Support (Administration Management and Executive Support Officer)

Course Number: 3OBR7000.

Location: 3380th Technical School, Keesler AFB, MS; School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 7 weeks (210–254 hours).

Exhibit Dates: 1/72–12/73.

Objectives: To train commissioned officers to manage executive support functions.

Instruction: Lectures and practical exercises in the management of executive support functions. Course includes administrative policies and procedures, communications, resources management, personnel management, human relations, and performance rating systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in principles of management (8/74).

AF-1408-0068

Health Services Administration—Advanced

Course Number: 3OAR9025.

Location: School of Health Care Sciences, Sheppard AFB, TX.

Length: 20 weeks (600 hours).

Exhibit Dates: 1/72–12/73.

Objectives: To train selected career Medical Service Corps officers for administrative/management positions in all areas of health services administration.

Instruction: Lectures and practical exercises in management skills and techniques, economics and statistics, behavioral sciences, and principles of health services and hospital administration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in health economics, 1 in government, 4 in management principles, 3 in behavioral sciences, 2 in statistics, 10 in hospital administration (6/75).

AF-1408-0069

Procurement Specialist

Course Number: 3ABR65130-1; ABR65130; ALR65130.

Location: 3415th Technical School, Lowry AFB, CO; 3320th Technical School, Amarillo AFB, TX.

Length: 7-8 weeks (210 hours).

Exhibit Dates: 7/61–12/73.

Objectives: To train airmen in the duties of procurement specialists.

Instruction: Lectures and practical exercises in procurement terminology, publications, and organization. Specific topics include: purchase requests; contract negotiation and administration; and bid procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in procurement or purchasing (12/68).

AF-1408-0070

Maintenance Scheduling Specialist by Correspondence

Course Number: 39250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 3/84–Present.

Learning Outcomes: At the conclusion of the course the student will have knowledge of maintenance management fundamentals, production controls, planning and scheduling and documentation.

Instruction: Topics included are maintenance scheduling fundamentals, maintenance management, production control, documentation and records processing, planning and scheduling.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour in records management, 2 in production supervision, and 5 in maintenance supervision (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in hotel/motel management (2/87).

AF-1408-0071

Contracting Specialist by Correspondence

Course Number: 65150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the overall job of contracting and purchasing procedures follow a career ladder into purchasing and contracting specialties, interpret contract negotiations and agreements, gain an understanding of data base files, understand the need of advertising and negotiations, make small purchases through the use of proper methods and procedures, and comprehend and work with contracting programs of bonds, insurance, taxes and legal principles of government and private contracts.

Instruction: Instruction includes contracting and purchasing, their history, organization, management, publications and data base records. Methods of contracting is subdivided into technical, basic and desirable terms, advertising, negotiation, small purchases and simplified purchase procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in purchasing (2/87).

AF-1408-0072

Contracting Supervisor by Correspondence

Course Number: 65170.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the progression within the contracting career field, comprehend and utilize contracting procedures and laws governing contract negotiations, understand socioeconomic programs and EA/EO rules in small business and government, comprehend the legal principles of government contracts, work with contract concepts and tasks, understand and contract for formal advertising, make small purchases, understand contract administration, deal with pricing, pricing analysis and negotiations, and deal with cost analysis and negotiation documentation.

Instruction: Instruction includes career training, contracting mission, socioeconomic programs, and legal principles of government contracts and contracting management programs. Also covered are methods of contracting, sealed bidding, negotiations, small purchases, price and cost analysis and negotiations and purchasing analysis and control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in purchasing and 2 in business law (covering contracts) (2/87).

AF-1408-0073

Financial Management Specialist by Correspondence

Course Number: 67251A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand career opportunities and procedural steps to achieve skill levels within the financial field, comprehend organization and responsibilities of each skill and career level, do basic accounting principles and practices, and understand mechanized and computerized risk management procedures.

Instruction: Instruction includes financial management orientation, career knowledge, organization, responsibilities of basic accounting systems and computerized risk management. Accounting systems, mechanized and systems integration are interwoven with financial management principles.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting or finance (2/87).

AF-1408-0074

Financial Management Specialist by Correspondence

Course Number: 67251B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the criterion for commitments and how it effects annual and multiple year appropriations, comprehend and utilize commitment documents and funds availability, comprehend and utilize receipt documents for goods and services, and comprehend and utilize balance sheets, accounts records, disbursement records and procedures.

Instruction: Instruction includes source documents, specific types and uses of commitment documents, purchase records, and receipts, disbursements and transaction processes and report preparation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting/financial management (2/87).

AF-1408-0075

Financial Management Specialist by Correspondence

Course Number: 67251C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to comprehend purpose and authority for stock funds and commissary trust revolving funds, understand the functions and responsibilities of the fuels divisions, define management and operational characteristics of support divisions, comprehend, organize and utilize required accounting reports and records, originate and followup requirements for requisitions, receipts and disbursements of government monies for fuel, supplies and equipment, and maintain records and tables on the stock fund reporting data base.

Instruction: Instruction includes various types of fund accounting, inventory, and financial accounting and its relationship to general ledgers and the automated computerized accounting systems. Specifics of the Air Force stock fund trial balances, reporting systems and report audit requirements are covered in th AVFUEL (aviation fuel) management system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting/financial management (2/87).

AF-1408-0076

Financial Management Specialist by Correspondence

Course Number: 67251D.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand data-base control summary record, establish fund summary records utilizing proper codes and indicative data, specify base variable files and their uses, set up control log procedures, comprehend foreign currency rates and their differences in accounting procedures for currency conversion, and understand and utilize a mechanized data base.

Instruction: Covers the procedures on data base control, accountability and fund reporting processing, financial reports and daily procedures needed for accurate mechanized data base.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting/financial management (2/87).

AF-1408-0077

Financial Management Specialist (Budget) by Correspondence

Course Number: 67251E.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to distinguish Air Force and Department of Defense budgets from the Federal Budget, understand the necessity for financial planning, understand and assist in developing operations budgets and financial plans, understand and identify financial manager's responsibilities at base level within the resource management system.

Instruction: Includes budgeting of the Federal Budget System and financial planning, developing operations operating budgets and financial plans and funds management.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting/financial management (2/87).

AF-1408-0078

Financial Services Specialist by Correspondence

Course Number: 67252A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/86–Present

Learning Outcomes: Upon completion of the course, the student will be able to understand and follow basic career knowledge in upgrading, understand the basic organization of the accounting and finance office, understand the responsibilities of the various individuals in and out of the accounting and finance office, gain a working knowledge of the basic accounting systems, and understand and utilize some basic information in computer risk management.

Instruction: Includes career knowledge in financial services, covering organization, responsibilities, basic accounting systems and computer risk management. It also covers disbursements and collections, public funds control, checks and bond operations, voucher control, cashier operations, accountability and reporting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in financial management, 2 in records management, and 1 in data processing (2/87).

AF-1408-0079

FINANCIAL SERVICES SPECIALIST (MILITARY PAY) BY CORRESPONDENCE

Course Number: 67252B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the Joint Uniform Military Pay system including pay and allowances for active military members, figure deductions and collections and payment processes, comprehend status and event transactions and leave accounting, and comprehend the retiree/annuitant pay system.

Instruction: Includes topics in Joint Military Pay systems and pay and allowances. Information also includes deductions and collections, status/event transactions, pay processing, leave accounting, and retiree/annuitant pay systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-1408-0080

FINANCIAL SERVICES SPECIALIST (TRAVEL) BY CORRESPONDENCE

Course Number: 67252C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able compute military and dependent travel entitlements for permanent and temporary change in duty status, compute civilian travel entitlements when traveling for government and military, deal with advances, claims and recoupments, and understand and utilize automated travel record/accounting systems frames processing and systems products and follow-up.

Instruction: Includes travel computation and accounting in military, dependent and civilian travel and entitlements and record keeping. Also included is a finite study of automated travel records and accounting systems, frames processing and system products, and follow-up procedures of travel.

Credit Recommendation: In the vocational certificate category, 1 semester hour in travel agency operation (2/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in tourist travel information (2/87).

AF-1408-0081

FINANCIAL MANAGEMENT SUPERVISOR BY CORRESPONDENCE

(Financial Management/Services Supervisor by Correspondence)

Course Number: 67273A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to comprehend pay and leave entitlements and deductions for all classifications of civilian employees, understand and utilize the proper payroll system for civilian employees, follow proper procedures for making out all reports and records dealing with the civilian payroll, and utilize the automated payroll system, computer files and storage banks.

Instruction: Includes the different types and classifications of civilian employees, the rates of pay, entitlements and deductions. A comprehensive study of the automated payroll system, the computer files and storage banks and the procedures of payroll activities and support data required for accounting procedures utilizing the Remote Job Entry Terminal System.

Credit Recommendation: In the vocational certificate category, 2 semester hours in bookkeeping and finance (2/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in accounting/finance, and 1 in data processing (2/87).

AF-1408-0082

FINANCIAL MANAGEMENT/SERVICES SUPERVISOR (FUNCTIONS AND RESPONSIBILITIES) BY CORRESPONDENCE

Course Number: 67273B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to plan, organize and direct accounting and finance activities of the financial office, identify liability to the government in event of loss, damage or destruction of government property and to identify dollar amounts for activities listed, understand the objectives of the Noncommissioned Officers Professional Military Education Program, comprehend facts pertaining to the Air Force Comptroller Civilian Career Management Program, understand activities dealing with budgeting, disbursements and re-imbursements of Air Force (government) funds.

Instruction: Includes an introduction to the duties of financial management, personnel aspects of supervising of military and civilian personnel, budgeting, customer services and financial control.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-1408-0083

COST AND MANAGEMENT ANALYSIS SPECIALIST BY CORRESPONDENCE

Course Number: 69150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84-Present.

Learning Outcomes: Upon completion of this course the student will have knowledge of the role of management information systems analysis, basic mathematics, and elementary statistical concepts and methods.

Instruction: Topics included are management information systems, basic mathematics, data distribution measures of central tendency, trend analysis, probability distribution, index numbers, correlation and regression and applications of quantitative methods.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (2/87).

AF-1408-0084

COST AND MANAGEMENT ANALYSIS TECHNICIAN BY CORRESPONDENCE

Course Number: 69170.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84-Present.

Learning Outcomes: Upon completion of the course, the student will have a working knowledge of management assistance services and management information systems as they apply to Air Force regulations and practices; and will be able to interpret cost and economic analysis, commercial activities programs and resource management systems.

Instruction: Includes topics in cost and management analysis, the comptroller organization, management assistance services, management information systems and statistical methods as they deal with the Air Force. More specific information is included in the topics of cost analysis, economic analysis, commercial activities programs, and resource management systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-1408-0085

CHAPEL MANAGEMENT SPECIALIST BY CORRESPONDENCE

Course Number: 70150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/82-Present.

Learning Outcomes: At the conclusion of the course the student will understand and be able to complete the tasks in chapel support activities and chapel management activities. The student's duties will cover office procedures, communications, reports, publications, chapel finances and resources and the preparation of chapel activities.

Instruction: Instruction covers chapel managment careers, office procedures and practices, equipemnt operation, communications, reports and other office duties as well as preparation of chapel activities and managing chapel finances, funds and resources.

Credit Recommendation: In the vocational certificate category, 1 semester hour in records management and correspondence (2/87).

AF-1408-0086

CHAPEL MANAGEMENT TECHNICIAN BY CORRESPONDENCE

Course Number: 70170.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/82-Present.

Learning Outcomes: At the conclusion of the course the student will be able to identify the duties and responsibilities of chapel management, comprehend safety procedures as they relate to chapel work, prepare and explain staff study reports, develop self inspection check lists and logistical support, and develop financial reports and manage funds and properties assigned to the chapel activities.

Instruction: Covers duties and responsibilities of the career field, occupational safety in the chapel work, reports, publications, communication, position papers, logistical support and financial management.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping (2/87).

AF-1408-0087

Contract Administration by Correspondence

Course Number: 6606.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to comprehend contracting and the funding process; understand contract types and administration of contracts; understand contract pricing, evaluation, and financing; do minor subcontract managing; evaluate contract progress, quality assurances and profit analysis; negotiate minor contract modifications; and act as negotiator in working with major contracts.

Instruction: Instruction covers the following topics: types of contracts, accounting and cost principles, contract pricing, contractor evaluation, contractor financing, subcontract management, progress evaluation, quality assurance, profit analysis, contract modifications and negotiations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business law or 3 in contract purchasing or 1 in cost accounting (2/87).

AF-1408-0088

Introduction to Labor Relations for Air Force Supervisors

Course Number: 6604.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/81–Present.

Learning Outcomes: At the conclusion of the course the student will be able to understand the history, development, purposes, activities, and governance of organized labor unions and the civil service act of 1978.

Instruction: Instruction includes the history and development of organized labor from the colonial era to the present, public policy toward organized labor, unionization of federal service and civil service reform act of 1978.

Credit Recommendation: In the vocational certificate category, 1 semester hour in labor relations or orientation (2/87).

AF-1408-0089

AFLC Directorate of Materiel Management by Correspondence

Course Number: 6605.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to determine the function of each specific job within logistics, materiel management as it relates to the Air Force, understand the necessity of replenishment of weapons, materials and supplies, understand how logisticians provide initial support, and understand the responsibilities of the Air Force Logistics Command.

Instruction: Includes an introduction to Air Force Logistics Command and job break downs, financial management and planning, major weapons acquisition and support, the responsibilities of Directorate of Materiel Management, replenishment, maintenance, specialized management system, contracting and distribution.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-1408-0090

Introduction to Air Force Initial Provisioning by Correspondence

Course Number: 6608.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/76–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand provisioning concepts, historical background, provisioning processes, and functions and advances in initial provisioning.

Instruction: Instruction includes an overview of the functions, responsibilities, and procedures concerning initial provisioning policy and procedures within the Air Force.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-1408-0091

Principles of Contract Pricing by Correspondence

Course Number: 6610.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to comprehend contract pricing, pricing analysis and price systems, negotiate with cost proposals and analysis with pricing for profit or use, and comprehend facilities capital investments in relation to pricing of products and services as a part of total cost.

Instruction: Covers contract pricing, mathematics of pricing, cost-volume profit analysis, price analysis, cost proposals, comparison techniques, experience curve, direct and indirect cost analysis, capital investment considerations, profit motives and analysis, negotiating processes and documentation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in applied mathematics and 1 in retailing (pricing); in the lower-division baccalaureate/associate degree category, 2 semester hours in business mathematics and 2 in marketing (2/87).

AF-1408-0092

Budget by Correspondence

Course Number: 6701.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to know the budgetary process of the Air Force, understand the concepts of fund accounting, budgeting and financial management, be able to identify and complete the various Air Force forms related to the budgeting and accounting cycle.

Instruction: Instruction includes the basic concept and principles of governmental/fund accouting, budgeting, and financial management. Also covered are the specific Air Force regulations and instructions on how to complete the various Air Force forms in these functions.

Credit Recommendation: In the vocational certificate category, 1 semester hour in bookkeeping; in the lower-division baccalaureate/associate degree category, 1 semester hour in fund accounting and 1 semester hour in budgeting (2/87).

AF-1408-0093

Resource Advisor by Correspondence

Course Number: 6702.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: At the conclusion of this course the student will have a basic understanding of the budgeting and fund control processes within the Air Force, have a working knowledge of financial planning concepts, be able to identify various forms related to the functions of budgeting and fund control.

Instruction: This course offers an overview of fund accounting, budgeting, and financial planning in the Air Force. Also covered are some of the specific forms and procedures related to these functions in the Air Force.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in fund accounting, 1 in financial planning, and 1 in budgeting (2/87).

AF-1408-0095

Operations Resource Management by Correspondence

Course Number: 27152.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to work with no direct supervision the majority of the time and assist in training of subordinates. An ability to monitor and audit aircrew data will have been achieved. Flight management policies and programs will be understood and the student will be able to retrieve, summarize and analyze data to facilitate decision making on the part of supervisory staff.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content includes a review of basic math with introduction to statistical methods. Data processing is covered to a base level of understanding and application. Emphasis is on administrative record keeping pertaining to flight operations and training.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 2 semester hours in records and information management (12/89).

AF-1408-0096

ELECTRICAL POWER PRODUCTION TECHNICIAN BY CORRESPONDENCE

Course Number: 54272A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to supervise an electrical power production organization shop.

Instruction: Work shop management, electrical and electronic principles, operation of generation switchgear and electronic test equipment, and how to troubleshoot electrical switchgear, portable generators and automatic transfer panels.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management, 1 in principles fo supervision and 1 in electrical/electronic fundamentals (12/89).

AF-1511-0001

1. AIR COMMAND AND STAFF COLLEGE
2. AIR COMMAND AND STAFF COLLEGE
3. AIR COMMAND AND STAFF COLLEGE
4. AIR COMMAND AND STAFF COLLEGE
5. COMMAND AND STAFF COLLEGE (Command and Staff School)
6. COMMAND AND STAFF COURSE

Course Number: None.

Location: Air University, Maxwell AFB, AL.

Length: *Version 1:* 40 weeks (731 hours). *Version 2:* 40 weeks (746–898 hours) *Version 3:* 40 weeks (1600 hours). *Version 4:* 39–40 weeks (1579–1860 hours). *Version 5:* 38–39 weeks. *Version 6:* 43 weeks (1280 hours).

Exhibit Dates: *Version 1:* 9/90–Present. *Version 2:* 1/79–8/90. *Version 3:* 8/70–12/78. *Version 4:* 8/62–7/70. *Version 5:* 8/55–7/62. *Version 6:* 7/54–7/55.

Objectives: To train officers in the factors affecting national behavior and policy formation, in military management processes, and in military subjects, including employment of aerospace power.

Instruction: *Version 2:* Lectures, seminars, readings, experiential exercises and student research in national security studies, strategic theory, the history and theory of various kinds of war, international and regional studies, and management including organizational behavior, leadership, communication, human resource management and management systems. *Version 3:* Lectures, seminars, readings, and student research in the factors affecting national behavior and policy formation, in military management processes, and in military subjects including the employment of aerospace power. *Version 4:* Lectures, seminars, readings, and student research in the factors affecting national behavior and policy formation, in military management processes, and in military subjects including the employment of aerospace power. *Version 5:* Lectures, seminars, reading, and student research in the factors affecting national behavior and policy formation, in military management processes, and in military subjects including the employment of aerospace power. *Version 6:* Lectures, seminars, reading, and student research in factors affecting national behavior and policyformation, in military management processes, and in military subjects, subjects including the employment of aerospace power.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 15 semester hours in international relations,national security studies, political science and economics, 12 in management including management systems, leadership, communication, and human resource management, 3 in research methods (3/83); in the graduate degree category, 9 semester hours in international relations and national security studies, 6 in management systems, leadership, communication, and human resource management, 3 in organizational behavior (3/83). *Version 3:* In the upper-division baccalaureate category, 30 semester hours (to be apportioned by the receiving institution) in the areas of international relations, political science, economics, management, and research (8/74); in the graduate degree category, 3 semester hours in international relations, 3 in management, 0–6 in research, 3 in international relations electives, 3 in management electives. NOTE: Credit granted for thesis should be contingent on the graduate school's evaluation of the research paper. *Version 4:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in political science, 3 in international relations, and credit in written and oral communication on the basis of institutional evaluation (8/74); in the graduate degree category, 0–6 semester hours in public administration or in the field of thesis (8/74). NOTE: Credit granted for thesis should be contingent on the graduate school's evaluation of the research paper. *Version 5:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in political science, 3 in international relations, and credit in written and oral communication on the basis of institutional evaluation (12/68). *Version 6:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 3 in political science and international relations (12/68).

AF-1511-0002

AIR COMMAND AND STAFF NONRESIDENT SEMINAR PROGRAM

(Air Command and Staff Associate Program)

Course Number: None.

Location: Air Command and Staff College, Maxwell AFB, AL.

Length: *Version 1:* Maximum of 116 weeks, average 52 weeks. *Version 2:* 104 weeks.

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 8/70–12/78.

Objectives: To teach officers national and international factors influencing U.S. security policy and free world stability, and the factors influencing the development and use of military forces in the support of national security policy.

Instruction: *Version 1:* Seminars and readings in international relations including principles and patterns of interstate relations, regional studies, and military history; national security studies; communication; and public administration including leadership, supervision, personnel and labor relations, financial management, resource management, the budgetary process and decision-making techniques. *Version 2:* Seminars, readings, and student research in national and international factors influencing U.S. security policy and free world stability, and in the factors influencing the development and use of military forces in the support of national security policy.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in international relations, 6 in public administration, 3 in communication, 6 in national security studies (3/83); in the graduate degree category, for students who have completed the program with a rating of Outstanding or Excellent, 4 in international relations, 2 in introduction to public administration (3/83). It is suggested that an institution delay awarding credit until the student has successfully completed one semester of graduate work. *Version 2:* In the upper-division baccalaureate category, 24 semester hours in the areas of social science and personnel management (8/74); in the graduate degree category, for students who have completed the program with a rating of Outstanding or Excellent, 4 semester hours in international relations, 2 in personnel management (8/74). It is suggested that an institution delay awarding credit until the student has successfully completed one semester of graduate work. This course is offered at various locations under the administration of the Air University, Maxwell AFB. Distribution of course materials and the transcript service are handled by the Extension Course Institute (ECI).

AF-1511-0003

AIR COMMAND AND STAFF CORRESPONDENCE PROGRAM

(Air Command and Staff Associate Correspondence Program)

Course Number: None.

Location: Air Command and Staff College, Maxwell AFB, AL.

Length: 104 weeks maximum.

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 8/70–12/78.

Objectives: To teach officers the factors affecting the national behavior and policy formation, military management processes, and military subjects, including employment of aerospace power.

Instruction: *Version 1:* Readings in international relations including principles and patterns of interstate relations, regional studies, and military history; national security studies; communication; and public administration including leadership, supervision, personnel and labor relations, financial management, resource management, the budgetary process, and decision-making techniques. *Version 2:* Individualized readings and student research in factors affecting national behavior and policy formation, in military management processes, and in military subjects including employment of aerospace power. The correspondence program is based on but not identical to the resident course (AF-1511-0001) and is divided into four course blocks: Military Environment, Command and Management, and Military Employment, Part I and Part II.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in international relations, 4 in public administration, 2 in communications, 3 in national security studies (3/83). *Version 2:* In the upper-division baccalaureate category, 15 semester hours in social sciences and personnel management (8/74); in the graduate degree category, for students who have completed the program with a rating of Satisfactory, 3 semester hours in international relations (8/74). NOTE: It is suggested that an institution delay awarding graduate credit until the student has successfully completed one semester of graduate work.

This course is offered at various locations under the administration of the Air University, Maxwell Air Force Base. Distribution of course materials and the transcript service is handled by the Extension Course Institute (ECI).

AF-1511-0004

Air War College Nonresident Seminar Program
(Associate Air War College Nonresident Seminar Program)

Course Number: None.

Location: Air War College, Maxwell AFB, AL.

Length: 104 weeks maximum.

Exhibit Dates: *Version 1:* 1/79–Present. *Version 1:* 8/70–12/79.

Objectives: To train officers in the principles of military strategy and national security policy for development and employment of aerospace power.

Instruction: *Version 1:* Seminars, reading, and student research in principles of military strategy and national security policy for development and employment of aerospace and power, including nature of national power and its application in nation-state systems; changing nature of U.S. society and its interrelationship with national security; regional studies with an assessment of the impact of regional development in U.S. foreign and national security policy; determinants of U.S. national security policy; formulation and implementation of the policies; allocation and management of defense resources, military and personnel management and decision-making; impact of science and technology on weapon systems, military concepts, doctrine, and strategy; causes, nature, and purposes of armed conflict; U.S. military concepts and strategy, and processes by which they are formulated and implemented; role of deterrence, arms control, and other strategies for achieving and maintaining international order and stability; development and evaluation of aerospace concepts for national security; and evaluation of present and potential strategies, capabilities, and vulnerabilities of the U.S., its allies, and potentially hostile countries. *Version 2:* Seminars, readings, and student research in principles of military strategy and national security policy for development and employment of aerospace power, including nature of national power and its application in the nation-state system; changing nature of U.S. society and its interrelationship with national security; current and potential threats to U.S. security; determinants of U.S. national security policy; formulation and implementation of the policies; allocation and management of defense resources; military management and decision-making; impact of science and technology on weapon systems, military concepts, doctrine, and strategy; causes, nature, and purposes of armed conflict; U.S. military concepts and strategy, and processes by which they are formulated and implemented; role of deterrence, arms control, and other strategies for achieving and maintaining international order and stability; development and evaluation of aerospace concepts for national security; and evaluation of present and potential strategies, capabilities, and vulnerabilities of the U.S., its allies, and potentially hostile countries.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 24 semester hours in the areas of political science, international relations, and public administration (3/83); in the graduate degree category, for students who have completed the program with a rating of Outstanding or Excellent, 0-6 semester hours in international relations may be granted, however it is suggested that an institution delay awarding graduate credit until the student has successfully completed one semester of graduate work. This course is offered at many locations under the administration of Maxwell AFB.(3/83). *Version 2:* In the upper-division baccalaureate category, 24 semester hours in the areas of political science, international relations and government, and personnel management (8/74); in the graduate degree category, for students who have completed the program with a rating of Outstanding or Excellent, 4 semester hours in international relations, 2 in personnel management (8/74). NOTE: It is suggested that an institution delay awarding graduate credit until the student has successfully completed one semester of graduate work. This course is offered at various locations under the administration of Air War College, Maxwell Air Force Base. Distribution of course materials and the transcript service are handled by the Extension Course Institute (ECI).

AF-1511-0005

Air War College Correspondence Program
(Air War College Associate Correspondence Program)

Course Number: None.

Location: Air War College, Maxwell AFB, AL.

Length: Average 52 weeks with 104 weeks maximum.

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 8/70–12/78.

Objectives: To train senior officers in principles of military strategy and national security policy for development and employment of aerospace power.

Instruction: *Version 1:* Individualized reading and student research in principles of military strategy for national security policy for development and employment of aerospace power, including nature of national power and its applications in the nation-state system; changing nature of U.S. society and its interrelatonships with national security, current and potential threats to U.S. security; regional studies with an assessment of the impact of regional developments in U.S. foreign and national security policy, determinants of U.S. national security policy, formulaton and implementation of the policies; allocation and managment of defense resources; military and personnel management and decision-making; impact of science and technology on weapon systems, military concepts, doctrines and strategy; causes, nature, and purposes of armed conflict; U.S. military concepts and strategies, and processes by which they are formulated and implemented; role of deterrence, arms control, and other stragegies for acheiving and maintaining international order and stability; development and evaluation of aerospace concepts for national security; and evaluation of present and potential strategies, capabilities, and vulnerabilities of the U.S., its allies, and potentially hostile countries. *Version 2:* Seminars and individualized readings and student research in principles of military strategy for national security policy for development and employment of aerospace power, including nature of national power and its application in the nation-state systems; changing nature of U.S. society and its interrelationships with national security; current and potential threats to U.S. security; determinants of U.S. national security policy, formulation and implementation of the policies; allocation and management of defense resources; military management and decision-making; impact of science and technology on weapon systems, military concepts, doctrine, and strategy; causes, nature, and purposes of armed conflict; U.S. military concepts and strategies, and processes by which they are formulated and implemented; role of deterrence, arms control, and other strategies for achieving and maintaining international order and stability; development and evaluation of aerospace concepts for national security; and evaluation of present and potential strategies, capabilities, and vulnerabilities of the U.S., its allies, and potentially hostile countries.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 24 semester hours in the aread of political science, international relations, and public administration (3/83); in the graduate degree category, 0–6 hours in international relations may be granted to those students who have completed the program with a rating of Outstanding or Excellent. However, it is suggested that an institution delay awarding graduate credit until the students has successfully completed one semester of graduate work. The course is administered by Maxwell Air Force Base through the Extension Course Institute (3/83). *Version 2:* In the upper-division baccalaureate category, 24 semester hours in the areas of political science, international relations and government, and personnel management (8/74); in the graduate degree category, for students who have completed the program with a rating of Outstanding or Excellent, 4 semester hours in international relations, 2 in personnel management (8/74). NOTE: It is suggested that an institution delay awarding graduate credit until the student has successfully completed one semester of graduate work. This course is offered at various locations under the administration of Air War College, Maxwell Air Force Base. Distribution of course materials and the transcript service is handled by the Extension Course Institute (ECI).

AF-1511-0006

1. Air War College
2. Air War College
3. Air War College
4. Air War College
5. Air War College
(War College)

Course Number: None.

Location: Air University, Maxwell AFB, AL.

Length: *Version 1:* 40 weeks (1600 hours). *Version 2:* 40 weeks (1600 hours). *Version 3:* 43 weeks (1076-1600 hours). *Version 4:* 43 weeks (1586-1608 hours). *Version 5:* 43 weeks (1575-1618 hours).

Exhibit Dates: *Version 1:* 1/79-Present. *Version 2:* 8/70-12/78. *Version 3:* 8/66–7/70. *Version 4:* 8/63–7/66. *Version 5:* 7/54–7/63.

Objectives: To train senior officers in military strategy in support of national security policy for the development and employment of aerospace power.

Instruction: *Version 1:* Seminars, individualized readings, experiential exercises and student research in principles of military strategy and national security policy for development and employment of aerospace power, including nature of national power and its application in nation-state system; current and potential threats to U.S.security; historical evolution of strategic theory and national security; regional studies with an assessment of the impact of regional developments in U.S. foreign and national policy; determinants of U.S. national security policy; formulation and implementation of the policies; allocation and management of defense resources; military personnel management and decision-making; impact of science and technology on weapon systems, military concepts, doctrine and strategy; causes, nature and purposes of armed conflict; U.S. military concepts and strategy, and processes by which they are formulated and implemented; role of deterrence, arms control, and other strategies for acheiving and maintaining international order and stability; development and evaluatin of aerospace concepts for national security; and evaluation of present and potential strategies, capabilities, and vulnerabilities of the U.S., its allies, and potentially hostile countries. *Version 2:* Lectures, readings, and student research and discussion in military strategy in support of national security policy for the development and employment of aerospace power. *Version 3:* Lectures, readings, and student research and discussion in military strategy in support of national security policy for the development and employment of aerospace power. *Version 4:* Lectures, readings, and student research and discussion in military strategy in support of national security policy for the development and employment of aerospace power. *Version 5:* Lectures, readings, and student research and discussion in military strategy in support of national security policy for the development and employment of aerospace power.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 32 semester hours in international relations, political science, national security studies, public management and research (3/83); in the graduate degree category, 12 semester hours in international relations and national security studies, 4 in management with emphasis on the public sector, credit in research based on the receiving institution's review of significant research paper and, in addition, up to 3 semester hours for completion of the electives based on the receiving institution's review of the course (3/83). *Version 2:* In the upper-division baccalaureate category, 30 semester hours (to be distributed by the receiving institution) in the areas of international relations, political science, economics, management, and research (8/74); in the graduate degree category, 6 semester hours in international relations, 6 in management, 0–6 in research training; additionally, 3 semester hours of graduate credit may be granted for completion of any two of the following elective courses: History of Military Thought, The Soviet Union, Communist China, Politics and Government of Emerging Nations, Economics of National Defense, Human Relations in Administration, and Quantitative Analysis (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Credit granted for research papers should be contingent upon the graduate school's evaluation of the thesis. Recommendations are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 6 semester hours in political science (including international relations), 9 in business organization and management (planning and leadership), 3 in social science survey, and credit in oral and written communications on the basis of institutional evaluation (8/74); in the graduate degree category, 6 semester hours in a one-year M.A. program in the field of international relations or in the field of thesis research (8/74). NOTE: Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper for an indication of the extent and depth of the student's reading, seminar, and research work during the course of instruction. *Version 4:* In the upper-division baccalaureate category, 6 semester hours in social science survey, 6 in political science (including international relations), 3 in recent history, 3 in economics, 3 in business organization and management (planning and leadership), and credit in oral and written communication on the basis of institutional evaluation (12/68). *Version 5:* In the upper-division baccalaureate category, 6 semester hours in social science survey, 6 in political science (including international relations), 3 in recent history, 3 in economics, 3 in business organization and management (planning and leadership) (12/68).

AF-1511-0007

Civil Law by Correspondence

Course Number: 7802A.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/79–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand and describe the basic principles of administrative, martial, and civil law as applicable to the Air Force.

Instruction: Monitored home study including readings, written exercises, and proctored examination in the application of civil law within the US Air Force. Topics include Air Force administrative law, interrelationships between the Department of Defense, the armed services departments, and other governmental agencies status of officers, warrant officers and enlisted personnel, legal aspects of military pay and allowances, martial law, international law and treaties as they apply to the armed forces.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in political science or government (5/88).

AF-1512-0002

Military Training Instructor

Course Number: *Version 1:* 3AIR99128. *Version 2:* 3AIR99128. *Version 3:* AIR99128.

Location: *Version 1.* School of Military Sciences, Airman, Lackland AFB, TX. *Version 2:* 3720th Base Military School, Lackland AFB, TX. *Version 3:* 3275th Technical School, Lackland AFB, TX.

Length: *Version 1:* 9 weeks (320 hours). *Version 2:* 4–9 weeks (200–320 hours). *Version 3:* 5 weeks (138 hours).

Exhibit Dates: *Version 1:* 7/73–12/73. *Version 2:* 12/67–6/73. *Version 3:* 2/62–11/67.

Objectives: To train selected enlisted personnel to perform as military training instructors with minimum on-the-job training.

Instruction: *All Versions:* Lectures and practical exercises in the principles, mehtods, and techniques of instruction; identification of trainee emotional, mental and drug problems; evaluation procedures; and drill and ceremonies. *Version 1:* Topics include counseling techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in educational psychology and 3 in instructional methods (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

AF-1512-0003

Drug Education and Counseling

Course Number: 3OZR0008.

Location: Lackland Technical Training Center, Lackland AFB, TX.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/72–12/73.

Objectives: To train selected officers and enlisted personnel to perform drug education and counseling duties at military installations.

Instruction: Lectures and practical exercises in drug education and counseling duties. Topics include history and scope of the drug problem; pharmacological, psychological, cultural, and legal aspects of drug useage; approaches to counseling and treatment; military policies and directives; program and community resources and constructive alternatives; educational and rehabilitative program models; local program development; communication techniques; program and resource evaluation; and follow-up training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in psychology or group dynamics, 2 in introduction to drug and alcohol abuse, and 3 in drug abuse program development and evaluation (8/74).

AF-1513-0001

Human Relations Advisor

Course Number: 2OSR0009.

Location: Lackland Technical Training Center, Lackland AFB, TX.

Length: 2 weeks (60 hours).

Exhibit Dates: 5/72–12/73.

Objectives: To train officers and airmen as human relations advisors.

Instruction: Lectures and practical exercises in the duties of installation human relations advisors, including design, development, conduct, and evaluation of human relations program; cultural imprint awareness; cross-cultural differences and difficulties; psychology of prejudice; sociology of ethnic groups; educational models; counseling and arbitration; and the dynamics of group processes.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cultural sociology (7/74).

AF-1601-0001

Production Control

Course Number: ALR45130; AL45130; AL80270.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 12–14 weeks (360–420 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train personnel in the production control functions of aircraft maintenance, motor vehicle maintenance, ground equipment maintenance, installations engineering maintenance, and depot maintenance.

Instruction: Discussions and practical exercises in production control theory, functions, and mathematics; estimating theory and techniques; maintenance production analysis; and scheduling theory and techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AF-1601-0006

1. Liquid Fuel Systems Maintenance Specialist (Conventional Fuel)
2. Liquid Fuel Systems Maintenance Specialist (Conventional Fuel)
3. Petroleum Systems Maintenance Specialist

Course Number: *Version 1:* 3ABR54630-1; 3ABR54630. *Version 2:* ABR54630; ABR54630W; ABR56830A. *Version 3:* AB56830.

Location: *Version 1:* School for Applied Aerospace Sciences, Chanute AFB, IL; *Version 1:* 3345th Technical School, Chanute AFB, IL. *Version 2:* 3320th Technical School, Amarillo AFB, TX. *Version 3:* 3320th Technical School, Amarillo AFB, TX.

Length: *Version 1:* 7-9 weeks (216-240 hours). *Version 2:* 7-8 weeks (180 hours). *Version 3:* 10 weeks (240 hours).

Exhibit Dates: *Version 1:* 10/69-12/73. *Version 2:* 10/60-9/69. *Version 3:* 6/58-9/60.

Objectives: To teach fundamentals of hydraulics.

Instruction: Lectures and practical exercises in fundamentals of basic hydraulics and electricity, fabrication of piping and tubing assemblies, repair and maintenance of hydraulic component parts, and industrial safety in handling high-pressure liquids.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in applied hydraulics, mechanical systems, and/or fluid power, 1 in industrial safety (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in applied hydraulics, mechanical systems, and/or fluid power, 1 in industrial safety (7/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in applied hydraulics, mechanical systems, and/or fluid power, 1 in industrial safety (7/74).

AF-1601-0022

Applied Engineering

Course Number: None.

Location: Air Force Institute of Technology, Wright-Patterson AFB, OH.

Length: 9 weeks (296 hours).

Exhibit Dates: 6/72-6/74.

Objectives: To train architects and engineers to apply current mechanical and electrical engineering technology to Real Property facilities.

Instruction: Lectures and practical exercises in the application of current mechanical and electrical engineering technology, including psychrometrics, air conditioning load calculations, piping and duct design, mechanical equipment selection and application, system controls, wiring and lighting design, power factor correction, corrosion technology, and integrated design planning and execution.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in applied mechanical, electrical, and corrosion engineering (6/74).

AF-1601-0023

Industrial Engineering Techniques

Course Number: None.

Location: Air Force Institute of Technology, Wright-Patterson AFB, OH.

Length: 5 weeks (200 hours).

Exhibit Dates: 5/73-6/74.

Objectives: To train personnel in industrial engineering technology.

Instruction: Lectures and practical exercises in industrial engineering technology, including mathematics, fundamentals of statistics, work design, work measurement, plant layout, engineering economy, network planning, and other topics of current interest.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in algebra, 2 in statistics, and 1 in industrial engineering (6/74); in the upper-division baccalaureate category, 1 semester hour in statistics, 1 in industrial engineering (6/74).

AF-1601-0024

Cartographic Officer

Course Number: 5OBO5724.

Location: Aeronautical Chart and Information Center, St. Louis, MO.

Length: 26 weeks (1040 hours).

Exhibit Dates: 3/70-6/85.

Objectives: To train officers as cartographic officers.

Instruction: Lectures and practical exercises in duties of cartographic officers, including geodesy, surveying, referencing systems, geodetic evaluation, compilation research, compilation techniques optics, photometrics, photographic-cartographic interpretation, radial triangulation, photographic rectification, mosaics, photogrammetric instrumentation, celestial mechanics, computer applications, analytic photogrammetry, and methods of map and chart design and construction.

Credit Recommendation: In the upper-division baccalaureate category, 22 semester hours in cartography (7/74).

AF-1601-0025

Building Systems Engineering

Course Number: None.

Location: Civil Engineering School, Wright-Patterson AFB, OH.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/73-6/74.

Objectives: To train engineers to apply current technology and techniques to the design, construction, and maintenance of building components.

Instruction: Lectures and practical exercises in the application of current technology to the design, construction, and maintenance of building components, including life-cycle evaluation, economic analysis, material-component selection and replacement, and the roof, protective coating, thermal and vapor barrier, sealant, acoustical, and fire protection subsystems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in civil engineering and building construction (7/74); in the upper-division baccalaureate category, 3 semester hours in civil engineering and building construction (7/74).

AF-1601-0026

Photomapping

Course Number: None.

Location: Aeronautical Chart and Information Center, St. Louis, MO.

Length: 10 weeks (332 hours).

Exhibit Dates: 4/56-12/68.

Objectives: To train enlisted personnel to prepare maps and charts using photogrammetry.

Instruction: Lectures and practical exercises in the preparation of maps and charts, including introductory cartography, vertical and trimetrogon photogrammetry, and reproduction procedures.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in mapping and drafting (12/68).

AF-1601-0030

Liquid Fuel Systems Maintenance Specialist by Correspondence

Course Number: 54551.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/86-Present.

Objectives: To train individuals in the maintenance of liquid fuel distribution systems.

Instruction: Consists of on-the-job supervision and at-home study. The at-home study provides knowledge regarding fundamentals of fuel tank construction and tank entry procedures; operation and maintenance of mechanical systems components including valves, pumps, meters, and filtration equipment; and operation of hydrant systems and components. Automotive gasoline dispensing units, fuel charactertistics, hand tools, and safety procedures are also covered.

Credit Recommendation: In the vocational certificate category, 4 semester hours in liquid fuel systems, distribution and maintenance, and tank farm operations (9/86).

AF-1601-0032

1. Liquid Fuel Systems Maintenance Specialist (HGM-25)
2. Liquid Fuel Systems Maintenance Specialist (SM-68A)

Course Number: *All Versions:* ABR54630E.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 16 weeks (450 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 12/63-12/68. *Version 2:* 6/62-11/63.

Objectives: To train personnel as liquid fuel systems maintenance specialists for specific systems.

Instruction: *All Versions:* Lectures and practical exercises on duties of liquid fuel system maintenance specialists on specific weapon systems, including operation and maintenance of propellant transfer systems. *Version 1:* Topics include fundamentals, components, component cleaning and testing, component test stands, and operation and maintenance of aerospace ground equipment. *Version 2:* Topics include systems operation, and propellant system component maintenance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in applied hydraulics or physical science (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in applied hydraulics or mechanical systems (7/74).

AF-1601-0041

Site Development Specialist

Course Number: *Version 1:* 3ABR55330. *Version 2:* 3ABR55330. *Version 3:* ABR55330.

Location: *Version 1:* School of Applied Aerospace Sciences, Sheppard AFB, TX. *Version 2:* 3750th Technical School, Sheppard AFB, TX. *Version 3:* 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 17 weeks (680 hours). *Version 2:* 18 weeks (540 hours). *Version 3:* 19 weeks (540 hours).

Exhibit Dates: *Version 1:* 7/73-12/73. *Version 2:* 9/70-6/73. *Version 3:* 10/65-8/70.

Objectives: To train personnel as site development specialists.

Instruction: *All Versions:* Lectures and practical exercises on the performance of site development specialists, including fundamentals of surveying, and construction surveys. *Version 1:* Topics include construction layout and earthwork, soils engineering, pavements and concrete construction, basic drafting, construction drafting, and drafting and construction management. *Version 2:* Topics include construction layout and earthwork, soils engineering, pavements and concrete construction, basic drafting, construction drafting, and drafting and construction management. *Version 3:* Topics include site plans, material estimates, and facility drawings; transit adjustments and readings; traverse computations and direct level circuit; road layout and utilities drainage; inspections; and civil engineering inspection responsibilities and management methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in drafting, 3 in surveying, and 3 in construction materials (7/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in construction engineering (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in construction engineering (12/68).

AF-1601-0042

Intelligence Area Studies (SEA)

Course Number: 3OZR8045-5.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 3-4 weeks (102-120 hours).

Exhibit Dates: 5/68-12/73.

Objectives: To train personnel in intelligence area studies (Southeast Asia).

Instruction: Lectures and practical exercises in intelligence area studies (Southeast Asia), including physical and cultural patterns of the area and in the specific application of multisensor reconnaisance to that environment, geographical and sociological orientation to Southeast Asia, and fundamentals of multisensors, such as panoramic photography, infrared imagery, and side-looking-radar (SLR) imagery.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in engineering (7/74).

AF-1601-0044

Base Civil Engineer

(Basic Installations Engineering Officer)

Course Number: None.

Location: Institute of Technology, Wright-Patterson AFB, OH.

Length: 8-9 weeks (233-243 hours).

Exhibit Dates: 1/54-12/68.

Objectives: To train officers in civil engineering management.

Instruction: Lectures and practical exercises in civil engineering management, including functions of the Air Force civil engineer, supervisory management, real estate administration, fiscal budgeting, maintenance management and control, engineering contracts, installations planning and military construction programs, operations and maintenance programming and project methodologies, comprehensive problems, security indoctrination, arctic orientation and construction techniques, and nuclear effects and recovery planning.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in civil engineering management (8/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

AF-1601-0045

Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68

Course Number: ABR56830B.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 16 weeks (450 hours).

Exhibit Dates: 12/60-12/68.

Objectives: To teach competence in the operation and maintenance of various cryogenic liquid and high pressure gas transfer systems.

Instruction: Lectures and practical exercises in cryogenic liquid and high pressure gas transfer systems; proper procedures to insure safety and efficiency in removing fuels from missiles; and cleaning, degreasing, and servicing propellant transfer systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in mechanical systems fluid power (7/74).

AF-1601-0046

Engineering Assistant Specialist by Correspondence

Course Number: 55350.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 8/86-Present.

Objectives: This course is intended to train individuals to be civil/construction engineering assistants.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at home studies. The home study provides basic knowledge of applied mathematics, surveying, soils analysis and testing, pavement analysis and testing, drafting, and construction management. The course provides knowledge related to real estate property design, construction, maintenance and repair of civil engineering and construction projects and functions. Field inspection and management techniques are also covered. The course has a proctored final examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in applied technical mathematics (9/86); in the lower-division baccalaureate/associate degree category, 6 semester hours in basic surveying and/or construction surveying, 3 in soil analysis and testing, 3 in asphalt and concrete testing, 6 in engineering drafting and/or architectural drafting, and 3 in construction management (9/86).

AF-1601-0047

Pavements Maintenance Specialist by Correspondence

Course Number: 55150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/80-Present.

Objectives: To train individuals to design, construct, and maintain concrete and bituminous pavements.

Instruction: Consists of on-the-job supervision and at-home study. The home study provides basic knowledge in the design, construction, and maintenance of concrete and bituminous pavements. Subgrade preparation, materials and design mixtures, placement of pavement, maintenance of functions, drainage structures, fencing, and prefabrication surface mats are covered in this course. Also covered are safety, management techniques, and general military contingency plans.

Credit Recommendation: In the vocational certificate category, 4 semester hours in highway design and maintenance (9/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in highway design and construction (9/86).

AF-1601-0048

Apprentice Pavements Maintenance Specialist by Correspondence

Course Number: 55130.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/85-Present.

Objectives: To train individuals to maintain rigid and flexible pavements.

Instruction: Consists of on-the-job supevision and at-home study. The home study provides basic knowledge in job safety and construction, and maintenance are covered. Flexible pavement, prefabricated surface mats, painting, fencing, and explosives are taught. Primary emphasis is on maintenance functions. Military contingency plans and operation are also covered.

Credit Recommendation: In the vocational certificate category, 4 semester hours in highway maintenance (9/86).

AF-1601-0049

Structural Technician by Correspondence

Course Number: 55271.

Location: Extension Course Institute, Gunter AIr Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 3/81-Present.

Objectives: To train personnel in th materials and methods used in building construction (light construction).

Instruction: This course consists of on-the-job training and at-home studies. The home study provides training in the materials and methods of building construction and the on-the-job training provides reinforcement for the home studies. The course contains materials used for light construction.

Credit Recommendation: In the vocational certificate category, 3 semester hours in materials of building construction and 3 in methods of light construction (9/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials and methods of building construction (light construction) (9/86).

AF-1606-0001

Naval Intelligence Officer

Course Number: 3OBR8051-3.

Location: Lowry Technical Training Center, Lowry AFB, CO.

Length: 21 weeks (650 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To train selected Navy personnel in all aspects of intelligence operations, including analysis, collection, and reporting of information on foreign governments.

Instruction: Study and practical applications of naval warfare operations and intelligence support; international relations and law; terrain analysis; U.S. treaties and national commitments; national strategic planning; historical development and political-military role of communism.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in political science, 3 in international relations (2/74).

AF-1606-0003

UNDERGRADUATE PILOT TRAINING (T-41, INTERIM)

Course Number: P-V4B-T.

Location: Air Training Command, Columbus AFB, TX; Air Training Command, Craig AFB, TX; Air Training Command, Laredo AFB, TX; Air Training Command, Laughlin AFB, TX; Air Training Command, Moody AFB, TX; Air Training Command, Reese AFB, TX; Air Training Command, Vance AFB, OK; Air Training Command, Webb AFB, TX; Air Training Command, Williams AFB, TX.

Length: 5 weeks (92 hours).

Exhibit Dates: 11/72-1/90.

Objectives: To provide officers with basic flight training.

Instruction: Flight training and lectures on airmanship, aerospace physiology, and flight safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight fundamentals (2/74).

AF-1606-0011

INSTRUMENT PILOT INSTRUCTOR TRAINING (T-38)

(Instrument Pilot Instructor Training (T-39))

(Instrument Pilot Instructor Training (T-38/T-39))

Course Number: F-V5G-A; 1104500H; 1111501Q.

Location: Air Training Command, Randolph AFB, TX.

Length: 6-8 weeks (76-207 hours).

Exhibit Dates: 8/62-1/90.

Objectives: To qualify pilots as instrument instructor pilots.

Instruction: Lectures and practical exercises in instrument instruction procedures in supersonic fighter type jet aircraft, including fundamentals of instruction, flight instruments, navigation aids, computer, weather, and flying and ground training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in principles and methods of instruction or teacher education, 3 in flight instructor experience (2/74); in the upper-division baccalaureate category, credit in instructional methods on the basis of institutional evaluation (2/74).

AF-1606-0020

SPECIAL OPERATIONS TRAINING, AC-130E PILOTS

Course Number: 104140Z.

Location: 415th Special Operations Training Squadron, Hurlburt Field, FL.

Length: 4 weeks (94 hours).

Exhibit Dates: 1/72-1/90.

Objectives: To train pilots in the operation of multi-engine aircraft.

Instruction: Ground egress training and multi-engine flight experience; lectures on electrical systems, hydraulics, landing gear and brakes, flight controls, fuel systems, instrumentation, communication and navigation, performance and mission planning, and flight characteristics and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight experience (2/74).

AF-1606-0021

INTELLIGENCE OPERATIONS TECHNICIAN

Course Number: AA20470.

Location: 3750th Technical Training Wing, Sheppard AFB, TX.

Length: 10 weeks (300 hours).

Exhibit Dates: 6/57-5/59.

Objectives: To provide advanced instruction in intelligence and photointerpretation techniques and procedures.

Instruction: Course covers maps, charts, and mosaics; target development; weapons employment planning; foreign air defense capabilities; combat survival; combat mission planning; briefing, debriefing, and reporting. Course also includes fundamentals of air intelligence, photo radar, and target development.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in intelligence methods (11/77).

AF-1606-0022

1. UNDERGRADUATE PILOT TRAINING (T-41/T-37/T-38)
2. UNDERGRADUATE PILOT TRAINING (T-41/T-37/T-38)

   (Undergraduate Pilot Training (T-41/T-37/ T-33))

   (Undergraduate Pilot Training (T-37/T-33))

Course Number: *All Versions:* P-V4A-A. *Version 2:* 111103; 1111038.

Location: Air Training Command, Columbus AFB, MS; Air Training Command, Craig AFB, AL; Air Training Command, Laughlin AFB, TX; Air Training Command, Moody AFB, GA; Air Training Command, Reese AFB, TX; Air Training Command, Vance AFB, OK; Air Training Command, Webb AFB, TX; Air Training Command, Williams AFB, AZ; Air Training Command, Laredo AFB, TX; Air Training Command, Randolph AFB, TX.

Length: *Version 1:* 49 weeks (962-998 hours). *Version 2:* 48-55 weeks (752-1059 hours).

Exhibit Dates: *Version 1:* 6/73-1/90. *Version 2:* 1/61-5/73.

Objectives: To qualify non-rated officers as rated jet pilots.

Instruction: Lectures and practical exercises in basic flight maneuvers, instrument flight, navigation, weather, aerodynamics, aerospace physiology, aircraft systems operation, principles of flight, aural and visual code, flying safety, instrument procedures and radio aids, radar and flight planning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in commercial pilot, 3 in instrument pilot, 3 in navigation, and 3 in meteorology (6/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in commercial pilot, 3 in instrument pilot, 3 in navigation, and 3 in meteorology (6/74); in the upper-division baccalaureate category, 3 semester hours in primary meteorology and navigation, and credit in advanced military at institutions which regularly offer such credit (12/68).

AF-1606-0023

C-5 PILOT

Course Number: None.

Location: 443d Military Airlift Wing, Altus AFB, OK.

Length: 4 weeks (127 hours).

Exhibit Dates: 2/72-1/90.

Objectives: To train pilots in the operation of the C-5 aircraft.

Instruction: Flight and academic training, including an introduction to the C-5 aircraft and its systems, component parts, and normal and emergency functions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight experience (2/74).

AF-1606-0030

AIRCRAFT OBSERVER TRAINING—PILOT

Course Number: 51-124101-1.

Location: Flying Training Air Force, James Connally AFB, TX.

Length: 24-27 weeks (387-413 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train qualified pilots as navigator/bombardiers.

Instruction: Lectures in dead-reckoning, celestial, grid, and radar navigation techniques; nuclear weapons delivery, bombing procedures, and radar target intelligence; and in-flight training in celestial, grid, and radar navigation and in integrated navigation and bombing.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in navigation (12/68).

AF-1606-0031

AIRCRAFT OBSERVER TECHNICAL UPGRADING

Course Number: 51-152110A-1.

Location: Flying Training Air Force, Mather AFB, CA; Flying Training Air Force, James Connally AFB, TX.

Length: 24-25 weeks (538-567 hours).

Exhibit Dates: 2/55-12/68.

Objectives: To train aircraft observers as aerial navigators.

Instruction: Lectures and flight experience in aircraft navigation techniques, including dead-reckoning, celestial, and grid navigation; equipment malfunction analysis; bombing theory and computations; radar target intelligence; operational procedures involving radar and computer usage; and atomic, biological, and chemical warfare familiarization.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in navigation, and credit in electricity on the basis of institutional evaluation (12/68).

AF-1606-0032

FLIGHT ENGINEER SPECIALIST, RECIPROCATING ENGINE AIRCRAFT

Course Number: 3ALR43550C-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 10 weeks (300 hours).

Exhibit Dates: 8/70-12/73.

Objectives: To train enlisted personnel to perform duties as flight engineers.

Instruction: Lectures in theory of flight, aircraft systems, aerodynamics, and duties and responsibilities of flight engineers; and practical experience in flight navigation procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aerodynamics (12/68).

AF-1606-0033

PRIMARY-BASIC OBSERVER UPGRADING

Course Number: *Version 1:* 51-153123. *Version 2:* 51-153102-1.

Location: *Version 1:* Air Training Command, Mather AFB, CA. *Version 2:* Flying Training Air Force, Ellington AFB, TX.

Length: *Version 1:* 23 weeks (511 hours). *Version 2:* 34 weeks (803-823 hours).

Exhibit Dates: *Version 1:* 1/59-12/68. *Version 2:* 12/54-12/58.

Objectives: To provide aircraft observers with supplemental training in aircraft navigation.

Instruction: Lectures and flight experience in aircraft navigation, including meteorology; navigational theory; dead-reckoning, celestial, and grid navigation; radar systems; electricity and magnetism; and radio operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in navigation (12/68). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in navigation, 3 in electricity (12/68).

AF-1606-0034

PRIMARY-BASIC OBSERVER CADET

Course Number: 51-153101-1.

Location: Flying Training Air Force, Ellington AFB, TX; Flying Training Air Force, Harlingen AFB, TX; Flying Training Air Force, James Connally AFB, TX.

Length: 40-42 weeks (857-872 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train aircraft observer preflight graduates and nonrated officers to perform as navigators.

Instruction: Lectures and training flights in basic aircraft navigation, including electronic equipment utilization; meteorology; celestial, grid, and dead-reckoning navigation; electricity and magnetism; radar systems; and radio operation.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in navigation, 2 in electricity, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

AF-1606-0036

ADVANCED HELICOPTER PILOT TRAINING

(Pilot Advanced Flying (H-3) Basic)
(Pilot Advanced Flying (HH-3E) ARRS)
(Pilot Advanced Flying (H-53) Basic)
(Pilot Advanced Flying (HH-53) ARRS)

Course Number: H3P1; H3P2; 1025E-1; 1025E-2; 1025F-1; 1025F-2.

Location: 1550th Aircrew Training and Test Wing, Hill AFB, UT.

Length: 4-10 weeks (46-124 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To provide helicopter pilots with transition and technical training in H-3 and H-53 helicopters.

Instruction: Lectures and practical experience in aerial delivery, air refueling, ballistics, fire suppression, formation flying, gunnery, instruments, navigation, rescue operations, search and orbit, and tactical and transition training.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

AF-1606-0037

FLIGHT MECHANIC TRAINING

(Helicopter Mechanic Advanced Flying (HH-53) ARRS)
(Helicopter Mechanic Flying (H-53) Basic)
(Helicopter Mechanic Advanced Flying (HH-3E) ARRS)
(Helicopter Mechanic Flying (H-3) Basic)

Course Number: H3FM1; H3FM2; 431XF-2; 431XF-1; 431XE-2; 431XE-1.

Location: 1550th Aircrew Training and Test Wing, Hill AFB, UT.

Length: 4-10 weeks (37-111 hours).

Exhibit Dates: 6/72-1/88.

Objectives: To train helicopter mechanics to repair, and serve as crew members on, H-3 and H-53 helicopters.

Instruction: Flight training, including flight preparation, ground operations, inflight maintenance, instruments, emergency procedures, and post-flight procedures; and lectures and practical experience in the repair of the Limited Night Recovery System (LNRS).

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

AF-1606-0045

1. RADAR INTERCEPT OFFICER TRAINING (MG-12/13)
(Radar Intercept Officer Training)
2. NAVIGATOR RADAR INTERCEPT

Course Number: 156103.

Location: Air Training Command, Connally AFB, TX.

Length: *Version 1:* 25 weeks (511-533 hours). *Version 2:* 21 weeks (386 hours).

Exhibit Dates: *Version 1:* 8/58-12/68. *Version 2:* 6/57-7/58.

Objectives: To qualify Air Force navigators as radar intercept officers.

Instruction: Lectures and practical exercises in navigation and flight line orientation; basic and advanced interceptor techniques; applied tactics; interceptor techniques in flight simulator; electricity and magnetism; circuits and voltmeter, ammeter, ohmmeter familiarization; vacuum tubes, diodes, triodes, tetrodes, pentodes, and thyratrons; power supplies; amplifiers; oscillators; high-frequency circuits and systems; transmission lines and wave-guides; applied intercept techniques; aircraft and surface vessel recognition; and aircraft engineering.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, credit in navigation and electricity on the basis of institutional evaluation (12/68).

AF-1606-0047

ADVANCED AEROSPACE PHOTO INTELLIGENCE

Course Number: OTS8044-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 5 weeks (150 hours).

Exhibit Dates: 6/62-12/68.

Objectives: To provide intelligence personnel with advanced training in the processing, storing, retrieving, interpretation, and dissemination of intelligence information.

Instruction: Lectures and practical exercises in the interpretation, processing, storage, retrieval and dissemination of intelligence information, including introductory reconnaissance systems, automatic data processing, photogrammetry, applications of photo intelligence information, microscale photo interpretation, and physical factors in photo interpretation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photo intelligence (12/68).

AF-1606-0048

DEFENSE SENSOR INTERPRETATION AND APPLICATIONS TRAINING (DSIAT) (OFFICER)

Course Number: OZR8011.

Location: Armed Forces Air Intelligence Training Center, Offutt AFB, NE.

Length: 12 weeks (480 hours).

Exhibit Dates: 10/64-12/68.

Objectives: To train officers to perform as photographic interpreters.

Instruction: Lectures and practical exercises in photo interpretation, including principles and equipment of reconnaissance systems, impact and significance of improved lens/film combinations, use of improved optical and mensuration devices, microscale photo interpretation, automatic and electronic intelligence interpretation, photogrammetry, and photo processing techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photo intelligence (12/68).

AF-1606-0050

PHOTO INTERPRETATION SPECIALIST

Course Number: ABR20630; AB20630; AB20431.

Location: 3750th Technical School, Sheppard AFB, TX; 3415th Technical School, Lowry AFB, CO.

Length: 12-19 weeks (360-540 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train airmen to interpret, analyze, and evaluate aerial and radar scope photographs for intelligence purposes.

Instruction: Lectures and practical exercises in the interpretation, analysis, and evaluation of aerial and radar scope photographs for intelligence purposes, including filing, indexing, and plotting radar scope photographs; radar scope prediction, photo intelligence section operation, security, and map usage and intelligence information sources.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in photo interpretation (12/68).

AF-1606-0051

DEFENSE SENSOR INTERPRETATION AND APPLICATIONS TRAINING (DSIAT) (AIRMAN)

Course Number: AZR20670.

Location: Armed Forces Air Intelligence Training Center, Offutt AFB, NE.

Length: 11 weeks (440 hours).

Exhibit Dates: 10/64-12/68.

Objectives: To train enlisted personnel to perform as photographic interpreters.

Instruction: Lectures and practical exercises in photo interpretation, including principles and equipment of reconnaissance systems, impact and significance of improved lens/film combinations, use of improved optical and mensuration devices, microscale photo interpretation, automatic and electronic intelligence interpretation, photogrammetry, and photograph processing techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photo intelligence (12/68).

AF-1606-0052

1. Air Intelligence Officer
2. Intelligence Officer

Course Number: *Version 1:* 3OBR8051-1; OBR8051-1. *Version 2:* OBR8051; OB2051; OB2051-1.

Location: *Version 1:* 3415th Technical School, Lowry AFB, CO. *Version 2:* 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 28-30 weeks (840-960 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 10/63-12/73. *Version 2:* 5/56-9/63.

Objectives: To train officers to perform as intelligence officers and intelligence photo-radar officers.

Instruction: *All Versions:* Lectures and practical exercises in photo-radar intelligence operations and principles, including image interpretation, radar and intelligence analysis, prediction and targeting, automatic data processing and computer programming as applied to intelligence systems, mission planning, foreign air defense capabilities, nuclear weapons employment, and survival and escape techniques. *Version 1:* Includes tactical interpretation, photogrammetry, multisensor interpretation, briefing and transportation procedures, and intelligence industries.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in photo interpretation and intelligence methods (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AF-1606-0054

Air Intelligence Officer

Course Number: OTS8054.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 12 weeks (360 hours).

Exhibit Dates: 12/61-12/68.

Objectives: To train officers to be air intelligence officers.

Instruction: Lectures and practical exercises in air intelligence processes; maps, charts, and photographic radar interpretation; the communist threat; targeting and weapons employment planning; and combat mission activities.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AF-1606-0055

Air Intelligence Officer

Course Number: 3OBR8051-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 20 weeks (620 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train officers to be intelligence officers on staff and operational units.

Instruction: Lectures in intelligence fundamentals, automatic data processing as applied to intelligence, imagery interpretation fundamentals, targeting, weapons employment planning, survival techniques, evasion procedures, resistance and escape, integrated operational intelligence system, and intelligence officer responsibilities.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in photo interpretation and intelligence methods (12/68).

AF-1606-0056

Intelligence Precision Photographic Officer

Course Number: 3OBR8061.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO.

Length: 13 weeks (396 hours).

Exhibit Dates: 1/73-12/73.

Objectives: To train enlisted personnel to be intelligence precision photographic officers.

Instruction: Lectures and practical exercises in photography introduction; sensitometric control techniques; chemical control techniques, and precision control techniques; color photography fundamentals; photographic unit management and administration; light theory; printing and developing processes; sensitometry and sensitometric techniques; titling, plotting, and forwarding aerial film; and airborne intelligence imagery systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photography (5/74).

AF-1606-0059

1. Photographic Intelligenceman (Air Intelligence Airman)
2. Intelligence Operations Specialist

Course Number: *Version 1:* 3ABR20630-1; ABR20430-1. *Version 2:* ABR20430; AB20430.

Location: *Version 1:* School of Applied Aerospace Sciences, Lowry AFB, CO. 3415th Technical School, Lowry AFB, CO. *Version 2:* 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 14-18 weeks (402-506 hours). *Version 2:* 10-11 weeks (300 hours).

Exhibit Dates: *Version 1:* 7/64-12/73. *Version 2:* 6/54-6/64.

Objectives: To train enlisted personnel to perform intelligence operations and photographic and radar interpretation.

Instruction: Lectures and practical exercises in intelligence fundamentals; map, photographic, and radar interpretation; intelligence collection and dissemination; intelligence estimating and area studies; and mission planning and targeting.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in photographic interpretation (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in intelligence methods (12/68).

AF-1606-0061

Imagery Intelligence Officer

Course Number: 3OBR8041.

Location: Technical Training Center, Lowry AFB, CO.

Length: 24 weeks (720 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To train officers to be intelligence specialists.

Instruction: Lectures and practical exercises in intelligence operations fundamentals, basic coordinate systems, automatic data processing, photogrammetry, tactical photographic mission planning, imagery interpretation, radar operations, and multisensor imagery reporting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in political science, 2 in geography, 1 in meteorology (1/74).

AF-1606-0063

Helicopter Instructor Pilot Training

Course Number: IHIPN; IHIPNA; IHIPF; IHIPFA; IH3P1; IH3P2/3; IH53P1; IH53P2; IH53P3.

Location: Aerospace Rescue and Recovery Service, Kirtland AFB,NM.

Length: 2-6 weeks (111-174 hours).

Exhibit Dates: 8/77-1/88.

Objectives: To train helicopter pilots to perform as instructors.

Instruction: Subjects covered include systems transition, procedures, instruments, operations, and general aircrew training on the specific helicopter system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AF-1606-0064

Flight Mechanic Advanced Flying

Course Number: H53M1; H53M2.

Location: Aerospace Rescue and Recovery Service, Kirtland AFB,NM.

Length: 4-10 weeks (66-116 hours).

Exhibit Dates: 10/77-1/88.

Objectives: To qualify pilots in the H-53 helicopter.

Instruction: Many variables are involved in helicopter training; course provides training sufficient to prepare aircrew member for simulator and then aircraft flying training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AF-1606-0065

Pilot Advanced Flying

Course Number: H53P1; H53P2.

Location: Aerospace Rescue and Recovery Service, Kirtland AFB,NM.

Length: 4-10 weeks (70-127 hours).

Exhibit Dates: 10/77-1/88.

Objectives: To qualify pilots in the H-53 helicopter.

Instruction: Course provides training sufficient to prepare aircrew member for simulator and then aircraft flying training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AF-1606-0066

Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53)

Course Number: 1025D; 1025DAN; 1025DAF; 1025E1; 1025E2/3; 1025F1; 1025F2.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 2-6 weeks (40-178 hours).

Exhibit Dates: 10/75-1/88.

Objectives: To train and qualify helicopter pilots as instructor pilots.

Instruction: Emphasis is given to developing judgment, initiative, and ability to lead. Students ability to instruct is developed.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/77).

AF-1606-0080

Navigator Bombardier AN/ASQ-38(V) (Navigator Bombardier Training (ASQ-38))

Course Number: B-V7A-S-O; B-V7A-S; 51B-V7A-R; B-V7A-A; 152106B.

Location: Air Training Command, Mather AFB, CA.

Length: 13-28 weeks (347-701 hours).

Exhibit Dates: 8/65-1/88.

Objectives: To train navigators to perform as navigator-bombardiers on aircraft equipped with the AN/ASQ-38 weapons control system.

Instruction: Lectures and practical exercises on the functions of navigator-bombardiers, including AN/ASQ-38 computers, radar, ancillary equipment, operations and malfunction analysis; AGM-28 grid, solo navigation and bombing; integrated navigation and bombing; bomb navigation systems; and basic and advanced operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AF-1606-0084

NAVIGATOR BOMBARDIER UPGRADE TRAINING (FB-111)

Course Number: B-V7A-D.

Location: Air Training Command, Mather AFB, CA.

Length: 9 weeks (218-226 hours).

Exhibit Dates: 11/68-1/88.

Objectives: To train officers to perform as navigator-bombardiers on FB-111 aircraft.

Instruction: Lectures and practical exercises on the functions of navigator-bombardiers, including FB-111 avionics; navigation display and computer control units; optical display sight set; basic ECM principles; armament systems; astrocompass (ASQ-119); advanced avionics; control and display set; specific countermeasures receiver set, dispenser set, and trackbreaker; weapons release requirements; armament system review; simulator training; and mission planning.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AF-1606-0090

NAVIGATOR RECONNAISSANCE UPGRADING TRAINING (RF-4C)

Course Number: 51-B-V7B-A; 153104R.

Location: Air Training Command, Mather AFB, CA.

Length: 4 weeks (110-117 hours).

Exhibit Dates: 9/66-1/88.

Objectives: To provide navigators with advanced training in aerial navigation.

Instruction: Lectures and practical exercises in reconnaissance procedures. Course includes radar, mission planning, and ECM techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AF-1606-0091

HELICOPTER PILOT TRANSITION TRAINING (TH-1)

Course Number: F-V5F-G-O.

Location: Air Training Command, Sheppard AFB, TX.

Length: 6 weeks (128 hours).

Exhibit Dates: 4/68-1/88.

Objectives: To train helicopter pilots to fly specific helicopters.

Instruction: Lectures and field exercises in the operation of TH-1F helicopters. Course includes familiarization with machinery, gauges, aerodynamics, engineering, and flight training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

AF-1606-0106

1. NAVIGATOR BOMBARDIER TRAINING
2. NAVIGATOR BOMBARDIER TRAINING (MA-6A/7A)
   (Advanced Navigator Radar Bombardment Training)
3. ADVANCED NAVIGATOR RECONNAISSANCE BOMBARDMENT
4. ADVANCED NAVIGATOR RECONNAISSANCE BOMBARDMENT
   (Advanced Observer Reconnaissance Bombardment)

Course Number: *Version 1:* 152105. *Version 2:* 152104A. *Version 3:* 152103A. *Version 4:* 152103A; 152103.

Location: Air Training Command, Mather AFB, CA.

Length: *Version 1:* 23-24 weeks (550-585 hours). *Version 2:* 28 weeks (832-855 hours). *Version 3:* 8-22 weeks (516 hours). *Version 4:* 21-42 weeks (1060-1104 hours).

Exhibit Dates: *Version 1:* 11/63-12/68. *Version 2:* 6/49-10/63. *Version 3:* 7/58-5/59. *Version 4:* 5/56-6/58.

Objectives: To train rated navigators to use computer radar bombing and navigation systems.

Instruction: *All Versions:* Lectures and practical exercises in radar navigation and bombing systems, grid navigation, tactical reconnaissance, system computers and interconnect equipment, and operating procedures. *Version 2:* Instruction includes electricity and magnetism, electrical laboratory, and radar fundamentals. *Version 3:* Instruction includes electricity and magnetism, electrical laboratory, radar fundamentals, and navigation. *Version 4:* Instruction includes navigation.

Credit Recommendation: *Version 1:* Credit is not recommeded because of the military nature of the course (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity and credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in navigation, 2 in electricity, and credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, 5 semester hours in navigation (12/68).

AF-1606-0110

PRIMARY PILOT TRAINING (T/34/T-28)
(Primary Pilot Training (PA-18/T-6))

Course Number: 112101-1.

Location: Air Training Command, Columbus AFB, MS; Air Training Command, Bainbridge AFB, GA; Air Training Command, Bartow AFB, FL; Air Training Command, Graham AFB, FL; Air Training Command, Hondo AFB, TX; Air Training Command, Malden AFB, MO; Air Training Command, Marana AFB, AZ; Air Training Command, Moore AFB, TX; Air Training Command, Spence AFB, GA; Air Training Command, Stallings AFB, NC.

Length: 24 weeks (539-549 hours).

Exhibit Dates: 9/54-12/68.

Objectives: To train aviation cadets in visual and instrument flight.

Instruction: Lectures and practical exercises in visual and instrument flight. Topics include aircraft engineering, radio communications, principles of flight, flight instruments, navigation and weather.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in primary meteorology and navigation, and credit in advanced military at institutions which regularly offer such credit (12/68).

AF-1606-0117

F-111A WEAPONS SYSTEM TRAINING (MARK 1)
(F-111A Weapons System Training (NAV/PILOT))
(F-111A Weapons System Training)

Course Number: F-V5H-A; F-V5H-A-0; 1111085.

Location: Air Training Command, Nellis AFB, NV; Air Training Command, Cannon AFB,NM

Length: 9 weeks (243-256 hours).

Exhibit Dates: 9/67-1/88.

Objectives: To train rated pilots in the principles of radar, its employment, and in the use of F-111A avionic systems.

Instruction: Lectures and practical exercises on the principles of radar, its employment, and the operation of F-111A avionic systems, including F-111A navigation systems; bombing and weapon systems; radar air combat techniques and ECM; avionic systems operation; and simulator, mission planning and simulator critique.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

AF-1606-0119

INTELLIGENCE FUNDAMENTALS BY CORRESPONDENCE

Course Number: 8000.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/81-Present.

Learning Outcomes: Upon completion of the course, the student will be able to present intelligence briefings, set standards for intelligence performance, appreciate the complexity and scope of intelligence, and control utilization of classified materials.

Instruction: Monitored home study including readings, written exercises, use of maps and charts, and proctored examinations. Topics include history and nature of intelligence, handling and presenting intelligence data, and the nature of counterintelligence and psychological operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in political science, 1 in geography (5/88).

AF-1606-0120

INTELLIGENCE OFFICER BY CORRESPONDENCE

Course Number: 8001.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/81-Present.

Learning Outcomes: Upon completion of the course, the student will be able to collect, process, and disseminate intelligence, and conduct briefings about prisoner-survival and enemy interrogation.

Instruction: Monitored home study including readings, written exercises, and proctored examination. Topics include collection and dissemination of intelligence, preparing for missions, and comparison of US and Soviet capabilities.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in political science or international relations (5/88).

AF-1606-0121

INTELLIGENCE OPERATIONS SPECIALIST BY CORRESPONDENCE

Course Number: 20150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate a basic understanding of the military intelligence system to include doctrine, strategy and tactics.

Instruction: Monitored home study including readings, exercises and proctored examinations. Topics include a review of basic military intelligence fundamentals; fundamentals of maps and charts; target planning and selection; weapons' characteristics and effects; combat mission activities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in political science or government (5/88).

AF-1606-0122

TARGET INTELLIGENCE SPECIALIST BY CORRESPONDENCE

Course Number: 20151.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to demonstrate a basic understanding of the military intelligence system to include doctrine, strategy and tactics with a focus on target selection.

Instruction: Monitored home study including readings, exercises and proctored examinations. Topics include a review of basic military intelligence fundamentals; fundamentals of maps and charts; target planning and selection; weapons' characteristics and effects; combat mission activities; basics of imagery and radar intelligence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in political science or government (5/88).

AF-1606-0123

INTELLIGENCE OPERATIONS TECHNICIAN BY CORRESPONDENCE

Course Number: 20170.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply general principles of intelligence to the specific U.S. and Soviet cases.

Instruction: Monitored home study with readings, written exercises, and proctored final examinations. Topics include the general intelligence mission and information about Soviet military foces, Warsaw Pact Forces, and China's forces.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in international relations (5/88).

AF-1606-0127

MEDICAL OFFICER FLIGHT FAMILIARIZATION TRAINING (T-37)

(Medical Officer Flight Familiarization Training (T-33))

Course Number: S-V8E-A; 51-935000.

Location: Air Training Command, Perrin AFB, TX; Air Training Command, Randolph AFB, TX.

Length: 5–8 weeks (106–125 hours).

Exhibit Dates: 1/63–1/88.

Objectives: To train aerospace medicine residents in flight familiarization and the problems of flight personnel.

Instruction: Lectures and practical exercises in flight familiarization and the problems of flight personnel, including aviation physiology, flight planning, instrument and radio aids, flight aerodynamics, flight training and navigation, weather, and aircraft engineering.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/74).

AF-1606-0128

ADVANCED HELICOPTER TRAINING

(Pilot Advanced Flying (HH-43) ARRS)

Course Number: 1025C-1.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 10–12 weeks (116–124 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To provide H-43 helicopter pilots with transition and tactical flight training.

Instruction: Lectures and practical exercises on H-43 helicopter engineering and operations, including familiarization, utility systems, flight controls, power plant, transmission and rotors, malfunction analysis and maintenance, search and rescue procedures, remote area operations, and engineering review.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

AF-1606-0129

H-43 FIREFIGHTING

Course Number: 571XC-1.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 5 weeks (63 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To provide H-43 helicopter pilots with transition flight training and firefighting.

Instruction: Lectures and practical exercises in transition flight training for H-43 helicopter pilots, with emphasis on firefighting, including introduction to H-43 rescue and fire suppression; H-43 rescue configuration; emergency procedures, equipment, and egress; cargo sling/dummy fire kit operation; rescue hoist procedures, airborne fire suppression kit; care and operation of firefighting equipment; fire suppression procedures; rescue and evacuation; and crew duties for ground support.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AF-1606-0130

PARARESCUE ADVANCED FLYING TRAINING—LBR

Course Number: 923X0-5.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 5 weeks (63 hours).

Exhibit Dates: 5/72–1/88.

Objectives: To provide H-43 helicopter pilots with transition flight training.

Instruction: Lectures and practical exercises in transition flight training for H-43 helicopter pilots, with emphasis on rescue duty, including rescue operations and training; scanning and pyrotechnics; aircrew survival training; NORAD safe-passage procedures; rescue configuration; emergency procedures, equipment and egress; and rescue hoist procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AF-1606-0131

H-1 HELICOPTER PILOT

(Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53))

Course Number: H1P1; H1P2; 1025D7; 1025D7A; 1025D8; 1025D8A; 1025C-F.

Location: Aerospace Rescue and Recovery Service, Kirtland AFB,NM. Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 4–12 weeks (45–156 hours).

Exhibit Dates: 7/71–1/88.

Objectives: To train helicopter pilots in advanced tactical maneuvers in the H-1, H-3, H-43, or H-53 helicopter.

Instruction: Lectures and practical exercises in advanced helicopter training, including advanced flight maneuvers, night flight, remote operations, cargo operations, navigation, aircraft familiarization, and flight training.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/74).

AF-1606-0132

F-111A WEAPONS SYSTEM TRAINING (AIRCRAFT COMMANDER)

Course Number: 51-F-V5H-B.

Location: Air Training Command, Nellis AFB, NV.

Length: 3 weeks (91 hours).

Exhibit Dates: 7/68–1/88.

Objectives: To train aircraft commanders in the operation and use of the F-111A avionics system.

Instruction: Lectures and practical exercises in the operation and use of the F-111A avionics system, including weapons system capability, inertial alignment procedures, attack radar modes of operation, simulator procedures, radar types, terrain-following operation, countermeasures dispenser set, conventional munitions control system, avionics system operation, and integrated mission procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/74).

AF-1606-0138

PILOT ADVANCED FLYING (TH-1F) BASIC

Course Number: 1025D-0.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 4 weeks (48 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train pilots to pilot H-1 helicopters.

Instruction: Lectures and practical exercises in the operation of H-1 helicopters. Course includes all aspects of flight procedure, including flight checks, safety, and general flight training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AF-1606-0139

Pilot Advanced Flying (TH-1F) SAC

Course Number: 1025D-1.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 8 weeks (100 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train pilots to pilot H-1 helicopters.

Instruction: Lectures and practical exercises in the operation of H-1 helicopters. Course includes all aspects of flight procedure, including flight checks, safety, and general flight training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

AF-1606-0140

Pilot Advanced Flying (UH-1N) Basic

Course Number: 1025D-3.

Location: Aerospace Rescue and Recovery Service, Hill AFB, UT.

Length: 4 weeks (41 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train pilots to pilot H-1 helicopters.

Instruction: Lectures and practical exercises in the operation of H-1 helicopters. Course includes all aspects of flight procedure, including flight checks, safety, and general flight training.

Credit Recommendation: Credit is not recommeded because of the military nature of the course (7/74).

AF-1606-0143

Army Primary Pilot Training

Course Number: 105400-1.

Location: Air Training Command, Edward Gary AFB, TX.

Length: 17 weeks (515–556 hours).

Exhibit Dates: 10/53–12/68.

Objectives: To provide Army officers with training in the basic principles of visual, instrument, and night flying.

Instruction: Lectures and practical exercises in advanced tactics training, including flight training, aircraft engineering, weather, principles of flight, navigation, radio communications, flight instruments, flight planning, and aural and visual code.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in primary meteorology and navigation, and credit in advanced military at institutions which normally offer such credit (12/68).

AF-1606-0145

Undergraduate Navigator Training
(Primary-Basic Navigator Training)
(Primary-Basic Navigator Training)

Course Number: *Version 1:* N-V-6A-B; N-V6A-F; 5-N-V6A-A; N-V6A-D. *Version 2:* 5-N-V6A-A; 153132. *Version 3:* 153138. *Version 4:* 153138. *Version 5:* 153138; 153132; 153130. *Version 6:* 153138; 153132; 153130. *Version 7:* 153101. *Version 8:* 153101.

Location: *Version 1:* Air Training Command, Mather AFB, CA. *Version 2:* Air Training Command, Mather AFB, CA. *Version 3:* Air Training Command, Connally AFB, TX. *Version 4:* Air Training Command, Connally AFB, TX. *Version 5:* Air Training Command, Connally AFB, TX. *Version 6:* Air Training Command, Harlingen AFB, TX. *Version 7:* Air Training Command, Ellington AFB, TX. *Version 8:* Air Training Command, Harlingen AFB, TX.

Length: *Version 1:* 28–36 weeks (384–818 hours). *Version 2:* 38 weeks (852–946 hours). *Version 3:* 37 weeks (935 hours). *Version 4:* 44 weeks (954–1030 hours). *Version 5:* 30–38 weeks (805–862 hours). *Version 6:* 30–38 weeks (805–862 hours). *Version 7:* 42 weeks (1158 hours). *Version 8:* 42 weeks (1158 hours).

Exhibit Dates: *Version 1:* 8/71–1/90. *Version 2:* 8/65–7/71. *Version 3:* 2/65–7/65. *Version 4:* 11/62–1/65. *Version 5:* 9/57–10/62. *Version 6:* 9/57–10/62. *Version 7:* 4/57–8/57. *Version 8:* 4/57–8/57.

Objectives: To train personnel as navigators.

Instruction: *All Versions:* Lectures and practical exercises in navigation, including dead-reckoning, day celestial, night celestial, grid, and radar navigation; aviation physiology, weather; equipment; and flight training. *Version 1:* Topics include flight training, map reading and radar, life support systems, aircraft and navigational equipment, aural code, aircraft systems, flight publications, navigation procedures, over-water navigation, advanced operations, and low-level navigation. *Version 2:* Topics include basic navigation procedures, aural and visual code, radar navigation, aircraft electrical system, special techniques, over-water navigation, ECCM familiarization, and flight publications. *Version 3:* Topics include survival, basic navigation procedures, aural and visual code, map reading and radio, electricity and magnetism, alternating current, vacuum tubes, special techniques and aids, over-water navigation, and electronic warfare orientation. *Version 4:* Topics include survival, basic navigation procedures, electricity and magnetism, aural and visual code, map reading and radio, alternating current, vacuum tubes, basic radio, Loran/Consol navigation, pressure differential flying, special techniques and aids, weapons orientation, and electronic warfare orientation. *Version 5:* Topics include code, nuclear weapons delivery; aircraft recognition; maps, charts, and DR equipment; dead-reckoning aids; air plot and DR techniques; Loran; pressure differential; operational techniques; electricity and magnetism; alternating current; vacuum tubes; radio and Loran; and radar systems. *Version 6:* Topics include code, nuclear weapons delivery; aircraft recognition; maps, charts, and DR equipment; dead-reckoning aids; air plot and DR techniques; Loran; pressure differential; operational techniques; electricity and magnetism; alternating current; vacuum tubes; radio and Loran; and radar systems. *Version 7:* Topics include aural and visual code; maps, charts, and dead-reckoning equipment; dead-reckoning aids, DR techniques and air plot; Loran navigation; pressure differential flying; operational techniques; nuclear weapons delivery training; and survival. *Version 8:* Topics include aural and visual code; maps, charts, and dead-reckoning equipment; dead-reckoning aids; DR techniques and air plot; Loran navigation; pressure differential flying; operational techniques; nuclear weapons delivery training; and survival.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (7/74); in the upper-division baccalaureate category, 6 semester hours in navigation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 6 semester hours in navigation (12/68). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 6 semester hours in navigation, and credit in advanced military at institutions which normally offer such credit (12/68). *Version 5:* In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (7/74); in the upper-division baccalaureate category, 6 semester hours in navigation, and credit in advanced military at institutions which normally offer such credit (12/68). *Version 6:* In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (7/74); in the upper-division baccalaureate category, 6 semester hours in navigation, and credit in advanced military at institutions which normally offer such credit (12/68). *Version 7:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 6 semester hours in navigation, and credit in advanced military at institutions which normally offer such credit (12/68). *Version 8:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 6 semester hours in navigation, and credit in advanced military at institutions which normally offer such credit (12/68).

AF-1606-0146

Navigator Bombardier System
Training (FB-111)

Course Number: 51-F-V5H-E.

Location: Air Training Command, Mather AFB, CA.

Length: 3 weeks (82 hours).

Exhibit Dates: 5/69–1/88.

Objectives: To train pilots in the operation of FB-111 avionics equipment, with emphasis on bombing.

Instruction: Practical exercises in avionics and mission planning.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

AF-1606-0149

HC-130 Aircrew Instructor Training

Course Number: I-HC130P1; I-HC130RO1; I-HC130N1; I-HC130FE1; I-HC130LM1; I-1035B1; I-1535Z1; I-A293X31; I-A435X0A1; I-A607706.

Location: Aerospace Rescue and Recovery School, Hill AFB, UT.

Length: 8 weeks (131–168 hours).

Exhibit Dates: 11/74–1/90.

Objectives: To train and qualify personnel to perform as instructor pilot (I-1035B1); instructor navigator (I-1535Z1); instructor radio operator (I-A293X31); instructor flight engineer (I-A435X0A1); or instructor loadmaster (I-A607706).

Instruction: Instruction in the principles of instructing and practical exercises in piloting, navigation, radio operation, flight engineering, and loadmaster techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircrew instructional methods (6/75).

AF-1606-0150

Experimental Test Pilot

Course Number: TPS 2865.

Location: Test Pilot School, Edwards AFB, CA.

Length: 46 weeks (585 hours).
Exhibit Dates: 7/74-Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan, fly, evaluate, and report on projects relating to the testing and analysis of aircraft and their related systems. Prerequisite undergraduate degree requirements in engineering, physics, mathematics or related physical sciences provide the foundation for advanced study in integrated academic and flying laboratory exercises. The graudate is qualified to function as a team member in the evaluation of advanced aircraft/systems. Competency is developed in the area of avionic systmes, advanced aerodynamics, appropriate control and flight mechanics theory, and well as aircraft performance. Project proposal planning and writing as well as overall management skills and responsibilities are emphasized.

Instruction: The curriculum is divided into three phases; 1) performance, 2) flying qualities, and 3) systems test. All three phases have integrated academic and flying programs. Examinations in calculus and mechanics are given at the start of the performance phase. This phase develops the theory and methods of evaluating aircraft performance. A performance test program is conducted and a formal written report is generated. Evaluation of flying qualities examines the stability parameters and derivations found in the aircraft equations of motion. A flight controls project is conducted and the results are presented in an oral report. The systems test phase evaluates installed systems and associated equipment. Evaluations are conducted and the results are reported in a series of oral and written reports. As a final student test project, the student test teams conduct a test management project on an aircraft just as they will in flight test projects after graduation.

Credit Recommendation: In the graduate degree category, 3 semester hours in avionics system integration, 2 in aerodynamica, 2 in linear control theory, 4 in flight mechanics, 4 in performance, and 2 in systems management (7/88).

AF-1606-0151

ANG Fighter Weapons Instructor

Course Number: F-400 FWS.
Location: Air National Guard, Reconnaissance Weapons School, Gowan ANGB, Boise, Idaho. Mc Connell AFB, KS.
Length: 14-15 weeks (166-167 hours).
Exhibit Dates: 2/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to design and participate in instructional programs aimed at teaching aircrews the skills necessary to provide weapons, weapons related systems and tactical expertise at the squadron, wing and head quarters level. In order to perform these functions he must possess communication and instructional skills in both academic and flying areas. Specific requirements include a competency in array of weapons and weapon related systems, avionics devices and their systems to support delivery as well as the tactics to employ the various systems. In addition it is necessary to have the skills necessary to coordinate and implement modifications to both tactics and the weapons systems.

Instruction: This course is designed for experienced F-4 piolt instructors and is of an advanced nature instructional methods involved in the delivery of this curriculum involves a wide variety of techniques. The primary teaching methods are those of classroom lecture supported by very specialized laboratory assignments - namely flight problems. This core of work is supported by 50 hours of self study, 4 hours of seminars, 9 hours of examinations and 4 hours of critique integrateed into the 78 days of the program as appropriate. The lecture phase treats such topics as aerodynamics and performance instructor perparation and communication, special weapons systems and tactics, aggressor military and social information and flight mission planning. The flying portion of the program provides a unique opportunity for seminars, 9 hours of examinations and 4 hours of critique intergrated into the 78 days of the program as appropriate. The lecture phase treats such topics as aerodynamics and performance instructo preparation and communication, special weapons systems and tactics, aggressor military and social information and flight mission planning. The flying portion of the program provides a unique opportunity for planning, executing and evaluating the material covered in the classroon. Qualified instructors monitors all phases of the program.

Credit Recommendation: In the graduate degree category, 2 semester hours in computer applications, 3 in avionics/electronics/systems, 3 in instructional methods and 3 in applied aerodynamics (9/89).

AF-1606-0152

RF-4 Fighter Weapons Instructor

Course Number: RF-400 RWS.
Location: Air National Guard, Reconnaissance Weapons School, Gouen ANGB, Boise, Idaho.
Length: 14 weeks (198 hours).
Exhibit Dates: 2/83-Present.

Learning Outcomes: Upon completion of the course the graduate will be able to develop instructors in all phases of the RF-4 fighter weapons system. The gruaduate will also be qualified to function as the weapons officer in an operational unit. He will also possess communicative skills and effective instructional techniques in both the academic and flight areas of the RF-4 Weapons System.

Instruction: The course is restricted to pilots who have an minimum of 300 hours in RF-4, are instructor pilot or instructor weapons system officer, are current mission ready crew member or ready training unit instructor pilot or instructor weapons systems officer, are qualified in very low altitude training to 300 feet above ground level, are defense maneuvering qualified, and pilots only must be air combat instructor pilot qualified. Further, recent experience requirements are: 16 sorties in preceeding 60 days, 10 sorties in preceeding 30 days, at least 3 of which are devoted to air combat training, all physical and flight checks accomplished prior to arrival with none due during the course, and possess a top secret clearance. The curriculum consists of 152 hours of academic work supported by 42.5 hours of related flight activities and 2.9 hours of device (simulator) training. Each flight sortie requires approximately 6 hours of additional time for planning, briefing and critique. Classes are small (approximately 4 students), permitting a high instructor-student ratio and providing concentrated instruction. Highly experienced and academically qualified faculty are involved in all phases of the program. Adequate equipment and facilities are available and maintained in a high state of readiness.

Credit Recommendation: In the graduate degree category, 1 semester hours in computer applications, 4 in avionics/electronics, systems and photography, 3 in instructional methodology, and 3 in applied aerodynamics (9/89).

AF-1606-0153

Flight Test Engineer/Navigator

Course Number: TPS 28XX; TPS 2875.
Location: Test Pilot School, Edwards AFB, CA.
Length: 46 weeks (585 hours).
Exhibit Dates: 7/74-Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan, fly, evaluate, and report on projects relating to the testing and analysis of aircraft and their related systems. Prerequisite undergraduate degree requirements in engineering, physics, mathematics or related physical sciences provide the foundation for advanced study in integrated academic and flying laboratory exercises. The graudate is qualified to function as a team member in the evaluation of advanced aircraft/systems. Competency is developed in the area of avionic systmes, advanced aerodynamics, appropriate control and flight mechanics theory, and well as aircraft performance. Project proposal planning and writing as well as overall management skills and responsibilities are emphasized.

Instruction: The curriculum is divided into three phases; 1) performance, 2) flying qualities, and 3) systems test. All three phases have integrated academic and flying programs. Examinations in calculus and mechanics are given at the start of the performance phase. This phase develops the theory and methods of evaluating aircraft performance. A performance test program is conducted and a formal written report is generated. Evaluation of flying qualities examines the stability parameters and derivations found in the aircraft equations of motion. A flight controls project is conducted and the results are presented in an oral report. The systems test phase evaluates installed systems and associated equipment. Evaluations are conducted and the results are reported in a series of oral and written reports. As a final student test project, the student test teams conduct a test management project on an aircraft just as they will in flight test projects after graduation.

Credit Recommendation: In the graduate degree category, 3 semester hours in avionics system integration, 2 in aerodynamica, 2 in linear control theory, 4 in flight mechanics, 4 in performance, and 2 in systems management (7/88).

AF-1701-0001

Air Conditioning Engineering

Course Number: None.
Location: Civil Engineering School, Wright-Patterson AFB, OH.
Length: 6 weeks (253 hours).
Exhibit Dates: 4/73-1/88.

Objectives: To train engineers to apply current technology to building enviromental control systems.

Instruction: Lectures and practical exercises in air conditioning engineering at the advanced level. Course includes management concerns, psychrometrics, load estimating, refrigeration principles, equipment selection, load analysis, design analysis, systems, piping design, duct design, electrical controls, and design problems.

Credit Recommendation: In the upper-division baccalaureate category, 12 semester hours in air conditioning engineering (6/74).

AF-1701-0008

Apprentice Heating Systems Specialist by Correspondence

Course Number: 54532.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 5/83–2/88.

Objectives: To train personnel in heating systems installation.

Instruction: Consists of on-the-job training and at-home studies in the installation of various types of heating systems. The home study provides training in the principles of heating and the on-the-job training provides the application. The course includes basic electricity, principles of heating, heating systems, heating plants, water treatment and external corrosion.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 6 semester hours in heating systems installation and maintenance (9/86).

AF-1701-0009

Heating Systems Technician by Correspondence

Course Number: 54572.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/84–Present.

Objectives: To train personnel to be specialists in the installation and maintenance of heating systems.

Instruction: Consists of on-the-job training and at-home studies in the installation and maintenance of various types of heating systems. The home study provides the principles and practice of heating systems and on-the-job training provides the application. The course includes heating principles, fuels, electrical and pneumatic control systems, warm air and water heating systems, and central heating systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced plumbing (9/86); in the lower-division baccalaureate/associate degree category, 2 in mechanical and electrical equipment in buildings (heating) (9/86).

AF-1703-0005

Special Vehicle Repairman (Towing and Servicing Vehicle)

Course Number: 3ABR47231-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: *Version 1:* 14 weeks (512 hours). *Version 2:* 10 weeks (398 hours).

Exhibit Dates: *Version 1:* 7/73–12/73. *Version 2:* 2/73–6/73.

Objectives: To train airmen to perform as special vehicle repairmen (towing and servicing vehicles).

Instruction: *All Versions:* Lectures and practical exercises in the functions of special vehicle repairmen, including inspection, service, testing, adjustments, troubleshooting, and repairing towing and servicing vehicles; gasoline and diesel engine tune-up and repair, transmission servicing and adjustment; cooling and lubrication systems servicing and repair; power train repair; steering and brake systems repair and adjustment; electrical and hydraulic systems servicing and repair; anti-pollution and emission control systems inspection and servicing; preparation of vehicles for climatic conditions, storage, shipment, and corrosion control; safety; maintenance management; communications security; publications; and test and repair equipment. *Version 2:* Topics include driver education, supplemental military training, troop information program, and briefings.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in automotive power plants (7/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in automotive power plants (7/74).

AF-1703-0006

General Purpose Vehicle Repairman

Course Number: 3ABR47330.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 12–13 weeks (360–390 hours).

Exhibit Dates: 1/70–12/73.

Objectives: To train enlisted personnel to repair passenger cars and light- and medium-duty trucks.

Instruction: Lectures and practical exercises in the mechanics and repair of passenger cars and light- and medium-duty trucks. Course includes gasoline engines, fuel systems, electrical systems, chassis and suspension, power trains, and brakes.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in power plants and tune-up, 3 in automobile electrical systems, 3 in power trains (7/74).

AF-1703-0007

General Purpose Vehicle Repairman (Accelerated)

Course Number: 3ABR47330.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 9–10 weeks (270–300 hours).

Exhibit Dates: 1/70–12/73.

Objectives: To train enlisted personnel to repair passenger cars and light- and medium-duty trucks.

Instruction: Lectures and practical exercises in the mechanics and repair of passenger cars and light- and medium-duty trucks. Course includes gasoline engines, fuel systems, electrical systems, chassis and suspension, power trains, and brakes.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in power plants and tune-up, 3 in automobile electrical systems, 3 in power trains (7/74).

AF-1703-0008

Automotive AC Electrical Systems

Course Number: 3AZR47350-2.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 3 weeks (78–94 hours).

Exhibit Dates: 8/72–12/73.

Objectives: To train maintenance personnel to repair automotive electrical systems.

Instruction: Lectures and practical exercises in the duties of automotive electrical systems technicians. Course includes theory of operation, transistor application, voltage regulators, troubleshooting, and repair and testing of AC system components.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in automotive electronics (7/74).

AF-1703-0010

Vehicle Maintenance Technician

Course Number: AA47170.

Location: 3450th Technical School, Warren AFB, WY.

Length: 19 weeks (570 hours).

Exhibit Dates: 6/55–12/68.

Objectives: To train selected senior-level specialists to maintain and inspect representative types of general-purpose, special-purpose, and construction equipment.

Instruction: Lectures and practical exercises in maintenance and inspection of general-purpose, special-purpose and construction equipment. Course includes publications, maintenance of power-train units and use of special equipment, maintenance of engines and electrical equipment, including use of diagnostic and reconditioning equipment, troubleshooting procedures, on-the-job-training, and shop supervision.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced garage practice (7/74).

AF-1703-0012

General Purpose Automatic Transmission Maintenance

Course Number: 3AZR47350-3.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/73–12/73.

Objectives: To train maintenance personnel as repairmen on general-purpose vehicle automatic transmissions.

Instruction: Lectures and practical exercises in the repair of general-purpose vehicle automatic transmissions, including basic hydraulic principles; planetary gear systems; transmission test instruments; troubleshooting, repair, and testing of specific transmissions; and general maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in automotive technology (7/74).

AF-1703-0017

Vehicle Diagnostic Test Equipment

Course Number: 3AZR47350-1, AZR47151-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 6 weeks (180–240 hours).

Exhibit Dates: 11/65–12/73.

Objectives: To train enlisted personnel to use modern automotive test equipment to diagnose and repair defects in automotive vehicles.

Instruction: Lectures and practical exercises in the use of diagnostic automotive equipment. Course includes chassis and front-end alignment, automotive electrical systems, fuel and ignition systems, and use of diagnostic equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in engine diagnosis (7/74).

AF-1703-0018

General Purpose Vehicle Mechanic by Correspondence

Course Number: 17252.

Location: Entension Course Institute, Gunter AFS,AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 3/81-Present.

Objectives: To train enlisted personnel to repair general purpose vehicles.

Instruction: This correspondence course offers individualized reading and study of the basic theory of operation and the repair of buses, trailers, semi-trailers, light and medium trucks and staff cars. The course includes shop organization publications, supply, vehicle inspection, engines, fuel systems, exhaust and emission systems, electrical systems, hydraulics, power trains, heating, air conditioning, and front end alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in general automotive repair, 1 in shop practices, and 1 in preventive maintenance systems (9/85).

AF-1703-0019

Fuel Specialist by Correspondence

Course Number: 63150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/83-Present.

Objectives: To train selected enlisted personnel to become fuel specialists.

Instruction: This course presents individualized readings dealing with airmen fuel career fields, publications and operations security, safety, fuel control centers, fuel quality assurance and product accountability, fueling systems, air transportable fuel systems, cryotainers and mobile fueling equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation technology (12/84).

AF-1704-0002

Air Traffic Control Officer

Course Number: *Version 1:* 3OBR1631. *Version 2:* OBR1631; OB1631.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 16-17 weeks (480-510 hours). *Version 2:* 12-14 weeks (420-476 hours).

Exhibit Dates: *Version 1:* 2/69-12/73. *Version 2:* 3/58-1/69.

Objectives: To provide officers and enlisted personnel with training in all phases of air traffic control, qualifying them for FAA control tower certification.

Instruction: Lectures and practical exercises in air traffic control operations, including VFR and IFR radar/nonradar traffic control, meteorology, navigation, and FAA certification instruction and examination.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in air traffic control (3/74). In the upper-division baccalaureate category, credit in meterology or air navigation on the basis of institutional evaluation (12/68).

AF-1704-0010

Advanced Air Traffic Control Officer

Course Number: OAR1611.

Location: Technical Training Center, Keesler AFB, MS.

Length: 10 weeks (300 hours).

Exhibit Dates: 2/60-12/68.

Objectives: To train officers to plan and direct air traffic control activities.

Instruction: Lectures in duties and responsibilities of air traffic control staff officers; navigational aids; plans, programs, and budgets; and air traffic control planning exercises.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in air traffic control management (12/68).

AF-1704-0013

Aircraft Maintenance Technician

Course Number: AAR43171.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 16 weeks (480 hours).

Exhibit Dates: 8/66-4/68.

Objectives: To train airmen as aircraft maintenance technicians.

Instruction: Lectures and practical exercises in maintenance of jet and reciprocating-engine fixed-wing aircraft; standard publication systems; administration and management duties; aircraft records; weight and balance functions; and theory of operation, functional checks and troubleshooting of aircraft systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management, and credit in electricity/electrical laboratory on the basis of institutional evaluation (12/68).

AF-1704-0021

Course Number:
Location:
Length:
Exhibit Dates:
Objectives:
Instruction:
Credit Recommendation:

AF-1704-0027

1. Flight Engineer Specialist, Jet Aircraft
2. Flight Engineer Specialist
3. Flight Engineer Technician

Course Number: *Version 1:* 3ALR43550C. *Version 2:* ALR43550C. *Version 3:* ALR43570; ALR43174; AL43174.

Location: 3750th Technical School, Sheppard AFB, TX. *Version 3:* 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 12 weeks (360 hours). *Version 3:* 13-14 weeks (390-420 hours).

Exhibit Dates: *Version 1:* 1/70-12/73. *Version 2:* 3/67-12/69. *Version 3:* 3/58-2/67.

Objectives: To train enlisted personnel to perform as flight engineers.

Instruction: *All Versions:* Lectures and practical experience in jet aircraft flight engineering, including ground instruction in time, speed, distance, and fuel conversion factors and formulae, and graphic and linear interpolation; aerodynamics; weight and balance; takeoff and landing planning; aircraft climb, cruise, and descent performance analysis; log maintenance; maximum load mission requirements; and mission preplanning and in-flight replanning. *Version 1:* Instruction applicable to jet aircraft. *Version 2:* Instruction applicable to reciprocating and jet aircraft. *Version 3:* Instruction applicable to reciprocating aircraft.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in flight engineering (2/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in aerodynamics (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in aerodynamics (12/68).

AF-1704-0031

C-141 Flight Engineer Technician

Course Number: A435X0C-1.

Location: 443d Military Airlift Wing, Altus AFB, OK.

Length: 9 weeks (131 hours).

Exhibit Dates: 7/72-1/90.

Objectives: To provide flight engineers with knowledge of the normal and emergency functions of the C-141 aircraft.

Instruction: Lectures and practical exercises on the C-141 aircraft, its systems and components, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in flight engineer technician (2/74).

AF-1704-0033

C-5 Flight Engineer Technician
(Flight Engineer School, C-5)

Course Number: A43570C-4.

Location: 443d Military Airlift Wing, Altus AFB, OK.

Length: 9 weeks (130 hours).

Exhibit Dates: 2/73-1/90.

Objectives: To provide enlisted personnel with a practical knowledge of the C-5 aircraft, its subsystems, and troubleshooting procedures.

Instruction: Lectures and practical exercises in troubleshooting and solution of performance problems; simulator training designed to enable students to perform preflight checks without assistance, to understand both normal and emergency procedures, and to manage subsystems with and without related component failures; flight training in which students demonstrate the ability to accomplish normal and emergency operation procedures, preflight checks, and scanner preflight checks, and to demonstrate ability to manage and/or operate pertinent aircraft subsystems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in flight engineering (2/74).

AF-1704-0049

Reciprocating Engine Technician

Course Number: AAR43271; AA43271.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 14 weeks (420 hours).

Exhibit Dates: 5/56-12/68.

Objectives: To train reciprocating-engine technicians as maintenance supervisors.

Instruction: Lectures and practical exercises in personnel and equipment management, including operating principles and construction features of reciprocating engines; and application or principles in inspection, repair, adjustment and conditioning of engine systems. Practical experience in troubleshooting, analysis, minor repair, and build-up of reciprocating engines.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management or aviation maintenance management (12/68).

AF-1704-0054

Airframe Repair Specialist by Correspondence

Course Number: 53153.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/77–10/87.

Objectives: To train a technician through on-the-job supervision and home study in airframe repair.

Instruction: Through on the job training under supervision and home study modules the student covers the following: airframe repair operations, the airframe shop, supervision and training, supply system management, technical order system, and airframe safety. Also covered are metal working, aircraft construction features, aircraft metals, basic handtools, layout techniques, metal forming and cutting. The course also includes repair procedures such as drilling and riveting, repair procedures and damage removal and layout, and special repair layout. Specialized repairs include plastic structures, fiber glass structures, metal bonded honeycomb structures, aircraft cables, tubing, and balancing and alignment of aircraft structures. Course concludes with a proctored examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours aircraft structural repairs, 1 in aircraft rigging (3/85).

AF-1704-0070

MASTER CREW CHIEF

Course Number: None.

Location: 443d Military Airlift Wing, Altus AFB, OK.

Length: 2 weeks (68 hours).

Exhibit Dates: 2/73–1/90.

Objectives: To provide enlisted personnel with a basic understanding of maintenance management.

Instruction: Lectures and practical experience in systems management and the fundamentals of organization, maintenance data collection, supply procedures, and standards and inspection.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aviation maintenance management (2/74).

AF-1704-0078

JET ENGINE TECHNICIAN

Course Number: 3AAR43270-1; AAR43270-1 AAR43270; AA43270.

Location: 3345th Technical School, Chanute AFB, IL; 3750th Technical School, Sheppard AFB, TX.

Length: 10–16 weeks (300–480 hours).

Exhibit Dates: 5/56–6/73.

Objectives: To train enlisted personnel to maintain and repair jet turbines.

Instruction: Lectures and practical experience in turbine jet engine maintenance and repair, including maintenance principles, inspection procedures and trouble analysis, minor repair procedures, support equipment operation and maintenance, and test facility operation and usage.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1704-0083

AIRCRAFT MAINTENANCE INDOCTRINATION (SAC)

Course Number: OZR4341-2.

Location: Technical Training Center, Chanute AFB, IL.

Length: 6 weeks (138 hours).

Exhibit Dates: 10/60–12/68.

Objectives: To train enlisted personnel in aircraft electronics maintenance.

Instruction: Lectures and practical exercises in line maintenance organization, publications, control, data collection systems, precision measuring equipment, records analysis, quality control, accident investigation, safety, and problem solving.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1704-0088

AIRCRAFT MAINTENANCE TECHNICIAN, RECIPROCATING ENGINE AIRCRAFT

Course Number: AAR43171A; AAR43171B; AA43171B.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 14–16 weeks (420–480 hours).

Exhibit Dates: 11/55–12/68.

Objectives: To train aircraft mechanics to plan and schedule maintenance work.

Instruction: Lectures and laboratories in maintenance, aircraft electrical systems, aircraft hydraulic systems, aircraft records, maintenance management, and personnel utilization.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68), and credit in electricity and electrical laboratory on the basis of institutional evaluation (3/74).

AF-1704-0094

FLIGHT ENGINEER SPECIALIST BY CORRESPONDENCE

Course Number: 11350C.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/82–Present.

Objectives: To teach individuals to perform as flight engineers without direct supervision.

Instruction: The course consists of a combination of self-study supplemented by close supervision. Introduction to flight management procedures and aircraft record keeping is presented. The course also covers ground handling and service of aircraft before and after flight. There is an in-depth study of factors which influence aircraft cargo distribution for safe loading, and calculations of aircraft performance from takeoff to landing. The course includes climb, cruise, and descent performance. Other topics involve the understanding of electrical, hydraulic, instrument, fuel and related aircraft systems; powerplants, auxiliary power units, bleed air, air conditioning and pressurization systems; adverse weather, fire emergency, oxygen, communications and navigation systems. Systems study leads to qualification to operate systems in normal and emergency situations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in flight engineer (3/85).Course concludes with a proctored examination.

AF-1704-0102

AIRCRAFT MAINTENANCE SPECIALIST, TACTICAL AIRCRAFT BY CORRESPONDENCE

Course Number: 43151.

Location: Extension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/79–Present.

Objectives: To provide education and training in the techniques and applications of skills related to aircraft maintenance of tactical aircraft.

Instruction: This correspondence course of instruction consists of on-the job supervision and at home studies. The course provides general knowledge about maintenance management, maintenance and inspection concepts, and aircraft hardware and tools. The course provides information about aircraft, cleaning and corrosion control, ground equipment and ground handling and egress systems, maintenance tasks related to electrical, pneudralic, flight controls, landing gears, oxygen, and utility systems, as well as providing general information about turbojet, and reciprocating engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft cleaning and corrosion control or in aircraft ground servicing and handling (3/85). Course concludes with a proctored examination.

AF-1704-0126

GUIDANCE SYSTEM TECHNICIAN (SM68)

Course Number: ATS31170P-2.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 32 weeks (960 hours).

Exhibit Dates: 6/61–12/68.

Objectives: To train advanced maintenance technicians to maintain and repair rocket guidance systems.

Instruction: Lectures and practical exercises in the maintenance and repair of rocket guidance systems. Course includes functional description, operating procedures, operational check-out, simplified troubleshooting, removal and replacement, alignment procedures, data flow loop theory, inspections, chassis repair, and test pack operation and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical systems maintenance management (6/74).

AF-1704-0137

JET ENGINE MECHANIC BY CORRESPONDENCE

Course Number: 42652.

Location: Entension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 4/87–Present. *Version 2:* 4/81–3/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform effective maintenance in the area of jet propulsion to include management of jet mechanics, maintenance forms and records, jet theory and maintenance information, practices and procedures, jet engine systems, and operation and adjustment of jet engines and small gas turbine engines.

Instruction: *Version 1:* Course covers maintenance forms and records, jet engine operation and construction, tools and hardware, repair and maintenance of the jet engine, corrosion control, support equipment, fuel system, oil system, starter, ignition and electrical system, anti-icing, thrust reversers, constant speed drive, test equipment, jet operation and adjustment, engine removal, troubleshooting, small turbine engine disassembly, inspection, reassembly, and testing. *Version 2:* This is an independent study program complemented by direct and indirect supervision during hands-on training. The student studies the following:

overview of aircraft engine maintenance complex/organization; introduction to personnel supervision and relations; fundamentals of equipment and tool control, supply procedures, technical publications and training; operating principles and construction of small and large gas turbine engines; special tools and equipment; maintenance and inspection systems and documentation; repair and maintenance of gas turbine engines to include corrosion control, storage and transportation; operations, maintenance and service of ground equipment; principles of fuels, fuel systems, lubricants, oil systems, starter and ignition systems; jet engine thrust augmentation, variable nozzle systems, thrust reversers, constant special devices; testing, instrumentation, checks and adjustments of jet engines; engine/systems troubleshooting, removal, and installation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in gas turbine theory and maintenance (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft jet engines and related systems (3/85). Course concludes with a proctored examination.

AF-1704-0143

A/E24U-8 Power Plant Intermediate and Organizational (I & O) Maintenance

Course Number: 3ABR42153-1; AZR42153-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 5-6 weeks (168-208 hours).

Exhibit Dates: 3/72-12/73.

Objectives: To train enlisted personnel to maintain electrical power plants.

Instruction: Lectures and practical exercises in the maintenance of electrical power plants. Topics include gas turbine engines, solid-state control devices, and logic and circuit functions and diagrams.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in gas turbine engines, 3 in electronics laboratory (7/74).

AF-1704-0162

Aircraft Maintenance Technician, Tactical Aircraft by Correspondence

Course Number: 43171.

Location: Entension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/79-4/88.

Objectives: To provide education and training in techniques and application of skills related to aircraft maintenance at a technician's level on tactical aircraft.

Instruction: This correspondence course consists of on-the-job supervision and at home studies on various tactical aircraft in the area of supervision, supply maintenance management, publications and aircraft records, aircraft inspection, and maintenance systems, ground handling equipment, aircraft systems, pneudralics, airframe and egress systems, landing gear and flight control system, fuel systems, power plant, electrical, oxygen, and aircraft utility system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft ground servicing and handling (3/85). Proctored final examination is required.

AF-1704-0165

Aircraft Electrical Repair Technician

(Aircraft and Missile Electrical Repair Technician)

Course Number: 3AAR42370; AAR42370; AA42370.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 14-16 weeks (420-480 hours).

Exhibit Dates: 4/58-12/73.

Objectives: To train airmen to repair electrical equipment on aircraft.

Instruction: Lectures and practical exercises in the repair of aircraft electrical equipment, including DC and AC power supplies, transformers and motors, diodes, transistors, special-purpose tubes, switching circuits, oscillators, inverters and control panel circuits, electrical test equipment, electrical system components and subsystems, troubleshooting and maintenance, and maintenance management procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74).

AF-1704-0172

Turboprop Propulsion Mechanic by Correspondence

Course Number: 42653.

Location: Extension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84-Present.

Objectives: To train a less experienced mechanic for more responsible levels of maintenance with progressively less supervision being required.

Instruction: Through independent study complemented by directly and indirectly supervised hands-on training the student works and learns in the following areas: maintenance site orientation and maintenance management, supervision and human relations, gas turbine engines and systems, principles of operation, inspection maintenance and repair to include prevention maintenance, troubleshooting and testing of engines and systems. Systems studied include Hamilton Standard propeller controls and General Electric small turboshaft engines with basic material on tools, equipment, fuels and fuel systems, oil and oil systems, engine instruments and indicating systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft turboprop engines and subsystems (3/85).Proctored final examination is required.

AF-1704-0173

Missile Pneudraulic Repairman (LGM-25)

Course Number: 3ABR44230F-1; ABR44230F-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 18 weeks (510 hours).

Exhibit Dates: 4/66-3/71.

Objectives: To train airmen as missile pneudraulic repairmen for specific missiles.

Instruction: Lectures and practical exercises on the duties of missile pneudraulic repairmen. Topics include principles of mechanics; fundamentals of AC and DC; motors, generators, and malfunction analysis; electronics and rocket engines; calibration, hydraulic pumping unit, and fluid analysis; flight controls, missile hydraulic systems and hydraulic system control unit; facility pneudraulic systems, antenna pneumatic systems and hydraulic components test stand.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity for non-technical students (7/74).

AF-1704-0181

Strategic Aircraft Maintenance Specialist by Correspondence

(Aircraft Maintenance Specialist, Airlift and Bombardment Aircraft by Correspondence)

Course Number: 43152C.

Location: Extension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/82-Present.

Objectives: To provide education and training in the techniques and applications of skills related to aircraft maintenance on strategic aircraft.

Instruction: This correspondence course of instruction consists of on the job supervision and at home studies. The course provides general knowledge of aircraft maintenance and job-related information about airframe systems, ground handling and servicing; fuel; turboprop and electrical systems; and hydraulic, landing gear, flight controls,and utility systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft ground servicing and handling (3/85). Proctored final examination is required.

AF-1704-0184

Airlift Aircraft Maintenance Specialist by Correspondence

(Aircraft Maintenance Specialist and Bombardment Aircraft by Correspondence)

Course Number: 43152G.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/82-Present.

Objectives: To provide education and training in techniques and applications of skills related to maintenance of airlift and bombardment aircraft.

Instruction: This correspondence course consists of at home studies and on the job supervision on the C-141 and C-5A jet aircraft in the area of technical and material deficiency reporting. Inspection concepts, tools, and material supply, ground handling, equipment, airframe systems, fuel systems, powerplant and auxiliary power unit (APU), electrical system, hydraulic and cargo door system, landing gear, flight controls and utility systems are all covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft ground servicing and handling (3/85). Proctored final examination is required.

AF-1704-0187

Aerospace Ground Equipment Mechanic by Correspondence

Course Number: 42153.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/79-Present.

Objectives: To advance the technical skills of ground equipment mechanics in aerospace ground equipment.

Instruction: This correspondence course and practical exercises focuses on operation and maintenance of aerospace ground equipment. Topics include maintenance policies, practices and procedures, electrical circuits and components, engines (gas and turbine), generators, air compressors, heating, air conditioning, bomb lifts, diesels, hydraulics, and test equipment. There is a proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in ground equipment repair (3/85).

AF-1704-0188

STRATEGIC AIRCRAFT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 43152E.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/82–Present.

Objectives: To provide education in the techniques and applications of skills related to aircraft maintenance.

Instruction: This correspondence course consists of on-the-job supervised application and at home studies in the areas of: maintenance inspection concepts, tools, maintenance material, supply, ground handling requirements, airframe systems, pneudralic systems, landing gears, flight control and ground support equipment, all for the KC 135 jet aircraft.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft ground servicing and handling (3/85). Proctored final examination is required.

AF-1704-0189

JET ENGINE TECHNICIAN BY CORRESPONDENCE

Course Number: 42672.

Location: Entension Course Institute, Gunter AFS, AL.

Length: Maximim 52 weeks.

Exhibit Dates: 7/84–3/88.

Objectives: To teach the jet engine mechanic to repair and maintain small and large gas turbine engines and to train and supervise lesser skilled mechanics.

Instruction: Course offers independent study complimented by direct and indirect supervision in the following areas: maintenance and personnel management with emphasis on supervisory functions, safety compliance, personnel evaluations and training of subordinates, maintenance management, data collection and publications; supply functions; inspection systems, electrical systems components and diagrams, disassembly inspection and reassembly of both small and large gas turbine engines; testing, operational checks and adjustments of jet engines; use of engine noise suppressors during engine maintenance test, operation and special equipment; overview of activities and procedures related to jet engine maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in aircraft shop maintenance management (3/85). The course concludes with a required proctored final examination.

AF-1704-0190

AIRCRAFT MAINTENANCE TECHNICIAN, AIRLIFT AND BOMBARDMENT AIRCRAFT BY CORRESPONDENCE

Course Number: 43172.

Location: Entension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/79–4/88.

Objectives: To provide education and training in techniques and applications of skills related to aircraft maintenance on airlift and bombardment aircraft.

Instruction: This correspondence course consists of on-job supervision and at home studies on airlift and bombardment aircraft in the areas of: supervision, supply, maintenance management, publications and aircraft records, inspection, ground handling equipment, corrosion control, maintenance materials, aircraft ground handling, airframe system, hydraulic pressure supply, landing gears and related systems and flight control and bomb and cargo door systems, aircraft electrical and fuel systems, powerplant and related systems, auxiliary power units (APU), bleed air, air conditioning and pressurization system, anti-icing and rain removal systems, oxygen, fire and overheat systems, egress and drag chute system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft ground servicing and handling (3/85). Proctored final examination is required.

AF-1704-0191

AIRCRAFT FUEL SYSTEMS MECHANIC BY CORRESPONDENCE

Course Number: 42353.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/81–Present.

Objectives: To provide education and training in the techniques and applications of skills related to aircraft fuel systems maintenance.

Instruction: This correspondence course of instruction consists of on-job supervision and at home studies in the areas of: maintenance management, shop and flight line safety, hand tools and hardware, operational checks and troubleshooting, fuel systems, fuel system safety; tools, equipment and protective clothing; and leak detection and repair of integral tanks and bladder tanks/cells.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fuel systems (3/85). Course concludes with a proctored examination.

AF-1704-0192

AEROSPACE GROUND EQUIPMENT TECHNICIAN BY CORRESPONDENCE

Course Number: 42173.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/75–Present.

Objectives: To advance the skills of the ground equipment technician in the area of aerospace ground equipment.

Instruction: This is a correspondence course and practical exercises in the operation and maintenance of aerospace ground equipment. Topics include maintenance policies, practices and procedures; electrical and electronic circuits and components, aircraft servicing equipment which includes generators, air compressors, air conditioning, heating, ventilation and hydraulic equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in ground equipment repair (3/85). Course concludes with a proctored examination.

AF-1704-0193

FIGHTER WEAPONS INSTRUCTOR

Course Number: A7000FW.

Location: Air National Guard, A-7 Fighter Weapons School, Tucson, AZ.

Length: 16 weeks (292 hours).

Exhibit Dates: 10/73–Present.

Learning Outcomes: Upon completion of the course the student will be able to develop instructors in all phases of the A-7 fighter weapons system. The graduate will also be qualified to function as the weapons officer in an operational unit. He will also possess communicative skills and effective instructional techniques in both the academic and flight areas of the A-7 weapons system.

Instruction: This course is restricted to pilots who have an average of ten years of military flight experience. They have been selected by their commanding officers as individuals who possess the capacity to assimilate advanced training and to in turn function as the weapons expert in their unit. The curriculum consists of 232.5 hours of academic work supported by 53.4 hours of related flight activity (each sortie requires 6 hours of additional time for such activity as planning, briefing and critique) and 6 hours of device (simulator) training. Classes are very small (approximately 6 students) adequate instructional equipment in the form of training devices as well as operational aircraft are readily available. Experienced academically qualified faculty on long term assignment are involved in the presentation of the educational program. Emphasis is placed on avionics and systems that support the weapons delivery, the procedures for initiating equipment and tactical changes, the potential engine threat capability and the tactics available for effective weapons employment.

Credit Recommendation: In the graduate degree category, 3 semester hours in applied aerodynamics (high performance aircraft), 3 in advanced aircraft systems and components, 3 in computer applications, and 3 in instructional methodology (3/88).

AF-1704-0194

CIVIL AIR PATROL SCANNER BY CORRESPONDENCE

Course Number: 01230A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/81–Present.

Learning Outcomes: Upon completion of the course,the student will be able to systematically scan a specified area for prolonged periods of time while maintaining concentration and accurately identifying specific objects.

Instruction: This is a supervised self-paced extension course covering scanning techniques, aircraft identification, and aircraft familiarization.

Credit Recommendation: Credit is not recommended due to the limited and military-specific nature of the content (10/88).

AF-1704-0195

CIVIL AIR PATROL MISSION OBSERVER LEVEL II BY CORRESPONDENCE

Course Number: 02130B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/81-Present.

Learning Outcomes: Upon completion of the course, the student will be able to assume the duties of a mission observer coordinating the rescue operations under the leadership of the pilot.

Instruction: This is a supervised self-paced extension course covering search planning, electronic search, navigation assistance; navigation elements; the grid systems for locating position; navigational aids which are primarily automatic direction finding devices and very high frequency omnirange devices; communication techniques; nonverbal signals, weather condition and aircraft familiarity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in visual navigation (10/88).

AF-1704-0196

INTRODUCTION TO CIVIL AIR PATROL EMERGENCY SERVICES BY CORRESPONDENCE

Course Number: 02130D.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to initiate, operate, and terminate an emergency service mission.

Instruction: This is a supervised self-paced extension course covering the operating concepts, policies, and procedures which govern supervisory, ground and flight personnel when performing civil air patrol emergency services.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (10/88).

AF-1704-0197

FLIGHT ENGINEER SPECIALIST (HELICOPTER QUALIFIED) BY CORRESPONDENCE

Course Number: 11350B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform, with little or no supervision and with the aid of technical publication, helicopter maintenance procedures. The course includes use of handtools; planning and organization of tasks will be directed by a supervisor who coordinates and monitors efforts of the specialist.

Instruction: The student works under individual supervision and a trainer or training manager to control progress in areas of: maintenance safety; maintenance records and publications; care and use of handtools; aircraft maintenance troubleshooting; and aircraft engines and systems. Included are concentrations with landing gear, flight controls, transmissions, hydraulics, fuel and electrical systems. Planning considerations are given for computation of weight and balance and performance factors (eg., takeoff and landing computations).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight engineering principles (10/88).

AF-1704-0198

AIRBORNE COMMUNICATIONS SYSTEMS OPERATOR

Course Number: 11650.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide an accurate, efficient exchange of information between headquarters and field units or between aircraft and their home stations.

Instruction: This is a supervised, self-paced extension course covering communication agencies, command control and communications, the different airborne communications systems; security, radio wave propagation and collection, voice operations and procedures; aviation weather and record communication operation and procedures. Other topics covered are equipment/system inflight and flight line safety, and inspection.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic public communication (10/88).

AF-1704-0199

AIRCREW LIFE SUPPORT SPECIALIST BY CORRESPONDENCE

Course Number: 12250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect and maintain aircrew life support equipment; issue, fit, and adjust aircrew life support and chemical defense equipment; provide life support continuation training to aircrews; and supervise aircrew life support personnel.

Instruction: The student works under individual supervision and a trainer or training manager to control progress in the areas of: industrial shop safety; aircrew survival emergency procedures and techniques; inspection maintenance, and use of aircrew life support and survival equipment; fabrics and composite equipment maintenance and testing; and physiology of flight.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial shop management, and 1 in speech/teaching techniques (10/88).

AF-1704-0200

AIRCRAFT ENVIRONMENTAL SYSTEMS MECHANIC BY CORRESPONDENCE

Course Number: 42351.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply specialty knowledge required to perform as aircraft environmental systems mechanics. The student will be capable in field fundamentals, maintenance fundamentals, aircraft familiarization and environmental systems and aircraft oxygen and utility systems.

Instruction: This is a supervised, self-paced extension course covering: maintenance management, maintenance system, publications, forms and records, safety, maintenance of tools and safety devices; general maintenance; elements of physics, AC and DC motor circuits, electrical measuring devices; aircraft familiarization; engine bleed air and aircraft ducting, aircraft air conditioning system, air conditioning pressurization, gaseous oxygen system, liquid oxygen system, liquid oxygen servicing and storage units; utility system.

Credit Recommendation: In the lower-division baccalsureate/associate degree category, 3 semster hours in basic electricity, 3 in aircraft systems (10/88).

AF-1704-0201

AIRCRAFT PNEUDRAULIC SYSTEMS MECHANIC BY CORRESPONDENCE

Course Number: 42354.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a technician for performance of maintenance management; demonstrate knowledge of pneumatics fundamentals, material and equipment, and components and systems.

Instruction: Instruction is self-paced, extention study in: maintenance management, supply, and records; fundamentals of pneudraulics and electricity; pneudraulic system materials, tools, test instruments; ground and shop equipment, hydraulic power supply components; selector valves, actuators, and flow valves; landing gear components; pneudraulic power systems; landing gears and related systems; nose wheel steering and brake system; aircraft flight control; and pneumatic systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management, 4 in hydraulics and pneumatics, 3 in aircraft air conditioning material and processes (10/88).

AF-1704-0202

AIRCRAFT FUEL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 42373.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties in personnel management of specialized fuel systems, as well as perform supervisory functions for fuel systems technicians.

Instruction: Instruction is presented through self-paced extension course in personnel management and supervisory functions; safety and performance evaluation; maintenance data publications; maintenance supply and inspection; refueling and defueling; vent pressurization, troubleshooting, corrosion control, and basic electricity.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in records, forms, and publications, and 3 in basic electricity (10/88).

AF-1704-0203

AIRCRAFT PNEUDRAULIC SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 42374.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/79–5/87.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates and inspect, install, troubleshoot, repair and modify aircraft pneumatic systems, hydraulic in-flight refueling systems, and associated aerospace ground equipment.

Instruction: This is a supervised, self-paced extension course covering topics such as determining proper maintenance and repair procedures; and installing, repairing, overhauling, and modifying aircraft pneumatic in-flight refueling and hydraulic systems; and pneumatic and hydraulic ground support equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced hydraulic systems (10/88).

AF-1704-0204

TURBOPROP PROPULSION MECHANIC BY CORRESPONDENCE

Course Number: 42653.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform effective maintenance as a turboprop propulsion mechanic to include general turboprop engine operation, turboprop equipment and engine system, turboprop engine maintenance, turboprop operation, turbopropeller maintenance, and helicopter and OV-10 propulsion systems.

Instruction: Topics include turboprop engine principles, engine reduction gear box and compressor section construction, turboprop engine combustion and turbine section construction, small gas turbine engines, engine inspection, maintenance forms and records, tools and equipment, ground equipment, fuels and fuel systems, oils and oil systems, engine instruments and indicating systems, general engine maintenance, engine assembly and disassembly, engine removal, troubleshooting of engine systems, engine testing, turbopropeller construction and operation, electrical principles, maintenance of turbopropeller and propeller control systems maintenance, turboshaft engine construction on various types of turboshaft engines to include turboprop propulsion system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in turbopropeller, 4 in gas turbine engines and operation (10/88).

AF-1704-0205

F-100 JET ENGINE MECHANIC BY CORRESPONDENCE

Course Number: 42654.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform effective maintenance in the area or jet propulsion to include: management, jet engine mechanic operating principles, maintenance practices and procedures, associated jet engine systems, operation and adjustment of jet engine.

Instruction: This is a supervised, self-paced extension study course in: responsibilities and supply authorization; publications; jet operation, engine construction, tools and hardware; maintenance and inspection systems and forms; corrosion control; support equipment; engine and start system troubleshooting; and test equipment, engine removal and installation, engine operating, and testing of the jet fuel starter and gearbox.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine theory and operation (10/88).

AF-1704-0206

HELICOPTER MECHANIC BY CORRESPONDENCE

Course Number: 43150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates in ground handling, inspection repair, and maintenance of the H-1, H-3, and H-53 helicopters including powerplants and related equipment.

Instruction: This is a supervised, self-paced extension course covering topics of job relates information on Air Force publications, technical order deficiencies reporting, maintenance concepts, maintenance forms, inventory records, special tools, airframe construction, helicopter markings, helicopter aerodynamics, ground handling, corrosion control, cleaning and specific information on testing inspection repair, alteration and maintenance of the H-3 and H-53 helicopters systems, engine operation and construction features.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in general helicopter mechanics, 3 in advanced helicopter systems, and 3 in helicopter powerplants (10/88).

AF-1704-0207

HELICOPTER MECHANIC (FULLY ARTICULATED ROTOR) BY CORRESPONDENCE

Course Number: 43150C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/85–2/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as helicopter technician; have precise knowledge of servicing and maintaining the helicopter systems based on prior knowledge of the helicopter structure and systems. The student can inspect, service, and maintain helicopter systems.

Instruction: Supervised self-paced extension course in landing gear and brake systems, hydraulic system, electrical system and utility systems, instrument systems, engine principles and construction, fuel supply system, engine system, engine operation and maintenance, transmission and drive system, rotor system and flight controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 2 in aircraft systems, 2 in aircraft alignment, 1 in powerplant systems, and 3 in gas turbine operation and maintenance (10/88).

AF-1704-0208

HELICOPTER MECHANIC (SEMIRIGID ROTOR) BY CORRESPONDENCE

Course Number: 43150D.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/85–2/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform general helicopter maintenance in airframe construction; will know inspection and maintenance techniques, ground handling, and special maintenance.

Instruction: Covers ground handling and special maintenance, aircraft fuel system, engine principles and systems, engine operation and maintenance, transmission and drive system, flight control system, rotor system, hydraulic system, rotor system, electrical system, and instrument system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in engines operation and maintenance principles, and 3 in hydraulics flight controls and instruments (10/88).

AF-1704-0209

STRATEGIC AIRCRAFT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 43152A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/82–Present.

Learning Outcomes: Upon completion of the course, the student will understand the principles of operation of major aircraft systems (eg. pneumatic, hydraulic, fuel, electrical) and jet engines. Additionally, the student have the foundation to plan and organize maintenance efforts with the use of technical publications, basic troubleshooting techniques and supervision of related specialist activities.

Instruction: The student works under individual supervision and a trainer or training manager to control progress in areas of: technical publications; maintenance and inspection concepts; basic tools and maintenance materials; aircraft maintenance supply system and ground support equipment. Major airframe systems, aircraft and ground handling are also covered. The course includes, in greater detail, the principles of operation and service of the following systems: pneumatic, hydraulic, landing gear, flight controls, fuel, and electrical.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance management, 1 in aircraft systems (10/88).

AF-1704-0210

STRATEGIC AIRCRAFT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 43152J.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student understand the principles of major aircraft systems (eg. pneumatic, hydraulic, fuel, electrical) and jet engines. Additionally, the student will have the foundation to plan and organize maintenance efforts with the use of technical publications, basic troubleshooting techniques, and supervision of related specialists activities.

Instruction: The student works under individual supervision and a trainer or training manager to control progress in the areas of: technical publications, maintenance and inspection concepts, basic tools and maintenance materials. Aircraft maintenance supply systems and ground support equipment are covered as are major airframe systems, and aircraft and ground handling. The principles of operation and service of the following systems: pneumatics, hydraulics, landing gear, flight controls, fuel and electrical.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance management, and 1 in aircraft systems (10/88).

AF-1704-0211

STRATEGIC AIRCRAFT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 43152Z.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/82-Present.

Learning Outcomes: Upon completion of the course, the student will understand principles of operation of major aircraft systems (eg. pneumatics, hydraulics, fuel, electrical) and jet engines. Additionally, the student will have the foundation to plan and organize maintenance efforts with the use of technical publications, basic troubleshooting techniques and supervision of related specialists activities.

Instruction: The student works under individual supervision and a trainer or training manager to control progress in areas of: technical publications, maintenance and inspection concepts, basic tools and maintenance materials, aircraft maintenance supply system and ground support equipment, major airframe systems, and aircraft and ground handling. In greater detail, the course covers principles of operation and and service of the following systems: pneumatic, hydraulic, landing gear, flight controls, fuel and electrical.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance management, 1 in aircraft systems (10/88).

AF-1704-0212

HELICOPTER TECHNICIAN (FULLY ARTICULATED ROTOR) BY CORRESPONDENCE

Course Number: 43170C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/83-4/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as a helicopter technician and to supervise helicopter inspection, helicopter maintenance and aircraft forms and records.

Instruction: This is a supervised self-paced extension course in supply, personnel management and supervisory functions, and in publications, aircraft forms and records, ground handling and general maintenance, helicopter powerplant and fuel systems, helicopter transmissions and drive systems, maintenance of landing gear and hydraulic system, maintenance of rotor and flight control system, and inspection.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in records, forms and publications, and 4 in powerplant operation (10/88).

AF-1704-0213

HELICOPTER TECHNICIAN (SEMIRIGID ROTOR) BY CORRESPONDENCE

Course Number: 43170D.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/83-2/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform as a helicopter technician and supervise helicopter inspection, helicopter maintenance, and aircraft records.

Instruction: This is a supervised self-paced extension course in personnel management and supervisory functions; publications and aircraft records; inspection and maintenance procedures; ground handling; aircraft hardware; maintenance of powerplant and fuels systems; operation and maintenance of transmission and drive system; maintenance of utility and electrical systems; and maintenance of rotor and flight controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 1 in records, form and publications, 3 in aircraft powerplant operations, and 3 in basic hydraulics (10/88).

AF-1704-0214

APPRENTICE AIRFIELD MANAGEMENT SPECIALIST BY CORRESPONDENCE

Course Number: 27131.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to have a basic level of understanding of duties related to an entry level in the National Training System. The individual will be able to log information on flights (departing/arriving), maintain flight information and planning data with little direct supervision.

Instruction: Course is self paced independent study to be completed in no more than 52 weeks. Intermediate open book exams are utilized for individualized progress checks. A comprehensive final exam is administered under a control testing environment and must be satisfactorily completed. Material is studied in conjunction with supervised on-the-job training. Includes introduction of material pertaining to basic air traffic control and flight service station duties, as well as specific and general tasks related to the individuals assignment to this entry level of the Avisory System.

Credit Recommendation: In the vocational certificate category, 2 semester hours in traffic control (terminology and procedures) (12/89).

AF-1704-0215

AIRFIELD MANAGEMENT SPECIALIST

Course Number: 27151.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 11/83-Present.

Exhibit Dates: Maximum 52 weeks.

Learning Outcomes: Upon completion of the course, the student will be able to assist flight crew members with preparation of documents required for flight operations. An understanding of aeronautical charts and publications will be needed to monitor and document aircraft movement (departing/arrival). A basic understanding of supervisory practices will be achieved to assist in on-the-job training of subordinates.

Instruction: Covers an introduction to duties related to aircraft dispatching. Individual tasks and subject areas pertain to basic aviation weather, airport operations.

Credit Recommendation: 1 semester hour in introduction to aircraft dispatching (12/89).

AF-1704-0216

COMBAT CONTROL OPERATOR BY CORRESPONDENCE

Course Number: 27350.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/88-Present.

Learning Outcomes: Upon completion of the course, the student who as a prerequisite must have completed basic air traffic control training prior to entering this course, will be qualified for upgrading to a skill level five (skilled) controller. In addition student will have competency in the tactical aspects of the material covered in the Combat Control School Program.

Instruction: Instruction is accomplished through correspondence course methods. The course includes topics related to FAA, ICAA and military aircraft navigation and control. Included are such areas as basic flight regulations, weather, navigation, airway/route and terminal non radar approaches. A portion of the program is devoted to communication techniques and equipment common to A.T.C. utilization. Approximately one half of the study hours involve tactical equipment specific to the tasks assigned to this military specialty.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in air traffic control (12/89).

AF-1704-0217

COMMAND AND CONTROL SPECIALIST BY CORRESPONDENCE

Course Number: 27450.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will have a breadth of knowledge pertinent to function as a command post controller. Completion of this course culminates the resident air traffic controller training required by the airman in the control center, who is qualified to assume the responsibilities of the controller.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. This consists of a review of related technician publications, filing and record keeping, information, cyptographic and physical security methods, flight operations, basic weather and computer applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in air traffic control (12/89).

AF-1704-0218

INTEGRATED AVIONICS ATTACK CONTROL SYSTEMS SPECIALIST (F-15) BY CORRESPONDENCE

Course Number: 32656B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamentals and operation of avionics combat control and navigation systems.

Instruction: The student will receive instruction concerning aircraft familiarization, basic navigation, inertial navigation systems, radar principles and operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/89).

AF-1704-0219

INTEGRATED AVIONICS ATTACK CONTROL SYSTEMS SPECIALIST (F-16) BY CORRESPONDENCE

Course Number: 32656C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamentals of operation of avionic fire control, navigation and radar systems.

Instruction: Student will receive instructions concerning aircraft familiarization, fire control/navigation and control radar.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0220

INTEGRATED AVIONICS COMMUNICATION, NAVIGATION, AND PENETRATION AIDS SYSTEMS SPECIALIST (F-16) BY CORRESPONDENCE

Course Number: 32658C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/84–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamentals and operation of basic electronic and avionic communication and navigation systems.

Instruction: The student will receive instruction concerning aircraft familiarization, aircraft communication systems, navigation systems and electronic identification systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/89).

AF-1704-0221

AIRCRAFT ELECTRO-ENVIRONMENTAL SYSTEM TECHNICIAN BY CORRESPONDENCE

Course Number: 45070.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to conduct maintenance on aircraft using correct ground safety practices, maintenance publications, and hand tools, and will be able to service and maintain the battery and electrical systems using the correct test equipment.

Instruction: Through correspondence, the student will receive information on aircraft ground safety, maintenance publications, inspection fundamentals, hand tools and soldering, basic electricty and batteries, and the use of the volt-UHM Meter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in in aircraft maintenance, 1 semester hour in a course in aircraft maintenance management (12/89).

AF-1704-0222

AIRCRAFT ELECTRO-ENVIRONMENTAL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45070A.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the basic operation of the AC and DC power systems found in the aircraft; the basic layout of the trim system, flap system, fuel system, powerplant electrical system, warning systems, and steering system.

Instruction: Through correspondence the student will receive basic knowledge of the operation of the aircraft electrical generation system, fuel sytem, utility system, warning systems, and steering system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0223

AIRCRAFT ELECTRO-ENVIRONMENTAL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45070B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and correct faults in the engine bleed air system, aircraft air conditioning systems, cabin pressurization systems, fire detection and extinguishing systems, oxygen systems, and utility systems (life raft, liquid cycle refrigeration), and will be able to supervise others in the maintenance and repair of the above systems.

Instruction: Through correspondence the student will receive information on engine bleed air systems, aircraft air conditioning, cabin pressurization and oxygen systems, fire protection systems, and utility systems (life raft, liquid cycle refrigeration).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance (12/89).

AF-1704-0224

F/FB-111 AVIONICS MANUAL/ELECTRONIC COUNTERMEASURES (ECM) TEST STATION AND COMPONENT SPECIALIST BY CORRESPONDENCE

Course Number: 45156B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamentals of electronics and operation of electronic counter measures test equipment and components.

Instruction: The student will receive instruction concerning electronic principles, micro computer operation, maintenance management and inspection proceedures and electronic testing equipment and proceedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0225

INTEGRATED AVIONICS COMMUNICATIONS, NAVIGATION, AND PENETRATION AIDS SYSTEMS SPECIALIST (F-15) BY CORRESPONDENCE

Course Number: 45251C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the operating principles of avionics communications and navigation systems and the electronic principles involved.

Instruction: The student will receive instruction concerning basic electronic principles, communication, navigation and electronic identification principles.

Credit Recommendation: Credit is not recommeded because of the military-specific nature of the course (12/89).

AF-1704-0226

INTEGRATED AVIONIC INSTRUMENT AND FLIGHT CONTROL SYSTEMS SPECIALIST BY CORRESPONDENCE

Course Number: 45252B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course, the student will have the knowledge necessary to perform maintenance on the integrated avionic instrument and flight control systems incorporated in the F-16 aircraft.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas includes a treatment of the integrated aerodynamic control system for the F-16 aircraft. Individual systems are reviewed including electrical and hydraulic power, air conditioning and pressurization, engine instrumentation, fuel quantity, navigation aids, the flight environment system and inflight recorder, and system diagrams. Check out techiques and troubleshooting are considered. Safety measures relative to fuels, engine, radiation, and egress systems as well as work pertinent to these and their attendant maintence hazards are stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft instrument and flight control maintenance (12/89).

AF-1704-0227

Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence

Course Number: 45253B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will have the basic and general knowledge to perform maintenance and troubleshooting on the engine, airframe and instruments and their related systems. In addition, the student will have the ability to perform maintenance on the integrated flight control system and its components.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Pressure, temperature and quantity instruments relative to the F-111 aircraft are presented as are their systems: navigation equipment including instruments, sensors, systems and supporting testing devices are enumerated. Airborne signal data recording and engine air induction as applied to this aircraft are analyzed. The integrated flight control system and its related components including the autopilot are covered - both troubleshooting and maintenance aspects are emphasized.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft instrument and flight control maintenance (12/89).

AF-1704-0228

Tatical Aircraft Maintenance Technician by Correspondence

Course Number: 45274.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/89-Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic construction and maintenance requirements for a tactical aircraft and will understand ground safety, aircraft corrosion control, battle damage repair, and ground handling of aircraft. The student will have a basic knowledge of aircraft pneudraulics, and landing gear systems. Student will have a basic understanding of engines, fuel systems, electrical systems, and environmental control systems for aircraft.

Instruction: Through correspondence the student will receive basic information on aircraft ground handling, aircraft electrical, pneudraulic, and landing gear systems, engine construction and theory of operation, engine electrical systems, fuel systems, and utility systems (environmental control, fire protection, ice and rain removal).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance (12/89).

AF-1704-0229

Aerospace Propulsion Technician (Jet Engine) by Correspondence

Course Number: 45470A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/89-Present.

Learning Outcomes: Upon the completion of the course, the student will be familiar with the construction of Jet Engines of conventional and modular design and become familiar with the tools and hardware required for engine overhaul. Student will gain knowledge necessary for engine evaluation during overhaul in the areas of inspection, measurement and corrosion control. Student will understand the engine fuel system, oil system, start and electrical systems, bleed air system, after burner, thrust reverse, and constant speed drive. Student will be able to perform engine test runs using calibration instruments to adjust the engine, and will be able to remove and install the engine in the airframe. Student will gain knowledge on engine noise suppression; be able to troubleshoot the engine before overhaul, and will become familiar with the construction and maintenance of the auxiliary power unit.

Instruction: Through correspondence the student will receive information on engine operation, construction, tools and hardware, and support equipment for overhaul and repair. Student receives information on the fuel, oil, start and electical, bleed air, after burner, thrust reverse, constant speed drive, and relationships of these systems. Also covered is information on engine testing, test instruments, adjustments to engine systems, noise suppression, and the removal and installation of the engine in the airframe. Student learns about engine troubleshooting and the auxiliary power unit.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in jet engine maintenance (12/89).

AF-1704-0230

Aircraft Pneudraulic Systems Technician by Correspondence

Course Number: 45474.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will understand the theory of hydraulic systems, electric motors and generators and related components, and will gain basic knowledge of the construction of fluid lines using hose and tubing. Student will know the operation of hydraulic test equipment and will learn the basic operation of hydraulic power systems, landing gear systems, flight control systems, pneumatic systems, inflight refueling systems, and cargo door and ramp operating systems.

Instruction: Through correspondence the student will receive information on pneudraulic system theory and maintenance, troubleshooting, repair and testing. Course covers the hydraulic power, landing gear, flight control, pneumatic, inflight refueling, and cargo door and ramp systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance course (12/89).

AF-1704-0231

Aircraft Pneudraulic Systems Technician by Correspondence

Course Number: 45474A.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform maintenance on aircraft landing gear, flight control, cargo and ramp door systems and jack the aircraft for landing gear maintenance, and will be able to inspect aircraft wheels and tires for defects.

Instruction: Through correspondence the student will learn about aircraft landing gear, flight control, cargo and ramp door, jacking, and wheel and tire systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0232

Avionic Guidance and Control Systems Technician by Correspondence

Course Number: 45571A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot or supervise the troubleshooting of avionics guidance and control systems of USAF aircraft including compass, attitude heading reference, stability augmentation, automatic flight control and digital automatic flight control systems and utilize the MC-1 compass calibrator set.

Instruction: Includes system operation, inspections, operational checks, troubleshooting and bench check of compass system, attitude heading reference system, stability augementation system, components, repair of avionics system malfunctions and MC-1 autopilot system operation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0233

Guidance and Control Systems Technician by Correspondence

Course Number: 45571B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot or supervise the troubleshooting of avionics guidance and control systems of USAF aircraft compass, attitude heading reference, stability augmentation, automatic flight control and digital automatic flight control systems and utilize the MC-1 compass calibrator set.

Instruction: Includes system operation, inspections, operational checks, troubleshooting and bench check of compass system, attitude heading reference system, stability augmentation system and automatic flight control system, components, repair of avionics system malfunctions and MC-1 autopilot system operation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0234

Avionics Guidance and Control Systems Technician by Correspondence

Course Number: 45571C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot or supervise the troubleshooting of avionics guidance and control systems of USAF aircraft compass, attitude heading reference, stability augmentation, and automatic flight control systems and utilize the MC-1 compass calibrator.

Instruction: Covers basic of the aircraft compass systems including system operation, inspections, operational checks and launch check of compass, attitude heading reference, stability augmentation and automatic flight control system component operation, setup, measuring compass errors, magnetic survey, and compass serveying procedures.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0235

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571D.

Location: Extension Course Institute, Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will display an updated understanding of avionics instrument systems including position, engine, fuel quantity indicating, flight data recording, central air data and flight director systems, vertical scale flight instrument and flight and navigational aids.

Instruction: Course includes a review of the theory and operation of the above cited systems in order to enhance the technician's ability to maintain the systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0236

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45517E.

Location: Extension Course Institute, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will display an updated understanding of avionics instrument systems including position, engine, fuel quantity, flight loads data recording, basic flight, central air data and flight director systems and flight and navigational aids.

Instruction: Includes a review of the theory and operation of the above listed systems in order to enhance the technician's ability to maintain the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0237

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571F.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course, the student will better understand avionics instrument systems previously learned through training and experience.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content includes a review of elementry aspects of: Solenoid, selsyn and synchro systems operation, engine indicating systems (tachometer, temperature, fuel flow, pressure); fuel quantity indicators (resistance, capacitance, maintenance); flight data records; pilot-static systems; altitude encoders; Central SINS Data Computers; angle-of-attack and flight director systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0238

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571G.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will demonstrate a fundamental knowledge of concepts related to avionic navigation systems. This course is an extension to training and experience previously acquired.

Instruction: Fundamentals of computer programming and hardware; navigation and computer elements; inertial operation principles; fuel savings advisory systems.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0239

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571H.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic principles of navigation and computer elements and will have become familiar with the basic conceptsof computer function and data storage. Student will learn thebasic operation of inertial navigation systems and doppler navigation systems and the role these systems play in the fuel savings advisory system.

Instruction: Through correspondence the student will gain knowledge of navigation, computer function and data storage, inertial and doppler navigation systems, and fuel savings advisory systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in avionics (12/89).

AF-1704-0240

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571J.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend basic navigation, operate gyroscopes and solve navigation problems, and will understand computer navigation operations.

Instruction: The student will receive instructions concerning basic, trigonometric and computer navigation and the operations of gyroscope and accellerometer systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation principles (12/89).

AF-1704-0241

AVIONICS GUIDANCE AND CONTROL SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45571K.

Location: Extension Course Institute Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course, the student will better understand weapon control and monitoring systems, television transmission and heads-up-displays.

Instruction: The student will receive instructions concerning weapons control and monitoring, thru review, television transmission and heads-up-display systems in the A-10.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/89).

AF-1704-0242

COMMUNICATION/NAVIGATION SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45572A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to repair and maintain and supervise the repair and maintenance of aerial communications/navigation systems.

Instruction: Introduction to avionics maintenance and repair procedures and safety practices, administration of aviation electronics maintenance program, basic grounding in electronics and utilization of electronics test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in avionics maintenance (12/89).

AF-1704-0243

COMMUNICATION/NAVIGATION SYSTEMS TECHNICIAN BY CORRESPONDENCE

Course Number: 45572B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain and repair aerial communications, intercommunications and direction-finding equipment.

Instruction: Introduction to intercommunication equipment, communication systems, modulation, detection, mixing, receivers high-frequency receivers, VHF and UHF transceivers, UHF DF and emergency communications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in avionics maintenance (12/89).

AF-1704-0244

Communication/Navigation Systems
Technician by Correspondence

Course Number: 45572C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to repair and maintain aerial electronic navigation equipment, precision landing equipment, electronic aircraft terrain clearance, and identification equipment.

Instruction: Introduction to electronic aerial direction, distance-finding and landing equipment and theory and principles of radar in aircraft height-finding and identification.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1704-0245

Communication/Navigation System
Technician by Correspondence

Course Number: 45572D.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will understand the functions of airborne radars and the three special functions of the AN/APN-59E search and weather radar.

Instruction: Introduction to basic radar theory, nomenclature, phraseology and the functional capabilities of the AN/APN-59E airborne radar in its three modes of operation.

Credit Recommendation: Credit is not recommended because o the limited, specialized nature of the course (12/89).

AF-1704-0246

Communication/Navigation Systems
Technician by Correspondence

Course Number: 45572E.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the theory and the operation, capabilities, limitations of and the necessity for doppler navigation systems in high-speed aircraft.

Instruction: Introduction to traditional basic navigation, analog computer elements, doppler principles and techniques, doppler receiver transmitter theory, frequency tracker and components, antenna, indicator, tracker, doppler navigation computer and the common strategic doppler.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in avionics maintenance (12/89).

AF-1704-0247

Strategic Aircraft Maintenance
Specialist by Correspondence

Course Number: 45750.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic construction and maintenance requirements for strategic aircraft, ground safety, aircraft corrosion control, battle damage repair, and ground handling of aircraft. The student will have a basic knowledge of aircraft pneudraulics, and landing gear systems and will also have a basic understanding of engines, fuel systems, electrical systems, and environmental control systems for aircraft.

Instruction: Through correspondence the student will receive basic information on aircraft ground handeling, aircraft electrical, pneudraulic, and landing gear systems, engine construction and theory of operation, engine electrical systems, fuel systems, and utility systems (environment control, fire protection, ice and rain removal).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance (12/89).

AF-1704-0248

Offensive Avionics Systems Specialist
(B-1B) by Correspondence

Course Number: 45753A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamental operation of offensive avionics systems, maintenance and material management and basic aircraft familiarization.

Instruction: The student will receive instruction concerning avionics system maintenance, organizational maintenance, electronic multiplexing and integrated testing systems and navigation display systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aviation maintenance management (12/89).

AF-1704-0249

Airlift Aircraft Maintenance
Technician by Correspondence

Course Number: 45772.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/89–Present.

Learning Outcomes: Upon completion of the course, the student will understand the basic construction and maintenance requirements for airlift aircraft, ground safety, aircraft corrosion control, and ground handling of aircraft. The student will gain a basic knowledge of aircraft Pneudraulics, and landing gear systems, and will also gain a basic understanding of engines, fuel systems, electrical systems, and environmental control systems for aircraft.

Instruction: Through correspondence the student will receive basic information of aircraft ground handling, aircraft electrical, pneudraulic, and landing gear systems, engine construction and theory of operation, engine electrical electrical systems, fuel systems, and utility systems (environmental control, fire protection, ice and rain removal).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft maintenance (12/89).

AF-1704-0250

Structural Maintenance Technician
by Correspondence

Course Number: 45872B

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify types of corrosion, select correct removal methods and replace protective coatings to aircraft components, and will be able to select correct cleaning methods to prevent further corrosive attack on aircraft components.

Instruction: Through correspondence the student will receive information on identification of corrosion, methods of treatment to remove corrosion, preparation of surfaces for organic coating to prevent corrosion, and cleaning aircraft to prevent the formation of corrosion.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance (12/89).

AF-1709-0001

Precision Photographic Processing
Technician

(Precision Photographic Processing Control)

(Precision Photographic Processing Control Technician)

Course Number: AAR23470; OZR2335; OZR2334; AAR23271.

Location: Lowry Technical Training Center, Lowry AFB, CO.

Length: 13 weeks (390–402 hours).

Exhibit Dates: 7/62–5/68.

Objectives: To train enlisted personnel in precision photographic processing.

Instruction: Lectures and practical experience in statistics, photographic image evaluation, laboratory management, and the chemistry, kinetics, and mechanics of the photographic process.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in precision photographic processing laboratory (12/68).

AF-1709-0002

Combat Still Photographer, Operator

Course Number: 2ASR23651-003.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 13 weeks (480 hours).

Exhibit Dates: 8/68–12/73.

Objectives: To train military personnel in the photographic skills necessary for handling a variety of cameras and photographic situations.

Instruction: Lectures and practical experience in the fundamentals of photography, photographic exposures, laboratory processing and printing, aerial film processing, and production processing and printing; journalistic applications to photography; and optics, light, color, filters, chemistry, and light techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photography (12/73).

AF-1709-0004

Still Photojournalism
(Still Photo Journalism)

Course Number: 3AZR23651.

Location: Lowry Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (180 hours).

Exhibit Dates: 7/72–12/73.

Objectives: To train enlisted personnel to work as still photojournalists with information offices.

Instruction: Lectures and practical experiences in the journalistic process, including information acquisition techniques, elements of style, human relations, and legal and ethical aspects; camera and processing systems, including camera function, processing, composition, and practical exercises; a job-oriented workshop including picture story, personality feature, small groups, spot news, sports, and a final project.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photojournalism (12/73).

AF-1709-0005

Aerial Photographer

Course Number: AB23130.

Location: 3415th Technical Training Group, Lowry AFB, CO.

Length: *Version 1:* 19 weeks (570 hours). *Version 2:* 29 weeks (432 hours).

Exhibit Dates: *Version 1:* 12/54-12/68. *Version 2:* 3/54-11/54.

Objectives: To train enlisted personnel to install, inspect, and operate aircraft cameras and related equipment.

Instruction: Lectures and practical experiences in principles of electricity, AC and vacuum tubes, and circuits; oscilloscope; mechanics; fundamentals of photography; aerial photography; maintenance; reconnaissance photography; oblique photography; and color photography.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in aerial photography (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in aerial photography, 2 in electricity and electronics (12/68).

AF-1709-0006

Precision Photographic Services
Officer

Course Number: *Version 1:* 3OBR2331. *Version 2:* OBR2331.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 18 weeks (540 hours). *Version 2:* 21 weeks (630 hours).

Exhibit Dates: *Version 1:* 5/68-12/73. *Version 2:* 5/67-4/68.

Objectives: To train officers to supervise precision photographic services laboratories.

Instruction: Lectures and practical experience in statistics, photographic chemistry, laboratory functions, image reproduction and evaluation, precision photographic processing, and management of photographic installations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in graphic arts (12/73). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in precision photographic processing laboratory, and credit in elementary statistics on the basis of institutional evaluation (12/68).

AF-1709-0010

1. Still Photographer
   (Photographer)
2. Still Photographer

Course Number: *Version 1:* ABR23230. *Version 2:* AB23230; ABR23230.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 18 weeks (510 hours). *Version 2:* 14 weeks (390 hours).

Exhibit Dates: *Version 1:* 4/61-12/68. *Version 2:* 3/58-3/61.

Objectives: To train personnel to perform as photographers.

Instruction: Lectures and practical experiences in the operation and care of cameras and laboratory equipment, and in exposing and processing black and white and color film.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in photographic processing laboratory (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in photographic processing laboratory (12/68).

AF-1709-0011

Film Cutting Specialist
(Sound and Picture Editing Specialist)

Course Number: AB23331.

Location: 3415th Technical Training Group, Lowry AFB, CO.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To provide trainees with the knowledge and skills necessary for editing silent and sound motion picture film.

Instruction: Fundamental editing procedures, including operation of 16mm projectors, splicing motion picture film, operation of the silent viewer (moviola), assembly of a motion picture work-print, the principles and techniques of matching action, matching original negatives, and establishing and re-establishing techniques; elementary editing techniques, including cut-ins and cutaways, build-up and continuity, special effects, splicing 35mm film, use of 35mm viewer, editing 35mm film; editing techniques for sound film, including introduction to single and double system sound and the use of sound viewers, editing single and double system sound, matching sound and picture negative to work prints; advanced editing techniques, including music and sound effects, introduction to lip synchronization, and preparation of a complete motion picture film.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in film (12/73).

AF-1709-0013

Photogrammetric-Cartographic
Technician
(Advanced Photogrammetric Cartographic)

Course Number: AAX22170.

Location: Aeronautical Chart and Information Center, St. Louis, MO.

Length: 9 weeks (301 hours).

Exhibit Dates: 7/64-12/68.

Objectives: To train enlisted personnel in cartographic techniques applied to photographic and physiographic techniques.

Instruction: Lectures and practical exercises in photogrammetric mathematics, projection, photogrammetric equipment and related functions, regional physiography, grids, geodesy, target material reliability determination and reconnaissance systems, and cameras.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photogrammetry (12/68).

AF-1709-0014

Imagery Interpretation

Course Number: 3AZR20650-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/69-12/73.

Objectives: To train Marines in basic photographic interpretation techniques.

Instruction: Lectures and practical exercises in basic photographic interpretation, including introduction to intelligence, fundamentals of photo and imagery interpretation, photogrammetry, tactical photo interpretation, operational weapons systems, industries, strategic interpretation, multisensor theory and interpretation, and practical exercises.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photographic interpretation (7/74).

AF-1709-0015

Imagery Interpreter Specialist

Course Number: 3ABR20630.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 15 weeks (450 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train airmen as imagery interpretation specialists.

Instruction: Lectures and practical exercises in imagery interpretation, including automatic data processing and basic coordinate systems as applied to intelligence, fundamentals of intelligence and air target materials program, photogrammetry, image interpretation fundamentals, tactical and strategic interpretation, basic radar, multisensor interpretation, intelligence data handling systems, mission planning and bombing, and multisensor reporting and radar prediction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photographic interpretation, 1 in photogrammetry (7/74).

AF-1709-0016

Navy Specialized Imagery
Interpretation

Course Number: 3OZR8041-2.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 6-7 weeks (162-210 hours).

Exhibit Dates: 1/71-12/73.

Objectives: To train personnel as imagery interpretation officers.

Instruction: Lectures and practical exercises in Navy specialized imagery interpretation, including vertical and nonvertical photogrammetry, radar operational intelligence, multisensor intelligence, and imagery interpretation (military support subjects).

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photo interpretation (7/74).

AF-1709-0017

Intelligence Photo-Radar Officer

Course Number: OTS8041-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 10 weeks (300 hours).

Exhibit Dates: 1/62-12/68.

Objectives: To train personnel in the fundamentals of photographic interpretation.

Instruction: Lectures and practical exercises in the fundamentals of photographic interpretation, including introduction to photo intelligence, photo metrics, aerospace weapons systems, surface transportation and reporting, and advanced aerospace photo intelligence.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photographic interpretation (12/68).

AF-1709-0018

Still Photographic Laboratory Specialist

Course Number: 3ABR23334.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 16-20 weeks (480-570 hours).
Exhibit Dates: 5/68-12/73.
Objectives: To train enlisted personnel to perform as photographic laboratory technicians.
Instruction: Lectures and practical exercises in basic photographic laboratory techniques. Course includes film processing and printing; photocopying; chemistry and quality control; photo laboratory equipment; color slides and color printing; and the use of duplicating equipment.
Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in still photography (7/74).

AF-1709-0020

Still Photographic Camera Specialist

Course Number: 3ABR23631.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 17-18 weeks (460-540 hours).
Exhibit Dates: 6/68-12/73.
Objectives: To train enlisted personnel as still photographers.
Instruction: Lectures and practical exercises in camera operation, film processing, and printing, including lighting, color negative and slide photography, and the study of photojournalism (including pictorial composition, layouts, and photo stories).
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photojournalism on the basis of institutional evaluation (7/74).

AF-1709-0021

Intelligence Photo-Radar Officer

Course Number: OBR8041; OBR2041; OB2041; OB2041-1.
Location: 3750th Technical School, Sheppard AFB, TX; 3415th Technical School, Lowry AFB, CO.
Length: 31 weeks (930 hours).
Exhibit Dates: 6/54-12/68.
Objectives: To train officers in direct and indirect aerospace photographic intelligence.
Instruction: Lectures and practical exercises in interpretation, analysis, and evaluation of data from direct and indirect aerospace photographs, including photometrics, terrain analysis and land warfare; aerospace weapons systems, surface transporation, basic industries, fabrication and chemical industries and bomb damage interpretations, weapons employment planning; fundamentals of radar, radar reconnaissance, target prediction and simulation; and mission planning. Includes photographic intelligencereporting and fundamentals of navigation and area radar prediction analysis.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in photographic interpretation(12/68).

AF-1709-0022

1. Precision Photoprocessing Specialist
2. Precision Photoprocessing Specialist
   (Precision Photographic Processing Specialist)

Course Number: *All Versions:* 3ABR23430. *Version 2:* ABR23430.
Location: *Version 1:* School of Applied Aerospace Sciences, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO.
Length: *Version 1:* 20 weeks (537-600 hours). *Version 2:* 23-25 weeks (660 hours).
Exhibit Dates: *Version 1:* 1/71-12/73. *Version 2:* 9/65-12/70.
Objectives: To train enlisted personnel to be photographic processing specialists.
Instruction: *All Versions:* Lectures and practical exercises in basic chemistry and photographic chemistry, optics and light concepts, advanced contact printing, continuous-film processors, chemical process control, sensitometry and sensitometric curve analysis, densitometers, basic statistical methods, chemical analysis and solution certification and correction, exposure effects and photosensitive material structure, aerial film handling, printer systems and control, and color processes. *Version 1:* Instruction emphasizes photographic chemistry. *Version 2:* Instruction emphasizes statistical methods, color processes, and cleanroom technology.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in precision photographic processing laboratory, and credit in elementary statistics on the basis of institutional evaluation(7/74). In the upper-division baccalaureate category, 5 semester hours in precision photographic processing, and credit in elementary statistics on the basis of institutional evaluation (12/68).

AF-1709-0023

Precision Photoprocessing Specialist
(Precision Photographic Processing Specialist)

Course Number: 3ALR23430-1; ALR23430-1; ALR23231.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 9-11 weeks (270-330 hours).
Exhibit Dates: 7/62-12/73.
Objectives: To train enlisted personnel in precision photographic processing.
Instruction: Lectures and practical exercises in precision photographic processing, including logarithms, slide rule, sensitometry and densitometry, curve construction and evaluation, basic photographic chemistry, cleanroom principles, printers and Versamat operation, film cleaning and titling, photographic imagery evaluation, and multiduplication.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in precision photographic processing, and credit in elementary statistics on the basis of institutional evaluation (12/68).

AF-1709-0024

Precision Photographic Processing Techniques

Course Number: OZR2331.
Location: 3415th Technical School, Lowry AFB, CO.
Length: 9 weeks (270 hours).
Exhibit Dates: 9/63-12/68.
Objectives: To train officers in photographic processing techniques.
Instruction: Lectures and practical exercises in photographic processing techniques, including sensitometric control principles and procedures, photographic chemistry principles, statistical and mathematical functions, precision equipment and evaluation procedures, and precision control techniques.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in precision photographic processing, and credit in elementary statistics on the basis of institutional evaluation (12/68).

AF-1709-0025

Motion Picture Laboratory Specialist

Course Number: 3ABR23332.
Location: 3415th Technical School, Lowry AFB, CO.
Length: *Version 1:* 11-14 weeks (330-420 hours). *Version 2:* 17 weeks (480 hours).
Exhibit Dates: *Version 1:* 6/70-12/73. *Version 2:* 2/69-5/70.
Objectives: To provide training in basic motion picture laboratory fundamentals.
Instruction: *Version 1:* Lectures and practical exercises in basic motion-picture photography, sensitometry and densitometry, motion picture printing and processing, quality control and production techniques, and motion picture fundamentals. *Version 2:* Covers the same subjects as Version 1 in greater depth.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in motion picture photography (7/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in motion picture photography (7/74).

AF-1709-0026

Still Photographic Officer

Course Number: OB2331.
Location: Air Training Command, Lowry AFB, CO.
Length: 15 weeks (450 hours).
Exhibit Dates: 10/54-12/56.
Objectives: To teach the duties of a unit photographic and laboratory commander and to qualify students to supervise activities of aerial photographers and laboratory technicians.
Instruction: Course includes training in elementary principles of photography, photographic copying, 4x5 camera operation, projection printing, laboratory procedures for aerial photography and field operations, basic aerial photography, advanced aerial photography, charting and mapping, and technical administration.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photographic processing laboratory (12/68).

AF-1709-0027

Imagery Interpreter Specialist by Correspondence

Course Number: 20650.
Location: Extension Course Institute, Gunter AFS, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 1/85-Present.
Learning Outcomes: Upon completion of the course, the student will be able to exploit aerial imagery, assist in the planning of reconnaissance missions, photogrammetrically mensurate the imagery and prepare intelligence interpretation reports.
Instruction: Monitored home study including readings, exercises, and proctored

examinations. Topics include a review of basic military intelligence fundamentals, fundamentals and uses of maps and charts, coordinate systems, multisensor aerial reconnaissance techniques, imagery interpretation fundamentals, equipment, and facilities, photogrammetry, plotting, titling, forwarding and reporting aerial imagery, tactical and strategic imagery interpretation including stereograms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in photographic interpretation or photogrammetry (5/88).

AF-1710-0001

Plumbing System Maintenance (LGM-25)
(Plumber/Plumbing Supervisor (SM-68B))

Course Number: AZR55255Y; ATC56450-2; ATS56450-2.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 4-6 weeks (108-150 hours).

Exhibit Dates: 3/62-12/68.

Objectives: To train airmen to perform as plumbing specialists and supervisors in SM-68B missile facilities.

Instruction: Lectures and practical exercises in plumbing operations in SM-68B missile facilities, including weapon system familiarization, maintenance management, corrosion control; configuration operation, and maintenance of water supply equipment and water storage, domestic water, industrial water, and fire water systems; configuration and maintenance of the contaminated waste, sanitary waste, and drainage systems; water requirements and testing; and water pumping operations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in environmental or nuclear plant technology (5/74).

AF-1710-0002

Plumbing Specialist
(Plumber)

Course Number: 3ABR55235; ABR55235; ABR56430Z; ABR56430; AB56430.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX; 3750th Technical School, Warren AFB, WY; 3450th Technical School, Warren AFB, WY.

Length: 9-15 weeks (270-360 hours).

Exhibit Dates: 8/55-12/73.

Objectives: To train basic airmen to perform as apprentice plumbers.

Instruction: Lectures and practical exercises in the maintenance, installation, and repair of plumbing systems and equipment, including operation principles and configuration; construction maintenance and repair of main and building water supplies; vent and waste systems; various fixtures, faucets, and valves; use and maintenance of tools and supplies; and piping connections to hot water and steam heating equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in plumbing or water sanitation technology (5/74).

AF-1710-0007

Pavements Maintenance Specialist

Course Number: 3AZR55150; AZR55150.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX; 3750th Technical School, Sheppard AFB, TX.

Length: 3 weeks (9-120 hours).

Exhibit Dates: 7/67-12/73.

Objectives: To train personnel to perform as pavement maintenance specialists.

Instruction: Lectures and practical exercises in the duties of pavement maintenance specialists, including publications, soil mechanics, base course construction, drainage, concrete mixtures, bituminous mixtures, herbicides, rigid and flexible pavement construction and maintenance, and preparation of subgrade for rigid and flexible pavements.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in construction of pavements (5/74).

AF-1710-0021

Plumbing Specialist by
Correspondence

Course Number: 55255.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 11/85-Present.

Objectives: This course is intended to train individuals to be plumbing specialists in installation and maintenance of waste systems and water supply systems.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. The home study provides basic knowledge of waste systems installation and maintenance and water supply systems installation and maintenance. Also covered are basic plan reading, job safety, tool and equipment usage and project planning. Fire prevention and military contingency training are also covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in plumbing trades (9/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical systems for buildings (9/86).

AF-1710-0023

Plumbing Technician by
Correspondence

Course Number: 55275.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 6/85-Present.

Objectives: To train personnel to perform as plumbing technicians.

Instruction: This course of instruction consists of on-the-job training and at-home studies. The home study provides training to become a plumbing supervisor and the on-the-job training provides reinforcement for the home studies. The course contains plumbing supervision, construction and operation of waste and water systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced plumbing (9/86); in the lower-division baccalaureate/associate degree category, 2 in mechanical and electrical equipment in buildings (plumbing) (9/86).

AF-1710-0024

Carpentry Specialist by
Correspondence

Course Number: 55250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 10/88-Present. *Version 2:* 4/86-9/88.

Objectives: To train personnel in light building frame construction.

Instruction: This course consists of on-the-job training and at-home studies. The home study provides training in the methods of light frame construction including foundation, floor, wall and roof framing, and prefabricatd and heavy timber construction.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in advanced carpentry (9/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in light building frame construction (9/86).

AF-1710-0025

Apprentice Carpenter by
Correspondence

Course Number: 55230.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 7/88-Present. *Version 2:* 7/84-6/88.

Objectives: To train personnel to perform as apprentice carpenters.

Instruction: Consists of on-the-job training and at-home studies. The home study provides training in the principles of carpentry and the on-the-job training provides the application. The course contains building layout, concrete form construction, floor construction, wall framing, roof frames and converings, exterior and interior finish, prefabricated buildings, and heavy timber construction.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in carpentry (9/86).

AF-1710-0026

Masonry Specialist by
Correspondence

Course Number: 55253.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 7/85-6/89.

Objectives: To train personnel to perform as masons.

Instruction: This course of instruction consists of on-the-job training and at-home studies. The home study provides the background principles to perform masonry construction such as bricklaying, concrete block, structural tile construction, plastering, ceramic surface tile, and stone construction. The on-the-job training provides the practical applications of these principles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced masonry construction (9/96).

AF-1710-0027

Apprentice Plumber by
Correspondence

Course Number: 55235.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 10/85-Present.

Objectives: To train personnel to perform as apprentice plumbers.

Instruction: This course of instruction consists of on-the-job training and at-home studies. The home study provides training to perform as a plumber and the on-the-job training provides reinforcement for the home studies. The course contains water supply systems, building distribution systems, interior and exterior plumbing systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in plumbing (9/86).

AF-1710-0028

CONSTRUCTION EQUIPMENT OPERATOR BY CORRESPONDENCE

Course Number: 55151.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/86–Present.

Objectives: To train individuals in the operation and maintenance of construction equipment with the primary emphasis being placed on earth moving and compaction equipment.

Instruction: Consists of on-the-job supervision and and at-home study. The at-home study provides knowledge regarding the operation and maintenance of construction equipment and primary emphasis placed upon earth moving and compaction. Topics covered include operating wheeled earth loading equipment, operating crawler tractors, motorized graders, excavation equipment, and soil and surface preparation. Maintenance of equipment is covered as well as snow removal, ice control, crane operation and rigging. The individual will also study basic welding principles and the use of explosives for clearing and quarrying operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in advanced construction equipment operation and maintenance (9/86).

AF-1710-0029

APPRENTICE CONSTRUCTION EQUIPMENT OPERATOR

Course Number: 55131.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/85–Present.

Objectives: To train individuals in the basic operation and maintenance of construction equipment.

Instruction: Consists of on-the-job training and at-home study. The at-home study provides knowledge regarding the operation and maintenance of basic construction equipment. Topics covered include the operation of wheeled loading equipment, hauling equipment, motorized graders, and bulldozers. Operation and maintenance of auxiliary construction equipment such as pavement sweepers and snow plows are also discussed. Accident prevention, job safety and first aid techniques are also covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic construction equipment operation and maintenance (9/86).

AF-1710-0030

APPRENTICE MASON BY CORRESPONDENCE

Course Number: 55231.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 11/83–Present.

Objectives: To train personnel to perform as mason's helper.

Instruction: This correspondence course of instruction consists of on-the-job training and at-home studies. The home study provides the background principles for the apprentice to perform masonry construction such as concrete block, structural tile, surface tile, plaster and stucco. The on-the-job training provides the apprentice with the practical applications of these principles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in masonry construction (9/86).

AF-1710-0031

MISSILE MAINTENANCE SPECIALIST (WS-133) BY CORRESPONDENCE

Course Number: 4430G.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates in basic Minuteman assembly, repair, maintenance, modification confuguration, inspection and servicing of missile subsystem and related support equipment.

Instruction: This is a supervised self-paced extension course covering topics of missile maintenance, technical orders, maintenance data collection systems, security and safety, corrosion, hand tools, aerospace hardware, principles of basic electricity, pneudraulics, layout of Minuteman facilities, operation and maintenance of equipment and special-purpose vehicles, equipment operations, and proofload testing equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment operation (10/88).

AF-1710-0032

SPECIAL PURPOSE VEHICLE AND EQUIPMENT MECHANIC BY CORRESPONDENCE

Course Number: 47250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties in the area of special purpose vehicles and equipment and mechanics to include: maintenance management (vehicles), diesel and gasoline engines theory, power trains, hydraulics systems, alignment, wheel balancing, heating and air conditioning, vehicle equipment, forklifts and loaders and towing and servicing.

Instruction: Covers publications, maintenance management and procedures, tools and equipment management, internal combustion engine, cooling and lubricating systems, engine fuel system, air, exhaust and emission control, automotive electrical system, electronic ignition, power trains, hydraulic system, chassis unit, front end alignment and wheel balancing, heating and air conditioning, heavy earth moving equipment, sweepers, snow-removal equipment and miscellaneous equipment, fork lifts, aircraft cargo loaders, heaters, spray deicers and towing tractors.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment maintenance, 3 in heavy equipment operation (10/88).

AF-1710-0033

SPECIAL VEHICLE MECHANIC (FIRETRUCKS) BY CORRESPONDENCE

Course Number: 47251A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course,the student will be able to perform duties in the area of special purpose vehicle (firetruck) mechanics to include: vehicle maintenance management, theory of operation on diesel and gasoline engines and their systems powertrains, hydraulic system, chassis unit, front end alignment and wheel balancing, heating and air conditioning, and firetruck systems.

Instruction: This is a supervised self-paced extension course covering publications, maintenance forms and records, vehicle management; procedures, tools and equipment management; internal combustion engines; cooling and lubrication systems; air, exhaust and emission control systems; automotive electrical system; electronic ignition; power train; hydraulic systems; chassis unit; front end alignment and wheel balancing; heating and air conditioning, and the following fire truck systems: drive trains, dipensing systems, and winterization systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment mechanics (10/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in fire science (10/88).

AF-1710-0034

SPECIAL VEHICLE MECHANIC (REFUELING VEHICLES) BY CORRESPONDENCE

Course Number: 47251B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform duties as a special purpose vehicle (refueling vehicle) mechanic to include: maintenance management, theory of operation on diesel and gasoline engines and their systems, power trains, hydraulic system, chassis unit, front end alignment and wheel balancing, heating and air conditioning and refueling vehicles.

Instruction: This is a supervised self-paced extension course including publication forms and records; vehicle management and procedures; tools and equipment management; internal combustion engines, cooling and lubricating systems; air, exhaust and emission control systems; electronic ignition, power trains; automotive electrical system; chassis unit; front end alignment and wheel balancing; heating and air conditioning; refueling vehicle; power take-off and throttle interlock system; dispensing system; hoses and reels; meters and static ground reels; bottom loading system; and winterization system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment mechanic (10/88).

AF-1710-0035

VEHICLE BODY MECHANIC BY CORRESPONDENCE

Course Number: 47253.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course,the student will be able to perform as a vehicle mechanic and work with technical orders and supply publications, policies and material deficiency reports, vehicle operation, safety, and the allied trades

Instruction: Instruction covers maintenance policies, publications, vehicle maintenance management, maintenance procedures, documents and reports, equipment management and use, automotive body repair, vehicle frame and hardware, sewing machine and upholstry, automotive gas, arc welding, gas-shielded and oxyacetylene, heat exchanger, and fixed tanks.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive body mechanics (10/88).

AF-1710-0036

Vehicle Maintenance Control and Analysis Specialist by Correspondence

Course Number: 47254.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course,the student will be able to qualify as a vehicle maintenance manager and to perform maintenance data collection analysis.

Instruction: Instruction covers publications, maintenance management, maintenance procedures, documents and reports, tool and equipment management, data processing, data collection system, data inquiry system, standard analysis, visual media and written presentations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance control (10/88).

AF-1712-0005

1. Electrical Power Production Specialist
2. Electrical Power Production Specialist
3. Electrical Power Production Specialist
   (Electrical Power Production Operator)
4. Electrical Power Production Operator

Course Number: *Version 1:* 3ABR54330. *Version 2:* 3ABR54330; ABR54330. *Version 3:* ABR54330; ABR65730; ABR56730B. *Version 4:* AB56730.

Location: *Version 1:* 3750th Technical School, Sheppard AFB, TX. *Version 2:* 3750th Technical School, Sheppard AFB, TX. *Version 3:* 3750th Technical School, Sheppard AFB, TX. *Version 4:* 3450th Technical School, Warren AFB, WY.

Length: *Version 1:* 14-17 weeks (504-620 hours). *Version 2:* 18 weeks (510 hours). *Version 3:* 15-19 weeks (420-540 hours). *Version 4:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 3/72-12/73. *Version 2:* 9/65-2/72. *Version 3:* 9/58-8/65. *Version 4:* 5/57-8/58.

Objectives: To train enlisted personnel in the operation, maintenance, and repair of engine-driven electrical generation systems.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of engine-driven generation systems, including engines and systems, operation, troubleshooting, and maintenance. *Version 1:* Topics include publications and engine fundamentals; engine systems and associated equipment; fundamental engine repair; power generation and circuit characteristics; generation equipment, controls, and wiring diagrams; operation and maintenance of mobile generator sets; generator set operation and maintenance; and generator set operation and aircraft arresting barriers. *Version 2:* Topics include publications and engine fundamentals; engine systems and associated equipment; fundamental engine repair; power generation and circuit characteristics; generation equipment, controls, and wiring diagrams; operation and maintenance of mobile generator sets; generator set operation and maintenance; and generator set operation and aircraft arresting barriers. *Version 3:* Topics include power production fundamentals; generation equipment and circuits; engine systems components; fundamental engine repair; engine overhaul and performance tests; preventive maintenance and generator set operation; specific generator sets operation and troubleshooting; principles of diesel engines and systems; electrical fundamentals; generation and warning systems; single-unit operation; synchronizing, paralleling, and troubleshooting multiple power units; and operating, inspecting, and troubleshooting specific power units. *Version 4:* Topics include operation and maintenance of diesel engines; electrical fundamentals and single-unit operation including operator maintenance; parallel operation and troubleshooting; single and parallel operation including troubleshooting of a specific diesel generator power plant; and operation and maintenance of a specific model.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electrical power systems maintenance on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electrical power system maintenance (6/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electrical power system maintenance on the basis of institutional evaluation (6/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in electrical power system maintenance on the basis of institutional evaluation (6/74).

AF-1714-0003

Aircraft Electrical Systems Specialist by Correspondence

Course Number: 42350.

Location: Extension Course Institute, Gunter AFB, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83-Present.

Objectives: To teach enlisted personnel maintenance management and documentation and also the basic electrical theory necessary to maintain and repair aircraft electrical systems.

Instruction: This is a self study course presenting materials pertaining to maintenance management and documentation, test equipment and basic AC and DC electrical theory, and the aircraft control and warning system. Aircraft electrical systems that are discussed include landing gear and related systems, flight control systems, starter systems, fuel systems, aircraft warning systems, lighting systems, and nesa glass systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electrical theory (3/85). Course concludes with a proctored examination.

AF-1714-0004

Weapons Fuzing Systems Specialist (Electrical)

Course Number: AB33130-B; AB33130-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 19 weeks (510-540 hours).

Exhibit Dates: 12/55-12/68.

Objectives: To train enlisted personnel to maintain and repair nuclear weapons fusing systems, components, and test equipment.

Instruction: Lectures and practical exercises in electronics fundamentals, including DC motors, generators, and meters; AC generation; inductive and capacitive reactance; series-parallel circuits; synchro systems; diode and triode tubes; rectifiers and filters; and transients in R-C networks.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in basic electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1714-0005

Guidance Systems Analyst (TM-76A)

Course Number: ABR31430G-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 25 weeks (660 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To train enlisted personnel to maintain and repair TM-76A guidance systems.

Instruction: Lectures and practical exercises in basic electricity; electronics; flight controls, command guidance, and basic missile checkers; check-out and alignment; and guidance systems test set theory.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1714-0015

Outside Wire and Antenna Maintenance Repairman
(Outside Wire and Antenna Systems Installation and Maintenance Specialist)
(Cable and Antenna Installation Specialist)

Course Number: 3ABR36130; ABR36130; AB36130.

Location: School of Applied Aerospace Sciences, Sheppard AFB, TX; 3750th Technical School, Warren AFB, WY.

Length: 13-18 weeks (360-564 hours).

Exhibit Dates: 3/55-12/73.

Objectives: To train enlisted personnel to maintain and repair outside wire and antenna systems.

Instruction: Lectures and practical exercises in outside-plant construction fundamentals; interpretation of technical orders; aerial cable support construction; buried and underground cable characteristics and installation; antenna support and tower assembly and erection; and construction and installation of doubler-type, rhombic, and discone antennas.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in civil technology (communications), wireman, power system lineman, or antenna systems specialist (5/74).

AF-1714-0023

Apprentice Electrician by Correspondence

Course Number: 54230.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/81-Present.

Objectives: To provide knowledge of electrical fundamentals to enable the apprentice electrician to advance skills.

Instruction: Course includes installation and maintenance of interior electrical power distribution systems for lighting and motor controls. Electrical codes, troubleshooting, estimating , and distribution are also presented. Three-phase power systems, motor controls, and emergency power systems are covered. The course concludes with a proctored examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electric fundamentals or in electrical wiring (3/85).

AF-1714-0024

Electrical Power Production Technician by Correspondence

Course Number: 54370.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/85–Present.

Objectives: To train personnel in electrical power production operation and maintenance.

Instruction: Consists of on-the-job training and at-home studies in the operation and maintenance of electrical power production. The course includes engine maintenance, engine systems, power generation and control, electrical devices and power plant switch gear, power plant equipment, and gas turbines.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced electrical power plant operation and maintenance (9/86).

AF-1714-0025

Electrical Power Line Distribution Technician by Correspondence

Course Number: 54271.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/85–1/89.

Objectives: To train individuals to install, inspect, repair, and maintain electric power systems and components. Individuals are also trained to advise on technical problems and to supervise work crews.

Instruction: Consists of on-the-job supervision and at-home study. The home study provides basic knowledge regarding electrical principles and meters, substation layout and components, overhead and underground distribution systems and components, repair and maintenance of systems. Lighting systems installation and maintenance is covered as well as troubleshooting of all electrical power distribution systems. Resource management, supervision, safety and first aid are also covered.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electric fundamentals and 4 in power systems maintenance (9/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in electric fundamentals (AC/DC circuits) and 3 in power distribution systems (9/86).

AF-1714-0026

Electrical Power Line Specialist by Correspondence

Course Number: 54251.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 7/88–Present. *Version 2:* 5/85–6/88.

Objectives: To train individuals to construct, modify, repair, and service electric power distribution systems. Both overhead and underground systems are covered.

Instruction: Consists of on-the-job supervision and at-home study. The home study provides basic knowledge regarding construction, repair, modification, and maintenance of overhead and underground electric power distribution systems. Topics covered include electrical principles and meters, overhead and underground distribution systems and components, substations, inspection, and maintenance. Area lighting systems, tools, equipment, trucks, and safety and first aid are also discussed.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 4 semester hours in electric fundamentals and 4 in electric distribution systems maintenance (9/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical fundamentals (AC/DC circuits) (9/86).

AF-1714-0027

Electrical Power Production Specialist by Correspondence

Course Number: 54350.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/85–6/89.

Objectives: To train personnel in electrical power production operation and maintenance.

Instruction: Consists of on-the-job training and at-home studies in the operation and maintenance of electrical power production. The home study provides training in the principles and the on-the-job training provides the application. The course includes electrical fundamentals, electronic principles, switch gear components, engine maintenance, engine systems, and power plant equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in diesel engine systems maintenance, 3 in electrical power plant maintenance, 3 in electric power producing engine maintenance, 3 in fundamentals of electricity (AC-DC circuits), 3 in electronics (9/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (9/86).

AF-1714-0028

Electrician by Correspondence

Course Number: 54250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/83–Present.

Objectives: Upon completion of the course, the student will be trained in the installation of electrical systems and the installation and maintenance of motors, controls, and special equipment.

Instruction: This course of instruction consists of on-the-job training and at-home studies in the installation and maintenance of various types of electrical systems, motors, controls, and special equipment. The course includes basic electricity and the installation and maintenance of motors, controls, and special equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical systems, 3 in electric motors and equipment (9/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical and mechanical equipment in buildings (electrical) (9/86).

AF-1714-0029

Fundamentals of Electricity by Correspondence

Course Number: 3030.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/64–Present.

Learning Outcomes: Upon completion of the course,the student will be able to accomplish basic algebraic and trigonometric functions, construct graphs and understand basic elements of electricity, direct current circuits as well as magnetism and electromagentism. Student will be able to describe the principles of direct current generators and motors as well as operation of meters, theory of capacitors, physical factors affecting inductance and transient phenomena in electronics. Students will have a mastery of alternating current and circuits and will be able to perform graphics analysis of AC circuits.

Instruction: This is a self-paced extention course designed to cover three major areas: 1) review of algebra and coverage of graphs and simultaneous linear equations, elements of electricity: DC circuits, and magnetism; 2) direct current: generators, motors, meters, inductors, transients and 3) alternating current: elementary trigonometry, AC circuit principles, analysis of AC circuits.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to electricity (10/88); in the upper-division baccalaureate category, 1 semester hour in advanced electricity (AC), 1 in advanced electricity (DC) (10/88).

AF-1714-0030

Electrical Power Production Specialist by Correspondence

Course Number: 54252A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/88–Present

Learning Outcomes: Upon completion of the course, the student will be able to maintain electrical generators, electronic-controlled equipment, and switchgear components and associates circuits.

Instruction: Magnetism, fundamentals of AC/DC circuits and generators, exciters and alternators; types and characteristics of solid-state devices; power supplies; logic functions; truth tables; Boolean equations; logic application and gates; principles of voltage regulators, battery chargers, governors, recitifiers, and brushless exciters; switchgear components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fundamentals of electricity (AC/DC circuits); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/89).

AF-1714-0031

Electrical Power Production Technician by Correspondence

Course Number: 54272B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain gasoline and diesel engines as well as power production auxiliary equipment and aircraft arresting systems.

Instruction: Maintenance of gasoline and diesel engines to include: two-stroke and four-stroke-cycle engine operation and fuel and lubricating systems maintenance, cooling systems; governing systems; induction and exhaust systems; internal engine analysis; engine protective devices also maintenance of power production auxiliary equipment and aircraft arresting systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel engine systems maintenance, 2 in electrical power plant maintenance and 2 in electrical power production engine maintenance (12/89).

AF-1714-0032

RELAYS, GENERATORS, MOTORS AND ELECTROMECHANICAL DEVICES BY CORRESPONDENCE

Course Number: 3035.

Location: Extension Course Institute Gunter, Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand the principles of electromagnetism and relays. Protection, time-delay, and voltage AC and DC motors and generators, and will understand the basic principles of Synchro devices, control transformers, and servomechanisms.

Instruction: Through correspondence the student will receive information on electromagnetism and relays, protection, time-delay and voltage control circuits, AC and DC motors and generators, synchro devices, control transformers, and servomechanisms.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (12/89).

AF-1714-0033

SOLDERING AND ELECTRICAL CONNECTORS BY CORRESPONDENCE

Course Number: 3036.

Location: Extension Course Institute, Gunter, Air Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to correctly prepare and solder electrical wiring and components to terminal ends and circuit boards, and will be able to correctly install wire terminals and connector pins using the crimp process. Student will know the safety aspects and correct tools and materials necessary to form aerospace quality solder connections.

Instruction: Through correspondence the student will receive information on soldering safety and tools, types of wires and terminals, correct procedures for soldering, P.C. board preperation for soldered leads and terminals, and pin installiation in electrical connectors.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/89).

AF-1715-0001

1. BIOMEDICAL EQUIPMENT MAINTENANCE SPECIALIST (Medical Equipment Repairman)
2. MEDICAL EQUIPMENT REPAIRMAN
3. MEDICAL EQUIPMENT REPAIRMAN (Apprentice Medical Equipment Repairman)

Course Number: *Version 1:* 3ABR40330-2. *Version 2:* 3ABR40330-2. *Version 3:* ABR40330; AB40132.

Location: *Version 1:* School of Health Care Sciences, Sheppard AFB, TX; *Version 1:* Sheppard Technical Training Center, Sheppard AFB, TX. *Version 2:* Sheppard Technical Training School, Sheppard AFB, TX. *Version 3:* Medical Service School, Gunter AFB, AL; *Version 3:* School of Aviation Medicine, Gunter AFB, AL.

Length: *Version 1:* 36 weeks (1261–1284 hours). *Version 2:* 46 weeks (1360 hours). *Version 3:* 15–20 weeks (570–781 hours).

Exhibit Dates: *Version 1:* 6/71–12/73. *Version 2:* 9/69–5/71. *Version 3:* 6/57–8/69.

Objectives: To provide basic career training for biomedical maintenance personnel.

Instruction: Lectures on the principles of medical equipment systems; equipment inspection, installation, calibration, modification, troubleshooting, and repair; and administrative and managerial functions of medical maintenance and shop operation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 30 semester hours in biomedical equipment technology, 3 in electronics (2/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electricity (12/68).

AF-1715-0002

FLIGHT FACILITIES EQUIPMENT BASIC O/I MAINTENANCE

Course Number: 2ASR30451-13.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 14 weeks (420 hours).

Exhibit Dates: 2/71–12/73.

Objectives: To train enlisted personnel in basic organizational and intermediate maintenance of flight facilities equipment.

Instruction: Lectures and practical exercises in electronic principles, special circuits, ground C-E maintenance management, technical publications, safety, and use of regular and specialized test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in flight facilities equipment basic O/I maintenance (3/74).

AF-1715-0003

AIR TRAFFIC CONTROL RADAR REPAIRMAN BY CORRESPONDENCE

Course Number: 30351.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/83–Present.

Objectives: To provide expertise in the maintenance procedures for air traffic radars.

Instruction: This course covers Air Force procedures for training, general maintenance procedures, soldering techniques, fundamentals and operation of various electronic test equipment, description and limits of various air traffic control radars, fundamentals of waveguides, antennas and scanning systems, moving radar target detection, remote data transmission, principles of precision approach radars and aircraft transponder systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of radar (11/86).

AF-1715-0004

F-111 FLIGHT CONTROL TEST STATION TECHNICIAN

Course Number: 3ALR32570-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 9 weeks (270 hours).

Exhibit Dates: 7/69–12/73.

Objectives: To train enlisted personnel to perform intermediate maintenance on the F-111 flight controls test station.

Instruction: Lectures and practical exercises in computer mathematics, data and signal flow analysis, computer equipment and keyboard operation, components circuit analysis, and test station operation.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computerized testing equipment (3/74).

AF-1715-0005

AIRCRAFT CONTROL AND WARNING RADAR SPECIALIST BY CORRESPONDENCE

Course Number: 30352.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/83–Present.

Objectives: Provide a basic knowledge of digital electronics as well as a basic overview of high power search radars.

Instruction: This correspondence course covers Air Force training procedures, digital techniques, various numbering systems, digital logic and Boolean algebra, clock and pulse generators, sequential logic, combination logic and converters, peripherals and storage devices, semiconductors, corrosion control, description of high power radar systems, radar receivers nd calibration devices, support equipment such as generators, aircraft transponders, and portable search radars.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of digital techniques, and 3 in radar fundamentals (11/86).

AF-1715-0006

BOMB NAVIGATION SYSTEMS MECHANIC (FB-111)

Course Number: 3ALR32130R.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 24 weeks (720 hours).

Exhibit Dates: 9/69–12/73.

Objectives: To train enlisted personnel to repair bomb navigation systems.

Instruction: Lectures and practical exercises in attack radar system theory, operation, and maintenance; optical display sight system operation and maintenance; digital computer complex, control and display set, and integrated system tie-ins operation; and bomb navigation system maintenance, operational checks, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, 2 in electronics laboratory, and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0007

Automatic Tracking Radar Specialist by Correspondence

Course Number: 30353.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/84–Present.
Objectives: To enable the electronic technician to troubleshoot automatic tracking radar systems.
Instruction: This course covers Air Force training procedures, basic electronic maintenance techniques, soldering and cabling, basic electronic test equipment, fundamentals of transistor, and vacuum tube amplifiers, synchro devices, operational amplifiers, fundamentals of tracking radars, analog computation and use in tracking radars, radar receivers and radar control systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic maintenance procedures, and 2 in radar fundamentals (11/86).

AF-1715-0009

Air Traffic Control Radar Technician by Correspondence

Course Number: 30371.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/85–Present.
Objectives: Upon completion of the course, the student will possess basic electronic expertise necessary to perform maintenance on various air traffic control radars.
Instruction: The course covers material management, maintenance organization, electronic fundamentals, DC and AC circuits, basics of electron tubes and semiconductors, transistor and associated circuits such as amplifiers, oscillators, multivibrators, power supplies, numbering systems, digital logic, storage devices, timing, sequential logic, combination logic and converters.
Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance techniques (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics and 3 in digital technqiues (11/86).

AF-1715-0010

Aircraft Control and Warning Radar Technician by Correspondence

Course Number: 30372.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/85–3/88.
Learning Outcomes: Upon completion of the course, the student will possess fundamental knowledge of aircraft detection and control radar systems.
Instruction: Course materials include maintenance management, material control, limited discussion of radar power supplies, transmitters, receivers, servo systems, displays, transponders, microwave antenna systems and radar site selection.
Credit Recommendation: In the vocational certificate category, 2 semester hours in fundamentals of radar (11/86).

AF-1715-0011

Automatic Tracking Radar Technician by Correspondence

Course Number: 30373.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/84–Present.
Objectives: To enhance the radar technician's understanding of the principles of tracking radars and overall maintenance management.
Instruction: Course provides instruction maintenance organization and record keeping, basic television scan techniques, basic principles of radar target acquisition and tracking, and discussion of analog computation.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0012

Navigational Aids Equipment Specialist by Correspondence

Course Number: 30451.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/82–Present.
Objectives: To produce an individual who is knowledgeable in the general principles of air navigational ground equipment.
Instruction: Course provide a very limited discussion of electronic principles, a fundamental discussion of aircraft landing systems (localizer and glide slope), very high frequency and low frequency marker and beacon transmitters, excellent discussion of the principles of the omnirange, tactical air navigation (TACAN) systems as well as digitaal monitoring equipment.
Credit Recommendation: In the vocational certificate category, 3 semester hours in air navigational systems (11/86).

AF-1715-0013

Television Equipment Repairman by Correspondence

Course Number: 30455.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/81–Present.
Learning Outcomes: Upon completion of the course, enlisted personnel will be able to repair and maintain television equipment.
Instruction: This is correspondence study with on-the-job supervision and proctored testing for training television equipment repairmen. The student is introduced to topics from electric circuits, magnetism, semiconductor and transistor circuits. Also coverage is given of numbering systems, Boolean algebra, digital circuits, conversion circuits and storage devices. The television portion covers television test equipment, television system theory, repair and maintenance.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 2 in digital circuits, and 6 in television equipment specialist (11/86).

AF-1715-0014

Space Communications Systems Equipment by Correspondence

Course Number: 30456.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/83–Present.
Objectives: Upon completion of the course, the student will be trained as space communication systems equipment operator/specialist.
Instruction: Course is offered as correspondence study with on-the-job supervision and proctored testing to train enlisted personnel as space communication systems equipment operator/specialist. The student is introduced to waveform measurement using an oscilloscope, electronic circuits, digital systems, semiconductor devices and sequential logic. Also, satellite programs multiplexing techniques, digital communication, and installation and maintenance
Credit Recommendation: techniques for satellite systems are covered. In the vocational certificate category, 3 semester hours in electronics (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital circuits (11/86); in the upper-division baccalaureate category, 3 semester hours in digital communication (11/86).

AF-1715-0015

Wideband Communications Equipment Technician by Correspondence

Course Number: 30470.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/83–Present.
Objectives: Upon completion of the course, enlisted personnel will be trained as wideband communication equipment technicians.
Instruction: This is correspondence study with on-the-job supervision and proctored testing to train enlisted personnel as wideband communication equipment technicians. Topics such as system performance monitoring, wideband system siting, topographic maps, microwave propagation, waveguides and antennas are covered.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in communication theory (11/86).
Related Occupation Codes: 86/11.

AF-1715-0016

Electronic Computer Repairman (AN/FSA-21/412L)
(Electronic Digital Computer Repairman (AN/FSA-21/412L))

Course Number: ABR30533-3.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 14 weeks (420 hours).
Exhibit Dates: 3/65–12/68.
Objectives: To train enlisted personnel who have experience in basic electronics to maintain and repair digital computers.
Instruction: Practical experience in digital computer principles, troubleshooting techniques, test equipment, and hand skills.
Credit Recommendation: In the upper-division baccalaureate category, [illegible] semester hours in electricity and electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

AF-1715-0017

Navigational Aids Equipment Technician by Correspondence

Course Number: 30471.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 11/84–Present.

Objectives: The technician is instructed in fundamentals of electronics, digital operations and installation of instrument landing systems.

Instruction: The course presents a general discussion of maintenance management, technical publications, test equipment, use of the oscilloscope and basics of DC and AC circuits. Higher level discussion of numbering systems, digital logic and Boolean algebra, clock and pulse generators, sequential logic, combination logic and converters, computer peripherals and storage devices, as well as installation of instrument landing systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in fundamentals of electronic circuits (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of digital techniques (11/86).

AF-1715-0018

Electronic Digital Data Processing Repairman (AN/FST-2B)
(Electronic Digital Data Processing Equipment Repairman (Data Transmission))
(Electronic Digital Data Processing Equipment Repairman)

Course Number: ABR30531-4; ABR30531D; ABR30531

Location: 3380th Technical School, Keesler AFB, MS.

Length: 42-45 weeks (1170-1260 hours).

Exhibit Dates: 9/59-10/70.

Objectives: To train enlisted personnel to service and repair electronic computer systems and coordinate-data-transmitting equipment.

Instruction: Practical experience in maintenance and operation of data transmitting equipment, multiplexers, random access plan position indicators, electronic and data processing principles, digital computer techniques, and shop practices. Includes basic circuit analysis, testing and logic.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

AF-1715-0019

1. Flight Facilities Equipment Technician
2. Flight Facilities Equipment Maintenance Technician

Course Number: AAR30471.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 38 weeks (1140 hours). *Version 2:* 32 weeks (960 hours).

Exhibit Dates: *Version 1:* 12/63-12/68. *Version 2:* 12/58-11/63.

Objectives: To train selected airmen in the operation, maintenance, and installation of flight facilities and associated equipment.

Instruction: Lectures and practical experience in advanced electronic principles of circuit analysis; troubleshooting techniques; maintenance, installation, testing, and alignment of flight facilities; flight and ground checking procedures; shop management; systems and files; supply procedures and catalogs; and personnel management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68), 3 in communications engineering (3/74), and credit in communications engineering on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1715-0020

Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4
(Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF)

Course Number: AB30332E.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 28-35 weeks (870-960 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To train enlisted personnel to operate, align, tune, inspect, and repair aircraft control and warning radar equipment.

Instruction: Lectures and laboratories in AC and DC circuits, resistors, inductors, capacitors, transients, measuring instruments, motors and generators, oscilloscopes, power supplies, diodes and rectifiers, amplifiers, oscillators, special circuits, and radar microwave propagation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as a technical elective in electrical engineering (3/74).

AF-1715-0021

Space Communications Systems Equipment Operator/Technician by Correspondence

Course Number: 30476.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/83-6/90.

Objectives: To upgrade the space communications systems equipment specialist to the technician level.

Instruction: This correspondence study course covers security of space communications systems, maintenance management, processing and controlling materiel, and a limited review of defense satellite communications systems and satellite access and tracking.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0022

Aircraft Inertial and Radar Navigation Systems Repairman (RF-4C Supplement)

Course Number: 3AZR30154-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 13 weeks (390 hours).

Exhibit Dates: 6/68-12/73.

Objectives: To train enlisted personnel to install, inspect, maintain, and repair aircraft inertial and radar guidance systems.

Instruction: Lectures and practical exercises in aircraft inertial and radar guidance systems installation, inspection, maintenance, and repair, including aircraft guidance equipment operating principles, block-diagram and circuit analysis, electronic wave-shaping circuit analysis, and system maintenance and repair procedures. Emphasis is on electronic test equipment usage and equipment repair.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronic pulse and wave-shaping circuit analysis (3/74).

AF-1715-0023

Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6)
(Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF))

Course Number: AB30332D.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 29-39 weeks (870-1080 hours).

Exhibit Dates: 11/54-12/68.

Objectives: To train enlisted personnel to perform elementary maintenance and repair on aircraft control and early warning radar equipment.

Instruction: Lectures in AC and DC circuits fundamentals; transients; measuring instruments; oscilloscopes; motors and generators; DC power supplies; diodes and rectifiers; resistors, inductors, and capacitors; amplifiers, oscillators, and detectors; superheterodyne receivers; frequency modulation and discriminators; microwave devices and frequency sources; r-f transmission lines; synchros and servomechanisms; and maintenance and repair of radar, PPI, and IFF hardware.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

AF-1715-0024

Electronic Cryptographic Communications Equipment Specialist by Correspondence

Course Number: 30650.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/85-Present.

Objectives: The student will be provided the training required to upgrade enlisted personnel from the apprentice level to the electronic communication equipment specialist.

Instruction: This is offered through correspondence study with the job supervision and proctored testing to train electronic cryptographic communications equipment specialist. The student is introduced to topics from electronics, communication systems, modems, modulation, filters, multiplexers, interface devices, data conversion, data and line conditioning. Also, maintenance practices and test equipment are also covered.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 1 in maintenance practices (11/86); in the upper-division baccalaureate category, 2 semester hours in communication theory (11/86).

AF-1715-0025

Airborne Early Warning Radar Repairman (AN/APS-20E)

Course Number: AB30132A.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 29 weeks (870 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To provide enlisted personnel with in-depth training in installation, repair, and maintenance of airborne early warning radar systems.

Instruction: Lectures and practical experience in airborne early warning radar system installation, maintenance, and repair, including AC and DC circuit fundamentals; series resistive and parallel resistive circuits; principles of magnetism; capacitors and capacitive reactance; DC motors, generators, and measuring instruments; diodes, triodes, tetrodes, and pentodes; principles of amplification; video, tuned, and push-pull amplifiers; amplitude modulation and detection; and various troubleshooting techniques and equipment usage. Much of the material contained in this course has been outdated by recent advances in semiconductor devices; its transfer value is in DC and AC circuits, manual skills, and troubleshooting techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

AF-1715-0026

Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence

Course Number: 30651.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/82–3/88.

Objectives: To train personnel in electronic-mechanical communications and cryptographic equipment systems.

Instruction: This correspondence course with proctored examinations includes topics in electronics, logic circuits, data processing, paper tape devices, card devices, page printers, modems and synchronizers. The mechanical principles of paper tape, card devices and page printers are also covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to data processing, and 3 in computer mechanical equipment maintenance (11/86).

AF-1715-0027

1. Avionic Inertial and Radar Navigation Systems Specialist
2. Aircraft Inertial and Radar Navigation Systems Repairman
3. Aircraft Inertial and Radar Navigation Systems Repairman

Course Number: *Version 1:* 3ABR32834. *Version 2:* 3ABR30134. *Version 3:* 3ABR30134; ABR30134.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 35 weeks (1050 hours). *Version 2:* 37–39 weeks (1110–1170 hours). *Version 3:* 40 weeks (1110 hours).

Exhibit Dates: *Version 1:* 3/72–12/73. *Version 2:* 4/70–2/72. *Version 3:* 2/65–3/70.

Objectives: To train airmen to operate, maintain, and repair avionic inertial and radar navigation equipment.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of avionic inertial and radar navigation equipment, including digital computer mathematics, logic, and symbology; analog computer circuit analyses; air navigation and general purpose computer principles and characteristics; and Doppler equipment. *Version 1:* Includes general purpose computer applications to airborne guidance equipment and integrated data systems, forward-looking/terrain-following systems, DC and AC, resonance, magnetism, motors, and synchros; diodes, transistors, and electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators; AM, FM, and PM systems; binary and octal numbers; logic functions; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; and electrical test equipment. *Version 2:* Includes forward-looking/terrain-following systems, DC and AC, resonance, magnetism, motors, and synchros; diodes, transistors, and electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; binary and octal numbers; logic functions; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; and electrical test equipment. *Version 3:* Includes radar altimeters, gyroscope and accelerometer transducers in inertial guidance systems, inertial navigation systems with avionics tie-in, alignment of inertial navigation systems, synchros and feedback for stable platforms, and calibration and specialized maintenance procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory and 3 in digital electronics (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (3/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in analog and digital computer fundamentals (3/74).

AF-1715-0028

Precision Photographic Systems Repairman

Course Number: 3ABR40430.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 19–20 weeks (570 hours).

Exhibit Dates: 5/68–12/73.

Objectives: To train airmen to repair precision photographic systems.

Instruction: Course includes photo principles, contact and projection printer systems, motion picture and finishing equipment, photo intelligence equipment, processing systems and quality control, and still camera systems. Students complete 8 weeks of Maintenance Electronics (3AQR40020) as part of this course.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in precision photoprocessing laboratory (11/77).

AF-1715-0029

Airborne Early Warning Radar Repairman (AN/APS-45)

Course Number: AB30132B.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 27 weeks (810 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To train enlisted personnel to perform elementary maintenance and repair on early warning radar equipment.

Instruction: Lectures and practical exercises in AC and DC circuits, batteries, resistors, inductors, capacitors, measuring instruments, motors and generators, and transformers; oscilloscopes; oscillators and modulators; rectifier power supplies; microwave devices; high-frequency sources and transmission lines; and maintenance and repair of equipment, including height-finder radars, ground-position indicators, and repeater radars.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as a technical elective in electrical engineering (3/74).

AF-1715-0030

Electronic Computer Principles, FYQ-47 Preparatory (Radar Principles)

Course Number: 3AQR30520-3.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 20–21 weeks (600–618 hours).

Exhibit Dates: 11/71–12/73.

Objectives: To provide enlisted personnel with an introduction to radar principles as a prerequisite for radar equipment servicing courses.

Instruction: Lectures and practical exercises in basic AC, DC, and RLC circuit principles; solid-state amplifiers, power supplies, and applications in wave generation; electron tube principles and applications; computer logic and components; maintenance management; and computer and radar principles and their application to specific equipment maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in technical subjects (3/74).

AF-1715-0031

Telecommunications System Maintenance Specialist by Correspondence

Course Number: 30653.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/86–Present.

Objectives: To train enlisted personnel in telecommunications system maintenance.

Instruction: This correspondence course with proctored examinations includes topics on test equipment, soldering, hand tools, basic circuit theory, transistors and a little logic theory. Also coverage includes computers, peripherals and storage media. Extensive coverage is given to the mechanical operation of three teletypewriter models.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics, and 3 in computer maintenance (11/86).

AF-1715-0032

1. Precision Measuring Equipment Specialist
2. Precision Measuring Equipment Specialist
3. Precision Measuring Equipment Specialist
4. Precision Measuring Equipment Specialist
5. Precision Measuring Equipment Technician
6. Precision Measuring Equipment Technician

Course Number: *Version 1:* 3ABR32430-2. *Version 2:* 3ABR32430. *Version 3:* ALR32430. *Version 4:* ALR32430. *Version 5:* ALR32470. *Version 6:* ALR32470.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 32 weeks (900 hours). *Version 2:* 45–46 weeks (1290 hours). *Version 3:* 35 weeks (1050 hours). *Version 4:* 28 weeks (840 hours). *Version 5:* 18 weeks (540 hours). *Version 6:* 16 weeks (480 hours).

Exhibit Dates: *Version 1:* 5/73–12/73. *Version 2:* 6/68–4/73. *Version 3:* 1/63–5/68. *Version 4:* 1/62–12/62. *Version 5:* 12/59–12/61. *Version 6:* 3/59–11/59.

Objectives: To train enlisted personnel in the installation, check-out, and maintenance of sophisticated electronic systems.

Instruction: *All Versions:* Lectures and practical exercises in trigonometry, complex algebra, electronic fundamentals, electronic circuits, signal generation, low- and high-frequency measurements, microwaves, precision measurements. *Version 5:* Low-level fundamentals, with extensive measurement and calibration practices on electronic and frequency-measuring equipment. *Version 6:* Low-level fundamentals, with extensive measurement and calibration practice on electronic and frequency-measuring equipment.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electrical or electronics laboratory, 3 in microwaves (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, 3 in electricity or electronics laboratory, 3 in microwaves, 2 in engineering measurement (3/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, 3 in electricity or electronics laboratory, 3 in microwaves, 2 in engineering measurement (3/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory, 3 in microwaves, 2 in engineering measurement (3/74). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory, 1 in microwaves, 1 in engineering measurement (3/74). *Version 6:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics laboratory, 1 in engineering measurement (3/74).

AF-1715-0033

PRECISION MEASURING EQUIPMENT SPECIALIST (ELECTRONICS)

Course Number: 3ABR32430-1; ALR32430-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 16–20 weeks (510–600 hours).

Exhibit Dates: 3/64–12/73.

Objectives: To train enlisted personnel to make precision measurements using electrical and electronic instrumentation.

Instruction: Lectures and practical exercises in DC and AC measurements, waveform analysis, and frequency and microwave measurement.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory, 3 in microwaves (3/74).

AF-1715-0034

TELECOMMUNICATIONS SYSTEMS CONTROL TECHNICIAN BY CORRESPONDENCE

Course Number: 30770.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/77–Present.

Objectives: Technical personnel is upgraded in the field of telecommunications system control and supervision.

Instruction: This correspondence course with proctored examinations includes topic in decibels, noise, voice channel multiplexing, signal compression, modems and data transmission systems. Also, telecommunication systems supervision and quality assurance procedures are covered.

Credit Recommendation: In the vocational certificate category, 3 semester hours in management technology (11/86); in the upper-division baccalaureate category, 2 semester hours in telecommunication theory (11/86).

AF-1715-0035

AIRCRAFT ARMAMENT SYSTEMS SPECIALIST BY CORRESPONDENCE

Course Number: 46250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85–Present.

Objectives: To provide upgrade training in aircraft munitions and armament maintenance systems.

Instruction: This correspondence course consists of on-the-job supervision and home study. The home study provide technical knowledge in the field of aircraft armament systems and the on-the-job supervision provides training to reinforce and apply the home studies security and hardware/handtool control, fundamentals of electricity, armament maintenance, loading support equipment, and weapons launch and release systems for attack, interceptor, fighter and bomber aircraft.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fundamentals of electricity, 3 in electronics, and 2 in shop management and property control (9/86).

AF-1715-0036

SPACE SYSTEMS EQUIPMENT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 30950.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84–Present.

Objectives: The student will be trained in space systems equipment maintenance.

Instruction: This correspondence course includes topics on test equipment, circuits, solid state devices digital logic circuits, computers, peripherals and storage. Also, coverage is given to transmitters, receivers and antennas.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of digital techniques (11/86).

AF-1715-0037

GUIDANCE CONTROL OFFICER (COMPUTER)(SM-68)

Course Number: OTC3044-5.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 7 weeks (210 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To train officers to operate and maintain WS-107A-2 guidance computers.

Instruction: Lectures and practical exercises in number systems, Boolean algebra, programming techniques, and equipment applicable to the WS-107A-2 guidance computer.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital computers (3/74).

AF-1715-0038

MISSILE SYSTEMS MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 31650G.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/82–Present.

Objectives: Personnel is trained as missile systems maintenance specialists.

Instruction: This correspondence course provides instruction in missile systems maintenance including maintenance management, maintenance and repair of the security and access systems, the command and control systems, and the power and environmental systems in the specialized missile systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in industrial maintenance (11/86).

AF-1715-0039

SINGLE SIDEBAND SYSTEM MAINTENANCE

Course Number: AZR30473.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 16 weeks (480 hours).

Exhibit Dates: 9/60–12/68.

Objectives: To train enlisted personnel to operate and maintain single-sideband communications systems.

Instruction: Lectures and laboratories in electronic principles and circuit analysis, troubleshooting and maintenance techniques, and testing, alignment, and repair of single-sideband transmitting and receiving equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour as an elective in communications engineering, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0040

GUNLAYING SYSTEM MECHANIC, B-47

Course Number: AB32330C.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26 weeks (780 hours).

Exhibit Dates: 8/54–12/68.

Objectives: To train enlisted personnel to isolate unit malfunctions and to perform organizational and field maintenance on turret assemblies, including gunlaying radar.

Instruction: Lectures and laboratories in fundamentals of DC and AC circuits, vacuum and gas-filled tubes, power supplies, voltage regulators, amplifiers, oscillators, oscilloscopes, and radar system components and circuits.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0041

GUNLAYING SYSTEM MECHANIC, B-36

Course Number: AB32330B.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 28 weeks (840 hours).

Exhibit Dates: 8/54–12/68.

Objectives: To train enlisted personnel to isolate unit malfunctions and to perform organizational and field maintenance on turret system assemblies, including gunlaying radar.

Instruction: Lectures and laboratories in fundamentals of DC and AC circuits, vacuum and gas-filled tubes, power supplies, voltage regulators, amplifiers, oscillators, oscilloscopes, and radar system components and circuits.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0042

Solid State Devices and Digital Techniques

Course Number: 3AZR30070-003.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 5 weeks (152 hours).

Exhibit Dates: 7/73-12/73.

Objectives: To train enlisted personnel in the principles of solid-state devices and digital techniques.

Instruction: Lectures and practical exercises in solid-state devices, parameters, integrated circuits, numbering systems, logic functions and circuits, counters, registers and A-D converters.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital systems (3/74).

AF-1715-0043

Missile Systems Maintenance Specialist by Correspondence

Course Number: 31650T.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/82–Present.

Objectives: Personnel is trained as missile maintenance specialist.

Instruction: This correspondence course provides instruction in the maintenance of military missile systems. Specific content includes maintenance management, corrosion control, electronic principles, special circuits, digital principles, digital logic, Boolean algebra, sequential logic, maintenance of specific missile power and control systems, electronic systems testing, and analysis of missile control system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in industrial maintenance, 3 in instrumentation (11/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of digital techniques and 1 in electronics (11/86).

AF-1715-0044

Solid State Devices and Digital Techniques

Course Number: 3AZR30070-001.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 2–3 weeks (78 hours).

Exhibit Dates: 7/73–12/73.

Objectives: To train enlisted personnel in digital techniques.

Instruction: Lectures and practical exercises in numbering systems, logic functions and circuits, counters, registers, and A-D converters.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital systems (3/74).

AF-1715-0045

Instrumentation Mechanic by Correspondence

Course Number: 31653.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/83–Present.

Objectives: Personnel is trained as instrumentation mechanics.

Instruction: This correspondence course provides instruction in instrumentation mechanics including maintenance management, corrosion control, instrumentation principles, instrumentation test equipment and tools, transducers, lazers, digital logic and Boolean algebra, instrumentation systems, analog signal conditioners, modulation and multiplexing systems, radio frequency components, and instrumentation ground stations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in instrumentation (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic instrumentation, and 1 in fundamentals of digital techniques (11/86).

AF-1715-0046

Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence

Course Number: 32150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/86–Present.

Objectives: A review of electronic principles as applied to maintenance of B-52G/H systems, ASQ-176, and ASQ-151.

Instruction: This is a correspondence course which offers a review of electronic principles, sequential logic, semi-conductor devices, electro-optical viewing systems and radar.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AF-1715-0047

Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15 Turrets) by Correspondence

Course Number: 32151G.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/83–Present.

Objectives: The student will be trained in the maintenance and alignment of fire control systems, ASG-15 turret.

Instruction: Course covers basics of radar, modes of operation of ASG-15 radar, operation of caliber 0.50 machinegun and specific test equipment such as AN/UPM-33 Radar Test Set, AN/UPM-141 radar test set.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basics of radar (11/86).

AF-1715-0048

Telephone Equipment Installer-Repairman

Course Number: 3ABR36234; ABR36234.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 19-20 weeks (540-600 hours).

Exhibit Dates: 1/66–6/73.

Objectives: To train enlisted personnel to install, repair, and maintain telephone equipment.

Instruction: Lectures and practical exercises in fundamentals of AC and DC, AC motors and synchros, basic transistor theory, power supplies and regulators, and relays and stepping switches.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74).

AF-1715-0049

Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence

Course Number: 32150K.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/80–10/88.

Objectives: A review of electronic principles as applied to maintenance of B-52G/H systems, ASQ-38, and ASQ-151.

Instruction: Materials for this correspondence course include review of basic electricity, fundamentals of electronic tubes and semi-conductors, digital logic, basics of radar and soldering fundamentals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics survey (11/86).

AF-1715-0050

Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence

Course Number: 32152.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84–Present.

Objectives: The student will be trained in maintenance of fire control systems including the APQ-153, AN/ASG-29, and tactical computers set AN/ASN-91.

Instruction: This is a correspondence course which offers subjects including principles of electronics (diodes and power supplies, transistor circuits, oscillators, logic circuits) as well as description of specific military equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basics of electronics (11/86).

AF-1715-0051

Weapon Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) by Correspondence

Course Number: 32152A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85–5/88.

Objectives: To provide training for maintenance of fire control systems including the ASQ-25.

Instruction: This is a correspondence course with topics including electrical circuit analysis, and basic electronics as well as aircraft navigation fundamentals and specialized test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic DC/AC electricity, and 1 in basic electronics (11/86).

AF-1715-0052

Weapon Control Systems Mechanic (F-4C/D: APQ-109/APA-165) by Correspondence

Course Number: 32152P.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/84-Present.
Objectives: To provide training in maintenance of fire control systems including the APQ-109/APA-165.
Instruction: This correspondence course includes electric circuit analysis and basics of vacuum tube circuits, along with theory and operation of radio equipment APQ-109/APA-165.
Credit Recommendation: In the vocational certificate category, 1 semester hour in basic DC/AC circuit analysis (11/86).

AF-1715-0053

Weapon Control Systems Mechanic (F-4E: APQ-120) by Correspondence

Course Number: 32152Q.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/83-Present.
Objectives: To provide training for maintenance of fire control systems including the APQ-120.
Instruction: Contents presented in this correspondence course include basic electronic circuits using semiconductors, along with theory and maintenance of radar equipment APQ-120.
Credit Recommendation: In the vocational certificate category, 1 semester hour in semiconductor circuits (11/86).

AF-1715-0054

Weapon Control Systems Mechanic (A-7D: AN/APQ-126) by Correspondence

Course Number: 32152S.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/78-Present.
Objectives: To provide training for maintenance of fire control systems including the AN/APQ-126.
Instruction: Materials are offered through a correspondence course including basic electronic circuitry along with specific maintenance instructions for the AN/APQ-126 radar system.
Credit Recommendation: In the vocational certificate category, 1 semester hour in transistor circuitry, and 1 in introduction to number systems and digital logic (11/86).

AF-1715-0055

Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence

Course Number: 32172.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 4/83-3/88.
Objectives: The student will be provided a review of digital logic principles and devices as required for upgrade training to Level 7 AFSC.
Instruction: This is a correspondence course providing a brief review of number systems, digital components and standard test equipment.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0056

Weapon Control Systems Technician (F-4C/D: APQ-109/APA-165) by Correspondence

Course Number: 32172P.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/83-Present.
Objectives: The student will be trained in the maintenance of radar sets APQ-109 and APA-165 as required for upgrade to Level 7 AFSC.
Instruction: This is a correspondence course with topics including specific information on operation and maintenance of radar sets APQ-109 and APA-165.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AF-1715-0057

Electronic Computer Repairman (DPC/465L)

Course Number: ABR30533-8.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 41 weeks (1140 hours).
Exhibit Dates: 1/65-8/68.
Objectives: To train enlisted personnel to be electronic computer systems repairmen.
Instruction: Lectures and practical exercises in electronic computer systems repair, including electronic and data processing principles, malfunction analysis, maintenance concepts, data processing central computer equipment maintenance, component malfunction isolation and repair. Instruction includes 465L computer system equipment, digital techniques, circuit logic, and aerospace ground equipment component malfunction isolation and repair.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0058

Electronic Computer Systems Repairman (FSQ-7/SAGE)
(Electronic Computer Repairman (SAGE AN/FSQ-7))
(Electric Digital Computer Repairman (SAGE AN/FSQ-7))

Course Number: 3ABR30534A-1; 3ABR30533A-1; ABR30533-1.
Location: School of Applied Aerospace Sciences, Keesler AFB, MS.; 3380th Technical School, Keesler AFB, MS.
Length: 32-47 weeks (960-1320 hours).
Exhibit Dates: 3/64-12/73.
Objectives: To provide airmen with the knowledge of computer logic, organization, and internal programming necessary to perform maintenance and repair on the SAGE FSQ-7 electronic computer.
Instruction: Lectures and practical exercises in SAGE FSQ-7 computer system fundamentals, including logic symbology and index, alphanumeric codes, registers, internal instructions and programs, instruction/command decoding, computer alarms and manual control, memories, cores and drums, digital display generators, output control and storage, peripheral input/output devices, and computer systems maintenance procedures. Additional instruction in electronic fundamentals for digital data processing equipment repairmen, including DC electrostatic principles through series-parallel circuits; AC principles through series-parallel resonant circuits; motors; saturable reactors; magnetic amplifiers; servos, synchros, and servo amplifiers; fundamentals of tubes and transistors; rectifiers; filters; time constants; power supplies; voltage regulators; soldering techniques; triodes; tetrodes; pentodes; transistors; special-purpose tubes; amplifiers and oscillators, including blocking oscillators, passive and active limiters, clampers, and amplifier circuits; synchroscope; transients; shock-excited Hartley, Astabel, oneshot, and bistabe multivibrators; thyratron, sawtooth, trapezoidal, and transistor sweep circuits; computer circuits and computing techniques; binary, ocatal, and binary excess-three codes; computer history; AN-OR gates, matrices, Boolean algebra, logic generators, and associated circuits; special-purpose amplifiers and gating circuits; counters, count detection, decoders, encoders, registers, conversion circuits, memory circuits and storage device principles; input/output devices; and coding principles.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer science (3/74).

AF-1715-0059

Electronic Computer Repairman (Display Equipment/412L)
(Electronic Digital Computer Repairman (Display Equipment/412L))

Course Number: ABR30533-5.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 15 weeks (450 hours).
Exhibit Dates: 3/64-12/68.
Objectives: To train enlisted personnel to inspect and maintain display equipment associated with 412L air weapons control system.
Instruction: Lectures and laboratories in electronic digital data computer principles, AWCS 412L familiarization, application and operation of test equipment, maintenance management, circuit analysis, and troubleshooting procedures.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours as an elective in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0060

Aircraft Control and Warning Radar Repairman (AN/FPS-18, AN/FST-1, AN-FSA-10, AN/FSW-1)

Course Number: AB30332-F.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 37 weeks (1020 hours).
Exhibit Dates: 3/58-12/68.
Objectives: To train enlisted personnel to operate, tune, align, inspect, and maintain aircraft control and warning radar equipment and associated quantizing and video combining equipment.
Instruction: Lectures and laboratories in DC and AC circuit analysis, magnetism, vacuum tube and solid-state devices, transmitter and receiver principles, equipment maintenance, and troubleshooting.
Credit Recommendation: In the upper-division baccalaureate category, 3 smeester hours in electricity and electronics (3/74).

AF-1715-0061

ELECTRONIC ANALOG DATA PROCESSING
EQUIPMENT REPAIRMAN

Course Number: ABR30532.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 35 weeks (960 hours).

Exhibit Dates: 9/59–12/68.

Objectives: To train enlisted personnel to operate, inspect, and maintain radar systems and related test equipment.

Instruction: Lectures and laboratories in AC and DC circuits, circuit analysis, electron tubes and power supplies, and troubleshooting procedures. Much of the course material is obsolete, dealing primarily with vacuum tubes and their applications; however, some credit should be given in the areas of basic circuits, laboratories, hand skills, circuit analysis, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics (3/74).

AF-1715-0062

AN/FYQ-45 AND AN/FYA-38
MAINTENANCE

Course Number: 2ASR30573-4.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 10 weeks (312 hours).

Exhibit Dates: 2/69–12/73.

Objectives: To train enlisted personnel to maintain operations control consoles and computer interface buffers used with the Air Force integrated command and control system.

Instruction: Lectures and practical exercises in introduction to computer programming, central processors, static and dynamic displays, input/output equipment, system maintenance, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as a technical elective in computer subjects (3/74).

AF-1715-0063

WEAPON CONTROL SYSTEMS TECHNICIAN
(F-4E: APQ-120) BY
CORRESPONDENCE

Course Number: 32172Q.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/86–Present.

Objectives: The student is provided a review of digital logic principles and devices as required for upgrade training to Level 7 AFSC.

Instruction: This is a correspondence course presenting brief review of number systems, digital components and standard test equipment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0064

1. AIRCRAFT CONTROL AND WARNING RADAR TECHNICIAN
2. AIRCRAFT CONTROL AND WARNING RADAR MAINTENANCE TECHNICIAN
3. AIRCRAFT CONTROL AND WARNING RADAR MAINTENANCE TECHNICIAN

Course Number: *Version 1:* AAR30372. *Version 2:* AAR30372. *Version 3:* AA30372.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 40 weeks (1200 hours). *Version 2:* 34 weeks (1020 hours). *Version 3:* 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 2/64–12/68. *Version 2:* 7/59–1/64. *Version 3:* 10/55–6/59.

Objectives: To provide enlisted personnel with elementary theory and test procedures to enable them to repair and maintain aircraft control and warning radar equipment.

Instruction: *All Versions:* Lectures and practical experience in aircraft control and warning radar manuals and facilities, power supply regulation and distribution, trigger generation, transmitters, oscillators and amplifiers at radar frequencies, microwave plumbing, antenna design and control, system alignment, anti-jamming devices, MTI receivers, interference elimination, PPI systems and alignment procedures, range-height indicator systems, countermeasure monitors and receivers, IFF systems. *Version 2:* Includes additional circuit analysis, transformer ratings and performance, power supplies, rectifiers, filters, regulators, vacuum tube characteristics, timing circuits, integrator and differentiator circuits, pulse-forming networks, r-f transmission lines, matching stubs, duplexers, servos and resolvers, radar test sets, synchroscopes, troubleshooting, shop manuals, supervision, planning, and alignment. *Version 3:* Includes additional laboratory-type testing, calibration and measurement procedures on radar transmitter and receiver apparatus, frequency, bandwidth, spectral distribution, noise levels, shop management and supervision.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68), 3 as an elective in electronics (3/74). *Version 2:* UP 3 semester hours in business organization and management (12/68), 3 as an elective in electronics (3/73). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68), 2 as an elective in electronics (3/74).

AF-1715-0065

1. AIRCRAFT RADIO REPAIRMAN
2. AIRCRAFT RADIO REPAIRMAN (COMMUNICATIONS)
3. AIRCRAFT RADIO REPAIRMAN (GENERAL)
4. AIRCRAFT RADIO REPAIRMAN (GENERAL)

Course Number: *Version 1:* 3ABR30130; ABR30130. *Version 2:* ABR30130B. *Version 3:* AB30130B. *Version 4:* AB30130B-2.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3380th Technical School, Keesler AFB, MS. *Version 3:* 3310th Technical School, Scott AFB, IL. *Version 4:* 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 29–30 weeks (840–870 hours). *Version 2:* 33 weeks (900 hours). *Version 3:* 26 weeks (780 hours). *Version 4:* 28 weeks (840 hours).

Exhibit Dates: *Version 1:* 8/59–12/73. *Version 2:* 8/58–7/59. *Version 3:* 2/56–7/58. *Version 4:* 8/55–1/56.

Objectives: To train enlisted personnel to operate, tune, align, maintain, and repair airborne communications equipment and related test equipment.

Instruction: *All Versions:* Lectures and practical experience in airborne communications equipment and related test equipment operation, maintenance, and repair, including power supplies operation principles and troubleshooting procedures; the frequency spectrum; resonance; magnetism principles; transformers and vacuum tubes operation; operation and maintenance of video and push-pull amplifiers, oscillators, AM modulators, superheterodyne receivers, and transmission lines and antennas; familiarization with volts, ohms, and milliammeters; use of oscilloscopes; and soldering techniques. Emphasis is on aircraft navigational equipment alignment, calibration, troubleshooting, and repair. *Version 1:* Instruction includes principles of solid-state devices, FM modulation, discriminators, and signal sideband. *Version 3:* Instruction includes minimal theoretical material and emphasizes aircraft radio system maintenance, troubleshooting, and repair. *Version 4:* Instruction includes principles of FM modulation, discriminators, pulse modulation, and principles of motors.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0066

AIRCRAFT RADIO REPAIRMAN (COMMAND)

Course Number: AB30130A-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 25 weeks (750 hours).

Exhibit Dates: 8/55–12/68.

Objectives: To train enlisted personnel to operate, tune, align, maintain, and repair airborne command communications equipment and related test equipment.

Instruction: Lectures and practical experience in principles of electricity and magnetism; alternating current; vacuum tubes, power supplies, and voltage regulators; amplifiers and oscillators; modulation, detection, and receiver kit construction; special circuits; transmission, generation, and propagation of microwave and high-frequency energy and synchros; and practical applications of electricity fundamentals to communications equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hours in electrical laboratory (3/74).

AF-1715-0067

1. AIRCRAFT RADIO MAINTENANCE TECHNICIAN
2. AIRCRAFT RADIO MAINTENANCE TECHNICIAN
3. AIRBORNE RADIO MAINTENANCE TECHNICIAN

Course Number: *Version 1:* AAR30170. *Version 2:* AA30170X. *Version 3:* AA30170.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3380th Technical School, Keesler AFB, MS. *Version 3:* 3310th Technical School, Scott AFB, IL.

Length: *Version 1:* 33–39 weeks (990–1170 hours). *Version 2:* 19–23 weeks (570–690 hours). *Version 3:* 19–23 weeks (570–690 hours).

Exhibit Dates: *Version 1:* 8/59–12/68. *Version 2:* 1/54–7/59. *Version 3:* 1/54–7/59.

Objectives: To provide technicians with advanced training in aircraft communications equipment circuit theory, maintenance principles, and procedures.

Instruction: *All Versions:* Lectures and practical experience in aircraft communications equipment circuit theory, maintenance principles, and procedures. *Version 1:* Includes review of algebra, Boolean algebra, trigonometry, and logarithms; review of AC and DC circuits, including magnetic circuits, transformers, motors, and servo systems; vacuum tube and semiconductor theory and application to power supplies, regulators, amplifiers, limiting and peaking circuits, multivibrators and basic logic circuits; DC, audio, video, RF, and IF amplifiers analysis; wave-guide properties; transmission lines and antennas familiarization; klystron and magnetron operation principles; and AM, FM, and SSB systems operation principles. *Version 2:* Instruction emphasizes maintenance, troubleshooting, and repair of specific transmitters and receiving equipment, and includes functional system operation and test equipment use. *Version 3:* Instruction emphasizes maintenance, troubleshooting, and repair of specific transmitters and receiving equipment, and includes functional system operation and test equipment use.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 3 in maintenance management, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74). *Version 2:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0068

Avionic Sensor Systems Specialist
(Reconnaissance Electronic
Sensors) by Correspondence

Course Number: 32252A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–Present.

Objectives: Upon completion of the course, the student will be provided the training required to upgrade enlisted personnel from the apprentice level to the specialist level in avionic sensor systems specializing in reconnaissance electronic sensors.

Instruction: Correspondence materials for this course include shop practices and test equipment, electronics principles, IR sensors and radar sensors.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics principles, 1 in radar principles (11/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital principles (11/86).

AF-1715-0069

Aircraft Radio Repairman
(Navigational)
(Aircraft Radio Repairman)

Course Number: ABR30130C; AB30130C; AB30130-1.

Location: 3380th Technical School, Keesler AFB, MS.; 3310th Technical School, Scott AFB, IL.

Length: 29–33 weeks (840–969 hours).

Exhibit Dates: 12/54–12/68.

Objectives: To train enlisted personnel to test, troubleshoot, and maintain airborne navigational equipment.

Instruction: *All Versions:* Lectures and practical experience in navigational equipment maintenance, testing, and troubleshooting, including schematic diagrams familiarization, AC nomenclature; series and parallel DC circuits and motors; principles of magnetism, resonance, and time constants; transformers and vacuum tubes; power supplies operation and troubleshooting; audio and video amplifiers; oscillators; AM and FM modulation; superheterodyne receivers and wave-shaping circuits; familiarization with volts, ohms, and milliammeters; and soldering techniques. Emphasis is on alignment, calibration, and repair of aircraft navigational equipment.After 1958, the instruction included familiarization with semiconductor devices.From 1955 until 1958, the instruction emphasized aircraft navigational equipment alignment, calibration, and repair, with little time devoted to basic theoretical material.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electronics laboratory on the basis of institutional evaluation (3/74).

AF-1715-0070

Avionic Sensor Systems Specialist
(Tactical/Real Time Display
Electronic Sensors) by
Correspondence

Course Number: 32252B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/83–Present.

Objectives: The student will be provided the training required to upgrade enlisted personnel from the apprentice level to the specialist level in avionics sensor systems specializing in display electronic sensors.

Instruction: Course provides correspondence materials covering shop practices and test equipment, basic electricity and electronics and a number of specific military display systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity and electronics (11/86).

AF-1715-0071

Avionic Sensor Systems Specialist
(Electro-Optical Sensors) by
Correspondence

Course Number: 32252C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–Present.

Objectives: The student will be provided the training required to upgrade enlisted personnel from the apprentice level to the specialist level in avionics sensor systems specializing in electro-optical sensors.

Instruction: Course is presented through correspondence materials including shop practices and test equipment, electronics and the maintenance of specific military electro-optical systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics and troubleshooting (11/86).

AF-1715-0072

AN/MRC-107A, I/O Maintenance

Course Number: 3AZR30454-8.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 6 weeks (224 hours).

Exhibit Dates: 4/73–12/73.

Objectives: To train enlisted personnel with basic electronics backgrounds to operate, maintain, and inspect the AN/MRC-107 radio transceiver.

Instruction: Lectures and practical demonstrations in AN/MRC-107 radio transceiver operation, inspection, and maintenance, including schematic diagram use in explaining circuit operation, problem theorizing, and troubleshooting methods; balanced modulator, frequency divider, power amplifier control, and sidetone circuits operation; measurement of frequency stability, frequency response, distortion, and noise level; and use of signal generator, RF wattmeters, oscilloscopes, audio oscillator, output power meter, multimeter, frequency counter, frequency meter, wide band amplifier, VHF signal generator, sweep frequency generator, dummy load, RF simulator, and spectrum analyzer. Instruction includes semiconductor theory and techniques, and use of latest equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics for non-engineering majors (3/74).

AF-1715-0073

Precision Measuring Equipment
Specialist by Correspondence

Course Number: 32450.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/83–Present.

Objectives: Training is provided to upgrade enlisted personnel from the apprentice level to the specialist level in precision measurement equipment.

Instruction: These correspondence materials includes specific military equipment used for voltage and power measurement, waveform analysis, microwave measurements and time domain data and standards.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0074

Precision Measuring Equipment
Technician by Correspondence

Course Number: 32470.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from the specialist level to technician level in precision measuring equipment.

Instruction: These correspondence materials include survey treatment of typical precision laboratory equipment. Brief descriptions of the theory of operation of equipment for dimensional measurements, electrical measurements and nuclear radiation measurements are included.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0075

Automatic Flight Control Systems
Specialist by Correspondence

Course Number: 32550.

Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 11/84–6/90.
Objectives: To provide the training required to upgrade enlisted personnel from apprentice level to specialist level in automatic flight control systems.
Instruction: These correspondence materials include a survey of basic electrical and electronic theory and more in-depth treatments of specific aircraft flight control systems including those for the B52 G/H and the C141.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electrical theory (11/86).

AF-1715-0076

Avionics Aerospace Ground Equipment Specialist by Correspondence

Course Number: 32650.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/74–Present.
Objectives: The student will be knowledgeable in the basics of semiconductor theory, amplifiers and computer systems as well as test stations and avionics.
Instruction: This course consists of correspondence study, with on-the-job supervision, and proctored testing. Topics include transistor theory, amplifiers, computer systems and maintenance.
Credit Recommendation: In the vocational certificate category, 2 semester hours in semiconductor circuits, and 1 in digital fundamentals (11/86).

AF-1715-0077

Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence

Course Number: 32650C.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/84–Present.
Objectives: The student will be knowledgeable in the basics of amplifiers, logic devices, computers and avionics maintenance.
Instruction: Materials are presented through correspondence study with on-the-job supervision and proctored testing. Topics includes transistor amplifiers, logic devices, computers and maintenance.
Credit Recommendation: In the vocational certificate category, 1 semester hour in transistor amplifiers, and 1 in computers (11/86).

AF-1715-0078

A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence

Course Number: 32650D.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/85–Present.
Objectives: To provide the basics of semiconductors, digital circuits, and test equipment.
Instruction: This a correspondence course with on-the-job supervision and proctored testing. Topics includes semiconductor devices, digital logic, Boolean algebra, sequential and combination logic and test equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in digital circuits (11/86).

AF-1715-0079

Radio Relay Equipment Repairman (FPTS)
(Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A))
(Ground Communications Equipment Repairman (Heavy)(FPTS))

Course Number: AZR30450; AZR30453-1.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 4–7 weeks (120–210 hours).
Exhibit Dates: 9/60–12/68.
Objectives: To train radio equipment repairmen to operate, maintain, and repair forward propagation tropospheric scatter equipment.
Instruction: Lectures and practical exercises in forward propagation tropospheric scatter equipment operation, alignment, adjustment, maintenance, performance checks, and troubleshooting via meter readings, wave shapes and block, wiring, and schematic diagrams; telephone, telegraph, and auxiliary terminal equipment operation; scatter communications concepts and techniques; and radio system transmitter exciter, power amplifier, power supply, and receiver circuits operation, maintenance, and repair.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics laboratory (3/74).

AF-1715-0080

Avionics Instrument Systems Specialist by Correspondence

Course Number: 32551.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 3/85–6/90.
Objectives: To provide the training required to upgrade enlisted personnel from apprentice level to specialist level in avionic instrument systems.
Instruction: Correspondence materials include a survey of basic electrical and electronic theory and the theory of operation of typical flight instruments. Specific flight instruments are used as examples and to illustrate the theory.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity (11/86).

AF-1715-0081

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence

Course Number: 32653A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 12/84–Present.
Objectives: The student will be knowledgeable in the basics of electronic principles and electronic countermeasure principles as well as ECM systems and ECM test equipment for F-111 aircraft.
Instruction: This is a correspondence course with on-the-job supervision and proctored testing. Topics include solid state regulators, basic logic principles, digital integrated circuits, digital troubleshooting techniques, receiver fundamentals, ECM principles. F-111 ECM systems and test equipment are also coverd.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital fundamentals (11/86).

AF-1715-0082

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence

Course Number: 32653B.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 3/84–Present.
Objectives: To provide the basics of solid state technology and introduction to the TEWS intermediate test station and maintenance management.
Instruction: This is a correspondence course with on-the-job supervision and proctored testing. Topics include basic semiconductor theory, basic logic principles, digital integrated circuits and TEWS test station control and management.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital fundamentals (11/86).

AF-1715-0083

Integrated Avionics Manual Test Station and Component Specialist by Correspondence

Course Number: 32655.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/84–11/88.
Objectives: To provide the basics of digital circuits.
Instruction: Materials are presented as a correspondence course with on-the-job supervision and proctored testing. Topics include basic digital circuits and troubleshooting techniques.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital circuit fundamentals (11/86).

AF-1715-0084

Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence

Course Number: 32654C.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/84–6/89.
Objectives: To provide the basics of digital computers as well as automatic test equipment and communications systems for for the F-16.
Instruction: This is correspondence study with on-the-job supervision and proctored testing. Topics include basic digital circuits, troubleshooting techniques, automatic test equipment and communications systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital circuit fundamentals (11/86).

AF-1715-0085

Radio Relay Equipment Repairman (Microwave and Associated Relay Center Equipment)
(Radio Relay Equipment Repairman (Microwave))

Course Number: ABR30430A.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 32-36 weeks (870-990 hours).
Exhibit Dates: 8/58-12/68.
Objectives: To train enlisted personnel to install, test, maintain, and repair microwave, multiplexing, and radio relay equipment.
Instruction: Lectures and practical exercises in trigonometry, DC and AC circuit analysis, electronic fundamentals, power supplies, amplifiers, oscillators, microwave propagation, multiplexing and microwave radio relay equipment, motor and servo mechanisms. Motor and servo mechanisms; semiconductor devices and circuits are also covered.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0086

Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence

Course Number: 32654B.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 12/84-Present.
Objectives: To provide the basics of digital computer foundamentals as well as test station computers and automatic test equipment for the F-15.
Instruction: Materials are presented through correspondence study with on-the-job supervision and proctored testing. Topics include digital fundamentals, troubleshooting and automatic test equipment and test stations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital fundamentals (11/86).

AF-1715-0087

Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence

Course Number: 32654A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 1/83-Present.
Objectives: To provide the basics of digital computers as well as automatic test equipment and test stations for the F-111.
Instruction: Course is offered as correspondence study with on-the-job supervision and proctored testing. Topics include fundamentals of digital computers and circuits, troubleshooting techniques and automatic test equipment and test stations.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer fundamentals (11/86).

AF-1715-0088

Ground Radio Communications Equipment Technician

Course Number: AAR30474.
Location: 3380th Technical School, Keesler AFB, MS.
Length: 39 weeks (1170 hours).
Exhibit Dates: 12/63-12/68.
Objectives: To train enlisted personnel to install, maintain, and repair communications equipment.
Instruction: Lectures and laboratories in applied mathematics; AC and DC circuits; vacuum tubes and solid-state devices; power supplies; oscillators; digital data processing; and analysis, maintenance, and repair of various functional electrical circuits.
Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics (3/74), 2 in shop management (12/68), and additional credit in electrical and radio laboratory on the basis of institutional evaluation (3/74).

AF-1715-0090

Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence

Course Number: 32656A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/84-Present.
Objectives: The basics of the F-111 radar and navigation systems are provided.
Instruction: This is presented through correspondence study with on-the-job supervision and proctored testing. Topics include F-111 familiarization, display systems, radar and navigation systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AF-1715-0091

Integrated Avionics Attack Control Systems Specialist by Correspondence

Course Number: 32656.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/85-Present.
Objectives: An overview of electronics, computer systems and communications is provided.
Instruction: This is a correspondence course with on-the-job supervision and proctored testing. Topics includes basic tools and wiring, solid state, integrated circuits, logic gates, computer systems, communications and maintenance management.
Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical tools and wiring, 2 in computer fundamentals and systems (11/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications (11/86).

AF-1715-0092

Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence

Course Number: 32655B.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 1/84-Present.
Objectives: The student will be knowledgeable in the basic test equipment, airborne navigational systems and test stations.
Instruction: This is a correspondence course with on-the-job supervision and proctored testing. Equipment covered includes circuit, voltage and resistance measurements, waveform analysis and UHF communications testing.
Credit Recommendation: In the vocational certificate category, 3 semester hours in test equipment and measurements (11/86).

AF-1715-0093

Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence

Course Number: 32655A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 5/84-Present.
Objectives: The student will become knowledgeable in the basic test equipment, airborne navigational systems and test stations.
Instruction: This is a correspondence course with on-the-job supervision and proctored testing. Equipment covered includes current, voltage and resistance measurements, waveform analysis and UHF communications testing.
Credit Recommendation: In the vocational certificate category, 3 semester hours in test equipment and measurements (11/86).

AF-1715-0094

Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence

Course Number: 32657A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 2/85-Present.
Objectives: Training is provided to upgrade to specialist level in integrated avionics instrument and flight controls for F/FB/EF-111 aircraft.
Instruction: Course consists of correspondence materials including aircraft familiarization and aircraft (F/FB/EF-111) instruments and flight controls.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0095

Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence

Course Number: 32657.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/83-Present.
Objectives: The required training is provided to upgrade enlisted personnel from apprentice to specialist level in integrated instrument and flight controls (also requires 32657A, 32657B, or 32657C).
Instruction: Correspondence materials including aircraft maintenance management and survey materials in digital and computer fundamentals and common laboratory hand tools are presented.
Credit Recommendation: In the vocational certificate category, 1 semester hour in tool

usage, 2 in digital and computer fundamentals (11/86).

AF-1715-0096

Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence

Course Number: 32656C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/85–Present.

Objectives: The basics of the F-16 navigation and fire control systems are provided.

Instruction: Curriculum materials for this correspondence course offer on-the-job supervision and proctored testing. Topics include F-16 familiarization, display systems, airborne video systems and fire control systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AF-1715-0097

Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence

Course Number: 32656B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/84–Present.

Objectives: The basics of the F-15 radar and navigation systems are provided. This is correspondence study with on-the-job supervision

Instruction: and proctored testing. Topics include F-15 familiarization, display and control system, radar and test systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/86).

AF-1715-0098

Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence

Course Number: 32657B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice level to specialist level in integrated avionic instrument and flight controls for F-15 aircraft.

Instruction: Correspondence materials including fundamentals of F-15 aircraft maintenance and F-15 instruments and flight control systems comprise this course.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0099

Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence

Course Number: 32657C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice level to specialist level in integrated avionics instruments and flight control systems for F-16 aircraft.

Instruction: The correspondence materials for this course include basic F-16 aircraft maintenance and F-16 instruments and flight control system maintenance.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0100

Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence

Course Number: 32658.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/85–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice level to specialist level in integrated avionics communications, navigation and penetration aids systems (also requires 32658A, 32658B, or 32658C).

Instruction: Correspondence materials include aircraft maintenance management and survey materials in hand tool usage and digital and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in tool usage, and 2 in digital and computer fundamentals (11/86).

AF-1715-0101

Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence

Course Number: 32658A.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice level to specialist level in integrated avionics communication, navigation and penetration aids systems for F/FB-111 aircraft.

Instruction: Offered are correspondence materials including F/FB-111 aircraft familiarization and F/FB-111 communication, navigation and penetration aids system maintenance.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0102

Automatic Teletype and Electronic Switching Systems Repairman

(Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype))

Course Number: ABR362322; ABR30630A.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 35–36 weeks (960-990 hours).

Exhibit Dates: 9/60–12/68.

Objectives: To train enlisted personnel to perform corrective and preventive maintenance and repair on automatic teletype and electronic switching systems and equipment.

Instruction: Lectures and practical exercises in principles of electricity, including AC and DC circuits, motors, and rectifiers; vacuum tube circuits; amplifiers; basic pulse techniques; teletype system principles; and central office switching techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0103

Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6)

(Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF))

Course Number: ABR30332-2; AB30332C-1; AB30332C.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 29–35 weeks (840–960 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train enlisted personnel in the operation, tuning, alignment, inspection, organizational maintenance, and repair of aircraft control and warning radar equipment.

Instruction: Lectures and practical exercises in aircraft control and warning radar equipment operation, inspection, maintenance, and repair, including AC and DC circuit theory, electron tubes and power supplies; amplifiers and oscillators; transistors; special circuits, including clippers, clampers, and multivibrators; radar microwave propagation; and special radar circuits and units.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0104

Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF)

Course Number: AB30332A.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 28 weeks (840 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train enlisted personnel in aircraft control and warning radar system operation, tuning, alignment, and organizational maintenance.

Instruction: Lectures and practical exercises in aircraft control and warning radar system operation, tuning, alignment, and organizational maintenance, including AC and DC circuit theory; electron tubes and power supplies; amplifiers and oscillators; transistors; special circuits, including clippers, clampers, and multivibrators; radar microwave propagation; and special radar circuits and units.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics (3/74).

AF-1715-0105

Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4)

Course Number: ABR30332-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 30 weeks (840 hours).

Exhibit Dates: 5/59–12/68.

Objectives: To train enlisted personnel in the operation, tuning, alignment, inspection, organizational maintenance, and repair of aircraft control and warning radar equipment.

Instruction: Lectures and practical exercises in radar equipment operation, inspection, maintenance, and repair, including AC and DC circuit theory; electron tubes and power supplies; amplifiers and oscillators; transistors; special circuits, including clippers, clampers, and multivibrators; radar microwave propagation; and special radar circuits and units.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0106

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence

Course Number: 32658B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice level to specialist level in integrated avionics communications, navigation, and penetration aids systems for F-15 aircraft.

Instruction: This program comprises correspondence materials including F-15 aircraft familiarization and F-15 communication, navigation and penetration aids system maintenance.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0107

Radio Relay Equipment Repairman (Relay Center Equipment)

Course Number: ABR30430D.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 28 weeks (750 hours).

Exhibit Dates: 8/58–12/68.

Objectives: To train enlisted personnel at the apprentice level to install, maintain, and repair relay center equipment.

Instruction: Lectures and laboratories in basic DC and AC circuit theory, including Ohm's and Kirchoff's laws, RC and RL transients, and resonant circuits; power supplies; amplifiers; oscillators; special circuits; and special ground communications equipment.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0108

Ballistic Missile Checkout Equipment Specialist, WS-133B

Course Number: ABR31235G-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 44 weeks (1230 hours).

Exhibit Dates: 4/65–12/68.

Objectives: To train enlisted personnel to maintain and repair ballistic missile test equipment.

Instruction: Lectures and laboratories in DC and AC circuits, vacuum tubes and transistors, and computer theory and technology.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0109

Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)

Course Number: ABR30531-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 37 weeks (1020 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train enlisted personnel to maintain and repair electronic digital data processing equipment.

Instruction: Lectures and laboratories in DC and AC circuits; vacuum tubes and solid-state devices; electronic circuits, motors, and servos; pulse and timing circuits; Boolean algebra and logic gates; and computer circuits.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics, 2 in digital electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0110

Electronic Digital Data Processing Repairman (Data Processing Equipment/412L)

Course Number: *Version 1:* 3AZR30551-2. *Version 2:* ABR30531-5.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 20 weeks (588 hours). *Version 2:* 42–43 weeks (1170–1200 hours).

Exhibit Dates: *Version 1:* 8/68–12/73. *Version 2:* 7/63–7/68.

Objectives: To train enlisted personnel to inspect and maintain data processing equipment associated with 412L air weapons systems.

Instruction: Lectures and laboratories in DC and AC circuits; vacuum tubes and solid-state devices; electronic circuits, motors, and servos; pulse and timing circuits; Boolean algebra and logic gates; and computer circuits.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electronics, 2 in digital systems, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74).

AF-1715-0111

Aircraft Control and Warning Radar Repairman, AN/FST-2

Course Number: ABR30332G; AB30332G.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 37–39 weeks (1020–1080 hours).

Exhibit Dates: 3/58–12/68.

Objectives: To train enlisted personnel to install, check out, and maintain aircraft control and warning radar equipment.

Instruction: Lectures and laboratories in AC and DC circuits, electronic circuit fundamentals, basic digital computer theory and circuits, microwave techniques, and measurements.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics (3/74).

AF-1715-0112

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence

Course Number: 32658C.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/84–Present.

Objectives: Training is provided to upgrade enlisted personnel from apprentice to specialist level in integrated avionics communications, navigation and penetration aid systems for F-16 aircraft.

Instruction: Correspondence materials including F-16 aircraft familiarization and maintenance of F-15 communication, navigation and penetration aids system maintenance are offered in this course.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0113

Integrated Avionics Attack Control Systems Technician by Correspondence

Course Number: 32676.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/83–7/88.

Objectives: Specialty knowledge for upgrade training is provided.

Instruction: This correspondence course includes a review of DC/AC circuits, digital techniques and computer systems basics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in DC/AC circuits (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in basics of digital computer systems (11/86).

AF-1715-0114

Integrated Avionic Instrument and Flight Control Systems Technican by Correspondence

Course Number: 32677.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–7/88.

Objectives: Specialty knowledge is provided for upgrade training.

Instruction: This is a correspondence course which presents a review of DC/AC circuits, digital techniques and computer systems basics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in DC/AC circuits (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in basics of digital computer systems (11/86).

AF-1715-0115

Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6)

Course Number: AB30332C-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 39 weeks (1080 hours).

Exhibit Dates: 3/58–12/68.

Objectives: To train airmen to operate, tune, align, inspect, maintain, and repair AN/FPS-20 and AN/FPS-6 aircraft control and warning radar equipment.

Instruction: Lectures and practical experience in aircraft control and warning radar equipment operation, tuning, alignment, inspection, maintenance, and repair, including AC and DC circuit theory, electron tubes and power supplies, amplifiers and oscillators, transistors, radar microwave propagation, special circuits and units, and clippers, clampers, and multivibrators.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74).

AF-1715-0116

Communications/Navigations Technician by Correspondence

Course Number: 32870.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–Present.

Objectives: To present avionics supervision and management concepts and fundamentals for upgrading technical personnel into supervisory positions.

Instruction: The course presents avionics supervision and management, inspections, and maintenance systems. Also presented are specific Air Force publications and Air Force supply procedures including maintenance management.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (11/86).

AF-1715-0117

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence

Course Number: 32678.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/83–7/88.

Objectives: The student will have specialty knowledge for upgrade training.

Instruction: This is a correspondence course including a review of DC/AC circuits, digital techniques and computer system basics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in DC/AC circuits (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in basics of digital computer systems (11/86).

AF-1715-0118

Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D)

(Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D and IFF))

Course Number: ABR303321-1; AB30332B.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 28–34 weeks (810–930 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair aircraft control and warning radar equipment.

Instruction: Lectures and laboratories in development and application of electronic principles, circuit theory, circuit testing, shop practices, performance logs, maintenance records, and system maintenance. Credit should be granted for circuit theory and analysis courses only.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

AF-1715-0119

Digital Subscriber Terminal Maintenance

Course Number: 3ALR30630F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 19 weeks (570 hours).

Exhibit Dates: 10/70–12/73.

Objectives: To train enlisted personnel to maintain electronic communications and cryptographic systems equipment.

Instruction: Lectures and practical exercises in logic circuits, operational analysis, troubleshooting, repair, and adjustment of digital subscriber terminal equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computers or data processing equipment (3/74).

AF-1715-0120

Avionic Communications Specialist by Correspondence

Course Number: 32850.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/85–6/89.

Objectives: The student will have specialty knowledge in upgrade training.

Instruction: This is a correspondence course which includes a review of tube and solid state circuits, digital principles and computer system basics.

Credit Recommendation: In the vocational certificate category, 1 semester hour in DC/AC circuits (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in basics of digital computer systems (11/86).

AF-1715-0121

Ground ECM Specialist

Course Number: ABR30330; AB30330.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 29–33 weeks (840–900 hours).

Exhibit Dates: 6/56–12/68.

Objectives: To train enlisted personnel to operate and maintain ground electronic countermeasures receivers, panoramic adaptors, pulse analyzers, direction finders, cameras, recorders, and associated test equipment.

Instruction: Lectures and laboratories in development and application of electronic principles, circuit theory, circuit testing, shop practices, performance logs and maintenance records, simulated ground ECM operations, and electronic analysis of intercepted signals.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0122

Airborne Command Post Communications Equipment Specialist by Correspondence

Course Number: 32855.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/85–Present.

Objectives: The student will be able to provide specialty knowledge for upgrade training.

Instruction: This is a correspondence course which offers a review of tube and solid state circuitry, number system, digital logic and maintenance techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic circuits (11/86).

AF-1715-0123

Airborne Warning and Control Radar Specialist by Correspondence

Course Number: 32852.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/85–Present.

Objectives: The student will be able to provide training to upgrade enlisted personnel from apprentice level to specialist level in Airborne Warning and Control Radar.

Instruction: The course provides correspondence materials to include maintenance supervision, hand tools and general test equipment operation along with survey of digital and computer fundamentals and radar principles. Also included are maintenance training in typical airborne radar equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in tool usage and general test equipment operation (11/86); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital and computer fundamentals, and 1 in radar principles (11/86).

AF-1715-0125

Cable and Antenna Systems Installation/Maintenance Specialist by Correspondence

Course Number: 36150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 2/83–9/88.

Objectives: The student will be trained as a cable and antenna systems installation/maintenance specialist.

Instruction: This correspondence course provides instruction in cable and antenna systems installation and maintenance. The course includes wire maintenance techniques, cable systems installation and maintenance, advanced antenna systems installation and maintenance, and antenna systems testing equipment.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in communication systems (cable systems) (11/86).

AF-1715-0126

Cable Splicing Installation and Maintenance Specialist by Correspondence

Course Number: 36151.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/85–Present.

Objectives: Personnel is trained as cable splicing installation and maintenance specialists.

Instruction: This correspondence course provides instruction in cable splicing installation and maintenance. The course includes cable system fundamentals, cable splicing and sealing, cable systems maintenance, splice case installation and cable maintenance and hardened intersite cable system's pressure systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in communication systems (cable installation/maintenance) (11/86).

AF-1715-0127

Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence

Course Number: 36251.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/85–Present.

Objectives: Personnel is trained as telephone central office switching equipment specialists (electronic/electromechanical).

Instruction: This correspondence course provides instruction in the electronic/electromechanical telephone central office switching equipment. The course includes electronic principles, telephone fundamentals and manual telephone systems, specific telephone systems, and fundamentals of digital techniques to include digital logic and Boolean algebra, clock/pulse generators, sequential logic, combination logic and converters, and computers, peripherals and storage devices.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communication systems (electromechanical telephone systems) (11/86); in the lower-division baccalaureate/associate degree category, 3 semester hours in the fundamentals of digital techniques (11/86).

AF-1715-0129

Weapons Fusing System Specialist

Course Number: ABR33130.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 43 weeks (1200 hours). *Version 2:* 41 weeks (1080 hours).

Exhibit Dates: *Version 1:* 3/60–12/68. *Version 2:* 3/59–2/60.

Objectives: To train enlisted personnel to perform as nuclear weapons fusing specialists.

Instruction: *All Versions:* Lectures and practical exercises in electronics fundamentals, including DC circuits, motors, and generators; series circuits, parallel circuits, and series-parallel combinations; magnetism; induction, inductive reactance, and capacitive reactance; vacuum tubes; diode, triode, tetrode, and pentode; various amplifier systems; oscillators; synchros and servomechanisms; bridge circuits, RLC combination circuits, counting and heterodyning circuits; and mathematics fundamentals. *Version 1:* Instruction includes transmission lines, microwave oscillators, transistor amplifiers and oscillators, FM principles, and semiconductor fundamentals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0130

Missile Control Communications Systems Repairman by Correspondence

Course Number: 3625B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/76–Present.

Objectives: Personnel is trained as missile control communications systems repairman.

Instruction: This correspondence course provides instruction in missile control communications systems. The course includes electrical fundamentals, basic electronic circuits, fundumentals of missile control communications systems, specific missile communications systems, and maintenance, inspection, and testing management of missile control systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communication systems (11/86).

AF-1715-0131

Telephone Equipment Installation and Repair Specialist by Correspondence

Course Number: 36254.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/81–Present.

Objectives: The student will be trained as a telephone equipment installation and repair specialist.

Instruction: This correspondence course provides instruction in telephone equipment installation and repair. The course includes basic electricity, electronic circuits, telephone construction and repair, substation installation, and key telephone systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communication systems (11/86).

AF-1715-0132

Communications and Relay Center Equipment Repairman, Electromechanical

Course Number: *Version 1:* 3ABR36330. *Version 2:* 3ABR36330; ABR36330.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 31–33 weeks (930–990 hours). *Version 2:* 33–34 weeks (930 hours).

Exhibit Dates: *Version 1:* 5/71–12/73. *Version 2:* 6/66–4/71.

Objectives: To train enlisted personnel in communication and information relay center teletype unit troubleshooting, maintenance, and repair.

Instruction: *All Versions:* Lectures and practical experience in teletype unit troubleshooting, maintenance, and repair, including AC and DC circuit fundamentals, series-parallel and RLC circuits, and voltage regulators. *Version 1:* Instruction includes solid-state physics and devices, rectifiers and filters, principles of amplification, power amplifiers, oscillators and multivibrators, number systems, truth tables, Boolean equations, counters and resistors, and AC and DC motors and generators. *Version 2:* Instruction includes solid-state physics and devices, rectifiers and filters, principles of amplification, power amplifiers, oscillators and multivibrators, number systems, truth tables, Boolean equations, counters and resistors, and AC and DC motors and generators.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics(3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0133

Guided Missile Operations Officer (TM-76A)

Course Number: OBR1821-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 20 weeks (600 hours).

Exhibit Dates: 12/60–12/68.

Objectives: To train officers in guided missile operations.

Instruction: Lectures on air armament management; TM-76A weapons, propulsion, and flight control systems; missile preflight test pack; launch area operations; nuclear weapons orientation; principles of electronics; AC and DC fundamentals; and electronic power supplies.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0134

Maintenance Systems Analysis Specialists by Correspondence

Course Number: 39150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86–Present.

Objectives: The systems analyst is instructed in fundamentals of statistics and decision making. Course offers a discussion of procedure regarding security.

Instruction: safety, fundamentals of maintenance management, written and oral presentation, basic statistical mathematics, distribution, variability, probability, statistical decision processes coefficient of correlation, data automation and retrieval systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary statistics (11/86).

AF-1715-0135

Maintenance Scheduling Specialists by Correspondence

Course Number: 39250.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/84–Present.

Objectives: Personnel is trained as maintenance scheduling specialists.

Instruction: This correspondence course provides instruction in maintenance scheduling and management including scheduling fundamentals, production control, records processing, maintenance documentation, multiple parts tracking, and operational and daily planning.

Credit Recommendation: In the vocational certificate category, 2 semester hours in management (11/86).

AF-1715-0136

Precision Imagery and Audiovisual Media Maintenance Specialist by Correspondence

Course Number: 40450.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/85–Present.

Objectives: To provide training in precision imagery and audiovisual media maintenance.

Instruction: This correspondence course provides instruction in precision imagery and audiovisual media maintenance. The course include electronics fundamentals, advanced electronics and test equipment, maintenance of photographic equipment, maintenance of processors, quality control equipment, and relocatable laboratories, audiovisual production systems, and the fundamentals of digital techniques to include digital logic of Boolean algebra, clock/pulse generators, and sequential logic. It also include semiconductors and devices, and waveform measurement using an oscilloscope.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in the fundamentals of digital techniques, 2 in basic electricity/electronics, and 3 in photography (11/86).

AF-1715-0137

MISSILE GUIDANCE AND CONTROL SPECIALIST (LGM-25)

Course Number: 3ABR31631F; ABR31631F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 29 weeks (840 hours).

Exhibit Dates: 11/66–8/71.

Objectives: To train enlisted personnel to perform as missile guidance and control specialists.

Instruction: Lectures and practical exercises in AC and DC circuits fundamentals; solid-state devices, including transistors, amplifiers, and power supplies; vacuum tubes, including amplifier principles, voltage regulators, tools, and soldering techniques; signal generation, timing, and control; logic symbols, circuits, and applications; and digital techniques and computer hardware.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

AF-1715-0138

DEFENSIVE SYSTEMS TRAINER SPECIALIST, AN/GPQ-T6

Course Number: 3ABR34231A; ABR34231A.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 42–46 weeks (1110–1200 hours).

Exhibit Dates: 11/66–12/73.

Objectives: To provide enlisted personnel with training in basic electronics.

Instruction: Lectures and laboratory in AC and DC circuits, solid-state devices, vacuum tubes, oscillators, transmitter and receiver fundamentals, microwave principles, and electrical motors and servomechanisms.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0139

AEROSPACE PHOTOGRAPHIC SYSTEMS SPECIALIST BY CORRESPONDENCE

Course Number: 40451.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/84–Present.

Objectives: The student will be to train personnel as aerospace photographic systems specialists.

Instruction: This correspondence course provides instruction in aerospace photographic systems. The course includes electronic fundamentals, advanced electronics and test equipment, photographic principles, aerospace photographic systems repair, airborne video systems and related equipment, and the fundamentals of digital techniques to include digital logic and Boolean algebra, clocks/pulse generators, and sequential logic. It also include corrosion control, semiconductor and devices, and warfare measurement using an oscilloscope.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in the fundamentals of digital techniques, 2 in basic electricity/electronics, and 3 in photography (11/86).

AF-1715-0149

WEAPONS FUSING SYSTEMS SPECIALIST (ELECTRONIC)

Course Number: AB33130-A; AB33130-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26–30 weeks (750–810 hours).

Exhibit Dates: 11/55–12/68.

Objectives: To train enlisted personnel to inspect, assemble, test, maintain, and repair nuclear weapons fusing systems, components, and related test equipment.

Instruction: Lectures in applied mathematics, including monomials, binomials, linear equations, power-of-ten notation, addition, subtraction, and multiplication of fractions, and use of slide rule; electricity fundamentals, including resistors, AC, DC, and bridge circuits; series, parallel, and series-parallel combination circuits; series-parallel RLC circuits, resonance, and Q factor; AC circuits fundamentals, including frequency, amplitude, and phase; DC motors and generators; inductive and capacitive reactance; magnetism; color code; volt-ohm-ampere meters; transformer fundamentals; maximum power transfer; vacuum tube devices; diodes, triodes, tetrodes, and pentodes; rectifiers and filters; basic concepts of tube amplification; gas-filled tubes and voltage regulators; oscillators and blocking circuits; amplitude modulation and AM detection circuits; frequency modulation, discriminators, and power amplifiers; magnetic amplifiers; RC and RL transient circuits; multivibrators, counters and limiters; transmission line concepts; magnetron and klystron microwave oscillators, waveguides, antennas, and pulse modulation; receiver circuits and heterodyne; practical experience in fusing system components and associated test equipment preventive maintenance; checking, calibration, and installation of electrical components; use of radar test equipment; and transformer, servomechanisms, vacuum tubes, and tube amplifiers operation, maintenance, and repair.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0150

SPECIAL WEAPONS MAINTENANCE TECHNICIAN

Course Number: AB99025A.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 25 weeks (660 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train enlisted personnel to operate, inspect, maintain, and correct malfunctions on special electronic instruments.

Instruction: Lectures and practical exercises in electrical fundamentals, including AC and DC circuits, resonance, RLC time constant circuits, vacuum and special-purpose tubes, amplifiers and oscillators, and oscilloscopes operation and use; nuclear physics fundamentals; and operation and use of elementary electronic counters.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0151

SPECIAL WEAPONS MAINTENANCE TECHNICIAN

Course Number: *Version 1:* ABR99125FL. *Version 2:* AB99025FL.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 31 weeks (840 hours). *Version 2:* 14 weeks (390 hours).

Exhibit Dates: *Version 1:* 5/59–12/68. *Version 2:* 8/57–4/59.

Objectives: To train enlisted personnel to operate and maintain special electronic instruments.

Instruction: *All Versions:* Lectures and practical exercises in electronic fundamentals, AC and DC circuits; RLC circuits; resonance; filter circuits; Universal Time Constant curve use; time constants; vacuum tubes; diodes, triodes, tetrodes, and pentodes; transistor fundamentals; amplifier principles; and oscilloscope operation and use. *Version 1:* Instruction includes audio, DC, pulse, tuned, push-pull, and negative feedback amplifiers; oscillators, multivibrators, and pulse-generating circuits; and basic concepts communications systems and electromagnetic waves. *Version 2:* Instruction includes basic concepts of nuclear physics and atomic energy, and allied electronic detecting and measuring apparatus.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electrical laboratory or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in atomic physics, 2 in electricity or electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74).

AF-1715-0152

SPECIAL WEAPONS MAINTENANCE TECHNICIAN

Course Number: ABR99125Q.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 39 weeks (1080 hours).

Exhibit Dates: 3/61–12/68.

Objectives: To train airmen to inspect, test, and repair electronic circuits and maintain special weapons systems.

Instruction: Lectures and practical exercises in special weapons systems maintenance and electrical fundamentals, including

AC and DC circuits; RL, RC, and RLC circuits including resonance and filters; basic meter movements; oscilloscope use and operation; vacuum and gas tube theory; amplifiers, including DC, audio, pulse, tuned, and push-pull; oscillator principles; semiconductor theory; equivalent circuits; and systems analysis.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0162

Tactical Missile Control Mechanic
(TM-76A/B)
(Control Systems Mechanic (TM-76A/B))

Course Number: ABR31432; ABR31230G.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26-30 weeks (690-810 hours).

Exhibit Dates: 6/61-12/68.

Objectives: To train enlisted personnel to be ballistic missile system mechanics.

Instruction: Lectures and practical exercises in electronic principles, circuit theory, and testing; gyro principles; technical publications; flight control systems theory, operation, check-out, and troubleshooting; and operation, use, and inspection of control system test consoles and ground support equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics (3/74).

AF-1715-0163

Nuclear Measurement Technician

Course Number: AB33231.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23-26 weeks (660-690 hours).

Exhibit Dates: 4/55-12/68.

Objectives: To train enlisted personnel to operate, analyze, maintain, and inspect special laboratory instruments used in nuclear technology.

Instruction: Lectures and laboratory in basic electronics, including AC and DC circuits, magnetism, vacuum tubes, amplifiers, oscillators, transient analysis and wave shaping, multivibrators and pulse circuits, semiconductors introduction, and oscilloscopes; mathematics, including simultaneous linear equations, logs, and radicals; nuclear physics, including wave motion, atomic structure, periodic tables, mass-energy, binding energy curve, nuclear forces, electromagnetic radiation, alpha, beta, and gamma radiation, decay, emission, and absorption, isotopes chart and unknown isotopes determination; neutrons and neutron reactions, including fission, binding energy, critical energy, chain reactions, A-bomb, nuclear reactor, critical mass, decay curves of radioactive isotopes; ionization of gases; electroscope type instruments, including ion chambers, pulse amplifiers, proportional, geiger-mueller, flow, wrap-around, and scintillation counters; photodosimetry; explosion phenomena and burst characteristics; protection, shielding, decontamination, and medical safety; and technical procedures, including error reduction and error counting, plateau plotting and resolving time, and scaling circuits and devices.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electrical laboratory (3/74).

AF-1715-0164

Electrical Engineering

Course Number: None.

Location: Air Force Institute of Technology, Wright-Patterson AFB, OH.

Length: 4 weeks (240 hours).

Exhibit Dates: 4/73-6/74.

Objectives: To provide electrical engineers with advanced training in electrical power systems design.

Instruction: Lectures in one- and three-phase circuits; power-factor corrections, voltage regulations; load flow, fault calculations, and grounding methods; various fuses, circuit breakers, and relays; transformer characteristics; lighting methods; operation and applications of various AC and DC motors; systems design; utility management and planning; and national electric code regulations and practices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electronics (3/74).

AF-1715-0166

Missile Electronic Equipment
Specialist (LGM-25)

Course Number: *All Versions:* 3ABR31632F. *Version 2:* ABR31632F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 31-33 weeks (930-966 hours). *Version 2:* 36 weeks (990 hours).

Exhibit Dates: *Version 1:* 7/72-12/73. *Version 2:* 10/66-6/72.

Objectives: To train enlisted personnel to perform duties as missile electronic equipment specialists.

Instruction: Lectures and laboratories in basic electricity, including AC and DC circuits, motors, and synchro mechanics; solid-state amplifiers and power supplies; soldering and test equipment; solid-state application in wave generation; digital techniques; weapon system familiarization; launch complex systems and equipment; missile electrical system; and systems maintenance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electronics and electronics laboratory (3/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0167

Nuclear Technician

Course Number: AB33230.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 22-27 weeks (690-840 hours).

Exhibit Dates: 11/55-12/68.

Objectives: To train enlisted personnel to perform as nuclear technicians.

Instruction: Lectures and laboratories in AC and DC fundamentals; vacuum tubes and power supplies; amplifiers and oscillators; ionization detectors and scalers; servomechanisms, test equipment, and electronic construction techniques; bomb physics; radiation detection and radiological safety and salvage; nuclear components; and nuclear laboratory and laboratory instrument usage. No instruction in transistors.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0168

Advanced Electrical-Electronics
Measurements

Course Number: 3AZR32470-5.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/67-12/73.

Objectives: To train Air Force, Navy, and Marine Corps personnel as advanced precision measuring equipment specialists.

Instruction: Lectures and laboratories in principles of meterology; operation, application, and mathematical analysis of measurement methods, and calibration of electrical-electronic standards and measuring equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0169

1. Atomic Energy, Phase I
(Electrical)
2. Atomic Energy, Phase I

Course Number: *Version 1:* AB33130A. *Version 2:* AB33130.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 18 weeks (540 hours).

Exhibit Dates: *Version 1:* 11/54-12/68. *Version 2:* 9/54-10/54.

Objectives: To provide enlisted personnel with training in electrical fundamentals.

Instruction: *All Versions:* Lectures and laboratories in analysis of electrical and electronic circuits, including DC and AC circuits, magnetism, vacuum tubes, power supplies, voltage regulators, amplifiers, oscillators, and modulation and demodulation. Emphasis is on testing and operating. *Version 2:* Includes receivers, special circuits, transmission lines, microwave energy, synchros, and radar fundamentals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in basic electronics (3/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electricity or electronics (3/74).

AF-1715-0174

1. Electronic Communications and
Cryptographic Equipment
Systems Repairman
2. Electronic Communications and
Cryptographic Equipment
Systems Repairman
3. Electronic Communications and
Cryptographic Equipment
Systems Repairman
4. Electronic Communications and
Cryptographic Systems
Equipment Repairman (Ciphony)
(Encrypted Tel-Data Fax)

Course Number: *Version 1:* 3ABR30630. *Version 2:* 3ABR30630. *Version 3:* ABR30630. *Version 4:* ABR30630B; ABR30630C.

Location: 3275th Technical School, Lackland AFB, TX.

Length: *Version 1:* 38 weeks (1113 hours). *Version 2:* 40 weeks (1197 hours). *Version 3:* 20 weeks (600 hours). *Version 4:* 35-41 weeks (300-360 hours).

Exhibit Dates: *Version 1:* 3/72-12/73. *Version 2:* 1/71-2/72. *Version 3:* 11/65-12/70. *Version 4:* 2/62-10/65.

Objectives: To train enlisted personnel to install, operate, maintain, and repair cryptographic equipment.

Instruction: Lectures and practical exercises in basic electronics; series, parallel, series-parallel resistive circuits; reactive, inductive, and capacitive circuits; vacuum tubes and solid-state devices principles; coupling and logic circuits; power supplies; oscillators; pulse and multiplex systems; and specialized training in various specific cryptographic equipment maintenance and repair.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours as an elective in electricity or electronics for non-engineering majors (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0180

Controls System Analyst (TM-76A)

Course Number: ABR31431G.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 19 weeks (540 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To train airmen to perform as apprentice controls systems analysts.

Instruction: Lectures and practical exercises in elementary control systems analysis, including electronic fundamentals (power supplies, amplifiers, linear systems, microwaves, vacuum tubes, antennas), guided missile fundamentals, flight controls and command guidance theory and check-out test sets, and basic missile checker components and operation.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electronic systems (3/74).

AF-1715-0181

Advanced Microwave Measurement and Calibration

Course Number: 3AZR32470-12.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO.

Length: 6 weeks (240 hours).

Exhibit Dates: 5/73-12/73.

Objectives: To train enlisted personnel to maintain and calibrate advanced microwave measurement equipment.

Instruction: Lectures and practical exercises in the maintenance of advanced microwave measuring equipment, including principles of meteorology; application and mathematical analysis of measurement methods; calibration techniques of microwave measuring, calibration standards, and measurement theory and instrumentation as applied to transmission lines and waveguides; microwave tubes; noise; microwave power; impedance and VSWR.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in microwave measurement (3/74).

AF-1715-0198

Specialized Communications and Electronics (C & E) Training

Course Number: ATS30472-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 16 weeks (480 hours).

Exhibit Dates: 4/62-12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair specific electronic equipment.

Instruction: Lectures and practical exercises in electronics principles; AC and DC circuits; transmitters and receivers; transistors and their applications; and television, telephone systems, and direction-finding equipment operation, maintenance, and repair.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics (3/74).

AF-1715-0201

Fire Control Systems Mechanic (E-9 Series)

Course Number: AB32230E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 42 weeks (1170 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to maintain and repair the E-9 fire control system.

Instruction: Lectures and practical exercises in the maintenance of the E-9 fire control system, including malfunction analysis, component familiarization, alignment and adjustments, electricity and electronics fundamentals, and analysis of special circuits. Electronics not presented in depth.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0203

F-111 Computer/Programmer Test Stations Technician

Course Number: ALR30174.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 25-28 weeks (750-840 hours).

Exhibit Dates: 6/66-12/68.

Objectives: To train enlisted personnel to operate, test, and maintain computer test station equipment.

Instruction: Lectures and practical exercises in computer test station equipment operation, testing and maintenance, including circuit analysis of systems; computer mathematics, logic, and circuits; navigation, flight control, and optical system gyro and accelerometer systems; and automatic test equipment operation and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer electronics, and additional credit in computer electronics on the basis of institutional evaluation (3/74).

AF-1715-0204

Fire Control Systems Mechanic (AN/ASG-14 System)

Course Number: AB32230M.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26 weeks (690 hours).

Exhibit Dates: 2/58-5/59.

Objectives: To train enlisted personnel to maintain, repair, and isolate malfunctions in the AN/ASG-14 fire control system.

Instruction: Lectures and practical exercises in AN/ASG-14 maintenance and repair, including electricity symbols, units, and meters; AC and DC circuit fundamentals; oscilloscopes; series-parallel and RLC circuits; vacuum and gas-filled tubes; multigrid devices; rectifiers, filters, and regulators; amplifiers, oscillators, sweep generators, and multivibrators; transistors and specialized circuits; radar and RF transmission principles; MA-10 radar unit transmitter, receiver, and electronic countermeasures, optical and infrared operation; and field exercises in aircraft.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0208

Wideband Communications Equipment Specialist by Correspondence

Course Number: 30450.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/82-Present.

Objectives: To upgrade the technical skill level of communications technicians in analog and digital data communications and in wideband radio transmission methods and equipment maintenance.

Instruction: The course provides an introduction to analog and digital signals and systems for data communications, continuous and sampled-data waveform characteristics, modulation and multiplexing methods with hardware implementations, including theory and practice. Microwave principles, propagation, wideband communications, systems including noise, and performance measurement are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to communications systems (3/85). Proctored examination concludes course.

AF-1715-0210

Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays)

(Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Displays))

Course Number: 3ABR32632A.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO.

Length: 18 weeks (540 hours).

Exhibit Dates: 3/72-12/73.

Objectives: To train enlisted personnel as integrated avionic systems specialists.

Instruction: Lectures and laboratories in electronic principles, including schematic symbols, resistance, ohmmeter, Ohm's law, power law, series-parallel circuits, generation of AC, oscilloscope operation, electromagnetism and relays, reactance and reactive circuits, DC and AC motors, semiconductor theory, diodes, transistors, rectifier circuits, filters, power supplies, Zener diodes, basic amplifiers, video amplifiers, servo control systems, oscillators, limiters, clampers, multivibrators, Schmitt triggers, digital mathematics, logic circuits, and Boolean algebra; and operations and maintenance of navigation sets, optical display sight sets, control display sets, digital computer complex, attack radar systems, terrain-following radar, and navigational radar sets.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0212

1. BOMB NAVIGATION SYSTEMS TECHNICIAN (MA-6A, 7A RADAR AND ICE)
   (Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and Interconnect))
2. BOMB NAVIGATION SYSTEMS TECHNICIAN (K, MA-6A, MA-7A RADAR AND INTERCONNECT)
   (Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects))
3. K-SERIES RADAR AND INTERCONNECTION EQUIPMENT TECHNICIAN

Course Number: *Version 1:* AAR32170C. *Version 2:* AAR32170C; AA32170C. *Version 3:* AA32171EC.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 32 weeks (960 hours). *Version 2:* 27 weeks (810 hours). *Version 3:* 26 weeks (780 hours).

Exhibit Dates: *Version 1:* 7/60–12/68. *Version 2:* 4/57–7/60. *Version 3:* 1/55–3/57.

Objectives: To train enlisted personnel to maintain radar and interconnection equipment.

Instruction: *Version 1:* Lectures and laboratories in DC and AC circuits, with introduction to transformers and machines; vacuum tubes, including rectifiers, HF amplifiers, regulators, doublers, cathode followers, clamping circuits, sweep generators, oscillators, and multivibrators; receiver principles; microwave (radar) principles; oscilloscope construction and use; radar and interconnect (ICE) data flow, circuit tracing, and power supplies and distribution; APS-64 transmitter, receiver, video, sweep, range, and azimuth channels; and maintenance procedures. *Version 2:* Lectures and laboratories in system data flow; radar and interconnection equipment circuit analysis; basic AC and DC circuit analysis; vacuum tubes, including rectifiers, regulators, doublers, amplifiers, clamping circuits, oscillators, sweep generators, and multivibrators; principles of radar; radar and interconnect (ICE) data flow, circuit tracing, and power supplies and distribution; APS-64 transmitter, receiver, video, sweep, and azimuth channels; and maintenance procedures. *Version 3:* Lectures and laboratories in DC and AC circuits, with introduction to transformers and machines; vacuum tubes, including rectifiers, HF amplifiers, regulators, doublers, cathode followers, clamping circuits, sweep generators, oscillators, and multivibrators; receiver principles; microwave (radar) principles; oscilloscope construction and use; radar and interconnect (ICE) data flow, circuit tracing, and power supplies and distribution; APS-64 transmitter, receiver, video, sweep, range, and azimuth channels; and maintenance procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0216

GUNNERY TRAINER SPECIALIST

Course Number: ABR34430-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 26 weeks (750 hours).

Exhibit Dates: 6/67–12/68.

Objectives: To train enlisted personnel to operate and maintain specific radar equipment.

Instruction: Lectures and practical exercises in AN/APG-T1A radar equipment operation and maintenance, including electronic principles, radar principles, and operation and maintenance of specific radar sets. Instruction includes development of target position voltages; development of target and interference; relay section and scoring devices operation and maintenance; and OA-474 simulator group maintenance, alignment, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0225

BOMB NAVIGATION SYSTEMS TECHNICIAN (MA-6A, MA-7A COMPUTER)
(Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics))
(Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer))
(Bomb Navigation Systems Technician (K-Series Computer))
(K-Series Computer Technician)

Course Number: AA32170ED; AA32171ED.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 21–32 weeks (720–960 hours).

Exhibit Dates: 4/55–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair specific bomb navigation computers and stabilization and optics units.

Instruction: Lectures and practical exercises in AC and DC circuits, tube and amplifier principles, technical publications, bomb navigation data flow, stabilization system servo loops, synchros and gyros, tracking computer maintenance, polar converter maintenance, bomb release computer, navigation control, ballistic control, optical systems, alignment, maintenance, bench checks, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0227

GROUND RADIO COMMUNICATIONS SPECIALIST BY CORRESPONDENCE

Course Number: 30454.

Location: Entension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/81–Present.

Objectives: To upgrade the technical skills of communications technicians in electronic devices and circuits, antennas, communications systems, and maintenance techniques.

Instruction: This program provides an introduction to electronics fundamentals, devices, and circuits for both linear and digital applications including electronic measurements. Also covered are a description of communications circuits, modulation and demodulation methods, and radio transmission systems. The course also includes mobile radio communications, AM, FM, SSB, antenna theory, and propagation. Final proctored examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to communications systems (3/85).

AF-1715-0230

1. GROUND COMMUNICATIONS EQUIPMENT TECHNICIAN (LIGHT)
   (Ground Communications Equipment Maintenance Technician (Light))
2. GROUND COMMUNICATIONS EQUIPMENT MAINTENANCE TECHNICIAL (LIGHT)

Course Number: AAR30472.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 31 weeks (940 hours). *Version 2:* 34 weeks (1020 hours).

Exhibit Dates: *Version 1:* 4/60–12/68. *Version 2:* 8/59–3/60.

Objectives: To train enlisted personnel to operate, maintain, and install low-powered ground communication equipment.

Instruction: Lectures and practical exercises in the installation, operation, and maintenance of low-powered ground communication equipment, including basic AC and DC circuits, electronic principles, advanced maintenance principles, HF and radioteletype systems, UHF communications systems, TV systems, data processing principles, and descriptive analysis of communication principles. Coverage of communication component and signal-processing blocks is more descriptive than analytical.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in shop management (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (4/74).

AF-1715-0239

GROUND COMMUNICATIONS EQUIPMENT MAINTENANCE TECHNICIAN (HEAVY)

Course Number: AAR30473.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 31–42 weeks (930–1260 hours).

Exhibit Dates: 7/59–12/68.

Objectives: To provide enlisted personnel with advanced training in heavy radio communications equipment operation and maintenance.

Instruction: Lectures and practical exercises in radio communications equipment operation and maintenance, including basic electronic principles and concepts, electronic communications problem solving, publications, advanced equipment maintenance, diversity systems, scatter communications, shop practices, advanced electronic circuits, test equipment operation and maintenance, radio teletype equipment, systems repair, shop management, and SSB, receiving, and heavy transmitting equipment testing and repair.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (3/74).

AF-1715-0253

Flight Facilities Equipment Repairman (Ranges and Beacons)

Course Number: AB30431A.

Location: 3310th Technical School, Scott AFB, IL.

Length: 16-17 weeks (480 hours).

Exhibit Dates: 7/55-2/58.

Objectives: To train enlisted personnel to operate and maintain specific radio equipment.

Instruction: Lectures and practical exercises in basic electronics, including AC and DC circuits, vacuum tubes, electronic circuits, radio systems principles, and specific radio equipment components, operation, and maintenance techniques.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity and electronics for non-electronics majors (6/74).

AF-1715-0256

Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised

Course Number: ABR32130E (TV).

Location: 3415th Technical School, Lowry AFB, CO.

Length: 27 weeks (720 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To train enlisted personnel to be bomb navigation system mechanics.

Instruction: Televised lectures and practical exercises in MA-6A and MA-7A bomb navigation systems mechanics, including AC and DC circuit principles, vacuum tubes and amplification, radar and servo systems, system radar and ICE theory and operational adjustments, after-installation checks and adjustments, and malfunction analysis.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial technology (3/74).

AF-1715-0258

Fire Control Systems Mechanic, MG-10 Radar

Course Number: AB32230G.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 55 weeks (1650 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to analyze and maintain MG-10 fire control systems.

Instruction: Lectures and practical exercises in MG-10 fire control systems maintenance and repair, including electrical theory, basic electronics, block-diagram analysis, signal flow, automatic flight control and data link, power generation and distribution, maintenance procedures, and field exercises.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in industrial technology for non-engineering majors (4/74).

AF-1715-0260

Communications-Electronics Engineer

Course Number: 3OBR3051-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 26 weeks (768 hours).

Exhibit Dates: 3/71-12/73.

Objectives: To train officers to perform as communications-electronics engineers.

Instruction: Lectures and practical exercises in communications-electronics systems, including the development and management of test and evaluation programs; C-E systems survivability and serviceability; the inspection, survey, and engineering of complex C-E systems and facilities; communications of electronics career field; communications of electronics management; planning and programming; management analysis; and engineering principles.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in industrial technology, or as a technical elective in engineering (3/74).

AF-1715-0261

F-111 Radar and Control Test Stations Technician

Course Number: ALR32271.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26-27 weeks (780-810 hours).

Exhibit Dates: 6/66-12/68.

Objectives: To train enlisted personnel to analyze, troubleshoot, and repair specific radar and test equipment.

Instruction: Lectures and practical exercises in radar test equipment analysis, troubleshooting, and repair, including terrain-following radar and attack radar systems, video test station maintenance, digital logic circuitry, and intensive study of radar block-diagram analysis and signal flow.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electronics majors (3/74).

AF-1715-0266

Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)

Course Number: ATS30571-34.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 15 weeks (600 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train selected AN/FSQ-7 maintenance specialists for duty as systems technicians.

Instruction: Lectures and practical exercises in the principles and applications of the AN/FSQ-7 computer, including the memory and control devices, line printer, card reader, card recorder, tape system, and other input-output devices.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in data processing—computer operation (12/68).

AF-1715-0267

Bomb Navigation Systems Mechanic (MA-6A and MA-7A Systems)

Course Number: ABR32130E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 24-37 weeks (720-1028 hours).

Exhibit Dates: 10/58-12/68.

Objectives: To train enlisted personnel to be apprentice bomb navigation system mechanics.

Instruction: Lectures and practical exercises in AC and DC circuits, RLC circuits, reactance, impedance, vacuum tubes and solid-state devices, amplifiers, oscillators, radar circuit analysis, microwave operation, multivibrators, sweep and logic circuits, mathematics (below calculus level), and bomb navigation system maintenance.

Credit Recommendation: and credit in electrical laboratory on the basis of institutional evaluation (3/74). In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0268

Bomb Navigation Systems Mechanic (K-5 Series)

Course Number: AB32130J.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 37 weeks (1020 hours).

Exhibit Dates: 4/56-12/68.

Objectives: To train enlisted personnel to operate, align, adjust, and maintain K-5 bomb navigation systems and test equipment.

Instruction: Lectures and practical experience in K-5 bomb navigation systems alignment, adjustment, operation, and maintenance, including AC and DC circuit fundamentals, vacuum tubes and power supply circuits, amplifier and oscillator principles, servo systems, radar transmitting and receiving, computer tracking and sighting, mathematics (below calculus level), optics, and organizational maintenance and associated equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0272

Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)

Course Number: ABR32231H.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 50 weeks (1482 hours).

Exhibit Dates: 1/58-12/68.

Objectives: To train enlisted personnel to operate and maintain MG-3, MG-10, and MG-13 weapons control systems.

Instruction: Lectures and practical exercises in MG-3, MG-10, and MG-13 weapons control systems maintenance and operation, including AC and DC circuit fundamentals, vacuum tubes, electronic circuits, power supplies, oscillators, sweep generators, radar principles, servomechanisms, and special devices associated with weapons control systems computer controls.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0274

Navigation and Bombing Trainer Specialist (AN/APQ-T3)

Course Number: AB34330B.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 29 weeks (840 hours).

Exhibit Dates: 4/56-12/68.

Objectives: To train enlisted personnel to install, operate, maintain, and repair navigation and bombing trainers and associated electronic test equipment.

Instruction: Lectures and laboratories in DC and AC circuit analysis, vacuum tube principles, amplifiers and oscillators, radar circuitry, and preventive maintenance and operation of navigation and bombing trainers.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics, and 1 in electronics laboratory for non-electrical engineering majors (3/74).

AF-1715-0276

Sonar AN/SQS-53 Maintenance

Course Number: K-130-0102.

Location: Fleet Antisubmarine Training Center, Pacific, San Diego, CA.

Length: 34 weeks (1356 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, troubleshoot and repair Sonar AN/SQS-53 system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-26CX and, beginning February 1977, the AN/SQS-53 sonar detecting-ranging set, including binary mathematics and logic, test equipment, modes of operation, sound propagation, primary power distribution, sonar monitor, block diagrams, fault-locating monitor, mode selection and generation, simulated targets and target control, surface duct programmer and transmitter, B-scan receiver and display, various circuits, variable depression components, range measuring and servos.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics system troubleshooting (7/87).

AF-1715-0282

Aircraft Early Warning Radar
Maintenance Technician

Course Number: AAR30172.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 38 weeks (1140 hours).

Exhibit Dates: 9/59–12/68.

Objectives: To train enlisted personnel to maintain aircraft early warning radar equipment.

Instruction: Lectures and practical exercises in aircraft early warning radar equipment maintenance, including use of algebra and trigonometry for solving mathematics problems related to electronic circuits; circuit analysis of AC and DC circuits, transformers, switches, relays, motors, transmission lines, wave-guides, special-purpose tubes, and test equipment; and functional circuit analysis of power supplies, amplifiers, wave-shaping circuits, oscillators, servos, and modulators. Emphasis is on operation of specific equipment receivers, transmitters, indicators, antennas, and related test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (4/74).

AF-1715-0290

Officers Phase I, Atomic Energy

Course Number: OB3200.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 23 weeks (690 hours).

Exhibit Dates: 10/54–12/68.

Objectives: To train officers in the fundamental principles of electronics.

Instruction: Lectures and practical exercises in electronics, including theory and principles of direct and alternating currents, vacuum tubes; vacuum tube amplifier and oscillator circuits; receiver, transmitter, and special electronic circuits; microwave energy; and application of fundamental electronic principles to radar equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0291

1. Aerospace Photographic Systems Repairman
2. Aerospace Photographic Systems Repairman
   (Photographic Repairman)
3. Photographic Repairman

Course Number: *Version 1:* 3ABR40230. *All Versions:* ABR40230. *Version 3:* AB40230.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 20–22 weeks (600–640 hours). *Version 2:* 26–35 weeks (750–960 hours). *Version 3:* 30–33 weeks (810–900 hours).

Exhibit Dates: *Version 1:* 4/67–12/73. *Version 2:* 5/64–3/67. *Version 3:* 3/58–4/64.

Objectives: To train airmen to repair aerospace photographic systems or to maintain and install photographic equipment, including electronic photographic equipment control devices.

Instruction: *All Versions:* Lectures and practical exercises in the repair of aerospace photographic systems or the maintenance and installation of photographic equipment, including electronic photographic equipment control devices, analysis of electrical and electronic circuits, photographic equipment systems, basic electronics principles, reconnaissance aerospace electronics photographic systems and control systems, and ground support photographic equipment. *Version 1:* Includes operation and components of RF-4C aerospace infrared detection and data display system. *Version 2:* Includes operation and components of RF-4C aerospace infrared detection and data display system, and additional instruction on electronic circuits and test equipment. *Version 3:* Includes motion picture projectors, IMC equipment operation and principles, gun, strike, and MP cameras and equipment, and automatic printers and processors.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0292

Control Systems Mechanic (TM-61C)

Course Number: ABR31230H.

Location: 3415th Technical Training Wing, Lowry AFB, CO.

Length: 19–22 weeks (540–570 hours).

Exhibit Dates: 9/58–12/68.

Objectives: To train airmen to perform as control systems mechanics on TM-61C series missiles.

Instruction: Lectures and practical exercises in the functions of control systems mechanics on TM-61C series missiles, including AC and DC circuit analysis, relays, switching devices, oscilloscopes, amplifiers, vacuum tubes, specific weapon systems; fuel, hydraulic, and electrical systems; guided missile control system fundamentals; and block diagrams, signal flow, and test procedures for specific equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0293

Controls Systems Mechanic

Course Number: ABR31230.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26 weeks (690 hours).

Exhibit Dates: 10/58–12/68.

Objectives: To train airmen to perform as missile control system mechanics.

Instruction: Lectures and practical exercises in the duties of missile control systems mechanics, including basic electricity, physics, and aerodynamics; propulsion, launching, and navigation and guidance systems; vacuum tubes, amplification, and wave shaping; oscilloscope construction, synchros and servomechanisms, control system and gyros, pneumatic-electric system, hydraulic-electric system, computer and amplifier functions, actuating units, and specific missile equipment orientation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0299

Ballistic Missile Check-Out
Equipment Specialist, WS-133A
(Ballistic Missile Check-Out Equipment Specialist, SM-80)

Course Number: ABR31235G.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 35–43 weeks (960–1200 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to be ballistic missile check-out equipment specialists.

Instruction: Lectures and practical exercises in electronic fundamentals, amplifiers, oscillators, power supplies, digital logic, oscilloscopes, communications and launch control console, photoelectronic collimator and guidance and control coupler test sets, electronic programming test center operation and maintenance, aerospace ground equipment, and integrated fault isolation and calibration.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0307

Electrician/Supervisor (SM-68)

Course Number: ATS56150-4.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 13 weeks (390 hours).

Exhibit Dates: 5/61–12/68.

Objectives: To train airmen to perform as electricians/supervisors in WS107A-2 ballistic missile installations.

Instruction: Lectures and practical exercises in the duties of electricians/supervisors in WS107A-2 ballistic missile installations, including electronic circuit analysis, troubleshooting, maintenance, repair and operation of various power supplies, computer motor-generator, guidance motor-generator, facilities sensors, detectors and amplifiers, launcher and electrical systems, hydraulic system, and power distribution, and electrical and electronic test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0308

Defense Missile Guidance Mechanic, IM-99B

Course Number: ABR31131K.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 35 weeks (960 hours).

Exhibit Dates: 8/61–12/68.

Objectives: To train enlisted personnel to test and maintain the IM-99B missile guidance system.

Instruction: Lectures and practical exercises in the testing and maintenance of the IM-99B missile guidance system, including AC and DC principles, vacuum tubes, transistors, amplifiers, motors, servomechanisms, microwave principles, oscilloscopes, magnetism, guidance transponder, fuse and target seeker systems, and operation of the command system and specific equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0312

Electrician/Supervisor (SM-65F)

Course Number: ATS54270D-1; ATS56150-9.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 13 weeks (390 hours).

Exhibit Dates: 5/61–12/68.

Objectives: To train enlisted personnel to perform as electricians and supervisors for electrical conversion, transmission, and distribution components of the SM-65F ballistic missile and associated ground support equipment.

Instruction: Lectures and practical exercises in electrical conversion, transmission, and distribution components of the SM-65F ballistic missile and associated ground support equipment, including AC and DC circuit analysis; transistors, transformers, and motor controllers; electric motors; power generation system; protector systems; propellant transfer and missile-lifting systems; and operation, circuit analysis, and troubleshooting of various components.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0318

Control Systems Mechanic, GAM-72

Course Number: ABR31230Q.

Location: Technical Training Center, Amarillo AFB, TX.

Length: 23 weeks (600 hours).

Exhibit Dates: 2/60–12/68.

Objectives: To train airmen to perform as apprentice control systems mechanics.

Instruction: Lectures and practical exercises in the duties of apprentice control systems mechanics, including electrical fundamentals, DC and AC circuit analysis, magnetism, vacuum tube principles, power supplies, oscillators, wave-shaping circuits; flight control system assemblies and test equipment, aerodynamics and sensor circuits, and inspection and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0323

1. Avionics Officer (Other)
   (Air Electronics Officer)
2. Air Electronics Officer, Fighter A/C
3. Air Electronics Officer

Course Number: *Version 1:* OBR3231C; OB3051. *Version 2:* OB3051B. *Version 3:* OB3051.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 39–41 weeks (1170–1240 hours). *Version 2:* 17 weeks (510 hours). *Version 3:* 41 weeks (1230 hours).

Exhibit Dates: *Version 1:* 3/66–3/69. *Version 2:* 1/57–2/58. *Version 3:* 11/54–12/56.

Objectives: To train officers to supervise and manage avionics maintenance.

Instruction: Lectures and practical exercises in avionics maintenance management, including AC and DC circuits, transistors, electron tubes, power supplies, amplifiers, nonlinear wave shaping, communication techniques, microwaves, technical publications, supply functions, flight control and radio navigation aids, aircraft radar systems, electronic warfare systems and weapons control, and management and supervision.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, 3 in shop management, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74), 2 in shop management (12/68), and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics (4/74), 3 in shop management (12/68), and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0324

1. Electronic Warfare Technician
   (Aircraft ECM Maintenance Technician)
2. Aircraft ECM Maintenance Technician
   (Electronic Countermeasures Maintenance Technician)

Course Number: *Version 1:* AAR30173. *Version 2:* AA30173; AA30270.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 36–40 weeks (1080–1200 hours). *Version 2:* 17–19 weeks (510–570 hours).

Exhibit Dates: *Version 1:* 5/59–12/68. *Version 2:* 3/54–4/59.

Objectives: To train enlisted personnel to be aircraft electronic countermeasures maintenance technicians.

Instruction: Lectures and practical exercises in aircraft electronic countermeasures maintenance techniques, including basic mathematics, AC and DC circuits, power supplies, vacuum tubes and transistors, digital computer, electronic communication circuits, and system test equipment operation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in shop management, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0325

Guidance Systems Mechanic (GAR-3)

Course Number: ABR31130E-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 24 weeks (630 hours).

Exhibit Dates: 10/58–12/68.

Objectives: To train airmen to perform as guidance systems mechanics on GAR-3 missiles.

Instruction: Lectures and practical exercises in the duties of guidance systems mechanics on GAR-3 missiles, including principles of electricity, analysis of various circuits, magnetism and electromagnetism, transformers, reactors, resonance and capacitance, vacuum tubes and power supplies, amplifier and wave-shaping circuits, basic GAR circuits and components, analysis of GAR missile systems, operation of the tracking and power function and control system, block-diagram analysis of systems checks, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0326

Guidance Systems Mechanics

Course Number: ABR31130.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26 weeks (690 hours).

Exhibit Dates: 10/58–12/68.

Objectives: To teach airmen electrical and electronic fundamentals and components of missile guidance systems.

Instruction: Lectures and practical exercises in electrical and electronic fundamentals and components of missile guidance systems, including physics of motion, aerodynamics, launching methods, navigation, basic electricity, AC circuitry, vacuum tubes and transistors, amplification, wave shaping and multivibrators, oscilloscope construction, synchros and servomechanisms, missile guidance systems block diagrams, RF transmission, radar sensors, systems components, and specific missile and console equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0327

GUIDANCE SYSTEMS MECHANIC (BALLISTIC MISSILE INERTIAL)

Course Number: ABR31130P-2.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 24 weeks (630 hours).

Exhibit Dates: 1/61–12/68.

Objectives: To train airmen to perform as apprentice guidance systems mechanics.

Instruction: Lectures and practical exercises in the duties of apprentice guidance systems mechanics, including binary mathematics, AC and DC circuit fundamentals, oscilloscope, transformers and synchros, vacuum tubes, power supplies amplifiers, wave-shaping circuits, logic circuitry, inertial guidance systems operation and principles, gyros, mode switching, loop operation and troubleshooting, system data flow, power distribution, ground support equipment, electronic control unit testing, and missile inspection and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0341

AIRBORNE RADIO REPAIRMAN

Course Number: AB30130-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 31 weeks (930 hours).

Exhibit Dates: 9/54–12/68.

Objectives: To train airmen to tune, operate, maintain, and repair airborne radio and related navigational equipment at the apprentice level.

Instruction: Lectures and practical exercises in the installation, operation, maintenance, and repair of specific airborne radio and related navigational equipment. Instruction includes electronic principles, AC and DC fundamentals, vacuum tube circuits, and modulation and high-frequency techniques.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (4/74).

AF-1715-0343

MISSILE OFFICER, WS-133B

Course Number: *Version 1:* 3OBR3121H. *Version 2:* OBR3121H. *Version 3:* OBR3121G-2.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 13 weeks (390 hours). *Version 3:* 15 weeks (450 hours).

Exhibit Dates: *Version 1:* 3/69–12/73. *Version 2:* 3/66–2/69. *Version 3:* 4/65–2/66.

Objectives: To train officers as WS-133B missile officers.

Instruction: *All Versions:* Lectures and practical exercises on the WS-133B missile system, including missile alignment, maintenance management, and missile electrical and electronic systems. *Version 1:* Topics include Air Force management, missile fundamentals, and WS-133B general familiarization. *Version 2:* Topics include Air Force management, missile fundamentals, WS-133B general familiarization, and missile facility systems. *Version 3:* Topics include weapon system introduction and orientation, launch facility equipment, and maintenance sequences.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in electrical or electronic laboratory or 1 as a technical elective for nontechnical students (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1715-0344

1. MISSILE SYSTEMS ANALYST SPECIALIST, WS-133A
2. MISSILE SYSTEMS ANALYST SPECIALIST, WS-133A
   (Ballistic Missile Analyst Specialist, WS-133A)
   (Ballistic Missile Analyst Specialist, SM-80)

Course Number: *Version 1:* 3ABR31630G. *All Versions:* ABR31630G. *Version 2:* ABR31234G.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 35 weeks (960 hours). *Version 2:* 37–38 weeks (1020–1050 hours).

Exhibit Dates: *Version 1:* 9/67–12/73. *Version 2:* 8/62–8/67.

Objectives: To train airmen as WS-133A missile systems analyst specialists.

Instruction: *All Versions:* Lectures and practical exercises in the operation, inspection, check-out and periodic maintenance of WS-133A systems, including the launch facility, launch control facility, support base, aerospace ground equipment, electronic principles, propulsion systems, alignment and adjustment of targeting system, assembly and installation of components, use of standard and specialized test equipment, and inspection and maintenance. *Version 1:* Topics include missile maintenance management, nuclear safety, weapon system familiarization, launch control facility familiarization, and maintenance facility familiarization. *Version 2:* Topics include launch facility and launch control facility power systems, and environmental control systems, corrosion control, security system, personnel access procedures, launch and communication control consoles, consoles test set, communications and control system, and programmer group and guidance and control coupler and integrated systems maintenance.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electronic laboratory (7/74).

AF-1715-0345

MISSILE SYSTEMS ANALYST SPECIALIST, WS-133A
(Ballistic Missile Analyst Specialist, WS-133A)

Course Number: ALR31630G; ALR31234G-3.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 18–20 weeks (540–600 hours).

Exhibit Dates: 10/65–12/68.

Objectives: To train personnel as WS-133A ballistic missile analyst specialists.

Instruction: Lectures and practical exercises in the operation, inspection, check-out, and periodic maintenance of WS-133A systems, including the launch facility, launch control facility, support base, aerospace ground equipment, electronic principles, propulsion systems, alignment and adjustment of targeting system, assembly and installation of components, use of standardized and specialized test equipment, inspection and maintenance records, and publications.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electronic laboratory (7/74).

AF-1715-0347

SPECIAL ELECTRONIC EQUIPMENT SPECIALIST

Course Number: AB30430-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 40 weeks (1170 hours).

Exhibit Dates: 5/55–12/68.

Objectives: To train enlisted personnel to operate and maintain special electronic equipment.

Instruction: Lectures and practical experience in special electronic equipment operation and maintenance, including AC and DC electrical fundamentals, vacuum tubes, amplifier and receiver circuits, oscillators, transmitters, construction of oscilloscope kit, and special circuits.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0348

ELECTRONIC DIGITAL DATA PROCESSING EQUIPMENT REPAIRMAN, CENTRAL-COMPUTER (416L-AN/FSQ-7)

Course Number: ATS30551B-3.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 19 weeks (760 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to be AN/FSQ-7 central computer repairmen.

Instruction: Lectures and practical exercises in AN/FSQ-7 central computer repair, including theory and application of digital data processing and computer principles, computer numbering systems principles, AN/FSQ-7 memory devices, computer control devices; and computer logic and logic circuit analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in computer software, 3 as an elective in computer hardware (4/74).

AF-1715-0350

SPECIAL ELECTRONICS EQUIPMENT SPECIALIST, Q SYSTEM

Course Number: AB30430-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 39 weeks (1080 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train enlisted personnel to operate and maintain special electronics equipment.

Instruction: Lectures and practical exercises in special electronics equipment operation and maintenance, including AC and DC fundamentals, vacuum tubes, amplifiers, oscillators, transmitter and receiver principles, special circuits, construction of oscilloscope kit, introduction to Q system, calibration and alignment of system, recording and processing, and film analysis and reporting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0351

ELECTRONIC COMMUNICATIONS AND CRYPTOGRAPHIC EQUIPMENT SYSTEMS REPAIRMAN (ENCRYPTED DIGITAL DATA TERMINALS)(EDDT)

Course Number: 3ABR30630F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 36–39 weeks (1080 hours).

Exhibit Dates: 8/69–12/73.

Objectives: To train enlisted personnel to be electronic communications and cryptographic equipment repairmen.

Instruction: Lectures and practical exercises in electronic communications and cryptographic equipment repair, including AC and DC circuit theory, electronic circuits, digital circuits, motors and generators, computer peripheral equipment, solid-state power supplies and amplifiers, and soldering techniques and test equipment operation.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in digital computers, and credit in digital computer laboratory on the basis of institutional evaluation (4/74).

AF-1715-0359

AVIONICS OFFICER

Course Number: 3OBR4041; 3OBR3231.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 21–23 weeks (678 hours).

Exhibit Dates: 7/70–12/73.

Objectives: To train officers to supervise the installation, maintenance, and repair of avionics systems.

Instruction: Lectures and practical exercises in the supervision of avionics systems installation, maintenance, and repair, and in background electronics fundamentals, including DC and AC principles; solid-state devices and electron tubes; power supplies; amplifiers and wave-shaping circuits; transmitter and receiver principles; digital computer fundamentals; and specific avionics systems (navigation, communications, warfare and attack aircraft systems, tactical fighter systems, and liaison aircraft).

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics and avionics (4/74).

AF-1715-0367

GROUND RADAR SYSTEMS SUPERVISOR/TECHNICIAN

Course Number: 3AAR30300.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 50 weeks (1440 hours).

Exhibit Dates: 11/67–12/73.

Objectives: To train enlisted personnel to perform as ground radar systems supervisors and technicians.

Instruction: Lectures and practical exercises in the basic concepts of electricity, electronics, and management of ground radar systems, including advanced electronic principles; operation of radar transmitters, receivers, synchronizing systems, and display systems; ECCM features; frequency diversity techniques; r-f transmission lines; ground radar planning; and evaluation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, 3 in management, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0368

AUTOMATIC TRACKING RADAR REPAIRMAN

Course Number: 3ABR30333.

Location: 3380th Technical School, Kessler AFB, MS.

Length: 37–39 weeks (1110 hours).

Exhibit Dates: 6/71–12/73.

Objectives: To train enlisted personnel to repair automatic tracking radars.

Instruction: Lectures and practical exercises in the basic concepts and techniques of electricity and electronics with applications to radar systems, including development and application of electronic principles; circuit analysis; digital techniques; alignment, testing; troubleshooting; and the operation, maintenance, and repair of the AN/MSQ-77 radar bomb-directing central, associated identification equipment, solid-state devices, and related test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0375

1. WEAPONS CONTROL SYSTEMS MECHANIC (F-106A/B MA-1, ASQ-25 SYSTEMS)
2. WEAPONS CONTROL SYSTEMS MECHANIC (F-106A/B: MA-1, ASQ-25 SYSTEMS)
   (Weapons Control Systems Mechanic (MA-1, ASQ-25 Systems))
3. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1, ASQ-25 SYSTEMS)
4. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1, ASQ-25 SYSTEMS)
   (Weapons Control Systems Mechanic (MA-1 System))
5. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1 SYSTEMS)
6. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1 SYSTEMS)
7. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1 SYSTEM)
8. WEAPONS CONTROL SYSTEMS MECHANIC (MA-1 SYSTEM)

Course Number: *Version 1:* 3ABR32231A. *Version 2:* 3ABR32231A-5. *Version 3:* ABR32231A-5. *Version 4:* ABR32231A-5. *Version 5:* ABR32231A. *Version 6:* ABR32231A. *Version 7:* ABR32231A. *Version 8:* AB32231A.

Location: *Version 1:* School of Applied Aerospace Sciences, Lowry AFB, CO. *Version 1:* 3415th Technical School, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO. *Version 3:* 3415th Technical School, Lowry AFB, CO. *Version 4:* 3415th Technical School, Lowry AFB, CO. *Version 5:* 3415th Technical School, Lowry AFB, CO. *Version 6:* Technical Training Center, Amarillo AFB, TX. *Version 7:* 3415th Technical School, Lowry AFB, CO. *Version 8:* 3415th Technical Training Wing, Lowry AFB, CO.

Length: *Version 1:* 22–24 weeks (660–720 hours). *Version 2:* 24–34 weeks (738–930 hours). *Version 3:* 37–39 weeks (1020–1080 hours). *Version 4:* 41 weeks (1140 hours). *Version 5:* 45 weeks (1480 hours). *Version 6:* 45 weeks (1480 hours). *Version 7:* 30 weeks (810 hours). *Version 8:* 30 weeks (810 hours).

Exhibit Dates: *Version 1:* 7/71–12/73. *Version 2:* 1/65–6/71. *Version 3:* 4/63–12/64. *Version 4:* 2/61–3/63. *Version 5:* 3/60–1/61. *Version 6:* 3/60–1/61. *Version 7:* 5/59–2/60. *Version 8:* 4/58–4/59.

Objectives: To train enlisted personnel who have backgrounds in electricity and vaccum tube electronics to maintain and repair specific weapons control systems.

Instruction: *All Versions:* Lectures and practical exercises in electronics as applied to weapons systems; communications security; saftey and first aid; technical publications; schematic interpretation and symbology; power checks and alignments; arithmetic; decimal and binary numbers; computer routines, checks, and alignments, and fault isolation procedures and ground checks. *Version 5:* Instruction includes detailed study of MA-1 weapons control system, computer fundamentals and arithmetic, radar transmitting and receiving, MA-1 measurements, and troubleshooting. *Version 6:* Instruction includes detailed study of MA-1 weapons control system, computer fundamentals and arithmetic, radar transmitting and receiving, MA-1 measurements, and troubleshooting. *Version 7:* Instruction includes algebra, vectors, trigonometry, AC and DC circuits, vacuum tube circuit application, transients and timing circuits, microwaves, servomechanisms, and computer devices. *Version 8:* Instruction includes basic radar principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 7:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 8:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0376

MISSILE SYSTEMS ANALYST SPECIALIST (LGM-25)

Course Number: 3ABR31630F; ABR31630F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 32–33 weeks (900 hours).

Exhibit Dates: 5/66–8/71.

Objectives: To train enlisted personnel to maintain the Titan II weapon system.

Instruction: Lectures and practical exercises in the maintenance of the Titan II weapon system, including operation and data flow analysis, minor troubleshooting, inspection, and monitoring; scheduled and unscheduled maintenance of missile airframe equipment, thrust mount and shock isolation system, electrical system (various circuits, linear wave shaping, and power supplies), re-entry vehicle equipment, handling equipment, launch control monitoring and check-out equipment, cable assembly groups, facility power control boards, communications equipment, flight control system, propulsion system, and propellant loading and pressurization system.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0378

AUTOMATIC FLIGHT CONTROL SYSTEMS TECHNICIAN (FIGHTERS AND B-58)
(Automatic Flight Control Systems Technician)

Course Number: AAR32570-A-1; 2AAR32570A.

Location: 3320th Technical School, Chanute AFB, IL.

Length: 14-15 weeks (410-450 hours).

Exhibit Dates: 5/64-2/68.

Objectives: To train enlisted personnel to perform as automatic flight control systems technicians.

Instruction: Lectures and practical exercises in automatic flight control systems operation, including servos, electronic test equipment operation, vacuum tubes, transistors, power supplies, oscillators, wave-shaping devices, and electrical and pneudraulic power supplies.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0382

AIRBORNE ECM OPERATOR
(Airborne Electronic Countermeasures Specialist)

Course Number: ZZ29334; ZZ30134.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 16 weeks (497-499 hours).

Exhibit Dates: 6/54-12/68.

Objectives: To train airmen to adjust and operate electronic countermeasures equipment.

Instruction: Lectures and practical exercises in the adjustment and operation of electronic countermeasures equipment, including AC and DC fundamentals, vacuum tubes, receiver and transmitter fundamentals, operation of specific search and analysis equipment, principles of radar, mission planning and navigation, in-flight maintenance, electronic reconnaissance and jamming missions and tactics.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (4/74).

AF-1715-0390

TELECOMMUNICATIONS SYSTEM CONTROL SPECIALIST BY CORRESPONDENCE

Course Number: 30750.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/83-Present.

Objectives: To teach personnel to monitor and analyze performance of radio and wire telecommunications circuits and equipment and to maintain and repair that equipment.

Instruction: The course is presented through self study materials in microwave circuits and theory, antennas and transmission theory, and data transmission and telecommunications. Also included are review materials in semiconductor devices and digital electronics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in communication systems and telecommunications (3/85); in the upper-division baccalaureate category, 3 semester hours in data communications for non-engineering degree program students (3/85). There is a proctored final examination.

AF-1715-0392

HM4118 ELECTRONIC COMPUTER REPAIRMAN/OPERATOR/407L

Course Number: 3AZR30554-10.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 16 weeks (480 hours).

Exhibit Dates: 1/73-12/73.

Objectives: To train enlisted personnel to operate, troubleshoot, and repair electronic computers in the TACS (407L) systems.

Instruction: Lectures and practical exercises in digital computer-related equipment, including logic operations and circuits, maintenance procedures, memory storage, registers, input-output buffers, block-diagram analysis, printers, key punches, tape punches, magnetic tape readers, and test procedures.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in digital computer hardware on the basis of institutional evaluation (4/74).

AF-1715-0397

1. AIR TRAFFIC CONTROL RADAR TECHNICIAN
2. AIR TRAFFIC CONTROL RADAR TECHNICIAN
(Air Traffic Control Radar Maintenance Technician)

Course Number: *Version 1:* AAR30371. *Version 2:* AAR30371.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 39 weeks (1170 hours). *Version 2:* 33-34 weeks (990-1020 hours).

Exhibit Dates: *Version 1:* 1/64-12/68. *Version 2:* 9/59-12/63.

Objectives: To train airmen to maintain and repair air traffic control radar and associated equipment at the advanced level.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance and repair of air traffic control radar and associated equipment, including radar, test and communications equipment inspection and operation, various indicators, and remoting system analysis. *Version 1:* Includes applied mathematics, DC and AC circuits, electronics principles, power supplies, electronic digital data processing, maintenance management, and measuring equipment. *Version 2:* Includes DC and AC circuits, electronics principles, power supplies, and advanced circuitry.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0406

AUTOMATIC TRACKING RADAR SPECIALIST (RATE AND TRACK SUBSYSTEMS) (SM-65)

Course Number: ABR3033C.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 45 weeks (1260 hours).

Exhibit Dates: 8/61-12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair the SM-65 (Atlas) automatic tracking radar set.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of the SM-65 (Atlas) automatic tracking radar set, including fundamentals of electronics (AC and DC circuits, transistors, vacuum and special tubes, electronic circuits, motors and servomechanisms, special circuits, and microwave principles); theory of operation of guidance, transmitter, receiver, antenna, Doppler simulator and console subsystem; and testing procedures for specialized equipment. Very little mathematics involved.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0412

WEATHER EQUIPMENT REPAIRMAN
(Ground Weather Equipment Operator)
(Basic Weather Service (Equipment Channel))

Course Number: AB25130.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 19 weeks (540 hours).

Exhibit Dates: 1/54-9/55.

Objectives: To train enlisted personnel to inspect, maintain, and repair weather equipment.

Instruction: Lectures and practical exercises in electronic principles (AC and DC circuits, electron tube and transistor principles, power supplies, wave-shaping circuits, amplifier basic concepts, and oscillators), radar transmitters and receivers, and troubleshooting, maintenance, and repair of specific weather equipment. Instruction includes extensive use of training and testing equipment. Also included are lectures and exercises in elementary meteorology, weather equipment, Rawinsonde evaluation, and equipment laboratory.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in meteorology (12/68).

AF-1715-0417

WEATHER EQUIPMENT TECHNICIAN

Course Number: AAR30270; AA25170.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 43-44 weeks (1290-1320 hours).

Exhibit Dates: 4/55-7/68.

Objectives: To train weather equipment personnel and airmen to perform as meteorological equipment technicians/supervisors.

Instruction: Lectures and practical exercises in the maintenance of meteorological equipment and the supervision of meteorological equipment operation and maintenance, including analysis of various circuits, principles of transformer action, time constants, resonance, vacuum tubes, amplifiers, oscillators, power supplies, transmitter and receiver circuits, nonelectric meteorological equipment functions, and fundamentals of radar. Includes mathematics up to basic concepts of calculus.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0422

Air Traffic Control Radar Repairman AN/CPN-4

Course Number: AB30331B.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 23-38 weeks (1020-1050 hours).

Exhibit Dates: 10/54-12/68.

Objectives: To train enlisted personnel to operate, tune, and align AN/CPN-4 radar equipment.

Instruction: Lectures and practical experience in AN/CPN-4 radar equipment operation, tuning, and alignment, including search indicating system, precision indicating system, and power and operations trailer. Instruction includes AC and DC circuits, circuit testing, RLC circuits, transients, vacuum tube electronics, DC instruments, and servo principles.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0427

Aircraft Early Warning Radar Repairman

Course Number: *Version 1:* 3ABR30132. *Version 2:* ABR30132. *Version 3:* ABR30132. *Version 4:* ABR30132; ABR30132-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 41 weeks (1140 hours). *Version 2:* 44-45 weeks (1230-1260 hours). *Version 3:* 42 weeks (1170 hours). *Version 4:* 38 weeks (1050 hours).

Exhibit Dates: *Version 1:* 3/68-12/73. *Version 2:* 2/62-2/68. *Version 3:* 5/61-1/62. *Version 4:* 3/58-4/61.

Objectives: To train airmen to operate, maintain, and repair aircraft early warning radar systems equipment.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of aircraft early warning radar systems equipment, including limited treatment of DC and AC circuit theory, vacuum tubes, testing procedures, amplifiers and oscillators, radar microwave principles and propagation, motors and servomechanisms, and ancillary systems and equipment. *Version 1:* Includes solid-state devices, receiver principles, and a fuller treatment of AC and DC circuit theory. *Version 2:* Includes solid-state devices, transistors, detection and discrimination procedures, and gyro reference system.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0428

AN/APQ-24A System Mechanic

Course Number: AB32130F.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 30 weeks (900 hours).

Exhibit Dates: 2/55-12/68.

Objectives: To train airmen to operate and maintain the AN/APQ-24A bombing and navigation system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APQ-24A bombing and navigation system, including basic electricity and electronics (tubes, magnetism and AC and DC currents, amplifiers, power supplies, modulation, special circuits, transmission, generation and propagation of microwave energy and synchros, and applications to radar equipment), and analysis of specific equipment and the associated ground position indicator.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory, all on the basis of institutional evaluation (4/74).

AF-1715-0440

Electronic Computer Systems Specialist by Correspondence

Course Number: 30554.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/84-Present.

Objectives: To teach personnel to install, maintain, and repair computer systems equipment.

Instruction: This self-study course provides instruction in basic digital electronics with supplementing study in semiconductor devices and test equipment operation. Course includes computer system maintenance and operations along with review tests throughout the course. There is supervised on job experience offered, and a proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semster hours in digital electronics , 1 in semiconductor circuit analysis (3/85).

AF-1715-0441

Electronic Digital Data Processing Repairman (Display Equipment/SACCS)

Course Number: 3ABR30534B-2; 3ABR30531-6.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 38-40 weeks (1080-1118 hours).

Exhibit Dates: 9/68-12/73.

Objectives: To train enlisted personnel to maintain and repair digital equipment.

Instruction: Lectures and practical exercises in digital equipment maintenance and repair, including printer chain, display chain, projection, aerospace ground equipment, and alert-transmit console; and electronic computer principles, including computer introduction, AC and DC circuits, magnetism, vacuum tubes and solid-state devices and circuits, Boolean algebra, computer components, computer units and programming, computer systems, and site management.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in electronics (4/74).

AF-1715-0442

Avionic Inertial and Radar Navigation Systems Specialist by Correspondence

Course Number: 32854.

Location: Extension Course Institute, Gunter AFS,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84-6/89.

Objectives: To upgrade the technical skill level of electronics technicians in microwave and computer fundamentals and devices applied to radar and navigation system maintenance.

Instruction: The course provides an introduction to electrical measurements, digital systems, and calculations related to navigation and error analysis. Description of the principles of navigation systems including doppler radar, inertial,and TACAN is part of the program. Also covered are devices including gyros, accelerometers, radar receiver-transmitters, antennas, and navigation computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in microwave fundamentals or in UHF techniques (3/85). Proctored final examination is required.

AF-1715-0443

Electronic Computer Systems Repairman (RCC-EDLCC/465L)

Course Number: 3ABR30534B-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 33 weeks (990 hours).

Exhibit Dates: 6/72-12/73.

Objectives: To train enlisted personnel to repair electronic digital data processing computer equipment.

Instruction: Lectures and practical exercises in electronic digital data processing repair, including EDLCC/RCC data processing equipment; digital techniques; circuit logic; maintenance concepts; test routines and malfunction analysis; components isolation and repair; use of aerospace ground equipment; and electronic computer principles, including introduction to computers, AC and DC circuits, magnetism, vacuum tube and solid-state devices and circuits, Boolean algebra, computer components, computer units and programming, computer systems, and site management. Includes AC motors and synchro systems, wave shaping and generating circuits, input-output devices and Modems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer systems, 1 in electricity or electronics (3/74).

AF-1715-0447

1. Electronic Computer Systems Repairman (BUIC AN/GYK-19)
2. Electronic Computer Systems Repairman (BUIC AN/GSA-51A)

Course Number: *All Versions:* 3ABR30534C.

Location: *Version 1:* School of Applied Aerospace Sciences, Keesler AFB, MS. *Version 2:* 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 40 weeks (1200 hours). *Version 2:* 43 weeks (1278 hours).

Exhibit Dates: *Version 1:* 2/73-12/73, 2/73-12/73.

Objectives: To train airmen to repair electronic computer systems.

Instruction: Lectures and practical exercises in the repair of electronic computer systems, including DC and AC circuits, vacuum and semiconductor electronics, computer logic and components, operation and application of test equipment, maintenance management, programming of specific equipment, and system operation, core memory, input, output, timing analysis, and terminal operation for specific computer systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in computer laboratory, and 3 as an elective in computers (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in digital electronics (4/74).

AF-1715-0448

ELECTRONIC COMPUTER SYSTEMS REPAIRMAN (DISPLAY EQUIPMENT/412L)

Course Number: 3ALR30554.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 20 weeks (588 hours).

Exhibit Dates: 5/72-12/73.

Objectives: To train enlisted personnel to maintain the 412L display equipment at the organizational and intermediate levels.

Instruction: Lectures and practical exercises in the maintenance of the 412L display equipment, including specific equipment terminology and circuit symbology, logic/circuit analysis and maintenance of the radar data processor, track data processor, surveillance and identification group, height data group, weapons control group display, and performance monitor group; and application and operation of specialized test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in computers (4/74).

AF-1715-0449

ELECTRONIC COUNTERMEASURES OFFICER (ECM Officer)

Course Number: ZZ302102.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 30 weeks (927 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train rated observers to operate and maintain specialized countermeasures equipment.

Instruction: Lectures and practical exercises in AC and DC circuits, vacuum tube electronics, special electronic circuits review, intercept and analysis equipment, reconnaissance and jamming flights, active countermeasures, and jamming flight equipment operation and maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour as an elective in electricity or electronics (5/74).

AF-1715-0450

TELECOMMUNICATIONS SYSTEMS/EQUIPMENT MAINTENANCE BY CORRESPONDENCE

Course Number: 30652.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/83-2/88.

Objectives: To advance the technical skills of the telecommunication technician in both equipment and systems.

Instruction: This is a correspondence course and practical exercises in repair and maintenance of telecommunication equipment and work centered management. Topics include maintenance responsibilities, work center management, electronic and typewriter principles, teletypewriter principles, and telecommunications systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer peripheral repair (3/85). There is a proctored final examination required.

AF-1715-0452

MISSILE SYSTEMS ANALYST SPECIALIST, WS-133A-M

Course Number: 3ABR31630G-1; ABR31630G-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 37 weeks (1020 hours).

Exhibit Dates: 10/67-7/72.

Objectives: To train enlisted personnel to be missile system analyst specialists.

Instruction: Lectures and practical exercises in diode and transistor circuits, digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, introduction to magnetism, AC and DC motors and synchros, electron tubes, power supplies, regulators, multivibrators, blocking oscillators, AM and FM modulation and demodulation, transmitters, wave-guides, transmission lines, antennas, UHF and microwave oscillators and amplifiers, circuits, circuit counters, and storage devices.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0453

AIRBORNE METEOROLOGICAL/ATMOSPHERIC RESEARCH EQUIPMENT (MET/ARE) REPAIRMAN

Course Number: 3ABR30231.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 34-35 weeks (960-1014 hours).

Exhibit Dates: 5/68-12/73.

Objectives: To train enlisted personnel to maintain and repair airborne meteorological and atmospheric research equipment.

Instruction: Lectures and practical exercises in airborne meteorological and atmospheric research equipment maintenance and repair, including specific equipment operation, block analysis, vertical and horizontal subsystems, data handling subsystem, control conversion subsystem, dropsonde data recording system, test equipment and check-out of components, dewpoint hygrometer and sea surface temperature indicator, atmospheric research equipment; and digital techniques, including binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, and storage devices; electron tubes; introduction to magnetism, AC and DC motors and synchros; use of the oscilloscope in circuit measurement; UHF and microwave oscillators and amplifiers; and power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in electronics (4/74).

AF-1715-0454

GAM ANALYST MECHANIC, GAM-77

Course Number: ABR31533Q-2.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 38-41 weeks (1050-1140 hours).

Exhibit Dates: 9/61-5/64.

Objectives: To train maintenance personnel to be missile analyst mechanics.

Instruction: Lectures and practical exercises in missile familiarization, flight control systems, missile systems, and guidance systems; digital techniques, including binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, and storage devices; electron tubes; introduction to magnetism; AC and DC motors and synchros; use of the oscilloscope in circuit measurement; UHF and microwave oscillators and amplifiers; and power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0455

1. NAVIGATION/BOMBING/TACTICS TRAINER SPECIALIST
2. NAVIGATION/BOMBING/TACTICS TRAINER SPECIALIST (Navigation/Bombing Trainer and Flight Simulator Tactics Specialist)

Course Number: *All Versions:* 3ABR34330-2.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 32 weeks (960 hours). *Version 2:* 34-35 weeks (960-1020 hours).

Exhibit Dates: *Version 1:* 8/72-12/73. *Version 2:* 9/69-7/72.

Objectives: To train enlisted personnel as flight simulation specialists.

Instruction: Lectures and practical exercises in introduction to digital computers, solid-state digital circuitry; radar principles and navigation systems; peripheral equipment operation, including memories, tape units, and printers; digital techniques, including binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, and storage devices; electron tubes; introduction to magnetism; AC and DC motors and synchros; use of the oscilloscope in circuit measurement; UHF and microwave oscillators and amplifiers; and power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in digital computers, and additional credit in digital computers on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in digital computers, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0456

Missile Electronic Equipment
Specialist, WS-133A

Course Number: ABR31632G.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 42 weeks (1170 hours).

Exhibit Dates: 11/66-12/68.

Objectives: To train enlisted personnel to operate and inspect missile launch equipment.

Instruction: Lectures and practical exercises in missile launch equipment operation and inspection, including equipment familiarization, introduction to logic and test equipment, and operation and maintenance of electronic facility base maintenance test equipment; and electronic principles, including digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, storage devices, electron tubes, introduction to magnetism, AC and DC motors and synchros, use of the oscilloscope in circuit measurement, UHF and microwave oscillators and amplifiers, power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0458

1. Missile Electronic Equipment
   Specialist (AGM-28A/B)
2. Air Launch Missile Checkout
   Equipment Repairman (AGM-28A/B)
3. Air Launch Missile Checkout
   Equipment Repairman (AGM-28A/B)
   (GAM Checkout Equipment Repairman
   (GAM-77))

Course Number: *Version 1:* 3ABR31632Q. *Version 2:* ABR31534Q. *Version 3:* ABR31534Q.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 27 weeks (780 hours). *Version 2:* 35 weeks (960 hours). *Version 3:* 38-39 weeks (1050-1080 hours).

Exhibit Dates: *Version 1:* 11/68-12/73. *Version 2:* 3/66-10/68. *Version 3:* 5/63-2/66.

Objectives: To train enlisted personnel to maintain and repair electronic equipment and air launch missile check-out equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of missile electronic equipment and air launch missile check-out equipment, including missile familiarization, missile/pylon simulator, pneumatic and hydraulic automatic ground equipment, flight attitude positioner, electrical components test stands, and printed circuit card test set; and electronic principles, including digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, storage devices, electron tubes, introduction to magnetism, AC and DC motors and synchros, use of the oscilloscope in circuit measurement, UHF and microwave oscillators and amplifiers, power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, wave-guides, and cavity resonators.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the upper-division baccalaureate category, 8 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0460

Automatic Flight Control System
Specialist

Course Number: 3ABR32530-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 34 weeks (960 hours).

Exhibit Dates: 5/71-12/73.

Objectives: To train enlisted personnel to maintain automatic flight control systems.

Instruction: Lectures and practical exercises in automatic flight control systems maintenance, including basic physics and mechanics, computer operation, power distribution circuitry, digital logic, and analog and servo systems; and electronic fundamentals, including digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, storage devices, electron tubes, introduction to magnetism, AC and DC motors and synchros, use of the oscilloscope in circuit measurement, UHF and microwave oscillators and amplifiers, power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics and electronics laboratory (4/74).

AF-1715-0461

Missile Electronic Equipment
Specialist, WS-133B

Course Number: 3ABR31632H; ABR31632H.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 38 weeks (1050 hours).

Exhibit Dates: 9/66-3/71.

Objectives: To train enlisted personnel to operate, maintain, and inspect missile launch and test equipment.

Instruction: Lectures and practical exercises in electronic principles, including digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, storage devices, electron tubes, introduction to magnetism, AC and DC motors and synchros, use of the oscilloscope in circuit measurement, UHF and microwave oscillators and amplifiers, power supplies, regulators, multivibrators, blocking oscillators, transmission lines, antennas, transmitters, wave-guides, and cavity resonators; weapon system familiarization; introduction to logic and test equipment; manual and semiautomatic maintenance ground equipment test set, digital data test set; radio test set; interrogator and transponder test set; message processing control group; terminal digital data system; and launch facility power distribution and test sets.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

AF-1715-0464

Offensive Fire Control Systems
Mechanic (MA-8 System)
(Fire Control Systems Mechanic (MA-8 System))

Course Number: ABR32230L.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 29-35 weeks (768-960 hours).

Exhibit Dates: 11/59-12/68.

Objectives: To train airmen to repair fire control systems.

Instruction: Lectures and practical exercises in the repair of fire control systems, including DC, AC, and reactive circuits; vacuum tubes and solid-state devices; amplifiers and oscillators; detection and discrimination; microwave operation; special-purpose tubes; multivibrators; sweep and logic circuits; circuit analysis; hand tool use; specific transmitters, modulators, antennas, receivers, range computers, power supplies, computing gun, bombs, rocket sights and bombing computers; and system tie-in and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

AF-1715-0465

Ground Radio Communications
Technician by Correspondence

Course Number: 30474.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/83-Present.

Objectives: To provide management training necessary to raise the ground radio communications specialist to supervisory level.

Instruction: This is a self study program supplemented by on-job experience in supervision, evaluating and rating personnel, safety, security, publications, and training as they apply to a maintenance supervisor.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in personnel supervision (3/85). There is a proctored final examination.

AF-1715-0466

Electronic Warfare Systems
Specialist by Correspondence

Course Number: 32853.

Location: Extension Course Institute, Gunter AFS AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/84-Present.

Objectives: To advance the electronic warfare systems specialist into leadership (middle management) positions involving personnel supervision and equipment and shop management.

Instruction: This is a correspondence course with practical exercises in personnel supervision, management, and maintenance of electronics warfare equipment and electronics warfare systems. Topics include introduction to supervision and management, electronic equipment maintenance, computer principles, basic electricity and electronics, and accident prevention.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communication systems, 3 in introduction to computers (3/85). Proctored final examination is required.

AF-1715-0467

Avionic Communications Specialist by Correspondence

Course Number: 32851.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximim 52 weeks.

Exhibit Dates: 7/84–6/89.

Objectives: To advance avionics communication specialists into leadership (middle management) positions of personnel supervision and equipment and shop management.

Instruction: This is a correspondence course and practical exercises in personnel supervision, shop management and maintenance of aerospace equipment and communications systems. Topics include introduction to supervision and management, avionics equipment maintenance, computer principles, communications systems, basic electricity and electronics, navigational aids, and accident prevention.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications systems, 2 in management supevision (3/85). There is a required proctored final examination.

AF-1715-0474

1. Communications Maintenance Officer
2. Communications Officer
3. Communications Officer
4. Communications Officer

Course Number: *Version 1:* 3OBR3031. *Version 2:* 3OBR3031. *Version 3:* OBR3031. *Version 4:* OBR3031.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 32 weeks (960 hours). *Version 2:* 40 weeks (1200 hours). *Version 3:* 45 weeks (1350 hours). *Version 4:* 43 weeks (1290 hours).

Exhibit Dates: *Version 1:* 6/70–12/73. *Version 2:* 10/68–5/70. *Version 3:* 2/64–9/68. *Version 4:* 7/55–1/64.

Objectives: To train officers to command communications units.

Instruction: *All Versions:* Lectures and practical exercises in electronic principles, including AC and DC circuits, RLC circuits, solid-state power supplies and amplifiers, solid-state applications in wave generations, digital techniques, electron tubes, circuits, transmitters and receiver systems and microwave principles. *Version 1:* Instruction includes communications management and telephone systems, airbase systems, communications tributary and relay stations, multichannel communications systems, radio facilities, navigation aids, communications security, and command and control communications. *Version 2:* Instruction includes communications management and telephone systems, airbase systems, communications tributary and relay stations, multichannel communications systems, radio facilities, navigation aids, communications security, and command and control communications. *Version 3:* Instruction includes communications management and telephone systems, airbase systems, communications tributary and relay stations, multichannel communications systems, radio facilities, navigation aids, communications security, and command and control communications. *Version 4:* Instruction includes communications electronics, radio communications equipment, wire communications equipment, cryptographic communications, and communications problems and procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 12 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (4/74). *Version 3:* Credit is not recommended (4/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics and additional credit in electricity or electronics on the basis of institutional evaluation (4/74).

AF-1715-0475

Avionic Sensor Systems Specialist (Electronic Sensors)

Course Number: 3ABR32930A.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 31 weeks (930 hours).

Exhibit Dates: 8/71–12/73.

Objectives: To train airmen to operate, maintain, and repair electronic aircraft sensor systems.

Instruction: Lectures and practical exercises in electronics fundamentals and the operation, maintenance, and repair of electronic aircraft sensor systems, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, electronic side-looking radar (SLR) sets, infrared sensor systems, data display sets, camera parameter controls, reconnaissance laser systems, and low-light-level television sensor systems.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and 3 additional hours in electricity or electronics on the basis of institutional evaluation (4/74).

AF-1715-0476

1. Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
2. Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control)
   (Integrated Avionics System Specialist (Navigation/Flight and Weapons Control))

Course Number: *All Versions:* 3ABR32631A.

Location: *Version 1:* School of Applied Aerospace Sciences, Lowry AFB, CO. *Version 2:* 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 26 weeks (780 hours). *Version 2:* 28–39 weeks (840–1170 hours).

Exhibit Dates: *Version 1:* 2/73–12/73. *Version 2:* 10/70–1/73.

Objectives: To train airmen to inspect, modify, troubleshoot, and repair avionics component systems (navigation/flight and weapon control and flight data recorder systems) at the intermediate level.

Instruction: *All Versions:* Lectures and practical exercises in maintenance electronics or electronics fundamentals, and the inspection, modification, troubleshooting, and repair of avionics components systems (navigation/flight and weapon control and flight data recorder systems), including DC and AC fundamentals, tubes, power supplies, transistors, amplifiers, oscillators, wave-shaping circuits, AM and FM, electrical test equipment, aerospace ground test equipment, and maintenance of specific airborne equipment and components. *Version 1:* Includes electricity principles, semiconductors, computer principles (analog and digital), multivibrators, digital circuits, AM, FM, balanced modulation, principles of radar, infrared and lasers, and system analysis procedures. *Version 2:* Includes single sideband, transmission lines and antennas, servomechanisms, cavity resonators, and microwave principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in electricity and electronics and additional credit in electricity and electronics on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in basic electronics, 1 in electronics laboratory, and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0477

1. Missile Guidance and Control Specialist (CGM-13B, GEMS)
2. Missile Guidance and Control Specialist (CGM-13B, GEMS)
   (Tactical Missile Guidance Mechanic (CGM-13B/GEMS))
   (Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS))

Course Number: *Version 1:* 3AZR3165N-2; AZR31651N-2. *Version 2:* ABR31631N-2; ABR31431Y.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 28–30 weeks (840–900 hours). *Version 2:* 33–49 weeks (900–1380 hours).

Exhibit Dates: *Version 1:* 2/67–12/73. *Version 2:* 9/63–1/67.

Objectives: To train airmen to perform as missile guidance and control specialists.

Instruction: Lectures and practical exercises in electronics fundamentals and in the operation, maintenance, and repair of missile guidance and control equipment and associated test sets (CGM-13B), or in the operation, maintenance, and repair of missile guidance and control equipment and associated test sets (TM-76B), including DC and AC circuits, reactive circuits, vacuum tubes and transistors, amplifiers and oscillators, aerospace ground equipment, inertial guidance theory, and missile guidance components; power supplies; wave-shaping circuits; AM and FM; single sideband; transmission lines and antennas; servomechanisms; cavity resonators; microwave principles; and electrical test equipment.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0478

Avionic Sensor Systems Specialist (Electro-Optical Sensors)

Course Number: 3ABR32930B; 3ABR30135B.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 28–32 weeks (840–870 hours).

Exhibit Dates: 2/70–12/73.

Objectives: To train airmen to repair aircraft sensor systems.

Instruction: Lectures and practical exercises in electronics fundamentals and the repair of aircraft sensor systems, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, and maintenance of electro-optical cameras, data display sets, aircraft cameras parameter controls, viewfinders, camera mounts, magazines and cassettes, and camera controls.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0479

Aircraft Sensor Systems Repairman
(Electronic Sensors)

Course Number: 3ABR30135A.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 31-34 weeks (930-990 hours).

Exhibit Dates: 2/70-12/73.

Objectives: To train airmen to inspect, maintain, and repair aircraft sensor systems.

Instruction: Lectures and practical exercises in electronics fundamentals and the inspection, maintenance, and repair of aircraft sensor systems, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, microwave principles, electrical test equipment, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, optics, radar and laser principles, and instruction in electronic side-looking radar (SLR) sets, infrared sensor systems, data display sets, camera parameter controls, reconnaissance laser systems, and low-light-level television sensor systems.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0480

Space Communications Systems
Equipment Operator/Specialist

Course Number: 3ABR30436.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS.

Length: 27 weeks (810 hours).

Exhibit Dates: 9/72-12/73.

Objectives: To train airmen to operate, install, inspect, maintain, and repair space communications terminal equipment, automatic tracking systems, and associated equipment.

Instruction: Lectures and practical exercises in electronics fundamentals and the operation, installation, inspection, maintenance and repair of space communications terminal equipment, automatic tracking systems, and associated equipment, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, modulation, UHF-SHF equipment, voice and data multiplex, frequency standards and timing units, and signaling systems.

Credit Recommendation: In the upper-division baccalaureate category, 21 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74).

AF-1715-0481

1. Missile Guidance and Control Specialist (CGM-13B, GSC)
2. Missile Guidance and Control Specialist (CGM-13B, GSC)
   (Tactical Missile Guidance Mechanic (CGM-13B))
3. Tactical Missile Guidance Mechanic (MACE, MGM-13C)
   (Tactical Missile Guidance Mechanic (TM-76B, GSC))
   (Tactical Missile Guidance Mechanic and Checkout Equipment Repairman (TM-76B, GEMS))
   (Guidance System Mechanic (TM-76B))

Course Number: *Version 1:* 3ABR31631N-1. *Version 2:* ABR31631N-1. *Version 3:* ABR311306-2; ABR31431N.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 33-36 weeks (900-990 hours). *Version 2:* 28-36 weeks (750-990 hours). *Version 3:* 30-35 weeks (810-960 hours).

Exhibit Dates: *Version 1:* 3/68-12/73. *Version 2:* 2/65-2/68. *Version 3:* 12/60-1/65.

Objectives: To train airmen to perform as missile guidance and control specialists (CGM-13B or TM-76B).

Instruction: Lectures and practical exercises in maintenance of missile guidance and control equipment, including inertial guidance systems theory, operation, components, and troubleshooting; ground support equipment; DC and AC fundamentals; reactive circuits; vacuum tubes and solid-state devices; amplifiers and oscillators; electrical test equipment and system test consoles; power supplies; wave-shaping circuits; AM; FM; single sideband; transmission lines; servomechanisms; antennas; cavity resonators; and microwave principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics and additional credit in electronics on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in electricity or electronics and additional credit in electronics on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0482

Defensive Fire Control System
Mechanic (A-3A, MD-9, ASG-15
Turrets)

Course Number: 3ABR32330G.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 30-33 weeks (894 hours).

Exhibit Dates: 7/68-2/71.

Objectives: To train airmen to perform as defensive fire control system mechanics or B-52 turret system mechanics.

Instruction: Lectures and practical exercises in maintenance electronics and defensive fire control systems, electrical fundamentals, and maintenance of B-52 turret systems, including basic electricity principles, AC and DC, amplifiers, power supplies, computer, track radar and search radar data flow and adjustments, and testing procedures and equipment. Includes vacuum tubes, transistors, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, various modes of operation, harmonization, and 50 caliber machine gun equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0483

1. Bomb Navigation System Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems)
2. Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems)
   (Bomb Navigation Systems Mechanic (ASB-4A/9A/16 Systems))
   (Bomb Navigation Systems Mechanic (ASB-4/4A/9/9A/16 Systems))
3. Bomb Navigation Systems Mechanic (ASB-4/4A/9/9A/16 Systems)
4. Bomb Navigation Systems Mechanic (ASB-4 Systems)
5. Bomb Navigation Systems Mechanic (MA-2 System)

Course Number: *Version 1:* 3ABR32130K. *Version 2:* 3ABR32130K; ABR32130K. *Version 3:* ABR32130K. *Version 4:* ABR32130K. *Version 5:* AB32130K.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 33-36 weeks (990-1020 hours). *Version 2:* 40 weeks (1110 hours). *Version 3:* 42 weeks (1170 hours). *Version 4:* 26 weeks (690 hours). *Version 5:* 24 weeks (630 hours).

Exhibit Dates: *Version 1:* 1/69-12/73. *Version 2:* 5/62-12/68. *Version 3:* 8/61-4/62. *Version 4:* 7/59-7/61. *Version 5:* 2/58-6/59.

Objectives: To train airmen to test, maintain, and repair specific bomb navigation systems.

Instruction: *All Versions:* Lectures and practical exercises in electrical fundamentals and the testing, maintenance, and repair of specific bomb navigation systems, including DC, AC, and reactive circuits, vacuum tubes and transistors, amplifiers, bombing and navigation computers, radar data presentation set, and adjustment and troubleshooting of specific equipment and components. *Version 1:* Includes power supplies, wave-shaping circuits, AM, FM, single-sideband, transmission lines and antennas, cavity resonators, oscillators, special circuits, servomechanisms, microwave principles, electrical test equipment, terrain computer, and radar fundamentals and equipment. *Version 2:* Includes power supplies, wave-shaping circuits, AM, FM, single-sideband, transmission lines and antennas, cavity resonators, oscillators, special circuits, servomechanisms, microwave principles, electrical test equipment, terrain computer, and radar fundamentals and equipment. *Version 3:* Includes oscillators, motors and servomechanisms, multivibrators and sweep circuits, microwave principles, terrain computer, timing circuits, and monopulse radar. *Version 5:* Includes transmitting and receiving and high-speed bombing radar.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 8 semester hours in electricity and electronics and credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 8 semester hours in electricity and electronics and credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in electricity and electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the upper-division baccalaureate category, 2 semester hours in electricity and electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0484

Tactical Missile Guidance Mechanic (MGM-13A)

Course Number: ABR31431M.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 35 weeks (960 hours).

Exhibit Dates: 10/64–12/68.

Objectives: To train airmen to operate, maintain, and inspect MGM-13A and TM-76A missile guidance systems and associated equipment.

Instruction: Lectures and practical exercises in electronics fundamentals and the operation, maintenance, and inspection of MGM-13A and TM-76A missile guidance systems and associated equipment, including AC and DC fundamentals, vacuum tubes and transistors, amplifiers and oscillators, motors and servomechanisms, multivibrators and sweep circuits, microwave principles, guidance system check-out equipment, ground support equipment, and troubleshooting techniques for specific guidance system equipment. Includes power supplies, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, cavity resonators, and electrical test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (4/74).

AF-1715-0485

Bomb Navigation System Mechanic (B-52C/D: ASB-15 System)

(Bomb Navigation Systems Mechanic (B-52C/D: ASB-15 System)

(Bomb Navigation System Mechanic (ASB-15 System))

Course Number: 3ABR32130L; ABR32130L.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 32–43 weeks (960–1200 hours).

Exhibit Dates: 7/63–12/73.

Objectives: To train airmen to repair the B-52C/D: ASB-15 bomb navigation system.

Instruction: Lectures and practical exercises in electronics fundamentals and the repair of the B-52 C/D: ASB-15 bomb navigation system, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, pulse circuits, circuit diagrams, data flow, radar and computer equipment, and troubleshooting techniques for specific equipment.

Credit Recommendation: In the upper-division baccalaureate category, 7 semester hours in electricity and electronics, and credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0486

Weapons Control System Mechanic (F/FB-111)

(Weapons Control Systems Mechanic (F-111A))

Course Number: 3ABR32231R-4; ABR32231R.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23–25 weeks (660–720 hours).

Exhibit Dates: 9/67–12/73.

Objectives: To train airmen in electronics fundamentals and to perform as weapon control systems mechanics.

Instruction: Lectures and practical exercises in electronics fundamentals and weapons control systems, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, binary system, Boolean algebra, digital logic and circuits, and use and maintenance of specific equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computers, 7 in electricity or electronics, and credit in electronics and electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0488

1. Air Traffic Control Radar Repairman
2. Air Traffic Control Radar Repairman
3. Air Traffic Control Radar Repairman
4. Air Traffic Control Radar Repairman (AN/MPN-1)

Course Number: *Version 1:* 3ABR30331. *Version 2:* 3ABR30331. *Version 3:* ABR30331. *Version 4:* AB30331A.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 39–42 weeks (1170–1260 hours). *Version 2:* 42 weeks (1170 hours). *Version 3:* 44–46 weeks (1260–1290 hours). *Version 4:* 23–33 weeks (900–930 hours).

Exhibit Dates: *Version 1:* 1/70–12/73. *Version 2:* 5/68–12/69. *Version 3:* 9/59–4/68. *Version 4:* 11/54–8/59.

Objectives: To train airmen to operate, maintain, and repair air traffic control radar equipment and associated identification and test equipment.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of air traffic control radar equipment and associated identification and test equipment, including DC, AC, magnetism, electron tubes and power supplies, amplifiers and oscillators, special circuits, microwave principles, radar system principles, transmitter and receiver system circuits, surveillance indicating system, precision indicator and remoting system, and components and troubleshooting procedures of specific radar systems and subsystems. *Version 1:* Includes resonance; motors; synchros; diodes; transistors; operation, function, and basic mathematical relationships of regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; binary and octal numbers; logic function; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; transmission lines and antennas; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; IFF and SIF systems; coding and decoding; control circuits; and communications equipment. *Version 2:* Includes resonance, motors and servomechanisms, solid-state diodes, transistors, vacuum tubes, FM, single sideband, transmission lines and antennas, discrimination, wave-shaping circuits, cavity resonators, IFF and SIF systems, coding and decoding, and control circuits. *Version 3:* Includes communications and beacon equipment. *Version 4:* Includes vacuum tubes, transistors, modulation, detection, synchros, approach indicator, and communications and beacon equipment.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electricity or electronics, 2 in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

AF-1715-0489

Radio Relay Equipment Repairman

Course Number: *All Versions:* 3ABR30430. *Version 3:* ABR30430.

Location: *Version 1:* School of Applied Aerospace Sciences, Keesler AFB, MS. 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 27–34 weeks (1020–1080 hours). *Version 2:* 36 weeks (990 hours). *Version 3:* 38 weeks (1050 hours).

Exhibit Dates: *Version 1:* 6/71–12/73. *Version 2:* 6/69–5/71. *Version 3:* 10/63–5/69.

Objectives: To train airmen to perform as radio relay equipment repairmen.

Instruction: *All Versions:* Lectures and practical exercises in electricity and electronics fundamentals and radio relay equipment repair including DC and AC, transistors and tubes, amplifiers and oscillators, motors, microwave principles, telegraph and telephone multiplexing, and radio relay systems. *Version 1:* Includes resonance; magnetism; synchros; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; logic functions; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; transmission lines and antennas; transmitters; wave-guides; cavity resonators; electrical test equipment; link systems; forward propagation tropospheric scatter equipment testing; troubleshooting, alignment, and maintenance; block-diagram and circuit analysis; and line-of-sight radio terminals. *Version 2:* Includes resonance; magnetism; synchros; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM and PM systems; logic functions; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; transmission lines and antennas; transmitters, wave-guides; cavity resonators; electrical test equipment; link systems; forward propagation tropospheric scatter equipment testing, troubleshooting, alignment, and maintenance; block-diagram and circuit analysis; and line-of-sight radio terminals. *Version 3:* Includes reactive circuits, detection and discrimination, servomechanisms, multivibrators and sweep circuits, circuit analyses, and tactical and fixed radio relay.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74).

AF-1715-0490

Flight Facilities Equipment Repairman

Course Number: *Version 1:* 3ABR30431. *Version 2:* 3ABR30431; ABR30431.

Location: *Version 1:* School of Applied Aerospace Sciences, Keesler AFB, MS. 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 35-38 weeks (1080-1336 hours). *Version 2:* 39 weeks (1080 hours).

Exhibit Dates: *Version 1:* 6/71-12/73. *Version 2:* 9/63-5/71.

Objectives: To train airmen to operate, install, test, troubleshoot, adjust, maintain, and repair flight facilities equipment.

Instruction: *All Versions:* Lectures and practical exercises in electronics principles and the operation, installation, testing, troubleshooting, adjustment, maintenance, and repair of flight facilities equipment, including DC and AC, resonance, electron tubes and power supplies, transistors, amplifiers and oscillators, AM and FM systems, special circuits, detection and discrimination, radar beacon systems, omni-range analysis, instrument landing system analysis, and TACAN systems analysis. *Version 1:* Includes magnetism; motors; synchros; operation, functions, and basic mathematical relationships of power supplies, regulators, pulse modulation, pulsed and blocking oscillators; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; binary and octal numbers; logic function; diagrams and circuits; Boolean algebra; truth tables; counters and storage devices; and digital techniques. *Version 2:* Includes magnetism; motors; synchros; operation, function, and basic mathematical relationships of power supplies, regulators, pulse modulation, pulsed and blocking oscillators; transmission lines and antennas; transmitters; waveguides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; binary and octal numbers; logic function; diagrams and circuits; Boolean algebra; truth tables; counters and storage devices; and digital techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74).

AF-1715-0491

Ground Radio Communications Equipment Repairman (Titan II)

Course Number: 3ABR30434-1.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 33-37 weeks (1020-1272 hours).

Exhibit Dates: 12/68-12/73.

Objectives: To train airmen to repair ground radio communications equipment.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and ground radio communications equipment repair, including DC and AC; resonance; magnetism; motors; synchros; diodes; transistors; electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; binary and octal numbers; logic function; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; HF single-sideband transceivers; intercomplex radio communications system; surveillance system; launch enable system; and associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74).

AF-1715-0492

Avionic Communications Specialist

Course Number: 3ABR32830.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 29 weeks (870 hours).

Exhibit Dates: 4/72-12/73.

Objectives: To train airmen to maintain and repair specialized avionics communications equipment.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and in the maintenance and repair of specialized avionics communications equipment, including AC and DC; resonance; magnetism; motors; synchros; diodes; transistors; electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; binary and octal numbers; logic functions; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; waveguides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; command, liaison, and interphone testing and adjustment; aircraft wiring; and communications systems components.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, 3 as an elective in electronic communications (3/74).

AF-1715-0493

DCLF Reference Measurement and Calibration

Course Number: G3AZR32470.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (230 hours).

Exhibit Dates: 4/85-Present.

Objectives: To provide training on measurement and calibration methods.

Instruction: Course trains personnel to repair, calibrate and use electronic test and measuring equipment including meters, scopes, bridges, current and voltage standards, sampling devices and signal generators.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic tests and measurements and 2 in electronic systems troubleshooting and maintenance. (11/86)

AF-1715-0494

Radio Relay Equipment Repairman (EAME)

Course Number: ABR30430-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 31-32 weeks (840-870 hours).

Exhibit Dates: 6/65-12/68.

Objectives: To train airmen to repair radio relay equipment.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and the repair of radio relay equipment, including DC and AC, resonance, magnetism, motors, synchros, diodes, transistors, and electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM modulation and demodulation systems, binary and octal numbers; logic function; truth tables; Boolean algebra; logic diagrams and circuits; digital techniques; counters and storage devices; transmission lines and antennas; transmitters; waveguides; cavity resonators; VHF, UHF, and microwave oscillators and amplifiers; electrical test equipment; multiplexing; telephone and telegraph terminal principles; transportable radio relay equipment; and associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, 4 in radio engineering (4/74).

AF-1715-0495

Ground Radio Communications Equipment Repairman (WS-133A/B)

Course Number: ABR30434-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 31 weeks (840 hours).

Exhibit Dates: 11/65-12/68.

Objectives: To train airmen to operate, install, test, adjust and align, maintain, and repair ground communications equipment.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and the operation, installation, inspection, testing, adjustment and alignment, maintenance, and repair of ground communications equipment, including DC and AC, resonance, magnetism, motors, synchros, diodes, transistors, and electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM modulation and demodulation systems; binary and octal numbers; Boolean algebra; logic function; diagrams and circuits; truth tables; counters and storage devices; digital techniques; transmission lines and antennas; transmitters; waveguides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; receivers and transceivers;

single-sideband equipment; and associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (4/74).

AF-1715-0496

1. Radio Relay Equipment Technician
2. Radio Relay Equipment Maintenance Technician

Course Number: AAR30470.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 40 weeks (1200 hours). *Version 2:* 39-44 weeks (1170-1320 hours).

Exhibit Dates: *Version 1:* 1/64-12/68. *Version 2:* 1/59-12/63.

Objectives: To train enlisted personnel to install, operate, and maintain microwave, multiplex, radio relay, antrac, and carrier repeater equipment.

Instruction: *All Versions:* Lectures and practical exercises in mathematics, basic and advanced circuits, AC and DC circuit analysis, FM transmitter and receiver principles, functional analysis of receiver circuits, carrier and multiplexing systems (with emphasis on frequency and time division multiplexing), carrier telephone and telegraph terminal principles, radio relay systems, power supplies, amplifiers, wave-shaping circuits, step counters, motors and generators, tropospheric scatter, transmitters and receivers, microwave transceivers, and antennas and transmission lines.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1715-0497

1. Avionics Officer (Fighter)
2. Avionics Officer (Fighter) (Armament Systems Officer (Fighter))

Course Number: *Version 1:* 3OBR3231A-1. *Version 2:* OBR3231A-1; OB3231A.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 27-30 weeks (800-900 hours). *Version 2:* 24-36 weeks (720-1080 hours).

Exhibit Dates: *Version 1:* 1/69-12/73. *Version 2:* 3/54-12/68.

Objectives: To train officers in fire control and weapon control systems operation and management principles.

Instruction: *All Versions:* Lectures and practical exercises in electronic principles, including mathematics through trigonometry and complex numbers, AC and DC fundamentals, Thevenin's and Norton's theorems, superposition thereom, Delta-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, single-sideband principles, frequency modulation and detection, receiver and transmitter principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, integrated circuits, operations and limitations of aircraft fire control and weapons systems, and principles of management. *Version 2:* Instruction includes power supplies and amplifiers, including rectifiers, filters, amplifier principles, feedback, and phase inversion; wave-shaping circuits, including oscillators, transient circuits, clippers, clampers, multivibrators, and computer circuits.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in electronics (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68), 3 in electricity or electronics (6/74), and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0498

Ground Communications Equipment Repairman (VHF-UHF)

Course Number: AB30432B.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3310th Technical School, Scott AFB, IL.

Length: 20-23 weeks (600 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to tune, operate, and maintain selected ground radio communications equipment.

Instruction: Lectures, demonstrations, and laboratory experiences in the operation and maintenance of ground radio communications equipment. Course includes basic electricity, amplifiers, power supplies, receivers, transmitters, UHF and VHF systems, and direction-finding equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, 6 in electronics on the basis of institutional evaluation (6/74).

AF-1715-0499

Ground Communications Equipment Repairman (Heavy) Receivers

Course Number: *Version 1:* ABR30433B. *Version 2:* AB30433B.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3310th Technical School, Scott AFB, IL.

Length: *Version 1:* 28 weeks (750 hours). *Version 2:* 15 weeks (450 hours).

Exhibit Dates: *Version 1:* 8/58-12/68. *Version 2:* 7/55-7/58.

Objectives: To train airmen to install, maintain, repair, and operate large ground radio equipment at the apprentice level.

Instruction: *All Versions:* Lectures and practical exercises in the installation, maintenance, repair, and operation of large ground radio equipment, including analysis of specific radio, radio teletypewriter, and single-sideband receiving equipment; and testing procedures. *Version 1:* Includes electronics principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity, 2 in electrical laboratory, and, on the basis of institutional evaluation, 3 in radio receivers (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, and 3 in radio receivers on the basis of institutional evaluation (6/74).

AF-1715-0506

Control Systems Mechanic (SM-65, 68)

Course Number: ABR31230P.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 22 weeks (570 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To train enlisted personnel to perform as apprentice control system mechanics.

Instruction: Lectures and practical exercises on control systems maintenance, including fundamentals of electricity, AC and DC fundamentals, circuits, and vacuum tubes; power supplies; basic guidance and control circuits; amplifiers; transistor principles and control circuits; SM-65 operating principles, control system operating principles, flight control system component identification, location and operation, component maintenance and GSE SM-65.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory for non-electronics majors (6/74).

AF-1715-0508

Guidance Systems Mechanic (SM-65, 68)

Course Number: ABR31130P-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 24 weeks (630 hours).

Exhibit Dates: 6/60-12/68.

Objectives: To train enlisted personnel to maintain and repair missile guidance systems.

Instruction: Lectures and practical exercises in the repair of guidance systems, including fundamentals of electricity; fundamentals of AC and DC circuits; vacuum tubes; transformers and synchros; power supplies; basic guidance and control circuits; amplifiers; transistor principles and logic circuitry; missile inspection and maintenance system; radio guidance circuits and components; microwave transmission; and modulation and detectors.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0510

1. Aircraft Electronic Navigation Equipment Technician
2. Aircraft Electronic Navigation Equipment Maintenance Technician

Course Number: *All Versions:* AAR30171B. *Version 2:* AAR30171; AA30171.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 43 weeks (1290 hours). *Version 2:* 19-41 weeks (570-1230 hours).

Exhibit Dates: *Version 1:* 12/63-12/68. *Version 2:* 4/55-11/63.

Objectives: To train career airmen to maintain, operate, and install aircraft electronic navigation equipment.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance, operation, and installation of aircraft electronic navigation equipment, including principles of DC and AC circuits; RL and RC circuits, basic electronic principles; power supplies; oscillators; wave shaping; use of multimeter and oscilloscope; functional block-diagram analysis of transmitter, RF receiver, antenna, servo, and indicator systems; basic measuring devices and test equipment; principles of airborne instruments, radar, Doppler, beacon, and Loran systems; and applied technical mathematics. *Version 1:* Includes principles of electronic digital data processing.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in shop management, 3 in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0529

1. Electronic Warfare Officer
2. Electronic Warfare Officer
3. Electronic Warfare Officer (Navigator, ECM)

Course Number: *Version 1:* B-V7C-F. *Version 2:* 51-B-V7C-A. *Version 3:* 51-B-V7C-A; ZZ3021OZ; 157105; 157104.

Location: Air Training Command, Mather AFB, CA. *Version 2:* Air Training Command, Keesler AFB, MS. *Version 3:* Air Training Command, Keesler AFB, MS.

Length: *Version 1:* 17-25 weeks (293-593 hours). *Version 2:* 28 weeks (687-699 hours). *Version 3:* 28-40 weeks (300-1088 hours).

Exhibit Dates: *Version 1:* 1/74-1/88. *Version 2:* 7/70-12/73. *Version 3:* 7/57-6/70.

Objectives: To train officers to supervise the operation, maintenance, and repair of electronic systems.

Instruction: Lectures, laboratories, and discussion sessions in basic electricity and electronics, transmission and reception, radar systems, electronic countermeasures systems, audio analysis, electronic warfare systems, and simulation training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, semester hours in electricity, 2 in electronics, 2 in electrical laboratory (6/75). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0530

Ground Communications Equipment Repairman (Heavy) Transmitters

Course Number: *Version 1:* ABR30433A. *Version 2:* AB30433A.

Location: *Version 1:* 3380th Technical School, Keesler AFB, MS. *Version 2:* 3310th Technical School, Scott AFB, IL.

Length: *Version 1:* 32 weeks (870 hours). *Version 2:* 18 weeks (540 hours).

Exhibit Dates: *Version 1:* 8/58-12/68. *Version 2:* 8/55-7/58.

Objectives: To train enlisted personnel to install, maintain, and repair high-powered ground radio transmitters.

Instruction: Lectures and practical exercises in high-powered ground radio transmitter installation, maintenance, and repair, including AC and DC circuits, Ohm's law, RLC circuits, parallel and series combinations, motors and generators, magnetism principles, measuring instruments, tetrode and pentode circuits, amplifiers, oscillators, superheterodyne procedures, video circuits, and electronics applied to specific transmitters.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0532

Electronic Warfare Systems Specialist

(Electronic Warfare Repairman)

Course Number: 3ABR32833; 3ABR30133.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 34-36 weeks (1020-1080 hours).

Exhibit Dates: 12/70-12/73.

Objectives: To train airmen to perform as electronic warfare systems specialists.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and electronic warfare systems, or in the troubleshooting and repair of electronic warfare equipment, including AC and DC; magnetism; motors; resonators; diodes; transistors; tubes; AM; FM; synchros; power supplies; wave-guides; cavity resonators; UHF and microwave oscillators; multivibrators; pulsed and blocking oscillators; transmission lines and antennas; electrical test equipment; principles of electronic warfare, radar homing and warning equipment, panoramic receiver, and UHF and VHF countermeasures transmitters; introduction to pod-contained equipment; and hydraulically tuned transmitters. Includes PM modulation and demodulation systems, binary and octal numbers, logic functions, diagrams and circuits, truth tables, Boolean algebra, counters and storage devices, digital techniques, and RF circuit analysis.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory, and, for non-electronics majors, credit in electricity or electronics on the basis of institutional evaluation (6/74).

AF-1715-0533

Airborne Early Warning Radar Specialist Principles

Course Number: 3ABR32832.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 27 weeks (810 hours).

Exhibit Dates: 2/72-12/73.

Objectives: To train airmen to operate and maintain aircraft warning and control equipment.

Instruction: Lectures and practical exercises in electricity and electronics fundamentals and the operation and maintenance of aircraft warning and control avionics equipment, including DC and AC; resonance; magnetism; motors; synchros; diodes; transistors; electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM systems; binary and octal numbers; logic function; diagrams and circuits; truth tables; Boolean algebra; counters and storage devices; digital techniques; transmission lines and antennas; transmitters; wave-guides; cavity resonators; UHF and microwave oscillators and amplifiers; electrical test equipment; search radar; gyro reference and ground position indicator systems; computer logic; digital interfacing; digital measurements and application to IFF radar systems; and data processing and display groups and control panels.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics circuits and digital design, 2 in electronics laboratory, and credit in electronic or digital laboratory on the basis of institutional evaluation (6/74).

AF-1715-0534

Ground Radio Communications Equipment Repairman

Course Number: *Version 1:* 3ABR30434. *Version 2:* 3ABR30434; ABR30434. *Version 3:* ABR30434-4. *Version 4:* ABR30434.

Location: *Version 1:* School of Applied Aerospace Sciences, Keesler AFB, MS. *Version 2:* 3380th Technical School, Keesler AFB, MS. *Version 3:* 3380th Technical School, Keesler AFB, MS. *Version 4:* 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 29-30 weeks (900-968 hours). *Version 2:* 34-37 weeks (1020-1050 hours). *Version 3:* 25 weeks (750 hours). *Version 4:* 40 weeks (1050-1110 hours).

Exhibit Dates: *Version 1:* 6/72-12/73. *Version 2:* 4/66-5/72. *Version 3:* 4/65-3/66. *Version 4:* 5/63-3/65.

Objectives: To train airmen to operate, install, inspect, adjust and align, maintain, and repair ground radio communications equipment.

Instruction: *All Versions:* Lectures and practical exercises in electronics fundamentals and the operation, installation, inspection, adjustment and alignment, maintenance and repair of ground radio communications equipment, including microwave principles, amplifiers and oscillators, and motors; UHF communications and single-sideband transmitters and receivers; recorders; digital techniques; and electrical test equipment. *Version 1:* Includes VHF communications, high-frequency receivers; DC and AC; resonance; magnetism; synchros; diodes; transistors; electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM modulation and demodulation systems; binary and octal numbers; logic functions; truth tables; Boolean algebra; logic diagrams and circuits; counters and storage devices; transmission lines and antennas; wave-guides; and cavity resonators. *Version 2:* Includes VHF communications; DC and AC; resonance; magnetism; synchros; diodes; transistors; electron tubes; operation, function, and basic mathematical relationships of power supplies, regulators, multivibrators, pulsed and blocking oscillators, AM, FM, and PM modulation and demodulation systems; binary and octal numbers; logic functions; truth tables; Boolean algebra; logic diagrams and circuits; counter and storage devices; transmission lines and antennas; wave-guides; and cavity resonators. *Version 3:* Includes detection and discrimination, servomechanisms, multivibrators and sweep circuits, and communications systems. *Version 4:* Includes AC, DC, and reactive circuits; vacuum tubes and transistors; special-purpose tubes and solid-state devices; detection and discrimination; servomechanisms; and multichannel and auxiliary equipment.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in basic electronics and communications circuits, 2 in electronics laboratory, and credit in basic electronics and communications circuits laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

AF-1715-0535

1. WEAPONS CONTROL SYSTEMS MECHANIC (F-4C/D: APQ-109/APA-165)
2. WEAPONS CONTROL SYSTEMS MECHANIC (F-4C/D: APQ-109/APA-165)
   (Weapons Control Systems Mechanic (F4, AMCS))
3. WEAPONS CONTROL SYSTEMS MECHANIC (F4, AMCS)
   (Weapons Control Systems Mechanic (AMCS-AERO-1A))

Course Number: *Version 1:* 3ABR32231P. *Version 2:* ABR32231P; 3ABR32231P. *Version 3:* ABR32231P; ABR32230P.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 27 weeks (798-916 hours). *Version 2:* 27-29 weeks (822 hours). *Version 3:* 35-37 weeks (960-1020 hours).

Exhibit Dates: *Version 1:* 1/71-12/73. *Version 2:* 8/66-12/70. *Version 3:* 7/63-7/66.

Objectives: To train airmen as weapon control systems mechanics.

Instruction: *All Versions:* Lectures and practical exercises in weapon control systems, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single-sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment; weapon control systems fundamentals; radar transmitting, receiving, antenna, and display systems; indicator control unit; radar and missile firing circuits; lead-computing optical sight systems; weapon release computing set; troubleshooting, repair, alignment, and replacement procedures; and system tie-in. *Version 3:* Includes bombing computer and transistor review.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in electricity or electronics, and credit in electrical laboratory and electronics on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 9 semester hours in electricity or electronics, and additional credit in electrical laboratory and electronics on the basis of institutional evaluation (6/74). *Version 3:* In the upper-division baccalaureate category, 10 semester hours in electricity or electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0536

1. AVIONICS OFFICER (BOMBER)
2. AVIONICS OFFICER (BOMBER)
   (Armament Systems Officer, Bomber)

Course Number: *Version 1:* 3OBR3231B. *Version 2:* OB3231B; OBR3231B.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 27 weeks (810 hours). *Version 2:* 28-35 weeks (840-1050 hours).

Exhibit Dates: *Version 1:* 1/70-12/73. *Version 2:* 3/54-12/69.

Objectives: To train officers to be avionics officers.

Instruction: *All Versions:* Lectures and practical exercises in electronic principles, including mathematics (trigonometry and complex numbers), AC and DC fundamentals, Thevenin's and Norton's theorems, superposition theorem, Delto-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, receiver and transmitter principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, and integrated circuits. *Version 1:* Instruction includes bomber avionics and armament systems, including basic bomb navigation system, ASQ-38 computers and radar, defensive fire control systems, FB-111 and USAF missiles, communications and navigation systems, electronic warfare, and Strategic Air Command maintenance management. *Version 2:* Instruction includes munitions and weapons, turret systems, introduction to K-series bomb-navigation system, A-1A computer, APS-23 radar set and interconnection equipment, and nuclear weapons.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in electronics, and 3 as an elective in communications systems (6/74). *Version 2:* In the upper-division baccalaureate category, 12 semester hours in electronics (6/74), 2 in shop management (12/68), and 3 as an elective in electronic communications (6/74).

AF-1715-0537

AVIONICS AEROSPACE GROUND EQUIPMENT SPECIALIST

Course Number: 3ABR32630.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 32-47 weeks (960-1350 hours).

Exhibit Dates: 5/70-12/73.

Objectives: To train airmen to perform as avionics aerospace ground equipment specialists.

Instruction: Lectures and practical exercises in electronics fundamentals and the maintenance, inspection, troubleshooting, repair, adjustment, and installation of aerospace ground equipment, including DC and AC fundamentals (algebra based), tubes, transistors, power supplies, amplifiers, oscillators, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, manual and semiautomatic test stations and equipment, maintenance management, computer operation, and remote control test stations.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0538

WEAPONS CONTROL SYSTEMS MECHANIC (A-7D; AN/APQ-126)

Course Number: 3ABR32231S.

Location: School of Applied Aerospace Sciences, Lowry AFB, CO; 3415th Technical School, Lowry AFB, CO.

Length: 20-23 weeks (600-690 hours).

Exhibit Dates: 11/69-2/73.

Objectives: To train airmen as weapon control systems mechanics.

Instruction: Lectures and practical exercises in weapon control systems, maintenance electronics, and electronics fundamentals, including DC and AC fundamentals, tubes, power supplies, transistors, amplifiers, oscillators, wave-shaping circuits, electrical test equipment, AM and FM; computer head-up display, and radar analysis and operation; and troubleshooting procedures. Includes single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, and digital logic and mathematics.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0540

1. DEFENSIVE FIRE CONTROL SYSTEM MECHANIC (B-52H, ASG-21 TURRETS)
2. DEFENSIVE FIRE CONTROL SYSTEMS MECHANIC (B-52H, ASG-21 TURRETS)
   (Defensive Fire Control Systems Mechanic (B-52H, B-58: MD-7, ASG-21 Turrets))
3. DEFENSIVE FIRE CONTROL SYSTEMS MECHANIC (MD-7, AN/ASG-21 TURRETS)

Course Number: *Version 1:* 3ABR32330E. *Version 2:* 3ABR32330E. *Version 3:* ABR32330E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 27 weeks (810 hours). *Version 2:* 27-29 weeks (810 hours). *Version 3:* 36 weeks (990 hours).

Exhibit Dates: *Version 1:* 3/73-1/88. *Version 2:* 7/68-2/73. *Version 3:* 4/63-6/68.

Objectives: To train airmen as defensive fire control systems mechanics.

Instruction: *All Versions:* Lectures and practical exercises in defensive fire control systems, including DC and AC fundamentals, tubes, power supplies, transistors, amplifiers, oscillators, wave-shaping circuits, AM, FM, electrical test equipment, fire control system modes data flow, transmitter and receiver, range acquisition and positioning loops and component circuits, power distribution, auxiliary equipment, maintenance ground equipment, and specific equipment operation and maintenance. *Version 1:* Includes semiconductors, computer principles (analog and digital), multivibrators, digital circuits, balanced modulation, system analysis procedures, principles of radar, and infrared and lasers. *Version 2:* Includes single sideband, transmission lines and antennas, servomechanisms, cavity resonators, and microwave principles. *Version 3:* Includes single sideband, transmission lines and antennas, servomechanisms, cavity resonators, and microwave principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (6/74). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0545

1. AEROSPACE MUNITIONS OFFICER
2. NUCLEAR WEAPONS OFFICER
3. NUCLEAR WEAPONS OFFICER
4. NUCLEAR WEAPONS OFFICER
5. ATOMIC WEAPONS OFFICER

Course Number: *Version 1:* OBR4621; OB3271. *Version 2:* OBR3271. *Version 3:* OBR3271; OB3271. *Version 4:* OB3271. *Version 5:* OB3271.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 23-24 weeks (690-732 hours). *Version 2:* 24 weeks (720 hours). *Version 3:* 26 weeks (780 hours). *Version 4:* 30 weeks (900 hours). *Version 5:* 30 weeks (900 hours).

Exhibit Dates: *Version 1:* 6/63-3/68. *Version 2:* 6/60-5/63. *Version 3:* 3/58-5/60. *Version 4:* 3/56-2/58. *Version 5:* 12/55-2/56.

Objectives: To train officers to manage nuclear weapons activities.

Instruction: *Version 1:* Lectures and practical exercises in the management of aerospace munitions activities, including electronics fundamentals, explosive airmunitions, chemical and biological airmunitions, introduction to nuclear weapons, missiles and rockets, and aerospace munitions maintenance, supply, storage and handling. Includes extensive treatment of DC and AC fundamentals and tubes and transistors as part of the electronics fundamentals instruction. *Version 2:* Lectures and practical exercises in electronic principles, including mathematics through trigonometry and complex numbers, AC and DC fundamentals, Thevenin's and Norton's theorems, superposition theorem, Delto-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, single-sideband principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, integrated circuits, and atomic weapons, warheads, and operating techniques. Instruction includes large- and small-diameter weapons, TN weapons, and guided missiles. *Version 3:* Lectures and practical exercises in electronic principles, including mathematics through trigonometry and complex numbers, AC and DC fundamentals, Thevenin's and Norton's theorems, superposition theorem, Delto-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, single-sideband principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, integrated circuits, and atomic weapons, warheads, and operating techniques. Instruction includes nuclear physics; radiological detection, inspection, and transfer; site and field procedures; nuclear safety and decontamination; and descripttion and operation of three types of nuclear weapons. *Version 4:* Lectures and practical exercises in electronic principles, including mathematics through trigonometry and complex numbers, AC and DC fundamentals, Thevenin's and Norton's theorems, superposition theorem, Delto-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, single-sideband principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, integrated circuits, and atomic weapons, warheads, and operating techniques. Instruction includes nuclear physics; radiological detection, inspection, and transfer; site and field procedures; nuclear safety and decontamination; and description and operation of three types of nuclear weapons. *Version 5:* Lectures and practical exercises in electronic principles, including mathematics through trigonometry and complex numbers, AC and DC fundamentals, Thevenin's and Norton's theorems, superposition theorem, Delto-Wye transformations, vacuum tubes, gas tubes, solid-state diodes, transistors, power supplies, amplifiers, oscillators, pulse and switching circuits, servomechanisms, amplitude modulation and detection, single-sideband principles, antennas and transmission lines, resonant cavities, microwave oscillators, lasers, integrated circuits, and atomic weapons, warheads, and operating techniques. Instruction includes description, operation, maintenance, and testing of Mk 39, Mk 28, Mk 43, and Mk 53, and weapons loading procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68), and 12 in electronics (6/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68), and 12 in electronics (6/74). *Version 4:* In the upper-division baccalaureate category, 12 semester hours in electronics (6/74). *Version 5:* In the upper-division baccalaureate category, 12 semester hours in electronics (6/74).

AF-1715-0546

Weapons Control Systems Mechanic (MG-10/13 Systems)

(Weapons Control Systems Mechanic (MG-10, 13 Systems))

(Weapons Control Systems Mechanic (MG-3, 10, 13 Systems))

Course Number: 3ABR32231F-5; ABR32231F-5.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23-34 weeks (690-930 hours).

Exhibit Dates: 4/63-12/73.

Objectives: To train airmen to perform as weapon control systems mechanics.

Instruction: Lectures and practical exercises in electronics fundamentals and weapon control systems, including DC and AC fundamentals, power generation, vacuum tubes, oscilloscopes, target detection and radar ranging, flight sensing and antenna functions, steering and tracking, timing and firing, and alignment test equipment, and testing procedures for specific weapons control systems. Includes transistors, amplifiers, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, electrical test equipment, infrared subsystem functions, and armament control.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0548

Ground Radio Officer

Course Number: OB3031A.

Location: 3310th Technical School, Scott AFB, IL.

Length: *Version 1:* 13 weeks (390 hours). *Version 2:* 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 12/56-12/68. *Version 2:* 2/54-11/56.

Objectives: To train officers who have taken college-level electronics and electricity courses and who have eighteen months experience in communications to command and manage the installation, maintenance, operation, and repair of radio communications equipment and systems.

Instruction: Lectures and practical exercises in the installation, maintenance, operation, and repair of radio communications equipment and systems, including basic electricity, hand-wired communications, AM and FM transmitters and receivers, radio teletypes, antenna systems, VHF radio relays, cryptographic activities, and specific radio communications equipment systems, including teletypes, telephones, telegraphs, facsimile and television.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in electrical laboratory, and 3 in communications circuits on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in electrical laboratory, and 5 in communications circuits on the basis of institutional evaluation (6/74).

AF-1715-0549

Advanced Microwave Measurements and Calibration

Course Number: 3AZR32470-11.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 5 weeks (150 hours).

Exhibit Dates: 4/71-12/73.

Objectives: To train enlisted personnel to maintain and calibrate microwave measuring equipment.

Instruction: Lectures and practical exercises in the calibration and maintenance of microwave measuring equipment at the advanced level. Course includes discussion of transmission line principles and parameters, distributed elements, Smith chart analysis, and detection techniques. Measurements are performed to determine VSWR, frequency, and impedance, together with an assessment of accuracy, loss characteristics, and system representations. Block-diagram analysis is also included, together with detailed instructions and equipment exercises for evaluating microwave circuit performance. All standard equipment (e.g., detectors, slotted lines, reflectometers, couplers, and other accessories) is used in this course.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in microwave techniques laboratory (6/74).

AF-1715-0550

Communications-Electronics Systems Staff Officer

Course Number: 3OAR3001.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 22 weeks (660 hours).

Exhibit Dates: 1/70-12/73.

Objectives: To train commissioned officers to formulate communications-electronics policies and procedures, to coordinate policy plans and operations, and to monitor and direct programs.

Instruction: Lectures and demonstrations in communications-electronics policies and procedures. Course includes wire communications and switching, multiplexors, ground radar, air traffic control systems, communications networks, and satellite systems.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital computer fundamentals, and 3 in communications circuits on the basis of institutional evaluation (6/74).

AF-1715-0551

1. Electronic Intelligence

Operations Specialist
(Electronic Emission Monitor/Analysis Specialist)
2. Electronic Emission Monitor/Analysis Specialist
(Electronic Intercept Operations/Analysis Specialist)

Course Number: *All Versions:* 3ABR29430. *Version 1:* 3ABR20530. *Version 2:* ABR29430.

Location: *Version 1:* School of Applied Aerospace Sciences, Keesler AFB, MS. *Version 2:* 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 21 weeks (630 hours). *Version 2:* 24-25 weeks (630-750 hours).

Exhibit Dates: *Version 1:* 12/70-12/73. *Version 2:* 1/63-11/70.

Objectives: To train airmen as electronic emission monitor/analysis specialists.

Instruction: Lectures and practical exercises in electronic emission monitoring and analysis, including AC and DC circuits, vacuum tubes, semiconductor devices, radio fundamentals, radar principles, signal generation theory, signal generation and monitoring, receiver systems operation and procedures, mission data processing, and signal types and identification.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity, 2 in electrical laboratory, and, on the basis of institutional evaluation, 3 in electronics and 3 in signal analysis (6/74). *Version 2:* in the upper-division baccalaureate category, 3 semester hours in electricity, 2 in electrical laboratory, and, on the basis of institutional evaluation, 4 in electronics and 3 in signal analysis (6/74).

AF-1715-0554

Electronic Intercept Operations Specialist (Interim)

Course Number: ABR29230-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 25 weeks (660 hours).

Exhibit Dates: 2/62-12/68.

Objectives: To train enlisted personnel in intercept techniques and principles, including communications principles, camera techniques, and system function.

Instruction: Lectures and laboratories in electronic intercept operations, including countermeasures receivers, pulse analyzers, traveling-wave tubes, antennas, photographic and oscillographic recorders, magnetic recording devices, record and log procedures, and the operation of various systems components.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics (6/74).

AF-1715-0561

Ground Communications Equipment Technician (TDDL)
(Ground Communications Equipment Technician (Light)(TDDL Equipment))

Course Number: AZR30474; AZR30472.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 10 weeks (300 hours).

Exhibit Dates: 8/62-12/68.

Objectives: To train personnel in the theory, operation, and maintenance of the AN/GKA-5(V) flight control group and the AN/FRT-49 amplifier.

Instruction: Lectures and practical exercises in the theory, operation, and maintenance of the AN/GKA-5(V) flight control group and AN/FRT-49 amplifier, including Boolean algebra and binary mathematics, transistor theory, circuit and logic analysis of all components, klystron theory, tuning and adjustment, preventive maintenance procedures, system maintenance, and operation and application of associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in digital engineering, logic design, or electronics laboratory (6/74).

AF-1715-0564

Basic Observer Electronic Countermeasures

Course Number: ZZ302101.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 30 weeks (927 hours).

Exhibit Dates: 2/55-12/68.

Objectives: To train officers in electronic countermeasures techniques.

Instruction: Lectures and practical exercises in introductory electronic circuit theory and AC and DC fundamentals; transmitting and receiving techniques applied to specific circuits; electronic systems; search and analysis equipment operation; reconnaissance flights, jamming equipment operation and jamming flights.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

AF-1715-0573

Flight Simulator Technician

Course Number: *Version 1:* 3AAR34270. *Version 2:* AAR34270. *Version 3:* AAR34270.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 20 weeks (600 hours). *Version 2:* 21 weeks (630 hours). *Version 3:* 36 weeks (1080 hours).

Exhibit Dates: *Version 1:* 5/68-12/73. *Version 2:* 2/66-4/68. *Version 3:* 11/60-1/66.

Objectives: To train maintenance personnel to supervise flight simulator activities, system analysis, installation and repair of flight simulators.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of flight simulator activities, system analysis, installation and repair of flight simulators, including DC and AC circuit analysis, amplifier fundamentals and circuitry, power supplies, flight systems computer analysis, synchro systems, and management procedures. *Version 1:* Includes solid-state theory and devices; analog principles; passive and active computing devices; servomechanisms; flight computations; digital computer fundamentals; computer timing; programming; storage; block, flow, and logic diagrams for central processor; and peripheral systems logic. *Version 2:* Includes solid-state theory and devices; analog principles; passive and active computing devices; servomechanisms; flight computations; digital computer fundamentals; computer timing; programming; storage; block, flow, and logic diagrams for central processor, peripheral systems logic; and parallel and serial computer analysis. *Version 3:* Includes troubleshooting procedures; landing gear, hydraulic, and fuel systems; mechanical devices; engine operation; specific equipment maintenance and inspection; basic and advanced flying procedures; radio aids; and aerodynamics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours as an elective in electronics and computers (6/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

AF-1715-0577

Ground Radio Systems Supervisor/Technician

Course Number: 3AAR30400; AAR30490.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 46-48 weeks (1380 hours).

Exhibit Dates: 7/65-12/73.

Objectives: To train enlisted personnel as ground radio systems supervisor/technicians.

Instruction: Lectures and practical exercises in the duties of a ground radio systems supervisor/technician. Topics include applied mathematics, DC and AC circuits, vacuum tube and solid-state devices, electronic circuits, data processing, transmitters, receivers, management techniques, multiplex systems, SSB systems, UHF/VHF, ILS, omni-range systems, TACAN, digital theory, television, and missile communications systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1715-0579

Electrical Power Production Technician

Course Number: 3AAR54370; AAR54370.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 9-10 weeks (270-300 hours).

Exhibit Dates: 12/62-2/68.

Objectives: To train airmen to maintain diesel-driven generator sets, associated support equipment and control switchgear, or to maintain and operate electrical power generating equipment.

Instruction: Lectures and practical exercises in the maintenance of diesel-driven generator sets, associated support equipment and control switchgear, or the maintenance and operation of electrical power generating equipment, including maintenance management, electrical switchgear arrangements and related wiring diagrams, engine construction and operating procedures, and diesel engine systems analyses. Includes maintenance management.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1715-0587

Electronic Warfare Countermeasures Specialist
(Electronic Counter-Countermeasures Operator)
(ECCM Operator)

Course Number: ALR27332; AZR27370A-14.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 16 weeks (480 hours).

Exhibit Dates: 6/63-12/68.

Objectives: To train enlisted personnel to perform as console operators at radar sites and direction centers.

Instruction: Lectures and practical exercises to supplement the training of enlisted personnel in the duties of a console operator at radar sites and direction centers. Basic electronic principles and their application to basic radar systems, types of electronic and mechanical jamming, and electronic principles are discussed in detail, but no solid-state devices are included in the course.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0588

1. Electronics Systems Officer
   (Ground Electronics Officer)
2. Ground Electronics Officer
3. Ground Electronics Officer
   (Ground Electronics Officer (ECCM))
   (Ground Electronics Officer
   (Electronics))

Course Number: *Version 1:* 3OBR3041. *Version 2:* OBR3041; OBR3041B; OBR3041A. *Version 3:* OB3041.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 38–41 weeks (1140–1230 hours). *Version 2:* 45–49 weeks (1350–1470 hours). *Version 3:* 47–51 weeks (1410–1530 hours).

Exhibit Dates: *Version 1:* 9/68–12/73. *Version 2:* 5/62–8/68. *Version 3:* 3/54–4/62.

Objectives: To train officers to perform as ground electronics officers.

Instruction: Lectures and practical exercises in the duties of ground electronics officers, including electronics fundamentals, electronic test equipment maintenance and application, supervisory procedures, maintenance of ground radar and associated equipment, receivers and transmitters, communications systems, solid-state devices, data processing and computer principles, identification systems, and specific equipment analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in basic electronics, 3 in basic electronics laboratory (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68), 3 in basic electronics (6/74), 3 in basic electronics laboratory (6/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in shop management (12/68), 3 in basic electronics laboratory (6/74), and 3 as an elective in basic electronics (6/74).

AF-1715-0598

Electronic Computer Systems
Repairman (EDTCC/SACCS)

Course Number: 3ABR30534B.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 32 weeks (948 hours).

Exhibit Dates: 12/71–12/73.

Objectives: To train enlisted personnel to perform the duties of an electronic computer systems repairman.

Instruction: Lectures and practical exercises in the repair of electronic computer systems, including DC and AC circuits, RLC circuits, solid-state power supplies and amplifiers, wave generation, electron tubes, computer logic, computer components, computer systems, system operation and programming, core memories, drum systems, and input-output devices.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours as an elective in digital electronics (6/74).

AF-1715-0609

Integrated Avionics Component
Specialists
(Communication/Mission and
Traffic Control and
Penetration Aids)

Course Number: 3ABR32631B.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 27–46 weeks (798–1320 hours).

Exhibit Dates: 6/70–12/73.

Objectives: To train airmen as integrated avionics component specialists.

Instruction: Lectures and practical exercises in the maintenance, assembly, disassembly, and alignment of avionics communication and traffic control devices, including mathematics and electronics principles; block-diagram analysis of system pressurization, cooling, and closed cryogenic units, and of the HF and UHF communications, airborne transponder, instrument landing approach, tactical air navigation, countermeasures receiving, track breaker, and radar homing and warning systems; central air data computer; analysis of heterodyne and other modulation schemes; microwave equipment repair; servomechanisms and infrared sensing devices; and alignment and test procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0610

Weapons Control Systems Mechanic
(F-4E:APQ-120)
(Weapons Control Systems Mechanic (F-4E))

Course Number: 3ABR32231Q.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 29–33 weeks (882–912 hours).

Exhibit Dates: 8/68–12/73.

Objectives: To train airmen as weapon control system mechanics.

Instruction: Lectures and practical exercises in the duties of weapon control system mechanics, including weapons control system familiarization and system test equipment; data flow analysis of pulse transmitter and receiver sections, antenna and display systems, transmitter and radar computer functions, power distribution and missile-launching circuits, lead computing optical sight, and weapons release computer; and system tie-in, maintenance management, troubleshooting, and repair and alignment procedures.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0617

Special Training on Radar Bombing
Navigation System, AN/APQ-24A

Course Number: SS32171F-2.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 14 weeks (420 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To train enlisted personnel to perform organizational and field maintenance on radar bombing navigation systems.

Instruction: Lectures and practical exercises in the maintenance of specific radar bombing navigation systems. Course includes functional analysis of various electronic devices such as the transmitter and receiver; line diagram study of oscillators, shapers, and other related equipment not involving solid-state devices; and functional analysis of tilt and rate servo drives; and familiarization with the associated mechanical and electronic hardware.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0621

Primary-Basic Navigator Upgrading

Course Number: 153103.

Location: Air Training Command, Mather AFB, CA.

Length: 26 weeks (714 hours).

Exhibit Dates: 6/56–12/68.

Objectives: To provide previously rated navigators with training in aircraft observation electronics and navigation principles.

Instruction: Lectures and practical exercises in electronics and navigation required for aircraft observation duties, including navigation, Loran and radio principles, meteorology, electricity and magnetism, AC principles, vacuum tubes, radar systems and navigation, aircraft observation equipment, and basic avionics.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in navigation, provided that no credit has previously been awarded in this field (12/68).

AF-1715-0632

Flight Facilities Equipment
Repairman (ILS)

Course Number: ABR30431B.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 28 weeks (750 hours).

Exhibit Dates: 8/58–12/68.

Objectives: To train personnel as flight facilities equipment repairmen.

Instruction: Lectures and practical exercises on the duties of flight facilities equipment repairmen, including AC and DC circuits, generators, motors, instruments, diodes, rectifiers, triodes, special-purpose tubes, transistors, amplifiers, oscillators, modulation, detection, superheterodyne receivers, multivibrators, counters, discrimination, and application to the glide slope and localizer equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electrical and electronics laboratory (6/74).

AF-1715-0634

Air Electronic Systems
Supervisor/Technician

Course Number: *Version 1:* 3AAR30100. *Version 2:* 3AAR30100. *Version 3:* AAR30190.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 44 weeks (1320 hours). *Version 2:* 46 weeks (1320 hours). *Version 3:* 50 weeks (1440 hours).

Exhibit Dates: *Version 1:* 4/71–12/73. *Version 2:* 11/67–3/71. *Version 3:* 6/65–10/67.

Objectives: To train airmen to be air electronic systems supervisors or technicians.

Instruction: Lectures and practical exercises in advanced electronic principles; operational analysis of aircraft electronic systems; analysis and use of test equipment; maintenance data analysis for recognition and solution of maintenance problems; and supervision, administration, and management of maintenance activities.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68), and 2 in electrical laboratory (6/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in maintenance management (12/68), and 2 in electrical laboratory (6/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in maintenance management (12/68), and 2 in electricity or electronics (6/74).

AF-1715-0635

DEFENSE MISSILE GUIDANCE MECHANIC—FALCON (AIM)
(Defense Missile Guidance Mechanic (GARS))
(Guidance Systems Mechanic (GARS))
(Guidance Systems Mechanic (GAR-1/2/3))

Course Number: ABR31131W; ABR31130E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 25–30 weeks (660–810 hours).

Exhibit Dates: 12/59–12/68.

Objectives: To train enlisted personnel to repair Falcon missile guidance systems.

Instruction: Lectures and practical exercises in AC and DC circuit analysis, reactive elements, vacuum tubes and transistors, amplifiers and oscillators, missile hazard reporting, publications and maintenance management, block-diagram analysis, power supply functions, armament propulsion, missile assembly and disassembly, test and ground support equipment, nuclear safety, inspection procedures, and trouble analysis and repair. Instruction includes AC and DC fundamentals, tubes, transistors, power supplies, regulators, amplifiers, oscillators, wave-shaping circuits, AM and FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, hand tools operation, multimeters, oscilloscopes, and microwave principles.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74). (3/74).

AF-1715-0637

MISSILE FACILITIES SPECIALIST

Course Number: 3ABR54130G.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: 19 weeks (570–710 hours).

Exhibit Dates: 11/72–12/73.

Objectives: To train enlisted personnel in the duties of missile facilities specialists.

Instruction: Lectures and practical exercises in the duties of missile facilities specialists. Course includes principles of electricity, pneudraulics, and hydraulics; operation, inspection, and maintenance of missile facilities, hydraulic and pneudraulic systems, water and sewage systems, air conditioning and cooling systems, electrical power generation systems, and power distribution systems; use of tools and technical publications; and safety and security procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical and mechanical laboratory (6/74).

AF-1715-0638

MISSILE OFFICER TM-76B
(Missile Maintenance Officer TM-76B)

Course Number: OBR3121H; OBR3121B-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 27 weeks (810 hours).

Exhibit Dates: 12/60–12/68.

Objectives: To train commissioned officers to maintain missile guidance systems.

Instruction: Lectures and practical exercises in the maintenance of guided missile systems. Course includes basic electricity, motors and generators, control systems, power supplies, amplifiers and oscillators, servomechanisms, inertial guidance fundamentals, and test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hours in electrical laboratory (6/74).

AF-1715-0641

MISSILE ELECTRONIC EQUIPMENT SPECIALIST (CGM-13B, TEMS)
(Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS))
(Tactical Missile Checkout Equipment Repairman (MACE MGM-13C/TEMS))
(Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS))

Course Number: 3ALR31652N; ALR31652N; ALR31434N.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 18–31 weeks (540–930 hours).

Exhibit Dates: 9/61–12/73.

Objectives: To train maintenance personnel to operate, maintain, and repair specific missile electronic test equipment.

Instruction: Lectures and practical exercises in missile electronic test equipment operation and maintenance, including electronic circuit analysis, flight controls and inertial guidance system, maintenance and launch areas aerospace ground equipment, verification and calibration, test equipment maintenance set, and specialized electronics.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0642

MISSILE SPECIALIST (TM-61C)
(Missile Mechanic (TM-61A/C))

Course Number: ABR43330A.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 17 weeks (480 hours).

Exhibit Dates: 9/58–12/68.

Objectives: To train personnel as missile specialists.

Instruction: Lectures and practical exercises in the duties of missile specialists, including fundamentals of guided missiles; missile structures and materials; aerodynamics, mechanics, and basic physics; propulsion system; fuels, oxidizers, and lubricants; 60-kw generator and engine console; missile systems; systems assembly and disassembly; power plant and missile check-out; launch procedures; missile transfer; and countdown.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in mechanical (fluids) laboratory (6/74).

AF-1715-0646

TACTICAL MISSILE CHECKOUT EQUIPMENT REPAIRMAN (MGM-13B(TEMS))
(Tactical Missile Checkout Equipment Repairman (TM/76A/TEMS))
(Missile Test Equipment Specialist (TM-76A))

Course Number: ALR31434M; ALR31530F.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 18–23 weeks (540–690 hours).

Exhibit Dates: 9/61–12/68.

Objectives: To train airmen to perform as tactical missile check-out equipment repairmen.

Instruction: Lectures and practical exercises in tactical missile check-out equipment repair, including MGM-13B weapon system, specialized electronics, calibration test equipment, flight control system and check-out equipment, flight controls check-out equipment calibration, guidance system and its check-out equipment calibration, missile preflight tester calibration, and launch area check-out equipment. Includes practical exercises on the function of missile test equipment specialist, including TM-76A weapon system, calibration van, basic missile checker calibration, guidance system test set and calibration, missile preflight tester and calibration, and FCT and RFT calibration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electrical engineering majors (6/74).

AF-1715-0647

1. MISSILE OFFICER TM-76A
2. GUIDED MISSILE MAINTENANCE OFFICER TM-76A

Course Number: *Version 1:* OBR3121G. *Version 2:* OBR3121B-1.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 27 weeks (810 hours). *Version 2:* 25 weeks (750 hours).

Exhibit Dates: *Version 1:* 5/61–12/68. *Version 2:* 12/60–4/61.

Objectives: To train officers to perform as guided missile maintenance officers (TM-76A).

Instruction: *Version 1:* Lectures and practical exercises in the functions of guided missile maintenance officers, including air weapons management; fundamentals of electricity and alternating current; vacuum tubes and amplifiers; oscillators and wave shaping; weapon, propulsion, flight control, and guidance systems; missile preflight test pack; support area operations; and nuclear weapons orientation. *Version 2:* Lectures and practical exercises in the functions of missile officers, including maintenance management; electricity; electron tubes; amplifiers; wave forming; transmission; radar; missile equipment; power plant, flight controls, guidance systems; system recycle vehicle; missile launch pack; and nuclear weapons orientation.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity and electronics (6/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity and electronics (6/74).

AF-1715-0648

Guidance Systems Officer (Surface-to-Surface) (TM-61C)
(Guidance Systems Officer)
(Pilotless Aircraft Guidance and Control Officer)

Course Number: OB3221C-1; OB3221.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 26-32 weeks (780-960 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train officers to perform as guidance systems officers.

Instruction: Lectures and practical exercises on the functions of guidance systems officers, including air armament management, fundamentals of electricity, alternating current principles, oscillators and principles of receiving and transmission, radar system components, modern guided missiles and the MARC,ATRAN, and Command guidance systems, ground station guidance, and airborne controls and guidance equipment. Includes oscilloscope analysis; radar system components; airborne shanicle guidance; and superheterodyne receiver and sweep generator. Includes the function of pilotless aircraft guidance and control officers, vacuum and gas-filled tubes, power supplies, and voltage regulators; transmission, and fundamentals tie-in; and B-61A command guidance and controls system and check-out.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in radio and electronics (6/74).

AF-1715-0649

1. Missile Systems Maintenance Specialist (AGM-28)
   (Missile Guidance and Control Specialist (AGM-28))
2. Missile Systems Maintenance Specialist (AGM-28)
   (Missile Guidance and Control Specialist (AGM-28A/B))
3. Air Launch Missile Guidance Mechanic (AGM-28A/B)
4. Air Launch Guidance Mechanic (AGM-28A/B)
   (AGM Guidance Mechanic (AGM-28A/B))
   (GAM Guidance Mechanic, GAM-77)

Course Number: *Version 1:* 3ABR31631Q. *Version 2:* 3ABR31631Q; ABR31631Q; ABR31531Q. *Version 3:* ABR31531Q. *Version 4:* ABR31531Q.

Location: 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 30 weeks (1144 hours). *Version 2:* 30-36 weeks (900-990 hours). *Version 3:* 42-44 weeks (1170-1230 hours). *Version 4:* 33 weeks (900 hours).

Exhibit Dates: *Version 1:* 6/73-12/73. *Version 2:* 11/66-5/73. *Version 3:* 12/62-10/66. *Version 4:* 10/61-11/62.

Objectives: To train technicians to operate and maintain the AGM-22 missile guidance system.

Instruction: *All Versions:* Lectures and practical exercises in AC and DC circuits, resonance, introduction to magnetism, AC and DC motors and synchros, electron tubes, power supplies, regulators, multivibrators, blocking oscillators, AM modulation and demodulation, transmission lines, antennas, transmitters, wave-guides, cavity resonators, UHF and microwave oscillators and amplifiers, use of the oscilloscope in circuit measurement, and operation, maintenance, alignment, troubleshooting, and repair of AGM-22 missile guidance system and associated equipment. *Version 1:* Instruction includes diode and transistor circuits, digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, and storage devices, flight control systems, computer test set, verdan digital computer, and autonavigation component test set operation, alignment and calibration. *Version 2:* Instruction includes solid-state devices (emphasis on tube-type audio, push-pull, and video amplifiers), servo and magnetic amplifiers, oscillators, missile familiarization, bench test equipment, flight control package circuitry and check-out, computer test set, verdan digital computer, and guidance system and test set certification. *Version 3:* Instruction includes solid-state devices (emphasis on tube-type audio, push-pull, and video amplifiers), servo and magnetic amplifiers, oscillators, package check-out, guidance component theory and system check-out, autonavigator component test set, special test equipment, computer test set, and printed circuit card tester. *Version 4:* Instruction includes guidance system familiarization, computer logic expressions and circuitry, verdan computer, digital computer control panel, and application of optical equipment.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour as a technical elective in electrical laboratory for non-electrical engineering majors (6/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour as an technical elective in electrical laboratory for non-electrical engineering majors (6/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74). *Version 4:* In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0650

1. Defense Missile Guidance Technician (GAR-1/2/11)
   (Guidance Systems Technician (GAR-1/2/11))
   (Guidance Systems Technician (GAR-1/2))
   (Guidance Systems Technician (GAR-1))
2. Guidance Systems Technician (GAR-1)

Course Number: *All Versions:* AAR31171W. *Version 1:* AAR31170E; AA31170E. *Version 2:* AL31130E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 13-18 weeks (390-540 hours). *Version 2:* 26 weeks (780 hours).

Exhibit Dates: *Version 1:* 9/57-12/68. *Version 2:* 10/55-8/62.

Objectives: To train enlisted personnel to test and maintain the GAR-1 missile guidance system.

Instruction: Lectures and practical exercises in GAR-1 missile guidance system testing and maintenance, including radar circuitry, vacuum tubes, hydraulic systems, block-diagram analysis, signal-flow analysis, guidance unit theory of operation, malfunction procedures and exercises, and electronic fundamentals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

AF-1715-0651

Missile Launch/Missile Officer (ATLAS PGM-16E)
(Missile Launch/Missile Officer (SM-65E))

Course Number: OZR1821C; OZR3121C; OZR1821B; OZR3121B-1.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 7 weeks (210 hours).

Exhibit Dates: 12/62-12/68.

Objectives: To train officers to operate and maintain the 107A weapon system (Atlas).

Instruction: Lectures and practical exercises in the operation and maintenance of the 107A weapon system (Atlas), including principles of Atlas subsystems; launch complex facilities; associated aerospace ground equipment; operational analysis of electrical power production and distribution; and electrical propulsion, autopilot, guidance, and hydraulics systems.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0653

Instrument Trainer Specialist (C-11)
(Electronic Instrument Trainer Specialist (C-11 Type))

Course Number: ABR34131A; AB34141A.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 30-34 weeks (810-930 hours).

Exhibit Dates: 12/54-12/68.

Objectives: To train maintenance technicians to service electronic equipment.

Instruction: Lectures and practical exercises in electronic equipment servicing, including aerodynamics and flight principles, electrical and electronic principles, use of electronic measuring instruments, circuit analysis and troubleshooting procedures, engine systems, and radio aids.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0657

Tactical Missile Launch Specialist (CGM-13B)
(Tactical Missile Launch Specialist (Mace, MGM-13C))
(Tactical Missile Launch Specialist (TM-76B))

Course Number: ABR31433N.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23-25 weeks (600-660 hours).

Exhibit Dates: 9/61-12/68.

Objectives: To train airmen to perform as Mace and TM-76B tactical missile launch specialists.

Instruction: Lectures and practical exercises in the duties of TM-76B tactical missile launch specialists, including electronic fundamentals; direct current; use of meters; series resistance; parallel resistive circuits; series-parallel resistance and bridge circuits; generation of AC and DC voltages; frequency spectrum; inductance, capacitance, reactance, impedance and transformers; alternating current; reactive circuits; series and parallel RC, RL, and RCL circuits and resonance; vacuum tubes and solid-state devices; and amplifiers and oscillators.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0658

Missile Launch Officer (CGM-13B)
(Missile Launch Officer (MACE, MGM-13C))
(Missile Launch Officer (TM-76B))
(Missile Launch Officer (TM-76B))
(Guided Missile Operations Officer (TM-76B))

Course Number: OBR1821N, OBR1821C-2; OBR1821-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 18-19 weeks (540-570 hours).

Exhibit Dates: 12/60-12/68.

Objectives: To qualify officers as MGM-13C missile launch officers or TM-76B guided missile operations officers.

Instruction: Lectures and practical exercises in operation and supervision of MGM-13C MACE tactical missile launch activities, and in the duties of TM-76B guided missile operations officers, including electronic principles; MGM-13C weapon system, missile systems, flight controls, and inertial guidance; LAGG principles; launch familiarization; launch area operations and maintenance; guided missile operations fundamentals; vacuum tubes and circuits; servos controllers; introduction to TM-76B missile systems, flight controls; and inertial guidance; and nuclear weapons orientation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74).

AF-1715-0663

Missile Launch/Missile Officer (Ballistic Missiles)
(Guided Missile Operations/Maintenance Officer (Ballistic Missiles))

Course Number: OBR1821; OBR3121-3; OBR1821B.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 7-12 weeks (210-360 hours).

Exhibit Dates: 12/60-12/68.

Objectives: To train officers in missile skills as a prerequisite to specialized training in Atlas and Titan missile support.

Instruction: Lectures and practical exercises in missile skills, including missile fundamentals, pneudraulic principles, electrical and electronic fundamentals, guidance systems, and test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0666

Tactical Missile Launch Specialist (MGM-13A)

Course Number: ABR31433M.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 16-26 weeks (438-690 hours).

Exhibit Dates: 5/64-12/68.

Objectives: To train enlisted personnel to operate, maintain, and perform check-out procedures on TM-76A missile systems and associated launch area check-out equipment.

Instruction: Lectures and practical exercises in electronics fundamentals and the operation, maintenance and check-out of TM-76A missile systems and associated launch area check-out equipment, including AC and DC; tubes and transistors; amplifiers and oscillators; principles of missile systems; flight control system; guidance radar system; ground equipment; power distribution; communications systems; and specific equipment components and systems. Includes power supplies, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, and electrical test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electricity and electronics and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0667

Tactical Missile Launch Specialist (MGM-13A)

Course Number: ALR31433M; ALR31453M.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 15-23 weeks (438-690 hours).

Exhibit Dates: 5/64-12/68.

Objectives: To train enlisted personnel to operate, maintain, and perform check-out procedures on TM-76A missile systems and associated launch area check-out equipment.

Instruction: Lectures and practical exercises in electronics fundamentals and the operation, maintenance, and check-out of TM-76A missile systems and associated launch area check-out equipment, including AC and DC; tubes; transistors; amplifiers and oscillators; principles of missile systems; flight control system; guidance radar system; ground equipment; power distribution; communications systems; and specific equipment components and systems. Includes power supplies, wave-shaping circuits, AM, FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, microwave principles, and electrical test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0668

Missile Systems Analyst Specialist (TM-76B)

Course Number: ABR31430G.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23 weeks (600 hours).

Exhibit Dates: 2/60-12/68.

Objectives: To train basic airmen as apprentice TM-76B missile systems analyst specialists.

Instruction: Lectures and practical exercises in missile systems analysis, including DC, AC and reactive circuits, vacuum tubes and transistors, amplifiers and oscillators, motors and generators, inertial guidance fundamentals, power supplies, flight controls and gyroscopes, test set operation, launch area equipment operation, and troubleshooting techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74).

AF-1715-0671

1. Missile Guidance and Control Specialist (AIM) (ADC)
2. Missile Guidance and Control Specialist (AIM)

Course Number: *Version 1:* 3ABR31631L-2. *Version 2:* ABR31631L-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 21-27 weeks (642-780 hours). *Version 2:* 28 weeks (810 hours).

Exhibit Dates: *Version 1:* 2/68-12/73. *Version 2:* 7/66-1/68.

Objectives: To train enlisted personnel to be missile guidance and control specialists.

Instruction: Lectures and practical exercises in electronic principles, including AC and DC circuit theory, Ohm's law, Kerchoff's law, transistors, vacuum tubes, basic rectifiers, oscillators, and wave-shaping circuits; and missile guidance systems, including circuit analysis, test equipment operation and calibration, missile check-out equipment, ground support equipment, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electronics laboratory, and credit in electronics on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in electronics laboratory, and additional credit in electronics on the basis of institutional evaluation (6/74).

AF-1715-0672

Guidance and Control Officer (RIGS) (HGM-25A)
(Guidance and Control Officer (RIGS) (SM-68A))
(Guidance Control Officer (RIGS) (SM-68))

Course Number: OZR3044-6; OZR3044D; OTS3044-4.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 15 weeks (450 hours).

Exhibit Dates: 4/61-12/68.

Objectives: To train guidance control officers in the operation, maintenance, and logistics of the Titan I ground guidance system.

Instruction: Lectures and practical exercises in the operation, maintenance, and applicable logistics of the Titan I ground guidance system, including missile familiarization, computer fundamentals (digital computers, Boolean algebra, digital electronics, basic programming), computer control and storage, input/output power, ground equipment, data flow, guidance radar, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in data processing or computer principles (12/68).

AF-1715-0677

Electronic Computer Repairman BUIC AN/GSA-51A

Course Number: 3ABR30533C.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 42 weeks (1200 hours).

Exhibit Dates: 8/70-12/73.

Objectives: To train enlisted personnel to repair computer systems.

Instruction: Lectures and practical exercises in the repair of computer systems. Course includes computer system operation, memory function, timing, and logic; programming and machine language; hardware routines and basic instructions, input-output timing, and tape and drum systems; and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in digital technology on the basis of institutional evaluation (7/74).

AF-1715-0683

Weather Equipment Superintendent

Course Number: AAR30290; AA25100.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 19–28 weeks (570–840 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To train weather equipment supervisors and technicians to perform as weather equipment superintendents.

Instruction: Lectures and practical exercises in the installation, maintenance, and operation of meteorological equipment, including electrical mathematics, theory and application of meteorological measurements, staff technical writing and composition, advanced electronics, current weather equipment, maintenance and installation management, and site surveying and installation of equipment. Topics include mathematics, advanced radar component circuit analysis, advanced radar circuit analysis, telemetering systems and familiarization with specific new weather equipment, administrative practices, and site surveying.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business and management (12/68).

AF-1715-0687

Aircraft Control and Warning
Radar Repairman

Course Number: *Version 1:* 3ABR30332. *Version 2:* 3ABR30332; ABR30332. *Version 3:* ABR30332.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 35–37 weeks (1050 hours). *Version 2:* 39–41 weeks (1162–1170 hours). *Version 3:* 44–45 weeks (1230–1260 hours).

Exhibit Dates: *Version 1:* 6/71–12/73. *Version 2:* 2/64–5/71. *Version 3:* 5/59–1/64.

Objectives: To train airmen to perform as aircraft control and warning radar repairmen.

Instruction: *All Versions:* Lectures and practical exercises in the duties of aircraft control and warning radar repairmen and in electronic principles, including DC and AC circuits, magnetism, resonance, diodes, transistors and solid-state systems, vacuum tubes, amplifiers and oscillators motors, multivibrators, microwave principles, receiver principles, cavity resonators, UHF and microwave oscillators, electrical test equipment, various modulation and demodulation systems, transmission lines, synchros, pulsed and blocking oscillators, regulators, radar principles, transmitters, antenna positioning and indicator systems, and systems maintenance and associated equipment. *Version 1:* Includes binary and octal numbers, truth tables, Boolean algebra, logic function diagrams, circuits, counters and storage devices, magnetron transmitters and linear receivers, Klystron transmitter, clutter elimination, and identification systems. *Version 2:* Includes clutter elimination and special-purpose tubes. *Version 3:* Includes reactive circuits, special-purpose tubes, principles of IFF and coder systems, and SIF passive and active systems.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in electronic instrumentation laboratory, 1 in electronics laboratory (6/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory (6/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics for non-engineering majors, or 2 in electricity or electronic laboratory (6/74).

AF-1715-0688

Fire Control Systems Mechanic (MA-7
System)

Course Number: AB32230K.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 32 weeks (870 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train airmen to operate, troubleshoot, maintain, and repair the MA-7 fire control systems installed in the F-101 aircraft.

Instruction: Lectures and practical exercises in fire control system maintenance, including fundamentals of electricity; amplifiers, oscillators, and sweep generators; radar principles; servomechanism principles; general operation and service section; transmitter and receiver; video and range loops; antenna-positioning loop; sight and attack display; bombing computers; MA-7 fire control system tie-in; and field exercises.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical or electronics laboratory (6/74).

AF-1715-0689

Weapons Control Systems Mechanic
(E-9, MG-12 Systems)

Course Number: AL32231E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 23 weeks (690 hours).

Exhibit Dates: 3/58–9/60.

Objectives: To train personnel as weapons control systems mechanics for the E-9 and MG-12 systems.

Instruction: Lectures and practical exercises in weapons control systems repair, including introduction to channel B; service function; intelligence gathering; antenna positioning; computer; optics and self-tests; fighter missile system; system tie-in; and field exercises.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hours in electrical laboratory (6/74).

AF-1715-0690

1. Weapons Control Systems
Mechanic (MG-12 System)
2. Weapons Control Systems
Mechanic (E-9 System)
(Weapons Control Systems Mechanic
(E-9, MG-12 Systems))

Course Number: *Version 1:* ABR32231E-2. *Version 2:* ABR32231E-1; AB32231E.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 37–39 weeks (1110–1170 hours). *Version 2:* 42 weeks (1170 hours).

Exhibit Dates: *Version 1:* 10/60–12/68. *Version 2:* 8/57–9/60.

Objectives: To train personnel as weapons control systems mechanics for the E-9 and MG-12 systems.

Instruction: Lectures and practical exercises in weapons control systems repair, including fundamentals of electricity; fundamentals of AC and DC; vacuum tubes and power supplies; amplifiers, oscillators and sweep generators; radar principles; servomechanism principles; introduction to channel B; service function; intelligence gathering; antenna positioning; computer; optics and self-tests; fighter missile system; system tie-in; reactive circuits; special circuits; microwave operation; timing and firing function; attack steering function; attack display function; optical steering and tracking; field exercises; and system troubleshooting.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

AF-1715-0692

Missile Launch Officer, LGM-25
(Missile Launch/Missile Officer (LGM-25))

Course Number: 3OBR1821F, 3OBR3121F; OBR3121F; OBR1821F.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 13–14 weeks (378–420 hours).

Exhibit Dates: 8/66–12/73.

Objectives: To train officers in Titan II missile systems support.

Instruction: Lectures and practical exercises in Titan II missile systems support, including ballistic missile theory, weapon system familiarization, electronic principles (DC, AC, components theory), inertial guidance principles, guidance systems, propulsion, flight control and hydraulic systems, systems integration, launch control operation and troubleshooting, facility pneudraulics and associated equipment, various missile subsystems, and power generation and distribution. Includes communications system and components.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electrical laboratory (6/74).

AF-1715-0693

Missile Mechanic (AGM-28A/B)
(Missile Mechanic (GAM-77))

Course Number: 3ABR44330Q; ABR44330Q-1; ABR44330Z-1; ABR43330-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 18–23 weeks (510–600 hours).

Exhibit Dates: 4/61–12/73.

Objectives: To train enlisted personnel to maintain the AGM 28A/B missile.

Instruction: Lectures and practical exercises in the maintenance of the AGM 28A/B missile, including missile mechanics, electrical and electronic fundamentals, maintenance management, missile hydraulic systems, fundamentals of jet propulsion, and planned inspections.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in electronics, 2 in hydraulics, and 2 as an elective in vocational/technical programs (7/74).

AF-1715-0696

Ground Communications Equipment
Repairman (Light)

Course Number: ABR30432.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 32–38 weeks (870–1050 hours).

Exhibit Dates: 9/58–12/68.

Objectives: To train enlisted personnel to operate, adjust, maintain, and repair low-power ground communications equipment.

Instruction: Lectures and practical exercises in electronic principles, circuit analysis, UHF and HF transmitters and receivers, radio teletype, direction finding, TV systems and associated test equipment, vacuum tube and transistor principles, multichannel tranceivers, and communications systems. Instruction is descriptive rather than analytical.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

AF-1715-0699

WEAPONS CONTROL SYSTEMS TECHNICIAN (MG-13 DATA FLOW)

Course Number: AAR32271F-2.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 29 weeks (870 hours).

Exhibit Dates: 11/58–12/68.

Objectives: To train enlisted personnel to troubleshoot and repair weapons control systems; repair and harmonize weapons control systems; perform weapons control systems inspections; and supervise weapons control systems personnel.

Instruction: Lectures and practical exercises in the maintenance, inspection, and repair of weapons control systems. Course includes fundamentals of electronics, systems and computer self-tests, power generation and distribution, radar ranging function, antenna positioning, flight sensing function, and ballistic functions.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic electronics (7/74).

AF-1715-0701

ELECTRONIC DIGITAL DATA PROCESSING EQUIPMENT REPAIRMAN (BALLISTIC MISSILE GUIDANCE COMPUTER) (SM-65D)

Course Number: ABR30531E-1.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 38 weeks (1050 hours).

Exhibit Dates: 9/61–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair the AN/GSQ-33 ground guidance digital computer and specialized computer test equipment.

Instruction: Lectures and practical exercises in the AN/GSQ-33 ground guidance digital computer and specialized computer test equipment operation, maintenance, and repair, including program, memory, and arithmetic units; inputs, outputs, simulator, and printer; computer checks and troubleshooting; test console; plug-in unit test set and power supply tester; and computer and package troubleshooting. Additional instruction in electronic fundamentals for digital data processing equipment repairmen, including DC electrostatic principles through series-parallel circuits; AC principles through series-parallel resonant circuits; motors; saturable reactors; magnetic amplifiers; servos, synchros, and servo amplifiers; fundamentals of tubes and transistors; rectifiers; filters; time constants; power supplies; voltage regulators; soldering techniques; triodes; tetrodes; pentodes; transistors; special-purpose tubes; amplifiers and oscillators, including blocking oscillators, passive and active limiters, clampers, and amplifier circuits; synchroscope; transients; shock-excited Hartley, Astabel, oneshot, and bistabe multivibrators; thyratron, sawtooth, trapezoidal, and transistor sweep circuits; computer circuits and computing techniques; binary, octal, and binary excess-three codes; computer history, AN-OR gates, matrices, Boolean algebra, logic generators, and associated circuits; special-purpose amplifiers and gating circuits; counters, count detection, decoders, encoders, registers; conversion circuits, memory circuits and storage devices; input/output devices; and coding principles.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics (4/74).

AF-1715-0705

GROUND RADIO REPAIRMAN

Course Number: AB30430.

Location: 3310th Technical School, Scott AFB, IL.

Length: 33 weeks (960 hours).

Exhibit Dates: 12/54–12/68.

Objectives: To train airmen to operate, maintain, and repair ground radio and related navigational equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of ground radio and related navigational equipment, including basic radio electronics, electron tubes, receivers and transmitters, circuit applications, pulse techniques, air traffic control, radio relay equipment, point-to-point communications, and teletype and teletypewriter equipment.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74).

AF-1715-0706

1. FLIGHT SIMULATOR SPECIALIST
2. FLIGHT SIMULATOR SPECIALIST
3. FLIGHT SIMULATOR SPECIALIST
4. FLIGHT SIMULATOR SPECIALIST
5. FLIGHT SIMULATOR FUNDAMENTALS

Course Number: *Version 1:* 3ABR34230. *Version 2:* 3ABR34230. *Version 3:* ABR34230. *Version 4:* ABR34230. *Version 5:* AF34220.

Location: *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL. *Version 2:* 3345th Technical School, Chanute AFB, IL. *Version 3:* 3345th Technical School, Chanute AFB, IL. *Version 4:* 3345th Technical School, Chanute AFB, IL. *Version 5:* 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 32 weeks (1230 hours). *Version 2:* 32 weeks (960 hours). *Version 3:* 35-36 weeks (960-990 hours). *Version 4:* 23 weeks (600 hours). *Version 5:* 25 weeks (750 hours).

Exhibit Dates: *Version 1:* 7/73–12/73. *Version 2:* 8/72–6/73. *Version 3:* 7/65–7/72. *Version 4:* 12/59–6/65. *Version 5:* 2/54–11/59.

Objectives: To train airmen to perform as flight simulator specialists.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance and repair of flight simulators, including AC and DC circuits, electron tubes, servo systems, power supplies, amplifiers and oscillators; principles and applications of aerodynamics; radio procedures; navigation; engine systems; troubleshooting procedures; and flight simulator operation, components, and test equipment. *Version 1:* Includes missile systems fundamentals, electrical circuits, inspection, and maintenance; vacuum tube and transistor circuits; basic digital computers; missile airborne motor operation and check-out, generators, frequency controllers and servo systems, radio guidance principles, and inertial guidance; motors and synchros; velocities, rates, and angles; soldering; digital computer mathematics and logic devices, Boolean algebra, input/output devices, programming principles, general purpose computer, and radar and closed-circuit TV principles and applications to flight simulators. *Version 2:* Includes diodes and transistor circuits, resonance, introduction to magnetism, motors and synchros, multivibrators, blocking oscillators, AM systems, transmission lines and antennas, transmitters, wave-guides, cavity resonators, and UHF and microwave equipment; digital techniques; binary and octal numbers; logic functions; Boolean algebra; logic diagrams; circuits; counters and storage devices; programming principles; input/output devices; jet engine computer theory; velocities, rates, and angles; maintenance management; and radar and closed-circuit TV principles and applications to flight simulators. *Version 3:* Includes resonance, introduction to magnetism, motors and synchros, multivibrators, blocking oscillators, AM systems, transmission lines and antennas, transmitters, wave-guides, cavity resonators, UHF and microwave equipment; computer mathematics (rate and functions), digital computer logic and circuit diagrams; maintenance management; and radar and closed-circuit TV principles and applications to flight simulators. *Version 4:* Includes motors and generators, special-purpose tubes, and computer circuits. *Version 5:* Includes special circuits, synchros, and magnetism.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in computer fundamentals, 3 in electricity or electronics, 1 in electrical laboratory (7/74). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in electrical or electronics laboratory (7/74). *Version 3:* In the upper-division baccalaureate category, 1 semester hour in electrical or electronics laboratory, 1 in analog and digital computer fundamentals, 1 as a technical elective in applied mathematics (7/74). *Version 4:* in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74). *Version 5:* in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (7/74).

AF-1715-0708

FIRE CONTROL SYSTEMS MECHANIC (MG-10 SERIES DATA FLOW SPECIALIST)

Course Number: AB32231.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 36 weeks (1080 hours).

Exhibit Dates: 1/56–12/68.

Objectives: To train airmen to perform data flow system analysis, and to align, adjust, and troubleshoot the MG-10 fire control system.

Instruction: Lectures and practical exercises in data flow system analysis and the alignment, adjustment, and troubleshooting of the MG-10 fire control system, including DC and AC fundamentals, vacuum tube electronics, and block-diagram analysis and signal flow theory as related to intelligence gathering, antenna positioning, and computer loops and system tie-in.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory for technical students (7/74).

AF-1715-0709

Airborne Command Post Communications Equipment (CE) Repairman

Course Number: 3ALR32850A-1; 3ALR30150A-1.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 23–24 weeks (690–720 hours).

Exhibit Dates: 9/70–12/73.

Objectives: To train airmen to maintain airborne command post communications equipment.

Instruction: Lectures and practical exercises in the maintenance of airborne command post communications equipment, including digital and solid-state techniques, Boolean algebra, UHF radio system analysis, multiplex system analysis and accessories, switchboard analysis CSA and APM, SATCOM system analysis, and specific transmit and receive systems equipment analysis.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical or electronics laboratory (7/74).

AF-1715-0711

Missile Electronic Equipment Specialist, WS-133A-M

Course Number: 3ABR31632G-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 34–38 weeks (1020–1307 hours).

Exhibit Dates: 1/71–12/73.

Objectives: To train airmen as missile electronic equipment specialists.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of missile electronic launch equipment and in electronic principles, including AC and DC circuits, resonance, introduction to magnetism, motors and synchros; electron tubes, power supplies, regulators, multivibrators, blocking oscillators, and AM systems; transmission lines, antennas, transmitters, wave-guides, cavity resonators, and UHF and microwave oscillators and amplifiers; electrical test equipment; diode and transistor circuits, digital techniques, binary and octal numbers, logic functions, truth tables, Boolean algebra, logic diagrams, circuits, counters, and storage devices; analysis of launch equipment, test equipment malfunctions, removal and installation of modules and components of WS-133A-M launch equipment, weapon system logic, UHF command radio system, voice reporting signal assembly, control guidance coupler, data analysis central equipment, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical or electronic laboratory (7/74).

AF-1715-0712

Missile Guidance and Control Specialist (AGM/AIM)TAC

Course Number: *Version 1:* 3ABR31631L-3. *Version 2:* 3ABR31631L-3. *Version 3:* ABR31631L-3.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 19 weeks (582 hours). *Version 2:* 24 weeks (690 hours). *Version 3:* 26 weeks (750 hours).

Exhibit Dates: *Version 1:* 1/71–12/73. *Version 2:* 5/68–12/70. *Version 3:* 7/67–4/68.

Objectives: To train technicians to operate, maintain, and reapir AGM/AIM TAC guided missile systems.

Instruction: Lectures and practical exercises in electronic principles, including AC and DC fundamentals, tubes, transistors, power supplies, regulation, amplifiers, oscillators, wave-shaping circuits, AM and FM, single sideband, transmission lines and antennas, servomechanisms, cavity resonators, hand tools operation, multimeters, oscilloscopes, and microwave principles; and guided missile systems operation, maintenance, and repair, including components, block-diagram analysis, and troubleshooting techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 7 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (7/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in electronics, 2 in electronics as a technical elective for non-technical students, and additional credit in electronics on the basis of institutional evaluation (7/74). *Version 3:* In the upper-division baccalaureate category, 7 semester hours in electronics and additional credit in electronics on the basis of institutional evaluation (7/74).

AF-1715-0713

1. Missile Control Communications Systems Repairman
2. Missile Control Communications Systems Repairman
3. Telephone Switching Equipment Specialist (Combat Operations Support)

Course Number: *Version 1:* 3ABR36233. *Version 2:* 3ABR36233; ABR36233. *Version 3:* ABR36231B.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 27 weeks (810 hours). *Version 2:* 28–30 weeks (810 hours). *Version 3:* 33 weeks (900–990 hours).

Exhibit Dates: *Version 1:* 9/71–12/73. *Version 2:* 4/65–8/71. *Version 3:* 1/64–3/65.

Objectives: To train airmen as missile control communications systems repairmen or as telephone switching equipment specialists.

Instruction: *All Versions:* Lectures and practical exercises in electronics fundamentals and the repair of missile control communications systems or telephone switching equipment, including DC and AC circuits, reactance, principles of vacuum tubes and transistors, amplifiers and oscillators, relays and relay adjustment, Titan II communications equipment, and maintenance management and troubleshooting techniques. *Version 1:* Includes computer principles, airborne power supplies and controllers, missile systems principles; soldering equipment, test equipment, solid-state application in wave generation, digital techniques (Boolean equations, number systems, truth tables, counters and storage devices, and logic diagrams and circuits), SAC and CTE equipment analysis, maintenance of Minuteman wire communications, and Titan II radio signaling control equipment. *Version 2:* Includes computer principles, airborne power supplies and controllers, missile systems principles, soldering techniques, test equipment, multivibrators, logic mathematics, symbols and circuits, Minuteman wire communications and cable monitor equipment, and SAT and CTE equipment analysis. *Version 3:* Includes switching center principles, cable procedures, switchboard circuitry, ground telephone assembly and operation, Atlas switching equipment, and Atlas and Titan I launch-enable system equipment analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 1 in electrical laboratory, 1 as a technical elective for non-engineering majors, and additional credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in electricity or electronics, 1 in electrical laboratory, 1 as a technical elective for non-engineering majors, and additional credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 3:* In the upper-division baccalaureate category, 1 semester hour in electrical laboratory, 1 as a technical elective for non-engineering majors (7/74).

AF-1715-0714

Missile Electronic Equipment Technician WS-133(CDB)

Course Number: 3AZR31672G-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL.

Length: 5 weeks (253 hours).

Exhibit Dates: 9/73–12/73.

Objectives: To train electronics technicians to maintain and repair missile support equipment.

Instruction: Lectures and practical exercises in the repair and maintenance of missile support equipment. Course includes circuit and block-diagram analysis of electronic equipment, troubleshooting procedures, and alignment techniques.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electronics laboratory as an elective for non-engineering students (7/74).

AF-1715-0715

Missile Launch/Missile Officer (SM-65D)

Course Number: OZR1821B; OZR3121B-3.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/62–12/68.

Objectives: To train officers to be missile officers.

Instruction: Lectures and practical exercises in missile systems and associated ground equipment, flight and launch control systems, and facility systems familiarization and operation.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour as a technical elective in electricity for non-technical students (7/74).

AF-1715-0719

Instrumentation Mechanic

Course Number: ABR31730.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 30–35 weeks (810–960 hours).

Exhibit Dates: 2/63–4/68.

Objectives: To train enlisted personnel to calibrate, maintain, troubleshoot, and repair time-and-frequency multiplexing and demultiplexing systems and digital data-acquisition equipment.

Instruction: Lectures and practical exercises in electronics fundamentals and the calibration, maintenance, troubleshooting, and repair of time-and-frequency multiplexing and demultiplexing systems and digital data-acquisition equipment, including AC and DC fundamentals, modulation systems, vacuum tubes and transistors, and amplifiers; frequency-and-time multiplexing components; airborne data-acquisition-set components; airborne and ground analog and digital equipment; signal conditioning and time-division multiplexing; telemetric systems components; spectrum analysis; digital, oscillographic, and magnetic tape recording, video recording, closed-circuit television procedures and equipment; and special test equipment. Includes power supplies, wave-shaping circuits, single sideband, transmission lines and antennas, cavity resonators, servomechanisms, and microwave principles; physics, transducers, and signal conditioners; transmitters, receivers, sensors, and monitoring principles; optics and photography; height-finder equipment; commutation and decommutation; theodolites; integrated systems; and electrical test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics and credit in electronics and electrical laboratory on the basis of institutional evaluation (7/74).

AF-1715-0721

Weapons Controller (ECCM Operations Officer)/Electronic Warfare Countermeasures Specialist

(Weapons Controller (ECCM Operations Officer))

Course Number: 3ALR27631; 3OLR1741D; OBR1741D.

Location: School of Applied Aerospace Sciences, Keesler AFB, MS; 3380th Technical School, Keesler AFB, MS.

Length: 10–44 weeks (394–1320 hours).

Exhibit Dates: 2/64–12/73.

Objectives: To train personnel as weapons controllers.

Instruction: Lectures and practical exercises in the basic application of electronic principles, description and principles of electronic circuitry included in typical current radars, data processing and data transmission equipment, comprehensive theory of electronic countermeasures and counter-countermeasures, circuits used to effect ECM and ECCM, duties of Radar Inputs and Countermeasures Officer position, and practical applications of ECCM equipment in a simulated ECM environment. Topics include development of electronic principles and applications to electronic equipment, technical publications, functional block diagrams, including operational adjustments of modern AC & W radar equipment, principles of data processing equipment, recognition and identification of jamming and the use, application, and operation of appropriate ECCM devices available to counteract the effects of undesirable signals.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74).

AF-1715-0722

1. Computer Maintenance Officer
   (Electronic Computer Maintenance Officer)
2. Electronic Computer Maintenance Officer

Course Number: *Version 1:* 3OBR3061. *Version 2:* OBR3061.

Location: 3380th Technical School, Keesler AFB, MS.

Length: *Version 1:* 34–41 weeks (1020–1230 hours). *Version 2:* 46 weeks (1380 hours).

Exhibit Dates: *Version 1:* 11/65–1/88. *Version 2:* 9/62–10/65.

Objectives: To train computer maintenance personnel in computer systems maintenance programming and functional analysis.

Instruction: *All Versions:* Lectures and practical exercises in introductory computer programming, solid-state computer system electrical and mechanical components analysis, central processor logic analysis and maintenance programming, and communications security. *Version 2:* Instruction emphasizes vacuum tube electronics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in computer principles, and credit in basic electronics on the basis of institutional evaluation (6/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in computer principles, 2 in maintenance management, 4 in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (6/74).

AF-1715-0740

Microwave Measurement and Calibration

Course Number: G3AZR32470.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6 weeks (256 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain and calibrate frequency counters, phase locking sychronizers, attenuator calibrators, power measuring equipment and sweep oscillators.

Instruction: Lectures and practical exercises on mathematics, transmission and line theory, and the maintenance and calibration of microwave test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in transmission line theory and 3 in microwave test equipment (2/87).

AF-1715-0741

Audiovisual Equipment Repairer

Course Number: G3ABR40430005.

Location: Technical Training Center, Lowry AFB, CO.

Length: 6–7 weeks (233 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Student will be able to repair precision imagery, audiovisual, darkroom, and film developing equipment.

Instruction: Lectures and practical exercises on the repair and maintenance of darkroom equipment, including timers, dryers, enlargers, densitometers, and sensitometers. Includes repair of slide and motion picture projectors, and still and motion picture cameras.

Credit Recommendation: In the vocational certificate category, 2 semeter hours in still camera repair, 2 in motion picture camera repair, 2 in slide and motion picture projector repair and 2 in darkroom equipment repair (2/87).

AF-1715-0742

Television Equipment Specialist

Course Number: G3ABR30435.

Location: Technical Training Center, Lowry AFB, CO.

Length: 12–13 weeks (484 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to install, perform preventive maintenance and troubleshoot television systems. The student will demonstrate knowledge of the theory of television and video systems, ability to correctly use television test instruments, perform routine maintenance and install and troubleshoot video systems.

Instruction: Training includes the theory of television, television test instruments, video camera, distribution systems, color TV principles, studio audio and video equipment, television receiver and transmitter principles, maintenance, video tape recording alignment and troubleshooting procedures. Method include readings, lectures, exercises, and laboratory experience with TV equipment. Evaluation is by test and performance checks. 70% accuracy is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic test instruments and 3 in television and video theory (2/87).

AF-1715-0743

Physical Measurement and Calibration

Course Number: G3AZR32470.

Location: Technical Training Center, Lowry AFB, CO.

Length: 4 weeks (159 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: The student will be able to perform duties in physical measurement and calibration of instruments.

Instruction: Personnel are trained in linear, torque, mass, weight, temperature, pressure, vacuum, laser, and intercomparison measurements. Emphasis is placed on error analysis, applied mathematics, use of test equipment and calibration standards.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of metrology (2/87).

AF-1715-0744

Enemy Defense Penetration Aids

Course Number: T1115005.

Location: Air National Guard, A-7 Fighter Weapons School, Tucson, AZ.

Length: 2 weeks (69–70 hours).

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to assist in the establishment, development, and execution of a unit Electronic Combat (EC) program. Designed for Mission Ready (MR) A-7, A-10, and F-16 pilots.

Instruction: Classroom lectures and working group assignments. The academics include a detailed study of the history and future trends of the use of the electromagnetic spectrum as a medium of warfare. Particular emphasis is directed at Radar principles, tracking techniques, countermeasures, electro-optical techniques and EM tactics. Students will develop a practical application problem of real world target environments.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced electronics/radar systems (3/88).

AF-1715-0745

BIOMEDICAL EQUIPMENT MAINTENANCE SPECIALIST BY CORRESPONDENCE

Course Number: 91850.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will understand the theory and basic fundamentals of biomedical electronics including the repair and evaluation of clinical laboratory equipment and computers.

Instruction: Monitored home study course including reading and written exercise and written proctored examination. Topics include theoretical concepts of repair and evaluation of clinical and medical equipment, the basic and advanced principles of electronics and troubleshooting procedures, and introductory and intermediate concepts in computer technology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronic principles, 3 in advanced electronics, 3 in theory of maintenance and therapeutic equipment, 3 in fundamentals of X-ray and imaging systems, 3 in theory of cardiac equipment and computer applications of biomedical equipment (5/88).

AF-1715-0746

ELECTRONICS FUNDAMENTALS BY CORRESPONDENCE

Course Number: 3025.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/84–Present.

Learning Outcomes: Upon completion of the course, the student, with a minimum of supervision, would be able to perform maintenance and repair of basic navigation communications and pulse equipment including antenna installation and repair.

Instruction: This is a supervised, self-paced, extension course covering direct and alternating current theory; electronic device theory, motion conversion and behavior of electrons; communication principles, dealing with characteristics and functional operations of AM transmitters, single side band transmitters and receivers, frequency and phase modulated transmitters and FM receivers; transmission lines, antennas, and wave propagation fundamentals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fundamentals (10/88).

AF-1715-0747

COMMUNICATIONS-ELECTRONICS SYSTEMS TECHNOLOGY BY CORRESPONDENCE

Course Number: 3026.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/84–Present.

Learning Outcomes: Upon completion of the course, the student will understand radio and radar theory and applications necessary for intermediate management of a communications and electronics organization.

Instruction: This is a self-paced follow on course which goes into radio and radar theory and application. Radio bands from extremely low (ELF) to extremely high (EHF) are examined. Emphasis includes line of sight considerations, tropospheric scatter and safety. Probability (distribution), reliability, maintainability, application and multiplex operations are also included. The course is structured for admininstration with limited previous experience.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radio wave theory and applications (10/88).

AF-1715-0748

COMMUNICATIONS-ELECTRONICS EMPLOYMENT BY CORRESPONDENCE

Course Number: 3028.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/84–Present.

Learning Outcomes: Upon completion of the course, the student will have acquired a basic knowledge of the related subject materials which cover telephone principles, signaling and inside plant support equipment, telephone switching system, and outside plant and traffic engineering, air traffic control systems and traffic control and landing systems.

Instruction: This is a self-paced supervised extension course including automatic telephone systems, supervision and signaling, basic switching techniques and terminology, inside plant support, telephone and wire maintenance documents, automatic telephone - direct control, automatic telephone - common control system, tactical switching systems, multi-line subscriber equipment, outside plant, outside-plant in-place records, traffic engineering, control of air traffic, navigational aids, air traffic control (ATC), tower, radar principles, facilities and equipment, omnirange, instrument landing system. The course is geared mostly to telephone systems with very little on air traffic control other than principles of air traffic control and their related systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic telephone principles (10/88).

AF-1715-0749

ELECTRONIC TUBES AND SPECIAL PURPOSE TUBES BY CORRESPONDENCE

Course Number: 3031.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course,the student will understand vacuum tube principles and operation. Designed as a review for a person who has previously completed more extensive training in the area or for a brief overview of this equipment.

Instruction: Self-paced extension course which serves as an overview of electron tues (diodes, triodes and multigrid), tube checking and circuits, including amplifiers, cathode ray tubes (cold and hot). Also covered are oscillators (lighthouse, reflex klystron, and magnetron.

Credit Recommendation: Credit is not recommended as the course is a review of limited material (10/88).

AF-1715-0750

FUNDAMENTALS OF SOLID STATE DEVICES BY CORRESPONDENCE

Course Number: 3032.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/71–Present.

Learning Outcomes: Upon completion of the course, the student understand principles and concepts of semiconductors. A comprehensive understanding of fundamental circuitry will have been acquired.

Instruction: Self-paced extension course which begins with an over-view of solid state devices from fundamental physics and mathematics to theory of simple rectifying and special solid state devices and transistors. Material goes through functional principles of electronic circuits and applications for solid state equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in semiconductor theory and application (10/88).

AF-1715-0751

SINEWAVE OSCILLATORS-MODULATION/DEMODULATION BY CORRESPONDENCE

Course Number: 3034.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to better understand the principles of sinewave oscillators and modulation/demodulation techniques, concepts of amplitude modulation, single-sideband, frequency modulation, phase modulation and pulse modulation reduced to a basic knowledge.

Instruction: Self-paced extension course covers principles of oscillation theory, operations and troubleshooting concepts of common oscillators. The course discusses frequency synthesizers, AM modulation and demodulation as well as principles of single sideband and FM . The material is constructed to include a block diagram and brief review in each stage.

Credit Recommendation: Credit is not recommended due to the limited application and coverage of content (10/88).

AF-1715-0752

POWER SUPPLIES BY CORRESPONDENCE

Course Number: 3038.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to better understand details of power supply's relationship to circuits for more efficient troubleshooting of power supply circuits.

Instruction: Self-paced extension course designed for the person with prior theoretical and practical training and experience, the course discusses operation of transformers, rectifiers, and filters, and principles and uses of voltage dividers and regulators. The course concludes with polyphase power supply concept review.

Credit Recommendation: Credit is not recommended as the course contains a very limited review of material (10/88).

AF-1715-0753

COMMUNICATION-ELECTRONICS SYSTEMS ACQUISITION AND MANGEMENT BY CORRESPONDENCE

Course Number: 3027.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.
Exhibit Dates: 7/80–Present.

Learning Outcomes: Upon completion of the course, the student will understand the steps required to plan, program, and budget for major government systems acquisition. This is a foundation course for middle managers.

Instruction: A self-paced extension course for managers and prospective managers with an overview of planning on the national level with specific applications to the Department of Defense, this course offers a more detailed view of communications and electronics planning, programming, and documentation. Standard and nonstandard programming involving program management, action agencies, integration of logistics support and operational test and evaluation, resources management, and the budgeting process are all included.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in acquisition and management of government systems (10/88).

AF-1715-0754

Aerospace Control and Warning Systems Operator by Correspondence

Course Number: 27650.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to qualify for upgrade training as an aerospace control and warning systems operator. He will be familiar with the principles of operation, system limitations and the equipment applicable to both atmospheric and space radar detection systems.

Instruction: The three volumes that comprise the study materials for this course provide a broad survey of radar applications to the aerospace control and warning field. The basic theory of radar, weather effects, related communication systems as well as computer integration is presented. An overview of major military radar as applied to space and space related systems, are considered. Atmospheric radar systems, both airborne and ground based, are described and their performance evaluated.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to radar systems (12/89).

AF-1715-0755

Space Systems Operations Specialist by Correspondence

Course Number: 27750.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain digital computers and micro-processors under medium supervision in support of space systems.

Instruction: The student will recieve instruction concerning basic electricity and electronics, basic communication systems, digital computer operation and fundamental space mechanics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer system troubleshooting and maintenance (12/89).

AF-1715-0756

Avionics Test Station and Component Specialist (F-16/A-10) by Correspondence

Course Number: 45155.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain, troubleshoot, repair or replace electronic equipment using computerized testing and maintenance equipment, and will test and repair flight control and instrument systems.

Instruction: The student will receive instruction concerning electronic theory and application, test equipment operation and maintenance and test and maintenance of flight control systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and 2 semester hours in electronic test station operation (12/89).

AF-1715-0757

Integrated Organizational Avionics Systems Specialist by Correspondence

Course Number: 45250.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 11/87–8/89.

Learning Outcomes: Upon completion of the course, the student will comprehend material management proceedures, identify aircraft tools and hardware, perform solderless wire connections and understand the basic use of an ammeter, voltameter and ohmmeter. Fundamentals of D.C. and A.C. electricity, magnetism, transformers, generator, motors and electrical circuit interpretation; solid state electrical circuits, numbering, computation and digital logic systems and digital computer theory, logic and operation, are covered.

Instruction: The student will receive instructions concerning the use of handtools, soldering principles, solderless connections and operating principles and use of electrical measuring instruments. Course will also cover basic electricity, transformers, generators, motor and electric circuit computation, solid state electronics and associated systems and digital computer theory and operation. Will also cover material management procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in materials management, 2 in basic electricity and 2 in solid state electronics and digital computer fundamentals (12/89).

AF-1715-0758

Integrated Organizational Avionic System Specialist by Correspondence

Course Number: 45250B.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/89–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the fundamentals of D.C. and A.C. electricity, magnetism, transformers, generator, motors and electrical circuit interpretation, and will understand and work with solid state electronics systems and circuits, numbering systems, digital logic and computation systems, digital computer theory and operation.

Instruction: The student will receive instructions concerning the use of OHM's and Kirchhoff's Laws to compute electrical circuits, the operating principles and uses of transformers and theory of operation of generators and motors. Course also covers solid state electronics and associated systems, digital computer theory and operation and material management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity and 2 in solid state electronics and digital computer fundamentals (12/89).

AF-1715-0759

Integrated Avionic Attack Control Systems Specialist by Correspondence

Course Number: 45252A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course, the specialist who is at the skilled or advanced level will obtain the basic knowledge to maintain the integrated avionic attack control system installed on the F-16 aircraft.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas cover an orientation to the F-16 series aircraft with particular reference to the integrated avionic attack control system. Specific topics include head-up and head-down systems, fire control sensing, pulse doppler radar, inertial navigation, synchronizer, transmitter and modulator circuits, radio waves and receives, transmission lines, wave guides, antennas and radar displays.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics - radar system (12/89).

AF-1715-0760

Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence

Course Number: 45253A.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student who is at the skilled or advanced level will obtain the basic knowledge to maintain the integrated avionic attack control system installed on the F-111 Aircraft.

Instruction: The course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content area covers an orientation to the F-111 series aircraft with particular reference to the integrated avionic attack control system. Specific topics include navigation computers-including computer complexes and multiplex busses, control and display systems (optical and integrated), airborne video tape recording, terrain following, navigation and altmeter radar, and inertial navigation systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electronics radar systems (12/89).

AF-1715-0761

Avionics Guidance and Control
Systems Technician by
Correspondence

Course Number: 45571.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will comprehend the necessity of personnel and shop safety around aircraft, comprehend maintenance and material compleses and tracking, understand and use basic electrical theory, synchro-indicating systems, electronic systems to include solid state,and understand the use of avionics fundamentals for flight and navigation, data processing methods and use of the test equipment.

Instruction: The student will receive information concerning personnel and shop safety, maintenance and materials complexes and tracking, basic electricity, electronic, solid state electronic and avionics fundamentals. Also basic theory of flight, navigation principles, principles of data processing and test equipment use are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity and 2 semester hours in electronics and avionics (12/89).

AF-1716-0001

Fabric and Rubber Products
Specialist

(Fabric, Leather and Rubber Products
Repairman)

Course Number: 3ABR58230; AB58230.

Location: Chanute Technical Training Center, Chanute AFB, IL.

Length: 11–18 weeks (330–510 hours).

Exhibit Dates: 5/58–12/73.

Objectives: To train airmen to inspect, maintain, repair, and fabricate items made of fabric, leather, rubber, and other materials.

Instruction: Lectures and practical exercises in the inspection, maintenance, repair, and fabrication of items made of fabric, rubber, and other materials, including operation and maintenance of sewing machines; repair and alteration of flying and aircrew protective clothing and survival equipment; covering and doping of aircraft control surfaces; repair and fabrication of protective covers for ground support equipment; repair of life preservers and rafts; and practical work with leather. Includes maintenance of fire-fighter and high-altitude clothing and the identification, construction, handling and storage of aircraft fuel cells, bladder cells, tires and tubes, deicer shoes, and ground radomes.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in textile fabrication (6/74).

AF-1717-0001

Propulsion Shop Management

Course Number: AZR43270-9.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 3-4 weeks (114 hours).

Exhibit Dates: 1/67–6/68.

Objectives: To train enlisted personnel to manage a propulsion shop.

Instruction: Lectures and practical exercises in forecasting, work authorization, product and process planning, material control and management, scheduling and loading, dispatching, progress reporting, and corrective actions.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0002

Aircraft Maintenance Staff Officer

(Aircraft Maintenance Management Officer)

(Aircraft Maintenance Officer)

Course Number: 3OAR4311; OAR4311; OA4311.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 6–9 weeks (168–270 hours).

Exhibit Dates: 5/56–12/73.

Objectives: To train enlisted personnel to perform as aircraft maintenance staff officers.

Instruction: Lectures and practical exercises in personnel management, human relations, maintenance policies, communicative skills, statistics and maintenance data collection, material control, quality control, aircraft accident investigation procedures, records and reports, and administrative and technical publications familiarization.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in shop management (12/68).

AF-1717-0003

Aircraft Maintenance Officer

Course Number: *Version 1:* 3OBR4021. *Version 2:* 3OBR4341; OBR4341. *Version 3:* OBR4341. *Version 4:* OBR4341.

Location: *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL. *Version 2:* 3345th Technical School, Chanute AFB, IL.

Length: *Version 1:* 20–21 weeks (600–630 hours). *Version 2:* 30–31 weeks (900–918 hours). *Version 3:* 32 weeks (960 hours). *Version 4:* 35 weeks (1050 hours).

Exhibit Dates: *Version 1:* 3/71–12/73. *Version 2:* 6/62–2/71. *Version 3:* 12/60–5/62. *Version 4:* 3/55–11/60.

Objectives: To provide officers with training in aircraft maintenance procedures and management.

Instruction: *All Versions:* Lectures and practical experience in aircraft maintenance and management, including aircraft systems, components, and equipment familiarization; management and supervision; oral and written communications skills; human relations; and aircraft maintenance officer organizational and administrative duties and responsibilities. *Version 2:* Theory of flight; management principles. *Version 3:* Theory of flight; management principles. *Version 4:* Theory of flight; management principles.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in business organization and management and additional credit in business organization and management on the basis of institutional evaluation (3/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in personnel management (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in personnel management (12/68). *Version 4:* In the upper-division baccalaureate category, 7 semester hours in business organization and management and additional credit in business organization and maintenance on the basis of institutional evaluation (12/68).

AF-1717-0004

Aircraft Maintenance/Avionics
Officer Accelerated

Course Number: 3OBR4021, 3OBR4041-1.

Location: School of Applied Aerospace Science, Chanute AFB, IL.

Length: 6 weeks (168–222 hours).

Exhibit Dates: 8/72–12/73.

Objectives: To train officers in aircraft maintenance and avionics maintenance management.

Instruction: Lectures and practical exercises in the principles and concepts of maintenance management; personnel relations; maintenance organizations; planning and scheduling; manpower utilization and control; analysis; communicative skills; and associated supply and materiel functions.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in business organization and management (3/74).

AF-1717-0005

Aircrew Egress Systems Mechanic by
Correspondence

Course Number: 42352.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform general maintenance duties following appropriate technical orders and publications while applying good maintenance management concepts. Emphasis is placed on proper handling of explosives, and on demonstrating intermediate knowledge of electrical and pneumatic principles.

Instruction: The student works under indivudual supervision and with a trainer or training manager to control progress in the areas of: aircrew egress systems mechanical fundamentals; management and supply fundamentals; fundamentals and specific knowledge of egress systems (B52,F-4, F015, F-111, and F-38). Test equipment such as multimeters and common hand tools are used.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance principles, 1 in industrial safety (10/88).

AF-1717-0006

Aircraft Maintenance Technician, Jet
Engine Aircraft

(Aircraft Maintenance Technician, Jet
Engine Type Aircraft)

Course Number: AAR43171E; AAR43171D; AA43171D.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 14–16 weeks (420–480 hours).

Exhibit Dates: 11/55–12/68.

Objectives: To train aircraft mechanics in maintenance management of jet engine aircraft.

Instruction: Lectures and practical exercises in supervision of maintenance personnel; publications and aircraft records; aircraft electric, hydraulic, fuel, indicator, and flight control systems; structural maintenance; corrosion control; weight and balance instruments; and jet engines, starters, and ground equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0008

GCA Radar Officer

Course Number: OB3041A.

Location: 3380th Technical School, Keesler AFB, MS.

Length: 12 weeks (360 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train officers in radar system operation and maintenance.

Instruction: Lectures and practical exercises in radar system operation and maintenance, including radar system general characteristics, AC and DC circuit fundamentals, electron tubes and amplifiers, transmitters and receivers, transient circuits, microwave propagation, and management and security concepts and practices.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (4/74).

AF-1717-0009

1. Programs and Work Control Specialist
2. Maintenance and Control Specialist

Course Number: 3ALR55530-3.

Location: *Version 1:* School of Applied Aerospace Sciences, Sheppard AFB, TX. 3750th Technical School, Sheppard AFB, TX.

Length: *Version 1:* 8–9 weeks (240–320 hours). *Version 2:* 10 weeks (300 hours).

Exhibit Dates: *Version 1:* 5/69–12/73. *Version 2:* 11/67–4/69.

Objectives: To train airmen to perform as programs and work control or maintenance and control specialists.

Instruction: Lectures and practical exercises in programs and work control or maintenance and control, including planning or maintenance of plumbing and interior electric systems, scheduling procedures, and use of automatic data management systems. Includes program planning with emphasis on automation; planning structural, protective coating, masonry, and multishop work; production control, repair and maintenance of buildings and installed appliances; trouble analysis of low voltage electrical circuits; and planning fundamentals.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in engineering management (5/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1717-0011

Consolidated Maintenance Management (ADC)

Course Number: OZR4341.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 3 weeks (78–90 hours).

Exhibit Dates: 6/59–12/68.

Objectives: To train commissioned and warrant officers to manage and administrate a consolidated maintenance program.

Instruction: Lectures and practical exercises in consolidated maintenance management. Course includes administration procedures, organization, documentation, production control, performance standards and review, workloads and schedules, property and financial management, and quality control.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1717-0012

Aerospace Ground Equipment Repair Technician
(Aircraft and Missile Ground Support Equipment Repair)

Course Number: 3AAR42173; AAR42173; AAR42172.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8–12 weeks (240–480 hours).

Exhibit Dates: 2/61–6/73.

Objectives: To train airmen to repair and maintain aerospace ground equipment at the intermediate level.

Instruction: Lectures and practical exercises in the repair and maintenance of aerospace ground equipment, including electrical and electronic circuits, components, and test equipment, and the troubleshooting and maintenance of electric motors, gasoline engines, gas turbines, motors, engines, turbine-driven generator sets, air compressors, hydraulic support equipment, cabin leakage testers, ground heaters, and equipment coolers. Includes pressurizing equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0013

Corrosion Control Specialist by Correspondence

Course Number: 42751.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance, and supervise subordinates, in missiles, aircraft, and support systems, and in corrosion control procedures.

Instruction: This is a supervised, self-paced extension course covering security training publications; maintenance equipment and supply; supervision, management, inspection systems; preparation for corrosion control, corrosion removal, and the application of organic coatings (10/88).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in corrosion control (10/88).

AF-1717-0014

Aircraft Maintenance Officer Accelerated

Course Number: 3OBR4021-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/71–12/73.

Objectives: To train selected commissioned officers to maintain aircraft.

Instruction: Lectures and practical exercises in the duties and responsibilities of an aircraft maintenance officer. Course includes instruction in aircraft maintenance management policies and techniques; personnel relations; maintenance organizations; planning and scheduling; manpower utilization and control; maintenance data collection and analysis; communicative skills; associated supply and material functions; and related aircraft activities.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in aircraft maintenance management (6/74).

AF-1717-0015

Missile Officer, WS-133A
(Missile Officer, SM-80)

Course Number: OZR3121G-1; OZR3121D-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 7–9 weeks (222–270 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train officers to supervise missile maintenance and alignment on the WS-133A weapon system.

Instruction: Lectures and practical exercises in WS-133A weapons system familiarization, missile facility systems, electronics, missile alignment, missile targeting, launch control and launch facilities, and maintenance management and responsibilities.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0016

Missile Officer, WS-133A

Course Number: 3OBR3121G; OBR3121G; OBR3121G-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 12–15 weeks (360–450 hours).

Exhibit Dates: 12/64–12/73.

Objectives: To train officers as missile officers for 133A weapons systems.

Instruction: Lectures and practical exercises in 133A weapons systems, including DC and AC circuits, generators and motors, solid-state devices, communications, power systems, guidance and control systems, operation and control of launch complex mechanical systems, maintenance management, weapon systems and electrical test equipment and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0017

Missile Officer, WS-133A

Course Number: OZR3121G.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8–9 weeks (240–270 hours).

Exhibit Dates: 11/65–12/73.

Objectives: To train officers as missile officers for 133A weapons systems.

Instruction: Lectures and practical exercises in 133A weapons systems, including DC and AC circuits, generators and motors, solid-state devices, communications, power systems, guidance and control systems, operation and control of launch complex mechanical systems, maintenance management, aerospace ground equipment and testing equipment, and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop managment (12/68).

AF-1717-0018

Missile Officer, WS-133B

Course Number: OZR3121G-2.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 4/65-12/68.

Objectives: To train officers as missile officers for WS-133B systems.

Instruction: Lectures and practical exercises in the duties of missile officers, including missile maintenance management; transportation and handling; troubleshooting and maintenance of WS-133B missile systems; logistics and administrative procedures; aerospace ground equipment and electronics; test equipment; launch facility equipment; and missile alignment and targeting procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0019

Missile Officer, WS-133A-M

Course Number: OBR-3121G-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 13 weeks (390 hours).

Exhibit Dates: 6/67-12/68.

Objectives: To train officers as WS-133A-M missile maintenance officers.

Instruction: Lectures and practical exercises in WS-133A-M missile maintenance activities, including fundamentals and theory of missile electrical and electronic systems, operation and control of launch complex mechanical systems, maintenance management, transport and handling, aerospace ground equipment, test equipment and troubleshooting procedures, targeting and alignment tasks of the weapon system, system configuration to the block-diagram level, and principles of guidance and control systems.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop management (12/68).

AF-1717-0021

Ground Equipment Maintenance Officer

Course Number: OBR4381; OB4381.

Location: *Version 1:* 3345th Technical School, Chanute AFB, IL. *Version 2:* 3450th Technical School, Warren AFB, WY.

Length: 9-10 weeks (270-300 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train officers to perform as ground equipment maintenance officers.

Instruction: Lectures and practical exercises in the duties of ground equipment maintenance officers, including motorized and miscellaneous equipment and maintenance functions; maintenance shop organization and layout; and personnel management, supervision and training.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in shop managment (12/68).

AF-1717-0023

Maintenance Management

Course Number: OZR0066-2.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 4 weeks (108 hours).

Exhibit Dates: 1/63-12/68.

Objectives: To train enlisted personnel to understand maintenance management concepts and procedures.

Instruction: Lectures and practical exercises in maintenance management concepts and procedures. Course includes reporting, principles of management, managerial analysis and control, materials management, quality control and inspection procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

AF-1717-0024

Aerospace Munitions Staff Officer

Course Number: *All Versions:* 3OAR4611. *Version 2:* OAR4611.

Location: 3415th Technical School, Lowry AFB, CO.

Length: *Version 1:* 4-8 weeks (120-240 hours). *Version 2:* 13 weeks (390 hours).

Exhibit Dates: *Version 1:* 8/68-12/73. *Version 2:* 8/66-7/68.

Objectives: To train commissioned officers to perform as aerospace munitions staff officers.

Instruction: Lectures and practical exercises in the duties of an aerospace munitions staff officer. Course includes munitions management, budget estimating, research and development, and special military subjects.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in principles of management (8/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in principles of management, and credit in oral and written communication on the basis of institutional evaluation (12/68).

AF-1717-0025

Air Force Base Level Maintenance Management

Course Number: 212.

Location: School of Systems and Logistics, Wright-Patterson AFB, OH.

Length: 2-3 weeks (84-90 hours).

Exhibit Dates: 12/69-6/74.

Objectives: To train base-level maintenance supervisors in management skills and maintenance management techniques.

Instruction: Lectures and practical exercises in management skills and maintenance management techniques, including maintenance in the USAF, management overview, equipment readiness, manpower management, configuration control, EOQ, remote terminal exercise, maintenance data collection, integrated logistics support, data processing and computer science, repair-cycle asset control, management engineering, Comm/Acft Main-Man-X, review management survey and management improvements, decision making, motivation, interrelations-supply/maintenance, and Log-Man-X Policy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management (8/74); in the upper-division baccalaureate category, 1 semester hour in principles of management (8/74).

AF-1717-0026

Missile Facilities Specialist by Correspondence

Course Number: 44550G.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates in inspecting, monitoring, troubleshooting, operating, maintaining and repairing missile weapons system support facilities and equipment.

Instruction: This is a supervised self-paced extension course covering missile maintenance, technical orders, maintenance data collections systems, security and safety, corrosion, hand tools, aerospace hardware, principles of electricity and pneudraulics, layout of Minuteman facilities, hardness assurance and contruction and maintenance of missile, maintaining Minuteman facilities, operation and maintenance of equipment and special purpose vehicles, missile handling and transporting vehicles, equipment, and operation and proofload testing equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in plant maintenance (10/88).

AF-1721-0007

Precision Physical Measuring Technician

Course Number: 3AZR2470-7.

Location: 3415th Technical School, Lowry AFB, CO.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/69-12/73.

Objectives: To train personnel to perform requisite duties as precision physical measuring technicians.

Instruction: Lectures and practical exercises to include applied mathematics; principles of heat and temperature, force, weights and balances, and rotary motion; measurements and calibration techniques; metrology and physical concepts; principles of pressure, humidity and specific gravity, and viscosity and flow.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in metrology (5/74).

AF-1723-0001

Machinist

Course Number: 3ABR53130; ABR53130; AB53130.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 14-20 weeks (420-570 hours).

Exhibit Dates: 2/55-12/73.

Objectives: To train enlisted personnel to be machinists.

Instruction: Lectures and practical exercises in drawing interpretation; applied shop mathematics; use of technical manuals; bench work and assembly practice; use of hand tools and precision measuring instruments; heat treatment; machine tool operations on drill presses, lathes, shapers, milling machines, contour machines, and precision grinders; and weapons and ground support equipment maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in machine trades or machine technology (5/74).

AF-1723-0002

Machinist

Course Number: 3AZR53150-1; AZR53150-1.

Location: School of Applied Aerospace Sciences, Chanute AFB, IL; 3345th Technical School, Chanute AFB, IL.

Length: 6 weeks (180-226 hours).

Exhibit Dates: 8/66-12/73.

Objectives: To train enlisted personnel having technical backgrounds at the craftsman level to design and fabricate tools, dies, jigs, and fixtures for weaponry maintenance.

Instruction: Lectures and practical exercises in metals analysis; drawing interpretation; precision measurement; bench work; heat treatment; machine tool operations on gear cutters, lathes, milling machines, shapers, and tool and cutter grinders; and design and fabrication of jigs, fixtures, punches and dies for weaponry maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in machinist trades or mechanical technology (5/74).

AF-1723-0005

NONDESTRUCTIVE INSPECTION SPECIALIST BY CORRESPONDENCE

Course Number: 42752.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 3/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance, and to supervise subordinates in the methods and techniques of nondestructive testing.

Instruction: This is a supervised, self-paced extension course covering topics of terminology, technique, Air Force safety, metallurgy, optical, liquid penetrant, magnetic particle inspection, ultrasonics, eddy current, oil analysis, radiography, techniques development, and bonding test.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in nondestructive inspection (10/88).

AF-1723-0006

METAL FABRICATING SPECIALIST BY CORRESPONDENCE

Course Number: 55252.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: 52 weeks maximum.
Exhibit Dates: 6/83–Present.

Objectives: This course is intended to train individuals to be sheet metal fabrication specialists.

Instruction: On-the-job supervision and at-home studies. The home study provides basic knowledge regarding sheet metal tools and equipment, layout and duct work systems, installed metal equipment and doors, and oxycetylene, electric, and metallic arc welding. Basic shop math and military contingency planning are also covered.

Credit Recommendation: In the vocational certificate category, 4 semester hours in sheet metal fabrication and installation (9/86).

AF-1723-0007

METALS PROCESSING SPECIALIST BY CORRESPONDENCE

Course Number: 53151.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 9/75–Present.

Objectives: This course is intended to train individuals in the fabrication and repair of metal parts and components.

Instruction: This correspondence course of instruction consists of on-the-job training and at-home study. The at-home study provides basic knowledge regarding metal repair and fabrication operations. Oxyacetylene welding, electric welding, metallic arc equipment, gas-shielded welding, TIG welding and resistence welding are covered. Also taught is metal processing, heat treatment, testing and inspection, and metal treatment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in welding (9/86).

AF-1723-0008

MACHINIST BY CORRESPONDENCE

Course Number: 42750.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 12/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates, and to operate metal working machines in fabricating, reworking and repairing metal parts.

Instruction: This is a supervised, self-paced extension course covering manufacturing and reworking mechanical parts, assembling and fitting machine parts, maintaining hand and machine tools, and supervising machine shop personnel. Course does not require proficiency in computer assisted machinery.

Credit Recommendation: In the vocational certificate category, 3 semster hours in basic machine shop, and 3 in advanced machine tools (10/88).

AF-1723-0009

METALS PROCESSING SPECIALIST BY CORRESPONDENCE

Course Number: 42754.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to test, inspect and treat metals; identify metals to determine appropriate process (eg. lead on silver, solder, oxyacetylene or electric welding); work with assorted handtools from pliers, nippers, wrenches, files and chisels to measuring devices such as micrometers and calipers; also work with some power equipment such as grinders and buffers, and will have basic knowledge of mechanical drawing, maintenance documentation and management, and maintenance safety.

Instruction: The student in this course works under supervision and with a trainer or training manager to control progress in areas of knowledge related to the use of assorted handtools and limited power tools. Extensive coverage of metal work from the most basic grinding to more sophisticated efforts with gas-shielded, tungsten-inert gas, and resistence welding, carbon steel, ferrous alloys, pipes, castings, and forgings are all included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in welding, and 3 in metal fabrication (10/88).

AF-1723-0010

AIRFRAME REPAIR SPECIALIST BY CORRESPONDENCE

Course Number: 42755.
Location: Extension Course Institute, Gunter Air Force Station, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and to supervise subordinates in the repair and maintenance of sheet metal and composite aircraft structure.

Instruction: This is a supervised, self-paced extension course covering topics of operation of an airframe repair shop; composition and processing of aluminum, titanium, steel, and magnesium to obtain a desired end-product; general repair techniques and procedures; methods of fastening including many types of blind fasteners, installation, and removal; and general repair techniques and procedures for fiberglass, advanced composites, and metal bonded components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in sheet metal repair, 3 in production processes, and 3 in composite structures repair (10/88).

AF-1724-0002

NON-DESTRUCTIVE TESTING OF AIRCRAFT AND RELATED EQUIPMENT COMPONENTS

(Non-Destructive Testing)

Course Number: ATS53270-3.
Location: 3345th Technical School, Chanute AFB, IL.
Length: 3 weeks (90 hours).
Exhibit Dates: 8/58–12/68.

Objectives: To train enlisted personnel in the procedures or techniques used in performing nondestructive testing.

Instruction: Lectures, demonstrations, and practical exercises in nondestructive testing. Topics include: principles, types, causes, and characteristics of discontinuities; preparation and cleaning of parts for testing; protective finishes; theory and methods of magnetic particle, penetrant, ultrasonic, and industrial x-ray and gamma ray (radio isotopes) inspection methods applied to the fabrication, overhaul, and periodic inspection of aircraft parts.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in materials testing, nondestructive testing, machine trades, or industrial technology (5/74).

AF-1724-0003

NON-DESTRUCTIVE INSPECTION SPECIALIST

Course Number: *Version 1:* 3ABR53630. *Version 2:* 3ABR53630; ABR53630.
Location: *Version 1:* School of Applied Aerospace Sciences, Chanute AFB, IL. *Version 2:* 3345th Technical School, Chanute AFB, IL.
Length: *Version 1:* 12 weeks (432 hours). *Version 2:* 12–13 weeks (360 hours).
Exhibit Dates: *Version 1:* 7/73–12/73. *Version 2:* 6/67–6/73.

Objectives: To train enlisted personnel as nondestructive inspection specialists.

Instruction: Lectures and practical exercises in maintenance and inspection systems, magnetic particle and liquid penetrant inspection methods, radiography, x-ray equipment operation, radiographic inspection and film processing, ultrasonic flaw and leak detection, and thickness measurement and eddy current inspection.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in materials testing, nondestructive testing, machine trades, and industrial technology (5/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in materials testing, nondestructive testing, machine trades, and industrial technology (5/74).

AF-1724-0004

Non-Destructive Inspection (T/A 455)

Course Number: AZR53250-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 12 weeks (360 hours).

Exhibit Dates: 2/66–12/68.

Objectives: To train enlisted personnel in nondestructive inspection of weapons and equipment.

Instruction: Lectures and practical exercises in nondestructive inspection techniques. Topics include the preparation of metals and parts for inspection; procedures used in the nondestructive inspection of parts; magnetic particle, penetrant, ultrasonic, eddy current, conductivity meter, ultrasonic leak and radiographic inspection methods; types, causes and characteristics of discontinuities and defects; scope and conditions requiring nondestructive inspection; interpretation and evaluation of indications found by various methods of inspection; specifications and standards for inspection regulations governing radioisotopes; and applicable safety methods.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in materials testing, nondestructive testing, machine trades, or industrial technology (5/74).

AF-1724-0006

Apprentice Nondestructive Inspection
Specialist by Correspondence

Course Number: 45851.

Location: Extension Course Institute Gunter Air Force Station,AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to accomplish nondestructive testing procedures using magnification, penetrant, ultra sonic, eddy current and X-ray techniques and to evaluate the results under supervision.

Instruction: Student will receive instructions concerning the use of visual, dye penetrant, ultrasonic, eddy current and X-ray equipment and methods as well as development and evaluate the results.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Nondestructive Inspection (12/89).

AF-1724-0007

Aircraft Metals Technology
(Welding) by Correspondence

Course Number: 45870B.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 8/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to construct components using oxy-acetrlene, electrical arc or resistance welding methods. Cut metals using flame cutting equipment. Identify of both steel and aluminum. Heat treat metals and test for hardness. Treat metal surfaces to resist corrosion. Be able to supervise others in metal processing using welding for joining.

Instruction: Through correspondence the student will receive information on types of metals, welding using oxy-acetrlene, electrical arc and resistance methods. Metals processing by heat treating to develope strength and plating to prevent corrosion, metal testing to provide quality control of welding.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in metals joining and processes (12/89).

AF-1728-0001

Air Police Noncommissioned Officer
(NCO)
(Air Police Supervisor)

Course Number: AA77170; 96170.

Location: 3625th Training Group, Parks AFB, CA.

Length: 8–12 weeks (240–390 hours).

Exhibit Dates: 3/54–12/68.

Objectives: To train air policemen to become air police supervisors.

Instruction: Lectures and practical experience in the principles of supervision and management, ethics and leadership, organization of air police units, basic air police weapons, unarmed combat, physical apprehension and restraining techniques, internal security, and law enforcement and correction.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in police science or police administration (2/74).

AF-1728-0002

Security Specialist by Correspondence

Course Number: 81150.

Location: Extension Course Institute, Gunter AFB, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/82–11/86.

Objectives: To provide education and training in the techniques and applications of skills related to the physical protection of property, resources, and information.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. The home study provides the basic knowledge of security police functions and the on-the-job supervision provides the training to reinforce the home studies as well as provides for special requirements at the installation. The course contains security police history; legal considerations and provisions; communications; community relations; system security operations; protection of resources; accident, disaster, and incident scenes; security police duties, procedures, and tactics. There is a proctored final exam.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial security, law enforcement, police science, or practicum in any of the above categories (7/84).

AF-1728-0003

Security Supervisor by
Correspondence

Course Number: 81170.

Location: Extension Course Institute, Gunter AFB, AL.

Length: Maximum of 52 weeks.

Exhibit Dates: 4/82–10/87.

Objectives: To provide educaton and training for a supervisory role in the techniques and applications of skills related to the physical protection of property, resources, and information.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. The home study provides advanced knowledge of security police functions and the on job supervision provides the training to reinforce the home studies as well as provides for special requirements of the installation. The course covers fundamental definitions in military security; access control; crime prevention; and human and community relations in an industrial security context; general security duties; jurisdiction and systems operations as related to the functions of a first level supervison. There is a proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial security supervision, law enforcement supervision, or police science supervision (7/84).

AF-1728-0004

Traffic Management and Accident
Investigation

Course Number: 3AZR81271-1.

Location: School of Applied Aerospace Sciences, Lackland AFB, TX.

Length: 4 weeks (150 hours).

Exhibit Dates: 3/73–12/73.

Objectives: To train airmen as traffic enforcement officers and accident investigators.

Instruction: Development of installation vehicle codes and traffic flow plans; traffic trends analysis; planning of traffic accident investigations; procedures for preparing and maintaining traffic reports and records, and utilizing graphs, charts, and maps.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in police traffic enforcement (1/74).

AF-1728-0005

Reserve Special Investigations and
Counterintelligence Training
(Reserve Refresher)

Course Number: None.

Location: Special Investigations School (AFOSI), Washington, DC.

Length: 2 weeks (66 hours).

Exhibit Dates: 1/76–1/88.

Objectives: To provide update training in current Special Investigations policies.

Instruction: Student learns the AFOSI reporting system and terminology used in criminal and counterintelligence matters, learns current policy in interviews and interrogations, and learns military law. Subjects covered include investigative administration and management, criminal and fraud investigations, investigative techniques, and counterintelligence.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in police administration/physical security (11/77).

AF-1728-0006

Reserve Special Investigator

Course Number: None.

Location: Special Investigations School (AFOSI), Washington, DC.

Length: 4 weeks (258 hours).

Exhibit Dates: 1/76–1/88.

Objectives: To teach the student to conduct investigations.

Instruction: Student will learn the legal responsibilities imposed on him by military law and authority, to obtain information in accordance with current policies, and to incorporate data into reports of investigation. Topics include investigative orientation, communication skills, law, report writing, interviews and interrogation, criminal and fraud investigations, counterintelligence investigations, and investigative techniques. Course is taught in two 2-week segments.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in police administration/physical security (11/77).

AF-1728-0007

Security Police Staff Officer

Course Number: 3OAR8111.
Location: School of Applied Aerospace Sciences, Lackland AFB, TX.
Length: 3 weeks (91–118 hours).
Exhibit Dates: 6/72–12/73.
Objectives: To provide officers with advanced career training in police management and administration.
Instruction: Planning and programing of aerospace systems security; administration and management of security programs; functions of law enforcement; Air Force corrections program; duties and responsibilities of the security police chief.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in police administration and management or public administration (1/74).

AF-1728-0008

Security Specialist

Course Number: 3ABR81130-1.
Location: School of Applied Aerospace Sciences, Lackland AFB, TX.
Length: 5 weeks (150 hours).
Exhibit Dates: 9/72–12/73.
Objectives: To train airmen to perform basic duties as security specialists.
Instruction: Aerospace systems security; local ground defense of Air Force installations; use of security police and ground defense weapons.
Credit Recommendation: In the upper-division baccalaureate category, credit in police science or physical security on the basis of institutional evaluation (2/74).

AF-1728-0009

Law Enforcement Specialist by Correspondence

Course Number: 81152.
Location: Extension Course Institute, Gunter AFB, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 7/82–1/87.
Objectives: To provide basic education and training for an entry-level law enforcement officer.
Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. The home study provides the basic knowledge of law enforcement functions and the on job supervision provides training to reinforce the home studies as well as provides for special requirements at the installation. The course contains arrest, search, and interrogation procedures, procuring statements from witnesses and suspects; basic rules of evidence; crime scene searches; note taking; collection of evidence; confrontation management; elementary corrections (custodial) procedures; accident, disaster, and incident scene investigations. Course has proctored final examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in law enforcement, police science, or practicum in either of these categories (7/84).

AF-1728-0010

Law Enforcement Supervisor by Correspondence

Course Number: 81172.
Location: Extension Course Institute, Gunter AFB, AL.
Length: Maximum 52 weeks.
Exhibit Dates: 6/81–7/85.
Objectives: To provide advanced education and training for a first-level law enforcement supervision.
Instruction: This course of instruction consists of on-the-job supervision and at-home studies. The home study provides advanced knowledge of law enforcement functions and the on job supervision provides the training to reinforce the home studies as well as provides for special requirements at the installation. The course consists of law enforcement duties; operations; resources protection; basic management; corrections (custodial); career training; protective measures; security operations and tactics; confrontation management; nuclear, biological, and chemical effects. Course has a proctored final examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in law enforcement supervision or police science supervision (7/84).

AF-1728-0016

Security Police Administration
(Police Administration)

Course Number: 3AZR81291.
Location: School of Applied Aerospace Sciences, Lackland AFB, TX.
Length: 3 weeks (85–113 hours).
Exhibit Dates: 10/72–12/73.
Objectives: To train noncommissioned officers and civilians in police administrative duties.
Instruction: Administration; policy formulation; activities coordination; monitoring and inspection of security policy programs; protection and management of resources; installation security and USAF corrections.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in criminal justice or physical security (1/74).

AF-1728-0018

Security Police Officer
(Air Police Officer)

Course Number: 3OBR8121; OBR8121; OBR7721; OB7721.
Location: Lackland Military Training Center, Lackland AFB, TX; 3625th Training Group (ABD), Parks AFB, CA.
Length: 5–13 weeks (150–390 hours).
Exhibit Dates: 3/54–12/73.
Objectives: To train officers to manage security and law enforcement programs.
Instruction: Lectures and field exercises in installation security, training and operating local ground forces, maintenance of law and order, and confining and retraining prisoners.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in police administration (2/74).

AF-1728-0019

Security Policeman
(Air Policeman)
(Air Police (Basic))
(Air Policeman (Basic Air Police))

Course Number: 3ABR81130; ABR81130; ABR77130; AB96150; AB77130.
Location: Military Training Center, Lackland AFB, TX; 3625th Training Group (ABD), Parks AFB, CA.
Length: 6–13 weeks (155–372 hours).
Exhibit Dates: 3/54–12/73.
Objectives: To train airmen to perform duties as security policemen.
Instruction: Lectures and practical exercises in security, law enforcement, corrections, local ground defense, weapons, and field training.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in police administration or physical security (2/74).

AF-1728-0020

Special Investigators
(Special Investigations and Counterintelligence Specialist)
(Special Investigations and Counterintelligence Officer)

Course Number: 5ALO82130; 5OBO8221.
Location: Special Investigations School, Washington, DC.
Length: 10 weeks (336 hours).
Exhibit Dates: 9/62–1/90.
Objectives: To train officers and enlisted personnel in the basic fundamentals and procedures of conducting investigations.
Instruction: Legal considerations; interviews; files and case management systems; formal reports of investigations; criminal, fraud, personnel security, and counterintelligence investigations; investigative techniques.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in police administration/physical security (2/74).

AF-1728-0026

Legal Service Specialist

Course Number: 3ALR70530.
Location: School of Applied Aerospace Sciences, Keesler AFB, MS.
Length: 6 weeks (178 hours).
Exhibit Dates: 1/73–12/73.
Objectives: To train personnel as legal services specialists.
Instruction: Lectures and practical exercises on the function of legal services specialists, including military justice and closed-microphone court reporting, legal administration, civil law, and Air Force claims.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in court reporting, 3 in criminal justice or criminology (7/74).

AF-1728-0027

Judge Advocate Staff Officer

Course Number: None.
Location: Institute for Professional Development, Maxwell AFB, AL.
Length: 6 weeks (187 hours).
Exhibit Dates: 8/72–1/88.
Objectives: To orient newly commissioned lawyers to the military system of justice and to provide an overview of the applications of legal principles in the military establishment.
Instruction: Topics include: jurisdiction; court structure; legal processes; criminal

and civil litigation, torts, claims, and forensic practices.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in criminal justice or criminology (7/74).

AF-1728-0028

SECURITY POLICE SUPERVISOR

Course Number: 3AZR81170, 3AAR81170.

Location: School of Applied Aerospace Sciences, Lackland AFB, TX; 3275th Technical School, Lackland AFB, TX.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/70–12/73.

Objectives: To train enlisted personnel to supervise a small police organization.

Instruction: Lectures and practical exercises in the administration and supervision of a small police organization. Course includes a review of police organizational procedures to include report writing, public speaking, investigative techniques, legal studies, drug abuse, traffic control, crash investigation, physical security, and the employment of personnel and equipment.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in law enforcement, police administration or criminal justice (7/74).

AF-1728-0038

FIRE PROTECTION SPECIALISTS BY CORRESPONDENCE

Course Number: 57150.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: 52 weeks maximum.

Exhibit Dates: 6/85–Present.

Objectives: To provide entry level training in basic structural and crash firefighting.

Instruction: This correspondence course consists of on-the-job supervision and at home studies to provide basic knowledge in fire protection, equipment, and firefighting. This course consists of instruction in fire prevention, portable extinguishing systems, structural and crash firefighting, rescue operations and supervision and control, and technical services in fire prevention, inspections and equipment maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to fire science (9/86).

AF-1728-0039

SPECIAL INVESTIGATIONS AND COUNTERINTELLIGENCE TECHNICIAN BY CORRESPONDENCE

Course Number: 82170.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/81–Present.

Objectives: Officers and enlisted personnel will be trained in the techniques of conducting and managing an investigation.

Instruction: This correspondence course of instruction consists of on-the-job supervision and at-home studies. Study includes an examination of the military justice system and the importance of ethics in agent conduct. Rules of evidence as applied to the military setting and the collection and preservation of physical evidence are studied. Investigations of crimes against persons, property and incidents of fraud are examined as separate topical areas. The course includes an in-depth study of interviews and interrogation techniques and emphasizes the importance of formulating an investigative plan. Also included is a section on counterintelligence operations and personnel security.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation and 2 in interview and interrogation (9/86).

AF-1728-0042

CRIME PREVENTION BY CORRESPONDENCE

Course Number: 8100.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/82–Present.

Learning Outcomes: Upon completion of the course, the student will recognize the basics of the Air Force Crime Prevention program and a number of basic security measures.

Instruction: Monitored home study with readings, exercises and proctored final examination. Topics include the history and philosophy of crime prevention, definitions of problems and priorities, risk management, prevention programs and management, evaluations of crime prevention programs, and security measures.

Credit Recommendation: Credit is not recommended because of limited, specialized nature of the course (5/88).

AF-1728-0043

MILITARY JUSTICE BY CORRESPONDENCE

Course Number: 8800.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course the student will comprehend the scope of the military justice program as administered by the U.S. Air Force; understand the fundamental differences between the military and civilian justice systems and the need for those differences, and the ramifications of those differences on the individual service member, the military community, and American society.

Instruction: Monitored home study with written exercises, on-the-job training, and proctored examinations. Topics include the need for a military justice system; the sources of military law; the punitive provisions of the Uniform Code of Military Justice; the concept of non-judicial punishment as a corollary to the civilian concept of misdemeanor; the rulings of the USSC that impact on the Manual for Courts Martial, and the imposition of military justice. Instruction also includes reviews of specific areas of non-judicial punishment; the rights of the accused; pre-trial activities; the various types of judicial proceedings; the Military Appelate review process; and the procedure (writ of certiorari) to petition review of a military finding by the U.S. Supreme Court. Lastly, the instruction includes addenda that allow for an appreciation of the scope and breadth of the U.S. Constitution and the Uniform Code of Military Justice.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/88).

AF-1728-0044

LAW ENFORCEMENT SPECIALIST BY CORRESPONDENCE

Course Number: 81152.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course the student will understand the general functions and responsibilities of an Air Force Security Police member, including the various tactics and techniques inherent in the fulfillment of enforcement.

Instruction: Monitored home study including reading, written exercises, drills, and proctored examinations. Topics include general police functions, individual and team movement, target detection and engagement, challenges and identification, search procedures, evidence protection, resource and correction programs, traffic control and operations, systems security and emergency response, defense management, antiterrorism, and threat identification.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in criminal justice (5/88).

AF-1728-0045

SECURITY SPECIALIST BY CORRESPONDENCE

Course Number: 81150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to carry out security police functions, observation and investigation, deal with hostage situations, hijacking operations, terrorism, and to deal with nuclear security accidents.

Instruction: This is a monitored home study program, including readings, written exercises, and proctored examinations. Topics include requirements of integrity and ethics, legality, conduct of searches, maintaining systems security, how and when to use dogs, methods of riot control, and dealing with terrorism.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in criminal justice (5/88).

AF-1728-0046

FIRE PROTECTION SUPERVISOR BY CORRESPONDENCE

Course Number: 57170.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/85–Present.

Objectives: To provide up-grade training in fire protection supervision.

Instruction: This correspondence course consists of on-the-job supervision and at-home studies. The home study provides general knowledge in fire protection operations and technical services related to supervision of fire protection activities. This course consists of general instruction in fire protection safety and security programs; fire protection operations command, structural and crash firefighting; technical services related to building design and construction, and fire protection supervision activities.

Credit Recommendation: In the vocational certificate category, 2 semester hours in fire ground supervision (9/86).

AF-1729-0002

1. Cook
2. Cooking

Course Number: *Version 1:* 3ABR62230. *All Versions:* 3ABR62230-1.

Location: *Version 1:* School of Applied Sciences, Lowry AFB, CO. 3380th Technical Training Wing, Keesler AFB, MS.

Length: *Version 1:* 8-12 weeks (240-360 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 5/58-12/73. *Version 2:* 5/55-4/58.

Objectives: To provide enlisted personnel with basic instruction in preparing, cooking, and serving food in unit, field, and inflight kitchens.

Instruction: Food preparation; inspection and storage of supplies; dining hall and kitchen sanitation; inspection procedures; use and care of food service equipment; nutrition.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in food preparation (12/73). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in food preparation (12/73).

AF-1729-0007

Open Mess Management

Course Number: OZR6411.1; ASA62470; 10-AF-62470.

Location: Quartermaster School, Ft. Lee, VA.

Length: 7 weeks (228-231 hours).

Exhibit Dates: 8/60-12/64.

Objectives: To train officers, warrant officers and enlisted personnel who possess current food handler's certificates to perform as food service superintendents or steward supervisors.

Instruction: Lectures and practical exercises in duties of food service superintendents or steward supervisors, including operation and maintenance of equipment and facilities, storage and sanitation, management of open mess facilities (including recreational facilities), and formal events and entertainment programming; food planning and nutrition, food selection, cost control, and preparation and serving of buffet-type meals; and accounting and business law.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in institutional (culinary) management, 2 in introduction to food and nutrition (12/68).

AF-1729-0008

Baker
(Baking)

Course Number: AB62130.

Location: 3450th Technical School, Warren AFB, WY.

Length: 12 weeks (318-480 hours).

Exhibit Dates: 3/55-12/68.

Objectives: To train airmen to bake bread, rolls, pies, cookies, and other baked products.

Instruction: Lectures and practical exercises in the principles and techniques of garrison and field baking, including small-quantity kitchen, and pastry bakery (integrated training). Topics include principles of nutrition, sanitation,rations procurement and storage, bread bakery (integrated training), production bread baking shop; preparation of specific doughs, breads, and cakes; and recipe breakdown.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food management (8/74).

AF-1729-0009

1. Diet Therapy Supervisor
2. Diet Supervisor

Course Number: *Version 1:* 3AAR62271. *Version 2:* AAR62271; AZR62271.

Location: 3750th Technical School, Sheppard AFB, TX. *Version 2:* Medical Service School, Gunter AFB, AL.

Length: *Version 1:* 5 weeks (150 hours). *Version 2:* 4-5 weeks (150-156 hours).

Exhibit Dates: *Version 1:* 9/70-12/73. *Version 2:* 9/65-8/70.

Objectives: To provide advanced career training to diet supervisory personnel.

Instruction: *All Versions:* Lectures and practical exercises in diet therapy, including regulations and manuals related to the operation of a medical food service and supervision and management of equipment, personnel, and subsistence in the operation of a food service department at Air Force medical treatment facilities. Emphasis is on subsistence accounting, cycle and selective menu planning and writing, food production and service, nutrition, and dietary treatment of diseases. *Version 1:* Topics include administration, applied therapeutic nutrition, food service management, disaster feeding, and menu costing. *Version 2:* Topics include food production and service, food service sanitation, nutrition and diet therapy, and administration.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in food management, 3 in food and beverage cost control (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in food service management (12/68).

AF-1729-0010

Apprentice Food Service Specialist by
Correspondence

Course Number: 62230.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/84-Present.

Objectives: This course provides an introduction to the food service industry, emphasizing sanitation procedures, food service equipment, food selections and preparation. Management techniques relating to the industry are also discussed.

Instruction: Instruction covers food service careers, hygiene standards, communicable diseases, nutrition and baking fundamentals. The course also examines cooking equipment, safety precautions, energy conservation, storeroom operations, stock control, and quality assurance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in food service fundementals (10/85).

AF-1729-0011

Food Service Specialist by
Correspondence

Course Number: 62250.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 4/86-Present. *Version 2:* 7/84-3/86.

Objectives: This course is a comprehensive presentation of the function and administration of the food service industry. It discusses the elements of food preparation, equipment utilization, accounting, and administrative responsibilities.

Instruction: Instruction covers sanitation standards, communicable diseases, insect and rodent controls, food preparation principles and serving line procedures. Basic principles of equipment use and maintenance as well as management responsibilities in accounting, food and beverage control are also discussed.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* LOW 2 semester hours in principle of food preparation (10/85); in the upper-division baccalaureate category, 1 semester hour in food service management (10/85).

AF-1729-0012

Food Service Supervisor by
Correspondence

Course Number: 62270.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84-Present.

Objectives: An introductory course for food service supervisors, training is provided in the planning and scheduling of food service activities, accounting procedures, quality control and manpower requirements.

Instruction: Course covers workload scheduling, performance standards, dining hall operations, menu preparation, accounting fundamentals, sanitation, and performance evaluation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in food service management (10/85).

AF-1729-0013

Apprentice Services Specialist by
Correspondence

Course Number: 61130.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 1/83-Present.

Objectives: The purpose of this course is to provide basic information concerning the handling of a linen exchange and housing facilities in the Air Force.

instruction: This course provides basic information about inventory procedures, requisition and stock control. Also include are front desk operations such as making reservations, maintaining occupancy rate, handling sundry sales, operating cash register, maintaining equipment and handling customer complaints.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to hotel/motel operations (10/85).

AF-1729-0014

Services Specialist by Correspondence

Course Number: 61150.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 2/83-Present.

Objectives: This course is to provides specific information regarding responsibilities for handling linen, housing arrangements and mortuary services in the military.

Instruction: This course includes basic procedures for requisitioning, inventorying and stock control of linens. Also covered are front desk operations for housing such as reservations, handling sundry sales, operating cash register, maintaining equipment and handling customer complaints. The mortuary services content describes the military honors and ceremonies procedures, search, recovery and identification of remains; and transportation and shipment procedures of the remains.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to hotel/motel operations or front office procedures, 1 semester hour in institutional of housekeeping (10/85).

AF-1729-0015

Apprentice Subsistence Operations Specialist by Correspondence

Course Number: 61231.

Location: Extension Course Institute, Gunter AFS, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the organization and operations of the subsistence program of the Air Force.

Instruction: Includes specialized operations of the troop support section, commissary resale operations, control, and and Air Force Commissary Service Mission.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-1729-0016

Subsistence Operations Specialist by Correspondence

Course Number: 61251.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 3/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize and understand the Air Force's subsistence operations and assist in the operation of commissaries and troop support subsistence.

Instruction: Instruction includes career field of subsistence operations, commissory organization and operations, control and resale functions, troop support and front-end functions.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-1729-0017

Subsistence Operations Technician by Correspondence

Course Number: 61271.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform supervisory tasks in commissaries, resale stores and also assist in subsistence supplies procurement for troop support and resource protection.

Instruction: Instruction includes career training and supervision in the subsistence operations career field. Topics covered are complex and control office operations, resale store operations, and troops support and resource protections.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-1730-0002

Equipment Cooling Specialist

Course Number: ABR56630B.

Location: 3750th Technical School, Sheppard AFB, TX.

Length: 23–24 weeks (600–630 hours).

Exhibit Dates: 9/58–12/68.

Objectives: To provide enlisted personnel with entry-level training in the design, operation, and maintenance of environmental systems.

Instruction: Lectures and practical exercises in the maintenance and operation of cooling systems. Course includes instruction in environmental controls from calculation of heat loads to actual operation of a five-ton air conditioning system, including component selection; water analysis; electric, pneumatic, and electronic controls; basic electricity; and the servicing of motors.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in air conditioning and refrigeration controls, and credit in electricity on the basis of institutional evaluation (5/74).

AF-1730-0013

Cryogenic Fluids Production Specialist

Course Number: AZR54450-1.

Location: 3345th Technical School, Chanute AFB, IL.

Length: 4 weeks (138 hours).

Exhibit Dates: 4/65–12/68.

Objectives: To train enlisted personnel to troubleshoot, maintain, and operate a small cryogenic liquid production plant.

Instruction: Lectures and practical exercises in the maintenance and operation of a small cryogenic liquid production plant. Course includes introduction to cryogenics, hazards and safety techniques, storage of cryogenic fluids, liquification process used in the oxygen-nitrogen generating plant, and troubleshooting and repair.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in refrigeration power technology (7/74).

AF-1730-0016

Refrigeration and Cryogenics Specialist by Correspondence

Course Number: 54550.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 9/84–Present.

Objectives: To train personnel in refrigeration and air conditioning installation and maintenance.

Instruction: Consists of on-the-job training and at-home study in the installation of various types of refrigeration and air conditioning systems. The home study provides training in the principles of refrigeration and air condition and the on-the-job training provides the application. The course includes electrical principles, refrigeration principles, air conditioning principles, and cryogenic operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in refrigeration and air condition installation and maintenance (9/86); in the lower-division baccalaureate/associate degree category, 2 in mechanical and electrical equipment of building (air conditioning) (9/86).

AF-1730-0017

Refrigeration and Air Condition Technician by Correspondence

Course Number: 54570.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/88–Present. *Version 2:* 5/80–2/88.

Objectives: To train personnel to install and supervise the installation of refrigeration and air conditioning equipment.

Instruction: Consists of on-the-job training and at-home studies. The home study provides the principles of installation and supervision of refrigeration and air conditioning equipment and the on-the-job training provides the application.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in electronics (9/86).

AF-1732-0001

Engineer Environmental Support Specialist

(Water and Waste Processing Specialist)

Course Number: 3ABR56330.

Location: Technical Training Center, Sheppard AFB, TX.

Length: 12 weeks (330 hours).

Exhibit Dates: 10/65–12/73.

Objectives: To train enlisted personnel as water and waste processing specialists and support specialists in the collection, transportation, and disposal of solid waste.

Instruction: Lectures in water purification and waste disposal. Topics include basic mathematics, water and waste water analysis, operating principles of water treatment plants, specialized water treatment processes, maintenance of water and waste processing system components, collection, transportation, treatment and disposal of solid waste.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in water purification (12/68).

AF-1732-0002

Water and Waste Processing

Course Number: 4AST56350-1.

Location: Sheppard Technical Training Center, Sheppard AFB, TX.

Length: 3 weeks (90 hours).

Exhibit Dates: 10/73–12/73.

Objectives: To train enlisted personnel in water and waste treatment and processing.

Instruction: Lectures and field experience in the treatment and testing of water for human consumption and in sewage and waste disposal. Topics include clarification and filtration, chemical disinfection, ion exchange, servicing and maintaining a water purification unit, operating principles of pumps, and waste water analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in water and waste water technology (5/74).

AF-1733-0002

Fabrication and Parachute Specialist by Correspondence

Course Number: 42753.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot and repair or adjust industrial sewing machines. With very limited supervision, the indivudual will have acquired the knowledge for inspection, repair, and packing of aircrew survival kits, floatation equipment, and parachutes and related devices.

Instruction: Students work under supervision and a trainer or a training manager to control progress in areas of knowledge related to use of hand tools and industrial sewing machines, and nomenclature, and troubleshooting of sewing machines. The course also covers hand and machine repair of fabrics; safety considerations; and management practices for related tasks.

Credit Recommendation: In the vocational certificate category, 1 semester hour in parachute rigging, inspection, and repair, 1 in fabric repair (hand and machine), and 1 in sewing machine service and repair (10/88).

AF-2203-0001

SMALL ARMS SPECIALIST
(Marksmanship Instructor)

Course Number: 3ABR75330; 3ALR75330; ALR75330; AIR75330.

Location: School of Applied Aerospace Sciences, Lackland AFB, TX.

Length: 9-11 weeks (288-330 hours).

Exhibit Dates: 9/59-12/73.

Objectives: To train personnel to serve as marksmanship instructors.

Instruction: Lectures and practical exercises in classroom instruction, lesson planning, practice teaching, and marksmanship.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

AF-2203-0007

UNIT HISTORIAN DEVELOPMENT

Course Number: LMDC 900.

Location: Leadership and Management Development Center, Air University, Maxwell AFB, AL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/73-1/90.

Objectives: To train airmen to perform the duties of unit historians, including responsibility for archival management, period analytical historical narratives, primary document evaluation and research methodology, oral history, and routine record keeping and management.

Instruction: Lectures, seminars, interviews, and exercises in Air Force history and organization, document research, historical methods and evaluation, research methodology, oral history, office administration, security procedures, independent research and writing using primary material in the principal United States military aviation historical repository.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours as an elective in history (8/76).

AF-2203-0009

SENIOR NONCOMMISSIONED OFFICER
(NCO) ACADEMY

Course Number: None.

Location: Air University, Gunter AFB, AL.

Length: 9 weeks (227-244 hours).

Exhibit Dates: 1/73-2/89.

Objectives: To prepare senior noncommissioned officers for expanded leadership and management roles by broadening their perspective of the military profession and its place in domestic and international affairs.

Instruction: Seminars, lectures, and directed individual study in communications, world affairs, leadership and management as applied to the military environment. The communications phase includes both written and oral exercises in writing, speaking, and reasoning skills. The military environment phase provides knowledge of the U.S. role in international affairs, including a comparison of major political and economic systems. The management phase treats principles and functions of management emphasizing the planning, programming and budgeting aspects. Significant study is devoted to increasing understanding of personnel systems and effective human resource management with emphasis on current behavioral science concepts. Student-centered instructional techniques include role playing, video-assisted instruction, programmed learning and panel presentations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in contemporary world affairs, 4 in management and human relations (11/75).

AF-2203-0035

SQUADRON OFFICER SCHOOL
CORRESPONDENCE PROGRAM

Course Number: None.

Location: Air University, Maxwell AFB, AL.

Length: Maximum 104 weeks.

Exhibit Dates: 10/82-Present.

Objectives: To prepare junior officers for leadership and management roles required of Air Force personnel in a dynamic domestic and international political environment.

Instruction: This correspondence course presents an introduction to management, an introduction to national security studies and to basic communication skills.

Credit Recommendation: Credit on the basis of institutional evaluation, departmental interview or demonstrated skills (3/83).

AF-2203-0040

1. OFFICER CANDIDATE SCHOOL
2. USAF OFFICER CANDIDATE SCHOOL

Course Number: *Version 1:* O4M0101; OC-00100.

Location: Air Training School, Lackland AFB, TX.

Length: *Version 1:* 24-25 weeks (960-1000 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 1/57-12/68. *Version 2:* 9/55-12/56.

Objectives: To train officer candidates to develop the professional knowledge, character, and personal attributes and attitudes essential to being an officer.

Instruction: Lectures and practical exercises in the duties of an officer. Course includes political geography, international affairs, introduction to astronautics, communications, Air Force organization, leadership, human relations, moral dynamics, and selected military subjects.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in political science, 3 in business organization and management, and credit in advanced military at institutions which regularly offer such credit (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and credit in advanced military at institutions which regularly offer such credit (12/68).

AF-2203-0041

SQUADRON OFFICER SCHOOL
(Squadron Officer Course)

Course Number: None.

Location: Air University, Maxwell AFB, AL.

Length: *Version 1:* 8-9 weeks (250-295 hours). *Version 2:* 11-14 weeks (440-500 hours). *Version 3:* 10-14 weeks (452-596 hours).

Exhibit Dates: *Version 1:* 10/80-Present. *Version 2:* 9/70-9/80. *Version 3:* 3/54-8/70.

Objectives: To prepare selected junior officers for leadership and management roles, required of Air Force personnel in a dynamic domestic and international political environment.

Instruction: *Version 1:* Seminars, lectures, and experiential exercises in introduction to management including leadership, group process and interpersonal relations, problem solving, counseling, motivation and human resource management. The communicatons area develops the individual's written and oral skills. National security studies and military strategy incude an introduction to international relations, strategic theory strategic and general purpose forces of the U.S. and its allies and an analysis of the defense posture and strategy of the Soviet Union and the Warsaw Pact. Competitive sports emphasizes group problem solving, organizing, communication and leadership as well as practice in sports fundamentals, strategy and organization. In all phases of the program, student-centered instructional activities include role playing, video- and computer-assisted instruction and programmed learning. *Version 2:* Seminars, lectures and field exercises in communication, leadership, management, group dynamics, foreign policy and military strategy. The communication area develops the individual's skills to solve problems logically and effectively. The leadership and management area emphasizes attributes, principles, techniques and concepts required in the utilization of personnel, money and materiel. Human relations, individual and group behavior patterns and motivation are emphasized. The foreign policy and military strategy area emphasizes the capabilities and employment concepts of military force, and includes a comparison of major political systems and international implications of military power.Student-centered instructional activitied include role playing, video-and computer-assisted instruction and programmed learning. *Version 3:* Seminars, lectures and field exercises in communication, leadership, management, group dynamics, foreign policy and military strategy. The communications area develops the individuals skills to solve problems logically and effectively. The leadership and management area emphasizes attributes, principles, techniques and concepts required in the utilization of personnel, money and materiel. Human relations, individual and group behavior patterns and motivation are emphasized. The foreign policy and military strategy area emphasizes the capabilities and employment concepts of military force, and includes a comparison of major political systems and international implications of military power. Student-centered instructional activities include role playing, video- and computer-assisted instruction and programmed learning.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management, 3 in communication skills in management (3/83); in the upper-division baccalaureate category, 3 semester hours in national security studies and military strategy, 3 in competitive sports (3/83). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in communications in management, 3 in organizational leadership and management, 3 in human relations and group dynamics, and 3 in foreign policy and military strategy (11/75). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in speech, and credit in political science on the basis of institutional evaluation (12/68).

AF-2203-0051

Air National Guard Academy of Military Science

Course Number: YAMS-000.

Location: Air National Guard Support Center, Knoxville, TN.

Length: 6 weeks (296 hours).

Exhibit Dates: 5/71-Present.

Objectives: This course provides the student with an understanding of the interaction of economic and political determinants of power and military strategy and decisions. It also provides knowledge of the processes and function of management and the role of communication affecting management and leadership.

Instruction: Lectures, seminars, laboratory experiences and applied experiences in management, leadership, and in communication. There are also lectures and seminars on defense studies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in defense studies, 3 in management (leadership and communications) (8/86).

AF-2203-0052

First Sergeant by Correspondence

Course Number: 1090.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 4/85-Present.

Learning Outcomes: At the conclusion of the course the student will know the duties and responsibilities of a first sergeant, understand the policies and procedures involving the duties and responsibilities of the first sergeant, and have a working knowledge of military justice.

Instruction: This course is primarily a summary of an Air Force first sergeant's duties and responsibilities, and the relevant policies, procedures, and military justice regulations.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/87).

AF-2203-0053

Air Force Technical Order System by Correspondence

Course Number: 1200.

Location: Extension Course Institute, Gunter Air Force Station, AL.

Length: Maximum 52 weeks.

Exhibit Dates: 5/80-Present.

Learning Outcomes: Upon completion of the course, the student will understand the administration, the necessity, and the acquisition of technical orders, comprehend and will use technical orders in his job assignements.

Instruction: Includes information about technical orders for the Air Force, covering the administration, types, issuance, numbering system, filing, use, and inmprovement. It also includes the distribution system of technical orders, establishing requirements, documentation and the checking of technical order files.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/87).

AF-2203-0054

Combat Arms Training and Maintenance Specialist/Technician by Correspondence

Course Number: 75350.

Location: Extension Course Institute, Gunter, Air Force Station, AL.,

Length: Maximum 52 weeks.

Exhibit Dates: 3/71-Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish and maintain a small arms training program with minimal supervision. Program could be appropriate at the community college level or in a law enforcement unit.

Instruction: This course consists of self-paced, independent study with open-book progress checks and satisfactory completion of a proctored comprehensive final examination. Content areas include combat arms operations and facility management, marksmanship fundamentals, fundamentals of instruction, conduct of training, training aids, evaluation and measurement, and maintenance and repair of small arms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in small arms instruction (12/89).

Course Exhibits

CG

CG-0419-0001

Merchant Marine Safety Indoctrination School

Course Number: None.

Location: Coast Guard Academy, New London, CT; Reserve Training Center, Yorktown, VA.

Length: 12 weeks (340 hours).

Exhibit Dates: 2/61-12/68.

Objectives: To prepare officers for assignment to duty in a marine inspection office.

Instruction: Introduction to marine inspection; merchant marine investigation and revocation proceedings; licensing and certifying of merchant marine personnel; naval architecture and ship construction; regulations for passenger, cargo, tank, and uninspected vessels; dangerous cargo, load line, and marine and electrical engineering regulations; equipment specifications; welding; hull and boiler vessel inspection; dry-dock and vessel repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in transportation operations (12/68).

CG-0419-0002

HC-130 Loadmaster (AC130L) by Correspondence

Course Number: 447-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 7/78-Present.

Objectives: Provides specialized training as loadmaster on HC-130 aircraft.

Instruction: Presents familiarization on HC-130 aircraft, aircraft engines, props and prop systems, ground handling and and servicing, Loadmaster duties, and aircraft loading equipment and furnishings. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in weight and balance and aircraft loading (5/85).

CG-0701-0001

Dental Technician A School

Course Number: None.

Location: Coast Guard Training Center, Cape May, NJ.

Length: *Version 1:* 12 weeks (387-433 hours). *Version 2:* 12 weeks (423 hours).

Exhibit Dates: *Version 1:* 1/74-12/82. *Version 2:* 2/73-12/73.

Objectives: To provide basic techniques and skills required for dental assisting.

Instruction: *All Versions:* Lectures and practical experience in chairside assisting, basic radiology techniques, prophylaxis, operating room assisting, dental anatomy, first aid, preventive dentistry, and dental office administration. *Version 1:* Students learn to prepare patients for dental treatment, and can identify, sharpen, care for and set-up instruments for all phases of dentistry. They can sterilize instruments and materials. Students learn to instruct in proper daily oral health, scale and polish teeth, apply cariostatic agents, render emergency casualty treatment; expose, process and mount periapical, bitewing, and occlusal films employing proper procedures and precautions for use of radiographic equipment, explain the structure and function of the human body, particularly the head, neck and oral structures as a requisite to the treating of sick and managing emergency injury situations, and perform routine administrative duties.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental assisting, 4 in dental clinical experience ((8/79). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (2/74).

CG-0701-0002

Dental Technician, Class C

Course Number: None.

Location: Coast Guard Training Center, Cape May, NJ.

Length: 5 weeks (177 hours).

Exhibit Dates: 1/83-Present.

Objectives: To train personnel in chairside dental assisting, dental radiography and their related aspects.

Instruction: Lectures, laboratory and clinical experiences in dental anatomy, chairside assisting, oral pathology, radiography, and supervised clinical training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in dental anatomy, 2 in chairside assisting, 1 in radiology, and 2 in clinical experience (6/83).

CG-0701-0003

Dental Technician Second Class (DT2) by Correspondence

Course Number: 218-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 52 weeks maximum.

Exhibit Dates: 4/82-12/85.

Objectives: To provide the knowledge and skills required to function as a second class dental technician.

Instruction: Topics covered include dental sick call, emergency procedures, pharmacology, preventive medicine, radiography, dental assisting procedures, and sterilization. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in dental procedures and techniques (10/87).

CG-0701-0004

Dental Technician First Class (DT1) by Correspondence

Course Number: 118-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 52 weeks maximum.

Exhibit Dates: 5/80-12/85.

Objectives: To provide knowledge and skills to provide advanced services as a first class dental technician.

Instruction: Topics include x-rays in dentistry, clerical procedures for dental personnel, and preventive and corrective maintenance of dental equipment. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in dental care and administration (10/87).

CG-0703-0001

Basic Hospital Corpsman, Class A (HM A School)

Course Number: G1009.

Location: Coast Guard Academy, New London, CT.

Length: 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 4/80-12/82. *Version 2:* 4/74-3/80.

Objectives: To train enlisted personnel in the basic principles and techniques necessary to provide direct patient care to the sick and injured with the main emphasis on independent duty.

Instruction: Instruction includes general anatomy and physiology, medical and surgical conditions, preventive medicine, principles and techniques of patient care, medical records administration, medical mathematics and pharmacology, laboratory techniques, instructional and leadership techniques, first aid, military and administrative regulations and supervised clinical experiences.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 2 in health care practices and procedures, 2 in environmental medicine, 4 in emergency medicine, 2 in pharmacology, 1 in laboratory practices, 4 in medical records administration, 3 in clinical experience and 4 in medical, surgical and psychiatric conditions (6/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in pharmacology, 2 in health and hygiene or preventive medicine, 2 in emergency medical techniques, 3 in nursing techniques, and 4 in clinical practicum (11/77).

CG-0709-0001

Hospital Corpsman (HM)

Course Number: None.

Location: Hospital Corpsman School, Groton, CT.

Length: 24 weeks (800 hours).

Exhibit Dates: 10/60-12/67.

Objectives: To train personnel in the fundamental principles of health and nursing.

Instruction: Nursing; anatomy and physiology; first aid, preventive medicine; materia medica and therapeutics; medical administration; medicine; pharmacy; chemistry; laboratory; dental; x-ray; clinical experience.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in hygiene, sanitation and first aid and 2 in anatomy and physiology (12/68).

CG-0709-0002

Emergency Medical Technician

Course Number: None.
Location: Training Center, Petaluma, CA.
Length: 2-3 weeks (104 hours).
Exhibit Dates: 2/79-7/85.

Objectives: To train personnel, especially those engaged in search and rescue activities, to provide basic life support and emergency medical care.

Instruction: Course provides lectures and laboratories covering legal aspects of emergency care; anatomy and physiology of the respiratory and cardiopulmonary systems, use of oropharyngeal airways, suction equipment, oxygen delivery systems, and assisted ventilation devices; the signs and symptoms of patients suffering from various injuries to the face, chest, abdomen, genitalia, head and spine, and of patients suffering from cardiac problems, dyspnea, acute abdominal problems, strokes, poisoning, stings, bites, diabetic emergencies and seizure disorders, heat cramps, heat exhaustion, alcohol and drug abuse, emotional disturbances, rape, and burns; student will learn proper treatment and response to the above. Total proficiency will be required to pass examinations in C.P.R., dressing and bandaging techniques, splinting techniques, and measuring vital signs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in first aid or emergency technology (8/79).

CG-0709-0003

Health Services Technician, Class A

Course Number: None.
Location: Coast Guard Academy, Groton, CT.
Length: 19 weeks (749-759 hours).
Exhibit Dates: 1/83-6/83.

Objectives: To train enlisted personnel in the basic principles and techniques needed to provide direct patient care to the sick and injured with the main emphasis on independent duty.

Instruction: Instruction includes general anatomy and physiology, medical and surgical conditions, preventive medicine, principles and techniques of patient care, medical administration, medical mathematics and pharmacology, laboratory techniques, instructional and leadership techniques, first aid, military and administrative regulations, introductory aspects of dental assisting and supervised clinical experiences.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 1 in introduction to health services, 4 in emergency medicine, 2 in preventive medicine, 3 in medical administration, 2 in pharmacology, 2 in laboratory practices, 2 in medical, surgical and psychiatric conditions, 2 in clinical experience and 3 in introduction to dental assisting (6/83).

CG-0709-0004

Emergency Medical Technician Class C

Course Number: None.
Location: Coast Guard Training Center, Petaluma, CA.
Length: 2-3 weeks (117 hours).
Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as an entry-level emergency medical technician with the capacity for assessing requirements for emergency care, administering emergency care, stabilizing a patient's condition, and acting to minimize further injury and discomfort.

Instruction: This course, utilizing lectures, simulation, and laboratory experience, covers legal aspects of emergency care, anatomy and physiology of the cardiac and respiratory systems, use of oropharyngeal airways, suction equipment, oxygen delivery systems and other ventilation devices; the signs and syptoms of patients suffering from cardiac problems, dysapnea, acute abdominal problems, poisoning, stings, bites, diabetic emergencies and seizure disorders, heat cramps, heat exhaustion, alcohol and drug abuse, emotional disturbances, rape and burns. Student will learn proper treatment and response to the above. Total proficiency will be required through examinations in CPR, dressing and bandaging techniques, splinting techniques, and the measurement of vital signs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in emergency technology (7/87).

CG-0709-0005

Health Services Technician Second Class (HS2) by Correspondence

Course Number: 0230-1; 0230.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 52 weeks maximum.
Exhibit Dates: 1/86-Present.

Objectives: To provide knowledge and skills to perform as a second class health services technician.

Instruction: Topics include physical diagnosis and treatment, emergency medicine, occupational health, preventive medicine, basic cost techniques, pharmacy, medical laboratory, x-ray, and health services organization and administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health care procedures and techniques (10/87).

CG-0709-0006

Health Services Technician First Class (HS1) by Correspondence

Course Number: 0130-1; 0110.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 52 weeks maximum.
Exhibit Dates: 1/86-Present.

Objectives: To provide the knowledge and skills to provide advanced services as a health care technician.

Instruction: Topics include physical examinations, microbiology and parasitology, occupational health, splints and casting, and medical administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health care procedures and administration (10/87).

CG-0709-0007

Hospital Corpsman First Class (HM1) by Correspondence

Course Number: 131-5.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 52 weeks maximum.
Exhibit Dates: 5/69-12/85.

Objectives: To teach the knowledge and skills to provide advanced services as a hospital corpsman.

Instruction: Topics include physical examinations, microbiology and parasitology, occupational health, splints and casting, and medical administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health care procedures and administration (10/87).

CG-0709-0008

Hospital Corpsman Second Class (HM2) by Correspondence

Course Number: 231-8.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 52 weeks maximum.
Exhibit Dates: 5/82-12/85.

Objectives: To provide knowledge and skills to perform as a second class hospital corpsman.

Instruction: Topics include physical diagnosis and treatment, emergency medicine, occupational health, preventive medicine, basic cost techniques, pharmacy, medical laboratory, x-ray, and health services organization and administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in health care procedures and techniques (10/87).

CG-0709-0009

Health Services Technician (HS) Class A

Course Number: None.
Location: Coast Guard Academy, New London, CT.
Length: 24 weeks (886 hours); medical phase, 15 weeks; dental phase, 5 weeks; clinical experience, 4 weeks.
Exhibit Dates: 7/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide direct patient care including prevention and treatment of disease and injuries, provision of basic dental care, and to carry out administrative assignments as appropriate.

Instruction: Topics include general anatomy and physiology, medical and surgical conditions, preventive medicine, principles and techniques of patient care, medical administration, medical mathematics and pharmacology, laboratory techniques, first aid, military and administrative regulations, introductory aspects of dental assisting, pathology, radiography, and supervised clinical experience. NOTE: The Health Services Technician rating was formerly a combination of the Hospital Corpsman (HM) and Dental Technician (DT) ratings. In order to qualify for the HS rating, new recruits complete all 24 weeks of this course; those who held the DT rating take the 19-week medical course (15 weeks classroom instruction and 4 weeks clinical experience); those who held the HM rating take the 9-week dental course (5 weeks classroom instruction and 4 weeks clinical experience). Partial credit may be awarded accordingly.

Credit Recommendation: For the 24-week course: In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 1 in introduction to health services, 5 in emergency medicine, 2 in preventive medicine, 2 in medical administration, 2 in pharmacology, 3 in laboratory practices, 3 in medical-surgical procedures, 2 in general health-oriented clinical experience, 1 in dental anatomy, 2 in chairside assisting, 1 in radiology, and 2 in dental clinical experience (10/87). For the 19-week medical course: In the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 1 in introduction to health services, 5 in emergency medicine, 2 in preventive medicine, 2 in medical administration, 2 in pharmacology, 3 in laboratory practices, 3 in medical-surgical procedures, and 4 in general health-oriented clinical experience (10/87). For the 9-week dental course: In the lower-division baccalaureate/associate degree category, 1 semester hour in dental anatomy, 2 in chairside assisting, 1 in radiology, and 4 in dental clinical experience (10/87).

CG-0801-0001

SMALL CUTTER DAMAGE CONTROL

Course Number: DC-3.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (75-76 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform tests to detect the presence of chemical and biological agents and radiation; perform decontamination duties; calculate displacement and moment to trim; plot an uncorrected stability curve, calculate sine and cosine corrections, correct the stability curve; log angle of final list, compute effects of partial flooding; compute effects of longitudinal weight movements; perform tests to detect oxygen, explosive gases, toxic vapors; and will be able to state the methods of ventilation.

Instruction: Lectures, demonstration, and practical exercises cover chemical, biological, radiological detection; CBR decontamination; mathematical calculations relating to ship stability; oxygen, explosive, and toxic vapor gas detection; and fire extinguishing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in toxic materials and other gases detection, decontamination, and ventilation, and 2 in fundamentals of mathematics (8/90).

CG-0802-0001

BOATING SAFETY BY CORRESPONDENCE

Course Number: 417-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/78-1/85.

Objectives: To provide training in the area of boating safety activities (patrols, law enforcement, inspection, public education) to persons whose duties require a knowledge of the area. Student will read and study textual materials, answer lesson questions both in course book and text and pass comprehensive proctored end-of-course examination.

Instruction: Topics covered include jurisdiction, laws, numbering, registration, documentation and licensing, legal requirements and rules of the road, negligent operation, correction of hazardous conditions, motor boat examination techniques, C.G. 4100 and warnings, arrest, state boating safety program and USCG auxiliary, boating accidents, marine events and regattas, and water pollution.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in elements of marine law and safety regulations (5/79).

CG-0802-0002

1. MARINE SAFETY BASIC INDOCTRINATION
2. MERCHANT MARINE SAFETY

Course Number: None.

Location: Reserve Training School, Yorktown, VA.

Length: 11-12 weeks (243-418 hours).

Exhibit Dates: *Version 1:* 3/78-10/84. *Version 2:* 11/65-2/78.

Objectives: To train merchant marine personnel in the laws, regulations and policies governing marine safety.

Instruction: *All Versions:* Lectures and practical exercises in ship construction, engineering materials, welding, non-destructive testing, hull repair, boilers and pressure vehicles, piping systems, lifesaving equipment, deck and electrical inspection, fire protection, engineering inspection, licensing, casualty investigation, and safety. *Version 1:* The course is divided into two phases. Phase I is 8 weeks in length and covers commercial vessel safety functions as cited above. Phase II is four weeks in length and covers port safety law enforcement and environmental protection functions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in marine safety for phase I, 2 semester hours in marine environmental safety, and 1 in port terminal management for phase II, for a total of 6 semester hours in marine safety and 1 in port terminal management (12/79). *Version 2:* In the vocational certificate category, 4 semester hours in marine safety (6/75).

CG-0802-0003

FUNDAMENTAL SEARCH AND RESCUE (SAR) CLASS C

(Search and Rescue (SAR) Class C)

(Search and Rescue)

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 3-4 weeks (115-134 hours).

Exhibit Dates: *Version 1:* 1/80-2/86. *Version 2:* 11/77-12/79. *Version 3:* 9/66-10/77.

Objectives: To train personnel in search and rescue procedures.

Instruction: *Version 1:* Classes cover the organization, documentation, public information and legal aspects of the search and rescue process including satellite and international rescue facilities. Practical exercises in search and rescue planning, rescue equipment and techniques and special and precautionary missions is included. *Version 2:* Covers organization, documentation, public information and legal aspects of the process. *Version 3:* Lectures and practical exercises in search and rescue facilities, search planning, conduct of the search, rescue equipment and techniques, and precautionary and special missions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation, 3 in elective credit in search and rescue or 1 in basic navigation and 3 in personnel systems management (2/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours of elective credit in search and rescue (8/78). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-0802-0004

NATIONAL BOATING SAFETY

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 2 weeks (68 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 3/83-6/84. *Version 2:* 9/72-2/83.

Objectives: To train personnel in boating safety procedures and regulations.

Instruction: *Version 1:* Lectures and practical experience including boating safety; federal laws; definition and terminology; equipment for various craft; boating communication and lighting; first aid and survival techniques; boarding procedures and techniques; and rulesof the road. *Version 2:* Lectures and practical exercises to include boating safety; federal laws; definitions and terminology; equipment for various craft; boating communication and lighting; first aid; boarding procedures and techniques; and rules of the road.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in federal and state boating regulation (7/84). *Version 2:* In the vocational certificate category, 4 semester hours in federal and state boating safety inspection (7/74).

CG-0802-0005

RESCUE COORDINATION CENTER FOR RESERVISTS

(RCC Reservists)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (75 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To provide training in the duties of a search and rescue mission coordinator and rescue coordination center controller.

Instruction: Course includes lectures and laboratory exercises in search and rescue planning and facilities.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-0802-0006

HAZARDOUS CHEMICALS TRAINING

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 6/78-6/84.

Objectives: To instruct Coast Guard personnel with extensive experience in marine safety in the hazards of transporting and handling chemicals and petroleum products, inspection techniques required for hazardous cargo, the duties of on-scene coordinator and the requirements for occupational safety as pertains to chemicals and petroleum products.

Instruction: Lectures and practical exercises on hazardous chemical regulations, physical, chemical and toxicological properties of hazardous chemicals, hazardous cargo vessel and terminal arrangements, duties of on-scene coordinator, study of previous hazardous cargo accidents and inspection requirements for vessels, terminals and transfer equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in marine/industrial safety (12/79).

CG-0802-0007

HU 25A Avionicsman by Correspondence
(Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence)

Course Number: 0512-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 10/84–Present.
Objectives: To give students a working knowledge of the aircraft, selected systems and emergency procedures.
Instruction: Military personnel must be supervised by qualified HU-25A (Falcon aircraft) avionicsman instructor to complete the course. Course includes communication, equipment location, internal sensor system, radar and LORAN familiarization, indicators and annunciator location. Students are required to successfully complete a proctored final examination.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/86).

CG-0802-0008

Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence

Course Number: 0513-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 104 weeks.
Exhibit Dates: 10/84–Present.
Objectives: To provide student with aircraft familiarization and crew duties of the Falcon aircraft (HU-25A).
Instruction: Instruction in aircraft familiarization, crew duties, types of flight and maintenance inspections, emergency procedures, communications and ground handling procedures. Students are required to complete a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft familiarization, ground handling, inspection, and emergency procedures (5/85).

CG-0802-0009

Basic Search and Rescue (BASAR) by Correspondence

Course Number: 422-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 1/83–Present.
Objectives: To provide personnel with a basic knowledge of search and rescue procedures.
Instruction: Course introduces the student to fundamental search and rescue (SAR) procedures and terminology, basic SAR patterns and techniques used by ships and aircraft in conducting a search. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation and 1 in community safety (5/85).

CG-0802-0010

Search and Rescue (SAR) by Correspondence

Course Number: 409-5; 409-4.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 3/80–Present.
Objectives: To train personnel to plan and execute a search and rescue mission.
Instruction: Course provides basic instruction on the authority and organization of search and rescue (SAR) with a focus on actions to be taken in SAR incidents: rescue coordination center, SAR communications, search planning and patterns, aircraft emergency procedures over water and international SAR obligations under the International Civil Aviation Organization. The "National Search and Rescue Manual" is the primary text used in the course.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced navigation and 2 in community safety (1/86).

CG-0802-0011

Safety and Security of the Port (PSGEN) by Correspondence

Course Number: 429-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 3/81–Present.
Objectives: To provide training in the safety of port and pier areas regulated by the Coast Guard.
Instruction: Course covers the topics of recognition and identification of safety hazards including fire, electrical, cargo loading, vehicle use and storage and waste material controls. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 1 semester hour in industrial safety and health (5/85).

CG-0802-0012

Basic Search and Rescue (SAR) Aircrewman (ACBSC) by Correspondence

Course Number: 440-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 6/78–Present.
Objectives: To provide training in aircraft familiarization and ground handling and safety procedures.
Instruction: Topics include ground handling and firefighting, crew survival, rescue equipment, pyrotechnics, basic communications, and navigation. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft familiarization and ground handling and safety (5/85).

CG-0802-0013

Explosive Handling Supervisor

Course Number: MS 496R; MS 426R.
Location: Marine Safety School, Yorktown, VA.
Length: 2 weeks (87–88 hours).
Exhibit Dates: 10/84–Present.
Objectives: To train Coast Guard personnel to supervise explosive cargo handling operations at military and commercial ports.
Instruction: Lectures and practical experience in explosive properties, occupational safety, permits and cargo handling operations.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/86).

CG-0802-0014

National Boating Safety

Course Number: NBSC.
Location: Reserve Training Center, Yorktown, VA.
Length: 2 weeks (69 hours).
Exhibit Dates: 7/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a law enforcement officer in boarding safety procedures and regulations.
Instruction: Includes lectures in federal laws and regulations, vessel equipment requirements, boating accident reporting and investigation, stolen boats detection, intoxication, identification, and boating safety instructor training.
Credit Recommendation: In the vocational certificate category, 3 semester hours in federal and state boating regulations (4/89); in the lower-division baccalaureate/associate degree category, 1 semester hours in instructor methods or teaching methods (4/89).

CG-0802-0015

Marine Safety Explosive Handling Supervisor

Course Number: MS 496R.
Location: Reserve Training Center, Yorktown, VA.
Length: 2 weeks (60–80 hours).
Exhibit Dates: 9/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of an explosive handling supervisor as a part of the port operations department at marine safety units or big mobilization billets.
Instruction: Includes lectures, demonstrations, simulations, and practical exercises in verification of compliance with federal regulations for the safe handling of commercial and military explosives; topics include packaged hazardous material regulations, military explosives regulations, international maritime organization dangerous goods code, permit processing, vessel preload examinations, supervision of cargo operations and the requirements for proper blocking and bracing of cargo.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial security, transportation safety, or hazardous materials (4/89).

CG-1303-0001

Marine Environmental Protection (MEP) by Correspondence

Course Number: 611-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 5/81–Present.
Objectives: To provide training in marine environmental protection and investigations of oil pollution.
Instruction: Topics include contingency planning, containment and recovery equipment, oil pollution investigations, identification of chemical pollutants, on-scene coordination and pollution cleanup monitoring. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in oil and chemical spill control (5/85).

CG-1304-0001

1. Marine Science Technician A
2. Marine Science Technician Class A
3. Class A Marine Science Technician
4. Marine Science Technician

Course Number: None.

Location: *Version 1:* Reserve Training Center, Yorktown, VA. *Version 2:* Reserve Training Center, Yorktown, VA. *Version 3:* Reserve Training Center, Yorktown, VA. *Version 4:* Coast Guard Training Center, Governors Island, NY.

Length: *Version 1:* 10 weeks (362 hours). *Version 2:* 7-8 weeks (233 hours). *Version 3:* 13-14 weeks (475-510 hours). *Version 4:* 16-19 weeks (385-593 hours).

Exhibit Dates: *Version 1:* 10/84-10/88. *Version 2:* 11/82-9/84. *Version 3:* 6/78-10/82. *Version 4:* 6/69-5/78.

Objectives: To train qualified nonrated Coast Guard personnel in environmental data collection, physical and chemical science, and data processing, and to perform basic observations and analyses.

Instruction: *Version 1:* Introductory level lectures and practical exercises in mathematics, computer use, physics, marine chemistry and environmental science. *Version 2:* Lectures and practical experience in the following areas at the introductory level: mathematics, physical chemistry, environmental science, data processing and meteorology. *Version 3:* Lectures, programmed instructions in basic physical science, practical experience making and processing meteorological surface observations, oceanographic salinity, temperature-depth profiles, techniques of in-situ sampling of ocean water, determinations of salinity and oxygen content of water samples and techniques of bathymetric operations. *Version 4:* Lectures and practical experience in meteorology, principles of physical and chemical oceanography and the air-sea interface, and problems in marine science technology.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic seamanship (4/86); in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to word processing, 3 in introduction to oceanography, 3 in introduction to computer science and 3 in basic chemical analysis (4/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in physical science (7/84). *Version 3:* In the vocational certificate category, 6 semester hours in marine instrumentation (12/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine science and 3 in meteorological operations (12/79). *Version 4:* In the vocational certificate category, 4 semester hours in marine instrumentation (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in marine sciences (12/73); in the upper-division baccalaureate category, 3 semester hours in oceanography (12/73).

CG-1304-0002

Oceanographic Technician

Course Number: None.

Location: Oceanographic School, Groton, CT.

Length: 8-9 weeks (323-359 hours).

Exhibit Dates: 4/66-12/68.

Objectives: To train enlisted personnel in the fundamentals of oceanography.

Instruction: Lectures and practical experience in the fundamentals of biological, chemical, and physical oceanography essential to the operation of instruments for gathering data at sea.

Credit Recommendation: In the vocational certificate category, 4 semester hours in oceanography (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in oceanography (12/68).

CG-1304-0003

Marine Science Technician Second Class by Correspondence

Course Number: 234-2; 234-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 3/72-5/86.

Objectives: To familiarize the student with marine scienceequipment and instrumentation needed in observing, recording, encoding, and decoding oceanographic and meteorological data.

Instruction: The course includes a review of appropriate mathematics and basic physics; the hydrosphere and atmosphere are described. The instruments used to measure relevant attributes of the hydrosphere and atmosphere are described and their reading and codes are discussed. How this data is entered into the computer and processed for certain analysis is demonstrated. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 2 in technical mathematics (7/86).

CG-1304-0004

Celestial Navigation Second Class by Correspondence

Course Number: 463-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 2/77-6/86.

Objectives: To provide training in celestial navigation.

Instruction: This nonresident course consists of ten lessons including coordinate systems, time, description of marine sextant, use of the nautical almanac and H.O. Tables 229, the celestial fix and running fix, the Rude starfinder, and how to determine gyro error at sea. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in celestial navigation (5/79).

CG-1304-0005

Oceanography by Correspondence

Course Number: 407-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/72-9/80.

Objectives: To introduce students to basic oceanographic studies.

Instruction: This nonresident course requires a textbook, oceanographic manual, course book with eight lessons, and a comprehensive proctored end-of-course examination. The course includes geological, biological and physical oceanography, and provides descriptions of basic sampling procedures and processing of oceanographic data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in basic nonlaboratory oceanography (5/79).

CG-1304-0006

Ice Observer by Correspondence

Course Number: 476-2; 476-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/78-Present.

Objectives: To train Coast Guard personnel to observe land and sea ice concentrations and topographical conditions and to report these observations to superiors.

Instruction: A brief nonresident course to cover responsibilities in ice breaking, to describe basic ice breaking and ice reconnaissance procedures. Course teaches stages of water freezing and thawing and provides analysis of ice charts.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/86).

CG-1304-0007

Quartermaster First Class (QM1) by Correspondence

Course Number: 137-8; 137-5; 137-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 10/79-8/85. *Version 2:* 8/69-9/79.

Objectives: To provide training for prospective quartermasters in communication and coastal and celestial navigation.

Instruction: *Version 1:* Topics include ship conning, compasses and compass systems, piloting and dead reckoning, navigation by electronic equipment, celestial navigation, and basic search and rescue.Proctored final examination is required. *Version 2:* This nonresident course covers ship conning, naval communications, rules of the road, compasses and degaussing, piloting and navigation (including celestial), and meteorology. There is a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in celestial navigation, 2 in coastwise navigation and piloting (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in coastwise navigation and piloting, 2 in applied meteorology, 2 in celestial navigation (5/79).

CG-1304-0008

Meteorology by Correspondence

Course Number: 475-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/75-Present.

Objectives: To expose personnel to the various aspects of weather and to enable them to perform basic forecasting.

Instruction: This nonresident course includes weather warnings and displays, worldwide wind patterns, clouds, weather instruments, air masses, frontal systems, storms, fog, icing problems, waves, and forecasting methods. Course has proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (5/79).

CG-1304-0009

Weather Briefer

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (90-105 hours).

Exhibit Dates: 2/78-10/86.

Objectives: To train Coast Guard rated marine science technicians (MST) to provide weather briefing services for surface and aviation units.

Instruction: Lectures and programmed instruction concerning properties of air masses, structure of frontal systems, and formation of severe weather. Instruction and practical experience in methods of meteorological data acquisition, coding and decoding data, techniques of weather briefing and basic analysis of weather charts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorological observations, 3 in basic meteorology (12/79).

CG-1304-0010

Marine Environment and Systems Officer, Class C

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 4-6 weeks (146-210 hours).

Exhibit Dates: 4/77-6/84.

Objectives: To prepare officers to undertake the duties and responsibilities in marine environmental protection and port safety law enforcement.

Instruction: Lectures and practical exercises in basic law enforcement, industry/Coast Guard relations, management of pollution removal, supervision of investigative procedures and reports, and public education concerning the Coast Guard's role in marine environmental protection.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marine pollution control, 1 in port terminal management (12/79).

CG-1304-0011

Marine Environment and Systems Petty Officer (Class C)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5 weeks (180-200 hours).

Exhibit Dates: 4/77-1/90.

Objectives: To prepare petty officers to undertake the duties and responsibilities placed upon the Coast Guard in marine environmental protection and port safety law enforcement.

Instruction: Lectures and practical exercises in basic law enforcement, understanding of pollution removal, gathering of evidence for investigative procedures and reports, and public education concerning the Coast Guard's role in marine environmental protection.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine pollution control, 1 in port terminal management (12/79).

CG-1304-0012

Marine Environmental Protection

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (77 hours).

Exhibit Dates: 4/78-10/84.

Objectives: To prepare officers and petty officers for response and enforcement duties in marine environmental protection.

Instruction: Lectures and practical experiences in the law, regulations and standards of the Coast Guard's marine environmental program; oil and chemical spills investigations and response are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in oil and chemical spill control (12/79).

CG-1304-0013

Oceanography Technician Class C

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 4 weeks (136 hours).

Exhibit Dates: 3/83-12/84.

Objectives: To provide marine science technicians with knowledge and skill to conduct oceanographic observations, perform ice observations, and perform weather observations.

Instruction: Lectures and practical exercises in marine science operations including hydrocasts, salinity determination, calculation of dissolved oxygen, use of expendable bathythermograph, and various sediment samplers, arctic and antarctic ice distributions, weather observations and forecasting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine science (7/84).

CG-1304-0014

Weather Forecasting and Flight Briefing (WXFBRF) by Correspondence

Course Number: 420-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 10/78-Present.

Objectives: To train Coast Guard personnel in weather briefing skills and in the identification and analysis of meteorological conditions as these relate to marine and flight weather.

Instruction: Course includes training in climatology, atmospheric physics, world weather, atmospheric conditions and the effect of these conditions on the intensity and movement of weather systems. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (5/85).

CG-1304-0015

Marine Science Technician First Class (MST1) by Correspondence

Course Number: 134-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 10/79-3/87.

Objectives: To train Coast Guard personnel in weather briefing skills and in the identification and analysis of meteorological conditions as these relate to marine and flight weather.

Instruction: Course includes training in climatology, atmospheric physics, world weather, atmospheric conditions and the effect of these conditions on the intensity and movement of weather systems. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (5/85).

CG-1304-0016

Marine Science Technician Second Class (MST2) by Correspondence

Course Number: *Version 1:* 0234-3. *Version 2:* 0234-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 12/89-Present. *Version 2:* 5/86-11/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to perform advanced word processing applications as they apply to a Coast Guard standard computer work station; identify and observe appropriate marine safey measures relating to harbor patrols, cargo vessels, and tank vessels; identify environmental hazards and determine appropriate response measures. *Version 2:* Upon completion of the course, the student will be able to perform advanced word processing applications as they apply to a Coast Guard standard computer work station; identify and observe appropriate marine safey measures relating to harbor patrols, cargo vessels, and tank vessels; identify environmental hazards and determine appropriate response measures; solve basic chemistry problems; identify marine safety procedures; determine environmental control measures relating to hazardous chemical releases.

Instruction: *Version 1:* Topics include word processing, marine safety, and marine environmental response. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* Topics include basic chemistry, word processing applications, marine safety, and marine environmental response. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in marine safety (6/90); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced word processing and 1 in environmental management (6/90). *Version 2:* In the vocational certificate category, 1 semester hour in oceanographic instrumentation, 1 in marine safety, and 1 in meteorology (6/90); in the lower-division baccalaureate/associate degree category, 2 semester hours in general science, 1 in advanced word processing, and 1 in environmental management (6/90).

CG-1304-0017

Marine Science Technician Class A

Course Number: MS 729 R.

Location: Reserve Training Center, Yorktown, VA.

Length: 6 weeks (120-145 hours).

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of this course, the student will be able to utilize software, and, in conjunction with a Coast Guard terminal, to perform common word processing operations, use spread sheets and databases; student will be able to employ computer terminals to transmit and receive messages; understand basic concepts of physical oceanography; operate facsimile and teletype machines, and, to a greater degree, understand the basic concepts of meteorology.

Instruction: Lectures and practice in word processing, general lectures in meteorology and in oceanography.

Credit Recommendation: In the vocational certificate category, 1 semester hour in word processing (6/90); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to oceanography, 1 in introduction to meteorology (6/90).

CG-1304-0018

Marine Science Technician First Class
by Correspondence

Course Number: 0134-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to respond to hazardous chemical releases according to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidelines. Establish guidelines for training personnel as Coast Guard standard terminal operators.

Instruction: Correspondence using examples and problems in weather forecasting, hazardous chemical release response situations, marine safety, word processing applications. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in marine safety and 1 in word processing (6/90). In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorolgoy and 1 in environmental management (6/90).

CG-1304-0020

Weather Briefer Analyst Class C
(Weather Briefer Class C)

Course Number: MS 722 R.

Location: Reserve Training Center, Yorktown, VA.

Length: 6 weeks.

Exhibit Dates: *Version 1:* 8/89-Present. *Version 2:* 11/86-7/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to procure and utilize applicable meteorological data for preparation of forecasts of sea states, of winds and temperatures at various altitudes, convective outlook and probability of turbulence, fog, icing conditions, air mass thunderstorms, and hail that are of importance to Coast Guard surface and aviation operations. In addition, the student shall have the necessary expertise to utilize properly Skew-T, Log P diagrams to derive condensation levels, Showalter Index, freezing levels and air mass stability; standard facsimile charts, radar plots and satellite visible and infrared imagery to designate areas of convergence and divergence as well as surface and upper level frontal positions and areas of precipitation. The student shall have the additional ability to analyze twelve and twentyfour hour constant pressure charts for continuity onto the current constant pressure chart set, analyze for isotachs, isotherms, height centers, troughs, ridges, and moisture; analyze vorticity charts for maxima and minima, vorcity lobes and advection. In addition, the student shall be able to identify mission specific parameters, integrate available information with sound reasoning, prepare a complete written report, and *Version 2:* Upon completion of the course, the student will be able to procure and utilize applicable meteorological data for preparation of forecasts of sea states, of winds and temperatures at various altitudes, convective outlook and probability of turbulence, fog, icing conditions, air mass thunderstorms, and hail that are of importance to Coast Guard surface and aviation operations. In addition, the student shall have the necessary expertise to utilize properly Skew-T, Log P diagrams to derive condensation levels, Showalter Index, freezing levels and air mass stability; standard facsimile charts, radar plots and satellite visible and infrared imagery to designate areas of convergence and divergence as well as surface and upper level frontal positions and areas of precipitation. conduct a complete military weather briefing.

Instruction: *Version 1:* Lectures and programmed instruction concerning properties of air masses, structure of the atmosphere, frontal systems, formation of various types of severe weather, practical experience in methods of meteorological data acquisition, techniques of weather briefing, analysis of satellite and radar imagery, and analysis of weather charts. In addition, practical experience provides in depth analysis of weather charts, preparation of written reports and conduct of complete weather briefing. *Version 2:* Lectures and programmed instruction concerning properties of air masses, structure of the atmosphere, frontal systems, formation of various types of severe weather, practical experience in methods of meteorological data acquisition, techniques of weather briefing, analysis of satellite and radar imagery, and analysis of weather charts.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorological observation, 3 in basic meteorology, 3 in practical meteorological forecasting (6/90); in the upper-division baccalaureate category, 3 semester hours in public speaking (6/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorological observation, 3 in basic meteorology, 3 in practical meteorological forecasting (6/90).

CG-1402-0001

Electronics Technician Chief (ETC)
by Correspondence

Course Number: 021-9.

Location: Coast Guard Institute, Oklahoma City, Ok.

Length: Maximum 78 weeks.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the principles of operation of each of the following communication systems; PBX, private line telephone, TWX/TELEX, Federal Telecommunications system; list the requirements for handling classified information; define the following terms: data processing, input/output, multiplexing, simplex, duplex, accumulator, register; describe how magnetic tape and hard disk storage devices are constructed; identify all programming concepts including a description of design materials, flowchart definitions and factors influencing programming steps in accordance with digital computer concepts.

Instruction: The major topics covered are communication systems, handling of classified information, computer and computer operator terms data storage, flow charts, computer concepts. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to computer operations; and In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1402-0002

AN/UYK-7 Computer and Data
Auxiliary Console
(UYNK/DEAC) Course
Development
(AN/UYK-7 Computer and OJ-172 Data
Exchange Auxiliary Console
(DEAC))

Course Number: FT-3.

Location: Reserve Training Center, Yorktown, VA.

Length: 8 weeks (297-298 hours).

Exhibit Dates: $ Upon completion of the course, the student, without

Objectives: references and given an illustration of the OJ-172 DEAC, will be able to label each unit with its correct designation without error. When given the AN/UYK-7 computer with a fault inserted, technical manuals, diagnostic program tape, and test equipment, the student will be able to troubleshoot the AN/UYK-7 to the lowest replacable component. The faulty component(s) must be correctly identified without error in accordance with the performance checklist criteria. The student will be able to label each unit with its correct designation without error, record specific information four out of five items correctly, energize the computer in accordance with performance checklist, measure DC-DC converter voltages in accordance with performance checklist, replace a 90 volt switching regulator, and will state in writing the principles pertaining to the theory of operaion of the power supply unit. Student will be able to replace a core memory, perform the memory port test, state in writing the principles pertaining to the theory of operation of the core memory unit, state in writing the principles pertaining to the theory of operation of the IOA/IOC unit; will troublshoot IOA/IOC unit as a team member; will be able to perform supplemental diagnostics; will perform the automated confidence test, and perform wire wrapping and unwrapping without error and be able to perform the NORO test procedure in accordance with the performance check list criteria. The student will be able to state in writing principles to theory of operation of the TTY, paper tape punch and paper tape reader; will be able to perform maintenance panel checkout procedures; to state in writing principles pertaining to the theory of operation of the control logic; duplicate a magnetic tape as a team member in accordance with performance checklist criteria. The student will be able to maintain MYU's, solar cells, lamp and EOT/BOT currents, capstan speed, read/write amplifier outputs, start and stop times, read/write deskew delays in accordance with the performance checklist criteria, measure time delays, and perform POFA tests and measure tape reader power supply voltages in accordance with performance checklist criteria.

Instruction: Course is presented through lectures, exercises and practical exercises, and examination review of the following topics; diagnostics, operating, maintaining, troubleshooting, repairing, performing test electrical, duplicating magnetic tapes, performing maintenance checkout procedures on panels, operating and using specific handtools, and predictive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in computer operations, 2 in computer maintenance, and 1 in computer repair (9/90).

CG-1403-0001

Small Unit Paperwork (SUPWK) by Correspondence

Course Number: 470-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To train persons in the field of small unit paperwork management.

Instruction: Topic include the Coast Guard directives system, publications and reports index, letters, security and ordnance administration, procurement and property accountability and commissary administration. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/85).

CG-1404-0001

Radioman
(Radioman Class A)

Course Number: None.

Location: *Version 1:* Radioman School, Petaluma, CA. *Version 2:* Radioman School, Petaluma, CA. *Version 3:* Radioman School, Petaluma, CA. *Version 4:* Training Center, Governors Island, NY; Training Center, Groton, CT.

Length: *Version 1:* 19–20 weeks (680–700 hours). *Version 2:* 20 weeks (575 hours). *Version 3:* 21 weeks (705 hours). *Version 4:* 24 weeks (903 hours).

Exhibit Dates: *Version 1:* 9/86–Present. *Version 2:* 4/74–8/86. *Version 3:* 1/72–3/74. *Version 4:* 11/58–12/71.

Objectives: To train enlisted personnel in the procedures necessary to operate Morse, voice, and teletype communication facilities.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures and practical exercises in typing, voice procedures, radio transmitter and receiver operations, Morse code, basic electricity terminology, teletype operations and message traffic handling, security, leadership, and first aid. *Version 3:* Lectures and practical exercises in typing, voice procedures, communications technology, Morse code, electronics, teletype operations, publications, security, leadership and first aid. *Version 4:* Lectures and practical exercises in typing, voice procedures, communications technology, Morse code, electronics, teletype operations, publications, security, leadership, and first aid.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in basic typewriting, 1 in radio communication practices (8/80); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic typewriting. Credit is to be granted in either the vocational or lower division category (8/80). *Version 3:* In the vocational certificate category, 2 semester hours in typewriting (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (6/74). *Version 4:* In the vocational certificate category, 2 semester hours in typewriting (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (6/74).

CG-1404-0002

Radioman Second Class (RM2) by Correspondence

Course Number: 241-8; 241-7; 241-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 1/75–Present.

Objectives: To provide information on security; administration; communications systems, equipment, and procedures; and antennas.

Instruction: The technical portion of this correspondence course provides a brief coverage of the basic operating characteristics of communication receivers and transmitters used in CW, voice, and telephone modes, and of antenna and wave propogation.

Credit Recommendation: Credit is not recommended because of the military-specific content of the course (9/86).

CG-1404-0003

Communications Officer (COMOFF) by Correspondence

Course Number: 401-6, 401-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 10/79–Present.

Objectives: To provide instruction in the administration of communication systems.

Instruction: Course provides instruction in message forms, means of transmission, administration, security, radiotelephone and visual procedures, basic electromagnetic radiation, radio frequency management and a brief overview of communication equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/86).

CG-1405-0001

Aviation Electronics Technician (AT) Communications, Class A

Course Number: None.

Location: Training Center, Groton, CT.

Length: 3 weeks (102 hours).

Exhibit Dates: 4/66–12/68.

Objectives: To train enlisted personnel to receive, copy, and send international Morse code.

Instruction: Lectures and practical exercises in the use of Morse code and telegraph equipment. Course includes learning Morse code alphanumeric symbols, basic message procedures and formats, and development of copy and sending skills at the rate of eight words a minute.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

CG-1405-0002

Storekeeper Third Class (SK3) by Correspondence

Course Number: 349-9.

Location: Coast Guard Instiute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 4/82–Present.

Objectives: To provide potential storekeepers with an understanding of selected topics in administration and clerical procedures.

Instruction: Course includes administration, clerical procedures, fiscal matters, transportation and supply. Students are required to complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in recordkeeping and 1 in office procedures (5/85).

CG-1405-0003

Storekeeper First Class (SK1) by Correspondence

Course Number: 149-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/82–11/86.

Objectives: To provide enlisted personnel with an understanding of the Coast Guard's physical distribution system.

Instruction: Training is provided on fiscal procedures, transportation, and supply support. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course.

CG-1405-0004

Storekeeper Second Class (SK2) by Correspondence

Course Number: 249-8; 249-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 4/82–Present.

Objectives: To prepare enlisted personnel for duties as second class storekeepers.

Instruction: Instruction in office administration, fiscal procedures, supply and logistics maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office procedures (6/87).

CG-1405-0005

Aviation Engineering Administration
(Aircraft Logs and Records)

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 1–2 weeks (51 hours).

Exhibit Dates: 12/80–Present.

Objectives: Provides training in the proper procedures used in correspondence, aeronautical engineering forms and reports, and the procurement and maintenance of technical publications.

Instruction: Topics include an introduction to work as a technical librarian or computerized maintenance program manager.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in technical records maintenance (6/85).

CG-1405-0006

STOREKEEPER, CLASS A

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 10 weeks (320 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use keyboard, word processing software, file documents and procure transport and manage the supplys.

Instruction: Instruction includes typing, word processing, correspondence, procurement, requisitions, publications, inventory control, transportation, and property management. Methodology includes lecture, discussion, and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management, 1 in merchandise procurement, 1 in word processing, and 1 in office procedures (8/87).

CG-1405-0007

RESERVE STOREKEEPER, BASIC

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: *Version 1:* 4 weeks. *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 7/87–9/89.

Learning Outcomes: Upon completion of the course, the student will be able to type business correspondence, file documents, and procure transport and manage the supply.

Instruction: Instruction includes the typing of business correspondence, office procedures, procurement, transportation, inventory control and property management. Methodology includes lecture, discussion and practical exercises.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures and 1 in supply management (8/87).

CG-1406-0001

INSTRUCTOR TRAINING, CLASS C

Course Number: None.

Location: Training Center, Groton, CT.

Length: 4 weeks (83 hours).

Exhibit Dates: 3/66–12/68.

Objectives: To prepare qualified enlisted personnel of the Coast Guard for assignment to instructor duties at major training centers, ship training detachments, district training teams, and military missions and other instructional duties.

Instruction: This course includes teaching methodology, teaching aids, lesson plans, and practice teaching.

Credit Recommendation: In the vocational certificate category, 2 semester hours in instructional aids (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in instructional aids (7/74); in the upper-division baccalaureate category, 2 semester hours in instructional aids (7/74).

CG-1406-0002

INSTRUCTOR TRAINING

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (85 hours).

Exhibit Dates: 9/76–1/90.

Objectives: To prepare staff in effective methods of instruction, media, and training aids.

Instruction: Course covers leadership, public speaking, methods of instruction, principles of learning, methods of testing, and other aspects in the teaching-learning process.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in teaching methods (9/78).

CG-1406-0003

JOINT UNIFORM MILITARY PAY SYSTEM (JUMPS) CLASS C

(Personnel Management Information Systems (PMIS) Class C)

Course Number: None.

Location: Training Center, Petaluma, CA.

Length: 6 weeks (211 hours).

Exhibit Dates: 4/80–1/90.

Objectives: To prepare enlisted personnel to work with the Joint Uniform Military Pay System (JUMPS) and the Personnel Management Information System (PMIS).

Instruction: Course includes lectures and practical exercises covering instructions on completing the required paperwork for enlistment and reenlistment personnel reports, survivor benefits, Coast Guard payroll and deductions, and various payroll allowances.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/80).

CG-1406-0004

INSTRUCTOR/COURSE DEVELOPER CLASS C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 2–3 weeks (74 Hours).

Exhibit Dates: 9/85–Present.

Objectives: Provides skills and knowledge necessary to analyze, design, review, revise, develop, and perform instruction in accordance with accepted principles of instructional technology.

Instruction: Lectures and laboratory experience in performing job analyses; defining target populations; preparing training analyses; writing instructional objectives and criterion-referenced test items; organizing and preparing lesson plans; selecting, designing, and developing training aids; delivering instruction/instructional packages; performing test item analyses; designing and administrating instructional feedback devices. Consists of lecture, testing and laboratory.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in instructional methods (6/85).

CG-1406-0005

BASIC INSTRUCTOR

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare course materials, deliver instruction utilizing multiple methods, evaluate instruction and resolve or manage instructor/student and student/student relationships.

Instruction: Instruction focuses on development of instructors skills in development of course materials, enhancement and management of the learning environment, instruction ethics and individual students skill development on instruction. The course also focuses on design and effective use of print and audio-visual support materials. Methods of instruction include proctored exercise, lecture, discussion and case study.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in educational media and 2 in educational methods (8/87).

CG-1406-0006

COURSE DESIGNER

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (58 hours).

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare a new course or revise an existing course utilizing a systems approach to training.

Instruction: Instruction included focuses on design of instructional plans for training a specific group commencing with analysis of training needs, strategies and methods for development of training materials, implementation of training and evaluation of instruction/training, methodology includes lecture, individual instruction, conference and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional systems development (8/87).

CG-1406-0007

RECRUITER TRAINER

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (90–120 hours).

Exhibit Dates: 9/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recruit, process, and enlist qualified officers, officer candidates, and enlisted personnel in the United States Coast Guard.

Instruction: Includes lectures, demonstrations, practical exercises, and independent study in general policies and objectives of the Coast Guard recruiting program, effective sales techniques, sales training, product knowledge, and applicant processing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in human resource management (4/89).

CG-1408-0001

SMALL ARMS INSTRUCTOR

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 3/79–9/85.

Objectives: To train Coast Guard petty officers in the basic skills and advanced knowledge to act as range officers or coaches and to establish small arms ranges and small arms training programs.

Instruction: Training in safety and marksmanship on a .45 pistol, .38 revolver, M-16 rifle and 12 ga. shotgun. Students will be required to demonstrate proficiency in range safety, and approved methods of instruction in the care and use of small arms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in small arms range management (4/87).

CG-1408-0002

Engineering Administration Class C

Course Number: MK-1.

Location: Reserve Training Center, Yorktown, VA

Length: 1-2 weeks (62 hours).

Exhibit Dates: 9/82-5/86.

Objectives: To provide enlisted personnel with the knowledge and skills required to manage engineering department operations.

Instruction: Topics include performance evaluation and training programs; preparation of department forms, records, reports and publications; administration of the Coast Guard safety program and the motor vehicle program; and procurement systems for obtaining supplies and procedures for receiving, issuing and accounting for engineering supplies. For the course after 6/86, see CG-1408-0035.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in field experience in management (7/84).

CG-1408-0003

Aviation Maintenance Administration (AVADMN1) by Correspondence

Course Number: 448-2; 448-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 1/78-Present.

Objectives: To train enlisted persons and officers in administrative practice of aviation units.

Instruction: Course presents information describing the organization of the typical air station engineering section, the purpose and use of the aircraft inspection system, standard aircraft record forms and proper entries into the forms (aircraft logs) and reports, use of the technical order system, and identification of major categories or types of aviation material and procedures for requisitioning material. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, credit in aviation maintenance administration and management on the basis of institutional evaluation (10/86).

CG-1408-0004

Yeoman Second Class (YN2) by Correspondence

Course Number: 255-7; 255-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 11/81-Present.

Objectives: To provide enlisted personnel with basic paperwork management skills.

Instruction: Topics include the administration of the paperwork management program, requirements for promotion within the Coast Guard, security clearances and other specialized training related to Coast Guard operating procedures. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in office administration (1/87).

CG-1408-0005

Yeoman Third Class (YN3) by Correspondence

Course Number: 355-3; 355-2; 355-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 11/81-Present.

Objectives: To provide enlisted personnel with an understanding of communications procedures and personnel policies.

Instruction: Topics include office communications procedures, service records maintenance, paperwork processing and military pay entitlements and procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/87).

CG-1408-0006

Yeoman First Class (YN1) by Correspondence

Course Number: 155-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/82-Present.

Objectives: To provide enlisted personnel with an understanding of the Coast Guard's administration and legal system.

Instruction: Training is provided in forms management, personnel procedures, the security of classified material, military justice, Coast Guard organization and administration and the Coast Guard morale and education programs. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (5/85).

CG-1408-0007

Weapons Administration (WEPAD) by Correspondence

Course Number: 410-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/81-Present.

Objectives: To teach ordnance personnel the administrative skills to function on board ship.

Instruction: Course covers ordnance records, casualty reports, property management, and ordnance safety. Students must successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85).

CG-1408-0008

Chief Quartermaster (QMC) by Correspondence

Course Number: 037-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78-Present.

Objectives: To train enlisted personnel to perform leadership and administrative duties.

Instruction: Course includes leadership, personnel procedures, communications, organizational structure, and the presentation of training sessions. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to management and 2 in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0009

Electronics Technician Chief (EMC) by Correspondence

Course Number: 021-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 7/78-9/86.

Objectives: To train enlisted personnel to perform leadership and administrative duties.

Instruction: Course includes leadership, personnel procedures, communications, organizational structure, and the presentation of training sessions. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to management and 2 in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0010

Electrician's Mate Chief (EMC) by Correspondence

Course Number: 019-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 5/81-Present.

Objectives: To train enlisted personnel to perform leadership and administrative duties.

Instruction: Course includes leadership, personnel procedures, communications, organizational structure, and the presentation of training sessions. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to management and 2 in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0011

Sonar Technician Chief (STC) by Correspondence

Course Number: 0043-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 5/80-12/86.

Objectives: To train in operations and equipment maintenance on sonar as well as in administration and supervision.

Instruction: Course includes training programs, warfare tactics, and maintenance supervision. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in teaching methods (5/85).

CG-1408-0012

Chief Machinery Technician (MKC) by Correspondence

Course Number: 032-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0013

Investigator Chief (IVC) by Correspondence

Course Number: 0066-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide training so that personnel can serve in an instructional, training, and supervisory capacity.

Instruction: Course includes training programs, supervision, education, effective leadership and basic Coast Guard administration. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in teaching methods (5/85).

CG-1408-0014

Chief Hospital Corpsman (HMC) by Correspondence

Course Number: 031-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0015

Chief Aviation Electrician (AEC) by Correspondence

Course Number: 001-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0016

Chief Boatswain's Mate (BMC) by Correspondence

Course Number: 009-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0017

Chief Damage Controlman (DCC) by Correspondence

Course Number: 015-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–3/87.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0018

Chief Dental Technician (DTC) by Correspondence

Course Number: 018-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0019

Chief Storekeeper (SKC) by Correspondence

Course Number: 049-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0020

Chief Port Security (PSC) by Correspondence

Course Number: 065-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0021

Chief Photojournalist (PAC) by Correspondence

Course Number: 036-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0022

Chief Firefighter (FIC) by Correspondence

Course Number: 025-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0023

Chief Marine Science Technician (MSTC) by Correspondence

Course Number: 034-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0024

Chief Yeoman (YNC) by Correspondence

Course Number: 055-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0025

Chief Radarman (RDC) by Correspondence

Course Number: 039-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0026

Chief Radioman (RMC) by Correspondence

Course Number: 041-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0027

Chief Aviation Survivalman (ASMC) by Correspondence

Course Number: 008-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0028

Chief Telephone Technician (TTC) by Correspondence

Course Number: 045-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0029

Chief Aviation Electronics Technician (ATC) by Correspondence

Course Number: 003-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0030

Chief Aviation Structural Mechanic (AMC) by Correspondence

Course Number: 007-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0031

Chief Gunner's Mate (GMC) by Correspondence

Course Number: 029-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–8/86.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0032

CHIEF FIRE CONTROL TECHNICIAN (FTC) BY CORRESPONDENCE

Course Number: 027-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–11/85.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0033

CHIEF SUBSISTENCE SPECIALIST (SSC) BY CORRESPONDENCE

Course Number: 051-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0034

CHIEF AVIATION MACHINIST (AMC) BY CORRESPONDENCE

Course Number: 005-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/78–Present.

Objectives: To provide senior enlisted personnel with the knowledge to function in an instructional and a supervisory capacity.

Instruction: Training is provided in effective leadership, training and education, and basic Coast Guard administration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in organizational behavior (5/85); in the upper-division baccalaureate category, 1 semester hour in methods of instruction (5/85).

CG-1408-0035

ENGINEERING ADMINISTRATION

Course Number: MK-1(R).

Location: Reserve Training Center, Yorktown, VA.

Length: 1–2 weeks (58–62 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the coure, the student will be able to manage engineering department operations at group and shore stations as well as Coast Guard cutters and boats.

Instruction: Topics include performance evaluation and training programs; preparation of department forms, records, reports and publications; administration of Coast Guard safety program and motor vehicle program; and procurement systems for obtaining supplies and procedures for receiving, issuing, and accounting for engineering supplies.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in field experience in management, 3 when this course is combined with an assignment as a senior engineer (Engineering Petty Officer - EPO) (10/88).

CG-1408-0036

RADARMAN FIRST CLASS (RD1) BY CORRESPONDENCE

Course Number: 139-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify procedures used to plan, organize, schedule, and supervise training programs; identify procedures used to prepare reports, communication plans and to implement operational plans; identify procedures to implement preventive maintenance plans, to coordinate anti-aircraft operations; identify procedures for the reporting of equipment status.

Instruction: The major topics covered are administration and supply, operational and personnel procedures, operations, navigational plotting procedures, safety and training, electronic warfare and communications. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1408-0037

DAMAGE CONTROLMAN CHIEF (DCC) BY CORRESPONDENCE

Course Number: 0015-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform carpentry maintenance inspections, select design requirements and material for all types of piping and plumbing systems, train and supervise personnel in all aspects of CBR (chemical, biological, radiological) defense, administer a shop on a ship or base, and inspect shipyard work.

Instruction: Topics include carpentry, plumbing, CBR warfare defense, and administration. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1408-0038

FIRE CONTROL TECHNICIAN CHIEF (FTC) BY CORRESPONDENCE

Course Number: 027-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 12/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to explain the charactistics and operating capabilities of Coast Guard weapons systems; plan and conduct pre-fire and post-fire briefings; identify and satisfy ordnance reporting requirements; identify operating guides and appropriate accounting classification codes.

Instruction: The major topics covered are characteristics of Coast Guard weapons systems, ordnance reporting requirements and the Coast Guard ordnance accounting system. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1408-0039

SONAR TECHNICIAN CHIEF (STC) BY CORRESPONDENCE

Course Number: 043-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the proper installation of new or overhauled assemblies, subassemblies or components of electronic equipment in accordance with Coast Guard standards, select the correct interface cables for assemblies, verify the performance of assemblies, use WQM-series sonar test set to test transducers, describe the procedures used to analyze operational and maintenance logs and requisition replacement parts and tools.

Instruction: The major topics covered are test equipment, test procedures and preventive maintenance equipment installation. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1408-0040

GUNNER'S MATE CHIEF (GMC) BY CORRESPONDENCE

Course Number: 029-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to develope safety programms and safety inspection procedures; select the applicable destruction method for classified documents; develop and implement training programs; develope the procedures required to maintain a system of personal property accoutability; establish a preventative maintenance system.

Instruction: The major topics covered are safety programs, safety inspection, documentation for classified data, and preventative maintenance. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in project administration (6/90).

CG-1408-0041

SMALL ARMS INSTRUCTOR

Course Number: SAI.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (111-112 hours).

Exhibit Dates: 10/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to present lectures and demonstrations relating to weapon and range safety, operator maintenance on .45 caliber pistol, 9mm service pistol; qualify on the .45 service pistol, M16 service rifle, 12 gauge riot service shotgun; fire the 9mm pistol for familiarization; manage weapons range and perform duties of the line instructor.

Instruction: Lecrures, practical exercise, and videos covering the following topics: prepare lesson plan, first aid emergencies, line instruction, range preparation and management, operator weapon maintenance, and weapon qualification.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in small range management (9/90).

CG-1409-0001

YEOMAN SCHOOL, CLASS A

Course Number: None.

Location: Training Center, Petaluma,CA; Training Center, Groton, CT.

Length: *Version 1:* 10 weeks (349 hours). *Version 2:* 12-14 weeks (360-480 hours). *Version 3:* 12 weeks (436 hours).

Exhibit Dates: *Version 1:* 9/79-3/86. *Version 2:* 1/76-8/79. *Version 3:* 6/66-12/75.

Objectives: To provide yeomen with training in office and clerical procedures, including operation and preventive maintenance of typewriters.

Instruction: *All Versions:* Lectures and practical exercises in typing, filing, correspondence, personnel records, office procedures and etiquette. *Version 1:* Time spent in filing procedures has been significantly increased.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in filing, 3 in typing, 3 in office practices (8/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices (8/80); in the upper-division baccalaureate category, credit in typing based on institutional evaluation (8/80). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices (3/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

CG-1409-0002

STOREKEEPER, CLASS A

Course Number: None.

Location: Training Center, Petaluma, CA; Training Center, Groton, CT.

Length: *Version 1:* 10 weeks (351 hours). *Version 2:* 10 weeks (350 hours). *Version 3:* 12 weeks (436-464 hours).

Exhibit Dates: *Version 1:* 6/80-7/86. *Version 2:* 7/74-5/80. *Version 3:* 6/66-6/74.

Objectives: To train enlisted personnel to be storekeepers.

Instruction: *All Versions:* Lectures and practical exercises in procurement, typing, use of office machines, correspondence, inventory control, requisitions, publications, disbursing, transportation, property, travel, and pay and allowances. *Version 1:* Lectures and exercises in procurement, transportation, inventory control, property management, travel, pay and allowances, typing correspondence, requesitions, office machines and publications. *Version 2:* Includes disbursements.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic typing, 1 in merchandise procurement (8/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (8/80) *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in typing (6/74). (12/68).

CG-1409-0003

YEOMAN SCHOOL, CLASS A

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 12 weeks (412 hours).

Exhibit Dates: 4/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to utilize keyboard, word processing and software to effectively correspond and communicate with internal and external agencies, maintain records and files associated with personnel and office reports.

Instruction: Instruction includes basic keyboard and word processing followed by external application of word processing to real experiences within an office. Record-maintenance, office communication, personnel issues and legal procedures are also covered. Methodology includes lecture, proctoral exercises, demonstration and case study.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in word processing and 3 in office procedures (8/87).

CG-1409-0004

RESERVE YEOMAN BASIC

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to effectively utilize publications, maintain office records, maintain personnel records and internal and external correspondence for the unit.

Instruction: Instruction includes office communication procedures, forms and procedural publications, record maintenance and legal procedures for correspondence and records. Methods of instruction include lecture, proctored exercise and discussion.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in office procedures (8/87).

CG-1511-0001

CHIEF PETTY OFFICER ACADEMY

Course Number: None.

Location: Reserve Training Center, Yorktown, VA

Length: 10 weeks (371 hours).

Exhibit Dates: 6/83-6/84.

Objectives: To provide senior enlisted personnel with the knowledge and skills in leadership, management, and interpersonal communications.

Instruction: Topics include leadership, management, interpersonal communications, resource management, human relations, career counseling and organizational effectiveness. World studies are covered including various ideologies, national purpose, national interest, foreign policy, domestic factors, international politics and the balance of power.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in human relations/management; in the upper-division baccalaureate category, 3 semester hours in international relations (7/84).

CG-1511-0002

CHIEF PETTY OFFICER ACADEMY

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 8 weeks (345 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to fulfill management, leadership, and human resources development responsibilities in current or future positions.

Instruction: Instruction includes management principles, leadership behavior and contemporary leadership issues, personal and physical development, written and oral communication, interpersonal relationships and teambuilding and human resources development. Instructional methods include lectures, discussion, role playing, case studies, and problem solving.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in physical education/health, 3 in business communication, and 3 in organization and management (8/87).

CG-1512-0001

MILITARY CIVIL RIGHTS (MCR) BY CORRESPONDENCE

Course Number: 0800-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 hours maximum.

Exhibit Dates: 8/82-Present.

Objectives: To present an overview of military civil rights and affirmative action.

Instruction: Provides instruction in the military civil rights program and its organization within the Coast Guard. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-1601-0001

CLASS C FIELD OIL IDENTIFICATION LABORATORY

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (75 hours).
Exhibit Dates: 4/78-1/90.

Objectives: To train Coast Guard petty officers to be field oil identification laboratory technicians.

Instruction: Theory and extensive laboratory practice on fluorescence spectroscopy and thin layer chromatography. Theory of basic petroleum chemistry laboratory procedures for constituent identification of oil samples.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fluorescence spectroscopy, thin film chromatography, and laboratory practices (12/79).

CG-1701-0001

Refrigeration and Air Conditioning (Operation and Maintenance)

Course Number: MK-22.
Location: Reserve Training Center, Yorktown, VA.
Length: 5-6 weeks (175-210 hours).
Exhibit Dates: 6/77-11/87.

Objectives: To train engineering petty officers in the operation and maintenance of refrigeration, air conditioning and heat pump equipment used on Coast Guard cutters, boats and stations.

Instruction: Lectures and practical exercises on gas laws, the properties of heat, pressure-temperature relationship, the refrigeration cycle, refrigerants, safety leak detectors and temperatures as they pertain to refrigeration, air conditioning and heat pumps.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in air conditioning and refrigeration (12/79).

CG-1701-0002

Refrigeration/Air Conditioning Operation and Maintenance Class C

Course Number: MK-22.
Location: Reserve Training Center, Yorktown, VA.
Length: 6 weeks (219-223 hours).
Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course, the student will understand the principles of operating, testing, and maintaining refrigeration and air conditioning equipment. Instruction includes the knowledge of the refrigeration cycle, the use of service equipment, evacuating and charging procedures, testing electrical circuits and troubleshooting heating, ventilating, and air conditioning systems.

Instruction: Lectures and practical exercises on gas laws, the properties of heat, pressure-temperature relationship, the refrigeration cycle, refrigerants, safety leak detectors, and temperatures as they pertain to refrigeration, air conditioning, and heat pumps.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in refrigeration, 1 in refrigeration laboratory, and 1 in air conditioning laboratory (10/88).

CG-1702-0001

Aviation Survivalman Class A

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 14 weeks (421 hours).
Exhibit Dates: 3/85-Present.

Objectives: To provide knowledge and skills necessary to perform the configuration, application, operation, inspection, and repair of aircraft and aircrew safety and survival equipment.

Instruction: Lectures and hands-on experience in the preparation, inspection, operation, modification, repair, and maintenance of personnel emergency parachutes, cargo aerial delivery systems, survival equipment, helicopter flotation bags, and auxiliary flotation systems, survival equipment for air/sea rescue kits, and special protective clothing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in sewing machine servicing, 3 towards a certificate in fabric/upholstery repair and fabrication (6/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in rescue and survival procedures and equipment (6/85).

CG-1704-0001

Aviation Machinist's Mate Class A
(Aviation Machinist's Mate)

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC; Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: *Version 1:* 8-9 weeks (198 hours). *Version 2:* 18 weeks (636-787 hours). *Version 3:* 21 weeks (567 hours). *Version 4:* 24 weeks (630 hours).
Exhibit Dates: *Version 1:* 4/85-Present. *Version 2:* 6/76-3/85. *Version 3:* 7/72-5/76. *Version 4:* 2/65-6/72.

Objectives: To provide fundamental principles of mathematics, physics, and aerodynamics for further study on specific aircraft systems and to provide training at entry-level in aircraft maintenance on several specific aircraft.

Instruction: *Version 1:* Trains students to service and maintain ground support equipment, select and use maintenance forms and publications, select and use hand tools and aircraft hardware, taxi aircraft, perform basic lubrication operations, and perform the basic skills of a search and rescue (SAR) aircrewman. NOTE: After completing the basic phase students normally progress to either the Fixed Wing track (CG-1704-0022) or Rotary Wing track (CG-1704-0023). *Version 2:* Lectures and practical exercises in physics, mechanics, theory of flight, power plants, instruments, electrical systems, and propeller inspection and maintenance. *Version 3:* Lectures and practical exercises in physics, mechanics, theory of flight, power plants, instruments, electrical systems, and propeller inspection and maintenance. *Version 4:* Lectures and practical exercises in physics, mechanics, theory of flight, power plants, instruments, electrical systems, and propeller inspection and maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to aviation maintenance, 1 in ground operation and servicing procedures, 1 in aircraft technical publications, 1 in basic shop practices, 2 in materials and processes (6/85). *Version 2:* In the vocational certificate category, 1 semester hour in basic shop practice, 4 in basic aircraft maintenance (9/77). *Version 3:* In the vocational certificate category, 2 semester hours in flight theory, 2 in instruments and electrical/hydraulic systems, 2 in propeller and helicopter familiarization, 1 in inspection and maintenance procedures, 1 in helicopter power plants, and 5 in power plant theory, inspection, and maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight theory, 1 in propeller and helicopter familiarization, 1 in helicopter power plants, 2 in power plant theory, inspection, and maintenance, and, on the basis of institutional examination, credit in instruments and electrical/hydraulic systems (2/74); in the upper-division baccalaureate category, 2 semester hours in flight theory (2/74). *Version 4:* In the vocational certificate category, 2 semester hours in flight theory, 2 in instruments and electrical/hydraulic systems, 2 in propeller and helicopter familiarization, 1 in inspection and maintenance procedures, and 5 in power plant theory, inspection, and maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight theory, 1 in propeller and helicopter familiarization, 2 in power plant theory, inspection, and maintenance, and, on the basis of institutional evaluation, credit in instruments and electrical/hydraulic systems (2/74); in the upper-division baccalaureate category, 2 semester hours in flight theory (2/74).

CG-1704-0002

43D50 Propeller Maintenance Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 2 weeks (60 hours).
Exhibit Dates: 2/76-1/90.

Objectives: To develop skills in the maintenance and repair of a Hamilton Standard propeller.

Instruction: Instruction in disassembling, cleaning, inspecting, repairing, assembling, and testing Hamilton Standard propellers.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation maintenance (9/77).

CG-1704-0003

HU-16E Aircraft Maintenance Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 5 weeks (215 hours).
Exhibit Dates: 5/76-1/90.

Objectives: To provide advanced technical training in the troubleshooting, repair, and maintenance of the HU-16E aircraft.

Instruction: Provides general instruction on the HU-16E aircraft and in the various major subsystems, including engine, fuel, aircraft electrical, fire control, and oxygen subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation maintenance (9/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology (9/77).

CG-1704-0004

T58-GE-8B Engine Maintenance Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC; Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: *Version 1:* 4 weeks (147 hours). *Version 2:* 3-4 weeks (125-128 hours).
Exhibit Dates: *Version 1:* 3/82-Present. *Version 2:* 2/76-2/82.

Objectives: To train students in the maintenance and adjustment of T58-GE-8B Turk shaft engines.

Instruction: *Version 1:* Topics include engine and systems operation, maintenance publications, corrosion control, servicing, maintaining, inspecting, and repairing the T58-8 engine. *Version 2:* Students remove engines; disassemble, inspect, assemble, and install power plants in airframes; run engines; and make adjustments. Corrosion control and preservation techniques are included.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft gas turbine engine inspection, 1 in aircraft gas turbine engine maintenance (6/85). *Version 2:* In the vocational certificate category, 2 semester hours in aviation mechanics (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours toward an aviation technology degree (9/77).

CG-1704-0005

HH-52A AIRFRAME AND POWERTRAIN MAINTENANCE CLASS C
(HH-52A Airframe and Powertrain, Class C)

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC; Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 5 weeks (182-215 hours).

Exhibit Dates: *Version 1:* 9/84-Present. *Version 2:* 2/76-8/84.

Objectives: To train students to maintain and adjust HH-52A airframe and powertrain systems.

Instruction: Maintenance instruction is in the area of gear boxes, drive shafts, main and tail rotor loads, and fuel, hydraulics, and oil systems. Students also learn how to replace and adjust components.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in assembly and rigging, 3 in airframe systems (6/85). *Version 2:* In the vocational certificate category, 4 semester hours toward aviation airframe mechanics (9/77); in the lower-division baccalaureate/associate degree category, 4 semester hours toward an aviation technology degree (9/77).

CG-1704-0006

HC-131A AIRCRAFT MAINTENANCE CLASS C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 6 weeks (210 hours).

Exhibit Dates: 5/76-1/90.

Objectives: Provides training in the repair, troubleshooting, and general maintenance of HC-131A aircraft.

Instruction: Introduction to HC-131A aircraft and ground handling equipment; instruction in the operation and maintenance of major engine subsystems, including fuel instrumentation and propellers, and in other aircraft subsystems, including electrical, safety, hydraulic, landing gear, air conditioning, pressurization, fire detection, and automatic pilot.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft maintenance (9/77).

CG-1704-0007

AVIATION MACHINIST'S MATE, SECOND CLASS, BY CORRESPONDENCE

Course Number: 205-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/77-8/86.

Objectives: To provide the second class machinist's mate with those basic aircraft subjects needed for the mission.

Instruction: This correspondence course outlines aviation safety precautions, states the purpose and scope of the Coast Guard aircraft maintenance management system lists the kinds of aviation directives and publications, explains technical orders (T.O.), and identifies and explains the purpose of the Coast Guard aviation forms and reports. Aircraft hardware selection and identification is presented along with various safety methods. Basic corrosion control and preventive measures, are discussed. Jet propulsion engines, turbojet engines, and their systems are presented. A proctored end-of-course examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in power plant maintenance (1/79).

CG-1704-0008

AVIATION MACHINIST'S MATE, FIRST CLASS, BY CORRESPONDENCE
(Aviation Machinist Mate, First Class, by Correspondence)

Course Number: 105-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 7/77-Present.

Objectives: To provide the student with aircraft maintenance management training including records and forms and to present general propeller principles.

Instruction: This correspondence course presents the subsections of an air station engineering section while describing the duties of each subsection. The technical order (T.O.) system and related records and maintenance publications are discussed. The operating principles of the 43D50 and 54H60 propellers are covered including their components and electrical systems. The course includes a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in propeller maintenance (1/79).

CG-1704-0009

HC-130 FLIGHT ENGINEER BY CORRESPONDENCE

Course Number: 445-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/77-10/86.

Objectives: To provide standardized special training and introductory information to prospective flight engineer candidates.

Instruction: This correspondence course includes descriptions of the mechanical, communications, and navigational systems of the HC-130 aircraft. It also includes descriptions of preflight, inflight and postflight duties of the flight engineer on the HC-130 aircraft. The course includes ground handling, servicing, and safety precautions. Course includes proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1704-0010

FLIGHT MECHANIC HH-52A BY CORRESPONDENCE

Course Number: 441-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 1/77-4/87.

Objectives: To provide standardized specialty training on the HH-52A helicopter

Instruction: This correspondence course contains helicopter aerodynamics and control definitions. Also included are the mechanical, communications, and navigational systems along with preflight, inflight, and postflight duties.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1704-0011

HH-3F FLIGHT MECHANIC BY CORRESPONDENCE

Course Number: 443-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/84-4/87. *Version 2:* 4/76-2/84.

Objectives: To introduce the HH-3F helicopter to flight mechanic candidates.

Instruction: *Version 1:* Flight mechanics are introduced to the HH-3F aircraft, aircraft systems, powertrain, aircraft equipment and furnishings, rescue equipment and recovery procedures, flight mechanic duties, helicopter aerodynamics, and theory of flight.Students must take proctored final exam. *Version 2:* This correspondence course includes basic helicopter theory of flight characteristics, aircraft and powertrain systems, equipment and furnishings, and rescue equipment and procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in aircraft systems, powertrain, aircraft equipment, and helicopter aerodynamics (5/85). *Version 2:* Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1704-0012

C-131A PROPELLER MAINTENANCE, CLASS C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 3 weeks (89-101 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To provide technological training necessary to perform preventive maintenance and repair on the Hamilton Standard 43E60-533 propeller.

Instruction: Lectures and practical exercises covering introduction to the propeller, introduction to prop removal, disassembly, reassembly, test and installation, troubleshooting, adjustments, line maintenance, and run-up.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft propellers (8/78); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft propellers (8/78).

CG-1704-0013

Aviation Structural Mechanic, Second Class, by Correspondence

Course Number: 207-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/77-Present.

Objectives: To provide an understanding of aviation maintenance administration, with specific information on hardware and advanced corrosion control.

Instruction: This correspondence course prepares student to perform general aviation safety in ground equipment, fuel and oxygen systems; student will be able to describe the Coast Guard a/c maintenance management system; student will use and explain records, directions, publications, and the T.O. system and use technical manuals and directives. Proper use and identification of aircraft hardware is presented; the theory of basic and advanced corrosion control is covered including painting for corrosion protection. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic aircraft maintenance (1/79)

CG-1704-0014

Industrial Hydraulics by Correspondence

Course Number: 413-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 5/79-Present.

Objectives: To provide a general overview of the operations and maintenance of industrial hydraulic systems.

Instruction: Course stresses indepth instruction about the elements of a total hydraulic system using the Sperry Vickers approach to hydraulic mechanisms. The student is introduced to hydraulics and the principles of hydraulics power. Each element of a typical hydraulic systems is studied, starting with hydraulic fluids, piping and sealing, reservoirs and fluid conditions, actuators, directional control units, servo valves, pressure controls, volume controls, pumps, instruments, and accessories. The proper definition of technical terms and principles is stressed as well as their standard geographical symbolic representation. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic industrial hydraulics (5/79).

CG-1704-0015

Aviation Structural Mechanic, First Class, by Correspondence

Course Number: 107-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 7/77-12/85.

Objectives: To introduce the student to aviation maintenance administration and sheet metal layout and forming.

Instruction: This correspondence course explains the Coast Guard aircraft maintenance management systems, standard aircraft maintenance procedures, records, and required inspections. A description of the technical order system and procedures for requisitioning aviation material are included. The proper layout procedures used to fabricate and assemble aircraft sheet metal structural components are discussed; also included is a review of mathematics and blueprint reading. Emphasis is on Coast Guard procedures and application. There is no practical laboratory.

Credit Recommendation: Credit is not recommended due to the limited nature of the course (1/79).

CG-1704-0016

Aviation Corrosion Control by Correspondence

Course Number: 439-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 1/78-1/90.

Objectives: To familiarize the student with aircraft corrosion and control.

Instruction: This correspondence course contains the theory of corrosion, the different forms of corrosion, preventive measures and the preservation of the aircraft surfaces. Course has a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended due to the limited scope of the course (1/79).

CG-1704-0017

HC-130 Dropmaster (AC-130D-1) by Correspondence

Course Number: 446-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/76-11/86.

Objectives: To provide standardized specialty training on the HC-130 aircraft and to teach proper procedures and safety precautions for rescue equipment airdrop.

Instruction: The student will become familiar with the HC-130 aircraft including general arrangement, dimensions, emergency exits, powertrains, engine, and communication systems; student will understand groundhandling and servicing procedures and safety precautions, and be familiar with procedures for cargo restraint, procedures for rescue equipment airdrop, and the safety precautions involved.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/79).

CG-1704-0018

Aviation Survivalman, Second Class, by Correspondence

Course Number: 208-5; 208-4; 208-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/71-Present.

Objectives: To provide the student with the fundamentals of survival equipment.

Instruction: This correspondent course contains a review of physics and electricity and describes jato, pyrotechnics and parachute lofts. Identification of basic survival equipment, protective clothing, small arms and ammunition, the function of the oxygen system and use of related hand tools are covered as well as the inspection and repair of parachutes.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the training involved (3/87).

CG-1704-0019

Aviation Survivalman, First Class, by Correspondence

Course Number: 108-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/77-1/90.

Objectives: To provide the student with the basic knowledge in aviation administration, ordnance, and fabric repair.

Instruction: This correspondence course describes the Coast Guard aircraft maintenance management system, and maintenance inspections and cites the maintenance-level structure and the prime unit concept. It further includes records, technical order systems, supply system, and the establishment of an ordnance library. In addition, it presents parachute lofts and parachute maintenance. It also covers pyrotechnics and jato systems.

Credit Recommendation: Credit is not recommended due to the military-specific application of the training involved (1/79).

CG-1704-0020

Hydraulic Systems and Equipment Operation and Maintenance

Course Number: MK-6.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (68-70 hours).

Exhibit Dates: 5/78-4/85.

Objectives: To train qualified enlisted personnel (machinery technicians) to operate and maintain hydraulic components and systems.

Instruction: Lectures and practical exercises in fundamentals of hydraulics and associated subjects including operations and repair of hydraulics systems and components, hydraulic circuit construction and operation, troubleshooting and adjustment techniques and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in hydraulics and pneumatics (12/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in hydraulics and pneumatics laboratory (12/79).

CG-1704-0021

T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence

Course Number: 0551-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 12/82-Present.

Objectives: To provide the aviation machinist mate with basic information on construction and operation of the T58-GE-8B and T58-GE-5 turboshaft engines.

Instruction: Instruction in engine components, operation of engine and components, and basic operational troubleshooting. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in powerplant theory of operation and troubleshooting procedures (5/85).

CG-1704-0022

Aviation Machinist's Mate (AD) Fixed Wing Class A

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 4-5 weeks (136 hours).
Exhibit Dates: 4/85-Present.
Objectives: To provide training necessary to perform the maintenance, configuration, and inspection of fixed wing aircraft.
Instruction: Topics include airframe systems, airframe electrical systems, hydraulic systems, landing gear, wheels, brakes, and tires, air, environmental, and oxygen systems, fuel systems, fuselage components, and flight controls. NOTE: A prerequisite for this course is the Aviation Machinist's Mate (AD) Class A Basic course (see exhibit CG-1704-0001).
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in airframe systems, 1 in aircraft turbine engine theory and maintenance (6/85).

CG-1704-0023

Aviation Machinist's Mate (AD) Rotary Wing Class A

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 6-7 weeks (226 hours).
Exhibit Dates: 4/85-Present.
Objectives: Provides the knowledge and skill necessary to perform the maintenance, configuration, operation, and inspection of rotary wing aircraft.
Instruction: Topics include airframe systems, aircraft turbine engine theory and maintenance, ground handling procedures, engine gearbox, main and tail rotor blades, landing gear, technical manuals and publications. NOTE: A prerequisite for this course is the Aviation Machinist's Mate (AD) Class A Basic course (see exhibit CG-1704-0001).
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in airframe systems, 1 in aircraft turbine engine theory and maintenance (6/85).

CG-1704-0024

Aviation Electrician's Mate (AE) Class A Fixed Wing Track Training

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 5-6 weeks (195 hours).
Exhibit Dates: 12/82-Present.
Objectives: Provides knowledge and skill to perform the configuration, application, operation, inspection, and repair of fixed wing aircraft electrical systems.
Instruction: Provides hands-on experience in the preparation, inspection, operation, modification, repair, and maintenance of selected electrical systems and electrical control aspects of other systems on the HC-130 and HU-25A aircraft.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in airframe systems (6/85).

CG-1704-0025

Aviation Electrician's Mate (AE) Class A Rotary Wing Training

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 4-5 weeks (157 hours).
Exhibit Dates: 12/82-Present.
Objectives: Provides the knowledge and skill necessary to perform the configuration, application, operation, inspection, and repair of rotary wing aircraft electrical systems.
Instruction: Instruction and hands-on experience in the preparation, inspection, operation, modification, repair, and maintenance of selected electrical systems on the HH3F and the HH52A aircraft.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in airframe systems (6/85).

CG-1704-0026

T58-5 and T62 Engine Maintenance Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 4-5 weeks (161 hours).
Exhibit Dates: 3/82-Present.
Objectives: To provide training in servicing, maintaining, inspecting, and repairing the T58-5 engine in accordance with the computerized maintenance system.
Instruction: Lectures on engine and systems operation; practical exercises in engine removal from aircraft, disassembly, inspection, repair, reassembly, and reinstallation along with required rigging, T58-5 engine run, and adjustments.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft gas turbine engine inspection and 3 in aircraft gas turbine engine maintenance (6/85).

CG-1704-0027

Aviation Structural Mechanic (AM) Class A

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 18-19 weeks (581 hours).
Exhibit Dates: 6/84-Present.
Objectives: To provide the knowledge and skills necessary to perform the configuration, application, operation, inspection, and repair of aircraft structures and aircraft components.
Instruction: Provides hands-on experience to handle, service, inspect, and maintain aircraft fuselages, wings, and control surfaces; fabricate and assemble metal parts and make repairs to aircraft skins; spray paint and maintain paint equipment; perform nondestructive testing inspections using visual dye and fluorescent penetrant methods; maintain hydraulic systems, landing gear, wheels, and tires; repair integral fuel tanks; perform oxyacetylene welding, bronze, and silver solder metal; perform cable swaging operations; identify and remove corrosion from aircraft and components; make repairs to thermosetting plastics.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in aircraft structural repair, 2 in principles of hydraulics, 1 in aircraft cleaning and corrosion control, 1 in aircraft ground handling and servicing (6/85).

CG-1704-0028

HU-25A Electrical Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 5-6 weeks (189 hours).
Exhibit Dates: 10/84-Present.
Objectives: To provide the knowledge and skill necessary to inspect, maintain, troubleshoot, and repair the HU-25A aircraft.
Instruction: Lectures and hands-on experience in the operation, troubleshooting, inspection, and routine maintenance of the HU-25A electrical power generation, distribution, indicating and control systems, autopilot, speed control, air data, heading, flight guidance, operation and interface for the cockpit management, inertial sensor, and area navigation systems.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in airframe/electrical familiarization (6/85).

CG-1704-0029

Aviation HU-25A Airframe Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 3-4 weeks (115 hours).
Exhibit Dates: 9/83-Present.
Objectives: To provide the skills and knowledge necessary to perform configuration, application, operation, inspection, and repair tasks on the HU-25A airframe.
Instruction: Lectures and hands-on experience in operation, troubleshooting, inspection, and routine maintenance of the HU25A airframe, various systems, and engines.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in airframe familiarization (6/85).

CG-1704-0030

HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 2 weeks (72 hours).
Exhibit Dates: 1/82-Present.
Objectives: To provide training in servicing, inspecting, maintaining, and repairing the automatic stabilization equipment system, 1080-Y attitude reference system, and associated aircraft systems.
Instruction: Provides training in the operation of individual systems, sub-systems, and modules; practical application in testing, the use of specified test equipment, calibration, necessary adjustments, and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft electrical systems and automatic stabilization equipment system troubleshooting (6/85).

CG-1704-0031

HU-25A Avionics Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.
Length: 3-4 weeks (136 hours).
Exhibit Dates: 4/85-Present.
Objectives: Provides knowledge and skills necessary to inspect, maintain, troubleshoot, and repair the HU-25A aircraft.
Instruction: Lectures and hands-on experience in the operation, troublehooting, inspection, and routine maintenance of the following HU-25A avionics systems: cockpit management system, audio control, radio altimeter, direction finder, LF-ADF

receiver, VHF-AM transceiver, UHF transmitter/ receiver, inertial sensor system, radar, area navigation system, and LORAN.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in avionic systems maintenance (6/85).

CG-1704-0032

HYDRAULIC SYSTEMS AND EQUIPMENT OPERATION AND MAINTENANCE

Course Number: MK-6.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (68-70 hours).

Exhibit Dates: 5/85-Present.

Learning Outcomes: Upon completion of the course, the student will understand basic principles, operate, maintain, troubleshoot malfunctions, and repair industrial fluid power systems.

Instruction: Lectures and practical exercises in fundamentals of hydraulics and associated subjects including operations and repair of hydraulics systems and components, hydraulic circuits construction and operation, troubleshooting and adjustment techniques, and maintenance procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fluid power systems (10/88).

CG-1708-0001

BOATSWAIN'S MATE, CLASS A
(Boatswain's Mate School)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 8-12 weeks (222-424 hours).

Exhibit Dates: *Version 1:* 11/82-9/86. *Version 2:* 3/79-10/82. *Version 3:* 6/66-2/79.

Objectives: To train enlisted personnel to perform as boatswain's mates.

Instruction: *All Versions:* Lectures and practical exercises in seamanship and associated subjects, including information, nomenclature, and exercises in marlinspike; boat handling; gunnery; cargo handling; piloting; nuclear, biological, and chemical defenses; radiotelephone operation and semaphore communications; and firefighting procedures. See exhibit CG-1701-0016 for course after 10/86. *Version 2:* Includes deck seamanship, damage control procedures, dead reckoning, navigation, maritime law enforcement, and survival techniques. *Version 3:* Includes electronic navigation and visual communications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in marine related occupations (7/84); in the lower-division baccalaureate/associate degree category, 8 semester hours in marine technology (7/84). *Version 2:* In the vocational certificate category, 8 semester hours in marine technology (12/79); In the lower-division baccalaureate/associate degree category, 6 semester hours in marine technology (12/79). *Version 3:* In the vocational certificate category, 4 semester hours in marine technology (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in marine technology (6/74).

CG-1708-0002

BOATSWAIN'S MATE THIRD CLASS BY CORRESPONDENCE

Course Number: 309-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 2/76-Present.

Objectives: This is a nonresident course to train Boatswain's Mates at the seaman level.

Instruction: The student is required to read and study seven pamphlets covering six topics. Each lesson has reading assignments followed a series of questions and a comprehensive end-of-course test. The areas of instruction covered by this course are surface preparation and painting; small boat operation; search and rescue; firefighting, watches, duties and record keeping; introduction to basic minor aids to navigation, and Marlinspike seamanship. After successful completion of the course the student will understand the organization manual, watch quarter and station bills, will be able to stand watch, and be able to keep records and logs. The student will also be able to use naviation equipment and maneuver a boat, to know paint systems, safety aspects in painting and stowage, recognize anchor chain markings and parts, and know aids to navigation, their functions, and how to troubleshoot minor aids to navigation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory basic seamanship (5/79).

CG-1708-0003

BOATSWAIN'S MATE SECOND CLASS BY CORRESPONDENCE

Course Number: 309; 209-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 1/77-5/82.

Objectives: This a nonresident course to train boatswain's mates at the second-class level.

Instruction: The student is required to read and study text material, solve problems, answer questions, and pass a comprehensive end-of-course examination. The areas of instruction covered are navigation and weather; fire control and gunnery; deck maintenance; small boat handling; cargo handling; stowage; underway replenishment; and seamanship. Upon completion of this course, the student will be able to deal with communications, use various instruments and electronic equipment for navigation and piloting, use tide and current tables, take weather readings and describe the causes of weather, describe fire control organization, identify the functions of various small weapons and know safety precautions when small weapons are used or stowed. Student will also be able to explain deck duties using block and tackle, wire roping, anchoring and block tackle, and will identify equipment and materials used in towing, know safety precautions for handling and stowing cargo, maintain cargo handling equipment, and identify the signals for underway replenishment at sea.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in Seamanship II (5/85).

CG-1708-0004

BOATSWAIN'S MATE FIRST CLASS BY CORRESPONDENCE

Course Number: *Version 1:* 109-6. *Version 2:* 109-5; 109-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 5/83-Present. *Version 2:* 6/78-4/83.

Objectives: To provide training to boatswain's mates at the second class level through reading and studying textual material, performing sample problems, answering lesson questions, and passing the proctored end-of-course examination.

Instruction: *Version 1:* Topics include basic search and rescue, shipboard damage control and stability, the duties of members of a 5"/38 gun mount team, electronic navigation and maneuvering board navigation with emphasis on the use of relative motion radar, and small unit administrative paperwork management. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* The areas of instruction covered include small craft piloting, boat and deck maintenance, rigging and replenishment, the gun captain, damage control repair party, and introduction to aids to navigation. The student will learn to use navigation equipment in piloting small craft; will know and understand the rules of the road; will properly maintain deck spares, repair small craft, rig booms and recognize safety hazards. Student will learn the proper equipment to use in damage control and will recognize basic functions of aids to navigation components, basic theory of weight handling equipment, and the effects of ship stability.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in technical communications (5/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced navigation and 1 in advanced seamanship (1/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced seamanship (5/79).

CG-1708-0005

NAVIGATION RULES BY CORRESPONDENCE

Course Number: *Version 1:* 469-2. *Version 2:* 469-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/82-Present. *Version 2:* 4/78-2/82.

Objectives: To provide training concerned with the International Regulations for preventing collisions at sea dated 1972 (72 COLREGS) and the United States Inland Rules of the Road.

Instruction: *Version 1:* A nonresident training course including steering and and sailing rules, lights and shapes, sound and light signals, inland rules and pilot rules. There is a proctored end-of-course examination. *Version 2:* A nonresident training course including steering and and sailing rules, lights and shapes, sound and light signals, inland rules and pilot rules. There is a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in navigation (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation rules (5/79).

CG-1708-0006

1. Piloting Navigation (PELNAV) by Correspondence
2. Piloting by Correspondence

Course Number: *Version 1:* 416-4. *Version 2:* 416-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 2/77–12/82.

Objectives: To train personnel in basic navigation practices under piloting and dead reckoning conditions.

Instruction: *Version 1:* Course introduces the student to navigation terminology and the use of applicable sections of the Defense Mapping Agency publication "American Practical Navigator". The course sets forth the basic principles of determining a vessel's position by the use of bearings, soundings, and applicable tables. The use of sextant angles, marine radar, and compass bearings to determine position are covered. Course describes the basic principles and steps involved in setting up a piloting team in order to safely navigate a vessel. Students must pass proctored final exam. *Version 2:* The student will be able to define a line of position and plot lines of position using aids to navigation, shore objects, and radio sources; student will be able to solve advanced piloting problems using running fixes, position circles and running fixes with changes in courses and speed. The course includes discussion on charts, aids to navigation, magnetic compass, dead reckoning, piloting, current sailing and review of how all these fit together in a navigational system of piloting in a boat. There is a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic navigation (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in coastal navigation (5/79).

CG-1708-0007

Coxswain Class C

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 4 weeks (154 hours).

Exhibit Dates: 10/82–2/88.

Objectives: To train personnel in the requirements for boat coxswain.

Instruction: Lectures, practical demonstrations, and on the water experience in small boat handling, chart work, navigation rules, safety and rescue techniques, piloting and coastwise navigation. Includes use of LORAN C and magnetic compasses. See CG-1708-0017 for course after 3/88.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in boat handling and 1 in coastwise navigation (7/84).

CG-1708-0008

Compass Systems (COMSYS) by Correspondence

Course Number: 418-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/83–Present.

Objectives: To provide basic knowledge of gyro and magnetic compasses, degaussing ranges and systems and their operation.

Instruction: Course provides a basic introduction to gyro compass use, magnetic compass adjustment to reduce deviation, basic description of magnetism and causes of deviation and description of degaussing systems including ranges and settings.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-1708-0009

Seaman (SN-9) by Correspondence

Course Number: 451-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 8/84–Present.

Objectives: To introduce personnel to the duties of seaman.

Instruction: Course includes the operation and maintenance of deck equipment, rigging, wire and line size determination, proper watchstanding procedures, boat lowering operations, life saving equipment, small boat mooring, and rating identification. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic seamanship (5/85).

CG-1708-0010

Deck Seamanship (DKSNS) by Correspondence

Course Number: 433-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/79–Present.

Objectives: To train Coast Guard personnel in deck seamanship.

Instruction: Course includes the following instructional areas: deck maintenance including the use and maintenance of painting/coating application equipment and the planning, supervision, and control of shipboard painting operations; seamanship including the use of wire and synthetic fiber rope, rope maintenance and ground tackle maintenance, shipboard use of accomodation ladders, cargo nets, and scaffolding, cold weather maintenance of deck equipment and de-icing procedures. Also includes the operation and maintenance of deck machinery and the adjustment of standard rigging. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in seamanship and 1 in nautical science (5/85).

CG-1708-0011

Navigation Systems (NAVSYS) by Correspondence

Course Number: 424-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 5/83–Present.

Objectives: To provide an introduction to electronic navigation systems aboard ships.

Instruction: Course includes description and use of basic shipboard electronic navigation systems including LORAN-C, NAVSAT, radio direction finding, OMEGA, DECCA, console, inertial navigation, acoustic doppler and bathymetric navigation. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in nautical science (5/85).

CG-1708-0012

Watchstanding: The Conning Officer (CONOFF) by Correspondence

Course Number: 430-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 5/83–Present.

Objectives: To introduce the fundamental duties, responsibilities and procedures of the conning officer.

Instruction: Course includes theory and basic knowledge in the fundamentals of shiphandling, general duties and related responsibilities of conning officers in restricted waters and in the open sea. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/85).

CG-1708-0013

Shiphandling (SPHNG) by Correspondence

Course Number: 426-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/79–Present.

Objectives: To provide basic knowledge of principles of shiphandling for single screw or multiple screw vessels in heavy weather, restricted and unrestricted waters.

Instruction: Course is designed to develop basic knowledge and skills as follows: physical characteristics of ships, maneuvering characteristics, shiphandling fundamentals, heavy weather handling and survival, small boat operation in surf, anchoring, mooring and towing procedures. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic seamanship (5/85).

CG-1708-0014

Deck Watch Officer Navigation Rules (DWONR) by Correspondence

Course Number: 631-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/82–Present.

Objectives: To provide training and familiarization for students in prevention of collisons at sea.

Instruction: Topics include rules of the road encompassing all vessels, both power and sail, lights and shapes, sound and light signals in inland and international waters. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in nautical science (5/85).

CG-1708-0015

Maneuvering Boards (MANBD) by Correspondence

Course Number: 464-1.

Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 5/83–Present.
Objectives: To provide training in solving maneuvering board problems.
Instruction: This course includes reading assignments and solving of maneuvering board problems, including relative motion, course, speed, closest point of approach, danger of collision, station taking, contact interception, true/relative wind vectors and direct plotting methods.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in nautical science (5/85).

CG-1708-0016

Boatswain's Mate Class A

Course Number: BMA.
Location: Reserve Training Center, Yorktown, VA.
Length: *Version 1:* 6–7 weeks (262–264 hours) *Version 2:* 10 weeks (350-355 hours).
Exhibit Dates: *Version 1:* 10/89–Present. *Version 2:* 10/86–9/89.
Learning Outcomes: *Version 1:* Upon completion of the course, the student shall be able to demonstrate personal physical fitness; demonstrate correct method to enter water wearing anti-exposure clothing; identify and use equipment found in a boat crew personal survival kit; deploy and board a four person rescue raft; set up and hoist off the deck using stages and a boatswain chair; properly handle lines while acting as a member of a boat crew; correctly splice double braid and three strand lines; demonstrate correct procedures while anchoring a boat and while weighing anchor; state the duties of the boatswain mate of the watch on board a vessel underway; identify the meanings of various nautical terms; identify equipment found onboard a 41' UTB; perform the duties of a lookout onboard a 41' UTB; perform as part of the crew of a 41' UTB while towing another vessel astern; moor and unmoor a 41' UTB at a pier; stand a helm watch onboard a 41' UTB; identify required lights and shapes in accordance with the rules of the road; determine the depth of water using a fathometer; use information from the Raynav 66 radar; use a VHF-FM Polaris to locate another vessel; use Loran-C to fix a vessel's position; recover a person overboard using a 41' UTB; participate in helicopter operations; use a nautical chart; tie standard knots and know their uses; throw a heaving line; operate a CG-PL pump and an eductor; identify the classes of fire and the extinguising agent for each; operate a carbon dioxide fire extinguisher and a dry chemical extinguisher; demonstrate CPR; repair and paint various types of surfaces; maintain records and logs in accordance with the latest Coast Gurad instructions; and use a boatswain's pipe for standard calls. *Version 2:* Upon completion of the course, the student will be able to demonstrate competence to perform all duties associated with boatswain's mate class A rating.
Instruction: Lectures and practical exercises in physical fitness and survival, line handling and ground tackle, underground operations and watches, rescue and evacuation procedures, navigation and piloting, boat communications, salvage operations, fire fighting, first aid and leadership.
Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in seamanship (6/90); in the lower-division baccalaureate/associate degree category, 8 semester hours in marine technology (6/90). *Version 2:* In the vocational certificate category, 10 semester hours in marine related occupations (4/89); in the lower-division baccalaureate/associate degree category, 8 semester hours in marine technology (4/89(.

CG-1708-0017

Coxwain Class C

Course Number: COX C.
Location: Reserve Training Center, Yorktown, VA.
Length: 3/88–Present.
Exhibit Dates: 4–5 weeks (154 hours).
Learning Outcomes: Upon completion of the course, the student will be able to qualify as a competent coxwain on the 41-FT UTB; this includes a thorough knowledge of small boat handling, navigation and piloting, search and rescue, construction and design, stability, rules of the road and towing and engineering casualty drills.
Instruction: Lectures, practical demonstrations and the water experience in small boat handling, chart navigation, rules of road, safety and rescue techniques and piloting and coastwise navigation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in boat handling, 1 in navigation (4/89).

CG-1708-0018

Quartermaster Class A

Course Number: None.
Location: Reserve Training Center, Yorktown, VA.
Length: 12 weeks (420 hours).
Exhibit Dates: 6/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to function as a third class quartermaster with knowledge and skill training necessary to perform tasks in areas such as computation of navigational data, signaling and navigation equipment and the application of communication and navigational information in organizational and intermediate levels of navigation afloat.
Instruction: Lectures and practical exercises in administration, communications, communications procedures, navigation systems and instruments, navigation rules, compasses and watchstanding.
Credit Recommendation: In the vocational certificate category, 1 semester hour in navigation rules (rules of road) (4/89); in the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (4/89).

CG-1709-0001

Photojournalist School Class (PA2)
by Correspondence

Course Number: 236-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks.
Exhibit Dates: 7/81–1/88.
Learning Outcomes: Upon completion of the course, the student will be able to demonstrate proficiency in the knowledge of basic photographic principles including the use of cameras and lenses, black and white darkroom film processing and printing, use of available light, use of color film, and an introduction to view cameras.
Instruction: Instruction is provided through a non-resident, self-paced study program using a commercial text and a Coast Guard Institute workload and study guide. This course is not task-oriented, but it is comprehensive in content and objectives. Includes a proctored final exam.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photography (10/87).

CG-1709-0002

Photojournalist First Class (PA1-1) by
Correspondence

Course Number: 136-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks.
Exhibit Dates: 7/81–8/87.
Learning Outcomes: Upon completion of the course, the student will be able to demonstrate proficiency in the knowledge in the principles and techniques of community, internal and public relations.
Instruction: Instruction is provided through a non-resident, self-paced study program using a commercial text and a Coast Guard Institute workbook and study guide. The course is not task-oriented but is comprehensive in content and objective. Topics include the introduction to contemporary public relations, duties and functions of PR staff, persuasion and public opinion, fact-finding research, planning a PR program, evaluation of a PR program, tools of communication, dealing with the public, use of mass media, media relations, and government-public communications. Includes proctored final exam.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in journalism (public relations) (10/87).

CG-1710-0001

Damage Controlman Class A

Course Number: None.
Location: Training Station, Governors Island, NY; Training Station, Groton, CT.
Length: *Version 1:* 13 weeks (520 hours). *Version 2:* 15 weeks (434 hours). *Version 3:* 16 weeks (587 hours).
Exhibit Dates: *Version 1:* 2/80–2/87. *Version 2:* 5/74–1/80. *Version 3:* 1/64–4/74.
Objectives: To train enlisted personnel to maintain and repair vessels.
Instruction: *All Versions:* Lectures and practical exercises in boat damage repair, including finish and rough carpentry; concrete mixing, pouring, and forming; plumbing fittings and piping; sheet metal; structural steel welding; fire fighting; and first aid. *Version 1:* Includes instruction in building construction techniques for wooden structures.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in welding, 3 in basic carpentry, 2 in pipe fitting, 2 in firefighting (2/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding, 1 in construction techniques, 1 in firefighting (2/83). *Version 2:* In the vocational certificate category, 5 semester hours in welding, 2 in pipesetting, 2 in maintenance and repair (8/78). *Version 3:* In the vocational certificate category, 12 semester hours in repair and maintenance ashore and afloat (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in repair and maintenance ashore and afloat (5/74).

CG-1710-0002

DAMAGE CONTROL WELDING, CLASS C
(Damage Controlman Welding, Class C)
(Damage Controlman Class C)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 6-7 weeks (226-310 hours).

Exhibit Dates: *Version 1:* 10/80-1/90. *Version 2:* 8/77-9/80.

Objectives: To provide advanced skills in welding (gas and arc) of ferrous and nonferrous materials.

Instruction: Course includes welding fundamentals, metal arc welding, and gas-shielded arc welding. Students will learn fundamentals of flat, horizontal, vertical, and overhead position welding; gas tungsten arc welding to include familiarization with parts, settings, safety precautions, and practical application of the process on steel and aluminum; gas metal arc welding to include familiarization with torch, settings, safety precautions, practical application of the process, and basic theory of aluminum welding.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in welding (2/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in welding (9/78).

CG-1710-0003

DAMAGE CONTROLMAN FIRST CLASS
(DC1) BY CORRESPONDENCE

Course Number: 115-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 2/72-7/86.

Objectives: The purpose of this course is to provide a basic understanding in performing shore structure carpentry, piping layout and maintenance, and sheet metal fabrication.

Instruction: This correspondence course covers basic wood carpentry for building, piping layout and maintenance, sheet metal and sheet plate fabrication and the principles of various types of welding joints, both in ferrous and nonferrous metals, especially aluminum welding. All these activities are tied together in material on cost estimating for buildings. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic wood building carpentry, 1 in sheet metal fabrication, 1 in ferrous and nonferrous welding (5/79).

CG-1710-0004

DAMAGE CONTROLMAN SECOND CLASS
(DC2) BY CORRESPONDENCE

Course Number: 215-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/77-9/86.

Objectives: A nonresident course designed to provide basic skills in and understanding of damage control.

Instruction: The areas of instruction covered by the course are nuclear, biological and chemical (NBC) warfare defense, welding principles, shielding metal arc welding, gas-shielded arc welding, oxyacetylane cutting and welding, installing suspended ceilings, acoustical tile, installing roofing, laminated and finishing woods, plumbing, blueprint and diagram reading, and inspection and maintenance of firefighting equipment. There is a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic welding, 2 in blueprint reading, 2 in basic carpentry, 2 in basic plumbing (5/79).

CG-1710-0005

SHORE STRUCTURE MAINTENANCE BY
CORRESPONDENCE

Course Number: 479-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 5/78-1/90.

Objectives: To provide an overview of building and facility maintenance from woodworking machinery, site development and construction to termites and wood decay.

Instruction: This course covers the major aspects of maintenance of buildings and facilities used by Coast Guard shore stations. Materials include woodworking machine and power tools, site development and construction, termites and wood decay, interior wiring, shore structure carpentry, heavy construction methods and materials, cost estimating for facilities, concrete and masonry construction, plumbing and pipefitting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in wooden building maintenance, 2 in concrete and masonry construction (5/79).

CG-1710-0006

PRATT AND WHITNEY FT4A GAS TURBINE
ENGINE OPERATION AND
MAINTENANCE

Course Number: MK-4.

Location: Reserve Training Center, Yorktown, VA.

Length: 1-2 weeks (70 hours).

Exhibit Dates: 5/78-2/88.

Objectives: To train advanced machinery technicians and engineering officers in the operation and maintenance of the 18,000 HP Pratt and Whitney FT-4 gas turbine and its associated components.

Instruction: Lectures and practical exercises pertinent to the Pratt and Whitney FT4A marine gas turbine engine including gas turbine engine operation, control, construction, lubrication, inspection, maintenance and malfunction analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in gas turbine laboratory (12/79).

CG-1710-0007

GENERAL ELECTRIC LM100 AND SOLAR T-
1000 EMERGENCY GAS TURBINE
SOLAR MAIN PROPULSION
OPERATION AND MAINTENANCE

Course Number: MK-3.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/78-8/79.

Objectives: To train machinery technician petty officers in the operation of the solar T-10005 emergency gas turbine.

Instruction: Classes and practical exercises the theory of gas turbines, nomenclature and system characteristics of the solar T-10005 turbine. Practical experience in maintenance and system requirements.

Credit Recommendation: In the vocational certificate category, 1 semester hour in gas turbine laboratory (12/79).

CG-1710-0008

FIRE TUBE AND BOILER/FLASH TYPE
EVAPORATOR CLASS C

Course Number: MK-5.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (63 hours).

Exhibit Dates: 7/81-Present.

Objectives: To train engineers in the operation of fire tube boilers and flash evaporators.

Instruction: Lectures and laboratory experience in the theory, maintenance, and operation of boilers and evaporators.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boiler operation, maintenance and repair (7/84).

CG-1710-0009

270' WMEC MAIN PROPULSION CONTROL
AND MONITORING SYSTEM

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (112 hours).

Exhibit Dates: 8/82-4/85.

Objectives: To train personnel to operate and repair propulsion system of a cutter.

Instruction: Lectures and laboratory experiences in electrical diesel engine systems, propeller pitch control, monitoring systems and systems troubleshooting. After 4/85, see CG-1710-0013.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine propulsion system maintenance and repair (7/84).

CG-1710-0010

DAMAGE CONTROLMAN THIRD CLASS
(DC3) BY CORRESPONDENCE

Course Number: 315-6; 315.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 9/83-5/87.

Objectives: To provide an understanding of general building construction and welding as they apply to damage control.

Instruction: Areas of instruction cover hand and power tools, pumps, concrete handling, floor tile installation, wood framing, basic plumbing repairs, basic welding and damage control. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hand and power tools and 1 in building maintenance (5/85).

CG-1710-0011

DAMAGE CONTROL DECK GROUP RATINGS
(DCDKGR) BY CORRESPONDENCE

Course Number: 477-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/79-Present.

Objectives: To provide training in damage control including organization, firefighting and watertight integrity.

Instruction: Course provides limited coverage of damage control organization, shipboard fires, battle damage repair procedures, compartment testing and inspection, and water tight integrity determinations. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/85).

CG-1710-0012

High Reliability Soldering Class C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 2 weeks (71 hours).

Exhibit Dates: 12/85-Present.

Objectives: To provide specialized training in soldering using the PRC-151 soldering unit.

Instruction: Practical training in the use and maintenance of the PRC-151 power soldering system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in high reliability soldering laboratory practices (6/85).

CG-1710-0013

1. 270' WMEC Machinery Plant Control and Monitoring System
2. 270' WMEC Main Propulsion Control and Monitoring System (Electrical) Operation and Maintenance Class C

Course Number: EM-25.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 4 weeks (140-148 hours). *Version 2:* 3 weeks (110-112 hours).

Exhibit Dates: *Version 1:* 10/90-Present. *Version 2:* 5/85-9/90.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be trained on propulsion system control, control console and control software, and will be able to make necessary repairs, and will be able to calibrate instrumentation used as input for the control system data processor. *Version 2:* Upon completion of the course, the student will be trained on propulsion system control, control console and control software, and will be able to make necessary repairs.

Instruction: *Version 1:* Lectures and laboratory experiences in electrical diesel engine systems, propeller pitch control, monitoring systems and systems troubleshooting. In addition, the course covers calibration of transducers, thermistors, running of diagnostic tapes to troubleshoot the data processor. *Version 2:* Lectures and laboratory experiences in electrical diesel engine systems, propeller pitch control, monitoring systems and systems troubleshooting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in marine propulsion electrical control maintenance (10/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine propulsion electrical control maintenance (10/88).

CG-1710-0014

Damage Controlman Class A

Course Number: DCA.

Location: Reserve Training Center, Yorktown, VA.

Length: 13 weeks (450 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the use of hand and power woodworking tools, perform rough carpentry tasks; describe and use of pipefitting and sheet metal tools. Will demonstrate and use oxy-acetylene equipment for cutting and welding observing all safety procedures. Will be able to explain various types of firefighting equipment, and breathing apparatus.

Instruction: Lectures, demonstrations, and laboratories in the use of woodworking tools and equipment, rough carpentry, concrete forming, pipefitting, and sheet metal work. Exercises in oxy-acetylene and electric arc cutting, brazing, and welding. Shipboard firefighting and hazardous material handling are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in building construction technology, 2 in oxy-acetylene welding, 3 in electric arc welding, and 1 in shipboard firefighting and hazardous material handling (10/88).

CG-1710-0015

Damage Controlman (DC) Advanced Reserve Active Duty for Training (AD7) Class C

Course Number: DC ADV(R).

Location: Reserve Training Center, Yorktown, VA.

Length: 1-2 weeks (69-72 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to erect a light frame structure, determine the building materials required, show the proper use of plumbing tools, perform visual and dye-penetrant weld tests. The student will be able to describe the testing and handling of various hazardous materials.

Instruction: Lectures, demonstrations, and practical exercises in light frame structures, including construction and estimating. Visual and dye-penetrant weld tests are covered. Testing and handling of hazardous materials is covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in building construction estimating (10/88).

CG-1710-0016

Aluminum Welding Class C

Course Number: DC-2.

Location: Reserve Training Center, Yorktown, VA.

Length: 4 weeks (144-146 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe, set-up, and complete various welding projects using both the gas and metal arc and the gas tungsten arc processes and equipment, observing all safety procedures.

Instruction: Lectures, demonstrations, and practical exercises in the use and operation of the gas metal arc and gas tungsten arc welding processes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas metal arc welding, and 2 in gas tungsten arc welding (10/88).

CG-1710-0017

Steel Welding Class C

Course Number: DC-1.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (84 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe, set-up, and complete various welding projects using the shielded metal arc process and equipment observing all safety procedure, demonstrate the procedures to perform non-destructive testing techniques and air carbon arc cutting.

Instruction: Lectures, demonstration, and practical exercises in shielded metal arc welding, non-destructive testing, and air carbon arc cutting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in shielded metal arc welding (10/88).

CG-1710-0018

Pratt and Whitney FT4A Gas Turbine

Course Number: MK-4.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70-74 hours).

Exhibit Dates: 3/88-Present.

Objectives: Upon completion of the course, the student will be able to operate, maintain, and troubleshoot malfunctions in a Pratt and Whitney FT4A gas turbine engine of 18,000 hp, and will know inspection techniques and the use of inspection instruments.

Instruction: Lectures concentrating on gas turbine lubrication, speed control, burner and component inspection. The manufacturer's maintenance procedures are studied and practiced in a laboratory setting; there is some instruction in troubleshooting and some in malfunction analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in gas turbine laboratory (10/88).

CG-1710-0019

Damage Controlman Third Class (DC3) by Correspondence

Course Number: 315-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to read basic construction blueprints and identify components of fire fighting, flood control and emergency repair equipment, and to understand principles of basic carpentry techniques, basic plumbing techniques, and basic masonary techniques.

Instruction: Topics include general safety, measuring devices, blueprints and diagrams, carpentry, masonary, plumbing, sewage, welding, cutting, allied processes, damage control, firefighting, and CBR (Chemical, Biological, Radiological) defense, and administration. Training is provided in a nonresident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in building maintenance and 1 in welding technology (6/90).

CG-1710-0020

Damage Controlman First Class By Correspondence

Course Number: 0115-5; 0115-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify methods of light wood frame instruction, identify masonry construction procedures, and aluminum welding GTA and MTA procedures and safety precautions, identify duties of damage control repair party leads, identify components of Chemical Hazard Response Initiation System (CHRIS), and identify procedures used for set-up and operation of a chemical/biological/radiological decontamination station.

Instruction: Topics include carpentry, masonry, plumbing, welding, cutting, allied processes, damage control, firefighting, CBR defense, and administration. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in construction techology and 1 in aluminum welding technology (6/90).

CG-1710-0021

Damage Controlman Second Class (DC2) by Correspondence

Course Number: 0215-7; 215-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify wood framing systems and structural members, identify roofing materials and installation procedures, various types of pipe and pipe fittings, copper tube and tube fittings, identify various welding architectural, piping and damage control symbols and diagrams, and identify actions taken by scene leader of a damage control party at the scene of a fire.

Instruction: Topics include framing and roofing buildings; finishing exterior walls; installing acoustical tile ceilings; plumbing pipe, valves, and fixtures; welding castings; and blueprint and diagram reading. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hours in basic welding and 2 in carpentry and plumbing OR 3 in basic construction trades (6/90).

CG-1712-0001

Engineman, Class A

Course Number: None.

Location: Training Center, Groton, CT; Reserve Training Center, Yorktown, VA.

Length: 14–16 weeks (310-581 hours).

Exhibit Dates: 8/66–4/79.

Objectives: To train personnel to perform as engineman strikers and enginemen.

Instruction: Lectures and practical exercises in the functions of engineman strikers and enginemen, third class, including tools and measuring instruments, gas welding and cutting, hydraulics, basic engines, engine fuel systems, general motors unit injector, engine controls, GM-71 auxiliary pumps, engine overhaul, diesel engine troubleshooting, lubricating oil testing, jacket water treatment and testing, centrifugal purifiers, electricity, outboard motors, boilers, gas turbines, refrigeration, and power transmission systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in diesel engines and auxiliaries (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive technology, 4 as an elective in mechanical technology (6/75).

CG-1712-0002

Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397–399, D-333, D-343, D-353, D-379)

Course Number: MK-24.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (103–105 hours).

Exhibit Dates: 10/79–3/88.

Objectives: To train qualified enlisted personnel (machinery technicians) in diesel operation and maintenance.

Instruction: Students learn the operation and maintenance of 200-300 KW Caterpiller diesel generator sets including disassembly and inspection of diesel engine camshaft bearings, connecting rods, pistons, cylinder liners and head assemblies, fuel pump assemblies, accessory drive voltage control components, brushes, sliprings, bearings and generator drive alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel generator sets (12/79).

CG-1712-0003

270' S/S Generator Waste Heat Recovery System and Evaporator Operation and Maintenance

Course Number: MK-27.

Location: Reserve Training Center, Yorktown, VA.

Length: 2–3 weeks (105 hours).

Exhibit Dates: 12/81–4/85.

Objectives: To provide the skills required to operate, maintain, and troubleshoot a diesel engine, a waste water heat recovery system and an evaporator.

Instruction: Topics include system major components, system operation, system maintenance, and system troubleshooting of diesel engine, waste heat recovery and distilling plant.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in diesel engine theory and maintenance (7/84).

CG-1712-0004

Caterpillar Diesel Engine Maintenance Class C

Course Number: MK-24.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (68–72 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to do routine maintenance, troubleshooting, and repair on small diesel engines. Caterpillar model D379 and similar are used as example engines.

Instruction: Students learn maintenance and repair procedures for small Caterpillar diesel engines by a combination of lectures and laboratories. Engines are studied, disassembled, repaired, reassembled, and tested. Also, engine condition is assessed by performance tests.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine maintenance/repairs (10/88).

CG-1712-0005

270' WMEC S/S Generator, Waste Heat Recovery System and Evaporator Operation and Maintenance, Class C

Course Number: MK-27.

Location: Reserve Training Center, Yorktown, VA.

Length: 2-3 weeks (105–106 hours).

Exhibit Dates: 5/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to start-up, operate, and service the Caterpillar D398 diesel engine and to service the engine systems related to lubrication, cooling, fuel, electrical, and air starting. The student will understand the operation and servicing of the waste heat recovery system and the 2-T-CFE-6-SE distilling plant.

Instruction: Approximately twenty percent of this course is devoted to the Caterpiller 398 diesel engine components operation and another twenty percent to servicing its components. The remaining sixty percent of the course concentrates on the waste heat recovery system and the operation of the distilling plant. Students are instructed in its component troubleshooting and repair. Instruction is by combination of one-third lecture and two-thirds laboratory using actual equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine with heat recovery system (10/88).

CG-1712-0006

VT903M Cummins Diesel Engine Disassembly-Assembly and Tune-up

Course Number: CUMM (R).

Location: Reserve Training Center, Yorktown,VA.

Length: 2 weeks (70–72 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to disassemble, inspect components, and reassemble a Cummins VT903M diesel engine. Engine tune-up procedures are covered.

Instruction: Lectures and practical laboratory exercises are used to teach the basic principles of diesel engines along with disassembly/assembly and tune-up of an actual engine.

Credit Recommendation: In the vocational certificate category, 1 semester hour in diesel engine laboratory (10/88).

CG-1712-0007

Lister Diesel Overhaul and Engine Power System Equipment Maintenance

Course Number: ANC-M.

Location: Reserve Training Center, Yorktown, VA.

Length: 1 week (44-45 hours).

Exhibit Dates: 4/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, troubleshoot, and repair a Lister Diesel Engine, perform inspection and preventive maintenance on a Standard Fuel Oil Day Tank and associated Environmental Control Unit and Power Controller.

Instruction: Lectures and practice in the inspection, troubleshooting, complete disassembly, repair, reassembly, and testing of the Lister Diesel Engine and associated Power System Controller.

Credit Recommendation: In the vocational certificate category, 1 semester hour in diesel engine repair (6/90).

CG-1714-0001

Electrician's Mate Class A
(Electrician's Mate School)

Course Number: None.

Location: Training Station, Groton, CT; Training Center, Governors Island, NY.

Length: *Version 1:* 17 weeks (675 hours). *Version 2:* 17 weeks (587 hours). *Version 3:* 16 weeks (580 hours).

Exhibit Dates: *Version 1:* 1/80–4/86. *Version 2:* 1/78–12/79. *Version 3:* 8/61–12/77.

Objectives: To train enlisted personnel to inspect, maintain, and operate electrical equipment.

Instruction: *Version 1:* Lectures and practical exercises on basic AC/DC circuits, and applying Ohm's law and Kirchhoff's laws to simple series and parallel circuits with one source. Topics include: properties of resistors, inductors, and capacitors; RL time constant and waveform response; simple RL, RF and RLC circuit analysis using trig functions, phaser diagrams and power computations; transformer construction, characteristics and operating types including 30 transformers; an in-depth analysis of AC/DC generators and motors including 30, AC/DC controllers, starters, maintenance of shipboard power distribution panels and cable repair, characteristics of vacuum tubes, semiconductor diodes, gyroscope and synchro construction, operation and maintenance, and maintenance procedures for shipboard motors, generators and power distribution systems. *Version 2:* Instruction is oriented toward teaching the fundamentals of generation, control and distribution of electricity with specific emphasis on equipment used by the Coast Guard. *Version 3:* Lectures and practical exercises in mathematics review, DC and AC circuits, transformers, DC motors and generators, alternators, synchronous and asynchronous three-phase motors, simple-phase motors, and controllers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in AC/DC circuit theory, 6 in AC/DC motors and generators, 2 in electronic circuits(2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC motors and generators, 3 in AC/DC motor control (2/83). *Version 2:* In the vocational certificate category, 6 semester hours in electrical maintenance (8/78). *Version 3:* In the vocational certificate category, 9 semester hours in electricity (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity on the basis of institutional evaluation (6/75); in the upper-division baccalaureate category, 3 semester hours in electricity on the basis of institutional evaluation (6/75).

CG-1714-0002

1. Gunner's Mate, Class A
   (GM A)
   (Gunner's Mate Basic)
2. Basic Gunner's Mate, Class A

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Groton, CT.

Length: 11–18 weeks (343–630 hours).

Exhibit Dates: *Version 1:* 1/72–5/86. *Version 2:* 6/66–12/71.

Objectives: To train enlisted personnel to perform as gunner's mates.

Instruction: *Version 1:* Lectures and practical exercises to include mathematics and physical science principles applied to ordnance supplies and equipment, use of hand and cutting tools, measuring instruments, and application of electrical circuitry and hydraulics to pumps, valves and transmissions and other ordnance systems. *Version 2:* Lectures and practical exercises in basic mathematics, hand tools and basic machines, electricity, ammunition, basic hydraulics, power drive and projectile hoists, and small arms.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in mechanical, electrical or fluid power technology and related mathematics/science, 1 in inspection/bench work (2/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical, electrical or fluid power technology and related mathematics/science, 1 in inspection/bench work (2/83). *Version 2:* In the vocational certificate category, 3 semester hours in electricity, 3 in basic mathematics, 3 in hydraulics, 3 in machine shop (5/74).

CG-1714-0003

Aviation Electrician's Mate, Second Class, by Correspondence
(Aviation Electrician Mate, Second Class, by Correspondence)

Course Number: 201-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/77–9/86.

Objectives: To provide an overview of line safety and maintenance management while providing specific knowledge on the aircraft electrical systems and instruments.

Instruction: This correspondence course contains line safety measures, maintenance management systems, aircraft hardware, corrosion and its control. In addition it covers alternating current (a/c) electrical maintenance techniques, use of meters, electrical symbols, types of instruments and test equipment. It also covers aircraft storage, batteries, generators, power systems and their control devices. Course has required end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 1 in aircraft instruments (1/79).

CG-1714-0004

Aviation Electrician's Mate, First Class, by Correspondence
(Aviation Electrician Mate, First Class, by Correspondence)

Course Number: 101-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/77–11/86.

Objectives: To acquaint the student with Coast Guard administrative procedures and also provide knowledge of alternating current (a/c) and basic electronic circuitry theory.

Instruction: This correspondence course contains a description of the organization of the Coast Guard aircraft management system, its logbooks, and associated records. The theory of basic types of electronics circuits, electron amplifiers, and oscillators is presented. Basic theory of alternating current, inductive and capacitive reactance, power systems and electronic components is explained. Course has no laboratory component; proctored end-of-course examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (1/79).

CG-1714-0005

Electrician's Mate Third Class by Correspondence
(Electrician's Mate Third Class by Correspondence)

Course Number: 319-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/77–4/90.

Objectives: To present basic electricity through semi-conductor devices and the theory of operation and maintenance on AC and DC motors and generators.

Instruction: This correspondence course offers basic AC and DC electricity including series and parallel circuits, inductance, capacitance, and impedance. Theory and maintenance of AC and DC motors and generators, transformers, and batteries are covered. There is a brief introduction to the theory and testing procedures on transistor and semiconductor devices. Course provides no laboratory experience. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electricity/electromechanical technology (1/79).

CG-1714-0006

Gunner's Mate, Class C

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 10 weeks (316 hours).

Exhibit Dates: 1/74–8/80.

Objectives: To provide advanced training in the use of antisubmarine warfare equipment, fire control, and 5' gun use.

Instruction: Course teaches administration and management of various ordnance systems and the operation, adjustment, and maintenance of weapons and associated equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/78).

CG-1714-0007

Gunner's Mate Advanced
(Gunner's Mate Advanced ADT)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (75 hours).

Exhibit Dates: 4/77–12/79.

Objectives: To improve the knowledge of reservists serving as first class gunner's mates.

Instruction: Course includes training in service, maintenance, and operation of various gunnery systems used by the Coast Guard.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/78).

CG-1714-0009

Gunner's Mate Second Class (GM2) by Correspondence

Course Number: *Version 1:* 229-4. *Version 2:* 229-3. *Version 3:* 229-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 104 weeks. *Version 3:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/85-Present. *Version 2:* 5/80-2/85. *Version 3:* 5/70-4/80.

Objectives: To provide personnel with the knowledge and skills to understand the operation and perform maintenance procedures on specific weapons and their components.

Instruction: *Version 1:* Provides instruction in DC electricity, electrical supply systems, fire control system electrical circuits, MK56 gun fire control system, safety, torpedo launching fire control equipment, torpedo loading and unloading, projectile hoist MK2, Browning .50 caliber machine gun, and the M60 machine gun. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* Provides instruction in basic electricity, hydraulic system components, the fuse setting, projectile hoist, the 5'/38 rammer machine gun, Browning .50 caliber machine gun, M60 machine gun, surface vessel torpedo tube MK32. Students are required to successfully complete a proctored end-of-course examination. *Version 3:* The nonresident course includes basic electricity, hydraulic system components, the fuse setting, projectile hoist, the 5'/38 rammer machine gun, surface vessel torpedo tube MK32. There is a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in DC circuits (5/85). *Version 2:* In the vocational certificate category, 2 semester hours in basic hydraulics, 2 in DC circuits (5/85). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic hydraulics, 2 in basic electricity (5/79).

CG-1714-0010

Electrician's Mate Second Class by Correspondence

(Electrician Mate Second Class by Correspondence)

Course Number: 219-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/77-8/82.

Objectives: Course requires student to study basic electrical and electronic principles and circuit theory as applied to synchro systems, AC and DC motors and generators as well as selected control and protection devices.

Instruction: This is a correspondence course with no formal laboratory experience required. Basic principles of AC and DC circuits as applied to electrical machines and their control and protective devices are included. Motor starters, protective relay equipment, magnetic amplifiers, synchros and transformers are covered in limited detail. Solid-state electronic amplifiers, regulated power supplies, and selected control and wave-shaping devices and circuits are presented. Course includes proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic theory (1/79).

CG-1714-0011

Electrician's Mate First Class by Correspondence

(Electrician Mate First Class by Correspondence)

Course Number: 119-3; 119-4; 119-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/77-Present.

Objectives: To present the procedures for maintenance and repair of motors and generators, and an introduction to digital computer concepts, terminology, and circuits.

Instruction: This correspondence course presents the procedures for the maintenance and repair of motors and generators including cleaning, removing and replacing bearings, commutators and slip rings, and testing. Also covered is an introduction to voltage and frequency regulators, power protective devices, and types of controllers, as well as an introduction to digital computer principles including number systems, Boolean algebra, logic gates, flip-flops, counters, registers, decoders and adders. The course requires a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical power theory (1/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics theory (1/79).

CG-1714-0012

Gunner's Mate First Class (GM1) by Correspondence

Course Number: 129-1; 129-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 3/74-1/90.

Objectives: To provide training for the second class gunner's mate to progress to first-class status.

Instruction: This nonresident course covers administration, planned maintenance systems, ammunition, explosives, electrical power system components, the General Electric drive, dual purpose gun, alignment, and fire control systems. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electricity, 2 in fundamentals of synchros, 1 in hydraulics (5/79).

CG-1714-0013

Gunner's Mate A School, Phase II (Advanced Electricity, 3"/50 Caliber Gun, 5'/38 Caliber Gun)

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 3-8 weeks (90-220 hours).

Exhibit Dates: 9/80-Present.

Objectives: To train personnel in advanced electricity as it pertains to two specific gun mounts.

Instruction: Lectures and practical exercises in troubleshooting and preventive maintenance of a particular gun mount including firing, lighting, heating, AC/DC circuits, magnetism, transformers, motors, generators and synchros. The 8 week version of this course includes electrohydraulic systems and drives.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, for those students completing the three week version of this course, 2 semester hours in basic electricity; for those completing the 8 week version, 2 semester hours in basic electricity and 1 in basic hydraulics (2/83).

CG-1714-0014

Aviation Electrician's Mate (AE) Class A Phase 1

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 12-13 weeks (426 hours).

Exhibit Dates: 12/82-Present.

Objectives: To provide training to fulfill requirements for advancement to Aviation Electrician Third Class (AE3).

Instruction: Topics include handling and servicing of aircraft; inspecting and maintaining aircraft electrical and instrument systems, including power generation, conversion, and distribution systems; interior lighting; electrical components of aircraft controls, including airframe, engine, propeller, and utility control starters; starting controls and ignition system components; aircraft engine, flight control instruments; instrument systems and non-instrument indicating warning systems, automatic flight control systems, flight director systems; testing and adjusting auxiliary electrical power units and test equipment; supervising the operation of aviation electrical shops.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft basic electricity, 3 in basic alternating current (AC) theory, 3 in introduction to electronics (6/85).

CG-1714-0015

HH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 3 weeks (110 hours).

Exhibit Dates: 1/81-Present.

Objectives: To provide training necessary to service, inspect, maintain, and repair the Automatic Flight Control System (AFCS), A/A24G-39 Heading Attitude Reference System, AN/AYN-2 Flight Director systems and associated aircraft subsystem.

Instruction: Topics include the operation of individual systems, subsystems, and modules; practical application in testing, using specified test equipment, calibration, necessary adjustments, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft electrical systems and automatic flight control system troubleshooting (6/85).

CG-1714-0017

Gunner's Mate Class A

Course Number: GMA.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 9 weeks (311 hours). *Version 2:* 11 weeks (370-380 hours).

Exhibit Dates: *Version 1:* 10/89-Present. *Version 2:* 6/86-9/89.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to solve basic electrical circuit problems, understand circuit symbols, read circuit diagrams, use a multimeter/DVM and megger. The student will be able to read and interpret fluid power circuit diagrams, do basic fluid power calculations utilizing Paxcal's Law, understand how fluid power circuits are constructed and understand the operating characteristics of fluid power components. The student will understand and will practice safety precautions when working on electrical and hydraulic circuits. *Version 2:* Upon completion of the course, the student will be able to solve basic electrical circuit problems, read circuit diagrams, use a multimeter and megger. In addition, the student will be able to read fluid power circuit diagrams, do basic calculation with Pascal's law, understand how fluid power circuits are constructed, and understand the operating characteristics of fluid power components.

Instruction: *Version 1:* The course is conducted using a combination of lectures, demonstrations, and video laboratories. The first part of the course covers basics of electriticy and fluid power. The second part is entirely oriented toward operation of weapons. *Version 2:* The course is conducted using a combination of lectures, demonstrations, and laboratories. The first part of the course covers basics of elctricity and fluid power. The second part is entirely oriented toward operation of weapons.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, 1 in fluid power (9/90) *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity with laboratory, 1 in basic fluid power (10/88).

CG-1714-0018

Electrician Mate Class A

Course Number: EMA.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 13 weeks (466 hours). *Version 2:* weeks (590-591 hours).

Exhibit Dates: *Version 1:* 10/88–Present. *Version 2:* 5/86–9/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to demonstrate an understanding of AC and DC circuits, including problem solving. The student will be able to use standard electrical test equipment and electrical troublshooting procedures; follow standard safety procedures, explain the use and function of resistors, inductors, capacitors, generating batteries, voltage regulators, motors, circuit protectors, and electrical lighting and power distribution. The student will be able to show a knowledge and use of electrical devices such as amplifier circuits, and gyrocompasses, and will be able to use basic hand tools, machine tools and wiring tools. *Version 2:* Upon completion of the course, the student will be able to demonstrate an understanding of DC and AC circuits, including problem solving. Student will be able to use standard test equipment and troubleshooting procedures, follow safety procedures, explain the use of resistors, inductors, capacitors, generating batteries, regulators, motors, circuit protectors, and electrical lighting and power distribution. The student will also be able to show a knowledge of electronic devices, amplifier circuits, and gyrocompasses, and will be able to use basic hand tools, machine tools, and wiring tools.

Instruction: *Version 1:* Lectures and practical exercises in AC/DC circuits, and applying Ohm's law and Kirchhoff's laws to simple series and parallel circuits with one source. Topics include: properties of resistors, inductors and capacitors; RL time constant and waveform response; simple RL, RF, and RLC circuit analysis using trig functions, phaser diagrams, and power computations; transformer construction, characteristics and operating types including 30 transformers; an in-depth analysis of AC/DC generators and motors including AC/DC controllers and starters; maintenance of shipboard power distribution panels and cable repair; characteristics of vacuum tubes, semiconductor diodes, gyroscope and synchro construction, operation, and maintenance; and maintenance procedures for shipboard motors, generators, and power distribution systems. *Version 2:* Lectures and practical exercises in AC/DC circuits, and applying Ohm's law and Kirchhoff's laws to simple series and parallel circuits with one source. Topics include: properties of resistors, inductors and capacitors; RL time constant and waveform response; simple RL, RF, and RLC circuit analysis using trig functions, phaser diagrams, and power computations; transformer construction, characteristics and operating types including 30 transformers; an in-depth analysis of AC/DC generators and motors including AC/DC controllers and starters; maintenance of shipboard power distribution panels and cable repair; characteristics of vacuum tubes, semiconductor diodes, gyroscope and synchro construction, operation, and maintenance; and maintenance procedures for shipboard motors, generators, and power distribution systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC and DC theory, 6 in AC and DC motors and generators (9/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC circuit theory, and 6 in AC/DC motors and generators (10/88).

CG-1714-0019

Small Boat Engineering

Course Number: SBE-(R).

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70-75 hours).

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will understand the principle of operation of electrical components on small engines (starters, generators, spark distributors and alarm systems) as well as motors and controls for dewatering pumps. Students will have mastered the use of electrical volt, current and resistance meters, to perform fault detection and repair service on the above equipment. Student will also be able to operate and maintain small gasoline and diesel engines.

Instruction: Half of the course is devoted to teaching the principles of operation of engine electrical components, starting with the most basic theory of electricity. The other half of the course is laboratory work on servicing and repairing this type of equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hours in electrical components for engines and ship alarms.

CG-1714-0020

Electrician Mate Advanced Reserve Active Duty for Training

Course Number: EM-ADV-(R).

Location: Reserve Training Center, Yorktown, VA.

Length: 1-2 weeks (70-73 hours).

Exhibit Dates: 4/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use basic electrical meters to measure voltage current insulation resistance, frequency, and rms values. The student will also be able to do basic AC/DC circuit analysis, decimal to binary conversions, and mathematical logic gates to truth tables.

Instruction: This course is taught by a combination of lecture and laboratory. Topics covered include use of meters, Ohm's law, electrical power, series/parallel circuits, troubleshooting for faulty electrical components, binary numbers, truth tables and logic gates.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (10/88).

CG-1714-0021

378 Class WHEC Control Systems Operation and Maintenance Class C

Course Number: EM-18.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, repair, and perform preventive maintenance on console cards for the main propulsion control systems for the 378 foot Coast Guard cutter.

Instruction: Lectures and practical exercises in component and logic symbols, console operating conditions and component troubleshooting of the main propulsion systems of the 378 foot class of Coast Guard cutter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in console card troubleshooting and repair (10/88).

CG-1714-0022

Aviation Electrician's Mate First Class (AE1) by Correspondence

Course Number: 101-4; 101-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the general procedures for aircraft receipt and transfer in accordance with Engineering Maintenance Manual, follow correct procedures for requesting manufacturing and/or open purchase of aeronautical equipment, select the correct type of quality assurance inspector, identify the limitations and capabilities of local repair and list the procedures for salvage and damage control of electronic components in accordance with accepted Coast Guard standards.

Instruction: The major topics covered are equipment purchase, quality control, salvage and damage control. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

CG-1714-0023

Electrician's Mate Second Class (EM3) by Correspondence

Course Number: 219-9; 219-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 9/82–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot shipboard power and lighting distributions systems, AC/DC motors and generators; explain the theory, operation, and application for the following: synchro systems, rotary amplifiers, magnetic amplifiers, and voltage regulators; use the oscilloscope to troubleshoot solid state and logic circuits; describe the procedures for testing electrical safety devices and control circuits.

Instruction: Topics include power and lighting distribution systems, theory and aplication of synchro systems, amplifiers, and regulators. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic theory (6/90).

CG-1714-0024

Electrician's Mate Third Class (EM3) by Correspondence

Course Number: 319-8.

Location: Coast Guard Institute, Oklahoma City, Ok.

Length: Maximum 104 weeks.

Exhibit Dates: 5/90–Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain small boat electrical systems, troubleshoot and perform preventative maintenance on motors and generators, explain the theory and application of transformers, use the VOM in circuit troubleshooting, select and install electrical cable for a particular application and describe the common danger encountered while working with electrical equipment.

Instruction: This correspondence course offers basic AC and DC electricity including series and parallel circuits, inductance, capacitance, and impedance, theory and maintenance of AC and DC motors and generators, transformers, and batteries. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electro/mechanical technology (6/90).

CG-1714-0025

Aviation Electrician's Mate Second Class (AE2) By Correspondence

Course Number: 201-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the operational function of test equipment provided for field level maintenance; procure test equipment, tools and materials using aircraft parts catalogs and supply forms; maintain shop files of technical publications, directives and manuals; list possible methods of reducing noise interference; replace aircraft wiring and associated hardware; identify the basic operating principles of aircraft heating and air conditioning systems; perform bench test procedures for aircraft flight control and stabilization systems; describe the basic principles and application of modulator, demodulator, signal discriminator circuits and power amplifier circuits.

Instruction: The major topics covered are field level maintenance, document maintenance, aircraft heating and air conditioning systems, bench test flight control and stablization systems. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in avionics instruments (6/90).

CG-1715-0001

Aviation Electronics Technician, Class A

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC; Aviation Repair and Supply Center, Elizabeth City, NC; Aircraft Repair and Supply Center, Elizabeth City, NC; Training Center, Groton, CT.

Length: *Version 1:* 27 weeks (878 hours). *Version 2:* 28 weeks (1000–1015 hours). *Version 3:* 16–31 weeks (513–994 hours).

Exhibit Dates: *Version 1:* 12/82–Present. *Version 2:* 2/70–11/82. *Version 3:* 12/65–1/70.

Objectives: To provide selected enlisted personnel with the understanding and knowledge necessary to fulfill the requirements for Aviation Electronics Technician, Third Class.

Instruction: *Version 1:* Topics include electronics fundamentals, theory of operation of airborne electronics systems, troubleshooting and testing of airborne electronics systems, and operating associated test equipment. *Version 2:* Electronics fundamentals; theory of operation of airborne electronics systems; troubleshooting and testing airborne electronics systems; operating associated test equipment. Lecture and testing (699 hours) and laboratory (281 hours) with approximately 70% of time devoted to electronics topics; remainder is devoted to military-specific subjects. *Version 3:* Electronics fundamentals; theory of operation of airborne electronics systems; troubleshooting and testing airborne electronics systems; operating associated test equipment. Lecture and testing (699 hours) and laboratory (281 hours) with approximately 70% of time devoted to electronics topics; remainder is devoted to military-specific subjects.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours toward a certificate in electronics technology (6/85); in the lower-division baccalaureate/associate degree category, 1 semester hour in theory of flight/aircraft performance, 9 in electronic fundamentals/introduction to electrical engineering (6/85); in the upper-division baccalaureate category, 2 semester hours in electricity and electronics (6/85). *Version 2:* In the vocational certificate category, 15 semester hours toward a certificate in electronics technology (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (9/77). *Version 3:* In the vocational certificate category, 21 semester hours for technical courses and 3 in mathematics (3/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity and electronics (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity and electronics (3/74).

CG-1715-0002

1. Telephone Technician A School
2. Telephone Technician A School
3. Telephone Technician School
4. Telephone Technician, Class A

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Governors Island, NY. *Version 4:* Training Center, Groton, CT.

Length: *Version 1:* 18–20 weeks (612 hours). *Version 2:* 12–14 weeks (497–540 hours). *Version 3:* 14 weeks (420 hours). *Version 4:* 21 weeks (777 hours).

Exhibit Dates: *Version 1:* 7/79–Present. *Version 2:* 12/75–6/79. *Version 3:* 12/72–11/75. *Version 4:* 12/64–11/72.

Objectives: To train enlisted personnel to perform as telephone technicians.

Instruction: *Version 1:* Lectures and demonstrations on the Model 28 teletype, key telephone system, Northern Telcom Pulse 120, two intercom systems and associated equipment including switchboards, telephone receivers and transmitters. Topics include the installation, maintenance and repair of the above equipment including terminology and block diagrams of AM, FM, and SSB transmission with the functional description of each subsystem, cable testing using a migger, Wheatstone Bridge and Time Domain Reflectometer to locate faults, cable characteristics and splicing procedures and practical exercises on installing poles, cross arms and climbing procedures. *Version 2:* A qualitative study of telephony with descriptions of telephone sets and associated equipment including: switchboards, public address and intercom systems, teletypewriter and radio teletype to include their installation, maintenance and repair. *Version 3:* Lectures and practical exercises in model 28/KSR/ASR teletypes; telephone line construction; cable splicing; switchboards; intercommunication systems; theory of telephony, and radio teletype. *Version 4:* Lectures and practical exercises in telephone repair and maintenance procedures, including background instruction in mathematics, electric circuits, electronics (vacuum tubes), and telephony.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in telecommunications systems (2/83). *Version 2:* In the vocational certificate category, 9 semester hours in telecommunication systems (8/78). *Version 3:* In the vocational certificate category, 9 semester hours in telecommunication systems (6/75). *Version 4:* In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

CG-1715-0003

Telephone Technician, Class B

Course Number: None.

Location: Training Center, Groton, CT.

Length: 25 weeks (925 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train enlisted personnel to operate and maintain specific telephone systems.

Instruction: Lectures and practical exercises in the maintenance of specific telephone systems, including DC and AC circuits, vacuum tubes and transistors, electronic circuits, telephone and telegraph systems (baseband and carrier), microwave radio, and operation of specific telephone systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity (12/68).

CG-1715-0004

AN/FPN-38 TIMER SYNCHRONIZER

Course Number: None.

Location: Loran-C School, Groton, CT; Electronics Engineering Station, Wildwood, NJ.

Length: 6 weeks (165 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train personnel to operate and maintain a specific Loran system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/FPN-38 Loran system, including components, circuitry, timing and divider action, and alignment procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0005

AN/FPN-41 TIMER

Course Number: None.

Location: Loran-C School, Groton, CT.

Length: 4 weeks (173 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to operate and maintain AN/FPN-41 timers.

Instruction: Lectures and laboratories in timing and signal handling; basic servo loops, including envelope and phase timing; troubleshooting procedures; and detailed maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0006

AN/SPN-29 RECEIVER

Course Number: None.

Location: Loran-C School, Groton, CT.

Length: 5 weeks (203 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train enlisted personnel to operate, maintain, and align AN/SPN-29 receivers.

Instruction: Lectures and laboratories in fundamentals of Loran-C and AN/SPN-29 receivers, and operation and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0007

LORAN A ENLISTED, CLASS C

Course Number: None.

Location: Training Center, Groton, CT.

Length: 4 weeks (141 hours).

Exhibit Dates: 8/66–12/68.

Objectives: To train technicians to perform maintenance on Loran transmitting stations.

Instruction: Lectures and practical exercises in Loran system maintenance, including Loran antennas and timer introduction; block diagram, voltage regulator, power supplies, oscillator, synchronizer control unit, frequency divider, time delay unit, radio receiver, electrical synchronizer and synchronizer indicator, oscilloscope, switchgear, transmitter and amplifier, and transmitting antenna coupler maintenance; watchstanding techniques; and Loran publications, reports, and forms.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0008

AN/SPN-30 RECEIVER

Course Number: None.

Location: Training Center, Groton, CT.

Length: 8 weeks (110 hours).

Exhibit Dates: 5/66–12/68.

Objectives: To train enlisted personnel to operate and maintain the Loran C and AN/SPN-30 receiver.

Instruction: Lectures and laboratories in Loran C and AN/SPN-30 receiver introduction; power supplies, servo loops, and automatic gain control loop; signal-handling section; alarm indication circuits; pulse rate and code group generators; and Loran indicator operation and maintenance techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0009

AN/FPN-46 MONITOR/TIMER
(AN/FPN-46 Timer)

Course Number: None.

Location: Loran-C School, Groton, CT.

Length: 4-5 weeks (170 hours).

Exhibit Dates: 11/62–1/90.

Objectives: To train enlisted personnel to operate, maintain, and align the AN/FPN-46 timer.

Instruction: Lectures and laboratories in AN/FPN-46 timer (Loran C system) operation, maintenance, and alignment, including Loran C system review; timing and signal handling; basic servo loops, master control unit, envelope control unit and phase control unit chassis, frequency divider unit, multipulse unit, switched attenuator, detector unit, and oscilloscope control unit familiarization; and alignment, testing, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-1715-0010

1. ELECTRONICS TECHNICIAN, CLASS A
   (Electronics Technician, A School)
2. ELECTRONICS TECHNICIAN, CLASS A
3. BASIC ELECTRONICS, CLASS A

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Groton, CT.

Length: *Version 1:* 17 weeks (512 hours). *Version 2:* 17 weeks (578 hours). *Version 3:* 24 weeks (888 hours).

Exhibit Dates: *Version 1:* 3/72–1/90. *Version 2:* 4/68–2/72. *Version 3:* 6/65–3/68.

Objectives: To train enlisted personnel to operate, maintain, and repair electronics equipment.

Instruction: *Version 1:* Lectures and practical exercises to include AC and DC circuit theory, vacuum tube and transistor electronics and communication principles and systems. *Version 2:* Lectures and practical exercises in electronic equipment circuit analysis, AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, AM/FM/SSB transmitters and receivers, VHF/UHF systems, servo systems, radar, Loran, sonar, fathometers, and test equipment operation, maintenance, and repair. *Version 3:* Lectures and practical exercises in electronic equipment circuit analysis, AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, AM/FM/SSB transmitters, VHF/UHF systems, servo systems, radar, Loran, sonar, fathometers, and test equipment operation, maintenance and repair with basic mathematics and physics and a more thorough coverage of electronic circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electronic circuit theory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic technology, 2 in electronic technology laboratory (6/75). *Version 2:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

CG-1715-0011

ELECTRONICS TECHNICIAN COMMUNICATIONS, CLASS A
(Basic Electronics, Class A)

Course Number: None.

Location: Training Center, Governor's Island, NY; Training Center, Groton, CT.

Length: 24 weeks (888–922 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train enlisted personnel to operate, repair, and maintain electronic communications equipment.

Instruction: Lectures and practical exercises in electronic communications equipment circuit and systems analysis, including AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, test equipment, electronics circuits, transmitters and receivers, VHF and UHF systems, servo systems, digital circuits, teletype, radio beacon, antennas and transmission lines, and computer mathematics. Basic Electronics, Class A course includes basic mathematics and physics, more electronic circuit theory, and less study of equipment.

Credit Recommendation: In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

CG-1715-0013

Ordnance Equipment, Class C

Course Number: None.
Location: Training Center, Groton, CT.
Length: 8 weeks (429 hours).
Exhibit Dates: 6/66-12/68.
Objectives: To upgrade knowledge and practical skills of fire control technicians and gunner's mates in specific Coast Guard ordnance, fire control, and antisubmarine warfare systems.
Instruction: Lectures and practical exercises in operation and maintenance of five-inch gun power drive, gun radar system, fire control systems, projectile hoists, loading systems, mounting systems, battery alignment, explosive demolition, 50 caliber machine gun, antisubmarine warfare devices, and 81mm mortar, and review of electricity and hydraulics.
Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electricity, 2 in basic hydraulics (6/75).

CG-1715-0014

AN/AYN-2, AN/ASN-50 Flight
Director and Gyrocompass
Systems Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 3 weeks (105 hours).
Exhibit Dates: 9/76-1/90.
Objectives: To train students to recognize, isolate, and correct malfunctions in AYN-2 Flight Director/ASN-50 Attitude Reference Systems, and to calibrate and perform preventive maintenance on the equipment.
Instruction: Course builds on previous electronics fundamentals training. Lectures and testing and laboratory work in the systems and specific test equipment, including a brief review of transistor and gyro fundamentals. Study beyond lecture/laboratory (73/29 hours) recommended but not required.
Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance (9/77).

CG-1715-0015

Aids to Navigation Mechanician

Course Number: None.
Location: Training Center, Groton, CT.
Length: 6 weeks (212 hours).
Exhibit Dates: 7/65-12/68.
Objectives: To train enlisted personnel in the installation, maintenance, repair, and shop overhaul of aids-to-navigation equipment.
Instruction: Lectures and practical exercises in basic concepts and theory of electricity including AC and DC fundamentals, AC and DC motors and generators, batteries, minor aid lenses and lanterns, lamp chargers, radio beacons, timers, and fog signals.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in maritime trades (navigational aids repair) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 3 in maritime trades (navigational aids repair) (6/75).

CG-1715-0016

Fire Control Mk 56 System, Class C
(Fire Control Technician, Class C)
(Gun Fire Control Systems (GFCS) MK-52 and MK-56)

Course Number: None.
Location: Training Center, Governors Island, NY.
Length: *Version 1:* 14 weeks (548 hours). *Version 2:* 13 weeks (355-469 hours). *Version 3:* 16 weeks.
Exhibit Dates: *Version 1:* 12/80-Present. *Version 2:* 1/77-11/80. *Version 3:* 9/73-12/76.
Objectives: To train personnel to operate and maintain a gun fire control system.
Instruction: *Version 1:* The course has a heavy emphasis on troubleshooting techniques, utilized on the following: fixed and mixed trigger circuits, gate circuits, pulse and trigger circuits, receiver and AFC circuits, range error and sense circuits, and tracking and angle error circuits. The course also covers radar operation, train amplifiers, amplidyne generators, filter, coast and switch smoothing circuits. *Version 2:* Course covers fixed and mixed trigger circuits, gate circuits, pulse and trigger circuits, receiver and AFC circuits, range error and sense circuits, and tracking and angle error circuits. Also includes radar operation and troubleshooting, train amplifiers, amplidyne generators, filter, coast and switch smoothing circuits. *Version 3:* Lectures and practical exercises in the operation, maintenance, and repair of a military gun fire control system, including information on the radar transmitter and receiver system, power systems, and a brief overview of fire control computers.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic circuit maintenance and troubleshooting (2/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (2/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics (8/78). *Version 3:* In the vocational certificate category, 1 semester hour in basic communications laboratory (6/75).

CG-1715-0017

Radarman, Class A

Course Number: None.
Location: Radarman, Class A School, Governors Island, NY.
Length: 18 weeks (450-540 hours).
Exhibit Dates: 7/72-10/79.
Objectives: To train personnel in the operation of a radar system aboard a Coast Guard cutter.
Instruction: Lectures and practical exercises in the use of radar in plotting and echo interpretation, radar operation and equipment, and specific techniques relating to shipboard operation of radar systems. Some sections of course dealing with Naval operations and communications are classified.
Credit Recommendation: In the vocational certificate category, 1 semester hour in basic radar use and operation (6/75).

CG-1715-0018

Clarinet Pilgrim

Course Number: None.
Location: Training School, Governors Island, NY.
Length: 3 weeks (90 hours).
Exhibit Dates: 9/72-12/81.
Objectives: To train personnel in the operation and maintenance of specialized military communication equipment.
Instruction: Lectures and practical exercises in the theory, operation, maintenance, and troubleshooting of special military communication systems including JK flip flop, shift registers, ring counters, signal selectors, digital data receivers, and specialized equipment related to the military system.
Credit Recommendation: In the vocational certificate category, 2 semester hours in basic communications laboratory (6/75).

CG-1715-0019

1. Aviation Electronics Technician Class C AN/ARC-94
(AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler)
2. Avionics Equipment, Class C, AN/ARC-94

Course Number: None.
Location: Aircraft Repair and Supply School, Elizabeth City, NC.
Length: *Version 1:* 4-5 weeks (140-153 hours). *Version 2:* 3 weeks (98 hours).
Exhibit Dates: *Version 1:* 2/76-10/80. *Version 2:* 1/73-1/76.
Objectives: To train personnel in the operation, maintenance, and repair procedures of a high-frequency communication transceiver.
Instruction: *All Versions:* Lectures and practical exercises in the specific circuitry and modules associated with specific military communication equipment. *Version 2:* Includes 490 T HF communications systems and antenna coupler.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic communication laboratory (9/77). *Version 2:* In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0020

Avionics Equipment, Class C,
AN/ARN-79

Course Number: None.
Location: Aircraft Repair and Supply School, Elizabeth City, NC.
Length: 2 weeks (65 hours).
Exhibit Dates: 1/73-Present.
Objectives: To train personnel to operate, maintain, and repair a military electronic altimeter.
Instruction: Lectures and practical exercises in the specific modules used in a military altimeter along with specific test equipment used in maintenance and repair.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-1715-0021

Avionics Equipment, Class C,
AN/ARN-52(V)

Course Number: None.
Location: Aircraft Repair and Supply School, Elizabeth City, NC.
Length: 3 weeks (98 hours).
Exhibit Dates: 1/73-1/90.

Objectives: To provide personnel with background needed to operate, maintain and repair a specific navigation system.

Instruction: Lectures and practical exercises in the subsystems associated with a specific navigation system including block diagram analysis, IF amplifiers, RF amplifiers, and testing of components with special test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0022

Avionics Equipment, Class C,
AN/ARC-51A

Course Number: None.

Location: Aircraft Repair and Supply School, Elizabeth City, NC.

Length: 2 weeks (65-75 hours).

Exhibit Dates: 1/73-12/80.

Objectives: To train personnel to operate, maintain, and repair an ultra high frequency communication transceiver.

Instruction: Lectures and practical exercises in the basic modules used in a military communication transceiver using specific military test equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-1715-0023

Loran Officers Indoctrination

Course Number: None.

Location: Training Center, Groton, CT.

Length: 3 weeks (106 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To qualify personnel to perform supervisory duties and to operate and maintain Loran communication stations.

Instruction: Lectures and practical exercises in the operation of Loran transmitters and receivers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0024

Class C AN/AYN-1 Maintenance
(AN/AYN-1 Navigation Computer Systems Class C)

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 6-7 weeks (210-231 hours).

Exhibit Dates: 9/76-1/90.

Objectives: To provide specialized training in the theory and maintenance of the AN/AYN-1 navigational computer so that the graduate will be able to operate, troubleshoot, test and maintain the equipment.

Instruction: Students will obtain basic instruction in digital computer systems, including introduction to number systems, binary arithmetic, Boolean algebra, logic and machine language programming, and to train them to interpret outputs and troubleshoot the AYN-1 navigational computer system. Lectures and testing (170 hours) and laboratory (40 hours), with about 80 percent of the lecture and 25 percent of the laboratory work on general, real-time computing systems. Concentration is on block-diagram, signal-processing approach, including basic electronics circuits. Study beyond lecture/laboratory work suggested but not required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer fundamentals, 1 in avionics maintenance (9/77).

CG-1715-0025

AN/APN-195 Weather Radar Systems
Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 3 weeks (105 hours).

Exhibit Dates: 9/76-1/90.

Objectives: Course is designed to teach theory, operation, and maintenance of special radar equipment used by this service agency.

Instruction: Instruction is on weather radar systems, with emphasis on basic theory, power distribution, and transmitting and receiving systems; instruction includes introduction to solid-state theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in specialized programs in meteorology and/or tower operation (9/77).

CG-1715-0026

AN/APN-171 Radar Altimeter System
Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/76-1/90.

Objectives: To teach the fundamentals and theory of radar altimeters in order to improve maintenance and repair techniques.

Instruction: Course provides hands-on instruction to accomplish the above objectives.

Credit Recommendation: In the vocational certificate category, 1 semester hour in a specialized program in navigation and/or control tower operation (9/77).

CG-1715-0027

AN/APN-175 Doppler Radar,
Navigation

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC. Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 4 weeks (130-147 hours).

Exhibit Dates: 9/76-3/83.

Objectives: To train students to service AN/APN-175 Doppler radars.

Instruction: Course will give students an understanding of the Doppler principle in navigation and provide them with practical experience in the operation and troubleshooting of this navigation equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

CG-1715-0028

AN/APN-180 Loran A Navigation
System Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 9/76-1/90.

Objectives: Course provides an understanding of the theory and operation of the AN/APN-180 Loran navigational system.

Instruction: Course covers the study of logic circuits, operational amplifiers and waveforms, and the analysis of timing and logic diagrams of the specific Loran navigational system. A review of transistors and integrator circuits is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in engineering technology (9/77).

CG-1715-0029

ARC-160 Communications System
(AN/ARC-160 Communications System)
(Class C Aviation Electronics Technician
AN/ARC-160)

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 3 weeks (93-125 hours).

Exhibit Dates: 12/76-1/90.

Objectives: To train students to troubleshoot, adjust, and maintain AN/ARC-160 VHF-FM radio receiver sets.

Instruction: Course builds on previous electronic training. Lecture and testing (76 hours) and laboratory (28 hours) provides review of the theory of logic circuits, number systems, and binary arithmetic, and presents current applications of conventional (CRO, VOR, signal generation and frequency countermeasures) and specialized test equipment for alignment and adjustment. Study beyond lecture/laboratory suggested but not required.

Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance (9/77).

CG-1715-0030

AN/SPS-66 Maintenance and Repair,
Class A

Course Number: NAV12.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 4/78-1/90.

Objectives: To train entry-level technicians to perform the maintenance of the AN/SPS-66 radar set.

Instruction: Topics include set operation and fault indications; system block diagram and functional description of the set and its subassemblies; alignment procedures; isolation of malfunctions to faulty chassis components, wiring problems, or a faulty non-field repairable subassembly. More than 50 percent of time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0031

Aviation Electronics Technician,
Second Class, (AT2) by
Correspondence

Course Number: *Version 1:* 203-5. *Version 2:* 203-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 9/83-Present. *Version 2:* 10/77-8/83.

Objectives: To provide an overview of safety, administration, corrosion, and hardware in addition to basic electronics theory.

Instruction: *Version 1:* Training is provided in basic oscilloscope and octopus, solid state components, corrosion control, troubleshooting, safety, first aid, general aircraft hardware, publications, management, and administration. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* This correspondence course contains the general safety precautions to be taken when working with mechanical and electrical equipment including basic first aid. Technical information presented includes aircraft corrosion and control, aircraft hardware, and basic electronics theory of amplifiers, oscillators, solid-state components and special circuits. This course presumes knowledge in mathematics, basic a/c and d/c electricity for successful completion. Course has proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics and specialized corrosion control as related to electronic equipment (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of electronics (1/79).

CG-1715-0032

Aviation Electronics Technician,
First Class, by Correspondence

Course Number: 0103; 103-6; 103-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 3/84–8/86. *Version 2:* 6/77–2/84.

Objectives: To provide training in basic electronics and administration for the aviation electronics technician, first class.

Instruction: *Version 1:* Topics include fundamentals of microelectronics, binary logic, advanced binary logic, binary math, aircraft maintenance management systems, aircraft inspections, and aircraft maintenance records. Students are required to successfully complete a proctored final examination. *Version 2:* This correspondence course contains the basic theory and characteristics of synchros and their systems, transistors and their circuits, and the operation and construction of solid-state power supplies. Course further details aircraft management systems and offers a mathematics review. There is a proctored end-of-course examination. This course does not have any prerequisites, however, student must have a background in basic a/c and d/c electricity, algebra,and trigonometry.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamental electronics (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of electricity. Recommendation is for theory knowledge only (1/79).

CG-1715-0033

Sonar Technician Second Class by
Correspondence

Course Number: 243-2; 243-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 5/84–11/87. *Version 2:* 8/75–4/84.

Objectives: Course presents responsibilities of a military technician in the operation and maintenance procedures of specific military equipment.

Instruction: *Version 1:* Course presents safety procedures, operating controls, antisubmarine warfare procedures and operator preventive maintenance for sonar equipment. The course also covers general principles of transducers/hydrophones and underwater acoustics. Coast Guard administrative procedures are also covered. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* This correspondence course outlines the responsibilities of a sonar technician and studies operations for various tactical situations. Briefly reviews electronics, mathematics, transistors, amplifiers, logic circuits, and maintenance procedures in specific military equipment. There is a brief introduction to synchros, servos and resolvers. A proctored end-of-course examination is required.

Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (12/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics theory (1/79).

CG-1715-0034

Sonar Technician First Class by
Correspondence

Course Number: *Version 1:* 143-2. *Version 2:* 143-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 2/81–Present. *Version 2:* 10/73–1/81.

Objectives: To provide experienced sonar technicians with supervisory training required for advancement to first class technician status.

Instruction: *Version 1:* Course provides training in the supervision of sonar operators, antisubmarine warfare organization and operations, sonar contact classification, evasive devices and casualty procedures, MK torpedo systems and sonar domes and transducers. Students are required to successfully complete a proctored end-of-course exam. *Version 2:* This correspondence course covers operating procedures and definitions of terms for specific military equipment. The introduction to semiconductor devices includes the zener diode, SCR, and junction transistors. Methods of biasing, circuit configurations, and the operation of amplifiers are covered. Characteristics of the unijunction and field-effect transistor along with circuits operations applications are presented. Introduction to pulse and switching circuits, IC's, methods of handling and testing FET's and IC's, and printed circuits are covered. This course includes a proctored end-of-course examination.

Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (5/85). *Version 2:* In the vocational certificate category, 2 semester hours in electronics theory (1/79).

CG-1715-0035

Fire Control Technician Second Class
by Correspondence

Course Number: *Version 1:* W227. *Version 2:* 227-7; 227-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 6/83–9/86. *Version 2:* 10/74–5/83.

Objectives: To provide training in the operation, troubleshooting and maintenance of specific fire control systems, problems and procedures.

Instruction: *Version 1:* Course covers safety precautions, ordnance safety, maintenance, troubleshooting and repair of gun fire control systems MK56 Mod 43 and MK92 Mod 1. Also included are sound powered telephones, administration and ballistics.There is a proctored final examination. *Version 2:* Course provides an explanation of ordnance administration, electrical distribution symbols, fire control problems, procedures for mechanical alignment, and maintenance of specialized military equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical system maintenance and repair (5/85). *Version 2:* Credit is not recommended because of military-specific nature of the course (5/81).

CG-1715-0036

Fire Control Technician First Class
by Correspondence

Course Number: 127-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/75–9/86.

Objectives: To present solid-state devices and testing procedures, servo systems, gyro devices, antenna principles, and microwave components as they pertain to fire control radar and basic analog and digital computers.

Instruction: This is a correspondence course that does not require a formal laboratory. Course covers theory and testing procedures on solid-state components, generating and shaping circuits and basic digital systems. Operating characteristics of analog and digital computers including electrical, electronic, mechanical, and electromechanical computing devices are covered. Open and close 100p servosystems, gyros, antenna principles, and microwave components are also studied. Course includes a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics theory, 1 in electromechanical theory (1/79).

CG-1715-0037

Electronics Technician Second Class
by Correspondence

(Electronic Technician Second Class by
Correspondence)

Course Number: 221-6; 221-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 10/77–Present.

Objectives: To teach fundamentals of electronics.

Instruction: Course includes topics in the general operation of solid state diodes, transistors, unifunction transistors, field effect transistors, silicon controlled rectifiers, and special semiconductor devices. An introduction to computer systems includes number systems, Boolean algebra, logic gates, counters, registers, decoders and adders. The basic theory of operation of an oscilloscope and the interpretation of cathode ray tube oscillograms are presented. The study of cable installation and termination includes cable routing and securing coaxial cable, military specification connectors and connector soldering procedures. Students may supplement course study with hands-on training on the job. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electronics theory (5/85).

CG-1715-0038

Electronics Technician First Class (ET1) by Correspondence

(Electronic Technician First Class by Correspondence)

Course Number: *Version 1:* 121-6; 121-7. *Version 2:* 121-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 10/81-Present. *Version 2:* 2/77-9/81.

Objectives: To present the theory of electromagnetic interference effects, digital electronics, digital troubleshooting techniques and the Coast Guard paperwork system.

Instruction: *Version 1:* Course includes electromagnetic interference as related to radio and radar receivers and transmitters; digital logic elements such as gates, flipflops, registers, counters, adders, and decoders; digital troubleshooting methods; and Coast Guard formats for memoranda, messages and letters. Students are required to successfully complete a proctored end-of-course examination. Students may supplement course study with hands-on experience on the job. *Version 2:* This correspondence course teaches the theory of operation of vacuum tubes and transistors and their applications in audio and RF amplifiers, oscillators and wave shaping circuits. A study of these methods of coupling and of frequency compensation for amplifiers, DC amplifiers, phase inverters, sawtooth generators, blocking oscillators, limiting circuits, multivibrators, clamping circuits. Differentiating and integrating circuits and delay lines and covered. An introduction to the terms and sources of electromagnetic interference ; methods and circuits for suppressing interference in radio and radar equipment are given. The theory of operation and use of various electronics test equipment including VTVM's transistorized voltmeters, digital voltmeters, differential voltmeters, phase-angle meters, bridge measurement instruments frequency meters, curve tracers, oscilloscopes, and probes are covered. Course contains a study of solid-state power supplies including DC-to-DC convertors, series and shunt voltage regulators, constant-current, and current-limited regulators. Also presented are theories of operation of AM, SSB, and FM communications systems; a study of modulation techniques; an introduction to trouble shooting charts to repair transmitters and receivers and to permit the student to gain familiarity with procedures for the alignment of FM receivers. No formal laboratory experience is required. There is a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics theory (1/79).

CG-1715-0039

HH-3F Avionicsman by Correspondence

Course Number: 442-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/76-12/86.

Objectives: To provide standardized speciality training on the HH-3F helicopter.

Instruction: This correspondence course is designed to enable the student to explain flight preparation, inflight, and postflight duties; describe standardized search and rescue procedures; explain the operation of the mechanical, communication, and navigational systems; and describe the electronics flight aids.

Credit Recommendation: Credit is not recommended due to the limited nature of the training (1/79).

CG-1715-0040

HC-130 Avionicsman by Correspondence

Course Number: 444-3; 444-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 10/84-12/86. *Version 2:* 9/77-9/84.

Objectives: To provide a standard special introduction of the avionics systems to an avionicsman training candidate.

Instruction: *Version 1:* Course includes the mechanical area: familiarization with powerplants and propellers, ground handling and servicing, hydraulic powered flight controls and landing gear system, brake and fuel systems. In the avionic area: general communications to include null field static discharge wicks, intercommunication, PA systems, VHF and UHF communication systems and teletypewriter. Students are required to successfully complete a proctored final exam. *Version 2:* This correspondence course includes descriptions of the mechanical, communications, navigational, and electronic flight aids systems that pertain to HC-130 aircraft.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in aircraft systems and ground handling, 1 in operation of communications, navigation and electronic flight aids (12/86). *Version 2:* Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1715-0041

Automated Aids Electronics Maintenance Class C

(Automated Aids to Navigation Electronics Maintenance)

Course Number: ANC-6.

Location: Training Center, Governors Island, NY.

Length: 5 weeks (130-200 hours).

Exhibit Dates: *Version 1:* 7/81-12/85. *Version 2:* 3/77-6/81.

Objectives: To provide practical training in the maintenance of the lighthouse automation and modernization program (LAMP) monitor and control equipment.

Instruction: *Version 1:* Lectures and laboratory exercises in the operation and theory of automatic monitor equipment, including power supplies radar beacon systems and buoy lighting systems. The emphasis is on learning to maintain, troubleshoot and repair automated aids, to the board or component level, using applicable technical manuals. *Version 2:* The course prepares technicians to operate, maintain, troubleshoot, and repair various subsystems of the automated lighthouse system. Topics include electronics logic, controls, radio links, and power generation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic systems laboratory (2/83).There is a proctored final examination required. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automated electrical systems (8/78).

CG-1715-0042

Basic Minor Aids To Navigation

(Basic Minor Aids to Navigation Maintenance Class C)

Course Number: ANC-3.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (57-80 hours).

Exhibit Dates: 9/74-12/84.

Objectives: To provide practical training in the maintenance of 12-volt DC minor-aid systems.

Instruction: Students are instructed in the use of DC electrical meters and familiarized with various lamps which they assemble, adjust, and troubleshoot.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/83).

CG-1715-0043

Common Basic Electronics Training (COBET)

(Electronics Fundamentals)

(Basic Electronics)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: *Version 1:* 14 weeks (420 hours). *Version 2:* 12 weeks (476 hours).

Exhibit Dates: *Version 1:* 9/77-1/90. *Version 2:* 12/72-8/77.

Objectives: To teach the basics of electronics maintenance, troubleshooting, and repair fundamentals to personnel with no prior background, in preparation for more specialized courses.

Instruction: *Version 1:* A qualitative series of subcourses stressing language component identification, functional description of equipment, and minor troubleshooting procedures of components. Topics covered include power supplies, amplifiers, generators, logic circuits, and single sideband and FM principles. *Version 2:* A qualitative series of modules stressing electronic definitions, component identification, functional descriptions, test equipment usage (oscilloscopes, tone generators, multimeters, and RF wattmeters), description of transistors, rectifiers, vacuum tubes, capacitors and inductors, block diagram descriptions of transistors and receivers, troubleshooting and repair procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronic maintenance (8/78); in the lower-division baccalaureate/associate degree category, 3 semester hours in survey of electronics (8/78). *Version 2:* In the vocational certificate category, 6 semester hours in basic electronic fundamentals (2/83).

CG-1715-0044

Radar Fundamentals

Course Number: NAV11.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (50 hours).

Exhibit Dates: 4/78–1/90.

Objectives: To train technicians in basic radar theory in preparation for further training on specific radar systems.

Instruction: Primarily a course on radar principles, devices and test equipment; course includes power and frequency checks, timing and synchronization, and block diagrams. Some laboratory experience is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar fundamentals (9/78).

CG-1715-0045

AN/SRC-21 Radio Set

Course Number: COMO5.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (81 hours).

Exhibit Dates: 3/77–1/90.

Objectives: To train electronics technicians to perform preventive maintenance and repair on the AN/SRC-21 radio set in accordance with its technical manual.

Instruction: Topics covered include system capabilities and description; functional description of system subassemblies; maintenance and alignment procedures; troubleshooting procedures. Over 50 percent of the time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/78).

CG-1715-0046

Advanced Minor Aids to Navigation Maintenance

(Advanced Minor Aids to Navigation, Class C)

Course Number: ANC-2.

Location: Training Center, Governors Island, NY.

Length: *Version 1:* 6 weeks (229 hours). *Version 2:* 5 weeks (142 hours).

Exhibit Dates: *Version 1:* 8/81–2/88. *Version 2:* 4/73–7/81.

Objectives: To train enlisted personnel in the maintenance of minor navigational aid systems, piloting, and minor-aid construction.

Instruction: Instruction is given in operation, troubleshooting, and maintenance of minor aids, beacons, buoys, and sound signals; bouy tender operations encompassing bouy deck procedures, bouy positioning techniques, piloting and safety; and minor-aid construction. After 3/88, see CG-1715-0131.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electricity (2/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic seamanship or 1 in basic navigation (2/83). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in maritime trades (navigation) (8/78).

CG-1715-0047

Communications Systems, Class C

Course Number: COMO6.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/77–1/90.

Objectives: To train electronics technicians to operate, maintain, and repair a radio teletype communications system.

Instruction: Course content includes lectures and laboratory exercises (approximately 50 percent) on the operation and maintenance of the teletype, patch panels, teletype control, teletype converter, radio and MF transmitter. Failure diagnosis and repair procedures are also included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio teletype communications or electromechanical technology (8/78).

CG-1715-0048

CDFO-5000, Class C

Course Number: LOR-13.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (115–120 hours).

Exhibit Dates: 9/77–1/90.

Objectives: To train electronics technicians to perform preventive and corrective maintenance on the CDFO-5000 Loran system in accordance with a designated set of manuals.

Instruction: Training will consist of lectures on the equipment components and functions, practical exercises in operation, alignment and adjustment of the system. The student will troubleshoot instructorinserted faults according to manuals.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0049

AN/SPS-29D Radar Systems Class C

(AN/SPS-29 Maintenance and Repair, Class C)

Course Number: NAV05.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (109–111 hours).

Exhibit Dates: *Version 1:* 8/81–Present. *Version 2:* 7/78–7/81.

Objectives: To train electronics technicians in the maintenance and repair of a specific air-search radar system in accordance with its technical manuals.

Instruction: *Version 1:* Lectures on equipment components and their function and practical exercises in the operation, alignment and troubleshooting of equipment with instructor inserted faults. Electronics theory is offered on an "as needed" basis. *Version 2:* Course topics include review of radar fundamentals, functional description of the overall system, the pulse generator, modulator, exciter, driver, power amplifier, duplexer, receiver, ranging, monitoring, power supplies, liquid cooler, and compressor dehydrator function. The antenna system is also covered. Testing and troubleshooting procedures using the oscilloscope are emphasized. Over 50 percent of the time is devoted to laboratory work on the system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in radar service and maintenance (2/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (9/78).

CG-1715-0050

Class C Mark 10/IFF Maintenance and Repair

Course Number: NAV06.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/78–1/90.

Objectives: To train electronics technicians in the maintenance and repair of a shipboard identification-friend-or-foe (IFF) system in accordance with its technical manuals.

Instruction: Topics covered include IFF principles, a functional description of the system and its subassemblies, and the use of radar test sets and the oscilloscope in aligning and troubleshooting the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics (9/78).

CG-1715-0051

AN/SPS-64(V) -1,2,3,4 Radar

Course Number: NAV09.

Location: Training Center, Governors Island, NY.

Length: 4 weeks (135 hours).

Exhibit Dates: 7/78–1/90.

Objectives: To train electronics technicians to maintain and repair a surface-search navigational radar system.

Instruction: Topics covered include a review of basic radar principles and digital logic, system configuration, operator controls, and a functional description of the modulator-receiver-transmitter, antenna, and azimuth range indicator subsystems. Data converters, interface units, and the antenna servomechanisms are also covered. Testing and troubleshooting of the system is stressed. Over 50 percent of allocated time is spent in laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications systems (9/78).

CG-1715-0052

AN/URC-77 Maintenance and Repair

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/78–1/90.

Objectives: To train technicians to perform preventive and operational maintenance on a representative transceiver in accordance with its manual.

Instruction: When taken in conjunction with AN/SRC-42(V) Radio Set, this course presents a qualitative coverage of radiotelephone procedures, SSB/AM theory, receiver and transmitter specifications, block diagrams and circuits. Signal tracing, testing tuning, and troubleshooting of both the receiver and transmitter of a representative AM/SSB radio set are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, when taken in conjunction with AN/SRC-42(V) Radio Set (see CG-1715-0053), 2 semester hours in communications equipment servicing (9/78).

CG-1715-0053

AN/SRC-42(V) Radio Set

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/78–1/90.

Objectives: To train technicians to perform preventive maintenance and repair on a representative AM/SSB radio set according to its manual.

Instruction: When taken in conjunction with AN/URC-77 Maintenance and Repair, this course presents a qualitative coverage of radiotelephone procedures, SSB/AM theory, receiver and transmitter specifications, block diagrams, and circuits. Signal tracing, testing, tuning and troubleshooting of both the receiver and transmitter of a representative AM/SSB radio set are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, when taken in conjunction with AN/URC-77 Maintenance and Repair, 2 semester hours in communications equipment servicing (9/78).

CG-1715-0054

AN/SPS-57 MAINTENANCE AND REPAIR, CLASS A

Course Number: NAV02.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (65 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To train electronics technicians to perform preventive and operational maintenance on the AN/SPS-57 radar set based on the technical manual.

Instruction: Topics include functional description of the system and its subunits including its capabilities and specifications, alignment procedures; fault isolation (on a faulty nonfield repairable subassembly) using a multimeter oscilloscope and the manual. More than 50 percent of the time is spent on laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0055

AN/UPN-23 LORAN A RECEIVER, CLASS A

Course Number: NAV03.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (56 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To train electronics technicians to operate and troubleshoot the AN/UPN-23 Loran-A receiver in accordance with its technical manual.

Instruction: Topics covered include basic Loran-A theory; functional description of the AN/UPN-23; operation, alignment, and troubleshooting procedures for the AN/UPN-23 More than 50 percent of time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0056

FATHOMETERS

Course Number: NAV04.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 7/78-1/90.

Objectives: To train entry-level electronic technicians to perform the preventive maintenance and repair of fathometers AN/SQN-13, AN/UQN-1H, and AN/UQN-4 in accordance with their technical manuals.

Instruction: Topics covered include basic principles of sonar; specifications, capabilities, and functional description of each of the cited fathometers; alignment of a fathometer; isolation of equipment malfunctions using appropriate test equipment and the technical manual. More than 50 percent of the time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0057

CCI-611 AND MOTOROLA TRITON VHF-FM TRANSCEIVERS

Course Number: COMO2.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To train technicians to perform preventive maintenance and repair on the CCI-611 and Motorola Triton VHF-FM transceiver.

Instruction: Course provides a qualitative coverage of the basic FM transceiver, its block diagram, and a functional description of its subassemblies. Practical troubleshooting methods, component repair, alignment and preventive maintenance procedures are stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communications equipment servicing (9/78).

CG-1715-0058

AN/URT-23 AND AN/URA-38
(AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group)

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (75 hours).

Exhibit Dates: 3/78-1/90.

Objectives: To train electronics technicians in the maintenance and repair of the AN/URT-23 and AN/URA-38 transmitter/antenna system based on the manuals for this system.

Instruction: Topics covered include: nomenclature and functional description of all components of the transmitter and antenna servo system; system operation, block diagram and signal flow; testing alignment procedures; troubleshooting and repair procedures. Approximately 50 percent of instructional time is spent in laboratory work on the system.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-1715-0059

LORAN-C JOURNEYMAN

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 4-5 weeks (160 hours).

Exhibit Dates: 1/76-1/90.

Objectives: To prepare electronic technicians in the principles of operation of Loran equipment with specific emphasis on maintenance, repair, and operation of the AN/FPN 39,42, and 44.

Instruction: Course is a combination course consisting of LORO 5, 6, and 7: Loran-C System, Loran Replacement Equipment, and Apprentice FPN-39 or FPN 44/45 Transmitter. Instruction emphasizes operation and maintenance, trouble identification, and preventive maintenance of specialized equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-1715-0060

LORAN-A APPRENTICE, CLASS A

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 8 weeks (276 hours).

Exhibit Dates: 6/76-1/90.

Objectives: To instruct technicians in the principles of operation of Loran-A systems and to train them in the preventive and corrective maintenance of Loran-A timing, transmitting, and replacement equipment.

Instruction: Course is a combination of Coast Guard courses numbered LORO1, LORO2, LORO3, and LORO4 entitled Loran-A Systems; FPN-30 Timer; Transmitters, Amplifiers and Switching Equipment; and Loran-A Replacement Equipment (LARE). Course offers principles of operation operation of each unit and their integration into the Loran-A system. Students are taught to troubleshoot system malfunctions and to repair or replace defective circuit boards or components as well as to perform preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment servicing (8/78).

CG-1715-0061

FUNDAMENTALS OF ELECTRONICS BY CORRESPONDENCE

Course Number: 472-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 8/78-9/82.

Objectives: To provide a basic coverage of mathematics and electrical circuit theory from which the student is able to progress into a limited study of semiconductor devices and fundamental electronic circuits.

Instruction: This correspondence course presents basic mathematics from addition and subtraction to algebra and elementary trigonometry. AC and DC circuits are covered to a limited degree from Ohm's Law to polyphase circuits and transformers. Basic electronic circuits such as rectifiers, transistor amplifiers, oscillators, and wave shapers are presented to a limited degree. No formal laboratory experience is required. Course has a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics theory (1/79).

CG-1715-0062

JUNIOR OFFICER ELECTRONIC INDOCTRINATION BY CORRESPONDENCE

Course Number: 405-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 12/73-6/80.

Objectives: To train the junior officer in the duties of an electronic material officer.

Instruction: This correspondence course provides a brief introduction to wave propagation, electronic aids to navigation, and an introduction to electronic administration for a shipboard electronic department.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (1/79).

CG-1715-0063

TELEPHONE TECHNICIAN SECOND CLASS (TT2) BY CORRESPONDENCE

Course Number: *Version 1:* 245-6. *Version 2:* 245-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 12/81–Present. *Version 2:* 5/78–11/81.

Objectives: To teach telephone technicians to install, operate and repair communications and terminal equipment.

Instruction: *Version 1:* Course contains volumes 2 and 6 of "Lee's ABC of the Telephone" covering station wiring, station carrier equipment, signaling, power requirements, noise, installation and maintenance, and troubleshooting. Additional topics include Model 28 and Model 40 teletypes, oscilloscopes, as well as cable installation and termination. Students are required to successfully complete a proctored end-of-course examination. Students may supplement course study with hands-on experience on the job. *Version 2:* This correspondence course offers an introduction to the basic principles of step-by-step, cross bar, and electronic switching systems. Student will become familiar with procedures for the installation and repair of telephone cables, inside and outside equipment, carrier equipment, public address and intercom systems, and teletypewriters. Course includes a proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in telephone and teletype theory and installation (5/85). *Version 2:* In the vocational certificate category, 3 semester hours in telephony theory (1/79).

CG-1715-0064

CLOSED CIRCUIT TELEVISION SYSTEMS BY CORRESPONDENCE

Course Number: 408-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 1/76–6/80.

Objectives: To teach the operation, maintenance and repair of closed circuit television units including monitor/receivers, cameras, and video recorders.

Instruction: This correspondence course presents an introduction to the theory of operation and maintenance of television equipment. Course includes basic fundamentals of the television camera and video recorder, a study of television standards, the composite video signal, and the transmitter and receiver circuits. Student will observe malfunctions using picture tube indications and analyze problems to specific components by use of a television schematic. Course has a proctored end-of-course examination; no formal laboratory experiences are required.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio/television theory (1/79).

CG-1715-0065

RADAR THEORY AND MAINTENANCE BY CORRESPONDENCE

Course Number: 473-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 4/77–5/79.

Objectives: To provide introduction to the principles of microwave techniques.

Instruction: This correspondence course presents the principles of microwave propagation and antennas, waveguides, cavity resonators, velocity-modulated tubes, magnetrons and traveling wave tubes. Course also includes an introduction to radar circuits, duplexers, TR and ATR tubes, ferrites, echo boxes, directional couplers and the measurement of power and standing-wave ratios. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (1/79).

CG-1715-0066

ADVANCED ELECTRICAL/ELECTRONICS (Advanced Electrical Electronics)

Course Number: EM-17.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 14 weeks (482 hours). *Version 2:* 12 weeks (420 hours).

Exhibit Dates: *Version 1:* 2/81–1/87. *Version 2:* 3/78–1/81.

Objectives: To train qualified enlisted electrician's mates in the theory, analysis, and repair of solid state electrical/electronic shipboard control systems.

Instruction: Lectures and practical exercises in integrated circuit operational amplifiers, magnetic amplifiers and uses of modern electronic test instruments. Review of mathematics, beginning algebra, and theory of AC and DC electrical circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in technical math, 3 in logic devices and control modules, 4 in solid state amplifiers and control circuits and 2 in introduction to electricity and electronics (7/84). *Version 2:* In the vocational certificate category, 1 semester hour in basic mathematics (12/79); in the lower-division baccalaureate/associate degree category, 4 semester hours in solid state amplifier and control circuits, 3 in logic devices and control modules, 2 in introduction to AC and DC electricity (12/79).

CG-1715-0067

RESERVE RADIOMAN CLASS C

Course Number: None.

Location: Training Center, Petaluma, CA.

Length: 2 weeks (79 hours).

Exhibit Dates: 1/80–1/90.

Objectives: To improve the skill level of reserve radiomen to operate a telecommunications station.

Instruction: Lectures and practical exercises to update radiomen in the operation of field receivers and transmitters, Morse Code, teletype operations, improved typing practice, and basic communications and message traffic handling.

Credit Recommendation: Credit is not recommended because of the refresher nature of the course (8/80).

CG-1715-0068

TEMPEST MODEL 40 TELETYPE, CLASS C

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 3 weeks (100 hours).

Exhibit Dates: 3/81–Present.

Objectives: To provide telephone and electronics technicians with the necessary training to install, maintain and overhaul the Tempest model 40 teletype data terminal.

Instruction: Lectures and laboratory exercises at the functional level on the electromechancial operation of the video display monitor, printer, controller logic and power supply of the Tempest data terminal. The main emphasis of the course is on the installation, maintenance and repair to the defective card, module or mechanical component level.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical laboratory (2/83).

CG-1715-0069

AN/SPS-51 RADAR, CLASS C

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 6 weeks (200 hours).

Exhibit Dates: 3/77–10/77.

Objectives: To provide training for experienced electronic technicians in the maintenance and repair of a specialized radar system.

Instruction: Lectures and practical exercises on equipment components and functions, including operation, alignment and troubleshooting. Electronic theory and servosystem operation is offered on an "as needed" basis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radar repair technology (2/83).

CG-1715-0070

AN/SPS-64(V)4 RADAR

Course Number: NAV14.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 2 weeks (71 hours).

Exhibit Dates: 5/81–Present.

Objectives: To train electronics technicians in the maintenance and repair of a specialized radar system.

Instruction: Lectures and discussions on equipment components and functions including practical experience in the operation, alignment and troubleshooting of instructor inserted faults. Electronics theory is offered on an as needed basis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radar servicing and maintenance (2/83).

CG-1715-0071

ELECTRONICS TECHNICIAN A SCHOOL, GENERAL TRACK

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 16 weeks (420 hours).

Exhibit Dates: 1/73–8/77.

Objectives: To train electronic technicians in the practical maintenance and repair of communications and navigational equipment used by the Coast Guard.

Instruction: Lectures and practical exercises in the principles of operation, systems functions, malfunction identification and isolation, repair, and calibration of five basic types of equipment, namely, single sideband equipment, frequency modulated equipment, surface search radar equipment, LORAN-A receiver equipment and sonar sounding equipment.

Credit Recommendation: In the vocational certificate category, 8 semester hours in troubleshooting laboratory (2/83).

CG-1715-0072

COL-URG-II HF TRANSMITTING SYSTEM (COL-URG-II High Frequency Transmitting System)

Course Number: COM 12.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 2 weeks (71 hours).

Exhibit Dates: 1/81–Present.

Objectives: To train experienced electronic technicians to operate and perform preventive and corrective maintenance on a specific transmitter and its associated control equipment.

Instruction: Lectures and practical exercises in the make-up and operation of a specific computerized transmitter including the use of diagnostic test equipment and programs, fault isolation and repair to the component level.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (2/83).

CG-1715-0073

LORAN-C

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 15 weeks (450 hours).

Exhibit Dates: 1/79–9/81.

Objectives: To train electronic technicians in the operation, troubleshooting and repair of the Loran Navigation System.

Instruction: Lectures and practical exercises in the operation, troubleshooting and repair of the Loran-C navigation system including electrical schematic and block diagram analysis to assist in locating faults to the component level in the Loran-C timing equipment, control equipment, low and high powered vacuum tube transmitter, radio transmitter and receiver, and high frequency receivers.

Credit Recommendation: In the vocational certificate category, 5 semester hours in marine electronic navigation systems (2/83).

CG-1715-0074

RADAR OPERATOR (RADOP) BY CORRESPONDENCE

Course Number: 432-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 9/79–Present.

Objectives: To teach the principles of radar systems, navigation and piloting.

Instruction: Course introduces the principles of radar including carrier frequency, pulse width, time-range relationship, antenna systems, repeaters, scope interpretation identification equipment, navigation and radar piloting. Student may supplement course study with hands-on experience on the job. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in radar operation (5/85).

CG-1715-0075

RADIOMAN FIRST CLASS (RM1) BY CORRESPONDENCE

Course Number: 141-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 7/80–8/86.

Objectives: To provide training in security of classified information, teletype and communication equipment and wave propagation.

Instruction: Course covers administration, handling, storage and transmission of classified information and publications, teletype and radio communication equipment, radio wave propagation and antennas. Students are required to successfully complete a proctored end-of course examination. Students may supplement course study with hands-on experience on the job.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to electronic communications (5/85).

CG-1715-0076

BASIC RADAR USE AND OPERATION (BARAD) BY CORRESPONDENCE

Course Number: 651-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/83–Present.

Objectives: To provide training in the basic use and operation of radar.

Instruction: Course includes the history of radar development, the legalities of radar use, radar fundamentals, radar propagation, AN/SPS-64 and -66 radar operation, factors affecting detection and determination of position of contacts, radar navigation and ice detection. Also included are manuevering board problems involving relative motion, course, speed, collision, station taking, contact interception, true wind, relative wind, desired wind, and direct plotting procedures. Students may supplement course study with hands-on training on the job. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to radar systems operation (5/85).

CG-1715-0077

TELEPHONE TECHNICIAN FIRST CLASS (TT1) BY CORRESPONDENCE

Course Number: 145-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 10/81–5/86.

Objectives: To prepare students to be telephone technicians.

Instruction: Course covers splicing of submarine telephone and power cables; troubleshooting techniques and equipment for telephone cable; troubleshooting and construction techniques for power lines, transformer load balancing; powerline safety procedures, residential service drops and wiring; theory of cable construction; operation and function of data communication equipment, data communication codes; use of Coast Guard directives, letters, messages, and memoranda. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in residential wiring, 1 in telephone line maintenance, and 1 in power distribution systems (5/85).

CG-1715-0078

AVIATION ELECTRONICS TECHNICIAN AN/ARC-160 CLASS C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 2 weeks (71 hours).

Exhibit Dates: 6/85–Present.

Objectives: Provides specialized training in maintenance of VHF-FM transceivers.

Instruction: Practical training in the use of special test equipment, minimum performance testing, and troubleshooting to the module and chassis-mounted component level of the AN/ARC-160 (VHF-FM transceiver).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communication repair (6/85).

CG-1715-0079

AVIATION ELECTRONICS TECHNICIAN 618M-3 CLASS C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 3 weeks (109 hours).

Exhibit Dates: 6/83–Present.

Objectives: To provide specialized training in the maintenance of the 618M-3 VHF AM transceiver.

Instruction: Practical training in the use of the special test equipment, minimum performance testing, and troubleshooting of the 618M-3 UHF AM transceiver.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communication repair (6/85).

CG-1715-0080

AVIATION ELECTRONICS TECHNICIAN AN/APS-127

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 4 weeks (148 hours).

Exhibit Dates: 2/85–Present.

Objectives: To provide specialized training in the theory and maintenance of the AN/APS-127 Radar System.

Instruction: Lectures and demonstrations on the electronic theory and operation of the equipment's units and modules, and practical training in the use of special test equipment, minimum performance testing, alignment, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in AN/APS-127 radar system maintenance, 2 in radar system maintenance, 2 in radar theory (6/85).

CG-1715-0081

DIGITAL MICROPROCESSOR CLASS C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 2–3 weeks (93 hours).

Exhibit Dates: 10/83–Present.

Objectives: To provide the knowledge and skill training necessary to perform the configuration, application, operation, inspection, and repair of aircraft microprocessor based systems at the organizational and intermediate levels of maintenance.

Instruction: Provides hands-on experience in the preparation, operation, repair and maintenance of digital and microprocessor based systems using applicable test equipment, schematic diagrams, and publications.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in electricity and electronics (6/85).

CG-1715-0082

ADL-81 Loran 'C' Receiver Class 'C'

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 4-5 weeks (149-154 hours).

Exhibit Dates: 10/80-Present.

Objectives: To provide specialized training in the theory of operation and maintenance of Long Range Navigation equipment (ADL-81 Loran C/D receiver).

Instruction: Topics include: electronic theory, Loran theory, theory of operation of the ADL-81 and associated test equipment, fault location to the component level, relationship between receiver and other associated equipment such as the active antenna (UPS-95) system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance laboratory (6/85).

CG-1715-0083

Aviation Electronics Technician AN/ARN-133V2 Class C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 2 weeks (71 hours).

Exhibit Dates: 2/85-Present.

Objectives: To provide specialized training in the maintenance of Loran Navigation equipment (AN/ARN-133V2).

Instruction: Topics include electronic theory and theory of operation for the LORAN Navigator, and practical training in the use of special test equipment, minimum performance testing, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronic maintenance and repair laboratory (6/85).

CG-1715-0084

Aviation Electronics Technician AN/ARN-118(V) Class C

Course Number: None.

Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 4 weeks (146 hours).

Exhibit Dates: 1/84-Present.

Objectives: To provide advanced specialized training in the maintenance of tactical A in Navigation (TACAN) equipment (AR/ARN-118(V)).

Instruction: Training on the maintenance and operation of the equipment units and modules including performance testing, troubleshooting, and alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (6/85).

CG-1715-0090

Electronics Fundamentals - Communications Track

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 27 weeks (840 hours).

Exhibit Dates: 10/81-Present.

Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot and repair high frequency and facsimile receivers, and radar units.

Instruction: The program comprises the basic ELF sequence, a common core covering transistors, power supplies, amplifiers, oscillators, logic, microcomputer and special circuits; ELF 08,12 and 13 sequence including communication theory, AM/FM transceivers, antennas and radar fundamentals; COM 03,05,06 and 08 sequence including military radio single sideband transmitter, high frequency and facsimile receivers and shipboard communications systems. The subject matter is qualitative in nature and presented at the block diagram level with schematic signal tracing to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microprocessors in a computer science curriculum, 3 in communications systems, 1 in communications laboratory (2/83).

CG-1715-0091

Electronics Fundamentals - V/S Track #1

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 29 weeks (900 hours).

Exhibit Dates: 10/81-Present.

Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot, and repair radar systems, transceivers, and direction finders.

Instruction: The program comprises the basic ELF sequence (ELF 00, 02, 03, 04, 05, 09, 10, 11), a common core covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits. Lectures and practical exercises in basic electrical concepts (Ohm's Law, series and parallel DC circuits, use of meters), power supply construction and regulation (primarily tube circuitry, introductory AC and 3 phase materials and filtering concepts), amplifier fundamentals (vacuum tube amplifiers relating to distortion, frequency response, degeneration, signal generator usage), transistor fundamentals (testing, biasing, operating points, temperature compensation), oscillators, logic circuits (brief overview of gates, counters, shift registers), microprocessors (overview of terminology, addressing, memory devices, I/O requirements) and specialized circuits (superficial coverage of couplers, inverters, multivibrators and timing circuits, and other pulsed circuits). ELF 08, 12 and 13 is also covered and the topics in this sequence include: communications theory (operation, adjustment and troubleshooting sigle sideband transceivers, AM/FM transmitters and receivers at the block diagram level) antenna operations (radio wave propogation, frequency limitations), transmission lines (wave ratio, reflections, TDR operation) as well as radar fundamentals. Also included are COM 02, 09 and NAV 04 and 13 (homers, direction finders, depth sounders and radar systems) each of these courses covering a specific piece of equipment, with the student learning to operate, troubleshoot and repair each piece to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals, 2 in marine electronic repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microprocessors in a computer science curriculum, 3 in communications systems and 1 in electronics communications laboratory (2/83).

CG-1715-0092

Loran Track #1 for Lorstas, Malone, Senca

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 28 weeks (840 hours).

Exhibit Dates: 10/81-Present.

Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.

Instruction: The program comprises the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas. LOR 06,15, 18 and 19 comprising Loran-C timing and control, remote Austron 5000 and calculation assisted Loran-C. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature including alignment procedures, block diagram analysis, and schematic signal tracing to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microcomputers in a computer science curriculum, 2 in communications systems and 1 in electronics communications laboratory (2/83).

CG-1715-0093

Electronics Fundamentals - V/S Track #2

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 26 weeks (780 hours).

Exhibit Dates: 10/81-Present.

Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot and repair FM transceivers, direction finders and surface-search radar.

Instruction: The program comprises the basic ELF sequence, a common core covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits, the ELF 08, 12 and 13 sequence covering communication theory, AM/FM and SSB transceivers, antennas, and radar fundamentals, the COM 02, 10 and NAV 04 and 12 sequences covering FM transceivers, homers, direction finders, depth sounders, SSB transceivers, and surface search radar. The subject matter is qualitative in nature and presented at the block diagram level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronic fundamentals, 2 in marine electronic repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microprocessors in a computer science curriculum, 3 in communications systems and 1 in electronic communications laboratory (2/83).

CG-1715-0094

Loran Track #5 for Lorstas, Attu, Baudette, Caribou, Carolina Beach, Estartit, Jupiter, Kargabarun, Kure, Nantuckett, Port Clarence, Shoal Cove, Sylt, Upolu Point

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 26 weeks (720 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronics fundamentals needed to maintain, troubleshoot and repair specific Loran equipment.
Instruction: The program is comprised of the basic ELF sequence, a core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communications theory, AM/FM and SSB transceivers, and antennas; LOR 06 and 16 comprising Loran-C timing and control equipment and Loran-C low power vacuum tube transmitter. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature, including block diagram analysis and schematic signal tracing to the component level.
Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronics fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microprocessors in a computer science curriculum, 2 in communications systems, 1 in electronics communications laboratory (2/83).

CG-1715-0095

Loran Track #2 for Lorstas, Kodiac, Yakota

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 26 weeks (720 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronics fundamentals needed to maintain, troubleshoot and repair specific Loran equipment.
Instruction: The program comprises the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 13 and 19 comprising Austron 5000, Loran-C, control/monitor equipment and calculator assisted Loran-C. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature, including block diagram analysis and schematic signal tracing to the component level.
Credit Recommendation: In the vocational certificate category, 8 semester hours in electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in circuits and microcomputers in a computer science program, 2 in communications systems, 1 in electronic communications laboratory (2/83).

CG-1715-0096

Loran Track #4 for Lorstas Grangeville, Raymondville

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 26 weeks (780 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronics fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.
Instruction: The program comprises the basic ELF sequence, a core curriculum covering transistors, power supply, amplifiers, oscillators, logic, microcomputers, and special circuits, ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 06 and 15 comprising Loran-C timing and control equipment, and a solid state transmitter. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature, including block diagram analysis and schematic signal tracing to the component level.
Credit Recommendation: In the vocational certificate category, 8 semester hours in electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in circuits and microcomputers in a computer science curriculum, 2 in communications systems and 1 in electronics communication laboratory (2/83).

CG-1715-0097

Loran Track #3 for Lorsta Honolulu

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 24 weeks (720 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.
Instruction: The program comprises the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 18 and 19 comprising remote Austron 5000 and calculator assisted Loran-C. The subject matter covers the theoretical and operational concepts of a navigational system, is qualitative in nature and includes block diagram analysis and schematic signal tracing to the component level. operational concepts of a navigational system, is
Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microcomputers in a computer science curriculum, 2 in communications systems and 1 in electronics communications laboratory (2/83).

CG-1715-0098

Loran Track #6 For Lorstas Dana, Fallon, George, Gesashi, Hokkaido, Iwo Jima, Lampeduska, Marcus, Narrowcape, Searchlight, Tok, Yap

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 26 weeks (780 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronics fundamentals necessary to maintain, troubleshoot and repair a specific Loran equipment.
Instruction: The program comprises the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 06 and 17 comprising Loran-C timing and control equipment, Loran-C high power vacuum tube transmitters. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature, including block diagram analysis and schematic signal tracing to the component level.
Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics fundamentals, 1 in Loran serice and repair (2/83), in the lower-division baccalaureate/associate degree category, 3 semester hours in circuits and microcomputers in a computer science curriculum, 2 in communications systems, 1 in electronics communications laboratory (2/83).

CG-1715-0099

Loran Track #7 for Lorsta Middletown

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 28 weeks (820 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronics fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.
Instruction: The program comprises the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 06,17,18 and 19 comprising Loran-C timing and control equipment, high power vacuum tube transmitters, remote Austron 5000, and calculator assisted Loran-C. The subject matter covers the theoretical and operational concepts of a navigational system and is qualitative in nature, including block diagram analysis and schematic signal tracing to the component level.
Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in circuits and microcomputers in a computer science curriculum, 2 in communications systems and 1 in electronic communications laboratory (2/83).

CG-1715-0100

Loran Track #8 for Lorsta Sellia Marina

Course Number: None.
Location: Coast Guard Training Center, Governors Island, NY.
Length: 34 weeks (1020 hours).
Exhibit Dates: 10/81–Present.
Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.

Instruction: The program is comprised of the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers, and antennas; LOR 06,13,16 and 19 comprising Loran-C timer and control equipment, Austron 5000 control monitor equipment, low powered vacuum tube transmitter and calculator assisted Loran-C. The subject matter covers the theoretical and operational concepts of a navigation system, is qualitative in nature and includes block diagram analysis and schematic signal tracing to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronics fundamentals, 1 in Loran repair and service (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microcomputer in a computer science curriculum, 2 in communications systems, 1 in electronic communications laboratory (2/83).

CG-1715-0101

Loran Track #9 for Lorsta Johnston Island, St. Paul Island

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 26 weeks (780 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide enlisted personnel with the basic electronic fundamentals necessary to maintain, troubleshoot, and repair specific Loran equipment.

Instruction: The program is comprised of the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 09 and 12 comprising communications theory, AM/FM and SSB transceivers, and antennas; LOR 06,13 and 16 comprising Loran-C timers and control equipment, Austron 5000 control monitor equipment and low powered vacuum tube transmitters. The subject matter covers the theoretical and operational concepts of a navigation system, is qualitative in nature and includes block diagram analysis and schematic signal tracing to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in logic circuits and microcomputers in a computer science curriculum, 2 in communications systems, 1 in electronics communications laboratory (2/83).

CG-1715-0102

Loran Track #10 Lorsta Shetland Island

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 26 weeks (780 hours).

Exhibit Dates: 10/81–Present.

Objectives: To provide enlisted personnel with the basic electronics fundamentals necessary to maintain, troubleshoot and repair specific Loran equipment.

Instruction: The program is comprised of the basic ELF sequence, a common core curriculum covering transistors, power supplies, amplifiers, oscillators, logic, microcomputers, and special circuits; ELF 08 and 12 comprising communication theory, AM/FM and SSB transceivers and antennas; LOR 10 covering the AN/FPN-46 timer. The subject matter covers the theoretical and operational concepts of a navigational system, is qualitative in nature and includes block diagram analysis and schematic signal tracing to the component level.

Credit Recommendation: In the vocational certificate category, 8 semester hours in basic electronic fundamentals, 1 in Loran service and repair (2/83); in the lower-division baccalaureate/associate degree category, 3 semester hours in circuits and microcomputer in a computer science program, 2 in communications systems, 1 in electronics communications laboratory (2/83).

CG-1715-0103

1. Mk 92 MOD 1 Fire Control System
2. Fire Control System Mk 92 MOD 1 Class C

Course Number: FT-2.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 18 weeks (672 hours). *Version 2:* 22 weeks (800-816 hours).

Exhibit Dates: *Version 1:* 1/88–Present. *Version 2:* 5/88–12/87.

Learning Outcomes: Upon completion of the course, the student will be familiar with the initialization, operation, and documentation of the Mk 92 MOD 1 fire control system. The troubleshooting training familiarizes the student with basic tools and instruments to detect electrical failures of components in pulse transmitters, power supplies, receivers, and video equipment and serve systems.

Instruction: Well documented procedures are used to maintain, troubleshoot, and replace faulty components on the Mk 92 MOD 1 fire control system. Fundamentals theory is not covered.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hour in electrical control systems maintenance and repair (9/90). *Version 2:* In the vocational certificate category, 3 semester hours in electrical control systems maintenance and repair (10/88).

CG-1715-0104

Mk 27 Gyrocompass System Operation and Maintenance

Course Number: EM-20.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (67-70 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, students will be familiar with the technical manual for Mk 27 MOD 1 gyrocompass equipment and will understand the gyrocompass modes of operation and its support equipment, such as the synchro signal amplifier, the power transfer unit, and the power converter. This enables students to perform maintenance, repair, and calibration in accordance with the 'he manufacturer's specifications.

Instruction: Instruction is very specific and detailed, and geared specifically to the Mark 27 MOD 1 gyrocompass. With the aid of a synchro trainer, digital meter, and job sheet, the student will perform zeroing cleaning and maintenance in accordance with manufacturer's specification.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in electronics laboratory (10/88).

CG-1715-0105

Advanced Electrical/Electronics

Course Number: EM-17.

Location: Reserve Training Center, Yorktown, VA.

Length: 11 weeks (400-409 hours).

Exhibit Dates: 1/87–Present.

Learning Outcomes: Upon completion of the course, the student will understand mathematical concepts, DC and AC circuit analysis, the use of test equipment, the concepts of discrete devices, integrated circuits, logic circuits, analog converters, flip-flop circuits, binary shift registers, amplifier circuits, digital display circuits, and other electronic circuits.

Instruction: Lectures, demonstrations, and practical exercises in concepts, fundamentals, and circuit analysis of electricity and electronics. Includes the use of training devices and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in AC and DC circuits, 4 in solid state circuits, 3 in logic circuits, 1 in electronics laboratory, and 1 in technical mathematics (10/88).

CG-1715-0106

Mk 29 MOD 1 Gyrocompass Operation and Maintenance

Course Number: EM 26.

Location: Reserve Training Center, Yorktown, VA.

Length: 1-2 weeks (55-58 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student knows how to operate specialized tools required to check the Mk 29 gyrocompass system to check the performance during simulated roll, pitch and azimuth movements; further, the student is qualified to exchange components and lubricate the bearings.

Instruction: The course content emphasizes the preventive maintenance and troubleshooting on the Mk 29 gyrocompass.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in gyrocompass maintenance (10/88).

CG-1715-0107

Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C

Course Number: EM-21.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (66-70 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain the electrical and electronic control systems for auxiliary boilers, oily water separators, and electrical generators.

Instruction: Lectures and practical exercises in the testing and troubleshooting of control circuits of boilers, separators, and generators as applied to specific Coast Guard equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electrical/electronic laboratory (10/88).

CG-1715-0108

Electronics Technician Class A

Course Number: ET A.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 14-15 weeks (465-515 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate knowledge of electronic safety procedures; use common laboratory instruments and test equipment; apply Ohm's law to circuits and networks; analyze AC circuits; demonstrate an understanding of digital principles and circuits to include multiplexers and demultiplexers; demonstrate an understanding of solid state theory and circuits; use troubleshooting techniques to repair electronic equipment; demonstrate an understanding of communications theory and equipment, such as single sideband receivers; demonstrate an understanding of radar fundamentals.

Instruction: Lectures and practical exercises in electronic theory, electronic safety, corrective and preventive maintenance techniques, and electronic administrative procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 3 in digital principles, 4 in solid state electronics, and 4 in electronic communications (11/88).

CG-1715-0109

Telephone Technician Class A

Course Number: TT A.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 22 weeks (748 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to use common laboratory instruments and test equipment; apply Ohm's law to circuits and networks; analyze DC and AC circuits; demonstrate an understanding of digital principles and circuits to include multiplexers and demultiplexers; demonstrate an understanding of solid state theory and circuits; use troubleshooting techniques to repair telephone and carrier circuits; demonstrate a basic knowledge of special telephone network systems and teletypewriter systems.

Instruction: Lectures and practical laboratory in electricity, electronic circuits, components, solid state theory and practice, printed circuit techniques, digital logic circuits, modulation techniques, communication cable troubleshooting and repair, telephone equipment and circuits, troubleshooting techniques, and teletypewriter equipment repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 1 in DC circuits, 1 in AC circuits, 3 in digital principles, 4 in solid state electronics, 3 in electronic communications, and 3 in telephone communications (11/88).

CG-1715-0110

AN/FPN-44A Loran Transmitter Class C

Course Number: LOR-05.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 1-2 weeks (53 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, troubleshoot, and maintain a Loran-C electronic location transmitter.

Instruction: Lectures and practical exercises in the operation, logical troubleshooting, repair, and preventive maintenance of the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0111

Timing and Control Equipment Class C

Course Number: LOR-02.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2-3 weeks (110 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate, repair, troubleshoot, and maintain Loran-C electronic location equipment.

Instruction: Lectures and practical exercises in the operations, logical troubleshooting, repair, and preventive maintenance of the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0112

AN/URT-41(V) Transmitting System Class C

Course Number: COM-02.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2-3 weeks (94 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, troubleshoot, and maintain a high power radio transmitter.

Instruction: Lectures and laboratory exercises in the operation, logical troubleshooting, repair, and preventive maintenance on a specific radio transmitter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0113

CEJT-SX-100/200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 217 Class C

Course Number: TEL-10.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (75 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, troubleshoot, and maintain an automatic telephone exchange (the Electronic Private Automatic Branch Exchange).

Instruction: Lectures and practical exercises on the operation, logical troubleshooting, repair, and preventive maintenance of the automatic telephone exchange.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0114

Loran-C Control Station Operations

Course Number: LOR-08.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (78 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform baseline monitoring and control, and troubleshooting and maintenance on the calculator-assisted Loran-C electronic location system.

Instruction: Lectures and practical exercises in equipment functions, operation, baseline control, and maintenance of the Loran-C system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0115

TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C

Course Number: TEL-14.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 1-2 weeks (56 hours).

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, maintain, and troubleshoot the CDXC-SG-1/1A Pulse 120 electronic private automatic branch exchange equipment.

Instruction: Lectures and laboratory exercises in safety precautions, equipment operation, programming exercises, preventive maintenance and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0116

CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System

Course Number: TEL-13.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (76 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install and maintain the CEJT-SX-200D electronic private automatic branch exchange (PABX) (automatic telephone exchange).

Instruction: Lectures and laboratory exercises in safety precautions, programming exercises, installation procedures, and troubleshooting techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0117

AN/FPN-42 Loran Transmitter Class C

Course Number: LOR-04.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 1-2 weeks (45 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, troubleshoot, and maintain the AN/RPN-42 Loran electronic location transmitter.

Instruction: Lectures and laboratory exercises in troubleshooting techniques and maintenance of specific Loran transmitter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0118

AN/FPN-39 Loran Transmitter Class C

Course Number: LOR-03.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 1-2 weeks (45 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, troubleshoot, and maintain a Loran-C electronic location transmitter.

Instruction: Lectures and practical exercises in the operation, logical troubleshooting, repair, and preventive maintenance of the Loran-C transmitter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0119

AN/SPS-64(V) 1,2,3 Radars

Course Number: NAV-02.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 3 weeks (117 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, troubleshoot, and maintain the AN/SPS-64(V) 1,2,3 radars.

Instruction: Lectures and laboratory exercises in troubleshooting techniques and maintenance of specific radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0120

AN/SPS-64(V) 4 Radars

Course Number: NAV-03.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 1-2 weeks (61 hours).

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, troubleshoot, and maintain the AN/SPS-64 (V) radar.

Instruction: Lectures and laboratory exercises in the operation, logical troubleshooting, repair, and preventive maintenance on a specific type of radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0121

AN/URC-9 Radio Set Class C

Course Number: COM-04.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (78 hours).

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform corrective and preventive maintenance on the AN/URC-9 transceiver.

Instruction: Lectures and laboratory exercises in equipment operation, parts location, troubleshooting, and preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0122

AN/SPS-66 and AN/SPS-66A Radars Class C

Course Number: NAV-01.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (69 hours).

Exhibit Dates: 2/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, align, troubleshoot, and maintain the AN/SPS-66 and AN/SPS-66A radars.

Instruction: Lectures and laboratory exercises in the operation, logical troubleshooting, repair, and preventive maintenance on a specific type of radar system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0123

AN/FPN-64(V) Loran Solid State Transmitter Class C

Course Number: LOR-06.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, troubleshoot, and maintain a Loran-C electronic location transmitter.

Instruction: Lectures and practical exercises in the operation, logical troubleshooting, repair, and preventive maintenance of the transmitter.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0124

AN/URC-114(V) Low Power (1KW) Communications System Class C

Course Number: COM-03.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 3 weeks (118 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to troubleshoot, repair, and maintain a low power communications system.

Instruction: Lectures, demonstrations, and practical exercises in the operation, logical troubleshooting, repair, and maintenance of the equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hour in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0125

Primary Chain Monitor Set Maintenance Class C

Course Number: LOR-07.

Location: Coast Guard Training Center, Governor's Island, NY.

Length: 2-3 weeks (85 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, repair, troubleshoot, and maintain monitor set equipment.

Instruction: Lectures and practical exercises in the operation, logical troubleshooting, repair, and preventive maintenance of the specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic systems troubleshooting and maintenance (11/88).

CG-1715-0127

Nautel Radiobeacon Maintenance
(Videograph B Fog Detector Maintenance)

Course Number: *Version 1:* ANC-FD. *Version 2:* ANC-RB.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 2 weeks (41 hours). *Version 2:* 2 weeks (37 hours).

Exhibit Dates: *Version 1:* 1/89–Present. *Version 2:* 3/86–12/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to install, operate, align and repair circuits boards and chassis components for the videograph model B fog detector. *Version 2:* Upon completion of the course, the student will be able to repair and maintain the nautel (NX) series of radiobeacons.

Instruction: *Version 1:* Classroom lectures and laboratory exercises involving installation, operation, and preventive and corrective maintenance of the videograph B fog detector. *Version 2:* Classroom lectures, laboratories, reading assignments, and practical examinations involving the operation, preventive maintenance, and corrective maintenance and alignment of the nautel (NX) series of radiobeacons.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical technician for the last segement of the 2 weeks program. This is a course which consisted of two 1-week long courses run consecutively. Credit is recommended for ANC-FD only (11/88). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electromechanical technician for this segment of the 2 weeks course (ANC-RB) is based on completion also of version 1 (11/88).

CG-1715-0128

Automated Aids to Navigation Lighthouse Technician
(Lighthouse Technician)

Course Number: ANC-LT.

Location: Reserve Training Center, Yorktown, VA.

Length: 3-4 weeks (115 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate, maintain, repair to component level catagory I through IV automated lighthouse equipment.

Instruction: Instruction in lecture and practical exercises will provide hands on experience. Topics include environmental control systems, fire suppression systems, sound and light systems, and AC/DC power systems. Aids control monitor systems (ACMS) are also covered. Data obtained will be used to upgrade/update Coast Guard directives and publications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in AC/DC power systems, 2 in records keeping (4/89).

CG-1715-0130

RADARMAN CLASS A

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 12 weeks (470-474 hours).

Exhibit Dates: 9/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as a third class radarman as prescribed in the enlisted qualification manual; this includes knowledge and skill training necessary to gather, process, display, evaluate and disseminate operational data in completion of the unit's mission.

Instruction: Lectures and practical exercises in administration, communications, navigation systems, rules of road, safety, search and rescue, operational and preventative maintenance, combat information center operations, detection equipment and interpretation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic use and operation of a radar system (4/89).

CG-1715-0131

ADVANCED MINOR AIDS TO NAVIGATION MAINTENANCE

Course Number: ANC-AM.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 3/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, troubleshoot, operate on and maintain minor navigation equipment.

Instruction: Instruction is given in operation, troubleshooting, and maintenance of minor aids, beacons, bouys, and sound signals; bouy tender operations encompassing bouy deck procedures, bouy positioning techniques, piloting and safety; and minor-aid construction; emphasis is placed upon technical report writing on and oral presentations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in analysis of AC/DC circuits (4/89).

CG-1715-0132

AVIATION ELECTRONICS TECHNICIAN FIRST CLASS (AT1) BY CORRESPONDENCE

Course Number: 103-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify potential safety hazards in the work area/flight line, repair current, voltage and resistance measuring devices, use test equipment to measure frequency waveforms, modulation and standing waves, describe the operating characteristics of electromagnetic wave measuring devices including wavemeters and bridges, repair printed circuit boards, list the advantages and disadvantages of various types of wave guides and the operating principles of micro-wave antennas and feed systems.

Instruction: The major topics covered are safety, voltage, current and resistance measurement, test equipment to measure frequency, waveforms, modulation and standing waves, rpair of prented circuit boards, wave guides and microwave antennas. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications (6/90).

CG-1715-0133

SONAR TECHNICIAN SECOND CLASS (ST2) BY CORRESPONDENCE

Course Number: 243-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify sounds produced by surface ships, submarines and marine life, perform preventive maintenance on sonar equipment, X-Y records signal generators and megohmeters, prepare weekly and monthly preventive maintenance schedules, list calibration procedures for hydrophone and replace sonar transducers.

Instruction: Major topics covered are sound identification, preventative maintenance for sonar equipment, accoustical test equipment operation, preparation of monthly preventive maintenance schedules, and calibration. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/90).

CG-1715-0134

TELEPHONE TECHNICIAN FIRST CLASS (TT1) BY CORRESPONDENCE

Course Number: 145-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 6/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to use telephone cable installation and maintenance methods; operate data communication equipment; employ cable fault locating methodology and test equipment methods; identify interior and exterior power distribution systems; construct letters and messages in proper format and meeting security requirements; use procedures for commercial procurement; employ the principles of property management and control.

Instruction: Topics include troubleshooting techniques and equipment for telephone cable; troubleshooting and construction techniques for power lines; transformer load balancing; powerline safety procedures; residential service drops and wiring; theory of cable construction; operation and function of data communication equipment; data communication codes; use of Coast Guard directives, letters, messages, and memoranda; and use of property management and control techniques. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in outside telephone cable installation and maintenance (6/90).

CG-1715-0135

FIRE CONTROL TECHNICIAN FIRST CLASS (FT1) BY CORRESPONDENCE

Course Number: 127-7; 127-6.

Location: Coast Guard Institute, Oklahoma City, Ok.

Length: Maximum 78 hours.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to employ safety procedures in the operation and maintenance of fire control equipment; explain the theory of operation of microwave components, antennas, and associated servo equipment; explain ballistic characteristics of major projectiles; explain the operation of fire control equipment in an operational environment; explain battery alignment of a weapons control system and identify proper sources for equipment maintenance; identify administrative procedures and reports.

Instruction: The major topics covered are safety, electronics, fire control fundamentals, maintenance, and administration. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic theory (6/90).

CG-1715-0136

RADIOMAN FIRST CLASS BY CORRESPONDENCE

Course Number: 0141-7; 0141-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare telecommunication reports; identify the various forms and procedures used in preparing telecommunication summaries and reports; define terms and basic communications system components such as amplifiers, oscillators, exciters, multiplexers, receivers and transmitters.

Instruction: Topics include the construction and use of operation orders, operation plans, and pro-forma messages, telecommunication systems and components, security clearances and investigations, and communication officer duties. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/90).

CG-1715-0137

FIRE CONTROL TECHNICIAN SECOND CLASS (FT2) BY CORRESPONDENCE

Course Number: 227-8.

Location: Coast Guard Institute, Oklahoma City, Ok.

Length: Maximum 78 weeks.

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to observe safety precautions in dealing with electronic equipment, radioactive devices, toxic compounds, ordnance, and electronic radiation; explain basic electrical and electronic theory; explain the theory of operation of AC devices, vacuum tube circuitry, digital circuitry, and weapons control equipment; employ various base numbering systems and boolean algebra; operate fire control equipment and associated computers and terminals; identify equipment alignment procedures and sources of maintenance; identify administrative procedures and reports.

Instruction: The major topics are safety, electronic fundamentals fire control fundamentals, maintenance and administration. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic fundamentals (6/90).

CG-1717-0001

Senior Petty Officer Leadership and Management

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Training Center, Petaluma, CA.

Length: 3 weeks (107 hours).

Exhibit Dates: 5/76-6/85.

Objectives: Student will have a basic theoretical understanding and practical working knowledge of basic principles of management, leadership, and human resource development.

Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0002

Reserve Petty Officer Leadership and Management

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Training Center, Alameda, CA; Training Center, Petaluma, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/76-1/90.

Objectives: Student will have a theoretical understanding and practical working knowledge of principles of management, leadership and human resources development.

Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussion.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0003

Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
(Junior Officer Leadership and Management)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Training Center, Petaluma, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/76-1/90.

Objectives: The student will have a theoretical understanding and practical working knowledge of principles of management, leadership, and human resources development.

Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussion.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0004

Reserve Officer, Chief Leadership and Management

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Training Center, Alameda, CA; Training Center, Petaluma, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/76-1/90.

Objectives: The student will have a basic theoretical understanding and practical working knowledge of the basic principles of management, leadership, and human resource development.

Instruction:

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0005

Senior Officer Leadership and Management (SOLAM)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 1 week (48 hours).

Exhibit Dates: 10/80-6/84.

Objectives: To develop knowledge and skills in management and organizational behavior.

Instruction: Topics include group behavior, individual behavior, interpersonal communications, leadership behavior, and problem analysis. Methodology includes lectures, discussion, and practical exercises.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in organizational behavior (7/84).

CG-1717-0006

Leadership and Management

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Training Center, Petaluma, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 10/80-6/84.

Objectives: To develop knowledge and skills in management and organizational behavior.

Instruction: Topics include group behavior, individual behavior, interpersonal communications, leadership behavior, and problem analysis. Methodology includes lecture, discussions and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in human relations/management (7/84).

CG-1717-0007

Reserve Senior Petty Officer Leadership and Management

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to exercise management skills in communication and leadership in assigned supervisory positions.

Instruction: Instruction includes situational leadership, power, motivation, change, group dynamics, and decision-making, teambuilding, communications, performance management, and problem-solving. Instructional methods include lecture and discussion with emphasis on roleplaying, case studies, structured experiences and group activities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership (8/87).

CG-1717-0008

Reserve Officer Leadership and Management

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to exercise management skills in communcation, teambuilding and leadership in assigned supervisory positions.

Instruction: Instruction includes communications, leadership development, teambuilding, conflict management, change management, and problem-solving.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership (8/87).

CG-1717-0009

Officer Leadership and Management

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (71 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to exercise management skills in communication, teambuilding and leadership in assigned supervisory positions.

Instruction: Instruction includes communications, leadership development, teambuilding, conflict management, change management, and problem-solving. Instructional methods include lecture and discussion, practical exercises, and case studies, and roleplaying.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership (8/87).

CG-1717-0010

Senior Petty Officer Leadership and Management

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (71 hours).

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to exercise management skills in communication and leadership in assigned supervisory positions.

Instruction: Instruction includes situational leadership, power, motivation, change, group dynamics and decision-making, team-building, communications, performance management, and problem-solving. Instructional methods include lecture and discussion with emphasis on role playing, case studies, structured experiences and group activities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership (8/87).

CG-1722-0001

Fireman by Correspondence

Course Number: *Version 1:* 0450. *Version 2:* 450-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: *Version 1:* Maximum 104 weeks. *Version 2:* Maximum 52 weeks.

Exhibit Dates: *Version 1:* 7/83–Present. *Version 2:* 11/74–6/83.

Objectives: To provide basic nonresident training for fireman apprentices in the area of main propulsion machinery, damage control, auxiliary machinery and hand tools.

Instruction: *Version 1:* Course covers the study of the nature of steam, steam and water cycles, boilers, steam turbines, gasoline and diesel internal combustion engines, main propulsion systems, shipboard damage control and the safe use and maintenance of hand tools. Students are required to successfully complete a proctored end-of-course examination. *Version 2:* Course presents names and functions of the various types of main propulsion machinery; the student learns how to use hand tools. Auxiliary machinery used by the Coast Guard in the performance of its duties is identified and its functions explained. Course includes proctored end-of-course examination.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine engineering (5/85). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in marine auxiliary equipment, 1 in introduction to marine engines (5/79).

CG-1722-0002

Quartermaster Second Class (QM2) by Correspondence

Course Number: 237-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 5/75–6/86.

Objectives: To provide training for prospective quartermasters second class in navigation and related topics needed to attain that rate.

Instruction: This nonresident course includes communications, degaussing, steering, charts, rules of the road, basic weather, honors and ceremonies. Course includes proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in coastwise navigation and piloting, 1 in applied meteorology (5/79).

CG-1722-0003

Quartermaster Third Class (QM3) by Correspondence

Course Number: 337-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 10/73–6/86.

Objectives: To provide training for prospective quartermasters, third class, in basic navigation and related topics needed to attain that rate.

Instruction: This is a nonresident course covering basic navigation, the magnetic compass, familiarization with navigation rules, bridge communications, nautical charts and publications, aids to navigation, and tides and currents. Course includes proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in coastwise navigation (5/79).

CG-1722-0004

Aids to Navigation Construction

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/78–1/83.

Objectives: To teach Coast Guard personnel to fabricate and construct aids to navigation structures.

Instruction: Course is designed to develop knowledge and skills in crane operation as follows: loading, unloading, pile driving, servicing of crane equipment. Also includes soil analysis, pneumatic equipment and information on wire and synthetic lines. Course concludes with proctored examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in the construction field (8/78).

CG-1722-0005

Coastal Search Planning Class C

Course Number: None.

Location: Coast Guard Training Center, Governors Island, NY.

Length: 2 weeks (73 hours).

Exhibit Dates: 1/81–12/86.

Objectives: To train personnel in all aspects of search and rescue skills.

Instruction: Lectures and practical exercises in coastal search and rescue planning including the use of private and public facilities, communications, emergency care, position plotting, water search patterns, documentation, legal aspects and public relations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation or 2 semester hours in personnel systems management (2/83).

CG-1722-0006

Small Boat Magnetic Compass Calibration (SBMCC) by Correspondence

Course Number: 0641.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 4/83–Present.

Objectives: To introduce the theory and basic and practical application of magnetic compass calibration.

Instruction: Topics include the basic theory of magnetism, causes of variation and deviation and their practical application, methods of determining deviation, and procedures for adjusting small boat magnetic compasses to reduce deviation. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in nautical science (5/85).

CG-1722-0010

Coastal Search Planning Class C

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (76 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course the student will have attained the necessary skills and knowledge to plan and coordinate, in accordance with the National Search and Rescue Manual, a search and rescue mission with emphasis on coastal waters.

Instruction: Lectures in coastal search and rescue planning including the use of private and public facilities, communications, emergency care, position plotting, water search patterns, documentation, legal aspects and public relations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation (11/88).

CG-1722-0011

Maritime Reserve Coordination Center (RCC) Controller (Comprehensive Search and Rescue (SAR) Planning Class C)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA; Coast Guard Training Center, Governor's Island, NY.

Length: 2 weeks (85 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan and coordinate a search and rescue mission at sea in accordance with the National Search and Rescue Manual.

Instruction: Instruction on the organization, documentation, public information procedures, international rescue facilities, navigation, and with consideration of wind and ocean induced drift, determination of most probable position of emergency. Thirty-five hours are devoted to practical exercises in a laboratory environment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic navigation and 1 in search and rescue procedures (11/88).

CG-1722-0012

Coastal Defense Planner, Port Level

Course Number: MS 732.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (46 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare Port Level Operation Plans (OPLONS) to support missions of the Coast Guard and Maritime Defense Zone (MDZ) administrative and operational control in national emergencies.

Instruction: The method of instruction will include some lecture and self paced study, but will be mostly practical experiences working in groups under supervision.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management problems (4/89).

CG-1722-0013

Coastal Defense Exercise Planner, Port Level

Course Number: MS 735R.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (56 hours).

Exhibit Dates: 10/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to plan, write reports and evaluate results of the requirements to meet planned field training exercises in their application to training of the armed forces in relation to coastal defense; he/she will write operation orders, execute planning, budgeting, billeting, and controlling of the FTX and also evaluation to identify problem areas and recommend corrective actions.

Instruction: The course will contain lecture and practical exercise to provide hands-on experience in planning, execution and evaluation of port level requirements for field training exercises for coastal defense.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical and report writing (4/89).

CG-1723-0001

Machinery Technician First Class by Correspondence

Course Number: 132-2; 132-3; 0132.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 5/78–Present.

Objectives: To provide nonresident training in the areas of engine efficiency, clutches and reduction gears, fuel systems, lathe operation, and bench work.

Instruction: Upon completion of the course the student will be able to describe lathe operation and associated bench work. The trainee should understand how clutches and reduction gear are used in marine engine work and will explain the Detroit diesel fuel systems used by the Coast Guard. Description of lathe operations and bench work associated with lathe operations are provided and trainee will practice these descriptive operations at duty station. Course also explains the diesel fuel system pump and injectors; describes clutches and reduction gears and their relation to marine engine efficiency. There is a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic machine shop, 2 in diesel fuel systems (5/79).

CG-1723-0002

Machinery Technician Second Class by Correspondence

Course Number: 232-2; 0232-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 9/77–Present.

Objectives: To provide training in the area of hydraulic systems, maintenance of internal combustion engines, gas turbine engines, refrigeration, and air conditioning.

Instruction: This course consists of seventeen lessons and proctored end-of-course examination. Each lesson has one or more reading assignments followed by a series of self-scoring questions. Student will be able to describe, troubleshoot, and repair most hydraulic systems components, explain the performance of proper maintenance repairs on internal combustion engines, describe turbine engines, clutching, and free turbine operation procedures, and explain proper hot section inspection and lockwiring of components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic hydraulics, 2 in basic diesel, 2 in basic gas turbine, and 2 in basic refrigeration and air conditioning (5/79).

CG-1723-0003

Machinery Technician Third Class by Correspondence

Course Number: 332-1; 332-2; 332-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 11/76–Present.

Objectives: To enable student to identify and explain gas turbine fundamentals and characteristics including lubricating oil systems, cooling systems, starting systems, and fuel systems.

Instruction: The student will study gas turbine fundamentals, beginning and advanced engine systems. Course also includes review of basic principles of electricity and how it is used aboard ship. Student learns basic principles of refrigeration and air compressor systems as they exist in a shipboard environment. The operation of distilling plants and their boilers as well as the general operation of firerooms aboard ship are reviewed. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine fundamentals, 2 in marine auxiliary equipment, 2 in shipboard electricity (5/79).

CG-1723-0004

Class A Machinery Technician

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 16 weeks (555 hours).

Exhibit Dates: 5/79–11/86.

Objectives: To train enlisted personnel to perform as junior petty officers at the entry level in the machinery technical rating on Coast Guard cutters and stations.

Instruction: Lectures and practical exercises on the use of precision hand and machine tools, theory and practice in basic hydraulics, the internal combustion engine, diesel engine, clutches/shifting mechanisms, basic refrigeration and welding. For the course after 12/86, see CG-1723-0005.

Credit Recommendation: In the vocational certificate category, 4 semester hours in machine shop practices, 3 in basic refrigeration (12/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in internal combustion engines (12/79).

CG-1723-0005

Machinery Technician Class A

Course Number: MKA.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 11 weeks (334 hours). *Version 2:* 15 weeks (522 hours).

Exhibit Dates: *Version 1:* 11/88–Present. @@ 12/86–10/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to describe the operation and parts of two stroke and four stroke gasoline and diesel engines; explain the nasic components and functions in an axial flow gas turbine engine; explain the use and operation of marine engine cooling systems; perform tests on engine fuels and lubricants; explain the operation of engine governors, diesel injectors, gearing, clutch assemblies, and drive shafts; describe the principles of electricity and engine ignition, starting and charging; describe the operation auxiliary boilers and related compontnes; explain the operation of a refrigeration system and the duties and tasks of a small craft engineer. *Version 2:* Upon completion of the course, the student will be able to demonstrate the use of hand tools, measuring tools, and basic machine tools; describe the operation of fluid power components, the theory of operation and parts of two stroke, four stroke diesel engines; explain the use and operation of marine engine cooling systems; perform tests on engine fuels and lubricants; explain the operation of engine governors, diesel injectors, reduction gears, clutch assemblies, and drive shafts; understand the principles of electricity and engine ignition, starting and charging system: describe the operation of auxiliary boilers and related components; explain the operation of a refrigeration system and the duties and tasks of a small craft engineer.

Instruction: *Version 1:* Lectures and lecture/laboratories covering basic internal combustion engines, axial flow gas turbine engine, starting systems, cooling systems, lubricants, reclaiming lub oil, governors, fuel sustems, diesel engine tune-up, clutches, gearing, air compressors, electricity, ignition, generators/alternators, small boat engineering, blower/turbo chargers, auxiliary boilers, water distillation, and refrigeration. *Version 2:* Lectures, demonstration, and practical experiences in machine shop operation, internal combustion engines, fluid power systems, clutch and drive trains electrical systems, refrigeration systems, and small craft engineering.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in internal combustion engines, 1 in marine drive train, 2 in engine electrical systems, 1 in basic refrigeration, and 1 in small craft engineering (9/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in machine shop practices, 2 in internal combustion engines, 2 in ignition and electrical systems, 1 in small craft engineering and 1 in refrigeration (10/88).

CG-1728-0001

Port Security/Law Enforcement Officer

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5-6 weeks (146 hours).

Exhibit Dates: 1/66-12/73.

Objectives: To train officers in the fundamentals and techniques of criminal justice, police administration, and port security.

Instruction: General law; police administration; source of law; law enforcement; jurisdiction, evidence, arrest; investigations and reports; port security laws; public relations; communications; riot control, arson, sabotage, and countersabotage; weapons training; first aid; firefighting; pier construction; waterfront security; water pollution; port security; fingerprinting; cargo control; dangerous cargo.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

CG-1728-0002

Port Security/Law Enforcement Enlisted

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5-6 weeks (154 hours).

Exhibit Dates: 1/66-12/73.

Objectives: To train students in criminal justice techniques and port security operations.

Instruction: General law; source of law; law enforcement; jurisdiction, evidence, arrest; investigations and reports; port security, operations, laws; public relations; communications; riot control; arson, sabotage, weapons; first aid; firefighting; pier construction; waterfront security; water pollution; port security; fingerprinting; cargo control; dangerous cargo.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

CG-1728-0003

Maritime Law Enforcement

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5 weeks (150-200 hours).

Exhibit Dates: *Version 1:* 10/82-9/87. *Version 2:* 12/77-9/82.

Objectives: To train commissioned and noncommissioned officers as federal law enforcement officials.

Instruction: *Version 1:* Lectures and practical exercises in the duties and skills necessary to act as an agent of the federal government in legal and court situations. Topics include a brief history of the U.S. government; and thorough coverage of relevant constitutional, international and criminal law, military law, court procedures, prosecution, laws of evidence, search and seizure, suveillance, weapons training, arrest law and procedure, authority and interrogation procedures. *Version 2:* Lectures and practical exercises in the duties and skills necessary to act as an agent of the federal government in legal and court situations. Topics include a brief history of the U.S. government, constitutional, international and criminal law, military law, court procedures, prosecution, laws of evidence, search and seizure, surveillance, weapons training, authority and interrogation procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in political science (criminal justice system) and 2 in law enforcement laboratory (maritime) (7/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement, 1 in political science (12/79).

CG-1728-0004

Port Security School

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 6-10 weeks (204-357 hours).

Exhibit Dates: 3/79-5/89.

Objectives: To train students in criminal justice techniques and port security operations.

Instruction: Lectures and practical exercises in general law, law enforcement, jurisdiction, evidence, arrest, investigation and reports, port security operation, public relations and communications, riot control, arson, water pollution, cargo control, dangerous cargo and firefighting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in law enforcement, 2 in firefighting (12/79). Comparative compliance under state municipal police training standards for firearms qualification and techniques and mechanics of arrest and comparative compliance standards for firefighters in fire and gas techniques may also be met by this course (5/86).

CG-1728-0005

Firefighting Ashore (FFASH) by Correspondence

Course Number: 478-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 11/84-Present.

Objectives: To provide training in the principles and techniques of firefighting ashore.

Instruction: Topics include Coast Guard port safety authority and policy, roles of the firefighter, chemistry and behavior of fire, personnel safety and protective breathing apparatus, ropes, knots, and hitches, portable extinguishers, fire hose, fire streams and water supply, ladders, fire apparatus, rescue, forcible entry, ventilation, salvage and overhaul, sizing up and tactics/strategy used in firefighting, and hazardous material incident analysis. The principle textbook for this course is "Fire Service Practices for Volunteer Fire Departments" published by the International Fire Service Training Association (IFSTA). Students are required to successfully complete a proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fire science technology (5/85).

CG-1728-0006

Fire Prevention (FIRPREV) by Correspondence

Course Number: 436-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/81-Present.

Objectives: To provide training in the principles and techniques of fire prevention and fire safety inspections.

Instruction: Topics include fire prevention and fire safety inspection practices, fire department facilities planning and procedures, and water supplies for fire protection. Textbooks used for this course are "#110,Fire Prevention and Inspection,""#205,Water Supplies," and "#302, Facilities, Planning, and Procedures" published by the Intenational Fire Science Training Association (IFSTA). Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science technology (5/85).

CG-1728-0007

Firefighting on Vessels (FFVES) by Correspondence

Course Number: 427, 427-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/82-Present.

Objectives: To provide training in the basic principles of shipboard firefighting.

Instruction: Course describes pumping equipment, vapor detection devices, personal protective equipment, shipboard firefighting systems, appliances and portable fire equipment. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in fire science technology and 1 in nautical science (5/85).

CG-1728-0008

Firefighter First Class (FI1) by Correspondence

Course Number: 125-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 3/83-9/89.

Objectives: To train personnel in the characteristics of fire behavior, types of firefighting and firefighting techniques.

Instruction: Course covers the characteristics of fire behavior, types of fire fighting equipment (extinguishers, ropes, ladders, protective breathing apparatus, water supplies and sprinkler systems), and firefighting techniques including fire prevention, salvage and overhaul practices and communications. Course includes booklets that cover the operating principles of different types of fireboats and equipment carried on board, waterfront facility fires, cargo hold fires on vessels and the safe transportation of hazardous materials. International Fire Science Training Association manual "Essentials of Firefighting" is the primary reference text for the course. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fire science technology (5/85).

CG-1728-0009

Port Securityman Third Class (PS3) by Correspondence

Course Number: 365-1.

Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 7/81–Present.
Objectives: To present basic principles of port security, law enforcement, fire protection and hazardous materials control.
Instruction: Course offers basic instruction in the enforcement of federal laws governing the transportation, storage and containment of vessels and their cargos in an industrial setting. The elements of arrest and search and seizure are covered including the concepts of jurisdiction, warrant and warrantless searches. This course also covers basic firefighting information, techniques, equipment and appliances, placarding and hazardous materials control. There is also coverage of environmental protection as related to the federal Water Pollution Control Act and regulations governing vessel cargo packaging. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in industrial security (5/85).

CG-1728-0010

PORT SECURITYMAN FIRST CLASS (PS1) BY CORRESPONDENCE

Course Number: 165-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 11/79–Present.
Objectives: This course is designed to train enlisted personnel to perform the duties of port securityman first class.
Instruction: Course includes rules of evidence, interrogation and criminal investigation, chemical identification, and oil pollution investigations. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-1728-0011

PORT SECURITY BASIC (PSB) BY CORRESPONDENCE
(Port Security Second Class (PS2) by Correspondence)

Course Number: 0335-2,; 0265.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 2/80–10/89.
Objectives: Provides training in three areas of port security: law enforcement, hazardous materials controls and environmental protection, and basic firefighting techniques and procedures.
Instruction: Phase I covers the basic techniques and tactics of law enforcement, procedures and arrest, search and seizure, basic investigation techniques including interviewing, fingerprinting and photography, the judicial process, and an overview of industrial safety and security. Phase II covers the role of the Coast Guard with regard to violation of environmental protection statutes relating to vessels, inspections, oil spills, and hazardous materials accidents and response procedures. Phase III covers the elements of firefighting techniques, equipment and appliances, and response procedures; special attention is devoted to the security and safety in handling, loading, and storage of military explosives.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to law enforcement procedures, 1 in introduction to fire science, 2 in pollution identification and containment (5/85).

CG-1728-0012

WATERFRONT PROTECTION (WATPRO) BY CORRESPONDENCE

Course Number: 423-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 3/81–Present.
Objectives: Covers the law enforcement duties of the captain of the port in relation to waterfront protection.
Instruction: Provides an overview of arrest and search procedures, fingerprinting, and self-defense.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-1728-0013

LAW ENFORCEMENT (LAWENF) BY CORRESPONDENCE

Course Number: 403-3.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 1/79–Present.
Objectives: To provide training in the development and application of law enforcement duties and responsibilities of the Coast Guard in marine activities.
Instruction: Course covers the topics of constitutional law, rules of evidence, statutory authority, and principles of marine law enforcement. Course also includes navigation rules and regulations, jurisdiction, customs, boating safety and inspections and investigative techniques. Students are required to successfully complete a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 1 semester hour in marine patrol and law enforcement (5/85).

CG-1728-0014

INVESTIGATOR 1 (IV1) BY CORRESPONDENCE

Course Number: 0166-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: 104 weeks maximum.
Exhibit Dates: 12/83–Present.
Objectives: To provide criminal investigation training.
Instruction: Topics include the theory and application of criminal investigation techniques including rules of evidence and court procedure, search and seizure, use of force, interrogation, use of informants, evidence collection and preservation, and coordination with other agencies at state and federal level. Also includes coverage of physical plant security techniques and devices, security measures, background checks and counterintelligence.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation (5/85).

CG-1728-0015

PORT SAFETY/SECURITY OFFICER CORE

Course Number: MS 402R.
Location: Marine Safety School, Yorktown, VA.
Length: 2 weeks (67 hours).
Exhibit Dates: 10/84–7/88.
Objectives: To train students in the research of laws, regulations and objectives of marine safety.
Instruction: Course consists of lecture overview of aspects of the marine safety program related to vessel orientation, port safety, jurisdiction, laws and statutes, Coast Guard policies and pollution control. For the course after 8/88, see exhibit CG-1728-0029.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/86).

CG-1728-0016

PORT SAFETY AND SECURITY ENLISTED

Course Number: MS 421R.
Location: Marine Safety School, Yorktown, VA.
Length: 2 weeks (67 hours).
Exhibit Dates: 10/84–3/86.
Objectives: To prepare students for entry into port security positions.
Instruction: Lectures and practical exercises in methods and techniques of inspection and identification of violations of hazardous cargo storage and handling procedures, pollution prevention regulations and law enforcement resposibilities.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in law enforcement practicum (4/86).

CG-1728-0017

INVESTIGATION DEPARTMENT

Course Number: MS 472R.
Location: Marine Safety School, Yorktown, VA.
Length: 3 weeks (112-113 hours).
Exhibit Dates: 10/84–Present.
Objectives: To train student in investigative research techniques.
Instruction: Lectures and practical exercises regarding violations of laws, regulations, and acts of violence in the marine industry. Includes analysis of laws, collection and preservation of evidence, court procedures and case preparation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical report writing, 3 in evidence collection and preservation and 3 in introductory risk management (4/86).

CG-1728-0018

MARINE SAFETY PETTY OFFICER

Course Number: MS 400R.
Location: Marine Safety School, Yorktown, VA.
Length: 6 weeks (226 hours).
Exhibit Dates: 10/84–7/88.
Objectives: To train enlisted personnel in the areas of security and pollution concerns.
Instruction: Lectures, labs and practical exercises in laws and authorites, vessel traffic management, vessel boarding, pollution prevention, navigation safety, cargo operations, monitoring, investigations, post security functions, oil spill and hazardous chemical response, toxicological problems, respiratory and personal protection, flammable and toxic vapor detection and measurement and hazardous chemical transportation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial security techniques, 3 in security practicum, 3 in

report writing, 3 in oral communication and 3 in environmental management (4/86).

CG-1728-0019

Inspection Department

Course Number: MS 452R.

Location: Marine Safety School, Yorktown, VA.

Length: 7 weeks (254 hours).

Exhibit Dates: 10/84-Present.

Objectives: To train officers and petty officers to perform supervisory and marine inspection duties at marine safety units.

Instruction: Lectures and practical experience in procedures for inspection of structures, fittings and accomodations on all types of vessels. Student may also have taken a one-week marine safety core course vehicle consisted of laws, regulations and directives involving marine industry, terminology, ship design and construction, individual safety, and the role of the Coast Guard in law enforcement pollution control and regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in deck inspection methods and 4 in engine inspection methods. If the one-week marine safety core was also completed, in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to marine industry and regulations is recommended. in the upper-division baccalaureate category, 3 semester hours in inspection management (4/86).

CG-1728-0020

Port Operations

Course Number: MS 422R.

Location: Marine Safety School, Yorktown, VA.

Length: 7 weeks (250 hours).

Exhibit Dates: 10/84-3/86.

Objectives: To provide selected petty officers and civilian personnel with advanced technical training and knowledge of port operations departments and marine safety units.

Instruction: This course includes a study of marine safety environmental programs, laws and authorities, vessel traffic management, vessel boarding, pollution prevention, navigation safety, cargo operations monitoring, PES and MER investigations, port security considerations and physical security for facilities, oil spill response, hazardous chemical response policy, toxicological problems, CHRIS, respiratory and personal protection, flammable and toxic vapor detection and measurement, and hazardous chemical transportation. Student may also have taken a one-week marine safety core course which consisted of laws, regulations and directives involving marine industry, terminology, ship design and construction individual safety, and the role of the Coast Guard in law enforcement pollution and regulations. After 4/86, see CG-1728-0031.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in cargo operations, 5 in harbor control and security, 3 in hazardous cargo operations and 1 in funding and documentation. If the one-week marine safety core was completed; in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to marine industry and regulation is also recommended (4/86).

CG-1728-0021

Maritime Law Enforcement Boarding Officer

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3-4 weeks (144 hours).

Exhibit Dates: 5/88-Present.

Learning Outcomes: Upon completion of the course,the student will be able to perform all duties relative to maritime lawyers in enforcement officer in admistrative inspections, search, seizure, arrest, use of force, crime scene processing, and case file preparation.

Instruction: Includes lectures, group discussions, and practical exercises in topic areas such as authority and jurisdiction, use of force, applied concepts of law enforcement, enforcement of law and treaties, U.S. flag, fisheries, and criminal law procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement or police science, 1 in political science (4/89); in the upper-division baccalaureate category, 3 semester hours in criminal justice (4/89).

CG-1728-0022

Maritime Law Enforcement Basic Boarding

Course Number: MLE C.

Location: Reserve Training Center, Yorktown, VA.

Length: 5 weeks (166 hours).

Exhibit Dates: 10/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a maritime law enforcement officer including understanding the applicable legal concepts; perform advanced boarding procedures including administrative inspections, search, seizure, arrest, use of force, crime scene processing, case file preparation and courtroom procedures.

Instruction: Includes lectures, group discussions and practical exercises in authority and jurisdiction, use of force, applied concepts of law and enforcement, enforcement of laws and treaties; U.S. flag, general, fisheries, and criminal law and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement and police science, 1 in political science (4/89); in the upper-division baccalaureate category, 3 in criminal justice justice (4/89).

CG-1728-0023

Maritime Law Enforcement Advanced Boarding Officer Class C

Course Number: MLE ADV.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks, (120 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a maritime law enforcement boarding officer; advanced boarding procedures including teamwork and officer safety, administrative inspections, search, seizure, arrest, use of force, crime scene processing, and case file preparation.

Instruction: Includes lectures, group discussions, and practical exercises in the performance as a boarding officer; included are topic areas such as authority and jurisdictions, use of force, applied concepts of law enforcement, enforcement of laws and treaties and criminal law and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement or police science (4/89).

CG-1728-0024

Maritime Law Enforcement Instructor

Course Number: MLEIC.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (75 hours).

Exhibit Dates: 9/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a maritime law enforcement training officer at a field unit; must have an understanding of topics such as defensive tactics, field sobriety, and Coast Guard MLE training techniques.

Instruction: Includes lectures, group discussions, and practical exercises in use of force, sobriety enforcement, and instructor methodology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructor methods or teaching methods, 3 in police science or law enforcement (4/89).

CG-1728-0025

Port Physical Security Practical

Course Number: MS 423R.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (85 hours).

Exhibit Dates: 5/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to carry out all assigned duties relating to security and law enforcement of waterfront facilities, vessels, and waterways during peacetime and wartime scenarios in the port operations department.

Instruction: Lectures, Socratic and practical exercises with emphasis on hands-on training demonstrations; subjects include facility security, physical security system capabilities, cargo/personnel facility access control, patrol techniques, vessel security, application of cargo security principles to CG port security, risk, threat and vulnerability assessments, including OPSEC, COMSEC, and intelligence coordination, maritime counter-terrorism and law enforcement policies and techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/89).

CG-1728-0026

Port Physical Security Management

Course Number: MS 425R.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/86-Present.

Learning Outcomes: Upon completion of the course, the student will have gained an understanding of management techniques as applicable to port environment, Coast Guard responsibilities and security procedures and methods.

Instruction: Course material will be covered in a lecture format with some practical and written exams to assure understanding and comprehension.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 3 semester hours in administrative management (4/89).

CG-1728-0027

Port Security Safety Enlisted

Course Number: MS 421R.

Location: Marine Safety School, Yorktown, VA.

Length: 2 weeks (67 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to research and apply laws, regulations, and the objectives of marine safety as related to their applications in the handling of hazardous materials and will have become effective at enforcing the laws and regulations as they apply to the safety and security functions.

Instruction: Lectures and practical exercises in methods and techniques of inspection and identification of violations of hazardous cargo storage and handling procedures, pollution prevention regulations and law enforcement resposibilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement practicum (4/89).

CG-1728-0029

Port Security and Safety Officer

Course Number: MS 402R.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (67 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to research and apply laws, regulations and the objectives of marine safety, as related to their application in the handling of hazardous material, and become effective at enforcing the laws and regulations as they apply to the safety and security functions.

Instruction: Course consists of lecture overview of aspects of the marine safety program related to vessel orientation, port safety, jurisdiction, laws and statutes, Coast Guard policies and pollution control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement practicum (4/89).

CG-1728-0030

Marine Safety Petty Officer

Course Number: MS 400R.

Location: Reserve Training Center, Yorktown, VA.

Length: 6 weeks (199-201 hours).

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform in the areas of security and pollution concerns in cargo and vessel compliance, facility compliance, waterways management, pollution response authority, investigations, and pollution case files.

Instruction: Includes lectures, pratical exercises and exercise reviews in law and authority; handling of dangerous cargo manifests such as commerical explosives, radioactive materials, flammable or combustible liquids, pressurized materials, and monitoring and boarding procedures, also includes the topics of monitoring, investigations, post security functions, oil spill and hazardous chemical response, toxicological problems, flammable and topic vapor detection and measurement and hazardous chemical transportation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial security techniques, 3 in environmental management, 3 in industrial security practicum, and 3 in report writing (4/89).

CG-1728-0031

Port Operations Department

Course Number: MS 422R.

Location: Reserve Training Center, Yorktown, VA.

Length: 7 weeks (290 hours).

Exhibit Dates: 4/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to carry out advanced technician and supervision duties in the port operations department.

Instruction: Lectures, demonstrations, and practical exercises will be presented, with emphasis on hand-on experiences.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in cargo operation, 5 in harbor control and security, 3 in hazardous cargo operation, and 1 in funding and documentation (4/89).

CG-1729-0001

Commissaryman, Class A

Course Number: None.

Location: Coast Guard Training Center, Groton, CT.

Length: 16 weeks (686 hours).

Exhibit Dates: 6/64–10/72.

Objectives: To train cooks and bakers for mess operations.

Instruction: Principles and techniques of cooking and baking, with some instruction in purchasing and menu planning.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73).

CG-1729-0002

Subsistence Specialist, Class A
(Subsistence Specialist)

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: *Version 1:* 13 weeks (646 hours). *Version 2:* 16 weeks (562–766 hours). *Version 3:* 18 weeks (909 hours).

Exhibit Dates: *Version 1:* 2/79–7/85. *Version 2:* 4/76–1/79. *Version 3:* 11/72–3/76.

Objectives: To train subsistence specialists to operate and manage general messes, officer messes, and private messes.

Instruction: *All Versions:* Training covers all subject matter found in introductory food production and volume food service management courses. *Version 2:* Upon completion of this enlisted course the student should be able to prepare food for the enlisted and officer food service facilities under supervision of a senior staff officer. *Version 3:* Upon completion of this enlisted course the student should be able to prepare food for the enlisted and officer food service facilities under supervision of a senior staff officer.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in basic volume food preparation (8/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic volume food preparation (8/80). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 6 semester hours in hotel, restaurant, and institutional management (12/73).

CG-1729-0003

Subsistence Specialist, Class C

Course Number: None.

Location: Training Center, Petaluma, CA.

Length: 4–5 weeks (141–154 hours).

Exhibit Dates: 5/78–1/90.

Objectives: Course is a refresher course for NCO E-6 and a formal skills improvement course to provide E-4s more advanced learning experiences in supervision and administration.

Instruction: The course covers sanitation, record keeping, supervision, organization and management, business correspondence, purchasing and receiving of food and equipment on an advanced level beyond that of the Class A school.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food service management (8/80).

CG-1729-0007

Subsistence Specialist, Class A

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 13 weeks (481 hours).

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare and store food under safe and sanitary conditions using modern facilities and equipment under supervision of a senior staff officer.

Instruction: Instruction includes food preparation, sanitation, safety, storage, and equipment. Methodology includes lecture, discussion and laboratory experiences.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in quantity food preparation and 4 in food sanitation and safety (8/87).

CG-1729-0008

Subsistence Specialist, Large Mess Management

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage and supervise food service in all phases of Coast Guard operations.

Instruction: Instruction includes menu planning, cost control, inventory control, recordkeeping, cash handling, space requirements and utilization, fast food, and manpower management. Methodology includes lectures, discussion, and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food service management (8/87).

CG-1729-0009

SUBSISTENCE SPECIALIST, INDEPENDENT DUTY

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (77 hours).

Exhibit Dates: 9/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage and supervise all phases of Coast Guard dining facilities operations at independent duty stations.

Instruction: Instruction includes menu planning, recordkeeping, cost control, inventory control, cash handling, space requirements and utilization and business correspondence. Methodology includes lecture, discussion, and practical exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in food service management (8/87).

CG-1730-0001

REFRIGERATION AND AIR CONDITIONING

Course Number: RAC-ADV.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70–71 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to list and state the types of heat and state of of matter found in pure water at various temperatures; explain the refrigerant pressure temperature relationships; draw the basic refrigeration cycle; identify, state the functions, and locate refrigeration system components; list the safety precautions necessary to service refrigeration equipment; operate, read gages, defrost, and secure a water-cooled refrigeration system; select and use appropriate lead detectors, and find refrigerant leaks; silver solder, flare and swage copper and brass components; add and remove oil; evacuate and charge a system; adjust low and high pressure switches, and perform preventive maintenance procedures.

Instruction: Course is presented through lectures, demonstrations, videos, and laboratory exercises. Topics include types of heat, state of matter, pressure temperature relationships, refrigeration components, safety, system operation, leak detection and repair, adding and removing oil, evacuation, TXV adjustment, low and high pressure switch adjustment, and preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration theory and service principles (8/90).

CG-1731-0001

1. OUTBOARD ENGINES OPERATION AND MAINTENANCE
2. OUTBOARD MOTORS, MOTOR MAINTENANCE AND OVERHAUL, CLASS C

Course Number: *Version 1:* MK-23. *Version 2:* None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60–70 hours).

Exhibit Dates: *Version 1:* 10/79–1/88. *Version 2:* 7/65–9/79.

Objectives: To train enlisted personnel to operate, maintain, overhaul, and perform malfunction analysis of outboard and inboard/outboard engines.

Instruction: *Version 1:* Lectures and practical exercises in the disassembly, reassembly, and performance testing of two and four cylinder outboard marine engines and inboard/outboard stern drive units. *Version 2:* Lectures and practical exercises in the disassembly, reassembly, and testing of the two- and four-cylinder inboard/outboard marine engines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in small engine maintenance and repair (10/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in small engine laboratory (10/79). *Version 2:* In the vocational certificate category, 1 semester hour in small engine repair (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in small engine laboratory (6/75).

CG-1731-0002

GAS TURBINE BY CORRESPONDENCE

Course Number: 480-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 5/78–Present.

Objectives: This nonresident course provides basic understanding of gas turbine fundamentals.

Instruction: The course consists of five lessons and a proctored end-of-course examination. Each lesson has onee or more reading assignment followed by a series of questions. After completing the course the student will be able to explain gas turbine components and their functions; explain safety requirements for gas turbine; and perform some preventive and corrective maintenance on gas turbine engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine engine familiarization and fundamentals (5/79).

CG-2202-0001

OFFICER CANDIDATE SCHOOL (SEAMANSHIP, ORIENTATION, OPERATIONS AND MILITARY INDOCTRINATION)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: *Version 1:* 17 weeks (811 hours). *Version 2:* 15–18 weeks (420–630 hours).

Exhibit Dates: *Version 1:* 9/81–12/88. *Version 2:* 1/74–8/81.

Objectives: To provide officer candidates with the training prerequisite to active duty as a commissioned officer in the U.S. Coast Guard.

Instruction: *Version 1:* Lectures and practical execises covering Coast Guard orientation, career information, administrative procedures, leadership, seamanship, celestial and electronic navigation, physical education, small arms, military law and safety. For the course after 1/89, see exhibit CG-2202-0005/ *Version 2:* Lectures and practical exercises covering Coast Guard orientation, career information, administrative procedures, leadership, seamanship, electronic navigation, physical education, small arms, military law and safety.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to law enforcement, 1 in physical fitness and 1 in swimming (7/84); in the upper-division baccalaureate category, 3 semester hours in naval science, 3 in human relations/management (7/84). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in naval science, 3 in human relations/management (12/79).

CG-2202-0002

DIRECT COMMISSION CLASS

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 8/79–2/89.

Objectives: To provide candidates with a basic orientation to active duty or commissioned office in the Coast Guard.

Instruction: Topics include history of the Coast Guard, mission and scope of the Coast Guard law enforcement program, jurisdiction, service etiquette, officer career information, leadership and administration procedures. See exhibit CG-2202-0003 for the course after 3/89.

Credit Recommendation: Credit is not recommended due to the limited, specialized nature of the course (12/79).

CG-2202-0003

DIRECT COMMISSION OFFICER

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60–80).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve effectively as a commissioned officer in the U.S. Coast Guard.

Instruction: Includes lectures, discussions, demonstrations, simulations, and practical exercises to the Coast Guard's organization, missions and duties, as well as operational, administrative, leadership and management duties.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (4/89).

CG-2202-0004

RESERVE OFFICER CANDIDATE INDOCTRINATION

Course Number: ROCI.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60–80 hours).

Exhibit Dates: 3/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to serve effectively as an officer in the U.S. Coast Guard Selected Reserve.

Instruction: Includes lectures, discussions, and practical exercises in the duties and responsibilities required as officers in the U.S. Coast Guard; included are topics concerning rules, customs, and traditions; the requirement for self-discipline demands an understanding of the importance of honor and integrity in the conduct of an officer, and an understanding of the operations of the Coast Guard.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/89).

CG-2202-0005

OFFICER CANDIDATE

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 17 weeks (811 hours).

Exhibit Dates: 1/89–Present.

Learning Outcomes: Upon completion of the course, the student will meet the requirements of and serve effectively as a commissioned officer in the United States Coast Guard.

Instruction: Lectures and practical exercises covering Coast Guard orientation, career information, administrative procedures, leadership, seamanship, celestial and electronic navigation, physical education, small arms, military law and safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in human resource management (4/89); in the upper-division baccalaureate category, 3 semester hours in problem solving in management, 3 in naval science (4/89).

CG-2204-0001

20mm Mk 16 Mod 5 Machine Gun and Magazine Sprinklers Operation and Maintenance Class C

Course Number: GM-1.

Location: Reserve Training Center, Yorktown, VA.

Length: 1–2 weeks (56–59 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to load, operate, and perform maintenance on the 20mm machine gun and also to operate, test, and maintain the magazine sprinkler system.

Instruction: Lectures and practical exercises on the 20mm machine gun and the magazine sprinkler system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

CG-2204-0002

3"50 Gun Mount Mk 22 Operation and Maintenance Class C

Course Number: GM-3.

Location: Reserve Training Center, Yorktown, VA.

Length: 1–2 weeks (50–55 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify components, operate all subsystems, perform maintenance, and do inspections on 3"/50 caliber Mk 22 guns and mounts.

Instruction: This course is taught by a combination of lectures, demonstrations, and laboratories. Topics covered include operating, maintenance, and testing procedures on the 3"/50 caliber gun.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (10/88).

CG-2205-0001

Automated Aids to Navigation Maintenance

(Major Aids to Navigation)

Course Number: ANC-1.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Groton, CT.

Length: *Version 1:* 7 weeks (267 hours). *Version 2:* 7 weeks (196 hours). *Version 3:* 6 weeks (165 hours). *Version 4:* 6 weeks (221 hours).

Exhibit Dates: *Version 1:* 10/80–1/89. *Version 2:* 1/77–9/80. *Version 3:* 2/69–12/76. *Version 4:* 7/65–1/69.

Objectives: To train enlisted personnel to operate major light stations, fog signal stations, and lightships.

Instruction: *Version 1:* Lectures and laboratory exercises involving operation, installation and troubleshooting individual equipment, and equipment as part of complete systems. Topics include electronics (OHMS law, semi-conductor devices, basic circuit logic, circuit analysis) oscilloscopes, light emitting equipment, sound emitting equipment, diesel generator sets, battery power systems, radio beacon systems, floating aids to navigation, low visibility detection equipment, and maintenance team supervision. The course is at the block diagram level with troubleshooting to the card or component level. *Version 2:* Covers minor and major navigational aids. *Version 3:* Lectures and practical exercises in basic electricity, minor aid power, major aids, visual signaling, sound signals, minor lights, and introduction to outboard motors. *Version 4:* Lectures and practical exercises in aids to navigation, including function, operation, preventive maintenance, testing, and troubleshooting of major navigational aids equipment, test equipment, problems and hazards training, first aid, and installation, operation and maintenance of major aid apparatus and special testing equipment.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical technician or marine electrician (2/83). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 4 in maritime trades (light station operator)(8/78). *Version 3:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in maritime trades (light station operator) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in maritime trades (light station operator) and on the basis of institutional evaluation, 2 in basic electricity (6/75). *Version 4:* In the vocational certificate category, 5 semester hours in marine technology or oceanography, 2 as an elective in automotive technology, 2 as an elective in electrical technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine technology or oceanography, 2 as an elective in automotive technology, 1 as an elective in electrical technology (5/74).

CG-2205-0002

Minor Aids to Navigation

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Groton, CT.

Length: *Version 1:* 6 weeks (163 hours). *Version 2:* 6 weeks (221 hours).

Exhibit Dates: *Version 1:* 1/69–12/85. *Version 2:* 7/65–12/68.

Objectives: To train enlisted personnel for duty aboard tenders and at light attendant stations.

Instruction: Lectures in piloting and buoy positioning; charts; basic electricity; AC and DC theory and equipment; engine operation and maintenance, including theory, fuels, cooling systems, electrical and mechanical systems, piping and exhaust systems, and engineering safety; minor light and fog equipment; and buoys, minor structures, burning equipment, and power tools operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in maritime trade (minor aids to navigation maintenance) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in maritime trade (minor aids to navigation maintenance) (6/75). *Version 2:* In the vocational certificate category, 2 semester hours as an elective in electrical technology, 2 as an elective in automotive technology, and 5 in marine technology or oceanography (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electrical technology, 1 as an elective in automotive technology, and 3 in marine technology or oceanography (5/74).

CG-2205-0003

Aids to Navigation School (Short Course for Officers)

Course Number: None.

Location: Training Station, Groton, CT.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train officers to operate standard aids to navigation.

Instruction: Lectures in aids to navigation significance, battery-operated lights, acetylene-operated lights, light station management, radiobeacon operation, diesel generators operation and maintenance, emergency safety measures, fog signals, buoy handling, repair shop management, field inspection, and light attendant duties.

Credit Recommendation: In the vocational certificate category, 2 semester hours in navigational aids (5/74).

CG-2205-0004

Officer Candidate School

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 17 weeks (480 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To provide candidates with the training prerequisite to active duty as commissioned officers in the Coast Guard.

Instruction: Combat information center; Coast Guard orientation; communications; damage control—atomic, biological, and chemical warfare; gunnery; navigation; seamanship; training vessel; drill; physical education; military law; safety and first aid.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (12/68).

CG-2205-0005

General Service Indoctrination School

Course Number: None.

Location: Coast Guard Academy, New London, CT; Reserve Training Center, Yorktown, VA.

Length: 12 weeks (340 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To train officers commissioned from the U.S. Merchant Marine in the fundamentals necessary for performance of duty as commissioned officers in the Coast Guard.

Instruction: Coast Guard orientation; communications; rules of the road; navigation; combat information center; gunnery; antisubmarine warfare; damage control, including atomic, biological, and chemical warfare; Coast Guard engineering.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (12/68).

CG-2205-0006

Radiobeacon Operation

Course Number: None.

Location: Aids to Navigation School, Governors Island, NY.

Length: 2 weeks (58 hours).

Exhibit Dates: 7/65-12/68.

Objectives: To train personnel in the operation, watchstanding, reporting, maintenance and minor repair of radiobeacon equipment.

Instruction: Lectures and practical exercises in the operation, monitoring, maintenance, and minor repair of an unspecified radiobeacon.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-2205-0007

Small Arms Instructor

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/73-2/70.

Objectives: To train enlisted personnel to teach pistol and rifle marksmanship and to prepare them to be range officers and coaches, with emphasis on the caliber .45 automatic pistol and M-16 rifle.

Instruction: Lectures and practical exercises in teaching hand gun and rifle marksmanship and the management of firing ranges.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/75).

CG-2205-0008

Officers Advanced Aids to Navigation
(Aids to Navigation Officer Advanced Class C)

Course Number: ANC-5.

Location: Aids to Navigation School, Governors Island, NY.

Length: 2 weeks (60-64 hours).

Exhibit Dates: *Version 1:* 8/80-Present. *Version 2:* 4/66-7/80.

Objectives: To provide personnel with advanced training in signals engineering and administration.

Instruction: Lectures and practical exercises in signals arrangements, system evaluation, administration, and legal aspects of aids-to-navigation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in basic seamanship (2/83). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-2205-0009

Officers Basic Aids to Navigation
(Officers Basic Aids to Navigation, Class O)
(Aids to Navigation Officer Basic)

Course Number: ANC-4.

Location: Aids to Navigation School, Governors Island, NY; Coast Guard Training Center, Groton, CT.

Length: *Version 1:* 3 weeks (86 hours). *Version 2:* 4 weeks (120-137 hours).

Exhibit Dates: *Version 1:* 5/75-1/85. *Version 2:* 4/66-4/75.

Objectives: Training in the administration, evaluation, maintenance, and operation of the federal system of Aids to Navigation.

Instruction: *Version 1:* Students are familarized with batteries, various lamps, bouys, reflections, and minor navigational aid structures. Students learn to use the devices as aids to navigation. *Version 2:* Lectures and practical exercises in minor aids, minor aid power, major aids, major aid power, sound and visual signaling, major structures, the day mark, the buoy tender, safety, and administration.

Credit Recommendation: *Version 1:* No credit is recommended due to the diversity of the training (8/78). *Version 2:* In the vocational certificate category, 1 semester hour in maritime trades (navigation aid) (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in maritime trades (navigation aids) (6/75).

CG-2205-0011

Basic Military Training
(Recruit Training)

Course Number: None.

Location: Training Center, Cape May, NJ; Training Center, Alameda, CA.

Length: 8 weeks (240-320 hours).

Exhibit Dates: 1/78-Present.

Objectives: To provide training for personnel with no previous military experience.

Instruction: Course acquaints students with missions and operations of the Coast Guard and opportunities for profrssional growth; teaches basic seamanship skills; motivates the individual to regard unit goals as her/his own and to develop a sense of pride, self-discipline, self-confidence and a sense of the need for teamwork to accomplish a mission. This is achieved by formal classroom training as well as by creating a living and working environment with group living, standing watches, work detail assignments, discipline standards, and such routine activities as personnel and barracks inspections and marching. Course includes drug awareness, first aid, safety and survival. Also included is counseling and classification, civil rights, hygiene, physical fitness, career information, boat seamanship and deck seamanship.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in beginning swimming, 1 in personal fitness/conditioning, 2 in first aid and safety (11/79).

CG-2205-0012

Damage Control and Stability (DCS) by Correspondence

Course Number: 0480.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 3/85-5/86.

Objectives: To provide future commanding officers and executive officers of Coast Guard cutters with refresher training in damage control and stability.

Instruction: Course is designed to provide the basic theory of ship stability. This includes the effects of weights and hull stress on a vessel's stability. The damage control portion of the course provides the officer with a general overview of shipboard damage control operations and procedures. The specific duties of the damage control assistant and engineering officer are delineated. The course requires knowledge of basic physics, hydrodynamics, mathematical calculations and problem solving. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced nautical science and 2 in marine transportation (5/85).

CG-2205-0013

Coast Guard Orientation by Correspondence

Course Number: 404-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 104 weeks.

Exhibit Dates: 1/85-Present.

Objectives: To provide indoctrination to reserve officers and enlisted personnel in lieu of basic training.

Instruction: Course covers orientation to the Coast Guard. Topics include history and mission, organization, discipline, uniforms and awards, watches and routines, ship construction, seamanship, rules of the road, general drills, damage control and firefighting, survival, first aid, safety, maintenance, security, ships and aircraft, customs and ceremonies, rates and ratings, career information, boating safety, law enforcement and administration. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-2205-0014

Military Requirements (MRN-E-3) for E3 by Correspondence

Course Number: 455, 400.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 9/81-4/88.

Objectives: To provide necessary military requirements for promotion to E-3 or E-4.

Instruction: Topics include security regulations, marlinspike seamanship, career planning, first aid, safety and survival, firefighting safety, nuclear, biological and chemical warfare defense, environmental health hazards, surface preservation, color and coating manual, career information, Coast Guard organization, administration and supervision, boarding and radio telephone. Students are required to successfully complete a proctored end-of-course exam.

Credit Recommendation: In the vocational certificate category, 1 semester hour in first aid and marine safety (5/85).

CG-2205-0015

Radarman First Class (RD1) by Correspondence

Course Number: 139-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 8/82-10/86.

Objectives: To provide enlisted personnel with training to perform the duties of radarman.

Instruction: Course covers essential safety and first aid procedures, combat information center organization and surface operations, antisubmarine warfare and air control, naval tactical data systems, special plots and electronic warfare, navigation and special operations and communications. Students are required to successfully complete a proctored end-of-course evaluation. Students may supplement course with hands-on training on the job.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced navigation (tactical) (5/85).

CG-2205-0016

Radarman Second Class (RD2) by Correspondence

Course Number: 239-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 4/85–6/87.

Objectives: To provide personnel with training to perform the duties of radarman as set forth in the Coast Guard qualifications manual.

Instruction: The course covers combat information center operations, radar fundamentals, communications, administration and basic search and rescue. Emphasis is placed on navigation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced navigation (tactical) (3/85).

CG-2205-0017

Radarman Third Class (RD3) by Correspondence

Course Number: 339-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 6/82–Present.

Objectives: To provide training to radarmen in the use of detection equipment, communications, search and rescue procedures, rules of the road and electronic warfare.

Instruction: Course includes radar fundamentals and radar scope interpretation, principles and operation of radio direction finders, dead reckoning techniques, antisubmarine warfare operations, use of charts, use of maneuvering board, search and rescue procedures and navigation rules. Also includes communication procedures, use of publications, and electronic warfare equipment and operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic navigation (5/85).

CG-2205-0018

Weapons Officer (WEPOFF) by Correspondence

Course Number: 406-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 11/81–Present.

Objectives: To provide officers with the basic ordnance knowledge to effectively administer the weapons department on board a Coast Guard cutter.

Instruction: Training includes weapons administration, weapon systems, weapons training, applied gunnery and administration. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in office administration (5/85).

CG-2205-0019

Coast Guard Orientation Officers

Course Number: 405-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: 104 weeks maximum.

Exhibit Dates: 8/84–Present.

Objectives: To present a general overview of basic Coast Guard knowledge required by selected reserve officer candidates.

Instruction: Course consists of information on Coast Guard grooming standards, mission of the Coast Guard and reserve, shore units, universal and zulutime, personnel records, the Coast Guard filing system, correspondence course ordering, and Coast Guard reserve terminology. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/85).

CG-2205-0020

Officer In Charge/Executive Petty Officer

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 2 weeks (77 hours).

Exhibit Dates: 3/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to manage and administer a small operating station or unit, ashore or afloat.

Instruction: Instruction includes small unit operation and management with emphasis on logistical and physical plant administration, budget planning, written and oral communication to individuals and groups, and human relations management. Instructional methods include lecture, discussion, practical exercises, role playing, and case studies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in small business management (8/87).

CG-2205-0021

Reserve Small Boat Coxswain ADT

Course Number: SBX.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60–80 hours).

Exhibit Dates: 2/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate proficiency (daytime) in approximately 50% of the tasks necessary to comply with certification requirements or recertification requirements as required by CONSTINST M16114.11, VOC II.

Instruction: Lectures and practical exercises in small boat familiarization, small boat handling, small boat piloting and navigation, towing and salvage, rescue and delivery, search and rescue.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in piloting and navigation (4/89).

CG-2205-0022

Reserve Boatswain's Mate Basic ADT

Course Number: BM BAS.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (67 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, the student understand and be able to perform all basic boatswain mate duties, stressing those skills that require close supervision and hands-on training.

Instruction: Lectures and practical exercises including introduction to boatswain mate duties and responsibilities, marlinspike seamanship, use and principles of tackle, care of canvas and leather, lateral buoyage system, chart interpretation and basic piloting, fire fighting and salvage pump operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory basic seamanship (4/89).

CG-2205-0023

Radarman Second Class (RD2) by Correspondence

Course Number: 239-9.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 7/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify procedures for training personnel for plotting, standing watch, and ordering supplies; explain a communications plan; indentify procedures to prepare navigation charts, search and rescue plans, and preventive maintenance plans; identify procedures to solve advanced maneuvering board problems, tactical control problems, electronic warfare problems, and air control problems; explain the operation of electronic warfare equipment; explain the procedures used in radar interpretation.

Instruction: Major topics covered are administration, tactical communications, radar navigation, search and rescue techniques, preventive maintenance, operational techniques, detection equipment characteristics, and radar interpretation. An emphasis is placed on radar interpretation and navigation skills to support combat information center operations. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar interpretation techniques (6/90).

CG-2205-0024

Damage Control and Stability (DCS) By Correspondence

Course Number: 0480-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks.

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply the basic principles of naval architecture to calculate a vessel's stability under a variety of conditions, and identify the duties and responsibilities of shipboard personnel in the damage control organization both in port and underway.

Instruction: Topics include vessel stability and damage control. Training is provided in a non-resident, self-study format. Students are required to successfully complete a proctored end-of-course examination.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in technical naval architecture OR 2 in nautical science (ship stability) (6/90).

CG-2205-0025

Aids to Navigation Positioning

Course Number: ANC-AP.

Location: Reserve Training Center, Yorktown, VA.

Length: 1 week (52-57 hours).

Exhibit Dates: 10/89-Present.

Learning Outcomes: Upon completion of the course, the student shall be able to perform standard Coast Guard aids to navigation positioning operations. The student will be able to adjust and use survey sextants; determine the position of aids to navigation using Loran-C, radar ranges, gyro bearings, and horizontal sextant angles; to complete a gradient diagram workform using hand calculations; to use a portable computer and a Cap-II program tape to establish aid and object positioning files. The student shall be able to transfer programs and data files between the standard work station (with Cap-II program installed) and portable computer; to determine the accuracy classification for an aid to navigation and record this data in accordance with current instructions; to construct a positioning grid and a positioning template following Coast Guard procedures; to troubleshoot faulty positioning grids following instructions in the Naton School positioning grid; to evaluate an aids position when at short stay and when not at short stay; and the student will be able to complete an aid positioning record (CG-5216) in accordance with the latest Coast Guard instruction.

Instruction: Course is conducted through classroom lectures and practical exercises covering the following: adjusting the sextant; measuring sextant angles; determining aids position using Loran-C, radar, gyro bearings, horizontal sextant angles; introduction to the Cap-II portable computer; use of the Cap-II portable computer and transfering Cap-II information; aids classification accuracy; construction of a position grid, and of a template; identification of errors in templates; and completion of an aids position record.

Credit Recommendation: In the vocational certificate category, 1 semester hour in seamanship/navigation (6/90).

CG-2205-0026

QUARTERMASTER FIRST CLASS BY CORRESPONDENCE

Course Number: 0137-5

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 78 weeks.

Exhibit Dates: 9/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to define the responsibilities and duties of the officer of the deck, executive officer, and navigator; define the various effects and principles involved in conning a vessel in either restricted or open waters; distinguish between the magnetic and gyro compasses; define the principles of and procedures for degaussing; define the difference between permanent and induced magnetism; define the effect and corrective actions for deviation; determine a vessel's position using bearings, charts, instruments, and tables; anchor a vessel in an assigned berth; prepare a chart for use in piloting; calibrate and operate a radio direction finder (RDF); operate and use information obtained from the Loran-C system; operate a radar system; maintain and use a marine sextant; complete a solution for a celestial observation; define the responsibilities and duties for search and rescue (SAR) operations; define the responsibilities and duties of the on-scene commander of an SAR operation.

Instruction: Topics include ship conning, compasses and compass systems, piloting and dead reckoning, navigation by electronic equipment, celestial navigation, and basic search and rescue. Proctored final examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in celestial navigation and 2 in coastwise navigation (6/90).

CG-2205-0027

SMALL BOAT CREWMEMBER
(Reserve Small Boat Crewmember)

Course Number: SBC

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks.

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate small boats according to the procedures outlined in rules of the road; identify navigational aids; moor and tow small boats; practice basic seamanship, communication, fire drills, and survival skills.

Instruction: Lectures, including audio visual aids, and practical exercises both dockside and underway are methods of presentation. Students will use fathometers, assist coxswain with pump, stand towing watch, observe fire fighting equipment, and observe use of life raft.

Credit Recommendation: In the vocational certificate category, 2 semester hours in seamanship, 2 in small boat handling (6/90).

Course Exhibits

DD

DD-0326-0001

ARMED FORCES STAFF COLLEGE

Course Number: None.

Location: National Defense University, Washington, DC; Armed Forces Staff College, Norfolk, VA.

Length: *Version 1:* 21-22 weeks (633-735 hours). *Version 2:* 21 weeks (634 hours). *Version 3:* 21 weeks (548-642 hours).

Exhibit Dates: *Version 1:* 8/83-Present. *Version 2:* 6/73-7/83. *Version 3:* 7/54-5/73.

Objectives: To train officers in joint and combined military organization, planning, and operations, and in related aspects of national and international security.

Instruction: *Version 1:* Lectures, readings, and student papers and discussions in joint and combined military organization, planning, and operations and in related aspects of national and international security. Materials are divided into four major topic areas.(1) U.S. national security studies includes U.S. national strategy formulation and execution; domestic and external factors influencing and constraining U.S. national security policy making; geopolitics, and introduction to nuclear strategic theory and to arms control and disarmament. A political-military gaming exercise is required to help the student apply theory to the task of formulating and implementing security policy in a crisis situation. (2) Principles of managerial problem solving and leadership includes managerial planning techniques, computerized information system utilization, problem solving skills, and general leadership/professional skills.(3) Communicative skills include practical experience in oral communication for both large and small groups and written communication in the form of short briefing and summary papers as well as a major research paper.(4) Defense organization includes Army, Navy, Air Force, Marine and Department of Defense organization and operation. *Version 2:* Lectures, readings, and student research and discussions in joint and combined military organization, planning, and operations, and in related aspects of national and international security. Materials are divided into seven course blocks as follows: (1) Administration and Government Organization and Development, including national security policy making, U.S. diplomatic history, and current intelligence procedures; (2) U.S. Military Forces, including organization, personnel management, logistics, warfare capabilities (air, sea, submarine, and amphibious), strategic operations, tactics, and global operations; (3) Organization and Command, including various levels and types of command; (4) Defense Management, including defense planning, programming, economic analysis, probability, program management, analysis techniques, basic computer techniques and programming, and personnel management; (5) Planning and Procedures, including psychological operations; civil affairs; warfare planning and special operations; planning for each armed service; military communications and electronics; nuclear, chemical, and biological planning considerations; general war planning and effects, foreign internal defense planning; insurgency and counterinsurgency; insurgency in Colombia; and planning for limited war; (6) Environment and Strategy, including public affairs, arms control and disarmament; role of the press in the U.S. society; strength, weaknesses, objectives, and foreign policies of mainland China, U.S.S.R., South Asia, Latin America, Africa, Middle East, and Japan; future war and military operations; technologies of the future and their impact on military operations and development; national strategy formulation and execution; political, economic, psychological, and military aspects of national strategy; role of diplomacy and war in international relations; race relations and dissent, drug abuse, and the influence of social change in the U.S. military; and communicative arts, including development of reading, writing, analysis, and abstracting skills. *Version 3:* Lectures, readings, and student research and discussions in joint and combined military organization, planning, and operations, and in related aspects of national and international security, divided into five course blocks, as follows: (1) Orientation, including communist ideology; U.S. Army organization, operation, logistics, and combat developments; U.S. Navy organization and logistics; Navy air, submarine, antisubmarine and amphibious warfare; Air Force organization and operations; aerospace power and logistics; strategic and tactical air operations and systems development; Department of Defense organization and operation; role of systems analysis and management; automatic data processing orientation; national security policy making; and public affairs. (2) General Studies, including organization and command relationships; various command levels and geographical areas; joint planning processes and operations; intelligence estimates; military capabilities; strengths, and weaknesses, foreign policies of the U.S.S.R., communist China, South Asia, the Far East, North Africa and the Middle East, Latin America, and South Africa; various intelligence agencies; communications and electronics; telecommunications; basic logistic planning computations; logistic support under nuclear warfare conditions; base development; sea transportation; global operations; nuclear, chemical, and biological warfare planning and policy; civil affairs; counterinsurgency and counterinsurgency planning and activities; insurgency, unconventional warfare, psychological operations; future U.S. military operations; future war possibilities; future research and engineering; national strategy; political, economic; psychological, and military aspects of national security, and the role of diplomacy and war in international relations. (3) Demonstrations, including review of equipment, command control activities, state and city government facilities, and community relations. (4) Applications and Joint and Combined Planning, including planning for limited and general war. (5) The Joint Chiefs of Staff, including appraisals of national and international security; current and national policies and concepts; nuclear weapons orientation; U.S. history, and U.S. political parties and state and local governments.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in principles of managerial problem solving, 3 in communicative skills, 6 in U.S. national security studies and 3 in defense organization (7/87). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in principles and problems of management, 3 in international relations (Current Problems in World Politics), 3 in contemporary U.S. military history and national security policy, 3 in communicative arts (8/74); in the graduate degree category, 3 semester hours in management and systems analysis (8/74). Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 6 semester hours in business administration, 6 in political science—including international relations—3 in recent military history (8/74).

DD-0327-0001

DEFENSE SECURITY ASSISTANCE
MANAGEMENT OVERSEAS
(Core/Overseas)

Course Number: SAM-0.

Location: Defense Institute of Security Assistance, Wright-Patterson AFB, OH.

Length: 4-5 weeks (114 hours).

Exhibit Dates: 10/78-Present.

Objectives: To provide Department of Defense overseas representatives with the policies and procedures governing their conduct of operation overseas. Security assistance management is discussed from the national policy level through implementation by responsible agencies.

Instruction: This course covers the management of military sales to foreign countries as it relates to planning programming budget systems (PPBS), foreign policy, legal status overseas, physical security, cross cultural communications, government contracting, export controls and government procurement management. The method of instruction includes lecture, real-life case studies, simulator exercises and interaction with practitioners in the field.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in international business (11/78).

DD-0419-0001

DEFENSE PRESERVATION AND
INTERMEDIATE PROTECTION

Course Number: *All Versions:* 822-F1(JT). *Version 1:* 8B-F1(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD; Selected on-site locations, Continental United States.

Length: 2 weeks (70-76 hours).

Exhibit Dates: *Version 1:* 4/81-Present. *Version 2:* 5/70-3/81.

Objectives: To train commissioned officers, enlisted personnel, and civilian personnel in the techniques of cleaning, drying, preserving, and packing military supplies and equipment.

Instruction: *Version 1:* Lectures and practical exercises on preservation and intermediate protection of military supplies and equipment, including packing specifications, cleaning, preservatives, sprayable and strippable films, controlled humidity, packaging inspection, and packaging costs and documentation. *Version 2:* Lectures and practical exercises on preservation and intermediate protection of military supplies and equipment, including packing specifications, cleaning, preservatives, sprayable and strippable films, controlled humidity, packaging inspection, preparation of retrograde material for shipment, and packaging costs and documentation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in the preservation of equipment and supplies (2/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in the transportation, preservation, and protection of supplies (7/74).

DD-0419-0002

Defense Packing and Unitization

Course Number: 8B-F2(JT); 822-F2(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD; Selected on site locations, United States and overseas.

Length: 2 weeks (70-76 hours).

Exhibit Dates: 4/70-Present.

Objectives: To train personnel in the packing, marking, and loading of military supplies and equipment for storage and shipment.

Instruction: Lectures and practical exercises in the packing, marking, and loading of military supplies and equipment for storage and shipment, including introduction to packing and containerization, crate design, cargo unitization and containerization, cushioning and blocking, bracing and anchoring, loading for shipment, utilization of packing lines, parcel shipments, and packing cost reduction. After July 1983 the course was conducted off-site and overseas.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in transportation, regulations, packing and unitization (3/90).

DD-0419-0003

Defense Packaging of Hazardous Materials for Transportation

Course Number: 8B-F7(JT); 822-F7(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Selected On-site locations, U.S.; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD.

Length: 1-2 weeks (50-70 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train military personnel, civilian government employees, and qualified members of industry in the current requirements and procedures in the preparation of hazardous materials for transportation, including marking, certification, handling, and storage, through approved government and civilian methods and techniques.

Instruction: Use of Department of Defense (DOD); Department of Transportation (DOT); Air Force Regulation (71-4); International Air Transport Association Restricted Articles Regulations (IATA); Intergovernmental Maritime Consultative Organization (IMCO); and Official Air Transport Restricted Articles Tarriff and Circular No. 6-D regulatory documents for the transportation of hazardous materials by rail, motor, air and water. Comparison of DOD, DOT, IATA, and IMCO containers authorized for use in packaging hazardous materials classifications and labels; IMCO classifications and labeling requirements; MIL-STD-129 requirements for hazardous and other materials requiring special handling data/certification on DD Form 1387-2 label.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in packaging of hazardous materials for transportation (5/90).

DD-0419-0004

Defense Basic Preservation and Packing

Course Number: 822-F13(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (62-70 hours).

Exhibit Dates: 7/80-Present.

Objectives: To train enlisted personnel and civilian employees of the Army, Navy, Air Force, Marine Corps and the Defense Logistics Agency in basic preservation and packing principles for new and repairable material for storage or shipment.

Instruction: This course, designed for operational enlisted and civilian personnel, consists of introduction to military and industrial preservation, corrosion control, cleaning and drying, preservatives, preservation materials and equipment, preservation methods, introduction to military and industrial packing, special and general purpose shipping container, cushioning, blocking, bracing, weatherproofing, cargo utilization, marking and labeling, and packing for shipment. Forty-two percent of the course is devoted to conference time, 45 percent to demonstrations and student practice in the areas of preservation and packing, and 13 percent to examinations plus nonacademic areas.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic preservation, packing, and protection of new and repairable equipment (1/90).

DD-0419-0005

Defense Packaging Management Training

Course Number: 8B-F26(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD.

Length: *Version 1:* 9 weeks (318-347 hours). *Version 2:* 8 weeks (284 hours).

Exhibit Dates: *Version 1:* 2/82-Present. *Version 2:* 3/80-1/82.

Objectives: To train military and civilian personnel in the techniques and skills required to become packaging specialists and manage packaging programs for the military services and Defense Logistic Agency (DLA).

Instruction: *All Versions:* Philosophies, concepts, and practices of military packaging and packaging management. Lecture/conferences and practical instruction are provided in preservation and intermediate protection, packing and unitization, marking for shipment and storage, packaging of hazardous materials for transportation, foam-in-place packaging, and packaging design. Guest speakers and field training trips are part of regular classroom instruction. Students will prepare a research paper. *Version 1:* Course includes packaging design.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in preservation of equipment and supplies, 1 in transportation regulation, packing and unitization including marking for shipment, storage and and foam-in-place packaging, 2 in packaging of hazardous materials for transportation, 1 in packaging design and 1 in packaging management to include field training (6/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in the preservation of equipment and supplies, 1 in transportation regulation, packing and unitization including marking for shipment, storage, and foam-in-place packaging, 2 in packaging of hazardous materials for transportation, 1 in packaging management to include field training (4/90).

DD-0419-0006

Defense Packaging Design

Course Number: 8B-F16(JT).

Location: School of Military Packaging Technology, Aberdeen Proving Ground, MD; Joint Military Packaging Training Center, Aberdeen Proving Ground, MD.

Length: 2 weeks (70-76 hours).

Exhibit Dates: 3/80-Present.

Objectives: To train military and civilian personnel of the Department of Defense in approved policies, methods and techniques of packaging design, handling and shipment with emphasis on selection of packing and cushioning materials, to provide adequate protection to items of supply at a minimum cost.

Instruction: Identifying item characteristics; transportability; deterioration of materials; the natural and transportation environment; container design and selection; packaging documentation; testing and safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in packaging design (1/90).

DD-0504-0001

Basic Journalist

(Information Specialist (Journalist))
(Basic Military Journalist)

Course Number: ABA79130-1(USAF); 570-71Q10; 570-71Q20; A-570-0011(USN); 28-R-701.1.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 10 weeks (337-396 hours). *Version 2:* 9-10 weeks (344-358 hours). *Version 3:* 9-10 weeks (396-440 hours).

Exhibit Dates: *Version 1:* 8/79-Present. *Version 2:* 4/72-7/79. *Version 3:* 12/64-3/72.

Objectives: To teach selected enlisted personnel the principles, techniques, and skills required in public information, service information, and community relations.

Instruction: *All Versions:* Lectures and practical experiences in print journalism, including interviewing techniques, news and feature writing, editing, newspaper layout and makeup; photojournalism, including the taking, processing, and printing of photographs; radio and television writing; speech; international relations and government; public affairs. *Version 1:* Print media, public affairs and photojournalism are emphasized. *Version 2:* Print media skills, public affairs and photojournalism are emphasized. *Version 3:* Print media, broadcast media and photography are emphasized.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in news writing and reporting (print), 2 in news writing and reporting (electronic), 2 in photojournalism and 2 in layout and design (8/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mass communications and 3 in introduction to print and photojournalism (2/78). *Version 3:* In the vocational certificate category, 3 semester hours in mass media (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 3 semester hours in journalism, and credit in social sciences and oral communication on the basis of institutional evaluation (12/68).

DD-0504-0002

Public Affairs Supervisor
(Advanced Information Specialist)

Course Number: *Version 1:* 570-F1, 5AZA79170. *Version 2:* 570-F1, 5AAA79170 (USAF); A-570-0012 (USN). *Version 3:* 28-R-F1.

Location: *Version 1:* Defense Information School, Ft. Benjamin Harrison, IN. *Version 2:* Defense Information School, Ft. Benjamin Harrison, IN. *Version 3:* Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 3 weeks (106 hours). *Version 2:* 3 weeks (98–106 hours). *Version 3:* 8 weeks (352 hours).

Exhibit Dates: *Version 1:* 10/79–4/87. *Version 2:* 9/72–9/79. *Version 3:* 3/55–8/72.

Objectives: To provide advanced training in the planning, supervision, and coordination of information activities for selected noncommissioned and petty officers who will perform duties as assistants to the officer-in-charge of an information office/section or a radio and television facility.

Instruction: *All Versions:* Applied journalism, including news, headline, editorial, and feature writing; page layout and makeup; radio and television, including news and feature writing, announcing, studio operation, television camera techniques, control room operation, newscast preparation and production, blocking scripts, and television feature production. *Version 1:* Emphasis is placed on management and supervisory skills.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hour in media management (9/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in media management (journalism) (8/78). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 3 semester hours in journalism, and credit in social sciences on the basis of institutional evaluation (12/68).

Related Occupation Codes: 71Q.

DD-0504-0003

Editors
(Military Editor)
(Newspaper Editor)

Course Number: 570-F2; A-570-0013; 5AZA79150; A1143D1(43D).

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: Self-paced 3 weeks (118–132 hours).

Exhibit Dates: 7/68–9/89.

Objectives: To provide additional print journalism instruction to personnel assigned as editors of military newspapers and magazines.

Instruction: Beginning in 1976, course becomes a highly individualized, self-paced program consisting of pretest, group-paced, self-paced, final performance test and newspaper improvement project. Subject areas include photojournalism, print journalism and public affairs. Lectures and practical experience cover all phases of newspaper production, culminating with a 4-page service newspaper or, beginning in 1976, a tabloid size page of a hypothetical military newspaper. Workshop includes communications law, Department of Defense policy on release of information, newsgathering, writing, editing, style, deadlines, photo selection and editing, and layout and page makeup.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in newspaper production (journalism) (10/86).

DD-0504-0004

Information Enlisted
(Information Specialist)

Course Number: 28-F-1; 28-R-701.1; 28-R-703.1; 28-R-703.2.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: 8–10 weeks (278–345 hours).

Exhibit Dates: 11/56–12/68.

Objectives: To provide enlisted personnel with a working knowledge in the selection, evaluation, preparation, and dissemination of Army information through available media of communications.

Instruction: Policy and plans, including public relations philosophy and practice, and information aspects of unusual incidents, stressing the case-study approach; applied journalism, with performance skills in all tasks required to publish a service newspaper; research communications, stressing preparation of the information specialist for public speaking, speech writing, briefings, and group discussions; radio and television, including training in writing, announcing, and production staff functions; internal relations and government, stressing the U.S. international position in terms of world patterns.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications, and credit in journalism on the basis of institutional evaluation (12/68).

DD-0504-0005

Troop Information and Education Enlisted

Course Number: 28-F-1.

Location: Defense Information School, Ft. Slocum, NY.

Length: 8 weeks (352 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to assist in the organization, operation, and supervision of troop information and education programs.

Instruction: Policies and operational procedures; speech preparation and presentation; discussion-leading techniques; organization of group study activities; testing procedures, advisement principles; practical exercises in newsgathering and newswriting; troop information radio broadcasting; comprehensive study of citizenship, history, government, and international affairs; fundamentals of typewriting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass communications (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass communications (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0006

Troop Information and Education Officer

Course Number: 28-O-6.

Location: Defense Information School, Ft. Slocum, NY.

Length: 8 weeks (352–360 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train officers to supervise instruction periods and other activities of the Army's troop information and education programs.

Instruction: Policies and procedures; speech preparation and presentation; discussion-leading techniques; organization of group study activities; instructor selection; testing procedures; advisement principles; practical exercises in newsgathering and newswriting; troop information radio broadcasting; comprehensive study of citizenship, history, government, and international affairs.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in journalism (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in journalism (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in journalism (12/68).

DD-0504-0007

Public Information Officer

Course Number: 28-O-5.

Location: Information School, Ft. Slocum, NY.

Length: 8 weeks (360 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train officers to perform and/or supervise the preparation of news stories, special articles, posters, photographs, radio and television programs, and other informational material for release to information media; to establish speakers bureaus; and to promote friendly relations with information media representatives and civilian communities.

Instruction: Policies and procedures; speech preparation and presentation; public speaking exercises; use of visual-mechanical aids; basic photographic techniques, including camera operation, film processing, photo printing, picture selection, film types and exposures, and picture story assignments; civilian press operation, organization, and philosophy; newswriting; preparation of material for radio and television broadcasts; citizenship, history, government, and international affairs.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass media (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0008

PUBLIC INFORMATION ENLISTED

Course Number: 28-E-2.

Location: Information School, Ft Slocum, NY.

Length: 8 weeks (360 hours).

Exhibit Dates: 4/54-12/68.

Objectives: To train enlisted personnel to collect, prepare, and disseminate information to newspapers, magazines, radio, television, and other informational media, and to assist in promotion of other public relations activities.

Instruction: Policies and procedures; speech preparation and presentation; public speaking exercises; use of visual-mechanical aids; basic photographic techniques, including camera operation, film processing, photo printing, picture selection, film types and exposures, and picture story assignments; civilian press operation, organization, and philosophy; newswriting and related activities; preparation of material for radio and television broadcasts; citizenship, government, history, and international affairs; typing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass media (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0009

1. PUBLIC AFFAIRS OFFICER
2. INFORMATION OFFICER
3. INFORMATION OFFICER
4. INFORMATION OFFICER BASIC

Course Number: *Version 1:* 7G-46A, A-7G-0010(USN); 5OBA7921-002(USAF); 7G(USMC); 7G-46A(USCG). *Version 2:* 50BA7921-1; 7G-5505; A-7G-0010; 7G-46A. *Version 3:* 50BA7921-1 (USAF), A-7G-0010. *Version 4:* 28-G-5505; 7G-5505.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 9-10 weeks (331-367 hours). *Version 2:* 8 weeks (306 hours). *Version 3:* 8 weeks (270-278 hours). *Version 4:* 8 weeks (284-285 hours).

Exhibit Dates: *Version 1:* 10/83-Present. *Version 2:* 6/79-9/83. *Version 3:* 1/72-5/79. *Version 4:* 1/65-12/71.

Objectives: To provide entry level public affairs training for officers and civilians from all services.

Instruction: *Version 1:* Lectures and practical exercises in the duties of an information specialist. Course includes instruction in government and public affairs, media management, print and electronic journalism, and basic public speaking. *Version 2:* Lectures and practical exercises in the duties of an information specialist. Course includes journalistic writing and editing, basic photography, radio and television writing and announcing, public speaking, public information techniques and community relations, and study of international press and government attitudes. *Version 3:* Lectures and practical exercises in the duties of an information specialist. Course includes journalistic writing and editing, basic photography, radio and television writing and announcing, public speaking, public information techniques and community relations, and study of international press and government attitudes. *Version 4:* Lectures and practical exercises in the duties of an information specialist. Course includes journalistic writing and editing, basic photography, radio and television writing and announcing, public speaking, public information techniques and community relations, and study of international press and government attitudes.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in print journalism (news writing and editing), 2 in electronic journalism, 3 in public relations, 2 in introduction to photography, and 1 in basic public speaking (11/87); in the upper-division baccalaureate category, 2 semester hours in government and public affairs and 1 in media management (11/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in public relations and communication, 2 in continuity writing, 2 in news-writing, 1 in introduction to photography (2/80). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in public relations (journalism)(2/78). *Version 4:* In the vocational certificate category, 6 semester hours in journalism (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in journalism (7/74); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 semester hour in oral communication, and additional credit in journalism on the basis of institutional evaluation (12/68).

DD-0504-0010

1. SHIPBOARD INFORMATION, TRAINING AND ENTERTAINMENT (SITE) SYSTEM OPERATORS
2. SHIPBOARD INFORMATION, TRAINING AND ENTERTAINMENT (SITE) SYSTEM OPERATORS (TELEVISION AFLOAT)

Course Number: *Version 1:* A-570-0016(S). *Version 2:* A-570-0010(S) (USN).

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 6 weeks (245 hours). *Version 2:* 2 weeks (81 hours).

Exhibit Dates: *Version 1:* 8/80-5/85. *Version 2:* 10/76-7/80.

Objectives: To train selected junior naval personnel as shipboard information, training, and entertainment system operators/administrators aboard designated ships.

Instruction: *Version 1:* Topics include administration, logistics, scheduling, supply, military public relations and audio and video equipment usage. *Version 2:* Through practical exercises, demonstration, and individual critique, the student learns the basics of video production, equipment utilization and maintenance, and external news relations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in voice diction, 2 in radio and television production and programming (8/80); in the upper-division baccalaureate category, 3 semester hours in military public relations (8/80). *Version 2:* In the vocational certificate category, 1 semester hour in introduction to video production (2/78).

DD-0504-0011

INFORMATION OFFICER (RESERVE COMPONENT)

Course Number: 7G-F3 (RC).

Location: Defense Information School, Ft Benjamin Harrison, IN.

Length: 2 weeks (69 hours).

Exhibit Dates: 6/72-9/82.

Objectives: To train reserve officers in functions of information specialists with emphasis or public relations, writing for print and broadcast media, photo editing and composition, internal information and community relations.

Instruction: Lectures and exercises in the duties of an information specialist including public relations principles, writing and editing for print and broadcast media, techniques for use of broadcast equipment and exercises in public information problems.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in public relations (journalism)(2/78).

DD-0504-0012

SHIPBOARD INFORMATION TRAINING AND ENTERTAINMENT (SITE) SYSTEM

Course Number: A-570-0010.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 5 weeks (208 hours).

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to administer program and operate a shipboard information training and entertainment system (SITE). Student will be able to deliver a newscast, write and produce an audio sport announcement, prepare a news release and produce a video or audio training program. Student will operate and maintain basic SITE audio and video equipment.

Instruction: The course is limited to ten students with 96 hours of conference and exam work and 120 hours of laboratory practical exercises. The topics include public affairs management and procedures, operation of SITE equipment for broadcast of AFRTS programming and production of print, audio and video productions for information, training and public affairs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional television, or 1 in public relations, 1 in broadcasting and 1 in video production (5/90).

DD-0504-0013

PUBLIC AFFAIRS OFFICER COURSE (RESERVE COMPONENT)

Course Number: 7G-F3; A-7G0013; G502A7921-001; DCJ.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (66 hours).

Exhibit Dates: 7/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to function as an information/public affairs officer with training in public relations, community relations and oral communications with specific skills in writing for print and broadcast media plus photo editing and composition.

Instruction: Instruction includes lectures and exercises involving the duties of an information specialist to include public relations principles, public opinion and mass communication, media relations, communication law, oral training, electronic news gathering, commercial station operations, visual communication, and writing news and feature stories.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in public relations (communication) (5/90).

DD-0504-0014

Public Affairs Supervisor

Course Number: 570-F1.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (103 hours).

Exhibit Dates: 5/87–9/89.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties as assistant to the officer-in-charge at a public affairs office/section or Armed Radio and Television facility.

Instruction: Studies cover the theory and practice of communication, community relations and personnel management, picture editing and publication design, electronic newsgathering, oral performance skills, public affairs in contingency operations, staff organization, supervision and training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in media management (5/90).

DD-0504-0015

Editors

Course Number: 7G-F11/570-F2; A-570-0013; GA2A79150; A1143D1 (43D).

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 4 weeks (157 hours).

Exhibit Dates: 10/89–Present.

Learning Outcomes: Upon completion of the course, students will be able to apply the principles and techniques of editorship to their base, post, ship or station publication, and will be able to employ newspaper layout, makeup, design, and readability test to a publication; edit advanced news and feature articles; write headlines and photo captions and outlines. Student will be able to use desktop publishing software in editing and newspaper production.

Instruction: The course is highly individualized and self-paced. Diagnostic tests are used to designate editoral strengths and weaknesses at the beginning of the course. Instructor/Advisors monitor student progress carefully to insure weaknesses receive special attention. Student are required to complete a culminating experience in a publication improvement project requiring evaluation and redesign. Student may complete all requirements in less than four weeks.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours of editing with desktop publishing integrated (5/90).

DD-0505-0001

1. Basic Broadcaster
2. Information Specialist (Broadcaster)
3. Information Specialist (Broadcaster)
4. Broadcast Specialist
5. Broadcast Specialist (Radio and Television Production Specialist)

Course Number: *Version 1:* 570-71R10; A-570-0010; G5ABA7931-001; USMC-570. *Version 2:* 570-71R10 (USA); A-570-0010 (USN); 5ALA-79131 (USAF); 570 (USMC). *Version 3:* 570-71Q20; A-570-0010; 5ALA79131. *Version 4:* 570-71R20. *Version 5:* AZA72151-1; 28-R-703.1; 28-R-703.2.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 12 weeks (465 hours). *Version 2:* 10 weeks (348-397 hours). *Version 3:* 10 weeks (348–397 hours). *Version 4:* 8 weeks (287–298 hours). *Version 5:* 3 weeks (110 hours).

Exhibit Dates: *Version 1:* 9/83–9/89. *Version 2:* 10/79–8/83. *Version 3:* 11/69–9/79. *Version 4:* 5/66–10/69. *Version 5:* 7/64–4/66.

Objectives: To train selected enlisted personnel in the principles, techniques, and skills required to perform the duties and functions of a broadcaster in a military radio/ television outlet and/or the broadcast activity of a public affairs office.

Instruction: *All Versions:* Lectures and practical experience in applied journalism, including newsgathering, speech and research training; intensive indoctrination in radio and television, including programming, writing, operation, logs, control room, TV production, broadcast regulations, and appropriate examinations; and study of international relations. *Version 1:* Current version includes lectures and seminars in public affairs and community relations policy and principles. It does not include motion picture operation and editing. *Version 2:* Includes lectures and seminars in public affairs and community relations policy and principles. It does not include motion picture operation and editing. *Version 3:* Does not include motion picture operation and editing, TV production, broadcast regulations and study of international relations. *Version 4:* Does not include motion picture operation and editing, TV production, broadcast regulations and study of international relations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in writing for media, 3 in radio operations, 3 in basic television production, and 2 in broadcast announcing (6/86); in the upper-division baccalaureate category, 1 semester hour in broadcast regulations (6/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in basic writing for electronic media or continuity writing, 4 in introduction to radio and television techniques, 2 in announcing, and 1 in broadcast performance (2/80). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic writing for electronic media or continuity writing, 3 in introduction to radio and television techniques (2/78). *Version 4:* In the vocational certificate category, 6 semester hours in broadcast journalism (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast journalism (12/73); in the upper-division baccalaureate category, 3 semester hours in radio and television programming (12/68). *Version 5:* In the vocational certificate category, 2 semester hours in broadcast journalism (12/73); in the lower-division baccalaureate/associate degree category, 1 semester hour in broadcast journalism (12/73); in the upper-division baccalaureate category, 1 semester hour in radio and television programming (12/68).

DD-0505-0002

1. Armed Forces Radio and Television System Broadcast Manager (AFRTS Broadcast Manager (Broadcast Manager)
2. Broadcast Officer
3. Broadcast Officer
4. Broadcast Officer

Course Number: *Version 1:* 7G-46B/570-F4; 7G-46B; 570-F4; G5OZA7921-004; A-7G-011/CDP0313; DCJ. *Version 2:* 7G-5522(USA); 7G-0011 (USN). *Version 3:* 7G-5522(USA). *Version 4:* 7G-5522(USA); 28-A5522.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Mobile Training Teams on Location; Armed Forces Radio and Television Service Broadcast Centers, U.S.A.

Length: *Version 1:* 4 weeks (146–150 hours). *Version 2:* 6–7 weeks (229–257 hours). *Version 3:* 4 weeks (148 hours). *Version 4:* 3 weeks (110 hours).

Exhibit Dates: *Version 1:* 5/80–4/89. *Version 2:* 3/72–4/80. *Version 3:* 12/67–2/72. *Version 4:* 7/64–11/67.

Objectives: To train selected commissioned officers, warrant officers, and civilians in the the basics of radio and television production. Additional management skills are introduced to provide the basic skills needed for: management of an American Forces Radio and Television Service (AFRTS) outlet, management of broadcast operations in a public affairs office, and management of stateside closed-circuit broadcast facilities.

Instruction: *All Versions:* Course includes lectures and practical experiences in radio and television programming and production; additional individual attention to basic management skills. *Version 1:* Includes some practical experiences in broadcast personnel supervision and management responsibilities; audience and community relations; fiscal management and budgeting practices; management of news; and forms of programming, network/station relations, and equipment procurement and familiarization.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in broadcast management and administration, 4 in advanced production and programming management (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introducton to radio and television production (2/78). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radio and television programming (7/74). *Version 4:* In the lower-division baccalaureate/associate degree category, 1 semester hours in radio and television programming (7/74).

DD-0505-0003

Electronic Journalism

Course Number: 570-F3; 4313; 4321; 4391.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (75–77 hours).

Exhibit Dates: 11/79–Present.

Objectives: To provide training in the planning, production, and editing of news and information features for television, utilizing electronic news gathering equipment and techniques.

Instruction: Training and practical experience in videotape editing techniques, portapak operations, and news gathering.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic news gathering and editing techniques (4/90).

DD-0505-0004

Basic Broadcaster

Course Number: 570-46R10; A-570-0010; G5ABA79131-000; 570.
Location: Defense Information School, Ft. Benjamin Harrison, IN.
Length: 12 weeks (446 hours).
Exhibit Dates: 10/89–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform the duties and functions of a broadcaster in a military radio or television station to include on air announcing, radio/television production and broadcast journalism assignments.
Instruction: Methods of instruction include lecture, seminar, demonstration and practical exercise. The Defense Information School is very well equipped for teaching these classes with radio and television school and all allied equipment. Instruction includes worldwide geopolitical studies, research and library methods, radio/television news and feature writing, intensive announcing and radio/television production exercises and training in electronic journalism.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast newswriting, 3 in radio production/operations, 3 in television production, and 3 in performance (announcing) (5/90).

DD-0505-0005

Armed Forces Radio Television
System Broadcast Manager

Course Number: FG-46B/570-F4; G502A7921-004; A-7G-0011/CDP 0313; DCJ.
Location: Defense Information School, Ft. Benjamin Harrison, IN.
Length: 4 weeks (150 hours).
Exhibit Dates: 5/89–Present.
Learning Outcomes: Upon completion of the course, the student will be able to manage Armed Forces Radio and Television Stations. The training provides skills in broadcast operations, broadcast management, broadcast computer operations and the public affairs aspects of broadcasting.
Instruction: The course includes lecture, seminar, demonstrations and practical exercises. Topics include station operations, communication technology, conflicts of interest, executive duties, radio programming, television programming, news and sports programming, music selection, broadcast law, audience surveys, budgeting, engineering and other manager responsibilities.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in broadcast management (5/90).

DD-0602-0001

Albanian Basic

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0002

Albanian Basic

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 47 weeks.
Exhibit Dates: 1/57–12/80.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0003

Foreign Service Institute Language
Program

(French)
(German)
(Igbo)
(Italian)
(Lingala)
(Portuguese
(Rundi)
(Spanish)
(Twi)
(Vietnamese)
(Yoruba)

Course Number: None.
Length: 16 weeks.
Location: School of Language Studies, Arlington, VA.
Exhibit Dates: 1/59–12/86.
Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.
Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work-related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts each program.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 12 semester hours for each course (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0004

Foreign Service Language Program
(Hausa)

Course Number: None.
Length: 19 weeks.
Location: School of Language Studies, Arlington, VA.
Exhibit Dates: 1/59–12/86.
Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assgned to overseas posts.
Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work-related requirements within special fields; to learn to be effective communicators and to read current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 15 semester hours (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard, Arlington, Virginia 22209).

DD-0602-0005

Foreign Service Institute Language Program
(Afrikaans)

Course Number: None

Location: School of Language Studies, Arlington, VA

Length: 20 weeks

Exhibit Dates: 1/59-12/86

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.

Instruction: Curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work-related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 12 semester hours (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute. (Department of State;1400 Key Boulevard, Arlington, Virginia 22209)

DD-0602-0006

Foreign Service Institute Language Program
(Danish)
(Dutch)
(French)
(German)
(Italian)
(Norwegian)
(Portuguese)
(Spanish)
(Swedish)

Course Number: None

Location: School of Language Studies, Arlington, VA

Length: 20 weeks

Exhibit Dates: 1/59-12/86

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work-related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 14 semester hours for each course(7/73). Before awarding credit, officials at at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, VA 22209).

DD-0602-0007

Foreign Service Institute Language Program
(Vietnamese)

Course Number: None

Location: School of Language Studies, Arlington, VA.

Length: 20 weeks

Exhibit Dates: 1/59-12/86

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.

Instruction: Curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of the program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 15 semester hours(7/73). Before awarding credit,officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Language Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0008

Foreign Service Institute Language Program
(Afrikaans)
(Dutch)
(French)
(German)
(Italian)
(Portuguese)
(Rumanian)
(Spanish)
(Swahili)
(Swedish)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 24 weeks.

Exhibit Dates: 1/59-12/86.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned overseas.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are intergal parts of the program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category,a maximum of 15 semester hours for each course (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Language Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0009

Foreign Service Institute Language Program
(Amharic)
(Arabic)
(Arabic—Western)
(Bengali)
(Bulgarian)
(Burmese)
(Cambodian)
(Chinese—Cantonese)
(Chinese—Mandarin)
(Czech)
(Dari Afghan-Persian)
(Finnish)
(Greek)
(Hebrew)
(Hindi-Urdu)
(Hungarian)
(Indonesian)
(Japanese)
(Korean)
(Lao)
(Malay)
(Nepali)
(Persian)
(Filipino Tagalog)
(Polish)
(Russian)
(Serbo-Croatian)
(Sinhala)
(Tamil)
(Thai)
(Turkish)
(Vietnamese)

Course Number: None

Location: School of Language Studies, Arlington, VA

Length: 24 weeks

Exhibit Dates: 1/59-12/86

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned overseas.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 18 semester hours for each course (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State, 1400 Key Boulevard, Arlington, Virginia 22209).

DD-0602-0010

Foreign Service Institute Language Program
(Swahili)

Course Number: None

Location: School of Language Studies, Arlington, VA

Length: 32 weeks

Exhibit Dates: 1/59-12/86

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers,periodicals, documentary materials and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 18 semester hours(7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (DS-651) from the Registrar of the Foreign Service Institute (Department of State, 1400 Key Boulevard, Arlington, Virginia 22209).

DD-0602-0011

FOREIGN SERVICE INSTITUTE LANGUAGE PROGRAM
(Danish)
(German)
(Norwegian)

Course Number: None

Location: School of Language Studies, Arlington, VA

Length: 32 weeks

Exhibit Dates: 1/59–12/86.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned overseas.

Instruction: A curriculum designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 20 semester hours for each course (7/73).Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (DS-651) from the Registrar of the Foreign Service Institute (Department of State, 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0012

MALAY BASIC
(Indonesian-Malay Basic)

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 30–32 weeks (870 hours). *Version 2:* 36–47 weeks.

Exhibit Dates: *Version 1:* 1/78–9/86. *Version 2:* 1/57–12/77.

Objectives: To enable students to develop operational oral and written communicative skills in the Malay language.

Instruction: *Version 1:* The course utilizes 12 volumes of a specially prepared Indonesian Malay text series as well as additional Malay components which include oral and written materials. *Version 2:* Lectures, discussions, and oral drills in the interpretation and translation of the Malay, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 9 semester hours for beginning Malay and 6 for intermediate Malay (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 in Indonesian-Malay for the 47 week course; 18 in Malay for the 36 week course (8/74).

DD-0602-0013

VIETNAMESE—HANOI BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 36–42 weeks. *Version 2:* 47 weeks.

Exhibit Dates: *Version 1:* 1/77–9/84. *Version 2:* 1/57–12/76.

Objectives: To train military personnel in an intensive Vietnamese language course covering both oral and written components that aim to develop operational communicative skills.

Instruction: *Version 1:* Lectures, discussion, oral drills and language laboratory work incorporating oral and written materials especially prepared for this course which aims to develop operational language skills. Extensive treatment of military/civil government situations is covered during the later phases of the program. *Version 2:* Lectures, discussions, and oral drills in the interpretation and translation of the Vietnamese language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 12 semester hours at the beginning level and 9 ranging from lower intermediate to the upper intermediate in the 36–42 week Vietnamese-Hanoi course (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper division, 21 semester hours in Vietnamese-Hanoi dialect for the 47-week (8/74).

DD-0602-0014

BURMESE BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–6/65.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (2/81).

DD-0602-0015

MODERN STANDARD ARABIC AURAL COMPREHENSION
(Arabic Aural Comprehension)

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 46 weeks (1310–1380 hours).

Exhibit Dates: 1/81–7/81.

Objectives: An intensive course of study in the designated language emphasizing listening comprehension, transcription and translation.

Instruction: Instruction emphasizes aural comprehension including general comprehension. Reading, speaking and writing are also covered in descending order of emphasis. Emphasis is on transcription and translation of recorded texts and dialogues. Comprehension skills in Egyptian or Syrian dialects, combined with continued oral training in Modern Standard Arabic is provided during the last phase of the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 16 semester hours in aural-oral production, 4 in four-skill practice and 4 in aural Egyptian or Syrian dialect (3/81).

DD-0602-0016

GERMAN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: *Version 1:* 32 weeks (960 hours). *Version 2:* 24 weeks (690 hours).

Exhibit Dates: *Version 1:* 10/79–Present. *Version 2:* 1/54–9/79.

Objectives: To be conversant in everyday German, with special emphasis given to listening comprehension and reading translation.

Instruction: *Version 1:* Class activities focus on dialog adaptation, memorization, pronunciation practice. Grammar rules are presented in conjunction with oral drill and pattern exercises. The course puts great emphasis on listening comprehension using the language laboratory to develop this aural skill. *Version 2:* The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964. Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 10 semester hours in elements of first year German and 6 in second year German for the 32-week German course (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 12 in German for the 24 week course (3/74).

DD-0602-0017

RUSSIAN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* See NOTE below: 47 weeks (1380 hours). *Version 2:* 23–37 weeks.

Exhibit Dates: *Version 1:* 10/78–7/81. *Version 2:* 1/54–9/78.

Objectives: An intensive language course designed to develop basic proficiency in all four language skills with special emphasis on aural comprehension and transcription skills.

Instruction: *Version 1:* Through the use of dialog manipulation, oral practice, grammar presentation, structural drills and reading and translation the student develops not only language proficiency, but also receives an introduction to selected areas of Russian and Soviet culture, history, geography and military affairs. Special attention is devoted to developing listening skills and transcription techniques. *Version 2:* The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously) Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken languageis emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary Russian, 6 in intermediate Russian; in the upper-division baccalaureate category, 9 semester hours for advanced Russian (conversation/reading) (3/81). NOTE: Prior to 1981 the Air Force version of this course was 37 weeks in length. For Air Force personnel completing the 37 week course the 37 week course between 1978 and 1981 apply the credit recommended in version 2. *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours for the 23- or 24 week course, 18 for the 37 week Russian course (8/74).

DD-0602-0018

Albanian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (690-1380 hours).

Exhibit Dates: 1/81-4/85.

Objectives: Intensive basic instruction in the four skills: elements of aural comprehension, speaking, reading and writing. Introduction of the most frequent structural features through cultural/situational exercises.

Instruction: Audio-lingual small-group instruction incorporating structural and vocabulary/pronunciation drills. Grammar and vocabulary are introduced through dialogues, reading/translation exercises and controlled conversation with area background knowledge covered. Throughout the course functional oral/aural communicative skills are emphasized. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in oral/aural, 7 in writing/translation (3/81); in the upper-division baccalaureate category, 7 semester hours in intermediate conversation and writing (3/81).

DD-0602-0019

Bulgarian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1380 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive language course which aims to develop basic proficiency in all four language skills at a level providing functional communicative competence.

Instruction: Through the use of dialog manipulation, oral practice, grammar presentation, structural drills, reading and translation exercises, the student develops language proficiency and receives an introduction to selected areas of the culture, history, geography, socio-economic structure and military affairs of the country of the language studied. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary, 6 in intermediate Bulgarian (3/81); in the upper-division baccalaureate category, 9 semester hours in advanced (conversation, reading) Bulgarian (3/81).

DD-0602-0020

German Extended

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690-780 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive course designed to provide a higher level of proficiency in all four language skills for those students directly out of the basic language course.

Instruction: For approximately two-thirds of the course the students discuss readings and answer detailed questions covering the materials in textbooks that deal with German history, geography and current affairs. In addition they read prose and poetry by East German soldiers. The remaining one-third of the course is devoted to listening and transcribing sophisticated, authentic German.

Credit Recommendation: In the upper-division baccalaureate category, 12 semester hours in advanced German (3/81).

DD-0602-0021

Chinese—Cantonese Basic

Course Number: 0ICC47.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1068-1380 hours).

Exhibit Dates: 1/81-Present.

Objectives: To provide an intensive course of study with the focus on speaking/comprehension, reading and writing in descending order of emphasis. The course enables the student to develop operational oral and written communicative skills.

Instruction: The course includes oral/aural drills in both the classroom and the laboratory. Reading instruction emphasizes text comprehension and translation. In the Chinese courses students are exposed to approximately 1200 characters for recognition and are expected to self-write approximately 600 characters. Writing exercises emphasize character writing with a minimum training in expressive writing. Question/answer, drill, classroom discussion and supplementary workbooks provide drill material on prounuciation. NOTE: While these courses are listed as Basic it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category 12 semester hours at the beginning level and 12 ranging from lower intermediate to upper intermediate level (3/81).

DD-0602-0022

Bulgarian Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690-1080 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 12 semester hours in advanced Bulgarian (conversation) and 6 in advanced Bulgarian (reading) (3/81).

DD-0602-0023

Arabic—Egyptian/Syrian
Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 32 weeks (930 hours). *Version 2:* 37 weeks (1080 hours).

Exhibit Dates: *Version 1:* 1/76-9/90. *Version 2:* 1/54-12/75.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic course.

Instruction: *Version 1:* The course reviews the basic elements of Modern Standard Arabic (MSA) and offers extensive oral-aural practice in Egyptian and Syrian dialects with limited continued training in MSA and also exposes the student to other dialect variations such as Libyan, Palestinian, Jordanian and Iraqi dialects. The course uses an oral-aural approach with extensive situational dialogues and texts relevant to the historical, cultural and geopolitical aspects of the dialects taught. *Version 2:* Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, and extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 8 semester hours in Egyptian dialect, 8 in Syrian dialect and 2 in exposure to other Arabic dialects for the 32-week Arabic course (3/81). NOTE: For current credit recommendation see Appendix F. *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in Arabic for the 37-week course. (8/74).

DD-0602-0024

CZECH INTERMEDIATE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 37 weeks (1080 hours). *Version 2:* 36 weeks (1045 hours).

Exhibit Dates: *Version 1:* 1/78–9/86. *Version 2:* 1/54–12/77.

Objectives: An intensive course which is designed to develop a higher level of proficiency in all four language skills than provided in the basic course.

Instruction: *Version 1:* There is first a review of the content of the basic course. The course then proceeds to have the student achieve greater language proficiency through the use of selected readings drawn from contemporary materials, authentic radio broadcasts and discussions in Czech on a variety of topics including culture, economics and politics. *Version 2:* Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in advanced Czech (conversation) and 6 in advanced Czech (reading). NOTE: The credit recommended reflects senior year college studies and does not overlap with the advanced credit awarded for the Basic Czech course. (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in Czech for the 36-week course (8/74).

DD-0602-0025

KOREAN INTERMEDIATE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 37 weeks (1080 hours). *Version 2:* 24–37 weeks (690 hours).

Exhibit Dates: *Version 1:* 1/74–9/84. *Version 2:* 1/54–12/73.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic course.

Instruction: *Version 1:* Training in all four skill areas continues but the reading component receives special emphasis and included work with newspapers, technical material and generally sophisticated expository prose. Oral/aural skill development includes discussion of reading material and audio tape comprehension practice. Writing practice continues to focus on the writing of characters and exercises that derive from the written material. *Version 2:* Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 15 semester hours in intermediate Korean beyond the basic course (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in Korean for the 24-week course (8/74); in the graduate degree category, 6 in Korean for the 37-week course (8/74).

DD-0602-0026

ARABIC (EGYPTIAN, SYRIAN, IRAQI) BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 46 weeks (1350–1386 hours).

Exhibit Dates: 1/81–9/84.

Objectives: To provide an intensive course of study covering phonology and writing systems and to develop the student's fluency in listening, speaking, reading and writing of the language.

Instruction: The course follows a combined functional approach providing extensive oral and written practice through various structural and combination drills, guided conversation, writing exercises and language laboratory recordings. The Arabic course covers about 2500 basic vocabulary including 500 military terms. Readings on subjects dealing with Arabic life and culture are stressed toward the last part of the course. NOTE: While these courses are listed as Basic,it should be understood that this is the terminology used by "regular" programs in the various languages. They are not limited to what most civilian institutions term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in main elements, 4 in main elements of a dialect (3/81); in the upper-division baccalaureate category, 10 semester hours in intermediate Arabic (3/81).

DD-0602-0027

CHINESE ADVANCED

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (1080-1100 hours).

Exhibit Dates: 1/81–9/85.

Objectives: An intensive course which aims to develop maximal proficiency in all four language skills at a level higher than that provided by the intermediate course.

Instruction: The course begins with a review of the intermediate course materials and continues on with selected readings of contemporary materials and the use of radio broadcasts. reading skills are extended through work on technical materials and military readings. Writing skills are developed through the self-writing of characters introduced in the reading materials.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in advanced Chinese beyond intermediate level, ranging from advanced to technical advanced (3/81).

DD-0602-0028

GERMAN GATEWAY

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: Self-paced 8 weeks.

Exhibit Dates: 1/81–Present.

Objectives: To provide an orientation to the designated language and culture on a very basic level.

Instruction: Students listen to audio recordings of various speakers and work with accompanying print materials. The materials cover such everyday topics as travel, shopping, leisure time activities and survival needs. The student then interacts with the instructor on a one-to-one basis.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 4 semester hours in first year German (3/81).

DD-0602-0029

Greek Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/84.

Objectives: To train selected individuals in the comprehension, speaking, reading and writing of a foreign language. The student gains the ability of communicating effectively in everyday vocabulary and language.

Instruction: The fundamentals of comprehension, speaking, reading and writing are developed with the help of integrated course materials. The approach is essentially audio-lingual with questions and answers combined with textual interpretation, grammatical exercises and pattern drills. Students come close to fluency. This course teaches both demotic and katharevousa languages. The students active vocabulary consists of approximately 2000 lexical items. NOTE: While this cours is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in first year Greek, 6 in second year Greek (3/81).

DD-0602-0030

German Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 32 weeks (930-1380 hours).

Exhibit Dates: 1/81-9/85.

Objectives: To understand, speak, read, and write the language with an emphasis on audio-lingual skills.

Instruction: Lectures, practical exercises and laboratory work in basic grammatical structures in conjunction with oral drills, pattern exercises and written dictation. The first part of the course focuses on dialog adaptation and memorization and pronunciation practice with increasing emphasis on reading and translating authentic texts. The subject matter of these texts covers social and cultural situations, geography, economic, social and military history. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages, and are not limited to what institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in first-year German and 6 in second-year German (3/81).

DD-0602-0031

Dutch Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690 hours).

Exhibit Dates: 8/76-9/85.

Objectives: To train military personnel to be conversant in everyday Dutch.

Instruction: Class activities focus on the student's ability to master oral and written pattern exercises with emphasis on dialog and memorization. Topical reading selections from current Dutch periodicals are used as well as commercially prepared audio-lingual materials. Discussion of the readings goes beyond recall and recognition questions. Students are asked to analyze and interpret content in Dutch. Emphasis is given to the use of Dutch idiomatic expressions and their English equivalents. NOTE: While the courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours for beginning Dutch and 6 in intermediate Dutch (3/81).

DD-0602-0032

Indonesian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: *Version 1:* 30 weeks (810-870 hours). *Version 2:* 24-47 weeks.

Exhibit Dates: *Version 1:* 8/76-9/84. *Version 2:* 1/57-7/76.

Objectives: Intensive instruction in the elements of oral comprehension, speaking and reading with functional oral/aural skills emphasized. Students develop operational communicative skills.

Instruction: *Version 1:* The course takes an audio-lingual approach which embraces intensive small-group interaction with multimedia support materials. Grammar and vocabulary are introduced through dialogues, structural drills and controlled conversation. NOTE: While the course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language. *Version 2:* Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 9 semester hours in beginning Indonesian and 6 in intermediate Indonesian (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 in Indonesian for the 36-week course, 21 for the 47-week course (3/81).

DD-0602-0033

Albanian Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0034

Short Basic Arabic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12-24 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking, and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 12-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0035

EXTENDED OR BASIC-INTERMEDIATE
CHINESE—MANDARIN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 74-75 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours (8/74); in the graduate degree category, 6 semester hours (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0036

BULGARIAN INTERMEDIATE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course, however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0037

CHINESE—MANDARIN ADVANCED

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/69-1/88.

Objectives: To train selected Department of Defense personnel in foreign languages at a more advanced level of proficiency than is provided in Defense Language Institute Extended or Intermediate Courses; and to provide a wide knowledge of cultural, geographical, economic, historical, and political information on the area in which the language is spoken.

Instruction: The advanced course places equal emphasis upon the development of all four language skills. There is no specialized or technical terminology in the course. It includes a total vocabulary of approximately 4,000 terms, over and above that covered in previous courses, that cover all general, nontechnical communication situations that one would normally encounter in the country of the target language. The cultural complex within which the language is spoken is covered extensively: history, economics, geography, politics, military, ethnic groups, languages, attitudes, customs and mores of the people.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0038

Scientific Russian

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 6-12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: The objective of the Scientific course is to train military personnel to read and translate Russian technical and scientific publications and to speak and understand conversational Russian to a limited extent.

Instruction: The Scientific Course includes instruction in Russian phonology and writing systems; oral exercises in elementary speech patterns; Russian structural patterns; reading practice; problems in lexicology; identification of Russian words and cognates; and scientific terminology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, credit in scientific Russian on the basis of institutional evaluation (8/74).

DD-0602-0039

Arabic Intensive

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 40-47 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours for the 40-week course, 27 for the 47-week course (21 if taken prior to 1970) (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0040

Vietnamese—Saigon Dialect Basic

Course Number: None.

Location: Defense Language Institute Support Command, Biggs Field, El Paso, TX.

Length: 47 weeks.

Exhibit Dates: 9/66-7/73.

Objectives: The Basic Course provide personnel with training in the interpretation and translation of the designated language, as well as basic military, geographic, economic, historical, and political information about the area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the designated language. The term, "Basic" as used by the military, indicates a "regular" course in the language. The Basic Course is not limited to what most civilian institutions would term beginning or basic courses in the language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours in Vietnamese (8/74).

DD-0602-0041

National Cryptologic School
Resident Language
(Basic Chinese—Refresher)
(Basic Russian—Refresher)
(Basic Vietnamese)

Course Number: None.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 21-30 weeks.

Exhibit Dates: 1/54-1/88.

Objectives: The 12-week Refresher courses are designed to enable personnel to regain a basic competence in comprehension of the standard literary language by an accelerated, systematic review of grammar and vocabulary. (A basic course in the language is assumed as a prerequisite); the 30-week Basic Vietnamese course is designed to teach personnel the grammar and vocabulary necessary for a basic comprehension of the standard literary language with emphasis on a thorough understanding of structure.

Instruction: Refresher Courses: Phonology; writing system; basic vocabulary of economic, political, and military terms. Basic Vietnamese: In addition to the preceding instruction, this course includes grammar (morphology, derivation, and syntax).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 6 semester hours in Chinese for the 12-week basic (refresher) course; 3 in Russian for the 12-week basic (refresher) course; 15 in Vietnamese for the 30-week basic course (8/74).

DD-0602-0042

Short Basic Turkish

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/77-11/85.

Objectives: To provide an introduction to modern standard Turkish phonology and the most frequently used grammatical structures.

Instruction: The course starts with a formal study of modern Turkish phonology and grammar utilizing the usual aural-oral and written techniques. A variety of situational dialogues is used to develop a working, practical knowledge of the language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in introduction to basic Turkish elements (3/81).

DD-0602-0043

Foreign Service Institute Language
Program
(Rumanian)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 44 weeks.

Exhibit Dates: 1/59-1/88.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned to overseas posts.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are an integral part of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 21 semester hours (7/73). Before awarding credit, officials at receiving institution should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0044

Foreign Service Institute Language
Program
(Bulgarian)
(Burmese)
(Cambodian)
(Czech)
(Finnish)
(Greek)
(Hebrew)
(Hindi-Urdu)
(Hungarian)
(Indonesian)
(Persian)
(Polish)
(Russian)
(Serbo-Croatian)
(Thai)
(Turkish)
(Vietnamese)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 44 weeks.

Exhibit Dates: 1/59-1/88.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel assigned overseas.

Instruction: Curriculum is designed to help students acquire language skills to meet general social demands and the further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 24 semester hours for each course (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0045

FOREIGN SERVICE INSTITUTE LANGUAGE PROGRAM
(Amharic)
(Arabic)
(Arabic—Western)
(Chinese—Cantonese)
(Chinese—Mandarin)
(Dari Afghan-Persian)
(Bengali)
(Japanese)
(Lao)
(Nepali)
(Filipino Tagalog)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 44 weeks.

Exhibit Dates: 1/59–1/86.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personnel in overseas assignments.

Instruction: Curriculum is designed to help students acquire language skills to meet general social demands and the further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are an intergal part of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 27 semester hours for each course (7/73). Before awarding credit, officials at receiging institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, VA 22209).

DD-0602-0046

FOREIGN SERVICE INSTITUTE LANGUAGE PROGRAM
(Arabic—Eastern)
(Chinese—Standard)
(Japanese)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 92 weeks.

Exhibit Dates: 1/59–1/86.

Objectives: To develop oral-aural proficiencies in languages for foreign affairs personal posted overseas.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of the programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate caterogy, a maximum of 56 semester hours for each course (7/74). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0047

FOREIGN SERVICE INSTITUTE LANGUAGE PROGRAM
(Swahili)

Course Number: None.

Location: School of Language Studies, Arlington, VA.

Length: 32 weeks.

Exhibit Dates: 1/59–1/86.

Objectives: The primary objective of the Foreign Service Institute language programs of the Department of State is to develop oral-aural proficiencies in languages for foreign affairs personnel assigned overseas.

Instruction: The curriculum is designed to help students acquire language skills to meet general social demands and to further develop the competence to handle professional work-related requirements within special fields; learning to be an effective communicator and reading of current newspapers, periodicals, documentary material and literature in various professional fields of the language being studied are integral parts of each program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, a maximum of 18 semester hours (7/73). Before awarding credit, officials at receiving institutions should obtain a certified Language Training Report (Form DS-651) from the Registrar of the Foreign Service Institute (Department of State; 1400 Key Boulevard; Arlington, Virginia 22209).

DD-0602-0049

ARABIC BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0050

BULGARIAN BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and

(3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0051

CHINESE—CANTONESE BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 26 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0052

CHINESE—MANDARIN BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular"programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 26 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0053

CZECH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0054

DANISH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0055

FRENCH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0056

GERMAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 23 weeks.
Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0057

GREEK BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular"programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0058

HUNGARIAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0059

ITALIAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 23 weeks.
Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular"programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0060

JAPANESE BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 26 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0061

KOREAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0062

NORWEGIAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 23 weeks.
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0063

PERSIAN BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0064

POLISH BASIC

Course Number: None.
Location: Army Language School, Presidio of Monterey, CA.
Length: 46 weeks.
Exhibit Dates: 1/54–12/56.
Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0065

PORTUGUESE BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23 weeks.

Exhibit Dates: 1/54-12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0066

ROMANIAN BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 36 weeks.

Exhibit Dates: 1/54-12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0067

RUSSIAN BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54-12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0068

SERBO-CROATIAN BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54-12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for

English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0069

SPANISH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0070

SWEDISH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0071

TURKISH BASIC

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While this course is listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0072

ARABIC BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (21 semester hours if the course was taken prior to 1970) (8/74).

DD-0602-0073

BULGARIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0074

Chinese—Cantonese Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0075

Chinese—Fukienese Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0076

Chinese—Toishan Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0077

Chinese—Mandarin Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0078

Czech Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0079

French Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74).

DD-0602-0080

German Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24-32 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours for the 24-week course, 17 for the 32-week course (15 semester hours if the course was taken prior to 1970) (7/84).

DD-0602-0081

Greek Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0082

Hungarian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0083

Italian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74).

DD-0602-0084

Japanese Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0085

Korean Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 semester hours (8/74).

DD-0602-0086

Norwegian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74).

DD-0602-0087

Persian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57–12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0088

POLISH BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0089

PORTUGUESE BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74).

DD-0602-0090

ROMANIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74).

DD-0602-0091

RUSSIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0092

SERBO-CROATIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0093

SWEDISH BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/57-12/80.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74).

DD-0602-0094

THAI BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 47 weeks.
Exhibit Dates: 1/57–12/80.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (8/74).

DD-0602-0095

TURKISH BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 41–47 weeks.
Exhibit Dates: 1/57–12/80.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours for the 41-week course, 21 semester hours for the 47-week course (8/74).

DD-0602-0098

VIETNAMESE—SAIGON BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: *Version 1:* 36–42 weeks. *Version 2:* 47 weeks.
Exhibit Dates: *Version 1:* 1/77–1/88. *Version 2:* 1/57–12/76.
Objectives: To train military personnel in an intensive Vietnamese language course covering both oral and written components that aim to develop operational communicative skills.
Instruction: *Version 1:* Lectures, discussion, oral drills and language laboratory work incorporating oral and written materials especially prepared for this course which aims to develop operational language skills. Extensive treatment of military/civil government situations is covered during the later phases of the program. *Version 2:* Lectures, discussions, and oral drills in the interpretation and translation of the Vietnamese language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 12 semester hours at the beginning level and 9 ranging from lower intermediate to upper intermediate in the 36–42 week Saigon dialect course (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper division, 21 semester hours in Vietnamese-Saigon dialect for the 47 week course (8/74). (8/74).

DD-0602-0099

DANISH BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 24 weeks.
Exhibit Dates: 1/57–7/63.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (3/81).

DD-0602-0100

FINNISH BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 47 weeks.
Exhibit Dates: 1/57–7/63.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (3/81).

DD-0602-0101

ITALIAN-SICILIAN BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 37 weeks.
Exhibit Dates: 1/57–12/86.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (3/81).

DD-0602-0102

LITHUANIAN BASIC

Course Number: None.
Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.
Length: 47 weeks.
Exhibit Dates: 1/57–7/63.
Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)
Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to

what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (3/81).

DD-0602-0103

Slovenian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-12/59.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (3/81).

DD-0602-0104

Swahili Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/57-12/63.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (3/81).

DD-0602-0105

Ukranian Basic

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/57-Present.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours (3/81).

DD-0602-0106

Chinese Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1310-1380 hours).

Exhibit Dates: 1/81-7/81.

Objectives: An intensive course of study in the designated language emphasizing listening comprehension, transcription and translation.

Instruction: Instruction emphasizes aural comprehension including general comprehension. Reading, speaking and writing are also covered in descending order of emphasis. Emphasis is on transcription and translation of recorded texts and dialogues. The aural comprehension is focused on radio communications . There is less emphasis on speaking and slightly lower requirements on the number of characters to be recognized and the number of characters for self writing than are taught in the basic course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours at the beginning level and 9 ranging from the lower intermediate to the upper intermediate level (3/81).

DD-0602-0107

French Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/86.

Objectives: Intensive basic instruction in the four skills: elements of aural comprehension, speaking, reading and writing. Introduction of the most frequent structural features through cultural/situational exercises.

Instruction: Audio-lingual small-group instruction incorporating structural and vocabulary/pronunciation drills. Grammar and vocabulary are introduced through dialogues, reading/translation exercises and controlled conversation with area background knowledge covered. Throughout the course functional oral/aural communicative skills are emphasized. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in oral/aural, 4 in reading/writing (3/81).

DD-0602-0108

Italian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/90.

Objectives: Intensive basic instruction in the four skills: elements of aural comprehension, speaking, reading and writing. Introduction of the most frequent structural features through cultural/situational exercises.

Instruction: Audio-lingual small-group instruction incorporating structural and vocabulary/pronunciation drills. Grammar and vocabulary are introduced through dialogues, reading/translation exercises and controlled conversation with area background knowledge covered. Throughout the course functional oral/aural communicative skills are emphasized. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in oral/aural, 4 in reading/writing (8/74). NOTE: For current credit recommendation see Appendix F.

DD-0602-0109

Portuguese Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/85.

Objectives: Intensive basic instruction in the four skills: elements of aural comprehension, speaking, reading and writing. Introduction of the most frequent structural features through cultural/situational exercises.

Instruction: Audio-lingual small-group instruction incorporating structural and vocabulary/pronunciation drills. Grammar and vocabulary are introduced through dialogues, reading/translation exercises and controlled conversation with area background knowledge covered. Throughout the course functional oral/aural communicative skills are emphasized. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in oral/aural, 4 in reading/writing (3/81).

DD-0602-0110

ROMANIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/85.

Objectives: Intensive basic instruction in the four skills: elements of aural comprehension, speaking, reading and writing. Introduction of the most frequent structural features through cultural/situational exercises.

Instruction: Audio-lingual small-group instruction incorporating structural and vocabulary/pronunciation drills. Grammar and vocabulary are introduced through dialogues, reading/translation exercises and controlled conversation with area background knowledge covered. Throughout the course functional oral/aural communicative skills are emphasized. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in oral/aural, 6 in reading/writing (3/81).

DD-0602-0111

CZECH BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA..

Length: 47 weeks (1380 hours).

Exhibit Dates: 1/81-9/85.

Objectives: An intensive language course which aims to develop basic proficiency in all four language skills at a level providing functional communicative competence.

Instruction: Through the use of dialog manipulation, oral practice, grammar presentation, structural drills, reading and translation exercises, the student develops language proficiency and receives an introduction to selected areas of the culture, history, geography, socio-economic structure and military affairs of the country of the language studied. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary, 6 in intermediate Czech (3/81); in the upper-division baccalaureate category, 9 in advanced (conversation, reading) Czech (3/81).

DD-0602-0112

POLISH BASIC

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (1380 hours).

Exhibit Dates: 1/81-9/90.

Objectives: An intensive language course which aims to develop basic proficiency in all four language skills at a level providing functional communicative competence.

Instruction: Through the use of dialog manipulation, oral practice, grammar presentation, structural drills, reading and translation exercises, the student develops language proficiency and receives an introduction to selected areas of the culture, history, geography, socio-economic structure and military affairs of the country of the language studied. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary, 6 in intermediate Polish (3/81); in the upper-division baccalaureate category, 9 semester hours in advanced (reading, conversation) Polish (3/81). NOTE: For current credit recommendation see Appendix F.

DD-0602-0113

RUSSIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1380 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive language course which aims to develop basic proficiency in all four language skills at a level providing functional communicative competence.

Instruction: Through the use of dialog manipulation, oral practice, grammar presentation, structural drills, reading and translation exercises, the student develops language proficiency and receives an introduction to selected areas of the culture, history, geography, socio-economic structure and military affairs of the country of the language studied. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary, 6 in intermediate Russian (3/81); in the upper-division baccalaureate category, 9 semester hours in advanced (reading, conversation) Russian (3/81).

DD-0602-0114

SERBO-CROATIAN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA..

Length: 47 weeks (1380 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive language course which aims to develop basic proficiency in all four language skills at a level providing functional communicative competence.

Instruction: Through the use of dialog manipulation, oral practice, grammar presentation, structural drills, reading and translation exercises, the student develops language proficiency and receives an introduction to selected areas of the culture, history, geography, socio-economic structure and military affairs of the country of the language studied. NOTE: While this course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in elementary, 6 in intermediate Serbo-Croatian (3/81); in the upper-division baccalaureate category, 9 semester hours in advanced (conversation, reading) Serbo-Croatian (3/81).

DD-0602-0115

RUSSIAN EXTENDED

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 27 weeks (690-780 hours).

Exhibit Dates: 1/81-Present.

Objectives: An intensive course designed to provide a higher level of proficiency in all four language skills for those students directly out of the basic language course.

Instruction: The course draws upon selected readings from contemporary materials, and Russian radio broadcasts, in order to provide the student with discussion materials in a variety of topic areas. The student achieves further language proficiency and increased awareness of Russian/Soviet area studies.

Credit Recommendation: In the upper-division baccalaureate category, 10 semester hours in advanced Russian (conversation), 3 in advanced Russian (reading) (3/81).

DD-0602-0116

CHINESE—MANDARIN BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1068-1380 hours).

Exhibit Dates: 1/81-9/84.

Objectives: To provide an intensive course of study with the focus on speaking/comprehension, reading and writing in descending order of emphasis. The course enables the student to develop operational oral and written communicative skills.

Instruction: All the courses include oral/aural drills in both the classroom and the laboratory. Reading instruction emphasizes text comprehension and translation. In the Chinese courses students are exposed to approximately 1200 characters for recognition and are expected to self-write approximately 600 characters. Writing exercises emphasize character writing with a minimum training in expressive writing. There is a fair amount of military terminology interspersed with the vocabulary of a more general nature. NOTE: While these courses are listed as Basic it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category 12 semester hours at the beginning level and 12 ranging from lower intermediate to upper intermediate level (3/81).

DD-0602-0117

Japanese Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1068–1380 hours).

Exhibit Dates: 1/81–9/84.

Objectives: To provide an intensive course of study with the focus on speaking/comprehension, reading and writing in descending order of emphasis. The course enables the student to develop operational oral and written communicative skills.

Instruction: All the courses include oral/aural drills in both the classroom and the laboratory. Reading instruction emphasizes text comprehension and translation. Japanese textual materials introduce the student to 500 Kanji with supplementary materials providing exposure to a limited number of additional characters. Question/answer, drill, classroom discussion and supplementary workbooks provide drill material on prounuciation. NOTE: While these courses are listed as Basic it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category 12 semester hours at the beginning level and 8 ranging from lower intermediate to upper intermediate level (3/81).

DD-0602-0118

Korean Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1068–1380 hours).

Exhibit Dates: 1/81–9/84.

Objectives: To provide an intensive course of study with the focus on speaking/comprehension, reading and writing in descending order of emphasis. The course enables the student to develop operational oral and written communicative skills.

Instruction: All the courses include oral/aural drills in both the classroom and the laboratory. Reading instruction emphasizes text comprehension and translation. The Korean course introduces the student to about 300 Chinese characters in addition to Langul. There is a fair amount of military terminology interspersed with the vocabulary of a more general nature. Question/answer, drill, classroom discussion and supplementary workbooks provide drill material on prounuciation. NOTE: While these courses are listed as Basic it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category 12 semester hours at the beginning level and 10 ranging from lower intermediate to upper intermediate level (3/81).

DD-0602-0119

Thai Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 36 weeks (1068–1380 hours).

Exhibit Dates: 1/81–9/84.

Objectives: To provide an intensive course of study with the focus on speaking/comprehension, reading and writing in descending order of emphasis. The course enables the student to develop operational oral and written communicative skills.

Instruction: All the courses include oral/aural drills in both the classroom and the laboratory. Reading instruction emphasizes text comprehension and translation. There is a fair amount of military terminology interspersed with the vocabulary of a more general nature. Question/answer, drill, classroom discussion and supplementary workbooks provide drill material on prounuciation. NOTE: While these courses are listed as Basic it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper division baccalaureate category 12 semester hours at the beginning level and 6 at the lower intermediate level (3/81).

DD-0602-0120

Chinese Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690–1080 hours).

Exhibit Dates: 1/81–9/84.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in upper intermediate and advanced Chinese (3/81).

DD-0602-0121

German Intermediate

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (690–1080 hours).

Exhibit Dates: 1/81–9/90.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 9 semester hours in advanced German (3/81). NOTE: For current credit recommendation see Appendix F.

DD-0602-0122

Polish Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690–1080 hours).

Exhibit Dates: 1/81–9/85.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 12 semester hours in advanced Polish (conversation) and 6 in advanced Polish (reading) (3/81).

DD-0602-0123

Russian Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690–1080 hours).

Exhibit Dates: 1/81–9/84.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 12 semester hours in advanced Russian (conversation) and 6 in advanced Russian (reading) (3/81).

DD-0602-0124

Spanish Intermediate

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (690-1080 hours).

Exhibit Dates: 1/81-9/86.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours for advanced intermediate Spanish (conversation/translation) and 4 in intermediate grammar (3/81).

DD-0602-0125

Vietnamese Intermediate

Course Number: None

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks (690-1080 hours).

Exhibit Dates: 1/81-9/84.

Objectives: An intensive course designed to extend the student's competency in all four skill areas beyond that of the basic language course.

Instruction: The course begins with a review of the content of the basic course. Through selected readings drawn from contemporary materials, and discussion in the designated language on a variety of topics the student achieves greater language proficiency and increased awareness of area studies. Emphasis is given to the reading component focusing on newpapers, periodicals, technical materials and special texts and the aural component using radio broadcasts, tape transcription and class discussion.

Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in intermediate Vietnamese beyond the basic course (3/81).

DD-0602-0126

Persian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1350-1386 hours).

Exhibit Dates: 1/81-9/85.

Objectives: To provide an intensive course of study covering phonology and writing systems and to develop the student's fluency in listening, speaking, reading and writing of the language.

Instruction: The course follows a combined functional approach providing extensive oral and written practice through various structural and combination drills, guided conversation, writing exercises and language laboratory recordings. The course has a special emphasis on reading and comprehension of specialized military materials during the last part of the course. NOTE: While this is listed as Basic it should be understood that this is the terminology used by the the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in main elements of Persian (3/81); in the upper-division baccalaureate category, 5 in advanced Persian, 8 in grammar and vocabulary for the Persian course (3/81).

DD-0602-0127

Turkish Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks (1350-1386 hours).

Exhibit Dates: 1/81-9/85.

Objectives: To provide an intensive course of study covering phonology and writing systems and to develop the student's fluency in listening, speaking, reading and writing of the language.

Instruction: The course follows a combined functional approach providing extensive oral and written practice through various structural and combination drills, guided conversation, writing exercises and language laboratory recordings. The course has special emphasis on reading and comprehension of specialized military materials during the last part of the course. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are "regular" programs in the various languages and are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in main elements of Turkish (3/81); in the upper-division baccalaureate category, 8 semester hours in grammar and vocabulary, 6 in advanced Turkish (3/81).

DD-0602-0128

Russian Advanced

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 37 weeks (1080-1100 hours).

Exhibit Dates: 1/81-9/90.

Objectives: An intensive course which aims to develop maximal proficiency in all four language skills at a level higher than that provided by the intermediate course.

Instruction: The course begins with a review of the intermediate course materials and continues on with selected readings of contemporary materials and the use of radio broadcasts. The course time is also devoted to advanced composition and conversation, translation and stylistics. Students produce oral and written reports on area background subjects.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced Russian (conversation and composition), 6 in advanced Russian (reading), 3 in advanced Russian (syntax) and 3 in advanced Russian (stylistics) (3/81).NOTE: For current credit recommendation see Appendix F.

DD-0602-0129

Korean Gateway

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: Self-paced 8 weeks.

Exhibit Dates: 1/81-9/84.

Objectives: To provide an orientation to the designated language and culture on a very basic level.

Instruction: Students listen to audio recordings of various speakers and work with accompanying print materials. The materials cover such everyday topics as travel, shopping, leisure time activities and survival needs. The student then interacts with the instructor on a one-to-one basis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in elementary Korean (3/81).

DD-0602-0130

Norwegian Basic

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks (690-1380 hours).

Exhibit Dates: 1/81-9/85.

Objectives: To train selected individuals in the comprehension, speaking, reading and writing of a foreign language. The student gains the ability of communicating effectively in everyday vocabulary and language.

Instruction: The fundamentals of comprehension, speaking, reading and writing are developed with the help of integrated course materials. The approach is essentially audio-lingual with questions and answers combined with textual interpretation, grammatical exercises and pattern drills. Students come close to fluency. The course uses course materials identical to those presently used in comparable courses in colleges and universities. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in first year Norwegian and 6 in second year Norwegian (3/81).

DD-0602-0131

Swedish Basic

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (690-1380 hours).

Exhibit Dates: 1/81-Present.

Objectives: To train selected individuals in the comprehension, speaking, reading and writing of a foreign language. The student gains the ability of communicating effectively in everyday vocabulary and language.

Instruction: The fundamentals of comprehension, speaking, reading and writing are developed with the held of integrated course materials. The approach is essentially audio-lingual with questions and answers combined with textual interpretation, grammatical exercises and pattern drills. Students come close to fluency. The course uses course materials identical to those presently used in comparable courses in colleges and universities. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in first year Swedish and 6 in second year Swedish (3/81).

DD-0602-0132

HUNGARIAN BASIC

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (930–1380 hours).

Exhibit Dates: 1/81–Present.

Objectives: To understand, speak, read, and write the language with an emphasis on audio lingual skills.

Instruction: Lectures, practical exercises and laboratory work in basic grammatical structures in conjunction with oral drills, pattern exercises and written dictation. The course covers over 4000 vocabulary items, 500 of which are military terms. Students draft written reports on general and technical materials and cover a fair amount of cultural information on modern Hungary. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in introductory Hungarian 6 in in advanced Hungarian (3/81); in the upper-division baccalaureate category, 5 semester hours in reading and translation and 3 in culture and civilization (3/81).

DD-0602-0133

SPANISH BASIC

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA..

Length: *Version 1:* 28 weeks (810–870 hours). *Version 2:* 24 weeks.

Exhibit Dates: *Version 1:* 8/76–9/85. *Version 2:* 1/57–7/76.

Objectives: Intensive instruction in the elements of oral comprehension, speaking and reading with functional oral/aural skills emphasized. Students develop operational communicative skills.

Instruction: *Version 1:* The course takes an audio-lingual approach which embraces intensive small-group interaction with multimedia support materials. Grammar and vocabulary are introduced through dialogues, structural drills and controlled conversation. NOTE: While the course is listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their "regular" programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language. *Version 2:* Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 9 semester hours for the elements of basic Spanish (oral/aural), 4 for reading/writing (3/81). *Version 2:* In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours for the 47 week course: 15 for the 24 week course (8/74).

DD-0602-0134

ARABIC AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 47 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0135

BULGARIAN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (7/84). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0136

CHINESE—MANDARIN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 32–47 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours for the 33-week course, 15 for the 37-week course, 18 for the 47-week course, and 12 for the Special 32-week course (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0137

CZECH AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0138

FRENCH AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0139

HUNGARIAN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0140

INDONESIAN AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0141

Japanese Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0142

Korean Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0143

Persian Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0144

Polish Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessart corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0145

Portuguese Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0146

Romanian Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0147

Russian Stenotype Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 50 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). This 50 week course includes the regular 37 week Aural Comprehension and 13 weeks of stenotype training. NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0148

Serbo-Croatian Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0149

Spanish Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0150

Thai Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 12 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0151

Turkish Aural Comprehension

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0152

Short Basic French

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0153

SHORT BASIC GERMAN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12-16 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 12 week course, 10 for the 16 week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0154

SHORT BASIC GREEK

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0155

SHORT BASIC INDONESIAN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0156

SHORT BASIC ITALIAN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0157

Short Basic Japanese

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0158

Short Basic Korean

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 16–24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 16-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0159

Short Basic Persian

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12–24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 12-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili);

(2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian. Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0160

SHORT BASIC PORTUGUESE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 11-12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 11 or 12 week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0161

SHORT BASIC ROMANIAN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0162

SHORT BASIC SPANISH

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 11-12 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 11- or 12-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0163

SHORT BASIC THAI

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12-24 weeks.

Exhibit Dates: 1/54-12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 12-week course, 10 for the 16-week course, and 15 for the 24-week course (8/87). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0164

SHORT BASIC TURKISH

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 12 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0165

SHORT BASIC VIETNAMESE—SAIGON

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 6–32 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach officer and enlisted personnel from each branch of the armed services and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructionai materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that some Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are "more academically suitable" than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 3 semester hours for the 6-week course, 8 for the 8- or 12-week course, 10 for the 16-week course, 15 for the 32-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0166

EXTENDED OR BASIC-INTERMEDIATE GERMAN

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already compl[illegible] a Basic or Aural Comprehension cour[illegible] The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0167

Extended or Basic-Intermediate Japanese

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 75 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours (8/74); in the graduate degree category, 6 semester hours (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0168

Extended or Basic-Intermediate Korean

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37–75 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours for the 74- to 75-week course, 18 for the 37-week course (8/74); in the graduate degree category, 6 semester hours for the 74- to 75-week course (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0169

Extended or Basic-Intermediate Russian

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 74–75 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours (8/74); in the graduate degree category, 6 semester hours (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0170

EXTENDED OR BASIC-INTERMEDIATE VIETNAMESE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 74–75 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation basic-intermediate given by the military should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- and 75-week courses in as much as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses directed to mastery of the language. In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24-37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours (8/74); in the graduate degree category, 6 semester hours (8/74). Note: The credit credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0171

CHINESE—MANDARIN INTERMEDIATE

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74); in the graduate degree category, 6 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0172

French Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 16 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 10 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0173

German Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 9 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0174

Polish Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 36 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0175

Romanian Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0176

Russian Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0177

Serbo-Croatian Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–9/84.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0178

Spanish Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 24 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0179

Vietnamese Intermediate

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0180

Russian Advanced

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/69-9/90.

Objectives: To train selected Department of Defense personnel in foreign languages at a more advanced level of proficiency than is provided in Defense Language Institute Extended or Intermediate Courses; and to provide a wide knowledge of cultural, geographical, economic, historical, and political information on the area in which the language is spoken.

Instruction: The advanced course places equal emphasis upon the development of all four language skills. There is no specialized or technical terminology in the course. It includes a total vocabulary of approximately 4,000 terms, over and above that covered in previous courses, that cover all general, nontechnical communication situations that one would normally encounter in the country of the target language. The cultural complex within which the language is spoken is covered extensively: history, economics, geography, politics, military, ethnic groups, languages, attitudes, customs and mores of the people.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: For current credit recommendation, please see Appendix F. NOTE: The credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukranian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0181

Russian Refresher

Course Number: None.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 6-12 weeks.

Exhibit Dates: 1/54-1/86.

Objectives: The refresher course is designed to enable personnel to Course is designed to enable personnel to regain a basic regain a basic competence in comprehension of the standard literary language.

Instruction: This refresher course provides an accelerated, systematic review of grammar and vocabulary.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, credit in Russian (refresher) on the basis of institutional evaluation (8/74).

DD-0602-0182

Chinese—Mandarin Intensive

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 47-60 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 27 for the 47-week course, 30 for the 60-week course, 18 for the 9-month course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0183

French Intensive

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 8-24 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 4 semester hours for the 8-week course, 8 for the 12-week course, 12 for the 19-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0184

German Intensive

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 8-36 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, extending into the upper-division baccalaureate category, 4 semester hours for the 8-week course, 8 for the 12-week course, 17 for the 32-week course (15 if taken before 1970), 18 for the 36-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0185

ITALIAN INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 8-24 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 4 semester hours for the 8-week course, 8 for the 12-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0186

PORTUGUESE INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 8-24 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 4 semester hours for the 8-week course, 8 for the 12-week course, 12 for the 21-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0187

RUSSIAN INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 36-47 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours for the 36-week course, 21 for the 47-week course, 15 for the special 6-month course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0188

SPANISH INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 8-24 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 4 semester hours for the 8-week course, 8 for the 12-week course, 12 for the 19-week course, 15 for the 24-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0189

TURKISH INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 36-47 weeks.

Exhibit Dates: 1/54-12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours for the 36-week course, 21 for the 47-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0190

VIETNAMESE—HANOI INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 36 weeks.

Exhibit Dates: 1/54–12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0191

VIETNAMESE—SAIGON INTENSIVE

Course Number: None.

Location: Defense Language Institute, East Coast Branch, Washington, DC.

Length: 36–47 weeks.

Exhibit Dates: 1/54–12/75.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the understanding, speaking, reading, and writing of a foreign language with additional training in area studies, including the history, geography, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours for the 36-week course, 21 for the 47-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also on the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0192

SHORT BASIC VIETNAMESE—SAIGON DIALECT

Course Number: None.

Location: Defense Language Institute Support Command, Biggs Field, El Paso, TX.

Length: 12–32 weeks.

Exhibit Dates: 9/66–7/73.

Objectives: The Short Basic Course provides personnel with training in the interpretation and translation of the designated language, as well as basic military, geographic, economic, historical, and political information about the area in which the language is spoken. This is an accelerated langauge program.

Instruction: Lectures, discussions, and oral drills in the designated language. The term, "Basic" as used by the military, indicates a "regular" course in the language. The Short Basic Course is not limited to what most civilian institutions would term beginning or basic courses in the language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours for the 12 week course, 15 for the 32 week course (8/74).

DD-0602-0193

VIETNAMESE—HANOI AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute Support Command, Biggs Field, El Paso, TX.

Length: 47 weeks.

Exhibit Dates: 10/66–7/70.

Objectives: The Aural Comprehension Course is designed primarily to teach students to comprehend the language as spoken by a foreign national.

Instruction: Lectures, discussions, and oral drills in the designated language. Although some reading and writing is included, the spoken language is emphasized. Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are recommended for less credit than the Basic Courses.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours (8/74).

DD-0602-0194

VIETNAMESE—HANOI AURAL COMPREHENSION

Course Number: None.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 37–47 weeks.

Exhibit Dates: 1/54–12/80.

Objectives: To teach students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessar corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours (for the 37-week course, 18 for the 47-week course (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are are recommended for less credit that the Basic Courses. It will be noted that the maximum credit recommended for the 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. Also: The credit recommended for the program is not based only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0205

German Gateway

Course Number: 03GM; 03GM06.

Location: Defense Language Institute, West Coast Branch, Presidio of Monterey, CA.

Length: 8 weeks (173 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course the student will be able to function in common everyday situations, using common phrases to express herself/himself, and to understand similar phrases in everyday situations when spoken slowly by native speakers; also understand cultural issues.

Instruction: The course is conducted through small-group classroom instruction focusing on communication in everyday situations; presentation of cultural background is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in German language and culture (8/87).

DD-0602-0206

Arabic-Syrian Special

Course Number: 09AP; 09AP24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (678 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Syrian dialect (8/87).

DD-0602-0207

Arabic-Iraqi Special

Course Number: 09DG; 09DG24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (678 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Iraqi dialect (8/87).

DD-0602-0208

Arabic-Egyptian Special

Course Number: 09AE; 09AE24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (678 hours).

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Egyptian dialect (8/87).

DD-0602-0209

Arabic-Iraqi Extended

Course Number: 05DG; 05DG16.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 16 weeks (456 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Iraqi dialect (8/87).

DD-0602-0210

Arabic-Syrian Extended

Course Number: 05AP; 05AP16.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 16 weeks (456 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Syrian dialect (8/87).

DD-0602-0211

Arabic-Egyptian Extended

Course Number: 05AE; 05AE16.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 16 weeks (454 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Egyptian dialect (8/87).

DD-0602-0212

Portuguese Basic

Course Number: 01PQ; 01PQ25.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 25 weeks (728 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the following I.L.R levels: listening: 2/2; speaking: 2; reading: 2; writing is not evaluated in the school but is approximately I.L.R. 1/2.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use, incorporating cultural and writing components which are not formally tested.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Portuguese elements I, 3 in Portuguese elements II, 3 in Portuguese composition and culture, and 3 in Portuguese readings (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0213

French Basic

Course Number: 01FR; 01FR25.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 25 weeks (748 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the following I.L.R. levels: listening: 2/2; speaking: 2; reading: 2; writing is not evaluated by the school but is approximately I.L.R. 1/2.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use, incorporating cultural and writing components which are not formally tested.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in French elements I, 3 in French elements II, 3 in French composition and culture, and 3 in French readings (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0214

German Short

Course Number: 04GM; 04GM12.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 12 weeks (356 hours).

Exhibit Dates: 10/84–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate-mid level guidelines.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in German language skills (8/87).

DD-0602-0215

GERMAN BASIC

Course Number: 01GM; 01GM34.

Location: Defense Language Institute, Presidio of Monterey, CA; Defense Language Institute, Presidio of San Francisco, CA.

Length: 34 weeks (1018 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate-high level.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 16 semester hours in German language skills (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0216

TURKISH GATEWAY

Course Number: 03TU; 03TU12.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 12 weeks (336 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will be able to function in common everyday situations, using common phrases to express himself/herself and understand phrases in everyday situations when spoken at a slow pace.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in Turkish language skills (8/87).

DD-0602-0217

GERMAN EXTENDED

Course Number: 10GM; 10GM24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (692 hours).

Exhibit Dates: 10/84–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 2-plus which is equivalent to the ACTFL advanced-plus level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in German reading, speaking, and textual analysis (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0218

SPANISH INTERMEDIATE

Course Number: 06LA; 06LA24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (718 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 2-plus which is equivalent to the ACTFL advanced-plus level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in oral/aural Spanish language skills (8/87); in the upper-division baccalaureate category, 8 semester hours in Spanish reading/writing/culture (8/87). NOTE: For current credit recommendation see appendix F.

DD-0602-0219

GERMAN INTERMEDIATE

Course Number: 06GM24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (692 hours).

Exhibit Dates: 10/84–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 2-plus which is equivalent to the ACTFL advanced-plus level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the upper-division baccalaureate category, 8 semester hours in German reading, speaking, and textual analysis (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0220

ARABIC INTERMEDIATE

Course Number: 06AD; 06AD32.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 32 weeks (958 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 2-plus which is equivalent to the ACTFL advanced-plus level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in Arabic speaking and writing skills (8/87); in the graduate degree category, 6 semester hours in Arabic listening and reading skills (8/87).NOTE: For current credit recommendation see Appendix F.

DD-0602-0221

FRENCH INTERMEDIATE

Course Number: 06FR; 06FR24.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (738 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student have achieved listening, reading, and speaking proficiency at the I.L.R. level 2-plus which is equivalent to the ACTFL advanced-plus level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in oral/aural French language skills (8/87); in the upper-division baccalaureate category, 8 semester hours in French reading/writing/culture (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0222

SPANISH BASIC

Course Number: 01LA; 01LA25.

Location: Defense Language Institute, Presidio of Monterey, CA; Defense Language Institute, Presidio of San Francisco, CA.

Length: 25 weeks (748 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the following I.L.R. levels: listening: 2/2; speaking: 2; reading: 2. Writing is not evaluated by the school but is approximately I.L.R. 1/2.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. An integral learning format directed toward functional language use, incorporating cultural and writing components which are not formally tested.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Spanish elements I, 3 in Spanish elements II, 3 in Spanish composition and culture, and 3 in Spanish readings (8/87). NOTE: For current credit recommendation see Appendix F.

DD-0602-0223

DUTCH BASIC

Course Number: 01DU; 01DU25.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 24 weeks (744 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate-high level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in Dutch (8/87).

DD-0602-0224

NORWEGIAN BASIC

Course Number: 01NR; 01NR25.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 25 weeks (728 hours).

Exhibit Dates: 10/85–Present.

Learning Outcomes: Upon completion of the course the student will have achieved listening, reading, and speaking proficiency at the I.L.R. level 1-plus which is equivalent to the ACTFL intermediate-high level. Students will have limited writing competence.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills (with limited writing practice), taught concurrently. An integral learning format directed toward functional language use incorporates a cultural component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in Norwegian (8/87).

DD-0602-0225

ROMANIAN BASIC

Course Number: 01RQ; 01RQ34.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 34 weeks (998 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course, the student will have achieved listening, speaking, and reading proficiency at the I.L.R. level 2. Writing is not evaluated during the course.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. Coursework is presented through an integral learning format directed toward functional language use, incorporating cultural and writing components which are not formally tested.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Romanian elements I, 3 in Romainan elements II, 3 in Romanian composition and culture, and 3 in Romanian readings (2/88); in the upper-division baccalaureate category, 4 semester hours in Romanian intermediate (oral/aural and reading) (2/88). NOTE: For current credit recommendation see Appendix F.

DD-0602-0226

ITALIAN BASIC

Course Number: 01JT; 01JT25.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 25 weeks (750 hours).

Exhibit Dates: 10/86–9/90.

Learning Outcomes: Upon completion of the course, the student will have achieved listening, reading, and speaking proficiency at the following I.L.R. levels: Listening 2/2; Speaking 2; Reading 2; Writing is not evaluated during the course.

Instruction: Small-group classroom instruction stresses communicative competence in oral/aural and reading skills, taught concurrently. Course is presented through an integrated learning format directed toward functional language use, incorporating cultural and writing components which are not formally tested.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Italian I, 3 in Italian II, 3 in Italian composition and culture, and 3 in Italian reading (2/88). NOTE: For current credit recommendation see Appendix F.

DD-0602-0227

RUSSIAN BASIC

Course Number: 01RU; 01RU47.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (1415 hours).

Exhibit Dates: 10/84–9/90.

Learning Outcomes: Upon completion of the course, the student will have achieved listening, reading, and speaking proficiency at following I.L.R. levels: Listening 2; Speaking 2; Reading 2; Writing is not evaluated.

Instruction: Group classroom instruction with elaborated techniques and materials emphasizing active skills (oral/aural) has somewhat less emphasis on reading skills. There is very little true translation, as befits de-emphasis on passive skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in elementary Russian, 7 in lower-intermediate Russian (2/88); in the upper-division baccalaureate category, 10 semester hours in intermediate Russian (2/88). NOTE: For current credit recommendation see Appendix F.

DD-0602-0228

BULGARIAN BASIC

Course Number: 01BU; 01BU47.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (1410 hours).

Exhibit Dates: 10/84–6/89.

Learning Outcomes: Upon completion of the course, the student will have achieved listening, reading, and speaking proficiency at following I.L.R. levels: Listening 2; Speaking 1 1/2/2; Reading 1 1/2; Writing is not evaluated.

Instruction: Group classroom instruction with emphasis on active skills (oral/aural) and somewhat less emphasis on reading skills. There is only very little translation, as befits de-emphasis on passive skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in elementary Bulgarian, 7 in lower-intermediate Bulgarian (2/88); in the upper-division baccalaureate category, 9 semester hours in intermediate Bulgarian (2/88).

DD-0602-0229

CZECH BASIC

Course Number: 01CX; 01CX47.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (1382 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course, the student will have achieved listening, reading, and speaking proficiency at following I.L.R. levels: Listening 1/2; Speaking 1/2; Reading 1/2; Writing is not evaluated, but is approximately 1.

Instruction: Group classroom instruction with emphasis on active skills (oral/aural) and somewhat less emphasis on reading skills. There is only very little translation, as befits de-emphasis on passive skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in elementary Czech, 7 in lower-intermediate Czech (2/88); in the upper-division baccalaureate category, 8 semester hours in intermediate Czech (2/88).NOTE: For current credit recommendation see Appendix F.

DD-0602-0230

PERSIAN BASIC

Course Number: 01PF; 01PF47.

Location: Defense Language School, Presidio of Monterey, CA.

Length: 47 weeks (1382).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, speaking, and reading proficiency at the following I.L.R. levels: Listening 1/2; Speaking 1; Reading 1/2; Writing 0/1.

Instruction: The course is presented through an integrated skill method directed toward functional language use with limited writing competence. Small-group classroom instructions stresses oral/aural practice and the use of Persian newspapers and Voice of America Persian program during the last ten weeks.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in elementary Persian (2/88), in the upper-division baccalaureate category, 6 semester hours in intermediate Persian, 4 in Persian news media (2/88). NOTE: For the current credit recommendation see Appendix F.

DD-0602-0231

TURKISH BASIC

Course Number: 01TU; 01TU47.

Location: Defense Language Institute, Presidio of Monterey, CA.

Length: 47 weeks (1382 hours).

Exhibit Dates: 10/85–9/90.

Learning Outcomes: Upon completion of the course the student will be able to achieve listening, speaking, and reading proficiency at the following I.L.R. levels: Listening 1; Speaking 1/2; Reading 1; and Writing 0/1.

Instruction: This course offers an integrated skill method directed toward functional language use with limited writing competence. Instruction is accomplished through small-group classroom instruction, stressing oral/aural practice, use of Turkish newspaper and Voice of America Turkish programs during the last ten weeks.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in elementary Turkish (2/88); in the upper-division baccalaureate category, 6 semester hours in intermediate Turkish, 4 in Turkish news media (2/88).NOTE: For current credit recommendation see Appendix F.

DD-0602-0232

ARABIC BASIC (MODERN STANDARD ARABIC)

Course Number: 01AD; 01AD47.

Location: Defense Language School, Presidio of Monterey, CA.

Length: 47 weeks (1412 hours).

Exhibit Dates: 10/84–9/90.

Learning Outcomes: Upon completion of the course the student will have achieved listening, speaking, and reading proficiency at the following I.L.R. levels: Listening 1/2; Speaking 1/2; Reading 1; Writing 0/1.

Instruction: The course is presented through an integrated skill method directed toward functional language use with limited writing competence. Small-group classroom instructions stresses oral/aural practice and the use of Arabic newspapers and radio programs during the last ten weeks.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in elementary Modern Standard Arabic (MSA) (2/88); in the upper-division baccalaureate category, 6 semester hours in intermediate Modern Standard Arabic, 4 in Arabic news media (2/88). NOTE: For current credit recommendation see Appendix F.

DD-1402-0001

COMMAND AND CONTROL

Course Number: None.

Location: Department of Defense Computer Institute, Washington, DC.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/69–12/80.

Objectives: To provide personnel with an introduction to automatic data processing and computer technology.

Instruction: Lectures and practical exercises in automatic data processing and computer technology, including survey of computers and peripheral equipment, computer fundamentals, source data collection, data communications, systems analysis, main memory and data representation, codes, fixed-word-length machine concepts, higher-level languages, and ADP system management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of data processing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing (7/74); in the upper-division baccalaureate category, 2 semester hours in introduction to computer principles (12/68).

DD-1402-0002

INTRODUCTION TO COMPUTER TECHNOLOGY

Course Number: None.

Location: Department of Defense Computer Institute, Washington, DC.

Length: 2 weeks (65 hours).

Exhibit Dates: 8/77–12/80.

Objectives: Course is designed to provide an educational background for middle-management personnel who are general-purpose digital computer systems users and have had little or no previous introduction to data processing principles.

Instruction: Course covers computer capabilities, limitations and applications; the basics of computer hardware and software; systems development management considerations, planning and design; and an introduction to operations research and analysis and quantitative techniques. The student is provided hands-on programming experience with a remote, time-sharing computer terminal using the BASIC programming language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (5/77).

DD-1402-0003

AUTOMATED INFORMATION SYSTEMS MANAGEMENT FOR INTERMEDIATE MANAGERS

(Automated Information Systems Management for Intermediate Executives)

(Computer Orientation for Intermediate Executives)

Course Number: None.

Location: National Defense University, Washington, DC; Department of Defense Computer Institute, Washington, DC.

Length: 2 weeks (65 hours).

Exhibit Dates: *Version 1:* 10/83–1/90. *Version 2:* 8/77–9/83.

Objectives: Course is designed to provide an educational background for high-level management personnel who are general-purpose digital computer systems users and have had little or no previous introduction to data processing principles.

Instruction: *Version 1:* Course covers computer capabilities, limitations, and applications; the basics of computer hardware and software; systems development management considerations; planning and design; introduction to quantitative techniques. Also includes hardware and software acquisition, data base management systems, small computer systems, teleprocessing and distributed processing, and computer security. Student is provided hands-on programming experience with a remote, time-sharing computer terminal using the BASIC programming language. *Version 2:* Course covers computer capabilities, limitations, and applications; the basics of computer hardware and software; systems development management considerations; planning and design; and an introduction to operations research and analysis and quantitative techniques. The student is provided hands-on programming experience with a remote, time-sharing computer terminal using the BASIC programming language.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in automated information systems (5/84). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (5/77).

DD-1404-0001

SENIOR MILITARY CRYPTOLOGIC SUPERVISORS

Course Number: CY-200.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 7 weeks (240–250 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train mid-career cryptological noncommissioned and warrant officers to supervise communication, intelligence and other pertinent resources vital to U.S. national security.

Instruction: Lectures, problem solving seminars, tours and student presentations concerning future roles and technical requirements for supervisory positions in the security community. Subject areas include seminar in contemporary management concepts, problem solving, and decision making techniques; roles in the intelligence community; resource allocation decisions; operational management philosophies; processes involved with collection and reporting of intelligence and communications security.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication to include written and oral skills (3/82); in the upper-division baccalaureate category, 2 semester hours in field experience in applied electronic systems management to include intelligence report preparation and analysis, electronics systems operations, and communications security, 1 in general management to include facilities management, logistics management, personnel supervision and office practices, 1 in political science to include political geography and U.S. government (3/82).

DD-1404-0002

MILITARY OFFICER ADVANCED CRYPTOLOGIC

Course Number: CY-500.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 7 weeks (240–250 hours).

Exhibit Dates: 4/71–1/90.

Objectives: To train cryptologic personnel to manage or supervise communication, intelligence and other pertinent resources vital to U.S. national security.

Instruction: Lectures, seminars, self-paced studies, tours, and student presentations concerning methods, sources, processes and techniques used in managing the national signal intelligence and communications security mission. Subject areas include National Security Agency support of military operations, processes involved with collection and reporting of intelligence information; roles in the intelligence community; communications security; and a technical elective.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in political science to include political geography and U.S. government (3/82); in the graduate degree category, 2 semester hours in intelligence systems management to include intelligence collection, intelligence analysis and communications security, 1 in political science to include political geography and U.S. government. NOTE: the credit in political science is to be granted in either the upper division or graduate category but not in both (3/82).

DD-1404-0003

NATIONAL SENIOR CRYPTOLOGIC

Course Number: CY-600.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 7 weeks (240–250 hours).

Exhibit Dates: 5/67–1/90.

Objectives: To develop senior-level intelligence personnel at the national level in all aspects of the management and operations of intelligence functions vital to the U.S. national security.

Instruction: Lectures, seminars, case studies, visiting speakers, tours and student presentations concerning the intelligence community and its operations. Subject areas include fundamentals of cryptology, the relationship of the National Security Agency to the intelligence community, the intelligence operational process, cryptologic operations and management at the executive level, the National Security Agency support of military operations, communications security, and the national security effort.

Credit Recommendation: In the graduate degree category, 3 semester hours in intelligence management at the executive level, 2 in managerial economics to include resource allocation and international trade, finance and economic affairs, 1 in political science to include political geography, legislative affairs, U.S. government, strategic planning and policy studies (3/82).

DD-1404-0004

NATIONAL COMMUNICATIONS SECURITY (COMSEC)

Course Number: CY-300.
Location: National Cryptologic School, Ft. Meade, MD.
Length: 2 weeks (80 hours).
Exhibit Dates: 8/68-1/90.

Objectives: To prepare senior-level intelligence personnel in policy and technical requirements necessary for planning communications systems security.

Instruction: Lectures, question and answer sessions, tours and demonstrations. Subject areas include communications security operational processes, security policy and doctrine, the threat to U.S. communications, relation of communications security to other public and private sectors.

Credit Recommendation: In the graduate degree category, 1 semester hour in communications security management at the executive level plus one additional hour based on departmental interview (3/82).

DD-1404-0005

CRYPTOLOGIC SKILLS FOR NONCOMMISSIONED OFFICERS (NCO)
(Cryptologic Course for Service Supervisors)
(Cryptologic Skills for Cryptologic Management Personnel)

Course Number: CY-155.
Location: National Cryptologic School, Ft. Meade, MD.
Length: 21 weeks (695-825 hours).
Exhibit Dates: 1/71-1/90.

Objectives: To provide mid-level noncommissioned officers with the skills and knowledge necessary for key positions in cryptologic operations.

Instruction: Lectures, demonstrations, self-paced instruction and practical exercises. Subjects include collection operations, cryptanalysis, traffic analysis, technical reporting and conduct of briefings.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in telecommunications and cryptanalysis, 3 in technical writing, 1 in public speaking (3/82).

DD-1406-0001

DEFENSE MAPPING SCHOOL INSTRUCTOR

Course Number: 421-8280.
Location: Defense Mapping School Off-site, Ft. Belvoir, VA; Defense Mapping School Off-site, Washington, DC; Defense Mapping School Off-site, St. Louis, MO; Defense Mapping School Off-site, Kansas City, MO; Defense Mapping School Off-site, San Antonio, TX; Defense Mapping School Off-site, Louisville, KY; Defense Mapping School Off-site, Providence, RI; Defense Mapping School Off-site, Cheyenne, WY.
Length: 1-2 weeks (55 hours).
Exhibit Dates: 5/81-1/90.

Objectives: To provide supervisors and instructional personnel with basic technical communication procedures, methods, and techniques.

Instruction: Course is designed to familiarize supervisors and instructors with the tools, methods, and techniques utilized in the technical instructional process. The course includes task analysis and course outline development, and establishment of training objectives and instructional methods to include lectures, conferences, and demonstration techniques. It requires effective utilization of training aids and effective communication techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communication or technical instructor procedures (5/81); in the upper-division baccalaureate category, 3 semester hours in elementary or secondary education or teacher training. Credit is to be granted in either the lower division or upper division category as appropriate but not in both (5/81).

DD-1408-0001

DEFENSE SECURITY ASSISTANCE MANAGEMENT CORE

Course Number: SAM-C-11.
Location: Defense Institute of Security Assistance, Wright-Patterson AFB, OH.
Length: 2 weeks (112 hours).
Exhibit Dates: 10/77-1/90.

Objectives: To provide an understanding of security assistance management from a national policy level through implementation by responsible agencies with emphasis on attendant planning and programming of the process.

Instruction: Instruction includes United States involvement in security assistance, its purpose, nature, basis, authority and current programs as they relate to government contracting and procurement management. The methods of instruction include lecture, case studies, simulator exercises and interaction with practitioners in the field.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (11/78)

DD-1408-0002

PROGRAM MANAGEMENT

Course Number: None.
Location: Defense Systems Management College, Ft. Belvoir, VA.
Length: 20 weeks (393-499 hours).
Exhibit Dates: 1/73-1/90.

Objectives: To offer managers from the government, the military and industry the skills and knowledge to successfully manage defense systems acquisition programs.

Instruction: Lectures, discussions and cases cover the following areas: defense program and project management including program cost management, contract management, procurement policy and logistics; production and operations management including quantitive methods; general management and organizational behavior; and managerial finance and accounting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in production and operations management, 2 in managerial finance, and 1 in general management (4/80); in the graduate degree category, 9 semester hours in defense program and project management (If the student has already completed the course, Program Management for Functional Managers (Program Management for Contract Administration), only 6 hours additional credit is recommended) (4/80).

DD-1408-0003

INDUSTRY FINANCIAL MANAGEMENT

Course Number: None.
Location: Defense Systems Management College, Ft. Belvoir, VA.
Length: 2 weeks (60 hours).
Exhibit Dates: 1/75-5/81.

Objectives: The course provides the participant with an introduction to basic financial analysis.

Instruction: The course provides an overview of finance and managerial accounting, emphasizing the case approach. Topics covered include financial statement analysis, cost accounting, capital budgeting and contract pricing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in finance and managerial accounting (4/80).

DD-1408-0004

PROGRAM MANAGEMENT FOR FUNCTIONAL MANAGERS
(Program Management for Contract Administration)

Course Number: None.
Location: Defense Systems Management College, Ft. Belvoir, VA.
Length: 4 weeks (120 hours).
Exhibit Dates: 12/78-7/83.

Objectives: To introduce contract administrators to program management systems.

Instruction: Lectures, discussion and cases in defense program and project management, systems acquisition, and functional management.

Credit Recommendation: In the graduate degree category, 3 semester hours in defense program and project management (4/80).

DD-1408-0005

DEFENSE MANAGEMENT SYSTEMS

Course Number: P-16-2002; P-00-3306.
Location: Defense Resources Management Education Center, Naval Postgraduate School, Monterey, CA.
Length: 4 weeks (105 hours).
Exhibit Dates: 1/70-1/90.

Objectives: To provide officers with an introduction to the basic principles of management.

Instruction: Lectures in resource management, program budgeting, management accounting, systems analysis, marginal analysis, and cost effectiveness; emphasis is placed on the analytical aspects of management, including requirement studies, systems analyses, cost effectiveness and marginal analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management ((2/74).

DD-1408-0006

DEFENSE RESOURCES MANAGEMENT
(Defense Management Systems)
(Navy Management Systems)

Course Number: S-00-3306; L5OZN6916-000; P-00-3306.
Location: Defense Resources Management Education Center, Naval Postgraduate School, Monterey, CA; Navy Management Center, Naval Postgraduate School, Monterey, CA.
Length: 4 weeks (105 hours).
Exhibit Dates: 1/70-Present.

Objectives: To provide officers with an introduction to the basic principles of management.

Instruction: Lectures in resource management, program budgeting, management accounting, systems analysis, marginal analysis, and cost effectiveness; emphasis placed on the analytical aspects of management, including requirement studies, systems analyses, cost effectiveness, and marginal analysis.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management (1/87).

DD-1511-0001

National Security Management
(Correspondence/Nonresident/Seminar Course of the National Defense University)
(Correspondence Course of the Industrial College of the Armed Forces)

Course Number: None.

Location: National Defense University, Ft. Lesley J. McNair, Washington, DC.; Industrial College of the Armed Forces, Ft. Lesley J. McNair, Washington, DC.

Length: 52-104 weeks.

Exhibit Dates: *Version 1:* 9/90-Present. *Version 2:* 9/83-8/90. *Version 3:* 9/78-8/83. *Version 4:* 5/71-8/78.

Objectives: To train officers in economic and industrial aspects of national security and the management of resources under all conditions and in the context of national and world affairs.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Course is designed to promote an understanding of the strategic, economic, and industrial aspects of national security and management of the nation's resources under varying circumstances and conditions. Unit I covers the environment of national security. This unit examines fundamental concepts of national security relating to the domestic and international scene. Provides a framework for understanding the problems confronting the United States as an international actor. It discusses economic theories, policies, and issues in the context of resource adequacy for defense and assesses the position of the United States in the world economy. Also explains how the political system influences the Nation's conduct in world affairs. Unit II, resources of defense, analyzes major resources such as energy, transportation, and technology, and assesses their importance to the U.S. economy and national security. It discusses increased U.S. dependence on foreign sources for resources critical to national security. This unit also examines the development and role of U.S. industry and the problem of foreign competition in markets once dominated by the United States. Unit III addresses defense decision making. It studies the main instruments and processes of the federal government involved in the formulation of national security policies and in decision making. Also this unit explains the organization and management of the Defense Department, the systems and processes involved in determining requirements, and the decision-making procedures on resource allocation. Unit IV concerns executive management. It provides a synthesis of the traditional and newer approaches to management, with an emphasis on human resource management. The unit assesses quantitative and qualitative factors relating to the work force with particular emphasis on manpower for defense. It examines the acquisition process of major defense systems, the management of defense systems and the management of defense logistics. This unit analyzes U.S. preparedness issues and mobilization planning. The program's four units each conclude with a proctored closed-book objective-type examination covering approximately five books. The books, texts, and anthologies are the vehicle for instruction. Unit III also requires a written report of 3,000 to 3,500 words. *Version 3:* Course is designed to promote an understanding of the strategic, economic, and industrial aspects of national security and management of the nation's resources under varying circumstances and conditions. The course covers the following: The International Environment: analysis of the basic institutions and forces that shape world environment influencing United States national security policymaking and decision making. Emphasis is given to U.S. participation in international economic and financial activities after an introductory survey of the state as an international actor and patterns of international competition and cooperation. The Domestic Environment: analysis of the dynamics of the national economy that influence national security policy decisions. The emphasis is on current trends of social and economic institutions including those relating to natural resource management and domestic economic-social problems. The National Security Structure and Policy Formulation: survey of the institutions and processes involved in national security policymaking and decision making. The discussion includes the overall national security policymaking organization of the Federal Budget and National Defense, the system in operation in the field of international arms transfers and a case study of the president and crisis management (Cuban missile crisis). Management Concepts and Practices and Management Decision Making: a brief survey of major concepts and issues of modern management. Considerable emphasis is placed on behavioral concepts and upon organizational dynamics and developments. Attention is also given to problem formulation and statistical tools of decision making. National Security Management: a survey of the legislation, organizational structure and procedures of defense resource management. Included in the course are concentrations on systems acquisitions, procurement, supply, manpower and transportation. Special attention is given to the policy area of science, technology, research and development. *Version 4:* Individualized readings and student research in economic and industrial aspects of national security and the management of resources under all conditions and in the context of national and world affairs, divided into four course blocks as follows: (1) Includes the national security structure, the environment of national security, the world in ferment, national urban problems, and concepts and practice of management. (2) Includes elements of defense economics, human resources for national strength, natural and energy resources, the industrial sector, transportation as the nation's lifeline, and the public utilities (gas, electricity, and telecommunications). (3) Includes economic policies for national strength, emergency economic stabilization, U.S. foreign economic policies, defense organization and management, requirements for national defense, and military systems analysis. (4) Includes defense military manpower, the national assets of science and technology, production for defense, procurement, supply management, and national aerospace programs.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in U.S. foreign policy studies, 3 in U.S. national security policies and processes, 3 in introduction to economic principles and problems, 2 in 20th century American economic history, 2 in management, 1 in American national political institutions (1/85); in the graduate degree category, for those students in the Seminar Program achieving a rating of outstanding, 3 semester hours in policies and procedures of the national security establishment, and 3 in U. S. public policy (1/85). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in introduction to management and management decision making, 2 in introduction to international relations, 2 in national security processes, 4 in public policy (the domestic environment of national security) (7/80); in the graduate degree category, 3 semester hours in management and management decision making and 3 in policies and procedures of the national security establishment. Graduate credit is for those students with a rating of outstanding, and is not to be in addition to the upper division credit recommended. *Version 4:* In the upper-division baccalaureate category, for students who complete the program WITH DISTINCTION—or based upon the admitting institution's evaluation of the applicant's work—3 semester hours in political science (The U.S. in Contemporary World Affairs), 3 in social science (The Social and Economic Bases of the U.S. National Security), 3 in management (Defense Policy and Management) (8/74); in the graduate degree category, 3 semester hours for completion of the entire program WITH DISTINCTION—or based upon the admitting institution's evaluation of the applicant's work (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future goals and the regulations of the admitting institution on transfer credit.

DD-1511-0002

National War College

Course Number: None.

Location: National Defense University, Ft. Lesley J. McNair, Washington, DC; National War College, Ft. Lesley J. McNair, Washington, DC.

Length: 40-45 weeks.

Exhibit Dates: *Version 1:* 8/90-Present. *Version 2:* 1/80-7/90. *Version 3:* 8/73-12/79. *Version 4:* 8/70-7/73. *Version 5:* 8/56-7/70. *Version 6:* 8/54-7/56.

Objectives: The National War College provides an educational experience intended to improve the knowledge and expertise of a practitioner in the field of U.S. Foreign Affairs and National Security Affairs.

Instruction: *Version 1:* Pending evaluation. *Version 2:* This course is presented through lectures, seminars, readings, and independent student research in international relations and United States foreign policy and national security studies.The core curriculum is divided into six units: 1) Executive decision making and security challenges; 2) The art of war; 3) The international security environment; 4) The United States policymaking studies including (a) politics, policy, and resource allocations, and (b) policy planning and national security decision making; 5) Major powers and regions including the Soviet Union, Asia, Western Europe, the Middle East, Sub-Saharan Africa, and Latin America; and 6) United

States defense policy and military strategy. A two-week overseas field trip to one of the regions covered in the fifth unit is part of the course. A variety of electives related to the core curriculum is offered. *Version 3:* Lectures, seminars, readings, and student research in military and national security affairs and international relations. The Core Curriculum is divided into five blocks as follows: (1) The Foundations of National Security; (2) Domestic Environment and National Security; (3) National Security Problems and the Decision Making Process; (4) Military Strategy and Strategic Posture; and (5) Reassessment of National Security Problems. Area studies include: (1) Canada, Europe, and the U.S.S.R.; (2) East Asia and the Western Pacific; (3) South Asia, the Middle East, and Africa; and (4) Latin America. Area electives include courses on Europe, the Far East, Africa, Latin America, or the Mid-East. The course titled National Security Analyses includes an intensive study of politico-military economic, social, psychological, and geographic factors for an analysis of critical issues affecting U.S. national security policies and objectives in Europe, the Middle East and South Asia, Africa, the Far East, and Latin America; an overseas trip to one of these areas for observation is part of the course. *Version 4:* Lectures, seminars, readings, and student research in military and national security affairs and international relations. The Core Curriculum is divided into five blocks as follows: (1) The Foundations of National Security; (2) Domestic Environment and National Security; (3) National Security Problems and the Decision-Making Process; (4) Military Strategy and Strategic Posture; and (5) Reassessment of National Security Problems. Area studies include: (1) Canada, Europe, and the U.S.S.R.; (2) East Asia and the Western Pacific; (3) South Asia, the Middle East, and Africa; and (4) Latin America. Area electives include courses on Europe, the Far East, Africa, Latin America, or the Mid-East. The course titled National Security Analyses includes an intensive study of politico-military economic, social, psychological, and geographic factors for an analysis of critical issues affecting U.S. national security policies and objectives in Europe, the Middle East and South Asia, Africa, the Far East, and Latin America; an overseas trip to one of these areas for observation is part of the course. *Version 5:* Lectures, seminars, readings, and student research in military and national security affairs and international relations. The Core Curriculum is divided into five blocks as follows: (1) The Foundations of National Security; (2) Domestic Environment and National Security; (3) National Security Problems and the Decision-Making Process; (4) Military Strategy and Strategic Posture; and (5) Reassessment of National Security Problems. Area studies include: (1) Canada, Europe, and the U.S.S.R.; (2) East Asia and the Western Pacific; (3) South Asia, the Middle East, and Africa; and (4) Latin America. Area electives include courses on Europe, the Far East, Africa, Latin America, or the Mid-East. The course titled National Security Analyses includes an intensive study of politico-military economic, social, psychological, and geographic factors for an analysis of critical issues affecting U.S. national security policies and objectives in Europe, the Middle East and South Asia, Africa, the Far East, and Latin America; an overseas trip to one of these areas for observation is part of the course. *Version 6:* Lectures, seminars, readings, and student research in military and national security affairs and international relations. The Core Curriculum is divided into five blocks as follows: (1) The Foundations of National Security; (2) Domestic Environment and National Security; (3) National Security Problems and the Decision-Making Process; (4) Military Strategy and Strategic Posture; and (5) Reassessment of National Security Problems. Area studies include: (1) Canada, Europe, and the U.S.S.R.; (2) East Asia and the Western Pacific; (3) South Asia, the Middle East, and Africa; and (4) Latin America. Area electives include courses on Europe, the Far East, Africa, Latin America, or the Mid-East. The course titled National Security Analyses includes an intensive study of politico-military economic, social, psychological, and geographic factors for an analysis of critical issues affecting U.S. national security policies and objectives in Europe, the Middle East and South Asia, Africa, the Far East, and Latin America; an overseas trip to one of these areas for observation is part of the course.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 30 semester hours to be apportioned as follows: 6 semester hours in international relations, 12 in United States foreign policy studies , and 12 in United States national security policies and processes (5/85); in the graduate degree category, 1-9 semester hours in international relations, United States foreign policy studies, and United States national security policies and processes, and 1-3 for research completed during the course of the program, all to be granted based on the receiving institution's review of the student's written materials. It is recommended that the receiving institution request an evaluation from the Dean of Faculty and Academic Programs, National Defense University, National War College, Ft. Lesley J. McNair, Washington, DC 20319. *Version 3:* In the upper-division baccalaureate category, 30 semester hours—to be apportioned by the receiving institution—in the areas of history, political science, international relations, and management (8/74); in the graduate degree category, for the core curriculum, 6 semester hours in foreign policy and security affairs, 3 in political science; for one of the area courses plus one related elective, the overseas trip, and the synthesis course, 6 semester hours for students specializing in foreign policy and security affairs OR 3-6 hours for students in a more general program of comparative government or area studies based on the receiving institution's review of the student's records; for research and thesis, 0-6 semester hours; for any two of the following electives, 3 semester hours if relevant to the student's program specialization: National Security and Problems of International Law, Strategy of Arms Control, Problems of Developing Countries and U.S. Security, Current Issues in Defense Policy, U.S. Society and National Security, Current Economic Problems, Vietnam: A Beginning Reassessment, the Energy Issue: Problems and Prospects, of Futuristics (8/74). NOTE: Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 4:* In the upper-division baccalaureate category, 30 semester hours—to be apportioned by the receiving institution—in the areas of history, political science, international relations, and management (8/74); in the graduate degree category, 3 semester hours in theory and practice of international relations, 3 in U.S. national security policy, 3 in international relations/area studies (specific area to be determined by the geographical region of the student's trip), 0-6 in research and thesis, 3 upon completion of any two of the following elective courses: Current Reinterpretations of Marxist Thought, History of Strategic Thought, or International Law (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 5:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 9 in recent and contemporary history, 3 in business administration (8/74). *Version 6:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 9 in recent and contemporary history, 3 in business organization and management, 3 in speech (12/68).

DD-1511-0003

INDUSTRIAL COLLEGE OF THE ARMED FORCES (RESIDENT PROGRAM)

Course Number: None.

Location: National Defense University, Ft. Lesley J. McNair, Washington, DC; Industrial College of the Armed Forces, Ft. Lesley J. McNair, Washington, DC.

Length: 40-45 weeks.

Exhibit Dates: *Version 1:* 8/90-Present. *Version 2:* 1/80-7/90. *Version 3:* 8/69-12/79. *Version 4:* 8/66-7/69. *Version 5:* 8/65-7/66. *Version 6:* 8/64-7/65. *Version 7:* 8/63-7/64. *Version 8:* 8/54-7/63.

Objectives: To teach the political, military, social, economic, and industrial aspects of national security, resource management, and the command, staff, and policymaking functions of the national and international security structure.

Instruction: *Version 1:* Pending evaluation. *Version 2:* This course consists of lectures, simulations, seminars, field studies, and student research in aspects of United States national security and resource management. The core curriculum is divided into five phases as follows: 1) Public executive prospectives; 2) National security and mobilization management; 3) Manpower resources management; 4) Materiel resources management; and 5) Joint training exercises. Field trips to domestic and foreign industrial sites are included in Phase 4. A variety of electives relating to the core curriculum is offered. *Version 3:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs. *Version 4:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs. *Version 5:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs. *Version 6:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs. *Version 7:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs. *Version 8:* Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to economics (5/85); in the upper-division baccalaureate category, 12 semester hours in United States foreign policy and national security studies, 6 in international relations, 4 in labor and manpower resource planning, 2 in transportation planning, 4 in industrial structure and process, and 0-6 additional credit in the appropriate field for the electives course based on the receiving institution's review of the transcript and additional information from the Dean, Industrial College of the Armed Forces, National Defense University, Ft. Lesley J. McNair, Washington, DC 20319 (5/85); in the graduate degree category, 1-9 semester hours in international relations, manpower materiel planning, United States national security studies; and 1-3 for research completed during the course, all to be granted based on the receiving institution's review of the student's written materials. It is recommended that the receiving institution request a transcript and additional information from the Academic Dean, Industrial College of the Armed Forces, National Defense University, Ft. Lesley J. McNair, Washington, DC 20319 (5/85). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in political science, 3 in international relations, 3 in social science, 3 in national economic problems and policies, 3 in principles of economic analysis, 3 in quantitative analysis, 6 in management, 3 in public administration, 0-3 in research and thesis (exact amount to be determined by institutional review) (8/74); in the graduate degree category, 2 semester hours in national security, 2 in aspects of national strength, 2 in international relations, 2 in management of industrial resources, 2 in governmental management, 2 in national economic problems and policies, 0-6 in research and thesis (8/74). NOTE: Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 4:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 12 in business administration, 3 in recent history, 6 in economics, 3 in geography, 3 in general physics, 3 in mathematics (8/74). *Version 5:* In the upper-division baccalaureate category, 12 semester hours in political science, 9 in business administration, 3 in recent history, 3 in economics, 3 in geography, 3 in general physics, 3 in mathematics (12/68). *Version 6:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 6 in business administration, 3 in recent history, 3 in economics, 3 in geography (12/68). *Version 7:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 6 semester hours in business administration, 3 in speech, 6 in recent history, 3 in economics (12/68). *Version 8:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 3 in business organization and management, 3 in speech, 9 in recent and contemporary history (12/68).

DD-1511-0004

1. POSTGRADUATE INTELLIGENCE COURSE (Defense Intelligence Course)
2. DEFENSE INTELLIGENCE COURSE

Course Number: *All Versions:* None.

Location: Defense Intelligence School, Naval Station (Anacostia Annex), Washington, DC.

Length: *Version 1:* 33 weeks (1325 hours). *Version 2:* 38 weeks (1425-1504 hours).

Exhibit Dates: *Version 1:* 3/72-7/81. *Version 2:* 1/63-2/72.

Objectives: To train officers in intelligence operations and techniques, and management concepts and techniques as they apply to intelligence resources, processes, and information systems, OR in intelligence procedures, operations, and structures as they relate to international action.

Instruction: Lectures, practical exercises, readings, and individualized study in intelligence operations and techniques and in management concepts and techniques as they apply to intelligence resources, processes and information systems at various levels. The Postgraduate Intelligence course changed to a multiple course curriculum in 1978. Students should be asked to submit an official transcript of courses completed after September 1978. The Defense Intelligence School is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in modern history, 6 in political science, credit in geography on the basis of institutional examination (upon completion of phases one and two), 3 in principles of management (upon completion of phase three) (8/74); in the graduate degree category, 6 semester hours in international relations or political science, OR, if the applicant's field of study in graduate school is in the area of economics or political geography, 4 semester hours in international relations or political science (8/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in modern history, 6 in political science, 3 in geography (12/68); in the graduate degree category, 6 semester hours in international relations or political science, OR, if the applicant's field of study in graduate school is in the area of economics or political geography, 4 semester hours in international relations or political science (8/74).

DD-1511-0005

INTER-AMERICAN DEFENSE COLLEGE

Course Number: None.

Location: Inter-American Defense College, Ft. Lesley J. McNair, Washington, D.C.

Length: 52 weeks.

Exhibit Dates: 7/65-Present.

Objectives: To function as a military institution for advanced studies, with the purpose of preparing military personnel and civilian officials of the American States through the study of the Inter-American System and the political, social, economic and military factors that constitute essential elements for the defense of the hemisphere.

Instruction: The curriculum includes a review of basic theoretical topics in the classical areas of power and general studies of the current world situation, thus providing an adequate framework for an extensive analysis of the hemisphere's situation in the light of political, social, economic and military factors. The students learn and practice, in group discussions, the methodology of international cooperation in basic aspects of continental security planning at higher levels of general and military strategy. The modes of instruction include numerous lectures by outside experts, seminars and symposia for discussion of the materials presented, study committees and the preparation of individual research papers.

Credit Recommendation: In the graduate degree category, 6 semester hours in international relations for students rated "very good" or "outstanding" (11/76).

DD-1511-0006

RESERVE COMPONENTS NATIONAL
SECURITY SEMINAR

Course Number: None.

Location: National Defense University, Vandenberg AFB, CA; National Defense University, Naval Air Station, Pensacola, FL; National Defense University, Ft. Bragg, NC; National Defense University, Ft. Lesley McNair, Washington, DC.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/76-Present.

Objectives: To present and analyze issues of national security and foreign policy.

Instruction: This seminar includes global intelligence assessment (U.S. policy perspective); U.S. security policy (East Asia, Western Europe, and the Soviet Union, the Middle East and the developing countries); arms trade and arms acquisitions; defense analysis including a case study; DoD Management; ocean policy; economic issues; human and industrial resources; energy problems; and simulation exercise.

Credit Recommendation: Credit is not recommended for the course (7/87).

DD-1512-0001

1. DEFENSE EQUAL OPPORTUNITY MANAGEMENT INSTITUTE
2. DEFENSE EQUAL OPPORTUNITY MANAGEMENT INSTITUTE
3. DEFENSE EQUAL OPPORTUNITY MANAGEMENT INSTITUTE
4. DEFENSE RACE RELATIONS INSTITUTE
5. DEFENSE RACE RELATIONS INSTITUTE

Course Number: None.

Location: Defense Equal Opportunity Management Institute, Patrick AFB, FL; Defense Race Relations Institute, Patrick AFB, FL.

Length: *Version 1:* 16 weeks (590 hours). *Version 2:* 16 weeks (590 hours). *Version 3:* 16 weeks (585 hours). *Version 4:* 7-11 weeks (184-425 hours). *Version 5:* 7 weeks (205 hours).

Exhibit Dates: *Version 1:* 4/86-Present. *Version 2:* 1/83-3/86. *Version 3:* 6/78-12/82. *Version 4:* 8/74-5/78. *Version 5:* 10/72-7/74.

Objectives: To provide students with a foundation of knowledge on intergroup relations, cultural specificity, and an awareness of those processes that form social opinion. The program is also designed to provide participantswith the ability to function as instructors in race relations and to provide them with management, planning and applications skills needed in maintaining effective institutional human relations programs.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures, audio visuals, guest speakers, seminars, incident process techniques, role play, student practicums and student presentations are employed as they apply to equal opportunity officers in Department of Defense activities. The program prepares students as instructors, facilitators, EEO staff advisors, and consultants in policy and procedures and conflict intervention, knowledgable discussants on issues of race, women's issues, ethnic and national origin concerns, and related issues adversly affecting organizational effectiveness and mission. *Version 3:* Lectures, seminars, simulation/interactional techniques, case study, role play and games in the theory and practice of human relations and the application and management of human relations programs. Program takes multidisciplinary approach to minority and behavioral studies and instructional methodology. Program is designed to prepare the participants as instructors and consultants in race relations, equal opportunity and women's issues, and organizational effectiveness as it as it relates to discriminatory policies procedures and practices. *Version 4:* Lectures, seminars, simulation/interactional techniques, case study and field laboratory (inner city visitation) in the theory and practice of human relations and the application and management of human relations programs. The program takes a multi-disciplinary approach to minority and behavioral studies and instructional methodology. Participants are prepared as instructors in race relations. *Version 5:* Lectures, seminars, readings, and discussions in intergroup relations, social processes, behavioral sciences, minority studies, and instructional techniques, divided into five course blocks as follows: (1) The Individual in Social Interaction, including psychological theories of the self, and defense mechanisms; social significance of attitudes and behavior; stereotypes, the psychology of rumor; and race and individual differences. (2) Racism and Ways to Combat It, including military racial disorders, the Kerner Commission report, racism in U.S. history and contemporary life; the nature of prejudice; signs and symbols in communication and their role in racial conflict; institutional racism; racial issues (law enforcement, housing, employment, and education); racial polarization and separation; new white consciousness, contemporary white American culture; and strategies for combatting racism. (3) Group Dynamics, including introduction to group processes, group formation, techniques of facilitating group performance, the individual and the group, group goals and norms; group problems (members and feelings, recognition of hidden agendas within a group, methods of approach); leadership functions in groups; recognition of goal types; conditions affecting cohesiveness and conformity; and intergroup relations, examined through discussion on problems of communication, minority participation in policy and programs, changing the practice of desegregation, and establishing the values of integration. (4) Educational Techniques, including guided discussion as a teaching method; information processing limitations; use of selective exposure, interpretation (attention), and retention in reinforcing attitudes and opinions; use of sociodrama as a teaching technique; lesson planning and educational presentations; student teaching exercises; instructional aids; and creative teaching. (5) Minority Studies, including Afro-American history, migrant group, Appalachian cultures, Indian culture and contemporary thought, and Asian-American history and contemporary situation; history of blacks in the military, contemporary black thought, and inner-city problems. Participants are prepared as instructors in race relations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in sociology of women, 3 in culture and society, 3 in racial and interethnic relations, 3 in instructional methodology, and 3 in interpersonal communications; in the graduate degree category, 3 semester hours in organizational effectiveness, 3 in organizational communication and 3 in interpersonal relations and conflict resolution (3/84). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in sociology of women, 3 in culture and society, 3 in interracial relations and interethnic relations, 3 in organizational effectiveness (9/79); in the graduate degree category, 3 semester hours in interpersonal communication, 3 in instructional methodology (9/79). *Version 4:* In the upper-division baccalaureate category, 18 semester hours in social and behavioral science, to be assigned among the following subject areas: applied psychology, group dynamics, intergroup relations, communications theory, history of minorities and ethnic groups, and instructional methodology (5/76); in the graduate degree category, 9 semester hours in social and behavioral science, to be assigned among the following subject areas: applied psychology, group dynamics, intergroup relations, communications theory, history of minorities and ethnic groups, and instructional methodology (5/76). *Version 5:* In the upper-division baccalaureate category, 4 semester hours in behavioral science laboratory, and 6 in social and behavioral science, to be assigned in any of the following disciplines: applied psychology, group dynamics, intergroup relations, or history of minorities and ethnic groups (8/74); in the graduate degree category, 4 semester hours in behavioral science laboratory (8/74). NOTE: Recommendations of credit are maximum figures. The amount of credit actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit.

DD-1512-0002

Defense Equal Opportunity
Management Institute
Nonresident/Resident

Course Number: None.

Location: Defense Equal Opportunity Management Institute, Patrick AFB, FL.

Length: Maximum 52 weeks.

Exhibit Dates: 6/79–Present.

Objectives: To provide students with a foundation of knowledge on intergroup relations, cultural specificity, and an awareness of those processes that form social opinion. The program is also designed to provide participants with the skills to serve as instructors in race relations and to provide them with management, planning, and applications skills needed in maintaining effective institutional human relations programs.

Instruction: The program prepares students as instructors, facilitators, EEO staff advisors, and consultants in policy and procedures of conflict intervention, knowledgable discussants on issues of race, women's issues, ethnic and national origin concerns, and related issues adversly affecting organizational effectiveness and mission. Interrelated subject areas include individual, group, and organizational behaviors; equal opportunity skills; study of discrimination based on race, gender, or cultural/ethnic differences on individual, institutional, and cultural levels; study of cultural, historical, and socio-psychological perspectives as well as contemporary status of American minority groups.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in sociology of women, 3 in culture and society, 3 in interracial and interethnic relations, 3 in interpersonal communications, 3 in instructional methodology (3/84); in the graduate degree category, 3 semester hours in interpersonal relations and conflict resolution, 3 in organizational effectiveness and 3 in organizational communication (3/84).

DD-1601-0001

Basic Photogrammetric Cartographic
Techniques

Course Number: 411-204.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9 weeks (293 hours).

Exhibit Dates: 5/72–8/78.

Objectives: To train enlisted personnel to compile and revise planimetric, topographic maps and photomaps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in the compilation and revision of planimetric, topographic maps and photomaps, including compilation base and radial triangulation, map compilation and map revision, aerial photo mosaic, color separation, maintenance of cartographic equipment and facilities, DMA topographic center tour security, construction of controlled photomosaic, transfer of revision data to compilation base, and delineation of aerial photography.

Credit Recommendation: In the vocational certificate category, 6 semester hours in map and mosaic making (5/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in map and mosaic making (5/74); in the upper-division baccalaureate category, 3 semester hours in map and mosaic making (5/74).

DD-1601-0002

Geodetic Surveying

Course Number: 412-82D20; 5ABD22230; 412-101.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10 weeks (376 hours).

Exhibit Dates: 12/73–11/76.

Objectives: To train enlisted personnel in geodetic surveying.

Instruction: Lectures and practical exercises in geodetic surveying, including the establishment of ground survey control through differential leveling, gravity surveys, traverse, triangulation, and astronomic observation; mapping and charting in the support of weapons systems and other operations; military construction surveys; establishment of control; expedient-road and landing-site planning; and construction-site layout surveys for theater-of-operations construction support.

Credit Recommendation: In the vocational certificate category, 10 semester hours in plane and geodetic surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in plane and geodetic surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in plane and geodetic surveying (5/74).

Related Occupation Codes: 82D.

DD-1601-0003

Advanced Geodetic Surveying

Course Number: 4M-710.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 20 weeks (707 hours).

Exhibit Dates: 12/73-11/81.

Objectives: To provide geodetic surveyors with training in advanced geodetic survey techniques.

Instruction: Lectures and practical exercises in advanced geodetic survey techniques, including astronomic observations for longitude, latitude, and azimuth; computing and adjusting geodetic figures, directions, lengths, positions, and differences in elevation; precise instrumentation related to high-order surveys; orientation on analytical point positioning using photogrammetry; vertical control surveys; geodesy and gravity surveys; and map compilation and digital computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 15 semester hours in advanced geodetic surveying (5/74); in the upper-division baccalaureate category, 10 semester hours in advanced geodetic surveying (5/74).

DD-1601-0004

Terrain Analysis

Course Number: 491-81Q20; 491-101.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10 weeks (314 hours).

Exhibit Dates: 10/73-9/80.

Objectives: To provide soils analysts, map compilers, and image interpreters with training in geographic analysis.

Instruction: Lectures and practical exercises in terrain analysis, including principles and techniques of terrain analysis, map reading and land navigation, basic photographic interpretation and cartographic principles, techniques for describing terrain, geologic and hydrologic concepts, amphibious operations planning considerations, evaluation of terrain elements, base development and LOC planning considerations, engineer reconnaissance, engineer applications of photography, and applied terrain analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in terrain analysis (5/74); in the upper-division baccalaureate category, 4 semester hours in terrain analysis (5/74).

Related Occupation Codes: 81Q.

DD-1601-0005

Advanced Photogrammetric Cartographic Techniques

Course Number: 411-205.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (281 hours).

Exhibit Dates: 5/73-4/78.

Objectives: To train noncommissioned officers to perform as photogrammetric-cartographic technicians.

Instruction: Lectures and practical exercises in earth and physical sciences as related to the photogrammetric-cartographic career area, including regional physiography, geodetic datums, horizontal and vertical control, positional evaluation, photographic metrics, projections, grids, photo tilt, photo restitution, structural heights, industrial analysis, photogrammetric equipment, aerial reconnaissance systems, and support functions of photographic and lithographic areas.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in photogrammetric interpretations (5/74); in the upper-division baccalaureate category, 6 semester hours in photogrammetric interpretations (5/74).

DD-1601-0006

Geodetic Computing

Course Number: 412-82E20; 5ABD22231; 412-102.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 11 weeks (378 hours).

Exhibit Dates: 12/72-4/77.

Objectives: To train enlisted personnel in geodetic computing.

Instruction: Lectures and practical exercises in geodetic computing, including comprehensive mathematics review; use of electronic calculators; map reading; computations in grid and declination grid conversions and transformations; grid traverses and electronic distance measurements; grid triangulation, leveling, traverse, and trilateration; astronomic azimuth and position; and adjustment of geometric figures, directions, linelength, and elevation difference from surveyor notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in geodetic computations (5/74); in the upper-division baccalaureate category, 8 semester hours in geodetic computations (5/74).

Related Occupation Codes: 82E.

DD-1601-0007

Mapping, Charting, and Geodesy Officer

Course Number: 4M-7915; 4M-F2; 5OZD5724; 4M-701.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 14 weeks (454 hours). *Version 2:* 12 weeks (372 hours).

Exhibit Dates: *Version 1:* 12/77-1/86. *Version 2:* 1/74-11/77.

Objectives: Provides officers and selected civilian personnel with a broad background in programs of topographic, aerospace,and hydrographic operations applied to surveying, remote sensing, cartography, and graphic arts.

Instruction: *Version 1:* Lectures and limited practical exercises in remote sensing, photogrammetric operations, management of cartographic operation, military geographic information, new development in mapping, charting, and geodesy. Background of appropriate technical mathematics is reviewed. Students completing this course would have a background equivalent to up to 6 semester hours in technical mathematics. For the course after 1986, see DD-1601-0021. *Version 2:* Lectures and practical exercises in mapping,charting and geodesy processes, including theory of errors: and MC and G survey, photogrammetric, cartographic,and reproduction operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in cartography, civil engineering, civil engineering technology, geodetic science, photogrammetry or and combination of these. (5/81); in the graduate degree category, 3 semester hours in cartography, civil engineering, engineering management, geodetic science, surveying, or photogrammetry (5/81). Credit is to be granted in either the upper division or the graduate category but not both. *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in mapping, charting, and geodesy (5/74); in the upper-division baccalaureate category, 6 semester hours in mapping, charting, and geodesy (5/74).

DD-1601-0008

Construction Surveying

Course Number: 412-82B10; 412-82B20; 412-110.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 15 weeks (473 hours). *Version 2:* 11 weeks (362 hours).

Exhibit Dates: *Version 1:* 4/81-8/87. *Version 2:* 7/72-3/81.

Objectives: To train military personnel with a working knowledge of conventional surveying with a special emphasis on problems connected with military construction.

Instruction: Lectures and practical exercises in plane surveying fundamentals, including equipment maintenance, recording procedures, map reading, route selection, one-minute theodolite, engineer transit, horizontal taping, traverse layout, plane traverse computation, engineer dumpy level, differential leveling, trigonometric elevations, planetable surveying, transit-stadia, contour strip map, horizontal curves, road layout, profile and cross-section leveling, profile and grade line plotting, vertical curves, end area, volumes, boundary alignment, slope and grade stakes, site plans and construction drawings, and building utilities and airfield layout. After 1987, see DD-1601-0024.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semesters hours in construction surveying or highway surveying (5/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in technical mathematics, 6 in civil surveying and/or civil engineering, 2 in architectural drafting (5/81). *Version 2:* In the vocational certificate category, 10 semester hours in construction surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in construction surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in construction surveying (5/74).

Related Occupation Codes: 82B.

DD-1601-0009

Photogrammetric Compilation

Course Number: 411-203; 411-81C30.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 7-8 weeks (248-270 hours).

Exhibit Dates: 6/71-10/81.

Objectives: To train map compilers in the principles and techniques of photogrammetric map compilation including analog and analytical model orientation and stereo compilation techniques.

Instruction: Lectures and practical exercises in the principles and techniques of photogrammetric map compilation, including multiplex stereoplotting equipment, multiplex stereoplotter orientation, reduction printing, stereocompilation, high-precision stereoplotter, stereotriangulation, and special operational subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photogrammetric compilation (5/81); in the upper-division baccalaureate category, 3 semester hours in advanced photogrammetric compilation (5/81).

Related Occupation Codes: 81C.

DD-1601-0010

BASIC GEODETIC SURVEY
(Geodetic Surveying)
(Basic Geodetic Surveying)

Course Number: 412-101.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14–18 weeks (450–589 hours).

Exhibit Dates: 2/77–9/87.

Objectives: To provide individuals with the skills and knowledge to establish ground survey control for assigned mapping, charting, and geodetic missions.

Instruction: Lectures and practical exercises in direction measurements using theodolites, distance measurements through using tape, microwave, and infrared; differential leveling; grid systems, their computations, conversion and transfer; traverse; triangulation; planetable surveys for Army and Marine Corps personnel; and for Air Force personnel only, astronomic surveys including field astronomy, conversion of time, azimuth observations, and astronomic positioning, and geodetic surveying. After 1987, see DD-1601-0023.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in topographic or architectural surveying (5/81); in the upper-division baccalaureate category, 3 semester hours in geodetic surveying (5/81).

Related Occupation Codes: 82D.

DD-1601-0011

BASIC CARTOGRAPHY

Course Number: 411-200.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 11–17 weeks (354–498 hours).

Exhibit Dates: 6/79–12/85.

Objectives: To provide required knowledge to perform basic cartographic and photogrammetric tasks with general supervision.

Instruction: Lectures and laboratory exercises including aerial photo interpretation, planimetric compilation, map revision, photomap construction, and negative engraving. For the course after 1985, see DD-1601-0025.

Credit Recommendation: In the vocational certificate category, 4 semester hours in cartographic laboratory techniques including drafting and scribing (5/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to maps and map interpretation or 2 semester hours in architectural or civil engineering drafting (5/81); in the upper-division baccalaureate category, 3 semester hours in laboratory techniques in cartography (5/81).

Related Occupation Codes: 81C.

DD-1601-0012

BASIC TOPOGRAPHIC OFFICERS

Course Number: 4M-703.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (296 hours).

Exhibit Dates: 9/77–12/80.

Objectives: To introduce commissioned officers to the process of map production including data collection, compilation, data analysis, drafting and reproduction.

Instruction: Subjects include survey operations; field data collection and classification; remote sensing; map base revision; terrain evaluation including natural and man-made features; field exercises; color separation including negative engraving, type placement, quality control and management, and mosaics; graphic arts operations including process camera operation, layout procedures, scribe and peel sheet preparation, platemaking operations, and lithographic press operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to graphic arts, 3 in elements of physical and human geography, 3 in maps and map interpretation (5/81); in the upper-division baccalaureate category, 3 semester hours in geographic field techniques (5/81).

Related Occupation Codes: 21D.

DD-1601-0013

BASIC PHOTOGRAPHIC PROCESSES

Course Number: 740-83E10; 740-306.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14 weeks (432–460 hours).

Exhibit Dates: 11/76–2/86.

Objectives: To teach enlisted personnel technical skills and knowledge related to basic photolithographic processes and graphic arts reproduction.

Instruction: Includes teaching the student to prepare single and multicolor camera ready copy utilizing cold type equipment and metric measurement; course is devoted primarily to camera operations and stripping and platemaking operation. For the course after 1986, see DD-1601-0019.

Credit Recommendation: In the vocational certificate category, 10 semester hours in graphic arts, printing, or photlithographic processes (5/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in photomechanical processes, 4 in offset reproduction (5/81).

Related Occupation Codes: 83E.

DD-1601-0014

ADVANCED GEODETIC SURVEY

Course Number: 4M-F1/412-F2; 710 (4M-710)(USMC); 4M-710.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14 weeks (448 hours).

Exhibit Dates: 4/82–Present.

Objectives: To provide individuals with geodetic survey techniques and procedures to plan, conduct, control and complete survey projects.

Instruction: Lectures and practical exercises in geodetic survey techniques including horizontal and vertical surveys, geodetic satellite surveys, photogrammetric and map edit surveys; project planning; project execution; briefing; and report writing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics, 3 in technical communications, 3 in engineering surveying, 3 in management and supervision (5/81); in the upper-division baccalaureate category, 3 semester hours in geodetic surveying (5/81); in the graduate degree category, 3 semester hours in management engineering (5/81).

Related Occupation Codes: 821A; 82D.

DD-1601-0015

ANALYTICAL PHOTOGRAMMETRIC POSITIONING SYSTEM

Course Number: 411-207.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/80–1/86.

Objectives: To develop an understanding of photogrammetric and mapping concepts, provide limited theory, and a working skill using the Analytical Photogrammetric Positioning System (APPS) point positioning.

Instruction: Students learn the components, general operating procedures, and at least three applications of the Analytical Photogrammetric Positioning System APPS) including assembly and disassembly and performance of diagnostic procedures on the system especially as it is used as a photo interpretation measuring device. See DD-1601-0026 for later version.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cartography, photogrammetry, civil engineering, surveying, or geodetic science (5/81); in the graduate degree category, 3 semester hours in cartography, photogrammetry, civil engineering, surveying, or geodetic science. Credit is to be granted in either the upper division or the graduate category as appropriate (5/81).

Related Occupation Codes: 81C.

DD-1601-0016

CARTOGRAPHIC SUPERVISOR

Course Number: 411-241.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (69 hours).

Exhibit Dates: 10/80–9/83.

Objectives: To provide the student with basic transferrable skills in supervision and management.

Instruction: Topics include project planning, implementation, scheduling, quality control, inventory management, and field application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management and supervision or in production management (5/81).

DD-1601-0017

MAPPING, CHARTING, AND GEODESY SENIOR OFFICER

Course Number: 4M-702.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (63 hours).

Exhibit Dates: 1/81–1/87.

Objectives: To provide senior level officers of all services and higher rated civilians with a training program in mapping, charting, and geodesy particularly as this training relates to command, staffing and management of sophisticated mapping, charting, and geodesy programs. Emphasis is on personalities, products, and new developments within the system.

Instruction: This course provides an introduction to mapping, charting, and geodesy with the development of an understanding of concepts in remote sensing, satellite geodesy, Analytical Photogrammetric Positioning System (APPS), and digital processing. Planning, programming, and budgeting are considered and the roles of the various services are introduced. Research and development, and command and management of mapping, charting, and geodesy are carefully documented by the introduction of specially selected guest speakers who have experienced the problems in an operational mode.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in cartography, civil engineering, civil engineering technology, geodetic science, surveying or surveying technology or photogrammetry (5/81); in the graduate degree category, 3 semester hours in cartography, civil engineering, geodetic science, surveying, or photogrammetry. Credit is to be granted in either the upper division or graduate category (5/81).

Related Occupation Codes: 21D.

DD-1601-0018

TERRAIN ANALYSIS

Course Number: 491-401.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 12 weeks (395 hours).

Exhibit Dates: 10/80-12/82.

Objectives: To train individuals in terrain analysis through the observation, measurement, and interpretation of the earth science as applied to land use.

Instruction: Lectures, practical exercises and field experience in terrain analysis, map reading, aerial photo interpretation, and analysis of remotely sensed imagery; rural, urban, industrial and transportation land use; weather and climate vegetation and hydrology, and physiology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maps and map interpretation, 4 in physical geography (5/81); in the upper-division baccalaureate category, 3 in physical geography field techniques (5/81).

Related Occupation Codes: 81C.

DD-1601-0019

BASIC PHOTOLITHOGRAPHIC PROCESSES

Course Number: 740-306; 740-83E10; ESABD70330-000; A024621.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 15 weeks (497-516 hours).

Exhibit Dates: 3/86-Present.

Learning Outcomes: Upon completion of this course the student will be able to perform all process camera and darkroom operations to produce a line copy negative, halftone negative, line negative, utilizing filters, continuous-tone negative, contact paper prints from continuous tone aerial photo negatives; produce an offset plate, a bookwork dummy, and flats, a multi-image combination form dummy and flat, and a multi-color proof.

Instruction: Includes some lecture/demonstration, but is predominately hand-on activities in process camera operations, making contact paper prints and contact negatives, lithographic offset plates, bookwork flats, simple flats, multi-image combination forms flats, and a multi-color proof. For an earlier version of the course, see DD-1601-0013.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in process camera operations, 5 in stripping and platemaking operations (4/90).

Related Occupation Codes: 82E.

DD-1601-0020

BASIC TERRAIN ANALYSIS

Course Number: 419-400; AO214J1; 491-400(419-81Q10).

Location: Defense Mapping Schoo!, Ft. Belvior, VA.

Length: 11-12 weeks (379 hours).

Exhibit Dates: 2/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to collect, observe, map, analyze, and synthesize basic physical and cultural geographic features.

Instruction: This course includes lecture, laboratory, and field experience in terrain analysis; basic map and air photo interpretation; review of basic mathematics through trigonometric function; production of terrain analysis data base overlays; preparation of terrain synthesis; and will be able to apply findings to real problems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic map and air photo interpretation; 5 in physical geography (7/87); in the upper-division baccalaureate category, 3 semester hours in physical geography field techniques, 3 in land use analysis, and 3 in physical geography (7/87).

DD-1601-0021

MAPPING, CHARTING, AND GEODESY OFFICER

Course Number: 4M-701; 4M-21C; AO21451.

Location: Defense Mapping School, Ft.Belvoir, VA.

Length: 11 weeks (344 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 2/86-4/89.

Learning Outcomes: Upon completion of the course the student will be able to understand the theory and principles necessary to comprehend, apply, and utilize the fundamentals of mapping, charting, and geodesy.

Instruction: Instruction includes lecture, laboratory, and practical experiences in geodesy and error theory, photogrammetry and remote sensing, basic surveying, terrain analysis, cartography, reproduction, topographic operation, and digital data processing. For the course prior to 1986, see DD-1601-0007.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in maps and map interpretation (7/87); in the upper-division baccalaureate category, 6 semester hours in cartography, remote sensing, civil engineering, photogrammetry, or a combination of these disciplines (7/87).

Related Occupation Codes: 21C.

DD-1601-0022

ADVANCED GEODETIC SURVEY

Course Number: 4M-710.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14 weeks (467 hours).

Exhibit Dates: 1/82-Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand geodetic survey techniques and procedures well enough to plan, conduct, control, and complete survey projects.

Instruction: Instruction includes lectures, demonstration, and field exercises in the areas of horizontal and vertical control surveys, three-dimensional survey systems, surveys for mapping, and project planning and execution. For an earlier version of the course, see DD-1601-0003.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in management and supervision, 3 in technical report writing (7/87); in the upper-division baccalaureate category, 3 semester hours in geodetic surveying and/or geodetic control (7/87).

Related Occupation Codes: 821A; 82D.

DD-1601-0023

BASIC GEODETIC SURVEY

Course Number: 412-101; 412-82D10; G5ABD22230-000; A0214A1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14-18 weeks (469-614 hours).

Exhibit Dates: 10/87-Present.

Objectives: Upon completion of the course the student will be able to establish ground survey control positions for mapping, charting and geodetic surveys.

Instruction: Instruction includes lecture, demonstration, and field exercises in the operation of precise levels, electronic distance measuring devices, theodolites, satellite receivers, and analytical photogrammetric positioning systems. Basic computations are taught as well as map reading and interpretation, and recovery and installation of control points. For an earlier version of the course, see exhibit DD-1601-0010.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic map reading and interpretation (7/87); in the upper-division baccalaureate category, 3 semester hours in basic geodetic surveying (7/87).

Related Occupation Codes: 82D.

DD-1601-0024

CONSTRUCTION SURVEY

Course Number: 412-110; 412-82B10; AO24F1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 15-17 weeks (533 hours).

Exhibit Dates: 10/87-6/88.

Learning Outcomes: Upon completion of the course, the student will be able to perform conventional surveying operations with special emphasis in the areas of construction surveying and layout.

Instruction: Instruction includes lectures, demonstration, and field exercises in the areas of plane surveying fundamentals including: vertical control, horizontal control, topographic surveys, electronic distance measuring, preliminary and final surveys, building layout, underground utility layout, note keeping and reduction, traverse computations, and basic blueprint and plan reading. For the course prior to 1987, see DD-1601-0008.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic map reading and interpretation (7/87); in the lower-division baccalaureate/associate degree category, 8 semester hours in basic/construction surveying, 2 in blueprint/plan reading and interpretation (8/87).

Related Occupation Codes: 82B.

DD-1601-0025

BASIC CARTOGRAPHY

Course Number: 411-200; 411-81C10; A0214R1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10-11 weeks (363 hours).

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 1/86-4/89.

Learning Outcomes: Upon completion of the course the student will be able to perform basic cartographic tasks which include 1) map interpretation and drafting of map overlays, 2) map base preparation which requires construction of map grids, map projections and plotting of geodetic control, 3) constructing of photo mosaics, with some basic equipment maintenance, 4) map compilation, which includes revision of hypsography (elevations) and planimetric detail including map lettering or type and recasting of map sources by montaging film positives, and 5) color separation, which requires preparation of type (lettering) flats, scribing hydrography, scribing culture, scribing hypsography and the production of an open window flat, including peel coats as needed.

Instruction: This course is taught as a combination of lectures and closely monitored, hands-on, laboratory exercises which deliver both the manual physical skills needed to compile and draft a map and the basic understanding of how primary data such as air photographs are reduced to cartographic detail for map preparation. There is an extensive use of air photos throughout the course, including the preparation of a photomosaic. For an earlier version of the course, see DD-1601-0011.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 6 semester hours in map compilation and drafting, including scribing, air photo mosaicing and montaging of film positives and preparation of color separation plates (geography, cartography, civil engineering (drafting) (7/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in maps and map interpretation OR 3 hours in basic air photograph compilation and interpretation (geography, cartography, geology, and architectural, especially planning or civil engineering, drafting (7/87); in the upper-division baccalaureate category, 3 semester hours in introduction to cartography or basic cartography (geography, cartography, geology, architectural, especially planning or civil engineering drafting (7/87). Credit may be granted in both the lower and the upper division.

Related Occupation Codes: 81C.

DD-1601-0026

ANALYTICAL PHOTOGRAMMETRIC POSITIONING SYSTEM I

Course Number: 411-207; 411-APPS; A0247B1; G5AZD22150-000.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (58-68 hours).

Exhibit Dates: 2/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand and operate the Analytical Photogrammetric Positioning System I (APPS) for point positioning and will be able to determine U.T.M. and geographic coordinate positions.

Instruction: Instruction includes lecture, demonstration, and practical exercises in general operating procedures, assembly and disassembly and performance of diagnostic procedures of the APPS. Photointerpretation is also covered. For an earlier version of the course, see DD-1601-0015.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photogrammetry, geodetic science, surveying, civil engineering, or cartography (4/90) OR in the graduate degree category, 3 semester hours in photogrammetry, geodetic science, surveying, civil engineering, or cartography. Credit is to be granted in either the upper-division or the graduate category, as appropriate, but not both (4/90).

Related Occupation Codes: 21C; 811A; 821A; 841A; 81C; 81Q; 82D.

DD-1601-0027

ANALYTICAL PHOTOGRAMMETRIC POSITIONING SYSTEM IV

Course Number: 411-209.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/85-1/90.

Objectives: Upon completion of the course the student will be able to understand and operate the Analytical Photogrammetric Positioning System IV (AAPS) for point positioning.

Instruction: Instruction includes lecture, demonstration, and practical exercises in instrument set-up, mono and stereo measurements, reconnaissance camera systems, and basic photogrammetric and geodetic reference systems.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in photogrammetry, geodetic science, surveying, civil engineering, or cartography (7/87).

DD-1601-0028

ADVANCED TERRAIN ANALYSIS

Course Number: 491-402; 491-81Q30.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 15 weeks (525 hours). *Version 2:* 18 weeks (630 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 10/87-12/88.

Learning Outcomes: Upon completion of the course the student will be able to analyze and produce physical and human geographic information through observation, remote sensing, and field techniques.

Instruction: The course is presented through lectures, laboratory, and field exercises in terrain analysis, remote sensing system; production of terrain analysis date base overlays; application of computer based digital terrain analysis; project planning, coordination; and quality control, determination of flood hazard.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic map and air photo interpretation, 5 in physical geography, 3 in introduction tp management principles (7/87); in the upper-division baccalaureate category, 3 semester hours in land use analysis, 3 in remote sensing, 3 in hydrology, and 3 in physical geography field techniques (7/87).

Related Occupation Codes: 81Q.

DD-1601-0029

TERRAIN ANALYSIS WARRANT OFFICER CERTIFICATION

Course Number: 4M-841A.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9-10 weeks (392 hours).

Exhibit Dates: 1/88-Present.

Learning Outcomes: Upon completion of the course the student will understand the theory and principles necessary to coordinate, plan, manage, direct, and advise acquisition, reproduction, and amd distribution of terrain analysis information and its synthesis.

Instruction: The course includes lecture, laboratory, and practical exeperience in geodesy, multispectral imagery, computer use, review of terrain analysis, cartography, reproduction, operation, and digital imagery.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in map and map interpretation (7/87); in the upper-division baccalaureate category, 3 semester hours in geographic laboratory techniques including cartography, 3 in field experience in operation management (7/87).

Related Occupation Codes: 841A.

DD-1606-0001

NATIONAL SENIOR INTELLIGENCE

Course Number: None.

Location: Defense Intelligence School, Washington, DC.

Length: 14 weeks (560 hours).

Exhibit Dates: 6/72-7/81.

Objectives: To provide officers and civilian personnel with the knowledge necessary to hold management positions in the field of national and international intelligence.

Instruction: Lectures in the processing and management of intelligence information, development and implementation of U.S. foreign policy, the national intelligence structure, and government agencies involved in foreign policy. The Defense Intelligence School is now accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in international relations, public administration, or political science (1/74).

DD-1706-0001

MULTILITH 1250 REPAIR

Course Number: 690-621.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/73-1/75.

Objectives: To train multilith operators to troubleshoot, and perform preventive maintenance on, 1250 multiliths.

Instruction: Lectures and practical exercises on the preventive maintenance and repair of the 1250 multilith, including mechanical adjustments necessary to maintain the operational capability of the 1250 multilith, normal operator adjustments, system alignments and adjustments, maintenance, case problems, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in multilith 1250 repair (6/74).

DD-1706-0002

REPRODUCTION EQUIPMENT REPAIR

Course Number: 690-41K20; 690-620.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 15 weeks (478-512 hours).

Exhibit Dates: *Version 1:* 2/79-1/86. *Version 2:* 6/72-1/79.

Objectives: To train enlisted personnel to operate and repair, and calibrate mechanical/electrical reproduction equipment, copy cameras, power paper cutters, paper folder-stitchers, and offset duplicating machines.

Instruction: *Version 1:* Lectures and practical exercises in the operation and maintenance of mechanical/electrical equipment. Course includes: introduction to photolithography techniques; repair, adjustment and calibration of graphic arts reproduction equipment to include photomachanical, electrical power sources, switches and relays, mechanical timing and pneumatic devices, paper shears, binders, drills, and folders. For the course after 1986, see DD-1706-0003. *Version 2:* Lectures and practical exercises in the operation and maintenance of reproduction equipment. Course includes the 24 X 30 copy camera, introduction to photolithography, repair parts supply, operational adjustments, aligning adjustments, repair procedures, maintenance of layout and platemaking equipment, repair of electrical components, repair and maintenance of power paper cutter, repair, maintenance, and timing of the offset duplicating machine, and the maintenance and repair of the bindery equipment and the paper folder and stitcher.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in mechanical/electrical graphic arts or business machine operation, calibration, and equipment (5/81); in the lower-division baccalaureate/associate degree category, 4 semester hours in mechanical/electrical equipment calibration and repair (5/81). *Version 2:* In the vocational certificate category, 5 semester hours in business machine repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business machine repair (5/74).

Related Occupation Codes: 41K.

DD-1706-0003

Reproduction Equipment Repair

Course Number: 690-620; 690-ASIJ6; AO215F1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 14–15 weeks (489 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Upon completion of this course, the student will be able to safely use and care for applicable hand and measuring tools for repair of reproduction equipment; adjust, repair, and replace parts on the offset duplicator, trammel and calibrate the copy camera to within prescribed specifications; troubleshoot and repair medium-sized offset press to include troubleshooting and adjusting timing of paper train, cylinder assembly, dampening system, inking system, timing of main press, and verification of timing through troubleshooting with register.

Instruction: The course includes demonstration/lectures, but is conducted as predominantly hands-on instruction in offset duplicator repair, copy camera repair, and maintenance and repair of medium-sized offset presses. For an earlier version of this course, see exhibit DD-1706-0002.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in offset duplicator repair, 3 in process camera repair, and 5 in medium-sized offset press repair (7/87).

Related Occupation Codes: 83F.

DD-1709-0001

Intermediate Photojournalism

Course Number: 570-ASIJ8.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: Self-paced 7 weeks (276–280 hours).

Exhibit Dates: *Version 1:* 10/78–8/87. *Version 2:* 10/77–9/78.

Objectives: To provide photojournalism training for journalists and photographers.

Instruction: Students are given instruction in basic camera techniques, basic and advanced black and white darkroom procedures, Ektachrome slide processing, photo layout and design, and multi-media slide presentations. A course option includes news, feature, and cutline writing. Part of course is self-paced.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in photography, 2 in news and feature writing (print), and 2 in audio visual presentation techniques (10/86). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in photojournalism (2/78).

DD-1709-0002

Intermediate Photojournalism

Course Number: 570-AS/J8.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 7 weeks (276 hours).

Exhibit Dates: 9/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to practice basic camera techniques, basic and advanced black and white darkroom procedures, E-6 slide processing, photo editing and layout and basic audio-visual slide show production. Students prepare simple feature packages that include photos, text, captions and headlines.

Instruction: This is a two-track program that provides basic photography, writing and editing training for military photojournalists. During the first three weeks, students with writing and reporting experience study the fundamentals of photography while those with photography experience concentrate on writing and copy editing skills. The final four weeks involve both groups in the production of word and picture packages that include newspaper and magazine format layouts and an audio-visual presentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours of photojournalism (5/90).

DD-1713-0001

Map Compilation

Course Number: 413-81B20; 411-202.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9 weeks (325 hours).

Exhibit Dates: 10/70–11/74.

Objectives: To train enlisted personnel in the compilation and revision of planimetric maps, topographic maps, and photomaps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in the compilation and revision of planimetric, topographic, and photomaps, including compilation base and radial triangulation, map compilation and revision, aerial photography planning and mosaics, extraction of cartographic detail from aerial photographs, color separation, situation overlays and special studies, maintenance of cartographic equipment and facilities, and editing of color separation scribe sheets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in map compilation (5/74); in the upper-division baccalaureate category, 4 semester hours in map compilation (5/74).

DD-1713-0002

Cartographic Drafting

Course Number: 411-201.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9 weeks (293 hours).

Exhibit Dates: 5/72–9/74.

Objectives: To train enlisted personnel to perform as cartographic draftsmen.

Instruction: Lectures and practical exercises in cartographic drafting. Topics include compilation base and radial triangulation, basic compilation and map revision, aerial photomosaics, color separation, and situation overlays and special studies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in cartographic drafting (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in cartographic drafting (5/74); in the upper-division baccalaureate category, 2 semester hours in cartographic drafting (5/74).

DD-1713-0004

Construction Drafting

Course Number: 413-81B20; 413-210.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 11 weeks (360–405 hours).

Exhibit Dates: *Version 1:* 5/79–2/85. *Version 2:* 3/71–4/79.

Objectives: To train enlisted personnel to perform as construction or architectural draftsmen.

Instruction: *All Versions:* Lectures and practical exercises in the preparation of working drawings, charts, and graphs for the construction of roads, airfields, bridges, buildings, ports, harbors, and other military construction, including construction drafting; preparation of mechanical, construction, utilities, structural, and technical drawings; engineer drawings; mechanical lettering; and charts and graphs. After 1985, see DD-1713-0005. *Version 1:* Includes presentation drawings.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in design and drafting (5/81); in the lower-division baccalaureate/associate degree category, 8 semester hours in architectural drafting or 6 in engineering graphics (5/81). *Version 2:* In the vocational certificate category, 10 semester hours in architectural drafting (7/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in architectural drafting (7/74); in the upper-division baccalaureate category, 6 semester hours in architectural drafting (7/74).

Related Occupation Codes: 81B.

DD-1713-0005

Construction Drafting

Course Number: 413-210; 413-81B10; AO214D1.

Location: Defense Mapping School, Ft.Belvoir, VA.

Length: 11–12 weeks (386 hours).

Exhibit Dates: 3/85–11/88.

Learning Outcomes: Upon completion of the course the student will be able to perform basic drafting functions in the areas of engineering graphics, architectural drafting, structural drafting; highway planning and profile drafting, and technical chart and graph publication.

Instruction: Instruction includes lecture and practical exercises in the areas of: care and handling of drafting equipment; freehand lettering; floor plans, elevations, and details; timber, concrete, and steel structures; highway plan, profile, and cross-sections; utility layouts; inking and mechanical lettering; and chart/graph construction. For the course prior to 1985, see DD-1713-0004.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in architectural drafting, 2 in structural drafting, 3 in engineering graphics (basic drafting), and 2 in highway drafting (7/87).

Related Occupation Codes: 81B.

DD-1713-0006

Cartographic/Geodetic Officer

Course Number: 4M-701AF; G50BD5731-000.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 7 weeks (250 hours). *Version 2:* 10–11 weeks (351 hours).

Exhibit Dates: *Version 1:* 6/90–Present. *Version 2:* 2/87–5/90.

Learning Outcomes: The purpose of this course is to teach a general overview of cartography, geodesy, surveying, terrain analysis, computer graphics, digital processing, plus operations, products, and management policies of the Defense Mapping Agency. Upon completion the student will be trained in the overall cartographic geodetic process, and will have the technical skills to manage a production facility or oversee the production of products, data, or reports from field operations.

Instruction: The course presents an explanation of the map-making process. Students learn applications of computer technology to mapping and charting. There is a concern with the management of mapping, charting, and geodesy process. The course offers a strong hands-on component of surveying techniques, remote sensing and terrain analysis.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in blocks of 3 hours each in: map reading and interpretation, cartography, remote sensing, surveying, geodesy, or management. In addition, 3 hours in introduction to physical geography (7/87); in the upper-division baccalaureate category, 3 semester hours in geodesy, cartography, management (7/87). Credits may be awarded in the lower or the upper-division in any combination not to exceed 6 semester hours.

DD-1713-0007

Advanced Cartography

Course Number: 411-208; 411-81C30.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8–9 weeks (272–283 hours).

Exhibit Dates: 2/86–Present.

Learning Outcomes: Tasks include: review of new cartographic equipment and developments, mathematics needed in the course, review of basic geodesy military projections, grids, and mapping controls and construction of a base map. Development of the basic skills and knowledge required to setup and operate an analytical photogrammetic positioning system including troubleshooting and assembly of the system. The student will be provided with the advanced technical skills and knowledge required to supervise planimetric map revision, including color separations and image based projects. There is a strong element directed towards the development of the management skills necessary for the collection and evaluation of sound material, quality control, and determination of technical supply requirements for cartographic projects.

Instruction: This course is taught as a combination of lectures and closely monitored hands-on laboratory exercises which develop an understanding of advanced skills in cartography and photogrammetry, but includes cartographic photomapping, applications, production management methods and equipment assembly, troubleshooting, and supervision techniques.

Credit Recommendation: In the vocational certificate category, 6 semester hours in photogrammetry, cartography, civil engineering, or 3 hours in management in combination with 3 hours in any one of the above listed subjects (7/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic photogrammetry, map reading and interpretation, air photo interpretation, architectural planning or management, and 3 in geodesy (7/87); in the upper-division baccalaureate category, 3 semester hours in photogrammtery or advanced cartography. Credit is to granted in the upper division only if not granted in the lower division (7/87).

Related Occupation Codes: 81C.

DD-1715-0001

MOD 40 Board Level Maintenance
(Teletype Model 40/400 Board Level Maintenance)

Course Number: EM-144.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/76–Present.

Objectives: This course is designed to prepare electronic maintenance technicians to perform installation and corrective maintenance on the model 4/400 teletype terminal.

Instruction: This course includes troubleshooting exercises as well as classroom lecture. Technicians learn to perform installation and corrective maintenance on the model 4/400 teletype terminal.

Credit Recommendation: In the vocational certificate category, 2 semester hours in teletype model 40 maintenance (3/82).

DD-1715-0002

TD 1220/G MUX/DEMUX Maintenance
(Maintenance of the TD 1220/G Multiplexer-Demultiplexer)
(Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer)

Course Number: EM-212.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/80–Present.

Objectives: To train students in the operation, maintenance, and repair of the TD-1220/G multiplexer-demultiplexer. About half of the course time is devoted to system troubleshooting.

Instruction: Course includes a detailed equipment analysis including operation of each card making up the unit. The course then continues with installation, maintenance and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital mux/demux repair (3/82).

DD-1715-0003

CV-3511 Isochronous Channel Converter
(CV-3511(P)/G Isochronous Channel Coverter Maintenance and Repair)

Course Number: EM-213.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/78–Present.

Objectives: This course provides the graduate with the information necessary to maintain and troubleshoot the CV-3511(P)/G Isochronous Channel Converter.

Instruction: Lectures and practical exercise topics include operation theory, installation, maintenance, and troubleshooting the CV-3511(P)/G ICC.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic maintenance and troubleshooting (3/82).

DD-1715-0004

KG-34 Cryptographic Equipment Maintenance
TSEC/KG-34 Component Level Maintenance

Course Number: EM-327.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/71–Present.

Objectives: To be able to perform maintenance on the TSEC/KG-34 equipment, including transmitters and receivers, to the component level.

Instruction: Description, function, operation and employment of the TSEC/KG-30/33/34 equipment, including fault isolation procedures and practices are covered.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance and troubleshooting (3/82).

DD-1715-0005

Honeywell H316R Computer Maintenance

Course Number: ES-319.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/76–Present.

Objectives: This course prepares personnel to maintain the H316R Honeywell computer.

Instruction: Lectures and practical exercises include machine language programming, I/O and interrupts, logic, instruction flow, and timing and control.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in introduction to minicomputers (assembly and machine language programming, machine architecture and I/O structure) (3/82).

DD-1715-0006

IATS System Maintenance

Course Number: ES-323.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/72–Present.

Objectives: This course prepares personnel to maintain the IATS system (Honeywell H316 digital computer based).

Instruction: Practical exercise and lecture topics include multiplex controller, digital amplifier, line termination unit, tape control unit, and the magnetic tape unit. Students will have completed Honeywell H316R Computer Maintenance (ES-319) (DD-1715-0005).

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer peripheral troubleshooting and maintenance (3/82).

DD-1715-0007

LP11/LP02 Line Printer Maintenance

Course Number: ES-402.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 1 weeks (56 hours).

Exhibit Dates: 10/75–Present.

Objectives: This course enables the graduate to maintain the M7930 controller and the data products 2410 line printer (LP11-KA system).

Instruction: Lecture and practical exercise topics include module description, block diagrams, troubleshooting, and alignment. Student will have completed PDP-11/45 or PDP-11/40 Processor Maintenance (ES-445 or ES-440) (DD-1715-0013 or DD-1715-0012).

Credit Recommendation: In the vocational certificate category, 1 semester hour in LP11 line printer maintenance (3/82).

DD-1715-0008

RP11/RP03 Disk Pack Maintenance

Course Number: ES-403.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/79–Present.

Objectives: This course enables the graduate to maintain the RP11/RP03 disk system.

Instruction: Extensive practical exercises include troubleshooting and alignment techniques. Lectures discuss signal flow and logic analysis. Students will have completed a PDP-11 Processor Maintenance course such as ES-440 or ES-445 (DD-1715-0012 or DD-1715-0013).

Credit Recommendation: In the vocational certificate category, 2 semester hours in disk pack system maintenance (3/82).

DD-1715-0009

PC11/PC05 Paper Tape Unit Maintenance

Course Number: ES-404.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 1 week (56 hours).

Exhibit Dates: 6/78–Present.

Objectives: To enable graduates to maintain the PC11/PC05 Paper Tape Unit.

Instruction: Instructions in I/O programming, understanding of basic operation of paper tape unit, write program to operate paper tape unit. Student will have completed a PDP-11 Processor Maintenance course such as ES-440, ES-445 or ES-411 (DD-1715-0012, DD-1715-0013 or DD-1715-0011).

Credit Recommendation: In the vocational certificate category, 1 semester hour in PC11/PC05 paper tape unit maintenance (3/82).

DD-1715-0010

LP11/LP05 Line Printer Maintenance

Course Number: ES-408.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 1 week (56 hours).

Exhibit Dates: 6/79–Present.

Objectives: This course enables the graduate to maintain the LP11-VA line printer system to the component level.

Instruction: Extensive troubleshooting laboratory exercises are combined with classroom lecture. Topics include operation, fault logic, and alignment. Student will have completed a PDP-11 Processor Maintenance course such as ES-440 or ES-445 (DD-1715-0012 or DD-1715-0013).

Credit Recommendation: In the vocational certificate category, 1 semester hour in LP11 line printer maintenance (3/82).

DD-1715-0011

PDP-11 Instruction Set

Course Number: ES-411.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/75–Present.

Objectives: To teach machine and assembly language programming on the DEC PDP-11.

Instruction: Lecture and hands-on experience in machine and assembly language programming on the DEC PDP-11, including full word addressing, stack operations, system architecture (including UNIBUS). Many practical examples are covered in the programming exercises.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in machine and assembly language programming on the PDP-11 (DEC) (3/82).

DD-1715-0012

PDP-11/40 Processor Maintenance

Course Number: ES-440.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/76–Present.

Objectives: This course enables the graduate to maintain the PDP-11/40 central processor unit.

Instruction: This intimate look at the PDP-11/40 CPU is supported by both lecture and meaningful practical exercises. Student will have completed PDP-11 Instruction Set (ES-411) listed as DD-1715-0011.

Credit Recommendation: In the vocational certificate category, 3 semester hours in PDP-11 CPU maintenance (3/82).

DD-1715-0013

PDP-11/45 Processor Maintenance

Course Number: ES-445.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/75–Present.

Objectives: This course teaches the student to operate and maintain the DEC PDP-11/45 central processing unit.

Instruction: This intimate look at the PDP-11/45 CPU is supported by both lecture and meaningful practical exercises. Student will have completed PDP-11 Instruction Set, ES-411 (DD-1715-0011).

Credit Recommendation: In the vocational certificate category, 3 semester hours in PDP-11 CPU maintenance (3/82).

DD-1715-0014

KT11-C Memory Management

Course Number: ES-446.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 1 week (56 hours).

Exhibit Dates: 6/75–Present.

Objectives: The graduate will be able to maintain the KT11-C memory management unit option to the PDP-11/45 CPU.

Instruction: Lectures and supported with meaningful practical exercises to teach the student to maintain the KT11-C memory management unit option to the PDP-11/45 CPU.

Credit Recommendation: In the vocational certificate category, 1 semester hour in PDP-11 memory management unit maintenance (3/82).

DD-1715-0015

RK11-D/RK05 Disk Systems Maintenance

Course Number: ES-412.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/77–Present.

Objectives: This course enables the graduate to maintain the RK11-D/RK05 disk system.

Instruction: This course develops logical troubleshooting techniques including preventive maintenance and alignment techniques. Students are required to complete a PDP-11 processor maintenance course prior to enrollment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in floppy disk system maintenance (3/82).

DD-1715-0016

Intermediate ELINT Collection and Analysis

Course Number: EA-280.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 8 weeks (280 hours).

Exhibit Dates: 8/71–Present.

Objectives: This course is designed to prepare SCA personnel to perform the duties of collector/analyst at ELINT collection sites or analysis centers with minimum supervision.

Instruction: The course combines lecture and hands-on experience. Topics include scientific notation, basic algebra and trigonometry, unit conversions, oscilloscope fundamentals, use of counters and spectrum analyzers, and fundamentals of modulation and signal analysis with emphasis on radar signals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in technical mathematics (if credit has not given for prerequisite), 1 in instrument familiarization laboratory, 2 in fundamental signal analysis (3/82).

DD-1715-0017

Advanced ELINT Collection/Analysis

Course Number: EA-380.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/72–Present.

Objectives: This course is designed to train the student to evaluate ELINT targets with respect to performance capabilities, usage, and how they can be countered.

Instruction: The topics include an introduction to probability theory, waveform synthesis, antenna concepts, modulation, and communications system theory emphasizing microwave techniques. Course is essentially lecture only.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic probability theory, 3 in basic communications and signal analysis, 1 in oral communications (3/82).

DD-1719-0001

LITHOGRAPHIC STRIPPING AND PLATEMAKING

Course Number: 740-83D20; 740-302.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 7 weeks (227 hours).

Exhibit Dates: 4/72–1/88.

Objectives: To train enlisted personnel to prepare and produce offset plates to be used in the lithographic printing process.

Instruction: Lectures and practical exercises in the preparation and production of offset plates to be used in the lithographic printing process, including layout, stripping, and platemaking procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in graphics or printing (5/74).

DD-1719-0002

OFFSET PRINTING

Course Number: 670-41B10; 740-83F20; 740-303.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 9 weeks (305 hours). *Version 2:* 8 weeks (276 hours).

Exhibit Dates: *Version 1:* 5/80–12/85. *Version 2:* 11/73–4/80.

Objectives: To train enlisted personnel to adjust and operate offset presses in the reproduction of maps, charts, and other printed line work.

Instruction: Lectures and practical exercises in offset printing. Topics include photolithography materials, methods of producing military maps, operation of power paper cutter; maintenance of offset press, controls, feeder and delivery assemblies, cylinder assembly, dampening assembly, linking assembly, printing practice, identification of printing problems, printing a three-color and five-color map, and modern methods of lithographic offset press operations. For the course after 1985, see DD-1719-0006.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in offset printing (5/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in offset printing, 2 in introduction to graphic arts (5/81); in the upper-division baccalaureate category, 1 semester hour in photomechanical processes (5/81). *Version 2:* In the vocational certificate category, 4 semester hours in graphic arts (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in graphic arts (5/74).

Related Occupation Codes: 41B; 83F.

DD-1719-0003

LITHOGRAPHIC PHOTOGRAPHY

Course Number: 740-83D20; A-740-0020; 740-301.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (276 hours).

Exhibit Dates: 11/73–4/77.

Objectives: To train enlisted personnel to operate copy cameras and related equipment.

Instruction: Lectures and practical exercises in fundamentals of copy photography, camera operation, film processing, exposure, filters, line and continuous-tone copying, halftone magenta screens, contact printing, diapositive glass plates, pictomaps, electronic contact printer, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74).

DD-1719-0004

OFFSET DUPLICATING
(Offset Duplicating Equipment Operator)

Course Number: 740-304.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 7 weeks (232 hours). *Version 2:* 5 weeks (145 hours).

Exhibit Dates: *Version 1:* 3/80–11/81. *Version 2:* 11/72–2/80.

Objectives: To train enlisted personnel in the operation and basic maintenance and calibration of the offset duplicator, camera processor, and platemaker equipment.

Instruction: *Version 1:* Course includes introduction to photolithography and technical knowledge and skills in the operations maintenance, repair and calibration of mechanical duplicating equipment. *Version 2:* Course includes: introduction to photolithography; training in the operation of the 3M MR-412 Camera Processor and the A.B. Dick 675/...Copier with Platemaker Converter; and training in the operation and maintenance of other duplicating equipment, including the A&M 1250 Multilith Duplicator, the A.B. Dick 350 Duplicator, the ATF Davidson 500 Duplicator, and the ATF Davidson Perfector Duplicator.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in business machine operation, maintenance, and repair (5/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in business machine or graphic arts operation and maintenance (5/81). *Version 2:* In the vocational certificate category, 5 semester hours in offset duplicating equipment operation (6/74).

Related Occupation Codes: 81A.

DD-1719-0005

BASIC LITHOGRAPHER

Course Number: 740-309.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 19 weeks (496–620 hours).

Exhibit Dates: 12/80–2/86.

Objectives: To train enlisted personnel to operate a graphic arts (lithography) reproduction unit.

Instruction: Lectures and practical exercises in graphic arts reproduction. Course covers theory and technical skills related to photomechanical/graphic arts reproduction and includes photoprocessing, plate-making, layout and design, offset printing, binding, collating, and print shop management. After 1986, see DD-1719-0007.

Credit Recommendation: In the vocational certificate category, 10 semester hours in offset printing (printer) (5/81); in the lower-division baccalaureate/associate degree category, 2 semester hours in photomechanical reproduction, 4 in offset printing, 1 in layout and design (graphics) (5/81); in the upper-division baccalaureate category, 3 semester hours in graphic arts reproduction, 1 in photographic processes (5/81).

DD-1719-0006

BASIC OFFSET PRINTING

Course Number: 740-303; 740-83F10; A02PAA1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8–9 weeks (293–297 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course the student will be able to set-up and operate both sheetfed offset lithographic duplicators and presses. The student should be able to make normal operating adjustments of sheet feed, transport and delivery systems, dampening and inking systems, and produce a lithographic plate and operate common binder equipment.

Instruction: The course covers press operating procedures including pressure adjustments for inking and dampening systems, packing calculations, register adjustments and requirements, platemaking techniques and proper operation of bindery equipment. Distinctions are made between duplicating and press limitations and capabilities. Instruction in general operating maintenance and lubrication is provided in both process and bindery area. For an earlier version of the course, see DD-1719-0002.

Credit Recommendation: In the vocational certificate category, 6 semester hours in offset lithographic printing (7/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in offset printing laboratory (7/87).

Related Occupation Codes: 83F.

DD-1719-0007

NAVY/AIR FORCE BASIC LITHOGRAPHER

Course Number: 740-309; E5ABD70330 000; A-740-0025.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 18 weeks (577–590 hours).

Exhibit Dates: 3/86–Present.

Learning Outcomes: Student, upon completion of the course, will be proficient in offset lithographic press operation and general operating maintenance, reproduction photography, general copy preparation and image assembly, common bindery equipment operation and maintenance, and will have some knowledge of microfilm equipment operation/metalphoto process, and basic knowledge of printshop administration.

Instruction: Course includes lectures, demonstrations, and practical experience in phototypesetting procedures, paste-up, line and half-tone negative generation including use of filetrs, image assembly techniques, platemaking control, operating adjustments and mechanics of lithographic process/duplicators, and bindery systems operations. Navy personnel receive instruction in print shop administration and metal photo plates. Air Force personnel receive microfilm equipment operation and reduced copyprep. For the course before 1986, see DD-1719-0005.

Credit Recommendation: In the vocational certificate category, 8 semester hours in offset lithographic presswork, 1 in finishing operation (4/90); in the lower-division baccalaureate/associate degree category, 5 semester hours in lithographic presswork, 3 in reproduction photography, 1 in layout and design (4/90).

DD-1721-0001

Topographic Instrument Repair
(Optical Survey Instrument Repair)

Course Number: 670-41B20; 670-601.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: *Version 1:* 10 weeks (320 hours). *Version 2:* 12 weeks (382 hours).

Exhibit Dates: *Version 1:* 10/80-3/82. *Version 2:* 2/74-9/80.

Objectives: To train enlisted personnel to maintain and repair and calibrate optical surveying and mapping instruments.

Instruction: Lectures and practical exercises in surveying and mapping instrument maintenance, adjustment, and repair, including abney hand level, dumpy level, telescopic alidade, transit, military level, one-minute and one-second theodolites, and survey tapes. For the course after 1982, see DD-1721-0002.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in instrument optical repair (5/81); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical/optical testing and calibration (5/81). *Version 2:* In the vocational certificate category, 8 semester hours in optical survey instrument repair (5/74).

Related Occupation Codes: 81A.

DD-1721-0002

Topographic Instrument Repair

Course Number: 670-601; 670-41B10; AO222T1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10 weeks (320 hours).

Exhibit Dates: 4/82-3/89.

Learning Outcomes: Upon completion of the course the student will be able to disassemble, inspect, clean, reassemble, and adjust a dumpy level, telescopic alidade, and one minute, two second and one-tenth second theodolites.

Instruction: Instruction includes lectures, demonstration and practical exercises in the adjustment and repair of optical instruments including spirit levels, telescopic alidades, and angle/direction measuring instruments. For the course prior to 1982, see DD-1721-0001.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical/optical instrument testing, repair, and calibration (7/87).

Related Occupation Codes: 41B.

DD-1722-0001

Hydrographic Survey

Course Number: 412-103; AO2DC1.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 7 weeks (232-233 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course the student will have been introduced to hydrography; the goal is to provide a basic understanding of geodesy including visual survey position, resection, and intersection and electronic surveying position. The course is concerned with beach signals, error theory, currents and current measurement; the student will be taught to scale and interpret echograms, annotate sounding data, construct a grid sheet and smooth sheet. The student will be familiarized with hydrographic equipment and organizations.

Instruction: The overall purpose of the course is to provide basic skills and knowledge necessary in conducting manual hydrographic survey from the planning stages through the implementing of a smooth sheet. There is hands-on experience in hydro-survey equipment and theoretical application of electronic hydro-survey techniques. Students will be expected to obtain knowledge and skills to convert raw hydrographic date into usable format.

Credit Recommendation: In the vocational certificate category, 3 semester hours in surveying, hydrographic surveying (7/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic survey, 3 in hydrographic surveying, 3 in basic marine science, 3 in coastal geomorphology, or 3 in basic geodesy for a total of not more than 6 semester hours (7/87); in the upper-division baccalaureate category, 3 semester hours in surveying, hydrographic surveying, geodesy, or marine science. Recommendation is to grant up to 6 semester hours of which 3 may be in the upper divison (7/87).

DD-1728-0001

Industrial Security Specialist

Course Number: 5220-2.

Location: Defense Industrial Security Institute, Richmond, VA.

Length: *Version 1:* 5 weeks (182-183 hours). *Version 2:* 3 weeks (113 hours).

Exhibit Dates: *Version 1:* 7/76-1/90. *Version 2:* 9/72-6/76.

Objectives: To provide industrial security specialists with training in defense industrial security.

Instruction: *All Versions:* Lectures and practical exercises in the history, management, application, and functions of the defense industrial security program, organization for security cognizance, laws and regulations, security hazards, applicable security resources, responsibilities of contracting officers, personnel clearance programs, inspections, security education program, security arrangements, international aspects, and espionage. *Version 1:* This version emphasizes the security threat against the U.S. government and industry; facility protection programs; classified document control; electronic and physical security measures; communications security; vulnerabilities of and protective measures for automatic data-processing systems, emergency/disaster planning and procedures. Audio-visual presentations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in criminal justice or security administration and management (1/77). *Version 2:* In the vocational certificate category, 2 semester hours in criminology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in criminology (5/74); in the upper-division baccalaureate category, 2 semester hours in criminology (5/74).

DD-1728-0002

Information Security Management

Course Number: 5220.7.

Location: Defense Industrial Security Institute, Richmond, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 6/74-1/90.

Objectives: To provide instruction on elements of the Defense Department Information Security Program, with particular emphasis on proper security classification and the safeguarding of classified information. Note: This course consists of two 1-week components, referred to separately as (1) Classification Management and (2) Safeguarding Classified Information. Recommended credit is for combined courses only.

Instruction: The security manager; organization for security; policies, objectives and management implementation; classification principles and problems; declassification and downgrading; markings and control of classified documents; communications security; automatic data-processing security; emergency planning; and processing security violations and compromises.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in criminal justice or security administration and management (1/77).

Course Exhibits

MC

MC-0419-0001

BASIC FREIGHT OPERATION

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 12/67–Present.

Objectives: To train enlisted personnel in all aspects of freight operation.

Instruction: Lectures and practical experience in the fundamentals of shipping and receiving; the capabilities of the transportation system; rules and regulations governing transportation; freight classification, regulation and storage; use of materials-handling equipment, including the forklift; use of the manual typewriter.

Credit Recommendation: In the vocational certificate category, 3 semester hours in freight handling (1/74).

MC-0419-0002

MOTOR TRANSPORT MAINTENANCE MANAGEMENT

Course Number: None.

Location: Supply Center, Albany, GA.

Length: 12 weeks (363–447 hours).

Exhibit Dates: 9/68–12/74.

Objectives: To train enlisted personnel to supervise, manage, and operate a motor transport maintenance facility.

Instruction: Lectures and practical exercises in management principles; maintenance functions; basic shop sets; fuel and electric shop sets; recovery of vehicles, tankers, chassis, and power plants; and on-the-job repairs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to automotive shop practices (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to automotive shop practices, 6 in transportation management, 6 in truck driver training (4/74); in the upper-division baccalaureate category, 4 semester hours in transportation management (4/74).

MC-0419-0003

MOTOR TRANSPORT OFFICER

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 12–17 weeks (414–590 hours).

Exhibit Dates: 7/58–9/80.

Objectives: To train enlisted personnel to inspect and supervise the servicing, repair, and maintenance of automotive vehicles.

Instruction: Lectures and practical exercises in combustion principles, electrical principles, hydraulic principles, lubrication and transmission of power, and the manufacture, maintenance, and repair of motor vehicles. After 9/80, see MC-0419-0005.

Credit Recommendation: In the vocational certificate category, 9 semester hours in automotive maintenance (7/74).

MC-0419-0004

MOTOR TRANSPORT OFFICER LEADERSHIP
(Motor Transport Officer Orientation)

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 7 weeks (198 hours). *Version 2:* 4–6 weeks (140–189 hours).

Exhibit Dates: *Version 1:* 7/74–3/84. *Version 2:* 10/63–6/74.

Objectives: To train officers to manage motor transport operations.

Instruction: *Version 1:* Includes supervision of vehicle maintenance operations with respect to scheduling cleaning, lubrication, and inspection. Familiarization with compression ignition and spark ignition engines. *Version 2:* Lectures and practical exercises in the operation and management of motor transport facilities. Course includes engine fundamentals, electrical systems, power trains, fuel systems, and maintenance management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in automotive or heavy equipment maintenance management (4/76). *Version 2:* In the vocational certificate category, 2 semester hours in introduction to automotive or transportation technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to automotive or transportation technology (7/74); in the upper-division baccalaureate category, 2 semester hours in introduction to automotive or transportation technology (7/74).

MC-0419-0005

MOTOR TRANSPORT OFFICER

Course Number: CEJ.

Location: Service Support School, Cp. Lejeune, NC.

Length: 6–8 weeks (221–229).

Exhibit Dates: 11/80–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe all major assemblies used in current model motor transport tactical vehicles; discuss the Marine Corps Integrated Maintenance Management System; implement record keeping functions inherent to motor transport organizations; establish a motor pool; describe special vehicle operations such as vehicle recovery, deep water fording, vehicle camouflage, loading procedures, night driving operations, and defend a tactical convoy.

Instruction: Covers an introduction to automotive components and test equipment, motor transport maintenance management, administration, motor transport vehicle operations and tactical convoy operations. Methodology includes lecture and laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in vehicle maintenance and 2 in management (4/89).

MC-0602-0001

HIGH INTENSITY LANGUAGE TRAINING (VIETNAMESE)

Course Number: None.

Location: Marine Corps Schools, Quantico, VA.

Length: 6 weeks (222 hours).

Exhibit Dates: 8/67–12/70.

Objectives: To prepare selected Marine Corps Educational Center graduates for duty in an area where the primary or secondary language is Vietnamese.

Instruction: Language patterns, lexical units, and fluency necessary to communicate effectively with a native speaker; background information on culture, history, and geography; development of a vocabulary for interaction in civic action programs and liaison.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in Vietnamese (12/68).

MC-0801-0001

NUCLEAR, BIOLOGICAL AND CHEMICAL (NBC) WARFARE DEFENSE

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train personnel for NBC defense responsibilities and instructional duties.

Instruction: Lectures and practical exercises on NBC defense, including monitor and survey teams, decontamination squads, nuclear warfare defense, biological warfare defense, chemical warfare defense, radiac instruments, protection, training and operations, types of nuclear bursts and effects, shielding of gamma radiation, blister and nerve agents, smokes and incendiaries, new developments in NBC equipment, and chemical decontamination.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-0801-0002

AFTERCARE PROGRAM MANAGEMENT

Course Number: S-501-0001.

Location: Consolidated Drug and Alcohol Center, Cp. Lejeune, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist recovering substance abusers in the process of conforming to aftercare prescription protocols; participate in the conducting of substance abuse education programs; and provide minimal support services to family members.

Instruction: Course introduces student to beginning skills in substance abuse, communication, data management, interviewing and case management.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 3 semester hours in introduction to substance abuse counseling (7/87).

MC-0802-0001

1. PHYSICAL TRAINING INSTRUCTOR (MEN)
2. PHYSICAL TRAINING INSTRUCTOR

Course Number: None.
Location: Development and Education Command, Quantico, VA.
Length: *Version 1:* 11 weeks (427 hours). *Version 2:* 13 weeks (528 hours).
Exhibit Dates: *Version 1:* 5/70–12/73. *Version 2:* 2/68–4/70.
Objectives: To train enlisted personnel as instructors for close-combat and physical training.
Instruction: Lectures and practical exercises in the skills necessary to be an instructor in combat and physical training. Course provides comprehensive classroom instruction in structural and functional kinesiology, and the principles of physical training.
Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the upper-division baccalaureate category, credit in principles of physical training on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in principles of physical training (12/68).

MC-0802-0002

SURVIVAL, EVASION, RESISTANCE TO INTERROGATION AND ESCAPE (SERE)
(Evasion, Escape and Survival Training)

Course Number: None.
Location: Mountain Warfare Training Center, Bridgeport, CA.
Length: 4 weeks (169–172 hours).
Exhibit Dates: 5/59–12/68.
Objectives: To train personnel in the practical techniques of survival, escape, resistance to interrogation, and evasion.
Instruction: Lectures and practical exercises to include land navigation, physical preparation, Communist indoctrination and interrogation techniques, resistance to Communist interrogation techniques, and prisoner organization and resistance.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in woodcraft and survival training (5/74).

MC-0802-0003

AMMUNITION HANDLERS

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 6 weeks (180 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train personnel to safely handle, store, transport, and dispose of ammunition.
Instruction: Lectures and practical exercises in small arms ammunition, hand and rifle grenades, artillery and mortar ammunition, pyrotechnics, demolitions, ground rockets and guided missiles, aircraft munitions, mines and firing devices, flamethrowers, fuels, ammunition disposal, ammunition storage and inspection, and renovation and malfunctions.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-0802-0004

AMMUNITION TECHNICIAN

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 10 weeks (420 hours).
Exhibit Dates: 7/54–12/68.
Objectives: To train noncommissioned officers in ammunition techniques.
Instruction: Lectures and practical exercises in fundamentals of ammunition, small arms ammunition, artillery and mortar ammunition, demolitions, aircraft munitions, land mines and firing devices, ammunition ashore, ammunition supply administration, and field storage of ammunition.
Credit Recommendation: In the vocational certificate category, 6 semester hours in armorer/demolitions (7/74).

MC-0802-0005

AMMUNITION TECHNICIAN (ADVANCED)

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 5–8 weeks (192–327 hours).
Exhibit Dates: 7/60–12/68.
Objectives: To train personnel to supervise and manage an ammunition storage and handling facility.
Instruction: Lectures and practical exercises in sources of technical information; ammunition principles; ammunition materiel; ammunition supply procedures and allowances; detection, protection, and decontamination; inspection, surveillance, storage, transportation and disposal of ammunition, military explosives, and toxic chemical agents; and planning, establishing, and operating an ammunition unit.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

MC-0802-0006

AMMUNITION TECHNICIAN (BASIC)
(Ammunition Technician)

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 5–9 weeks (192–360 hours).
Exhibit Dates: 7/57–1/88.
Objectives: To train personnel in phases of ammunition handling.
Instruction: Lectures and practical exercises to include identification, reception, inspection, storage, transportation, and issuance of ammunition components, military explosives, and toxic chemical agents; disposal of unserviceable ammunition; ammunition identification and terminology; technical reference materials; supply procedures; computation of allowances; and decontamination procedures and equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

MC-0803-0001

CLOSE COMBAT INSTRUCTOR

Course Number: None.
Location: Physical Fitness Academy, Quantico, VA.
Length: 3 weeks (110 hours).
Exhibit Dates: 12/68–12/73.
Objectives: To train Marine Corps personnel in close-combat tactics and techniques.
Instruction: Practical study in kinesiology and military combat techniques, martial sports, instructor training, individual conditioning, and armed and unarmed combat.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in physical education (2/74); in the upper-division baccalaureate category, 1 semester hour in physical education (2/74).

MC-0803-0002

WATER SAFETY/SURVIVAL INSTRUCTOR

Course Number: 562.
Location: Physical Fitness Academy, Education Center, Quantico, VA.
Length: 3 weeks (100 hours).
Exhibit Dates: 2/72–12/73.
Objectives: To qualify personnel as Marine Corps water survival instructors and American Red Cross water safety instructors.
Instruction: Lectures and practical exercises in safety procedures and problem areas, water survival skills, and teaching techniques.
Credit Recommendation: In the vocational certificate category, 1 semester hour in swimming, 1 in physical education (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in swimming, 1 in physical education (5/74); in the upper-division baccalaureate category, 1 semester hour in physical education (5/74).

MC-0803-0003

COLD WEATHER FIELD INDOCTRINATION
(Cold Weather Field Indoctrination Training for FMF Cadets and Reservists)

Course Number: None.
Location: Cold Weather Training Center, Bridgeport, CA.
Length: 3 weeks (130 hours).
Exhibit Dates: 1/59–12/68.
Objectives: To provide enlisted personnel with survival and combat training in deep snow and cold environments.
Instruction: Lectures and practical exercises in shelters and bivouacs, use of water and rations, over-snow movements, skiing, and pick-up operations.
Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-0803-0004

MOUNTAIN OPERATIONS (MILITARY SKIING)

Course Number: None.
Location: Mountain Warfare Training Center, Bridgeport, CA.
Length: 5 weeks (213 hours).
Exhibit Dates: 3/65–12/68.
Objectives: To train infantry units and reconnaissance personnel to operate in mountainous terrain.
Instruction: Lectures and practical exercises in physical training and conditioning, skiing, and equipment maintenance.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-0803-0005

Mountain Operations (Rock Climbing)

Course Number: None.

Location: Mountain Warfare Training Center, Bridgeport, CA.

Length: 7 weeks (283 hours).

Exhibit Dates: 3/65–12/68.

Objectives: To train infantry units and reconnaissance personnel to operate in mountainous terrain.

Instruction: Lectures and practical exercises in mountain operations, man packs, rocks and glacier characteristics, camp and bivouac selection, and mountain walking and route selection.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-0803-0006

Cold Weather Operations by Correspondence

Course Number: 03.49C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 1/84–12/89.

Objectives: To provide Marines with information for combat in cold weather through a series of study units.

Instruction: This correspondence course covers such topics as cold weather survival, skiing and snowshoeing, and tactics and logistics in cold weather survival.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-0803-0007

Desert Operations by Correspondence

Course Number: 03.54.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 12/78–Present.

Objectives: To provide military personnel with the principles, procedures, and techniques of survival in the desert and its environment.

Instruction: This correspondence course covers topics such as characteristics of the desert, desert regions of the world, health and hygiene and military operations and training in the desert. A proctored final examination will be administered.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-0804-0001

Marine Corps Special Services Training

Course Number: None.

Location: Development and Education Command, Quantico, VA.

Length: 2 weeks (52 hours).

Exhibit Dates: 9/72–1/88.

Objectives: To train selected enlisted personnel to supervise recreational activities.

Instruction: Lectures and practical exercises in the administration of recreational activities and funds. Course includes acquisition and control of recreational facilities, property and funds; administration of insurance; and sports, entertainment, and other recreational programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in recreation administration (8/74).

MC-1107-0001

Mathematics for Marines by Correspondence

Course Number: 13.34G.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/79–Present.

Objectives: To provide introductory training in algebra and geometric forms.

Instruction: This individual, self-paced self-study course in mathematics includes the following material: number systems, fractions and percents, algebra, and geometric forms.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fundamentals of mathematics (technical mathematics) (8/83).

MC-1205-0001

Field Music

Course Number: None.

Location: Marine Corps Recruit Depot, Parris Island, SC; Marine Corps Recruit Depot, San Diego, CA.

Length: 12–16 weeks (480–626 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To train music students in drum and bugle corps parade and ceremonial functions.

Instruction: Lectures on care of bugle and drum instruments; musical rudiments; bugle calls and techniques; music writing; drum techniques; history and duties of field music; bugle ensemble music; and practical exercises in bugle corps formations and ceremonies.

Credit Recommendation: In the vocational certificate category, credit in applied music on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied music (2/74).

MC-1205-0002

Drum and Bugle Corps

Course Number: None.

Location: Marine Corps Recruit Depot, Parris Island, SC.

Length: 12 weeks (426 hours).

Exhibit Dates: 1/73–1/88.

Objectives: To train students as musicians in a drum and bugle corps.

Instruction: Lectures and practical applications in music theory, instrumental techniques, and drill procedures; maintenance of instruments; and writing of musical notations, scales, key signatures, and triads.

Credit Recommendation: In the vocational certificate category, credit in applied music on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied music (2/74).

MC-1401-0001

Subsistence Supply Man

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 5 weeks (161 hours).

Exhibit Dates: 4/73–4/83.

Objectives: To provide personnel with training in food service accounting and control procedures.

Instruction: Lectures and practical exercises on subsistence supply practices, learning the keyboard, Marine Corps directives system, calculator, subsistence accounting procedures, introduction to subsistence supply, establishment of financial status of mess and stock records, determination of requirements and requisitions subsistence operational analysis, general mess accounting and control procedures, and computation of rations and credits. See MC-1401-0007 for the exhibit after this end date.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures, 3 in food cost control (7/77).

MC-1401-0002

Ground Supply Officer Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 13 weeks (430 hours).

Exhibit Dates: 7/74–9/76.

Objectives: To provide personnel with knowledge required to operate as supervisors of unit level supply functions.

Instruction: Lectures and practical exercises in supply accounting, data processing, control procedures, Marine Corps directives, supply systems management, and service support leadership. For the course after 9/76, see MC 1405-0038.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing, 3 in supply management (7/77).

MC-1401-0003

Basic Pay Entitlements by Correspondence

Course Number: 34.21.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/82–10/84.

Objectives: To enable the student to record, update, validate, credit, and compute basic pay entitlements for members of the Marine Corps, to include consideration of creditable and non-creditable service.

Instruction: The course includes determination of creditable and non-creditable service for pay purposes, the proper entitlements and types of basic pay, conditions for starting and stopping pay, and the establishment and maintenance of leave accounts.

Credit Recommendation: In the vocational certificate category, 1 semester hours in payroll accounting (8/84).

MC-1401-0004

Introduction to Marine Corps Accounting by Correspondence

Course Number: 34.10A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/82–Present.

Objectives: To teach the basic terminology and methods of accounting , and to permit the student to obtain an overview of the Marine Corps financial management organizational structure.

Instruction: The course presents journalizing, posting, and preparation of financial statements. The organizational structure of financial management of the Marine Corps is examined, to include comptroller organizations at posts and stations. Other topics include the system of accounting, directives and files, types and status of appropriated funds, the general ledger account structure, and financial structure data elements.

Credit Recommendation: In the vocational certificate category, 1 semester hours in bookkeeping (8/84).

MC-1401-0005

PERSONAL FINANCE BY CORRESPONDENCE

Course Number: 34.20A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 5/82–6/86.

Objectives: To be able to prepare a personal budget and to keep and reconcile a checking account; to become familiar with types of financial institutions that provide checking and savings accounts, to know the major considerations involved in purchasing a home or motor home.

Instruction: This correspondence course covers budget formulation, including the basic elements of a household budget and how to compute a budget. It also includes the use of advance pay in preparing for a permanent change of station. Financial institutions are studied from the standpoint of types of accounts and the use of bank credit cards. The use of checking accounts is also covered in detail, to include preparation of checking account documents, electronic funds transfer (direct deposit), types of endorsements, and reconciliation of an account to the bank statement. Types of savings accounts are examined, to include the need for liquidity, as opposed to specified term deposits. The use of credit is examined, to include guidelines to be followed, typical consumer credit interest charges, and, in the event of difficulties, the use of the Wage Earner's Plan in Chapter 13 of the Bankruptcy Act. Major financial considerations in purchasing a home and a motor vehicle are reviewed. Course has proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personal finance (8/84).

MC-1401-0006

ADVANCED DISBURSING

Course Number: 34B.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 11–12 weeks (351–421 hours).

Exhibit Dates: 10/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able identify, interpret and validate travel entitlements and orders to include distance and accounting for travel time, the process of travel vouchers and the use of control logs and procedures to verify accounting data, to effectively use internal control measures to minimize travel related fraud, identify the responsibilities of a disbursing officer, prepare letters of appointment, maintain U.S. treasury checking accounts, cash funds, collections, disbursements and deposits, to compute and validate pay, allowances and deductions utilizing automated equipment.

Instruction: Lectures and practical exercises in the duties of a disbursing office, includes demonstrations and an extensive laboratory/simulation phase in field disbursing office environments.

Credit Recommendation: In the vocational certificate category, 3 semester hours in clerical procedures (9/87).

MC-1401-0007

SUBSISTENCE SUPPLY

Course Number: 303.

Location: Service Support School, Cp. Lejeune, NC.

Length: 5 weeks (126–127 hours).

Exhibit Dates: 5/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic mathematics functions, operate electronic calculators, use food service manuals and forms, maintain inventory control cards, and type letters and message for management use.

Instruction: Covers basic mathematics calculators, dining and storeroom accounting, inventory procedures, subsistence receipts and forms used in support of dining room facilities for large organization. Methodology includes lectures, discussion and use of practical application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office procedures (4/89).

MC-1401-0008

BASIC PAY ENTITLEMENT BY CORRESPONDENCE

Course Number: 34.21a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to record, update, validate, credit and compute basic pay entitlements for members of the Marine Corps.

Instruction: This is a self-directed course including topics of determination of creditable and non-creditable service for pay purposes, the various entitlements and types of basic pay, conditions for starting and stopping pay, computation of leave, the maintenance of pay records during periods of absence, and the procedures for reporting absences.

Credit Recommendation: In the vocational certificate category, 1 semester hour in payroll accounting (6/89).

MC-1401-0009

PERSONAL FINANCE BY CORRESPONDENCE

Course Number: 34.20c.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 7/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare a personal budget, identify the services afforded by banks and other financial institutions, use proven concepts in making personal major asset purchases, identify information in the leave and earnings statement, and assess the process used in pay computation.

Instruction: Budget formulation and analysis; personal financial planning; use of personal checking accounts; use of services afforded by financial institution; major asset purchases and credit decision; pay computation–gross and net.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personal finance (6/89).

MC-1402-0001

FUNDAMENTALS OF DIGITAL LOGIC

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 1-3 weeks (35–117 hours). *Version 2:* 3 weeks (117 hours).

Exhibit Dates: *Version 1:* 10/68–10/75. *Version 2:* 1/66–9/68.

Objectives: To train personnel in the fundamental concepts of digital logic preparatory to further training in the maintenance of special devices.

Instruction: Lectures and practical exercises in the use of digital machines and devices in military applications; numbering systems; computer programming; fundamentals of logic design, including Boolean algebra, truth tables, and block symbolic diagrams; logic circuitry; characteristics of hardware and operations of magnetic drum, tape, disc, magnetic core, and other storage devices; analog-to-digital conversion.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer design (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer design (2/74); in the upper-division baccalaureate category, 2 semester hours in digital logic (12/68).

MC-1402-0002

SYSTEM ENGINEERING

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 12 weeks (384 hours).

Exhibit Dates: 1/72–12/73.

Objectives: To train noncommissioned officers in the programming and operation of an IBM System 360.

Instruction: Practical exercises and lectures on operation of System 360 family of computers; access methods; service and utility programs; assembler language coding; COBOL programming; job control language; FORTRAN IV; OS operations training; and data communications and management systems analysis and design.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in computer programming (2/74).

MC-1402-0003

SYSTEMS ANALYSIS AND DESIGN

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7–8 weeks (182–203 hours).

Exhibit Dates: 3/71–12/78.

Objectives: To provide experienced programmers with a detailed understanding of systems analysis and design.

Instruction: Lectures and supervised study in system planning and design; methods and procedures of determining system requirements; input/output capabilities, available operating systems, and file design of IBM 360; system design, implementation, re-evaluation and follow-up procedures for new systems; documentation standards and techniques; and case study projects.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in systems analysis (2/74).

MC-1402-0004

Operating System Programming
(Disk Operating System Programming)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2-12 weeks (126-833 hours).

Exhibit Dates: 1/68-12/78.

Objectives: To train personnel having no prior data processing experience to operate and program disk computer systems.

Instruction: Practical exercises and lectures on fundamentals of programming and computing systems; introduction to System 360; DOS concepts and facilities; assembler language coding; DOS I/O coding; COBOL language, programming workshop; and electrical accounting machine operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in computer programming, 4 in computer operations, 2 in data processing (2/74).

MC-1402-0005

System 360 Operating System—Core Phase

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 102 hours.

Exhibit Dates: 9/71-7/73.

Objectives: To provide enlisted personnel with introductory training in data processing.

Instruction: Lectures and practical exercises in punched card accounting, data processing fundamentals, System/360 operating systems, job control language, and utility programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (2/74).

MC-1402-0006

System 360 Operating System—Operations Phase

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 99 hours.

Exhibit Dates: 9/71-7/73.

Objectives: To train enlisted personnel as System/360 operating system computer operators.

Instruction: Lectures and practical exercises in utility programs, input/output storage devices, operator commands and statements, and machine room procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (2/74).

MC-1402-0007

System 360 Operating System—COBOL Programming Phase

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 123 hours.

Exhibit Dates: 9/71-7/73.

Objectives: To train enlisted personnel to write and debug COBOL programs.

Instruction: Lectures and practical exercises in file organization, common business oriented language instructions, and standardized documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74).

MC-1402-0008

System 360 Operating System—Assembler Language Programming Phase

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 123 hours.

Exhibit Dates: 9/71-12/80.

Objectives: To train enlisted personnel as System/360 assembler language programmers.

Instruction: Lectures and practical exercises in data management facilities, file organization, access methods, service programs, assembler language coding instructions, and debugging methods.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74).

MC-1402-0009

System 360 Operating System—1401 Programming

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 152 hours.

Exhibit Dates: 9/71-7/73.

Objectives: To train enlisted personnel to program IBM 1401 computers, using assembler languages.

Instruction: Lectures and practical exercises in symbolic programming languages, autocoder programming languages, and standardized documentation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74).

MC-1402-0010

Systems Analysis and Design (Functional)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 4 weeks (109-117 hours).

Exhibit Dates: 9/70-12/78.

Objectives: To train officers in the methodology of systems analysis and design.

Instruction: Lectures in systems theory, system model usage, systems approach in systems development, computer systems components, number systems, data communications concepts, flow charting, systems documentation and security, and management science techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in systems analysis (6/75).

MC-1402-0011

IBM System 360 (DOS) COBOL Programming

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 9 weeks (258-310 hours).

Exhibit Dates: 8/73-12/75.

Objectives: To train enlisted personnel as COBOL application programmers on the IBM disk operating system.

Instruction: Lectures on computer fundamentals, including a detailed examination of IBM operating systems and job control language; COBOL programming with American National Standard (ANS) for IBM System/360 including the sort verb and disk operating systems; and data management system (Mark IV). Coding convention differences between DOS COBOL and OS COBOL and operating systems are covered. Major programs are written, debugged, and documented.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing fundamentals, 1 in computer operating systems (6/75).

MC-1402-0012

Optical Character Recognition (OCR) Operations

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (45-60 hours).

Exhibit Dates: 6/74-6/82.

Objectives: To train enlisted personnel to operate optical character recognition systems.

Instruction: Lectures and practical exercises in data processing introduction, Hollerith punch card code, flow charting, number systems, features and functions of the 3030 page reader, the 6200 computer, and the Lundy Farrington Optical Character reader, central processing unit operation, console typewriter, tape drives, scanner unit operating techniques, and Optical Program for Users System (OPUS) operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in unit record data processing (6/75).

MC-1402-0013

COBOL Programming
(IBM System 360 (OS) COBOL Programming)
(IBM System/360 (OS) COBOL Programming Entry-level)

Course Number: *Version 1:* 395; A-532-0015. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* 8 weeks ,self-paced (286 hours). *Version 2:* 8 weeks (304 hours). *Version 3:* Self-paced 8 weeks (287 hours). *Version 4:* 8 weeks (228-280 hours).

Exhibit Dates: *Version 1:* 1/86-Present. *Version 2:* 7/77-12/85. *Version 3:* 4/75-6/77. *Version 4:* 8/73-3/75.

Objectives: To provide technical education to entry-level personnel in the basic concepts of data processing and the COBOL language.

Instruction: *All Versions:* Lectures and practical exercises on American National Standard COBOL including the sort verb, computer programming introduction, IBM S/360 computer concepts, programming techniques, COBOL coding, documentation conventions, IBM Operating System (OS) programming, job control language, and testing and debugging techniques. *Version 2:* This version used computer based instruction, practical laboratory experience, and self-paced study. Students learn fundamentals and advanced data processing concepts, structured flowcharting, and programming techniques, coding, debugging of ANSI COBOL programs, and OS/VS JCL via terminal entry. Table handling techniques, the sort verb, call features, and VSM processing are covered in this course. *Version 3:* Version is self-paced and uses structural approach to COBOL programming. Also covere ISAM file organization and OS system utilities.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hours in introduction to data processing, 4 in introduction to COBOL (COBOL I), and 4 in advanced COBOL (COBOL II) (3/88). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in COBOL programming, 1 in data processing fundamentals (2/87). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing (12/77). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing fundamentals (6/75).

MC-1402-0014

Automatic Data Processing (ADP) Orientation

Course Number: *Version 1:* 393. *Version 2:* None.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (53-65 hours).

Exhibit Dates: *Version 1:* 6/88-Present. *Version 2:* 9/70-5/88.

Objectives: To familiarize students with principles, methods, and techniques of data processing and to train them in systems analysis, automatic data processing equipment operation, and automated information systems management.

Instruction: Lectures and problem solving exercises in computer systems fundamentals, information system development, interactive terminal facility usage, BASIC language and programming, remote teletype terminals usage, effective communication, ADP organization and systems, hardware components, logical problem-solving methods and classical scientific management tools and techniques, and information system development.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing fundamentals (12/77).

MC-1402-0015

Systems Programming

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7 weeks (141 hours).

Exhibit Dates: 9/70-5/81.

Objectives: To train experienced assemblers, or COBOL programmers who have a firm understanding of operating systems to be IBM S/360 Operating System (OS) and HASP system programmers.

Instruction: Lectures and hands-on applications in computer operations (OS), utilities, job/task/data management, writing system routines, generating an IBM S/360 operating system, system routine programming, computer system performance measurement, reference manual maintenance, and IBM S/360 computer system briefings and instructions. Students generate both MFT and MVT environments and write routines to maintain system supervisor and overall system performance.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in operating systems (6/75).

MC-1402-0016

Programming for Optical Character Recognition (OCR) System

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 5 weeks (136 hours).

Exhibit Dates: 6/74-12/75.

Objectives: To train enlisted personnel as application programmers for the Lundy/Farrington 3030 optical character recognition system.

Instruction: Lectures and practical exercises in optical character recognition system development; forms design, form specification, and system overview; L/F 3030 OCR system operating principles and peripheral devices; OCR instruction coding; octal numbering system; program maintenance, and 3030 reader control program standard sequences and modification methods for the programmers application.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (4/74).

MC-1402-0017

Data Systems (Enlisted)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7 weeks (192 hours).

Exhibit Dates: 9/70-12/73.

Objectives: To provide operators and programmers with advanced technical training in data processing.

Instruction: Lectures and practical exercises in IBM S/360 hardware; S/360 operating system organization and functions, operating system job control language coding; programming with COBOL, FORTRAN, and BASIC languages; performance evaluation and job-scheduling techniques; and analysis, design, and operation of a data communications-oriented computer system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming, 1 in teleprocessing (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming, 1 in teleprocessing (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming, 1 in teleprocessing (4/74).

MC-1402-0018

IBM System 360 Disk Operating System (DOS) Operations

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 6 weeks (167-168 hours).

Exhibit Dates: 8/73-12/75.

Objectives: To train enlisted personnel to operate computers.

Instruction: Lectures and practical exercises in data processing fundamentals, central processing unit operation, and IBM/360 peripheral equipment operation, with emphasis on operator commands associated with the S/360 operating system under HASP and disk operating system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations, 1 in data processing fundamentals (6/75).

MC-1402-0019

Electrical Accounting Machines (EAM)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/73-12/74.

Objectives: To train enlisted personnel to operate unit record equipment.

Instruction: Lectures and practical exercises in data processing introduction, Hollerith card code, 029 card punch, 059 card verifier, 083/084 sorters, 557 interpreter operation and wiring, 517 reproducer and 088 collator operation procedures, and data processing installation orientation and management responsibilities.

Credit Recommendation: In the vocational certificate category, 2 semester hours in unit record data processing (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in unit record data processing (4/74).

MC-1402-0020

1. Data Processing Management Seminar
2. Data Processing Installation Management Seminar
3. Data Processing Installation Managers Seminar
4. Data Processing Installation Management

Course Number: *Version 1:* 39A. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* 4 weeks (144 hours). *Version 2:* Self-paced 4 weeks (95-126 hours). *Version 3:* 4 weeks (95-126 hours). *Version 4:* 4 weeks (95-126 hours).

Exhibit Dates: *Version 1:* 2/80-1/84. *Version 2:* 1/77-1/80. *Version 3:* 7/74-12/76. *Version 4:* 9/70-6/74.

Objectives: To educate data processing personnel in the supervisory and management concepts and skills required to manage a data processing installation.

Instruction: *Version 1:* Lectures and practical exercises in a broad spectrum of fiscal, administrative, personnel and project management and performance monitoring techniques as applied to management of a data processinginstallation. ADP standards, installation security and production management are included. *Version 2:* Lectures and practical exercises in a broad spectrum of fiscal, administrative, personnel and logistical management techniques as applied to data processing installation management. Zero-based budgeting is included. *Version 3:* Lectures and practical exercises in data processing equipment management, production management, installation security, standards and installation planning, administrative procedures (including reporting requirements) and management control techniques. *Version 4:* Lectures and practical exercises in data processing equipment management, production management, installation security, standards and installation planning, administrative procedures (including reporting requirements) and management control techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in data processing management (1/81). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in data processing management (12/77). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in data processing management (6/75). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in data processing management (7/74).

MC-1402-0021

ADVANCED DATA SYSTEMS OFFICER

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 12 weeks (296 hours).

Exhibit Dates: 9/70–6/84.

Objectives: To train experienced systems analysts to manage data processing installations.

Instruction: Lectures and practical exercises in digital computer systems hardware and software requirements, real-time computer systems characteristics, and information systems development, Mk IV language, and IBM/360 system operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing management (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing management (4/74); in the upper-division baccalaureate category, 4 semester hours in data processing management (4/74).

MC-1402-0022

ADVANCED OPERATIONS TECHNIQUES
(IBM System 360 (OS) Advanced Operations Techniques)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 6 weeks (196-201 hours).

Exhibit Dates: 5/74–12/75.

Objectives: To train computer operators to control and operate an IBM S/360 multiprogramming environment running under the OS-operating system and to provide an understanding of COBOL programming problems and techniques.

Instruction: Lectures and practical exercises in S/360 operating system with HASP and standard utility programs, system job control language detailed study, multisystems operation techniques and production scheduling, data processing resources management, and COBOL programming introduction, with emphasis on reading core dumps of abnormally terminated jobs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/75); in the upper-division baccalaureate category, 2 semester hours in computer programming (6/75).

MC-1402-0023

COMPUTER OPERATOR
(IBM S/360 OS Computer Operator)
(IBM System 360 Operating System (OS) Operations)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* 4 weeks (122 hours). *Version 2:* 6 weeks (110 hours). *Version 3:* 4-5 weeks (110-141 hours).

Exhibit Dates: *Version 1:* 3/86–Present. *Version 2:* 1/83–2/86. *Version 3:* 8/73–12/82.

Objectives: To train enlisted personnel to operate the IBM system 360 computer running under the Operating System (OS).

Instruction: *Version 1:* This course consists of lectures and practical exercises in basic computer fundamentals, fundamentals of virtual storage and paging, MUS commands, JESZ commands, MVS IPL operations, and the understanding and operation of the Systesm 4300 CPU, 1052 master console, 2540 card reader/punch, 2420 tape drive, 4245 printer, 3880 storage controller and the 3380 disk drive. *Version 2:* Lectures and practical exercises in Hollerith punch card code, flow charting, number systems, virtual storage concepts, IBM System 360 OS/MVS job control language (JCL), computer organization channel concepts, control units, IBM System MVS 360/2040 central processing unit, IBM 1052 console typewriter, IBM 1403 printer, IBM 2540 card reader/punch, Memorex 660 disk drives, IBM 2420 tape drives, IBM System 360 OS initial program load (IPL) procedures, operator commands, and statements for the Operating System (OS) and HASP, with an introduction to JESZ. *Version 3:* Lectures and practical exercises in Hollerith punch card code, flow charting, number systems, IBM System 360 OS job control language (JCL), computer organization channel concepts, control units, IBM System 360/2040 central processing unit, IBM 1040 console typewriter, IBM 1403 printer, IBM 2540 card reader/punch, Calcomp CD12 disk drives, IBM 2420 tape drives, IBM System 360 OS initial program load (IPL) procedures, operator commands, and statements for the Operating System (OS) and HASP.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operation (10/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations, 1 in data processing fundamentals (10/86). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations, 1 in data processing fundamentals (12/77).

MC-1402-0024

IBM SYSTEM 360 (OS) ADVANCED PROGRAMMING TECHNIQUES)
(Advanced Programming Techniques)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 8 weeks (219-229 hours).

Exhibit Dates: *Version 1:* 1/76–12/80. *Version 2:* 6/74–12/75.

Objectives: To train experienced COBOL programmers to write programs in IBM S/360 (OS) assembler language.

Instruction: *Version 1:* Lectures and practical exercises in advanced systems of American National Standard (ANSI) COBOL, debugging utilizing system dumps, IBM 360 operating system (OS), utilities, job control language (JCL), structured approach to programming, and introduction to systems analysis and design. *Version 2:* Lectures and practical exercises in IBM S/360 Operating System (OS) assembler language, IBM S/360 Operating System (OS) and job control language, COBOL language and MARK IV file management system techniques, and data management facilities usage.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced computer programming, 2 in systems analysis and design (12/77). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in computer programming (6/75).

MC-1402-0025

DATA SYSTEMS OFFICERS
(Data Systems Officer)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* 13 weeks (461 hours). *Version 2:* 13 weeks (366-368 hours).

Exhibit Dates: *Version 1:* 1/77-12/80. *Version 2:* 9/70-12/76.

Objectives: To provide officers with technical data processing training primarily in the area of computer programming.

Instruction: *Version 1:* Lectures and practical exercises in data processing fundamentals, COBOL, Mark IV, job control language (JCL), file management and sequential, indexed sequential, and direct-access storage methods. Course includes systems analysis and design and core dump reading in conjunction with COBOL programming. *Version 2:* Lectures and practical exercises in data processing fundamentals, Basic Assembler Language (BAL), COBOL, FORTRAN, MARK IV, job control language (JCL), file management, and sequential, indexed sequential, and direct-access storage methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in computer programming, 3 in systems analysis and design (12/77). *Version 2:* In the upper-division baccalaureate category, 8 semester hours in computer programming (6/75).

MC-1402-0026

FISCAL ACCOUNTING CLERK
(Fiscal Accounting)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 9 weeks (255-288 hours).

Exhibit Dates: 7/75-11/86.

Objectives: To train officers and enlisted personnel in accounting skills and the application of these skills to a mechanized accounting system.

Instruction: Lectures, demonstrations, and illustrative problems in basic accounting procedures required to provide the student with a working knowledge of formal mechanized accounting techniques and their application to a computer system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in bookkeeping (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/77).

MC-1402-0027

ADVANCED MARK IV PROGRAMMING
(Advanced Mark IV File Management System)
(Advanced Mark IV)

Course Number: None.

Location: Computer Science School, Quantico, VA.

Length: Self-paced 2 weeks (60–80 hours).

Exhibit Dates: 7/74–1/88.

Objectives: To train Mark IV programmers to utilize the advanced features of the Mark IV information retrieval and reporting language.

Instruction: Lectures and practical exercises involving table look-up techniques, file indexing, access methods, file management, and data retrieval and reporting. Self-paced study teaches the special features of Mark IV which include extended segment processing, extended reporting, file processing, coordinated files, text processing, transaction processing and hierarchical record structure processing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming (1/83).

MC-1402-0028

Marine Corps Integrated Maintenance Management System (MIMMS)
(Marine Corps Integrated Maintenance Management Officers)

Course Number: None.

Location: Supply Center, Albany, GA.

Length: *Version 1:* 4 weeks (125 hours). *Version 2:* 6 weeks (238 hours).

Exhibit Dates: *Version 1:* 1/80–Present. *Version 2:* 2/75–12/79.

Objectives: To train selected officers for the administration and management of maintenance management billets.

Instruction: Lectures and practical exercises in maintenance management information systems, maintenance records, production and resources, supply support, leadership and management, and Marine Corps procedures.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic data processing (6/75).

MC-1402-0030

IBM System 360 OS Programming

Course Number: 5OZX5144-2.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 10 weeks (385 hours).

Exhibit Dates: 9/74–10/82.

Objectives: To provide technical education for personnel to prepare them for duties as an IBM System 360 OS ALC programmer and entry-level systems programmer.

Instruction: Course consists of IBM System 360 (OS) Advanced Coding (5OZX5144-14) (see exhibit MC-1402-0037), IBM System 360 OS Assembler Language (5OZX5144-3) (see exhibit MC-1402-0031), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 2 in advanced computer programming, 1 in operating systems (12/77).

MC-1402-0031

IBM System 360 OS Assembler Language

Course Number: *All Versions:* 5OZX5144-3; 5OZX5144-8. *Version 1:* 38P; E50ZX5135B-001.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* Self-paced 4 weeks (Maximum 210 hours). *Version 2:* Self-paced 4 weeks (162 hours).

Exhibit Dates: *Version 1:* 7/78–12/83. *Version 2:* 9/74–6/78.

Objectives: To train experienced students to code in Basic Assembler Language (BAL).

Instruction: The self-paced course includes practical exercises encompassing all phases of BAL coding, including fixed and floating point instructions. Subprogram linkage and macros are also discussed. A variety of problem applications are written, coded, and debugged.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in assembler programming (1/81). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0032

IBM System 360 OS Systems Programming

Course Number: 5OZX5144-4.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 6 weeks (223 hours).

Exhibit Dates: 9/74–5/81.

Objectives: To provide technical education to personnel trained in System 360 Assembler Language to prepare them for duties as an entry-level systems programmer.

Instruction: Course consists of IBM System 360 (OS) Advanced Coding (5OZX5144-14) (see exhibit MC-1402-0037), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in operating systems, 1 in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0033

System Control
(IBM System 360 OS System Control)

Course Number: T2G; 5OZX5144-5; E50ZX5135B-003.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 2 weeks (81 hours).

Exhibit Dates: 9/74–1/90.

Objectives: To train programmers in the use of Job Control Language and selected utility programs for an IBM System 360 operating system (OS).

Instruction: A self-paced course requiring practical exercises in the use of IBM System 360 Job Control Language and utility programs. Course includes load modules, creation, retrieval and concatenation of cataloged data sets, use of linkage editor, and overlay features.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced computer programming (12/77).

MC-1402-0034

FORTRAN Program Specialist
(IBM System 360 OS FORTRAN Programming)

Course Number: *Version 1:* T2H; E5OZX4924-000/RRM; A-532-0031. *Version 2:* 5OZX5144-6.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 2 weeks (70–90 hours).

Exhibit Dates: *Version 1:* 1/86–Present. *Version 2:* 9/74–12/85.

Objectives: To train students with a programming background in the uses of the VS FORTRAN 77 programming languages.

Instruction: A self-paced course requiring practical exercises in terminal entry coding, debugging and executing application programs using the FORTRAN programming language. Course includes the use of arrays, input-output operations, subprogram linkage, and processing of sequential and direct-access data sets.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in computer programming (2/90). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in computer programming (12/77).

MC-1402-0035

IBM System 360 OS PL/1 Programming

Course Number: T2J; E50ZX5135B-005; 5OZX5144-7.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 3 weeks (135 hours).

Exhibit Dates: 9/74–12/83.

Objectives: To train students to program in PL/1 as a second language.

Instruction: A self-paced course requiring practical exercises involving arithmetic expressions, constants, logical operations, arrays and DO loops, fixed-point expressions, structures, built-in functions, stream and record oriented I/O, and indexed sequential file handling.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (12/77).

MC-1402-0036

IBM System/360 (OS) COBOL Programming Specialist
(IBM System 360 (OS) COBOL Programming)

Course Number: 72K; E50ZX5135B-006; 5OZX5144-8.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 2 weeks (90 hours).

Exhibit Dates: 9/74–7/86.

Objectives: To train students with a programming background to program in COBOL.

Instruction: Self-paced course requiring practical exercises involving coding, debugging, and executing COBOL programs. Course includes sequential as well as indexed sequential file access methods, subprogram linkage, sequential file updating and edited report output utilizing structured programming techniques.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (1/81).

MC-1402-0037

IBM System 360 (OS) Advanced Coding

Course Number: 5OZX5144-14.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 2 weeks (72 hours).

Exhibit Dates: 9/74–5/81.

Objectives: To train students to handle IBM System 360 operating system data management, task management, and system generation.

Instruction: A self-paced course requiring practical exercises involving the handling of load modules, channel programming, task management, concurrent processing and system generation concepts and procedures.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in operating systems (12/77).

MC-1402-0038

IBM System 360 OS System Control and Data Management

Course Number: DAA; E50ZX5135B-008; 5OZX5144-15.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 4 weeks (151 hours).

Exhibit Dates: 9/74–2/86.

Objectives: To provide technical education in IBM System 360 OS system control and data management.

Instruction: Course consists of IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0039

IBM System 360 (OS) Data Management

Course Number: 5OZX5144-16.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 2 weeks (70 hours).

Exhibit Dates: *Version 1:* 7/78–10/86. *Version 2:* 9/74–6/78.

Objectives: To provide technical education to experienced programmers in the specialized area of data management access methods using assembler language.

Instruction: A self-paced course of instruction to train programmers in the specific use of IBM file organization and access methods. Included are assembler program exercises using QSAM, BSAM, BPAM, BISAM, QISAM, and BDAM access methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in file access methods (computer programming) (1/81). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in computer programming (12/77).

MC-1402-0040

Marine Assembler Language Programming

Course Number: 5OZX5144-17.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 8 weeks (313 hours).

Exhibit Dates: 9/74–12/83.

Objectives: To provide technical education to experienced programmers in assembler language.

Instruction: Course consists of IBM System 360 OS Assembler Language (5OZX5144-3) (see exhibit MC-1402-0031), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033), and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0041

IBM System 360 (OS) Systems Programmer

Course Number: 40S; E50ZX5135A-000; A-535-0027; 5OZX5144-19.

Location: Computer Sciences School, Quantico, VA.

Length: 9 weeks (130–244 hours).

Exhibit Dates: 6/75–5/81.

Objectives: To train experienced programmers in the system programming functions required to generate and maintain an IBM System 360 operating system with HASP.

Instruction: Lecture, practical exercises, and hands-on applications in computer operations (OS), system generation, system programming, computer system performance evaluation and tuning, catalog and library management, and teleprocessing application.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in operating systems (1/81).

MC-1402-0042

OS/VS2 MVS Data Control Techniques
(Data Control Techniques)
(IBM System 360 (OS) Data Control Techniques)

Course Number: 39G.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* Self-paced 6–7 weeks (212–244 hours). *Version 2:* 6 weeks (226 hours). *Version 3:* 6 weeks (180 hours).

Exhibit Dates: *Version 1:* 1/83–Present. *Version 2:* 3/80–12/82. *Version 3:* 8/75–2/80.

Objectives: To train enlisted personnel in data control techniques to prepare them as data controllers for the IBM System 360 computer system utilizing HASP.

Instruction: *Version 1:* Lectures and practical exercises provide the student with in-depth knowledge of the IBM OS/VS2 MVS JCL utilities and production job procedures including catalog procedures, disk space calculation, library maintenance, buffer and blocking optimization, and memory dump readings. *Version 2:* Lectures and practical exercises designed to provide operations personnel with working knowledge of IBM System 360 Job Control Language (JCL), utilities, and HASP capabilities. Included are cataloging in-stream procedures, updating system catalog, restart procedures, optimization of buffering and blocking of core storage and disk, disk space calculations, and core dump readings. *Version 3:* Lectures and practical exercises designed to provide operations personnel with working knowledge of IBM System 360 Job Control Language (JCL), utilities, and HASP capabilities. Included are cataloging in-stream procedures, updating system catalog, restart procedures, optimization of buffering and blocking of core storage and disk, disk space calculations, and core dump readings.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations/programming/systems programming (2/90). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in OS JCL (1/81). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0043

IBM System 360 OS FORTRAN IV Language (Entry-level)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 8 weeks (320 hours).

Exhibit Dates: 4/75–10/82.

Objectives: To train entry-level data processing students as FORTRAN programmers on the IBM System 360.

Instruction: A self-paced course requiring practical exercises in coding, debugging, and executing application programs using the FORTRAN programming language. Course includes an introduction to data processing concepts and hardware, flowcharting and problem solution, compiler principles and FORTRAN coding conventions. Use of arrays, input-output operations, subprograms linkage, and processing of direct-access data sets are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing (12/77); in the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0045

Tactical General Purpose Computer Technician

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA.

Length: 26 weeks (960 hours).

Exhibit Dates: 1/79–12/83.

Objectives: To train enlisted personnel to install, inspect, test, and repair tactical general purpose computers and assorted peripheral equipment.

Instruction: For this course after 12/83 see MC-1402-0056. Lectures and practical exercises in binary operations and basic digital computer theory. Applications to the CP808 computer, the OJ-65 I/O console, the AN/UYK-7 computer, the AN/UYK-20 and the RD-358.

Credit Recommendation: In the vocational certificate category, 9 semester hours in computer systems (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer software, 3 in computer systems at the engineering or engineering technology level (3/79).

MC-1402-0046

SCANDATA Programming

Course Number: 38S.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (90–120 hours).

Exhibit Dates: 7/79–10/86.

Objectives: To provide technical training to COBOL programmers to enable them to program the SCANDATA 2250/2.

Instruction: Course provides a basic introduction to SCANDATA computer programming, including SCANDATA concepts, 2250/2 Para-COBOL and programming techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/86).

MC-1402-0047

Data Systems Officer

Course Number: 399.

Location: Computer Sciences School, Quantico, VA.

Length: 8–13 weeks (291–457 hours).

Exhibit Dates: 4/78–1/90.

Objectives: To provide technical education in data processing to officers, preparing them for data processing management.

Instruction: Course consists of lectures and practical exercises in data-processing fundamentals, Mark IV, job control language (JCL), and OS utilities. Course includes systems analysis and design and management concepts as applied to a data-processing installation. The course offers an 8-week long core program in which is included the course listed as exhibit MC-1402-0048 (Systems Analysis and Design (Orientation) I The Domain of the Problem) and credit for that course is included in the credit recommendation listed here. Students complete the core and have option of a number of electives. For credit recommendations for electives, see individual entries.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in file management and OS JCL, 1 in data processing fundamentals, 1 in systems analysis and design, 1 in data processing management (1/81).

MC-1402-0048

SYSTEMS ANALYSIS AND DESIGN (ORIENTATION) I

(Systems Analysis and Design (Orientation) I The Domain of the Problem)

Course Number: 39B.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (60-69 hours).

Exhibit Dates: 1/79-10/86.

Objectives: To provide an orientation to the concepts, methodologies, and techniques used in problem analysis.

Instruction: This course presents lectures and practical exercises in systems development life cycle and techniques with emphasis on the team concept using the structural approach (Hierarchical plus Input Process Output) (HIPO). The course includes a feasibility study to produce system objectives and functional descriptions.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in systems analysis (1/81).

MC-1402-0049

SYSTEMS ANALYSIS AND DESIGN (ORIENTATION) II

(Systems Analysis and Design (Orientation) II The Domain of the Solution)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (82 hours).

Exhibit Dates: 1/79-10/86.

Objectives: To provide an orientation to the concepts, methodologies, and techniques used in problem solution.

Instruction: Major topics include review of system development life cycle, team concept and approach to systems development, structured walkthrough of systems development documents, structured design methodology applied to the system development process, and system documentation using Hierarchical plus Input Process Output (HIPO); concentration on the system development life cycle as it relates to the Domain of the Solution, preparation of the systems specifications, data base specifications using structured design and Hierarchical plus Input Process Output (HIPO) techniques; system user, operator and program maintenance manuals; the test plan; and implementation plan.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in systems analysis (1/81).

MC-1402-0050

AUTOMATED DATA PROCESSING EQUIPMENT FOR THE FLEET MARINE

(Automated Data Processing Equipment - Fleet Marine Force Programmer)

Course Number: 38U.

Location: Computer Sciences School, Quantico, VA.

Length: 4 weeks (127-128 hours).

Exhibit Dates: 1/83-Present.

Learning Outcomes: Upon completion of the course, the COBOL programmers will be able to perform duties as applications programmers for the IBM 4110 system.

Instruction: The course is designed as a basic introduction to the operation and programming of the IBM 4110 computer. Instruction is primarily lecture with hands-on lab experience. Topics covered include 4110 operating characteristics, software installation, utilities, event driven language and COBOL programming.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operations/programming (10/86).

MC-1402-0051

IBM S/360 ASSEMBLER LANGUAGE CODING (ENTRY)

(Assembler Language Code (ALC) Programming (Combination)

Course Number: 38R; A-532-0030; E5OXZ4924-002.

Location: Computer Sciences School, Quantico, VA.

Length: 8 weeks (285-320 hours).

Exhibit Dates: 12/80-Present.

Objectives: To provide technical training for experienced programmers in using assembler language coding as a second programming language or to provide background skills for entry-level systems programming.

Instruction: This course provides a detailed introduction in ALC for IBM specific equipment via terminal data entry for coding, testing and debugging and includes, but is not limited to, input and output processing, logical instructions, floating point, macros and sub-programming. Heavy emphasis is placed on JCL, OS, utilities and linkage editor usage as well as various access methods and file organization techniques including QSAM, BSAM, QISAM and BDAM.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester houts in assembly language coding (10/86); in the upper-division baccalaureate category, 3 semester hours in advanced assembly language coding (10/86).

MC-1402-0052

MULTIPLE VIRTUAL STORAGE (MVS) FUNDAMENTALS AND LOGIC

Course Number: D2C.

Location: Computer Sciences School, Quantico, VA.

Length: 6 weeks (196 hours).

Exhibit Dates: 1/83-Present.

Objectives: To provide the experienced dataprocessor knowledge of the Multiple Virtual Storage (MVS) Operating System.

Instruction: Lectures covering these major topics: system resource manager, job entry subsystem, storage management, data management, diagnostics, supervisor services, service aids and utilities, system generation and maintenance, and system modification program (SMP4).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in introduction to system programming (10/86); in the upper-division baccalaureate category, 3 semester hours in advanced system programming (10/86).

MC-1402-0053

MULTIPLE VIRTUAL STORAGE (MVS) DIAGNOSTICS

Course Number: D2H.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (78 hours).

Exhibit Dates: 1/83-Present.

Objectives: To provide the experienced system programmer the basic knowledge and skills required to isolate system problems to the component level.

Instruction: Lectures covering these major topics: job entry system (JES) control blocks and dumps, control block chains, recovery management support (RMS), MVS application dumps, SVC dumps, stand alone dumps, traces/slip/per, SMF and LOGREC, and interactive problem control system (IPCS).

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced system programming-diagnostics (10/86).

MC-1402-0054

MULTIPLE VIRTUAL STORAGE (MVS) PERFORMANCE AND TRAINING

Course Number: D2J.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (94 hours).

Exhibit Dates: 4/84-Present.

Objectives: To provide the experienced system programmer the basic knowledge and skills required to fine tune an MVS system through performance-oriented reports.

Instruction: Lectures and case studies covering these major topics: I/O tuning, auxiliary storage manager, system resource manager (SRM) parameters, SRM guidelines, resource measurement facility (RMF), statistical analysis of RMF data using SAS.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced system programming-performance and tuning (10/86).

MC-1402-0055

FISCAL ACCOUNTING

Course Number: 34N.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 9 weeks (285 hours).

Exhibit Dates: 12/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to record basic accounting transactions in accordance with generally accepted accounting principles, post to the ledger and summarize accounting data to final balance, prepare worksheets and end of accounting period task, prepare accounting reports, apply aforementioned learned competencies through the use of a mechanized (computerized) data entry device in accordnance with the financial management structure of the Marine Corps.

Instruction: Lectures, demonstrations, and illustrative problems in basic accounting procedures required to provide the student with a working knowledge of formal mechanized accounting techniques and their application to a computer system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in bookkeeping (9/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing and 3 in accounting survey (9/87).

MC-1402-0056

Tactical General Purpose Computer Technician

Course Number: DA9.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 31-32 weeks (1100 hours).

Exhibit Dates: 1/84-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the principles of computer organization and architecture, basic software concepts, computer systems, and computer peripherals to the troubleshooting and repair of two different computer systems and the associated peripherals.

Instruction: For this course before 1/84 see MC-1402-0045. Lectures and practical exercises on topics related to computer organization, troubleshooting and repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in computer systems and organization and 3 in computer systems troubleshooting and maintenance (2/89).

MC-1403-0001

Unit Diary Clerk

Course Number: None.

Location: Service Support School, Cp. Lejeune,NC; Schools Battalion, Cp. Pendleton, CA; Recruit Depot, Parris Island, SC.

Length: 4-5 weeks (142-182 hours).

Exhibit Dates: 1/72-9/84.

Objectives: To train enlisted personnel to prepare unit diaries.

Instruction: Lectures and practical exercises in assembling source material; drafting; typing; auditing quality control systems; and certifying and distributing the unit diary.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1403-0002

Administrative Clerk

Course Number: None.

Location: Personnel Administration School, Cp. Pendleton, CA; Schools Battalion, Parris Island, SC.

Length: 3 weeks (112-119 hours).

Exhibit Dates: 7/73-5/84.

Objectives: To train selected personnel in the fundamentals of personnel administration.

Instruction: Practical exercises in typing, filing, and correspondence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing and office procedures (8/77).

MC-1403-0003

Personal Financial Records Clerk
(Basic Disbursing Clerk)

Course Number: None.

Location: Personnel Administration/Disbursing School, Cp. Lejeune, NC; Service Support School, Cp. Lejeune, NC.

Length: 6-8 weeks (177-249 hours).

Exhibit Dates: 9/65-9/83.

Objectives: To train enlisted personnel in the basic concepts, fundamentals, and principles of payroll disbursing including typing and necessary clerical procedures.

Instruction: Practical experience in disbursing, military pay records, correspondence, and office machines.

Credit Recommendation: In the vocational certificate category, 2 semester hours in personal typing, 2 in clerical procedures (7/77).

MC-1403-0004

Files, Directives, and Publications by Correspondence

Course Number: 01.32E.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/81-12/85.

Objectives: To train military personnel in the functional file system.

Instruction: This correspondence course involves instructions and applications in on-job training to identify and apply the general procedures for subject filing of publications to interpret and implement directives for retention, transfer, and disposition of files.

Credit Recommendation: Credit is not recommended because of the limited, technical nature of the course (8/83).

MC-1403-0005

Basic Travel Clerk

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 5-7 weeks (122-193 hours).

Exhibit Dates: 7/74-7/83.

Objectives: To provide enlisted personnel with instruction in basic travel procedures and to provide the clerical experiences necessary to insure conformance to travel regulations.

Instruction: Practical exercises and experiences in preparing travel vouchers and related data, including basic mathematical computations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/77).

MC-1403-0006

Correspondence Procedures by Correspondence

Course Number: 01.31G.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/83-12/86.

Objectives: To provide on-the-job experience in preparing routine correspondence.

Instruction: This correspondence course will provide personnel with beginning knowledge and skills to enable them to select appropriate format, style, form, abbreviations, endorsements, and codes in composing and preparing routine correspondence.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1403-0007

Marine Corps Directives System by Correspondence

Course Number: 01.41.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 1/83-12/88.

Objectives: To provide training in the fundamental preparation and control of directives and publications.

Instruction: This correspondence course involves on-the-job training to establish, maintain, and control the distribution of records, master directives, and publications.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1403-0008

Order-Writing Clerk by Correspondence

Course Number: 01.38.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 1/82-12/85.

Objectives: To provide training and on-the-job experience in preparing and processing documents associated with travel.

Instruction: This correspondence course involves study and practical experience in the identification, preparation, processing, and distribution of documents related to domestic and international travel.This includes verification and publishing documents processing reservations and passports, and computation of travel time.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1403-0009

Basic Travel Clerk

Course Number: 34A.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 7-8 weeks (224-252 hours).

Exhibit Dates: 8/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the various duties involved in basic travel procedures as well as to perform the clerical experiences necessary to insure conformance to travel regulations.

Instruction: Practical exercises and experiences in preparing travel vouchers such as verifying travel status and computing distance, per diem expenses, and travel allowances are provided. In addition, a review of basic mathematics computations is included. Along with a brief orientation to the electronic calculation and the real FAMMIS travel system equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures (9/87).

MC-1403-0010

Personal Financial Records Clerk

Course Number: 34M.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 8-9 weeks (272-289 hours).

Exhibit Dates: *Version 1:* 9/87-Present. *Version 2:* 10/83-8/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to set up and maintain a payroll accounting system that includes the basic concepts, fundamentals, and principles of payroll disbursement; and operate a ten-key electronic calculator, and computerized information and video inquiry systems. *Version 2:* Upon completion of the course, the student will be able to set up and maintain a payroll accounting system that includes the basic concepts, fundamentals, and principles of payroll disbursement; and operate a ten-key electronic calculator, and electric typewriter at a speed of five words per minute, and a video inquiry system.

Instruction: *Version 1:* Covers use of computer and software applications such as DOS, spread sheets, word processing and data base, electronic calculator; payroll disbursement procedures such as basic pay, various allowances, leave entitlements, increases and decreases in pay brought about by extra military duties, court martial penalties and separation payments. Methodology includes lectures, demonstrations and practical exercises. *Version 2:* This course includes training on an electronic calculator, an electric typewriter, and office automation system. It also includes lectures, demonstrations and simulated practices in the various payroll disbursement procedures that include computing not only basic pay but the various allowances and increases and decreases in pay brought about by extra military duties and court martial penalties. Finally, much time is devoted to computing the various payroll deductions as well as processing regular and special payroll activities.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in clerical procedures (4/89); in the lower-division baccalaureate/associate degree category, 2 semester hours in payroll accounting and 2 in computer concepts and software applications (4/89). *Version 2:* In the vocational certificate category, 2 semester hours in clerical procedures (9/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in payroll accounting, 1 in keyboarding (9/87).

MC-1403-0011

INDEPENDENT DUTY ADMINISTRATION

Course Number: AAE.

Location: Financial Management Personnel Administration School, Cp. Lejeune, NC.

Length: 3–4 weeks (125–131 hours).

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform tasks associated with general administration including preparation of reports on Marine Corps reserve officers allowances, composite scores, fitness reports, accounting reports, training reports, reserve manpower management pay system, service records, support requirements and preparation of correspondence and directives.

Instruction: Lectures and practice applications are used to train students in the skills required to perform tasks associated with general administration including preparation of reports, correspondence and directives.

Credit Recommendation: In the vocational certificate category, 3 semester hours in clerical procedures (9/87).

MC-1403-0012

SENIOR CLERK

Course Number: AAC.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: *Version 1:* 9 weeks (334 hours). *Version 2:* 10 weeks (306 hours).

Exhibit Dates: *Version 1:* 7/86–6/88. *Version 2:* 12/84–6/86.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to edit correspondence orginated by a command, supervise the maintenance of individual records, supervise the procedures of administrative requirements, such as promotions, reductions and fitness reports and include casualty assistance calls, supervise a records management program, produce a unit diary, supervise the administration of military pay allowances, verify the administration of legal issues such as absentees punishments, court marital, suspensions, confinements, process separations, audit and update directives. *Version 2:* Upon completion of the course, the student will be able to function as a mid-level manager in a consolidated battalion/squadron administration office.

Instruction: *Version 1:* Methods of instruction include lecture, practical applications, critques, computer assisted instruction and video tapes. Topics covered include correspondence and directives, individual records, general administration, records management, personnel reporting, military pay and allowances, legal administration, separations and directive maintenance. *Version 2:* Includes lectures and a variety of audio-visual methods that provide specialized instruction in Marine Corps personnel administration procedures. This includes such topics as correspondence, auditing individual records, general administration, issuing directives, records management, personnel reporting supervision, military pay and allowances supervision, and the supervision of legal administration, separations, and the maintenance of the directive system. For the course after this end date, see MC-1403-0015.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (9/87). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration and 1 in business communication (9/87).

MC-1403-0013

UNIT DIARY CLERK

Course Number: O15.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC; Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 8–9 weeks (269–305 hours). *Version 2:* 8 weeks (197–198 hours).

Exhibit Dates: *Version 1:* 1/87–Present. *Version 2:* 10/84–12/86.

Learning Outcomes: Upon completion of the course, the student will be able to prepare and maintain unit diaries, write letters and reports, and audit unit diary management reports.

Instruction: *Version 1:* Lectures and extensive practical workshops in special assignments (typing), unit diary preparation, audit of unit diary management documents, joint uniform pay system-manpower management system, allotments, and systems feedback. *Version 2:* Lectures and extensive practical workshops in general administration, unit diary preparation, audit of unit diary management documents and joint uniform military pay system/nampower management system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in record keeping, 3 in clerical procedures (11/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (11/87). *Version 2:* In the vocational certificate category, 1 semester hour in record keeping, 3 in clerical procedures (9/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (9/87).

MC-1403-0014

ADMINISTRATIVE CLERK

Course Number: O1T.

Location: Financial Management and Personnel Administration School, Cp. Pendleton, CA; Financial Management and Personnel Administration School, Cp.Lejeune, NC.

Length: *Version 1:* 7–8 weeks (254 hours). *Version 2:* 8 weeks (217 hours).

Exhibit Dates: *Version 1:* 1/87–Present. *Version 2:* 6/84–12/86.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to perform entry level duties in general administration; type various kinds of correspondence using correct military format; maintain a correspondence filing system; demonstrate a typing speed of 25 words per minute. *Version 2:* Upon completion of the course, the student will be able to perform entry level duties in general administration; type various kinds of correspondence, using correct military format; and maintain a correspondence filing system.

Instruction: *All Versions:* This is a course of specialized instruction in typing Naval correspondence, maintaining correspondence files, and preparing military directives. In addition, instruction is presented on general administrative matters to include the preparation of fitness reports, leave authorization, identification cards, and unit punishment books. *Version 1:* This version adds typing requirements and deletes lessons on how to extract information from service records, the privacy act of 1974, composite scores, absentee processing, and classified materials.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in record keeping, 2 in clerical procedures (9/87); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (9/87). *Version 2:* In the vocational certificate category, 1 semester hour in record keeping, 2 in clerical procedures (9/87); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (9/87).

MC-1403-0015

SENIOR CLERK

Course Number: AAC.

Location: Service Support School, Cp.Lejeune, NC.

Length: 9–10 weeks (352 hours).

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to edit correspondence originated by a command; supervise the procedures of administrative requirements such as promotions, reductions, and fitness reports and include casualty assistance calls; supervise a records management program; produce a unit diary, supervise administration of military pay and allowances; verify the administration of legal issues such as absentees, punishments, court martials, suspensions and confinements; process separations; audit and update directives and use computerized information and video inquiry systems.

Instruction: Covers correspondence and directives, individual records, general administration, records management, personnel reporting, military pay and allowances, legal administration, separations, directive maintenance and computer and video inquiry systems. Methodology includes lecture, practical applications, computer-assisted instruction and video tapes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration and 2 in computer concepts and software applications (4/89).

MC-1403-0016

INDIVIDUAL PERSONNEL RECORDS BY CORRESPONDENCE

Course Number: 01.35g.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use available legal references and perform the basic duties of a legal clerk; to identify reference material pertaining to non-judicial punishment as well as what constitutes absentee and desertion.

Instruction: This correspondence course covers use of LEGADMINMAN documentation of police, procedure guidelines for legal administration; use of manual for Judge Advocate General; use of manual for court-martial; uniform code of military justice; absentee and deserters.

Credit Recommendation: In the vocational certificate category, 1 semester hour in legal record keeping (6/89).

MC-1404-0001

TELETYPE OPERATOR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 8 weeks (280 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train sergeants and enlisted personnel to operate teletypewriter sets and associated equipment.

Instruction: Lectures and practical exercises in teletypewriter operation, including touch-typing, teletype procedures and operations, teletype associated equipment operation, and communication center operations and procedures.

Credit Recommendation: In the vocational certificate category, credit in typing and teletype operation on the basis of institutional evaluation (3/74).

MC-1404-0002

MAIL ORDERLY BY CORRESPONDENCE

Course Number: 01.24.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/79–12/83.

Objectives: To orient and train newly appointed mail orderlies in regard to their duties and responsibilities.

Instruction: This correspondence course provides generalized instruction in the handling of incoming and outgoing mail, the readdressing and disposition of undeliverable mail, the maintenance of directory files, and procedures for mailroom security.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course(3/83).

MC-1405-0001

AVIATION SUPPLY ENLISTED

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 5 weeks (147 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To provide supply specialists with intermediate-level training in aviation supply administration.

Instruction: Lectures on supply management, office machines, office procedures, procurement, storage operations, and supply in marine aviation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (2/74); in the upper-division baccalaureate category, 1 semester hour in supply management (2/74).

MC-1405-0002

WAREHOUSING NONCOMMISSIONED OFFICER (NCO) LEADERSHIP

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 5 weeks (144 hours).

Exhibit Dates: 7/74–3/85.

Objectives: To provide the formal training required for corporals and gunnery sergeants to effectively perform the duties of a warehouse chief within a garrison or field warehousing operation.

Instruction: Lectures, performances, and demonstrations to provide formal training in all aspects of warehousing operations. Fundamentals of shipping, packing, space utilization, materials handling, transportation, and inventory control are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/77).

MC-1405-0003

PERSONNEL CLERK

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA; Headquarters Battalion, Parris Island, SC.

Length: 4–5 weeks (136–180 hours).

Exhibit Dates: 7/72–12/86.

Objectives: To train enlisted personnel to maintain personnel records.

Instruction: Lectures and practical exercises in preparing and updating personnel records, gathering source documents, and preparing and typing individual pay forms.

Credit Recommendation: Credit is not recommended because of the nature of the course (3/74).

MC-1405-0004

BASIC SUPPLY FUNDAMENTALS (MANUAL)
(Basic Supply Administration)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 4–6 weeks (105–195 hours).

Exhibit Dates: 5/65–3/85.

Objectives: To train supply clerks in the basic and technical procedures of filling organic supply billets.

Instruction: Practical experience in operation and maintenance of office machines and in accounting procedures; lectures in naval correspondence.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1405-0005

1. BASIC SUPPLY ADMINISTRATION (MECHANIZED)
2. SUPPLY ADMINISTRATION (Advanced Supply Administration)

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 5–6 weeks (137–202 hours). *Version 2:* 12–16 weeks (341–550 hours).

Exhibit Dates: *Version 1:* 7/70–3/85. *Version 2:* 12/59–6/70.

Objectives: To train enlisted personnel in supply administration.

Instruction: *Version 1:* Lectures and practical exercises in correspondence and typing, publications, allowances, requisitioning procedures, and mechanized accounting procedures. *Version 2:* Lectures and practical exercises in accounting principles, procurement, transportation, warehousing, property control, and supply operations.

Credit Recommendation: *Version 1:* Credit is not recommeded because of the military nature of the course (6/74). *Version 2:* In the vocational certificate category, 3 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management (6/74); in the upper-division baccalaureate category, 6 semester hours in supply management (12/68).

MC-1405-0006

SUPPLY NONCOMMISSIONED OFFICER (NCO) LEADERSHIP

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 9–12 weeks (294 hours).

Exhibit Dates: 9/73–12/78.

Objectives: To train supply noncommissioned officers to perform as supply administration chiefs in manual and fleet stock accounts as they relate to Marine Corps applications.

Instruction: Lectures and practical exercises in the duties of supply administration chiefs, including NCO service support leadership, publications and allowances, review of manual supply technical behaviors, manual supply NCO leadership and technical behaviors, supply leadership and technical behaviors incident to professional growth and development, mechanized supply technical behaviors within the Fleet Stock Account (FSA) and Supported Activities Supply System (SASSY) operating procedures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/74).

MC-1405-0007

1. COMMUNICATION OFFICER
2. COMMUNICATION OFFICER
3. COMMUNICATION OFFICER
4. COMMUNICATION OFFICER

Course Number: None.

Location: *Version 1:* Communication Officers School, Quantico, VA. *Version 2:* Development and Education Command, Quantico, VA. *Version 3:* Marine Corps School, Quantico, VA. *Version 4:* Marine Corps School, Quantico, VA.

Length: *Version 1:* 29–32 weeks (685–694 hours). *Version 2:* 28–29 weeks (670–707 hours). *Version 3:* 28–30 weeks (729–755 hours). *Version 4:* 25-30 weeks (672-757 hours).

Exhibit Dates: *Version 1:* 1/72-7/80. *Version 2:* 2/69-12/71. *Version 3:* 2/63-1/69. *Version 4:* 7/55-1/63.

Objectives: To train officers in the technical requirements, operating procedures, and management of an integrated communication system at the fleet command level.

Instruction: *All Versions:* Lectures and practical exercises in communications operation, including organization, tactics, and amphibious operations. *Version 2:* Instruction includes general communications, ground and aviation unit communication, effective language, communications center organization and operation, radio theory, and communication procedures and equipment. *Version 3:* Instruction includes general communications, ground and aviation unit communication, effective language, communications center organization and operation, radio theory, and communication procedures and equipment. *Version 4:* Instruction includes general communications; ground and aviation unit communication message preparation, processing, and handling; cryptography; radio, radio relay, wire, and teletype communications; theory of electricity; and visual, sound, and miscellaneous communications.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited specialized nature of the course (6/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in communications center organization and management (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in communications center organization and management, 3 in French or Spanish (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in communication center organization and management (12/68).

MC-1405-0008

Basic Supply Administration
(Mechanized)

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 9 weeks (288 hours).

Exhibit Dates: 4/67-12/68.

Objectives: To provide enlisted personnel with the basic skills required for duty as administrative supply clerks.

Instruction: Lectures and practical exercises in the operation of typewriters and calculators, preparation of naval correspondence, use of supply publications, computation of allowances, organic property control procedures, and mechanized supply operations.

Credit Recommendation: In the upper-division baccalaureate category, credit in supply procedures on the basis of institutional evaluation (12/68).

MC-1405-0009

Ordnance Chief

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (280 hours).

Exhibit Dates: 2/67-12/74.

Objectives: To train noncommissioned officers in the supervision, management, and administration of ordnance operations.

Instruction: Lectures and practical exercises in the supervision, management and administration of ordnance operations, including ordnance management, machine shops, tracked vehicles, artillery weapons, infantry weapons, ammunition, optical equipment, ordnance staff functions, and management of a garrison.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management principles of supply and maintenance (12/68).

MC-1405-0010

Special Supply Orientation

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/58-12/68.

Objectives: To train newly selected supply officers to manage supply functions and operations.

Instruction: Lectures and practical exercises in the management of supply operations. Course includes a review of the principle elements of the supply system: acquisition and distribution, cataloguing, planning and programming, budgeting and disbursement, inventory management, and direct support of military operations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in supply management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

MC-1405-0011

Supply Chief Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 10 weeks (362 hours).

Exhibit Dates: 7/75-1/90.

Objectives: To provide senior staff noncommissioned officers with a broad base of understanding inall elements of supply, with emphasis on supply operations and the senior NCO in executing leadership, supervisory, and management responsibilities.

Instruction: Lectures, discussions, and practical exercises with emphasis on leadership and supervisory practices; supply accounting procedures; data systems, including records design, flowcharting, input and output devices and media; programming techniques and coding in a symbolic language; introduction to and practice in the Supported Activities Supply System (SASSY).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in introduction to data processing (7/77).

MC-1405-0012

Basic Supply Stock Control

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 7 weeks (218 hours).

Exhibit Dates: 7/75-3/80.

Objectives: To train entry-level Marines to perform as supply administrator/operations clerks.

Instruction: Lectures, demonstrations, and practical performances in the basic skills of supply accounting required in the daily operation of a supply account. Includes instruction in typing and filing necessary to maintain supply records. See MC-1405-0035 for exhibit after end date.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personal typing, 2 in records management (7/77).

MC-1405-0013

Warehousing Staff Noncommissioned
Officer (NCO) Leadership
(Advanced Warehousing)

Course Number: None.

Location: Service Support School, Cp. Lejeune NC; Supply School, Cp. Lejeune NC.

Length: 5-6 weeks (165-193 hours).

Exhibit Dates: 4/64-3/84.

Objectives: To train noncommissioned officers to handle warehouse operations and perform the duties of a warehouse chief within a garrison or field warehousing operation.

Instruction: Lectures and practical exercises in the duties of a warehouse chief. Course includes fundamentals of warehousing, shipping, packing, space layout, and utilization, materials-handling equipment, and transportation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74).

MC-1405-0014

Senior Enlisted Supply

Course Number: None.

Location: Service Support School, Cp. Lejeune NC; Supply School, Cp. Lejeune NC.

Length: 7 weeks (201-256 hours).

Exhibit Dates: 8/63-3/84.

Objectives: To train noncommissioned officers to operate supply systems.

Instruction: Lectures and practical exercises in the operation of supply systems, including supply management, office management, property control, maintenance and disposal of equipment, small-purchase procedures, transportation, and financial management.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (7/74).

MC-1405-0015

Accountable Officer

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 12 weeks (420 hours).

Exhibit Dates: 2/55-12/68.

Objectives: To train commissioned officers to manage supply accounts.

Instruction: Lectures and practical exercises in the management of supply accounts. Course includes supply procedures and operations, fiscal accounting, storage and materials handling, and transportation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in supply management (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

MC-1405-0016

Officers Warehousing

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 4-5 weeks (139-165 hours).

Exhibit Dates: 8/67-12/74.

Objectives: To train commissioned officers to perform as warehousing officers.

Instruction: Lectures and practical exercises in the duties of a warehouse officer. Course includes technical publications; storage facility planning and management; materials-handling equipment; inventory procedures; receiving, issuing, and shipping procedures; storage methods; and packing, packaging, and preservation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in supply management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

MC-1405-0017

Unit Supply Officer

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 7-12 weeks (244-382 hours).

Exhibit Dates: 11/59-3/85.

Objectives: To train officers as supply officers.

Instruction: Lectures and practical exercises in supply procedures, including supply management, office management, property control, financial management, accounting, systems analysis, procurement, transportation, distribution, storage operations, and computerized supply operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

MC-1405-0018

Aviation Supply Officer

Course Number: None.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC. *Version 2:* Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 10 weeks (359 hours). *Version 2:* 8-10 weeks (277-326 hours).

Exhibit Dates: *Version 1:* 7/68-3/85. *Version 2:* 10/63-6/68.

Objectives: To train Marine Corps officers in the fundamentals and functions of the Navy supply system.

Instruction: Lectures and practical exercises in the fundamentals of supply management, office procedures, financial management, purchasing, inventory control, and systems analysis.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in supply management (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74); in the upper-division baccalaureate category, 5 semester hours in supply management (12/68).

MC-1405-0019

1. Basic Communication Officer
2. Basic Communication Officer
3. Basic Communication Officer (BCOC)
   (Basic Communications Officer)
4. Basic Communication Officer
   (Communication Officers Orientation)

Course Number: None.

Location: *Version 1:* Communication School, Quantico, VA. *Version 2:* Communication School, Quantico, VA. *Version 3:* Development and Education Command, Quantico, VA. *Version 4:* Development and Education Command, Quantico, VA; Marine Corps School, Quantico, VA.

Length: *Version 1:* 14 weeks (686 hours). *Version 2:* 14 weeks (418-419 hours). *Version 3:* 9-11 weeks (277-347 hours). *Version 4:* 5-9 weeks (135-276 hours).

Exhibit Dates: *Version 1:* 8/85-Present. *Version 2:* 12/79-7/85. *Version 3:* 9/69-11/79. *Version 4:* 5/56-8/69.

Objectives: To train basic school graduates in the responsibilities and duties as communications officers.

Instruction: *All Versions:* Lectures and practical exercises in communication center organization and operation, basic radio theory, communication equipment and procedures, amphibious operations, and command and staff organization. *Version 2:* Course offers lectures of an introductory level in electricity and electric power generation and distribution, electomagnetic wave progagation, principles of radio transmitters and receivers, transmission lines and antennas, computerized communications techniques, security methods, cryptographic equipment use and maintenance, methods of planning and managing a communications system, signal characteristics, uses, and advantages of AM, FM, SSB, and PCM types of transmission, siting and operational problems, and installation, operation and maintenance of a complete system. Some additional instruction is devoted to amphibious operation and maintenance and supply.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective for non-electronic technology or non-bachelor-of-science electronic technology majors (11/81). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (12/77). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in communications center management (12/68).

MC-1405-0020

Basic Warehousing by Correspondence

Course Number: 30.1k.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84-12/88.

Objectives: The course, a combination of self study and on-job training, presents principles of physical storage, material handling, packaging, and preparation for logistical movement.

Instruction: The material covered by the course includes safety, space planning, records and record keeping, material handling, and packing requirements. Also included in the course is a study of elementary mathematical computations and camouflage techniques.Course concludes with a proctored examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in warehousing (8/84); in the lower-division baccalaureate/associate degree category, 1 semester hour in physical distribution or transportation management or, if taken in conjunction with MCI 30.3h, Warehousing Operations by Correspondence (MC-1405-0021), 3 semester hours in physical distribution or transportation management (8/84).

MC-1405-0021

Warehousing Operations by Correspondence

Course Number: 30.3h.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84-Present.

Objectives: To give added depth to materials presented in MCI 30.lk, especially in the area of storage space and packaging.

Instruction: The material presented in the course includes storage, material handling and packaging techniques. Also included are specific storage techniques for lunber and ammunition. Course concludes with a proctored examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in warehousing (8/84); in the lower-division baccalaureate/associate degree category, 2 semester hours in physical distribution or transportation management or,if taken in conjunction with 30.lK, Basic Warehousing by Correspondence (MC-1405-0020), 3 semester hours in physical distribution or transportation management (8/84).

MC-1405-0022

Mechanization of Warehousing and Shipment Process (MOWASP) by Correspondence

Course Number: 30.19.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78-12/88.

Objectives: To enable Marine Corps warehousing personnel to prepare and process issue, receipts, and other forms utilized in mechanized warehousing.

Instruction: Topics in this correspondence course include responsibility of the various organizations involved in the automated material supply system, processing of receipts and issues, filing of claims against commercial carriers for losses or damages, inspection procedures and processing of inventory counts. Also included are transportation procedures and the preparation of reports on the status of material.

Credit Recommendation: In the vocational certificate category, 1 semester hour in warehousing operations (8/84). Course concludes with a proctored examination.

MC-1405-0023

Marine Corps Technical Publications System by Correspondence

Course Number: 30.23a-1; 30.23.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/82-11/87.

Objectives: To enable the student to know how to establish a Marine Corps supply technical publications library and how to follow the procedures for identifying stock numbers and other technical supply information.

Instruction: Topics include establishing a supply technical publication library, identifying component and repair parts information and the procedures for locating stock numbers and sources of supply. Also included are the procedures and use of forms for ordering clothing and equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in materiel procedures (8/84).Course concludes with a proctored examination.

MC-1405-0024

SUPPORTED ACTIVITIES SUPPLY SYSTEM (SASSY) ORGANIC PROCEDURES BY CORRESPONDENCE

Course Number: 30.9f; 30.9e.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 1/84–7/86.
Objectives: To provide supply personnel with a basic knowledge of techinques for recording periodic and miscellaneous transactions between user units and a centralized management unit.
Instruction: This correspondence course trains supply clerks in the proper procedure for processing forms relative to subjects such as warehousing operatons, maintenance of equipment and deployment procedures necessary in the operation of a supply unit.The course has a proctored final examination which is required.
Credit Recommendation: In the vocational certificate category, 2 semester hours in material supply procedure when taken in conjunction with Supported Activities Supply System Management Unit by Correspondence, 30.10b (MC-1405-0026)(8/84).

MC-1405-0025

ACCOUNTING FOR PLANT PROPERTY BY CORRESPONDENCE

Course Number: 34.5c.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 8/80–Present.
Objectives: To enable the student to establish and maintain plant property ledgers and to prepare plant property reports required in the Marine Corps plant account system.
Instruction: Topics include the plant property accounting cycle, classes of plant property, responsibilities for plant property accounting, cost criteria, and determination of costs. A major area is that of maintaining plant property records and preparing the plant account report.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in property accounting (8/84). There is a proctored final examination.

MC-1405-0026

SUPPORTED ACTIVITIES SUPPLY SYSTEM (SASSY) MANAGEMENT UNIT BY CORRESPONDENCE

Course Number: 30.10b.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 4/83–12/88.
Objectives: To provide supply personnel with knowledge of the basic principles and procedures employed by a supply management unit, with emphasis placed on exceptions to normal processing which requires manual control and/or decisions to resolve.
Instruction: This correspondence course familiarizes supply personnel with the responsibilities of a supply management unit applicable to the preparation and maintenance of files and records in the areas of receipt and stock control, backorder validation, shipment discrepancies, inventory recounts and adjustments, and maintenance floats. Course also identifies procedures used to process the exception type transaction and programs.
Credit Recommendation: In the vocational certificate category, 2 semester hours in material or supply procedures when taken in conjunction with Supported Activities Supply System (SASSY) Organic Procedures, 30.9f and 30.9e (MC-1405-0024) (8/84). Final proctored examination is required.

MC-1405-0027

SUPPLY MANAGEMENT BY CORRESPONDENCE

Course Number: 30.20.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 4/82–Present.
Objectives: To provide the supply chief with an understanding of the functions necessary to organize and manage a supply office.
Instruction: This correspondence course familiarizes the supply chief with the managerial functions of planning, organizing, directing and controlling. Additionally, it defines methods for identifying the proper problem solving techniques through steps ranging from problem identification through the use of feedback in measuring goal achievement.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of management. Course concludes with a proctored examination (8/84).

MC-1405-0028

MARINE CORPS INTEGRATED MAINTENANCE MANAGEMENT SYSTEM (MIMMS) PROCEDURES FOR THE SUPPLY CLERK BY CORRESPONDENCE

Course Number: 30.21.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 7/82–12/84.
Objectives: To train supply clerks in the procedures necessary to perform supply functions in coordination with a newly automated integrated maintenance management system.
Instruction: This correspondence course provides supply clerks with a general background and overviews of an automated, integrated maintenance management system, requisition procedures for repair parts, data flow between user, service, and management units, and procedures to be followed in the validation/reconciliation process.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/84).

MC-1405-0029

MARINE CORPS STOCK LISTS BY CORRESPONDENCE

Course Number: 30.5G.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 7/78–12/85.
Objectives: To give instruction in the proper use of Marine Corps stock lists to obtain information related to the description, price, units of issue and the maintenance of equipment.
Instruction: The material covered in this correspondence course is specific to the Marine Corps. Although there is some interface with the other services and the federal government the major instructional content is Corps oriented. Instructional materials include stock lists, management data lists and Marine Corps cross reference lists.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/84).

MC-1405-0030

ORGANIC PROPERTY CONTROL BY CORRESPONDENCE

Course Number: 30.6K.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 4/84–12/87.
Objectives: To instruct the student in the procedures used in the organic property control office.
Instruction: This correspondence course covers the aread of property control records, invoicing, receiving and shipping (transfer) procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in material control. Course concludes with a proctored examination (8/84).

MC-1405-0031

ADJUTANT

Course Number: AAF.
Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.
Length: 6 weeks (202–219 hours).
Exhibit Dates: 3/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform functions of an adjutant including general administration, management of correspondence and directives, supervision of military pay and allowances, personal records and legal administration of a command.
Instruction: The lecture method and practical applications are used as teaching methods. Topics include correspondence and directives, military pay and allowances, general administration, individual records, separations, personnel assets and legal administration.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in business communications and 3 in office administration (3/88).

MC-1405-0032

ADVANCED PERSONNEL ADMINISTRATION

Course Number: AAD.
Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.
Length: 9 weeks (338 hours).
Exhibit Dates: 4/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to produce a unit diary, supervise the administration of military pay and allowances, serve as the unit administrative chief, edit correspondence and directives, verify the maintenance of correspondence files and directive systems, verify assignment eligibility

and audit individual records, review processing requirements for absentees, non-judicial punishments, court martials, vacation suspension, or confinements. verify separation requirements, retirement and resignation eligibility.

Instruction: Lecture, practical applications, computer assisted instruction, critique, video tapes and audio cassette materials in personnel reporting, military pay and allowances, general administration, correspondence, directives, file maintenance, personnel assets, individual records, legal administration and separation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (9/87).

MC-1405-0033

Personnel Officer

Course Number: O11.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 7 weeks (249-250 hours).

Exhibit Dates: 4/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to write and edit military correspondence, business letters and directives, supervise the administration of military pay systems, supervise the administration of promotions, fitness reports, casualty reports and casualty assistance programs, supervise the maintenance of personnel records, separations, personal assets and processing requirements for non-judicial punishments.

Instruction: Methods used include lecture, practical applications, critques, audio cassette tapes, video tapes (films) and computer assisted instruction. Topics include drafting of correspondnece, procedures for military pay and allowances, administrative techniques, maintenance of records and personnel reports, issues of casualty assistance programs, resignations, retirements, personnel assistance programs and legal administration of non-judicial punishments.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration, 1 in business communication, and 2 in principles of supervision (9/87).

MC-1405-0034

Personnel Clerk

Course Number: OIC.

Location: Schools Battalion, Cp. Pendleton, CA; Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 7-8 weeks (229-282 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to type at a speed of at least 25 wpm, type correspondence and necessary military reports, maintain service records, prepare and process personnel separation/retention documents.

Instruction: Methods of instruction include automated typing instruction, critiques, video tapes, lecture, practical applications and self-paced instruction. Topics covered are typing power drills, type correspondence and reports, the maintenance of service records, audit of computer generated documents and the processing of separation/retention documents.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic typing (10/87).

MC-1405-0035

Enlisted Supply Basic
(Basic Supply Stock Control)

Course Number: 30V.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 7 weeks (232 hours). *Version 2:* 7 weeks (172-186 hours).

Exhibit Dates: *Version 1:* 7/87-Present. *Version 2:* 4/80-6/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to perform basic inventory and supply control procedures; operate personal computers using elementary word-processing and spread sheet applications, file and maintain supply records. *Version 2:* Upon completion of the course, the student will be able to maintain filing system and perform basic supply clerk function.

Instruction: *Version 1:* Covers technical skills for supply clerks utilizing computer software and hardware within a basic record keeping process. Methodology includes lecture and practical application exercises. *Version 2:* Covers basic skills of supply accounting, typing and records control. Methodology includes lecture, discussion and practical application.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer literacy, 3 in filing and rcords control, and 1 in keyboarding (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in keyboarding and 3 in filing and records controls (4/89).

MC-1405-0036

Enlisted Warehousing Intermediate

Course Number: 30H.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 5 weeks (164 hours). *Version 2:* 6 weeks (132 hours).

Exhibit Dates: *Version 1:* 2/88-Present. *Version 2:* 4/83-1/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to perform general warehousing functions; use specific publications; operate automated material handling equipment; use associated data processing hardware; monitor an inventory control system. *Version 2:* Upon completion of the course, the student will be able to perform general warehousing functions; use specific warehousing documents; operate automated material handling equipment; and monitor an inventory control system.

Instruction: *Version 1:* Covers warehousing operations to include use of equipment, facilities, and space; methods and systems of receiving, storing and shipment equipment. Also includes the use of data processing equipment to facilitate control procedures. Methodology include lecture, practical exercices, guest speakers, and field trips. *Version 2:* Covers warehousing operations to include the optimum use of equipment space and facilities; methods of receiving, storing and shipping of goods are discussed with emphasis on safety. Methodology includes lectures, class discussion, practical exercises, field trips and guest speakers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in warehousing operations and 1 in computer operations (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semster hours in warehousing operation (4/89).

MC-1405-0037

Enlisted Supply Reorientation
(Enlisted Supply Advanced)

Course Number: 30G.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 4 weeks (142 hours). *Version 2:* 6 weeks (186 hours).

Exhibit Dates: *Version 1:* 10/87-Present. *Version 2:* 6/83-9/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to use supply publications and directives; perform manual accounting procedures; use automated data processing equipment, maintain supply files and reconcile supply management reports. *Version 2:* Upon completion of the course, the student will be able to use supply publications and manuals; process correspondence and equipment repair orders; conduct supply related investigations, use computerized information and video systems; produce appropriate budget reports.

Instruction: *Version 1:* Covers manual accounting procedures, personal effects, automated data processing functions, reporting functions, inventory control and shipping and receiving responsibilities. Methodology includes lecture, class discussion, field trip and practical application. *Version 2:* Covers the use of supply directives, computerized information and video inquiry systems, management reports, and special accounts. Also covers basic management and supervisor principles related to supply management. Methodology includes lectures, class discussion, guest speakers and practical application exercise.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 3 in introduction to data processing (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 3 in computer concepts and software applications (4/89).

MC-1405-0038

Ground Supply Officer

Course Number: COG.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 11-12 weeks (386-387 hours). *Version 2:* 12 weeks (340-381 hours).

Exhibit Dates: *Version 1:* 8/87-Present. *Version 2:* 10/76-5/87.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to manage all the personnel and assets necessary for a Marine Corps operating unit. *Version 2:* Upon completion of the course, the student will be able to perform the duties and responsibilities of a Marine Corps ground supply officer.

Instruction: *Version 1:* Covers supply procedures, including supply management, office management, property control, financial management, accounting, systems analysis, purchasing, transportation, distribution, warehousing, and computerized supply operations. Methodology includes lectures, demonstrations, practical applications, and performance exercises. *Version 2:* Covers supply procedures, including supply management, office management, property control, financial management, accounting, systems analysis, purchasing, transportation, distribution, warehousing and computerized supply operations. Methodology includes lectures, demonstrations, and practical applications.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in computer concepts and sof ware application (4/89); in the upper-division baccalaureate category, 4 semester hours in supply management (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in data processing (4/89).

MC-1405-0039

Enlisted Supply Intermediate

Course Number: 30A.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 10 weeks (318-319 hours). *Version 2:* 10 weeks (269-270 hours).

Exhibit Dates: *Version 1:* 8/86-Present. *Version 2:* 5/84-7/86.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to plan, organize, and control the purchasing function of an organization. Supervise and direct department personnel and use computer methods to solve procurement problems. *Version 2:* Upon completion of the course, the student will be able to plan, organize, direct and control the function of a supply and material management department.

Instruction: *Version 1:* Covers supply procurement, administration and operations with emphasis on management controls. Also includes training in the use of computers related to purchasing practices. Contract principles, and budgeting procedures are also discussed. Methodology include lecture, class discussion and practical applications in procurement operations and procedures. *Version 2:* Upon completion of the course, the student will be able to plan, organize, direct and control to function of a supply and material management department.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management, 2 in supervisory principles, and 3 in office procedures (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 3 in recordkeeping (4/89).

MC-1405-0040

Enlisted Supply Independent Duty

Course Number: SAF.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (73-74 hours).

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare course documents related to procurement of materials and supplies; complete purchase transaction and maintain related inventory records; monitor and process bid requests and determining purchases which involve imprest funds; and complete annual accounting and summary reports for management reviews.

Instruction: Covers procurement, supply, and requisitioning procedures, purchasing accounting management, and reporting of source document. Methodology includes lectures and practical applications in procurement, with emphasis on contract procedures and process.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in purchasing or procurements (4/89).

MC-1405-0041

Reserve Enlisted Unit Supply Refresher

Course Number: CEX.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (67 hours).

Exhibit Dates: 11/83-5/87.

Learning Outcomes: Upon completion of the course, the student will be able to perform clerical supply functions at a using unit level, involving computer and manual-based supply accounting procedures, requisitioning, warehousing, and distribution of ground supply accounts.

Instruction: Covers technical research, property and financial management, and use of the computerized system to requisition, account for, monitor, distribute and dispose of supply assets. Methodology includes lectures, demonstrations and practical appplications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (4/89).

MC-1405-0042

Reserve Supply Officer Refresher

Course Number: COU.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (73 hours).

Exhibit Dates: 10/85-5/87.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and supervise subordinates in the managing of supply operations.

Instruction: Covers technical research, property and financial management, and the use of the computerized system to requisition, account for, monitor, distribute and dispose of supply assets. Methodology includes lectures, demonstrations, and practical applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (4/89).

MC-1405-0043

Reserve Unit Supply Refresher

Course Number: SCA.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (73-74 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform supply operations at a using unit level. Involving computer and manual-based supply accounting procedures, requisitioning, warehousing and distribution of ground supply accounts.

Instruction: Covers the basic supply administration skills required in the daily operation of a unit supply account. Includes instruction in technical research, property and financial management, and use of the computerized system to requisition, account for, monitor, distribute and dispose of supply assests. Methodology includes lectures, demonstrations and practical applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (4/89).

MC-1405-0044

SASSY: Organic Procedures by Correspondence

Course Number: 30.9g-1.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide supply personnel with a basic knowledge of techniques for recording periodic and miscellaneous transactions between user units and a centralized management unit.

Instruction: This correspondence course trains supply clerks in the proper procedure for processing forms relative to subjects such as warehousing operations, maintenance of equipment and deployment procedures necessary in the operation of a supply unit. The course has a proctored final examination which is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply procedures (6/89).

MC-1406-0001

Enlisted Instructor Orientation

Course Number: None.

Location: Development and Education Command, Quantico, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/68-1/80.

Objectives: To train instructors in the basic procedures and techniques of instruction, with emphasis on communication skills.

Instruction: Lectures and practical experience in the professional foundations of learning and teaching, communication skills, procedures and techniques of instruction, objective examination techniques, and a series of practice presentations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in instructional methods (1/74); in the upper-division baccalaureate category, 1 semester hour in instructional methods (1/74).

MC-1406-0002

Women Physical Training Instructor
(Physical Training Instructor (Women))

Course Number: None.

Location: Development and Education Command, Quantico, VA.

Length: 11 weeks (427-482 hours).

Exhibit Dates: 12/68-1/80.

Objectives: To train military personnel as instructors of physical training.

Instruction: Structural and functional kinesiology; applied principles of physical training; personal grooming; sports skills; aquatics; physical fitness training methodology; techniques of instruction; individual conditioning.

Credit Recommendation: In the vocational certificate category, 8 semester hours in physical education (1/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in physical education (1/74); in the upper-division baccalaureate category, 8 semester hours in physical education (1/74).

MC-1406-0003

INSTRUCTOR ORIENTATION

Course Number: None.

Location: Marine Corps School, Quantico, VA.

Length: 3 weeks (68–105 hours).

Exhibit Dates: 12/56–4/65.

Objectives: To provide enlisted personnel with a knowledge of the principles and techniques of instruction.

Instruction: Lectures and practical experience in teaching methodology, educational psychology, and effective writing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

MC-1406-0004

SERGEANTS MAJOR PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 6 weeks (260 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train sergeants major in basic personnel management procedures.

Instruction: Lectures in personnel administrative procedures, including personnel records and classification systems; separations and pay procedures; office management; English and speech; correspondence and publications; and naval justice.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel records and classification administration (12/68).

MC-1406-0005

FIRST SERGEANTS PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 6 weeks (197–241 hours).

Exhibit Dates: 4/63–1/88.

Objectives: To train first sergeants in the procedures involved in military personnel administration.

Instruction: Lectures and practical exercises in enlisted and officer records, personnel classification and accounting, pay and benefits, naval justice, correspondence, combat and casualty reporting, and personnel actions and related reports.

Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel records and classification administration (12/68).

MC-1406-0006

WARRANT OFFICER PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 5 weeks (143–146 hours).

Exhibit Dates: 4/63–12/72.

Objectives: To train warrant officers in the duties of administrative officers.

Instruction: Lectures and practical exercises in regulatory publications, service records, personnel accounting, classification, naval justice, correspondence, personnel records, personnel management, and custodial duties.

Credit Recommendation: In the vocational certificate category, 2 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel administration (12/68).

MC-1406-0007

BASIC PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 5 weeks (166 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train enlisted personnel in the fundamentals of personnel administration.

Instruction: Lectures and practical exercises in typing, utilization of regulatory publications, maintenance and disposition of files, Marine Corps directives system, correspondence practices, personnel accounting, military justice, maintenance of personnel records, and completion of allotment forms.

Credit Recommendation: In the vocational certificate category, 2 semester hours in office administration (2/74).

MC-1406-0008

ADMINISTRATIVE CHIEF'S PERSONNEL ADMINISTRATION

(Personnel Chief's Personnel Administration)

Course Number: None.

Location: Marine Corps Recruit Depot, Parris Island, SC; Personnel Administration School, Parris Island, SC.

Length: 6–10 weeks (213–440 hours).

Exhibit Dates: 7/58–1/88.

Objectives: To train noncommissioned officers for supervisory duties in military personnel administration.

Instruction: Lectures and practical exercises in manpower management, enlisted records, pay and allowances, correspondence, naval justice, personnel classification and personnel actions, and office management.

Credit Recommendation: In the vocational certificate category, 6 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 3 semester hours in personnel administration (12/68).

MC-1406-0009

1. MARINE CORPS RECRUITER
2. RECRUITER

Course Number: None.

Location: Recruit Depot, Parris Island, SC; Recruit Depot, San Diego, CA.

Length: 6 weeks (227 hours).

Exhibit Dates: *Version 1:* 5/72–7/78. *Version 2:* 3/58–4/72.

Objectives: To train selected noncommissioned officers in personnel recruiting duties and responsibilities.

Instruction: Lectures and practical exercises in recruitment of personnel. Course includes screening and processing procedures, salesmanship and public speaking, operation of recruiting substations, officer selection, advertising and community relations, leadership training, and typing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in typing, 1 in salesmanship (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in salesmanship (7/74). *Version 2:* In the vocational certificate category, 1 semester hour in typing, 1 in salesmanship (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in salesmanship (7/74); in the upper-division baccalaureate category, credit in typing and speech on the basis of institutional evaluation (12/68).

MC-1406-0010

INSTRUCTIONAL MANAGEMENT

(Officer Instructor Orientation)

Course Number: None.

Location: Instructional Management School, Cp. Pendleton, CA; Service Support School, Cp. Lejeune, NC; Instructor Training School, Quantico, VA.

Length: 2 weeks (67–105 hours).

Exhibit Dates: *Version 1:* 9/77–6/82. *Version 2:* 10/69–8/77.

Objectives: To train commissioned officers and instructors to assume the role of instructional managers in foundations, methodologies, academic procedures, and techniques of instruction.

Instruction: *Version 1:* Instruction is accomplished through the following three phases: Phase I, introduction to the course and to systematic instructional designs. The students accomplish learning activities that will teach them to task analyze, select job performance requirements, design learning objectives and criterion referenced items and develop the instructional package up to the point where documentation would begin. Phase II has student performing the role of supervisor by evaluating documentation, monitoring lesson tryouts and applying internal evaluation techniques to evaluate, validate and plan the revision of an instructional package. Phase III has the student applying all previously learned concepts by developing an evaluation plan, responding to recommended course changes and documenting the need for a course of instruction. *Version 2:* Lectures and practical exercises in instructional methods. Course includes scientific fundamentals, methodologies, academic procedures, and techniques of military instruction.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in instructional management(11/80) *Version 2:* In the upper-division baccalaureate category, 1 semester hour in educational technology (7/74).

MC-1406-0011

TECHNICAL INSTRUCTOR BASIC

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 2 weeks (67 hours).

Exhibit Dates: 7/75–11/78.

Objectives: To develop attitudes, knowledge, and skills necessary to instill mastery learning through systematic instruction.

Instruction: Lectures and student presentation to include and incorporate academic guidelines, construction of learning objectives, test item construction, methods of instruction, and communication skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in instructional methods (8/77).

MC-1406-0012

Instructor
(Formal School Instructor)

Course Number: T4B.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC; Landing Force Training Command, Quantico, VA; Development and Education Command, San Diego, CA. *Version 2:* Service Support School, Cp. Lejeune, NC; Landing Force Training Command, Quantico, VA; Development and Education Command, San Diego, CA.

Length: *Version 1:* 3-4 weeks (131-155 hours). *Version 2:* 4 weeks (131-143 hours).

Exhibit Dates: *Version 1:* 1/78-4/85. *Version 2:* 10/75-12/77.

Objectives: To train selected personnel to perform as instructors at formal schools.

Instruction: *Version 1:* Instruction is provided in practical application, analysis design development, and implementation of instructional tasks through the use of multimedia techniques. Students are engaged in microteaching situations in order that they may benefit from self evaluation as well as peer and instructor evaluation. They are evaluated on a behavioral competency basis. For the course after 1985, see MC-1406-0029. *Version 2:* Instruction includes lecture, demonstration, discussion and programmed text in basic communication skills; instructional planning, preparation, strategies, presentation, evaluation, and revision.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in educational communication technology, 3 in instructional media production (11/80). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in instructional methods (10/77).

MC-1406-0013

Principles of Instruction for Marine
Noncommissioned Officers (NCO)
by Correspondence

Course Number: 99.56.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 1/83-12/84.

Objectives: To provide basic educational theory, techniques, and procedures for effective instruction.

Instruction: This correspondence course provides an introduction to general educational methods and instructional techniques including the teaching/learning process, job analysis preparation and evaluation of learning objectives and course outlines, research, and selection of appropriate learning strategies and training resources, lecture and demonstration techniques and lesson/instructor evaluation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1406-0014

Personnel Administration for the
Reporting Unit by
Correspondence

Course Number: 01.36a; 01.36b; 01.36c.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/81-5/87.

Objectives: To train enlisted personnel in identifying the composition and content of personnel records and the procedures for their maintenance.

Instruction: This correspondence course consists of the principles and concepts that underlie the procedures of personnel recordkeeping; emphasizes procedures for preparing, assembling, servicing, and auditing personnel record books in areas such as promotion, performance evaluation, separation, and absenteeism.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to personnel administration when taken in conjunction with Basic Personnel Administration (01.37)(MC-1406-0017) and Personnel Reporting for Marine Manpower Management (MMS) and the Reserve Personnel Management Information System (REPMIS) (01.33e) (MC-1406-0016) (3/83).There is a proctored final examination.

MC-1406-0015

Reserve Personnel Administration by
Correspondence

Course Number: 01.20K.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 5/81-12/82.

Objectives: This course is designed as a review analysis for military personnel experienced in the field of reserve administration. It's primary focus is directed toward the instruction of the newly assigned administrative clerk in the preparation of forms and reports.

Instruction: This correspondence course covers principles, terms, techniques, organization and preparation of forms and reports. Such topics as retirement credit reports, centralized automated reserve pay system,statement of understanding, interclass and interunit transfers and various types of programs existing in the reserve establishment.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1406-0016

Personnel Reporting for Marine
Manpower Management System
(MMS) and the Reserve
Personnel Management
Information System (REPMIS) by
Correspondence

Course Number: 01.33e.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/79-5/84.

Objectives: To train enlisted personnel in standard procedures in the use of basic tools in human resources management systems and personnel management information systems.

Instruction: This correspondence course includes instructionand practical application in the identification, use, and coordination of documents involved in the data entry of personnel changes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration when taken in conjunction with Individual Personnel Records (01.35e, 01.35d) (MC-1406-0019) OR Personnel Administration for the Reporting Unit (01.36)(MC-1406-0014) AND Basic Personnel Administration (01.37) (MC-1406-0017) (3/83).

MC-1406-0017

Basic Personnel Administration by
Correspondence

Course Number: 01.37A, 01.37.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/79-12/86.

Objectives: To provide military personnel with an overview of basic personnel procedures and administration.

Instruction: This correspondence course consists of Naval correspondence with appropriate endorsements, appointments, extensions, entitlements, joint military pay system (JUMPS),deductions, and allotments being covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to personnel administration when taken in conjunction with Individual Personnel Records (01.33e) (MC-1406-0019) OR Personnel Administration for the Reporting Unit (01.36) (MC-1406-0014) AND Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management System (REPMIS) (01.33e) (MC-1406-0016)(3/83).

MC-1406-0018

Manpower Management System for
Supervisors by Correspondence

Course Number: 01.34A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/81-12/86.

Objectives: To provide officers with instruction in administrative procedures and management responsibilities within a manpower management system.

Instruction: This correspondence course uses written and practical exercises and study assignments to train officers in the management of personnel data entry; emphasis is on overseeing the identification, utilization, coordination, and verification of the manpower management system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1406-0019

Individual Personnel Records by
Correspondence

Course Number: 01.35f, 01.35e, 01.35d.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 10/80-10/88.

Objectives: To train enlisted personnel in identifying the composition and content of personnel records, and the procedures for their maintenance.

Instruction: This correspondence course presents the principles and concepts that underlie the procedures of personnel recordkeeping; emphasizes procedures for preparing, assembling, servicing, and auditing personnel records and record books in areas such as separation,promotion, performance evaluation, and absenteeism.

Credit Recommendation: In the lower-division baccalaureate/associate degree cate-

gory, 1 semester hour in introduction to personnel administration when taken in conjunction with Basic Personnel Administration (01.37)(MC-1406-0017) and Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) (01.33e) (MC-1406-0016) (3/83).

MC-1406-0020

The Marine Noncommissioned Officer (NCO) by Correspondence

Course Number: 03.3J.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 10/80-10/84.

Objectives: To provide a course of study dealing with the problems and techniques of leadership with emphasis on personnel relations.

Instruction: This correspondence course offers a series of study units with such topics as measurements and techniques of leadership, motivation, corrective counseling, measuring morale, race relations, equal opportunity and women's issues, drug and alcohol abuse, combat leadership, and senior/subordinate relations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel relations (3/85).

MC-1406-0021

Basic Typing

(Basic Typing and Personnel Adminstration)

Course Number: AAB.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC; Schools Battalion, Cp. Pendleton, CA.

Length: 2 weeks (62-64 hours).

Exhibit Dates: 7/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to type at least 15 words per minute by using the touch method; describe the duties of a personnel clerk, a unit diary cler, an administrative clerk, and a personnel/administration chief; and demonstrate proper office telephone techniques.

Instruction: Basic instruction is from an instructional television system, an automated typewriting systems which enables students to learn touch typing and to develop speed in an individualized atmosphere. In addition, there are lectures, discussions, and a series of slides and tapes that address the responsibilities of the personnel clerk, unit diary clerk, administrative clerk, and the personnel/administrative chief as well as proper office telephone techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic typing or keyboarding (11/87).

MC-1406-0022

Reserve Administration

Course Number: 01J.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 2 weeks (68-69 hours).

Exhibit Dates: 1/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform tasks associated with general administration, preparation of drill accounting reports, prepartion of management pay system and maintaining individual records.

Instruction: The lecture method and practice applications are used in training students to perform tasks of general administration, drill accounting, reserve manpower management pay system and individual records.

Credit Recommendation: In the vocational certificate category, 1 semester hour in clerical procedures (9/87).

MC-1406-0023

Fundamentals of Marine Corps Leadership by Correspondence

The Noncommissioned Officer (NCO) by Correspondence)

Course Number: 03.3M; 03.3K.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 2/90-Present. *Version 2:* 11/84-1/90.

Learning Outcomes: Upon completion of the course, the student will be familiar with various principles and techniques of leadership and their applications to problems in areas such as race relations and substance abuse.

Instruction: This is a self-instruction course covering topics of leadership traits and principles, measurements and techniques of leadership, race relations, women's issues, drug and alcohol abuse and leader/subordinate relations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in employee relations (6/89).

MC-1406-0024

Legal Administration for the Reporting Unit by Correspondence

Course Number: 01.43.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 10/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the context of personnel records, describe procedures for proper entry and maintenance of records; identify documents used in personnel audits and report casualty and emergency data.

Instruction: Maintenance of records performance evaluations, time lost procedures, handling absentees and deserters, auditing requirements, medical and health documentation and identification cards. Methodology includes use of scenarios; test questions relative to how personnel records should be completed based on given scenarios.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personnel record keeping (6/89).

MC-1406-0025

General Personnel Administration for Reserves by Correspondence

Course Number: *Version 1:* 01.28A. *Version 2:* 01.28.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 2/90-Present. *Version 2:* 10/87-1/90.

Learning Outcomes: Upon completion of the course, the student will be able to prepare documents for new personnel entering the unit, continually process and audit such documents as personnel are transferred, promoted, discharged, etc., and maintain a system of reports and files to account for all personnel movements both by individuals and the unit collectively.

Instruction: This is a self-instructed course covering topics of general personnel administration, assignment of personnel, record keeping and auditory, and general office procedures.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (6/89).

MC-1406-0026

Personnel Administration for the Reporting Unit by Correspondence

Course Number: 01.36e; 01.36f.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic personnel administrative functions at the reporting unit level; understand the content and be able to use and complete various forms and book entries related to assignment and transfer, promotion, performance evaluation and dismissal.

Instruction: This is a self-instructed course that includes general personnel record keeping, document processing, and file maintenance and retrieval.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (6/89).

MC-1406-0027

Personnel Reporting for REMMPS by Correspondence

Course Number: 01.39.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be familiar with the military reserve pay system; be able to use a standardized, automated system to collect, sort and classify data, audit entries, correct errors, update and change files, store records on disks or tape, and retrieve data from existing files.

Instruction: This is a self instructed course covering topics of data entry and retrieval, auditing procedures, and record keeping within an automated pay system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in payroll administration (6/89).

MC-1406-0028

Principles of Instruction for the Marine Noncommissioned Officer (NCO) by Correspondence

Course Number: 00.1a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course, the student will understand general concepts relating to teaching and learning procedures designed to solve instructional needs, and apply a systems approach to training covering following phases: analyze, design, develop, implement and evaluate.

Instruction: This correspondence course is designed to provide marine NCOs with necessary background data regarding educational theory, techniques and procedures which will assist in their becoming effective instructors.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methodology (9/89).

MC-1406-0029

FORMAL INSTRUCTOR
(Formal School Instructor)

Course Number: T4B.

Location: Instructional Management School, Quantico, VA.

Length: 3-4 weeks (134-156 hours).

Exhibit Dates: *Version 1:* 6/88-Present. *Version 2:* 12/86-5/88. *Version 3:* 5/85-11/86.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to develop a task list and select tasks for training; write and sequence learning objectives; write objective-referenced test items; select methods and media for lesson design; develop lectures and student handouts; conduct lectures; apply concepts of motivation and mastery learning; and evaluate and recommend revisions to a lesson. Students will be able to conduct learning analysis of a task; develop training aids; and write an instructors guide. *Version 2:* Upon completion of the course, the student will be able to develop a task list and select tasks for training; write and sequence learning objectives; write objective-referenced test items; select methods and media for lesson design; develop lectures and student handouts; conduct lectures; apply concepts of motivation and mastery learning; and evaluate and recommend revisions to a lesson. Students will be able to develop a lesson file; analyze teaching/learning styles using Myer Briggs type indicator; describe principles of communication, listening, questioning, and coaching; and define facilitative teaching behaviors. *Version 3:* Upon completion of the course, the student will be able to develop a task list and select tasks for training; write and sequence learning objectives; write objective-referenced test items; select methods and media for lesson design; develop lectures and student handouts; conduct lectures; apply concepts of motivation and mastery learning; and evaluate and recommend revisions to a lesson.

Instruction: *Version 1:* Students are oriented to the Instructional Systems Development (ISD) approach to training design and delivery. Course concepts and skills are taught within the ISD framework. Methods include lectures, guided discussions, and instructional design project, and both written and performance testing. Topics include the systematic approach to instructional design, target population analysis, performance-based training, and effective verbal and nonverbal behavior for classroom teaching. *Version 2:* Students are oriented to the Instructional Systems Development (ISD) approach to training design and delivery. Course concepts and skills are taught within the ISD framework. Methods include self-paced learning, lectures, interpersonal communication concepts; guided discussions, and instructional design project, and both written and performance testing. Topics include the systematic approach to instructional design, target population analysis, performance-based training, and effective verbal and nonverbal behavior for classroom teaching. *Version 3:* Students are oriented to the Instructional Systems Development (ISD) approach to training design and delivery. Course concepts and skills are taught within the ISD framework. Methods include self-paced learning, lectures, guided discussions, and instructional design project, and both written and performance testing. Topics include the systematic approach to instructional design, target population analysis, performance-based training, and effective verbal and nonverbal behavior for classroom teaching.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in instructional technology or educational technology or instructional design and/or development or training and development (9/89); in the graduate degree category, credit to be granted based in institution's review of student's course project (9/89). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in instructional technology or educational technology or instructional design and/or development or training and development (9/89); in the graduate degree category, credit to be granted based in institution's review of student's course project (9/89). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in instructional technology or educational technology or instructional design and/or development or training and development (9/89); in the graduate degree category, credit to be granted based in institution's review of student's course project (9/89).

MC-1406-0030

INSTRUCTOR ORIENTATION

Course Number: XRG.

Location: Instructional Management School, Quantico, VA; Instructional Management School, Cp. Pendleton, CA; Service Support Schools, Cp. Lejeune, SC.

Length: 2 weeks (66-70 hours).

Exhibit Dates: *Version 1:* 5/88-Present. *Version 2:* 4/84-4/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to outline and deliver a lecture using appropriate visual aids and question/answer techniques. The student will be able to construct test items formatted as multiple choice, short answers, essay, matching, listing, and performance. The student will be able to demonstrate understanding of learning objectives, construction, learning motivation, communication barriers and counseling. The sequencing of instruction is added to content and there is not emphasis on outlining; presentation is emphasized. *Version 2:* Upon completion of the course, the student will be able to outline and deliver a lecture using appropriate visual aids and question/answer techniques. The student will be able to construct test items formatted as multiple choice, short answers, essay, matching, listing, and performance. The student will be able to demonstrate understanding of learning objectives, construction, learning motivation, communication barriers and counseling. There is a heavy emphasis on the format and process of outlining a lecture.

Instruction: *Version 1:* Lecture is used to overview the topics of learning objectives, learning motivation, instructional system development, evaluation, communication, and counseling students. A major portion of the course is devoted to students making and critiquing presentations, employing detailed checklists. The checklists reference voice, gestures, facial expression and eye contact, listening skills, questioning techniques, motivational stratgies, and transitions. Students formulate written plans for improvement based on the feedback from instructors and peer critique. *Version 1:* Lecture is used to overview the topics of learning objectives, learning motivation, instructional system development, evaluation, communication, and counseling students. A major portion of the course is devoted to students making and critiquing presentations, employing detailed checklists. The checklists reference voice, gestures, facial expression and eye contact, listening skills, questioning techniques, motivational stratgies, and transitions. Students formulate written plans for improvement based on the feedback from instructors and peer critique.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in training and development (instructional methods) (9/89). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in training and development (instructional methods) (9/89).

MC-1406-0031

INSTRUCTIONAL MANAGEMENT

Course Number: RF9.

Location: Instructional Management School, Quantico, VA.

Length: 2-3 weeks (69-77 hours).

Exhibit Dates: *Version 1:* 7/87-Present. *Version 2:* 4/84-6/87. *Version 3:* 7/82-3/84.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to train personnel in the appropriate skills required to supervise instruction and contribute to the planning and decision making process. The student will understand and be able to apply the five phases of instructional systems development; mastery learning, criterion referenced learning objectives; and selection of instructional methods as well as enhancement of their verbal communication skills and management abilities. *Version 2:* Upon completion of the course, the student will be able to train personnel in the appropriate skills required to supervise instruction and contribute to the planning and decision making process. The student will understand and be able to apply the five phases of instructional systems development; mastery learning, criterion referenced learning objectives; and selection of instructional methods as well as enhancement of their verbal communication skills and management abilities. *Version 3:* Upon completion of the course, the student will be able to train personnel in the appropriate skills required to supervise instruction and contribute to the planning and decision making process. The student will understand and be able to apply the five phases of instructional systems development; mastery learning, criterion referenced learning objectives; and selection of instructional methods as well as enhancement of their verbal communication skills and management abilities.

Instruction: *Version 1:* The instruction covers course requirements analysis: develop objectives and tests; supervise preparation of instruction; evaluation of the instructional process; develop budget proposals; supervise academic functions and counsel students and staff. The methods used are lecture, self-paced learning, and performance, groups techniques, and role playing. Course was well organized; phase I was self-paced individualized, and phase II was groups paced instruction. Training equipment includes multi-media approach including films, slides, tapes as well as television shows, manuals and several texts. The methods used are comprehensve and give each student hands-on approach to the teaching/learning process. Topics covered are the systematic approach to training; instructional development; communications skills; and management skills. *Version 2:* The instruction covers course requirements analysis: develop objectives and tests; supervise preparation of instruction; evaluation of the instructional process; develop budget proposals; supervise academic functions and counsel students and staff. The methods used are lecture, self-paced learning, and performance. Equipment includes film, instructional television, tape, text and transparancies. Students develop manager traits; manage the analysis effort, coordinate the revision process; coordinate program of instruction development; manage staff; student performance evaluations. The methods utilized are limited to self-paced learning, lectures, guided discussions and homework. *Version 3:* The instruction covers course requirements analysis: develop objectives and tests; supervise preparation of instruction; evaluation of the instructional process; develop budget proposals; supervise academic functions and counsel students and staff. The methods used are lecture, self-paced learning, and performance. Equipment includes film, instructional television, tape, text and transparancies.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in educational administration to include instructional stragegies, educational supervision training and development (9/89); in the graduate degree category, credit to be granted based on institution's review of student's course project (9/89). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in educational administration to include instructional stragegies, educational supervision training and development (9/89); in the graduate degree category, credit to be granted based on institution's review of student's course project (9/89). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in educational administration to include instructional stragegies, educational supervision training and development (9/89); in the graduate degree category, credit to be granted based on institution's review of student's course project (9/89).

MC-1407-0001

Legal Clerk/Court Reporter
(Basic Legal Clerk and Reporter)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (126 hours).

Exhibit Dates: 8/72-5/74.

Objectives: To train enlisted personnel to perform as legal clerks or court reporters.

Instruction: Lectures and practical exercises in the duties of a legal clerk or court reporter. Course includes use of recording equipment, dictation and transcription, and court reporting techniques and procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in dictation and legal printing (7/74).

MC-1408-0001

Disbursing Clerk Course

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 6 weeks (210 hours).

Exhibit Dates: 12/59-12/68.

Objectives: To provide disbursing clerks with advanced training in the administration of pay records and travel expenses.

Instruction: Lectures and practical exercises in disbursement management, including administration of pay records, allowances, personnel travel expenses, and personnel separations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

MC-1408-0002

Advanced Disbursing Clerk

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply Schools, Cp. Lejeune, NC.

Length: *Version 1:* 12 weeks (351 hours). *Version 2:* 5 weeks (179 hours). *Version 3:* 8-9 weeks (265 hours).

Exhibit Dates: *Version 1:* 10/83-Present. *Version 2:* 4/69-9/83. *Version 3:* 2/64-3/69.

Objectives: To train enlisted personnel in the advanced techniques and procedures of disbursing office organization and management.

Instruction: *All Versions:* Lectures and practical experience in correspondence procedures, military pay and allowances, appropriation accounting, public funds, financial returns, and personnel supervision. *Version 3:* Includes a nine-day practicum.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (2/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in office administration (2/74); in the upper-division baccalaureate category, 2 semester hours in disbursing procedures (12/68).

MC-1408-0003

Ordnance Officer/Chiefs
(Ordnance Officer)

Course Number: None.

Location: Ordnance School, Aberdeen Proving Ground, MD; Ordnance School, Quantico, VA.

Length: 10-26 weeks (302-720 hours).

Exhibit Dates: *Version 1:* 4/68-12/72. *Version 2:* 1/58-3/68.

Objectives: To train enlisted personnel in the procedures of ordnance maintenance management.

Instruction: Lectures in the principles, concepts, and techniques of management; integrated resource control and allocation; and technical aspects of maintenance equipment and facilities.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (2/74); in the upper-division baccalaureate category, 3 semester hours in maintenance management (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (2/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management for the 10- to 16-week course, 3 for the 22- to 26-week course (12/68).

MC-1408-0004

Communication Center Chief

Course Number: *Version 1:* 253. *Version 2:* None. *Version 3:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* self-paced maximum 11 weeks (345 hours). *Version 2:* 9-10 weeks (344-365 hours). *Version 3:* 10-15 weeks (336-506 hours).

Exhibit Dates: *Version 1:* 5/84-Present. *Version 2:* 5/76-4/84. *Version 3:* 1/68-4/76.

Objectives: To train senior noncommissioned officers to supervise military communication centers.

Instruction: *Version 1:* Self-paced instruction in the operation, supervision, and employment of communications facilities and agencies. Includes crypto, field teletype, and AUTODIN equipment deployment, fundamentals of organization, management, planning and control. *Version 2:* Lectures in effective reading, management principles and procedures, fundamentals of communications, and security, equipment, supply and maintenance procedures. *Version 3:* Lectures in effective reading, management principles and procedures, fundamentals of communications, and security, equipment, supply and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in communications administration (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in basic communication skills, 3 in office administration (3/79). *Version 3:* In the vocational certificate category, 6 semester hours in office administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (2/74).

MC-1408-0005

Woman Marine Officer's Personnel Administration

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: *Version 1:* 5 weeks (162 hours). *Version 2:* 6 weeks (201 hours).

Exhibit Dates: *Version 1:* 8/68-1/90. *Version 2:* 10/65-7/68.

Objectives: To provide enlisted women with the knowledge and skill required to perform in and supervise personnel administration.

Instruction: Lectures and practical exercises in correspondence, personnel accounting, naval justice, pay and allowances, classification testing and interviews, casualty reporting, and personal affairs.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74).

MC-1408-0006

Administrative Officers Personnel Administration

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 4 weeks (173 hours).

Exhibit Dates: 10/72-1/88.

Objectives: To train commissioned and warrant officers in personnel administration.

Instruction: Lectures on personnel records, correspondence, manpower management systems, pay and allowances, and the uniform code of military justice.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in office management (2/74).

MC-1408-0007

Advanced Disbursing Man
(Advanced Disbursing Man Leadership)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 11 weeks (346 hours).

Exhibit Dates: 7/75–9/83.

Objectives: To train corporals and staff sergeants as disbursing office workers and supervisors.

Instruction: Lectures and practical exercises in the duties of a disbursing office worker and supervisor, including adding machine operation, military pay and accounts, military travel, accounting for public funds, office management, and general disbursement procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/77).

MC-1408-0008

1. Marine Corps Command and Staff College
2. Marine Corps Command and Staff College
3. Marine Corps Command and Staff College
4. Marine Corps Command Staff College
5. Senior Course
6. Senior Course
7. Senior Course
(Senior School)

Course Number: None

Location: Educational Center, Quantico, VA.

Length: *Version 1:* 43 weeks (1083-1400 hours). *Version 2:* 42-43 weeks (1044-1197 hours). *Version 3:* 40 weeks (1288 hours). *Version 4:* 40 weeks (1358 hours). *Version 5:* 40 weeks (1301-1379 hours). *Version 6:* 40 weeks (1239 hours). *Version 7:* 40 weeks (1146–1155 hours).

Exhibit Dates: *Version 1:* 8/80–9/86. *Version 2:* 8/71-7/80. *Version 3:* 8/66-7/71. *Version 4:* 8/65-7/66. *Version 5:* 8/62-7/65. *Version 6:* 8/61-7/62. *Version 7:* 9/58-7/61.

Objectives: To prepare Marine Corps officers and officers from other services and foreign countries for command and staff duty at high levels.

Instruction: *All Versions:* Lectures and practical exercises on command and staff duty at high levels. *Version 1:* Program is presented through a variety of instructional techniques including: seminars, senior level government and civilian guest lectures, multimedia presentations, problem solving, role playing, computer simulation and case study development, presentation, and discussion. Topics include philosophy and ethics, business management and administration, geopolitics and international relations. Military subjects include leadership, logistics, budgeting, management, computer utilization, amphibious operations, comprehensive world survey of international relations and management systems. *Version 2:* Topics include leadership; professional skills and fundamentals; staff functioning; management; adjunct faculty seminars; amphibious operations; operations ashore; counterinsurgency; national policy; organization, functioning, and decision making within the Dod; Army, Navy Air Force concepts; strategic surveys; military strategy; domestic forces and factors affecting the military; and American military policy. *Version 3:* Topics include air-ground task force operations; amphibious operations, management techniques and procedures, organization and functioning for national security; foreign language instrument; geopolitics and current world situations; and executive leadership. *Version 4:* Topics include geopolitical and current world situation; air-ground task force operations; executive leadership; language qualification; organization and functioning for national security, amphibious operations; and management techniques and procedures. *Version 5:* Topics include organization and concepts of employment; command and staff principles and procedures; air/ground warfare tactics; amphibious operations; current world situation; counterinsurgency and operations against guerilla forces; political-military relationships and the military services; and research and development. *Version 6:* Topics include amphibious operations; offensive operations ashore; aviation, communication-electronics; administration and logistics; defensive operations and defense of advanced naval bases; intelligence; and political-military theory and organization for national security. *Version 7:* Topics include amphibious operations; offensive operations ashore; supporting arms; aviation; defensive operations and defense of advanced naval bases; command and staff principles and procedures; administration and logistics; intelligence; communication-electronics; and political-military theory and organization for national security.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in philosophy and ethics, 3 in basic introduction to management and business administration, 3 in geopolitics 3 in international relations (11/80); in the graduate degree category, 3 semester hours in research problem in geopolitics (11/80). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management, 3 as an elective in foreign language, 3 in independent research project as an elective (7/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management administration, 3 in independent research thesis, 3 in French, Spanish, or Vietnamese, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management administration 3 in independent research thesis, 3 in French or Spanish, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 5:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in political science, 3 in French or Spanish, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 6:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68). *Version 7:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

MC-1408-0009

Basic Course, Postgraduate

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 3 weeks (136 hours).

Exhibit Dates: 7/54–12/68.

Objectives: To train commissioned officers in Marine Corps administrative policies and procedures.

Instruction: Lectures and practical exercises in Marine Corps administrative policies and procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

MC-1408-0010

Junior Course

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 38–39 weeks (1130–1151 hours).

Exhibit Dates: 9/54–6/56.

Objectives: To train junior officers to solve tactical and administrative problems.

Instruction: Lectures and practical exercises in tactics and administration, including atomic, biological, and chemical warfare; amphibious operations; artillery; aviation; communications; engineering; intelligence operations; instructor training; logistics; medical services; gunfire; personnel and administration; and tactics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (7/74). organization and management (7/74);

MC-1408-0011

Senior Course

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 39–42 weeks (1130–1253 hours).

Exhibit Dates: 1/55–6/56.

Objectives: To provide advanced professional education to senior commissioned officers.

Instruction: Lectures and practical exercises in command and staff duties, including fundamentals of combat and basic tactical doctrine; weapons; staff functioning, procedures, and techniques; employment of Marine forces, concepts for future operations; Marine Corps policies; and amphibious command post exercise.

Credit Recommendation: In the vocational certificate category, 4 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

MC-1408-0012

Women Officers Indoctrination

Course Number: None.

Location: Women Marines Training Detachment, Quantico, VA.

Length: 5 weeks (213–229 hours).

Exhibit Dates: 10/55–6/60.

Objectives: To train female officers as company and staff officers.

Instruction: Lectures and practical exercises in the duties of company and staff officers, including leadership problems and counseling, principles of instruction, personnel administration, and general military subjects, such as food services, disbursing, administration, and map reading.

Credit Recommendation: In the upper-division baccaiaureate category, 2 semester hours in business organization and management, and credit in instructional methods on the basis of institutional evaluation (12/68).

MC-1408-0013

Disbursing Officer Leadership
(Disbursing Officer)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 8-12 weeks (280-385 hours).

Exhibit Dates: *Version 1:* 8/75-10/83. *Version 2:* 7/58-7/75.

Objectives: To train commissioned officers as disbursement officers through emphasis on supervisory principles and clerical procedures in the disbursing process.

Instruction: Lectures and practical exercises in the duties of a disbursement officer. Course includes adding-machine operation, military pay and accounts, military travel, accounting for public funds, office management, and general disbursement procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in clerical procedures (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/77). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in finance and disbursement (12/68).

MC-1408-0014

Resident Staff Noncommissioned Officer (NCO) Career
(Staff Noncommissioned Officers (NCO) Resident Course)

Course Number: None.

Location: *Version 1:* Officer Candidate School, Quantico, VA; Staff Noncommissioned Officer Academy, Cp. Lejeune, NC; Staff Noncommissioned Officer Academy, El Toro, CA. *Version 2:* Officer Candidate School, Quantico, VA.

Length: 6 weeks (158-228 hours).

Exhibit Dates: *Version 1:* 9/80-12/84. *Version 2:* 6/73-8/80.

Objectives: To educate staff sergeants and selected personnel in professional knowledge and standards, leadership, and esprit-de-corps.

Instruction: *Version 1:* Multimedia instruction in general military administration, physical training, leadership, Marine Corps organization, and training management. *Version 2:* Lectures and practical exercises in effective communication, leadership, customs, courtesies, drill and inspections, and physical training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in military science (11/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in interpersonal relations and 3 in written and oral communications (6/75).

MC-1408-0015

Command and Staff College Reserve Phase I, Phase II

Course Number: None.

Location: Command and Staff College, Quantico, VA.

Length: Phase I, 2 weeks; Phase II, 2 weeks (Phase I, 65 hours; Phase II, 62 hours).

Exhibit Dates: 6/76-Present.

Objectives: To train selected reserve officers of the U.S. Marine Corps and officers from foreign countries for higher reserve and mobilization activities.

Instruction: Workshops and lectures with emphasis on problem solving and planning and conduction emphibious warfare rounded out by briefings and seminars relative to current policies, plans and procedures.

Credit Recommendation: In the upper-division baccalaureate category, Phase I; 1 semester hour in geopolitics; Phase II 1 additional hour in geopolitics (7/82).

MC-1408-0016

Disbursing Officer

Course Number: CDA.

Location: Financial Management and Personnel Administration School, Cp. Lejeune, NC.

Length: 11-12 weeks (412-422 hours).

Exhibit Dates: 11/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the functions of a disbursing officer which include identifying directives, interpreting publications related to disbursement functions, verifying travel status, certifying balance sheets, reports, distance computations, allotments, housing allowances and related military expenditures for personnel, supervising fiscal internal control records, auditing cash funds, bank deposits, subsistence, clothing, and other allowances and managing a video inquiry system and operating a calculator.

Instruction: Lectures and practical exercises in the duties of a disbursing officer covering military pay and accounts, military travel accounting for funds and general disbursement procedures. A simulated field disbursing workshop related to functional aspects of Marine Corps disbursing includes problem solving and customer service aspects of disbursing. After April 1987 the course adds a deployed field exercise simulation problem which evaluates the student's ability to function under field conditions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures (9/87); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of financial statement analysis (9/87).

MC-1408-0017

Marine Corps Command and Staff College

Course Number: RHA.

Location: Education Center, Quantico, VA.

Length: 43 weeks (1234-1306 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare and communicate ideas in writing on a variety of complex military subjects using expository, research, and persuasive formate. The student will be able to prepare clear, specific, and unambigious plans, directives, and orders for project and program management. The student will be able to deliver persuasive speeches, to organize and conduct briefings, and to communicate clearly with superior officers, subordinates and peers. The student will be able to analyze situations in program and project management and will be able to prepare logistics and operational plans to achieve the objectives and goals of a major organization. Those students electing to take the research seminar will achieve the development of historical and social science research and writing skills at a level acceptable to the professional military history and military policy studies fields.

Instruction: The specific communications skills are taught through writing exercises and critiques aimed at improving grammar, syntax, and general writing styles; specific task assignments that include written presentations; oral presentations and critiques; and simulated briefing sessions, and conference leadership situations. Instruction in other subjects is provided by means of lectures, multimedia presentations, managerial problem-solving, role playing, and the study and presentation of case studies. Topics include logistics, planning, managerial analysis and decision-making, and the development of plans to achieve objectives for a major organization. The research seminar covers the following: 1) the primary technique of instruction in research-mentoring or tutorial provided by a professional military historian; 2) students are encouraged to undertake research utilizing original document sources and interview techniques; 3) scheduled seminar sessions are provided to encourage exchange of ideas and to increase student awareness of the variety of research techniques and their uses; 4) research hypotheses and research designs are produced prior to the acquisition of the necessary data; 5) the research papers produced vary from 75 to over 100 pages of text, excluding tables of contents, annotated bibliographies, and other additional supplemental materials; 6) the student paper is reproduced and presented to all students and staff of the school; 7) each student is responsible for an oral briefing and question and answer session on the paper, of 60 minutes duration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in written and oral communication (3/88); in the upper-division baccalaureate category, 3 semester hours in management problems, 3 in logistics management, 2 in military history, 3 in business organization and management (3/88); in the graduate degree category, 3-6 in military policy or military history for those completing the research seminar (3/88).

MC-1408-0018

Motor Transport Operations Noncommissioned Officer (NCO)

Course Number: CDG.

Location: Service Support School, Cp. Lejeune, NC.

Length: 4-5 weeks (146-157 hours).

Exhibit Dates: 5/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the Marine Corps Integrated Maintenance Management System; initiate procedures for smooth daily operation of a motor pool, load and unload vehicles, perform vehicle inspections; prepare vehicles for tactical convoys; and perform field expedient repairs.

Instruction: Covers maintenance administration and management, transportation procedures, loading cargoes, first echelon maintenance, and tactical operations. Methodology includes lecture, practical applications, performance and written examinations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in vehicle maintenance administration and management (4/89).

MC-1408-0019

Logistics Vehicle System Maintenance

Course Number: MBC.

Location: Service Support School, Cp. Lejeune, NC.

Length: 3-4 weeks (117-118 hours).

Exhibit Dates: 6/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to maintain logistics vehicles used in emergency recovery.

Instruction: Covers the repair and maintenance of automotive vehicles including the techniques of recovering disabled vehicles. Methodology includes lectures, laboratory exercises and demonstrations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in advanced maintenance practices and 3 in hydraulic troubleshooting and maintenance (4/89).

MC-1408-0020

Reserve Automotive Mechanic

Course Number: CEU.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (68-74 hours).

Exhibit Dates: 12/83-Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect, diagnose, service, and repair the M998 and LVS automotive vehicles.

Instruction: Lectures and practical exercises in the inspection, service and repair of specified tactical automotive vehicles including shop procedures, power plants, and fuel and electrical systems; fuel and electrical systems trouble diagnosis and tune-up; power trains; chassis, brakes, and suspension systems; diesel and multi-fuel engines; motor vehicle operation; and preventative maintenance techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive maintenance and repair (11/89).

MC-1408-0021

Marine Corps Technical Publications System by Correspondence

Course Number: 30.23a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 12/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to establish a technical publications library, and be familiar with procedures for identifying and retrieving stored information.

Instruction: This is a self instructed course which includes topics on the establishment and maintenance of a technical publications library, indexing and cross-referencing entries, locating stock numbers and sources of supply, and the identification of component and repair parts information.

Credit Recommendation: In the vocational certificate category, 2 semester hours in material management (6/89).

MC-1409-0001

Typing and General Office Procedures (Women)

Course Number: None.

Location: Training Center, Parris Island, SC.

Length: 4 weeks (155 hours).

Exhibit Dates: 7/59-12/68.

Objectives: To instruct enlisted personnel in typewriting and office procedures.

Instruction: Practical exercises in business English, spelling, correspondence, typing, filing, and office procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in office practices (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices (3/74).

MC-1409-0002

Field Radio Operator

Course Number: 25V.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 7 weeks (279 hours). *Version 2:* 8 weeks (278-280 hours).

Exhibit Dates: *Version 1:* 3/76-1/90. *Version 2:* 8/69-2/76.

Objectives: To train inexperienced enlisted personnel to operate a variety of radio communications sets.

Instruction: Lectures and practical exercises in radio procedures and equipment operation, including a brief introduction to electrical fundamentals. After 4/84 the brief introduction to electronics was deleted.

Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (3/79). *Version 2:* In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1409-0003

Cryptographer

Course Number: None.

Location: Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: 10 weeks (350 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate communications systems and cryptographic aids, and to typewrite.

Instruction: Lectures and practical exercises in the operation of communications systems and cryptographic aids, and in typewriting, including communications system organization, message preparation, operation and installation of teletypewriter equipment, radio telegraph procedures, cryptographic techniques, classified messages handling, administrative procedures, code systems, security communications, and typing applications.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74).

MC-1409-0004

1. Communication Center Operator
2. Communication Center Man
3. Communication Center Man

Course Number: *Version 1:* 254. *Version 2:* None. *Version 3:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communications-Electronics School, Sub Unit 2, San Diego, CA.

Length: *Version 1:* 7-11 weeks (295 hours). *Version 2:* 9 weeks (333 hours). *Version 3:* 8-9 weeks (309-333 hours).

Exhibit Dates: *Version 1:* 10/84-9/86. *Version 2:* 9/76-9/84. *Version 3:* 12/71-8/76.

Objectives: To qualify personnel in the operation of teletype equipment in a tactical or fixed plant environment.

Instruction: For this course after 9/86 see MC-1409-0005. *Version 1:* Lectures and practical exercises in typing (to 35 words per minute); installation and operating adjustment of teletype equipment; procedures and message format. *Version 2:* Lectures and practical exercises in the operation of field communications equipment. Course includes training in typing, preventive maintenance, publications, and general operations of field communication equipment. *Version 3:* Lectures and practical exercises in the operation of field communications equipment. Course includes training in typing, preventive maintenance, publications, and general operations of field communication equipment.

Credit Recommendation: *Version 3:* In the vocational certificate category, 2 semester hours in teletype operator; in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (2/86). *Version 4:* In the vocational certificate category, 2 semester hours in typing on the basis of demonstrated skills (3/79). *Version 5:* Credit in typing on the basis of institutional evaluation (2/76).

MC-1409-0005

Communication Center Operator

Course Number: 254.

Location: Communications Electronics School, Twentynine Palms, CA.

Length: 11 weeks (396-425 hours).

Exhibit Dates: 10/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to operate a communications center involving AUTODIN message preparation and teletype equipment; and be able to type thirty-five words per minute.

Instruction: Lectures and equipment operation training to operate the communications center. For this course before 10/86 see MC-1409-0004.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in typing (2/89).

MC-1601-0001

Engineer Equipment Officers

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 7-8 weeks (272-280 hours).

Exhibit Dates: 6/62-12/68.

Objectives: To train officers in engineer equipment operations and maintenance.

Instruction: Lectures and practical exercises in basic civil technology, earth moving estimating, construction equipment maintenance shops management, construction equipment limitations and capabilities, road design, and operator training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in maintenance management, 5 in civil technology (4/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

MC-1601-0002

Engineer Officer's Orientation

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train officers in basic engineering.

Instruction: Lectures and practical exercises in basic engineering, including organization of engineer units, military construction, engineer equipment, routes of communication, utilities, field electricity and plumbing, FMF refrigeration, maintenance, motor transport, embarkation of engineer equipment, and demolition and mine warfare.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in civil engineering (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68).

MC-1601-0003

Basic Combat Engineer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 7-8 weeks (230-245 hours).

Exhibit Dates: 10/82-9/84.

Objectives: To train personnel in basic combat engineer tasks.

Instruction: Lectures, demonstrations, and practical exercises in the performance of basic combat engineering tasks in the areas of camouflage, demolitions, landmines, maps, construction, rigging, and bridging.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/86).

MC-1601-0004

Combat Engineer Officer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 10 weeks. *Version 2:* 7 weeks (235 hours). *Version 3:* 6 weeks (242 hours). *Version 4:* 4 weeks (132 hours).

Exhibit Dates: *Version 1:* 10/83-9/85. *Version 2:* 7/71-9/83. *Version 3:* 6/67-6/71. *Version 4:* 6/62-5/67.

Objectives: To train warrant and company grade officers in the field engineering responsibilities of combat engineer officers.

Instruction: *All Versions:* Lectures and practical exercises in engineering subjects, including engineering job management, construction, bridges, roads, and demolition. *Version 1:* Covers performance and demonstration of the engineering tasks and requirements of a combat engineering officer to include engineering planning ground mobility and a survey of several general engineering subjects. *Version 2:* Topics include routes of communication, engineer equipment, landmine warfare, and field fortification and camouflage. *Version 3:* Topics include engineer equipment, field construction, routes of communication, landmine warfare, and job planning. *Version 4:* Topics include organization of Fleet Marine Force, engineer equipment, mine warfare, camouflage, field fortification, building construction, rigging, soils, engineer reconnaissance, and planning projects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to civil engineering (3/83). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in civil engineering technology (7/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in civil engineering technology (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68). *Version 4:* In the lower-division baccalaureate/associate degree category, 2 semester hours in civil engineering technology (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68).

MC-1601-0005

Artillery Weapons Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 14 weeks (420 hours).

Exhibit Dates: 7/54-6/72.

Objectives: To train artillery weapons repairmen to maintain and repair field and antiaircraft artillery.

Instruction: Lectures and practical exercises in artillery fundamentals; rigging; major components operation, characteristics, disassembly, and assembly; and inspection and maintenance of various artillery weapons.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical or industrial technology (8/74).

MC-1601-0006

Infantry Weapons Armorer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 10 weeks (420 hours).

Exhibit Dates: 7/54-6/72.

Objectives: To train infantry weapons armorers to maintain and repair infantry weapons at the advanced level.

Instruction: Lectures and practical exercises in small arms fundamentals; operation and characteristics of infantry weapons; and disassembly, assembly, inspection, maintenance, and repair of weapons, including rifles, machine guns, pistols, and mortars.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in industrial or mechanical technology (8/74).

MC-1601-0007

Engineer Operations Chief
(Combat Engineer Advanced)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 10-14 weeks (315-400 hours).

Exhibit Dates: 11/74-12/86.

Objectives: To teach methods of engineering supervision.

Instruction: Lectures, demonstration, and practical exercises on the planning and management of engineering construction. The course includes some elementary design, estimating of materials, layout, construction management, and maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management, 6 in engineering construction management and supervision (1/86).

MC-1601-0008

Engineer Equipment Officer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 10 weeks (331 hours). *Version 2:* 8-9 weeks (262-270 hours).

Exhibit Dates: *Version 1:* 7/89-Present. *Version 2:* 5/82-6/89.

Objectives: To train personnel in the operation characteristics and capabilities of engineering construction equipment. Course also includes supply and repair support of engineering equipment (maintenance management), training in the use of mobile utilities and planning and design of roads and air fields.

Instruction: Lectures, demonstrations and actual performance of the various tasks required of an equipment officer.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in operational characteristics and maintenance of engineering construction equipment (1/86).

MC-1601-0009

Journeyman Combat Engineer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 11-12 weeks (383-397 hours). *Version 2:* 12 weeks.

Exhibit Dates: *Version 1:* 2/82-12/86. *Version 2:* 8/76-1/82.

Objectives: To develop the necessary skills and knowledge to construct, alter, repair, and maintain buildings and structures.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises in engineering construction to include estimating materials, layout, and actual construction as a member of a construction crew. Students are exposed to detailed application of the above areas. *Version 2:* Lectures, demonstrations, and practical exercises in engineering construction to include estimating of materials, layout, and actual construction as a member of a construction crew.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in engineering construction (1/86). *Version 2:* In the vocational certificate category, 4 semester hours in engineering construction (3/83).

MC-1601-0010

Basic Hygiene Equipment Operator

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12-13 weeks (476 hours).

Exhibit Dates: 10/82-2/87.

Objectives: To teach basic plumbing, water supply, and hygiene skills with an emphasis on field applications.

Instruction: Lectures and practical exercises in basic plumbing procedures, reconnaissance and development of water supplies, installation, and operation of water purification equipment, and installation and operation of equipment and facilities related to personal hygiene including field laundry, bath, and decontamination units. Ths course concludes with field exercises designed to reinforce the student's learning..

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic plumbing and water supply studies

(3/83); In the lower-division baccalaureate/associate degree category, 4 semester hours in water purification, 2 in hygiene equipment operation (3/83).

MC-1601-0011

Construction Print Reading by Correspondence

Course Number: *Version 1:* 13.44B. *Version 2:* 13.44A.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: *Version 1:* 5/89–Present. *Version 2:* 12/81–4/89.
Objectives: To provide a source of study material designed to help the individual acquire a basic knowledge of blue print reading.
Instruction: This is an individualized, self-paced, self-study course on construction print reading. Study units in the course cover the following subjects: line construction, projections, plot plan, floor plan, elevation symbols, scales and dimensions, framing, plumbing and electrical plans.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading (8/83).

MC-1601-0012

Combat Engineer Chief, Construction Support by Correspondence

Course Number: 13.38C.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 4/80–Present.
Objectives: To provide the skills necessary to perform as platoon sergeant, construction foreman, or engineer operations chief and as supervisor on construction of buildings, roads, and airfields.
Instruction: This is a self-study course with emphasis placed on job planning and management, and estimation of equipment, materials, personnel, and time required for the various engineering projects that are accomplished in general support of the tactical situation. Emphasis is placed on supply, engineering equipment, and soil engineering and their relationship to construction projects.The course concludes with a proctored examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction management (8/83).

MC-1601-0013

Combat Engineer Noncommissioned Officer (NCO) by Correspondence

Course Number: 13.19H.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 7/78–11/86.
Objectives: To advance the professional competence of noncommissioned officers as combat engineers.
Instruction: This correspondence course offers self-study to include a review of basic combat engineer skills and the various levels of responsibility and supervision involved. Emphasis is placed on the role of the noncommissioned officer as a small unit leader and his job as a supervisor for the various combat engineer functions. Course also stresses planning for equipment, materials, and personnel required for the various engineer projects.Thecourse concludes with a proctored examination.
Credit Recommendation: In the vocational certificate category, 3 semester hours in engineering construction (8/83).

MC-1601-0014

Engineer Equipment Operator by Correspondence

Course Number: 13.31H.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 7/78–7/85.
Objectives: To provide basic training in the theory of engineer equipment operations, equipment uses, and maintenance.
Instruction: This is an individual, self-paced, self-study course containing reading assignments and written lessons with objective type questions. Materials include the identification of and proper recommended task uses of various types of engineering equipment and the types of preventive maintenance required. The student will demonstrate achievement of objectives by answering correctly 65% of the questions on the final examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in construction planning (construction management or civil technology), 1 in equipment maintenance (8/83).

MC-1601-0015

Engineer Forms and Records by Correspondence

Course Number: 14.42B.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 11/80–6/90.
Objectives: To provide basic training in the theory of various equipment maintenance, and in the use of forms and records.
Instruction: This is an individual , self-paced, self-study course consisting of reading assignments and written lessons with objective type questions. Materials include the identification of various service forsm for scheduling and recording equipment use and maintenance. The student will demonstrate achievement of objectives by answering correctly 65% of the questions in the final examination.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1601-0016

Engineer Equipment Chief by Correspondence

Course Number: 13.28D.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 8/81–Present.
Objectives: To provide advanced training in the theory of engineer equipment operation, maintenance, and scheduling.
Instruction: This is an individual, self-paced, self-study course containing reading assignments and written lessonswith objective type questions. materials include the identification of types of work projects and proper equipment selection for the task. Students will demonstrate achievement of objectives by answering correctly 65% of the questions on the final examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in construction planning (construction management or civil technologies) (8/83).

MC-1601-0017

Basic Combat Engineer by Correspondence

Course Number: 13.71K.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 3/79–12/85.
Objectives: To provide the knowledge to perform as basic combat engineers.
Instruction: This correspondence course offers individual, self-paced, self-study to include coverage of the use of hand tools and power tools, construction methods, rigging, military bridging, camouflage, field fortifications, mine warfare, and demolitions.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1601-0018

Basic Engineer Equipment Mechanic by Correspondence

Course Number: 13.29E.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 4/81–12/85.
Objectives: To provide the principles of operation of internal-combustion engines, both gasoline and diesel; power trains; auxilliary equipment; components of chassis, and frames.
Instruction: This correspondence course offers self-paced, self-study to include the care and use of tools, procedures necessary to diagnose and correct engine and power train malfunction, principles of gasoline and diesel engines, principles of operation to include power train of wheeled and tracked vehicles, and qualities of fuels and lubricants.
Credit Recommendation: In the vocational certificate category, 3 semester hours in basic engineering equipment mechanics (8/83). Proctored final examination is required.

MC-1601-0019

Engineer Equipment Mechanic by Correspondence

Course Number: 13.41C.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 11/80–12/85.
Objectives: To advance the professional competence of those serving as engineer equipment mechanics in the use of diagnostic equipment and in the methods of conducting tests.
Instruction: This correspondence course presents a self-study, self-paced course to include procedures for using diagnostic equipment, and troubleshooting and correcting malfunctions of engines,power trains, and auxilliary equipment. Also, the course includes theory in use of tachometer compression gauge, pressure gauge, vacuum gauge, fuel pump pressure tester, diesel fuel system test equipment and electrical test sets.
Credit Recommendation: In the vocational certificate category, 3 semester hours in en-

gineering equipment mechanics (8/83). Final proctored examination is required.

MC-1601-0020

Journeyman Hygiene Equipment Operator

Course Number: None.

Location: Engineer School Cp. Lejeune, NC.

Length: 13-14 weeks (452-453 hours).

Exhibit Dates: 10/82-Present.

Objectives: To train noncommissioned officers as journeymen hygiene equipment operators.

Instruction: Lectures and practical exercises in the skills of a journeyman hygiene eqipment operator including records management, plumbing, water treatment, basic electrical principles, equipment operation and maintenance (hygiene, water purification, well drilling) and the development of water sources and field sanitation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in plumbing and water supply, 4 in water treatment operation, 3 in principles of electricity and 3 in well drilling (9/88); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction blueprint reading and 2 in business records management (9/88).

MC-1601-0021

Artillery Survey for the Fire Control Man by Correspondence

Course Number: 08.8F.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks.

Exhibit Dates: 7/78-12/87.

Objectives: To provide the artillery fire controlman with instruction in artillery survey.

Instruction: This correspondence course consists of six study units and includes the basic duties of a rodman-tapeman, and of the instrument operator recorder.It also covers instruction in the M-2 aiming circle, wild T-16 theodolite, distance-measuring electronic (DME) surveying instruments, survey methods (traverse and triangulation), and artillery mathematics. The course is followed by a three hour supervised examination without textbooks or notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in elementary surveying (3/85).

MC-1601-0022

Map Reading by Correspondence

Course Number: 03.43F.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/80-12/85.

Objectives: To provide an introduction to the basic skills of map reading or to provide a review for those who have had previous map reading training.

Instruction: This course consists of seven lessons of programmed instruction to include coordinates, scale and distance, elevation and relief, azimuths, orientation, intersection and resection, and is followed by a supervised two hour examination without text or notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in map reading (3/85).

MC-1601-0023

Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence

Course Number: 11.22.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84-2/89.

Learning Outcomes: Upon completion of the course, the student will be able to perform preoperation inspection, start operation, adjust shutdown, and repair the 600 gallons-per-hour Reverse Osmosis Water Purification Unit.

Instruction: The student shall receive instruction in the fundamentals of reverse osmosis, startup, operation, and repair of reverse osmosis water purification equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of osmotic water purification (7/87).

MC-1601-0024

Basic Combat Engineer

Course Number: 130.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 5 weeks (180 hours). *Version 2:* 6-7 weeks (212-213 hours).

Exhibit Dates: *Version 1:* 6/90-Present. *Version 2:* 10/84-5/90.

Learning Outcomes: Upon completion of the course, the student will be able to perform the tasks of a combat engineer in the areas of camouflage, erection of pre-fabricated bridges, demolition, and construction of field fortifications.

Instruction: Instruction includes lectures, demonstrations, and practical exercises in construction of bunkers, trenches, and shelters, demolition of wood and steel with explosives, landmine warfare, erection of prefabricated bridges, construction of a simple concrete foundation, rigging, and culvert placement.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military-specific nature of the course (3/90).

MC-1601-0025

Basic Hygiene Equipment Operator

Course Number: 110.

Location: Engineer School, Cp. Lejuene, NC.

Length: 11-12 weeks (476 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to install plumbing to include pipe, plumbing fixtures, water supply line, stacks, vents drains, and waste disposal lines, perform a ph determination test, a chlorine residual test, a coagulation for test and develop a water point and a water source, operate and maintain a water purification unit, operate and maintain hygiene equipment to include field bath unit, decontamination apparatus, delousing unit, and laundry unit, install and maintain latrines, urinals, and leaching fields.

Instruction: Lectures, demonstrations and applications in basic plumbing installation, reconnaissance and development of a water point and a water source including routine control tests, operation and maintenance of water purification equipment, operation and maintenance of hygiene equipment including field bath units, decontamination apparatuses, laundry units, and delousing units, installation and maintenance of latrines, urinals, and leaching fields. The course concludes with a field exercise where the student establishes a water point and sets up and operates hygiene equipment in a field environment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic plumbing, 3 in water/sewerage treatment, 2 in hygiene equipment operator, and 3 in water testing and purification (12/88).

MC-1601-0026

Combat Engineer Officer

Course Number: ACC.

Location: Engineer School, Cp. Lejeune, NC.

Length: 11 weeks (361 hours).

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance and leadership in engineering supervision with emphasis in the following areas: equipment organization, maintenance, and transportation, fortification and camouflage, demolitions with explosives, reconnaissance for road selection, vertical construction, and pre-fabricated bridge erection.

Instruction: Instruction includes lecture, demonstration, and practical exercises on management functions of equipment operation and maintenance, site clearing with explosives, wood frame structure construction, estimation techniques for cut, fill, and building, minefield clearing and installation, and job planning and management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in construction management/supervision (9/89).

MC-1601-0027

Engineer Operations Chief

Course Number: 13G.

Location: Engineer School, Cp. Lejeune, NC.

Length: 7-8 weeks (252 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance on engineering supervision with primary emphasis in the following areas: equipment organization, maintenance, and transportation, demolitions, camouflage of fortified position, vertical construction techniques, military road planning and construction, airfield construction, and base camp layout and construction.

Instruction: Instruction includes lecture, demonstrations, and practical exercises on management functions of equipment oepration and maintenance, demolition of wood and steel barriers with explosives, mine warfare, camouflage techniques, construction of a wood frame structure, haul road location, cut and fill estimation, and base camp layout to include traffic flow, drainage, utilities, and billeting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in construction management/supervision (9/87).

MC-1601-0028

Journeyman Combat Engineer

Course Number: ACS.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13-14 weeks (460-493 hours).

Exhibit Dates: 1/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance for the mobilization of troops and equipment on the battlefield, for the counter mobilization of enemy forces on the battlefield, for survival on the battlefield, and to perform all combat engineers tasks relative to mobilization, counter mobilization, and survival on the battlefield.

Instruction: Includes lectures, demonstrations, applications and program instruction in engineer organization, the use of engineering tools and equipment, leadership, map reading, reconnaissance bridging, rafting, communciations, road construction, and obstacle breaching. Also covers demonstrations and applications in obstacle construction, landmine warfare, fire support, and obstacle planning, includes lectures, demonstrations, and applications in camouflage and fortified positions. Includes lectures, demonstrations, applications and program instruction in utilities equipment, welding, blueprint reading, project management, vertical construction, airfield construction, and maintenance management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in engineering construction (4/89).

MC-1601-0029

RESERVE COMBAT ENGINEER OFFICER

Course Number: CEZ.

Location: Engineer School, Cp. Lejeune, NC.

Length: 2 weeks (61 hours).

Exhibit Dates: 6/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to continue functioning as a combat engineering officer through the instruction of current doctrine and trends in combat engineering.

Instruction: Lectures about new technology in the engineering field, amphibious operations, and Soviet organization and equipment; lectures and demonstrations on employment techniques of heavy engineering equipment and utilities, lectures concerning bridging, U.S. mine detectors, and landmine warfare; lectures, demonstrations and applications on engineer intelligence, reconnaissance and counter mobility through the use of obstacles; lectures, demonstrations, applications, critiques, and program instruction in priming and firing demolitions, and field fortification and camouflage.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/87).

MC-1601-0030

RESERVE COMBAT ENGINEER
NONCOMMISSIONED OFFICER (NCO)

Course Number: 43F.

Location: Engineer School, Cp. Lejeune, NC.

Length: 2 weeks (78 hours).

Exhibit Dates: 7/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to continue functioning as a combat engineering NCO through the instruction in current doctrine, equipment, and trends in combat engineering.

Instruction: Lectures, demonstrations, and practical applications in field fortifications and camouflage to include camouflage of equipment, construction of bunkers and shelters, and construction of barriers and obstacles. Lectures, demonstrations, and practical applications in demolitions to include demolition safety, tools, and equipment, military explosives, bangalore torpedoes and shaped charges, priming and firing systems, explosive created obstacles, landclearing with explosives, steel cutting, bridge demolition with explosives. Covers information on landmine warfare. Lectures, demonstrations and practical applications in bridging to include the erection of a double story medium girder bridge using link reinforcement.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/87).

MC-1601-0031

RESERVE ENGINEER EQUIPMENT
SUPERVISOR

Course Number: CEY.

Location: Engineer School, Cp. Lejeune, NC.

Length: 2 weeks (63-92 hours).

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform basic equipment operations and maintenance shop operations for heavy equipment.

Instruction: Instruction includes lecture, demonstrations, and practical exercises in the Marine Corps maintenance management system, equipment records and forms, inspection of a maintenance facility, operation of equipment such as backhoes, tractor/scrappers, road graders, forklifts, and cranes, preventive maintenance, logistical support estimation, and severe weather operation.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1601-0032

ARTILLERY SURVEY INSTRUMENTS BY
CORRESPONDENCE

Course Number: 08.12.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 2/88–Presents.

Learning Outcomes: Upon completion of the course, the student will be able to set up, align, and operate either an M2 or M2A2 aiming circle and will be able to measure angles and declinate either instrument. The student will also be able to set up a T-16 Theodolite and measure both horizontal and vertical angles. The student will also be able to set up and operate Distomat/DI4L electronic distance measuring devices and be able to correct readings from slope to horizontal and for environmental changes. The student will be able to set up and align the reflection prism assembly for use with the Distomat/DI4L.

Instruction: Individual, self-paced, self-study course by correspondence. Materials include reading assignments, diagrams, and objective questions. A monitored final exam is taken when the student is ready, and a score of 70% or better is needed to pass the course. Topics include set up and operation of an aiming circle, Theodolite, and electronic distance measuring device.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic surveying (6/89).

MC-1601-0033

INTERIOR WIRING BY CORRESPONDENCE

Course Number: 11.43.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and know the purpose for conductors, boxes and covers, conduit and conduit fittings, switches and recepticles, and lighting fixtures; install, service and distribute panels; perform circuit installation with nonmetallic cable and conduit; troubleshoot, repair, and maintain distribution systems.

Instruction: Individualized, self-paced, self-study course containing reading assignments and study questions with answers to study questions at the end of each unit. Materials include planning, installing, and maintaining of interior wiring for buildings. The student will demonstrate achievement of objectives by answering correctly 70% of the questions on a final examination.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electrical installation (6/89); in the lower-division baccalaureate/associate degree category, 2 semester hours (mechanical and electrical equipment of buildings) in an architectural or construction management technology program (6/89).

MC-1601-0034

ENGINEER EQUIPMENT OPERATOR BY
CORRESPONDENCE

Course Number: 13.31i.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the duties of an equipment operator and determine proper procedures of equipment maintenance; understand basic engine principles and system; identify factors for efficient use of earth moving machinery; plan order of operation; read surveyors grade stakes; identify principal soil types; identify and operate tractors and tractor-drawn equipment; identify and operate material handling (fork-lifts) equipment; identify decontamination methods; fording procedures; and uses of wire rope.

Instruction: Individual, self-paced, self-study correspondence course. Materials includes reading assignments, diagrams, and objective questions. A monitored final exam is taken when the student is ready, and a score of 70% or better is needed to pass the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in construction planning, and 2 in heavy equipment operation and/or maintenance (6/89).

MC-1601-0035

AIMING CIRCLE OPERATOR BY
CORRESPONDENCE

Course Number: 08.11.

Location: Marine Corps Institute, Washington, DC.

Length: 11/88–Present.

Exhibit Dates: 52 weeks maximum.

Learning Outcomes: Upon completion of the course, the student will be able to set up and operate either an M2 or an M2A2 aiming circle. The student will be able to match components with functions; will be able to declinate and orient the instrument; and will be able to pass along basic commands for the artillery firing battery. The student will also be able to determine basic direction by simultaneous observation, polaris, or directional traverse.

Instruction: Individual, self-paced, self study course by correspondence. Materials include reading assignments, maps, diagrams, and objective questions. A monitored final exam is taken when the student is ready, and a score of 70% or better is needed to pass the course. Topics covered include set up, operation, and orientation of an aiming circle.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/89).

MC-1601-0036

Combat Engineer Noncommissioned Officer (NCO) by Correspondence

Course Number: 13.19i; 13.19h.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand basic construction techniques as related to building layout, concrete, forms and foundation, wood framing, and construction safety; perform standard rigging procedures with such devices as a gin pole, tripod and shears and be able to work with wire rope; layout, plan, and construct simple bridging and drainage structures such as simple stringer bridges, rope footbridges, open channels, calverts, and storm drains.

Instruction: Individual, self-paced, self study correspondence course. Materials include reading assignments, diagrams, charts, and objective questions. A monitored final exam is taken when the student is ready, and a score of 70% or better is needed to pass the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in methods of basic and building construction in an architectural, civil, or construction management technology program (4/89).

MC-1601-0037

Engineer Forms and Records by Correspondence

Course Number: 13.42c.

Location: Marine Crops Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to complete standardized forms used in operating and maintaining engineering equipment.

Instruction: Individualized, self-paced, self-study course containing reading assignments and study questions with answers to study questions at the end of each unit. Materials include maintenance systems and publications, administrative control and operational records, and maintenance records. The student will demonstrate achievement of objectives by answering correctly 70% of the questions on a final examination.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1601-0038

Maintenance of Bulk Fuel Equipment by Correspondence

Course Number: 13.39.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum

Exhibit Dates: 10/84–6/90.

Learning Outcomes: Upon completion of the course, the student will be able to identify the Marine Corps maintenance system, procedures and troubleshooting procedures, for the care and handling of bulk fuel systems and equipment.

Instruction: This course content will include diagnosis, troubleshooting, and repair of bulk fuel systems, to include pumps, tanks, lubrication requirements, safety procedures, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in maintenance of bulk fuel systems (6/89).

MC-1601-0039

Introduction to Field Artillery Survey by Correspondence

Course Number: 08.9.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to conduct field surveys in support of field artillery-application understand elevations and measurement tools, and measure survey accuracy.

Instruction: Descriptive, informative, limited skill transfer. Topics include: conducting the field artillery survey; survey equipment and accessories; survey taking, measuring dissimilities and comparative taping accuracy. The course also includes practical exercises which reinforce the material.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in surveying (9/89).

MC-1601-0040

Infantry Staff Noncommissioned Officer (NCO): Military Symbols and Overlays

Course Number: 03.97.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to use 1-color/multi-color map symbols, understand geometric forms used in map symboling for military units, prepare and use overlays.

Instruction: A descriptive course which provides the student with reinforced skill to use and recognize military symbols on maps and overlays in the following areas: (1) development of the military symbol; (2) location and content of fields; (3) marine air symbols; and (4) tactical symbols. Two application exercises effectively reinforce all subject material.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1601-0041

Construction Print Reading by Correspondence

Course Number: 13.44b.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize terms and symbols used in construction prints, use of an architect's scale, and read and intercept plot plans, structural and utility plans.

Instruction: Independent study. Students are required to pass an end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in architectural blueprint reading (6/90).

MC-1606-0001

Air Observation

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 13 weeks (445 hours).

Exhibit Dates: 2/56–12/68.

Objectives: To train enlisted personnel to perform as aerial observers.

Instruction: Lectures and field and flight exercises in basic air observation methods and techniques, communications, and tactical and gunnery aerial observation.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-1606-0002

Aerial Navigation
(Air Navigation)

Course Number: None.

Location: *Version 1:* Marine Aerial Navigation School, Mather AFB, CA. *Version 2:* Air Station, Cherry Point, NC.

Length: *Version 1:* 24 weeks (834 hours). *Version 2:* 14 weeks (535–557 hours).

Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 7/58–12/83.

Objectives: To train enlisted personnel to be qualified aerial navigators.

Instruction: Lectures and practical exercises in basic aerial navigation, meteorology, and radar principles and operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 8 in navigation (11/86); in the upper-division baccalaureate category, 9 semester hours in advanced navigation (11/86). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 8 in navigation (2/74); in the upper-division baccalaureate category, 6 semester hours in navigation (12/68).

MC-1606-0003

8th Class Air Observation School

Course Number: None.

Location: Marine Corps School, Quantico, VA.

Length: 16 weeks (490 hours).

Exhibit Dates: 9/54–12/68.

Objectives: To train enlisted personnel as aerial observers.

Instruction: Lectures and practical exercises in aerial observation. Topics include tactical aerial observation, gunnery aerial observations, communications, and staff principles and techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-1606-0004

Map and Aerial Photography Reading by Correspondence

Course Number: 03.17H.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/79–12/87.

Objectives: To provide instruction in basic map reading and aerial photographic interpretation.

Instruction: This correspondence course consists of eight units of self study in map and aerial photograph reading to include map symbols, coordinates, determination of distances and elevations, and directions and azimuths. The course is followed by a supervised three hour final examination without text books or notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic map reading and aerial photographic interpretation (3/85).

MC-1606-0005

Intelligence for the Marine Air-Ground Task Force (MAGTF) by Correspondence

Course Number: 02.9a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 6/86–Present.

Learning Outcomes: Upon completion of the course, the student will understand organization of a marine intelligence section and functions of intelligence personnel at different level, can identify and understand various phases of intelligence cycle, specifically identify capabilites of remote senors in developing intelligence, understand technique and procedures in recording, processing, evaluating and disseminating intelligence, and can identify components of marine air ground intelligence system (MAGIS).

Instruction: This correspondence course is designed to cover basics of intelligence collection and dissemination methodology utilized by marine air ground intelligence system (MAGIS).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in intelligence (9/89).

MC-1606-0006

Military Operations on Urban Terrain by Correspondence

Course Number: 03.66a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to survive in an urban environment and use combat skills to dislodge an enemy from urban areas.

Instruction: This correspondence course teaches urban warfare characteristics, offensive and defensive urban warfare and combat tactics in cities.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1606-0007

Direction Finding Operations by Correspondence

Course Number: 26.1.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will understand Soviet communications and tacticals systems.

Instruction: Descriptive course in understanding the background and approach to Soviety communications systems. Subjects include the Soviet communications doctrine, organizational structure, information gathering, countermeasures techniques, directional finding and the AN/PRD 10 and ODR-3045.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1606-0008

Position Location Reporting System (PLRS) Capabilities and Employment by Correspondence

Course Number: 00.4.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 9/88–6/90.

Learning Outcomes: Upon completion of the course, the student will understand the ingredients of the PLRS, a technological system of tracking air and ground units.

Instruction: This descriptive course is aimed at providing information on the following: history and mission; system description; capabilities; ground and air application; and application to artillery 'hip shoots'.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1606-0009

Introduction to Combat Intelligence by Correspondence

Course Number: 02.8a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the principles of intelligence and understand the operations of a marine intelligence section.

Instruction: Descriptive, informative, no application; no skill reinforcement. Topics include: prinicples of organization of a battalion-level intelligence unit; methods of collection; source of collection; processing and dissemination of collected information; protecting classified information, and escape and evasion for intelligence personnel.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1606-0010

Terrorism Counteraction for Marines by Correspondence

Course Number: 02.10.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course, the student will understand international terrorism, methods of targeting, and the nature of the threat, how to prevent acts of terrorism, and how to survive as a hostage.

Instruction: Descriptive and informative. Topics include: background history of terrorism, protective measures against terrorism; and hostage survival.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to terrorism (9/89).

MC-1606-0011

Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence

Course Number: 02.13.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize and cope with chemical warfare directed at his unit, primarily informative but not skill producing.

Instruction: This correspondence course overviews the threat of chemical warfare originating from the Warsaw pact, including equipment, personnel, and tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1606-0012

Intelligence Brief: The Military Threat by Correspondence

Course Number: 02.12.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to intergrate knowledge of Soviet history, tactics, equipment and organization in order to function as an NCO in any Marine unit.

Instruction: This correspondence course includes brief history of Russian army, organizational structure of the army, study of the Soviet soldier, Soviet tactics and specialized units of the Soviet military.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-1701-0001

Utilities Officer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13 weeks (402–486 hours).

Exhibit Dates: *Version 1:* 1/84–2/87. *Version 2:* 1/72–12/83.

Objectives: To train officers to perform as utilities managers.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises in the principles and management of resources in the utilities field. Course includes basic mathematics and formula review, electricity concepts, construction print reading, refrigeration/air conditioning, plumbing, water supply, hygiene, and maintenance management. *Version 2:* Lectures and practical exercises in the inspection of utility systems. Course includes blueprint reading, introduction to engines, applied electrical fundamentals, AC motors and controls, generators, wiring, electric distribution, water purification procedures, water supply equipment, plumbing procedures, refrigeration theory and systems, refrigeration equipment, air conditioning, and technical inspections.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in refrigeration/air conditioning management and 3 in water supply/treatment; in the lower-division baccalaureate/associate degree category, 2 semester hours in D.C. circuits, 4 in utility systems operation and maintenance and 1 in blueprint reading (3/85). *Version 2:* In the vocational certificate category, 5 semester hours in basic refrigeration (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic refrigeration (6/74).

MC-1701-0002

Air Conditioning Mechanic by Correspondence

Course Number: 11.15B.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/82-12/86.

Objectives: To provide a comprehensive course in air conditioners and air conditioning systems.

Instruction: This is an individualized, self-paced, self-study course in air conditioners. Subject matter includes theory, the refrigeration cycle, component parts associated with air conditioning, testing, and repair. The student demonstrates achievement of the minimum objectives by passing a final examination with 65% accuracy.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic air conditioning theory (8/83).

MC-1703-0001

1. Tracked Vehicle Repairman, Tank
2. Tracked Vehicle Repairman, Tank, Basic

(Tank Vehicle Repairman)

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 5 weeks (174 hours). *Version 2:* 10 weeks (356 hours).

Exhibit Dates: *Version 1:* 2/72-12/74. *Version 2:* 10/66-1/72.

Objectives: To train enlisted personnel to inspect, troubleshoot, and repair tank systems.

Instruction: Lectures and practical exercises in tank systems inspection, troubleshooting, and repair, including tracked-vehicle introduction; maintenance procedures; electrical systems; engines; power train; hull, track, and suspension systems; care and use of tools and equipment; and engine tune-up and preventive maintenance checks and services.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in introduction to internal-combustion engines, 5 in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to internal-combustion engines, 4 in automobile mechanics or heavy equipment repair (4/74).

MC-1703-0002

Advanced Motor Transport

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 16 weeks (511 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train noncommissioned officers to supervise, operate, and maintain motor transport equipment.

Instruction: Lectures and practical exercises in motor transport equipment operation and maintenance, including internal-combustion engines, carburetion and ignition, power train, hydraumatic transmission, and brakes; preventive maintenance and body repair; and supervisory procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive mechanics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive mechanics (4/74).

MC-1703-0003

Motor Transport Chief

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 10-13 weeks (358-454 hours).

Exhibit Dates: 9/64-12/68.

Objectives: To train noncommissioned officers to supervise personnel in the servicing, testing, maintenance, and repair of automobiles.

Instruction: Lectures and practical exercises in administration, maintenance management, and supply systems; automobile tools, power plant, electrical and fuel systems; tune-up; and power train, chassis, body, radiator, and fuel tank servicing, testing, maintenance, and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive mechanics or automotive technology (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in automobile mechanics or automotive technology (4/74).

MC-1703-0004

ONTOS (M50) (Fourth and Fifth Echelon) Maintenance

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 3 weeks (126 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train tracked vehicle repairmen as specialists in combat tracked vehicle repair.

Instruction: Lectures and practical exercises in tracked vehicle hull, track, and suspension systems repair; removal, disassembly, repair, reassembly, and testing of engines and power trains; basic electricity; and troubleshooting and inspection procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automobile mechanics or heavy equipment repair (4/74).

MC-1703-0005

Tracked Vehicle Repairman (ONTOS), Basic

(ONTOS Vehicle Repairman)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 8/67-12/68.

Objectives: To train enlisted personnel to inspect, troubleshoot, and repair tracked vehicles.

Instruction: Lectures and practical exercises in the functions of tracked vehicle repairmen, including basic driving; inspection, troubleshooting, and repair of electrical systems, engines and power trains, and hull, track, and suspension systems; and recovery procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in automobile mechanics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics (4/74).

MC-1703-0006

1. Tracked Vehicle Repairman Self-Propelled Artillery
2. Tracked Vehicle Repairman (Self-Propelled Artillery), Basic

(Self-Propelled Vehicle Repairman)

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 10 weeks (356 hours).

Exhibit Dates: *Version 1:* 2/72-12/74. *Version 2:* 9/67-1/72.

Objectives: To train enlisted personnel to maintain and repair self-propelled, tracked artillery vehicles.

Instruction: Lectures and practical exercises in the maintenance and repair of self-propelled, tracked artillery vehicles, including operation and repair of hull and suspension systems, electrical systems, engines and power trains, basic driving, and recovery procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in auto mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in auto mechanics or heavy equipment repair (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in auto mechanics or heavy equipment repair, 1 in auto electricity, 1 in introduction to internal-combustion engines (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics or heavy equipment repair, 1 in auto electricity, 1 in introduction to internal-combustion engines (4/74).

MC-1703-0007

Automotive Preventive Maintenance

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 6 weeks (203 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train enlisted personnel to perform preventive maintenance on automotive equipment.

Instruction: Lectures and practical exercises in preventive maintenance on automotive equipment, including nomenclature, construction, function and troubleshooting of fuel and electrical systems; power train, brake, steering and suspension systems; driver training; and lubrication and inspections.

Credit Recommendation: In the vocational certificate category, 6 semester hours in

automotive mechanics (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive mechanics (5/74).

MC-1703-0008

Automotive Organizational Maintenance
(Automotive Organizational Mechanics)

Course Number: None.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC. *Version 2:* Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 7 weeks (288-298 hours). *Version 2:* 7 weeks (280-298 hours).

Exhibit Dates: *Version 1:* 9/70-9/83. *Version 2:* 6/66-8/70.

Objectives: To train enlisted personnel to perform as automotive mechanics.

Instruction: Lectures and practical exercises in the inspection, service, and repair of tactical automotive vehicles, including shop procedures, power plants, and fuel and electrical systems; fuel and electrical systems trouble diagnosis and tune-up; power trains; chassis, brakes, and suspension systems; diesel and multifuel engines; motor vehicle operation; and preventive maintenance techniques. After 9/83, see exhibit MC-1703-0027.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in automotive maintenance (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive maintenance (7/74). *Version 2:* In the vocational certificate category, 8 semester hours in automotive or heavy equipment repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive or heavy equipment repair (5/74).

MC-1703-0009

Basic Automotive Mechanic
(Automotive Mechanic)

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 12 weeks (399 hours). *Version 2:* 13 weeks (450-455 hours). *Version 3:* 10 weeks (317-344 hours). *Version 4:* 14 weeks (422 hours).

Exhibit Dates: *Version 1:* 7/72-3/85. *Version 2:* 7/67-6/72. *Version 3:* 8/63-6/67. *Version 4:* 7/58-7/63.

Objectives: To train enlisted personnel to inspect, service, and repair motor transport equipment.

Instruction: *All Versions:* Lectures and practical exercises in motor transport equipment inspection, maintenance, and repair, including basic principles of electricity, automotive equipment components operation and repair, maintenance management, care and use of tools, and preventive maintenance. *Version 1:* Instruction includes driver training. *Version 2:* Instruction emphasizes power plants, power transmission systems, chassis, brakes, and suspension systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in a general motor transport automotive program/heavy equipment, 2 in automotive electrical systems, 1 in power transmission, 1 in brakes, chassis, and suspension, and 1 in driver education motor transport/heavy equipment (4/76). *Version 2:* In the vocational certificate category, 12 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in automotive or heavy equipment (5/74). *Version 3:* In the vocational certificate category, 10 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (5/74). *Version 4:* In the vocational certificate category, 12 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (5/74).

MC-1703-0010

Tracked Vehicle Repairman

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 15 weeks (600 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train enlisted personnel to perform and supervise scheduled maintenance on tracked vehicles.

Instruction: Lectures and practical exercises in the maintenance, supervision, and repair of tracked vehicles. Topics include operation principles, publications and equipment use, nomenclature and construction, fundamentals of electricity, tracked vehicle ignition systems and generators, starters, generator control systems, hull wiring circuits, engines, and troubleshooting techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

MC-1703-0011

1. Tracked Vehicle Repairman Amphibian Tractor
2. Tracked Vehicle Repairman (Amphibian Vehicle)(Basic) (Amphibian Vehicle Repairman)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 5 weeks (197 hours). *Version 2:* 10 weeks (356 hours).

Exhibit Dates: *Version 1:* 2/72-1/88. *Version 2:* 8/67-1/72.

Objectives: To train enlisted personnel as amphibious vehicle repairmen.

Instruction: *All Versions:* Lectures and practical exercises in amphibious vehicle inspection, troubleshooting, and repair, including introduction to maintenance, basic driving, engines, power train, electrical system, suspension, hydraulics, and recovery procedures. *Version 1:* Instruction emphasizes practical applications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electricity, 1 in introduction to automobile mechanics, 1 in general shop laboratory (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 3 in introduction to automobile mechanics, 3 in general shop laboratory (7/74).

MC-1703-0012

Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 16 weeks (503 hours).

Exhibit Dates: 7/74-3/85.

Objectives: To train personnel to diagnose and repair defects in light-duty and medium-duty trucks and to demonstrate proficiency in those repairs. In addition, the student will have a working knowledge of maintenance management techniques relative to truck operations.

Instruction: Major areas of instruction include gasoline, diesel, and multi-fuel power plants; electrical and fuel systems; transmissions and drive trains; and brake systems. Management areas include maintenance management, allied trades, and specialized maintenance operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive mechanics, 2 in automotive maintenance management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical systems, 3 in diesel power plants, 3 in gasoline power plants, 2 in heavy-duty brake systems, 2 in heavy-duty power trains (4/76); in the upper-division baccalaureate category, 2 semester hours in truck maintenance management (4/76).

MC-1703-0013

Tracked Vehicle Maintenance Officer

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 12-13 weeks (480-520 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train officers to supervise, maintain, and repair tracked vehicles.

Instruction: Lectures and practical exercises in the supervision, maintenance, and repair of tracked vehicles, including hull, track, and suspension construction; electricity fundamentals; engine systems; generators; starters; wiring circuits; power train; tracked vehicle turrets; vehicle transmission; hydraulic operation of specific equipment; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introductory auto mechanics, 2 in automobile electrical systems (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introductory auto mechanics, 2 in automobile electrical systems (7/74).

MC-1703-0014

Automotive Maintenance Officer

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 12-14 weeks (395-490 hours).

Exhibit Dates: 5/64-3/85.

Objectives: To train warrant officers to organize, administer, and manage motor transport equipment maintenance and repair facilities.

Instruction: Lectures and practical exercises in the management of motor transport equipment maintenance and repair facilities. Course includes tools, power plant (spark and compression ignition), electrical and fuel systems, power train, maintenance management, preventive maintenance, unit removal and replacement, body radiator and fuel tank repair, and supply systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive technology, 2 in shop foremanship (7/74), in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive technology, 2 in shop foremanship (7/74).

MC-1703-0015

Light Vehicle Characteristics and Operating Techinques by Correspondence

Course Number: 35.35.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/81–12/84.

Objectives: To provide the Marine candidate through correpondence with broad coverage of various systems, characteristics, and operating techniques of light vehicles.

Instruction: This correspondence course includes: introduction to light vehicles which includes truck platforms of all light vehicles, full-tracked amphibious and unarmored; cargo trailer towing, cargo loading and unloading, load distribution, security, operating techniques, operation check, driving skills, safety, transfer gear operations, front wheel drive, recovery operation, winching operation and self recovery operation. There is no laboratory included in this correspondence course.

Credit Recommendation: Credit is not recommended because of the limited, technical nature of the course (8/83).

MC-1703-0016

Motor Transport Staff Noncommissioned Officer (NCO) Leadership
(Automotive Technicians)

Course Number: None.

Location: Service Support Schools, Cp Lejeune, NC.

Length: 13 weeks (467 hours).

Exhibit Dates: 7/73–6/86.

Objectives: Upon successful completion of this course the student will be able to supervise personnel performing inspection, repair, and replacement of all automotive wheeled vehicle components. Student will also be able to supervise the operation of a motor pool and motor vehicle use.

Instruction: Lecture-demonstrations and practical applications in the following areas: fuel and electrical systems, diesel engines, spark ignition engines, chassis and braking, body and fender repair, spark ignition engine tune-up, and motor transport supply, operation, and administration.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive electrical systems, 5 in diesel engine diagnosis and repair, 2 in automotive suspension and braking, 1 in spark ignition tune-up (4/76); in the lower-division baccalaureate/associate degree category, 5 semester hours in motor vehicle service and maintenance management (4/76).

MC-1703-0017

Motor Vehicle Operator by Correspondence

Course Number: 35.31I; 35.31J.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–9/88.

Objectives: To provide basic information for motor vehicle operators; the course emphasizes the characteristics of drivers, basic maneuvers of motorcycles, vehicle performance, tactical operations and forms and records keeping.

Instruction: A correspondence course that presents information on types of vehicles, responsibilities of drivers, rules of the road in operating vehicles, special driving conditions and schedule of preventive maintenance. The course does not present laboratory exercises.

Credit Recommendation: Credit is not recommeded because of the limited, technical nature of the course (8/83).

MC-1703-0018

Light Vehicle Preventive Maintenance by Correspondence

Course Number: 35.23.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/79–12/84.

Objectives: To prepare Marine candidates in light vehicle operation to perform duties more proficiently by providing them with study material concerning driver prevention maintenance (cleaning, inspecting, lubricating, tightening, replacing), safety and reporting.

Instruction: This correspondence course in light vehicle preventive maintenance includes: major maintenance areas; tires, effects of mechanical irregularities on tires, effects of vehicle operation, removal and mounting tires, tube repairs and storage of tires; batteries:introduction, description, function, hazards, removal and installation, cleaning, charging and servicing; cooling system: types of cooling systems, function of component, maintenance troubleshooting, cooling protection; vehicle lubrication: purpose, lubrication, lines and fittings. Daily maintenance through a designated check list is presented. Energency repairs on the light vehicle are included. The correspondence course does not include laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in general introduction to automotive vehicle as a nontechnical elective (8/83).

MC-1703-0019

Preventive Maintenance and Operating Techniques on Heavy Vehicles by Correspondence

Course Number: 35.24.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/83–3/90.

Objectives: To enable the driver to identify the different systems and components of a heavy duty truck. In addition, the student will learn the necessary procedures to complete preventive maintenance on heavy duty vehicles.

Instruction: This is a correspondence course that presents information about the operation and maintenance of heavy duty tactical vehicles and includes characteristics and operation of power plant, power train and chassis system. The operators role in preventive maintenance scheduling, record keeping, and inspection are included. The course does not have laboratory exercises, but does have a proctored final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to heavy duty vehicles as a nontechnical elective (8/83).

MC-1703-0020

Automotive Fuel and Exhaust Systems by Correspondence

Course Number: 35.25A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 10/80–8/85.

Objectives: To provide the mechanic with technical information and study material on automotive fuel and exhaust systems for vehicles used in the motor transport field.

Instruction: This correspondence course presents information about the fundamentals of gasoline engine fuel systems including the tanks lines, fuel pump, carburetor, filters, intake manifolds and governors, the maintenance of fuel tanks, fuel pumps, air cleaner carburetor and fuel gauge are included. In addition, the fundamentals, maintenance and repair of diesel engine pumps, injectors, governors, and superchargers are presented. Material is also presented on the purpose, type, and maintenance of exhaust systems. The course does not include laboratory exercises.There is a proctored final examination required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gasoline and diesel engine fuels systems (8/83).

MC-1703-0021

Automotive Cooling and Lubricating Systems by Correspondence

Course Number: 35.13.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–11/84.

Objectives: To introduce the Marine Corps candidate through correspondence to the automotive cooling and lubricating systems.

Instruction: This correspondence course consists of four study units which contain statements of unit objectives, text materials and illustrations of applicable equipment to explain the course objectives, and items to teach and fully demonstrate the inspection, correction, and proper maintenance of cooling system. Course includes removal and replacement of cooling system component parts: radiator, water pump, belts and belt adjustments, thermostat, radiator hoses, and causes of cooling system malfunctions, methods of flushing and procedures for checking temperature sending units and gages including removal and replacement. Also covers purpose of lubrication system, types of systems component operation, maintenance procedures, types of oil pumps removal, repair and replacement procedures. Also includes crank case ventilating system. Course does not include laboratory exercises. There is a proctored final examination required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in cooling and lubricating system (8/83)

MC-1703-0022

Automotive Power Trains by Correspondence

Course Number: 35.9F.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 6/83–Present.

Objectives: To introduce the Marine to automotive power trains by presenting, through correspondence course material, the principles and fundamentals of automotive power train components.

Instruction: This correspondence course in the study of automotive power trains presents clutches, clutch principles and elements, operation and maintenance. Also , the course introduces transmissions to include manual shift transmission functions and types, constant mesh and synchromesh transmission. Also included are components bearing and lubrication, transfer assemby, spray unit construction and operation, service and adjustment; universal joints propeller shafts and slip joints, service, and repair; differential and axil assemblies and general types. This correspondence course does not include laboratory exercises; there is a proctored examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in theory of automotive power trains (8/83).

MC-1703-0023

Automotive Brake Systems by Correspondence

Course Number: *Version 1:* 35.15B. *Version 2:* 35.15A; 35.15.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: *Version 1:* 2/89–Present. *Version 2:* 2/81–1/89.

Objectives: To introduce Marine Corps candidates through correspondence to the basic material for understanding the principles and fundamentals of automotive brake systems.

Instruction: This correspondence course in automotive brake systems includes: introduction to types of brake systems, brake drums, brake shoes, mechanical brake systems, hydraulic brake systems, maintenance of parking brake, construction, inspection and adjustments. Also included is maintenance of hydraulic and service brake systems to include inspection adjustment, remove and replace brake components. Service includes inspect hoses and bleed and purge brake system. Introduction to air-hydraulic brake system includes components and brake system location. Maintenance of air-hydraulic brake system covers troubleshooting, testing system adjustment and service of brakes, adjustment of compressed air system components, remove and replace master cylinders, and inspection of hydraulic lines and fittings. Course does not include laboratory exercises.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in automotive brake systems (8/83). There is a proctored final examination required.

MC-1703-0024

Automotive Engine Maintenance and Repair by Correspondence

Course Number: 35.8C; 35.8B.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–12/84.

Objectives: To introduce the Marine candidate, through correspondence, to the field of automotive engine maintenance and repair and to increase his or her knowledge of constuction, operation, malfunction diagnosis, maintenance, repair and overhaul of the internal combustion engine.

Instruction: This correspondence course in automotive engine maintenance and repair covers construction and operation, engines and engine component design, engine blocks, crankshaft, fly wheels, piston connecting rods, cylinder heads, valve mechanisms, engine malfunctions, diagnosis and remedy, engine disassembly, engine repair ,assembly and test engine (basic engine). This correspondence course does not include laboratory exercises. Proctored final examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance and repair of automotive engines (8/83).

MC-1703-0025

Motor Transport Staff
Noncommissioned Officer (NCO)

Course Number: 35F.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 9 weeks (314–316 hours). *Version 2:* 10–11 weeks (276–348 hours).

Exhibit Dates: *Version 1:* 8/88–Present. *Version 2:* 6/86–7/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to describe the Marine Corps Integrated Maintenance Management System; perform record keeping functions related to motor transport maintenance; establish a tactical motor pool, describe special vehicle operation such as vehicle recovery, deep water fording, vehicle camouflage, vehicle loading, and night driving operations; defend a tactical convoy, describe transmissions, transfer cases, axle assemblies, brake systems, steering systems, and suspension systems employed in current motor transport tactical vehicles; and perform preventive maintenance on these vehicles. *Version 2:* Upon completion of the course, the student will be able to describe the Marine Corps Integrated Maintenance Management System; perform record keeping functions related to motor transport maintenance; establish a tactical motor pool, describe special vehicle operation such as vehicle recovery, deep water fording, vehicle camouflage, vehicle loading, and night driving operations; defend a tactical convoy, describe transmissions, transfer cases, axle assemblies, brake systems, steering systems, and suspension systems employed in current motor transport tactical vehicles; and perform preventive maintenance on these vehicles.

Instruction: *Version 1:* Course covers motor transport maintenance management/administration, operations administration, special motor transport vehicle operations, tactical convoy operations, introduction to automotive components, and test, measurement, and diagnostic equipment, preventive maintenance, repair of diesel vehicle engines and (MOS 3529) first echelon maintenance. *Version 2:* Course covers motor transport maintenance management/administration, operations administration, special motor transport vehicle operations, tactical convoy operations, introduction to automotive components, and test, measurement, and diagnostic equipment, preventive maintenance, repair of diesel vehicle engines and (MOS 3529) first echelon maintenance.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine tune-up, 2 in diesel accessory maintenance, and 6 in motor vehicle service and maintenance management (4/89). *Version 2:* In the vocational certificate category, 2 semester hours in diesel engine tune-up, 2 in diesel accessory maintenance (4/89).

MC-1703-0026

Vehicle Recovery

Course Number: CAJ.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2–5 weeks (76–197 hours).

Exhibit Dates: 1/83–8/88.

Learning Outcomes: Upon completion of the course, the student will be able to inspect and prepare his vehicle for safe and efficient operation for the mission; operate and drive the vehicle in accordance with proper procedures including safety to occupants and vehicles; analyze impact on personnel and equipment from spilled fluids and hazardous cargo; recognize and act on potential danger to personnel and equipment from traffic, terrain and obstacles.

Instruction: Covers logistics vehicle operation and site analysis, environmental hazards, towing techniques and emergency lighting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in driver's education and 3 in vehicle systems maintenance and repair (4/89).

MC-1703-0027

Motor Vehicle Operator

Course Number: 35X.

Location: Service Support School, Cp. Lejeune, NC.

Length: 7 weeks (249–253 hours).

Exhibit Dates: *Version 1:* 9/88–Present. *Version 2:* 7/86–8/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to demonstrate safe and proper operation of motor vehicles; will know and perform the duties of a military driver; and will demonstrate acquired preventive maintenance responsibilities. *Version 2:* Upon completion of the course, the student will demonstrate by driving test the safe and proper operation of motor vehicles; will know and perform the duties of a military driver, and will demonstrate required preventive maintenance responsibilities.

Instruction: *Version 1:* Methodology includes lectures, laboratory exercises, demonstration, and practical application of driving ability. Content covers vehicle preventive maintenance; traffic rules and regulations; military required forms including trip reports, clearance forms, operations reports; weight limitations; and proper driving techniques. *Version 2:* Methodology includes classroom lectures and demonstration, audio visual lab, and practical application laboratory in the vehicle demonstrating driving ability. Content covers vehicle preventive maintenance; traffic rules and regulations; military required forms including trip reports, clearance forms, operations reports; weight limitations; and proper driving techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in driver education (4/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive engine repair fundamentals, 2 in driveability diagnosis (4/89). *Version 2:* In the vocational certificate category, 2 semester hours in driver education (4/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive engine and repair fundamentals, and 2 in driveability diagnosis (4/89).

MC-1703-0028

AUTOMOTIVE ORGANIZATIONAL MAINTENANCE

Course Number: 35H.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 12 weeks (465 hours). *Version 2:* 15-16 weeks (532-603 hours).

Exhibit Dates: *Version 1:* 7/88-Present. *Version 2:* 10/83-6/88.

Learning Outcomes: Upon successful completion of the course, the student will be able to inspect, service, and repair automotive vehicles.

Instruction: *Version 1:* Lectures and practical exercises in the inspection, service, and repair of tactical automotive vehicles, including shop procedures, power plants, and fuel and electrical systems; fuel and electrical systems trouble diagnosis and tune-up; power trains; chassis, brakes, and suspension systems; diesel and multifuel engines; motor vehicle operaion; and preventive maintenance techniques. *Version 2:* Lectures and practical exercises in the inspection, service, and repair of tactical automotive vehicles, including shop procedures, power plants, and fuel and electrical systems; fuel and electrical systems trouble diagnosis and tune-up; power trains; chassis, brakes, and suspension systems; diesel and multifuel engines; motor vehicle operaion; and preventive maintenance techniques. Jeeps were not included.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 17 semester hours in autmotive maintenance and repair (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 21 semester hours in automotive maintenance and repair (4/89).

MC-1703-0029

RESERVE MOTOR TRANSPORT OFFICER REFRESHER

Course Number: CEL.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (74-75 hours).

Exhibit Dates: 11/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to prepare maintenance schedules; describe Army and Marine Corps motor transport publications; discuss the Marine Corps integrated maintenance management system; use dispatch and operation forms and records; inspect vehicles to identify first echelon maintenance discrepancies; load and secure cargo, organize elements of a convoy.

Instruction: Covers technical publications, Marine Corps integrated maintenance management system, maintenance management, motor transport equipment, dispatch forms and records, vehicle inspection, preparation of vehicles for embarkation, vehicle loads and loadings, and tactical convoy operation. Methodology includes lecture, demonstration, and practical application.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in vehicle maintenance administration and management (4/89).

MC-1703-0030

LOGISTICS VEHICLE SYSTEM OPERATOR

Course Number: 35Z.

Location: Service Support School, Cp. Lejeune, NC.

Length: 4-5 weeks (169 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to inspect and prepare a vehicle for safe and efficient operation for the mission; operate and drive the vehicle in accordance with proper operational procedures including safety to all occupants and surrounding vehicles.

Instruction: Covers proper vehicle operation techniques, minor maintenance, emergency procedures, coupling and uncoupling procedures and basic manuevers. Methodology includes lab demonstration, troubleshooting using mock-ups and simulators, practical lab vehicle hands-on operation and a written and driving examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive technology (4/89); in the upper-division baccalaureate category, 2 semester hours in advanced automotive technology (4/89).

MC-1703-0031

AUTOMOTIVE FUEL AND EXHAUST SYSTEMS BY CORRESPONDENCE

Course Number: 35.25b.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 9/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to build and focus upon the characteristics of gasoline and diesel fuels to include volatility, detonation, and additives; the student will also develop intoductory knowledge of the principles of carburetion and its related components; the student will also be introduced to diesel fuel and exhaust systems.

Instruction: This correspondence course presents information about the fundamentals of gasoline engine fuel systems including the tank lines, fuel pump, carburetor, filters, intake manifolds and governors, the maintenance of fuel tanks, fuel pumps, air cleaner carburetor and fuel gauge are included. In addition, the fundamentals, maintenance and repair of diesel engine pumps, injectors, governors, and superchargers are presented. Material also presented on the purpose, type, and maintenance of exhaust systems. The course does not include laboratory exercises. There is a proctored final examination required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in carburetion and diesel fuel systems with introduction to fuel characteristics and exhaust system construction (6/89).

MC-1703-0032

AUTOMOTIVE COOLING AND LUBRICATING SYSTEMS BY CORRESPONDENCE

Course Number: 35.13a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 12/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the construction and main component parts of the automotive cooling system and lubricating system.

Instruction: This correspondence course consists of four study units which contain statements of unit objectives, text materials and illustrations of applicable equipment to explain the course objectives, and items to teach and fully demonstrate the inspection, correction, and proper maintenance of cooling system. Course includes maintenance of cooling system parts: radiator, water pump, belts and belt adjustements, thermostat, radiator, hoses, and causes of cooling system malfunctions, methods of flushing and procedures for checking temperature sending units and gages including removal and replacement. Also covers purpose lubrication system, types of systems component operation, maintenance procedures, types of oil pumps removal, repair, and replacement procedures. Also includes crank case ventilating system. Course does not include laboratory exercises. There is a proctored final examination required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in cooling and lubricating systems (6/89).

MC-1704-0001

AIR CONTROL ELECTRONICS OPERATOR, AUTOMATED SYSTEM

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA.

Length: 4-5 weeks (140-176 hours).

Exhibit Dates: 1/72-1/88.

Objectives: To train enlisted personnel with some knowledge of air control and anti-air warfare fundamentals to perform as air control electronics operators.

Instruction: Lectures and demonstrations in air control electronics fundamentals, including tactical air operations introduction; electronic warfare; and air traffic controller, weapons controller, and missile direction operations and procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/76).

MC-1704-0002

AIR CONTROL/ANTIAIR WARFARE ELECTRONICS OPERATOR

(Air Control/Antiaircraft Warfare Electronics Operator)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 5-7 weeks (175-245 hours).

Exhibit Dates: 6/64-1/88.

Objectives: To train enlisted personnel in tactical air control, air support, and antiaircraft missile systems electronics operations.

Instruction: Lectures and demonstrations in air control and air support electronics, including radar indicator operation and adjustment; radio direction finding equipment; radio/telephone procedures; aircraft control information status and plotting; and interpreting aircraft speed, course altitude, and identification from radar indications.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1704-0003

MARINE MECHANICAL FUNDAMENTALS

Course Number: None.

Location: Aviation Detachment, Jacksonville, FL.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 3/64–12/68. *Version 2:* 1/60–2/64.

Objectives: To train enlisted personnel in mechanical fundamentals.

Instruction: Lectures and practical exercises in the fundamentals of electricity, mathematics, physics, aviation familiarization, aviation mechanics, hand tools, aircraft instruments and structures, aviation ordnance, and technical publications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in general aeronautics (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in general aeronautics (2/74); in the upper-division baccalaureate category, 2 semester hours in general aeronautics (12/68). *Version 2:* In the vocational certificate category, 5 semester hours in general maintenance fundamentals (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in general aviation maintenance fundamentals (2/74); in the upper-division baccalaureate category, 3 semester hours in general aviation maintenance fundamentals (12/68).

MC-1704-0004

TACTICAL AIR DEFENSE CONTROLLER
(Tactical Air Defense Controller Enlisted)

Course Number: FG5.

Location: Air Command and Control School, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 5 weeks (171–199 hours).

Exhibit Dates: 9/78–Present.

Objectives: To provide selected enlisted personnel with a thorough knowledge of the functioning and operations of the techniques of ground controlled intercepts and air traffic control procedures in a clear environment.

Instruction: The course provides the formal training necessary for further qualification as a tactical air controller. Topics include air control communications, air intercept control, weapons systems characteristics, flight rules and regulations, and electronic warfare.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/89).

MC-1704-0005

AERIAL OBSERVER
(Air Observer)
(Tactical Aerial Observer)

Course Number: None.

Location: Aerial Observation School, Jacksonville, NC.

Length: 8–10 weeks (299–553 hours).

Exhibit Dates: 1/68–2/86.

Objectives: To train officers to perform as aerial observers.

Instruction: Lectures and practical exercises in aerial observation, including communications, gunfire support, airborne map reading and navigation, visual reconnaissance techniques, target acquisition, aerial photography fundamentals, liaison and utility missions, aerial radiological monitoring, terrain and weather conditions, and tactical reconnaissance of roads, bridges, rivers, beaches, railroads, and urban areas.

Credit Recommendation: Credit is not recommended because of the military nature of the course (2/86).

MC-1704-0006

AIR DEFENSE CONTROL OFFICER,
AUTOMATED SYSTEM (ADCOC)

Course Number: None.

Location: Air Command and Control School, Twentynine Palms, CA.

Length: 9 weeks (335 hours).

Exhibit Dates: 7/73–4/85.

Objectives: To provide personnel with training necessary to operate specific air defense control equipment.

Instruction: Lectures and practical exercises in the Marine air command and control system, surveillance operations, basic control procedure, threat evaluation/weapon assignment, pattern intercepts, and system utilization.

Credit Recommendation: In the vocational certificate category, 4 semester hours in air traffic management and control (2/86).

MC-1704-0007

HYDRAULIC PRINCIPLES AND
TROUBLESHOOTING BY
CORRESPONDENCE

Course Number: 13.45.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to discuss the principles of force and pressure; develop introductory knowledge of hydraulic system components and troubleshooting procedures.

Instruction: This course will cover hydraulic principles, system component identification and troubleshooting procedures for hydraulic systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in hydraulic principles and introduction to hydraulic system components including troubleshooting procedures (6/89).

MC-1708-0001

ASSAULT AMPHIBIAN VEHICLE CREWMAN
(Amphibian Vehicle Crewman)

Course Number: None.

Location: Assault Amphibian School, Cp. Pendleton, CA; Tracked Vehicle School, Cp. Pendleton, CA.

Length: *Version 1:* 6 weeks (199 hours). *Version 2:* 4–5 weeks (113–168 hours).

Exhibit Dates: *Version 1:* 1/84–Present. *Version 2:* 9/73–12/73.

Objectives: To provide the student with the skills necessary to serve as an amphibian tractor crewman.

Instruction: Lectures and practical exercises in vehicle description, safety procedures, basic radio communications, vehicle recovery, before and after operational checks, basic land and water driving procedures, operation and preventive maintenance of the weapons station and M85 machine gun, and vehicle preventive maintenance.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in amphibious vehicle operation (7/74).

MC-1710-0001

1. BASIC ENGINEER EQUIPMENT
   MECHANIC
2. BASIC ENGINEER EQUIPMENT
   MECHANIC
   (Engineer Equipment Mechanic)
3. ENGINEER EQUIPMENT MECHANICS
4. ENGINEER EQUIPMENT MECHANIC
   BASIC

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 8–11 weeks (280–412 hours). *Version 2:* 10–15 weeks (398–538 hours). *Version 3:* 14 weeks (490 hours). *Version 4:* 18 weeks (540 hours).

Exhibit Dates: *Version 1:* 5/79–Present. *Version 2:* 5/67–4/79. *Version 3:* 5/62–4/67. *Version 4:* 7/58–4/62.

Objectives: To train enlisted personnel to operate and maintain heavy construction equipment.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises in the operation, maintenance, troubleshooting, and repair of diesel and gasoline engines and basic engineering heavy construction equipment and systems. *Version 2:* Lectures and practical exercises in engine repair and troubleshooting (including ancillary systems), tractors, graders, cranes, mixer, rollers, ditchers, compressors, diesel engines and gasoline engines maintenance, road machinery operation, and power shovel and special equipment operation and maintenance. *Version 3:* Lectures andpractical exercises in engine repair and troubleshooting (including ancillary systems), tractors graders, cranes, mixers, rollers, ditchers, compressors, diesel engines and gasoline engines maintenance, road machinery operation, and power shovel and special equipment operation and maintenance. *Version 4:* Lectures and practical exercises in engine repair and troubleshooting (including ancillary systems), tractors, graders, cranes, mixers, rollers, ditchers, compressors, diesel engines and gasoline engines maintenance, road machinery operation, and power shovel and special equipment operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in heavy construction equipment operation, maintenance, and repair (4/89). *Version 2:* In the vocational certificate category, 6 semester hours in heavy equipment mechanics (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in heavy equipment mechanics (7/74). *Version 3:* In the vocational certificate category, 3 semester hours in automobile engines, 6 in heavy equipment maintenance or civil technology, 4 in heavy equipment operation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile engines, 4 in heavy equipment maintenance or civil technology, 3 in heavy equipment operation (4/74). *Version 4:* In the vocational certificate category, 3 semester hours in automobile engines, 6 in heavy equipment maintenance or civil technology, 4 in heavy equipment operation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automobile engines, 4 in heavy equipment maintenance or civil technology, 3 in heavy equipment operation (4/74).

MC-1710-0002

BASIC ENGINEER EQUIPMENT OPERATOR
(Engineer Equipment Operators)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 8-11 weeks (301-385 hours).

Exhibit Dates: 6/62-12/74.

Objectives: To train enlisted personnel to operate and maintain tractors, graders, cranes, and stationary engineer equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of tractors, graders, cranes, and stationary engineer equipment, including identification and nomenclature of engineer equipment, principles of internal-combustion engines and electrical and lubrication systems, and preventive maintenance procedures for specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in heavy equipment operation (4/74).

MC-1710-0003

Construction Foreman

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 19 weeks (540 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to supervise the repair and camouflaging of military structures and facilities.

Instruction: Lectures and practical exercises in the supervision of construction operations, including camouflaging, repair, rigging, lumbering, painting, woodworking, shop planning and management, construction equipment, construction drawing, prefabricated-building erection, building construction methods, estimating, culverts, bridging, demolition, and mine warfare.

Credit Recommendation: In the vocational certificate category, 10 semester hours in construction technology (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology (7/74); in the upper-division baccalaureate category, credit in construction technology on the basis of institutional evaluation (12/68).

MC-1710-0004

Theory and Construction of Turbine Engines by Correspondence

Course Number: 60.2.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 12/84-Present.

Learning Outcomes: Upon completion of the course, the student will able to describe the basic physics of gas turbine engines, and the detail of turbine engine construction and operation.

Instruction: Topics include physics of gas turbine engines, turbine engine construction, maintenance and operation. A detailed study of the following turbine engine systems: induction, exhaust, fuel metering, ignition, starting, fire protection, lubrication, and cooling.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine theory, maintenance, and operation (7/87).

MC-1710-0005

Plumbing and Sewage Disposal by Correspondence

Course Number: *Version 1:* 11.21b. *Version 2:* 11.21a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 5/89-Present. *Version 2:* 4/86-4/89.

Learning Outcomes: Upon completion of the course, the student will be able to identify the application of iron and steel pipe and fittings, and copper tubing and fittings; identify terms, tools, and installation techniques associated with these pipes and fittings; identify the water services used for building and water supply lines, including the fixtures and tools associated with installation and the safety precautions that must be followed when using the tools; identify the installation and maintenance associated with a permanent sewage system including drains, stacks, vents, septic tanks, leaching fields, and grease traps.

Instruction: Individual, self-paced, self-study course containing reading assignments and study questions as the end of each unit. Materials include planning, installing, and maintaining of a water system and a sewer system. The student will demonstrate achievement of objectives by answering correctly 70% of all the questions on a final examination.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* VOC 6 semester hours in basic plumbing course (6/89); in the lower-division baccalaureate/associate degree category, 2 in (mechanical and electrical equipment of buildings) in an architectural or construction management technology program (6/89).

MC-1710-0006

Basic Tank Crewman

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (154 hours).

Exhibit Dates: 7/65-12/73.

Objectives: To train enlisted personnel to perform as tank crewmen.

Instruction: Lectures and practical exercises in the functions of tank crewmen, including employment of organic communications equipment, protective and decontamination procedures, driving, sighting and fire control instruments, conduct of fire, subcaliber firing, service firing, and preventive maintenance procedures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (4/74).

MC-1710-0007

Tracked Vehicle Repairman Advanced

(Advanced Tracked Vehicle Repairman)

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA; Tracked Vehicle School, Cp. Pendleton, CA.

Length: 8-12 weeks (276-424 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train enlisted personnel to maintain tracked combat vehicles.

Instruction: Lectures and practical exercises in the maintenance of tracked combat vehicles, including maintenance management; operation and inspection of engine, hull, turret, suspension, and power train; electrical components; practical applications; and troubleshooting and repair of transmissions.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical technology (4/74).

MC-1710-0008

Turret Repairman

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train enlisted personnel to repair and maintain the turrets and armament systems of tanks, armored amphibian tractors, and other combat vehicles.

Instruction: Lectures and practical exercises in the repair and maintenance of the turrets and armament of tanks, armored amphibian tractors, and other combat vehicles, including installation of gun and mount mechanisms, basic hydraulics, fundamentals of electrical theory, fire control systems, flame throwers and self-propelled guns, and analysis of various guns and mounts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical or industrial technology (4/74).

MC-1710-0009

Tank Unit Leaders (Enlisted)

Course Number: None.

Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 12 weeks (488 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train noncommissioned officers to perform as members of tank crews.

Instruction: Lectures and practical exercises in leadership, tactics, and techniques of tank operations, including tank communications equipment, troubleshooting, operation and maintenance of specific equipment electrical systems, engines, and transmissions; flame tank familiarization; turret electrical, hydraulic, and manual controls; turret-associated equipment; driving; map reading; and logistics and leadership training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (4/74).

MC-1710-0010

Assault Amphibious Vehicle Unit Leader

(Amphibious Vehicle Unit Leader)

(Amphibious Vehicle Unit Leaders (Enlisted))

Course Number: None.

Location: Amphibious School, Cp. Pendleton, CA; Schools Battalion, Cp. Pendleton, CA; Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: *Version 1:* 5 weeks (192 hours). *Version 2:* 5-12 weeks (197-528 hours).

Exhibit Dates: *Version 1:* 1/84-Present. *Version 2:* 7/58-Present.

Objectives: To train selected personnel to supervise amphibious vehicle crews.

Instruction: Lectures and practical exercises in amphibious vehicle operations, including operation, inspection, and maintenance of power train, engines, and turrets; hull, track, and suspension systems; electrical system; communications equipment; indirect and direct fire gunnery procedures; tactics; logistics; and leadership training.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military nature of the course (4/74).

MC-1710-0011

1. Artillery Weapons Repairman (Basic)
2. Artillery Weapons Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: *Version 1:* 5-6 weeks (219-241 hours). *Version 2:* 7 weeks (296-300 hours).

Exhibit Dates: *Version 1:* 7/60-12/72. *Version 2:* 7/58-6/60.

Objectives: To train noncommissioned officers to maintain and repair artillery weapons and related material and mounts.

Instruction: Lectures and practical exercises in the maintenance and repair of artillery weapons and related material and mounts, including use of measuring instruments and hand tools, inspection techniques, and repair of howitzers, mortars, and cannons.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in mechanical repair technology (5/74). *Version 2:* In the vocational certificate category, 2 semester hours in mechanical repair technology (5/74).

MC-1710-0012

Journeyman Plumbing and Water Supply Man
(Plumbing and Water Supply Journeyman)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12 weeks (417 hours).

Exhibit Dates: 1/71-9/82.

Objectives: To qualify noncommissioned officers who have completed the basic plumbing and water supply man course as journeymen.

Instruction: Lectures and practical exercises in the skills of a journeyman plumbing and water supply man, including supply procedures and systems control; installation and repair of plumbing, heating, and sewage systems; water supply equipment and water purification equipment; development of water sources and points; and well drilling.

Credit Recommendation: In the vocational certificate category, 6 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74); in the upper-division baccalaureate category, 4 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74).

MC-1710-0013

1. Basic Plumbing and Water Supply Man
2. Plumbing and Water Supply Man
3. Plumbing and Water Supply Man

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 4 weeks (176 hours). *Version 2:* 8 weeks (235-300 hours). *Version 3:* 11 weeks (344 hours).

Exhibit Dates: *Version 1:* 8/68-10/82. *Version 2:* 6/62-7/68. *Version 3:* 7/58-5/62.

Objectives: To train enlisted personnel to install, operate, and maintain water supply and plumbing equipment.

Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, and maintenance of water supply and plumbing equipment, including plumbing, sewage, and heating systems; purification and distillation equipment; reconnaissance and development of water points and sources; water distribution equipment; quality control; and portable water supply equipment. *Version 2:* Includes well drilling and jetting, and reciprocating and deep-well pumps. *Version 3:* Includes principles, characteristics, and maintenance of gas and diesel engines, and mine warfare.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74). *Version 2:* In the vocational certificate category, 6 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74). *Version 3:* In the vocational certificate category, 8 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74).

MC-1710-0014

Utilities Chief

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 15 weeks (468 hours). *Version 2:* 15 weeks (518 hours). *Version 3:* 18 weeks (668 hours). *Version 4:* 22 weeks (679 hours). *Version 5:* 27 weeks (780 hours).

Exhibit Dates: *Version 1:* 3/83-2/87. *Version 2:* 1/83-2/83. *Version 3:* 1/72-12/82. *Version 4:* 6/62-12/71. *Version 5:* 7/58-5/62.

Objectives: To train noncommissioned officers (sergeant through gunnery sergeant) to supervise the installation or repair of utilities systems.

Instruction: *Version 1:* Lectures and practical exercises in the installation and repair and/or management of utilities systems to include basic and shop mathematics, basic electrical principles (AC/DC), motors, generators, heating systems, blueprint reading, air conditioning/refrigeration, plumbing, and management (water, plumbing, hygiene, electrical, and maintenance). *Version 2:* Lectures and practical exercises in the installation or repair of utilities systems to include: basic mathematics, basic electrical theory (AC/DC), motors, generators, heating systems, blueprint reading, air conditioning/refrigeration, plumbing, and management (water, plumbing, hygiene, electrical, and maintenance). *Version 3:* Lectures and practical exercises in the installation or repair of utilities systems, including engineering mathematics, electrical theory, generators and motors, heating systems, blueprint reading, air-conditioning and refrigeration systems, water supply and purification systems, plumbing and sewage installations, and interior wiring. *Version 4:* Lectures and practical exercises in the installation or repair of utilities systems, including engineering mathematics, electricaltheory, generators and motors, heating systems, blueprint reading, air-conditioning and refrigeration systems, water supply and purification systems, plumbing and sewage installation, and interior wiring. *Version 5:* Lectures and practical exercises in the installation or repair of utilities systems, including engineering mathematics, electrical theory, generators and motors, heating systems, blueprint reading, air-conditioning and refrigeration systems, water supply and purification systems, plumbing and sewage installation and interior wiring.This version includes additional field work, especially in interior wiring, and instruction on internal-combustion engines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in refrigeration/air conditioning systems management, 3 in water supply/treatment systems management, and 4 in electrical systems management (2/85); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction blueprint reading and 2 in DC circuits (2/85). *Version 2:* In the vocational certificate category, 1 semester hour in plumbing, 1 in water supply management, 1 in hygiene management (3/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in blueprint reading, 5 in air conditioning/refrigeration management, 2 in electricity concepts, 10 in electrical management (3/83). *Version 3:* In the vocational certificate category, 16 semester hours in refrigeration or electricity (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in refrigeration or electricity (5/74). *Version 4:* In the vocational certificate category, 6 semester hours in building construction and supervision (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in building construction and supervision (6/74); in the upper-division baccalaureate category, 3 semester hours in building construction and supervision (6/74). *Version 5:* In the vocational certificate category, 9 semester hours in building construction and supervision (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in building construction and supervision (6/74); in the upper-division baccalaureate category, 3 semester hours in building construction and supervision (6/74).

MC-1710-0015

Utilities Officers

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12 weeks (420 hours).

Exhibit Dates: 6/62-12/68.

Objectives: To familiarize warrant officers and lieutenants with the technical aspects of Marine Corps utilities systems.

Instruction: Lectures and practical exercises in the technical aspects of the utilities field, including water supply and plumbing, electrical systems, refrigeration, field problems, internal-combustion engines, Marine

Corps supply system, engineer supply, supply allowances publications, decontamination, and terminology, definitions and symbols.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in building construction/supervision (5/74); in the upper-division baccalaureate category, 3 semester hours in building construction/supervision (5/74).

MC-1710-0016

Engineer Equipment Chief

Course Number: *Version 1:* 13E. *Version 2:* 13E. *Version 3:* None. *Version 4:* None. *Version 5:* None. *Version 6:* None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 12 weeks (388 hours). *Version 2:* 9-11 weeks (345-355 hours). *Version 3:* 11-12 weeks (397-403 hours). *Version 4:* 13 weeks (449 hours). *Version 5:* 14 weeks (490 hours). *Version 6:* 30 weeks (1050 hours).

Exhibit Dates: *Version 1:* 4/89-Present. *Version 2:* 10/82-3/89. *Version 3:* 7/68-9/82. *Version 4:* 5/67-6/68. *Version 5:* 6/62-4/67. *Version 6:* 1/59-5/62.

Objectives: To train noncommissioned officers to supervise the operation and repair of mechanical equipment.

Instruction: *Version 2:* Lectures and practical exercises in the supervision, operation, and maintenance of earth moving equipment; equipment application in road construction and excavation; mechanics, hydraulics and power trains; welding; metalworking and safety. Course teaches those in supervisory positions, the operation and maintenance of mechanical and hydraulic equipment and the application of this equipment in earth work projects. Maintenance management is included. *Version 3:* Lectures and practical exercises in the supervision of mechanical equipment operation and repair, including maintenance procedures; production capabilities of graders, dozers, compacters and other equipment; road design and construction; excavation; basic internal-combustion theory and repair; automotive power train theory and repair; and arc and gas welding. *Version 4:* Lectures and practical exercises in the supervision of mechanical equipment operation and repair, including maintenance procedures; production capabilities of graders, dozers, compacters and other equipment, road design and construction; excavation; basic internal-combustion theory and repair; automotive power train theory andrepair; and arc and gas welding.Includes general mechanical repair. *Version 5:* Lectures and practical exercises in the supervision of mechanical equipment operation and reapir, including maintenance procedures; production capabilities of graders, dozers, compacters and other equipment; road design and construction; excavation; basic internal-combustiontheory and repair; automotive power train theory andrepair; and arc and gas welding. Course includes general mechanical repair with emphasis on sheet metal and welding. *Version 6:* Lectures and practical exercises in the supervision of mechanical equipment operation and repair, including maintenance procedures; production capabilities of graders, dozers, compacters and other equipment; road design and construction; excavation; basic internal-combustion theory and repair; automotive power train theory and repair; and arc and gas welding. Includes general mechanical repair, with emphasis on sheet metal and welding.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive technology, 4 in civil technology (7/87). *Version 3:* In the vocational certificate category, 2 semester hours in automotive technology, 2 in automotive power trains, 4 in civil construction technology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology, 2 in automotive power trains, 4 in civil construction technology (5/74). *Version 4:* In the vocational certificate category, 1 semester hour in automotive technology, 7 in civil construction technology, 1 in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive technology, 7 in civil construction technology, 1 in mechanical technology (5/74). *Version 5:* In the vocational certificate category, 1 semester hour in automotive technology, 4 in civil construction technology, 1 in manufacturing processes (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive technology, 4 in civil construction technology, 1 in manufacturing processes (5/74). *Version 6:* In the vocational certificate category, 4 semester hours in automotive technology, 8 in civil construction technology (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive technology, 8 in civil construction technology (5/74).

MC-1710-0017

Shore Party Basic Specialist

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 4 weeks (163 hours).

Exhibit Dates: 7/67-12/72.

Objectives: To train BST students (corporal and below) as shore party basic specialists.

Instruction: Lectures and practical exercises on shore party battalion functions, including organization, equipment, mission, and employment; construction; shore party and helicopter support team organization and operations; demolitions; land mine warfare; rigging; roof, floor, and wall construction; HST operations in the LZ; wood cutting and stump removal; minefield installation; foreign mines and boobytrapping techniques; concrete construction; and shore party organization and operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in construction technology (5/74).

MC-1710-0018

Basic Construction Man

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 10 weeks (300 hours).

Exhibit Dates: 10/56-12/68.

Objectives: To train enlisted personnel to construct, repair, and camouflage military structures and facilities.

Instruction: Lectures and practical exercises in the construction, repair, and camouflage of military structures and facilities. Course includes logging methods; painting; construction drawing; woodworking; standard military buildings; building construction methods; culverts; bridging and rigging.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology (7/74).

MC-1710-0019

Combat Engineer Advanced

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 13 weeks (489 hours). *Version 2:* 22 weeks (654 hours). *Version 3:* 28 weeks (819 hours).

Exhibit Dates: *Version 1:* 8/67-12/68. *Version 2:* 6/62-7/67. *Version 3:* 7/58-5/62.

Objectives: To train enlisted personnel to supervise combat engineering projects.

Instruction: Lectures and practical exercises in combat engineering, including blueprint reading, construction surveying, route reconnaissance, soils engineering, building construction, bridges, utilities, hand and power woodworking tools operation, estimating procedures, and roads and airfield construction.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 3 semester hours in engineering construction (12/68). *Version 2:* In the vocational certificate category, 10 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 6 semester hours in engineering construction (12/68). *Version 3:* In the vocational certificate category, 8 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 6 semester hours in engineering construction (12/68).

MC-1710-0020

Combat Engineer Basic Specialist

(Combat Engineer Basic)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 4-13 weeks (160-407 hours).

Exhibit Dates: 6/62-12/68.

Objectives: To train enlisted personnel to use hand and power tools and to construct buildings and bridges.

Instruction: Lectures and practical exercises in hand and power tool operation; building layout; foundations and forms; roof, floor, and wall construction; concrete construction; various types of bridges; road maintenance and repair; drainage and ditching; and culvert construction.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hands-on construction (5/74).

MC-1710-0021

Welders

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 6 weeks (185 hours).

Exhibit Dates: 5/62-12/68.

Objectives: To train enlisted personnel in the principles and techniques of oxyacetylene, electric, and inert-gas welding.

Instruction: Lectures and practical exercises in the principles and techniques of oxyacetylene, electric, and inert-gas welding. Course includes oxyacetylene and electric arc welding in flat, vertical, horizontal, and overhead positions; safety precautions; cutting procedures; brazing ferrous and nonferrous metals; soldering techniques; procedures for hard-surfacing metals; procedures for welding armor plate; and tungsten inert-gas welding procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (5/74).

MC-1710-0022

TRACKED VEHICLE MAINTENANCE OFFICER/STAFF NONCOMMISSIONED OFFICER MANAGEMENT

(Tracked Vehicle Maintenance Management)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 3-4 weeks (125-163 hours).

Exhibit Dates: 1/72-12/74.

Objectives: To train commissioned officers and senior staff NCOs to manage a tracked-vehicle maintenance group.

Instruction: Lectures and practical exercises in the management of a tracked-vehicle maintenance group. Course includes tracked-vehicle familiarization, supply maintenance, and maintenance management.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/74).

MC-1710-0023

WEAPONS REPAIR OFFICER

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 9 weeks (360 hours).

Exhibit Dates: 7/58-12/73.

Objectives: To train company grade officers to maintain and repair infantry and artillery weapons, including guided missile and free-rocket launchers and related control equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of infantry and artillery weapons. Course includes repair shop procedures, artillery fundamentals, artillery weapons repair, tank gun mount, guided missile launcher, and inspection and repair of infantry weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in mechanical or industrial technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical or industrial technology (7/74).

MC-1710-0024

ENGINEER EQUIPMENT MECHANIC FOREMAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 19 weeks (537 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to supervise the repair of engineer equipment, diesel engines, and gasoline- and diesel-powered construction equipment.

Instruction: Lectures and practical exercises in the supervision of the repair of engineer equipment, diesel engines, and gasoline- and diesel-powered construction equipment, including maintenance and replacement of diesel engines, TD 18-A tractors, gasoline engines, M-R-S tractors, hystaway cranes, tandem rollers, air compressors, cranes, crawler crane shovels, graders, TD 24 tractors, well rigs, concrete mixers, and ditchers.

Credit Recommendation: In the vocational certificate category, 10 semester hours in heavy equipment programs, 4 in automotive area, 4 in diesel mechanics area (7/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in heavy equipment, 4 in automotive area, 4 in diesel mechanics area (7/74).

MC-1710-0025

JOURNEYMAN ENGINEER EQUIPMENT MECHANIC

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 18 weeks (602-637 hours). *Version 2:* 23 weeks (872 hours).

Exhibit Dates: *Version 1:* 11/82-9/84. *Version 2:* 7/70-10/82.

Objectives: To upgrade training of engineer equipment mechanics.

Instruction: *Version 1:* This is an advanced training course involving repair and maintenance of wheeled and tracked vehicles, and stationary equipment. Training includes lectures and practical exercises in the repair of cooling, lubricating, fuel, and air intake/exhaust systems of gasoline and diesel engines; troubleshooting of transmissions and hydraulic systems; diagnosis of problems in brake, steering and final drive systems of wheel and tracked vehicles, and installation and removal of heavy equipment attachments. Instruction also includes training the student to operate various items of wheeled, tracked, and stationary equipment. *Version 2:* Lectures and practical exercises in principles of operation, construction and components of internal combustion engines; operation and repair of the mechanical, air, and hydraulic systems of mobile material handling equipment, tractors, cranes, graders, air compressors, and rock crushers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in internal combustion engine repair, 4 in hydraulic systems, 1 in brake systems, 1 in steering systems, 2 in final drive systems, 1 in heavy equipment attachment/removal, and 1 in equipment operation (3/83). *Version 2:* In the vocational certificate category, 5 semester hours in internal combustion engines repair, 2 in mobile material handling equipment repair, 5 in tractors and tractor attachment repair, 5 in crawler and truck mounted crane repair, 2 in grader repair, and 1 in stationary equipment repair (air compressors and rock crushers) (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in internal combustion engines, 2 in material handling and 3 in engineering equipment (6/75).

MC-1710-0026

ENGINEER EQUIPMENT FOREMAN

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 19 weeks (678 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train officers to supervise the operation of tractors, shovels, cranes, and other road machinery.

Instruction: Lectures and practical exercises in heavy equipment operation and supervision, including tractors, shovels, cranes, and road machinery; diesel engine principles; construction planning; administration and supply procedures; and safety precautions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction, 6 in heavy equipment operation (4/74).

MC-1710-0027

ARTILLERY WEAPONS REPAIRMAN (ADVANCED)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 6 weeks (226-229 hours).

Exhibit Dates: 7/60-12/68.

Objectives: To train noncommissioned officers to supervise the repair of artillery.

Instruction: Lectures and practical exercises in shop management and operation; inspection, disassembly, repair, reassembly, and testing of artillery, tank weapons, and mortars.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical technology (5/74).

MC-1710-0028

TURRET REPAIRMAN

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 2 weeks (91 hours).

Exhibit Dates: 2/72-1/88.

Objectives: To train noncommissioned officers to diagnose and repair turret mounted artillery.

Instruction: Lectures and practical exercises in the operation and diagnosis of malfunctions of several types of artillery mounted on turrets and the turret operating mechanisms to include procedures for correction of malfunctions.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in mechanical repair technology (5/74).

MC-1710-0029

WEAPONS TECHNICIAN

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 9 weeks (368 hours).

Exhibit Dates: 6/64-12/68.

Objectives: To train personnel to supervise and manage weapons repair facilities.

Instruction: Lectures and practical exercises in basic machine shop practices; organization and administration of repair shops; disassembly, assembly, inspection, repair, and troubleshooting of specific weapons and ancillary equipment to include grenade launchers, rifles, machine guns, hand guns, mortars, rifle scopes, and howitzers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical technology, 1 in introduction to machine shop (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management, 3 in mechanical technology, 1 in introduction to machine shop (5/74).

MC-1710-0030

JOURNEYMAN ENGINEER EQUIPMENT OPERATOR

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13-15 weeks (400-592 hours).

Exhibit Dates: 10/75-5/85.

Objectives: To provide training in equipment operation, rigging, camouflage, and the operation of tractors, graders, excavating equipment, cranes, and forklifts.

Instruction: Lectures and laboratories in camouflage, rigging, and and equipment operation. Lectures also cover Marine Corps Maintenance Management Systems. Rigging and equipment operation includes safety, preventive maintenance, and operations of specific equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in heavy equipment operation (1/86).

MC-1710-0031

PLUMBING AND SEWAGE DISPOSAL BY CORRESPONDENCE

Course Number: 11.21.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 12/78-3/86.

Objectives: To provide basic training in the theory of establishing water supply and sewage disposal systems to include planning, installation, and maintenance.

Instruction: Individual, self-paced, self-study course containing reading assignments, and written lessons containing objective type questions. Materials include the planning, installing and maintaining of a water supply system, the planning and installing of a sewage system. The student will demonstrate achievement of objectives by answering correctly 65% of the questions of the final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in building mechanical equipment (construction management and architectural technology) (8/83).

MC-1710-0032

CRANE OPERATOR BY CORRESPONDENCE

Course Number: 13.52.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 9/78-9/84.

Objectives: To provide enlisted personnel with basic training in the theory of engineer crane operations, equipment uses, types of attachments and maintenance.

Instruction: Individual, self-paced, self-study course containing reading assignments, and written lessons consisting of objective type questions. Materials include the identification of types of attachments and their uses, the preventive maintenance on the equipment. The student will demonstrate achievement of objectives by correctly answering 65% of the questions on the final examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in construction planning if taken in conjunction with Engineer Equipment Operator by Correspondence, 13.31 (see MC-1601-0014)(1/84).

MC-1710-0033

JOURNEYMAN ENGINEER EQUIPMENT MECHANIC

Course Number: ACU.

Location: Engineer School, Cp. Lejeune, NC.

Length: 16-18 weeks (567-613 hours).

Exhibit Dates: *Version 1:* 3/89-Present. *Version 2:* 10/84-2/89.

Learning Outcomes: Upon completion of the course, the student will be able to provide advanced technical services in diesel and gasoline engine repair, in hydraulic and transmission systems, in brake systems, in oxyacetylene welding, and in track assembly and final drive systems.

Instruction: Instruction includes lectures, demonstrations, and intensive practical exercises in: engine repair including engine construction, cooling and lubrication systems, air intake and exhaust systems, fuel systems, electrical systems, troubleshooting, and tune-up, hyrdaulic and transmission systems, troubleshooting and repair, brake systems, troubleshooting and repair, track assembly and final drive system repair, oxyacetylene welding and cutting operations and an introduction to electric arc welding.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in welding, 2 in track assembly/final drive systems, 2 in brake systems, 4 in hydraulic and transmission systems, and 6 in internal combustion (diesel/gasoline) engine repair (9/87).

MC-1710-0034

JOURNEYMAN ENGINEER EQUIPMENT OPERATOR

Course Number: ACX.

Location: Engineer School, Cp. Lejeune, NC.

Length: 15-16 weeks (514-523 hours).

Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to operate and maintain crawler tractors, tractor/scrapper combination, road graders, vibratory compactors, forklifts, cranes, backhoes, and excavators, plan out hauling routes and equipment required, compute the amount of soil to be removed or fill required to complete job.

Instruction: Lectures on maintenance management of crawlers, tractor/scrappers, road graders, compactors, forklifts, cranes, backhoes, and excavators, demonstrations and practical exercises on the operation of crawlers, tractor/scrappers, road graders, compactors, forklifts, cranes, backhoes, and excavators, lectures, demonstrations and applications in logistical estimation to include planning hauling route and equipment required, and computing the amount of soil to be removed or fill required.

Credit Recommendation: In the vocational certificate category, 6 semester hours in heavy equipment operation (9/87).

MC-1710-0035

UTILITIES CHIEF

Course Number: 11E.

Location: Engineer School, Cp. Lejeune, NC.

Length: 15-16 weeks (516 hours).

Exhibit Dates: 3/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to provide technical assistance in the supervision of the installation of utility systems, to include the following: electrical power sources, refrigeration and air conditioning, plumbing and water supply, and hygiene systems.

Instruction: Instruction includes lectures, demonstrations, and practical exercises in basic electrical concepts for AC and DC circuits, mobile electrical power sources, management of refrigeration and air conditioning systems, plumbing project management, water supply systems and purification, hygiene management for camp cleaning and sanitation, and basic maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration/air conditioning systems management, 3 in water supply treatment and management, 4 in electrical systems management (9/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical blueprint reading, 3 in DC circuits, and 1 in AC circuits (9/88).

MC-1710-0036

UTILITIES OFFICER

Course Number: ACE.

Location: Engineer School, Camp Lejeune, NC.

Length: *Version 1:* 14 weeks (476 hours). *Version 2:* 15 weeks (516 hours).

Exhibit Dates: *Version 1:* 7/89-Present. *Version 2:* 3/87-6/89.

Learning Outcomes: Upon completion of the course, the student will be able to manage utilities to include the following: refrigeration/air conditioning supply, hygiene, electrical, maintenance and field management.

Instruction: Lectures, demonstrations and practical exercises in basic electrical concepts for AC/DC circuits, mobile electrical power sources, management of refrigeration and air conditioning systems, plumbing project management, water supply systems and purification, hygiene management for camp cleaning and sanitation, and basic maintenance procedures.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in refrigeration/air conditioning systems management, 3 in water supply/treatment management, 4 in electrical systems management (9/88); in the lower-division baccalaureate/associate degree category, 1 semester hour in construction electrical blueprint reading, 3 in DC circuits, and 1 in AC circuits (9/88).

MC-1710-0037

TRACTOR TRAILER OPERATOR

Course Number: 35Z.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (78 hours).

Exhibit Dates: 1/84-1/89.

Learning Outcomes: Upon completion of the course, the student will be able to provide preventive maintenance services, properly operate a tractor and trailer and be prepared to respond to operational emergencies.

Instruction: Covers the nomenclature, design characteristics, proper operation, preventative maintenance, loading, and troubleshooting techniques of the tractor and trailer. Methodology includes lecture, demonstration, and practical application.

Credit Recommendation: In the vocational certificate category, 2 semester hours in tractor trailer operations (4/89); in the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment maintenance and repair (4/89).

MC-1710-0038

Semitrailer Refueler Operator

Course Number: CO9.

Location: Service Support School, Cp. Lejeune, NC.

Length: *Version 1:* 4 weeks (153 hours). *Version 2:* 2 weeks (67-80 hours).

Exhibit Dates: *Version 1:* 1/89-Present. *Version 2:* 1/84-12/88.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to perform preventative maintenance services and to operate a tractor semitrailer refueler in the fueling services of fixed wing aircraft. *Version 2:* Upon completion of the course ,the student will be able to perform preventative maintenance services and to operate a semitrailer refueler in the refueling services of fixed wing aircraft.

Instruction: *Version 1:* Course covers the characteristics of fuel, loading and transporting of hazardous materials, fuel sampling, and fueling services to fixed wing aircraft. Included is the operation and preventative maintenance of five ton tactical tractor and semitrailer refueler. Methodology includes lecture, demonstration, and practical application. *Version 1:* Course covers the characteristics of fuel, loading and transporting of hazardous materials, fuel sampling, and fueling services to fixed wing aircraft. Included is the operation and preventative maintenance of a semitrailer refueler. Methodology includes lecture, demonstration, and practical application.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in tractor trailer operations (4/89); in the lower-division baccalaureate/associate degree category, 1 semester hours in heavy equipment maintenance and repair (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in heavy equipment maintenance and repair (4/89).

MC-1710-0039

Crane Operator by Correspondence

Course Number: 13.52a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 10/84-Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the primary purpose of a crane and excavation, and understand their lifting and fording capabilities; identify the basic attachments to cranes and excavation and understand their purpose, use and care for wire rope; determine basic safety factors in the operation of cranes and excavation and understand hand signals; perform troubleshooting procedures and lubrication procedures.

Instruction: Individual, self-paced, self-study, correspondence course. Material include reading assignments, diagrams, and objective questions. A monitored final exam is taken when the student is ready, and a score of 70% or better is needed to pass the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in equipment maintenance; 1 in safety procedures (6/89).

MC-1710-0040

Materials Handling Equipment by Correspondence

Course Number: 13.40.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate safe operations of the forklift, 7.5-ton cranes, Lightweight Amphibious Container Handler (HACH) and Rough Terrain Container Handler (RTCH).

Instruction: The following topics will be presented: MC 4000 and MC 6000 forklift operation; 7.5-ton cranes; Lightweight Amphibious Container (LACH) and Rough Terrain Container Handler (RTCH). Safety with equipment and materials is stressed.

Credit Recommendation: In the vocational certificate category, 1 semester hour in heavy equipment operation.

MC-1710-0041

Tractor-Trailer Operator by Correspondence

Course Number: 35.33.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate a fundamental understanding of the qualifications necessary for safe tractor-trailer operation; gain an introductory understanding for driving, loading, safety inspection maintenance and overall tractor-trailer operation.

Instruction: The course of study will include vehicle inspection, control, loading and safe operation of tractor-trailers. Emphasis is placed upon basic operation and general driving operation and safety procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introductory tractor-trailer operation, maintenance and driving (6/89).

MC-1710-0042

Plumbing and Sewage Disposal by Correspondence

Course Number: 11.21b.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 5/89-Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the functions of plumber in USMC garrison and field facilities and describe the operation of home plumbing equipment.

Instruction: Independent study. Students are required to pass a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in plumbing (6/90).

MC-1712-0001

Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence

Course Number: 11.19C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 8/81-Present.

Objectives: To provide personnel with basic training in the theory of operation and installation of field electrical generator equipment, and first aid for shock victims.

Instruction: This is an individual, self-paced, self-study course containing reading assignments, and written lessons of objective type questions. Materials include the identification of the type of diesel driven generators,their installation, operation, and maintenance. The student will demonstrate achievement of objectives by answering correctly 65% of the questions on the final examination.

Credit Recommendation: In the vocational certificate category, credit in first aid based on demonstrated skills (8/83).

MC-1712-0002

Fundamentals of Diesel Engines by Correspondence

Course Number: 13.35.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78-12/86.

Objectives: To provide personnel with a basic understanding of the fundamentals of diesel engines in order to enable them to maintain the engines in the highest degree of operational capability.

Instruction: This correspondence presents self-study to include the advantages and disadvantages of the diesel engine, engine construction, fuel injection, diesel engine principles, combustion, and control of the engine.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fundamentals of diesel engines (8/83). There is a proctored final examination.

MC-1712-0003

Automotive Intermediate Maintenance

Course Number: 35C.

Location: Service Support School, Cp. Lejeune, NC.

Length: 17 weeks (533-649 hours).

Exhibit Dates: *Version 1:* 9/86-7/88. *Version 2:* 8/84-8/86.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will be able to repair and overhaul diesel engines, valve trains, automatic transmissions, transfer cases, rear axles, brakes and steering systems. *Version 2:* Upon completion of the course, the student will be able to troubleshoot, tear down, and repair, all components and required ancillary equipment; repaired units are returned to remanufactured condition.

Instruction: *Version 1:* Methodology used includes classroom and laboratory experiences and competency tests at the 90% level. Content covers overhaul of engines, transmissions automatic and manual, drive lines, rear axles, steering and brake systems. *Version 2:* Methodology includes classroom lectures, audio visual training, lectures and demonstrations. Content covers starters, alternators, water pumps, transmissions, clutches, master cylinders, power brake units, and steering gear components.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in automotive mechanics (4/89); in the lower-division baccalaureate/associate degree category, 3 semester hours in diesel overhaul, 3 in brakes and steering, 3 in automatic transmission, 3 in automotive electronics, 3 in rear axles, and 3 in standard transmission and drive line (4/89). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in brakes, 3 in clutch and standard transmission, 3-4 in automotive electronics (distributor, starter, alternator), and 3 in engine overhaul (4/89).

MC-1712-0004

COMPRESSION IGNITION ENGINE FUEL SYSTEMS REPAIR

Course Number: 352.

Location: Service Support School, Cp. Lejeune, NC.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/83–Present.

Learning Outcomes: Upon completion of the course, the student will be able to repair and calibrate Detroit Diesel, Robert Bosch, Stanadyne, and Cummings PT fuel systems.

Instruction: Covers the inspection, services, repairs, and tests necessary to repair and calibrate the fuel systems of automotive diesel engines. Methodology includes lecture, demonstration, and practical applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel fuel system maintenance and repair (4/89).

MC-1712-0005

MOTOR TRANSPORT MAINTENANCE OFFICER

Course Number: CEB.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (64 hours).

Exhibit Dates: 9/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to disassemble, inspect components, reassemble, and adjust an automotive generator, alternator, starter, diesel engine, fuel injection pump, front axle assembly with differential, automatic transmission, power steering gear, and air compressor.

Instruction: Covers intermediate maintenance, organization, facilities and equipment, repair of electrical systems, diesel engine and engine accessory systems, power train systems used in military vehicles, and chassis system components. Methodology includes lectures and laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automotive and diesel vehicle maintenance (4/89).

MC-1712-0006

FUNDAMENTALS OF DIESEL ENGINES BY CORRESPONDENCE

Course Number: 13.35b.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 10/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and discuss basic internal combustion engine principles to include diesel fuel injection and control.

Instruction: This correspondence presents self-study to include the advantages and disadvantages of the diesel engine, engine construction, fuel injection, diesel engine principles, combustion, and control of the engine.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundamentals of the internal combustion engine with emphasis on diesel fuel delivery principles (6/89).

MC-1712-0007

DIESEL ENGINE MAINTENANCE AND TROUBLESHOOTING BY CORRESPONDENCE

Course Number: 13.43.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 8/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify and use the multimeter as a diagnostic tool, the student will develop an overview of diesel engine maintenance and troubleshooting procedures for different engine systems; the student will advance in the knowledge of power, hand-tool, and special tool use.

Instruction: The course will cover multimeter and special tool care and use. Power and advanced hand tool use will be introduced and studied. Maintenance and troubleshooting of various diesel engines is studied in-depth.

Credit Recommendation: In the vocational certificate category, 3 semester hours in diesel diagnosis and troubleshooting procedures with special emphasis on multimeter use (6/89).

MC-1713-0001

LAND NAVIGATION BY CORRESPONDENCE

Course Number: 03.28C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/84–12/88.

Objectives: To provide basic instruction in navigation to include map symbols, grid coordinators, compass, and natural means.

Instruction: This correspondence course consists of seven units of self-study on the use of map symbols and grid coordinates, determining direction by map and compass, measuring distance by map and other means, determining contours, and navigation by natural means such as the sun, moon and stars. This course is followed by a supervised three-hour examination without notes or texts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in land navigation (3/85).

MC-1713-0002

LAND NAVIGATION BY CORRESPONDENCE

Course Number: 03.62T.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 6/82–12/85.

Objectives: To provide instruction in measuring distance, azimuths, elevations, and coordinates and in land navigation with map and compass.

Instruction: This correspondence course consists of six study units and includes an introduction to land navigation, measuring distances and azimuths, converting azimuths, terrain features and symbols, the lensatic compass and land navigation with map and compass. The course presentation is accomplished using the U. S. Army Training Extension Course (TEC) audio-visual program of six TEC lessons and a TEC viewer, and is followed by a two hour supervised final examination without access to lessons or notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in land navigation (3/85).

MC-1714-0001

JOURNEYMAN ELECTRICIAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 9 weeks (294 hours). *Version 2:* 10 weeks (327 hours). *Version 3:* 18 weeks (434 hours).

Exhibit Dates: *Version 1:* 10/83–12/84. *Version 2:* 11/82–9/83. *Version 3:* 11/70–10/82.

Objectives: To provide selected enlisted personnel with the knowledge and skills required to perform as journeymen electricians.

Instruction: *Version 1:* Lectures and practical exercises including equipment and maintenance records management, AC and DC theory, motors and generators, interior and exterior wiring and pole line construction. *Version 2:* Coverage of AC/DC electrical theory, including reactance and impedance, interior wiring, pole line construction, motors, generators; supply procedures and organization. *Version 3:* Coverage of AC/DC electrical theory, including reactance and impedance, interior wiring, pole line construction, motors, generators; supply procedures and organization.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical installation and 2 in motor and generator operation and service; in the lower-division baccalaureate/associate degree category, 2 semester hours in business records management, 2 in D.C. circuits and 5 in electrical (power) laboratory (3/85). *Version 2:* In the vocational certificate category, 2 semester hours in industrial and residential wiring, motor and generator operation and servicing (3/83); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic AC/DC theory and application (3/83). *Version 3:* In the vocational certificate category, 15 semester hours in electrical technology (11/73).

MC-1714-0002

ELECTRICAL EQUIPMENT REPAIRMAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13 weeks (503 hours).

Exhibit Dates: 9/68–2/82.

Objectives: To train technicians in the repair of electrical equipment and control devices with particular emphasis upon the repair of field power-generating equipment.

Instruction: Mathematics; theory of electricity and simple electrical components; AC and DC current and circuit components; electronics and electronic devices; control devices and their circuits; DC and AC motors and generators; internal-combustion engines; troubleshooting electrical systems; supply and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electrical technology (11/73).

MC-1714-0003

BASIC ELECTRICIAN
(Electrician)

Course Number: 11B.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 7 weeks (204-228 hours). *Version 2:* 6 weeks (169 hours). *Version 3:* 6 weeks (220 hours). *Version 4:* 4 weeks (160 hours). *Version 5:* 12 weeks (359 hours). *Version 6:* 18 weeks (524 hours).

Exhibit Dates: *Version 1:* 10/83-9/84. *Version 2:* 10/82-9/83. *Version 3:* 7/71-9/82. *Version 4:* 9/68-6/71.

Objectives: To provide enlisted personnel with basic training in generator operation, pole line construction, and interior wiring.

Instruction: *Version 1:* Lectures and laboratories in basic electrical principles; generator installation, operation and maintenance; pole line construction; and exposed interior wiring. preventive maintenance procedures, pole line construction and wiring.Includes preventive maintenance procedures for power generators. *Version 3:* Lectures and laboratories in basic electrical theory, motor controls, generator operation, pole line construction, and interior wiring. *Version 4:* Lectures and laboratories in basic electrical theory, motor controls, generator operation, pole line construction, and interior wiring. *Version 5:* Lectures and laboratories in basic electrical theory, motor controls, generator operation, pole line construction, and interior wiring. *Version 6:* Lectures and laboratories in basic electrical theory, motor controls, generator operation, pole line construction, and interior wiring.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in principles of electricity and 5 in electrical (power) laboratory (6/88). *Version 2:* In the vocational certificate category, 2 semester hours in electricity, 1 in electrical laboratory (3/83). *Version 3:* In the vocational certificate category, 4 semester hours in electricity, 1 in electrical laboratory (12/77). *Version 4:* In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (3/74). *Version 5:* In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74). *Version 6:* In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74).

MC-1714-0004

Telephone Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 22 weeks (770 hours).

Exhibit Dates: 7/58-12/72.

Objectives: To train enlisted personnel to install and maintain telephone equipment.

Instruction: Lectures and laboratories in DC and AC circuits; simple motors and generators; meters and tools; control office, switchboard, and customer telephone equipment; and teletype equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74).

MC-1714-0005

Wire Chief

Course Number: *Version 1:* 25Q. *Version 2:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Sub Unit 2, San Diego, CA.

Length: *Version 1:* Self-paced maximum 14 weeks (349 hours). *Version 2:* 14-20 weeks (496-653 hours).

Exhibit Dates: *Version 1:* 5/84-10/87. *Version 2:* 1/72-4/84.

Objectives: To train personnel to supervise the installation of telephone lines and telephone subscriber equipment.

Instruction: For this course after 10/87 see MC-1714-0012. *Version 1:* Self-paced instruction emphasizing basic management techniques of pole line construction, fixed plant operation, and electronic warfare. Includes specific management systems required in a complex communication unit. *Version 2:* Lectures and practical exercises in oral and written communications skills, personnel management concepts, map reading, radio procedure, electronic fundamentals and basic electricity, telephone line techniques, field wire equipment and related systems, station installation, and pole line construction.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in communications administration (2/86). *Version 2:* In the vocational certificate category, 6 semester hours in electrical installation (3/79).

MC-1714-0006

Electricians

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 15 weeks (390 hours).

Exhibit Dates: 2/56-12/68.

Objectives: To train enlisted personnel to install, operate, maintain, and repair electrical systems and equipment of the Fleet Marine Force.

Instruction: Lectures and practical exercises in the installation, operation, maintenance and repair of electrical systems and equipment of the Fleet Marine Force, including electrical theory and principles, internal-combustion engines, electric motors and generators, electrical distribution and construction, and interior wiring methods and materials.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity, 6 in electrical construction and maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity, and 6 in electrical construction and maintenance on the basis of institutional evaluation (4/74).

MC-1714-0007

Field Wireman

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (140 hours).

Exhibit Dates: 7/72-12/73.

Objectives: To train personnel as field wiremen in the Fleet Marine force.

Instruction: Lectures and practical exercises on the responsibilities of field wiremen, including integrated multichannel communication means, switchboard operators perocedure, manual switchboards SB-22/PT and SB-86/P, telegraph-telephone terminal groups AN/TCC-29, field communications, pole climbing techniques, pole line construction, inside wire routing, raising and setting poles and stubs, and suspension strand installation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in lineman occupation (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical technology (6/74).

MC-1714-0008

Journeyman Electrical Equipment Repairman

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 17-18 weeks (564-605 hours).

Exhibit Dates: 3/82-Present.

Objectives: To introduce the apprentice journeyman electrical equipment repairman to the technical skills needed in the repair and maintenance of power generating equipment.

Instruction: Lectures and practical hands-on experience in the maintenance and repair of mobil power generating plants. The equipment is military but the concepts are general enough for civilian application. The prerequisite course (Basic Electrician) (MC-1714-0003) covers manual skills such as pole climbing and wire splicing, and there is no duplication of subject material.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in AC/DC theory, 3 in solid state theory, 9 in motors/generators (1/88).

MC-1714-0009

Fundamentals of Electricity by Correspondence

Course Number: 11.16C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 5/81-12/86.

Objectives: To provide personnel with the basic concepts associated with electrical/electronic theory.

Instruction: Individualized, self-study course in electricity to include the following subjects: atomic theory, Ohms law, series circuits, parallel circuits, series/parallel circuits, and transformer theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity/electronics (8/83).

MC-1714-0010

Marine Electrician - Fundamentals by Correspondence

Course Number: 11.41.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 1/85-4/86.

Learning Outcomes: Upon completion of the course, the student will be able to make voltage, current and power calculations on simple series and parallel resistive circuits; describe alternating current, phase angle, and power factor; discuss generators, alternators, batteries, three-phase power, and transformers; list causes of accidents; discuss first-aid procedures; and identify electricians tools.

Instruction: A correspondence course consisting of a text with self graded exercises, a final mailed in review lesson, and a final exam. The three main topics of the course are fundamentals of electricity, safety and first-aid, and electricians tools.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electricity and 1 in shop safety (7/87).

MC-1714-0011

Basic Electrician

Course Number: 11B.

Location: Engineer School, Cp. Lejeune, NC.

Length: 7 weeks (204–239 hours).

Exhibit Dates: 10/84–Present.

Objectives: Upon completion of the course, the student will be able to operate generators, construct pole lines and interior wiring.

Instruction: Lectures and laboratories in basic electrical principles, generator installation, operation and maintenance, pole line construction and wiring, preventive maintenance procedures for power generators.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of electricity and 1 in electrical power laboratory (10/89).

MC-1714-0012

Wire Chief

Course Number: 25Q.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 14 weeks (507 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course the student will be able to apply map reading concepts to land navigation; construct pole lines; understand electronic warfare concepts; manage embarkation plans; use various forms and publications.

Instruction: Self-paced instruction on topics in map reading, pole line construction, electronic warfare, organization and deployment. For this course before 11/87 see MC-1714-0005.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/89).

MC-1714-0016

Journeyman Electrician

Course Number: 11K.

Location: Engineer School, Cp. Lejeune, NC.

Length: 9 weeks (285–295 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform as journeyman electrician.

Instruction: Lecture and practical exercises including equipment and maintenance record management, AC and DC theory, motors and generators, reactance, impedance, inductance and capacitance, interior and exterior wiring and pole line construction.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in DC electrical theory, 1 in AC electrical theory, 2 in motors and generators, and 1 in electrical power laboratory (10/89).

MC-1715-0001

Technician Electronic Counter-Countermeasures

Course Number: None.

Location: Communication-Electronics School Battalion, San Diego, CA.

Length: 4 weeks (96 hours).

Exhibit Dates: 10/69–12/73.

Objectives: To qualify technicians in the techniques and application of electronic counter-countermeasures.

Instruction: Specific circuit theory; recognition, corrective and/or defensive action taken to combat various types, methods and characteristics of electronic countermeasures which may be encountered by a MACS in an electronic warfare environment.

Credit Recommendation: Credit is not recommended because of the military nature of the course (11/73).

MC-1715-0002

Officer Electronic Warfare

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 2 weeks (98 hours).

Exhibit Dates: 8/69–1/88.

Objectives: To provide instruction to qualify officers in the techniques and application of electronic warfare.

Instruction: History, concepts, terminology and application of past, present, and future techniques; specific circuit theory; recognition, corrective, and/or defensive action taken to combat various types of jamming; methods and characteristics of electronic countermeasures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (11/73).

MC-1715-0003

Artillery Electronic Equipment Repairman
(Artillery Electronic Equipment Repair)

Course Number: 593.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 11-12 weeks (383 hours). *Version 2:* 9–11 weeks (318–407 hours). *Version 3:* 9–11 weeks (318–407 hours).

Exhibit Dates: *Version 1:* 4/84–12/84. *Version 2:* 7/74–3/84. *Version 3:* 1/72–6/74.

Objectives: To train enlisted personnel to test, troubleshoot, and maintain specific military equipment.

Instruction: Introduction to field artillery electronics equipment, including maintenance and repair of a radar chronograph, microwave distance-measuring equipment, field artillery digital computer, and associated equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in troubleshooting techniques (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in communications technology (2/76). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (11/73).

MC-1715-0004

Basic Electronics
(Electronic Fundamentals)

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, Twentynine Palms, CA. *Version 5:* Communication-Electronics School, San Diego, CA. *Version 6:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 12-13 weeks (503-602 hours). *Version 2:* 10–12 weeks (459 hours). *Version 3:* 10-12 weeks (359-370 hours). *Version 4:* 18 weeks (668 hours). *Version 5:* 15 weeks (525 hours). *Version 6:* 15 weeks (516–525 hours).

Exhibit Dates: *Version 1:* 1/84–7/86. *Version 2:* 10/75–12/83. *Version 3:* 7/74–9/75. *Version 4:* 1/72–6/74. *Version 5:* 3/68–12/71. *Version 6:* 7/60–2/68.

Objectives: To train enlisted personnel in the fundamentals of electronics.

Instruction: For this course after 7/86 see MC-1715-0116. *All Versions:* Lectures and practical experience in electrical principles, vacuum tube and semiconductor fundamentals, electronic circuit analysis, and digital and circuit principles. *Version 1:* Includes 96 hours of lectures and practical exercises in the use of digital machines and devices; logic design, Boolean algebra,and block diagrams; logic circuitry; characteristics of hardware and operations of magnetic drum, tape, disc, magnetic care,and other storage devices; analog to digital conversion. *Version 2:* Includes 70 hours of lectures and practical exercises in the use of digital machines and devices; logic design, Boolean algebra,and block diagrams; logic circuitry; characteristics of hardware and operations of magnetic drum, tape, disc, magnetic care,and other storage devices; analog to digital conversion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in soldering techniques and 1 in instruments and measurements; in the lower-division baccalaureate/associate degree category, 4 semester hours in AC/DC circuit theory, 3 in electronic circuits and devices and 3 in digital fundamentals (2/86). *Version 2:* In the vocational certificate category, 2 semester hours in electronics mathematics, 3 in basic electricity, 3 in basic electronics, 2 in digital circuit fundamentals, 1 in instruments and measurements, 2 in basic computer logic (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in digital systems fundamentals, 2 in basic computer logic (2/79); in the upper-division baccalaureate category, 6 semester hours in industrial arts education for basic electronics (3/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 9 semester hours in industrial electronics technology (2/76). *Version 4:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 5:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 6:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity and electronics, additional credit in laboratory on the basis of institutional evaluation (12/68).

MC-1715-0005

TECHNICIAN THEORY

Course Number: *Version 1:* TA3. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communation-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 16 weeks (620 hours). *Version 2:* 16 weeks (599-714 hours). *Version 3:* 20 weeks (700 hours). *Version 4:* 20 weeks (700 hours).

Exhibit Dates: *Version 1:* 7/77-7/86. *Version 2:* 7/74-6/77. *Version 3:* 3/72-6/74. *Version 4:* 3/68-2/72.

Objectives: To provide enlisted personnel with training in advanced electronic theory as a foundation for equipment-oriented instruction in radar, aviation, and radio technology.

Instruction: For this course after 8/86 see MC-1715-0128. *All Versions:* Lectures and practical laboratory applications in DC and AC circuit analysis, mathematics and physics, electron tube and transistor theory, amplifier circuit analysis, oscillators, switching circuits, power supplies, principles of digital computers, microwave characteristics and devices (including general theory), synchros and servos, modulation and detection, antennas and test instruments. *Version 1:* Encompasses a thorough review of mathematics, and general theoretical principles of electronics. Includes AC/DC electricity, test instruments, soldering and repair techniques to NASA specs, and 73 hours of military management principles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics mathematics, 6 in basic electronics, 6 in electronics systems and applications, 6 in digital circuitry, 3 in communication skills (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics systems and applications, 3 in mathematics, 6 in basic electronics, 3 in digital circuitry, 3 in communication skills (3/79); in the upper-division baccalaureate category, 6 semester hours in industrial arts education for basic electronics, 3 in management/communication skills (3/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 21 semester hours in electronics engineering technology (2/76). *Version 3:* In the vocational certificate category, certificate in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 16 semester hours in electricity or electronics, 4 in mathematics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 6 semester hours in computers, servos, and machinery (3/74). *Version 4:* In the vocational certificate category, certificate in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 16 semester hours in electricity or electronics, 4 in mathematics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0006

MOBILE COMMUNICATIONS CENTRAL TECHNICIAN (AN/TGC-37(v))

(Communication Central, AN/TGC-37, System Maintenance)

(Mobile Communication Central Technician)

Course Number: *Version 1:* 28E. *Version 2:* None. *Version 3:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 9-12 weeks (302-446 hours). *Version 2:* 7 weeks (257 hours). *Version 3:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 6/85-Present. *Version 2:* 11/77-5/85. *Version 3:* 1/72-10/77.

Objectives: To train enlisted personnel in the operation, maintenance, and repair of specific types of telegraph systems.

Instruction: Practical experience in the maintenance, operation, repair and systems analysis of patch panels and switchboards, voice frequency telegraphs, and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in telephone and telegraph systems maintenance (9/89). *Version 2:* In the vocational certificate category, 3 semester hours in introduction to telephone and telegraph communications (3/79). *Version 3:* Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0007

TERMINAL EQUIPMENT THEORY

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 5-6 weeks (200-320 hours). *Version 2:* 8 weeks (242-320 hours). *Version 3:* 8 weeks (242-320 hours). *Version 4:* 8 weeks (242-320 hours).

Exhibit Dates: *Version 1:* 5/79-1/85. *Version 2:* 11/77-4/79. *Version 3:* 7/74-10/77. *Version 4:* 1/72-6/74.

Objectives: To train enlisted personnel in the theory and principles of digital computer circuits and systems.

Instruction: *Version 1:* Laboratories and lectures in the theory of operation and troubleshooting of a central purpose digital computer; basic logic circuits; repair of PC cards and digital circuits. *Version 2:* Laboratories and lectures in the theory of operation and troubleshooting of a central purpose digital computer; basic logic circuits; repair of PC cards and digital circuits. *Version 3:* Lectures and laboratories in basic logic circuits, theory of operation and troubleshooting of a central purpose digital computer; repair of PC cards and digital circuits. *Version 4:* Lectures and laboratories in basic logic circuitry, theory of operation and troubleshooting of the Bi-Tran 6 and TH-85, and use of dual-trace oscilloscopes and pace kits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in digital electronics and 4 in computer elctronics (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in digital circuits, 3 in computer principles (3/79); in the lower-division baccalaureate/associate degree category, credit in digital computers and computer principles on the basic of institutional evaluation (3/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 7 semester hours in electronic engineering technology (2/76). *Version 4:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0008

RADIO RELAY REPAIR

Course Number: None.

Location: *Version 1:* Communications-Electronics School, Twentynine Palms, CA. *Version 2:* Communications-Electronics School, San Diego, CA. *Version 3:* Communications-Electronics School, San Diego, CA.

Length: *Version 1:* 11 weeks (385 hours). *Version 2:* 16 weeks (560 hours). *Version 3:* 12-14 weeks (420-490 hours).

Exhibit Dates: *Version 1:* 12/71-12/73. *Version 2:* 12/68-11/71. *Version 3:* 7/58-11/68.

Objectives: To train radio repairmen to repair and maintain telephone-telegraph terminal equipment.

Instruction: Lectures and laboratories in the principles of multiplexing and the theory, operation, and maintenance of telephone-telegraph equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0009

GROUND RADIO REPAIR

Course Number: *Version 1:* 27M. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 14-19 weeks (467-704 hours). *Version 2:* 15 weeks (542 hours). *Version 3:* 15 weeks (525 hours). *Version 4:* 7-12 weeks (245-420 hours).

Exhibit Dates: *Version 1:* 5/78–Present. *Version 2:* 7/74–4/78. *Version 3:* 1/72–6/74. *Version 4:* 7/56–12/71.

Objectives: To train enlisted personnel to operate, test and repair ground radio equipment.

Instruction: Lectures and laboratories in FM radio equipment maintenance, including transmitter, receiver, and special circuits operation; and various alignment, testing, overhaul and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment maintenance (2/89). *Version 2:* In the vocational certificate category, 8 semester hours in communications technology (2/76). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0010

Radio Fundamentals

Course Number: *Version 1:* 27V. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA, Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 6–8 weeks (210–251 hours). *Version 2:* 6 weeks (222–225 hours). *Version 3:* 6 weeks (240 hours). *Version 4:* 6 weeks (210–240 hours).

Exhibit Dates: *Version 1:* 2/85–Present. *Version 2:* 7/74–4/85. *Version 3:* 1/72–6/74. *Version 4:* 7/61–12/71.

Objectives: To prepare enlisted military personnel to maintain, test, adjust, and repair specific military radio sets.

Instruction: *Version 1:* Lectures and laboratory exercises in theory of operation and troubleshooting procedures involving AM, FM, and SSB transmitters, receivers and antennas. *Version 2:* Lectures and practical exercises in theory, circuitry, operation, and repair of tube and transistorized AM, SSB, and VHF transceivers. *Version 3:* Lectures and practical exercises in theory, circuitry, operation, and repair of tube and transistorized AM, SSB, and VHF transceivers. Includes emergency power generators. *Version 4:* Lectures and practical exercises in theory, circuitry, operation, and repair of tube and transistorized AM, SSB, and VHF transceivers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in radio repair; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications and 1 in electronic communications laboratory (3/89). *Version 2:* In the vocational certificate category, 6 semester hours in communication technology (2/76). *Version 3:* In the vocational certificate category, 6 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communication, 1 in electronic communications laboratory (3/74). *Version 4:* In the vocational certificate category, 6 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications (12/68).

MC-1715-0011

Aviation Radio Repair

Course Number: *Version 1:* 66F. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: *Version 1:* 9–14 weeks (319–462 hours). *Version 2:* 11–12 weeks (454–565 hours). *Version 3:* 8–15 weeks (350–490 hours). *Version 4:* 14 weeks (490 hours).

Exhibit Dates: *Version 1:* 7/85–Present. *Version 2:* 4/76–6/85. *Version 3:* 7/58–3/76. *Version 4:* 7/56–6/58.

Objectives: To train enlisted personnel to install, inspect, maintain, and repair aviation and ground communication-electronics equipment.

Instruction: *Version 1:* Lectures and practical exercises in the theory, operation, and repair of AM, FM, and SSB radios to the module level. Includes equipment characteristics, digital logic, circuit analysis, alignment, performance testing and troubleshooting test equipment. *Version 2:* Lectures and practical exercises in operating characteristics, installation techniques, circuitry, ultrahigh frequency principles, single-sideband theory, and cryptographic maintenance concepts of the TSEC/KY-28 security system. *Version 3:* Lectures and practical exercises in operating characteristics, installation techniques, circuitry, ultrahigh frequency principles, single-sideband theory, and cryptographic maintenance concepts of the TSEC/KY-28 security system. *Version 4:* Lectures and laboratories in theory of operation of radio circuits, test equipment, antennas, frequency modulators, and power supplies with emphasis on use of test equipment and servicing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (5/90). *Version 2:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 1 in electronic equipment maintenance laboratory (3/79). *Version 3:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic *Version 4:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0012

Telephone Technician

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 7/56–12/72.

Objectives: To train enlisted personnel in the maintenance of specific wire telephone systems.

Instruction: Lectures and practical exercises in basic mathematics and electricity, wire telephone techniques, teletype and terminal equipment maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in math and electricity, 1 in laboratory (3/74).

MC-1715-0013

Telephone-Teletype Repair

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: 16–19 weeks (560–665 hours).

Exhibit Dates: 7/62–1/88.

Objectives: To train enlisted personnel who have completed a basic electronics course to repair telephone/teletype equipment.

Instruction: Lectures and laboratories in telephone/teletype equipment repair procedures, and testing, adjustment, modification, maintenance, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony, 1 in telephony laboratory (3/74).

MC-1715-0014

Sound Equipment Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train enlisted personnel to install, maintain, and repair audio equipment.

Instruction: Lectures and laboratories in audio theory; tape recorders; PA systems; sound-locating equipment; intercom equipment; and mine detector installation, maintenance, and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74).

MC-1715-0015

Terminal Equipment Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 7 weeks (245 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to repair specific telephone and telegraph equipment.

Instruction: Lectures and practical exercises in the fundamentals of telephony and telegraphy, local terminals, radio transmission, troubleshooting, and field applications.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0016

Telephone System, Transportable AN/TTC-28

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA; Air Ground Combat Training Center, Twentynine Palms, CA.

Length: 6 weeks (210 hours).

Exhibit Dates: 1/72–12/75.

Objectives: To train central office repairmen to test, adjust, modify, and repair the

AN/TTC-28 transportable telephone system in field maintenance support shops.

Instruction: Lectures include telephone systems introduction, telephone schematic diagram familiarization, and system installation, troubleshooting, and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in telephony, 1 in telephony laboratory (2/86).

MC-1715-0017

Marine Tactical Data Systems (MTDS) Fundamentals

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 11 weeks (385 hours).

Exhibit Dates: 5/66–12/68.

Objectives: To provide enlisted personnel with training in basic theory of special-purpose semiconductor and electronic circuits used in digital data handling equipment.

Instruction: Lectures and practical demonstrations in solid-state devices and circuits, counters and other computer circuits, number systems, Boolean algebra and reduction, logic gates, symbolic logic truth tables Vietch diagrams, voltage dividers, semiconductor basics, electronic safety measures, transistor review, oscillators, various diodes, oscilloscopes, radar fundamentals, amplifiers, power supplies, data system servicing techniques and peripheral equipment fundamentals, and data system tactical air operations central timing and control functions.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology, 4 in solid-state electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, 3 in solid-state electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 2 semester hours in digital systems, 2 in solid-state electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0018

Digital Repair

(Tactical Air Operations Central (TAOC) Digital Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel to operate, install, adjust, and repair the digital section of the Tactical Air Operations Data System.

Instruction: Lectures and demonstrations in radar IFF data processor group, polar-to-Cartesian converter, correlator, height finder programmer and buffer, automatic tracking unit, intercept computer, information and action unit, operation and maintenance unit, drum fill unit, power distribution and power supplies, basic functioning, installation, adjustment, and repair; supply administration; preventive maintenance; maintenance publications; and peripheral equipment fundamentals.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0019

Data Handling Repair

(Tactical Air Operations Central (TAOC) Data Handling Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel to operate, install, adjust, and repair tactical data systems data-handling sections.

Instruction: Lectures and laboratories in circuitry and functioning of digital data programmers, digital data buffers, intercenter data terminals, tactical data communication central buffers, missile battery data terminals, teletype programmers, teletype buffers, intercommunications, communication central groups, operation and maintenance, and power distribution.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0020

Tactical Air Command Central Repairer

(Tactical Air Command Central (TACC AN/TYQ-1) Repair)

Course Number: *Version 1:* FGV. *Version 2:* FGV. *Version 3:* None. *Version 4:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 17 weeks (581 hours). *Version 2:* 14–17 weeks (548–597 hours). *Version 3:* 17 weeks (699 hours). *Version 4:* 15–18 weeks (557–623 hours).

Exhibit Dates: *Version 1:* 6/90–Present. *Version 2:* 7/84–5/90. *Version 3:* 11/78–6/84. *Version 4:* 6/73–10/78.

Objectives: To train enlisted personnel in the operation, testing, maintenance, and repair of the Tactical Air Command Central System. System includes computers, displays, voice communications, and digital-data links.

Instruction: *Version 2:* Lectures and practical exercises at the introductory level in the operation, testing, and repair of all system components. Includes using wire diagnostics and computer repair to the card level, power supply repair, and systems interfaces. Also includes use of special and general purpose test equipment. *Version 3:* Lectures and practical exercises in maintenance test procedures, use of tools and test equipment, digital test sets, integral test features, diagnostic routines, and special failure-reporting procedures, and familiarization with marine, naval, and airborne tactical data systems. *Version 4:* Lectures and practical exercises in maintenance test procedures, use of tools and test equipment, digital test sets, integral test features, diagnostic routines, and special failure-reporting procedures, and familiarization with marine, naval, and airborne tactical data systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to systems maintenance and 2 in introduction to computer maintenance (5/87). *Version 3:* In the vocational certificate category, 3 semester hours in use of electronic test equipment (3/79). *Version 4:* Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0021

Marine Tactical Data System (MTDS) Weapons Controller/Operator

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 4 weeks (175 hours).

Exhibit Dates: 7/69–12/73.

Objectives: To train air controllers to operate and supervise AN/TYA-9 operator shelters.

Instruction: Lectures and practical exercises in manual target detection, acquisition, and rate-aided tracking; automatic detection, acquisition, and tracking of aircraft; and identification of air targets on the basis of flight plans, identification friend-or-foe (IFF) data, speed, communication checks, aircraft orbit points, and prearranged maneuvers. Controllers also learn computer-aided track evaluation and weapon target pairing. Operators also learn automatic vectoring of data link equipped aircraft and voice control of non-data link equipped aircraft.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1715-0022

Tactical Data System Handling Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (483 hours).

Exhibit Dates: 6/69–12/73.

Objectives: To train enlisted personnel to maintain tactical data system equipment and associated subunits and circuits.

Instruction: Lectures and laboratories in external and internal digital data links, ground-air-ground data communication, tactical data communication teletype systems, data line programmers and buffers, data link terminals, intercoms, voice communication apparatus, display generation equipment, and data-handling equipment maintenance.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory or computer technology on the basis of institutional evaluation (3/74).

MC-1715-0023

Analog Repair

(Tactical Air Operations Central (TAOC) Analog Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel as tactical data systems analog repairmen.

Instruction: Lectures and laboratories in system operation, installation, and repair; interrelation of subunits and circuits; corrective and preventive maintenance procedures; and use of test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

MC-1715-0024

Microwave Equipment Operator

Course Number: CGM.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 3-6 weeks (105-221 hours).

Exhibit Dates: 7/72-Present.

Objectives: To train enlisted personnel to operate microwave equipment.

Instruction: Lectures in microwave propagation, technical manuals introduction, safety precautions, receiver and transmitter analysis, various radio sets analyses, multiplexer analysis and alignment procedures, profile graphs preparation, and preventive maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/89).

MC-1715-0026

TACTICAL DATA COMMUNICATIONS CENTRAL TECHNICIAN
(Tactical Data Communications Central (TDCC AN/TYQ-3) Technician)

Course Number: OGM.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 23-29 weeks (846-1140 hours). *Version 2:* 44 weeks (1540 hours).

Exhibit Dates: *Version 1:* 11/76-Present. *Version 2:* 12/71-10/76.

Objectives: To train enlisted personnel to install, operate, test, and maintain data communications systems.

Instruction: *Version 1:* Lectures and practical exercise in the operation and maintenance of a specific tactical data communications system. Topics include systems concepts, programming, data flow, and fault isolation. *Version 2:* Lectures and practical exercises in the operation and maintenance of tactical data communications central, including basic digital system theory and computer fundamentals, SSB, transmission lines, MODEMS, components of equipment, and maintenance and troubleshooting of specific functional digital circuits.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance and 3 in electronic systems troubleshooting and maintenance (2/89). *Version 2:* In the vocational certificate category, 6 semester hours in electronics or digital communications, 6 in electronics or digital communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or digital communications, 2 in electronics or digital communications laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronics or digital communications (3/74).

MC-1715-0027

TEST INSTRUMENT REPAIRMAN

Course Number: None.

Location: Supply Center, Albany, GA.

Length: 16-17 weeks (622-648 hours).

Exhibit Dates: 6/69-1/88.

Objectives: To train enlisted personnel who have prior training in basic electronics and radar fundamentals to maintain and repair electrical and electronic test and measuring instruments.

Instruction: Lectures and practical exercises in the maintenance of electrical and electronic test and measuring instruments, including general and specialized electronic theory, logical troubleshooting, circuit analysis, and basic measurement methods and techniques.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics, 6 in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics, 3 in microwave electronics, 3 in electronics or microwave laboratory (6/75); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (6/75).

MC-1715-0028

TELEPHONE TELETYPE REPAIR (SPECIAL)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted personnel to maintain and repair teletype and telephone systems.

Instruction: Lectures and practical experience in the maintenance and repair of teletype and telephone systems, including electrical and mechanical fundamentals, basic electronic circuitry, transistor operation, and troubleshooting and adjustment techniques.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electromechanical communications, 5 in electromechanical communications laboratory (3/74).

MC-1715-0029

RADIO TECHNICIAN

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 2:* Communication-Electronics School, Twentynine Palms, CA; *Version 3:* Communication-Electronics School, San Diego, CA; Communication-Electronics School, Twentynine Palms, CA; *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 15-18 weeks (558-667 hours). *Version 2:* 13 weeks (455 hours). *Version 3:* 15 weeks (525-538 hours). *Version 4:* 30-32 weeks (1050-1120 hours).

Exhibit Dates: *Version 1:* 7/75-12/85. *Version 2:* 6/73-6/75. *Version 3:* 8/67-5/73. *Version 4:* 5/62-7/67.

Objectives: To train electronics technicians to test, adjust, and repair communication-electronics equipment.

Instruction: For this course after 12/85 see MC-1715-0124. *All Versions:* Lectures and demonstrations in multichannel single-sideband equipment theory and servicing. *Version 1:* Includes portable radio servicing methods. *Version 2:* Instruction includes troposcatter communications systems theory and servicing, direction-finding equipment, and limited cryptographic maintenance. *Version 3:* Instruction includes troposcatter communications systems theory and servicing, direction-finding equipment, and limited cryptographic maintenance. *Version 4:* Instruction includes extensive coverage of mathematics, electron devices and circuits, antennas, and AM and FM systems. All material is general in nature.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 3 in electronic communication systems (3/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic equipment maintenance laboratory (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74). *Version 3:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74). *Version 4:* In the vocational certificate category, 9 semester hours in electronics, 3 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electrical laboratory (3/74).

MC-1715-0030

COMMUNICATIONS CENTRAL GROUP
AN/TYA-11 TECHNICIAN

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (140 hours).

Exhibit Dates: 6/72-12/73.

Objectives: To train radio technicians to test, adjust, and repair a specific communications terminal system.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/TYA-11 communications central group, including block-diagram and module-by-module analysis of individual system components, theory of operation, and circuits, antennas, and power distribution information necessary for inspection and testing of equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

MC-1715-0031

AIR SUPPORT OPERATIONS OPERATOR

Course Number: 67L.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 3-8 weeks (109-240 hours).

Exhibit Dates: 1/72-Present.

Objectives: To provide instruction in the operations and tactical employment of a Direct Air Support Center, Radar Directing Center, and Airborne/Mobile Direct Air Support Center.

Instruction: Lectures and practical exercises in net operator tasks; installation of power connections, air conditioners, antennas, telephone connections, and external transceiver connections; operation of plotter and status board keepers; and ASRT radar operating procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/86).

MC-1715-0032

AIRBORNE RADIO OPERATORS

Course Number: None.

Location: Airborne Operator School, Cherry Point, NC.

Length: 16 weeks (615 hours).

Exhibit Dates: 3/62-1/88.

Objectives: To train enlisted personnel as airborne radio operators.

Instruction: Lectures and practical exercises in international Morse code, code typing, code printing, net operations, and sending and receiving; general radio operating procedures and radiotelegraph and radiotelephone messages; and airborne electronics and equipment.

Credit Recommendation: In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1715-0033

1. AVIATION FIRE CONTROL REPAIR
2. AVIATION FIRE CONTROL REPAIR
3. AVIATION FIRE CONTROL REPAIR, AN/TPQ-10 (AFC)
   (Aviation Fire Control Repair)
4. AVIATION FIRE CONTROL REPAIR
5. AVIATION FIRE CONTROL REPAIR

Course Number: *Version 1:* 661. *Version 2:* None. *Version 3:* None. *Version 4:* None. *Version 5:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA. *Version 5:* Basic Electronics School, San Diego, CA.

Length: *Version 1:* 13-14 weeks (533-534 hours). *Version 2:* 8-9 weeks (327-328 hours). *Version 3:* 9 weeks (315 hours). *Version 4:* 8 weeks (280 hours). *Version 5:* 9 weeks (315 hours).

Exhibit Dates: *Version 1:* 7/85-Present. *Version 2:* 7/74-6/85. *Version 3:* 1/72-6/74. *Version 4:* 5/64-12/71. *Version 5:* 7/56-4/64.

Objectives: To provide enlisted personnel who have completed a basic electronics fundamentals course with the technical skills required of aviation fire control repairmen.

Instruction: *Version 1:* Preparation of enlisted personnel in overall concept of operation, installation, and adjustment of military aircraft course directing radar systems. Includes corrective and preventive maintenance procedures; use of test equipment and inherent testing procedures. *Version 2:* Preparation of enlisted personnel in overall concept of operation, installation, and adjustment of military aircraft course directing radar systems. Includes corrective and preventive maintenance procedures; use of test equipment and inherent testing procedures. *Version 3:* Lectures and laboratories in power and control circuits, radar circuits, automatic tracking circuits, computers, and ancillary equipment. *Version 4:* Lectures and laboratories in power and control circuits, radar circuits, automatic tracking circuits, computers, and ancillary equipment. *Version 5:* Lectures and laboratories in theory, maintenance, and troubleshooting of radar sets and computer-transmitter sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance and 1 in electronic laboratory (10/87). *Version 2:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance (3/79). *Version 3:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 5:* Insufficient data for evaluation (3/74).

MC-1715-0034

LIGHT ANTIAIRCRAFT ARTILLERY (AAA) FIRE CONTROL REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train enlisted personnel to operate and maintain lightweight air search radar and fire control systems for lightweight aircraft artillery.

Instruction: Lectures and laboratories in circuit analysis, block diagrams, and field maintenance and operation of M-4 radars, M-10 computers, and M-16 power controls.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

MC-1715-0035

TACTICAL DATA SYSTEMS DIGITAL REPAIR

Course Number: None.

Location: Marine Corps Recruit Depot, San Diego, CA.

Length: 15 weeks (518 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train enlisted personnel to operate, install, and repair digital processing units and circuits of radar and IFF data processors.

Instruction: Lectures and practical exercises in radar IFF, logic circuitry, pulse circuits, display modules, digital repair, and universal console operations.

Credit Recommendation: In the vocational certificate category, 7 semester hours in digital electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in digital electronics laboratory (3/74).

MC-1715-0036

LIGHT ANTIAIRCRAFT ARTILLERY (AAA) FIRE CONTROL REPAIR

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, test, and repair light antiaircraft artillery.

Instruction: Lectures and laboratories in theory of operation and repair of the AN/GPG-1 radar set, T-37 computer, and T-21 power control. This is a highly specialized equipment course with limited academic value.

Credit Recommendation: Credit in not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0037

GUIDED MISSILE FIRE CONTROL REPAIR

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 15 weeks (525 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, maintain, test, and repair guided missile fire control systems.

Instruction: Lectures and practical exercises in theory of operation, installation and adjustment, and maintenance and troubleshooting of AN/MSG-3 systems. Highly specialized equipment course with limited educational value.

Credit Recommendation: Credit in not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0038

TELEPHONE REPAIR

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 22 weeks (770 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain basic telephone equipment and cabling.

Instruction: Lectures and laboratories in mathematics, electricity and magnetism, test equipment, power equipment, electronic supplies, teletype, cabling, and field wiring, with emphasis on repair procedures and troubleshooting. Specialized course with little educational value.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0039

ADVANCED COMMUNICATIONS OFFICER

Course Number: None.

Location: Communication Officers School, Quantico, VA.

Length: *Version 1:* 42 weeks (1497). *Version 2:* 42 weeks (1155-1156 hours). *Version 3:* 42 weeks (1093 hours). *Version 4:* 42 weeks (1034-1108 hours).

Exhibit Dates: *Version 1:* 8/81-Present. *Version 2:* 8/80-7/81 *Version 3:* 8/77-7/81. *Version 4:* 8/75-7/77.

Objectives: To provide professional military education in communications and command and staff duties for Marine officers.

Instruction: *All Versions:* Lectures, demonstrations, and self-paced studies in organization and tactics, amphibious operations, an overview of electrical circuits and electronics, management and command skills, leadership, operational telecommunications including propagation, antennas, modulation, multiplexing, and specialized military systems. *Version 2:* This course in an introductory level presentation of AC and DC circuit theory including characteristics of passive circuit elements and transistors. Principles of operation of AM, SSB, and FM communication equipment and subsystems with emphasis on signal characteristics are included. There is introductory level instruction in communication transmitters and receivers, frequency allocation, antennas and transmission modulation techniques, signaling schemes and mobile electric power generation. Includes installation, operation, and maintenance of specific military equipment. Introductory instruction in automatic data processing with some programming using BASCI language, installation and operation of specific ADP equipment are included. The leadership component is concerned with the training of officers through the development of their skills. A wide range of material is entailed in order to provide for the acquisition of such competencies as planning, organizing, conducting, evaluating, and inspecting field leadership training. Students are required to actively participate in every phase of the instructions. In the management component the student employs management skills and technologies, theories and concepts which will be incorporated into the instructional program. Topics such as statistical information, planning, programming, and budgeting and maintenance management are included. Instruction is offered in the functioning of organizations of the command and staff level, principles and techniques of tactics with emphasis on amphibious operations and support communications, use and applications of justice and military law. *Version 3:* Includes basic DC and AC circuits (excluding network analysis and three phase).

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing, 3 in public speaking, 4 in basic electricity/electronics (11/80); in the upper-division baccalaureate category, 5 semester hours in leadership and management (11/80); in the graduate degree category, 3 semester hours in introduction to principles of research (11/80). *Version 3:* In the vocational certificate category, 6 semester hours in basic electrical circuits excluding laboratory (12/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electrical circuits excluding network analysis and laboratory (12/77). *Version 4:* Credit is not recommended because of the limited specialized nature of the course (12/77).

MC-1715-0040

AVIATION FIRE CONTROL TECHNICIAN

Course Number: 664.

Location: Air Command and Control School, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 7-11 weeks (267-440 hours).

Exhibit Dates: 10/78-Present.

Objectives: To provide instruction in the installation, alignment, and advanced troubleshooting of an aviation fire control system.

Instruction: Lectures and practical exercises in the receiving, transmitting, and timing circuitry of the radar system. Also includes a review of the system computer. Advanced troubleshooting techniques for this system are stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic equipment maintenance (5/90).

MC-1715-0042

SOUND EQUIPMENT REPAIR

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 6 weeks (210 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, test, and maintain specific sound equipment.

Instruction: Lectures and practical exercises in audio and magnetic recording theory, and operation and maintenance of specific sound equipment, with emphasis on troubleshooting and servicing techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0043

MARINE TACTICAL DATA SYSTEM (MTDS) TECHNICIAN

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 34 weeks (1388 hours).

Exhibit Dates: 7/67-12/68.

Objectives: To train enlisted personnel to install, repair, test, and maintain a tactical data system.

Instruction: Lectures and demonstrations on the operation of special-purpose computers and peripheral equipment; radar data processing and track store data processing; installation, operation, and repair of geographic display units, weapons control systems, bookkeeping elements, internal and external digital data links, and voice communication elements; memory access and monitoring; power supply and distribution; and operation of maintenance and testing equipment.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0044

ADVANCED ELECTRICIAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 8 weeks (344 hours).

Exhibit Dates: 1/68-12/73.

Objectives: To provide enlisted personnel with advanced training in the servicing of electrical and electronic equipment.

Instruction: Lectures in basic mathematics, including graphs, logs, algebra, and trigonometry; electrical theory, including terminology, batteries, Ohm's law, electromagnetism, elementary AC circuits, series-parallel circuits, RLC combinations, bridges, conductors, and wiring; power generating equipment, including AC and DC motors, generators, transformers, construction, and characteristics; triodes, amplifiers, and magnetic amplifiers; electrical drawings and symbols; elementary tube electronics, power supplies, semiconductors introduction, diodes and transistors applications and testing procedures; solid-state regulators; and engine generator analyzer set operational testing procedures.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics (4/74).

MC-1715-0045

GROUND RADIO TECHNICIAN

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 7/56-1/88.

Objectives: To train experienced communication-electronics equipment repairmen to install, inspect, maintain, and repair specific ground radio sets.

Instruction: Lectures and practical exercises in mathematics through trigonometry, vector algebra, and complex numbers; system circuits, vacuum tubes, power supplies, antennas, and test equipment maintenance and repair; high-frequency techniques; servicing procedures for special ground radio sets; and basic transistor theory as applied to radio receivers.

Credit Recommendation: In the vocational certificate category, 36 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 8 in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0046

TACTICAL AIR COMMAND CENTRAL (TACC) TECHNICIAN

Course Number: *Version 1:* FGX. *Version 2:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA.

Length: *Version 1:* 21-29 weeks (783-1100 hours). *Version 2:* 24 weeks (875 hours).

Exhibit Dates: *Version 1:* 7/84-Present. *Version 2:* 12/78-6/84.

Objectives: To train enlisted personnel in the advanced operation, testing, maintenance and repair of a tactical air command central system. System includes computers, displays, voice communications, and digital data links.

Instruction: *Version 1:* Lectures and practical exercises in the operation, testing and repair of the entire central system. Includes computer diagnostics and repair to the card level, power supply repair, and systems interfaces. Use of specialized and general purpose test equipment. In 11/84 a new outline showed increased emphasis devoted to display generation and presentation equipment by 50% and 30% respectively. This was due to a loss in essential lab equipment necessitating increased lecture time. *Version 2:* Lectures and practical exercises in maintenance test procedures, use of tools, digital and analog test equipment, integral test features, diagnostic routines, and special failure-reporting procedures. Included is the interfacing of analog systems with specific computer logic systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance and 3 in computer maintenance (5/87). *Version 2:* In the vocational certificate category, 3 semester hours in computer system software, 3 in computer interfacing and troubleshooting (3/79)

MC-1715-0047

AVIATION RADIO TECHNICIAN

Course Number: *Version 1:* 66G. *Version 2:* None. *Version 3:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palm, CA. *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: *Version 1:* 3 weeks (105 hours). *Version 2:* 9-11 weeks (335-422 hours). *Version 3:* 24 weeks (840 hours).

Exhibit Dates: *Version 1:* 6/85-7/87. *Version 2:* 2/76-5/85. *Version 3:* 7/56-12/68.

Objectives: To train maintenance personnel to install, inspect, maintain, and repair aviation radio equipment.

Instruction: For this course after 7/87 see MC-1715-0127. *All Versions:* Lectures and practical exercises in circuits, vacuum tubes, power supplies, antennas, and test equipment operation and maintenance; high-frequency techniques; special aviation radio set servicing procedures; and basic transistor theory as applied to radio receivers. *Version 1:* Lectures and practical exercises in aviation radio equipment characteristics, operation and maintenance at the block diagram level. *Version 2:* Lectures and practical exercises relating to operational, adjustment, alignment, and performance verification procedures. Techniques refer to specific military electronic equipment. *Version 3:* Includes mathematics through trigonometry, vector algebra, and complex numbers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronic equipment maintenance (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 2 in electronic communication systems (3/79). *Version 3:* In the vocational certificate category, 36 semester hours in radio and electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 8 in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in radio and electronics and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0048

1. Reserve Communication Officer Phase I, II, III
2. Reserve Communication Officer Phase I, Phase II

Course Number: None.

Location: Communication Officers School, Quantico, VA.

Length: *Version 1:* Phase I, 2 weeks; Phase II, 2 weeks (Phase I, 80 hours, Phase II, 80 hours). *Version 2:* Phase I, 2 weeks; Phase II, 2 weeks (Phase I, 71 hours, Phase II, 69 hours).

Exhibit Dates: *Version 1:* 7/86-Present. *Version 2:* 4/76-6/86.

Objectives: To train basic school graduates in the responsibilities and duties of a communications officer.

Instruction: Course includes military communications equipment, systems, and planning procedures on a survey basis. Course is offered in two successive phases.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/80).

MC-1715-0049

Aviation Electronics Operator

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 5 weeks (175 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train enlisted personnel to locate aircraft on radar plotting, radio-radar status, and aircraft status boards, and to operate ground-based radio and radar used in tactical air control.

Instruction: Lectures and practical exercises in plotting techniques; basic radar theory; operation of radio and telephones, position indicators, height finders, direction finders, radio and radar jamming equipment, and air defense systems; weather; map reading; air traffic control procedures; search and rescue procedures; and aircraft recognition.

Credit Recommendation: Credit in not recommended because of the military nature of the course (3/74).

MC-1715-0050

Weapons Location Equipment Repair

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 4-5 weeks (140-173 hours).

Exhibit Dates: 1/72-12/79.

Objectives: To train enlisted personnel to maintain and troubleshoot weapons location radar sets.

Instruction: Lectures and practical exercises in the maintenance and repair of weapons location radar sets, including fundamental concepts and technology of weapons location radar, power distribution, interpretation of radar schematics, circuit analysis, and alignment and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications technology (2/86).

MC-1715-0051

Ground Radar Technician

Course Number: *Version 1:* 27F. *Version 2:* None. *Version 3:* None. *Version 4:* None. *Version 5:* None. *Version 6:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, Twentynine Palms, CA. *Version 5:* Communication-Electronics School, San Diego, CA. *Version 6:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 22-27 weeks (773-1004 hours). *Version 2:* 17 weeks (641 hours). *Version 3:* 17-20 weeks (595 hours). *Version 4:* 24-28 weeks (840-980 hours). *Version 5:* 20 weeks (700 hours). *Version 6:* 24 weeks (840 hours).

Exhibit Dates: *Version 1:* 4/79-6/87. *Version 2:* 7/75-3/79. *Version 3:* 1/72-4/75. *Version 4:* 7/62-12/71. *Version 5:* 7/58-6/62. *Version 6:* 7/56-6/58.

Objectives: To train enlisted personnel to test, troubleshoot, and maintain specific ground radar equipment.

Instruction: For this course after 6/87 see MC-1715-0117. *All Versions:* Lectures and practical exercises in the installation, operation, and maintenance of radar systems. *Version 4:* Includes hostile fire surveillance radar, radar chronograph, tellurometers, radar beacons, Rawin sets, and FADAC. *Version 5:* Includes review of algebra and trigonometry, vacuum tubes, rectifiers, oscillators, multivibrators, basic electricity and magnetism, transistors, microwave theory, synchros and servo systems, and basic digital theory. *Version 6:* Includes review of algebra and trigonometry, vacuum tubes, rectifiers, oscillators, multivibrators, IFF equipment, Mk 10, indicator groups, Rawin sets, and radar beacons.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance (2/86). *Version 2:* In the vocational certificate category, 6 semester hours in communications technology (2/76). *Version 3:* Credit is not recommended because of the military-specific nature of the course (4/74). *Version 4:* In the vocational certificate category, 9 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 5:* In the vocational certificate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0052

Aviation Radar Repair (B)
(Aviation Radar Repairman (B))

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 1:* Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 16-17 weeks (560-632 hours). *Version 2:* 13 weeks (455 hours). *Version 3:* 13 weeks (455 hours).

Exhibit Dates: *Version 1:* 11/73-1/88. *Version 2:* 1/72-10/73. *Version 3:* 5/64-12/71.

Objectives: To train enlisted personnel to install, operate, adjust, inspect, and maintain computers and associated radar sets.

Instruction: *All Versions:* Lectures and practical exercises in tracing RF energy flows through the system; automatic frequency control; high-power pulsers; and system components. *Version 3:* Additional circuit evaluation data on synchronizers, modulators, couplers, and transmitters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in communication technology (2/76). *Version 2:* Insufficient data for evaluation (4/74). *Version 3:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0053

Tactical Air Operations Central
(TAOC AN/TYQ-2) Repair

Course Number: FGT.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 18 weeks (657 hours). *Version 2:* 17-18 weeks (651-665 hours). *Version 3:* 21 weeks (729 hours). *Version 4:* 19 weeks (658 hours).

Exhibit Dates: *Version 1:* 11/77–1/90. *Version 2:* 7/74–10/77. *Version 3:* 7/73–6/74. *Version 4:* 1/72–6/73.

Objectives: To train enlisted personnel to test, maintain, and repair defective circuit boards and modules in tactical air operations systems.

Instruction: *All Versions:* Lectures and practical exercises in usage of printed-circuit-board testers, multimeters, electronic and differential voltmeters, and function-generators; malfunction diagnosis and repair of subsystems. *Version 1:* Includes fault testing and repair of circuit cards in both digital and analog circuits and systems. *Version 2:* Topics include diagnostic techniques for specific system and introduction to overall operation and function of a military tactical air operations control. Also includes fault testing and repair of circuit cards system for flip-flops, logic gates, shift registers, and power supply modules. *Version 3:* Instruction includes module identification and repair, system logic operation identification and description, and display alignment and adjustment. Also includes fault testing and repair of circuit cards for flip-flops, logic gates, shift registers, and power supply modules. *Version 4:* Also includes fault testing and repair of circuit cards for flip-flops, logic gates, shift registers, and power supply modules.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in digital circuit fundamentals, 3 in instruments and measurements, 3 in electronic systems maintenance (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (3/79); in the upper-division baccalaureate category, 3 semester hours in industrial arts education for basic electronics (3/79). *Version 2:* In the vocational certificate category, 12 semester hours in electronics technology (2/76). *Version 3:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* Insufficient data for evaluation (4/74).

MC-1715-0054

AVIATION RADAR REPAIR (D)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 12 weeks (420 hours).

Exhibit Dates: 5/64–12/73.

Objectives: To train enlisted personnel to install, operate, and maintain ground radar and relay systems.

Instruction: Lectures and practical exercises in detailed circuit theory of power supplies, video decoders, radars, and data relays. This is a highly specialized equipment course with very little mathematics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (4/74).

MC-1715-0055

1. AVIATION RADAR REPAIR A
2. AVIATION RADAR REPAIR (A)
3. AVIATION RADAR REPAIR (A) (Aviation Radar Repair)
4. AVIATION RADAR REPAIR

Course Number: *Version 1:* E2H; 66U. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA. *Version 4:* Basic Electronics School, San Diego, CA.

Length: *Version 1:* 13-14 weeks (480 hours). *Version 2:* 16 weeks (560 hours). *Version 3:* 14-15 weeks (490-525 hours). *Version 4:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 8/83–Present. *Version 2:* 1/72–12/73. *Version 3:* 7/58–12/71. *Version 4:* 7/56–6/58.

Objectives: To train personnel to install, test, adjust and maintain an aviation radar system.

Instruction: *Version 1:* Lectures and practical exercises on installation and maintenance procedures on all parts of the radar system are presented. Also included are practical exercises on the troubleshooting of electronic circuitry. *Version 2:* Lectures and practical exercises in circuit theory, circuit testing, corrective and preventive maintenance procedures, performance testing, use of associated test equipment, function and application of identification equipment, introduction to electronic warfare and electronic countermeasures. This course is directed toward specialized equipment. *Version 3:* Lectures and practical exercises in circuit theory, circuit testing, corrective and preventive maintenance procedures, performance testing, use of associated test equipment, function and application of identification equipment, introduction to electronic warfare and electronic countermeasures. This course is directed toward specialized equipment. *Version 4:* Lectures and practical exercises in circuit theory, circuit testing, corrective and preventive maintenance procedures, performance testing, use of associated test equipment, function and application of identification equipment, introduction to electronic warfare and electronic countermeasures. This course is directed toward specialized equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic systems troubleshooting (9/87). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 4:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0056

MEDIUM ANTIAIRCRAFT ARTILLERY (AAA) FIRE CONTROL REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/54–12/68.

Objectives: To train enlisted personnel who have backgrounds in electronics and basic radar principles to maintain and repair the M-33 fire control system.

Instruction: Lectures and practical exercises in the maintenance and repair of the M-33 fire control system, including detailed circuit theory of power supplies, acquisition and tracking radar systems, computer and plotting boards, and tactical control and communications systems; and adjustment and troubleshooting procedures. Highly equipment oriented, with little mathematics.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0058

AVIATION RADAR TECHNICIAN

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, San Diego, CA. *Version 3:* Communication-Electronics School, San Diego, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 34 weeks (1198-1265 hours). *Version 2:* 26-33 weeks (910-1155 hours). *Version 3:* 28 weeks (980 hours). *Version 4:* 24 weeks (840 hours).

Exhibit Dates: *Version 1:* 1/72–4/86. *Version 2:* 7/62–12/71. *Version 3:* 7/59–6/62. *Version 4:* 7/56–6/59.

Objectives: To provide senior noncommissioned officers with advanced instruction in the erection, operation, adjustment, repair, and maintenance of specialized aviation radar equipment and associated test equipment.

Instruction: For this course after 4/86 see MC-1715-0122. Operation and troubleshooting procedures for interrogator sets, decoder groups and IFF equipment. Maintenance of computers, synthesizers, transmitters, receivers, antennas, computer correlator detectors, target position computers, IFF data processors and radar display consoles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in communications technology (2/76). *Version 2:* In the vocational certificate category, 12 semester hours in electronics and credit in electronics laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (12/68). *Version 3:* In the vocational certificate category, 12 semester hours in electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electronics laboratory, and credit in electricity on the basis of institutional evaluation (12/68).

MC-1715-0059

AVIATION RADAR REPAIR (C)

Course Number: *Version 1:* 66W. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 13-14 weeks (492-522 hours). *Version 2:* 12 weeks (443 hours). *Version 3:* 12 weeks (420-445 hours). *Version 4:* 12-17 weeks (455-607 hours).

Exhibit Dates: *Version 1:* 10/85-Present. *Version 2:* 7/78-9/85. *Version 3:* 11/73-6/78. *Version 4:* 5/64-10/73.

Objectives: To train enlisted personnel who are graduates of basic electronics and radar courses in the operation, maintenance and repair of a specific phased array radar system.

Instruction: *Version 1:* Lectures and practical exercises in the theory of operation, reapir, and maintenance of the computer programmer, synthesizer, transmitter, antenna, receiver, display console, data processor and other equipment related to the AN/TPS-32 radar system. *Version 2:* Lectures and practical exercises in operation and troubleshooting procedures for interrogator sets, decoder groups, and IFF test equipment; and maintenance of computer programmers, synthesizers, transmitters, antennas, computer-correlation detectors, target position computers, IFF data processors, and radar display consoles. *Version 3:* Lectures and practical exercises in operation and troubleshooting procedures for interrogator sets, decoder groups, and IFF test equipment; and maintenance of computer programmers, synthesizers, transmitters, antennas, computer-correlation detectors, target position computers, IFF data processors, and radar display consoles. *Version 4:* Lectures and practical exercises in operation and troubleshooting procedures for interrogator sets, decoder groups, and IFF test equipment; and maintenance of computer programmers, synthesizers, transmitters, antennas, computer-correlation detectors, target position computers, IFF data processors, and radar display consoles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electronic equipment troubleshooting (4/90). *Version 2:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance (3/79). *Version 3:* In the vocational certificate category, 4 semester hours in communication technology (2/76). *Version 4:* In the vocational certificate category, 6 semester hours in electronics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74).

MC-1715-0061

BASIC RADAR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: 13-14 weeks (455-525 hours).

Exhibit Dates: 7/56-3/79.

Objectives: To train electronics technicians to test, align, troubleshoot, and maintain a basic radar set.

Instruction: Lectures and practical exercises in the testing, alignment, troubleshooting, and maintenance of a basic radar set, including basic radar theory, IFF and indicator group equipment, and alignment and troubleshooting procedures for specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (12/68).

MC-1715-0062

GROUND RADAR REPAIR

Course Number: *Version 1:* 27E. *Version 2:* None. *Version 3:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 1:* Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 5-8 weeks (185-256 hours). *Version 2:* 5 weeks (200 hours). *Version 3:* 9-10 weeks (315-414 hours).

Exhibit Dates: *Version 1:* 7/74-Present. *Version 2:* 1/72-6/74. *Version 3:* 7/58-12/71.

Objectives: To train enlisted personnel with electronics backgrounds to install, operate, adjust, inspect and maintain specific ground radar sets.

Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, adjustment, inspection, and maintenance of specific ground radar sets, including basic theory of radar sets and auxiliary and test equipment, system circuit analysis, and operation of various subsystems in specific equipment. *Version 2:* Includes introduction to digital computer principles and circuits, number systems and symbolic notation, and analysis of a specific ballistics computer within a radar set.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in systems maintenance (11/89). *Version 2:* In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

MC-1715-0063

RADAR FUNDAMENTALS

Course Number: *Version 1:* 27W. *Version 2:* 27W. *Version 3:* None. *Version 4:* None. *Version 5:* None. *Version 6:* None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 2:* Air Ground Combat Training Center, Twentynine Palms, CA; *Version 3:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, Twentynine Palms, CA. *Version 5:* Communication-Electronics School, San Deigo, CA. *Version 6:* Communication-Electronics School Battalion, San Diego, CA.

Length: *Version 1:* 4 weeks (137 hours). *Version 2:* 4 weeks (141-142 hours). *Version 3:* 4-8 weeks (147-292 hours). *Version 4:* 8 weeks (320 hours). *Version 5:* 6 weeks (240 hours). *Version 6:* 6-7 weeks (240-245 hours).

Exhibit Dates: *Version 1:* 4/90-Present. *Version 2:* 8/84-3/90. *Version 3:* 7/74-3/79. *Version 4:* 1/72-6/74. *Version 5:* 11/68-12/71. *Version 6:* 7/62-10/68.

Objectives: To train enlisted personnel in the fundamental concepts of radar principles.

Instruction: *All Versions:* Lectures and practical exercises in the theory of electronics for analysis of radar, pulse circuits and components, including basic theory of power supplies, timing circuits, blocking oscillators, pulse amplifiers, receiver amplifiers, klystrons, and antenna drive systems and use of oscilloscopes, signal generators, voltmeters, and special test equipment. *Version 2:* Includes analysis of individual stages in a representative radar training system. *Version 3:* Includes control rectifier antenna drive and transistor servicing principles. Course is vacuum-tube oriented. *Version 5:* Course is vacuum-tube oriented.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (2/89). *Version 3:* In the vocational certificate category, 2 semester hours in communications technology for the 4-week course designed for MOS 5931, 5933 and 5934; 4 semester hours in communications technology for the 8-week course designed for MOS 5942, 5943 and 5945 (2/76). *Version 4:* In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 5:* In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 6:* In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0064

ELECTRONIC TELETYPE REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (640 hours).

Exhibit Dates: 11/63-12/68.

Objectives: To train enlisted personnel to maintain and repair telephone and teletype equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of telephone and teletype equipment, including theory of solid-state devices, pulse-forming and -modulation circuits, time division multiplexing, multivibrators, binary arithmetic, computer logic circuits, application of test equipment, specific equipment analysis and operation, and digital fundamentals for application to telephone or teletype systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory, 6 in teletype and telephone repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory, 3 in electromechanical technology (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0065

Cryptographic Equipment Maintenance Preparatory

Course Number: None.

Location: Communication-Electronics School Battalion, San Diego, CA.

Length: 6 weeks (210-240 hours).

Exhibit Dates: 7/62-12/68.

Objectives: To train enlisted personnel to maintain AN/TGC-14(V) teletype equipment.

Instruction: Lectures and practical exercises in AN/TGC-14 teletypewriter operation, including basic electronics test equipment usage, circuit fundamentals, solid-state components, digital computer fundamentals, and circuit analysis; and teletypewriter repair and maintenance, including disassembly, inspection, reassembly, and testing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electronics, 3 in electromechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics, 2 in electromechanical technology (5/74).

MC-1715-0066

Basic Radio

Course Number: None.

Location: Basic Electronics School, San Diego, CA; Communication-Electronics School Battalion, San Diego, CA.

Length: *Version 1:* 7 weeks (245 hours). *Version 2:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 7/58-12/68. *Version 2:* 7/56-6/58.

Objectives: To train enlisted personnel to inspect, test, and maintain basic radio equipment.

Instruction: Lectures and practical exercises in basic radio, including shop practices, radiac instruments, electronics supply, circuit analysis, antennas, frequency modulation, servicing methods, soldering techniques, types of bursts, preventive maintenance of radiac instruments, resistors and electrical circuits, series, combination and parallel circuits, magnets, inductance, frequency modulation transmitters, noise and interference in FM Tran/Rec, theory and use of TS-297 and ME-25A/U, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity and radio, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and radio (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity and radio, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity and radio (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity and radio on the basis of institutional evaluation (4/74).

MC-1715-0067

Operations Officer Electronic Counter-Countermeasures (ECCM)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/66-12/68.

Objectives: To train personnel in basic concepts of electronic countermeasures and counter-countermeasures.

Instruction: Lectures and practical exercises in electronic countermeasures and counter-countermeasures, including electronic warfare, active countermeasures, active countermeasures recognition, advanced ECM techniques and developments, ECCM transmitter techniques and devices, transmitter avoidance fixes, receiver techniques or nonsynchronous pulses, CFAR principles, transmitter fixes to increase signal-to-noise ratio and for synchronous-pulse jamming, and gain controls.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

MC-1715-0069

Special Anti-Air Warfare (AAW) Batteryman

Course Number: None.

Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA.

Length: 7 weeks (210 hours).

Exhibit Dates: 11/66-12/68.

Objectives: To train enlisted personnel in the equipment and operation of the Hawk guided missile system.

Instruction: Lectures and practical exercises in the equipment and operation of the Hawk guided missile system, including introduction to Hawk; launcher operations; missile test shop operations and handling; loader and generator operations; pulse-acquisition radar operations; range-only radar operations; continuous wave acquisition, high-power illuminator, and continuous wave illuminator radar operations; battery control central operations; assault fire command console operations; orientation and alignment of the battery; battle plan procedures; and battalion operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/74).

MC-1715-0070

Radio Telegraph Operator

Course Number: None.

Location: Basic Electronics School, San Diego, CA; Communication-Electronics School, San Diego, CA.

Length: 18 weeks (630 hours).

Exhibit Dates: 7/56-12/72.

Objectives: To train enlisted personnel as radiotelegraph operators.

Instruction: Lectures and field exercises in the operation of and preventive maintenance on radio communications equipment. Topics include receiving, sending, typing, communication procedure and security, radio fundamentals, and map reading.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, and credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (3/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1715-0071

CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-12/73.

Objectives: To train enlisted personnel to maintain, modify, service, and operate a specific navigational system.

Instruction: Lectures and practical exercises in the operation and maintenance of a TACAN navigational system. Course includes primary power distribution, block-diagram analysis, channel servo error operation, T/R RF theory of operation, video decoder, circuit analysis and theory, and troubleshooting procedures. Course is primarily directed to a specific navigation system and has limited general application.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (6/74).

MC-1715-0072

Remote Control System Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 12 weeks (360 hours).

Exhibit Dates: 10/56-12/68.

Objectives: To retrain enlisted personnel in remote control and fire control equipment maintenance.

Instruction: Lectures and practical exercises in the repair and maintenance of remote and fire control equipment. Topics include elementary trigonometry, a brief overview of Ohm's law, troubleshooting of electrical and electronic parts with tube tester and meters, and the function of hydraulic components and synchros.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics or electricity (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics or electricity (6/74).

MC-1715-0073

Telephone/Switchboard Repair
(Telephone Swirchboard Repair)

Course Number: *Version 1:* 28W. *Version 2:* None. *Version 3:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 14 weeks (470 hours). *Version 2:* 9-11 weeks (334-416 hours). *Version 3:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 4/85-1/88. *Version 2:* 7/75-3/85. *Version 3:* 4/73-6/75.

Objectives: To train enlisted personnel to diagnose and repair defects and perform routine maintenance on telephone subsets and switchboards.

Instruction: For this course after 1/88 see MC-1715-0121. *Version 1:* Lectures and practical exercises on installation, operation, repair nad maintenance of tactical telephone systems. Includes manual, semiautomatic and automatic switchboards. *Version 2:* Lectures and practical exercises in the repair and maintenance of telephone subsets and switchboards. Course includes battery-powered subsets, sound and telephone theory, switchboard construction and operation, and basic electricity. *Version 3:* Lectures and practical exercises in the repair and maintenance of telephone subsets and switchboards. Course includes battery-powered subsets, sound and telephone theory, switchboard construction and operation, and basic electricity.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester

hours in telephone systems maintenance (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity, 3 in introduction to telephone communications (3/79). *Version 3:* In the vocational certificate category, 6 semester hours in communications technology, 4 in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in communications technology, 4 in electronics laboratory (7/74); in the upper-division baccalaureate category, 3 semester hours in communications technology (7/74).

MC-1715-0075

Tow Missile Maintenance

Course Number: None.

Location: Schools Division, Albany, GA.

Length: 5 weeks (196 hours).

Exhibit Dates: 3/75–1/88.

Objectives: To train enlisted personnel to maintain and repair the Tow missile launcher system and ancillary equipment.

Instruction: Lectures and practical exercises in the launcher system, field test set, trainer set, and battery charger.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75).

MC-1715-0076

1. Teletype Facsimile Repair
2. Teletypewriter Repair
3. Teletypewriter Repair
   (Teletype Repair)
4. Teletypewriter Repair
   (Teletype Repair)

Course Number: *Version 1:* 26D. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 11 weeks (392 hours). *Version 2:* 14 weeks (543 hours). *Version 3:* 11 weeks (407 hours). *Version 4:* 19 weeks (658 hours).

Exhibit Dates: *Version 1:* 6/85–4/87. *Version 2:* 10/78–5/85. *Version 3:* 7/74–9/78. *Version 4:* 11/73–6/74.

Objectives: To train personnel to repair, operate, and maintain several military teletype terminals.

Instruction: For this course after 4/87 see Mc-1715-0120. *All Versions:* Lectures and practical exercises in the repair, maintenance, and operation of several teletype terminals, including coverage of basic electromechanical devices. *Version 4:* Includes basic electronics with Ohm's Law, series parallel resistances, AC and DC theory, semiconductor fundamentals, and RLC circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in teletype/facsimile repair and 1 in electromechanical laboratory (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in electromechanical maintenance and repair, 1 in electromechanical maintenance laboratory (3/79). *Version 3:* In the vocational certificate category, 8 semester hours in electromechanical technology (2/76). *Version 4:* In the vocational certificate category, 3 semester hours in basic electronics and 3 in teletype maintenance (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (6/75).

MC-1715-0077

Tactical Data Communications Central Repairman

Course Number: 28Y.

Location: Communication-Electronics School, Twentynine Palms, CA; Air Ground Combat Training Center, Twentynine Palms, CA.

Length: *Version 1:* 20 weeks (686 hours). *Version 2:* 16–18 weeks (606 hours). *Version 3:* 16 weeks (580 hours).

Exhibit Dates: *Version 1:* 6/89–Present. *Version 2:* 5/77–5/89. *Version 3:* 7/74–4/77.

Objectives: To train enlisted personnel in the installation, maintenance, operation, testing and repair of specific military data communications equipment.

Instruction: Provides instruction at the repairman level on the Tactical Data Communications Central AN/TYQ-3. Includes basic single sideband theory, antenna and transmission line theory, data flow, and systems-oriented tasks. Malfunction isolation is taught at the module or card level.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in digital systems maintenance, 2 in electronic communications maintenance (3/79). *Version 3:* In the vocational certificate category, 12 semester hours in electronics technology (2/76).

MC-1715-0078

Air Support Control Officer

Course Number: TOA.

Location: Air Ground Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 6-11 weeks (208–408 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train personnel as air support control officers.

Instruction: Lectures and practical exercises in radio net operator duties, plotter/status board techniques, radar operator procedures, and strike controller procedures, under simulated field conditions.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/88).

MC-1715-0079

Guided Missile Fire Control Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 15 weeks (525 hours).

Exhibit Dates: 6/58–12/68.

Objectives: To train enlisted personnel to install, inspect, test, maintain, and repair missile fire control systems and associated air-search radar sets.

Instruction: Lectures and practical exercises in theory, installation, and adjustment of missiles and launchers, including power supplies, acquisition and track radar, synchronization, computer and plotting boards, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0080

Terrier Missile Launcher System Repairman
(Terrier Missile Launcher System Repair)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 21 weeks (845–887 hours).

Exhibit Dates: 6/58–12/68.

Objectives: To train enlisted personnel to repair and maintain the Terrier missile launcher, control system, and associated ordnance equipment.

Instruction: Lectures and practical exercises in components, maintenance, and repair of the Terrier missile launcher, including mechanical and hydraulic systems, electrical operation, power units, system intergration, and adjustment and trouble analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0081

Mobile Data Communications Terminal Technician

Course Number: BF2.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 11-14 weeks (418-532 hours).

Exhibit Dates: 7/75–4/87.

Objectives: To train enlisted personnel in the operation and maintenance of specific military communication equipment.

Instruction: For this course after 4/87 see MC-1715-0118. Provides in-depth instruction on the AN/TYC-5 mobile data communication terminal with emphasis on performance testing and troubleshooting of the complete system.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electro/mechanical technology (3/76).

MC-1715-0082

Tactical Air Operations Central (TAOC) Technician
(Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician)

Course Number: FGP.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 35 weeks (1342 hours). *Version 2:* 30 weeks (1127 hours).

Exhibit Dates: *Version 1:* 9/78–1/90. *Version 2:* 7/75–8/78.

Objectives: To train enlisted personnel to install, operate, test, maintain, and repair specific military equipment.

Instruction: *Version 1:* Lectures and practical exercises covering a specific digital analog data processing and control system. Practical experience is gained by performing system maintenance test procedures and analyzing and correcting instructor-inserted equipment malfunctions. *Version 2:* Lectures and practical exercises covering a comprehensive digital and analog data processing and control system, including a study of digital computers, radar azimuth processing, detection and video signals, data link communications, voice communications, and program processing and control associated with an operational system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in the use of electronic test equipment, 6 in electronic equipment maintenance (3/79). *Version 2:* In the vocational certificate category, 24 semester hours in electronics technology (2/76).

MC-1715-0083

High Frequency Communication Central Operator

Course Number: BEZ.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 4-7 weeks (146-268 hours).

Exhibit Dates: *Version 1:* 2/89-Present. *Version 2:* 7/75-1/89.

Objectives: To qualify enlisted personnel in the operation of specific military electronic equipment.

Instruction: Provides instruction in the operation, installation, maintenance, and administration of communication equipment.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/86).

MC-1715-0084

RD-358 Magnetic Tape Subsystem Accelerated

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 7/75-3/79.

Objectives: To train enlisted personnel in the operation and maintenance of specific military communication equipment.

Instruction: Lectures and practical exercises in overall operation and microprogramming concepts; installation and operation of third generation digital tape processing equipment; corrective and preventive maintenance procedures; logic diagrams; and microprogram listings.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics engineering technology (2/76).

MC-1715-0085

Mobile Data Central Technician

(Mobile Dial Central Technician)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 5 weeks (180 hours).

Exhibit Dates: 7/75-12/76.

Objectives: To train enlisted personnel in the repair and maintenance of telephone PBX equipment.

Instruction: Lectures and practical exercises covering the installation, operation, testing, fault identification, adjustment, and repair of PBX equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony technology (2/86).

MC-1715-0087

AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance

Course Number: None.

Location: Marine Corp Air Station, Cherry Point, N.C..

Length: 2 weeks (60 hours).

Exhibit Dates: 2/78-1/90.

Objectives: Provides trained personnel with information at the block-diagram level to maintain and troubleshoot specialized chaff-dispensing equipment.

Instruction: Lectures and laboratory training at the intermediate or systems level in such topics as basic concepts, major assemblies and sub-assemblies, system/aircraft interface and structural considerations. Some time is spent on electronic system theory including power distribution/control, circuit card assembly, converters and drive motors.

Credit Recommendation: In the vocational certificate category, 1 semester hour in avionics maintenance technology (7/80); in the lower-division baccalaureate/associate degree category, 1 semester hour in electromechnical laboratory (7/80).

MC-1715-0088

AN/ARN-84(V) TACAN Receiver Intermediate Maintenance

Course Number: C-102-3090.

Location: Marine Corp Air Station, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 2/77-1/90.

Objectives: The course provides fleet maintenance personnel with the theory, operation and troubleshooting of an aircraft receiver.

Instruction: The student gains an understanding of the receiver operation and signal flow path so as to identify defective component or subsystems using a fault-free troubleshooting procedure provided in the maintenance manuals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in repair and maintenance laboratory (7/80).

MC-1715-0089

Microminiature Component Repair

Course Number: E7D.

Location: Air Ground Combat Training Center, Twentynine Palms, CA. Communication-Electronics School, Twentynine Palms, CA.

Length: 4-6 weeks (160-212 hours).

Exhibit Dates: 5/79-Present.

Objectives: To train selected personnel to conduct repairs on circuits characterized by high density circuitry, highly sensitive components, extremely small size and/or multi-lead components.

Instruction: The course encompasses the identification and causes of defective solder connections, the procedures and proper tools required to produce high reliability solder connections, and proper mounting and installation of various components, including microelectronic devices, such as integrated circuits, conformal coatings used and the most effective means of removal and replacement. Circuit baseboards are identified by composition then rebuilt or repaired. Types of interfacial connections and conductor runs are identified and repaired or replaced. Repairs are made to boards containing multiple or subsurface conductor runs, flexible printed wiring boards and printed wiring harnesses, all without causing further degradation to the circuit under repair. Specifications and techniques required for the various types of terminal and connector pins. In addition to the materials used in the microminiature component repair course, various electroplating chemicals, metals, paints, and etchant materials are provided for plating techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in microminiature component repair (2/89).

MC-1715-0090

Installation, Operation, and Operator's Maintenance of Floodlight, Frequency Convertor, and Dummy Load Bank by Correspondence

Course Number: 11.24.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 2/83-12/88.

Objectives: To provide enlisted personnel with basic training in the maintenance, installation, and operation of a A265 floodlight.

Instruction: This individual (self-study) study program covers an electro-mechanical device (Model A254 floodlight) including dummy load load banks, phase voltages, equipment set-up, operation and maintenance. Course concludes with a proctored examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electro-mechanical equipment (maintenance and operation) (6/84).

MC-1715-0091

Pole Line Construction Equipment by Correspondence

Course Number: 25.55.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 12/81-Present.

Objectives: To teach students to identify pole lines, construction equipment and hardware; and safety and first aid.

Instruction: This correspondence course consists of study units on safety and first aid, military construction vehicles, pole installation equipment and hardware. There is a proctored final examination; course includes no laboratory work.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (8/83).

MC-1715-0092

Field Radio Systems by Correspondence

Course Number: 25.35.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/78-12/88.

Objectives: To provide familiarization with the concepts of communications, systems , and technical controls.

Instruction: This correspondence course does not include laboratory exercises; there is a proctored final examination. Course provides information on fundamental communications theory, and control, description, operation, and installation of communications central which is a transportable central exchange system for radio, telephone and telegraph communicatons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/83).

MC-1715-0093

Fundamentals of Digital Logic by Correspondence

Course Number: 28.6e.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 11/80–12/84.

Objectives: Course provides instruction in the fundamentals of digital logic system.

Instruction: This correspondence course presents study units covering binary arithmetic, Boolean algebra, gates, flip-flops, non logic circuits, magnetic cores, counters, registers, adders, decoders and A/D converters. Instruction does not include laboratory exercises; there is a proctored examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital logic (8/83).

MC-1715-0094

Autodin Procedures by Correspondence

Course Number: 25.41a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/78–10/83.

Objectives: To teach students to identify the Automatic Switching Centers (ASC), the tributary station and the Autodin's operation modes.

Instruction: This correspondence course offers a proctored final examination but no laboratory exercises. It is concerned with providing basic knowledge of the Automatic Digital Network (Autodin) communication system. Course coverage consists of an introduction to the Autodin system, preparation of narrative messages for transmission, data pattern messages, and service messages. Study is centered around construction of and routing of these various types of messages through the Autodin communication system.

Credit Recommendation: Credit is not recommended because of the military-spedific nature of the course (8/83).

MC-1715-0095

Introduction to Electronic Warfare by Correspondence

Course Number: 25.26.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 2/82–11/85.

Objectives: To provide students with information and instruction in electronic warfare techniques.

Instruction: This correspondence course, which includes a proctored final examination, has no laboratory work offered. Course includes information about the electronic battlefield, electronic warfare responsibilities, the electronic threat, and countering the threat.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/83).

MC-1715-0096

Pole Line Construction Techniques by Correspondence

Course Number: 25.56.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/82–Present.

Objectives: Provides the field wireman with information for the installation of line poles, suspension strands, and aerial cables. In addition, safe operating techniques of pole line construction is stressed.

Instruction: This correspondence course presents study units covering military vehicles used in pole installation, anchor and guy wire installation and suspension. Instruction does not include laboratory exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/83).

MC-1715-0097

Field Switchboard Operations and Installation by Correspondence

Course Number: 25.52b.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 8/80–5/87.

Objectives: To provide instruction on the specialty requirements of the field wireman concerning installing and operating field communications switchboards.

Instruction: This correspondence course is used to prepare Marines to use field telephone switchboard equipment. It consists of generalized information on various switchboard systems including: description, use, operating characteristics, operational tests, and installation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/83).

MC-1715-0098

Field Wire Techniques by Correspondence

Course Number: 25.51b; 25.51c.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/80–10/88.

Objectives: To teach identification of field wire splicing tools, field wire splices, ties, and their uses.

Instruction: This correspondence course which has a final examination but no laboratory exercises is involved with installation, operation, and maintenance of field wire systems. Subjects covered are: field wire splices and ties; pole and tree climbing; wire system orders, reports and records; field wire construction; wire system maintenance. Each topic involves various aspects of fundamental operations, preparation purposes, planning, installation, preventive maintenance, and tests. The course could have relevance to civilian power and phone company training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course. The training could have relevance to civilian power and phone company training (3/83).

MC-1715-0099

Automatic Telephone Equipment by Correspondence

Course Number: 25.54.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 11/80–Present.

Objectives: To supply the field wireman with the information necessary for the identification, installation, and operation of military automatic telephone equipment.

Instruction: This correspondence course presents study units covering purpose, use, technical characteristics and operation of military switchboards, and dual-tone multifrequency telephone systems. Instruction does not include any laboratory exercises, a proctored examination concludes the course.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (8/83).

MC-1715-0100

Field Wire Noncommissioned Officer (NCO) by Correspondence

Course Number: 25.53a.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 9/78–12/84.

Objectives: Provides instruction in field wire techniques that apply to division-sized units.

Instruction: This correspondence course consists of study units covering command and communication organization, planning, installation and operation, and maintenance of field wire units. Instruction does not include laboratory exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/83).

MC-1715-0101

Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence

Course Number: 25.36.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 2/83–Present.

Objectives: To provide information and instruction on the communication requirements of a combat operations center and fire support coordination center to include responsibilities, planning and system description.

Instruction: This correcpondence course, without laboratory exercises, provides information and instruction on the purpose, function, and requirements of a combat communications center; the purpose, function, and requirements of a fire support coordination center; radio networks within these centers; radio chief and watch supervisor responsibilities; and other factors concerning the location and displacement of these facilities. Some topographical map reading, graph plotting, and simple mathematics are included. A proctored final examination is required for course completion.

Credit Recommendation: Credit is not recommended because of the limited,specialized nature of the course (8/83).

MC-1715-0102

Communications for the FMF Marine by Corespondence

Course Number: 25.20B.

Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 2/80–7/87.
Objectives: To provide FMF Marines with comprehensive coverage of communications procedures,capabilities, limitations, and the importance of equipment maintenance.
Instruction: This correspondence course consists of reading assignments, format guides, and written lessons covering priorities, chain of command, field wire equipment, ties and splices, operation of military field radios, maintenance, safety, waterproofing, radiotelephone nets, procedures, message formats, and communications security. This instruction does not include laboratory exercises.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/83).

MC-1715-0103

Radiotelephone, Telegraph, and Visual Communications Procedures by Correspondence

Course Number: 25.3L.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 1/83–12/85.
Objectives: To provide information and instruction in areas of telegraph and visual communications and radio telephone procedures.
Instruction: This correspondence course consists of study units covering message types and formats, radio telephone procedure, Morse code and telegraph procedure, visual communication methods, security,RFI and jamming; there are no laboratory exercises.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/83).

MC-1715-0104

Communication Center by Correspondence

Course Number: 25.40c.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 5/80–11/87.
Objectives: To provide students with a basic knowledge of the organization, function, and basic requirements of a Marine Corps communication center.
Instruction: This correspondence course includes a final examination but no laboratory work. Subjects covered include responsibilities of each part of the communications center, various logs and files maintained, publications used, and security procedures.
Credit Recommendation: Credit is not recommended because of the limited,specialized nature of the course (8/83).

MC-1715-0105

Introduction to Communication Control by Correspondence

Course Number: 25.21.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 1/80–12/84.
Objectives: To orient communications personnel in the organization and function of communications control.
Instruction: This corrrespondence course includes a final examination which is proctored. Subjects covered include the missions and responsibilities of the agencies of communication control, the functions of systems planning, and record keeping.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1715-0106

Communications Plans and Orders by Correspondence

Course Number: 25.4d.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 7/78–1/85.
Objectives: This course provides training to Marines in recognizing and interpreting combat orders.
Instruction: This correspondence course, which includes a final examination, includes organization and type of staff,plans and orders, planning coordination, and the operations order.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course materials (3/83).

MC-1715-0107

Multichannel Radio Equipment by Correspondence

Course Number: 25.31c.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 11/80–11/85.
Objectives: To provide students with training in the operation of Marine Corps multichannel radio equipment.
Instruction: This correspondence course has a proctored final examination but does not include any laboratory work. Course includes general information about radio transmission, safety, detailed information about each piece of equipment, and operating procedures for the vehicle that carries the equipment.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1715-0108

VHF (FM) Field Radio Equipment by Correspondence

Course Number: 25.30e.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 12/79–6/84.
Objectives: To provide training to students in .the use of certain Marine Corps FM radio communications sets and the vehicle that carries them.
Instruction: A Marine Corps correspondence course which has a final examination but does not include laboratory work. The provides a detailed study of how to operate and how to do operators maintenance on the FM radio sets and the vehicle that carries the sets.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1715-0109

Communication Security by Correspondence

Course Number: 25.25.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum of 52 weeks.
Exhibit Dates: 8/80–8/85.
Objectives: To provide communications personnel with instruction in basic Marine Corps communications security.
Instruction: This correspondence course, which includes a final examination, has no laboratory work. Course includes coverage of principles of transmission, physical and cryptographic security, and electronic countermeasures.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the material provided (3/83).

MC-1715-0110

HF-UHF Field Radio Equipment by Correspondence

Course Number: 25.32c.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 10/81–3/87.
Objectives: This correspondence course provides training to students in the operation of Marine Corps radio sets and the vehicle that carries the set.
Instruction: This correspondence course, which has a final examination but no laboratory work, covers the detailed procedures necessary to set-up, operate, and do operator preventive maintenance on specific radio sets and the vehicle that carries the set.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1715-0111

Field Wire Equipment by Correspondence

Course Number: 25.50b.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum of 52 weeks.
Exhibit Dates: 11/79–7/85.
Objectives: To present specialty qualifications requirements of the field wireman concerning installing, operating, performing preventive maintenance on, and waterproofing field wire equipment.
Instruction: This correspondence course has a final examination but no laboratory exercises. The program is used to acquaint the Marine with various pieces of field wire communications equipment including field telephones, switchboards, voice-frequency conversion units, and wire laying equipment. The course discusses simple preventive maintenance, system interconnections, operations and general procedures.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/83).

MC-1715-0112

Antenna Construction and Propogation of Radio Waves by Correspondence

Course Number: 25.15G; 25.15F.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum of 52 weeks.
Exhibit Dates: 11/80–6/87.
Objectives: To provide training in the theory of radio wave propagation and in the characteristics and construction of antennas.

Instruction: This correspondence course includes a proctored final examination but does not include any laboratory work. Subjects covered include basic electricity, antenna and transmission line theory, and radio wave propagation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to electronic communications (7/87).

MC-1715-0113

AIMS Maintenance

Course Number: 24X.

Location: Air Ground Combat Center, Twentynine Palms, CA.

Length: 10 weeks (350-399 hours).

Exhibit Dates: 1/84-Present.

Objectives: To train personnel to repair and maintain an air traffic control radar beacon system.

Instruction: Course provides lectures and practical exercises in operation, installation, operational adjustment, and circuitry related to air traffic control radar equipment. Also includes corrective and preventive maintenance, schematic interpretation to the block diagram level, and the use of technical manuals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems maintenance and repair (1/90).

MC-1715-0114

Test, Measurement and Diagnostic Equipment

Course Number: 28T.

Location: Marine Corps Logistics Base, Albany, GA.

Length: 21-23 weeks (773-995 hours).

Exhibit Dates: 5/83-Present.

Objectives: To train enlisted Marines to maintain and repair test, measurement and diagnostic equipment.

Instruction: Lectures and practical exercises in soldering techniques, AC/DC circuit, electronic circuits, digital logic, microprocessors and specific electronic test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in AC/DC circuits, 2 in electronic circuits, 2 in digital logic, 2 in microprocessors and 3 in electronic troubleshooting and repair (11/86).

MC-1715-0115

Small Missile Systems

Course Number: 57L.

Location: Marine Corps Logistics Base, Albany, GA.

Length: *Version 1:* 10-11 weeks (417 hours). *Version 2:* 8-10 weeks (295-400 hours).

Exhibit Dates: *Version 1:* 1/87-Present. *Version 2:* 11/76-12/86.

Objectives: To provide enlisted Marines with sufficient technical training to perform third and fourthechelon maintenance and repair on small missile systems.

Instruction: Lectures and practical exercises in fault isolation, identification, faulty component removal and replacement in the TOW and Dragon weapons systems.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic troubleshooting and repair (11/86).

MC-1715-0116

Basic Electronics

Course Number: 272.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 11-14 weeks (392-524 hours).

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the basic concepts of electricity, electronics, digital logic, basic soldering, computer systems, and maintenance management. The Marine will be able to perform laboratory measurements using the multimeter and the oscilloscope.

Instruction: Lectures and practical exercises in basic mathematics, electricity, electronics, fundamentals of digital logic, soldering and maintenance management. More advanced courses involving repair of specific equipment follow. For this course before 8/86 see MC-1715-0004.

Credit Recommendation: In the vocational certificate category, 2 semester hours in soldering techniques; in the lower-division baccalaureate/associate degree category, 2 semester hours in DC circuits, 2 in AC circuits, 3 in solid state electronics, 3 in digital principles, 3 in basic electronics laboratory and 1 in computer systems and organization (9/89).

MC-1715-0117

Ground Radar Technician

Course Number: 27F.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 9-10 weeks (363 hours).

Exhibit Dates: 7/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to install, calibrate and maintain military radar systems; be able to describe the theory of operation of the system; and be able to troubleshoot the system to the card level.

Instruction: Lectures, demonstrations, and practical exercises on topics specific to military radar systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (2/89).

MC-1715-0118

Mobile Data Communications Terminal Technician

Course Number: BF2.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 17 weeks (680 hours).

Exhibit Dates: 5/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to install, maintain, and troubleshoot mobile data communications equipment including peripherals.

Instruction: Lectures and lab exercises on the installation and maintenance of the equipment and its peripherals including tape punch and reader, printers, interface unit, and modem.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance (2/89).

MC-1715-0119

Bancroft Maintenance

Course Number: DQH.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 8-9 weeks (290 hours).

Exhibit Dates: 1/89-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand the theory of operation, circuit analysis, and alignment of the Bancroft system and be able to test, troubleshoot, adjust, and perform preventive maintenance on the system.

Instruction: Lectures, demonstrations, and practical exercises on the maintenance of the Bancroft system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (3/90).

MC-1715-0120

Teletype Repair

Course Number: 26D.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 15 weeks (559 hours). *Version 2:* 10-11 weeks (384 hours).

Exhibit Dates: *Version 1:* 6/90-Present. *Version 2:* 5/87-5/90.

Learning Outcomes: Upon completion of the course the student will be able to understand the principles of operation, circuit analysis, alignment, interconnection, performance testing, and troubleshooting of teletype equipment. Student understands site selection and communications security and is able to troubleshoot the system.

Instruction: *Version 1:* Pending evaluation. *Version 2:* Lectures, demonstrations and practical exercises on alignment and adjustment of teleprinters. Also includes extensive information regarding operation/maintenance of teleprinters. For this course before 5/87 see MC-1715-0076.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in teletype maintenance; in the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical systems troubleshooting and repair (2/89).

MC-1715-0121

Telephone/Switchboard Repair

Course Number: 28W.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 15-17 weeks (528-563 hours).

Exhibit Dates: 2/88-Present.

Learning Outcomes: Upon completion of the course the student will be able to install, operate, troubleshoot and repair Marine Corps telephone/switchboards and related equipment.

Instruction: For this course before 2/88 see MC-1715-0073. Lectures and practical experience on maintenance of individual telephones, switchboards, radio control sets, and facsimile sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone systems; in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

MC-1715-0122

Aviation Radar Technician

Course Number: 66K.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 38 weeks (1389 hours).

Exhibit Dates: 5/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to troubleshoot and maintain a complex computer controlled radar system; able to apply radar circuit principles to the troubleshooting process.

Instruction: Lectures and practical exercises related to the specific radar system. For this course before 5/86 see MC-1715-0058.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer systems troubleshooting and maintenance, 3 in electronic systems troubleshooting and maintenance, and 3 in radar systems (2/89).

MC-1715-0123

MICROWAVE EQUIPMENT MAINTENANCE

Course Number: D3C.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 25-26 weeks (882 hours).

Exhibit Dates: 11/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply the principles of a limited number of topics from digital electronics, solid state electronics, and electronic communications; able to troubleshoot and maintain a military telephone terminal and various radio communication systems.

Instruction: Lectures and practical exercises on topics in electronics. Emphasis is on circuitry, troubleshooting, and maintenance of the specific telephone equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone systems; in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electronics and 3 in basic electronics laboratory (2/89).

MC-1715-0124

RADIO TECHNICIAN

Course Number: 27P.

Location: Communications-Electronics School, Twentynine Palm, CA.

Length: 15-16 weeks (508-511 hours).

Exhibit Dates: 1/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to understand and maintain AM receivers and transmitters, FM receivers and transmitters, and single-sideband receivers and transmitters. Student is also able to analyze and repair communications security devices.

Instruction: For this course before 1/86 see MC-1715-0029. Lectures and practical exercises on the characteristics and maintenance of electronic communications equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (10/89).

MC-1715-0125

HIGH FREQUENCY MAINTENANCE

Course Number: DPH.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 2 weeks (68-80 hours).

Exhibit Dates: 8/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to maintain a transceiver. The student will understand the components, characteristics, and synchronization of the equipment by tracing the signal flow of the TCS-4B transmitter and the RCS-4B receiver.

Instruction: Lectures and practical exercises in HF propagation, transmitter and receiver characteristics, system synchronization, block diagrams, power amplifiers, and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (6/90).

MC-1715-0126

RESERVE MICROWAVE EQUIPMENT OPERATOR

Course Number: 246.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (149-156 hours).

Exhibit Dates: 8/84-7/87.

Learning Outcomes: Upon completion of the course the student will be able to operate a specific piece of microwave equipment used for radio communications.

Instruction: Lectures and practical exercises covering topics in alignment and operation of the communications equipment and in procedures to set up the equipment in the field.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/89).

MC-1715-0127

AVIATION RADIO TECHNICIAN

Course Number: 66G.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 5-6 weeks (175 hours).

Exhibit Dates: 8/87-Present.

Learning Outcomes: Upon completion of the course the student will be able to install, inspect, maintain, and repair aviation radio equipment; use test equipment; and follow corrective maintenance procedures.

Instruction: Course provides technician-level training in selected aviation radio equipment. Lectures on theory of operation and circuit analysis, performance testing, alignment procedures, use of test equipment, and corrective maintenance procedures. For this course before 8/87 see MC-1715-0047.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting and maintenance (2/89).

MC-1715-0128

TECHNICIAN THEORY

Course Number: TA3.

Location: Communications-Electronics School, Twentynine Palms, CA.

Length: 16-17 weeks (664 hours).

Exhibit Dates: 8/86-Present.

Learning Outcomes: Upon completion of the course the student will be able to apply principles of algebra, trigonometry, and complex numbers to analysis of problems in electricity and related topics in physics; use common laboratory instruments; understand the principles of DC (does not include network theorems) and AC circuits, semiconductor devices, transistor theory, vacuum tubes, rectifiers and DC power supplies, amplifiers, operational amplifiers, and analysis using circuit techniques; apply the basic principles of digital electronics-logic gates, sequential and combinational logic, counters, adders, and subtractors; apply principles of management and maintenance management; and apply principles of computer organization.

Instruction: For this course before 8/86 see MC-1715-0005. Lectures and practical exercises in technical mathematics, DC and AC circuits, semiconductors, transistor theory, amplifiers, operational amplifiers, and circuit analysis techniques, digital principles, combinational and sequencial logic circuits, computer organization, and principles of management including McGregor's Theory X/Theory Y, Maslow's Theory of Motivation, and Herzberg's Motivation-Hygiene Theory.

Credit Recommendation: In the vocational certificate category, 1 semester hour in soldering; in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics laboratory, 2 in DC circuits, 3 in AC circuits, 3 in digital principles, 5 in solid state electronics, 3 in computer systems and organization, 5 in technical mathematics, and 2 in maintenance management; in the upper-division baccalaureate category, 1 semester hour in principles of management (2/89).

MC-1715-0129

INTRODUCTION TO TEST EQUIPMENT BY CORRESPONDENCE

Course Number: 28.7.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize measurement instruments used to determine voltage, current, and resistance; recognize analog and digital display, parallax, series and shunt loading effects as well as measurement objectives and conditions of proper measurements.

Instruction: Discussion of test equipment to define analog and digital display, electrical characteristics of linear and non-linear components, measurement methods, parallax errors, series and shunt connected loading effects.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic test equipment (6/89).

MC-1715-0130

DIRECTION FINDING OPERATIONS BY CORRESPONDENCE

Course Number: 26.1.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/88-Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize Soviet communication operating characteristics, terms and conditions of electronic warfare, methods and characteristic definitions of direction-finding operations, and the operating procedures of AN/PRO-10 direction finder set and OAR-3054 direction finder set.

Instruction: Description and historical prospective of Soviet communications systems, development of terms and techniques of electronic warfare, and basic radio propagation theory and techniques of direction finding operations, the operating and preventive maintenance procedure for the AN/PRO-10 and OAR-3054 direction finder sets.

Credit Recommendation: Credit is not recommended, as the subject is limited and specialized as presented and is military-specific in nature (6/89).

MC-1715-0131

Fundamentals of Digital Logic by Correspondence

Course Number: 28.6F.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize number system organization and arithmatic operations found in digital systems; fundamental logic elements and functions of digital sytems, i.e., AND, NOT, OR, NAND, and NOR; electrical representation of logical functions; logical memory units using discrete transistorized designs, and be aware of monostable and bistable effects of flip flops; the use of flip-flop circuitry in the serial counting function, parallel shift operation, parallel to serial and serial to parallel conversion; the use of discrete transistor circuitry in construction of logical delay elements; the use of magnetic core as a method of memory element storage; input/output operations of memory storage and removal by usage of shift register transistors. To summarize, upon completion, the student is prepared to learn troubleshooting techniques and schematic reading of computing and control sytems designed pricipally with discrete transistorized circuitry and core memory elements.

Instruction: Numeric system design, binary number systems, arithmetic binary operations and counting process of number systems; logical operator functions and descriptions including OR, AND, and NOT conditions; development of electrical representation of logical functions (voltage level to logic level relationship); discrete circuit representation of digital storage elements; discrete circuit representation of waveshaping circuits and circuitry used in control systems discription of magnetic retention of magnetic materials, READ/WRITE operations of core storage; description of serial counting, parallel register operation, memory strorge process, X-OR operation, and SHAFT encoding.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to digital logic (6/89).

MC-1715-0132

Solid State Devices by Correspondence

Course Number: 11.42b.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum

Exhibit Dates: 3/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to recognize semiconductor atomic theory, semiconductor characteristics, definitions of N-type and P-type material, and dynamic effects of current flow through P-N junctions; the student will be able to recognize the NPN & PNP transistors by schematic symbols, wafer diagram, and biasing circuitry required for proper operation, also, the student will be able to recognize distortion conditions, various operating configurations, and proper test, troubleshooting, and repair techniques; the student will be able to recognize symbol semiconductor devices such as zener diodes, tunnel diodes, varactors, SCR's and triacs, furthermore, the student will be able to recognize application circuitry and be aware of the operating functions of dacu devices; the student will be able to recognize semiconductor power supply circuits by their schematic representation, and identify signal conditioning effects at sequential points of the power supply, furthermore, the student will be able to to recognize the use of troubleshooting bridge circuitry, filter components and multiplier circuits for the purpose of troubleshooting; the student will be able to recognize voltage regulation through shunt and series techniques, identify the signal conditions at sequential points of the regulator and decide by output effects component failure of the circuit, furthermore, the student will be able to recognize power supply multiplier circuits and their signal processing effects.

Instruction: Developmental chronology of solid state growth, topical presentation of devices and their applications, the atomic theory and its relation to semiconductor materials, the PN junction response curve and test methods applied to PN junctions; discussion of transistor types, schematic symbols, biasing techniques, distortion and its effects, amplifier configurations, development of transistor current relationships, troubleshooting and handling procedures; functional presentations of semiconductor device elements and their applications, zener effects, tunneling, varactor (capacitive) effects, light emitting SCR's, TRIAC's and detecting materials are covered; functional presentation of specialized transistor devices including the unijunction, field effect and MOSFET elements, their schematic symbols, common packaging configurations and theory of operation; discussion of basic power supply concepts including rectification, filtering, AC/DC conditions, effective value ripple, bridge operation and loading; the system approach is used with impedenace calculations to describe loading effects of filter elements; discussion of power supply regulation and doubling operations including regulation calculations, series and shunt voltage regulation, current regulation and multiplier configurations, signal tracing and other troubleshooting techniques are emphasized. All topics are covered at a minimal mathematical level.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to solid-state devices (6/89); in the lower-division baccalaureate/associate degree category, 2 in survey of electronic devices (6/89).

MC-1715-0133

Radiotelegraph and Visual Communication Procedures by Correspondence

Course Number: 25.61.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 9/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to properly format a military radio telegraph message; follow proper radiotelegraph procedures in message handling.

Instruction: By using numerous examples the student learns military radiotelegraph network requirements and message protocol, morse code symbol recognition, message format and preparation procedures, acronyms to condensed messages, techniques to maintain a radio log, and procedures to receive and transmit a message. Alternate signaling protocol using flashing lights and semaphore flags are also presented.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1715-0134

The Military Affiliate Radio System (MARS) Operator by Correspondence

Course Number: 25.62.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 6/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the history, system network, and message format of the Military Affiliate Radio System.

Instruction: A historical background of the mission, organization, administration, and group memberships of the Military Affiliate Radio System (MARS) is given. The operator skill requirements for membership within this network is described. The configuration of the networks within the system and their call signals frequencies and power level requirements are described. Message criteria, types, and formats are given using many examples. Radiotelegraph and radiotelephone operation methods, protocol, and techniques of handling message types are described.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1715-0135

High Frequency Communications System by Correspondence

Course Number: 25.37.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe the purpose and functional operation of major subsystems of the AN/PSC-95 defense communication system; describe how radio waves propagate in the atmosphere; describe amplitude modulation, frequency shift keying, and voice frequency carrier telegraph.

Instruction: The physical characteristics of a mobile high frequency, single-sideband, receiver/transmitter radio teletype communcation system is functionally described by purpose, front panel controls, operating modes and data signal paths; the functional description covers the transmitter, receiver, teletypewriter, control panels, antenna couplers, power supplies, heating, lighting, air conditioning systems, and test meters. Safety precautions and general maintenance procedures are given. High frequency radio wave propagation, amplitude modulation concepts, frequency shift keying, and voice frequency carrier telegraph are described from a non-mathematical viewpoint.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communication technology for nontechnical majors (6/89).

MC-1715-0136

Antenna Construction and Propagation of Radio Waves by Correspondence

Course Number: 25.15.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks.
Exhibit Dates: 7/87–Present.
Learning Outcomes: Upon completion of the course, the student will be able to describe how radio waves propagate through the atmosphere, construct several types of antennas, and describe the characteristics of several types of antenna-systems.
Instruction: A discussion of radio wave propagation through the atmosphere covers such subjects as frequency, wavelength, amplitude modulation and frequency modulation, the effect of various atmospheric layers on wave propagation and reflection; characteristics of direct waves, ground waves, sky waves and the causes of skip zones. Definition of usable frequencies due to atmospheric conditions and fading is described. An examination of antenna patterns, polarization, and frequency band, gain, impedence, and physical characteristics of log periodic, ground plane, and portable dipole antenna systems are given; the radiation pattern and step-by-step construction methods for half dipole, two element yagi, long wire antenna, half rhombie antenna, half-sloping 'V', quarter wave, whip and ground plane antennas are described through drawings and tables which provide appropriate wire lengths. The physical characteristics of several types of transmission lines are pictured. Treatment is all nonmathematical.
Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to antenna theory and construction (6/89).

MC-1715-0137

Radiotelephone and Alternate Communication Procedures by Correspondence

Course Number: 25.60.
Location: Marine Corps Institute, Washington, DC.
Length: 52 weeks maximum.
Exhibit Dates: 8/85–Present.
Learning Outcomes: Upon completion of the course, the student will be able to effectively format military radiotelephone messages; explain administrative rules and procedures of a radiotelephone operator; utilize alternate visual communication techniques.
Instruction: Students learn proper formulation of a military radiotelephone message so as to be reliable, secure, timely, and of sufficient flexability to meet these prior conditions within this area. The student learns the kinds of message categories which exist, techniques to rapidly handprint messages, the phonetic alphabet, pronunciation, world time zones, standarized wording and their meaning, operating rules, communication security measures, types of radio interference, and administration rules and procedures in handling various types of messages including priority levels, cancellations, corrections and methods of requesting information. Alternate visual communication techniques using lights, semaphore flags, display panels, and pyrotechnics are reviewed with the emphasis placed on the alpha-numeric character representation of this visual display. Numerous examples of correct message formats are given.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1717-0001

Operational Communication Chief

Course Number: *Version 1:* None. *Version 2:* None. *Version 3:* None.
Location: Communication-Electronics School, San Diego, CA.
Length: *Version 1:* 18 weeks (631 hours). *Version 2:* 21 weeks (735 hours). *Version 3:* 24 weeks (840 hours).
Exhibit Dates: *Version 1:* 1/72–4/86. *Version 2:* 7/62–12/71. *Version 3:* 7/58–6/62.
Objectives: To train gunnery sergeants as operational communications chiefs.
Instruction: For this course after 4/86 see MC-1717-0004. Lectures and practical exercises in communications facilities operation, electronic systems and equipment operation and characteristics, communication skills, typing radio fundamentals, map and aerial photograph reading, cryptographic operations, electronic supply and maintenance, registered publication system, and Fleet Marine organization and personnel administration.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing, and credit in electronics on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (2/74). *Version 2:* In the vocational certificate category, 2 semester hours in typing, 1 in electronics (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, and credit in electronics on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in electronics (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hours as an elective in electronics for non-electrical-engineering majors (2/74); in the upper-division baccalaureate category, 1 semester hour as an elective in electronics for non-electrical-engineering majors (2/74).

MC-1717-0002

Radio Chief

Course Number: *Version 1:* 25E. *Version 2:* None. *Version 3:* None. *Version 4:* None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.
Length: *Version 1:* Self-paced maximum 13 weeks (403 hours). *Version 2:* 12 weeks (451 hours). *Version 3:* 17 weeks (540 hours). *Version 4:* 20–22 weeks (700–770 hours).
Exhibit Dates: *Version 1:* 12/84–Present. *Version 2:* 7/75–11/84. *Version 3:* 1/72–6/75. *Version 4:* 7/58–12/71.
Objectives: To train enlisted personnel as radio chiefs.
Instruction: *All Versions:* Lectures and practical exercises in the duties of radio chiefs, including map reading, radio procedures, communications equipment, electronic communication fundamentals, supply and maintenance. *Version 2:* Also included is effective reading, typing, organization and management, and employment. *Version 3:* Topics include effective reading, typing, management, and organization and employment. *Version 4:* Topics include communication and transmission security; basic message front; forms, classes and types of messages; generation of address designators; use of address designators publications; generating address designators from publications; principles of preparing message texts and all forms of headings; preparation of frequency/usage reports; preparation of movement reports; numeral encryption; authentication; sending and receiving; communication procedure; communication center functions and teletype procedure; radios and associated equipment; aerial photograph reading; organization, employment and communications of the fleet Marine force; staff functions; basic wire techniques for remote installations; and visual communication.
Credit Recommendation: *Version 1:* Credit is not recommended because of the military specific nature of the course (2/86). *Version 2:* In the vocational certificate category, 3 semester hours in basic communication skills (3/79). *Version 3:* In the vocational certificate category, 4 semester hours in management, 3 in radio communications (electronics) (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in management, 3 in radio communications (electronics) (7/74); in the upper-division baccalaureate category, credit in management and radio communications (electronics) on the basis of institutional evaluation (7/74). *Version 4:* In the vocational certificate category, 3 semester hours in radio communications (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio communications (7/74); in the upper-division baccalaureate category, credit in radio communications on the basis of institutional evaluation (7/74).

MC-1717-0003

Ammunition Officer

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 8 weeks (253–300 hours).
Exhibit Dates: 7/57–1/88.
Objectives: To train junior officers to perform the duties of a specialist in the supply, storage, and transportation of all types of ammunition other than air-droppable types.
Instruction: Lectures and practical exercises in the construction of specific types of munitions; principles of supply, renovation, storage, transportation and destruction of small arms and artillery ammunition, hand grenades, mortar, land mines, and chemical and nuclear munitions.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (5/74).

MC-1717-0004

Operational Communication Chief

Course Number: 25A.
Location: Communications-Electronics School, Twentynine Palms, CA.
Length: 19 weeks (684 hours).
Exhibit Dates: 5/86–Present.
Learning Outcomes: Upon completion of the course the student will be able to operate equipment such as receivers, transmitters, teletype equipment, and communications security devices; understand the operation of a communications center; be familiar with map reading and communications procedures; and be able to manage and plan communications needs.
Instruction: Lectures and practical exercises in radio receiver operation, typing, preventive maintenance of communications security equipment, message verification, communications security, maintenance procedures, electronic warfare, management and counseling. For this course before 5/86 see MC-1717-0001.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel supervision, 1 in maintenance management, and 2 in keyboarding (2/89).

MC-1717-0005

Basic Shop Fundamentals for the Mechanic by Correspondence

Course Number: 13.30.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 2/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify basic hand tools and their use; identify introductory shop safety procedures and fire prevention.

Instruction: The student will be able to evaluate the course of study to include basic hand tool usage, safety, and care; introduction to personal and shop safety will be presented.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hand tool usage, identification, and safety (6/89).

MC-1721-0001

Optical Instrument Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 11 weeks (420 hours).

Exhibit Dates: 7/54–12/72.

Objectives: To train optical instrument and watch repairmen to repair and supervise the repair of optical instruments and watches.

Instruction: Lectures and practical exercises in the repair of optical instruments and watches, including elementary optics, and cleaning and adjustment of quadrants, telescopes, associated mounts, compasses, azimuths, binoculars, periscopes, range finders, sighting systems, stopwatches, wrist watches, and miscellaneous optical equipment.

Credit Recommendation: In the vocational certificate category, 5 semester hours in mechanical technology (optical option) or optical and instrument repair, 1 in watch repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical technology (optical option) or optical and instrument repair (5/74).

MC-1721-0002

Optical Instrument Repairman Basic

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 7–11 weeks (268–440 hours).

Exhibit Dates: 7/57–12/74.

Objectives: To train enlisted personnel to repair optical instruments.

Instruction: Lectures and practical exercises in basic optics theory; ordnance materials usage for optics; cleaning and lubricating materials in instrument and timepiece repair; levels and level vials use and care; and the cleaning and adjustment of collimating telescopes, quadrants, mounts, binoculars, wrist watches, and fire control instruments.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical technology (optical option), 1 in watch repair (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical technology (optical option)(5/74).

MC-1721-0003

Instrument Repair Officer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 5–7 weeks (195–300 hours).

Exhibit Dates: 7/57–7/60

Objectives: To train lieutenants and warrant officers to supervise and control the maintenance and repair of optical sighting and nonelectronic fire control material.

Instruction: Lectures and practical exercises in the supervision and control of maintenance and repair of optical sighting and nonelectronic fire control material. Course includes telescopes, periscopes, mechanical mounts, quadrants, range finders and related equipment, and auxiliary sighting and fire control equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/74).

MC-1721-0004

Optical Instrument Repairman Advanced

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 4 weeks (180 hours).

Exhibit Dates: 7/58–12/72.

Objectives: To train noncommissioned officers to inspect, maintain, and repair optical sighting and nonelectrical fire control instruments and related equipment, including telescopes, periscopes, range finders, and fire control equipment.

Instruction: Lectures and practical exercises in the inspection, maintenance, and repair of optical sighting and nonelectrical fire control instruments. Course includes training in repair shop procedures and the repair of telescopes, periscopes, mechanical mounts for optical instruments, range finders and related equipment, and auxiliary sighting and fire control equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in optical repair techniques (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in optical repair techniques (8/74); in the upper-division baccalaureate category, credit in optical repair techniques on the basis of institutional evaluation (8/74).

MC-1723-0001

Metalworking and Welding Operations by Correspondence

Course Number: 13.32F; 13.32E.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–1/90.

Objectives: To provide personnel with basic training in theory or metals, metalworking, and the welding process.

Instruction: This is an individual, self-paced, self-study course containing reading assignments and written lessons consisting of objectives type questions. Materials include the identification and workable properties of weldable metals. The theory of welding gas and arc and operations of welding equipment, the heat treatment process, metalworking tools, and techniques are presented. The student will demonstrate achievement of objectives by correctly answering 65% of the questions in the final exam.

Credit Recommendation: In the vocational certificate category, 3 semester hours in welding (8/83); in the lower-division baccalaureate/associate degree category, 1 semester hour in industrial processes, 1 in basic welding arc and gas (8/83).

MC-1723-0002

Metalworkers

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13–15 weeks (360–402 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel as metalworkers.

Instruction: Lectures and practical exercises in blueprint reading and sketching, sheet metal layout, applied shop mathematics, care and operation of hand tools and measuring instruments, use of common sheet metal bench machines, oxyacetylene and electric arc welding machines and accessories, basic forging and blacksmithing processes, and identification and heat treatment of metals. Instruction includes safe procedures in setting up and operating inert-gas welding equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74); in the upper-division baccalaureate category, 2 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74).

MC-1723-0003

Metalsmith Foreman

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 19 weeks (538 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To provide experienced machinists with advanced training in welding, blacksmithing, sheet metalworking, and metal shop supervision.

Instruction: Lectures and practical exercises in advanced welding, blacksmithing, sheet metal working and supervision of metalworking activities, including mathematics, engineering drawing, shop sketching and pattern layout, oxyacetylene and electric arc welding, and sheet metal work, safety regulations and fire bill.

Credit Recommendation: In the vocational certificate category, 16 semester hours in metalworking, metalsmithing, welding, or metals processing (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in metalworking, metalsmithing, welding, or metals processing (5/74); in the upper-division baccalaureate category, credit in metalworking and welding on the basis of institutional evaluation (12/68).

MC-1723-0004

Weapons Repair Shop Machinist

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 14 weeks (420 hours).

Exhibit Dates: 6/54–12/72.

Objectives: To train shop machinists in advanced machine shop techniques, and to qualify them for higher supervisory, mechanical, or instructional assignments.

Instruction: Lectures and practical exercises in advanced machine shop techniques, including shop instruments and practices, shop mathematics, blueprint reading, machine tools, machine shop practice, heat treatment of metals, and welding.

Credit Recommendation: In the vocational certificate category, 6 semester hours in machine trades or machine technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machine technology (5/74); in the upper-division baccalaureate category, 2 semester hours in machine trades or machine technology (5/74).

MC-1723-0005

Basic Metalworker
(Basic Metal Worker)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 6-11 weeks (208-391 hours). *Version 2:* 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 1/73-Present. *Version 2:* 7/67-12/72.

Objectives: To train enlisted personnel in basic welding and sheet metalworking tasks of the fleet marine force.

Instruction: *All Versions:* Lectures and practical exercises in basic metalworking, including welding equipment and tools; fundamentals of metalworking; theory and technique of oxyacetylene, electric arc and inert gas welding; basic sheet metalworking; safety precautions; hand tools and machinery; lines and line construction; shop sketching; punching, drilling and riveting; sheet metal layout; notching, edges and seams; and sheet metal projects.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in welding, sheet metal fabrication or metals processing (3/89); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding, sheet metal fabrication or metals processing (3/89). *Version 2:* In the vocational certificate category, 4 semester hours in welding, metalwork or metal processing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding, metalwork or metal processing (5/74).

MC-1723-0006

Repair Shop Machinist

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 12-14 weeks (480-520 hours).

Exhibit Dates: 7/57-12/72.

Objectives: To train enlisted personnel as repair shop machinists.

Instruction: Lectures and practical exercises in applied mathematics; drawing interpretation and use of technical manuals; simple measuring instruments theory and operation; hand tools operation; lathe, shaper, and milling machine operation; heat treatment of metals; oxyacetylene, electric arc, and inert-gas welding equipment set up and operation; ordnance, automotive, and aviation equipment maintenance.

Credit Recommendation: In the vocational certificate category, 8 semester hours in machinist trades (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machinist trades (5/74); in the upper-division baccalaureate category, 2 semester hours in machinist trades (5/74).

MC-1723-0007

Journeyman Metalworker

Course Number: ACT.

Location: Service Support School Cp. Lejeune, NC.

Length: 9 weeks (264-344 hours).

Exhibit Dates: 9/79-Present.

Objectives: To train noncommissioned officers in the duties of a metalworker at the journeyman level to work in the Fleet Marine Force.

Instruction: Lectures, demonstrations and practical exercises in Marine Corps maintenance management, procedures for requisitioning metalworking tools, equipment and related material; safety rules and regulations governing welding sites and shops; identification of metals; construction prints, shopdrawing; oxyacetylene procedures; sheet metal fabrication; pipewelding and forging; electrical arc welding and inert gas welding.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in advanced welding (4/89).

MC-1723-0008

Metal Working and Welding
Operations by Correspondence

Course Number: 13.32g.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 2/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to describe arc and gas welding and brazing processes, metal treatment processes, sheet metal forming processes, and read welding and fabrication blue prints.

Instruction: Independent study. Students are required to pass an end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in arc welding, 1 in gas welding processes, and 1 in sheet metal forming processes (6/90).

MC-1728-0001

Marine Security Guard

Course Number: None.

Location: Marine Security Guard Battalion, Henderson Hall, Arlington, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 6/67-4/86.

Objectives: To screen, train, and motivate selected personnel for assignment as Marine security guards with the Department of State.

Instruction: Security procedures; protection of lives and property; personal conduct living abroad; training and administration.

Credit Recommendation: In the upper-division baccalaureate category, credit in protective service on the basis of demonstrated skills and/or institutional evaluation (12/68).

MC-1728-0002

Military Functions in Civil
Disturbances by Correspondence

Course Number: 03.16J.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/79-Present.

Objectives: To provide the knowedge necessary to control riots or civil disturbances.

Instruction: This correspondence course presents a series of study units covering topics such as crows and mob behavior, riot control principles, types of disturbances, crowd control formations, handling explosive devices and bomb threats, weapons, riot control agents, special equipment, and operations planning. There is special emphasis on laws, policies, and legal considerations. A supervised final examination without notes or textbooks is administered.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in civil disturbances and/or riot control (3/85).

MC-1728-0003

Advanced Legal Services

Course Number: None.

Location: Schools Battalion, Marine Corps Base, Cp. Pendleton, CA; Schools Battalion, Marine Corps Base, Cp. Lejeune, NC.

Length: 2 weeks (57-70 hours).

Exhibit Dates: *Version 1:* 3/86-Present. *Version 2:* 5/74-2/86.

Objectives: To provide senior enlisted personnel with an overview of the administration of legal assistant programs.

Instruction: Lectures and practical exercises in legal administration of investigations, appelate petitions, actions and reviews, administrative discharges, reporter procedures, civil processes and law library.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 1 semester hour as an elective in paralegal training (11/75).

MC-1728-0004

Legal Services Specialist
(Legal Services Man/Reporter, Phase I and Phase II)
(Basic Legal Administration)
(Legal Services Man)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 5-8 weeks (220-248 hours).

Exhibit Dates: *Version 1:* 3/86-Present. *Version 2:* 6/74-2/86.

Objectives: To provide enlisted personnel with an introduction to court martial investigation, processing, and transcription of proceedings.

Instruction: Phase I consists of lectures and practical exercises in administrative duties, including legal correspondence; utilization of appropriate reference material; maintenance of files and directives; employing proper grammar, spelling, punctuation, vocabulary, and sentence structure; and typing. Phase II includes appeals from nonjudicial punishment; preparation of charges and specifications; charge sheets; convening orders; convening and supervisory authority actions; court martial orders; investigations; courts of inquiry; administrative discharges; legal assistance; overview of civil processes; punitive articles; and forms usage and preparation.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 2 semester hours in secretarial elective (11/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in paralegal elective (11/75).

MC-1728-0005

Legal Services Man/Reporter, Phase III
(Legal Services Reporter SPCM (Closed Microphone))

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 6/74–Present.

Objectives: To provide enlisted personnel with introductory concepts in transcription of court martial proceedings.

Instruction: Phase III consists of lectures and practical exercises in the proper use of legal-service-reporting procedures and processes, including proper use of recording and transcripting equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in secretarial program elective (11/75).

MC-1728-0006

Marine Security Guard

Course Number: 81H.

Location: Security Guard School, Quantico, VA.

Length: 6–8 weeks (216–281 hours).

Exhibit Dates: 5/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform physical security inspections; demonstrate awareness of external threats to security; recognize/respond to classified material threats; be aware of techniques used to protect property and reduce threats; be aware of fire dangers, alarms, locks, security equipment used; qualify in pistol/shotgun and other self defense procedures; function within environment under State Department and United States Marine Corps rules and regulations; be familiar with potential for terrorism,; and be familiar with Embassy conduct expectations.

Instruction: The course covers such topics as emergency planning, knowledge of locks/alarm systems and bombs, anti-terrorist techniques, physical security inspections and fire protection procedures. Also covered are hostile threats, hostage survival, computer and document safety, and access control measures. Upon reporting to duty assignment, students are required to complete 100 hours of language training.

Credit Recommendation: In the vocational certificate category, 2 semester hours in physical training and weapons (8/87); in the lower-division baccalaureate/associate degree category, 4 semester hours in techniques of physical security (8/87).

MC-1728-0007

Corrections Supervisor by Correspondence

Course Number: 58.2.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will master techniques of report writing, and execution of required forms dealing with confinement, prison release and general brig operation; supervise and implement emergency plans and training associated with brig operations such as fire, escape, riots and bomb threats; master administrative procedure connected with transfer of prisoner; supervise day to day operations of brig including staffing, training and administrative duties; and perform and supervise all functions of custody and control of prisoners.

Instruction: This is a correspondence course which provides fundamentals of corrections supervision including exercises designed to provide knowledge of required forms, report writing, implementation of emergency plans, physical security and general operations of ships brig and other basic correctional administrative functional.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in corrections (9/89).

MC-1728-0008

Corrections by Correspondence

Course Number: 58.1d.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 3/86–Present.

Learning Outcomes: Upon completion of the course, the student will have gained an understanding of general correctional policies and procedures relating to control and security of prisoners, emergencies, prisoner discipline, confinement and general brig operations, and will develop an understanding of various prisoner records and administrative reports used and will have the knowledge to properly maintain them.

Instruction: This is a correspondence course designed to provide student with fundamental knowledge of general correctional policies and procedures used in operation of a brig.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in corrections (9/89).

MC-1729-0001

Basic Baker
(Basic Specialist Training Baker)
(Baker)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 7–10 weeks (212–294 hours). *Version 2:* 10–12 weeks (165–375 hours).

Exhibit Dates: *Version 1:* 7/72–4/84. *Version 2:* 1/59–6/72.

Objectives: To train personnel in the principles and techniques of baking with large-sized/field equipment.

Instruction: The introduction and development of basic motor skills as related to baking. Management of materials only as related to task completion and not to the management of people. Training is done in laboratory as well as stationary or mobile operational conditions under constant supervision with frequest critiqueing of performance. Basic introduction to baking techniques utilizing lecture, demonstration, and operational settings. Specific instruction in food sanitation, bakery principles and techniques and practices as applied to the quantity production of bread, sweet dough, cakes, pies, and cookies, care and operation of equipment and operational procedures specific to military conditions. For the course after the end date, see MC-1729-0035.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic bakery preparation (4/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in baking (12/73).

MC-1729-0002

Advanced Stewards

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 12 weeks (378 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To train stewards in advanced technical and management skills, and to provide them with refresher training in cooking and baking.

Instruction: Sound, basic instruction in all phases of food preparation and baking, with some emphasis on menu planning and meat processing; good section on supervisory training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

MC-1729-0003

Advanced Cook

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 14 weeks (434 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To provide cooks with the advanced technical and supervisory skills required to perform duties as chief cooks.

Instruction: Comparable to a volume food service course at the college level, with equal emphasis on food production and management of a food service operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 4 semester hours in hotel, restaurant, and institutional management (12/73).

MC-1729-0004

Food Service Staff Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 8 weeks (256 hours).

Exhibit Dates: 4/73–2/83.

Objectives: To train advanced food service personnel in the principles and techniques of military food service installation management.

Instruction: Financial and accounting procedures, purchasing, storage, issue of food, food production and service management techniques, leadership skills in personnel management and training. Cost accounting and controls, accountability for expenditures and equipment, care and maintenance of equipment.After this end date, see exhibit MC-1729-0036.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operational management (4/76).

MC-1729-0005

Food Service Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 11 weeks (372 hours).

Exhibit Dates: 7/72–10/85.

Objectives: To train food service personnel in the leadership behavior essential to effective management and training techniques for a quantity food service operation.

Instruction: Leadership training for chief cooks, mess personnel, bakers, and salad preparers at the mid-management level to include communication, problem-solving and training skills and supervisory techniques. Also includes laboratory and operational exercises under supervision in the application of techniques taught. For the course after this end date, see MC-1729-0035.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in quantity food production management (6/86).

MC-1729-0006

Baker Noncommissioned Officer (NCO)
(Bakery Noncommissioned Officer (NCO) Leadership)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 10-11 weeks (326-350 hours).

Exhibit Dates: 4/73-Present.

Objectives: To train food service personnel in leadership behavior essential to effective management and training techniques for a large baking operation.

Instruction: Leadership training for bakery personnel at mid-management levels to include communication problem solving, and training skills and supervisory techniques. Also includes laboratory and operational exercises under supervision in the application of techniques taught using both modern stationary and mobile equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in quantity food production management (4/88).

MC-1729-0007

Advanced Special Mess Training

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC; Supply Schools, Cp. Lejeune, NC.

Length: 8 weeks (263-271 hours).

Exhibit Dates: 8/67-12/68.

Objectives: To train personnel to plan, prepare, and serve gourmet meals.

Instruction: Menu planning; preparation and service of gourmet meals; seating arrangements and military protocol; table setting; appetizers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gourmet cookery (12/73); in the upper-division baccalaureate category, 2 semester hours in gourmet cookery (12/73).

MC-1729-0008

Food Service Management

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 7 weeks (245 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train personnel in the management, organization, and administration of subsistence and food service facilities.

Instruction: Food service and subsistence management; accounting; supervision of meat processing facilities; nutrition and menu planning; field mess operations, disaster feeding.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in food service management (12/73); in the upper-division baccalaureate category, 4 semester hours in food service management (12/68).

MC-1729-0009

Basic Food Service

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 7-11 weeks (207-365 hours).

Exhibit Dates: 5/66-Present.

Objectives: Using realistic environmental and definitive performance objectives based on task analysis, to teach the basic cook the fundamental technical behavior essential to his performance as a cook within a garrison or field messing facility.

Instruction: The introduction and development of basic motor skills as related to food preparation. Management of materials only as related to task completion and not to the management of people. Basic introduction to preparation techniques utilizing lecture, demonstration, laboratory and operational settings under constant supervision with frequent critiqueing of perfomrance. Specific instruction in operational mathematices, breads, cookies, cakes, pies, egg protein cooking, pasta preparation, salad dressings, meat fish, and poultry preparation, soups, sauces and gravies vegetables, appetizers, desserts, dining room preparation (cafeteria) and operational procedures specific to military conditions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic food preparation (11/87).

MC-1729-0010

Advanced Food Service

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 8 weeks (280 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train personnel in mess administration and management principles, and to provide them with a working knowledge of the latest techniques of food preparation and service.

Instruction: Operation of equipment; menu planning; formula conversion; portion control; cost accounting; sanitation; emphasis on meat processing, administration and management of post and field operations, and cooking techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in institutional (culinary) management (12/73); in the upper-division baccalaureate category, 4 semester hours in institutional (culinary) management (12/68).

MC-1729-0011

Bakery Management

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train noncommissioned officers to manage post or field bakeries.

Instruction: The course develops a knowledge of management skills with direct application to bakery operations. Included in the course are sanitation, preparation, cost accounting, and techniques used to judge the quality of food production.

Credit Recommendation: In the vocational certificate category, 2 semester hours in bakery management (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in bakery management (12/73); in the upper-division baccalaureate category, 2 semester hours in bakery management (12/68).

MC-1729-0012

Advanced Baker

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 8 weeks (278 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To train sergeants to manage post and field bakeries.

Instruction: The course develops a knowledge of management skills with direct application to bakery operations. Included are sanitation, food preparation, cost accounting, and subjects used to enhance the ability to judge the quality of food production.

Credit Recommendation: In the vocational certificate category, 2 semester hours in bakery organization and management (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in bakery organization and management (12/73); in the upper-division baccalaureate category, 2 semester hours in bakery organization and management (12/73).

MC-1729-0013

Food Service

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 12 weeks (415 hours).

Exhibit Dates: 3/64-12/68.

Objectives: To provide advanced, formal training in food service operations to personnel with basic on-the-job experience in food services.

Instruction: Fundamentals of mess administration and operation; cookery; meat cutting; baking; nutrition and menu planning, military leadership emphasizing supervisory abilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in institutional management (12/73); in the upper-division baccalaureate category, 6 semester hours in institutional management (12/68).

MC-1729-0014

Steward

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 14-16 weeks (488-496 hours).

Exhibit Dates: 1/59-12/68.

Objectives: To provide basic instruction in food services, with emphasis on skills in preparing and serving food in garrison and mess.

Instruction: Basic food preparation and service; practical skill development in mess operations and dining room service for formal and informal meals.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

MC-1729-0015

Food Service Officer

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 5 weeks (192 hours).

Exhibit Dates: 3/67-12/68.

Objectives: To train food service officers in subsistence management.

Instruction: Lectures and practical exercises in the duties of food service officers and in subsistence management, including organization and administration of individual and consolidated mess systems; management of food, with emphasis on meat cutting, baking, food preparation, and serving; field mess operations, including rationing; and mobilization meals, including flight, troop train, and disaster feeding.

Credit Recommendation: In the vocational certificate category, 3 semester hours in food preparation, 3 in food service management or human relationships, 3 in food and beverage cost control (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in food preparation, 3 in food service management or human relationships, 3 in food and beverage cost control (7/74); in the upper-division baccalaureate category, 3 semester hours in food service management (12/68).

MC-1729-0016

Special Mess Training Leadership

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 10 weeks (344 hours).

Exhibit Dates: 4/73-12/73.

Objectives: To train cooks as senior cooks.

Instruction: Lectures and practical exercises in the duties of senior cook specialists, including management and leadership, menu planning, preparation of meals, and operation of field and post mess facilities and functions.

Credit Recommendation: In the vocational certificate category, 6 semester hours in food preparation (or 3 in food preparation and 3 in baking or 3 in catering), 3 in food management, 3 in personnel management, 3 in food and beverage purchasing (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in food preparation and 3 in baking or 3 in catering), 3 in food management, 3 in personnel management, 3 in food and beverage purchasing (7/74); in the upper-division baccalaureate category, 3 semester hours in food preparation, 3 in food management or personnel management (7/74).

MC-1729-0017

Basic Specialist Training Cook
(Cook, Basic Specialist Training)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 6 weeks (196-213 hours).

Exhibit Dates: 12/65-12/72.

Objectives: To train enlisted personnel to prepare and serve food and to operate organizational mess facilities.

Instruction: Lectures and practical exercises in the preparation and service of food and the operation of organizational mess facilities, including sanitation and storage; kitchen equipment; stock control; principles of baking; function of ingredients; mixing procedures; preparation of breads, cakes, cookies and pies; relationships of foods; use of seasonings; meat, poultry, seafood, vegetable, soup and salad cookery; and field mess operations and equipment, including maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in food preparation (or 3 in introduction to food service or baking and 3 in food preparation), 3 in food management (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in introduction to food service or baking and 3 in food preparation), 3 in food management (7/74); in the upper-division baccalaureate category, 3 semester hours in food preparation, 3 in food management (7/74).

MC-1729-0018

Special Mess Training

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 8-10 weeks (280-318 hours).

Exhibit Dates: 7/66-6/73.

Objectives: To provide advanced food service personnel with supervised operational training designed to perfect their skills and techniques as mid-level managers.

Instruction: Lectures and practical exercises in special mess training. Course includes dining room procedure, preparation of meals, and general officers' field mess.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food service management or to fulfill work-study requirement (4/76).

MC-1729-0019

Special Mess Leadership Training

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 8-10 weeks.

Exhibit Dates: 8/67-6/73.

Objectives: To provide advanced food service personnel with a supervised practicum designed to perfect their techniques and skills as upper-level managers.

Instruction: Rotation of training through various portions in management under supervision in operational installations. Similar to management training or work-study collegiate courses.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in food service management or to fulfill work-study requirement (4/76).

MC-1729-0020

Marine Corps Club and Mess
Restaurant Operations by
Correpondence

Course Number: 33.2E.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 10/74-12/86.

Objectives: To provide supervisory personnel with a working knowledge of menu pricing, purchasing procedures, food cost control and formula cooking.

Instruction: This correspondence course consists of reading assignments, written lessons and objective type questions that provide a general background in the fundamentals of menu pricing, purchasing, and food cost controls.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in club operations (3/84).There is a proctored final examination.

MC-1729-0021

Basic Nutrition by Correspondence

Course Number: 33.16A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 5/77-6/87.

Objectives: To expose individuals to the study of nutrition.

Instruction: This correspondence course presents food and its relationship to health; carbohydrates, fats, proteins, vitamins, minerals, and water; food fuel, body weight and the overweight problem; and menu planning.

Credit Recommendation: Credit is not recommended for this course (3/84).

MC-1729-0022

Salads, Sandwiches, and Desserts by
Correspondence

Course Number: 33.20.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/78-Present.

Objectives: To prepare food service personnel with the proper techniques for the preparation of salads, salad dressings, sandwiches, and desserts.

Instruction: This correspondence course consists of reading assignments, written lessons and objective type questions that provide a general background in the fundamentals of preparing salads, salad dressings, sandwiches and desserts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food preparation when taken in conjunction with Meats and Meat Cookery byCorrespondence, 33.18A (MC-1729-0023) and Vegetables, Soups, Sauces, Gravies and Beverages by Correspondence, 33.19 (MC-1729-0024) (8/83). Course concludes with a proctored examination.

MC-1729-0023

Meats and Meat Cookery by
Correspondence

Course Number: *Version 1:* 33.18B. *Version 2:* 33.18A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: *Version 1:* 5/88-Present. *Version 2:* 3/82-4/88.

Objectives: To provide service personnel with skills to identify, handle, and process meats.

Instruction: This correspondence course consists of reading assignments, written lessons, and objective type questions that provide food service personnel general background information on meats.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in food preparation when taken in conjunction with Salads, Sandwiches, and Desserts by Correspondence, 33.20 (MC-1729-0022) and Vegetables, Soups, Sauces, Gravies and Beverages by Correspondence, 33.19 (MC-1729-0024) (3/84). Course concludes with a proctored examination.

MC-1729-0024

Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence

Course Number: 33.19.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 3/76–7/90.

Objectives: To provide food service personnel with proper techniques in the preparation of vegetables, soups, sauces, gravies, and beverages.

Instruction: This correspondence course consists of reading assignments, written lessons, and objective type questions that provide food service personnel with general backgroundinformation on the basics of receipt, storage, and preparation of vegetables, soups, sauces, gravies and beverages in an appealing manner for dining room consumption.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food preparation with taken in conjunction with Meats and Meat Cookery by Correspondence, 33.18A (MC-1729-0023) and Salads, Sandwiches, and Desserts by Correspondence, 33.20 (MC-1729-0022) (3/84). Course concludes with a proctored final examination.

MC-1729-0025

Dining Facility Sanitation by Correspondence

Course Number: 33.21.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 11/79–11/87.

Objectives: To increase knowledge of sanitary food service principles.

Instruction: This correspondence course will teach students to maintain hygienic standards condusive to good health, and to control contamination from humans, flies, and rodents, by teaching: sanitizing food preparation equipment, sanitizing dining room equipment, sanitizing eating and drinking utensils and scullery equipment, sanitizing cleaning equipment; receiving and processing foods; sanitary storage of foods, handling and storage of cleaning compounds, safe temperature ranges, and vector control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service operations when taken in conjunction with Food Service Fundamentals by Correspondence, 33.4J (MC-1729-0027) and Garrison Food Service Equipment Maintenance by Correspondence,33.22 (MC-1729-0026)(3/84). Course concludes with a proctored examination.

MC-1729-0026

Garrison Food Service Equipment Maintenance by Correspondence

Course Number: 33.22.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 12/79–12/88.

Objectives: To provide food service personnel with timely procedures for preventive maintenance of furnishing fixtures and equipment.

Instruction: This correspondence course offers reading assignments and written lessons with objective type questionsthat provide food service personnel with a general background in maintenance of dining facilities furnishings, equipment, and fixtures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in food service operations when taken in conjunction with Food Service Fundamentals by Correspondence, 33.4J (MC-1729-0027) and Dining Facility Sanitation by Correspondence, 33.21 (MC-1729-0025) (3/84). Course concludes with a proctored examination.

MC-1729-0027

Food Service Fundamentals by Correspondence

Course Number: 33.4J.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 1/82–9/87.

Objectives: To provide the basic aspects of a food service operations.

Instruction: In providing an overview of food service fundamentals, this correspondence course emphasizes the following topical areas: mission and organization, food microbiology and sanitation, food service equipment, utensils, and safety precautions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in food service operations when taken in conjunction with Dining Facility Sanitation by Correspondence, 33.21 (MC-1729-0025) and Garrison Food Service Equipment Maintenance by Correspondence, 33.22 (MC-1729-0026) (3/84). Course concludes with a proctored examination.

MC-1729-0028

Field Food Service by Correspondence

Course Number: 33.17A.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 12/75–12/85.

Objectives: To provide an overview of field food service operations and equipment.

Instruction: This correspondence course provides a general background in food service operations during training maneuvers and combat conditions. Subject matter areas covered include field operation, equipment (field ranges, immersion heaters), field food servicing, equipment and sanitation, and railway kitchen car operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the materials presented (3/84).

MC-1729-0029

Food Service Management by Correspondence

Course Number: 33.15C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum of 52 weeks.

Exhibit Dates: 3/83–12/84.

Objectives: To provide a general background in procedures used to complete forms and reports used at Marine Corps dining facilities.

Instruction: This correspondence course provides dining facility managers with a source of study materials on the various Marine Corps forms and reports used in their dining operations. Topical areas covered include subsistence procedures and definitions, subsistence accounting, accounting for personnel fed, regulations and control of meals sold, and the subsistence opertional analysis report.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/84).

MC-1729-0030

Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence

Course Number: 33.14C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/79–12/84.

Objectives: To describe basic information as to the cook's responsibility for food receiving and storage, recipe conversion, and the cook's worksheet.

Instruction: This correspondence course covers general background in the procedures used in inspecting foods being received and their storage. Other topics covered include the preparation of the stock record and inventory control card, the subsistence issue receipt and the cook's procedure requirement sheet, the Armed Forces Recipe Service, and product and cook's worksheet.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service management when taken in conjunction with Unit Dining Facility Officer by Correspondence, 33.23, (MC-1729-0031) (3/84). Course concludes with a proctored examination.

MC-1729-0031

Unit Dining Facility by Correspondence

Course Number: 33.23.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/82–12/87.

Objectives: To provide unit dining facility officers with an overview of their duties, and the duties of their personnel along with directives, reports, and forms used in the operation. Sanitation inspections are also covered.

Instruction: This course is designed to aid new and prospective officers in the understanding of the organization of the dining facility, and the responsibilities of dining facility personnel. Other topical areas include dining facility directives, reports and forms, and sanitation responsibilities.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service management when taken in conjunction with Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence, 33.14C (MC-1729-0030)(3/84). Course concludes with a proctored examination.

MC-1729-0032

Pastry Baking by Correspondence

Course Number: 33.8F.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/82–Present.

Objectives: To describe the sanitation and safety procedures needed for pastries; the types of sweetening agents, leavening agents, and flavoring agents are discussed; and yeasts and molds inhibitors are presented.

Instruction: This correspondence course covers yeast doughs, danish pastries, pie crusts, pie fillings, cakes, cookies, and quick breads are covered to a reasonable degree. This course has no laboratory component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in the theory of baking when taken in conjunction with Field Bread Baking by Correspondence, 33.10F (MC-1729-0033) (3/84). Course concludes with a proctored examination.

MC-1729-0033

Field Bread Baking by Correspondence

Course Number: 33.10F.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 9/77–12/88.

Objectives: The course presents lessons covering a broad spectrum of bread baking activities.

Instruction: The student will be required to understand field bakeries and ice cream production, understand mobile field baking plant components, understand bread ingredients and their functions, understand field bread baking procedures, understand and prevent mold and bacterial invasions, and work with portable field baking equipment. Course covers ice cream production, bread baking, sanitation, operation of machinery, and the theory of fermentation and baking. There is no laboratory included with the course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hours in theory of baking when taken in conjunction with Pastry Baking by Correspondence, 33.8F, (MC-1729-0032) (3/84). Course concludes with a proctored examination.

MC-1729-0034

Food Service Noncommissioned Officer (NCO)

Course Number: 33N.

Location: Service Support School, Cp. Lejeune, NC.

Length: 10–11 weeks (340–364 hours).

Exhibit Dates: 11/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform the duties of a chief food service specialist utilizing leadership and technical skills; carry out the administrative and supervisory functions required; provide subordinate personnel instruction and guidance necessary to prepare a variety of food and bakery products; learn the faults and causes of improperly prepared food; and erect food service facilities with production resources necessary to produce and serve food under field condition.

Instruction: Covers service support leadership training, administrative functions, including duties, tasks, applicable technical skills and standard forms required, pastry products, cooking faults, and field food operation. Methodology includes classroom and simulated training with emphasis on demonstration, performance critiquing products, and practical applications.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in food production management (4/89).

MC-1729-0035

Basic Baker

Course Number: 33A.

Location: Service Support School, Cp. Lejeune, NC.

Length: 9 weeks (302–329 hours).

Exhibit Dates: 5/84–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply basic principles of baking to large scale bakery operations including preparation procedures, product evaluation, sanitation control, and service; and produce a variety of bakery products for conventional food service facilities as well as field operations.

Instruction: Covers the various techniques of producing bakery products; how to identify their characteristic qualities; the use and maintenance of bakery equiment, the operation of a mobile bakery plant and ice cream plant, and proper sanitation standards. Methodology includes lectures, actual baking in a simulated operation, testing products and classroom training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic baking principles (4/89).

MC-1729-0036

Food Service Staff Noncommissioned Officer (NCO)

Course Number: DA2.

Location: Service Support School, Cp. Lejeune, NC.

Length: 9 weeks (296–315 hours).

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to utilize and further develop technical, conceptual, and human skills in order to perform the administrative and supervisory functions required by middle management in a garrison mess operation or field bakery.

Instruction: Covers service support management requirements; duties and responsibilities related to garrison, mess, field, and bakery operations management; this includes preparation of requisition forms, inventory control procedures, product evaluation, production planning, yields, food allowances, and cash control; planning for large scale operations, both stationary and mobile; and establishing a field food service facility. Methodology includes lecture, practical exercises, and testing, performance and evaluation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic food preparation and 3 in operations management (4/89).

MC-1729-0037

Reserve Food Service Refresher

Course Number: FAC.

Location: Service Support School, Cp. Lejeune, NC.

Length: 2 weeks (74 hours).

Exhibit Dates: 1/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to assist with the set up of field food service operations; assemble, operate, clean and maintain all required equipment; and serve food in accordance with standards.

Instruction: Covers operation of immersion water heaters, sanitizers, and field food service equipment; preparation and maintenance of field food service equipment; preparation and service of basic meals. Methodology includes lectures, demonstrations and performance in all components.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to basic food preparation (4/89).

MC-1729-0038

Food Service Fundamentals by Correspondence

Course Number: 33.4h.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 10/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the organizational, structure, sanitation and safety practices, and basic equipment and utensils used in food service operations.

Instruction: In providing an overview of food service fundamentals, this correspondence course emphasizes the following topic areas: mission and organization, food microbiology and sanitation, food service equipment, and utensils.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service operations (6/89).

MC-1729-0039

Mess Hall Sanitation by Correspondence

Course Number: 33.21a.

Location: Marine Corps Institute, Washington DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/87–3/90.

Learning Outcomes: Upon completion of the course, the student will understand and assess basic sanitation and safety practices in food service operations.

Instruction: This correspondence course will teach students to maintain safety hygenic standards conducive to good health, and to control contamination by teaching sanitation terminology, sanitizing food preparation equipment, sanitizing dining room equipment, sanitizing eating and drinking utensils and scullery equipment, sanitizing cleaning equipment; receiving and processing foods; sanitary storage of foods, handling and storage of cleaning compounds, safe temperature ranges, and vector control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service sanitation when taken taken in conjunction with 33.24, the Mess Hall Subsistence Clerk, MC-1729-0040 (6/89).

MC-1729-0040

The Mess Hall Subsistence Clerk by Correspondence

Course Number: 33.24.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 11/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the fundamentals of food forecasting, receiving, storing, issuing, and cost control.

Instruction: Forecasting subsistence requirements, receiving subsistence, issuing susistence items, administration, stock record and inventory control aid, food cost analysis and monetary credit. This correspondence; course concludes with a comprehensive examination.

Credit Recommendation: In the vocational certificate category, 1 semester hour in food purchasing or inventory control (6/89); in the lower-division baccalaureate/associate degree category, 1 in food service sanitation when taken in conjunction with 33.21a Mess Hall Sanitation by Correspondence (MC-1729-0039) (6/89).

MC-1729-0041

Basic Nutrition by Correspondence

Course Number: *Version 1:* 33.16d. *Version 2:* 33.16c.

Location: Marine Corp Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: *Version 1:* 3/90–Present. *Version 2:* 7/87–2/90.

Learning Outcomes: Upon completion of the course, the student will be able to define nutrition, list factors that influence a person's selection of food, identify the health function of nutrition, minerals and other food nutrients, and plan nutritional menus.

Instruction: Instruction covers food and health; nutrients which provide fuel and build and repair tissue; vitamins, minerals, water and fiber; food fuel, body weight, weight control factors, and menu planning; and makes use of unit exercises and comprehensive review lessons with final exam.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the limited, specialized nature of the course (6/89).

MC-1729-0042

The Reserve Field Food Service Supervisor by Correspondence

Course Number: 33.33.

Location: Marine Corps Institute, Washington, DC.

Length: 52 week maximum.

Exhibit Dates: 8/88–Present.

Learning Outcomes: Upon completion of the course, the student will be able to explain the planning and administrative functions of a food service supervisor, delineate the steps in setting up a food operation, identify food service equipment and operation procedures, describe food ordering and inventory procedures, and recognize accepted standards of sanitation and safety.

Instruction: Planning, setting up mess operations, operational administration, food production worksheets, cost control, sanitation inspections, and using, cleaning and dismantling food service equipment. Methodology includes unit exercises and a comprehensive review lesson which prepares students for the final exam.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in food service supervision (6/89).

MC-1730-0001

Refrigeration Specialist

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 14 weeks (430 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to install, maintain, and make minor repairs on, refrigeration and accessory equipment.

Instruction: Lectures and practical exercises in the installation and repair of refrigeration equipment. Course includes the theory of refrigeration and elements of electricity and the application to actual equipment; and the use of filterings and refrigerant piping.

Credit Recommendation: In the vocational certificate category, 15 semester hours in refrigeration theory—fundamentals of electricity, refrigeration controls repair, and troubleshooting (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in refrigeration theory—fundamentals of electricity, refrigeration controls repair, and troubleshooting (5/74).

MC-1730-0002

1. Basic Refrigeration Mechanic
2. Refrigeration Mechanic
3. Refrigeration Mechanic

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 7–9 weeks (216–273 hours). *Version 2:* 4 weeks (160 hours). *Version 3:* 11–12 weeks (330–334 hours).

Exhibit Dates: *Version 1:* 5/82–11/86. *Version 2:* 9/68–4/82. *Version 3:* 7/58–8/68.

Objectives: To train enlisted personnel as refrigeration mechanics.

Instruction: *All Versions:* Lectures and practical exercises in refrigeration equipment maintenance and operation, including electrical theory and circuitry, principles of refrigeration, refrigeration systems and components, and assembly and troubleshooting of specific refrigeration equipment. *Version 2:* Includes mathematics; internal-combustion engine principles as applied to refrigeration, air-conditioning and ventilation systems, and decontamination materials and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration theory, systems, and service and 4 in air conditioning principles and repair (2/85). *Version 2:* In the vocational certificate category, 8 semester hours in refrigeration (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration and/or electricity (5/74); in the upper-division baccalaureate category, 2 semester hours in refrigeration and/or electricity (5/74). *Version 3:* In the vocational certificate category, 12 semester hours in refrigeration (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in refrigeration and/or electricity (5/74); in the upper-division baccalaureate category, 3 semester hours in refrigeration and/or electricity (5/74).

MC-1730-0003

Refrigeration Mechanic by Correspondence

Course Number: 11.14D.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–12/86.

Objectives: To provide basic training in refrigeration theory, installation, and servicing.

Instruction: This is an individual, self-paced, self-study course with reading assignments and written lessons with objective questions. Material covered includes installation, operation, testing and repair of refrigeration equipment. The student will demonstrate achievement of the objectives by answering correctly 65% of the questions on the final examination, which is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic refrigeration lecture (8/83).

MC-1730-0004

Journeyman Refrigeration Mechanic

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 7–11 weeks (200–277 hours). *Version 2:* 12 weeks (457 hours).

Exhibit Dates: *Version 1:* 11/79–9/84. *Version 2:* 7/70–10/79.

Objectives: To train noncommissioned officer refrigeration mechanics in the advanced skills of troubleshooting and repair of refrigerating and air conditioning equipment.

Instruction: *Version 1:* Lectures, demonstrations and practical exercises in the Marine Corps maintenance management system, electrical concepts for diagnosing and repairing electrical components of refrigeration and air conditioning equipment and troubleshooting and repair of refrigeration and air conditioning equipment. *Version 2:* Lectures and practical exercises in basic principles of service-oriented refrigeration and air conditioning, basic cycles, mechanical system components, electrical controls and applications to small air conditioning units.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration theory, system, and service and 4 in air conditioning principles and repair (2/85). *Version 2:* In the vocational certificate category, 3 semester hours in refrigeration service, 3 in refrigeration service laboratory, 2 in air conditioning principles, 2 in air conditioning principles laboratory, 3 in refrigeration and air conditioning controls (6/75).

MC-1730-0005

Fundamentals of Refrigeration by Correspondence

Course Number: 11.61.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 11/84–Present.

Learning Outcomes: Upon completion of the course, the student will have a fundamental understanding of refrigeration including the use of psychrometric charts, refrigeration cycle, various refrigerants, the proper storage and handling of refrigerants, compressors, evaporators, motors, and overall system components.

Instruction: Instruction shall include the study of fundamentals of refrigeration, various common refrigerants, their toxic effects, complete refrigeration systems, controls, components, and the use of psychrometric charts.

Credit Recommendation: In the vocational certificate category, 3 semester hours in fundamentals of refrigeration (7/87).

MC-1730-0006

Basic Refrigeration Mechanic

Course Number: 11D.

Location: Engineer School, Cp. Lejeune, NC.

Length: 8–9 weeks (270 hours).

Exhibit Dates: 12/86–Present.

Learning Outcomes: Upon completion of the course, the student will be able to install, operate, troubleshoot and maintain all types of refrigeration and air conditioning equipment. The student will understand the basic theory of all types of refrigeration systems, both evaporative and absorbtion systems.

Instruction: Lectures and practical exercises in refrigeration equipment maintenance and operation including electrical theory and circuitry, principles of refrigeration, refrigeration systems and components, assembly and troubleshooting of specific refrigeration equipment, hands-on performance, and field maintenance repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration theory systems and service, and 4 in air conditioning principles and repair (4/89).

MC-1730-0007

Journeyman Refrigeration Mechanic

Course Number: 111.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 8 weeks (252 hours). *Version 2:* 7–9 weeks (251–279 hours).

Exhibit Dates: *Version 1:* 8/89–Present. *Version 2:* 10/84–7/89.

Learning Outcomes: Upon completion of the course, the student will be able to perform advanced skills of troubleshooting and repair or refrigeration and air conditioning equipment.

Instruction: Student prerequisites: satisfactory completion of the basic refrigeration mechanic course and have acquired one (1) year field experience. Lectures, demonstrations and practical exercises in the maintenance management systems, to include routine maintenance and preventive maintenance procedures, electrical concepts for diagnosing and repairing electrical components, electrical systems of refrigeration and air conditioning equipment, troubleshooting and repair of refrigeration and air conditioning equipment, practical exercises in basic principles of service-oriented refrigeration and air conditioning, basic cycles, mechanical system components, electrical controls and applications to small capacity air conditioning units.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration theory systems and service, and 2 in air conditioning principles and repair (9/87).

MC-1731-0001

Refrigeration Servicing by Correspondence

Course Number: 11.62.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to perform preventive and corrective maintenance on refrigeration equipment.

Instruction: A correspondence course containing study units, review exams and final examination, installation and preventive maintenance, troubleshooting, servicing refrigeration systems, and repairing major components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in refrigeration theory and 1 in refrigeration maintenance (7/87).

MC-1732-0001

Field Water Supply by Correspondence

Course Number: 11.20.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–12/86.

Objectives: To provide basic training in the theory of installation, operation, and site selection of a field water supply point.

Instruction: This in an individual, self-paced, self-study course containing reading assignments, and written lessons with objective type questions. Materials include the selection of open water supply site, testing water ph levels, installing field fitter units and distribution points,. The student will demonstrate achievement of objectives by answering correctly 65% of the questions on the final exam.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (8/83).

MC-1732-0002

Bulk Fuel Man by Correspondence

Course Number: 13.37G; 13.37F.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/78–12/84.

Objectives: To provide basic training in petroleum oil and lubricants (POL) pipeline and pumping station operation maintenance theory.

Instruction: This individual, self-paced, self-study course contains reading assignments and written lessons with objective type questions. Materials include the identifying the theory of operations of bulk fuel pumps, regulators, gauges and fitter units. The student will demonstrate achievement of objectives by answering correctly 65% of the questions in a final examination, which is required.

Credit Recommendation: In the vocational certificate category, 2 semester hours in petroleum oil and lubricant (POL) pipeline operations (8/83).

MC-1732-0003

Reverse Osmosis Water Purification Unit by Correspondence

Course Number: 11.22a.

Location: Marine Corps Institute, Washington, DC.

Length: 52 weeks maximum.

Exhibit Dates: 2/89–Present.

Learning Outcomes: Upon completion of the course, the student will be able to identify the fundamentals of the reverse osmosis process, state the characteristics, capabilities, and components of the reverse osmosis water purification unit; operate a reverse osmosis water purification unit including inspection, start-up, adjustments, shutdown, backwash, and element cleaning.

Instruction: Individual, self-paced, self-study course containing reading assignments and study questions with answers to study questions at the end of each unit. Materials include operation and maintaining of a reverse osmosis water purification unit. The student will demonstrate achievement of objectives by answering correctly 70% of the total questiona on a final examination.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water treatment plant operation (6/89).

MC-2101-0001

1. Motor Vehicle Operator
2. Motor Vehicle Operators

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC. *Version 2:* Supply School, Cp. Pendleton, CA.

Length: *Version 1:* 7 weeks (244 hours). *Version 2:* 5–6 weeks (192–212 hours).

Exhibit Dates: *Version 1:* 1/73–12/73. *Version 2:* 8/66–12/72.

Objectives: To train basic motor transport men in the operation of tactical motor vehicles and in the duties of military drivers.

Instruction: *All Versions:* Lectures and practical exercises in the operation of tactical and military motor vehicles, including driving techniques, operator responsibilities, traffic regulations, vehicle recovery and special driving conditions, and principles of automotive vehicles. *Version 1:* Includes psychophysical evaluations and maintenance servicing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in automotive mechanics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive mechanics (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in driver education programs (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in driver education programs (4/74).

MC-2201-0072

Resident Staff Noncommissioned Officer (NCO) Advanced

Course Number: M4F.

Location: Staff Noncommissioned Officer Academy, Quantico, VA; Staff Noncommissioned Officer Academy, El Toro, CA.

Length: 2 weeks (91 hours).

Exhibit Dates: 5/87–Present.

Learning Outcomes: Upon completion of the course, the student will be able to understand the principles of military defensive and offensive tactics, and the role of the effective military manager in peace and in war.

Instruction: Lectures, demonstration, student presentations, guided discussions, and instruction in military management, customs, justice, and unit-level tactics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science (3/90).

MC-2202-0001

Naval Officer Reserve Officer Training Course (NROTC)

Course Number: None.

Location: Officer Candidate School, Quantico, VA.

Length: 6 weeks (237–281 hours).

Exhibit Dates: *Version 1:* 8/86–Present. *Version 2:* 3/80–7/86.

Objectives: To motivate and train selected personnel to become commissioned officers.

Instruction: Lectures and practical exercises in weapons information and identification; small-unit tactics; Marine Corps organization, mission, and functions; uniforms and equipment; drill, inspection, and parades; leadership, physical training; land navigation; maps, and military law.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 6 semester hours in advanced military science (11/80).

MC-2202-0002

Naval Reserve Officer
(Naval Reserve Officer Bulldog)

Course Number: RMD.

Location: Staff Noncommissioned Officer Academy, Quantico, VA.

Length: *Version 1:* 7 weeks (506 hours). *Version 2:* 7 weeks (335-336 hours). *Version 3:* 6 weeks (281-282 hours).

Exhibit Dates: *Version 1:* 2/90-Present. *Version 2:* 4/99-1/90. *Version 3:* 8/86-3/88.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 in physical training, and 5 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester houts in leadership, 1 in physical education, 5 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 1 in physical training, and 5 in military science (3/90).

MC-2202-0003

Naval Academy Training

Course Number: RMF.

Location: Staff Noncommissioned Officer Academy, Quantico, VA.

Length: 7 weeks (506 hours).

Exhibit Dates: 2/90-Present.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 in physical training, and 5 in military science (3/90).

MC-2204-0001

Drill Instructor

Course Number: None.

Location: Recruit Training Regiment, San Diego, CA; Recruit Depot, Parris Island, SC.

Length: 5-9 weeks (195-381 hours).

Exhibit Dates: 1/59-1/88.

Objectives: To prepare selected noncommissioned officers for duty as drill instructors.

Instruction: Instructional methods; marksmanship; close-order drill; physical training; leadership development; rules, regulations, and procedures of recruit training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (1/74).

MC-2204-0002

1. Assault Amphibian Vehicle Officer
2. Amphibian Vehicle Officer

Course Number: None.

Location: *Version 1:* Assault Amphibian School, Cp. Pendleton, CA; *Version 2:* Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 7-8 weeks (292 hours). *Version 2:* 4-5 weeks (148-203 hours).

Exhibit Dates: *Version 1:* 1/84-Present. *Version 2:* 7/74-12/83.

Objectives: To familiarize students with amphibian tracked vehicles and provide a working knowledge of the duties and responsibilities of an amphibian tracked vehicle platoon commander.

Instruction: Topics include communications; introduction to amphibian vehicles; vehicle operation, maintenance, inspection and safety; armament stations; and field subjects and tactics.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* Credit is not recommended because of the military-specific nature of the course (8/77).

MC-2204-0003

Women Officers Training (Senior)
(Women Officer Training)

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 5 weeks (264 hours).

Exhibit Dates: 8/55-12/68.

Objectives: To provide students with theoretical and practical military instruction necessary to prepare them for appointment as commissioned officers.

Instruction: Lectures on leadership; communications; combat intelligence; military operations; drills, inspections, and ceremonies; and physical training and conditioning.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0004

Marine Warrant Officers, Basic
(Marine Warrant Officer, Basic)

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 10-15 weeks (340-509 hours).

Exhibit Dates: 1/60-5/85.

Objectives: To broaden the general military proficiency of newly appointed warrant officers.

Instruction: Lectures and practical exercises in leadership techniques, physical training, map reading, communication infantry tactics and intelligence weapons, military law, and organization and staff functioning.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (11/80).

MC-2204-0005

Women Officer Training (Junior)

Course Number: None.

Location: Marine Corps Schools, Quantico, VA; Basic School, Quantico, VA.

Length: 5-6 weeks (211-264 hours).

Exhibit Dates: 6/55-12/68.

Objectives: To provide students with a basic theoretical and practical understanding of military service in the Marine Corps.

Instruction: Lectures on leadership; drill, command, inspections, and ceremonies; military operations; military customs, courtesies, traditions, and justice; communications; organization, mission and history of armed services.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0006

Mountain Leadership Training, Winter

Course Number: None.

Location: Cold Weather Training Center, Bridgeport, CA.

Length: 4 weeks (168 hours).

Exhibit Dates: 1/59-12/68.

Objectives: To teach selected personnel to function effectively in cold and mountainous terrains.

Instruction: Lectures and practical exercises in leadershiprequirements imposed by cold weather and mountainour terrain; preparation of units; features and limitations of supporting arms and services; tactics involved in security, patrols, and attacks; and survival training.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-2204-0007

Mountain Leadership Training, Summer

Course Number: None.

Location: Cold Weather Training Center, Bridgeport, CA.

Length: 4 weeks (173 hours).

Exhibit Dates: 1/59-12/68.

Objectives: To train enlisted personnel to conduct small-unit operations in mountainous and cold weather environments.

Instruction: Lectures and practical exercises in leadership in cold weather operations, development of a training program, survival training, care of weapons, arctic transportation, mountain engineering, communications, and land navigation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-2204-0008

Infantry Replacement and Individual Combat Training

Course Number: None.

Location: Headquarters, Marine Corps Base, Cp. Pendleton, CA.

Length: 6 weeks (169 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To provide enlisted personnel with basic infantry training.

Instruction: Lectures and practical exercises in individual combat training, including field fortifications, communications, amphibious training, weapons, and basic tactics.

Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0009

1. Warrant Officer Candidate Screening

(Warrant Officer Candidate)
2. WARRANT OFFICER CANDIDATE SCREENING

Course Number: None.
Location: Officer Candidates School, Quantico, VA. *Version 2:* Training and Test Regiment, Quantico, VA.
Length: *Version 1:* 7-10 weeks (262-301 hours). *Version 2:* 9 weeks (240-281 hours).
Exhibit Dates: *Version 1:* 6/69-1/88. *Version 2:* 1/61-5/69.
Objectives: To train enlisted personnel to be warrant officers.
Instruction: Lectures and practical exercises in leadership, weapons familiarization, physical training, and small-unit tactics.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military science (12/77). *Version 2:* Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0010

FIELD ARTILLERY BATTERYMAN

Course Number: None.
Location: Artillery School, Cp. Pendleton, CA.
Length: 4 weeks (138 hours).
Exhibit Dates: 10/73-12/73.
Objectives: To qualify enlisted personnel to perform as field artillery batterymen.
Instruction: Lectures and practical exercises on the mission, organization, functioning and maintenance of an artillery battery and its weapons, including laying and referring, reconnaissance, selection and occupation of position, field firing exercises, and fire control equipment.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0011

REDEYE GUNNER—PLATOON TRAINING
(ABBREVIATED COURSE)

Course Number: None.
Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA.
Length: 3 weeks (132 hours).
Exhibit Dates: 8/66-6/70.
Objectives: To train enlisted personnel to perform as gunners on the Redeye air defense weapon system.
Instruction: Lectures and practical exercises in the operation and maintenance of the Redeye missile system, including missile firing, identification of friendly and enemy aircraft, tactical employment of weapons, and air control and tactical doctrine.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0012

REDEYE GUNNER—PLATOON TRAINING
(Redeye Gunner/Operator)

Course Number: None.
Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA; Redeye Missile School, Twentynine Palms, CA.
Length: 4-9 weeks (135-321 hours).
Exhibit Dates: 8/66-3/79.
Objectives: To train enlisted personnel to perform as gunners on the Redeye air defense weapon system.
Instruction: Lectures and practical exercises in the operation and maintenance of the Redeye missile system, including missile firing, identification of friendly and enemy aircraft, tactical employment of weapons, air control and tactical doctrine, map reading, communications, compass operation, tracking and counterinsurgency, and search-and-scan procedures.
Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0013

TACTICAL AIR OPERATIONS CENTRAL (TAOC) WEAPONS CONTROLLER/OPERATOR
(Weapons Controller/Operator)

Course Number: None.
Location: Communication-Electronics School, San Diego, CA.
Length: 5-6 weeks (175-210 hours).
Exhibit Dates: 5/66-12/73.
Objectives: To train officers and enlisted personnel to operate tactical data systems.
Instruction: Lectures and practical exercises in tactical data system introduction, universal console introduction; advanced, simulated air exercises; advanced air control techniques and procedures; central operator hut operation and supervision; AN/TYA-9 target acquisition; and aircraft tracking and identification.
Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0014

SEA DUTY INDOCTRINATION
(Sea School)

Course Number: 81N.
Location: Recruit Depot, San Diego, CA; Sea School, Portsmouth, VA.
Length: 3-6 weeks (65-192 hours).
Exhibit Dates: 7/58-Present.
Objectives: To train enlisted Marines for duty with a ship's Marine detachment.
Instruction: Lectures and practical exercises on duties and shipboard life of a ship's Marine detachment, including drills, honors, and ceremonies, administrative subjects, small arms training, naval orientation, damage control and fire fighting, Marine standards, and gunnery training.
Credit Recommendation: Credit is not recommended because of the military nature of the course (8/87).

MC-2204-0015

NONCOMMISSIONED OFFICERS (NCO) LEADERSHIP (SENIOR)

Course Number: None.
Location: Recruit Depot, Parris Island, SC.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/63-12/68.
Objectives: To train noncommissioned officers in effective leadership, tactics, and military techniques.
Instruction: Lectures in drill, command, inspections, ceremonies, weapons, map reading, battle tactics, and techniques of military instruction.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0016

NONCOMMISSIONED OFFICER (NCO) LEADERSHIP (JUNIOR)

Course Number: None.
Location: Recruit Depot, Parris Island, SC.
Length: 3 weeks (128 hours).
Exhibit Dates: 1/63-12/68.
Objectives: To train noncommissioned officers in effective leadership, tactics, and military techniques.
Instruction: Lectures in drill, command, inspections, ceremonies, weapons, map reading, battle tactics, and techniques of military instruction.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0017

FIELD ARTILLERY OPERATIONS MAN

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 9 weeks (323 hours).
Exhibit Dates: 12/72-12/74.
Objectives: To train enlisted personnel to be artillery fire direction personnel and forward observers.
Instruction: Lectures and practical exercises in artillery registration, identification and correction computation, use and maintenance of gun direction computer, and firing procedures.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0018

WOMAN MARINE NONCOMMISSIONED OFFICER (NCO) LEADERSHIP

Course Number: None.
Location: Woman Officer School, Quantico, VA; Woman Marine Detachment, Quantico, VA; Woman Marine Training Detachment, Quantico, VA.
Length: 4 weeks (138-150 hours).
Exhibit Dates: 7/54-12/68.
Objectives: To provide women Marines with leadership training.
Instruction: Lectures in leadership training for women Marine noncommissioned officers. Course includes leadership, Marine Corps history, organization and management, military law, and physical training.
Credit Recommendation: In the vocational certificate category, 2 semester hours in leadership or human relations (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in leadership or human relations (6/74).

MC-2204-0019

AIRBORNE RADIO OPERATOR/LOADMASTER

Course Number: None.
Location: 2nd Marine Aircraft Wing, Cherry Point, NC.
Length: 20-22 weeks (686 hours).
Exhibit Dates: 12/72-1/88.
Objectives: To train enlisted personnel as airborne radio operators/loadmasters.
Instruction: Lectures and practical exercises in the duties of an airborne radio operator/loadmaster. Topics include international Morse code, general operating procedures, airborne electronics, load weight and balance, voice operations, and ground and flight training.
Credit Recommendation: Credit is not recommended because of the military nature of the course (6/74).

MC-2204-0020

INFANTRY WEAPONS ARMORER

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (264 hours).

Exhibit Dates: 1/72-12/74.

Objectives: To train enlisted personnel to manage and organize armories.

Instruction: Lectures and practical exercises in the management of an infantry weapons armory. Course includes inspections, lubricants, preservatives, disassembly, assembly, and function of pistols, machine guns, submachine guns, mortars, flamethrowers, launchers, and shotguns.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in gunsmithing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in gunsmithing (7/74).

MC-2204-0021

AMPHIBIOUS WARFARE
(Junior Course)
(Junior School)

Course Number: None.

Location: Development and Education Command, Quantico, VA; Education Center, Quantico, VA.

Length: *Version 1:* 39 weeks (1138 hours). *Version 2:* 22 weeks (761 hours). *Version 3:* 22 weeks (678-687 hours). *Version 4:* 40-42 weeks (1232-1335 hours). *Version 5:* 40 weeks (1159-1279 hours).

Exhibit Dates: *Version 1:* 8/75-8/80. *Version 2:* 8/71-7/75. *Version 3:* 8/67-7/71. *Version 4:* 8/62-7/67. *Version 5:* 9/58-7/62.

Objectives: To train officers in amphibious operations.

Instruction: Lectures and practical exercises in command and staff operations; tactics and techniques of amphibious operations; counterinsurgency; nuclear, biological, and chemical warfare; automatic data processing; effective communications; amphibious organization, weapons, and equipment; and management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in military science, 1 in public speaking (11/80). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in general business (7/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and credit in oral and written communications on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in French or Spanish, and credit in oral and written communication on the basis of institutional evaluation (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and credit in oral and written communication on the basis of institutional evaluation (12/68).

MC-2204-0022

ARTILLERY WEAPONS REPAIRMAN

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (210 hours).

Exhibit Dates: 1/72-12/74.

Objectives: To train enlisted personnel to repair and maintain field artillery weapons.

Instruction: Lectures and practical exercises in the maintenance and repair of field artillery weapons. Course includes artillery fundamentals, hand tool usage, and artillery maintenance.

Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0024

WOMAN OFFICER CANDIDATE

Course Number: None.

Location: *Version 1:* Officer Candidates School, Quantico, VA. *Version 2:* Woman Officer School, Quantico, VA. *Version 3:* Marine Corps School, Quantico, VA. *Version 4:* Marine Corps School, Quantico, VA.

Length: *Version 1:* 7 weeks (248 hours). *Version 2:* 7 weeks (217-243 hours). *Version 3:* 9-10 weeks (311 hours). *Version 4:* 11 weeks (350 hours).

Exhibit Dates: *Version 1:* 6/76-1/88. *Version 2:* 5/68-5/76. *Version 3:* 3/63-4/68. *Version 4:* 4/62-2/63.

Objectives: To train candidates for appointment or commissioning officers.

Instruction: Lectures and practical exercises to include the history, customs, uniforms, insignias, and awards of the Marine Corps; military law; military security; the role of women in the military; leadership training; military operations and tactics; drill and command development; inspections and ceremonies; world affairs; and organizational procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military (12/77). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in principles of leadership and organization (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in leadership or group organization (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0025

AMPHIBIOUS VEHICLE OFFICER
ORIENTATION

Course Number: None.

Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 4 weeks (148 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train officers to supervise amphibious vehicle operations.

Instruction: Lectures and practical exercises in the maintenance of amphibious vehicles; communications; tactics; gunnery operations; and night operations.

Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0026

TANK/AMPHIBIAN VEHICLE OFFICER
(RESERVE)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 3 weeks (110 hours).

Exhibit Dates: 5/65-12/68.

Objectives: To train officers to supervise tank, armored-amphibian, and amphibian operations.

Instruction: Lectures and practical exercises in communications, driving, preventive maintenance, gunnery, tactics, field firing, and night operations with tanks, armored amphibians, and amphibians.

Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0027

TANK OFFICERS ORIENTATION

Course Number: None.

Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 4 weeks (152 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train officers to be tank officers.

Instruction: Lectures and practical exercises in weapons and equipment maintenance, preventive maintenance, driving, gunnery, and field operations.

Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0028

TANK/AMPHIBIOUS VEHICLE OFFICER

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 9 weeks (240 hours).

Exhibit Dates: 10/64-12/68.

Objectives: To train officers in tracked-vehicle operations.

Instruction: Lectures and practical exercises in the duties of a tank/amphibious vehicle officer. Course includes night operations, maintenance procedures, tracked-vehicle power systems, basic driving, and operation of special equipment.

Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0029

SHORE PARTY MAN
(Basic Landing Support Specialist)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 5-6 weeks (163-191 hours).

Exhibit Dates: 1/71-9/84.

Objectives: To train personnel to perform basic shore party tasks.

Instruction: Lectures and practical exercises in construction, demolitions, land mine warfare, and camouflage and field fortifications.

Credit Recommendation: Credit is not recommended because of the military nature of the course (2/85).

MC-2204-0030

AIR DEFENSE CONTROL OFFICER
(Air Defense Officer)
(Air Defense Control Officer, Automated System)
(Air Defense Control Officer)
(Marine Tactical Data System (MTDS) Weapons Controller)

Course Number: 67P.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communications-Electronics School, Twentynine Palms, CA.

Length: 8-12 weeks (283-479 hours).

Exhibit Dates: 12/71-Present.

Objectives: To provide students with knowledge of the functions and operations of a tactical air defense operations center.

Instruction: Lectures and practical exercises in tactical air operations, air intercept control, weapons system characteristics, flight rules and regulations, ground controlled intercepts, and related air traffic control procedures. Course contains 5 weeks training in automated systems.

Credit Recommendation: Credit is not recommended because of the military nature of the course (7/90).

MC-2204-0031

Air Control Electronics Operator
(Air Control Electronic Operator)

Course Number: 67M.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Air Command and Control Systems School, Twentynine Palms, CA.
Length: 4-7 weeks (132-279 hours).
Exhibit Dates: 7/74-Present.
Objectives: To train enlisted personnel as operators in tactical air operations centers.
Instruction: Lectures and practical exercises in principles of an air defense system, tactical air operations center, radar operation, operation of AN/TYQ-2 equipment, basic air traffic control and pertinent flight regulations, electronic warfare fundamentals, and target identification and intercept.
Credit Recommendation: Credit is not recommended because of the military nature of the course (4/90).

MC-2204-0032

Artillery Scout Observer

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 5 weeks (185 hours).
Exhibit Dates: 5/73-12/73.
Objectives: To train enlisted personnel as artillery forward observers.
Instruction: Lectures and practical exercises in communications, organization of the artillery battery, map reading, forward observation procedures, and artillery field firing.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0033

Field Artillery Fire Controlman

Course Number: None.
Location: Artillery School, Cp. Pendleton, CA.
Length: 5 weeks (194 hours).
Exhibit Dates: 3/73-12/73.
Objectives: To train enlisted personnel as field artillery fire controlmen.
Instruction: Lectures and practical exercises in artillery mathematics, gunnery and survey, meteorological message, gun direction computer, and artillery field firing.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0034

Reserve Amphibious Warfare Phase I, Phase II

Course Number: None.
Location: Amphibious Warfare School, Quantico, VA.
Length: Phase I, 2 weeks; Phase II, 2 weeks (Phase I, 70 hours; Phase 2, 65 hours).
Exhibit Dates: 6/76-1/90.
Objectives: To train officers in amphibious operations.
Instruction: Military tactics, weapons, command and management, and professional skills presented as a survey. Course is offered in two successive phases.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/80).

MC-2204-0035

Woman Officer Basic

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: *Version 1:* 9 weeks (300-316 hours). *Version 2:* 6-7 weeks (223-254 hours).
Exhibit Dates: *Version 1:* 5/68-4/90. *Version 2:* 8/62-4/68.
Objectives: To train newly commissioned women officers in the duties and functions of company and staff officers.
Instruction: Lectures and practical exercises in military law, leadership, management and administration, military operations, officer assignment and classification, techniques of military instruction, logistics, and communication.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in advanced military science at schools which normally offer such credit (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in business organization and management and, on the basis of institutional evaluation, credit in advanced military science and in instructional methods (7/74).

MC-2204-0036

Nuclear and Chemical Weapons Employment
(Weapons Employment)
(Nuclear, Biological and Chemical (NBC) Weapons Employment)
(Nuclear Weapons Employment)
(Atomic Weapons Employment)

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: 3-8 weeks (113-205 hours).
Exhibit Dates: 6/59-1/88.
Objectives: To provide knowledge and preparation necessary for officers to tactically employ nuclear and chemical weapons.
Instruction: Lectures and practical exercises in military, nuclear, and chemical weapons uses and effects, nuclear damage estimations, target analysis, chemical weapons employment, and tactical application of nuclear and chemical weapons.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

MC-2204-0037

Platoon Leaders Class (Junior)

Course Number: None.
Location: Officer Candidate School, Quantico, VA; Marine Corps School, Quantico, VA.
Length: 6-7 weeks (205-283 hours).
Exhibit Dates: 6/53-7/86.
Objectives: To train officer candidates for service as Marine Corps officers.
Instruction: Lectures and practical experience in leadership, infantry weapons, small unit tactics, and other general military subjects.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (11/80).

MC-2204-0038

Basic Military Training
(Recruit Training)

Course Number: 809.
Location: Recruit Depot, San Diego, CA. Recruit Depot, Cp. Pendleton, CA. Recruit Depot, Parris Island, SC.
Length: 10-11 weeks (375-410 hours).
Exhibit Dates: 12/76-Present.
Objectives: To provide basic policy guidance and training in the essential subjects required of all marines and to ensure preparedness for follow-on training.
Instruction: Training includes code of conduct, military law, leadership, orientation lectures, history, customs, courtesies, uniform and clothing, mission and organization of the Marine Corps, interior guard, personal health and hygiene, swimming and first aid, close order drill, close combat, observing and reporting, individual movement, camouflage and concealment, field fortifications, helicoptor-borne operations, NBC defense, offensive and defensive combat, mines and boobytraps, physical conditioning, and parades and ceremonies.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marksmanship, 1 in personal health/hygiene, 1 in outdoor skills practicum, 3 in personal conditioning/fitness, and 1 in first aid (4/87).

MC-2204-0039

Naval Gunfire Officer

Course Number: None.
Location: Educational Center, Quantico, VA.
Length: 11 weeks (309 hours).
Exhibit Dates: 6/56-12/68.
Objectives: To prepare officers in all phases of naval gunfire support, shore bombardment, and shore fire control with special emphasis on landing forces.
Instruction: Lectures and practical exercises in the characteristics of naval gunfire, fire support ships, equipment and materiel, gunnery, communications, organization, control and staff functions, operations planning, training, and familiarization with other service organizations.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0040

Platoon Leaders Class (Senior)

Course Number: None.
Location: Officer Candidate School, Quantico, VA; Marine Corps School, Quantico, VA.
Length: 6-8 weeks (196-305 hours).
Exhibit Dates: 7/54-7/86.
Objectives: To prepare selected personnel to become commissioned officers.
Instruction: Lectures and practical exercises in drill, unit formation, command voice, inspections, parades and reviews, physical conditioning, leadership, weapons, code of conduct, small unit tactics, military law, guard duty, map reading, first aid, and indoctrination.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (11/80).

MC-2204-0041

Amphibious Vehicle Company Officer

Course Number: None.
Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.
Length: 10 weeks (393 hours).
Exhibit Dates: 7/58-12/68.

Objectives: To train company grade officers in the tactical employment of amphibious tractor and armored amphibious units in combat.

Instruction: Lectures and practical exercises in protective maintenance of landing vehicle tank, basic radio communication, map reading, direct and indirect fire gunnery on machine gun and 105mm Howitzer, and tactical employment in night and day operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0042

BASIC COURSE
(Special Basic Course)

Course Number: None.

Location: Basic School, Quantico, VA.

Length: *Version 1:* 21 weeks (763-764 hours). *Version 2:* 21-30 weeks (934-1054 hours). *Version 3:* 29 weeks (1047-1062 hours). *Version 4:* 28-32 weeks (987-1169 hours).

Exhibit Dates: *Version 1:* 10/79-2/85. *Version 2:* 5/64-9/79. *Version 3:* 7/62-4/64. *Version 4:* 7/57-6/62.

Objectives: To train newly commissioned officers to assume company duties.

Instruction: Lectures and practical exercises in amphibious operations, communications, field engineering, infantry weapons, leadership, map and aerial photograph reading, military law, personnel administration, and infantry tactics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military science (11/80). *Version 2:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally grant such credit (7/74). *Version 3:* In the upper-division baccalaureate category, credit in French or Spanish on the basis of institutional evaluation and credit in advanced military science at institutions which normally grant such credit (7/74). *Version 4:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally grant such credit (7/74).

MC-2204-0043

SPECIAL INDOCTRINATION

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 6 weeks (219-264 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To familiarize former Naval aviation cadets with the duties of Marine Corps junior officers.

Instruction: Lectures and practical exercises in drill and command, weapons, leadership, map and aerial photograph reading, field engineering, amphibious warfare, and Marine Corps organization, mission, functions, tactics, communications, personnel administration, logistics and supply, and military law.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

MC-2204-0044

INFANTRY WEAPONS ARMORERS
ADVANCED

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 6-7 weeks (180-203 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train noncommissioned officers to make and supervise extensive repairs to infantry weapons.

Instruction: Lectures and practical exercises in the use of common and special tools and gages to inspect and repair rifles, handguns, flamethrowers, mortars, shotguns, and machineguns, and blueing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in small arms repair (armorer) (5/74).

MC-2204-0045

ARTILLERY OFFICER ORIENTATION

Course Number: None.

Location: Marine Corps School, Quantico, VA.

Length: 4-5 weeks (145-194 hours).

Exhibit Dates: 10/56-12/72.

Objectives: To train personnel in the duties of the artillery unit officer and the operations of a field artillery firing battery.

Instruction: Lectures and practical exercises in the organization of the field artillery unit, communication and equipment, survey, gunnery, observed fire and fire direction procedures, equipment and materials of field artillery battery.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0046

BASIC MILITARY TRAINING (WOMEN)
Recruit Training (Women)
(Female Recruit Training)

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 8 weeks (248 hours).

Exhibit Dates: 12/79-Present.

Objectives: To provide basic policy guidance and training in the essential subjects required of all Marines and to ensure preparedness for follow-on training.

Instruction: Training includes code of conduct, military law, leadership, orientation, history, customs, military courtesies, the mission and organization of the Marine Corps, uniform and clothing, interior guard, close order drill, field living, first aid, swimming, observing and reporting, individual movement, and parades and ceremonies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in personal health/hygiene, 2 in personal conditioning/fitness (9/79).

MC-2204-0047

BASIC MORTARMAN
(Mortarman)

Course Number: 034.

Location: Infantry School, Cp. Lejeune, NC; Infantry Training School, Cp. Pendleton, CA.

Length: 5-7 weeks (173-488 hours).

Exhibit Dates: 7/74-Present.

Objectives: To provide intensive training in weapons and combat skills.

Instruction: Lectures and practical exercises in 81mm mortar; 60mm mortar; offensive, defensive, and patrolling operations; land navigation; and offensive and defensive tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/87).

MC-2204-0048

BASIC MACHINEGUNNER
(Machinegunner)

Course Number: 033.

Location: Infantry School, Cp. Lejeune, NC; Infantry Training School, Cp. Pendleton, CA.

Length: 5-7 weeks (134-194 hours).

Exhibit Dates: 7/74-Present.

Objectives: To provide intensive training in weapons and combat skills to produce machinegunners capable of closing with and capturing or destroying the enemy.

Instruction: Course provides instruction in general military subjects pertaining to infantrymen to include tactical employment operations and field exercises in conjunction with riflemen, mortarmen and antitank assaultmen. Topics include camouflage, patrolling operations, and basic offensive and defensive tactics relating to the 7.62 M-60 machinegun.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/87).

MC-2204-0049

ANTITANK ASSAULTMAN

Course Number: None.

Location: Infantry Training School, Cp. Pendleton, CA.

Length: 5 weeks (157 hours).

Exhibit Dates: 7/74-1/88.

Objectives: To provide intensive training in infantry antitank assault weapons.

Instruction: Lectures and practical exercises in general military subjects with emphasis on specialized training in weapons and tactics related to infantry antitank weapons employment on the battlefield.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

MC-2204-0050

OFFICER CANDIDATE SCHOOL
(Platoon Leaders (Combined Junior/Senior))
(Officer Candidate)

Course Number: None.

Location: Marine Corps School, Quantico, VA.

Length: 10-12 weeks (361-474 hours).

Exhibit Dates: 7/57-7/86.

Objectives: To motivate and train selected personnel to become commissioned officers.

Instruction: Lectures and practical exercises in weapons information and identification; small unit tactics; Marine Corps organization, mission, and functions; uniforms and equipment; drill, inspection, and parades; leadership; physical training; land navigation; maps; and military law.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military science (11/80).

MC-2204-0051

BASIC RIFLEMAN
(Rifleman)

Course Number: 031.

Location: Infantry Training School, Infantry School. Cp. Lejeune, NC; Cp. Pendleton, CA.

Length: 5-7 weeks (163-288 hours).

Exhibit Dates: 7/74-Present.

Objectives: To provide infantrymen with training in weapons and combat skills.

Instruction: Lectures and practical exercises in land navigation; supporting arms;

detection of mines and booby traps; helicopter operations; tracked vehicles; technique of fire and combat firing positions; scouting and patrolling; and offensive and defensive tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/87).

MC-2204-0052

INFANTRY WEAPONS ARMORER BASIC

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 4-5 weeks (180-203 hours).

Exhibit Dates: *Version 1:* 5/67-12/68. *Version 2:* 7/58-4/67.

Objectives: To train personnel to repair infantry weapons.

Instruction: Lectures and practical exercises in troubleshooting, disassembly, inspection, repair, reassembly and testing of rifles, pistols, grenade launchers, rocket launchers, and mortars; care and use of hand tools; and repair by component replacement.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in small arms repair (armorer) (5/75). *Version 2:* In the vocational certificate category, 1 semester hour in small arms repair (armorer) (5/75).

MC-2204-0053

STAFF NONCOMMISSIONED OFFICER (NCO) ACADEMY RESERVE

(Reserve Staff Noncommissioned Officer (NCO) Academy)

Course Number: None.

Location: Staff Noncommissioned Officer Academy,CP. Lejeune, NC; Staff Noncommissioned Officer Academy, El Toro, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 5/78-Present.

Objectives: To develop leadership skills necessary to function as a staff noncommissioned officer in the U.S. Marine Corps.

Instruction: Multimedia instruction in general military administration, physical training, leadership, Marine Corps organization, and training management.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/80).

MC-2204-0054

MINEFIELD MAINTENANCE

(Minefield Maintenance Man Refresher)

(Guantanamo Minefield Maintenance Preparation)

Course Number: CE7.

Location: Engineer School, Cp. Lejeune, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 1/82-Present.

Objectives: To familiarize personnel with the tasks, responsibilities and operating procedures involved with the mines at Guantanamo Bay, Cuba.

Instruction: Lectures and practical experience in the placement, detection and disarmament of mines, removal of mines, recording and reporting procedures, maintenance procedures, emergency evacuation procedures, and radio operations and communications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-2204-0055

INFANTRY OFFICER

Course Number: None.

Location: Infantry Officers School, Quantico, VA.

Length: *Version 1:* 8 weeks (375 hours). *Version 2:* 6 weeks (288 hours).

Exhibit Dates: *Version 1:* 10/80-6/85. *Version 2:* 10/76-9/80.

Objectives: To train selected company grade officers in an infantry specialty.

Instruction: Course includes multimedia instruction in specified infantry subjects (small-unit level) with heavy emphasis on field tactics.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (11/80). *Version 2:* Credit is not recommended because of the military-specific nature of the course (11/80).

MC-2204-0056

FUNCTIONS OF THE INFANTRY STAFF NONCOMMISSIONED OFFICER (NCO) BY CORRESPONDENCE

Course Number: 03.10M.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/81-12/85.

Objectives: This course of study covers administrative and tactical subjects related specifically to military operations.

Instruction: This correspondence course consists of study units which include combat intelligence, fire support, air support, and amphibious operations. A supervised final examination without texts or notes is administered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

MC-2204-0057

THE MARINE MARKSMAN BY CORRESPONDENCE

Course Number: 03.64a; 03.64.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 12/82-12/86.

Objectives: To develop the knowledge, skills, and techniques of marksmanship.

Instruction: This correspondence course presents information through a series of study units covering such topics as service rifle and hand-gun marksmanship, field firing techniques and the care and cleaning of weapons. A supervised final examination without textbook or notes will be administered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

MC-2204-0058

THE MARINE SQUAD LEADER: COMBAT PLANNING AND ORDERS BY CORRESPONDENCE

Course Number: 03.46C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 6/82-12/85.

Objectives: To provide instruction in techniques and procedures as needed for squad leaders.

Instruction: Correspondence instruction is offered in troop leading procedures, and in developing plans and combat orders.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

MC-2204-0060

M60 MACHINE GUN BY CORRESPONDENCE

Course Number: 03.20K.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 4/84-8/88.

Objectives: To provide information on the operation of the M60 machine gun.

Instruction: This correspondence course presents a series of study units on the M60 machine gun including such topics as mechanical operations, marksmanship, and firing techniques. A proctored examination concludes the course.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0061

THE 81MM MORTAR NONCOMMISSIONED OFFICER (NCO) BY CORRESPONDENCE

Course Number: 03.31G.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 3/82-6/85.

Objectives: To provide a course of study related to the various elements necessary for the operation of the 81mm mortar platoon.

Instruction: This correspondence course presents a series of study units covering such topics as the organization of the mortar platoon, the operation of each component including the forward observer, and the fire direction center. Various summary exercises are included. A supervised final examination without textbook or notes will be administered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

MC-2204-0062

LANDMINE WARFARE AND DEMOLITIONS BY CORRESPONDENCE

Course Number: 03.4M.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.

Exhibit Dates: 7/79-7/89.

Objectives: To provide a course of study dealing with explosives, landmines and demolitions used by the Marine Corps.

Instruction: This correspondence course presents a series of study units covering topics such as types of mines and other explosives, laying of breaching minefields, foreign mine warfare, and the use of demolitions charges. A supervised final examination without textbook or notes is administered.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/85).

MC-2204-0063

MARINE INFANTRY SMALL UNITS IN COUNTERINSURGENCY OPERATIONS BY CORRESPONDENCE

Course Number: 03.30C.

Location: Marine Corps Institute, Washington, DC.

Length: Maximum 52 weeks.
Exhibit Dates: 9/78–12/88.
Objectives: To provide information on counterinsurgency operations in the emerging nations of the world.
Instruction: A series of study units covering topics such as the communist challenge in the underdeveloped countries, civil affairs and civil actions, security and intelligence, and selected civic actions projects is presented through correspondence. A supervised final examination without text books or notes is administered.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0064

MAINTENANCE OF THE M60 SERIES MACHINE GUNS BY CORRESPONDENCE

Course Number: 21.30.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 5/83–Present.
Objectives: To provide training in the inspection, assembly/disassembly, and repair of the M60 series (7.62 mm) machine gun.
Instruction: This correspondence course consists of six study units to include inspection, assembly/disassembly, functioning, preventive maintenance, and repair of the M60 series (7.62 mm) machine gun used by the Marine Corps. This course is followed by a supervised two hour examination without texts or notes.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0065

INSPECTION AND REPAIR OF THE CALIBER MACHINE GUN BY CORRESPONDENCE

Course Number: 21.31.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 8/84–Present.
Objectives: To provide training in the inspection, maintenance, and repair of the .50 caliber machine gun used by the Marine Corps.
Instruction: This correspondence course consists of six study units which include assembly/disassembly, preventive maintenance, functioning and repair of the .50 caliber machine gun used by the Marine Corps. The course concludes with a two hour supervised examination without texts or notes.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0066

INSPECTION AND REPAIR OF SHOULDER WEAPONS BY CORRESPONDENCE

Course Number: 21.28C.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 11/81–Present.
Objectives: To provide information necessary to acquire the skill to inspect and repair infantry shoulder weapons.
Instruction: This course consists of three study units covering the Remington 12 gauge shotgun, 5.56 mm rifle and 40 mm grenade launcher, followed by a two hour supervised examination without textbooks or notes.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0067

PISTOL AND REVOLVER PREVENTIVE AND CORRECTIVE MAINTENANCE BY CORRESPONDENCE

Course Number: 21.29.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 8/79–12/89.
Objectives: To provide training in the maintenance of the .45 caliber automatic pistol and the .38 caliber revolver.
Instruction: This correspondence course consists of three study units covering maintenance and repair of the .45 caliber automatic pistol and the .38 caliber revolver. The course concludes with a two hour supervised final examination without texts or notes.
Credit Recommendation: Credit is not recommneded because of the limited, specialized nature of the course (3/85).

MC-2204-0068

TACTICS OF THE MARINE RIFLE SQUAD BY CORRESPONDENCE

Course Number: 03.7P.
Location: Marine Corps Institute, Washington, DC.
Length: Maximum 52 weeks.
Exhibit Dates: 5/84–12/85.
Objectives: To provide a course of study in all phases of offensive and defensive combat of the Marine rifle squad.
Instruction: This correspondence course of study offers units covering topics such as the organization, armament, and equipment of the rifle squad, offensive and defensive combat, and special tactics and techniques.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (3/85).

MC-2204-0069

BASIC LANDING SUPPORT SPECIALIST

Course Number: 131.
Location: Engineer School, Cp. Lejeune, NC.
Length: 4–6 weeks (140–163 hours).
Exhibit Dates: 10/84–Present.
Learning Outcomes: Upon completion of the course, the student will be able to perform tasks normally associated with shore party landing support, such as camouflage, field fortifications, and demolitions.
Instruction: Includes lectures and practical experiences in camouflage, mine warfare, demolitions, amphibious operations, and field fortification construction.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/89).

MC-2204-0070

AMPHIBIOUS WARFARE

Course Number: RGA.
Location: Air Ground Training and Education Center, Quantico, VA; Amphibious Warfare School, Quantico, VA.
Length: 39 weeks (1183–1303 hours).
Exhibit Dates: 8/84–Present.
Learning Outcomes: Upon completion of the course the student will be able to plan, organize, direct, coordinate, and control task-force operations, including the functions of information gathering, logistics, and human resource management; the officer will also be familiar with aspects of military history and miltary arts and sciences; and will be able to apply management principles to running a small independent organization.
Instruction: Lectures and practical exercises in management and command and staff operations; course includes tactics and techniques of amphibious operations, logistics, and human resources; also includes amphibious organization, weapons and equipment with emphasis on command, control, and communications. Also covers aspects of military history and science and written and oral communications.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in written and oral communications (2/90); in the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in logistics management, 1 in military history, 3 in field experience in management, and 2 in small business management (2/90).

MC-2204-0071

RESIDENT STAFF NONCOMMISSIONED OFFICER (NCO) CAREER RESERVE

Course Number: CEW.
Location: Staff Noncommissioned Officer Academy, Quantico, VA; Staff Noncommissioned Officer Academy, El Toro, CA; Staff Noncommissioned Officer Academy, Cp. Lejeune, NC.
Length: 2 weeks (76–77 hours).
Exhibit Dates: 5/87–Present.
Learning Outcomes: Upon completion of the course, the student understand the principles of military defensive and offensive tactics and the role of the effective military manager in war and peace.
Instruction: Lectures, demonstrations, student presentations, guided discussions, practical exercises, and evaluations in military management, customs and courtesies of the service, and values and unit level tactics.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science (2/90).

MC-2204-0072

RESIDENT STAFF NONCOMMISSIONED OFFICER ADVANCED (RESERVE)

Course Number: M4F.
Location: Staff Noncommissioned Officer Academy, Quantico, VA, Staff Noncommissioned Officer Academy, El Toro, CA.
Length: 2 weeks (91 hours).
Exhibit Dates: 5/87–Present.
Learning Outcomes: Upon completion of this course, the student will understand the principles of military defensive and offensive tactics, and the role of the effective military manager in peace and in war.
Instruction: Lectures, demonstrations, student presentations, guided discussions, and evaluation in military management, customs, justice, and unit-level tactics are covered.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in military science (3/90).

MC-2204-0073

RESIDENT INSTRUCTION TEAM STAFF NONCOMMISSIONED OFFICER (NCO) CAREER

Course Number: T8F.

Location: Staff Noncommissioned Officer Academy, Individual Commands USA and overseas.

Length: 3 weeks (122-123 hours).

Exhibit Dates: 5/87–1/89.

Learning Outcomes: Upon completion of the course, the student will be able to apply leadership concepts and theory to contemporary leadership issues in order to stimulate thought and encourage the exchange of ideas; and will understand the principles of military defensive and offensive tactics, and the role of the effective military manager in peace and war.

Instruction: Lectures, demonstrations, student presentation, guided discussions, practical exercises, and evaluation in leadership principles and skills, military customs and courtesies, and unit-level military operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership and 2 in military science (3/90).

MC-2204-0074

Resident Staff Noncommissioned Officer (NCO) Career (Regular)

Course Number: T8A.

Location: Staff Noncommissioned Officer Academy, Quantico, VA; Staff Noncommissioned Officer Academy, Cp. Lejeune, NC; Staff Noncommissioned Officer Academy, Cp. Butler, Okinawa; Staff Noncommissioned Officer Academy, El Toro, CA.

Length: 6 weeks (196–228 hours).

Exhibit Dates: 1/85–Present.

Learning Outcomes: Upon completion of the course, the student will be able to apply leadership concepts and theory to contemporary leadership issues in order to stimulate thought and encourage the exchange of ideas; to understand and demonstrate the importance of physical fitness and how to establish, maintain, and evaluate a physical fitness training program; and understand the principles of military defensive and offensive tactics, and the role of the effective military manager in both peace and war.

Instruction: Lectures, demonstrations, student presentations, guided discussions, practical exercises, and evaluations in the following: leadership principles and skills; military management, customs, and unit-level tactics; and the design and implementation of physical fitness training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 4 in military science, and 1 in physical education (3/90).

MC-2204-0075

Noncommissioned Officer (NCO) Basic

Course Number: ODD.

Location: Staff Noncommissioned Officer Academies, Individual Commands, USA and overseas.

Length: @ 5 weeks (211 hours) @ 3 weeks (106–017 hours). @ 3 weeks (104 hours).

Exhibit Dates: @ 3/90–Present. @ 3/85–2/90. @ 4/81–2/85.

Learning Outcomes: *Version 1:* Upon completion of the course, the student will understand the principles of military defensive and offensive tactics, and the role of the effective military manager in peace and in war. *Version 2:* Upon completion of the course, the student will be able to apply leadership concepts and theories to contemporary leadership issued in order to stimulate thought and encourage exchange of ideas. The student will understand principles of military offensive and defensive tactics and the role of the effective military manager in peace and in war. *Version 3:* Upon completion of the course, the student will be able to demonstrate thorough knowledge of basic leadership skills, introductory instructional skills, and training management skills.

Instruction: *Version 1:* Lectures, demonstrations, student presentations, guided discussions, and evaluations in military leadership, training, and unit-level tactics. *Version 2:* Lectures, demonstrations, student presentation, guided discussion, and practical exercises and evaluations in leadership principles and skills, and military management, customs, courtesies, values, and unit-level tactics. *Version 3:* Instruction is provided through lectures, guided discussions, conference, demonstrations, practical exercises, student presentation, and evaluations in leadership principles and skills and in military management, customs and courtesies, values, and unit-level tactics, and principles of effective instruction.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 2 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 2 in military science (3/90).

MC-2204-0076

Staff Noncommissioned Officer (NCO) Advanced

Course Number: T8H.

Location: Staff Noncommissioned Officer Academy, Quantico, VA; Staff Noncommissioned Officer Academy, Cp.Lejeune, NC; Staff Noncommissioned Officer Academy, El Toro, CA.

Length: 10 weeks (365–427 hours).

Exhibit Dates: *Version 1:* 6/87–Present. *Version 2:* 1/85–5/87.

Learning Outcomes: Upon completion of the course, the student will be able to apply leadership concepts and theories to contemporary leadership issues in order to stimulate thought and encourage the exchange of ideas; to communicate effectively both orally and in writing, in a clear and concise manner, and to demonstrate an understanding of the importance of physical fitness and know how to establish, maintain, and evaluate a physical fitness training program. The student will understand the principles of military defensive and offensive tactics, and will understand the role of the effective military manager in peace and war.

Instruction: Lectures, demonstrations, student presentation, guided discussions, practical exercises, and evaluations in leadership principles and skills; oral and written communication; military management, customs, courtesies, and unit-level tactics; and the design and implementation of physical fitness training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 1 in public speaking, 1 in physical education, and 6 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 in public speaking, 1 in physical education, and 6 in military science (3/90).

MC-2204-0077

Platoon Leaders Junior

Course Number: RMC.

Location: Staff Noncommissioned Officer Academy, Quantico, VA.

Length: 6–7 weeks (254–442 hours).

Exhibit Dates: *Version 1:* 2/90–Present. *Version 2:* 4/88–1/90. *Version 3:* 8/86–3/88.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 1 in physical training, and 5 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 1 in physical training, 5 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 1 in physical training, 5 in military science (3/90).

MC-2204-0078

Platoon Leaders Senior

Course Number: RMB.

Location: Staff Noncommissioned Officer Academy, Quantico, VA.

Length: 6–7 weeks (276–471 hours).

Exhibit Dates: *Version 1:* 2/90–Present. *Version 2:* 4/88–1/90. *Version 3:* 8/86–3/88.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 in physical training, and 5 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 1 physical training, 5 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 1 in physical training, and 5 in military science (3/90).

MC-2204-0079

Platoon Leaders Combined

Course Number: RMJ.

Location: Staff Noncommissioned Officer Academy, Quantico, VA.

Length: 10–11 weeks (405–727 hours).

Exhibit Dates: @ 2/90–Present. @ 4/88–1/90. @ 8/86–3/88.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 2 in physical training, and 9 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 2 in physical training, and 9 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 2 in physical training, and 9 in military science (3/90).

MC-2204-0080

1. Officer Candidate
2. Officer Candidate
3. Officer Candidate (Male)
4. Officer Candidate (Female)

Course Number: RMA.
Location: Staff Noncommissioned Officer Academy, Quantico, VA.
Length: 10-11 weeks (405-727 hours).
Exhibit Dates: *Version 1:* 2/90-Present. *Version 2:* 4/88-1/90. *Version 3:* 8/86-3/88. *Version 4:* 8/86-3/88.

Learning Outcomes: Upon completion of the course, the student will be able to demonstrate the leadership, moral, and physical qualities required of a commissioned officer.

Instruction: Lectures, guided discussions, demonstrations, practical exercises, and written examinations in: 1) leadership principles and skills, 2) military courtesy and customs, 3) physical fitness training, and 4) military tactics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 2 in physical training, and 9 in military science (3/90). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in leadership, 2 in physical training, and 9 in military science (3/90). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in leadership, 2 in physical training, and 9 in military science (3/90). *Version 4:* In the lower-division baccalaureate/associate degree category, 1 semester hour in leadership, 2 in physical training, and 9 in military science (3/90).

MC-2204-0081

Infantry Officer

Course Number: RGU.
Location: Basic School, Quantico, VA.
Length: 9-10 weeks (532-550 hours).
Exhibit Dates: 7/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to command and lead an infantry platoon in accomplishing complex missions under conditions of physical and mental stress, and to synchronize the applications of supporting organizations and resources as well as build and sustain individual and group esprit.

Instruction: Through lectures, demonstrations and extensive practical application exercises, the course trains students in infantry tactics and in the capabilities of supporting organizations. There is heavy emphasis on the leader as a problem solver and decision maker.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (6/90).

MC-2204-0082

Reserve Warrant Officer Basic

Course Number: R2T.
Location: Basic School, Quantico, VA.
Length: 2 weeks (95-96 hours).
Exhibit Dates: 7/85-Present.

Learning Outcomes: Upon completion of the course the student will be able to lead small groups in the completion of complex tasks; effectively manage subordinate personnel; and coordinate the efforts of supporting organizations.

Instruction: Lectures, demonstrations, and discussions present a survey of personnel and resource management techniques, personal fitness and conditioning activities, and basic military skills with emphasis on the role of the leader in small organizations.

Credit Recommendation: Credit is not recommended due to the limited, specialized content of the program (7/90).

MC-2204-0083

Basic Officer

Course Number: RMG.
Location: Basic School, Quantico, VA.
Length: 23 weeks (969-1096 hours).
Exhibit Dates: 3/85-Present.

Learning Outcomes: Upon completion of the course,the student will be able to lead small groups in the planning for and execution of complex tasks performed under conditions of physical and mental stress; to synchronize the application of supporting organizations and resources; to develop individual and group proficiency through programs to train, motivate, counsel, evaluate, and discipline subordinates; and to build and sustain individual and group esprit and cohesiveness.

Instruction: Lectures, demonstrations and practical application exercises on leadership and management principles including personnel training, counseling, motivation, evaluating and disciplining; interpersonal communication skills, information management, and resource management. There is heavy emphasis on problem solving and decision making processes. Course also includes technical instruction in physical education focusing on personal fitness and hygiene, marksmanship and first aid/water survival techniques. Through extensive use of case studies and historical examples, also provides coverage of defense issues including total and limited war, guerilla warfare, terrorism, laws of land warfare, and personal conduct during combat.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in physical education, 1 in cartography (6/90); in the upper-division baccalaureate category, 3 semester hours in leadership (6/90).

MC-2204-0084

Warrant Officer Basic

Course Number: RMN.
Location: Basic School, Quantico, VA.
Length: 13 weeks (512-584 hours).
Exhibit Dates: 6/85-Present.

Learning Outcomes: Upon completion of the course, the student will be able to lead small groups in the planning for and execution of complex tasks performed under conditions of physical and mental stress; to synchronize the application of supporting organizations and resources; to develop individual and group proficiency through programs to train, motivate, counsel, evaluate, and discipline subordinates; and to build and sustain individual and group esprit and cohesiveness.

Instruction: Lectures, demonstrations and practical application exercises on leadership and management principles including personnel training, counseling, motivation, evaluating and disciplining; interpersonal communication skills, information management, and resource management. There is heavy emphasis on problem solving and decision making processes. The course also includes technical instruction in physical education focusing on personal fitness and hygiene, marksmanship and first aid/water safety and survival techniques. Through extensive use of case studies and historical examples, the course also provides coverage of defense issues including total and limited war, guerilla warfare, terrorism, laws of land warfare, and personal conduct during combat.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in physical education, 1 in cartography (7/90); in the upper-division baccalaureate category, 3 semester hours in leadership (7/90).

ght control and stablilization systems; ubleshoots automatic flight control and ght director systems. *AEC:* Able to perrm the duties required for AE1; inspects ork areas, tools, and aviation equipment detect potentially hazardous and unsafe nditions and takes appropriate corrective tion; prepares reports and maintains uipment records; supervises on-the-job ining; prepares preventive maintenance hedules. *AECS:* Able to perform the ties required for AEC; serves as enlisted chnical or specialty expert, plans, orgazes, and directs work of personnel handg and servicing aircraft; plans and adnisters on-the-job training programs; supervises the preparation of reports. *AECM:* ble to perform the duties required for AECS; serves as senior enlisted technical or ecialty administrator; manages personnel the handling and servicing of aircraft, sures maximum efficiency of the work rce and equipment; prepares general corespondence concerning fiscal, supply, and ministrative matters; assists in the formution of plans, policies, and budget requirents; may supplement the officer corps in e overall supervision and administration f personnel and equipment; may also supervise personnel in other specialty areas.

commendation, AE3

In the vocational certificate category or the lower-division baccalaureate/associe degree category, 3 semester hours in viation maintenance technology (or 1 seester hour in aircraft propeller and electrial systems, 1 in ground operation and serving, and 1 in cleaning and corrosion conol), and 3 in DC electrical fundamentals /84).

commendation, AE2

In the vocational certificate category or the lower-division baccalaureate/associe degree category, 3 semester hours in viation maintenance technology (or 1 seester hour in aircraft propeller and electrial systems, 1 in ground operation and serving, and 1 in cleaning and corrosion conol), and 3 in DC electrical fundamentals, 3 electricity/electronics, 3 in electricity/ ectronics laboratory, and 12 in aircraft ectrical maintenance (5/84).

commendation, AE1

In the vocational certificate category, 3 mester hours in aviation maintenance chnology (or 1 semester hour in aircraft opeller and electrical systems, 1 in ound operation and servicing, and 1 in eaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/ ectronics laboratory, 12 in aircraft electrial maintenance, and 3 in aircraft electrical dicating systems. In the lower-division ccalaureate/associate degree category, 3 mester hours in aviation maintenance chnology (or 1 semester hour in aircraft opeller and electrical systems, 1 in ound operation and servicing, and 1 in eaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/ ectronics, 3 in electricity/electronics laboatory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, nd 2 in personnel supervision (5/84).

commendation, AEC

In the vocational certificate category, 3 emester hours in aviation maintenance chnology (or 1 semester hour in propeller d electrical systems, 1 in ground operation and servicing, and 1 in cleaning and orrosion control), and 3 semester hours in DC electrical fundamentals, 3 in electricity/ ectronics, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, 3 in maintenance management, and 3 in shop management. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/electronics, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, and 3 in principles of management (5/84).

Recommendation, AECS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AEC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, AECM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AEC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-AM-001

AVIATION STRUCTURAL MECHANIC

AM3
AM2
AM1
AMC
AMCS
AMCM

Exhibit Dates: 1/71–Present.

Occupational Group: V (Aviation).

Career Pattern

SN: Seaman (E-3). *AM3:* Aviation Structural Mechanic, Third Class (E-4). *AM2:* Aviation Structural Mechanic, Second Class (E-5). *AM1:* Aviation Structural Mechanic, First Class (E-6). *AMC:* Chief Aviation Structural Mechanic (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AMCM:* Master Chief Aviation Structural Mechanic (E-9).

Description

Summary: Maintains aircraft fuselages, wings, fixed and movable control surfaces, and control mechanisms; removes, installs, and rigs flight control surfaces; fabricates and assembles metal parts; makes minor repairs to aircraft skin, performs non-destructive testing procedures using dye penetrant and zyglo methods; maintains hydraulic systems and components, landing gear, wheels and tires, brakes, and related components; maintains fire extinguishing systems plumbing; makes repairs to bladder and integral fuel systems; performs cable swedging; performs electric arc and gas welding operations; performs corrosion control procedures. *AM3:* Services tires and other compressed air systems; operates and maintains paint spray guns; performs corrosion control; applies paints and finishes on aircraft; performs helicopter preflight inspections; lays out patterns and templates for metal work; changes aircraft wheel and tire assemblies. *AM2:* Able to perform the duties required for AM3; maintains and operates tion Electrician's Mate, Second Class (E-5). *AE1:* Aviation Electrician's Mate, First Class (E-6). *AEC:* Chief Aviation Electrician's Mate (E-7). *AECS:* Senior Chief Aviation Electrician's Mate (E-8). *AECM:* Master Chief Aviation Electrician's Mate (E-9).

Description

Summary: Handles and services aircraft; inspects and maintains aircraft electrical and instrument systems, including: power generation, conversion and distribution systems; interior and exterior lighting; electrical components of aircraft controls, including airframe, engine, propeller, and utility control systems; aircraft electrical starting systems, including starters, starting controls and ignition system components; aircraft engine, flight, and flight control instruments; instrument systems; and non-instrument type indicating warning systems; aircraft automatic flight control system, including automatic pilots, flight director systems, aircraft compasses, and altitude reference systems; aircraft batteries and related electrical components. *AE3:* Observes safety precautions while working with energized and de-energized electrical and electronic equipment; checks electrical bonding and shock mountings for condition; replaces and adjusts electrical limit switches; troubleshoots and corrects DC electrical malfunctions; installs instrument indicator range marks; solves simple DC series, parallel and combination circuits; solves voltage divider and bridge circuits; troubleshoots a full-wave bridge PN junction diode vectifier with PL filter; traces signal flow in a common base, emitter, and collector transistor amplifier circuit; plots a frequency response curve for a direct RIC and transformer-coupled amplifier; acts as fireguard during start; ties down and secures aircraft. *AE2:* Able to perform the duties required for AE3; checks and operates ground support equipment and aircraft servicing equipment; supervises aircraft washing; tests, selects, and replaces circuit parts, including electron tubes and solid state devices; adjusts and aligns parts or circuitry; performs pitot-static tests; removes and replaces instrument indicators, transmitters, and sensors; tests fire detection systems; tests and calibrates flight instrument systems; calibrates fuel quantity, engine temperature, air data, and aircraft instrument systems; troubleshoots engine analyzer systems; performs tests on aircraft lighting systems; fabricates and installs aircraft electrical cables; tests power generating systems, aircraft batteries, circuit components, generator armatures, and voltage regulators; adjusts inverter speed control governors; tests hydraulic valve and actuator electrical components, aircraft pressurization and cabin temperature control, and fuel transfer systems; troubleshoots starting control electrical circuits; performs operational checks of aircraft electrical compass systems; swings and calibrates magnetic compasses; operationally checks automatic flight control and stabilization systems. *AE1:* Able to perform the duties required for AE2; supervises aircraft ground handling and servicing; calibrates engine temperature indicating systems, engine performance indicating and warning systems, air data systems, and aircraft instruments; diagnoses engine analyzer system malfunctions; inspects newly installed wiring on aircraft; makes three-phase wye and delta connections of transformers; diagnoses aircraft pressurization and cabin temperature control system malfunctions; maintains, tests, and adjusts electric and/or electronic control systems of aircraft automatic flight control and stablilization systems; troubleshoots automatic flight control and flight director systems. *AEC:* Able to perform the duties required for AE1; inspects work areas, tools, and aviation equipment to detect potentially hazardous and unsafe conditions and takes appropriate corrective action; prepares reports and maintains equipment records; supervises on-the-job training; prepares preventive maintenance schedules. *AECS:* Able to perform the duties required for AEC; serves as enlisted technical or specialty expert; plans, organizes, and directs work of personnel handling and servicing aircraft; plans and administers on-the-job training programs; supervises the preparation of reports. *AECM:* Able to perform the duties required for AECS; serves as senior enlisted technical or specialty administrator; manages personnel in the handling and servicing of aircraft; ensures maximum efficiency of the work force and equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, AE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals (5/84).

Recommendation, AE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/electronics, 3 in electricity/electronics laboratory, and 12 in aircraft electrical maintenance (5/84).

Recommendation, AE1

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, and 3 in aircraft electrical indicating systems. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/electronics, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, and 2 in personnel supervision (5/84).

Recommendation, AEC

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 semester hours in DC electrical fundamentals, 3 in electricity/electronics, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, 3 in maintenance management, and 3 in shop management. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in aircraft propeller and electrical systems, 1 in ground operation and servicing, and 1 in cleaning and corrosion control), and 3 in DC electrical fundamentals, 3 in electricity/electronics, 3 in electricity/electronics laboratory, 12 in aircraft electrical maintenance, 3 in aircraft electrical indicating systems, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, and 3 in principles of management (5/84).

Recommendation, AECS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AEC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, AECM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AEC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-AM-001

AVIATION STRUCTURAL MECHANIC

AM3
AM2
AM1
AMC
AMCS
AMCM

Exhibit Dates: 1/71–Present.

Occupational Group: V (Aviation).

Career Pattern

SN: Seaman (E-3). *AM3:* Aviation Structural Mechanic, Third Class (E-4). *AM2:* Aviation Structural Mechanic, Second Class (E-5). *AM1:* Aviation Structural Mechanic, First Class (E-6). *AMC:* Chief Aviation Structural Mechanic (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AMCM:* Master Chief Aviation Structural Mechanic (E-9).

Description

Summary: Maintains aircraft fuselages, wings, fixed and movable control surfaces, and control mechanisms; removes, installs, and rigs flight control surfaces; fabricates and assembles metal parts; makes minor repairs to aircraft skin, performs non-destructive testing procedures using dye penetrant and zyglo methods; maintains hydraulic systems and components, landing gear, wheels and tires, brakes, and related components; maintains fire extinguishing systems plumbing; makes repairs to bladder and integral fuel systems; performs cable swedging; performs electric arc and gas welding operations; performs corrosion control procedures. *AM3:* Services tires and other compressed air systems; operates and maintains paint spray guns; performs corrosion control; applies paints and finishes on aircraft; performs helicopter preflight inspections; lays out patterns and templates for metal work; changes aircraft wheel and tire assemblies. *AM2:* Able to perform the duties required for AM3; maintains and operates ground support equipment; services fuel, oil, and hydraulic systems; performs preflight, throughflight, and postflight inspections; assembles and installs aircraft equipment and parts; replaces airframe pressure seals; performs metal repairs; fabricates and installs metal members of structure of aircraft; inspects and repairs integral and bladder-type fuel cells; services and maintains brake systems; services, maintains, and inspects landing gear controls, struts, locks, doors, and linkages. *AM1:* Able to perform the duties required for AM2; supervises aircraft servicing operations; performs quality assurance inspection of corrosion removal; supervises and interprets maintenance and use of maintenance directives; supervises inspections, mintenance, and repair of aircraft systems; rigs and adjusts landing gear nose wheel steering mechanisms; removes and replaces landing gear assemblies. *AMC:* Able to perform the duties required for AM1; serves as shop supervisor; supervises personnel in all categories of equipment maintenance and repair; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training. *AMCS:* Able to perform the duties required for AMC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of personnel maintaining aircraft structures; plans and administers on-the-job training programs; supervises the preparation of reports. *AMCM:* Able to perform the duties required for AMCS; serves as senior enlisted technical or specialty administrator; manages personnel in the maintenance of aircraft structures; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, AM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology, (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems) (5/84).

Recommendation, AM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems), and 3 in aircraft fuel systems, 3 in landing gear systems, 3 in airframe structural repairs, 3 in assembly and rigging, and 3 in aircraft hydraulic systems (5/84).

Recommendation, AM1

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems), and 3 in aircraft fuel systems, 3 in landing gear systems, 3 in airframe structural repairs, 3 in assembly and rigging, 3 in aircraft hydraulic systems, and 3 in airframe inspections. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems), and 3 in aircraft fuel systems, 3 in landing gear systems, 3 in airframe structural repair, 3 in assembly and rigging, 3 in aircraft hydraulic systems, 3 in airframe inspections, and 2 in personnel supervision (5/84).

Recommendation, AMC

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems), and 3 in aircraft fuel systems, 3 in landing gear systems, 3 in airframe structural repair, 3 in assembly and rigging, 3 in aircraft hydraulic systems, 3 in airframe inspections, 3 in maintenance management, and 3 in shop management. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in flight control systems), and 3 in aircraft fuel systems, 3 in landing gear systems, 3 in airframe structural repair, 3 in assembly and rigging, 3 in aircraft hydraulic systems, 3 in airframe inspections, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, and 3 in principles of management (5/84).

Recommendation, AMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, AMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-ASM-001

AVIATION SURVIVALMAN

ASM3
ASM2
ASM1
ASMC
ASMCS
ASMCM

Exhibit Dates: 1/71-Present.

Occupational Group: V (Aviation).

Career Pattern

SN: Seaman (E-3). *ASM3:* Aviation Survivalman, Third Class (E-4). *ASM2:* Aviation Survivalman, Second Class (E-5). *ASM1:* Aviation Survivalman, First Class (E-6). *ASMC:* Chief Aviation Survivalman (E-7). *ASMCS:* Senior Chief Aviation Survivalman (E-8). *ASMCM:* Master Chief Aviation Survivalman (E-9).

Description

Summary: Inspects, maintains, and repairs parachutes, survival equipment flight and protective clothing, small arms, oxygen and fire extinguisher systems; instructs aviation personnel in the use and operation of parachutes, survival equipment and techniques, safety practices, and aviation ordnance handling; qualified in aircraft handling and aircraft handling equipment; practices and observes all safety precautions and practices. *ASM3:* Inspects, repairs, packs, and maintains personnel and cargo delivery parachutes; understands parachute loft working procedures; uses hand stitching and sewing machine making fabric repairs; makes minor repairs and adjustments to sewing machines; inspects survival equipment, salvage pumps, oxygen masks, and ordnance and pyrotechnics; inspects and services inflatable survival equipment; services oxygen systems and components; understands aircraft handling and procedures; inspects and maintains small arms and other aviation ordnance. *ASM2:* Able to perform the duties required for ASM3; instructs aviation personnel in survival equipment, parachutes, oxygen, and fire extinguisher systems; tows, taxis, and secures aircraft; serves as a member of an aircraft handling team; accomplishes preflight and postflight servicing of aircraft systems and equipment; identifies aircraft corrosion factors; prepares survival training programs; uses tools and precision measuring equipment and related electrical testing devices; uses related drawings, blueprints, and manuals. *ASM1:* Able to perform the duties required for ASM2; instructs in procedures for rigging and launching survival equipment; repairs and calibrates special tools; uses and maintains records, forms, publications, and manuals; performs quality assurance; supervises shop procedures, repairs sewing machines, and determines reparability of related equipment; maintains custody of small arms. *ASMC:* Able to perform the duties required for ASM1; trains and supervises personnel in all categories of equipment operation, maintenance, and repair; prepares maintenance schedules; organizes and maintains a technical library; insures safe working conditions; plans and supervises training programs. *ASMCS:* Able to perform the duties required for ASMC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of personnel operating, servicing, and maintaining parachutes, survival and rescue equipment, related aircraft systems, small arms, aviation ordnance, preflight and postflight inspections; analyzes system malfunctions; plans and administers on-the-job training programs; supervises the preparation of reports; uses the computerized maintenance system and establishes safety procedures and practices. *ASMCM:* Able to perform the duties required for ASMCS; serves as senior enlisted technical or specialty administrator; manages personnel in the operation, maintenance, and procurement of related equipment; ensures maximum efficiency of the work force and equipment.

Recommendation, ASM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems) (5/84).

Recommendation, ASM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance tehnology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems), and 3 in aircraft system technology and 3 in parachute inspection and rigging (5/84).

Recommendation, ASM1

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems), and 3 in aircraft system technology, 3 in parachute inspection and rigging, 3 in industrial safety, and 3 in textile machine repair. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems), and 3 in aircraft system technology, 3 in parachute inspection and rigging, 3 in industrial safety, 3 in textile machine repair, and 2 in personnel supervision (5/84).

Recommendation, ASMC

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems), and 3 in aircraft system technology, 3 in parachute inspection and rigging, 3 in industrial safety, 3 in textile machine repair, 3 in maintenance management, and 3 in shop management. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft systems), and 3 in aircraft system technology, 3 in parachute inspection and rigging, 3 in industrial safety, 3 in textile machine repair, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, and 3 in principles of management (5/84).

Recommendation, ASMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ASMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, ASMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ASMCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-AT-001

AVIATION ELECTRONICS TECHNICIAN

AT3
AT2
AT1
ATC
ATCS
ATCM

Exhibit Dates: 1/71–Present.

Occupational Group: V (Aviation).

Career Pattern

SN: Seaman (E-3). *AT3:* Aviation Electronics Technician, Third Class (E-4). *AT2:* Aviation Electronics Technician, Second Class (E-5). *AT1:* Aviation Electronics Technician, First Class (E-6). *ATC:* Chief Aviation Electronics Technician (E-7). *ATCS:* Senior Chief Aviation Electronics Technician (E-8). *ATCM:* Master Chief Aviation Electronics Technician (E-9).

Description

Summary: Handles and services aircraft; performs related aircraft inspections, line maintenance and aircraft changes; operates, maintains, repairs, calibrates, tunes, and aligns avionics systems (communications, navigation, and microwave equipment); makes authorized repairs and adjustments to associated test equipment. *AT3:* Understands electrical and electronic theory, conductors, insulators, resistors, capacitors, and inductors; solves problems using Ohm's Law, basic meter movements including ammeters, voltmeters and ohmmeters; understands AC theory, solid state devices, power supply devices, amplifiers, oscillators, filters, modulation integrated circuits, synchro and servo systems, microphones and head sets; uses binary conversions, Boolean algebra, and truth tables, AND and NAND gates, OB and NOR inverters and memory circuits and multivibrator; sets and adjusts tranceivers; operates communications equipment; performs preventive maintenance, basic troubleshooting, and minor repairs on communication and navigation systems; locates defective circuits and makes electrical connections by soldering and splicing; observes safety procedures and precautions on or around aircraft; eliminates electrical hazards; handles and services aircraft; identifies corrosion problems; operates common aircraft safety devices and uses related drawings, blueprints, and manuals. *AT2:* Able to perform the duties required for AT3; serves as a member of an aircraft handling team; operates ground service equipment; accomplishes normal postflight servicing on aircraft; performs corrosion inspections; demonstrates use of survival and emergency equipment; uses related tools and precision measuring devices; accomplishes equipment changes, fabricates electronic cables; operates, repairs, adjusts, aligns, and calibrates communication and navigation equipment. *AT1:* Able to perform the duties required for AT2; establishes safeguards; supervises aircraft ground handling; supervises aircraft servicing operations; analyzes test equipment for defects and determines corrective action; performs quality control inspections and evaluations; supervises an electronic shop; sets compensation of loop antennas; maintains files, records, publications, reports, and directives. *ATC:* Able to perform the duties required for AT1; inspects work areas, tools, and aviation equipment to detect potentially hazardous and unsafe conditions and takes appropriate corrective action; prepares tool, equipment, and material evaluation reports; maintains aircraft, ground support equipment, and other aviation equipment records; supervises assignment and training programs to ensure that personnel are assigned and trained for maximum utilization; supervises and trains personnel in the maintenance and repair of aeronautical components. *ATCS:* Able to perform the duties required for ATC; serves as enlisted technical or specialty expert; plans, organizes, and directs work of personnel handling and servicing aircraft; plans and administers on-the-job training programs; supervises the preparation of reports. *ATCM:* Able to perform the duties required for ATCS; serves as senior enlisted technical or specialty administrator; manages personnel in the handling and servicing of aircraft; ensures maximum effficiency of the work force and equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, AT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in DC electrical fundamentals, 3 in AC electrical fundamentals, and 3 in navigation and communication systems (5/84).

Recommendation, AT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft electrical systems), and 3 in DC electrical fundamentals, 3 in AC electrical fundamentals, 3 in navigation and communication systems, 3 in circuit theory, 3 in electrical/electronics laboratory, and 6 in navigation and communication system maintenance (5/84).

Recommendation, AT1

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft electrical systems), and 3 in DC electrical fundamentals, 3 in AC electrical fundamentals, 3 in navigation and communication systems, 3 in circuit theory, 3 in electrical/electronics laboratory, 6 in navigation and communication system maintenance, and 6 in electrical systems maintenance. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft electrical systems), and 3 in DC electrical fundamentals, 3 in AC electrical fundamentals, 3 in navigation and communication systems, 3 in circuit theory, 3 in electrical/electronics laboratory, 6 in navigation and communication systems maintenance, 6 in electrical systems maintenance, and 2 in personnel supervision (5/84).

Recommendation, ATC

In the vocational certificate category, 3 semester hours in aviation maintenance technology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft electrical systems), and 3 in DC electrical fundamentals, 3 in AC electrical fundamentals, 3 in navigation and communication systems, 3 in circuit theory, 3 in electrical/electronics laboratory, 6 in navigation and communication systems maintenance, 6 in electrical systems maintenance, 3 in maintenance management, and 3 in shop management. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation maintenance tehcnology (or 1 semester hour in cleaning and corrosion control, 1 in ground operation and servicing, and 1 in aircraft electrical systems), and 3 in DC electrical fundamentals, 3 in AC electrical fundamentals, 3 in navigation and communication systems, 3 in circuit theory, 3 in electrical/electronics laboratory, 6 in navigation and communication systems maintenance, 6 in electrical systems maintenance, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, and 3 in principles of management (5/84).

Recommendation, ATCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ATC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, ATCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ATC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-BM-001

Boatswain's Mate

BM3
BM2
BM1
BMC
BMCS
BMCM

Exhibit Dates: 1/71-Present.

Occupational Group: I (Deck).

Career Pattern

SN: Seaman (E-3). *BM3:* Boatswain's Mate, Third Class (E-4). *BM2:* Boatswain's Mate, Second Class (E-5). *BM1:* Boatswain's Mate, First Class (E-6). *BMC:* Chief Boatswain's Mate (E-7). *BMCS:* Senior Chief Boatswain's Mate (E-8). *BMCM:* Master Chief Boatswain's Mate (E-9).

Description

Summary: Proficient in marlinspike, deck, and boat seamanship; manages, supervises, and administers personnel and facilities; serves as deck watch officer and boat coxswain; trains, directs, and supervises personnel in seamanship, maintenance, rigging, deck equipment and boats; supervises damage control and working parties; maintains discipline; serves as member of gun crews or gun mount captains; operates and maintains heavy equipment used in loading and buoy tending work. *BM3:* Participates as crewman aboard thirty-foot or larger boat during various standard and emergency situations; performing as a coxswain, manuevers alongside a vessel underway, and docks under average conditions; demonstrates proper procedures for dealing with lawbreakers; interviews suspects and witnesses; collects evidence; demonstrates procedures for search and seizure. *BM2:* Able to perform the duties required for BM3; overhauls blocks; operates sailmaker equipment; performs decorative rope work; makes preparations for refueling and replenishment at sea. *BM1:* Able to perform the duties required for BM2; supervises individual work parties; supervises loading, storage and discharge of cargo and supplies; supervises anchor detail. *BMC:* Able to perform the duties required for BM1; supervises complete replenishment and refueling operations; acts as on-scene commander and/or search and rescue mission coordinator. *BMCS:* Able to perform the duties required for BMC; serves as enlisted technical or specialty expert; plans, organizes, and directs work of personnel; supervises the preparation of reports; plans and administers on-the-job training programs. *BMCM:* Able to perform the duties required for BMCS; serves as senior enlisted technical or specialty administrator; ensures maximum efficiency of the work force; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, BM3

In the vocational certificate category, 3 semester hours in vessel maintenance, 3 in seamanship, and 1 in rigging; if qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in vessel maintenance and 3 in seamanship; if qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation (5/84).

Recommendation, BM2

In the vocational certificate category, 6 semester hours in vessel maintenance, 6 in seamanship, and 4 in rigging; if the qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 6 semester hours in vessel maintenance, 6 in seamanship, 1 in general office procedures, and 3 in law enforcement; if qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation (5/84).

Recommendation, BM1

In the vocational certificate category, the recommendation is the same as that for BM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in vessel maintenance, 6 in seamanship, 1 in general office procedures, 3 in law enforcement, and 2 in personnel supervision; if qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation (5/84).

Recommendation, BMC

In the vocational certificate category, the recommendation is the same as that for BM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in vessel maintenance, 6 in seamanship, 1 in general office procedures, 3 in law enforcement, 3 in personnel supervision, and 3 in principles of management; if qualification code was HW (Surfman) or HX (Boat Coxswain), credit in small boat handling on the basis of institutional evaluation (5/84).

Recommendation, BMCS

In the vocational certificate category, the recommendation is the same as that for BM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, BMCM

In the vocational certificate category, the recommendation is the same as that for BM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-DC-001

Damage Controlman

DC3
DC2
DC1
DCC
DCCS
DCCM

Exhibit Dates: 1/71 - Present.

Occupational Group: III (Engineering and Hull).

Career Pattern

FN: Fireman (E-3). *DC3:* Damage Controlman, Third Class (E-4). *DC2:* Damage Controlman, Second Class (E-5). *DC1:* Damage Controlman, First Class (E-6). *DCC:* Chief Damage Controlman (E-7). *DCCS:* Senior Chief Damage Controlman (E-8). *DCCM:* Master Chief Damage Controlman (E-9).

Description

Summary: Repairs and performs maintenance on damage control equipment for preserving water tight integrity; utilizes techniques and skills in carpentry, firefighting, pipefitting, anchoring, welding, laying out, assembling, measuring devices, and nuclear, biological, and chemical (NBC) warfare and defense; instructs and coordinates damage control parties; instructs and supervises personnel in technique of NBC warfare defense, including the use of personnel decontamination stations and protective shelters. *DC3:* Operates, stores, and performs maintenance on firefighting equipment and damage control equipment; inspects and tests installed damage control equipment and systems; performs brazing, electrical arc welding, and oxyacetylene welding and cutting; repairs ship plumbing and piping systems; performs carpentry tasks; controls discharging and pumping of waste in restricted water; completes maintenance data forms; orders repair parts and tools. *DC2:* Able to perform the duties required for DC3; performs gas-free testing of voids and compartments to assure safe entry; inspects fire main, sprinklers, and ventilation systems; performs repairs to ship structure using heavy gauge metal; completes maintenance reports; inventories installed equipment. *DC1:* Able to perform the duties required for DC2; organizes and supervises damage control and firefighting parties; prepares training records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *DCC:* Able to perform the duties required for DC1; plans and conducts damage control exercises; maintains shop records and prepares progress reports; supervises training programs; estimates time, personnel, and material requirements; prepares quarterly maintenance schedules; supervises damage control maintenance technician shop. *DCCS:* Able to perform the duties required for DCC; prepares directives and instruction for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence; organizes and evaluates training programs; administers a long-range planned maintenance program. *DCCM:* Able to perform the duties required for DCCS; reviews personnel, equipment, and material requirements and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, DC3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in welding, 2 in blueprint interpretation, 2 in carpentry, and 2 in plumbing and pipefitting (5/84).

Recommendation, DC2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in welding, 3 in blueprint interpretation, 3 in carpentry, 3 in plumbing and pipefitting, and 3 in introduction to hydraulic systems (5/84).

Recommendation, DC1

In the vocational certificate category, 3 semester hours in welding, 3 in blueprint interpretation, 3 in carpentry, 3 in plumbing and pipefitting, 3 in introduction to hydraulic systems, and 3 in construction technology. In the lower-division baccalaureate/associate degree category, 3 semester hours in welding, 3 in blueprint interpretation, 3 in carpentry, 3 in plumbing and pipefitting, 3 in introduction to hydraulic systems, 3 in construction technology, and 2 in personnel supervision (5/84).

Recommendation, DCC

In the vocational certificate category, the recommendation is the same as that for DC1. In the lower-division baccalaureate/associate degree category, 3 semester hours in welding, 3 in blueprint interpretation, 3 in carpentry, 3 in plumbing and pipefitting, 3 in introduction to hydraulic systems, 3 in construction technology, 3 in personnel supervision, and 3 in principles of management (5/84).

Recommendation, DCCS

In the vocational certificate category, the recommendation is the same as that for DC1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DCC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, DCCM

In the vocational certificate category, the recommendation is the same as that for DC1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DCC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-DT-001

DENTAL TECHNICIAN

DT3
DT2
DT1
DTC
DTCS
DTCM

Exhibit Dates: 1/71–12/82.

Occupational Group: VIII (Medical).

Career Pattern

SN: Seaman (E-3). *DT3:* Dental Technician, Third Class (E-4). *DT2:* Dental Technician, Second Class (E-5). *DT1:* Dental Technician, First Class (E-6). *DTC:* Chief Dental Technician (E-7). *DTCS:* Senior Chief Dental Technician (E-8). *DTCM:* Master Chief Dental Technician (E-9).

Description

Summary: Performs clinical and administrative duties, assisting the dental officer in treatment of patients, giving first aid, preparing and carrying out dental administrative assignments, giving oral prophylactic treatment under supervision, and assisting in the preventive dental program; may be qualified in other areas, such as dental prosthetic laboratory techniques and maintenance and repair of dental equipment; must be prepared to assist in the prevention and treatment of nuclear, biological, and chemical (NBC) warfare casualties. *DT3:* Prepares patients for dental treatment; identifies, sharpens, cares for and sets up instruments for all phases of dentistry; instructs patients in daily oral health care; assists dental officers in all phases of dentistry; performs basic x-ray procedures; composes, prepares and charts dental conditions; performs cardiopulmonary resuscitation (CPR) and basic first aid. *DT2:* Able to perform the duties required for DT3; supervises central sterilization procedures; presents oral health materials; performs preventive maintenance on dental handpieces, air compressors, autoclaves and sterilizers, dental operating room accessory equipment, and motor chair; processes oral x-rays; acts as an oral surgery assistant; dispenses post-operative medication; prepares and maintains official reports, patient records, and dental material reports. *DT1:* Able to perform the duties required for DT2; treats and manages mass casualties; exposes and processes total dental x-rays; supervises dental administrative office appointment systems, and accounting activities, including supplies. *DTC:* Able to perform the duties required for DT1; serves as administrative assistant to senior administrative staff. *DTCS:* Able to perform the duties required for DTC; serves as enlisted technical or specialty expert; administers dental/medical training programs; reviews all medical reports and presents them to appropriate command; provides direction and supervision to enlisted personnel in the performance of their duties. *DTCM:* Able to perform the duties required for DTCS; serves as senior enlisted technical or specialty administrator; provides senior-level supervision and administration to all enlisted personnel; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment.

Recommendation, DT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR) and 1 in advanced first aid; add the credit for Dental Technician A School, exhibit CG-0701-0001 (9/84).

Recommendation, DT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 1 in advanced first aid, 2 in expanded dental office procedures, and 1 in preventive maintenance, recordkeeping, and sanitation; add the credit for Dental Technician A School, exhibit CG-0701-0001 (9/84).

Recommendation, DT1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 1 in advanced first aid, 4 in expanded dental office procedures, 1 in preventive maintenance, recordkeeping, and sanitation, 1 in personnel supervision, and 1 in dental record management and preventive medicine; add the credit for Dental Technician A School, exhibit CG-0701-0001 (9/84).

Recommendation, DTC

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in cardiopulmonary resuscitation (CPR), 1 in advanced first aid, 4 in expanded dental office procedures, 1 in preventive maintenance, recordkeeping, and sanitation, 3 in personnel supervision, 1 in dental record management and preventive medicine, and 3 in office management; add the credit for Dental Technician A School, exhibit CG-0701-0001 (9/84).

Recommendation, DTCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (9/84).

Recommendation, DTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 2 in introduction to health care administration (9/84).

CGR-EM-001

ELECTRICIAN'S MATE

EM3
EM2
EM1
EMC
EMCS
EMCM

Exhibit Dates: 1/71–Present.

Occupational Group: III (Engineering and Hull).

Career Pattern

FN: Fireman (E-3). *EM3:* Electrician's Mate, Third Class (E-4). *EM2:* Electrician's Mate, Second Class (E-5). *EM1:* Electrician's Mate, First Class (E-6). *EMC:* Chief Electrician's Mate (E-7). *EMCS:* Senior Chief Electrician's Mate (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates, installs, maintains, and repairs motors, generators, switchboards, and control equipment; installs, maintains, and repairs power and lighting circuits and electrical fixtures; performs tests for short circuits, grounds, and other casualties and repairs or rebuilds electrical equipment in an electric shop. *EM3:* Draws and interprets schematic diagrams of electrical circuits; operates test equipment used in servicing electrical and electronic equipment; has proficiency in DC and AC circuitry, including resonance; understands repair and servicing procedures for vacuum tubes and solid-state devices as well as the operating principles and construction of AC and DC motors and generators, gyroscopes, circuit breakers and storage batteries;

knows procedures for starting and paralleling generators and switchboards. *EM2:* Able to perform the duties required for EM3; operates and constructs AC/DC voltage regulators and magnetic amplifiers; services circuit breakers, degaussing systems, armature commutators, solenoids, servo-mechanisms, electric galley equipment, and normal, alternate, and emergency power distribution systems for shipboard lighting and power; stands watch on main propulsion machinery and controls; locates, prepares, and maintains records, reports, and publications; maintains inventory. *EM1:* Able to perform the duties required for EM2; makes authorized repairs and calibration of test equipment; services AC and DC motor and generator controllers; operates and maintains ship propulsion equipment along with the control and auxiliary control systems; understands the principles of gyrocompass and dead-reckoning equipment. *EMC:* Able to perform the duties required for EM1; takes complete charge of the engine room on a large vessel or the engineering department on a small vessel or shore installation; instructs classes; prepares power failure reports; makes time and material repair estimates and prepares shipyard availability work requests and schedules; may also serve as an inspector in a shipyard; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training. *EMCS:* Able to perform the duties required for EMC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of personnel operating and maintaining electrical systems; plans and administers on-the-job training programs; supervises the preparation of reports. *EMCM:* Able to perform the duties required for EMCS; serves as a senior enlisted technical or specialty administrator; manages personnel in the operation, maintenance, procurement, and survey of electrical equipment; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, EM3

In the vocational certificate category, 6 semester hours in electrical maintenance procedures and 9 in basic electricity. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory (3/84).

Recommendation, EM2

In the vocational certificate category, 6 semester hours in electrical maintenance procedures, 9 in basic electricity, and 3 in recordkeeping. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory and 3 in recordkeeping (3/84).

Recommendation, EM1

In the vocational certificate category, 6 semester hours in electrical maintenance procedures, 9 in basic electricity, 3 in recordkeeping, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in recordkeeping, 3 in basic logic circuits, 3 in maintenance management, and 2 in personnel supervision (3/84).

Recommendation, EMC

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in recordkeeping, 3 in basic logic circuits, 3 in maintenance management, 3 in personnel supervision, and 3 in principles of management (3/84).

Recommendation, EMCS

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, EMCM

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-ET-001

ELECTRONICS TECHNICIAN

ET3
ET2
ET1
ETC
ETCS
ETCM

Exhibit Dates: 1/71–Present.

Occupational Group: III (Engineering and Hull).

Career Pattern

SN: Seaman (E-3). *ET3:* Electronics Technician, Third Class (E-4). *ET2:* Electronics Technician, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Operates, maintains, repairs, calibrates, tunes, and adjusts electronic equipment used for communication, cryptography, detection, recognition, identification, navigation, and electronic surveillance. *ET3:* Has knowledge of electricity/electronics; reads and interprets schematic diagrams; uses electronic test equipment to localize and replace faulty components. *ET2:* Able to perform the duties required for ET3; provides technical guidance to subordinate personnel; performs preventive maintenance on electronic equipment; keeps equipment maintenance logs. *ET1:* Able to perform the duties required for ET2; prepares preventive maintenance schedules and work requests; maintains equipment status reports; supervises shipping and handling procedures. *ETC:* Able to perform the duties required for ET1; supervises the operation of the electronic shop; supervises the use, filing, and maintenance of publications, logs, and records; plans, organizes, and administers the maintenance program for the repair of electronic equipment; generates work requests; plans and supervises on-the-job training programs; prepares and submits budget requests; organizes and maintains technical library. *ETCS:* Able to perform the duties required for ETC; serves as enlisted technical or specialty expert; plans, organizes, and directs personnel in the operation and maintenance of electronics equipment; plans and administers on-the-job training programs; supervises the preparation of reports. *ETCM:* Able to perform the duties required for ETCS; serves as senior enlisted technical or specialty administrator; ensures maximum efficiency of the work force and the equipment; manages the operation and maintenance procedures of electronic equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, ET3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in principles of instrumentation, 3 in circuit theory, and 3 in basic computer principles (3/84).

Recommendation, ET2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in principles of instrumentation, 3 in circuit theory, and 3 in basic computer principles (3/84).

Recommendation, ET1

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in principles of instrumentation, 3 in circuit theory, 3 in basic computer principles, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 diagnostic procedures, 3 in principles of instrumentation, 3 in circuit theory, 3 in basic computer principles, 3 in maintenance management, and 2 in personnel supervision (3/84).

Recommendation, ETC

In the vocational certificate category, the recommendation is the same as that for ET1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in principles of instrumentation, 3 in circuit theory, 3 in basic computer principles, 3 in maintenance management, 3 in personnel supervision, and 3 in principles of management (3/84).

Recommendation, ETCS

In the vocational certificate category, the recommendation is the same as that for ET1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, ETCM

In the vocational certificate category, the recommendation is the same as that for ET1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-FT-001

FIRE CONTROL TECHNICIAN

FT3
FT2
FT1
FTC
FTCS
FTCM

Exhibit Dates: 1/71–Present.

Occupational Group: II (Ordnance).

Career Pattern

SN: Seaman (E-3). *FT3:* Fire Control Technician, Third Class (E-4). *FT2:* Fire Control Technician, Second Class (E-5). *FT1:* Fire Control Technician, First Class (E-6). *FTC:* Chief Fire Control Technician (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates and maintains shipboard weapons control systems; performs preventive and corrective maintenance, including troubleshooting, testing, analyzing, adjusting, and repairing. *FT3:* Operates all weapons control systems; performs equipment maintenance, including troubleshooting, testing, analyzing, adjusting, and repairing of power drives, fire control radar equipment, target designation equipment, radar signal processing equipment, and analog and digital computer (comprised of electromechanical assemblies, optical devices, electron tube circuitry and solid state circuitry); performs optical and electrical alignment of weapons control systems and gun mount installations. *FT2:* Able to perform the duties required for FT3; calculates conventional weapons ballistic corrections; maintains records and logs; provides technical assistance to subordinate personnel. *FT1:* Able to perform the duties required for FT2; supervises and trains personnel in all phases of weapons control systems maintenance; prepares reports and work lists. *FTC:* Able to perform the duties required for FT1; supervises and trains personnel in all phases of weapons control systems operation and employment; implements weapons department administrative procedures; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget request; plans and supervises on-the-job training. *FTCS:* Able to perform the duties required for FTC; serves as enlisted technical or specialty expert; plans, organizes, and directs work of personnel operating and maintaining weapons control systems; plans and administers on-the-job training programs; supervises the preparation of reports. *FTCM:* Able to perform the duties required for FTCS; serves as senior enlisted technical or specialty administrator; manages personnel in the operation, maintenance, and procurement of weapons control systems equipment; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty area.

Recommendation, FT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic principles, 3 in circuit theory, 3 in radar principles, and 3 in introduction to analog computers (3/84).

Recommendation, FT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic principles, 3 in circuit theory, 3 in radar principles, 3 in introduction to analog computers, and 3 in recordkeeping (3/84).

Recommendation, FT1

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in diagnostic principles, 3 in circuit theory, 3 in radar principles, 3 in introduction to analog computers, 3 in recordkeeping, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic principles, 3 in circuit theory, 3 in radar principles, 3 in introduction to analog computers, 3 in recordkeeping, 2 in personnel supervision, and 3 in maintenance management (3/84).

Recommendation, FTC

In the vocational certificate category, the recommendation is the same as that for FT1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic principles, 3 in circuit theory, 3 in radar principles, 3 in introduction to analog computers, 3 in recordkeeping, 3 in personnel supervision, 3 in maintenance management, and 3 in principles of management (3/84).

Recommendation, FTCS

In the vocational certificate category, the recommendation is the same as that for FT1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, FTCM

In the vocational certificate category, the recommendation is the same as that for FT1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-GM-001

GUNNER'S MATE

GM3
GM2
GM1
GMC
GMCS
GMCM

Exhibit Dates: 1/71–Present.

Occupational Group: II (Ordnance).

Career Pattern

SN: Seaman (E-3). *GM3:* Gunner's Mate, Third Class (E-4). *GM2:* Gunner's Mate, Second Class (E-5). *GM1:* Gunner's Mate, First Class (E-6). *GMC:* Chief Gunner's Mate (E-7). *GMCS:* Senior Chief Gunner's Mate (E-8). *GMCM:* Master Chief Gunner's Mate (E-9).

Description

Summary: Operates, maintains, and repairs small arms, torpedo tubes, guns and mounts, launchers, and associated handling equipment. *GM3:* Operates guns, mounts, launchers, ammunition hoists, projectile hoists, and associated equipment; operates, maintains, stows, and issues small arms and associated equipment; constructs basic electronic circuits; measures current and voltage in electronic circuits; uses schematic diagrams; uses and cares for hand tools; maintains ordnance logs, and ammunition stock records. *GM2:* Able to perform the duties required for GM3; diagnoses and repairs electronic control systems; conducts inventories and prepares requisitions; organizes and administers a program on safety instruction. *GM1:* Able to perform the duties required for GM2; instructs in the handling and storage of ammunition and maintenance of records; develops, implements, and supervises a weapons departmental training program. *GMC:* Able to perform the duties required for GM1; supervises maintenance of ordnance electrical and electronic systems; supervises handling and storage of explosive ordnance components; serves as shop supervisor; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training. *GMCS:* Able to perform the duties required for GMC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of personnel in operation, maintenance, and repair procedures; plans and administers on-the-job training programs; supervises the preparation of reports. *GMCM:* Able to perform the duties required for GMCS; serves as senior enlisted technical or specialty administrator; manages personnel in operation, maintenance, and repair procedures; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, GM3

In the vocational certificate category, 2 semester hours in introduction to electricity and electronics, 2 in hydraulic systems maintenance, 2 in electronics systems maintenance, 1 in industrial safety, 1 in use and care of hand tools, and 1 in blueprint reading. In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to electricity and electronics, 2 in hydraulic systems maintenance, 2 in electronics systems maintenance, 2 in gunsmithing, 1 in industrial safety, 1 in use and care of hand tools, and 1 in blueprint reading (5/84).

Recommendation, GM2

In the vocational certificate category, 3 semester hours in introduction to electricity and electronics, 3 in hydraulic systems maintenance, 3 in electronics systems maintenance, 1 in industrial safety, 1 in use and care of hand tools, and 1 in blueprint reading. In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to electricity and electronics, 3 in hydraulic systems maintenance, 3 in electronics systems maintenance, 3 in gunsmithing, 1 in industrial safety, 1 in use and care of hand tools, and 1 in blueprint reading (5/84).

Recommendation, GM1

In the vocational certificate category, 4 semester hours in introduction to electricity and electronics, 4 in hydraulic systems maintenance, 4 in electronics systems maintenance, 1 in industrial safety, 1 in use and care of hand tools, and 1 in blueprint reading. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electricity and electronics, 4 in hydraulic systems maintenance, 4 in electronics systems maintenance, 4 in gunsmithing, 1 in industrial safety, 1 in use and care of hand tools, 1 in blueprint reading, and 2 in personnel supervision (5/84).

Recommendation, GMC

In the vocational certificate category, the recommendation is the same as that for GM1. In the lower-division baccalaureate/associate degree category, 4 semester hours in introduction to electricity and electronics, 4 in hydraulic systems maintenance, 4 in electronics systems maintenance, 4 in gunsmithing, 1 in industrial safety, 1 in use and care of hand tools, 1 in blueprint reading, 3 in personnel supervision, and 3 in principles of management (5/84).

Recommendation, GMCS

In the vocational certificate category, the recommendation is the same as that for GM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, GMCM

In the vocational certificate category, the recommendation is the same as that for GM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for GMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-HM-001

HOSPITAL CORPSMAN

HM3
HM2
HM1
HMC
HMCS
HMCM

Exhibit Dates: 1/71–12/82.

Occupational Group: VIII (Medical).

Career Pattern

SN: Seaman (E-3). *HM3:* Hospital Corpsman, Third Class (E-4). *HM2:* Hospital Corpsman, Second Class (E-5). *HM1:* Hospital Corpsman, First Class (E-6). *HMC:* Chief Hospital Corpsman (E-7). *HMCS:* Senior Chief Hospital Corpsman (E-8). *HMCM:* Master Chief Hospital Corpsman (E-9).

Description

Summary: Performs the duties as assistant in the prevention and treatment of disease and injuries, and in the administration of medical departments ashore and afloat. *HM2:* Performs basic first aid; assists with physical examinations; provides nursing care to patients; assists in the procurement, storage and issue of medical supplies; instructs in personal hygiene, first aid, and self aid; assists in the maintenance of sanitary conditions; is prepared to assist in the prevention and treatment of nuclear, biological and chemical warfare casualties; composes health care records. *HM2:* Able to perform the duties required for HM3; performs advanced first aid procedures; performs cardiopulmonary resuscitation; assists in the transportation of the sick and injured; administers medicines and parental solutions; dispenses commonly used pharmaceutical preparations; prepares and maintains medical reports; prepares basic radiologic reports; performs basic radiologic procedures, including urinalysis and blood counts. *HM1:* Able to perform the duties required for HM2; performs advanced laboratory procedures, including microbiology and parasitology; performs supervisory duties; performs minor surgical techniques; performs special radiographic techniques; coordinates a radiation health program; mixes compounds. *HMC:* Able to perform the duties required for HM1; supervises assigned personnel; maintains a medical records department. *HMCS:* Able to perform the duties required for HMC; serves as enlisted technical or specialty expert; administers medical/dental training programs; reviews all medical reports and presents them to appropriate commands; provides direction and supervision to enlisted personnel in the performance of their functions; supervises procurement, storage, account, preservation, and allocation of medical and dental materials. *HMCM:* Able to perform the duties required for HMCS; serves as senior enlisted technical or specialty administrator; provides senior level supervision and administration to all enlisted personnel; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment.

Recommendation, HM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in advanced first aid; add the credit for Hospital Corpsman A School, exhibit CG-0703-0001 (9/84).

Recommendation, HM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced first aid, 1 in cardiopulmonary resuscitation (CPR), 2 in nursing techniques, 1 in introduction to laboratory techniques, and 1 in preventive medicine; add the credit for Hospital Corpsman A School, exhibit CG-0703-0001 (9/84).

Recommendation, HM1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced first aid, 1 in cardiopulmonary resuscitation (CPR), 3 in nursing techniques, 1 in introduction to laboratory techniques, 1 in preventive medicine, 1 in microbiology and parasitology techniques, 1 in radiation prevention, and 1 in personnel supervision; add the credit for Hospital Corpsman A School, exhibit CG-0703-0001 (9/84).

Recommendation, HMC

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced first aid, 1 in cardiopulmonary resuscitation (CPR), 3 in nursing techniques, 1 in introduction to laboratory techniques, 1 in preventive medicine, 1 in microbiology and parasitology techniques, 1 in radiation prevention, 3 in personnel supervision, and 3 in ward management; add the credit for Hospital Corpsman A School, exhibit CG-0703-0001 (9/84).

Recommendation, HMCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (9/84).

Recommendation, HMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 for field experience in health care management, and 2 in introduction to health care administration (9/84).

CGR-HS-001

HEALTH SERVICES TECHNICIAN

HS3
HS2
HS1
HSC
HSCS
HSCM

Exhibit Dates: 1/83–Present.

Occupational Group: VIII (Medical).

Career Pattern

SN: Seaman (E-3). *HS3:* Health Services Technician, Third Class (E-4). *HS2:* Health Services Technician, Second Class (E-5). *HS1:* Health Services Technician, First Class (E-6). *HSC:* Chief Health Services Technician (E-7). *HSCS:* Senior Chief Health Services Technician (E-8). *HSCM:* Master Chief Health Services Technician (E-9).

Description

Summary: Performs duties as assistant in the prevention and treatment of disease and injuries, as assistant to the dental officer in treatment of patients, and in the administration of medical departments ashore and afloat. *HS3:* Performs basic first aid; assists with physical examinations; provides nursing care to patients; assists in the procurement, storage, and issue of medical supplies; instructs in personal hygiene, first aid, and self aid; assists in the maintenance of sanitary conditions; is prepared to assist in the prevention and treatment of nuclear, biological, and chemical warfare casualties; composes health care and dental records; prepares patients for dental treatment; assists dental officers in all phases of dentistry; provides dental health prevention education and performs basic x-ray procedures. *HS2:* Able to perform the duties required for HS3; performs advanced first aid procedures; performs the duties required for HS3; performs advanced first aid procedures; performs cardiopulmonary resuscitation; assists in the transportation of the sick and injured; administers medicines and parental solutions; dispenses commonly used pharmaceutical preparations; prepares and maintains medical reports; prepares basic radiologic reports; performs basic radiologic procedures; processes x-rays; performs basic laboratory procedures including urinalysis and blood counts; supervises central sterilization procedures; performs basic preventive maintenance on instruments; acts as oral surgery assistant. *HS1:* Able to perform the duties required for HS2; performs advanced laboratory procedures including microbiology and parasitology; performs supervisory duties; performs minor surgical techniques; performs special radiographic techniques; coordinates a radiation health program; mixes compounds; supervises both medical and dental offices and accounting systems, including supplies. *HSC:* Able to perform the duties required for HS1; supervises assigned personnel; maintains a medical and dental records department. *HSCS:* Able to perform the duties required for HSC; serves as enlisted technical or specialty expert; administers medical/dental training programs; reviews all medical reports and presents them to appropriate commands; provides direction and supervision to enlisted personnel in the performance of their functions; supervises procurement, storage, accounting, preservation, and allocation of medical and dental materials. *HSCM:* Able to perform the duties required for HSCS; serves as senior enlisted technical or specialty administrator; provides senior level supervision and administration to all enlisted personnel; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment.

Recommendation, HS3

In the lower-division baccalaureate/associate degree category, 2-3 semester hours in clinical experience (in areas related to nursing techniques, laboratory techniques, dental office procedures, and preventive medicine) based on institutional evaluation of the student's work experience; add credit for the Health Services Technician A School in exhibit CG-0709-0009 (10/87).

Recommendation, HS2

In the lower-division baccalaureate/associate degree category, 7 semester hours in clinical experience (in areas related to nursing techniques, laboratory techniques, dental office procedures, and preventive medicine); add credit for the Health Services Technician A School in exhibit CG-0709-0009 (10/87).

Recommendation, HS1

In the lower-division baccalaureate/associate degree category, 11 semester hours in clinical experience (in areas related to nursing techniques, laboratory techniques, dental office procedures, and preventive medicine), and 1 in personnel supervision; add credit for the Health Services Technician A School in exhibit CG-0709-0009 (10/87).

Recommendation, HSC

In the lower-division baccalaureate/associate degree category, 11 semester hours in clinical experience (in areas related to nursing techniques, laboratory techniques, radiation prevention, dental office procedures, and preventive medicine), and 6 in personnel supervision; add credit for the Health Services Technician A School in exhibit CG-0709-0009 (10/87).

Recommendation, HSCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (10/87).

Recommendation, HSCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in management problems, 3 for field experience in health/dental care management, and 2 in introduction to health care/dental administration (10/87).

CGR-MK-001

MACHINERY TECHNICIAN

MK3
MK2
MK1
MKC
MKCS
MKCM

Exhibit Dates: 1/71-Present.

Occupational Group: III (Engineering and Hull).

Career Pattern

FN: Fireman (E-3). *MK3:* Machinery Technician, Third Class (E-4). *MK2:* Machinery Technician, Second Class (E-5). *MK1:* Machinery Technician, First Class (E-6). *MKC:* Chief Machinery Technician (E-7). *MKCS:* Senior Chief Machinery Technician (E-8). *MKCM:* Master Chief Machinery Technician (E-9).

Description

Summary: Operates, maintains, and repairs internal combustion engines, propulsion boilers, steam turbines, and main propulsion power transmission equipment; operates, maintains, and repairs auxiliary fireroom, refrigeration, air conditioning, electrical, and machine shop equipment; organizes, leads, and participates in damage control repair parties, and performs maintenance-related administrative functions. *MK3:* Starts, operates, and checks diesel, gas turbine and gasoline engines; lines up fuel systems for receiving and transferring fuel; operates fuel oil centrifuges; performs maintenance or separator/coalescer filter units; operates lubricating oil and cooling systems; conducts tests on engine oil and cooling water; operates distilling plants; operates refrigeration and air conditioning systems; using hot gas method, defrosts refrigeration units; tests for refrigerant leaks; repacks and adjusts pump stuffing boxes; repacks pressure valves; grinds valve seats and discs; operates auxiliary equipment such as air compressors, laundry, galley, and boat handling equipment; operates hydraulic equipment; performs minor maintenance on hydraulic equipment; uses and cares for basic machine shop handtools and measuring instruments; interprets simple diagrams and blueprints; use oxyacetylene and electric-arc equipment to perform minor brazing, cutting and welding operations; performs specific gravity tests on storage batteries; performs operational maintenance on small boats. *MK2:* Able to perform the duties required for MK3; inspects gas turbine compressors and turbines for axial and radial clearances; inspects test-runs and adjusts diesel and gasoline engines; removes, inspects, and repairs liners, pistons, cylinder heads, valves, piston rings and pins, bearings, pumps, gears, and shafting on gasoline and diesel engines; performs functional tests on gas turbine starting systems; tests unit injectors and other types of fuel nozzles on diesel and gas turbine engines; purges diesel injection systems; chemically treats internal combustion engine cooling system water; services cooling system head exchangers; repairs and maintains distilling plants; performs required maintenance and vacuum pumps and sealing systems; changes and adds lubricating oil in refrigerant compressors; adjusts temperature and pressure controls; evacuates, dehydrates, tests, and recharges refrigerant systems; overhauls, checks and aligns pumps; adjusts valves; repairs auxiliary equipment; fabricates and installs hydraulic system hoses, tubing and fittings; uses dial indicators, micrometers, burdge gages, and depth gages; operates engine lathe for cutting threads, turning tapers, and plain turning; checks electrical distribution systems for grounds; parallels two AC generators; performs megger tests on motors and generators; uses appropriate manuals, prints and other materials to obtain technical repair information. *MK1:* Able to perform the duties required for MK2; overhauls and/or repairs internal combustion engines; inspects and adjusts mechanical and hydraulic governors; coordinates, monitors and controls operation of gas turbines and gas turbine generators; maintains and adjusts fuel system of gasoline, diesel, and gas turbine engines; performs procedures for refueling helicopter; takes reduction gear and thrust bearing clearances; makes minor and emergency repairs to reduction gears; plugs and/or replaces heat exchanger tubes on distilling plants; tests and renews oil seals in refrigerant compressors; performs major repairs on refrigeration and air conditioning compressors; repairs or replaces temperature control valves; troubleshoots and corrects hydraulic system malfunctions; supervises all phases of lathe operations; troubleshoots electrical control circuits; starts and secures gyro compasses; prepares and maintains engineering maintenance reports and records. *MKC:* Able to perform the duties required for MK1; conducts operational tests and makes required adjustments upon completion of an engine overhaul; analyzes reports of discrepancies and malfunctions, and determines corrective action; performs inspections on gas turbine engines, and boiler watersides and firesides; disassembles, cleans, repairs, and assembles fuel oil heaters, and conducts required hydrostatic tests; checks main reduction gears for backlash and alignment; disassembles, inspects, repairs, reassembles, and tests constant pressure pump governors, estimates time, labor, and materials required for repair of machinery, structures, equipment, or systems; supervises engineering department on ship; prepares work requests and schedules. *MKCS:* Able to perform the duties required for MKC; serves as enlisted technical or specialty expert; provides technical information concerning maintenance, operation, capabilities, and limitation of engineering equipment and machinery; trains personnel in the principles of operation, and supervises them on all engineering equipment; trains personnel in casualty control procedures; prepares technical and non-technical lesson plans for instruction of enlisted personnel in maintenance, operating, training, and administration; plans, organizes, and directs work of personnel; supervises the preparation of reports. *MKCM:* Able to perform the duties required for MKCS; serves as senior enlisted technical or specialty administrator; organizes and directs subordinate personnel in the operation, repair, overhaul, and procurement of ship propulsion and auxiliary equipment and supplies; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, MK3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in internal combustion engines and 2 in air conditioning and refrigeration (5/84).

Recommendation, MK2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in internal combustion engines, 1 in hydraulics, 3 in air conditioning and refrigeration, 2 in basic electricity, 2 in lathe operations, and 2 in precision measuring instruments (5/84).

Recommendation, MK1

In the vocational certificate category, 4 semester hours in internal combustion engines, 2 in hydraulics, 6 in air conditioning and refrigeration, 2 in basic electricity, 2 in lathe operations, and 2 in precision measuring instruments. In the lower-division baccalaureate/associate degree category, 4 semester hours in internal combustion engines, 2 in hydraulics, 6 in air conditioning and refrigeration, 2 in basic electricity, 2 in lathe operations, 2 in precision measuring instruments, and 2 in personnel supervision (5/84).

Recommendation, MKC

In the vocational certificate category, 6 semester hours in internal combustion engines, 6 in air conditioning and refrigeration, 2 in hydraulics, 2 in lathe operations, 2 in basic electricity, and 2 in precision measuring instruments. In the lower-division baccalaureate/associate degree category, 6 semester hours in internal combustion engines, 6 in air conditioning and refrigeration, 2 in hydraulics, 2 in lathe operations, 2 in basic electricity, 2 in precision measuring instruments, 3 in personnel supervision, and 3 in principles of management (5/84).

Recommendation, MKCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MKC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, MKCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MKC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-MST-001

MARINE SCIENCE TECHNICIAN

MST3
MST2
MST1
MSTC
MSTCS
MSTCM

Exhibit Dates: 1/71-Present.

Occupational Group: I (Deck).

Career Pattern

SN: Seaman (E-3). *MST3:* Marine Science Technician, Third Class (E-4). *MST2:* Marine Science Technician, Second Class (E-5). *MST1:* Marine Science Technician, First Class (E-6). *MSTC:* Chief Marine Science Technician (E-7). *MSTCS:* Senior Chief Marine Science Technician (E-8). *MSTCM:* Master Chief Marine Science Technician (E-9).

Description

Summary: Observes, records, and analyzes environmental and scientific data; conducts field monitoring and laboratory analysis for chemical and oil identification; operates and maintains Coast Guard data processing systems; retrieves and assimilates data from remote sensing and local observations; employs numerical models and provides environmental information for conducting Coast Guard operations. *MST3:* Prepares and maintains user documentation of basic data processing procedures; operates small programmable computers; uses standard meteorological equipment; conducts meteorological observations; works with and maintains standard oceanographic instrumentation; demonstrates safety precautions in operation of a chemistry laboratory in accordance with Coast Guard regulations. *MST2:* Able to perform the duties required for MST3; maintains a tape or disk library; decodes and plots standard meteorological observations; analyzes surface and upper air charts; inspects areas for hazardous waste materials and suggests corrective measures; forecasts and plots ice, tide, and current data. *MST1:* Able to perform the duties required for MST2; schedules program runs; troubleshoots terminal, peripheral, and program failures and corrects as necessary; performs operator checks and preventive maintenance on small computers; develops oil sampling programs; processes results of pollution investigations; interprets results of chemical analysis; supervises personnel in making standard meteorological observations; prepares written instructions; organizes and evaluates training programs; develops and implements a program for evaluating personnel. *MSTC:* Able to perform the duties required for MST1; plans, implements, and monitors safety programs; prepares and submits budget requests; instructs and supervises personnel in the use and maintenance of scientific data collection. *MSTCS:* Able to perform the duties required for MSTC; serves as enlisted technical or specialty expert; plans and organizes activities to achieve objectives; develops budgets and monitors expenditures. *MSTCM:* Able to perform the duties required for MSTCS; serves as senior enlisted technical or specialty administrator; performs operational administrative functions; establishes objectives and sets priorities; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, MST3

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, and 3 in basic meteorology (7/84).

Recommendation, MST2

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, 3 in basic meteorology, 3 in physical science, and 2 in meteorology (7/84).

Recommendation, MST1

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, 3 in basic meteorology, 3 in physical science, 2 in meteorology, and 2 in personnel supervision (7/84).

Recommendation, MSTC

In the lower-division baccalaureate/associate degree category, 3 semester hours in marine instrumentation, 3 in basic computer science, 3 in basic meteorology, 3 in physical science, 2 in meteorology, 3 in personnel supervision, and 3 in principles of management (7/84).

Recommendation, MSTCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (7/84).

Recommendation, MSTCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (7/84).

CGR-PA-001

PUBLIC AFFAIRS SPECIALIST
(PHOTOJOURNALIST)

PA3
PA2
PA1
PAC
PACS
PACM

Exhibit Dates: 1/73-Present.

Occupational Group: IV (Administrative and Clerical).

Career Pattern

SN: Seaman (E-3). *PA3:* Photojournalist Third Class (E-4). *PA2:* Photojournalist Second Class (E-5). *PA1:* Photojournalist First Class (E-6). *PAC:* Chief Photojournalist (E-7). *PACS:* Senior Chief Photojournalist (E-8). *PACM:* Master Chief Photojournalist (E-9).

Description

Summary: Supervises or participates in the administration of public affairs activities in the area of media relations, community relations, and internal information programs; arranges and conducts interviews; prepares news releases, fact sheets, and feature stories; writes and edits news copy; operates photographic equipment; prepares art work and designs layout for various publications. *PA3:* Researches and writes news releases and feature articles; covers news events; processes news photographs and writes captions; prepares material for media release; arranges and conducts interviews; edits news copy; prepares art work and designs layout for various Coast Guard publications. *PA2:* Able to perform the duties required for PA3; supervises inventories of office equipment; evaluates photographic equipment and makes acquisition recommendations; has increased practical experience and knowledge of visual/photographic theory. *PA1:* Able to perform the duties required for PA2; supervises operation of a district office; has increased knowledge of how public affairs programs interact with the media; acts as representative of the Coast Guard to the community; operates 16 millimeter equipment and uses 35 millimeter for special photographic techniques. *PAC:* Able to perform the duties required for PA1; administers public affairs office; supervises work assignments; prepares budgets; coordinates interagency efforts. *PACS:* Able to perform the duties required for PAC; serves as enlisted specialty expert; provides leadership, supervision and administration to the entire rating; organizes, directs and coordinates instructional and training programs. *PACM:* Able to perform the duties required for PACS; serves as senior enlisted specialty administrator; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the office corps in the overall supervision and administration of personnel.

Recommendation, PA3

In the lower-division baccalaureate/associate degree category, 3 semester hours in interviewing, 3 in news writing, 1 in feature writing, 3 in news reporting, 2 in news editing, 2 in technical writing, 3 in basic audiovisual materials, 3 in still photography, 1 in technical photography, 3 in layout/design, and 1 for field experience in public affairs; if served as Cinematographer (identified by qualification code 41), add 3 semester hours in film production; if served as electronic Media Specialist (identified by qualification code 42), add 3 semester hours in video production (6/84).

Recommendation, PA2

In the lower-division baccalaureate/associate degree category, 3 semester hours in interviewing, 3 in news writing, 2 in feature writing, 3 in news reporting, 3 in news editing, 3 in technical writing, 3 in basic audiovisual materials, 3 in still photography, 1 in technical photography, 3 in layout/design, 2 for field experience in public affairs, 2 in art direction, 2 in office management, 1 in principles of accounting, and 2 for field experience in film and video; if served as Cinematographer (identified by qualification code 41), add 3 semester hours in film production; if served as Electronic Media Specialist (identified by qualification code 42), add 3 semester hours in video production (6/84).

Recommendation, PA1

In the lower-division baccalaureate/associate degree category, 3 semester hours in interviewing, 3 in newswriting, 3 in feature writing, 3 in news reporting, 3 in news editing, 3 in technical writing, 3 in basic audiovisual materials, 3 in still photography, 1 in technical photography, 3 in layout/design, 3 for field experience in public affairs, 2 in art direction, 3 in office management, 1 in principles of accounting, 2 for field experience in film and video, and 2 in personnel supervision; if served as Cinematographer (identified by qualification code 41), add 3 semester hours in film production; if served as Electronic Media Specialist (identified by qualification code 42), add 3 semester hours in video production (6/84).

Recommendation, PAC

In the lower-division baccalaureate/associate degree category, 3 semester hours in interviewing, 3 in news writing, 3 in feature writing, 3 in news reporting, 3 in news editing, 3 in technical writing, 3 in basic audiovisual materials, 3 in still photography, 1 in technical photography, 3 in layout/design, 3 for field experience in public affairs, 2 in art direction, 3 in office management, 1 in principles of accounting, 2 for field experience in film and video, 3 in personnel supervision, and 3 in principles of management; if served as Cinematographer (identified by qualification code 41), add 3 semester hours in film production; if served as Electronic Media Specialist (identified by qualification code 42), add 3 semester hours in video production. In the upper-division baccalaureate category, 2 semester hours in organizational communication and 3 for field experience in management (6/84).

Recommendation, PACS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PAC. In the upper-division baccalaureate category, 3 semester hours in organizational communication and 3 for field experience in management (6/84).

Recommendation, PACM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PAC. In the upper-division baccalaureate category, 3 semester hours in organizational communication and 6 for field experience in management (6/84).

CGR-PS-001

PORT SECURITYMAN

PS3
PS2
PS1
PSC
PSCS
PSCM

Exhibit Dates: 1/71–Present.

Occupational Group: VI (Port Security).

Career Pattern

SN: Seaman (E-3). *PS3:* Port Securityman, Third Class (E-4). *PS2:* Port Securityman, Second class (E-5). *PS1:* Port Securityman, First Class (E-6). *PSC:* Chief Port Securityman (E-7). *PSCS:* Senior Chief Port Securityman (E-8). *PSCM:* Master Chief Port Securityman (E-9).

Description

Summary: Enforces the regulations and orders relative to the protection and security of vessels, harbors, ports, and waterfront facilities; supervises and controls the safe handling, transportation, stowage, and storage of explosives and other dangerous cargoes; in restricted areas, prevents unauthorized persons from entering upon the vessel or waterfront facility, and carefully examines all authorized persons; assists in combating fires. *PS3:* Performs general police patrol duty; arrests persons and collects evidence; controls access to restricted areas; conducts surveillance of vessels and identifies offenses; inspects vessels, cargo, and waterfront facilities; inspects documentation; reports on pollution and monitors cleanup; supervises cargo loading; inspects and operates fire equipment. *PS2:* Able to perform the duties required for PS3; conducts investigations and interviews; processes applications; takes fingerprints; conducts vessel searches, using electronic survey equipment; identifies various types of oil. *PS1:* Able to perform the duties required for PS2; writes investigative reports; instructs subordinate personnel in fingerprinting techniques, procedures for manning a security zone, use of service pistol, and safety requirements for explosives; serves as liaison with other law enforcement agencies; completes permit applications for explosives and other dangerous cargo; conducts investigations of pollution incidents; analyzes pollution reports; supervises cleanup of pollution incidents; knows fire rescue techniques; supervises use of loading equipment to determine safe operation; supervises layout of firefighting equipment. *PSC:* Able to perform the duties required for PS1; plans and conducts training programs; supervises cargo transfers and inspection procedures; prepares local pollution contingency plan; cooperates with private cleanup contractors; evaluates fire equipment performance; plans, implements, and monitors security of vessels, harbors, and ports. *PSCS:* Able to perform the duties required for PSC; serves as safety officer; develops budgets and monitors expenditures; supervises and directs law enforcement procedures, explosives-loading detail, and the loading, stowing, security, and offloading of dangerous cargo. *PSCM:* Able to perform the duties required for PSCS; serves as senior enlisted technical or specialty administrator; manages and supervises operations and procedures involving security and law enforcement, dangerous cargo, and safety and fire prevention; develops training and safety programs; establishes objectives and sets priorities; performs operational administrative functions; prepares correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, PS3

In the lower-division baccalaureate/associate degree category, 6 semester hours in criminal procedures, 6 in marine cargo handling, 2 in basic marine pollution analysis, and 3 in basic fire safety (7/84).

Recommendation, PS2

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PS3. In the upper-division baccalaureate category, 3 semester hours in advanced criminal procedures, 3 in advanced marine cargo handling, and 2 in advanced marine pollution analysis (7/84).

Recommendation, PS1

In the lower-division baccalaureate/associate degree category, 6 semester hours in criminal procedures, 6 in cargo handling, 2 in basic marine pollution analysis, 3 in basic fire safety, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in advanced criminal procedures, 3 in advanced marine cargo handling, 2 in advanced marine pollution analysis, 3 in interagency law enforcement liaison, and 6 in advanced fire safety technology (7/84).

Recommendation, PSC

In the lower-division baccalaureate/associate degree category, 6 semester hours in criminal procedures, 6 in marine cargo handling, 2 in basic marine pollution analysis, 3 in basic fire safety, 3 in personnel supervision, and 3 in principles of management. In the upper-division baccalaureate category, 3 semester hours in advanced criminal procedures, 3 in advanced marine cargo handling, 2 in advanced marine pollution analysis, 3 in interagency law enforcement liaison, 6 in advanced fire safety technology, 3 in advanced hazardous cargo handling, and 3 in advanced marine pollution control and cleanup (7/84).

Recommendation, PSCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PSC. In the upper-division baccalaureate category, 3 semester hours in advanced criminal procedures, 3 in advanced marine cargo handling, 2 in advanced marine pollution analysis, 3 in interagency law enforcement liaison, 6 in advanced fire safety technology, 3 in advanced hazardous cargo handling, 3 in advanced marine pollution control and cleanup, 3 for field experience in management, and 3 in management problems (7/84).

Recommendation, PSCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PSC. In the upper-division baccalaureate category, 3 semester hours in advanced criminal procedures, 3 in advanced marine cargo handling, 2 in advanced marine pollution analysis, 3 in interagency law enforcement liaison, 6 in advanced fire safety technology, 3 in advanced hazardous cargo handling, 3 in advanced marine pollution control and cleanup, 6 for field experience in management, and 3 in management problems (7/84).

CGR-QM-001

QUARTERMASTER

QM3
QM2
QM1
QMC
QMCS
QMCM

Exhibit Dates: 1/71–Present.

Occupational Group: 1 (Deck).

Career Pattern

SN: Seaman (E-3). *QM3:* Quartermaster Third Class (E-4). *QM2:* Quartermaster Second Class (E-5). *QM1:* Quartermaster First Class (E-6). *QMC:* Chief Quartermaster (E-7). *QMCS:* Senior Chief Quartermaster (E-8). *QMCM:* Master Chief Quartermaster (E-9).

Description

Summary: Stands watch as assistant to the officers of the deck and to the navigator; serves as helmsmen during time when precise ship control is required; performs communications, navigation, and bridgewatch duties; procures, corrects, uses, and stows navigational charts and publications; maintains navigational instruments and keeps navigational time; participates in ceremonies conducted in accordance with national and foreign observance and customs; sends and receives visual messages; serves as executive petty officer. *QM3:* Inventories, procures, uses and corrects nautical charts and publications; uses basic course plotting instruments, lead line, depth sounder, and compass; indentifies aids to navigation; handles plain language radiocommunications and visual communication; maintains compass record book and weather observation sheet. *QM2:* Able to perform the duties required for QM3; uses Coast Guard publications concerning Nautical Rules of the Road, manuevering board and relative bearings; selects charts for voyage planning; determines danger angles and danger bearings; determines ship's position by celestial observations; conducts basic weather observations and understands their significance; supervises bridge personnel; inventories installed equipment and spare parts; orders repair parts and tools. *QM1:* Able to perform the duties required for QM2; adjusts compasses and prepares deviation tables; adjusts and aligns sextants and stadimeters; interprets weather charts; plots probable path and location of storm centers; prepares a great circle track using various methods; maintains the ship's equipment configuration accounting system; prepares weekly shcedules of preventive maintenance; supervises preventive maintenance procedures; prepares oceanographic reports such as wave observation log ship's ice log, adjusted track log, and sounding journal; supervises and trains personnel in navigation, watchstanding, and use and care of navigational charts, tables, and publications. *QMC:* Able to perform the duties required for QM1; understands the use and time requirements on various files and logs; understands various types of messages; prepares quarterly schedules of preventive maintenance; requisitions equipment; interviews, selects, and evaluates personnel for the navigation department; plans emergency drills; conducts briefings; understands the law of cyclonic storms and storm avoidance measures; understands the limitations of radar and loran aids to navigation; understands the use of radio direction finding (RDF) equipment; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training. *QMCS:* Able to perform the duties required for QMC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of subordinate personnel; plans and administers on-the-job training programs; supervises the preparation of reports. *QMCM:* Able to perform the duties required for QMCS; serves as senior enlisted technical or specialty administrator; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, QM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in technical mathematics, 1 in introduction to meteorology, 3 in coastwise navigation and piloting, and 1 in office procedures, and credit in celestial navigation on the basis of institutional evaluation (5/84).

Recommendation, QM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in technical mathematics, 1 in introduction to meteorology, 3 in coastwise navigation and piloting, and 3 in office procedures, and credit in celestial navigation on the basis of institutional evaluation (5/84).

Recommendation, QM1

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in technical mathematics, 1 in introduction to meteorology, 3 in coastwise navigation and piloting, 3 in office procedures, and 2 in personnel supervision, and credit in celestial navigation on the basis of institutional evaluation (5/84).

Recommendation, QMC

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in technical mathematics, 1 in introduction to meteorology, 3 in coastwise navigation and piloting, 3 in office procedures, 3 in personnel supervision, and 3 in principles of management, and credit in celestial navigation on the basis of institutional evaluation (5/84).

Recommendation, QMCS

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for QMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (5/84).

Recommendation, QMCM

In the vocational certificate category, the recommendation is the same as that for QM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for QMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (5/84).

CGR-RD-001

RADARMAN

RD3
RD2
RD1
RDC
RDCS
RDCM

Exhibit Dates: 1/71–Present.

Occupational Group: 1 (Deck).

Career Pattern

SN: Seaman (E-3). *RD3:* Radarman Third Class (E-4). *RD2:* Radarman Second Class (E-5). *RD1:* Radarman First Class (E-6). *RDC:* Chief Radarman (E-7). *RDCS:* Senior Chief Radarman (E-8). *RDCM:* Master Chief Radarman (E-9).

Description

Summary: Operates radar and associated equipment in order to collect, process, display, evaluate, and disseminate information related to the movement of ships, aircraft, missiles, and natural objects; performs duties related to navigation and piloting by plotting own ship's track by radar fixes and radio direction finders; is conversant with Nautical Rules of the Road as used in collision avoidance. *RD3:* Prepares and maintains records and logs for Combat Information Center operations and operating equipment; has knowledge of interior communications and equipment; plots ranges, bearings, and fixes on nautical charts, including dead reckoning; operates fathometers and radio direction finders; knows Nautical Rules of the Road as used in collision avoidance and use of radar in fog; has knowledge of basic search procedures, and solution of basic maneuvering board problems; operates military-specific equipment. *RD2:* Able to perform the duties required for RD3; prepares requisitions for supplies, instructs personnel in principles of equipment operation; sets up controlled radio equipment in accordance with plans; has knowledge of whistle signals, basic lights, distress signals, and the use of bridge-to-bridge radio telephone; knows search and rescue procedures; performs routine preventive maintenance on electronic equipment; solves advanced maneuvering board problems; knows procedures in advisory air control in situations requiring control of aircraft. *RD1:* Able to perform the duties required for RD2; computes statistics necessary for operational reports; organizes communication equipment and personnel to implement communications plans; plans, organizes and schedules preventive maintenance programs for electronic equipment; provides command with technical advice concerning capabilities, limitations, reliability, and operation of radar equipment. *RDC:* Able to perform the duties required for RD1; prepares training reports; understands concepts of electronic warfare, including early warning and utilization of radar under conditions of radar jamming and interference; has knowledge of current naval publications concerning functions and procedures of radar and related equipment; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training programs; supervises the preparation of reports. *RDCM:* Able to perform the duties required for RDCS; serves as senior enlisted technical or specialty administrator; manages personnel in the operation, maintenance, and procurement of radar and associated equipment; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, RD3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic radar use and operation and 3 in coastwise navigation and piloting (radar navigation) (3/84).

Recommendation, RD2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic radar use and operation, 3 in coastwise navigation and piloting (radar navigation), and 3 in record keeping (3/84).

Recommendation, RD1

In the vocational certificate category, 3 semester hours in basic radar use and operation, 3 in coastwise navigation and piloting (radar navigation), 3 in record keeping, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic radar use and operation, 3 in coastwise navigation and piloting (radar navigation), 3 in record keeping, 3 in maintenance management, and 2 in personnel supervision (3/84).

Recommendation, RDC

In the vocational certificate category, the recommendation is the same as that for RD1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic radar use and operation, 3 in coastwise navigation and piloting (radar navigation), 3 in record keeping, 3 in maintenance management, 3 in personnel supervision, and 3 in principles of management (3/84).

Recommendation, RDCS

In the vocational certificate category, the recommendation is the same as that for RD1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RDC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, RDCM

In the vocational certificate category, the recommendation is the same as that for RD1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RDC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-RM-001

RADIOMAN

RM3
RM2
RM1
RMC
RMCS
RMCM

Exhibit Dates: 1/71–Present.

Occupational Group: IV (Administrative and Clerical).

Career Pattern

SN: Seaman (E-3). RM3: Radioman Third Class (E-4). RM2: Radioman Second Class (E-5). RM1: Radioman First Class (E-6). RMC: Chief Radioman (E-7). RMCS: Senior Chief Radioman (E-8). RMCM: Master Chief Radioman (E-9).

Description

Summary: Transmits, receives, and processes all forms of telecommunications through various transmission media; operates, monitors, and controls telecommunication transmission reception, terminal, and processing equipment. *RM3:* Prepares messages in correct format for transmission via military and commercial circuits; prepares telegrams in international and domestic form; transmits and receives on radio-telephone and radio-teletype circuits using standard procedures and keeping the required logs; completely processes, routes, and files traffic within own unit; has knowledge of basic communication systems; types 45 words per minute. *RM2:* Able to perform the duties required for RM3; provides technical guidance to subordinate personnel. *RM1:* Able to perform the duties required for RM2; instructs and supervises subordinate personnel in operation and procedures of communication system; organizes duties and assigns personnel; requisitions supplies and parts. *RMC:* Able to perform the duties required for RM1; coordinates maintenance efforts to optimize equipment operating condition; instructs classes; prepares and submits budget requests; plans and supervises on-the-job training; organizes and maintains technical library. *RMCS:* Able to perform the duties required for RMC; serves as enlisted technical or specialty expert; plans, organizes, and supervises communication activities; prepares equipment reports; plans and administers on-the-job training programs. *RMCM:* Able to perform the duties required for RMCS; serves as senior enlisted technical or specialty administrator; manages personnel in the operation of telecommunications equipment; ensures maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, RM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in radio communications, and 3 in word processing (3/84).

Recommendation, RM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in radio communications, and 3 in word processing (3/84).

Recommendation, RM1

In the vocational certificate category, 3 semester hours in typing, 3 in office practices, 3 in radio communications, 3 in word processing, and 2 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in radio communications, 3 in word processing, 3 in maintenance management, and 3 in personnel supervision (3/84).

Recommendation, RMC

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices, 3 in radio communications, 3 in word processing, 3 in maintenance management, 3 in personnel supervision, and 3 in principles of management (3/84).

Recommendation, RMCS

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, RMCM

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-SK-001

STOREKEEPER

SK3
SK2
SK1
SKC
SKCS
SKCM

Exhibit Dates: 1/71–Present.

Occupational Group: IV (Administrative and Clerical).

Career Pattern

SN: Seaman (E-3). *SK3:* Storekeeper Third Class (E-4). *SK2:* Storekeeper Second Class (E-5). *SK1:* Storekeeper First Class (E-6). *SKC:* Chief Storekeeper (E-7). *SKCS:* Senior Chief Storekeeper (E-8). *SKCM:* Master Chief Storekeeper (E-9).

Description

Summary: Opens, maintains and closes military pay records; prepares payroll certification sheets, travel transportation requests and pay records; accounts for property equipage, supplies and materials; operates data processing equipment; prepares and maintains all required forms, records, correspondence, reports and files; provides counseling on travel/transportation entitlements and procedures. *SK3:* Operates office machines including adding machines, duplicating equipment, copying machines, microfiche reading equipment, and microfiche copying equipment; files correspondence; prepares and maintains payroll records; provides supply support including preparation of requisitions for units; familiar with major components of automated data processing (ADP) equipment and knows the common terminology. *SK2:* Able to perform the duties required for SK3; initiates routine correspondence and establishes correspondence files; initiates and supervises the preparation of required reports; controls inventory; prepares bills of lading and processes shipments in accordance with regulations; operates office machines including graphotypes and addressographs. *SK1:* Able to perform the duties required for SK2; operates an office typewriter at 40 words per minute; applies automated supply procedures; assigns, supervises and trains personnel in the supply department; trains subordinates in the proper use of supply publications; audits required inventory store reports for all categories of materials; identifies sources and uses of funds and supervises budgeting procedures. *SKC:* Able to perform the duties required for SK1; computes the cubic dimensions of weight of material and equipment; lays out physical areas of offices, issue rooms, and storerooms plans, and supervises on-the-job training; organizes and supervises procedures for inventory management; audits year-end financial reports; prepares store replenishment data and forecasts unit requirements for various lengths of time and climatic conditions. *SKCS:* Able to perform the duties required for SKC; serves as enlisted specialty expert; maintains and directs supply functions, including those related to security, fiscal control procedures, and transportation; analyzes supply reports, identifies problem areas, and recommends corrective strategies; plans and administers on-the-job training programs; supervises the preparation of reports. *SKCM:* Able to perform the duties required for SKCS; serves as senior enlisted specialty administrator; plans and organizes controls in compliance with policy statements; establishes goals and priorities; reviews and evaluates personnel, equipment and material requirements; establishes and directs training programs; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corp in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, SK3

In the vocational certificate category, 1 semester hour in filing and records management, 1 in office machines, and 1 in clerical procedures. In the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 1 in office machines, 1 in clerical procedures, and 2 in data processing concepts (6/84).

Recommendation, SK2

In the vocational certificate category, 2 semester hours in filing and records management, 2 in office machines, 1 in clerical procedures, and 2 in record keeping. In the lower-division baccalaureate/associate degree category, 2 semester hours in filing and records management, 2 in office machines, 1 in clerical procedures, 2 in record keeping, 3 in inventory control, and 2 in data processing concepts (6/84).

Recommendation, SK1

In the vocational certificate category, 2 semester hours in filing and records management, 2 in office machines, 2 in clerical procedures, 2 in record keeping, 1 in automated record keeping, 2 in typing, and 2 in business mathematics. In the lower-division baccalaureate/associate degree category, 2 semester hours in filing and records management, 2 in office machines, 2 in clerical procedures, 2 in record keeping, 1 in automated record keeping, 3 in inventory control, 2 in data processing concepts, 2 in typing, 2 in business mathematics, and 2 in personnel supervision (6/84).

Recommendation, SKC

In the vocational certificate category, 2 semester hours in filing and records management, 2 in office machines, 2 in clerical procedures, 2 in record keeping, 1 in automated record keeping, 2 in typing, 2 in business mathematics, and 3 in communication skills. In the lower-division baccalaureate/associate degree category, 2 semester hours in filing and records management, 2 in office machines, 2 in clerical procedures, 2 in record keeping, 1 in automated record keeping, 3 in inventory control, 2 in data processing concepts, 2 in typing, 2 in business mathematics, 3 in personnel supervision, 3 in communication skills, and 3 in principles of management (6/84).

Recommendation, SKCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (6/84).

Recommendation, SKCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, and 3 in supply management (6/84).

CGR-SS-001

SUBSISTENCE SPECIALIST

SS3
SS2
SS1
SSC
SSCS
SSCM

Exhibit Dates: 1/73–Present.

Occupational Group: VI (Administrative and Clerical).

Career Pattern

SN: Seaman (E-3). *SS3:* Subsistence Specialist, Third Class (E-4). *SS2:* Subsistence Specialist, Second Class (E-5). *SS1:* Subsistence Specialist, First Class (E-6). *SSC:* Chief Subsistence Specialist (E-7). *SSCS:* Senior Chief Subsistence Specialist (E-8). *SSCM:* Master Chief Subsistence Specialist (E-9).

Description

Summary: Prepares foods using standardized recipes; operates food equipment; maintains sanitary food service, preparation, and storage areas; receives, stores, and maintains stock levels of subsistence items. *SS3:* Measures, weighs, blends and mixes foods; prepares foods progressively in accordance with standardized recipes; under supervision, prepares fruits, vegetables, salads, meats, baked products, beverages, and soups; portions and serves food to consumers; carves meat and poultry for serving; operates specialized food service equipment; knows transmission methods of food borne diseases. *SS2:* Able to perform the duties required for SS3; establishes schedules and supervises serving line; assists in maintaining cost control, ordering, maintenance, and rotation of stock; prepares food in accordance with stated menu. *SS1:* Able to perform the duties required for SS2; decorates cakes; plans special meals; applies culinary techniques; assists in maintaining cost control procedures; supervises sanitation; modifies menus and methods of preparation; maintains inventory control to insure operating safety levels; supervises food service facility; assigns food service duties; maintains sales analysis records and ensures that proper costs to portion control are maintained. *SSC:* Able to perform the duties required for SS1; serves as administrator of small food service facility or as a supervisor in a large facility; plans and conducts training; prepares schedules; estimates, maintains, and interprets financial records. *SSCS:* Able to perform the duties required for SSC; develops and implements policies and procedures to attain organizational goals and objectives; selects, assigns and evaluates personnel; reviews personnel, equipment and material requirements; organizes, schedules and evaluates training programs; determines future requirements and space utilization; develops operating budget and monitors expenditures. *SSCM:* Able to perform the duties required for SSCS.

Recommendation, SS3

In the vocational certificate category, 1 semester hour in quantity food preparation and 1 in sanitation. In the lower-division baccalaureate/associate degree category, 1 semester hour in quantity food preparation, 1 in sanitation, and 3 for a food service internship (9/84).

Recommendation, SS2

In the vocational certificate category, 2 semester hours in quantity food preparation, 2 in sanitation, and 2 in food service operations. In the lower-division baccalaureate/associate degree category, 2 semester hours in quantity food preparation, 2 in sanitation, 2 in food service operations, and 5 food service internship (9/84).

Recommendation, SS1

In the vocational certificate category, 3 semester hours in quantity food preparation, 2 in sanitation, 3 in food service operations, and 3 in food service management. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 2 in sanitation, 3 in food service operations, 3 in food service management, and 6 for a food service internship (9/84).

Recommendation, SSC

In the vocational certificate category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operation, and 4 in food service management. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operations, 4 in food service management, 6 for a food service internship, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for food service internship (9/84).

Recommendation, SSCS

In the vocational certificate category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operations, and 5 in food service management. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operations, 5 in food service management, 6 for a food service internship, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for a food service internship (9/84).

Recommendation, SSCM

In the vocational certificate category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operations, and 5 in food service management. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 3 in sanitation, 3 in food service operations, 5 in food service management, 6 for a food service internship, and 3 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours for a food service internship (9/84).

CGR-ST-001

SONAR TECHNICIAN

ST3
ST2
ST1
STC
STCS
STCM

Exhibit Dates: 1/71–Present.

Occupational Group: II (Ordnance).

Career Pattern

SN: Seaman (E-3). *ST3:* Sonar Technician, Third Class (E-4). *ST2:* Sonar Technician, Second Class (E-5). *ST1:* Sonar Technician, First Class (E-6). *STC:* Chief Sonar Technician (E-7). *STCS:* Senior Chief Sonar Technician (E-8). *STCM:* Master Chief Sonar Technician (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on shipboard sonar, oceanographic, and underwater fire control equipment, and associated equipment for the solution of anti-submarine warfare problems. *ST3:* Operates, locates, and analyzes equipment casualties; makes repairs, adjustments, alignments, and performs organizational and intermediate maintenance in surface sornar and allied equipment; performs corrective and preventive maintenance on all anti-submarine warfare sensors, weapons, and countermeasure systems and test equipment, including those utilizing solid state microminiature technology. *ST2:* Able to perform the duties required for ST3; provides technical assistance to subordinate personnel. *ST1:* Able to perform the duties required for ST2; organizes anti-submarine attack teams; supervises the use and upkeep of surface ship sonar and underwater equipment; evaluates equipment operation and determines sonar performance data. *STC:* Able to perform the duties required for ST1; trains and supervises personnel in all categories of equipment maintenance and repair; prepares preventive maintenance schedules; organizes and maintains technical library; prepares and submits budget requests; plans and supervises on-the-job training. *STCS:* Able to perform the duties required for STC; serves as enlisted technical or specialty expert; plans, organizes, and directs the work of personnel operating and maintaining sonar oceanographic and underwater fire control equipment; plans and administers on-the-job training programs; supervises the preparation of reports. *STCM:* Able to perform the duties required for STCS; serves as senior enlisted technical or specialty administrator; manages personnel in the operation, maintenance, and procurement of sonar, oceanographic, and underwater fire control equipment; ensure maximum efficiency of the work force and the equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty area.

Recommendation, ST3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in circuit theory, 3 in microminiature technology, 3 in introduction to analog computers, and credit in oceanography on the basis of institutional evaluation (3/84).

Recommendation, ST2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in circuit theory, 3 in microminiature technology, 3 in introduction to analog computers, and credit in oceanography on the basis of institutional evaluation (3/84).

Recommendation, ST1

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in circuit theory, 3 in microminiature technology, 3 in introduction to analog computers, 3 in maintenance management, and credit in oceanography on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in circuit theory, 3 in microminiature technology, 3 in introduction to analog computers, 3 in maintenance management, 2 in personnel supervision, and credit in oceanography on the basis of institutional evaluation (3/84).

Recommendation, STC

In the vocational certificate category, the recommendation is the same as that for ST1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in circuit theory, 3 in microminiature technology, 3 in introduction to analog computers, 3 in maintenance management, 3 in personnel supervision, 3 in principles of management, and credit in oceanography on the basis of institutional evaluation (3/84).

Recommendation, STCS

In the vocational certificate category, the recommendation is the same as that for ST1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, STCM

In the vocational certificate category, the recommendation is the same as that for ST1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-TT-001

TELEPHONE TECHNICIAN

TT3
TT2
TT1
TTC
TTCS
TTCM

Exhibit Dates: 1/71–Present.

Occupational Group: III (Engineering and Hull).

Career Pattern

SN: Seaman (E-3). *TT3:* Telephone Technician, Third Class (E-4). *TT2:* Telephone Technician, Second Class (E-5). *TT1:* Telephone Technician, First Class (E-6). *TTC:* Chief Telephone Technician (E-7). *TTCS:* Senior Chief Telephone Technician (E-8). *TTCM:* Master Chief Telephone Technician (E-9).

Description

Summary: Installs, operates, maintains, and repairs all types of communications and terminal equipment including: telephone, telegraph, teletype equipment, data communications and terminal equipment, key telephone, private branch exchange, subscriber, and transmission carrier systems; microwave radio; inter-office and intraship communications; public address systems. *TT3:* has knowledge of electricity/electronics; reads and interprets schematics; uses electronic test equipment to localize and replace faulty components; places and splices aerial, underground and submarine cables; surveys locations and constructs pole line and cable plant for communications, signaling, and power distribution systems; contacts the public relative to acquisition of right of way; plans and estimates needs; arranges for the procurement of materials; installs antennas and antenna ground system. *TT2:* Able to perform the duties required for TT3; provides technical guidance to subordinate personnel. *TT1:* Able to perform the duties required for TT2; supervises the installation of telecommunications systems and equipment; estimates equipment and material needs; prepares work requests; reviews completed work logs and checklists. *TTC:* Able to perform the duties required for TT1; supervises the operation of the electronics shop; plans, organizes, and administers the maintenance and repair program; prepares preventive maintenance schedules; prepares and submits budget requests; plans and supervises on-the-job training; organizes and maintains technical library. *TTCS:* Able to perform the duties required for TTC; serves as enlisted technical or specialty expert; plans, organizes, and directs personnel in the operation and maintenance of communications equipment; plans and administers on-the-job training programs; supervises the preparation of reports. *TTCM:* Able to perform the duties required for TTCS; serves as senior enlisted technical or specialty administrator; ensures maximum efficiency of the work force and the equipment; manages the operation and maintenance procedures of communications equipment; prepares general correspondence concerning fiscal, supply, and administrative matters; assists in the formulation of plans, policies, and budget requirements; may supplement the officer corps in the overall supervision and administration of personnel and equipment; may also supervise personnel in other specialty areas.

Recommendation, TT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in telecommunication systems, 3 in circuit theory, and 3 in basic computer principles (3/84).

Recommendation, TT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in telecommunication systems, 3 in circuit theory, and 3 in basic computer principles (3/84).

Recommendation, TT1

In the vocational certificate category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in telecommunication systems, 3 in circuit theory, 3 in basic computer principles, and 3 in maintenance management. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in telecommunication systems, 3 in circuit theory, 3 in basic computer principles, and 3 in personnel supervision (3/84).

Recommendation, TTC

In the vocational certificate category, the recommendation is the same as that for TT1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic AC/DC theory, 3 in diagnostic procedures, 3 in telecommunication systems, 3 in circuit theory, 3 in basic computer principles, 3 in personnel supervision, 3 in applied psychology, and 3 in principles of management (3/84).

Recommendation, TTCS

In the vocational certificate category, the recommendation is the same as that for TT1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/84).

Recommendation, TTCM

In the vocational certificate category, the recommendation is the same as that for TT1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/84).

CGR-YN-001

Yeoman

YN3
YN2
YN1
YNC
YNCS
YNCM

Exhibit Dates: 1/71–Present.

Occupational Group: IV (Administrative and Clerical).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *YN2:* Yeoman Second Class (E-5). *YN1:* Yeoman First Class (E-6). *YNC:* Chief Yeoman (E-7). *YNCS:* Senior Chief Yeoman (E-8). *YNCM:* Master Chief Yeoman (E-9).

Description

Summary: Performs general clerical administrative and secretarial duties including typewriting, filing, records management, office publications maintenance, and office equipment operation; maintains personnel service and accounting records; serves as reporter and fact finding body, and acts as office manager. *YN3:* Prepares, routes, and forwards office correspondence; establishes, maintains and disposes of office files; prepares, interprets, and transcribes messages (a straight-copy typing rate of at least 30 words per minute); prepares and distributes mail; performs duties as receptionist; prepares applications, statistical reports, and personnel management information entries; prepares security and legal correspondence, benefits and entitlements forms; familiar with current word processing concepts. *YN2:* Able to perform the duties required for YN3; orders publications and forms; performs personnel transfer procedures; types personnel papers for changes in rating (a straight-copy typing rate of at least 40 words per minute); prepares personnel papers relating to enlistment, discharge, financial records, and courts martial; counsels personnel regarding rights, benefits, and pay systems; able to perform basic functions on word processing equipment; monitors filing and record maintenance, retention and disposal. *YN1:* Able to perform the duties required for YN2; coordinates records disposal program; composes and types office correspondence (a stright-copy typing rate of at least 50 word per minute); transcribes recorded dictation at a minimum rate of 6 word per minute; demonstrate knowledge of forms management; prepares preliminary papers for general courts martial; assists in supervising and training office personnel in military entitlements and procedures; assists in supervision of maintenance of records; performs advanced functions of word processing equipment. *YNC:* Able to perform the duties required for YN1; takes recorded dictation at 60 words per minute; transcribes recorded dictation material at 8 words per minute; composes correspondence directives; demonstrates proper office management concepts and techniques; prepares recommendations for administrative discharges and handling classified matter; demonstrates knowledge of military justice system; administers training programs for clerical personnel; supervises and trains office personnel in military pay entitlements and procedures. *YNCS:* Able to perform the duties required for YNC; serves as enlisted specialty supervisor; provides direction and supervision to enlisted personnel; plans and administers on-the-job training programs; serves as senior enlisted advisor in matters concerning enlisted personnel; demonstrates technical and specialty expertise; functions as office supervisor; interviews, assigns, supervises, and evaluates office personnel; devises, implements and evaluates word processing systems. *YNCM:* Able to perform the duties required for YNCS; functions as senior enlisted technical and specialty administrator; assumes management, supervisory, and administrative responsiblility; responsible for organizing, directing and coordinating programs of instruction for subordinates; supplements officer corps in overall supervision and administration; establishes goals, objectives, and priorities in administration of office functions; evaluates and makes recommendations regarding office personnel, equipment, supplies, and budgets.

Recommendation, YN3

In the vocational certificate category, 2 semester hours in typing, 1 in filing and records management, 1 in clerical procedures, 1 in office machines, and 1 in communication skills (written). In the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in filing and records management, 1 in clerical procedures, 1 in office machines, 1 in communication skills (written), and 2 in word processing concepts; if qualification code was 02 (Verbatim Reporter) or 03 (Legal Clerk), add 3 semester hours in legal practices and procedures (6/84).

Recommendation, YN2

In the vocational certificate category, 3 semester hours in typing, 2 in filing and records management, 2 in clerical procedures, 1 in office machines, and 1 in communication skills (written). In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in filing and records management, 2 in clerical procedures, 1 in office machines, 1 in communication skills (written), 3 in word processing concepts, and 2 in word processing applications; if qualification code was 02 (Verbatim Reporter) or 03 (Legal Clerk), add 3 semester hours in legal practices and procedures (6/84).

Recommendation, YN1

In the vocational certificate category, 4 semester hours in typing, 2 in filing and records management, 2 in clerical procedures, 1 in office machines, 2 in communication skills (written), and 2 in machine transcription. In the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 2 in filing and records management, 2 in clerical procedures, 1 in office machines, 2 in communication skills (written), 3 in word processing concepts, 3 in word processing applications, 2 in machine transcription, and 2 in personnel supervision; if qualification code was 02 (Verbatim Reporter) or 03 (Legal Clerk), add 3 semester hours in legal practices and procedures (6/84).

Recommendation, YNC

In the vocational certificate category, 4 semester hours in typing, 2 in filing and records management, 3 in clerical procedures, 1 in office machines, 3 in communication skills (written), and 2 in machine transcription. In the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 2 in filing and records management, 3 in clerical procedures, 1 in office machines, 3 in communication skills (written), 3 in word processing concepts, 3 in word processing applications, 2 in machine transcription, 3 in personnel supervision, and 1 in office management; if qualification code was 02 (Verbatim Reporter) or 03 (Legal Clerk), add 3 semester hours in legal practices and procedures (6/84).

Recommendation, YNCS

In the vocational certificate category, the recommendation is the same as that for YNC. In the lower-division baccalaureate/associate degree category, 4 semester hours in typing, 2 in filing and records management, 3 in clerical procedures, 1 in office machines, 3 in communication skills (written), 3 in word processing concepts, 3 in word processing applications, 2 in machine transcription, 3 in personnel supervision, 3 in office management, 3 in principles of management, and 3 in word processing management; if qualification code was 02 (Verbatim Reporter) or 03 (Legal Clerk), add 3 semester hours in legal practices and procedures. In the upper-division baccalaureate category, 3 semester hours for field experience in management (6/84).

Recommendation, YNCM

In the vocational certificate category, the recommendation is the same as that for YNC. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for YNCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (6/84).

Coast Guard Warrant Officer Exhibits

CGW-AVI-001

Aviation Engineering

Exhibit Dates: 1/65–Present

Career Pattern

May have progressed to Aviation Engineering Warrant Officer from Aviation Machinists' Mate (AD), Aviation Electrician's Mate (AE), or Aviation Structural Mechanic (AM).

Description

Serves as an officer technical specialist in aircraft maintenance; provides technical advice and information concerning capabilities, limitations and reliability of aircraft powerplants, accessories, airframes and equipment; directs and supervises practices and procedures for service, maintenance, overhaul, repair, inspection, alteration, modification, adjustment, preservation, and depreservation of aircraft powerplants, accessories, airframes and equipment; formulates and supervises training programs; prepares, maintains, and submits personnel and materiel records, logs, reports, and accounts.

Recommendation

In the lower-division baccalaureat/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in aviation maintenance systems operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

CGW-BOSN-001

Boatswain

Exhibit Dates: 1/65–Present

Career Pattern

May progress to Boatswain Warrant Officer from Boatswain's Mate (BM), Marine Science Technician (MST), Quartermaster (QM), and Radarman (RD).

Description

Supervises and directs personnel in all aspects of deck seamanship, small craft operations, emergency skills, navigation, search operations, gunnery operations and cargo and buoy handling operations; serves as specialist on inspection duties; develops and supervises training programs; prepares, maintains, and submits personnel, materiel, and operational records, reports, and accounts; prepares correspondence and administers budgets.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in general ship operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 for field experience in management, and 3 in budget administration (12/85).

CGW-COMM-001

Communications

Exhibit Dates: 1/65–Present

Career Pattern

May have progressed to Communications Warrant Officer from Radioman (RM).

Description

Serves as an officer technical specialist in the field of communications; supervises and directs communication personnel in conduct of radio and wire communications; plans and supervises instructional programs; prepares, maintains, and submits personnel, material, operational records, and accounts; prepares correspondence and administrative budgets; provides technical liaison with other civilian and military communication facilities.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in communications systems operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (2/86).

CGW-ELC-001

Electronics

Exhibit Dates: 1/65–Present

Career Pattern

May have progressed to Electronics Warrant Officer from Aviation Electronics Technician (AT), Electronics Technician (ET), Sonar Technician (ST), or Telephone Technician (TT).

Description

Serves as an officer technical specialist in the field of electronics; supervises and directs personnel in all aspects of electronic repair of equipment, operation of electronic repair facilities, and maintenance of operational equipment; plans and supervises instructional programs; handles personnel duties, budget matters, records, and requisition of supplies; provides technical liaison with other services and commercial organizations; prepares technical and administrative reports.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in electronics systems operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (2/86).

CGW-FS-001

Finance and Supply

Exhibit Dates: 1/65–Present

Career Pattern

May have progressed to Finance and Supply Warrant Officer from Storekeeper (SK) or Subsistence Specialist (SS).

Description

Serves as a technical specialist in the field of finance and supply, organizes, plans, and supervises the work of 5–30 persons engaged in procuring, storing, inventorying and issuing of suppies, including persons who work in disbursing offices, supervises and directs people in the preparation of estimates of requirements, inventories of supplies and equipment, audit of records and budget, computation of pay, preparation of vouchers, and allocation of materials; disburses public funds as agent cashier and as assistant disbursing officer, supervises computing of pay, posting of payments, the balancing of cash and check disbursements, and the auditing of accounts, supervises the preparation and the maintaining of supply department records and inventories, supervises preparation of correspondence and the maintaining of filing systems for publications and directives.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in accounting systems, 3 in personnel supervision, and 3 for field experience in budgeting. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

CGW-MAT-001

Materiel Maintenance

Exhibit Dates: 1/65–Present

Career Pattern

May have progressed to Materiel Maintenance Warrant Officer from Damage Controlman (DC) or Avaition Survivalman (ASM).

Description

Serves as an operational and technical specialist in the fields of repair, maintenance, damage control and fire fighting aboard ship and at shore units; serves as assistant to engineering and repair officers, as shop superintendent, and as technical advisor concerning uses, capabilities, limitations and reliability of ship repair, fire fighting and damage control equipment and as officer in charge of maintenance and repair detachments ashore; organizes and supervises personnel in ship repair and maintenance; provides technical advice and information concerning use, characteristics, and limitations of building and construction materials; organizes and supervises maintenance and repair forces on work involving repairs to buildings, towers, docks, bulkheads, street paving and pipelines, including water and sewer lines; develops and supervises training programs; supervises preparation, maintenance, and submission of personnel and materiel records and reports; supervises procurement, stowage preservation, and utilization practices for repair parts, building materials, and equipment.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in maintenance activities and programs. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

CGW-MED-001

Medical Administration

Exhibit Dates: 1/65–Present.

Career Pattern

Progressed to Medical Administration Warrant Officer from Health Services Technician (HS).

Description

Serves as an officer technical specialist in the field of medical administration; administers nonprofessional aspects of medical and dental facilities; manages administrative functions such as fiscal, supply, personnel, records, and other related medical matters; promotes and manages environmental sanitation programs; administers and serves as instructor in medical training programs; performs medical service planning and logistic duties; serves as assistant to inspectors in reviewing administrative organization and operations of medical and dental facilities.

Recommendation

In the upper-division baccalaureate category, 3 semester hours in organizational management, 3 in personnel management, 3 in accounting and control, 3 in administrative policy, and 3 in data collection and record management (2/86).

CGW-ENG-001

Naval Engineering

Exhibit Dates: 1/65–Present.

Career Pattern

May have progressed to Naval Engineering Warrant Officer from Electrician's Mate (EM) or Machinery Technician (MK).

Description

Serves as an officer technical specialist in the field of engineering and in machinery repair on uses, capabilities, limitations, and reliability of engineering equipment; directs and supervises handling, storage, installation, operation, testing, maintenance, and repair of engineering equipment; develops and supervises training programs; prepares, maintains, and submits personnel and material records and reports; supervises procurement, preservation and accounting practices for supplies and repair parts.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in marine propulsion systems operations. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

CGW-PERS-001

Personnel Administration

Exhibit Dates: 1/65–Present.

Career Pattern

May have progressed to Personnel Administration Warrant Officer from Data Processing Technician (Emergency Rating) or Yeoman (YN).

Description

Serves as a technical specialist in general and personnel adminstration; provides technical advice and information concerning officer and enlisted personnel regulations and administration; organizes and supervises personnel in an administrative or personnel office of up to 20 persons; supervises personnel in preparing and processing correspondence, reports, personnel records, and accounts; knows and uses computers and their programs for records; administers funds for travel and procurement, and the allocation of officer materials and equipment; prepares office organization, work flow, and layout charts; prescribes procedures and techniques for work improvement; prepares official correspondence, administrative directives, regulations, and orders.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in business communications, 3 in personnel supervision, and 3 for field experience in office management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

CGW-PYA-001

Physician's Assistant

Exhibit Dates: 8/75–Present.

Career Pattern

May have progressed to Physician's Assistant from Hospital Corpsman (HM) or Health Services Technician (HS).

Description

Serves as an officer technical specialist, qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician; performs diagnostic and therapeutic tasks; in support of a primary care physician, engages in continuing medical education, health maintenance, and community health; has practical training in principles of education and applied psychology as it relates to their day-to-day clinical activities; may serve in Naval hospitals, clinics, and branch clinics. NOTE: Appointment to Physician's Assistant Warrant Officer is based upon graduation from an accredited Physician's Assistant program and satisfactory completion of the appropriate licensing examination.

Recommendation

In the upper-division baccalaureate category, 6 semester hours in management, 6 in methods of instruction, and 2 in applied psychology. In the graduate degree category, 3 semester hours in eduational principles (2/86).

CGW-PSS-001

Port Safety and Security

Exhibit Dates: 7/83–Present.

Career Pattern

May progress to Port Safety and Security Warrant Officer from Port Securityman (PS).

Description

Serves as a port safety and security specialist; provides information and advice concerning physical security procedures, Coast Guard law enforcement procedures, and jurisdiction; supervises port safety and security personnel in port emergency response operations, including fire fighting and hazardous material spills; prepares and reviews reports; prescribes methods and procedures for law enforcement and security operations; supervises dissemination of regulations to subordinate personnel.

Recommendation

In the lower-division baccalaureate/associate degreee category, 3 semester hours in technical communications and 3 in personnel supervision (12/85).

CGW-INF-001

Public Information

Exhibit Dates: 1/65–Present.

Career Pattern

Progressed to Public Information Warrant Officer from Public Affairs Specialist (PA).

Description

Serves as an officer technical specialist in public information; provides information on photography, the news media, community relations, and internal relations; organizes, directs, and coordinates operations and upkeep of a public information office; prepares and monitors budgets for the operation of a public information office; writes and edits major stories and speeches, television and motion picture scripts; establishes and supervises comprehensive training programs.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in writing for mass media, 3 in curriculum design and organization, 3 in business communications, and 3 in audio/visual-photographic technology. In the upper-division baccalaureate category, 3 semester hours in public relations, 3 in budget administration, and 6 for field experience in public affairs (3/86).

CGW-WEPS-001

Weapons

Exhibit Dates: 1/65–Present.

Career Pattern

May have progressed to Weapons Warrant Officer from Fire Control Technician (FT) or Gunner's Mate (GM).

Description

Serves as an operational and technical specialist in gunnery and ordnance; serves as assistant gunnery and ordnance repair officer; directs and supervises assembly, installation, operation, testing, maintenance, and repair of ordnance equipment; supervises testing, handling, stowage, preservation, requisitioning, issuing, and accounting practices and procedures for all ammunition and ammunition components; supervises stowage, preservation, security, requisitioning, and accounting practices and procedures for all ordnance equipment and repair parts; develops and supervises training programs; prepares, maintains, and submits ordnance, personnel, material, and operational record, reports, and accounts.

Recommendation

In the lower-division baccalaureate/associate degree category, 3 semester hours in technical communications, 3 in personnel supervision, and 3 for field experience in inventory systems management. In the upper-division baccalaureate category, 3 semester hours in principles of management, 3 in management problems, 3 in budget administration, and 3 for field experience in management (3/86).

Marine Corps Enlisted MOS Exhibits

MCE-6012-001

Aircraft Mechanic, A-4/TA-4/QA-4

6012

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6012 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6013-001

Aircraft Mechanic, A-6/EA-6

6013

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6013 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling or aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6014-001

Aircraft Mechanic, F-4/RF-4

6014

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6014 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6015-001

AIRCRAFT MECHANIC, AV-8A/TAV-8

6015

Exhibit Dates: 4/87-Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6015 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6016-001

AIRCRAFT MECHANIC, KC-130

6016

Exhibit Dates: 4/87-Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6016 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6017-001

Aircraft Mechanic, F/A-18

6017

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6017 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6018-001

Aircraft Mechanic, OV-10

6018

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6018 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft airframes and airframe components; performs duties related to flightline operations. *Levels I and II:* Operates and maintains applicable aircraft maintenance ground support equipment; obtain license as required; directs aircraft taxiing; performs daily preflight and post-flight inspections and assists the pilot and crew in the performance of those inspections; assists during periodic airframe inspection; practices applicable safety procedures and precaution on the flight line and in hangar deck areas; performs hot and cold refueling of aircraft; performs oil analysis sampling and uses various types of fuels and lubricants; removes and installs aircraft power plants, components, and parts as required; recognizes and assists in corrective treatment and/or preventive maintenance of corrosion; uses precision measuring equipment required in the performance of duties; assists in the performance of calendar inspection; operates assigned fire fighting equipment; follows weight and balance limitations for applicable aircraft; performs starting and ground turn-up functions when authorized; uses technical publications in skill area. *Level III:* Able to perform the duties required for Level II; performs duties as flightline section leader or standardization team chief; conducts informal on-the-job technical training. *Level IV:* Able to perform the duties required for Level III; assists in the supervision and administration of flightline hangar deck area and related operations ashore and afloat; plans, schedules, and directs work center assignment; performs duties as maintenance department noncommissioned officer in charge.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft airframe maintenance and inspection, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft airframe maintenance and inspection, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6022-001

Aircraft Power Plants Mechanic, J-52

6022

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6022 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6023-001

AIRCRAFT POWER PLANTS MECHANIC, T-76

6023

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6023 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6024-001

AIRCRAFT POWER PLANTS MECHANIC, J-79

6024

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6024 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6025-001

AIRCRAFT POWER PLANTS MECHANIC,
ROLLS ROYCE PEGASUS

6025

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6025 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6026-001

Aircraft Power Plants Mechanic, T-56

6026

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6026 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6027-001

Aircraft Power Plants Mechanic, F-404

6027

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6011 (Aircraft Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6027 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics and blueprints; uses technical publications to include inspection work cards and troubleshooting logic trees; under direct and indirect supervision, disassembles, repairs, and assembles power plants and related systems; in performance of maintenance functions, uses assorted hand and power tools such as jewelers files, micrometer, and borescope; assists in minor maintenance on ground handling equipment and power plant test cells; know types and designations of fuels and lubricants and uses color-coded charts for identification of lines and tubing; assists with corrosion prevention procedures and practices ground safety precautions in the maintenance area. *Level III:* Able to perform the duties required for Level II; performs complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises maintenance center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises complete repair of power plants and systems; functions as a maintenance supervisor and quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in jet turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in jet turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6046-001

Aircraft Maintenance Administration Clerk

6046

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. Credit is recommended for Levels III and IV.

Description

Summary: Prepares and maintains various types of aircraft maintenance records including log books, directives, and files; maintains status records of aircraft maintenance and repair; types 25-30 words per minute and/or uses word processor for correspondence; utilizes aircraft accounting system and inventory system. *Levels I and II:* Prepares reports, records, directives and correspondence; maintains aircraft and engine status boards; maintains files of repair publications, correspondence and records; assists in inventory of aircraft; conducts informal technical training within assigned skill area. *Level III:* Able to perform the duties required for Levels I and II; plans, coordinates, and performs work assignments and administratve assignments; organizes and supervises the administrative functions in maintenance aspects; may have responsibility for organizing, supervision, and serving as the head of an intermediate administrative section. *Level IV:* Able to perform the duties required for Level III; performs management responsibilities at a facility for the administration of aircraft maintenance; instructs and supervises training of personnel; may have assignment as inspector of administrative facilities for aircraft maintenance; may have responsibility for the mathematical calculations and the supervision of aircraft loading to insure proper distribution of cargo weights within large aircraft.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in recordkeeping (12/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in recordkeeping and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management problems, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/89).

MCE-6047-001

AIRCRAFT MAINTENANCE DATA ANALYSIS
TECHNICIAN

6047

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervison. Credit is recommended for Levels III and IV.

Description

Summary: Provides information and recommendations to aid the maintenance manager and logistician in the performance of their tasks by extracting, analyzing, and collating maintenance data from detailed reports; develops and analyzes maintenance summaries; develops charts, tables, and graphs; isolates maintenance trends and determines effectiveness and efficiency of the maintenance effort; presents summaries and recommendations. *Level Levels:* I-II Operates data entry equipment such as interpreter, sorter, collator, reproducer, calculating punch, alphabetic accounting machines, and personal computers; operates standard attachments of data entry equipment and optical scanners; wires control panels from wiring diagrams for electronic accounting machines; operates data entry and data verifying equipment; maintains equipment utilization records; extracts, analyzes, collates and prepares maintenance summaries; analyzes and identifies material deficiencies; develops charts, tables, and graphs. *Level III:* Able to perform the duties required for Level II; assists personnel in the interpretation and use of reports of maintenance actions and man-hour accounting systems; identifies area of deficiencies in training and readiness; develops uniform factors for determining maintenance capability; analyzes maintenance data for maintenance planning and estimation; evaluates exceptions to standards to determine cause and effect. *Level IV:* Able to perform the duties required for Level III; isolates trends and determines standards for evaluation of the maintenance effort; coordinates analysis functions with other branches; maintains personnel job performance requirements; conducts training of subordinate personnel job performance requirements; conducts training of subordinate personnel; develops and applies uniform methods for improving the maintenance effort; evaluates limitations to determine the effect of the maintenance effort; performs management responsibilities at a facility conducting aircraft maintenance data analysis.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computers, 3 in records and information management, and 2 in college algebra (12/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computers, 3 in records and information management, 2 in college algebra, and 2 in personnel supervision. In the upper-division baccalaureate category, 3 semester hours in management problems, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/89).

MCE-6052-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, A-4/TA-4/QA-4

6052

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6052 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6053-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, A-6/EA-6

6053

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6053 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6054-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, F-4/RF-4

6054

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6054 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6055-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, AV-8/TAV-8

6055

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6055 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6056-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, KC-130

6056

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6056 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6057-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, F/A-18

6057

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6057 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6058-001

AIRCRAFT HYDRAULIC/PNEUMATIC
MECHANIC, OV-10

6058

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6051 (Aircraft Hydraulic/Pneumatic Mechanic Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6058 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of aircraft piping and lines; reads schematic diagrams, shop sketches, blueprints, and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required; fabricates replacement lines of tubing and hoses. *Level III:* Able to perform the duties required for Levels I and II; performs component repair of hydraulic/pneumatic components as required; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements for aircraft hydraulic/pneumatic systems components; supervises an aircraft hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level aircraft hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic/pneumatic systems repair, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 9 semester hours in hydraulic/pneumatic systems repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6082-001

AIRCRAFT SAFETY EQUIPMENT MECHANIC, A-4/TA-4/OA-4

6082

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6082 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6083-001

AIRCRAFT SAFETY EQUIPMENT MECHANIC, A-6/EA-6

6083

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6083 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6084-001

AIRCRAFT SAFETY EQUIPMENT MECHANIC, F-4/RF-4

6084

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6084 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6085-001

Aircraft Safety Equipment Mechanic,
AV-8/TAV-8

6085

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6085 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6086-001

Aircraft Safety Equipment Mechanic,
KC-130

6086

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6086 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6087-001

Aircraft Safety Equipment Mechanic,
F/A-18

6087

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6087 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6088-001

AIRCRAFT SAFETY EQUIPMENT MECHANIC,
OV-10
6088

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6081 (Aircraft Safety Equipment Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6088 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains aircraft safety equipment. *Levels I and II:* Performs, under close supervision and training, routine duties incident to inspection or replacement of aircraft safety systems and components; uses technical and maintenance publications; disassembles, inspects and assembles aircraft-related safety equipment air conditioning and pressurization systems, fire extinguishing systems, oxygen systems, and follows approved procedures related to special explosive cartridges used in escape systems. *Level III:* Able to perform the duties required for Level II; tests aircraft for pressure tightness; removes, checks, rigs, and adjusts ejection seats, components, and/or seat and canopy components; analyzes aircraft oxygen system malfunctions; inspects and adjusts firing mechanisms for emerging escape systems; conducts informal on-the-job training within assigned skill designator; tests for carbon monoxide contamination; inspects and adjusts pressure control units; replaces defective indicators and controls. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs work assignments; performs duties as quality assurance inspector, and prepares and submits required reports and records.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6092-001

AIRCRAFT STRUCTURES MECHANIC, A-4/
TA-4/OA-4
6092

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6092 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6093-001

AIRCRAFT STRUCTURES MECHANIC, A-6/
EA-6
6093

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic – Trainee), is used to identify individuals in Levels I and

II. Upon completion of Level II, MOS 6093 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6094-001

Aircraft Structures Mechanic, F-4/
RF-4

6094

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6094 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/90).

MCE-6095-001

Aircraft Structures Mechanic, AV-8/
TAV-8

6095

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6095 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT).

MCE-6096-001

AIRCRAFT STRUCTURES MECHANIC, KC-130

6096

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6096 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6097-001

AIRCRAFT STRUCTURES MECHANIC, F/A-18

6097

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6097 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6098-001

AIRCRAFT STRUCTURES MECHANIC, OV-10

6098

Exhibit Dates: 4/87–Present.

Occupational Field: 60 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties

are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6091 (Aircraft Structures Mechanic - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6098 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft structures and structural components. *Levels I and II:* Uses metalworking tools in the maintenance and repair of aircraft structures and structural components; uses shears, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of aircraft component parts such as wings, control surfaces, landing gear, arresting gear and tanks; inspects and repairs aircraft with respect to metal (aluminum alloy), composites, fiberglass, rubber, and plastic; makes simple dies, templates, and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; observes acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; organizes work assignments; heat-treats metal alloys used in aircraft; classifies parts for use in the repair of aircraft; repairs, maintains, and rigs wings, airframe, and cockpit control mechanisms; performs major structural inspections and repairs; repairs aircraft deicing systems, cockpit enclosures, radomes, and surface repairs; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft or equipment ashore/afloat; plans, schedules, and directs work center assignments; performs and supervises the complete repair of aircraft structures and structural components; performs aircraft weighing; supervises, directs, and administers an organizational maintenance level aircraft structural repair work center ashore/afloat.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6112-001

HELICOPTER MECHANIC (CH-46)

6112

Exhibit Dates: 4/87-Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6112 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains air frames, power plants, and aircraft components; performs duties related to flight line operations. *Levels I and II:* Operates and maintains special shop and ground support equipment; assists in performing pre-flight and post-flight inspections; practices ground safety procedures in flight line and hangar areas; accomplishes hot and cold refueling of aircraft and understands the use of air frame and power plant fluids and lubricants including the color codes for lines and tubing; under supervision, removes and installs aircraft components and parts as required; uses technical publications, bulletins, diagrams, and material control procedures; observes weight and balance limitations and understands the use of precision measuring tools. *Level III:* Able to perform the duties required for Level II; performs inspection and maintenance duties on the various systems of the aircraft including the fuel, flight control, rotor, utility, and power plant systems; checks the cockpit controls, switches, and safety devices; accomplishes engine starting, tune-up procedures and taxiing of aircraft; removes and installs equipment, components, and parts as required; recognizes corrosion and applies corrective treatment or preventive maintenance; performs duties as section or crew leader, or quality assurance inspector; conducts informal technical training programs, and assists in the supervision and administration of aircraft maintenance operations. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs aircraft maintenance work center activities; supervises flight line and hangar operations; administers formal and informal technical training.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6113-001

HELICOPTER MECHANIC (CH-53)

6113

Exhibit Dates: 4/87-Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6113 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains air frames, power plants, and aircraft components; performs duties related to flight line operations. *Levels I and II:* Operates and maintains special shop and ground support equipment; assists in performing pre-flight and post-flight inspections; practices ground safety procedures in flight line and hangar areas; accomplishes hot and cold refueling of aircraft and understands the use of air frame and power plant fluids and lubricants including the color codes for lines and tubing; under supervision, removes and installs aircraft components and parts as required; uses technical publications, bulletins, diagrams, and material control procedures; observes weight and balance limitations and understands the use of precision measuring tools. *Level III:* Able to perform the duties required for Level II; performs inspection and maintenance duties on the various systems of the aircraft including the fuel, flight control, rotor, utility, and power plant systems; checks the cockpit controls, switches, and safety devices; accomplishes engine starting, tune-up procedures and taxiing of aircraft; removes and installs equipment, components, and parts as required; recognizes corrosion and applies corrective treatment or preventive maintenance; performs duties as section or crew leader, or quality assurance inspector; conducts informal technical training programs, and assists in the supervision and administration of aircraft maintenance operations. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs aircraft maintenance work center activities; supervises flight line and hangar operations; administers formal and informal technical training.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6114-001

Helicopter Mechanic (U/AH-1)

6114

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6114 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains air frames, power plants, and aircraft components; performs duties related to flight line operations. *Levels I and II:* Operates and maintains special shop and ground support equipment; assists in performing pre-flight and post-flight inspections; practices ground safety procedures in flight line and hangar areas; accomplishes hot and cold refueling of aircraft and understands the use of air frame and power plant fluids and lubricants including the color codes for lines and tubing; under supervision, removes and installs aircraft components and parts as required; uses technical publications, bulletins, diagrams, and material control procedures; observes weight and balance limitations and understands the use of precision measuring tools. *Level III:* Able to perform the duties required for Level II; performs inspection and maintenance duties on the various systems of the aircraft including the fuel, flight control, rotor, utility, and power plant systems; checks the cockpit controls, switches, and safety devices; accomplishes engine starting, tune-up procedures and taxiing of aircraft; removes and installs equipment, components, and parts as required; recognizes corrosion and applies corrective treatment or preventive maintenance; performs duties as section or crew leader, or quality assurance inspector; conducts informal technical training programs, and assists in the supervision and administration of aircraft maintenance operations. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs aircraft maintenance work center activities; supervises flight line and hangar operations; administers formal and informal technical training.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6115-001

Helicopter Mechanic (CH-53E)

6115

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6115 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects and maintains air frames, power plants, and aircraft components; performs duties related to flight line operations. *Levels I and II:* Operates and maintains special shop and ground support equipment; assists in performing pre-flight and post-flight inspections; practices ground safety procedures in flight line and hangar areas; accomplishes hot and cold refueling of aircraft and understands the use of air frame and power plant fluids and lubricants including the color codes for lines and tubing; under supervision, removes and installs aircraft components and parts as required; uses technical publications, bulletins, diagrams, and material control procedures; observes weight and balance limitations and understands the use of precision measuring tools. *Level III:* Able to perform the duties required for Level II; performs inspection and maintenance duties on the various systems of the aircraft including the fuel, flight control, rotor, utility, and power plant systems; checks the cockpit controls, switches, and safety devices; accomplishes engine starting, tune-up procedures and taxiing of aircraft; removes and installs equipment, components, and parts as required; recognizes corrosion and applies corrective treatment or preventive maintenance; performs duties as section or crew leader, or quality assurance inspector; conducts informal technical training programs, and assists in the supervision and administration of aircraft maintenance operations. *Level IV:* Able to perform the duties required for Level III; plans, schedules, and directs aircraft maintenance work center activities; supervises flight line and hangar operations; administers formal and informal technical training.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in airframe structures repairs, 3 in aviation maintenance technology, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in industrial safety. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6122-001

Helicopter Power Plants Mechanic (T-58)

6122

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6122 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics, and blueprints; uses technical publications and other maintenance data; under supervision, assembles, disassembles, and repairs power plants and power plant systems; uses precision measuring instruments and special power tools in performing maintenance functions; assists in minor maintenance on ground handling equipment and power plant test cells; knows the types and designation of fuels and lubricants and utilizes color code charts for lines and tubing; assists in performing periodic inspections, removing and replacing power plants and power plant components; assists in corrosion prevention procedures, and practices ground safety precautions in the power plant maintenance area. *Level III:* Able to perform the duties required for Level II; performs the complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises work center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises the complete repair of power plant and power plant systems; serves as a power plant maintenance supervisor and performs the duties of a quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in gas turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in gas turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6123-001

HELICOPTER POWER PLANTS MECHANIC
(T-64)
6123

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6123 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics, and blueprints; uses technical publications and other maintenance data; under supervision, assembles, disassembles, and repairs power plants and power plant systems; uses precision measuring instruments and special power tools in performing maintenance functions; assists in minor maintenance on ground handling equipment and power plant test cells; knows the types and designation of fuels and lubricants and utilizes color code charts for lines and tubing; assists in performing periodic inspections, removing and replacing power plants and power plant components; assists in corrosion prevention procedures, and practices ground safety precautions in the power plant maintenance area. *Level III:* Able to perform the duties required for Level II; performs the complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises work center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises the complete repair of power plant and power plant systems; serves as a power plant maintenance supervisor and performs the duties of a quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in gas turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in gas turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6124-001

HELICOPTER POWER PLANTS MECHANIC
(T-53)
6124

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6124 was discontinued.)

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6124 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics, and blueprints; uses technical publications and other maintenance data; under supervision, assembles, disassembles, and repairs power plants and power plant systems; uses precision measuring instruments and special power tools in performing maintenance functions; assists in minor maintenance on ground handling equipment and power plant test cells; knows the types and designation of fuels and lubricants and utilizes color code charts for lines and tubing; assists in performing periodic inspections, removing and replacing power plants and power plant components; assists in corrosion prevention procedures, and practices ground safety precautions in the power plant maintenance area. *Level III:* Able to perform the duties required for Level II; performs the complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises work center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises the complete repair of power plant and power plant systems; serves as a power plant maintenance supervisor and performs the duties of a quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in gas turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in gas turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6125-001

HELICOPTER POWER PLANTS MECHANIC (T-400)

6125

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6125 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, maintains, and repairs aircraft power plants, and performs duties related to flight line operations. *Levels I and II:* Interprets shop sketches, drawings, schematics, and blueprints; uses technical publications and other maintenance data; under supervision, assembles, disassembles, and repairs power plants and power plant systems; uses precision measuring instruments and special power tools in performing maintenance functions; assists in minor maintenance on ground handling equipment and power plant test cells; knows the types and designation of fuels and lubricants and utilizes color code charts for lines and tubing; assists in performing periodic inspections, removing and replacing power plants and power plant components; assists in corrosion prevention procedures, and practices ground safety precautions in the power plant maintenance area. *Level III:* Able to perform the duties required for Level II; performs the complete repair of power plants; performs ground testing and engine run-up; prepares power plants for storage or shipment; accomplishes engine changes; prepares and submits work center reports; conducts technical training; plans, schedules, and supervises work center operations. *Level IV:* Able to perform the duties required for Level III; performs and supervises the complete repair of power plant and power plant systems; serves as a power plant maintenance supervisor and performs the duties of a quality assurance inspector.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 9 semester hours in gas turbine maintenance and repair, 3 in aviation maintenance technology, and 3 in industrial safety (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 12 semester hours in gas turbine maintenance and repair, 6 in aviation maintenance technology, 3 in industrial safety, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6142-001

HELICOPTER STRUCTURES MECHANIC (CH-46)

6142

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6142 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Performs inspections, maintenance, and repair of helicopter structures and components; work is applicable to airplanes and related systems. *Levels I and II:* Uses metal working tools in the maintenance and repair of helicopter components; uses sheers, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of blades, control surfaces, landing gear and tanks; inspects and repairs aircraft with respect to metal (aluminum) composites (fiber glass), rubber and plastic; makes simple dies, templates and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; organizes work assignments while observing acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; performs major structural inspections and repairs; heat-treats metal alloys used in aircraft; repairs, maintains, and rigs blades, air frame and control mechanisms; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft and related equipment; performs aircraft weight and balance checks; supervises complete repairs of helicopter structures and components and administers a helicopter structural repair center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6143-001

HELICOPTER STRUCTURES MECHANIC (CH-53)

6143

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6143 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Performs inspections, maintenance, and repair of helicopter structures and components; work is applicable to airplanes and related systems. *Levels I and II:* Uses metal working tools in the maintenance and repair of helicopter components; uses sheers, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of blades, control surfaces, landing gear and tanks; inspects and repairs aircraft with respect to metal (aluminum) composites (fiber glass), rubber and plastic; makes simple dies, templates and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; organizes work assignments while observing acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; performs major structural inspections and repairs; heat-treats metal alloys used in aircraft; repairs, maintains, and rigs blades, air frame and control mechanisms; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft and related equipment; performs aircraft weight and balance checks; supervises complete repairs of helicopter structures and components and administers a helicopter structural repair center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6144-001

Helicopter Structures Mechanic (U/AH-1)

6144

Exhibit Dates: 4/87-Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6144 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Performs inspections, maintenance, and repair of helicopter structures and components; work is applicable to airplanes and related systems. *Levels I and II:* Uses metal working tools in the maintenance and repair of helicopter components; uses sheers, brakes, grinders, and presses; refers to and complies with technical publications such as color code charts, schematic diagrams, sketches, blueprints and instructions; inspects and maintains powered and non-powered hand tools and related support equipment; performs periodic inspections of system components and assists in removal and replacement of blades, control surfaces, landing gear and tanks; inspects and repairs aircraft with respect to metal (aluminum) composites (fiber glass), rubber and plastic; makes simple dies, templates and jigs to be used in metal working and fabrication of aircraft parts; does riveting of all types; uses established procedures to control and prevent aircraft corrosion; organizes work assignments while observing acceptable industrial safety practices and documents work performed. *Level III:* Able to perform the duties required for Level II; performs major structural inspections and repairs; heat-treats metal alloys used in aircraft; repairs, maintains, and rigs blades, air frame and control mechanisms; conducts on-the-job and technical training. *Level IV:* Able to perform the duties required for Level III; designs cradle structures for moving, handling, and securing aircraft and related equipment; performs aircraft weight and balance checks; supervises complete repairs of helicopter structures and components and administers a helicopter structural repair center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6152-001

Helicopter Hydraulic/Pneumatic Mechanic (CH-46)

6152

Exhibit Dates: 4/87-Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6152 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Maintains, inspects and repairs helicopter hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of helicopter piping and lines; reads schematic diagrams, shop sketches, blueprints and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required by maintenance requirement cards and completes maintenance/repairs as required. *Level III:* Able to perform the duties required for Levels I and II; performs complete repair of helicopter braking systems; removes and replaces hydraulic/pneumatic systems and/or components; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements of helicopter hydraulic/pneumatic systems components; supervises a helicopter hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level helicopter hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in hydraulic systems repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulic systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6153-001

Helicopter Hydraulic/Pneumatic Mechanic (CH-53)

6153

Exhibit Dates: 4/87-Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6153 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Maintains, inspects and repairs helicopter hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of helicopter piping and lines; reads schematic diagrams, shop sketches, blueprints and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required by maintenance requirement cards and completes maintenance/repairs as required. *Level III:* Able to perform the duties required for Levels I and II; performs complete repair of helicopter braking systems; removes and replaces hydraulic/pneumatic systems and/or components; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements of helicopter hydraulic/pneumatic systems components; supervises a helicopter hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level helicopter hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in hydraulic systems repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulic systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6154-001

HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC (U/AH-1)

6154

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6154 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Maintains, inspects and repairs helicopter hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of helicopter piping and lines; reads schematic diagrams, shop sketches, blueprints and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required by maintenance requirement cards and completes maintenance/repairs as required. *Level III:* Able to perform the duties required for Levels I and II; performs complete repair of helicopter braking systems; removes and replaces hydraulic/pneumatic systems and/or components; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements of helicopter hydraulic/pneumatic systems components; supervises a helicopter hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level helicopter hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in hydraulic systems repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulic systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6155-001

HELICOPTER HYDRAULIC/PNEUMATIC MECHANIC (CH-53E)

6155

Exhibit Dates: 4/87–Present.

Occupational Field: 61 (Aircraft Maintenance).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6111 (Aircraft Mechanic - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6155 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Maintains, inspects and repairs helicopter hydraulic/pneumatic systems and system components. *Levels I and II:* Uses color code charts of helicopter piping and lines; reads schematic diagrams, shop sketches, blueprints and interprets applicable technical data; under supervision, performs component repairs; knows and uses fluids and gases in applicable systems; uses precision measuring equipment; assists in or performs inspections required by maintenance requirement cards and completes maintenance/repairs as required. *Level III:* Able to perform the duties required for Levels I and II; performs complete repair of helicopter braking systems; removes and replaces hydraulic/pneumatic systems and/or components; uses and maintains hydraulic/pneumatic test equipment; observes applicable material control procedures; conducts informal on-the-job training; plans, schedules and directs work center assignments. *Level IV:* Able to perform the duties required for Level III; performs and supervises the maintenance/repair requirements of helicopter hydraulic/pneumatic systems components; supervises a helicopter hydraulic/pneumatic check crew or maintenance unit; performs duties as quality assurance inspector; supervises and administers an organizational maintenance level helicopter hydraulic/pneumatic work center.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 12 semester hours in hydraulic systems repair and 3 in aviation maintenance technology (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulic systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6312-001

AIRCRAFT COMMUNICATIONS/NAVIGATION SYSTEMS TECHNICIAN, A-4/TA-4/QA-4

6312

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6312 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs priodic inspections and completes maintenance repair actions in accordance with appropriate technical documents; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair on replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a through understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6313-001

AIRCRAFT COMMUNICATIONS/NAVIGATION SYSTEMS TECHNICIAN, A-6/TC-4C/EA-6A

6313

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6313 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures, coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6314-001

AIRCRAFT COMMUNICATIONS/NAVIGATION SYSTEMS TECHNICIAN, RF-4/F-4

6314

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6314 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6315-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN, AV-8
6315

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6315 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6316-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN, KC-130/OV-10
6316

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6316 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6317-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN, F/A-18

6317

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6317 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6318-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN, OV-10

6318

Exhibit Dates: 7/89–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6318 is awared. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs priodic inspections and completes maintenance repair actions in accordance with appropriate technical documents; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair on replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a through understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6322-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN (CH-46)

6322

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6322 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, and inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs periodic inspections and completes maintenance repair actions in accordance with acceptable procedures; performs periodic inspections and completes maintenace repair actions in accordance with appropriate technical documents; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair on replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6323-001

AIRCRAFT COMMUNICATIONS/
NAVIAGATION SYSTEMS TECHNICIAN
(CH-53)

6323

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job perfomance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6323 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair on replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6324-001

AIRCRAFT COMMUNICATIONS/NAVIGATION
SYSTEMS TECHNICIAN, (U/AH-1)

6324

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6324 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair or replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III, possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6325-001

AIRCRAFT COMMUNICATIONS/NAVIGATION SYSTEMS TECHNICIAN V-22

6325

Exhibit Dates: 7/89–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6311 (Aircraft Communications/Navigation Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6325 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs components, subsystems and ancillary equipment of installed aircraft communications, navigation and deceptive electronics countermeasures systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, solid state devices, integrated circuit components, transformers, motors, generators, and electronic control circuitry including resistance, capacitance, and inductance, as applicable; uses electronic schematics, wiring diagrams and technical data contained in publications pertaining to avionics systems, test equipment, and aircraft; observes safety precautions while working on and around aircraft; diagnoses and isolates systems failures of installed equipment using appropriate test equipment and publications; performs corrective actions of corrosion of electronic components; completes maintenance test forms; operates ground support equipment to perform maintenance of installed systems; performs avionics systems maintenance in accordance with acceptable procedures; performs periodic inspections and completes maintenance repair actions in accordance with acceptable procedures; performs periodic inspections and completes maintenace repair actions in accordance with appropriate technical documents; performs operational tests of installed systems. *Level III:* Able to perform the duties required for Level II; performs maintenance functions for systems including removal, installation, adjustment, alignment of systems components, and repair on replacement of associated aircraft wiring and interconnecting devices; performs inspections of completed maintenance actions; conducts technical training within assigned area; monitors source data collection and assists in the preparation of reports and records; assists in the planning and scheduling of work assignments and supervises maintenance performed on installed systems. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding and working knowledge of sound management principles, work shop supervision, proper training methods, and approved maintenance procedures; coordinates maintenance actions and insures appropriate maintenance documentation is accomplished.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, and 3 in communications/navigation maintenance (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electronic maintenance, 3 in communications/navigation maintenance, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6332-001

AIRCRAFT ELECTRICAL SYSTEM TECHNICIAN, A-4/TA-4/QA-4

6332

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6332 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The designator 6331 (Aircraft Electrical Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6332 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in

electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6333-001

Aircraft Electrical Systems
Technician, A-6/EA-6/TC-4C
6333

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6333 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6334-001

Aircraft Electrical Systems
Technician, RF-4/F-4
6334

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6334 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6334 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6335-001

Aircraft Electrical Systems
Technician, AV-8
6335

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6335 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6336-001

Aircraft Electrical Systems
Technician, KC-130/OV-10
6336

Exhibit Dates: 4/87-Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6336 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6337-001

Aircraft Electrical Systems
Technician, F/A-18
6337

Exhibit Dates: 4/87-Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6337 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6342-001

AIRCRAFT ELECTRICAL SYSTEMS
TECHNICIAN (CH-46)
6342

Exhibit Dates: 4/87-6/89. (Effective 7/89, MOS 6342 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6342 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demonstrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical system including the power supply system, lighting and control systems, power plant system, rotor and drive system, and automatic flight control systems. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components, and wiring in interconnecting devices; conducts pre-flight and post-flight operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, and 3 in electromechanical laboratory (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft electrical maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 in semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6343-001

AIRCRAFT ELECTRICAL SYSTEMS
TECHNICIAN (CH-53)
6343

Exhibit Dates: 4/87-6/89. (Effective 7/89, MOS 6343 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician - Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6343 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demostrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, rotor and drive system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight and operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, and 3 in electromechanical laboratory (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6344-001

AIRCRAFT ELECTRICAL SYSTEMS
TECHNICIAN (U/AH-1)
6344

Exhibit Dates: 4/87-6/89. (Effective 7/89, MOS 6344 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6344 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demostrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, rotor and drive system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight and operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, and 3 in electromechanical laboratory (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6345-001

Aircraft Electrical Systems Technician (CH-53E)

6345

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6345 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6331 (Aircraft Electrical Systems Technician – Trainee) is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6345 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Installs, removes, inspects, tests, maintains and repairs aircraft electrical components, systems and auxiliary equipment. *Levels I and II:* Operates and maintains applicable shop and ground support equipment; practices ground safety procedures and precautions in flight line or hangar operations or in test areas where dangerous voltages or other conditions may exist; demonstrates and applies the knowledge of wire repair; assists in the inspection and testing of electrical components by applying the theory of operation of transistors, diodes, solid state components, integrated circuits, motors, servos, power transmissions and other electrical devices; demostrates the use of electrical schematics, wiring diagrams, color codes, publications and other technical data; under supervision and by using appropriate test equipment, diagnoses failures on aircraft electrical systems including the power supply system, lighting and control systems, power plant system, rotor and drive system, and automatic flight control system. *Level III:* Able to perform the duties required for Level II; performs corrective action on corroded or deteriorated electronic components; performs the removal, installation, adjustment, alignment, and replacement of components and wiring in interconnecting devices; conducts pre-flight and post-flight and operational tests on the aircraft electrical system. *Level IV:* Able to perform the duties required for Level III; possesses a thorough understanding of sound management principles, work center supervision, proper methods of training personnel, and approved electrical systems maintenance; organizes and administers facilities for the maintenance and repair of aircraft electrical systems; performs quality assurance inspections for maintenance and repair of electrical equipment; assists in the planning and supervision of work center assignments.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, and 3 in electromechanical laboratory (12/88).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic laboratory, 9 in aircraft maintenance, 3 in electromechanical laboratory, 3 in personnel supervision, and 3 in maintenance management. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (12/88).

MCE-6352-001

Aircraft Weapons Systems Specialist A-4/TA-4/OA-4

6352

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6352 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician – Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6352 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmission lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management in rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6353-001

AIRCRAFT WEAPONS SYSTEMS SPECIALIST,
A-6/TC-4C

6353

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6353 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmisssion lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests, of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance and repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6354-001

AIRCRAFT WEAPONS SYSTEMS SPECIALIST,
F-4J/S

6354

Exhibit Dates: 4/87–Present.

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6354 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmisssion lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests, of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance and repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6355-001

AIRCRAFT WEAPONS SYSTEMS SPECIALIST,
AV-8

6355

Exhibit Dates: 4/87–6/89. (Effective 7/89, MOS 6355 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5).

SSGT: Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6355 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmisssion lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests, of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance and repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6357-001

AIRCRAFT WEAPONS SYSTEMS SPECIALIST, F/A-18

6357

Exhibit Dates: 4/87-6/89. (Effective 7/89, MOS 6357 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6357 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmisssion lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests, of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance and repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

MCE-6359-001

AIRCRAFT WEAPONS SYSTEMS SPECIALIST, EA-6

6359

Exhibit Dates: 4/87-6/89. (Effective 7/89, MOS 6359 was discontinued.)

Occupational Field: 63 (Avionics).

Career Pattern

PVT: Private (E-1). *PFC:* Private First Class (E-2). *LCP:* Lance Corporal (E-3). *CPL:* Corporal (E-4). *SGT:* Sergeant (E-5). *SSGT:* Staff Sergeant (E-6). *GYSGT:* Gunnery Sergeant (E-7). NOTE: MOS duties are not defined in terms of rank or paygrade, but by levels. Level I identifies tasks that are taught in the classroom; the individual is able to perform simple parts of tasks. Level II identifies those tasks that are part of on-the-job-training; the trainee can do most tasks pertaining to a particular system and needs supervision on more difficult parts of tasks. Level III indicates that the individual can perform all essential tasks without supervision. Level IV indicates a high level of proficiency in job performance; individual can perform advanced technical functions, instruction, inspection, and supervision. The MOS designator 6351 (Advanced Avionics Technician - Trainee), is used to identify individuals in Levels I and II. Upon completion of Level II, MOS 6359 is awarded. Credit is recommended for Levels III and IV.

Description

Summary: Inspects, removes, tests, repairs, installs, and maintains components, subsystems, and related equipment of aircraft attack systems. *Levels I and II:* Applies theory of operation of vacuum tubes, transistors, generators, synchros, servos electromechanical drive mechanisms, transmisssion lines, antenna, impedance, resistance, capacitance, and inductance; uses electronic schematics, block diagrams, wiring diagrams, color codes, and other technical data in appropriate technical publications; uses technical publications to obtain data for supply purposes; observes safety precautions; demostrates working knowledge of emergency first aid; isolates and diagnoses systems failures; operates ground support equipment used in performances of maintenance; possesses necessary operating licenses and performs maintenance and inspections on ground support equipment; performs maintenance action to include inspection and repairs according to applicable technical publications. *Level III:* Able to perform the duties required for Levels I and II; performs operational tests, of installed systems; removes, adjusts, aligns and installs components, and repairs or replaces associated wiring and interconnecting devices; performs necessary corrective actions on corroded electrical components. *Level IV:* Able to perform the duties required for Level III; performs quality assurance inspection for maintenance actions; plans and schedules workshop assignments; supervises maintenance actions; conducts technical training; monitors collection of source data and completes reports and records; possesses working knowledge of sound management principles, workshop supervision, proper personnel training methods and accepted avionics maintenance procedures; organizes and administers maintenance and repair facilities.

Recommendation, Level III

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, and 3 in industrial safety (8/89).

Recommendation, Level IV

In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems troubleshooting, 3 in electromechanical systems troubleshooting, 3 in industrial safety, 3 in maintenance management, and 3 in personnel supervision. In the upper-division baccalaureate category, 2 semester hours for field experience in management if rank was Staff Sergeant (SSG) and 3 semester hours for field experience in management if rank was Gunnery Sergeant (GYSGT) (8/89).

Appendix A

The Evaluation Systems

The American Council on Education has developed and refined comprehensive procedures and criteria for the evaluation of military learning experiences. This appendix outlines the historical development of the *Guide;* defines which courses can be found in the *Guide;* provides background information on Coast Guard ratings and warrant officer specialities and Marine Corps MOS's; describes the evaluation systems used to prepare the recommendations for military formal courses and occupations; and includes definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

BACKGROUND

Early editions of the *Guide to the Evaluation of Educational Experiences in the Armed Services* were prepared in response to specific needs. Immediately after World War II, the consensus in the civilian educational community was that the practice of granting blanket credit to World War I veterans as a reward for length of service was educationally unsound. Educators concluded that military learning experiences applicable to civilian curricula should be assessed by faculty for potential credit. Therefore, in December 1945, at the request of civilian educational institutions and the regional accrediting associations, the American Council on Education established the Commission on Accreditation of Service Experiences—renamed the Commission on Educational Credit and Credentials in 1979—to evaluate military educational programs and to assist institutions in granting credit for such experiences. Accordingly, the first edition of the *Guide* was published to assist educational institutions in evaluating service courses completed by returning veterans.

The extension of the World War II G.I. Bill to include veterans of the Korean conflict, and the subsequent enrollment of many veterans in colleges and universities, created a need for the second edition, published in 1954.

The 1968 edition was prepared in anticipation of the increased enrollment of veterans resulting from the educational assistance provided under the Veterans Readjustment Benefits Act of 1966, and with the expectation that many would apply for educational credit for their learning experiences in the armed services. In addition, technological advances had necessitated major changes in service training, with a resulting need for new or revised educational credit recommendations.

The 1974 edition was prepared primarily to respond to three emerging considerations. First, because of the growth in vocational and technical programs and the emergence of the concept of postsecondary education, there was a need to evaluate courses for possible credit in the vocational and technical categories in addition to the baccalaureate and graduate categories of previous editions. Second, active-duty service men and women were enrolling in increasing numbers in civilian educational programs and were seeking credit for military formal courses soon after completing their service school training. Third, credit recommendations were needed for the many courses initiated or revised by the military since 1968.

The 1974 edition marked the beginning of a new approach to reporting evaluations of formal military training. At its fall 1973 meeting, the Commission approved the concept of an ongoing *Guide* system. Elements of that system include the publication of biennial editions of the *Guide* through computerized composition, continual staff review of courses, and the computerized storage of course information for a more rapid updating of credit recommendations and for an improved ability to respond to inquiries related to course identification and credit recommendations.

Over the years the recommendations contained in the *Guide* have assisted education institutions in granting credit to hundreds of thousands of service men and women. Surveys conducted by ACE showed that most of the nation's colleges and universities use the formal course recommendations in awarding credit to veterans and active-duty service personnel. The recommendations have been widely accepted because military formal courses share certain key elements with traditional postsecondary programs: they are formally approved and administered, are designed for the express purpose of achieving learning outcomes, are conducted by qualified persons with specific subject-matter expertise, and are structured to provide for the reliable and valid assessment of student learning.

Until 1975, however, no mechanism existed for providing recognition for the learning a service man or woman attained through such learning experiences as self-instruction, on-the-job training, and work experience. As a first step in providing recognition for such learning experiences, the Commission in 1975 implemented a program for the evaluation of learning represented by demonstrated proficiency in Army enlisted military occupational specialties (MOS's). The MOS evaluation procedures were developed, tested, and refined during a feasibility study conducted by the Council and sponsored by the U.S. Department of the Army. Evaluators made recommendations for educational credit and advanced standing in apprentice training programs. Subsequently, the occupational assessment program of the Commission was expanded to include Navy general rates, ratings, warrant officers and limited duty officers, Army warrant officer MOS's, Navy warrant officer and limited duty officer specialities, Coast Guard enlisted ratings and warrant officers and selected Marine Corps MOS's. A small number of Naval Enlisted Classifications (NECs) have also been evaluated.

The recommendations for advanced standing in apprentice training programs are the result of the cooperative efforts of the American Council on Education and labor and industry. Since the Navy programs are now registered with the Bureau of Apprenticeship and Training, recommendations are no longer made for advanced standing in apprenticeship programs.

The recommendations reflect the Commission's belief that it is sound educational practice to give recognition for learning, no matter how or where that learning has been attained, provided that the learning is at the appropriate level, is in the appropriate area, and is applicable to an individual's postsecondary program of study or apprenticeship program.

THE COURSES

Courses listed in the *Guide* are normally service school courses conducted on a formal basis, i.e., approved by a central authority within each service and listed by the service in its catalog. These courses are conducted for a specified period of time with a prescribed course of instruction, in a structured learning situation, and with qualified instructors.

Most courses are given on a full-time basis. After 1981 The Center began evaluation of courses that are 45 academic hours in length. Prior to that time courses evaluated were at least of two weeks duration; or, if less than two weeks in length, the course had to include a minimum of sixty contact hours of instruction. Before 1973 the minimum length requirement was three weeks or 90 contact hours.

Recommendations for formal courses offered between World War II and 1954 are available in the 1954 edition of the *Guide* or from The Center for Adult Learning and Educational Credentials upon written request by education officials. Courses in this *Guide* have a start date no earlier than 1954. In addition, military Subject Standardized Tests (SSTs) are evaluated by the American Council on Education, and are included in the *Handbook to the Guide*.

THE COURSE EVALUATION SYSTEM

In the fall of 1973, the Commission on Educational Credit and Credentials of the American Council on Education approved the following procedures and guidelines for the evaluation of military formal courses.

The Evaluation Process

Courses are evaluated by teams of at least three subject-matter specialists (college and university professors, deans, and other academicians). Through discussion and the application of evaluation procedures and guidelines, team members reach a consensus on the amount and category of credit to be recommended.

Evaluation materials include the course syllabus, training materials, tests, textbooks, technical manuals, and examinations. Additional information is obtained from interviews with instructors and program administrators, classroom observations, and examination of instructional equipment and laboratory facilities.

Each team of evaluators has two major tasks for each course: the formulation of a credit recommendation and the preparation of the course's description. The credit recommendation consists of the category of credit, the number of semester hours recommended, and the appropriate subject area. Using the information provided in the military syllabus, evaluators phrase the course description (which appears in the *Guide* exhibits under the headings "Objectives" or "Learning Outcomes" and "Instruction") in terms meaningful to civilian educators. The course description supplements the credit recommendations by summarizing the nature of a given course.

Throughout the evaluation process, evaluators exercise professional judgment in applying the evaluative criteria and procedures. This position reflects the Commission's belief that sound educational evaluation is more dependent on professional judgment and expertise than on rigid application of criteria.

The Commission on Educational Credit and Credentials continually reviews its criteria and procedures. Evaluators are encouraged to provide feedback and recommendations for consideration by the Commission.

Selection of Evaluators

Nominations for course evaluators are requested from postsecondary institutions, professional and disciplinary societies, education associations, and regional accrediting associations.

The criteria for the selection of formal course evaluators are as follows:

1. Area of an evaluator's competence, as evidenced by formal training and experiences, will closely approximate area of student training to be evaluated.
2. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.
3. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

THE COAST GUARD ENLISTED OCCUPATIONAL CLASSIFICATION SYSTEM

Enlisted Rating Structure

The Coast Guard Enlisted Rating Structure is used for classifying enlisted personnel, identifying personnel qualifications, and reporting personnel requirements and resources. It also provides the framework for enlisted career development through paths of advancement from paygrades E–1 (recruit) through E–9 (master chief petty officer). For ACE purposes, there are two main types of occupational classifications in the Enlisted Ratings Structure:

1. General Rates (Apprenticeships)—Identifications assigned to personnel at paygrades E–1, E–2, and E–3. There are two general rates: Seaman and Fireman. They each involve the performance of entry-level tasks and lead to the ratings.
2. Ratings—Broad occupational fields that encompass similar duties and functions and that, in most instances, provide paths of advancement and career development for personnel from paygrades E–4 (petty officer third class) to E–9 (master chief petty officer). Ratings require performance of routine tasks at the lower paygrades and more difficult tasks at progressively higher paygrades. The relationship between petty officer designations and paygrades is shown below.

Petty Officer Classification	Pay Grade
Petty Officer Third Class (PO3)	E–4
Petty Officer Second Class (PO2)	E–5
Petty Officer First Class (PO1)	E–6
Chief Petty Officer (CPO)	E–7
Senior Chief Petty Officer (SCPO)	E–8
Master Chief Petty Officer (MCPO)	E–9

General rates and ratings are organized in career patterns. A career pattern provides the normal path of advancement from recruit (paygrade E–1) to master chief petty officer (paygrade E–9). An example of a career pattern using the Seaman general rate and the Quartermaster rating is shown here.

Title	Pay Grade
Seaman Recruit	E–1
Seaman Apprentice	E–2
Seaman	E–3
Quartermaster Third Class	E–4
Quartermaster Second Class	E–5
Quartermaster First Class	E–6
Chief Quartermaster	E–7
Senior Chief Quartermaster	E–8
Master Chief Quartermaster	E–9

Standards for Advancement

The Coast Guard's requirements for enlisted minimum skills are defined and contained in two types of minimum standards: Military Standards and Occupational Standards. Military standards consist of qualifications (knowledge and practical factors) which specify the skills and knowledge required as a minimum for advancement to specific pay grades. These include military requirements and professional development standards. Occupational standards specify the skills and knowledges which apply to enlisted personnel as a minimum for advancement in a specific general rate or rating in addition to the military standards. They are divided into practical and knowledge factors and are presented as individual qualification items. For both military standards and occupational standards, each higher paygrade represents more complex duties, increased skills, and greater responsibility.

Special Qualifications

The Coast Guard's special qualifications, identified by Qualification Codes, supplement the enlisted rating structure by identifying special skills and knowledge that require a more refined or specific identification by the assignment of qualification codes to enlisted personnel who meet the stated eligibility requirements. Qualification codes are normally attained by the completion of a technical school or, in some cases, on-the-job training. Because of the specialized nature and limited scope of the skills and qualifications required, qualification codes have not been evaluated.

The Coast Guard Enlisted Evaluation and Advancement System

The Coast Guard regularly evaluates the occupational proficiency of its men and women. In fact, the demonstration of occupational proficiency is directly linked to the advancement system. Individuals are allowed to take the advancement examination after meeting these four criteria: (1) demonstrate that they can perform the tasks required for the next higher paygrade, (2) complete the appropriate correspondence and/or residence courses for the next higher paygrade, (3) serve a minimum length of time in their paygrade and in the service, and (4) be recommended by their commanding officer.

The primary evaluation technique is the written examination for each paygrade of each rating. It contains 175–200 multiple-choice questions that are based on the occupational standards and tasks for each paygrade of a given rating. It is given more weight than any other factor in the evaluation process. Persons are not advanced in their rating until they have demonstrated that they are proficient in the next higher paygrade of the rating. A final multiple score is computed for each individual. It is composed of the following factors:

Factor	*Maximum Credit*
Servicewide Exam Score	80
Performance Marks	50
Time in Service	20
Time in Paygrade	20
Medals and Awards	10
Bonus Points	2
Total Possible	182

THE COAST GUARD WARRANT OFFICER CLASSIFICATION SYSTEM

Warrant officers are technical officer specialists who perform duties that are technically oriented and acquired through experience and training, and that are limited in scope in relation to other officer categories.

There are four grades of warrant officers: Warrant Officer, W–1 (WO1) (discontinued in 1975); Chief Warrant Officer, W–2 (CWO2); Chief Warrant Officer, W–3 (CWO3); and Chief Warrant Officer, W–4 (CWO4). The grades reflect salary increases and are normally indicative of the length of time a person has served as a warrant officer. The grades do not signify differences in job duties. A position requiring a warrant officer may be filled by any qualified warrant from WO1 to CWO4.

Selection and Evaluation

The warrant officer program provides an opportunity for appointment to commissioned warrant officer status for selected senior enlisted personnel. Competition is keen and individuals generally start preparing early in their careers. Potential candidates normally improve their skills through on-the-job training and specialized training through schools and correspondence courses.

Selection boards, composed of senior officers of experience, maturity, and varied backgrounds, are convened annually. Each candidate's qualifications are evaluated and the board recommends those deemed best qualified.

Selection boards also meet annually to recommend those qualified for promotion. Performance is the major key to promotion. The selection procedure for promotion has always recognized the outstanding performer; mediocre performers are judged not to be competitive enough. Evaluations are recorded on Officer Evaluation Reports, an objective appraisal of performance by the senior reporting officer.

Time-in-grade is another criterion for promotion. Until May 1967, the time-in-grade requirements were:

Promotion to W–2: 2 years in grade W–1
Promotion to W–3: 4 years in grade W–2
Promotion to W–4: 4 years in grade W–3.

After May 1, 1967, grade W–1 was discontinued; time-in-grade requirements are now:

Promotion to W–3: 4 years in grade W–2
Promotion to W–4: 4 years in grade W–3.

THE MARINE CORPS ENLISTED OCCUPATIONAL CLASSIFICATION SYSTEM

The Marine Corps MOS system is composed of Occupational Fields and MOS's within each field. The occupational system is constructed on the concept that similar skill and knowledge requirements are grouped in functional areas (occupational fields), which provide for the most efficient and effective classification, assignment, promotion, and utilization of personnel.

An MOS code has four digits and a descriptive title. The MOS describes a group of related duties and tasks that extend over one or more grades. The first two digits designate the occupational field and the last two digits identify the promotional channel and the specialty within the occupational field. The fourth digit may be a skill designator, which identifies additional skill or knowledge requirements usually acquired through experience or advanced schooling. A "0" in the fourth digit indicates a *basic MOS* (see next paragraph), and a "1" indicates trainee status. In some occupational fields, primarily the aviation fields, the skill designator may refer to the particular type of aircraft on which the Marine is qualified.

Each occupational field contains a *basic MOS*, which represents the learner level (e.g., MOS 6000 is a Basic Aircraft Maintenance Marine). It is assigned as a specific MOS in that field when assigned for training. When in retraining status, a Marine's primary MOS will be changed to the basic MOS.

There are two main categories of MOS's. Category "A" enlisted MOS's (occupational fields 01 through 73) are assigned as primary MOS's. Enlisted personnel are promoted on the basis of holding a category A primary MOS. A category A MOS identifies the primary skill and knowledge of a Marine.

Category "B" MOS's (8000–9599 series) are used to identify billets. They may be assigned only as additional MOS's. These MOS's designate a particular skill or training that is in addition to a Marine's primary MOS.

The relationship between rank and paygrade is shown here:

Private (PVT)	E-1
Private First Class (PFC)	E-2
Lance Corporal (LCP)	E-3
Corporal (CPL)	E-4
Sergeant (SGT)	E-5
Staff Sergeant (SSGT)	E-6
Gunnery Sergeant (GYSGT)	E-7
First Sergeant (1STSGT)/Master Sergeant (MSGT)	E-8
Sergeant Major (SGT/MAJ)/ Master Gunnery Sergeant (MGYSGT)	E-9

Performance Evaluation System

At this time only the *aircraft maintenance* and *avionics* occupational fields have established a performance evaluation system that meets ACE's criteria. The evaluation program, known as *Individual Training Standards System (ITSS), Maintenance Training Management and Evaluation Program (MATMEP),* provides for the evaluation of a Marine's job performance. It is a standardized, documentable, level-progressive, technical skills management and evaluation program for enlisted aviation technical maintenance training.

The *ITSS (MAPMEP)* is organized as a two-way grid. The row headings identify the specific duties and tasks which define an MOS. The column headings identify the skill levels at which each MOS duty and task is performed. When a Marine can perform a particular task at a specified level of skill, the Marine's supervisor evaluates the performance. If the Marine performs satisfactorily, the supervisor dates and signs the *ITSS (MATMEP)*. When all duties and tasks defining a particular skill level can be performed satisfactorily by a Marine, the supervisor dates and signs the *ITSS (MATMEP)* summary sheet in the location designated "Completed Level ______". When a Marine's *ITSS (MATMEP)* summary sheet indicates that the Marine has completed Level III, this indicates that *all* the MOS-requisite tasks have been certified at Level III and that the ACE credit recommendations may be applied.

For aircraft maintenance and avionics MOS's, Marines typically attend one of the formal training schools. This training is then followed by formal and informal on-the-job training at a fleet duty post. The *ITSS (MATMEP)* Levels I and II reflect the initial training or apprentice levels of an MOS. Upon completion of the initial training school, a Marine is typically certifiable at Level I. After one or two years of post-school on-the-job experience, the Marine may be certified as a Level II performer.

Level III MOS attainment represents an advanced or skilled level of performance of an assigned job and indicates that a Marine can perform the technical aspects of the task or job with little or no supervision. It ordinarily takes three or four years of working in an MOS for a Marine to attain Level III certification.

Level IV indicates that the Marine is a highly skilled performer and is able to supervise lower-skill-level-MOS holders on a regular basis and can perform shop management duties related to the MOS.

It should be noted that a Marine's level of certification is not directly related to the Marine's military rank. Both military rank and skill level are associated with the length of time a Marine has served—the longer the time in service the more likely is a Marine to hold a higher rank and the more likely is a Marine to have acquired a higher level of MOS skill. However, rank and MOS skill proceed on independent tracks in many instances. In certain instances (e.g., when a longer-serving Marine switches from one MOS to another), a corporal may be certified at a higher skill level in a specific MOS than a sergeant in the same MOS.

ACE Credit Recommendations

Credit has been recommended for Levels III and IV in 18 *aircraft maintenance* and *avionics* MOS's. These evaluations may be found beginning on page 4-1 in this volume.

To document proficiency, institutions should verify that Level III or Level IV has been attained by checking the *ITSS (MATMEP)* summary sheet. This sheet is available to Marines from their duty station supervisors. The form must be signed by a certifying officer.

ACE OCCUPATIONS EVALUATION SYSTEM

The ACE evaluation system for occupations has three major components: the selection of evaluators, the materials required for evaluation, and the procedures and guidelines evaluators use in reaching decisions and making recommendations.

Selection of Evaluators

Nominations for evaluators are requested from postsecondary institutions; professional associations; disciplinary societies; education associations; regional accrediting associations; state departments of education; and state credentialing, licensing, and certifying agencies.

The criteria for selection of evaluators are as follows:

1. The area of an evaluator's competency, as evidenced by formal occupational training, knowledge, and experience, will closely approximate the skills, competencies, and knowledge required for proficiency in the occupation being evaluated.
2. When recommendations were made for apprenticeship programs, preference was given to candidates who were experienced in administration of apprentice training programs when an occupation was related to an apprenticeable trade.
3. Preference will be given to candidates with five or more years of postsecondary teaching or administrative experience, including curriculum development.
4. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

An evaluator candidate is interviewed by an ACE staff member to determine whether the individual meets the selection criteria.

Evaluations are conducted by teams of at least three specialists. An effort is also made to attain a diverse geographic representation among evaluators. Teams are formed based on the occupations to be evaluated. Because skills required for proficiency in an occupational specialty do not always fall neatly into civilian educational and occupational fields and often encompass two or more fields, most evaluation teams include a curriculum generalist. Provision is also made for an evaluation team, when it finds it cannot thoroughly evaluate a specialty, to refer it to another team or other specialists for further evaluation.

Materials Required for Evaluation

In order to make a recommendation, evaluators first identify the skills, competencies, and knowledge associated with a given occupational specialty. The materials relevant for each evaluation are made available to ACE staff members and evaluators by the Military services. Materials include the official Coast Guard manuals that describe the duties and qualifications for each occupation; rate training manuals and other publications used by Coast Guard enlisted men and women in the day-to-day performance of their duties and to prepare for their advancement examinations; and the advancement examination. Marine Corps materials include the official MOS manual that describes the duties and qualifications for each MOS; individual training standards manuals; and the Maintenance Training Management and Evaluation Program (MATMEP) task list. Additional information is obtained by observing and interviewing Coast Guard men and women and Marines during visits to bases and units.

Evaluation Procedures and Guidelines

Evaluators identify the skills, competencies, and knowledge required of service men and women who are qualified in a given occupational specialty and relate that demonstrated learning to the same attributes acquired by students who have completed a comparable postsecondary course or curriculum and by tradesmen and apprentices who have completed a related apprentice training program. Because the evaluations are based on a comparison of learning outcomes, the amount of time a given individual may have spent acquiring occupational proficiency is not taken into consideration. The emphasis is on translating the learning demonstrated through occupational proficiency into terms used in formal civilian postsecondary education systems to recognize the same learning. This reflects the belief of the Commission on Educational Credit and Credentials that the value of learning is not dependent on where or how the learning occurs.

Evaluation teams are assigned four tasks in the evaluation process: (1) to identify the learning represented by occupational proficiency by reviewing the pertinent written materials and by observing men and women performing their occupations and interviewing them and their supervisors; (2) to prepare a description of the duties, skills, competencies, and knowledge required for each specialty; (3) to make recommendations for each specialty based on discussion and consensus; and (4) to make specific comments and suggestions about the specialties (especially in those instances when neither educational credit nor advanced standing in an apprentice training program is recommended), which are forwarded by ACE to Coast Guard or Marine Corps headquarters.

THE RECOMMENDATIONS

In order to interpret exhibits correctly, readers should become thoroughly familiar with the definitions and guidelines utilized by evaluators in formulating the recommendations. The following paragraphs include definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

Categories of Credit

Educational credit is a concept used by postsecondary institutions to quantify and record a student's successful completion of a unit of study. Postsecondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. ACE evaluators utilize the following categories of educational credit when formulating credit recommendations:

Vocational Certificate. This category describes course work of the type normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied science. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

Lower-Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degree, the traditional transfer associate degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper-Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed a baccalaureate program.

Semester Hours

Credit recommendations for courses are not derived by simple arithmetic conversion. Evaluators exercise professional judgement and consider only those portions of a course that can be equated with civilian postsecondary curricula. Intensive courses offered by the military do not necessarily require as much outside preparation as many regular college courses. Evaluators consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

The recommendations for military occupations are based on the skills, competencies, and knowledge gained, as demonstrated through proficiency in the rating, without reference to how much time elapsed during the learning process. The semester hour is used as a standard to express how many semester hours of appropriate course work a student would normally complete to attain the same learning outcomes or attest to the same level of competency.

Credit recommendations are expressed in semester credit hours. In determining semester hour recommendations, evaluators will be guided by, but not restricted to, the following standard definitions:

1. One semester credit hour for the equivalent of 15 hours of classroom contact plus 30 hours of outside preparation; or
2. One semester credit hour for the equivalent of 30 hours of laboratory work plus necessary outside preparation, normally expected to be 15 hours; or
3. One semester credit hour for the equivalent of not less than 45 hours (contact hours) of shop instruction.

Other Recommendations

The Defense Activity for Non-Traditional Education Support (DANTES) maintains the educational records of the service men and women who have completed SSTs, CLEP examinations, and GED Tests.

The results of courses and tests that were taken under the auspices of USAFI (United States Armed Forces Institute, disestablished 1974) which carry academic credit and were submitted prior to June 30, 1974, are available at no cost from DANTES Contractor Representative (transcripts),P.O. Box 2879, Princeton, New Jersey 08541.

Results of Subject Standardized Tests and CLEP examinations taken under the auspices of DANTES after July 1, 1974, are available at a nominal charge from DANTES Contractor Representative (CLEP), Educational Testing Service, P.O. Box 2819, Princeton, New Jersey 08541. Servicemembers and veterans are required to pay a $10.00 fee for USAFI transcripts. Military education personnel can obtain them free of charge.

Test reports for GED Tests taken after July 1, 1974, can be obtained from DANTES Contractor Representative (GED), GED Testing Service, American Council on Education, One Dupont Circle, Washington, DC 20036-1193.

In addition, credit recommendations for USAFI courses and tests and for DANTES Subject Standardized Tests are available from ACE and published in the *Handbook to the Guide.*

Appendix B

Sample Military Records

- DD Form 295 (November 1986) Application for the Evaluation of Learning Experiences During Military Service, page B–2
- DD Form 214 (July 1979) Certificate of Release or Discharge from Active Duty, page B–6
- Sample Course Completion Certificate, page B–7
- CG–3303 (May 1959) (Coast Guard enlisted) Achievement Sheet, page B–8
- CG–5311 (December 1988) Officer Evaluation Report (OER), page B–10
- ITSS (MATMEP) Individual Duty Area Qualification Summary, page B–14

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

(Date)

TO: (Name and address of educational institution, agency, or employer)

EVALUATION REQUEST FOR:

(Name of Applicant)

(Social Security Number)

ATTENTION:

Dear Official:

The applicant named above has requested that the attached summary of educational achievements, accomplished while in the Armed Forces of the United States, be forwarded to you for review and evaluation.

The American Council on Education publishes the *Guide to the Evaluation of Educational Experiences in the Armed Services* which includes postsecondary credit evaluations of military learning experiences. The 1954 edition of the *Guide* contains recommendations for formal courses offered by the Armed Services during the period 1941 to 1954. The current edition contains credit recommendations for (1) military training courses offered after 1954; (2) Army military occupational specialties (MOS's) for enlisted personnel and warrant officers; (3) ratings held by Navy and Coast Guard enlisted personnel; and (4) occupational designators held by Navy and Coast Guard warrant officers and Navy limited duty officers. In addition to recommendations for semester hour credits, some Army enlisted MOS's and Navy ratings also have recommendations for advanced standing in apprentice training programs.

The American Council on Education maintains an advisory service to provide credit recommendations for courses and tests, MOS's, ratings, and other occupations evaluated after the publication date of the current *Guide*. Credit recommendations are provided to officials of schools, state departments of education or other educational institutions, employers, apprenticeship training directors, labor union and trade association officials, military education officers and applicants. *Credit recommendations are not provided to officials at the applicant's request.* Authorized persons may write directly to the Military Evaluations Program Office, American Council on Education, One Dupont Circle, N.W., Washington, D.C. 20036-1193.

The evaluation of this applicant's learning experiences, as well as any guidance which you may provide, should be sent directly to the applicant at the address shown in block 6 on page 3. Your interest is genuinely appreciated.

Sincerely,

(Education Officer)

Privacy Act Statement

AUTHORITY:	5 USC 301 and EO 9397, November 1943 (SSN).
PRINCIPAL PURPOSE:	To permit authorized agencies to evaluate military experience for academic placement and/or employment.
ROUTINE USES:	Used at the request of the individual for the evaluation of military training.
DISCLOSURE:	Voluntary; however, failure to provide requested information impedes the evaluation process by educational institutions or potential employers.

INSTRUCTIONS TO APPLICANT

DD Form 295 is for your convenience in applying for evaluation of your educational experiences during military service. Give as much detailed information as possible. Include additional information on separate sheets, if necessary.

You are encouraged to write a preliminary letter to the school or agency concerned, explaining your interest in its evaluation of your records for the continuance of your education. Training, correspondence study, or special experiences not described on this form, which you believe would be of interest to those reviewing your case, should be included in this letter.

The applicant should:

a. Complete items 1 through 15

b. If you have attended college or completed any college correspondence courses, ask that college to send a transcript to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY COLLEGE OR UNIVERSITY COURSES ON THIS FORM.

c. If you have completed any college-level standardized examinations for credit, such as USAFI or DANTES Subject Standardized Tests, or CLEP, ask the appropriate agency to send a score report to the Registrar of the evaluating agency that this form is addressed to. DO NOT LIST ANY EXAMINATIONS ON THIS FORM.

d. After completion, submit this DD Form 295 to the Certifying Officer.

INSTRUCTIONS TO CERTIFYING OFFICER

(Custodian of Personnel Records)

DD Form 295 is intended to provide factual information that schools and other evaluating agencies require for evaluation of the applicant's educational achievement. CERTIFYING OFFICERS WILL NOT MAKE RECOMMENDATIONS REGARDING CREDIT TO BE AWARDED.

The certifying officer should:

a. Complete items 16 through 18

b. Insure that the information provided in Section II is documented in the applicant's Service Record. Names of schools or courses should not be abbreviated.

c. Send this DD Form 295 to the Education Officer.

INSTRUCTIONS TO EDUCATION OFFICER

The education officer should:

a. Complete item 19.

b. Counsel the service member.

c. Complete page 1. The name and address of the evaluating agency should be the same as that listed at the top of page 3 of this form.

PAGE 1 IS IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THE LETTER TO BE WRITTEN TO THE EVALUATING AGENCY BY THE APPLICANT.

d. Mail DD Form 295 directly to the designated evaluating agency.

APPLICATION FOR THE EVALUATION OF LEARNING EXPERIENCES DURING MILITARY SERVICE

TO *(Name and address of educational institution, agency, or employer)*

SECTION I - TO BE COMPLETED BY APPLICANT

1. NAME *(Last, First, Middle Initial)*	**2. GRADE/RANK OR RATING**	**3. SOCIAL SECURITY NO.**	**4. PREVIOUS SERVICE NUMBER(S)**

5. PRESENT BRANCH OF SERVICE *(Includes National Guard and Reserve components)*
☐ a ARMY ☐ b NAVY ☐ c AIR FORCE ☐ d MARINE CORPS ☐ e COAST GUARD

6. APPLICANT'S MAILING ADDRESS FOR REPLY FROM EDUCATIONAL INSTITUTION

7. DATE OF BIRTH	8. PERMANENT HOME ADDRESS

CIVILIAN EDUCATION

9. HIGHEST GRADE OF SCHOOL COMPLETED *(X one)*
☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12

10. HIGHEST YEAR OF COLLEGE COMPLETED *(X one)*
☐ a NONE ☐ b FRESHMAN ☐ c SOPHOMORE ☐ d JUNIOR ☐ e SENIOR

11. COLLEGE DEGREE EARNED *(X if applicable)*
☐ a ASSOCIATE ☐ b BACHELOR

12. EDUCATIONAL INSTITUTION LAST ATTENDED

a NAME	b MAILING ADDRESS

13. USAFI COURSES COMPLETED IN SERVICE (Prior to 1974)
(The applicant should request a transcript for all courses to be forwarded directly to the evaluating agency.)

a CATALOG NUMBER AND TITLE OF COURSE *(If no courses were taken, print NONE)*	b METHOD OF STUDY *(Correspondence, self teaching, locally conducted classes, etc.)*	c LOCATION WHERE COMPLETED	d DATE COURSE COMPLETED
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			

14. MILITARY CORRESPONDENCE COURSE COMPLETED
(The applicant should attach a copy of the course completion letter or certificate.)

a COURSE NAME *(If no courses were taken, print NONE)*	b COURSE SPONSOR *(AIPD, MCI, ECI, CGI)*	c DATE COURSE COMPLETED
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		

15. APPLICANT CERTIFICATION: I have read the Privacy Act Statement on Page 2.

a SIGNATURE	b DATE SIGNED

SECTION II - TO BE COMPLETED BY CERTIFYING OFFICER

(Read Instructions on Page 2 before completing this page)

16. FORMAL SERVICE SCHOOLS ATTENDED (If longer than one week) *(If none, print NONE)*

a COURSE TITLE	b MILITARY COURSE NUMBER	c NAME OF SCHOOL, CITY, STATE	d DATE ENTERED	e LENGTH[1] *(In weeks)*	f DATE COMPLETED	g FINAL MARK AND/OR CLASS STANDING[2]	**19. ACE GUIDE COURSE OR OCCUPATION IDENTIFICATION NO.** *(To be filled out in Education Center)*
(1)							
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

17. MILITARY OCCUPATIONAL HISTORY

a MILITARY SPEC CODE *(MOS, AFSC, Rate, etc.)*[3]	b MILITARY OCCUPATIONAL TITLE *(Do Not Abbreviate)*	c DATES HELD		d MOS/SQT SCORE *(For Army Enlisted Personnel[4])*
		From *(Mo/yr)*	To *(Mo/yr)*	
(1)				
(2)				
(3)				

NOTES:

[1] Print **SP** if course length was self paced

[2] If information is available, give grade received. If class standing is shown, give number in class, e.g., 10 in 241

[3] List most recent skill levels or grade

[4] MOS/SQT Evaluation Score and Date of evaluation

THIS APPLICATION MUST BE SIGNED BY AN OFFICER OR A DULY AUTHORIZED NONCOMMISSIONED OFFICER.

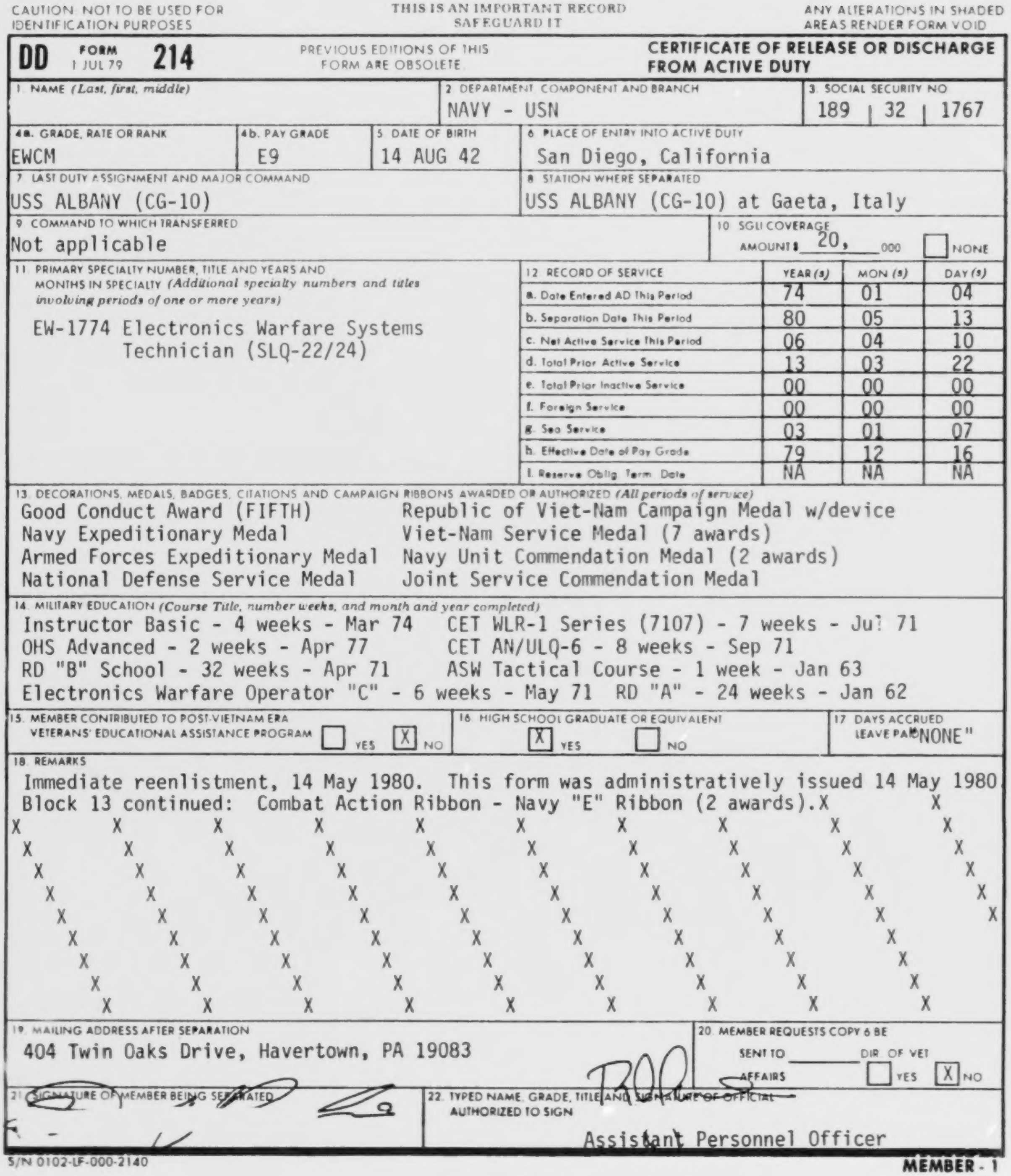
I certify that the information contained herein has been compared with official records, and that this information is correct.

18. CERTIFYING OFFICER

a NAME *(Print or Type)*	b GRADE/RANK	c MILITARY ADDRESS *(Include ZIP Code)*
d SIGNATURE	e DATE SIGNED	

DD Form 295, NOV 86

☆ U.S. Government Printing Office 1988—201-424/70787



CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD SAFEGUARD IT

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

DD FORM 1 JUL 79 214

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY

1. NAME (Last, first, middle):
2. DEPARTMENT, COMPONENT AND BRANCH: NAVY - USN
3. SOCIAL SECURITY NO: 189 | 32 | 1767

4a. GRADE, RATE OR RANK: EWCM
4b. PAY GRADE: E9
5. DATE OF BIRTH: 14 AUG 42
6. PLACE OF ENTRY INTO ACTIVE DUTY: San Diego, California
7. LAST DUTY ASSIGNMENT AND MAJOR COMMAND: USS ALBANY (CG-10)
8. STATION WHERE SEPARATED: USS ALBANY (CG-10) at Gaeta, Italy
9. COMMAND TO WHICH TRANSFERRED: Not applicable
10. SGLI COVERAGE AMOUNT: $ 20,000 ☐ NONE

11. PRIMARY SPECIALTY NUMBER, TITLE AND YEARS AND MONTHS IN SPECIALTY (Additional specialty numbers and titles involving periods of one or more years)

EW-1774 Electronics Warfare Systems Technician (SLQ-22/24)

12. RECORD OF SERVICE	YEAR(s)	MON(s)	DAY(s)
a. Date Entered AD This Period	74	01	04
b. Separation Date This Period	80	05	13
c. Net Active Service This Period	06	04	10
d. Total Prior Active Service	13	03	22
e. Total Prior Inactive Service	00	00	00
f. Foreign Service	00	00	00
g. Sea Service	03	01	07
h. Effective Date of Pay Grade	79	12	16
i. Reserve Oblig. Term. Date	NA	NA	NA

13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED (All periods of service)

Good Conduct Award (FIFTH)
Navy Expeditionary Medal
Armed Forces Expeditionary Medal
National Defense Service Medal
Republic of Viet-Nam Campaign Medal w/device
Viet-Nam Service Medal (7 awards)
Navy Unit Commendation Medal (2 awards)
Joint Service Commendation Medal

14. MILITARY EDUCATION (Course Title, number weeks, and month and year completed)

Instructor Basic - 4 weeks - Mar 74
OHS Advanced - 2 weeks - Apr 77
RD "B" School - 32 weeks - Apr 71
CET WLR-1 Series (7107) - 7 weeks - Jul 71
CET AN/ULQ-6 - 8 weeks - Sep 71
ASW Tactical Course - 1 week - Jan 63
Electronics Warfare Operator "C" - 6 weeks - May 71
RD "A" - 24 weeks - Jan 62

15. MEMBER CONTRIBUTED TO POST-VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM ☐ YES ☒ NO
16. HIGH SCHOOL GRADUATE OR EQUIVALENT ☒ YES ☐ NO
17. DAYS ACCRUED LEAVE PAID: "NONE"

18. REMARKS

Immediate reenlistment, 14 May 1980. This form was administratively issued 14 May 1980. Block 13 continued: Combat Action Ribbon - Navy "E" Ribbon (2 awards).X X

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19. MAILING ADDRESS AFTER SEPARATION: 404 Twin Oaks Drive, Havertown, PA 19083
20. MEMBER REQUESTS COPY 6 BE SENT TO ______ DIR. OF VET AFFAIRS ☐ YES ☒ NO
21. SIGNATURE OF MEMBER BEING SEPARATED:
22. TYPED NAME, GRADE, TITLE AND SIGNATURE OF OFFICIAL AUTHORIZED TO SIGN: Assistant Personnel Officer

S/N 0102-LF-000-2140

MEMBER - 1

CAUTION: NOT TO BE USED FOR IDENTIFICATION PURPOSES

THIS IS AN IMPORTANT RECORD SAFEGUARD IT

ANY ALTERATIONS IN SHADED AREAS RENDER FORM VOID

DD FORM 1 JUL 79 **214**

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

CERTIFICATE OF RELEASE OR DISCHARGE FROM ACTIVE DUTY

1. NAME *(Last, first, middle)*	2. DEPARTMENT, COMPONENT AND BRANCH NAVY - USN	3. SOCIAL SECURITY NO 189 | 32 | 1767

4a. GRADE, RATE OR RANK EWCM	4b. PAY GRADE E9	5. DATE OF BIRTH 14 AUG 42	6. PLACE OF ENTRY INTO ACTIVE DUTY San Diego, California

7. LAST DUTY ASSIGNMENT AND MAJOR COMMAND: USS ALBANY (CG-10)

8. STATION WHERE SEPARATED: USS ALBANY (CG-10) at Gaeta, Italy

9. COMMAND TO WHICH TRANSFERRED: Not applicable

10. SGLI COVERAGE AMOUNT $ 20, 000 ☐ NONE

11. PRIMARY SPECIALTY NUMBER, TITLE AND YEARS AND MONTHS IN SPECIALTY *(Additional specialty numbers and titles involving periods of one or more years)*

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13. DECORATIONS, MEDALS, BADGES, CITATIONS AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED *(All periods of service)*

Good Conduct Award (FIFTH)
Navy Expeditionary Medal
Armed Forces Expeditionary Medal
National Defense Service Medal
Republic of Viet-Nam Campaign Medal w/device
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ASW Tactical Course - 1 week - Jan 63
RD "A" - 24 weeks - Jan 62

15. MEMBER CONTRIBUTED TO POST-VIETNAM ERA VETERANS' EDUCATIONAL ASSISTANCE PROGRAM ☐ YES ☒ NO

16. HIGH SCHOOL GRADUATE OR EQUIVALENT ☒ YES ☐ NO

17. DAYS ACCRUED LEAVE PAID "NONE"

18. REMARKS

Immediate reenlistment, 14 May 1980. This form was administratively issued 14 May 1980.
Block 13 continued: Combat Action Ribbon - Navy "E" Ribbon (2 awards).X X
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404 Twin Oaks Drive, Havertown, PA 19083

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21. SIGNATURE OF MEMBER BEING SEPARATED

22. TYPED NAME, GRADE, TITLE AND SIGNATURE OF OFFICIAL AUTHORIZED TO SIGN
Assistant Personnel Officer

S/N 0102-LF-000-2140

MEMBER - 1

Department Of The Navy

Graduate Certificate

Awarded To

____

In recognition for successfully completing a 160 (Clock Hours) *course entitled* Group Paced Instructor Course *and was graduated this* 22nd *day of* July *19*88

Accredited By
Southern Association
Of Colleges & Schools

Burns
Commanding Officer

Sample Course Completion Certificate

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-3303 (Rev. 9-71)

ACHIEVEMENT SHEET
(See instructions on reverse)

1. RATE RECORD

DATE	RATE	DESIGNATOR	QUALIFICATION CODE	AUTHORITY	SIGNATURE *(Grade and Title)*	UNIT

2. DECORATIONS, MEDALS, BADGES, COMMENDATIONS, CITATIONS, AND CAMPAIGN RIBBONS AWARDED OR AUTHORIZED *(Use "Remarks" block on back if necessary)*

3. RECORD OF SERVICE SCHOOLS ATTENDED

NAME AND LOCATION

DATE ENROLLED	CLASS NO.	COURSE LENGTH	RATE ON GRADUATION
DATE COMPLETED	CLASS STANDING NUMBER IN CLASS		FINAL MARK *(Std Score)*

GRADUATED *(If no, give reason)*

☐ YES ☐ NO

SIGNATURE

NAME AND LOCATION

DATE ENROLLED	CLASS NO.	COURSE LENGTH	RATE ON GRADUATION
DATE COMPLETED	CLASS STANDING NUMBER IN CLASS		FINAL MARK *(Std Score)*

GRADUATED *(If no, give reason)*

☐ YES ☐ NO

SIGNATURE

NAME AND LOCATION

DATE ENROLLED	CLASS NO.	COURSE LENGTH	RATE ON GRADUATION
DATE COMPLETED	CLASS STANDING NUMBER IN CLASS		FINAL MARK *(Std Score)*

GRADUATED *(If no, give reason)*

☐ YES ☐ NO

SIGNATURE

4. EDUCATION AND TEST RECORD

TEST	GCT	ARI	MECH	CLER	ETST	RCT	SPMT
DATE							
FORM NO.							
SCORE							

SIGNATURE

DATE OF RETEST							
FORM NO.							
SCORE							

SIGNATURE

HIGHEST SCHOOL LEVEL ATTAINED

LANGUAGE QUALIFICATIONS

5. RECORD OF COAST GUARD INSTITUTE COURSES COMPLETED

DATE COMPLETED	NAME OF COURSE	MARK	SIGNATURE

6. RECORD OF OTHER OFF-DUTY STUDY *(USAFI, College Courses, etc.)*

DATE COMPLETED	NAME OF COURSE	MARK	SIGNATURE

NAME *(Last)* *(First)* *(Middle)*	SERVICE NUMBER/SOCIAL SECURITY NO.	RATE

ACHIEVEMENT SHEET PREVIOUS EDITIONS MAY BE USED **PAGE 3** ☐

Reverse of CG-3303 (Rev. 9-71)

INSTRUCTIONS

1. Prepare in duplicate. Retain original and duplicate in service record until separated from the Coast Guard. In case of immediate reenlistment, transfer original to new service record and forward duplicate with closed out service record to Commandant (PE). If individual does not immediately reenlist, the original copy shall be securely stapled to the individual's copy of Report of Separation from the Armed Forces of the United States (DD 214) and the individual notified that he should retain this page and present it with his discharge certificate should he desire to reenlist at any time either in the Regular Coast Guard or in the Coast Guard Reserve.
2. **ITEM 1.** Enter, as occurring, any changes in rate and acquirement of a designator and/or mechanical skill, such as completion of propeller (aviation), carburetor (aviation), refrigeration training.
3. **ITEM 2.** Enter date of receipt of all medals and awards received during current and/or prior period of service.
4. **ITEM 3.** School commands will complete upon graduation or disenrollment from a service school.
5. **ITEM 4.** Complete all entries as soon as practicable after enlistment. A man who has reached E-4 and has no test scores in his records, and no apparent future need for them exists, need not be examined solely for the purpose of recording such scores.
6. **ITEM 5.** To be completed when an individual completes Coast Guard Institute Courses.
7. **ITEM 6.** To be completed when an individual completes an USAFI, Navy, or Civilian Institution correspondence course, or an off-duty residence course.

REMARKS

DEPARTMENT OF TRANSPORTATION
U S COAST GUARD
CG-5311 (Page 1)(Rev 12-88)

OFFICER EVALUATION REPORT (OER) LEVEL I

1. ADMINISTRATIVE DATA

a NAME (Last First Middle Initial)
b SSN
c STATUS INDICATOR/SPECIALTY
d GRADE
e DATE OF RANK YR MO DAY
f UNIT
g DIST OPFAC
h OBC
i DATE REPORTED
j OCCASION FOR REGULAR REPORT
☐ Annual Semiannual ☐ Detachment/Change of Reporting Officer ☐ Detachment of Officer ☐ Promotion of Officer
k EXCEPTION REPORT
☐ Special ☐ Concurrent
l PERIOD OF REPORT TO
m REPORTED ON OFFICER SIGNATURE
n DAYS NOT OBSERVED
TAD LV OTHER
o DATE

2. DESCRIPTION OF DUTIES:

DOCUMENTS ATTACHED

3. PERFORMANCE OF DUTIES: Measures an officer's ability to get things done

	1		3		5		7	N/O
a BEING PREPARED Demonstrated ability to anticipate to identify what must be done to set priorities and to prepare for accomplishing unit and organizational missions under both predictable and uncertain conditions	○	Got caught by the unexpected Appeared to be controlled by events/crises Set vague or unrealistic goals if any Set wrong priorities Tended not to follow existing operating procedures plans or systems Not always prepared to meet operational or administrative responsibilities ○	○	Anticipated well Rarely caught unprepared Set high but realistic goals Took prompt positive action to meet changing or unexpected situations Skillfully used existing operating procedures plans or systems and "did homework" to stay well prepared for responsibilities and missions ○	○	Always ready Never caught unprepared Always looked beyond the immediate events/problems Set the "right" priorities and controlled events Achieved highest possible state of preparation for accomplishing responsibilities and missions Turned potential adversity into opportunity ○	○	○
b USING RESOURCES Demonstrated ability to delegate to provide follow-up control and to utilize people money material and time effectively	○	Overlooked/underused available resources Wasted materials or improperly utilized publications and equipment Did not always provide subordinates adequate resources and direction Over/undersupervised did not delegate wisely Assigned wrong personnel to a given job Failed to follow up ○	○	Successfully used available resources publications and equipment to complete assigned tasks Budgeted own/others time productively Found ways to cut waste Delegates made logical work assignments Ensured subordinates had adequate tools materials time and direction Followed up ○	○	Got the most out of people used all available resources to the best advantage Consistently came up with ways to save own and subordinates time eliminate waste and "do more with less" in producing high quality work Always followed up and knew what was going on ○	○	○
c GETTING RESULTS The quality/quantity of the officer's work accomplishments The effectiveness or impact the results had on the officer's unit and/or the Coast Guard	○	Usually met specified goals in routine situations Occasionally produced or accepted work that needed upgrading or redoing Results maintained the status quo ○	○	Got the job done in all routine situations and in many unusual ones Fulfilled identified goals and requirements even when resources were scarce Produced finished quality work and required same from subordinates Results had a positive impact on department and/or unit ○	○	Got results which far surpassed your expectations in all situations Always found ways to do more and do it better in spite of resource constraints Own work and that of subordinates was consistently of high quality never needed redoing Results had significant positive impact on department and/or unit ○	○	○
d RESPONSIVENESS The degree to which the officer responded replied or met deadlines in a timely manner	○	Needed reminding did not report back Tended to miss due dates or deadlines without justification Slow or late responding to requests memos letters or calls Resisted changes in policy direction or responsibilities ○	○	Reported back kept you informed Dependably completed projects and met deadlines Made timely responses to requests memos letters and calls Took changes in policy direction or responsibilities in stride ○	○	Highly conscientious kept superiors well informed Always completed projects early Was unusually prompt in responding to all requests memos letters and calls Extremely flexible responded enthusiastically to changes in policy direction or responsibilities ○	○	○
e OPERATIONAL/SPECIALTY EXPERTISE The acquisition of both knowledge and skills and the demonstration of both technical competency and proficiency in an operational/specialty billet (Includes seamanship airmanship engineering commercial vessel safety SAR law etc as appropriate)	○	Failed to meet acceptable standards or demonstrate satisfactory progress in operational or specialty qualification Required excessive guidance or supervision Experienced difficulty grasping concepts or demonstrating proficiency Failed to maintain qualifications Recommendations were occasionally unreliable Avoided opportunities to further develop or demonstrate operational or specialty expertise ○	○	Competent authority on specialty or operational issues Excellent acquisition and application of operational or specialty expertise (knowledge and skills) for assigned duties Needed minimal supervision Sought increased responsibility Recommendations were reliable Showed steady professional growth through education training and professional reading ○	○	Superior operational or specialty expertise (knowledge and skills) Remarkable grasp of complex issues concepts and situations Rarely needed guidance or supervision Attitude reflected a "follow my lead" approach Rapid professional growth An achiever Advice typically flawless Professional development beyond requirements Significant achievements beyond performance of duties Noteworthy examples ○	○	○
f COLLATERAL DUTY/ADMINISTRATIVE EXPERTISE The level of service knowledge technical and managerial skills the officer demonstrated in collateral duties or in administrative responsibilities (Includes CMCO morale civil rights committees etc as appropriate)	○	Required excessive guidance or supervision in routine activities Slow to develop or "come up to speed" ○	○	Rapidly acquired necessary knowledge Very competent dealing with complex issues problems or situations Adept at determining and then applying correct procedures to manage the department or unit efficiently and accomplish command objectives Rarely needed guidance or supervision ○	○	Significant efficiency or organizational contributions to the unit or Coast Guard or improvements to existing methods in areas of professional responsibility Accomplishments had wide ranging impacts Noteworthy examples ○	○	○
g WARFARE EXPERTISE The acquisition of both knowledge and skills and the demonstration of both technical competency and proficiency in a readiness billet The officer's interest in the Coast Guard's warfare role as demonstrated by involvement in warfare related education training and experience regardless of billet	○	Failed to meet acceptable standards or demonstrate satisfactory progress in acquisition of warfare expertise in a readiness billet Lacked either motivation interest adaptability or aptitude Tunnel vision Avoided opportunities to develop expertise including acquisition of essential knowledge or enhancement of skills when not in a readiness billet Lacking basic vocabulary ○	○	Utilized available opportunities to participate in operational readiness exercises or sought knowledge and experience in a designated crisis action position Conversant on military readiness and warfare issues with both knowledge and appreciation for Coast Guard's role Steady growth in warfare expertise through education, training experience, or professional reading, regardless of billet ○	○	Superior in-depth plan format knowledge and content development skills Authority on maritime naval strategy, overall joint military strategy and national political strategy Participated in planning execution and/or after-action exercise analysis in CPX fleet or field Command Post environment Professional development or contribution beyond billet requirements Excellent candidate for demanding readiness billet ○	○	○

CG-5311 (Page 2) (Rev. 12-88)

c. COMMENTS

4. INTERPERSONAL RELATIONS: Measures how an officer affects or is affected by others.

	1		3		5		7	N/O
a. WORKING WITH OTHERS Demonstrated ability to promote a team effort, to cooperate, and work with other people or units to achieve common goals.	○	Sometimes disregarded the ideas and feelings of others or caused hostility because of failure to inform or consult, impatient or impolite, talked too much or listened too little. Was inflexible, lost temper or control. Was slow to resolve conflicts. Not a team player. ○	○	Encouraged open expression of ideas and respected the views/ideas of others. Worked comfortably with others of all ranks/positions. Kept others informed, consulted others. Got different people and organizations to work together without mandates. Carried share of load. Helped others resolve conflicts and stay focused on team goals. ○	○	Excelled at getting all ranks/positions to work together. Skillfully used knowledge of group dynamics. Inspired cooperation among diverse individuals or groups. Stimulated open expression of ideas. Channeled group conflict into creative energy, achieved goals not otherwise obtainable. ○	○	○
b. HUMAN RELATIONS The degree to which this officer fulfilled the letter and spirit of the Commandant's Human Relations policy in personal relationships and official actions.	○	Exhibited discriminatory tendencies toward others due to their religion, age, sex, race or ethnic background. Allowed bias to influence appraisals or the treatment of others. Used position to harass others, was disrespectful, made slurring remarks. Did not hold subordinates accountable for their human relations responsibilities. ○	○	Treated others fairly and with dignity regardless of religion, age, sex, race or ethnic background. Carried out work, training, and appraisal responsibilities without bias. Held subordinates accountable for living up to the spirit of the Commandant's Human Relations Policy. ○	○	Through leadership and demonstrated strong personal commitment, promoted fair and equal treatment of others in all situations regardless of religion, age, sex, race or ethnic background. Actively campaigned against prejudicial actions or behavior by others. Made clearly noteworthy contributions to this end. ○	○	○

c. COMMENTS

5. LEADERSHIP SKILLS: Measures an officer's ability to guide, direct, develop, influence, and support others in their performance of work.

	1		3		5		7	N/O
a. LOOKING OUT FOR OTHERS The officer's sensitivity and responsiveness to the needs, problems, goals, and achievements of others.	○	Showed little concern for the safety, problems, needs, or goals of others. Overlooked or tolerated unfair, insensitive, or abusive treatment of others. May have been accessible to others but unresponsive to their personal needs. Seldom acknowledged or recognized subordinates' achievements. ○	○	Cared about people, recognized and responded to their needs. Concerned for their safety/well being. Was accessible. Listened and helped with personal or job related problems, needs and goals. When unable to assist, suggested or provided other resources. "Went to bat" for people. Rewarded deserving subordinates in a timely fashion. ○	○	Demonstrated a commitment to develop and nurture a caring community in others. Personally ensured resources were available to meet people's needs and that limits of endurance were not exceeded. Was always accessible to others and their problems. Extremely conscientious in ensuring subordinates received appropriate and timely recognition. ○	○	○
b. DEVELOPING SUBORDINATES The extent to which an officer used coaching, counseling, and training, and provided opportunities for growth to increase the skills, knowledge, and proficiency of subordinates.	○	Showed little interest in training or development of subordinates. May have unnecessarily withheld authority or over supervised. Did not challenge subordinates' abilities. Tolerated marginal performance or criticized excessively. Did not keep subordinates informed, provided little constructive feedback. ○	○	Provided opportunities and encouraged subordinates to expand their roles, handle important tasks, and learn by doing. Held subordinates accountable, provided timely praise and constructive criticism. Provided opportunities for training which supported professional growth. ○	○	Created challenging situations which prompted an unusually high level development of people. Unit or work group ran like "clockwork." People always knew what was going on and routinely handled the unexpected. Developed comprehensive and creative training programs, promoted a commitment to learning and personal development. ○	○	○
c. DIRECTING OTHERS The officer's effectiveness in influencing or directing others in the accomplishment of tasks or missions.	○	An officer who had difficulty controlling and influencing others effectively. Did not instill confidence or enhance cooperation among subordinates and others. Set work standards which were vague or misunderstood. Tolerated late or marginal performance. Faltered in difficult situations. ○	○	A leader who earned the support and commitment of others. Set high work standards and expectations which were clearly understood and required subordinates to meet them. Evenhanded. Kept others motivated and on track even when "the going got tough." ○	○	A strong leader who commanded respect and inspired others to achieve results not normally attainable. People wanted to serve under his/her leadership. Communicated high work standards and expectations which were clearly understood. Got superior results even in time critical and difficult situations. Won people over rather than imposing will. ○	○	○
d. EVALUATIONS The extent to which an officer, as Reported-on Officer, Supervisor, Reporting Officer, Reviewer, Administrative Reviewer, or Commanding Officer conducted, or required others to conduct, accurate, uninflated, and timely evaluations for enlisted, civilian, and officer personnel.	○	Failed to prepare and/or submit enlisted, civilian, or officer evaluations which were accurate or timely. Reports were often returned for improvement. Provided little or no counseling to subordinates. Subordinates failed to submit timely, administratively correct, or substantively supported evaluations. Failed to reject reports to subordinates that were unacceptable. ○	○	Prepared uninflated enlisted, civilian, and officer evaluations which were consistently submitted on time. Evaluations clearly measured performance and behavior against published standards. Narratives were fair, concise, descriptive, and contained specific observations. Few evaluations, if any, were returned by COMDT. ○	○	No reports submitted late or returned by COMDT for correction. No reports of subordinates submitted late or returned for correction. Rejected reports to subordinates for improvement to meet high standards. Comments were specific and always supported numerical evaluations. Set high standards for counseling subordinates. ○	○	○

CG 5311 (Page 3) (Rev. 12-88)

e. COMMENTS

6. COMMUNICATIONS SKILLS: Measures an officer's ability to communicate in a positive, clear, and convincing manner.

a. SPEAKING AND LISTENING How well an officer spoke and listened in individual exchanges, large or small groups, briefings or public situations; demonstrated ability to express verbal thoughts clearly, coherently, logically and extemporaneously.	1 ○	Weak speaking or listening skills. Utilized inappropriate language or mannerisms. Expressed thoughts lacked preparation, confidence, common sense or logic. Rambled or lost the audience. Failed to listen carefully. Argumentative. Identify specific situations that required better skills. ○	3 ○	Accomplished speaker comfortable in both public and private situations. Spoke in an articulate, confident and credible manner with appropriate gestures and without distracting mannerisms. Not visibly uncomfortable in extemporaneous presentations. Listened attentively to others and the audience. ○	5 ○	Displayed a remarkable ability to identify and discuss key issues. Able to express thoughts clearly, coherently, and extemporaneously with creativity. Captivated and persuaded audiences. Chosen by superiors to make presentations on complex or sensitive issues or when outcome had critical significance. ○	○	○
b. WRITING How well an officer communicated through written material and proofread before submission; demonstrated ability to prepare or review communication for superiors, self, or subordinates, and to express written thoughts clearly, coherently, logically and persuasively.	○	Written material frequently required revision for clarity, lack of proofreading, or requirements of the Coast Guard Correspondence or Style Manuals. ○	○	Written material set example for brevity, clarity, logic, persuasion, and tact. Correspondence grammatically correct and appropriate for the audience. Conscientious proofreader. Material from subordinates reflected the same high standards. ○	○	Expressed complex and controversial material in such a clear and persuasive way that achievement of stated objectives was materially aided. Meticulous proofreader. Written material responsible for [illegible] achievement, mission accomplishment, or published material brought [illegible]. Noteworthy examples. ○	○	○

c. COMMENTS

7. SUPERVISOR AUTHENTICATION

a. NAME AND SIGNATURE | b. GRADE | c. SSN | d. TITLE OF POSITION

8. REPORTING OFFICER COMMENTS:

9. PERSONAL QUALITIES: Measures selected qualities which illustrate the character of the individual.

a. INITIATIVE Demonstrated ability to move forward, make changes, and seek responsibility without guidance and supervision.	○	Postponed needed action. Implemented change only when confronted by necessity or directed to do so. Often overtaken by events. May have suppressed initiative of subordinates. Was unsupportive of changes directed by higher authority. ○	○	Strove to do the job better. Developed new ideas, methods, and practices. Got things done. Made improvements; worked smarter, not harder. Self starter, not afraid of making mistakes. Supported new ideas, methods/practices, and efforts of others to bring about constructive change. Anticipated problems and took timely action to avoid/resolve them. ○	○	Aggressively sought out [illegible] responsibility. [illegible] innovative [illegible] promoted [illegible] new ideas, methods or practices which resulted in significant improvements to unit or Coast Guard. Did not promote change for sake of change. Made sure others' ideas/practices [illegible] have given [illegible] ○	○	○
b. JUDGMENT Demonstrated ability to arrive at sound decisions and make sound recommendations by using experience, common sense, and analytical thought in the decision process.	○	Sometimes indecisive or showed uncertainty when making decisions. May have acted too quickly or too late. Did not take advantage of good sources of information. Did not keep superiors informed. Needed watching; repeated mistakes. Made too many wrong decisions/recommendations. ○	○	Demonstrated analytical thought and common sense in making proper decisions or recommendations. Recognized developing problems and considered facts and alternatives. Asked for help when needed. Results demonstrated sound judgment in most cases. ○	○	Always did the right thing at the right time. Combined keen analytical thought and insight to make timely and successful decisions. Focused on the key issues and the most relevant information even in complex situations. ○	○	○
c. RESPONSIBILITY Demonstrated commitment to getting the job done and to hold one's self accountable for own and subordinates' actions; courage of convictions; ability to accept decisions contrary to own views and make them work.	○	Usually could be depended upon to do the right thing. Normally accountable for own work. May have accepted less than satisfactory work or tolerated indifference. Tended not to get involved or speak up. Provided minimal support for decisions counter to own ideas. ○	○	Placed goals of Coast Guard above personal ambitions and gains. Possesses high standard of honor and integrity. Held self and subordinates accountable. Kept commitments even when uncomfortable or difficult to do so. Spoke up when necessary, even when position was unpopular. Supported organizational policies/decisions which may have been counter to own ideas. ○	○	Uncompromising honor and integrity. Went the extra mile and more. Always held self and subordinates accountable for production and actions. Had the courage to stand up and be counted. Succeeded in making even unpopular policies/decisions work. ○	○	○
d. STAMINA The officer's ability to think and act effectively under conditions that were stressful and/or mentally or physically fatiguing.	○	Performance became marginal under stress or during periods of extended work. Made poor decisions, overlooked key factors, focused on wrong priorities, or lost sight of safety considerations. Balked at putting in necessary overtime. Became rattled in stressful situations. ○	○	Performance was sustained at a high level when under stress or during periods of extended work without loss of productivity or safety. Stayed cool when the pressure was on. Willingly worked extra hours when necessary to get the job done. ○	○	Thrived under stressful situations. Performance reached an unusually high level when under stress or during periods of extended work. Productivity remained at an extremely high level with no increased risk to personnel and/or equipment. ○	○	○
e. HEALTH AND WELL-BEING The extent to which an officer exercised moderation in the use of alcohol. The degree to which an officer maintained weight standards. The measure of an officer's effort to invest in the Coast Guard's future by caring for his or her health.	○	Failed to meet minimum standards of weight control or sobriety. ○	○	Maintained weight standards. Used alcohol only discriminately or not at all; job performance and social behavior was never affected. Encouraged similar behavior in others and held subordinates accountable. Intemperate alcohol use by subordinates not tolerated. ○	○	Remarkable vitality, enthusiasm, alertness, and energy level. Consistently contributed at high standards. Demonstrated a significant commitment, beyond setting an example, to the well-being of self and subordinates. Contributed a leadership role in the civilian/military community outside normal duties. Noteworthy examples. ○	○	○

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f. COMMENTS

10. REPRESENTING THE COAST GUARD: Measures how an officer's ability to bring credit to the Coast Guard through looks and actions

a. MILITARY BEARING The extent to which an officer appeared neat, smart and well groomed in uniform or civilian attire, conformed to military traditions, customs, and courtesies, and set standards for subordinates' performance.	1 ○	Occasionally failed to conform to military traditions, or customs and courtesies. Unable or unwilling to consistently appear neat, smart, and well-groomed in uniform and civilian attire. Standards set in Uniform Regulations not maintained. Performance of subordinates was marginal or unacceptable. ○	3 ○	The typically excellent officer. Demonstrated great care in maintaining and wearing uniforms. Meticulous grooming. Immaculate civilian attire. Precise in rendering military courtesies. Maintained military formality, precedence, etiquette, and deference to both rank and privilege. Required same of subordinates. ○	5 ○	The typically distinguished officer. Clearly set standards for CG uniform and grooming excellence. Set or inspired similar standards in others. Performance of subordinates was exceptional. Exemplified the finest traditions of military customs, etiquette and protocol in very visible situations. Significant contributions to public recognition. Noteworthy examples. ○	7 ○	N/O ○
b. PROFESSIONALISM How an officer applied knowledge and skills in providing service to the public. The manner in which the officer represented the Coast Guard.	○	Misinformed/unaware of Coast Guard policies and objectives and how they relate to own areas of responsibility. Bluffed rather than admit ignorance. Did little to enhance self-image or image of Coast Guard. Was ineffective when working with others. Led a personal life which infringed on Coast Guard responsibilities or image. ○	○	Well versed in how Coast Guard objectives, policies, procedures serve the public, considered an expert in some areas. Was straightforward, cooperative, and evenhanded in dealing with the public and government. Aware of impact actions/impressions may cause on others. Supported CG ideals. Personal life reinforced CG image. ○	○	The ideal officer to represent the Coast Guard. Inspired confidence and trust; clearly conveyed dedication to CG ideals in both public and private life. Worked creatively and confidently with representatives of public and government. Left everyone with a very positive image of self and Coast Guard. ○	○	○
c. DEALING WITH THE PUBLIC How an officer acted when dealing with other services, agencies, businesses, the media, or the public.	○	Appeared ill-at-ease with the public or media. Inconsistent in application of CG programs to public sector. Faltered under pressure. Took antagonistic or condescending approach. Made inappropriate statements. Embarrassed Coast Guard in a social situation. ○	○	Dealt fairly and honestly with the public, media and others at all levels. Responded promptly. Showed no favoritism. Didn't falter when faced with difficult situations. Was comfortable in social situations. Sensitive to concerns. ○	○	Always self assured and in control when dealing with public, media and others at all levels. Straightforward, impartial and diplomatic. Applied CG rules/programs fairly and uniformly. Showed unusual social grace. Responded with great poise to provocative actions of others. ○	○	○

d. COMMENTS

11. LEADERSHIP AND POTENTIAL.

(Describe demonstrated leadership ability and overall potential for greater responsibility, promotion, special assignment, and command.)

12. COMPARISON SCALE AND DISTRIBUTION.

(Compare this officer with others of the same grade whom you have known in your career.)

UNSATISFACTORY	A QUALIFIED OFFICER	ONE OF THE MANY COMPETENT PROFESSIONALS WHO FORM THE MAJORITY OF THIS GRADE			AN EXCEPTIONAL OFFICER	A DISTINGUISHED OFFICER
○	○	○	○	○	○	○

13. REPORTING OFFICER AUTHENTICATION

a. NAME AND SIGNATURE	b. GRADE	c. SSN	d. TITLE OF POSITION	e. DATE

14. REVIEWER AUTHENTICATION

☐ COMMENTS ATTACHED (Required when the Reporting Officer is not a Coast Guard Officer)

a. NAME AND SIGNATURE	b. GRADE	c. SSN	d. TITLE OF POSITION	e. DATE

15. RETURN ADDRESS.

(Name and address to which a copy will be sent when the original is filed in the officer's record.)

16. HEADQUARTERS VALIDATION

PRIVACY ACT STATEMENT
This information is requested under the authority of 14 U.S.C. 633 to determine an officer's suitability for promotion or job assignment. Submission of this information is mandatory. Failure to provide it could adversely affect promotion opportunities and job assignments or lead to disciplinary action.

INDIVIDUAL DUTY AREA QUALIFICATION SUMMARY
AIRCRAFT COMMUNICATIONS/NAVIGATION SYSTEMS TECHNICIAN (MOS 6315)

NAME/SSN____________________ Granted MOS 6311_____/_____ LEVEL II COMPLETED_____/_____
Granted MOS 6315_____/_____ LEVEL III COMPLETED_____/_____

		LEVEL I	LEVEL II	LEVEL III	LEVEL IV
DUTY #	DUTY DESCRIPTION	DATE / SIGN	DATE / SIGN	DATE / SIGN	DATE / SIGN
A.	GENERAL, OPERATIONAL AND SAFETY DUTIES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
A.1	SUPPORT/SPECIAL EQUIPMENT	/	XXXXXXXXXXXXXXXXXXX	/	/
A.2	SAFETY PRECAUTIONS/PROCEDURES	XXXXXXXXXXXXXXXXXXX	/	/	/
A.3	AIRCRAFT PUBS, DIAGRAMS, SKETCHES & DRAWINGS	/	/	/	/
A.4	PRECISION MEASURING EQUIPMENT	/	XXXXXXXXXXXXXXXXXXX	/	/
A.5	PRINCIPLES OF ESD & EMC	XXXXXXXXXXXXXXXXXXX	/	/	/
B.	SCHEDULED AND UNSCHEDULED MAINTENANCE DUTIES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
B.1	REQUIRED SCHEDULED/UNSCHEDULED INSPECTIONS	XXXXXXXXXXXXXXXXXXX	/	/	/
B.2	HIGH TIME/SPECIAL/CONDITIONAL INSPECTIONS	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
B.3	TECHNICAL DIRECTIVES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	/	/
B.4	CORROSION CONTROL	/	XXXXXXXXXXXXXXXXXXX	/	/
B.5	COMMUNICATION SYSTEM	/	/	/	/
B.6	IFF SYSTEM	/	/	/	/
B.7	TACAN SYSTEM	/	XXXXXXXXXXXXXXXXXXX	/	/
B.8	ALL WEATHER LANDING SYSTEM	/	XXXXXXXXXXXXXXXXXXX	/	/
B.9	RADAR BEACON SYSTEM	/	XXXXXXXXXXXXXXXXXXX	/	/
B.10	ELECTRIC ALTIMETER SYSTEM	/	XXXXXXXXXXXXXXXXXXX	/	/
B.11	COUNTERMEASURES DISPENSING SYSTEM	/	/	/	/
B.12	RADAR WARNING RECEIVER SYSTEM	/	/	/	/
B.13	DEFENSE ELECTRONIC COUNTERMEASURE SYSTEM	/	XXXXXXXXXXXXXXXXXXX	/	/
B.14	COMNAV & RELATED SYSTEMS	/	/	/	/
B.15	WIRE REPAIR	/	XXXXXXXXXXXXXXXXXXX	/	/
C.	MAINTENANCE ADMINISTRATION DUTIES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
C.1	DATA COLLECTION FORMS	XXXXXXXXXXXXXXXXXXX	/	/	/
C.2	MATERIAL CONTROL PROCEDURES	XXXXXXXXXXXXXXXXXXX	/	/	/

DATE: JANUARY 1988

IQS MOS 6315 (Continued)

DUTY #	DUTY DESCRIPTION	LEVEL I DATE / SIGN	LEVEL II DATE / SIGN	LEVEL III DATE / SIGN	LEVEL IV DATE / SIGN
D.	PRODUCTIVE INDIRECT WORK CENTER DUTIES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
D.1	COLLATERAL DUTY INSPECTION	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	/	/
D.2	WORK CENTER SUPERVISOR DUTIES	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	/	/
D.3	FORMAL/INFORMAL MOJT/TECHNICAL TRAINING	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	/	/

DATE: JANUARY 1988

OCCUPATIONAL TITLE INDEX

The following columns cross-reference Coast Guard and Marine Corps enlisted occupations to exhibit ID numbers. Titles are listed alphabetically.

Aircraft Communications/Naviagation Systems Technician (CH-53) MCE-6323-001
Aircraft Communications/Navigation Systems Technician (CH-46) MCE-6322-001
Aircraft Communications/Navigation Systems Technician V-22 MCE-6325-001
Aircraft Communications/Navigation Systems Technician, (U/AH-1) MCE-6324-001
Aircraft Communications/Navigation Systems Technician, A-4/TA-4/QA-4 MCE-6312-001
Aircraft Communications/Navigation Systems Technician, A-6/TC-4C/EA-6A MCE-6313-001
Aircraft Communications/Navigation Systems Technician, AV-8 MCE-6315-001
Aircraft Communications/Navigation Systems Technician, F/A-18 MCE-6317-001
Aircraft Communications/Navigation Systems Technician, KC-130/OV-10 MCE-6316-001
Aircraft Communications/Navigation Systems Technician, OV-10 MCE-6318-001
Aircraft Communications/Navigation Systems Technician, RF-4/F-4 MCE-6314-001
Aircraft Electrica Systems Technician (CH-46) MCE-6342-001
Aircraft Electrical System Technician, A-4/TA-4/QA-4 MCE-6332-001
Aircraft Electrical Systems Technician (CH-53) MCE-6343-001
Aircraft Electrical Systems Technician (CH-53E) MCE-6345-001
Aircraft Electrical Systems Technician (U/AH-1) MCE-6344-001
Aircraft Electrical Systems Technician, A-6/EA-6/TC-4C MCE-6333-001
Aircraft Electrical Systems Technician, AV-8 MCE-6335-001
Aircraft Electrical Systems Technician, F/A-18 MCE-6337-001
Aircraft Electrical Systems Technician, KC-130/OV-10 MCE-6336-001
Aircraft Electrical Systems Technician, RF-4/F-4 MCE-6334-001
Aircraft Hydraulic/Pneumatic Mechanic, A-4/TA-4/QA-4 MCE-6052-001
Aircraft Hydraulic/Pneumatic Mechanic, A-6/EA-6 MCE-6053-001
Aircraft Hydraulic/Pneumatic Mechanic, AV-8/TAV-8 MCE-6055-001
Aircraft Hydraulic/Pneumatic Mechanic, F-4/RF-4 MCE-6054-001
Aircraft Hydraulic/Pneumatic Mechanic, F/A-18 MCE-6057-001
Aircraft Hydraulic/Pneumatic Mechanic, KC-130 MCE-6056-001
Aircraft Hydraulic/Pneumatic Mechanic, OV-10 MCE-6058-001
Aircraft Maintenance Administration Clerk MCE-6046-001
Aircraft Maintenance Data Analysis Technician MCE-6047-001
Aircraft Mechanic, A-4/TA-4/QA-4 MCE-6012-001
Aircraft Mechanic, A-6/EA-6 MCE-6013-001
Aircraft Mechanic, AV-8A/TAV-8 MCE-6015-001
Aircraft Mechanic, F-4/RF-4 MCE-6014-001
Aircraft Mechanic, F/A-18 MCE-6017-001
Aircraft Mechanic, KC-130 MCE-6016-001
Aircraft Mechanic, OV-10 MCE-6018-001
Aircraft Power Plants Mechanic, F-404 MCE-6027-001
Aircraft Power Plants Mechanic, J-52 MCE-6022-001
Aircraft Power Plants Mechanic, J-79 MCE-6024-001
Aircraft Power Plants Mechanic, Rolls Royce Pegasus MCE-6025-001
Aircraft Power Plants Mechanic, T-56 MCE-6026-001
Aircraft Power Plants Mechanic, T-76 MCE-6023-001
Aircraft Safety Equipment Mechanic, A-4/TA-4/OA-4 MCE-6082-001
Aircraft Safety Equipment Mechanic, A-6/EA-6 MCE-6083-001
Aircraft Safety Equipment Mechanic, AV-8/TAV-8 MCE-6085-001
Aircraft Safety Equipment Mechanic, F-4/RF-4 MCE-6084-001
Aircraft Safety Equipment Mechanic, F/A-18 MCE-6087-001
Aircraft Safety Equipment Mechanic, KC-130 MCE-6086-001
Aircraft Safety Equipment Mechanic, OV-10 MCE-6088-001
Aircraft Structures Mechanic, A-4/TA-4/OA-4 MCE-6092-001
Aircraft Structures Mechanic, A-6/EA-6 MCE-6093-001
Aircraft Structures Mechanic, AV-8/TAV-8 MCE-6095-001
Aircraft Structures Mechanic, F-4/RF-4 MCE-6094-001
Aircraft Structures Mechanic, F/A-18 MCE-6097-001
Aircraft Structures Mechanic, KC-130 MCE-6096-001
Aircraft Structures Mechanic, OV-10 MCE-6098-001
Aircraft Weapons Systems Specialist A-4/TA-4/OA-4 MCE-6352-001
Aircraft Weapons Systems Specialist, A-6/TC-4C MCE-6353-001
Aircraft Weapons Systems Specialist, AV-8 MCE-6355-001
Aircraft Weapons Systems Specialist, EA-6 MCE-6359-001
Aircraft Weapons Systems Specialist, F-4J/S MCE-6354-001
Aircraft Weapons Systems Specialist, F/A-18 MCE-6357-001
Aviation Electrician's Mate CGR-AE-001
Aviation Electronics Technician CGR-AT-001
Aviation Machinist's Mate CGR-AD-001
Aviation Structural Mechanic CGR-AM-001
Aviation Survivalman CGR-ASM-001

Boatswain's Mate CGR-BM-001

Damage Controlman CGR-DC-001
Dental Technician CGR-DT-001

Electrician's Mate CGR-EM-001
Electronics Technician CGR-ET-001

Fire Control Technician CGR-FT-001

Gunner's Mate CGR-GM-001

Health Services Technician CGR-HS-001
Helicopter Hydraulic/Pneumatic Mechanic (CH-46) MCE-6152-001
Helicopter Hydraulic/Pneumatic Mechanic (CH-53) MCE-6153-001
Helicopter Hydraulic/Pneumatic Mechanic (CH-53E) MCE-6155-001
Helicopter Hydraulic/Pneumatic Mechanic (U/AH-1) MCE-6154-001
Helicopter Mechanic (CH-46) MCE-6112-001
Helicopter Mechanic (CH-53) MCE-6113-001
Helicopter Mechanic (CH-53E) MCE-6115-001
Helicopter Mechanic (U/AH-1) MCE-6114-001
Helicopter Power Plants Mechanic (T-400) MCE-6125-001
Helicopter Power Plants Mechanic (T-53) MCE-6124-001
Helicopter Power Plants Mechanic (T-58) MCE-6122-001
Helicopter Power Plants Mechanic (T-64) MCE-6123-001
Helicopter Structures Mechanic (CH-46) MCE-6142-001
Helicopter Structures Mechanic (CH-53) MCE-6143-001
Helicopter Structures Mechanic (U/AH-1) MCE-6144-001
Hospital Corpsman CGR-HM-001

Machinery Technician CGR-MK-001
Marine Science Technician CGR-MST-001

Photojournalist CGR-PA-001
Port Securityman CGR-PS-001
Public Affairs Specialist CGR-PA-001

Quartermaster CGR-QM-001

Radarman CGR-RD-001
Radioman CGR-RM-001

Sonar Technician CGR-ST-001
Storekeeper CGR-SK-001
Subsistence Specialist CGR-SS-001

Telephone Technician CGR-TT-001

Yeoman CGR-YN-001

Coast Guard Warrant Officer Title Index

The following titles cross reference Coast Guard Warrant Officer occupations to exhibit ID numbers. Titles are listed alphabetically.

Aviation Engineering	CGW-AVI-001
Boatswain	CGW-BOSN-001
Communications	CGW-COMM-001
Electronics	CGW-ELC-001
Finance and Supply	CGW-FS-001
Materiel Maintenance	CGW-MAT-001
Medical Administration	CGW-MED-001
Naval Engineering	CGW-ENG-001
Personnel Administration	CGW-PERS-001
Physician's Assistant	CGW-PYA-001
Port Safety and Security	CGW-PSS-001
Public Information	CGW-INF-001
Weapons	CGW-WEPS-001

Keyword Index

This index is designed to provide rapid access to the courses described in the course exhibit section. Titles of courses are arranged alphabetically under keywords which have been extracted verbatim from the titles. For example, the keyword *Data Processing* is followed by all titles containing the words *Data Processing.*

To locate a specific course, identify a word or group of words in the title which seems to be unique of descriptive. For example, the title *Data Processing Specialist, COBOL* can be found under the keywords *Data Processing* or *COBOL.* Similarly, the title *Russian Technician* can be found under the keyword *Russian.*

The ID number for each course is displayed to the right of the title. Refer to that number in the course exhibit section for a full description of the course.

A-10
Fighter Weapons Instructor A-10
AF-1406-0061
Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050
Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence
AF-1715-0055

A-3A
Defensive Fire Control System Mechanic (A-3A, MD-9, ASG-15 Turrets)
AF-1715-0482

A-7D
A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0078
Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050
Weapon Control Systems Mechanic (A-7D: AN/APQ-126) by Correspondence
AF-1715-0054
Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence
AF-1715-0055
Weapons Control Systems Mechanic (A-7D; AN/APQ-126)
AF-1715-0538

A/E24U-8
A/E24U-8 Power Plant Intermediate and Organizational (I & O) Maintenance
AF-1704-0143

Academic
Academic Instructor
AF-1406-0034

Academy
Air National Guard Academy of Military Science
AF-2203-0051
Chief Petty Officer Academy
CG-1511-0001
CG-1511-0002

Accident
Traffic Management and Accident Investigation
AF-1728-0004

Accountable
Accountable Officer
MC-1405-0015

Accountant
Accountant
AF-1401-0004
AF-1401-0008

Accounting
Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II)
AF-1401-0016
Accounting and Finance Automated Materiel System
AF-1401-0016
Accounting and Finance Officer
AF-1401-0009
Accounting and Finance Specialist
AF-1401-0001
Accounting and Finance Supervisor
AF-1401-0010
Accounting and Finance Supervisor (Disbursement Accounting)
AF-1401-0015
Accounting for Plant Property by Correspondence
MC-1405-0025
Accounting Specialist
AF-1401-0003
Accounting Technician
AF-1401-0007
Disbursement Accounting Specialist
AF-1401-0006
Electrical Accounting Machines (EAM)
MC-1402-0019
Fiscal Accounting
MC-1402-0026
MC-1402-0055
Fiscal Accounting Clerk
MC-1402-0026
General Accounting Specialist
AF-1401-0005
General Accounting Specialist by Correspondence
AF-1408-0053
Introduction to Marine Corps Accounting by Correspondence
MC-1401-0004
Machine Accounting Supervisor
AF-1402-0036
Phase II General Accounting Applications
AF-1402-0004

Acquisition
Communication-Electronics Systems Acquisition and Mangement by Correspondence
AF-1715-0753

Actions
Social Actions Technician (Drugs/Alcohol) by Correspondence
AF-1406-0054
Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence
AF-1406-0053

Adjutant
Adjutant
MC-1405-0031

Administration
Administration Management and Executive Support Officer
AF-1408-0067
Administration Management Specialist by Correspondence
AF-1403-0002
Administration Management/Executive Support
AF-1408-0067
Administration Specialist by Correspondence
AF-1406-0045
Administration Technician by Correspondence
AF-1406-0046
Administrative Chief's Personnel Administration
MC-1406-0008
Administrative Officers Personnel Administration
MC-1408-0006
Advanced Contract Administration
AF-1408-0039
Advanced Personnel Administration
MC-1405-0032
Advanced Supply Administration
MC-1405-0005
Aviation Engineering Administration
CG-1405-0005
Aviation Maintenance Administration (AVADMN1) by Correspondence
CG-1408-0003
Basic Course in Medical Administration
AF-0799-0005
Basic Course in Medical Service

Administration
AF-0799-0005
Basic Legal Administration
MC-1728-0004
Basic Personnel Administration
MC-1406-0007
Basic Personnel Administration by Correspondence
MC-1406-0017
Basic Supply Administration
MC-1405-0004
Basic Supply Administration (Mechanized)
MC-1405-0005
MC-1405-0008
Contract Administration
AF-0326-0003
AF-1408-0033
Contract Administration by Correspondence
AF-1408-0087
Engineering Administration
CG-1408-0035
Engineering Administration Class C
CG-1408-0002
Financial Administration
AF-1408-0002
First Sergeants Personnel Administration
MC-1406-0005
General Personnel Administration for Reserves by Correspondence
MC-1406-0025
Health Services Administration
AF-1401-0017
Health Services Administration—Advanced
AF-1408-0068
Independent Duty Administration
MC-1403-0011
Industrial Property Administration (JT)
AF-0326-0001
Legal Administration for the Reporting Unit by Correspondence
MC-1406-0024
Nursing Service Administration
AF-0703-0003
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0014
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0026
Personnel Chief's Personnel Administration
MC-1406-0008
Police Administration
AF-1728-0016
Reserve Administration
MC-1406-0022
Reserve Personnel Administration by Correspondence
MC-1406-0015
Security Police Administration
AF-1728-0016
Sergeants Major Personnel Administration
MC-1406-0004
Staff Support Administration Specialist by Correspondence
AF-1403-0003
Supply Administration
MC-1405-0005
Unit Orderly Room Administration Specialist by Correspondence
AF-1403-0004
Warrant Officer Personnel Administration
MC-1406-0006
Weapons Administration (WEPAD) by Correspondence
CG-1408-0007
Woman Marine Officer's Personnel Administration
MC-1408-0005

Administrative
Administrative Chief's Personnel Administration
MC-1406-0008
Administrative Clerk
MC-1403-0002
MC-1403-0014
Administrative Officers Personnel Administration
MC-1408-0006
Apprentice Medical Administrative Specialist
AF-0799-0004
Apprentice Medical Administrative Specialist by Correspondence
AF-0709-0028
Medical Administrative Specialist
AF-0799-0004
Medical Administrative Specialist by Correspondence
AF-0709-0027
Medical Administrative Supervisor
AF-1408-0043

Advisor
Human Relations Advisor
AF-1513-0001

Advisory
Career Advisory Specialist by Correspondence
AF-1406-0048
Career Advisory Technician by Correspondence
AF-1406-0051

Aerial
Aerial Navigation
MC-1606-0002
Aerial Observer
MC-1704-0005
Aerial Photographer
AF-1709-0005
Map and Aerial Photography Reading by Correspondence
MC-1606-0004
Tactical Aerial Observer
MC-1704-0005

Aeromedical
Aeromedical Evacuation Technician
AF-0709-0011
Aeromedical Specialist
AF-0709-0024
Aeromedical Technician
AF-0709-0012
Apprentice Aeromedical Specialist
AF-0709-0024

Aerospace
A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0078
Advanced Aerospace Photo Intelligence
AF-1606-0047
Aerospace Control and Warning Systems Operator by Correspondence
AF-1715-0754
Aerospace Ground Equipment Mechanic by Correspondence
AF-1704-0187
Aerospace Ground Equipment Repair Technician
AF-1717-0012
Aerospace Ground Equipment Technician by Correspondence
AF-1704-0192
Aerospace Munitions Officer
AF-1715-0545
Aerospace Munitions Staff Officer
AF-1717-0024
Aerospace Photographic Systems Repairman
AF-1715-0291
Aerospace Photographic Systems Specialist by Correspondence
AF-1715-0139
Aerospace Physiology Specialist by Correspondence
AF-0709-0032
Aerospace Propulsion Technician (Jet Engine) by Correspondence
AF-1704-0229
Avionics Aerospace Ground Equipment Specialist
AF-1715-0537
Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence
AF-1715-0077
Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0076

Afghan-Persian
Dari Afghan-Persian
DD-0602-0009
DD-0602-0045

Afrikaans
Afrikaans
DD-0602-0005
DD-0602-0008

Aftercare
Aftercare Program Management
MC-0801-0002

Aids
Advanced Minor Aids to Navigation Maintenance
CG-1715-0046
CG-1715-0131
Advanced Minor Aids to Navigation, Class C
CG-1715-0046
Aids to Navigation Construction
CG-1722-0004
Aids to Navigation Mechanician
CG-1715-0015
Aids to Navigation Officer Advanced Class C
CG-2205-0008
Aids to Navigation Officer Basic
CG-2205-0009
Aids to Navigation Positioning
CG-2205-0025
Aids to Navigation School (Short Course for Officers)
CG-2205-0003
Automated Aids to Navigation Electronics Maintenance
CG-1715-0041
Automated Aids to Navigation Lighthouse Technician
CG-1715-0128
Automated Aids Electronics Maintenance Class C
CG-1715-0041
Basic Minor Aids to Navigation

Maintenance Class C
CG-1715-0042
Basic Minor Aids To Navigation
CG-1715-0042
Enemy Defense Penetration Aids
AF-1715-0744
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117
Minor Aids to Navigation
CG-2205-0002
Navigational Aids Equipment Specialist by Correspondence
AF-1715-0012
Navigational Aids Equipment Technician by Correspondence
AF-1715-0017
Officers Advanced Aids to Navigation
CG-2205-0008
Officers Basic Aids to Navigation
CG-2205-0009
Officers Basic Aids to Navigation, Class O
CG-2205-0009

Air

Air Cargo Specialist by Correspondence
AF-0419-0004
Air Command and Staff Associate Correspondence Program
AF-1511-0003
Air Command and Staff Associate Program
AF-1511-0002
Air Command and Staff College
AF-1511-0001
Air Command and Staff Correspondence Program
AF-1511-0003
Air Command and Staff Nonresident Seminar Program
AF-1511-0002
Air Conditioning Engineering
AF-1701-0001
Air Conditioning Mechanic by Correspondence
MC-1701-0002
Air Control Electronic Operator
MC-2204-0031
Air Control Electronics Operator
MC-2204-0031
Air Control Electronics Operator, Automated System
MC-1704-0001
Air Control/Antiair Warfare Electronics Operator
MC-1704-0002
Air Control/Antiaircraft Warfare Electronics Operator
MC-1704-0002
Air Electronic Systems Supervisor/Technician
AF-1715-0634
Air Electronics Officer
AF-1715-0323
Air Electronics Officer, Fighter A/C
AF-1715-0323
Air Force Base Level Maintenance Management
AF-1717-0025
Air Freight Specialist
AF-0419-0007
Air Intelligence Airman
AF-1606-0059
Air Intelligence Officer
AF-1606-0052
AF-1606-0054
AF-1606-0055
Air Launch Guidance Mechanic (AGM-28A/B)
AF-1715-0649
Air Launch Missile Checkout Equipment Repairman (AGM-28A/B)
AF-1715-0458
Air Launch Missile Guidance Mechanic (AGM-28A/B)
AF-1715-0649
Air Launched Missile Safety Officer
AF-0802-0009
Air Launched Missile Safety Technician
AF-0802-0011
Air National Guard Academy of Military Science
AF-2203-0051
Air National Guard Recruiter
AF-1406-0038
Air Navigation
MC-1606-0002
Air Observation
MC-1606-0001
Air Observer
MC-1704-0005
Air Passenger and Operations Specialist
AF-0419-0002
Air Passenger Specialist
AF-0419-0002
Air Passenger Specialist (Reserve)
AF-0419-0022
Air Passenger Specialist by Correspondence
AF-0419-0021
Air Police (Basic)
AF-1728-0019
Air Police Noncommissioned Officer (NCO)
AF-1728-0001
Air Police Officer
AF-1728-0018
Air Police Supervisor
AF-1728-0001
Air Policeman
AF-1728-0019
Air Policeman (Basic Air Police)
AF-1728-0019
Air Support Control Officer
MC-1715-0078
Air Support Operations Operator
MC-1715-0031
Air Transportation Officer
AF-0419-0010
Air War College
AF-1511-0006
Air War College Associate Correspondence Program
AF-1511-0005
Air War College Correspondence Program
AF-1511-0005
Air War College Nonresident Seminar Program
AF-1511-0004
Apprentice Air Cargo Specialist by Correspondence
AF-0419-0029
Associate Air War College Nonresident Seminar Program
AF-1511-0004
Civil Air Patrol Mission Observer Level II by Correspondence
AF-1704-0195
Civil Air Patrol Scanner by Correspondence
AF-1704-0194
Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence
AF-0801-0005
Fighter Weapons Instructor - Air Weapons Controller
AF-1406-0062
Intelligence for the Marine Air-Ground Task Force (MAGTF) by Correspondence
MC-1606-0005
Introduction to Civil Air Patrol Emergency Services by Correspondence
AF-1704-0196
Refrigeration and Air Condition Technician by Correspondence
AF-1730-0017
Refrigeration and Air Conditioning
CG-1730-0001
Refrigeration and Air Conditioning (Operation and Maintenance)
CG-1701-0001
Refrigeration/Air Conditioning Operation and Maintenance Class C
CG-1701-0002
Tactical Air Command and Control Specialist by Correspondence
AF-1406-0068
Tactical Air Command Central (TACC) Technician
MC-1715-0046
Tactical Air Operations Central (TAOC AN/TYQ-2) Repair
MC-1715-0053
Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician
MC-1715-0082
Tactical Air Operations Central (TAOC) Technician
MC-1715-0082
Tactical Air Operations Central (TAOC) Weapons Controller/Operator
MC-2204-0013
8th Class Air Observation School
MC-1606-0003

Air Defense

Air Defense Control Officer
MC-2204-0030
Air Defense Control Officer, Automated

System MC-2204-0030
Air Defense Control Officer, Automated System (ADCOC) MC-1704-0006
Air Defense Officer MC-2204-0030

Air Traffic Control
Advanced Air Traffic Control Officer AF-1704-0010
Air Traffic Control Officer AF-1704-0002
Air Traffic Control Radar Maintenance Technician AF-1715-0397
Air Traffic Control Radar Repairman AF-1715-0488
Air Traffic Control Radar Repairman (AN/MPN-1) AF-1715-0488
Air Traffic Control Radar Repairman by Correspondence AF-1715-0003
Air Traffic Control Radar Repairman AN/CPN-4 AF-1715-0422
Air Traffic Control Radar Technician AF-1715-0397
Air Traffic Control Radar Technician by Correspondence AF-1715-0009

Airborne
Airborne Command Post Communications Equipment (CE) Repairman AF-1715-0709
Airborne Command Post Communications Equipment Specialist by Correspondence AF-1715-0122
Airborne Communications Systems Operator AF-1704-0198
Airborne Early Warning Radar Repairman (AN/APS-20E) AF-1715-0025
Airborne Early Warning Radar Repairman (AN/APS-45) AF-1715-0029
Airborne Early Warning Radar Specialist Principles AF-1715-0533
Airborne Electronic Countermeasures Specialist AF-1715-0382
Airborne ECM Operator AF-1715-0382
Airborne Meteorological/Atmospheric Research Equipment (MET/ARE) Repairman AF-1715-0453
Airborne Radio Maintenance Technician AF-1715-0067
Airborne Radio Operator/Loadmaster MC-2204-0019
Airborne Radio Operators MC-1715-0032
Airborne Radio Repairman AF-1715-0341
Airborne Warning and Control Radar Specialist by Correspondence AF-1715-0123

Aircraft
Aircraft and Missile Electrical Repair Technician AF-1704-0165
Aircraft and Missile Ground Support Equipment Repair AF-1717-0012
Aircraft Armament Systems Specialist by Correspondence AF-1715-0035
Aircraft Early Warning Radar Maintenance Technician AF-1715-0282
Aircraft Early Warning Radar Repairman AF-1715-0427
Aircraft Electrical Repair Technician AF-1704-0165
Aircraft Electrical Systems Specialist by Correspondence AF-1714-0003
Aircraft Electro-Environmental System Technician by Correspondence AF-1704-0221
Aircraft Electro-Environmental Systems Technician by Correspondence AF-1704-0222 AF-1704-0223
Aircraft Electronic Navigation Equipment Maintenance Technician AF-1715-0510
Aircraft Electronic Navigation Equipment Technician AF-1715-0510
Aircraft Environmental Systems Mechanic by Correspondence AF-1704-0200
Aircraft ECM Maintenance Technician AF-1715-0324
Aircraft Fuel Systems Technician by Correspondence AF-1704-0202
Aircraft Inertial and Radar Navigation Systems Repairman AF-1715-0027
Aircraft Logs and Records CG-1405-0005
Aircraft Maintenance Specialist, Tactical Aircraft by Correspondence AF-1704-0102
Aircraft Metals Technology (Welding) by Correspondence AF-1724-0007
Aircraft Observer Technical Upgrading AF-1606-0031
Aircraft Observer Training—Pilot AF-1606-0030
Aircraft Pneudraulic Systems Mechanic by Correspondence AF-1704-0201
Aircraft Pneudraulic Systems Technician by Correspondence AF-1704-0230 AF-1704-0231
Aircraft Radio Maintenance Technician AF-1715-0067
Aircraft Radio Repairman AF-1715-0065 AF-1715-0069
Aircraft Radio Repairman (Command) AF-1715-0066
Aircraft Radio Repairman (Communications) AF-1715-0065
Aircraft Radio Repairman (General) AF-1715-0065
Aircraft Radio Repairman (Navigational) AF-1715-0069
Aircraft Sensor Systems Repairman (Electronic Sensors) AF-1715-0479
Aircraft/Avionics Maintenance Staff Officer AF-1408-0049
Airlift Aircraft Maintenance Technician by Correspondence AF-1704-0249
F-111A Weapons System Training (Aircraft Commander) AF-1606-0132
Flight Engineer Specialist, Reciprocating Engine Aircraft AF-1606-0032
Non-Destructive Testing of Aircraft and Related Equipment Components AF-1724-0002
Pilotless Aircraft Guidance and Control Officer AF-1715-0648
Strategic Aircraft Maintenance Specialist by Correspondence AF-1704-0209 AF-1704-0210 AF-1704-0211 AF-1704-0247
Tatical Aircraft Maintenance Technician by Correspondence AF-1704-0228

Aircraft Control
Aircraft Control and Warning Radar Maintenance Technician AF-1715-0064
Aircraft Control and Warning Radar Repairman AF-1715-0687
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF) AF-1715-0104
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6) AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF) AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/FPS-18, AN/FST-1, AN-FSA-10, AN/FSW-1) AF-1715-0060
Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6) AF-1715-0115
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF) AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6) AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4) AF-1715-0105
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D and IFF) AF-1715-0118
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D) AF-1715-0118
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4 AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF AF-1715-0020

Aircraft Control and Warning Radar Repairman, AN/FST-2
AF-1715-0111
Aircraft Control and Warning Radar Specialist by Correspondence
AF-1715-0005
Aircraft Control and Warning Radar Technician
AF-1715-0064
Aircraft Control and Warning Radar Technician by Correspondence
AF-1715-0010

Aircraft Maintenance
Aircraft Maintenance Indoctrination (SAC)
AF-1704-0083
Aircraft Maintenance Management Officer
AF-1717-0002
Aircraft Maintenance Officer
AF-1717-0002
AF-1717-0003
Aircraft Maintenance Officer Accelerated
AF-1717-0014
Aircraft Maintenance Specialist and Bombardment Aircraft by Correspondence
AF-1704-0184
Aircraft Maintenance Specialist, Airlift and Bombardment Aircraft by Correspondence
AF-1704-0181
Aircraft Maintenance Staff Officer
AF-1717-0002
Aircraft Maintenance Technician
AF-1704-0013
Aircraft Maintenance Technician, Airlift and Bombardment Aircraft by Correspondence
AF-1704-0190
Aircraft Maintenance Technician, Jet Engine Aircraft
AF-1717-0006
Aircraft Maintenance Technician, Jet Engine Type Aircraft
AF-1717-0006
Aircraft Maintenance Technician, Reciprocating Engine Aircraft
AF-1704-0088
Aircraft Maintenance Technician, Tactical Aircraft by Correspondence
AF-1704-0162
Aircraft Maintenance/Avionics Officer Accelerated
AF-1717-0004
Airlift Aircraft Maintenance Specialist by Correspondence
AF-1704-0184
HC-131A Aircraft Maintenance Class C
CG-1704-0006
HU-16E Aircraft Maintenance Class C
CG-1704-0003
Strategic Aircraft Maintenance Specialist by Correspondence
AF-1704-0181
AF-1704-0188

Aircrew
Aircrew Egress Systems Mechanic by Correspondence
AF-1717-0005
Aircrew Life Support Specialist by Correspondence
AF-1704-0199
HC-130 Aircrew Instructor Training
AF-1606-0149
Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007
Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence
CG-0802-0008

Aircrewman
Basic Search and Rescue (SAR) Aircrewman (ACBSC) by Correspondence
CG-0802-0012

Airfield
Airfield Management Specialist
AF-1704-0215
Apprentice Airfield Management Specialist by Correspondence
AF-1704-0214

Airframe
Airframe Repair Specialist by Correspondence
AF-1704-0054
AF-1723-0010
Aviation HU-25A Airframe Class C
CG-1704-0029
HH-52A Airframe and Powertrain Maintenance Class C
CG-1704-0005
HH-52A Airframe and Powertrain, Class C
CG-1704-0005

Airlift
Aircraft Maintenance Specialist, Airlift and Bombardment Aircraft by Correspondence
AF-1704-0181
Aircraft Maintenance Technician, Airlift and Bombardment Aircraft by Correspondence
AF-1704-0190
Airlift Aircraft Maintenance Specialist by Correspondence
AF-1704-0184

Albanian
Albanian Aural Comprehension
DD-0602-0033
Albanian Basic
DD-0602-0001
DD-0602-0002
DD-0602-0018

Alcohol
Social Actions Technician (Drugs/Alcohol) by Correspondence
AF-1406-0054

Altimeter
AN/APN-171 Radar Altimeter System Class C
CG-1715-0026

Aluminum
Aluminum Welding Class C
CG-1710-0016

Amharic
Amharic
DD-0602-0009
DD-0602-0045

Ammunition
Ammunition Handlers
MC-0802-0003
Ammunition Officer
AF-1405-0047
MC-1717-0003
Ammunition Officer (Munitions)
AF-1405-0047
Ammunition Technician
MC-0802-0004
MC-0802-0006
Ammunition Technician (Advanced)
MC-0802-0005
Ammunition Technician (Basic)
MC-0802-0006

Amphibian
Amphibian Vehicle Crewman
MC-1708-0001
Amphibian Vehicle Officer
MC-2204-0002
Amphibian Vehicle Repairman
MC-1703-0011
Assault Amphibian Vehicle Crewman
MC-1708-0001
Assault Amphibian Vehicle Officer
MC-2204-0002
Tracked Vehicle Repairman (Amphibian Vehicle)(Basic)
MC-1703-0011
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011

Amphibious
Amphibious Vehicle Company Officer
MC-2204-0041
Amphibious Vehicle Officer Orientation
MC-2204-0025
Amphibious Vehicle Unit Leader
MC-1710-0010
Amphibious Vehicle Unit Leaders (Enlisted)
MC-1710-0010
Amphibious Warfare
MC-2204-0021
MC-2204-0070
Assault Amphibious Vehicle Unit Leader
MC-1710-0010
Reserve Amphibious Warfare Phase I, Phase II
MC-2204-0034
Tank/Amphibious Vehicle Officer
MC-2204-0028

Analog
Analog Repair
MC-1715-0023
Electronic Analog Data Processing Equipment Repairman
AF-1715-0061
Tactical Air Operations Central (TAOC) Analog Repair
MC-1715-0023

Analysis
Advanced Cost and Economic Analysis
AF-1408-0016
Advanced Data Automation Analysis and Design
AF-1402-0053
Advanced Data Processing Audit Analysis
AF-1402-0041
Advanced ELINT Collection/Analysis
DD-1715-0017
Advanced Quantitative Methods in Cost Analysis
AF-1115-0004
Advanced Terrain Analysis
DD-1601-0028
Aircraft and Missile Maintenance Analysis Specialist
AF-1115-0001
Basic Quantitative Methods in Cost

Analysis
AF-1115-0005
Basic Terrain Analysis
DD-1601-0020
Computer Systems Analysis and Design (Enlisted)
AF-1402-0040
Cost and Management Analysis Specialist by Correspondence
AF-1408-0083
Cost and Management Analysis Technician by Correspondence
AF-1408-0084
Data Systems Analysis and Design (Enlisted)
AF-1402-0040
Data Systems Analysis and Design (Officer)
AF-1402-0039
Ground C-E-M Maintenance Analysis Technician
AF-1113-0001
Intermediate ELINT Collection and Analysis
DD-1715-0016
Maintenance Analysis Specialist
AF-1115-0001
Maintenance Analysis Technician
AF-0306-0001
Maintenance Systems Analysis Specialist by Correspondence
AF-1402-0069
Maintenance Systems Analysis Specialists by Correspondence
AF-1715-0134
Management Analysis Officer
AF-1408-0063
Management Analysis Specialist
AF-1408-0009
Management Analysis Technician
AF-1408-0009
Quantitative Methods in Cost Analysis
AF-1115-0004
Real Estate and Cost Management Analysis Specialist
AF-0331-0001
Real Estate—Cost-Management Analysis Specialist
AF-0331-0001
Supply Systems Analysis Supervisor by Correspondencee
AF-1405-0066
Systems Analysis and Design
MC-1402-0003
Systems Analysis and Design (Functional)
MC-1402-0010
Systems Analysis and Design (Orientation) I
MC-1402-0048
Systems Analysis and Design (Orientation) I The Domain of the Problem
MC-1402-0048
Systems Analysis and Design (Orientation) II
MC-1402-0049
Systems Analysis and Design (Orientation) II The Domain of the Solution
MC-1402-0049
Terrain Analysis
DD-1601-0004
DD-1601-0018
Terrain Analysis Warrant Officer Certification
DD-1601-0029
Vehicle Maintenance Control and Analysis Specialist by Correspondence
AF-1710-0036

Analyst
Computer Systems Analyst
AF-1402-0003
Guidance Systems Analyst (TM-76A)
AF-1714-0005
GAM Analyst Mechanic, GAM-77
AF-1715-0454
Missile Systems Analyst Specialist (LGM-25)
AF-1715-0376
Missile Systems Analyst Specialist (TM-76B)
AF-1715-0668
Missile Systems Analyst Specialist, WS-133A-M
AF-1715-0452
Space Systems Analyst
AF-1303-0001

Analytical
Analytical Photogrammetric Positioning System
DD-1601-0015
Analytical Photogrammetric Positioning System I
DD-1601-0026
Analytical Photogrammetric Positioning System IV
DD-1601-0027

Anesthetist
Nurse Anesthetist
AF-0703-0013

Animal
Animal Specialist
AF-0102-0001
Animal Technician
AF-0102-0002
Laboratory Animal Technician
AF-0102-0002

Antenna
Antenna Construction and Propagation of Radio Waves by Correspondence
MC-1715-0136
Antenna Construction and Propogation of Radio Waves by Correspondence
MC-1715-0112
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler
CG-1715-0019
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058
Cable and Antenna Installation Specialist
AF-1714-0015
Cable and Antenna Systems Installation/Maintenance Specialist by Correspondence
AF-1715-0125
Outside Wire and Antenna Maintenance Repairman
AF-1714-0015
Outside Wire and Antenna Systems Installation and Maintenance Specialist
AF-1714-0015

Antiair
Air Control/Antiair Warfare Electronics Operator
MC-1704-0002
Air Control/Antiaircraft Warfare Electronics Operator
MC-1704-0002

Antiaircraft
Air Control/Antiaircraft Warfare Electronics Operator
MC-1704-0002
Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
MC-1715-0036
Medium Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0056

Antitank
Antitank Assaultman
MC-2204-0049

Appliance
Orthopaedic Appliance Specialist
AF-0709-0021

Arabic
Arabic
DD-0602-0009
DD-0602-0045
Arabic (Egyptian, Syrian, Iraqi) Basic
DD-0602-0026
Arabic Aural Comprehension
DD-0602-0015
DD-0602-0134
Arabic Basic
DD-0602-0049
DD-0602-0072
Arabic Basic (Modern Standard Arabic)
DD-0602-0232
Arabic Intensive
DD-0602-0039
Arabic Intermediate
DD-0602-0220
Arabic—Eastern
DD-0602-0046
Arabic—Western
DD-0602-0009
DD-0602-0045
Arabic-Egyptian Extended
DD-0602-0211
Arabic-Egyptian Special
DD-0602-0208
Arabic-Iraqi Extended
DD-0602-0209
Arabic-Iraqi Special
DD-0602-0207
Arabic-Syrian Extended
DD-0602-0210
Arabic-Syrian Special
DD-0602-0206
Modern Standard Arabic Aural Comprehension
DD-0602-0015
Short Basic Arabic
DD-0602-0034

Area
Intelligence Area Studies (SEA)
AF-1601-0042

Armament
Aircraft Armament Systems Specialist by Correspondence
AF-1715-0035
Armament Systems Officer (Fighter)
AF-1715-0497
Armament Systems Officer, Bomber
AF-1715-0536

Armed
Armed Forces Staff College
DD-0326-0001

Armed Forces
Armed Forces Radio Television System Broadcast Manager
DD-0505-0005

Armorer
Infantry Weapons Armorer
MC-1601-0006
MC-2204-0020
Infantry Weapons Armorer Basic
MC-2204-0052

Armorers
Infantry Weapons Armorers Advanced
MC-2204-0044

Arms
Combat Arms Training and Maintenance Specialist/Technician by Correspondence
AF-2203-0054
Small Arms Instructor
CG-1408-0001
CG-1408-0041
Small Arms Specialist
AF-2203-0001

Artillery
Artillery Electronic Equipment Repair
MC-1715-0003
Artillery Electronic Equipment Repairman
MC-1715-0003
Artillery Officer Orientation
MC-2204-0045
Artillery Scout Observer
MC-2204-0032
Artillery Survey for the Fire Control Man by Correspondence
MC-1601-0021
Artillery Survey Instruments by Correspondence
MC-1601-0032
Artillery Weapons Repairman
MC-1601-0005
MC-1710-0011
MC-2204-0022
Artillery Weapons Repairman (Advanced)
MC-1710-0027
Artillery Weapons Repairman (Basic)
MC-1710-0011
Field Artillery Batteryman
MC-2204-0010
Field Artillery Fire Controlman
MC-2204-0033
Field Artillery Operations Man
MC-2204-0017
Introduction to Field Artillery Survey by Correspondence
MC-1601-0039
Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
MC-1715-0036
Medium Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0056
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic
MC-1703-0006
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006

Ashore
Firefighting Ashore (FFASH) by Correspondence
CG-1728-0005

Assault
Assault Amphibian Vehicle Crewman
MC-1708-0001

Assaultman
Antitank Assaultman
MC-2204-0049

Assembler
Assembler Language Code (ALC) Programming (Combination
MC-1402-0051
IBM S/360 Assembler Language Coding (Entry)
MC-1402-0051
IBM System 360 OS Assembler Language
MC-1402-0031
Marine Assembler Language Programming
MC-1402-0040
System 360 Operating System—Assembler Language Programming Phase
MC-1402-0008

Assistance
Defense Security Assistance Management Overseas
DD-0327-0001

Atmospheric
Airborne Meteorological/Atmospheric Research Equipment (MET/ARE) Repairman
AF-1715-0453

Atomic
Atomic Energy, Phase I
AF-1715-0169
Atomic Energy, Phase I (Electrical)
AF-1715-0169
Atomic Weapons Employment
MC-2204-0036
Atomic Weapons Officer
AF-1715-0545
Officers Phase I, Atomic Energy
AF-1715-0290

Attack
Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096
Integrated Avionic Attack Control Systems Specialist by Correspondence
AF-1715-0759
Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1704-0218
AF-1715-0097
Integrated Avionics Attack Control Systems Specialist (F-16) by Correspondence
AF-1704-0219
Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
AF-1715-0760
Integrated Avionics Attack Control Systems Technician by Correspondence
AF-1715-0113
Integrated Avonics Attack Control Systems Specialist by Correspondence
AF-1715-0091

Audiovisual
Audiovisual Equipment Repairer
AF-1715-0741
Precision Imagery and Audiovisual Media Maintenance Specialist by Correspondence
AF-1715-0136

Audit
Advanced Data Processing Audit Analysis
AF-1402-0041

Auditing
Auditing Data Processing Systems
AF-1402-0042

Auditor
Auditor
AF-1401-0013

Aural Comprehension
Albanian Aural Comprehension
DD-0602-0033
Arabic Aural Comprehension
DD-0602-0015
DD-0602-0134
Bulgarian Aural Comprehension
DD-0602-0135
Chinese Aural Comprehension
DD-0602-0106
Chinese—Mandarin Aural Comprehension
DD-0602-0136
Czech Aural Comprehension
DD-0602-0137
French Aural Comprehension
DD-0602-0138
German Aural Comprehension
DD-0602-0016
Hungarian Aural Comprehension
DD-0602-0139
Indonesian Aural Comprehension
DD-0602-0140
Japanese Aural Comprehension
DD-0602-0141
Korean Aural Comprehension
DD-0602-0142
Modern Standard Arabic Aural Comprehension
DD-0602-0015
Persian Aural Comprehension
DD-0602-0143
Polish Aural Comprehension
DD-0602-0144
Portuguese Aural Comprehension
DD-0602-0145
Romanian Aural Comprehension
DD-0602-0146
Russian Aural Comprehension
DD-0602-0017
Russian Stenotype Aural Comprehension
DD-0602-0147
Serbo-Croatian Aural Comprehension
DD-0602-0148
Spanish Aural Comprehension
DD-0602-0149
Thai Aural Comprehension
DD-0602-0150
Turkish Aural Comprehension
DD-0602-0151
Vietnamese—Hanoi Aural Comprehension
DD-0602-0193
DD-0602-0194

Autodin
Autodin Procedures by Correspondence
MC-1715-0094

Automated
Air Control Electronics Operator, Automated System
MC-1704-0001

Air Defense Control Officer, Automated System (ADCOC) MC-1704-0006
Automated Aids to Navigation Lighthouse Technician CG-1715-0128
Automated Aids to Navigation Maintenance CG-2205-0001
Automated Data Processing Equipment - Fleet Marine Force Programmer MC-1402-0050
Automated Data Processing Equipment for the Fleet Marine MC-1402-0050
Automated Systems Analyst (Management Support Systems) AF-1402-0064 AF-1402-0066
Automated Systems Program Designer AF-1402-0010 AF-1402-0044
Automated Systems Program Designer (Management Support Systems) AF-1402-0010
Automated Systems Programming Technician (Management Support Systems) AF-1402-0002

Automatic
Automatic Digital Switching Technician AF-1402-0020
Automatic Flight Control Systems Specialist by Correspondence AF-1715-0075
Automatic Flight Control Systems Technician AF-1715-0378
Automatic Flight Control Systems Technician (Fighters and B-58) AF-1715-0378
Automatic Telephone Equipment by Correspondence MC-1715-0099
Automatic Teletype and Electronic Switching Systems Repairman AF-1715-0102
Automatic Tracking Radar Repairman AF-1715-0368
Automatic Tracking Radar Specialist (Rate and Track Subsystems) (SM-65) AF-1715-0406
Automatic Tracking Radar Specialist by Correspondence AF-1715-0007
Automatic Tracking Radar Technician by Correspondence AF-1715-0011
CEJT-SX-100/200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 217 Class C CG-1715-0113
CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System CG-1715-0116
Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype) AF-1715-0102
General Purpose Automatic Transmission Maintenance AF-1703-0012
HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance CG-1704-0030
HH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C CG-1714-0015
TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C CG-1715-0115

Automation
Advanced Data Automation Analysis and Design AF-1402-0053
Data Automation Officer AF-1402-0046

Automotive
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012
Automotive AC Electrical Systems AF-1703-0008
Automotive Brake Systems by Correspondence MC-1703-0023
Automotive Cooling and Lubricating Systems by Correspondence MC-1703-0021 MC-1703-0032
Automotive Engine Maintenance and Repair by Correspondence MC-1703-0024
Automotive Fuel and Exhaust Systems by Correspondence MC-1703-0020 MC-1703-0031
Automotive Intermediate Maintenance MC-1712-0003
Automotive Maintenance Officer MC-1703-0014
Automotive Mechanic MC-1703-0009
Automotive Organizational Maintenance MC-1703-0008 MC-1703-0028
Automotive Organizational Mechanics MC-1703-0008
Automotive Power Trains by Correspondence MC-1703-0022
Automotive Preventive Maintenance MC-1703-0007
Automotive Shop Management AF-1405-0049
Basic Automotive Mechanic MC-1703-0009
Reserve Automotive Mechanic MC-1408-0020

Auxiliary
AN/UYK-7 Computer and Data Auxiliary Console (UYNK/DEAC) Course Development CG-1402-0002
AN/UYK-7 Computer and OJ-172 Data Exchange Auxiliary Console (DEAC) CG-1402-0002

Aviation
Aviation Corrosion Control by Correspondence CG-1704-0016
Aviation Electrician Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electrician's Mate (AE) Class A Fixed Wing Track Training CG-1704-0024
Aviation Electrician's Mate (AE) Class A Phase 1 CG-1714-0014
Aviation Electrician's Mate (AE) Class A Rotary Wing Training CG-1704-0025
Aviation Electrician's Mate First Class (AE1) by Correspondence CG-1714-0022
Aviation Electrician's Mate Second Class (AE2) By Correspondence CG-1714-0025
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electronics Operator MC-1715-0049
Aviation Electronics Technician (AT) Communications, Class A CG-1405-0001
Aviation Electronics Technician AN/APS-127 CG-1715-0080
Aviation Electronics Technician AN/ARC-160 Class C CG-1715-0078
Aviation Electronics Technician AN/ARN-118(V) Class C CG-1715-0084
Aviation Electronics Technician AN/ARN-133V2 Class C CG-1715-0083
Aviation Electronics Technician First Class (AT1) by Correspondence CG-1715-0132
Aviation Electronics Technician 618M-3 Class C CG-1715-0079
Aviation Electronics Technician, Class A CG-1715-0001
Aviation Electronics Technician, First Class, by Correspondence CG-1715-0032
Aviation Engineering Administration CG-1405-0005
Aviation Fire Control Repair MC-1715-0033
Aviation Fire Control Repair, AN/TPQ-10 (AFC) MC-1715-0033
Aviation Fire Control Technician MC-1715-0040
Aviation HU-25A Airframe Class C CG-1704-0029
Aviation Machinist Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist's Mate CG-1704-0001
Aviation Machinist's Mate (AD) Fixed Wing Class A CG-1704-0022
Aviation Machinist's Mate (AD) Rotary Wing Class A CG-1704-0023

Aviation Machinist's Mate Class A
CG-1704-0001
Aviation Machinist's Mate, First Class, by Correspondence
CG-1704-0008
Aviation Machinist's Mate, Second Class, by Correspondence
CG-1704-0007
Aviation Maintenance Administration (AVADMN1) by Correspondence
CG-1408-0003
Aviation Radar Repair
MC-1715-0055
Aviation Radar Repair (A)
MC-1715-0055
Aviation Radar Repair (B)
MC-1715-0052
Aviation Radar Repair (C)
MC-1715-0059
Aviation Radar Repair (D)
MC-1715-0054
Aviation Radar Repair A
MC-1715-0055
Aviation Radar Repairman (B)
MC-1715-0052
Aviation Radar Technician
MC-1715-0058
MC-1715-0122
Aviation Radio Repair
MC-1715-0011
Aviation Radio Technician
MC-1715-0047
MC-1715-0127
Aviation Structural Mechanic (AM) Class A
CG-1704-0027
Aviation Structural Mechanic, First Class, by Correspondence
CG-1704-0015
Aviation Structural Mechanic, Second Class, by Correspondence
CG-1704-0013
Aviation Supply Enlisted
MC-1405-0001
Aviation Supply Officer
MC-1405-0018
Aviation Survivalman Class A
CG-1702-0001
Aviation Survivalman, First Class, by Correspondence
CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence
CG-1704-0018
Chief Aviation Electrician (AEC) by Correspondence
CG-1408-0015
Chief Aviation Electronics Technician (ATC) by Correspondence
CG-1408-0029
Chief Aviation Machinist (AMC) by Correspondence
CG-1408-0034
Chief Aviation Structural Mechanic (AMC) by Correspondence
CG-1408-0030
Chief Aviation Survivalman (ASMC) by Correspondence
CG-1408-0027

Aviation Electronics
Aviation Electronics Technician, Second Class, (AT2) by Correspondence
CG-1715-0031

Avionic
Avionic Communications Specialist
AF-1715-0492
Avionic Communications Specialist by Correspondence
AF-1715-0120
AF-1715-0467
Avionic Guidance and Control Systems Technician by Correspondence
AF-1704-0232
Avionic Inertial and Radar Navigation Systems Specialist
AF-1715-0027
Avionic Inertial and Radar Navigation Systems Specialist by Correspondence
AF-1715-0442
Avionic Sensor Systems Specialist (Electro-Optical Sensors)
AF-1715-0478
Avionic Sensor Systems Specialist (Electro-Optical Sensors) by Correspondence
AF-1715-0071
Avionic Sensor Systems Specialist (Electronic Sensors)
AF-1715-0475
Avionic Sensor Systems Specialist (Reconnaissance Electronic Sensors) by Correspondence
AF-1715-0068
Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence
AF-1715-0070
Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096
Integrated Avionic Attack Control Systems Specialist by Correspondence
AF-1715-0759
Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence
AF-1704-0226
AF-1704-0227
AF-1715-0095
Integrated Avionic Instrument and Flight Control Systems Technican by Correspondence
AF-1715-0114
Integrated Avionics Attack Control Systems Specialist (F-16) by Correspondence
AF-1704-0219
Integrated Organizational Avionic System Specialist by Correspondence
AF-1715-0758
Integrated Organizational Avionic Systems Specialist by Correspondence
AF-1405-0069

Avionics
A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0078
Aircraft Maintenance/Avionics Officer Accelerated
AF-1717-0004
Aircraft/Avionics Maintenance Staff Officer
AF-1408-0049
Avionics Aerospace Ground Equipment Specialist
AF-1715-0537
Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence
AF-1715-0077
Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0076
Avionics Equipment, Class C, AN/ARC-51A
CG-1715-0022
Avionics Equipment, Class C, AN/ARC-94
CG-1715-0019
Avionics Equipment, Class C, AN/ARN-52(V)
CG-1715-0021
Avionics Equipment, Class C, AN/ARN-79
CG-1715-0020
Avionics Guidance and Control Systems Technician by Correspondence
AF-1704-0234
AF-1704-0235
AF-1704-0236
AF-1704-0237
AF-1704-0238
AF-1704-0239
AF-1704-0240
AF-1704-0241
AF-1715-0761
Avionics Instrument Systems Specialist by Correspondence
AF-1715-0080
Avionics Officer
AF-1715-0359
Avionics Officer (Bomber)
AF-1715-0536
Avionics Officer (Fighter)
AF-1715-0497
Avionics Officer (Other)
AF-1715-0323
Avionics Staff Officer
AF-1408-0049
Avionics Test Station and Component Specialist (F-16/A-10) by Correspondence
AF-1715-0756
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence
AF-1704-0224
HU-25A Avionics Class C
CG-1704-0031
Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1704-0218
AF-1715-0097
Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
AF-1715-0760
Integrated Avionics Attack Control Systems Technician by Correspondence
AF-1715-0113
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117

Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476

Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476

Integrated Avionics Component Specialists (Communication/Mission and Traffic Control and Penetration Aids)
AF-1715-0609

Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086

Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084

Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence
AF-1715-0081

Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence
AF-1715-0098

Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099

Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence
AF-1715-0094

Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092

Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0093

Integrated Avionics Manual Test Station and Component Specialist by Correspondence
AF-1715-0083

Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Displays)
AF-1715-0210

Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays)
AF-1715-0210

Integrated Avionics System Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476

Integrated Organizational Avionics Systems Specialist by Correspondence
AF-1715-0757

Offensive Avionics Systems Specialist (B-1B) by Correspondence
AF-1704-0248

Avionicsman

HC-130 Avionicsman by Correspondence
CG-1715-0040

HH-3F Avionicsman by Correspondence
CG-1715-0039

HU-25A Avionicsman by Correspondence
CG-0802-0007

Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007

AAA

Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
MC-1715-0036

Medium Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0056

AC-130

Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050

Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence
AF-1715-0055

AC-130E

Special Operations Training, AC-130E Pilots
AF-1606-0020

ADL-81

ADL-81 Loran 'C' Receiver Class 'C'
CG-1715-0082

ADP

Automatic Data Processing (ADP) Orientation
MC-1402-0014

AGE

Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence
AF-1715-0077

AGM

Air Launch Guidance Mechanic (AGM-28A/B)
AF-1715-0649

Air Launch Missile Checkout Equipment Repairman (AGM-28A/B)
AF-1715-0458

Air Launch Missile Guidance Mechanic (AGM-28A/B)
AF-1715-0649

AGM Guidance Mechanic (AGM-28A/B)
AF-1715-0649

Missile Electronic Equipment Specialist (AGM-28A/B)
AF-1715-0458

Missile Guidance and Control Specialist (AGM-28)
AF-1715-0649

Missile Guidance and Control Specialist (AGM-28A/B)
AF-1715-0649

Missile Guidance and Control Specialist (AGM/AIM)TAC
AF-1715-0712

Missile Mechanic (AGM-28A/B)
AF-1715-0693

Missile Systems Maintenance Specialist (AGM-28)
AF-1715-0649

AIM

Missile Guidance and Control Specialist (AGM/AIM)TAC
AF-1715-0712

Missile Guidance and Control Specialist (AIM)
AF-1715-0671

Missile Guidance and Control Specialist (AIM) (ADC)
AF-1715-0671

AIMS

AIMS Maintenance
MC-1715-0113

AMA

AMA/Directorate of Materiel Management
AF-1405-0027

AMCS

Weapons Control Systems Mechanic (AMCS-AERO-1A)
AF-1715-0535

Weapons Control Systems Mechanic (F4, AMCS)
AF-1715-0535

AN/ALE-41

AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance
MC-1715-0087

AN/ALQ-52(V)

CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance
MC-1715-0071

AN/APN-171

AN/APN-171 Radar Altimeter System Class C
CG-1715-0026

AN/APN-175

AN/APN-175 Doppler Radar, Navigation
CG-1715-0027

AN/APN-180

AN/APN-180 Loran A Navigation System Class C
CG-1715-0028

AN/APN-195

AN/APN-195 Weather Radar Systems Class C
CG-1715-0025

AN/APQ-T3

Navigation and Bombing Trainer Specialist (AN/APQ-T3)
AF-1715-0274

AN/APQ-126
Weapons Control Systems Mechanic (A-7D, AN/APQ-126)
AF-1715-0538

AN/APQ-24A
AN/APQ-24A System Mechanic
AF-1715-0428
Special Training on Radar Bombing Navigation System, AN/APQ-24A
AF-1715-0617

AN/APS-127
Aviation Electronics Technician AN/APS-127
CG-1715-0080

AN/APS-20E
Airborne Early Warning Radar Repairman (AN/APS-20E)
AF-1715-0025

AN/APS-45
Airborne Early Warning Radar Repairman (AN/APS-45)
AF-1715-0029

AN/ARC-160
AN/ARC-160 Communications System
CG-1715-0029
Class C Aviation Electronics Technician AN/ARC-160
CG-1715-0029

AN/ARC-51A
Avionics Equipment, Class C, AN/ARC-51A
CG-1715-0022

AN/ARC-94
Aviation Electronics Technician Class C AN/ARC-94
CG-1715-0019
Avionics Equipment, Class C, AN/ARC-94
CG-1715-0019
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler
CG-1715-0019

AN/ARN-118(V)
Aviation Electronics Technician AN/ARN-118(V) Class C
CG-1715-0084

AN/ARN-133V2
Aviation Electronics Technician AN/ARN-133V2 Class C
CG-1715-0083

AN/ARN-52(V)
Avionics Equipment, Class C, AN/ARN-52(V)
CG-1715-0021

AN/ARN-79
Avionics Equipment, Class C, AN/ARN-79
CG-1715-0020

AN/ARN-84(V)
AN/ARN-84(V) TACAN Receiver Intermediate Maintenance
MC-1715-0088

AN/ASG-21
Defensive Fire Control Systems Mechanic (MD-7, AN/ASG-21 Turrets)
AF-1715-0540

AN/ASN-50
AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014

AN/AYN-1
AN/AYN-1 Navigation Computer Systems Class C
CG-1715-0024
Class C AN/AYN-1 Maintenance
CG-1715-0024

AN/AYN-2
AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014

AN/CPN-4
Air Traffic Control Radar Repairman AN/CPN-4
AF-1715-0422

AN/CPS-1
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF)
AF-1715-0104

AN/CPS-4
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF)
AF-1715-0104

AN/CPS-5
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF)
AF-1715-0104

AN/CPS-6B
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6)
AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF)
AF-1715-0023

AN/FPN-38
AN/FPN-38 Timer Synchronizer
CG-1715-0004

AN/FPN-39
AN/FPN-39 Loran Transmitter Class C
CG-1715-0118

AN/FPN-41
AN/FPN-41 Timer
CG-1715-0005

AN/FPN-42
AN/FPN-42 Loran Transmitter Class C
CG-1715-0117

AN/FPN-44A
AN/FPN-44A Loran Transmitter Class C
CG-1715-0110

AN/FPN-46
AN/FPN-46 Monitor/Timer
CG-1715-0009
AN/FPN-46 Timer
CG-1715-0009

AN/FPN-64(V)
AN/FPN-64(V) Loran Solid State Transmitter Class C
CG-1715-0123

AN/FPS-18
Aircraft Control and Warning Radar Repairman (AN/FPS-18, AN/FST-1, AN-FSA-10, AN/FSW-1)
AF-1715-0060

AN/FPS-20
Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6)
AF-1715-0115

AN/FPS-3
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF)
AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6)
AF-1715-0103

AN/FPS-4
Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4)
AF-1715-0105
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4
AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF
AF-1715-0020

AN/FPS-6
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6)
AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6)
AF-1715-0115
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF)
AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6)
AF-1715-0103

AN/FPS-8
Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4)
AF-1715-0105
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4
AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF
AF-1715-0020

AN/FRC-39
Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A)
AF-1715-0079

AN/FRC-39A
Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A)
AF-1715-0079

AN/FSA-21/412L
Electronic Computer Repairman (AN/FSA-21/412L)
AF-1715-0016
Electronic Digital Computer Repairman (AN/FSA-21/412L)
AF-1715-0016

AN/FSQ-7
Electric Digital Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058
Electronic Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058
Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)
AF-1715-0266
Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348

AN/FST-2
Aircraft Control and Warning Radar Repairman, AN/FST-2
AF-1715-0111

AN/FST-2B
Electronic Digital Data Processing Repairman (AN/FST-2B)
AF-1715-0018

AN/FYA-38
AN/FYQ-45 and AN/FYA-38 Maintenance
AF-1715-0062

AN/FYQ-45
AN/FYQ-45 and AN/FYA-38 Maintenance
AF-1715-0062

AN/GPQ-T6
Defensive Systems Trainer Specialist, AN/GPQ-T6
AF-1715-0138

AN/GSA-51A
Electronic Computer Repairman BUIC AN/GSA-51A
AF-1715-0677
Electronic Computer Systems Repairman (BUIC AN/GSA-51A)
AF-1715-0447

AN/GYK-19
Electronic Computer Systems Repairman (BUIC AN/GYK-19)
AF-1715-0447

AN/MPN-1
Air Traffic Control Radar Repairman (AN/MPN-1)
AF-1715-0488

AN/MRC-107A
AN/MRC-107A, I/O Maintenance
AF-1715-0072

AN/SPN-29
AN/SPN-29 Receiver
CG-1715-0006

AN/SPN-30
AN/SPN-30 Receiver
CG-1715-0008

AN/SPS-29
AN/SPS-29 Maintenance and Repair, Class C
CG-1715-0049
AN/SPS-29D Radar Systems Class C
CG-1715-0049

AN/SPS-29D
AN/SPS-29D Radar Systems Class C
CG-1715-0049

AN/SPS-51
AN/SPS-51 Radar, Class C
CG-1715-0069

AN/SPS-57
AN/SPS-57 Maintenance and Repair, Class A
CG-1715-0054

AN/SPS-64(V)
AN/SPS-64(V) -1,2,3,4 Radar
CG-1715-0051

AN/SPS-64(V) 1,2,3
AN/SPS-64(V) 1,2,3 Radars
CG-1715-0119

AN/SPS-64(V) 4
AN/SPS-64(V) 4 Radars
CG-1715-0120

AN/SPS-64(V)4
AN/SPS-64(V)4 Radar
CG-1715-0070

AN/SPS-66
AN/SPS-66 and AN/SPS-66A Radars Class C
CG-1715-0122
AN/SPS-66 Maintenance and Repair, Class A
CG-1715-0030

AN/SPS-66A
AN/SPS-66 and AN/SPS-66A Radars Class C
CG-1715-0122

AN/SQS-53
Sonar AN/SQS-53 Maintenance
AF-1715-0276

AN/SRC-21
AN/SRC-21 Radio Set
CG-1715-0045

AN/SRC-42(V)
AN/SRC-42(V) Radio Set
CG-1715-0053

AN/TGC-37
Communication Central, AN/TGC-37, System Maintenance
MC-1715-0006
Mobile Communications Central Technician (AN/TGC-37(v))
MC-1715-0006

AN/TPQ-10
Aviation Fire Control Repair, AN/TPQ-10 (AFC)
MC-1715-0033

AN/TPS-1D
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D and IFF)
AF-1715-0118
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D)
AF-1715-0118

AN/TTC-28
Telephone System, Transportable AN/TTC-28
MC-1715-0016

AN/TYA-11
Communications Central Group AN/TYA-11 Technician
MC-1715-0030

AN/TYQ-1
Tactical Air Command Central (TACC AN/TYQ-1) Repair
MC-1715-0020

AN/TYQ-2
Tactical Air Operations Central (TAOC AN/TYQ-2) Repair
MC-1715-0053
Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician
MC-1715-0082

AN/TYQ-3
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician
MC-1715-0026

AN/UPN-23
AN/UPN-23 Loran A Receiver, Class A
CG-1715-0055

AN/URA-38
AN/URT-23 and AN/URA-38
CG-1715-0058
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058

AN/URC-114(V)
AN/URC-114(V) Low Power (1KW) Communications System Class C
CG-1715-0124

AN/URC-77
AN/URC-77 Maintenance and Repair
CG-1715-0052

AN/URC-9
AN/URC-9 Radio Set Class C
CG-1715-0121

AN/URT-23
AN/URT-23 and AN/URA-38
CG-1715-0058
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058

AN/URT-41(V)
AN/URT-41(V) Transmitting System Class C
CG-1715-0112

AN/UYK-7
AN/UYK-7 Computer and Data Auxiliary Console (UYNK/DEAC) Course Development
CG-1402-0002
AN/UYK-7 Computer and OJ-172 Data Exchange Auxiliary Console (DEAC)
CG-1402-0002

APA-165
Weapon Control Systems Mechanic (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0052
Weapon Control Systems Technician (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0056
Weapons Control Systems Mechanic (F-4C/D: APQ-109/APA-165)
AF-1715-0535

APQ-109
Weapon Control Systems Mechanic (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0052
Weapon Control Systems Technician (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0056
Weapons Control Systems Mechanic (F-4C/D: APQ-109/APA-165)
AF-1715-0535

APQ-120
Weapon Control Systems Mechanic (F-4E: APQ-120) by Correspondence
AF-1715-0053
Weapon Control Systems Technician (F-4E: APQ-120) by Correspondence
AF-1715-0063
Weapons Control Systems Mechanic (F-4E:APQ-120)
AF-1715-0610

ARC-160
AN/ARC-160 Communications System
CG-1715-0029
ARC-160 Communications System
CG-1715-0029
Class C Aviation Electronics Technician AN/ARC-160
CG-1715-0029

ARRS
Pilot Advanced Flying (HH-43) ARRS
AF-1606-0128

ASB-15
Bomb Navigation System Mechanic

(ASB-15 System) AF-1715-0485
Bomb Navigation System Mechanic (B-52C/D: ASB-15 System) AF-1715-0485
Bomb Navigation Systems Mechanic (B-52C/D: ASB-15 System AF-1715-0485

ASB-4
Bomb Navigation System Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4/4A/9/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483

ASB-4A
Bomb Navigation System Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483

ASG-15
Defensive Fire Control System Mechanic (A-3A, MD-9, ASG-15 Turrets) AF-1715-0482
Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15 Turrets) by Correspondence AF-1715-0047

ASG-21
Defensive Fire Control System Mechanic (B-52H, ASG-21 Turrets) AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52H, ASG-21 Turrets) AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52H, B-58: MD-7, ASG-21 Turrets) AF-1715-0540
Defensive Fire Control Systems Mechanic (MD-7, AN/ASG-21 Turrets) AF-1715-0540

ASQ-151
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence AF-1715-0049
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence AF-1715-0046

ASQ-176
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence AF-1715-0046

ASQ-25
Weapon Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) by Correspondence AF-1715-0051
Weapons Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) AF-1715-0375
Weapons Control Systems Mechanic (MA-1, ASQ-25 Systems) AF-1715-0375

ASQ-38
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence AF-1715-0049
Navigator Bombardier AN/ASQ-38(V) AF-1606-0080
Navigator Bombardier Training (ASQ-38) AF-1606-0080

ATC
ATC Instructor Training AF-1406-0039
AF-1406-0041
ATC Instructor Training (Navigator) AF-1406-0039

B 263
B 263 Computer Programming and Operation AF-1402-0015

B-1B
Offensive Avionics Systems Specialist (B-1B) by Correspondence AF-1704-0248

B-3500
Medical Materiel Supervisor (B-3500) AF-1405-0045

B-36
Gunlaying System Mechanic, B-36 AF-1715-0041

B-47
Gunlaying System Mechanic, B-47 AF-1715-0040

B-52C/D
Bomb Navigation System Mechanic (B-52C/D: ASB-15 System) AF-1715-0485
Bomb Navigation Systems Mechanic (B-52C/D, ASB-15 System AF-1715-0485

B-52D/G
Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15 Turrets) by Correspondence AF-1715-0047

B-52E
Bomb Navigation System Mechanic (B-52E, F, G, H, ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483

B-52G/H
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence AF-1715-0049
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence AF-1715-0046

B-52H
Defensive Fire Control System Mechanic (B-52H, ASG-21 Turrets) AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52H, ASG-21 Turrets) AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52H, B-58: MD-7, ASG-21 Turrets) AF-1715-0540

B-58
Automatic Flight Control Systems Technician (Fighters and B-58) AF-1715-0378

Baker
Advanced Baker MC-1729-0012
Baker AF-1729-0008
MC-1729-0001
Baker Noncommissioned Officer (NCO) MC-1729-0006
Bakery Noncommissioned Officer (NCO) Leadership MC-1729-0006
Basic Baker MC-1729-0001
MC-1729-0035
Basic Specialist Training Baker MC-1729-0001

Bakery
Bakery Management MC-1729-0011
Bakery Noncommissioned Officer (NCO) Leadership MC-1729-0006

Baking
Baking AF-1729-0008
Field Bread Baking by Correspondence MC-1729-0033
Pastry Baking by Correspondence MC-1729-0032

Ballistic
Ballistic Missile Analyst Specialist, SM-80 AF-1715-0344
Ballistic Missile Analyst Specialist, WS-133A AF-1715-0344
AF-1715-0345
Ballistic Missile Check-Out Equipment Specialist, SM-80 AF-1715-0299
Ballistic Missile Check-Out Equipment Specialist, WS-133A AF-1715-0299
Ballistic Missile Checkout Equipment Specialist, WS-133B AF-1715-0108
Ballistic Missile Safety AF-0802-0008
Guidance Systems Mechanic (Ballistic Missile Inertial) AF-1715-0327
Guided Missile Operations/Maintenance Officer (Ballistic Missiles) AF-1715-0663
Missile Launch/Missile Officer (Ballistic Missiles) AF-1715-0663

Bancroft
Bancroft Maintenance MC-1715-0119

Base
Advanced Base Procurement Management AF-1405-0029
Air Force Base Level Maintenance

Management
AF-1717-0025
Base Civil Engineer
AF-1601-0044
Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II
AF-1402-0060
Base Level Military Personnel System (BLMPS), Phase II
AF-1402-0060
Base Procurement Officer
AF-1405-0014
AF-1405-0038

Basic
Albanian Basic
DD-0602-0001
DD-0602-0002
DD-0602-0018
Arabic (Egyptian, Syrian, Iraqi) Basic
DD-0602-0026
Arabic Basic
DD-0602-0049
DD-0602-0072
Arabic Basic (Modern Standard Arabic)
DD-0602-0232
Basic Course
MC-2204-0042
Basic Course, Postgraduate
MC-1408-0009
Basic Electronics
CG-1715-0043
Basic Instructor
CG-1406-0005
Basic Landing Support Specialist
MC-2204-0029
Basic Military Training
CG-2205-0011
MC-2204-0038
Basic Military Training (Women)
MC-2204-0046
Basic Officer
MC-2204-0083
Bulgarian Basic
DD-0602-0019
DD-0602-0050
DD-0602-0073
DD-0602-0228
Burmese Basic
DD-0602-0014
Chinese—Cantonese Basic
DD-0602-0021
DD-0602-0051
DD-0602-0074
Chinese—Fukienese Basic
DD-0602-0075
Chinese—Mandarin Basic
DD-0602-0052
DD-0602-0077
DD-0602-0116
Chinese—Toishan Basic
DD-0602-0076
Common Basic Electronics Training (COBET)
CG-1715-0043
Czech Basic
DD-0602-0053
DD-0602-0078
DD-0602-0111
DD-0602-0229
Danish Basic
DD-0602-0054
DD-0602-0099
Dutch Basic
DD-0602-0031
DD-0602-0223
Finnish Basic
DD-0602-0100
French Basic
DD-0602-0055
DD-0602-0079
DD-0602-0107
DD-0602-0213
German Basic
DD-0602-0030
DD-0602-0056
DD-0602-0080
DD-0602-0215
Greek Basic
DD-0602-0029
DD-0602-0057
DD-0602-0081
Hungarian Basic
DD-0602-0058
DD-0602-0082
DD-0602-0132
Indonesian Basic
DD-0602-0032
Indonesian-Malay Basic
DD-0602-0012
Italian Basic
DD-0602-0059
DD-0602-0083
DD-0602-0108
DD-0602-0226
Italian-Sicilian Basic
DD-0602-0101
Japanese Basic
DD-0602-0060
DD-0602-0084
DD-0602-0117
Korean Basic
DD-0602-0061
DD-0602-0085
DD-0602-0118
Lithuanian Basic
DD-0602-0102
Malay Basic
DD-0602-0012
Norwegian Basic
DD-0602-0062
DD-0602-0086
DD-0602-0130
DD-0602-0224
Persian Basic
DD-0602-0063
DD-0602-0087
DD-0602-0126
DD-0602-0230
Polish Basic
DD-0602-0064
DD-0602-0088
DD-0602-0112
Portuguese Basic
DD-0602-0065
DD-0602-0089
DD-0602-0109
DD-0602-0212
Romanian Basic
DD-0602-0066
DD-0602-0090
DD-0602-0110
DD-0602-0225
Russian Basic
DD-0602-0067
DD-0602-0091
DD-0602-0113
DD-0602-0227
Serbo-Croatian Basic
DD-0602-0068
DD-0602-0092
DD-0602-0114
Short Basic Arabic
DD-0602-0034
Short Basic French
DD-0602-0152
Short Basic German
DD-0602-0153
Short Basic Greek
DD-0602-0154
Short Basic Indonesian
DD-0602-0155
Short Basic Italian
DD-0602-0156
Short Basic Japanese
DD-0602-0157
Short Basic Korean
DD-0602-0158
Short Basic Persian
DD-0602-0159
Short Basic Portuguese
DD-0602-0160
Short Basic Romanian
DD-0602-0161
Short Basic Spanish
DD-0602-0162
Short Basic Thai
DD-0602-0163
Short Basic Turkish
DD-0602-0042
DD-0602-0164
Short Basic Vietnamese—Saigon
DD-0602-0165
Short Basic Vietnamese—Saigon Dialect
DD-0602-0192
Slovenian Basic
DD-0602-0103
Spanish Basic
DD-0602-0069
DD-0602-0133
DD-0602-0222
Special Basic Course
MC-2204-0042
Swahili Basic
DD-0602-0104
Swedish Basic
DD-0602-0070
DD-0602-0093
DD-0602-0131
Thai Basic
DD-0602-0094
DD-0602-0119
Turkish Basic
DD-0602-0071
DD-0602-0095
DD-0602-0127
DD-0602-0231
Ukranian Basic
DD-0602-0105
Vietnamese—Hanoi Basic
DD-0602-0013
Vietnamese—Saigon Basic
DD-0602-0098
Vietnamese—Saigon Dialect Basic
DD-0602-0040
Woman Officer Basic
MC-2204-0035

Basic-Intermediate
Extended or Basic-Intermediate Chinese—Mandarin
DD-0602-0035
Extended or Basic-Intermediate German
DD-0602-0166
Extended or Basic-Intermediate Japanese
DD-0602-0167
Extended or Basic-Intermediate Korean
DD-0602-0168

Extended or Basic-Intermediate Russian DD-0602-0169
Extended or Basic-Intermediate Vietnamese DD-0602-0170

Batteryman
Field Artillery Batteryman MC-2204-0010
Special Anti-Air Warfare (AAW) Batteryman MC-1715-0069

Beacons
Flight Facilities Equipment Repairman (Ranges and Beacons) AF-1715-0253

Bengali
Bengali DD-0602-0009
DD-0602-0045

Beverages
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence MC-1729-0024

Bio-Environmental
Bio-Environmental Engineering AF-0707-0003

Biological
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence MC-1606-0011
Nuclear, Biological and Chemical (NBC) Warfare Defense MC-0801-0001
Nuclear, Biological and Chemical (NBC) Weapons Employment MC-2204-0036

Biomedical
Biomedical Equipment Maintenance Specialist AF-1715-0001
Biomedical Equipment Maintenance Specialist by Correspondence AF-1715-0745

Blood
Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence AF-0709-0031

Boat
Reserve Small Boat Coxswain ADT CG-2205-0021
Small Boat Engineering CG-1714-0019
Small Boat Magnetic Compass Calibration (SBMCC) by Correspondence CG-1722-0006

Boating
Boating Safety by Correspondence CG-0802-0001
National Boating Safety CG-0802-0004
CG-0802-0014

Boatswain's
Boatswain's Mate Class A CG-1708-0016
Boatswain's Mate First Class by Correspondence CG-1708-0004
Boatswain's Mate School CG-1708-0001
Boatswain's Mate Second Class by Correspondence CG-1708-0003
Boatswain's Mate Third Class by Correspondence CG-1708-0002
Boatswain's Mate, Class A CG-1708-0001
Chief Boatswain's Mate (BMC) by Correspondence CG-1408-0016
Reserve Boatswain's Mate Basic ADT CG-2205-0022

Body
Vehicle Body Mechanic by Correspondence AF-1710-0035

Boiler
Fire Tube and Boiler/Flash Type Evaporator Class C CG-1710-0008

Boilers
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C CG-1715-0107

Bomb
Bomb Navigation System Mechanic (ASB-15 System) AF-1715-0485
Bomb Navigation System Mechanic (B-52C/D: ASB-15 System) AF-1715-0485
Bomb Navigation System Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence AF-1715-0049
Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised AF-1715-0256
Bomb Navigation Systems Mechanic (ASB-4 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4/4A/9/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (B-52C/D: ASB-15 System AF-1715-0485
Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems) AF-1715-0483
Bomb Navigation Systems Mechanic (FB-111) AF-1715-0006
Bomb Navigation Systems Mechanic (K-5 Series) AF-1715-0268
Bomb Navigation Systems Mechanic (MA-2 System) AF-1715-0483
Bomb Navigation Systems Mechanic (MA-6A and MA-7A Systems) AF-1715-0267
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence AF-1715-0046
Bomb Navigation Systems Technician (K-Series Computer) AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Radar and Interconnect) AF-1715-0212
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects) AF-1715-0212
Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and Interconnect) AF-1715-0212
Bomb Navigation Systems Technician (MA-6A, 7A Radar and ICE) AF-1715-0212
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Displays) AF-1715-0210
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays) AF-1715-0210

Bombardier
Navigator Bombardier AN/ASQ-38(V) AF-1606-0080
Navigator Bombardier System Training (FB-111) AF-1606-0146
Navigator Bombardier Training AF-1606-0106
Navigator Bombardier Training (ASQ-38) AF-1606-0080
Navigator Bombardier Training (MA-6A/7A) AF-1606-0106
Navigator Bombardier Upgrade Training (FB-111) AF-1606-0084

Bombardment
Advanced Navigator Radar Bombardment Training AF-1606-0106
Advanced Navigator Reconnaissance Bombardment AF-1606-0106
Advanced Observer Reconnaissance Bombardment AF-1606-0106
Aircraft Maintenance Specialist, Airlift and Bombardment Aircraft by Correspondence AF-1704-0181
Aircraft Maintenance Technician, Airlift and Bombardment Aircraft by Correspondence AF-1704-0190

Bomber
Armament Systems Officer, Bomber
AF-1715-0536
Avionics Officer (Bomber)
AF-1715-0536

Bombing
Navigation and Bombing Trainer Specialist (AN/APQ-T3)
AF-1715-0274
Navigation/Bombing Trainer and Flight Simulator Tactics Specialist
AF-1715-0455
Navigation/Bombing/Tactics Trainer Specialist
AF-1715-0455
Special Training on Radar Bombing Navigation System, AN/APQ-24A
AF-1715-0617

Brake
Automotive Brake Systems by Correspondence
MC-1703-0023

Bread
Field Bread Baking by Correspondence
MC-1729-0033

Broadcast
Armed Forces Radio and Television System Broadcast Manager
DD-0505-0002
Armed Forces Radio Television System Broadcast Manager
DD-0505-0005
AFRTS Broadcast Manager
DD-0505-0002
Basic Broadcaster
DD-0505-0001
Broadcast Manager
DD-0505-0002
Broadcast Officer
DD-0505-0002
Broadcast Specialist
DD-0505-0001
Information Specialist (Broadcaster)
DD-0505-0001

Broadcaster
Basic Broadcaster
DD-0505-0001
DD-0505-0004
Information Specialist (Broadcaster)
DD-0505-0001

Budget
Budget by Correspondence
AF-1408-0092
Budget Officer
AF-1408-0061
Budget Specialist
AF-1408-0017
Financial Management Specialist (Budget) by Correspondence
AF-1408-0077

Bugle
Drum and Bugle Corps
MC-1205-0002

Building
Building Systems Engineering
AF-1601-0025

Bulgarian
Bulgarian
DD-0602-0009
DD-0602-0044
Bulgarian Aural Comprehension
DD-0602-0135
Bulgarian Basic
DD-0602-0019
DD-0602-0050
DD-0602-0073
DD-0602-0228
Bulgarian Intermediate
DD-0602-0022
DD-0602-0036

Burmese
Burmese
DD-0602-0009
DD-0602-0044
Burmese Basic
DD-0602-0014

Buying
Advanced Systems Buying
AF-1408-0025

BLMPS
Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II
AF-1402-0060
Base Level Military Personnel System (BLMPS), Phase II
AF-1402-0060
BLMPS/PDS Work Center Operations, Phase II
AF-1402-0060

BUIC
BUIC Computer Programming
AF-1402-0061
BUIC III Computer Programmer
AF-1402-0052
BUIC Systems Computer Programmer
AF-1402-0051
Electronic Computer Repairman BUIC AN/GSA-51A
AF-1715-0677
Electronic Computer Systems Repairman (BUIC AN/GSA-51A)
AF-1715-0447
Electronic Computer Systems Repairman (BUIC AN/GYK-19)
AF-1715-0447

C-E-M
Ground C-E-M Maintenance Analysis Technician
AF-1113-0001

C-11
Electronic Instrument Trainer Specialist (C-11 Type)
AF-1715-0653
Instrument Trainer Specialist (C-11)
AF-1715-0653

C-131A
C-131A Propeller Maintenance, Class C
CG-1704-0012

C-141
C-141 Flight Engineer Technician
AF-1704-0031

C-5
C-5 Flight Engineer Technician
AF-1704-0033
C-5 Pilot
AF-1606-0023
Flight Engineer School, C-5
AF-1704-0033

Cable
Cable and Antenna Installation Specialist
AF-1714-0015
Cable and Antenna Systems Installation/Maintenance Specialist by Correspondence
AF-1715-0125
Cable Splicing Installation and Maintenance Specialist by Correspondence
AF-1715-0126

Cadet
Primary-Basic Observer Cadet
AF-1606-0034

Calibration
Advanced Microwave Measurement and Calibration
AF-1715-0181
Advanced Microwave Measurements and Calibration
AF-1715-0549
DCLF Reference Measurement and Calibration
AF-1715-0493
Microwave Measurement and Calibration
AF-1715-0740
Physical Measurement and Calibration
AF-1715-0743
Small Boat Magnetic Compass Calibration (SBMCC) by Correspondence
CG-1722-0006

Cambodian
Cambodian
DD-0602-0009
DD-0602-0044

Camera
Still Photographic Camera Specialist
AF-1709-0020

Candidate
Officer Candidate
CG-2202-0005
MC-2204-0050
MC-2204-0080
Officer Candidate (Female)
MC-2204-0080
Officer Candidate (Male)
MC-2204-0080
Officer Candidate School
CG-2205-0004
MC-2204-0050
Officer Candidate School (Seamanship, Orientation, Operations and Military Indoctrination)
CG-2202-0001
Reserve Officer Candidate Indoctrination
CG-2202-0004
Warrant Officer Candidate
MC-2204-0009
Warrant Officer Candidate Screening
MC-2204-0009
Woman Officer Candidate
MC-2204-0024

Card
Data Processing Machine Supervisor (Punched Card)
AF-1402-0036

Career
Career Advisory Specialist by Correspondence
AF-1406-0048
Career Advisory Technician by Correspondence
AF-1406-0051
Resident Instruction Team Staff Noncommissioned Officer (NCO) Career
MC-2204-0073
Resident Staff Noncommissioned Officer (NCO) Career (Regular)
MC-2204-0074
Resident Staff Noncommissioned Officer

(NCO) Career Reserve MC-2204-0071

Cargo
Air Cargo Specialist by Correspondence AF-0419-0004
Apprentice Air Cargo Specialist by Correspondence AF-0419-0029

Carpenter
Apprentice Carpenter by Correspondence AF-1710-0025

Carpentry
Carpentry Specialist by Correspondence AF-1710-0024

Cartographic
Advanced Photogrammetric Cartographic AF-1709-0013
Advanced Photogrammetric Cartographic Techniques DD-1601-0005
Basic Photogrammetric Cartographic Techniques DD-1601-0001
Cartographic Drafting DD-1713-0002
Cartographic Officer AF-1601-0024
Cartographic Supervisor DD-1601-0016
Cartographic/Geodetic Officer DD-1713-0006
Photogrammetric-Cartographic Technician AF-1709-0013

Cartography
Advanced Cartography DD-1713-0007
Basic Cartography DD-1601-0011, DD-1601-0025

Celestial
Celestial Navigation Second Class by Correspondence CG-1304-0004

Central
Central Procurement Officer AF-1405-0015, AF-1405-0032
High Frequency Communication Central Operator MC-1715-0083
Mobile Data Central Technician MC-1715-0085
Mobile Dial Central Technician MC-1715-0085
Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician MC-1715-0082
Tactical Air Operations Central (TAOC) Technician MC-1715-0082
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence AF-1715-0127

Certification
Terrain Analysis Warrant Officer Certification DD-1601-0029

Channel
CV-3511 Isochronous Channel Converter DD-1715-0003
CV-3511(P)/G Isochronous Channel Coverter Maintenance and Repair DD-1715-0003

Chapel
Chapel Management Specialist by Correspondence AF-1408-0085
Chapel Management Technician by Correspondence AF-1408-0086

Charge
Officer In Charge/Executive Petty Officer CG-2205-0020

Charting
Mapping, Charting, and Geodesy Officer DD-1601-0007, DD-1601-0021
Mapping, Charting, and Geodesy Senior Officer DD-1601-0017

Checkout
Air Launch Missile Checkout Equipment Repairman (AGM-28A/B) AF-1715-0458
Ballistic Missile Checkout Equipment Specialist, WS-133B AF-1715-0108
GAM Checkout Equipment Repairman (GAM-77) AF-1715-0458
Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS) AF-1715-0641
Tactical Missile Checkout Equipment Repairman (MACE MGM-13C/TEMS) AF-1715-0641
Tactical Missile Checkout Equipment Repairman (MGM-13B(TEMS)) AF-1715-0646
Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS) AF-1715-0641
Tactical Missile Checkout Equipment Repairman (TM/76A/TEMS) AF-1715-0646

Chemical
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence MC-1606-0011
Nuclear and Chemical Weapons Employment MC-2204-0036
Nuclear, Biological and Chemical (NBC) Warfare Defense MC-0801-0001
Nuclear, Biological and Chemical (NBC) Weapons Employment MC-2204-0036

Chemicals
Hazardous Chemicals Training CG-0802-0006

Chemistry
Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence AF-0709-0029

Chief
Chief of Supply Management AF-1405-0040
Chief Aviation Electrician (AEC) by Correspondence CG-1408-0015
Chief Aviation Electronics Technician (ATC) by Correspondence CG-1408-0029
Chief Aviation Machinist (AMC) by Correspondence CG-1408-0034
Chief Aviation Structural Mechanic (AMC) by Correspondence CG-1408-0030
Chief Aviation Survivalman (ASMC) by Correspondence CG-1408-0027
Chief Boatswain's Mate (BMC) by Correspondence CG-1408-0016
Chief Damage Controlman (DCC) by Correspondence CG-1408-0017
Chief Dental Technician (DTC) by Correspondence CG-1408-0018
Chief Fire Control Technician (FTC) by Correspondence CG-1408-0032
Chief Firefighter (FIC) by Correspondence CG-1408-0022
Chief Gunner's Mate (GMC) by Correspondence CG-1408-0031
Chief Hospital Corpsman (HMC) by Correspondence CG-1408-0014
Chief Machinery Technician (MKC) by Correspondence CG-1408-0012
Chief Marine Science Technician (MSTC) by Correspondence CG-1408-0023
Chief Photojournalist (PAC) by Correspondence CG-1408-0021
Chief Port Security (PSC) by Correspondence CG-1408-0020
Chief Quartermaster (QMC) by Correspondence CG-1408-0008
Chief Radarman (RDC) by Correspondence CG-1408-0025
Chief Radioman (RMC) by Correspondence CG-1408-0026
Chief Storekeeper (SKC) by Correspondence CG-1408-0019
Chief Subsistence Specialist (SSC) by Correspondence CG-1408-0033
Chief Telephone Technician (TTC) by Correspondence CG-1408-0028
Chief Yeoman (YNC) by Correspondence CG-1408-0024
Damage Controlman Chief (DCC) by Correspondence CG-1408-0037
Electrician's Mate Chief (EMC) by Correspondence CG-1408-0010
Electronics Technician Chief (EMC) by Correspondence CG-1408-0009
Electronics Technician Chief (ETC) by

Correspondence
CG-1402-0001
Engineer Operations Chief
MC-1601-0027
Fire Control Technician Chief (FTC) By Correspondence
CG-1408-0038
Gunner-s Mate Chief (GMC) by Correspondence
CG-1408-0040
Investigator Chief (IVC) by Correspondence
CG-1408-0013
Operational Communication Chief
MC-1717-0004
Sonar Technician Chief (STC) by Correspondence
CG-1408-0011
CG-1408-0039
Supply Chief Leadership
MC-1405-0011
Utilities Chief
MC-1710-0035
Wire Chief
MC-1714-0012

Chiefs
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003

Chinese
Basic Chinese—Refresher
DD-0602-0041
Chinese Advanced
DD-0602-0027
Chinese Aural Comprehension
DD-0602-0106
Chinese Intermediate
DD-0602-0120
Chinese—Standard
DD-0602-0046

Chinese—Cantonese
Chinese—Cantonese
DD-0602-0009
DD-0602-0045
Chinese—Cantonese Basic
DD-0602-0021
DD-0602-0051
DD-0602-0074

Chinese—Fukienese
Chinese—Fukienese Basic
DD-0602-0075

Chinese—Mandarin
Chinese—Mandarin
DD-0602-0009
DD-0602-0045
Chinese—Mandarin Advanced
DD-0602-0037
Chinese—Mandarin Aural Comprehension
DD-0602-0136
Chinese—Mandarin Basic
DD-0602-0052
DD-0602-0077
DD-0602-0116
Chinese—Mandarin Intensive
DD-0602-0182
Chinese—Mandarin Intermediate
DD-0602-0171
Extended or Basic-Intermediate Chinese—Mandarin
DD-0602-0035

Chinese—Refresher
Basic Chinese—Refresher
DD-0602-0041

Chinese—Toishan
Chinese—Toishan Basic
DD-0602-0076

Ciphony
Electronic Communications and Cryptographic Systems Equipment Repairman (Ciphony) (Encrypted Tel-Data Fax)
AF-1715-0174

Circle
Aiming Circle Operator by Correspondence
MC-1601-0035

Circuit
Closed Circuit Television Systems by Correspondence
CG-1715-0064

Civil
Base Civil Engineer
AF-1601-0044
Civil Air Patrol Mission Observer Level II by Correspondence
AF-1704-0195
Civil Air Patrol Scanner by Correspondence
AF-1704-0194
Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence
AF-0801-0005
Introduction to Civil Air Patrol Emergency Services by Correspondence
AF-1704-0196
Military Civil Rights (MCR) by Correspondence
CG-1512-0001
Military Functions in Civil Disturbances by Correspondence
MC-1728-0002

Clarinet
Clarinet Pilgrim
CG-1715-0018

Clerk
Administrative Clerk
MC-1403-0002
MC-1403-0014
Advanced Disbursing Clerk
MC-1408-0002
Basic Legal Clerk and Reporter
MC-1407-0001
Basic Travel Clerk
MC-1403-0005
MC-1403-0009
Disbursing Clerk
AF-1408-0019
Disbursing Clerk Course
MC-1408-0001
Fiscal Accounting Clerk
MC-1402-0026
Legal Clerk/Court Reporter
MC-1407-0001
Order-Writing Clerk by Correspondence
MC-1403-0008
Personal Financial Records Clerk
MC-1403-0010
Personnel Clerk
MC-1405-0003
MC-1405-0034
Senior Clerk
MC-1403-0012
MC-1403-0015
Unit Diary Clerk
MC-1403-0001
MC-1403-0013

Clinical
Clinical Laboratory Officer
AF-0702-0003

Close
Close Combat Instructor
MC-0803-0001

Closed
Closed Circuit Television Systems by Correspondence
CG-1715-0064
Legal Services Reporter SPCM (Closed Microphone)
MC-1728-0005

Club
Club Management Supervisor by Correspondence
AF-1406-0059
Marine Corps Club and Mess Restaurant Operations by Correpondence
MC-1729-0020

Coastal
Coastal Defense Exercise Planner, Port Level
CG-1722-0013
Coastal Defense Planner, Port Level
CG-1722-0012
Coastal Search Planning Class C
CG-1722-0005
CG-1722-0010

Code
Assembler Language Code (ALC) Programming (Combination
MC-1402-0051

Coding
IBM S/360 Assembler Language Coding (Entry)
MC-1402-0051
IBM System 360 (OS) Advanced Coding
MC-1402-0037

Cold
Cold Weather Field Indoctrination
MC-0803-0003
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists
MC-0803-0003
Cold Weather Operations by Correspondence
MC-0803-0006

Collection
Advanced ELINT Collection/Analysis
DD-1715-0017
Intermediate ELINT Collection and Analysis
DD-1715-0016

Combat
Basic Combat Engineer
MC-1601-0003
MC-1601-0024
Basic Combat Engineer by Correspondence
MC-1601-0017
Close Combat Instructor
MC-0803-0001
Combat Arms Training and Maintenance Specialist/Technician by Correspondence
AF-2203-0054
Combat Engineer Advanced
MC-1601-0007
MC-1710-0019
Combat Engineer Basic
MC-1710-0020
Combat Engineer Basic Specialist
MC-1710-0020

Combat Engineer Chief, Construction Support by Correspondence
MC-1601-0012
Combat Engineer Noncommissioned Officer (NCO) by Correspondence
MC-1601-0013
MC-1601-0036
Combat Engineer Officer
MC-1601-0004
MC-1601-0026
Combat Still Photographer, Operator
AF-1709-0002
Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence
MC-1715-0101
Infantry Replacement and Individual Combat Training
MC-2204-0008
Introduction to Combat Intelligence by Correspondence
MC-1606-0009
Journeyman Combat Engineer
MC-1601-0009
MC-1601-0028
Reserve Combat Engineer Noncommissioned Officer (NCO)
MC-1601-0030
Reserve Combat Engineer Officer
MC-1601-0029
Telephone Switching Equipment Specialist (Combat Operations Support)
AF-1715-0713
The Marine Squad Leader Combat Planning and Orders by Correspondence
MC-2204-0058
USAF Combat Survival Training
AF-0803-0003

Command
Air Command and Staff Associate Correspondence Program
AF-1511-0003
Air Command and Staff Associate Program
AF-1511-0002
Air Command and Staff College
AF-1511-0001
Air Command and Staff Correspondence Program
AF-1511-0003
Air Command and Staff Nonresident Seminar Program
AF-1511-0002
Air Force Integrated Command and Control System Computer Programmer
AF-1402-0034
Airborne Command Post Communications Equipment (CE) Repairman
AF-1715-0709
Airborne Command Post Communications Equipment Specialist by Correspondence
AF-1715-0122
Command and Control
DD-1402-0001
Command and Control Specialist by Correspondence
AF-1704-0217
Command and Control Systems Computer Programmer
AF-1402-0058
Command and Staff College
AF-1511-0001
Command and Staff College Reserve Phase I, Phase II
MC-1408-0015
Command and Staff Course
AF-1511-0001
Command and Staff School
AF-1511-0001
Major Command (MAJCOM) Manpower Procedures
AF-1406-0032
Marine Corps Command and Staff College
MC-1408-0008
MC-1408-0017
Marine Corps Command Staff College
MC-1408-0008
Tactical Air Command and Control Specialist by Correspondence
AF-1406-0068

Commissary
Commissary Noncommissioned Officer (NCO)
AF-0406-0001
Commissary NCOIC
AF-0406-0001
Commissary Operations
AF-0406-0001

Commissaryman
Commissaryman, Class A
CG-1729-0001

Commission
Direct Commission Class
CG-2202-0002
Direct Commission Officer
CG-2202-0003

Communication
Basic Communication Officer
MC-1405-0019
Basic Communications Officer
MC-1405-0019
Communication Center by Correspondence
MC-1715-0104
Communication Center Chief
MC-1408-0004
Communication Center Man
MC-1409-0004
Communication Center Operator
MC-1409-0004
MC-1409-0005
Communication Central, AN/TGC-37, System Maintenance
MC-1715-0006
Communication Officer
MC-1405-0007
Communication Officers Orientation
MC-1405-0019
Communication Security by Correspondence
MC-1715-0109
Communication/Navigation System Technician by Correspondence
AF-1704-0245
Communication/Navigation Systems Technician by Correspondence
AF-1704-0242
AF-1704-0243
AF-1704-0244
AF-1704-0246
High Frequency Communication Central Operator
MC-1715-0083
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100
Integrated Avionics Component Specialists (Communication/Mission and Traffic Control and Penetration Aids)
AF-1715-0609
Introduction to Communication Control by Correspondence
MC-1715-0105
Mobile Communication Central Technician
MC-1715-0006
Mobile Communications Central Technician (AN/TGC-37(v))
MC-1715-0006
Operational Communication Chief
MC-1717-0001
MC-1717-0004
Radiotelegraph and Visual Communication Procedures by Correspondence
MC-1715-0133
Radiotelephone and Alternate Communication Procedures by Correspondence
MC-1715-0137
Reserve Communication Officer Phase I, II, III
MC-1715-0048
Reserve Communication Officer Phase I, Phase II
MC-1715-0048

Communications
Advanced Communications Officer
MC-1715-0039
Airborne Command Post Communications Equipment (CE) Repairman
AF-1715-0709
Airborne Command Post Communications Equipment Specialist by Correspondence
AF-1715-0122
Airborne Communications Systems Operator
AF-1704-0198
Aircraft Radio Repairman (Communications)
AF-1715-0065
Aviation Electronics Technician (AT) Communications, Class A
CG-1405-0001
Avionic Communications Specialist
AF-1715-0492
Avionic Communications Specialist by Correspondence
AF-1715-0120
AF-1715-0467
AN/ARC-160 Communications System
CG-1715-0029
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler
CG-1715-0019
AN/URC-114(V) Low Power (1KW)

Communications System Class C
CG-1715-0124
ARC-160 Communications System
CG-1715-0029
Communications and Relay Center Equipment Repairman, Electromechanical
AF-1715-0132
Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence
MC-1715-0101
Communications for the FMF Marine by Corespondence
MC-1715-0102
Communications Central Group AN/TYA-11 Technician
MC-1715-0030
Communications Maintenance Officer
AF-1715-0474
Communications Officer
AF-1715-0474
Communications Officer (COMOFF) by Correspondence
CG-1404-0003
Communications Plans and Orders by Correspondence
MC-1715-0106
Communications Systems, Class C
CG-1715-0047
Communications-Electronics Employment by Correspondence
AF-1715-0748
Communications-Electronics Engineer
AF-1715-0260
Communications-Electronics Officer
AF-1408-0048
Communications-Electronics Staff Officer
AF-1408-0048
Communications-Electronics Systems Staff Officer
AF-1715-0550
Communications-Electronics Systems Technology by Correspondence
AF-1715-0747
Communications/Navigations Technician by Correspondence
AF-1715-0116
Electronic Communications and Cryptographic Equipment Systems Repairman
AF-1715-0174
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT)
AF-1715-0351
Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype)
AF-1715-0102
Electronic Communications and Cryptographic Systems Equipment Repairman (Ciphony) (Encrypted Tel-Data Fax)
AF-1715-0174
Electronic Cryptographic Communications Equipment Specialist by Correspondence
AF-1715-0024
Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence
AF-1715-0026
Electronics Fundamentals - Communications Track
CG-1715-0090
Electronics Technician Communications, Class A
CG-1715-0011
Ground Communications Equipment Maintenance Technicial (Light)
AF-1715-0230
Ground Communications Equipment Maintenance Technician (Heavy)
AF-1715-0239
Ground Communications Equipment Maintenance Technician (Light)
AF-1715-0230
Ground Communications Equipment Repairman (Heavy) Receivers
AF-1715-0499
Ground Communications Equipment Repairman (Heavy) Transmitters
AF-1715-0530
Ground Communications Equipment Repairman (Heavy)(FPTS)
AF-1715-0079
Ground Communications Equipment Repairman (Light)
AF-1715-0696
Ground Communications Equipment Repairman (VHF-UHF)
AF-1715-0498
Ground Communications Equipment Technician (Light)
AF-1715-0230
Ground Communications Equipment Technician (Light)(TDDL Equipment)
AF-1715-0561
Ground Communications Equipment Technician (TDDL)
AF-1715-0561
Ground Radio Communications Equipment Repairman
AF-1715-0534
Ground Radio Communications Equipment Repairman (Titan II)
AF-1715-0491
Ground Radio Communications Equipment Repairman (WS-133A/B)
AF-1715-0495
Ground Radio Communications Equipment Technician
AF-1715-0088
Ground Radio Communications Specialist by Correspondence
AF-1715-0227
Ground Radio Communications Technician by Correspondence
AF-1715-0465
High Frequency Communications System by Correspondence
MC-1715-0135
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117
Missile Control Communications Systems Repairman
AF-1715-0713
Missile Control Communications Systems Repairman by Correspondence
AF-1715-0130
Mobile Data Communications Terminal Technician
MC-1715-0081
MC-1715-0118
National Communications Security (COMSEC)
DD-1404-0004
Radiotelephone, Telegraph, and Visual Communications Procedures by Correspondence
MC-1715-0103
Space Communications Systems Equipment by Correspondence
AF-1715-0014
Space Communications Systems Equipment Operator/Specialist
AF-1715-0480
Space Communications Systems Equipment Operator/Technician by Correspondence
AF-1715-0021
Specialized Communications and Electronics (C & E) Training
AF-1715-0198
Store and Forward Communications System Computer Programmer
AF-1402-0018
AF-1402-0057
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician
MC-1715-0026
Tactical Data Communications Central Repairman
MC-1715-0077
Tactical Data Communications Central Technician
MC-1715-0026
Wideband Communications Equipment Specialist by Correspondence
AF-1715-0208
Wideband Communications Equipment Technician by Correspondence
AF-1715-0015

Compass
Compass Systems (COMSYS) by Correspondence
CG-1708-0008
Small Boat Magnetic Compass Calibration (SBMCC) by Correspondence
CG-1722-0006

Compilation
Map Compilation
DD-1713-0001
Photogrammetric Compilation
DD-1601-0009

Component
Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086
Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084
Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087
Integrated Avionics Electronic Warfare

Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082

Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092

Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0093

Integrated Avionics Manual Test Station and Component Specialist by Correspondence
AF-1715-0083

Compression

Compression Chamber Team Training
AF-0799-0007

Compression Ignition Engine Fuel Systems Repair
MC-1712-0004

Comptroller

Professional Military Comptroller
AF-1408-0004

Computer

Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II)
AF-1401-0016

Air Force Integrated Command and Control System Computer Programmer
AF-1402-0034

AN/AYN-1 Navigation Computer Systems Class C
CG-1715-0024

AN/UYK-7 Computer and Data Auxiliary Console (UYNK/DEAC) Course Development
CG-1402-0002

AN/UYK-7 Computer and OJ-172 Data Exchange Auxiliary Console (DEAC)
CG-1402-0002

B 263 Computer Programming and Operation
AF-1402-0015

Bomb Navigation Systems Technician (K-Series Computer)
AF-1715-0225

Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer)
AF-1715-0225

Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics)
AF-1715-0225

Bomb Navigation Systems Technician (MA-6A, MA-7A Computer)
AF-1715-0225

BUIC Computer Programming
AF-1402-0061

BUIC III Computer Programmer
AF-1402-0052

BUIC Systems Computer Programmer
AF-1402-0051

Command and Control Systems Computer Programmer
AF-1402-0058

Computer Maintenance Officer
AF-1402-0031
AF-1715-0722

Computer Operation
AF-1402-0015

Computer Operations Supervisor by Correspondence
AF-1402-0068

Computer Operator
AF-1402-0019
MC-1402-0023

Computer Operator by Correspondence
AF-1402-0017

Computer Orientation for Intermediate Executives
DD-1402-0003

Computer Principles
AF-1402-0014

Computer Programming
AF-1402-0008

Computer Systems Analysis and Design (Enlisted)
AF-1402-0040

Computer Systems Analyst
AF-1402-0003

Computer Systems Operations Officer
AF-1402-0046

Computer Systems Programming Officer
AF-1402-0035
AF-1402-0048

Computer Systems Programming Officer, SAGE
AF-1402-0032

Digital Computer Principles
AF-1402-0062

Electric Digital Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058

Electronic Computer Maintenance Officer
AF-1715-0722

Electronic Computer Principles, FYQ-47 Preparatory (Radar Principles)
AF-1715-0030

Electronic Computer Repairman (AN/FSA-21/412L)
AF-1715-0016

Electronic Computer Repairman (Display Equipment/412L)
AF-1715-0059

Electronic Computer Repairman (DPC/465L)
AF-1715-0057

Electronic Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058

Electronic Computer Repairman BUIC AN/GSA-51A
AF-1715-0677

Electronic Computer Systems Repairman (BUIC AN/GSA-51A)
AF-1715-0447

Electronic Computer Systems Repairman (BUIC AN/GYK-19)
AF-1715-0447

Electronic Computer Systems Repairman (Display Equipment/412L)
AF-1715-0448

Electronic Computer Systems Repairman (EDTCC/SACCS)
AF-1715-0598

Electronic Computer Systems Repairman (FSQ-7/SAGE)
AF-1715-0058

Electronic Computer Systems Repairman (RCC-EDLCC/465L)
AF-1715-0443

Electronic Computer Systems Specialist by Correspondence
AF-1715-0440

Electronic Computer Systems Supervisor/Technician
AF-1402-0050

Electronic Digital Computer Repairman (AN/FSA-21/412L)
AF-1715-0016

Electronic Digital Computer Repairman (Display Equip/465L)
AF-1402-0023

Electronic Digital Computer Repairman (Display Equipment/412L)
AF-1715-0059

Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D)
AF-1715-0701

Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348

F-111 Computer/Programmer Test Stations Technician
AF-1715-0203

F-111A Computer/Navigation Test Station Technician
AF-1402-0024

Guidance Control Officer (Computer)(SM-68)
AF-1715-0037

Honeywell H316R Computer Maintenance
DD-1715-0005

HM4118 Computer Programmer Tactical and Control System
AF-1402-0033

HM4118 Electronic Computer Repairman/Operator/407L
AF-1715-0392

Introduction to Computer Technology
DD-1402-0002

IBM S/360 OS Computer Operator
MC-1402-0023

K-Series Computer Technician
AF-1715-0225

NCMC Computer Programmer
AF-1402-0009

Store and Forward Communications System Computer Programmer
AF-1402-0018
AF-1402-0057

Supply Computer System Specialist
AF-1402-0005

SAGE Computer Programmer
AF-1402-0030

Tactical General Purpose Computer Technician
MC-1402-0045
MC-1402-0056

Weapon Support Systems Computer Programmer
AF-1402-0058

Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)
AF-1715-0272

Computerized

Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086

Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084

Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087

Computing
Geodetic Computing DD-1601-0006

Condition
Refrigeration and Air Condition Technician by Correspondence AF-1730-0017

Conditioning
Air Conditioning Engineering AF-1701-0001
Air Conditioning Mechanic by Correspondence MC-1701-0002
Refrigeration and Air Conditioning CG-1730-0001
Refrigeration and Air Conditioning (Operation and Maintenance) CG-1701-0001
Refrigeration/Air Conditioning Operation and Maintenance Class C CG-1701-0002

Conning
Watchstanding: The Conning Officer (CONOFF) by Correspondence CG-1708-0012

Console
AN/UYK-7 Computer and Data Auxiliary Console (UYNK/DEAC) Course Development CG-1402-0002
AN/UYK-7 Computer and OJ-172 Data Exchange Auxiliary Console (DEAC) CG-1402-0002

Consolidated
Consolidated Maintenance Management (ADC) AF-1717-0011

Construction
Aids to Navigation Construction CG-1722-0004
Antenna Construction and Propagation of Radio Waves by Correspondence MC-1715-0136
Antenna Construction and Propogation of Radio Waves by Correspondence MC-1715-0112
Apprentice Construction Equipment Operator AF-1710-0029
Basic Construction Man MC-1710-0018
Combat Engineer Chief, Construction Support by Correspondence MC-1601-0012
Construction Drafting DD-1713-0004
DD-1713-0005
Construction Equipment Operator by Correspondence AF-1710-0028
Construction Foreman MC-1710-0003
Construction Print Reading by Correspondence MC-1601-0011
Construction Survey DD-1601-0024
Construction Surveying DD-1601-0008
Pole Line Construction Equipment by Correspondence MC-1715-0091
Pole Line Construction Techniques by Correspondence MC-1715-0096

Contract
Advanced Contract Administration AF-1408-0039
Contract Administration AF-0326-0003
AF-1408-0033
Contract Administration by Correspondence AF-1408-0087
Contract Law AF-1408-0042
Contract Management AF-1408-0037
Contract Management Officer AF-1408-0051
AF-1408-0052
Defense Contract Pricing Techniques AF-1408-0003
Principles of Contract Pricing by Correspondence AF-1408-0091
Program Management for Contract Administration DD-1408-0004

Contracting
Contracting Specialist by Correspondence AF-1408-0071
Contracting Supervisor by Correspondence AF-1408-0072
Purchasing and Contracting Officer AF-1405-0048

Control
Advanced Air Traffic Control Officer AF-1704-0010
Aerospace Control and Warning Systems Operator by Correspondence AF-1715-0754
Air Defense Control Officer MC-2204-0030
Air Defense Control Officer, Automated System MC-2204-0030
Air Force Integrated Command and Control System Computer Programmer AF-1402-0034
Air Support Control Officer MC-1715-0078
Air Traffic Control Officer AF-1704-0002
Air Traffic Control Radar Maintenance Technician AF-1715-0397
Air Traffic Control Radar Repairman AF-1715-0488
Air Traffic Control Radar Repairman (AN/MPN-1) AF-1715-0488
Air Traffic Control Radar Repairman AN/CPN-4 AF-1715-0422
Air Traffic Control Radar Technician AF-1715-0397
Airborne Warning and Control Radar Specialist by Correspondence AF-1715-0123
Aircraft Control and Warning Radar Maintenance Technician AF-1715-0064
Aircraft Control and Warning Radar Repairman AF-1715-0687
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF) AF-1715-0104
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6) AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF) AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/FPS-18, AN/FST-1, AN-FSA-10, AN/FSW-1) AF-1715-0060
Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6) AF-1715-0115
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF) AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6) AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4) AF-1715-0105
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D and IFF) AF-1715-0118
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D) AF-1715-0118
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4 AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FST-2 AF-1715-0111
Aircraft Control and Warning Radar Technician AF-1715-0064
Automatic Flight Control System Specialist AF-1715-0460
Avionic Guidance and Control Systems Technician by Correspondence AF-1704-0232
Avionics Guidance and Control Systems Technician by Correspondence AF-1704-0234
AF-1704-0235
AF-1704-0236
AF-1704-0237
AF-1704-0238
AF-1704-0239
AF-1704-0240
AF-1704-0241
AF-1715-0761
Basic Supply Stock Control MC-1405-0035
Combat Control Operator by Correspondence AF-1704-0216
Command and Control DD-1402-0001
Command and Control Specialist by Correspondence AF-1704-0217
Command and Control Systems Computer Programmer AF-1402-0058

Control Systems Mechanic (SM-65, 68)
AF-1715-0506
Control Systems Mechanic (TM-61C)
AF-1715-0292
Control Systems Mechanic (TM-76A/B)
AF-1715-0162
Control Systems Mechanic, GAM-72
AF-1715-0318
Corrosion Control Specialist by Correspondence
AF-1717-0013
Damage Control and Stability (DCS) By Correspondence
CG-2205-0024
Disaster Control Instructor
AF-0802-0001
Disaster Control Specialist
AF-0802-0001
AF-0802-0002
Guidance and Control Officer (RIGS) (HGM-25A)
AF-1715-0672
Guidance and Control Officer (RIGS) (SM-68A)
AF-1715-0672
Guidance and Control Systems Technician by Correspondence
AF-1704-0233
Guidance Control Officer (Computer)(SM-68)
AF-1715-0037
Guidance Control Officer (RIGS) (SM-68)
AF-1715-0672
HM4118 Computer Programmer Tactical and Control System
AF-1402-0033
Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096
Integrated Avionic Attack Control Systems Specialist by Correspondence
AF-1715-0759
Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1704-0218
AF-1715-0097
Integrated Avionics Attack Control Systems Specialist (F-16) by Correspondence
AF-1704-0219
Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
AF-1715-0760
Integrated Avionics Attack Control Systems Technician by Correspondence
AF-1715-0113
Integrated Avonics Attack Control Systems Specialist by Correspondence
AF-1715-0091
Loran-C Control Station Operations
CG-1715-0114
Marine Tactical Data System (MTDS) Weapons Controller
MC-2204-0030
Missile Control Communications Systems Repairman
AF-1715-0713
Missile Control Communications Systems Repairman by Correspondence
AF-1715-0130
Missile Guidance and Control Specialist (AGM/AIM)TAC
AF-1715-0712
Missile Guidance and Control Specialist (AIM)
AF-1715-0671
Missile Guidance and Control Specialist (AIM) (ADC)
AF-1715-0671
Missile Guidance and Control Specialist (LGM-25)
AF-1715-0137
Organic Property Control by Correspondence
MC-1405-0030
Pilotless Aircraft Guidance and Control Officer
AF-1715-0648
Production Control
AF-1601-0001
Production Control Specialist by Correspondence
AF-1405-0060
Small Cutter Damage Control
CG-0801-0001
Tactical Air Command and Control Specialist by Correspondence
AF-1406-0068
Tactical Missile Control Mechanic (TM-76A/B)
AF-1715-0162
Telecommunications Systems Control Technician by Correspondence
AF-1715-0034
Timing and Control Equipment Class C
CG-1715-0111
Vehicle Maintenance Control and Analysis Specialist by Correspondence
AF-1710-0036
Work Control Specialist
AF-1408-0035
270' WMEC Machinery Plant Control and Monitoring System
CG-1710-0013
270' WMEC Main Propulsion Control and Monitoring System (Electrical) Operation and Maintenance Class C
CG-1710-0013
378 Class WHEC Control Systems Operation and Maintenance Class C
CG-1714-0021

Controller
Tactical Air Defense Controller
MC-1704-0004
Tactical Air Defense Controller Enlisted
MC-1704-0004

Controlman
Chief Damage Controlman (DCC) by Correspondence
CG-1408-0017
Damage Controlman (DC) Advanced Reserve Active Duty for Training (AD7) Class C
CG-1710-0015
Damage Controlman Class A
CG-1710-0001
CG-1710-0014
Damage Controlman First Class (DC1) by Correspondence
CG-1710-0003
Damage Controlman First Class By Correspondence
CG-1710-0020
Damage Controlman Second Class (DC2) by Correspondence
CG-1710-0004
CG-1710-0021
Damage Controlman Third Class (DC3) by Correspondence
CG-1710-0010
CG-1710-0019

Controls
Controls System Analyst (TM-76A)
AF-1715-0180
Controls Systems Mechanic
AF-1715-0293

Conventional
Liquid Fuel Systems Maintenance Specialist (Conventional Fuel)
AF-1601-0006

Converter
CV-3511 Isochronous Channel Converter
DD-1715-0003

Convertor
Installation, Operation, and Operator's Maintenance of Floodlight, Frequency Convertor, and Dummy Load Bank by Correspondence
MC-1715-0090

Cook
Advanced Cook
MC-1729-0003
Basic Specialist Training Cook
MC-1729-0017
Cook
AF-1729-0002
Cook, Basic Specialist Training
MC-1729-0017
Cooking
AF-1729-0002

Cook's
Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030

Cookery
Meats and Meat Cookery by Correspondence
MC-1729-0023

Cooking
Cooking
AF-1729-0002

Cooling
Automotive Cooling and Lubricating Systems by Correspondence
MC-1703-0021
MC-1703-0032
Equipment Cooling Specialist
AF-1730-0002

Coordination
Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence
MC-1715-0101
Rescue Coordination Center for Reservists
CG-0802-0005

Corpsman
Basic Hospital Corpsman, Class A
CG-0703-0001
Hospital Corpsman (HM)
CG-0709-0001

Corrections
Corrections by Correspondence
MC-1728-0008
Corrections Supervisor by Correspondence
MC-1728-0007

Correspondence
A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence AF-1715-0078
Accounting for Plant Property by Correspondence MC-1405-0025
Administration Management Specialist by Correspondence AF-1403-0002
Administration Specialist by Correspondence AF-1406-0045
Administration Technician by Correspondence AF-1406-0046
Aerospace Control and Warning Systems Operator by Correspondence AF-1715-0754
Aerospace Ground Equipment Mechanic by Correspondence AF-1704-0187
Aerospace Ground Equipment Technician by Correspondence AF-1704-0192
Aerospace Photographic Systems Specialist by Correspondence AF-1715-0139
Aerospace Physiology Specialist by Correspondence AF-0709-0032
Aerospace Propulsion Technician (Jet Engine) by Correspondence AF-1704-0229
Aiming Circle Operator by Correspondence MC-1601-0035
Air Cargo Specialist by Correspondence AF-0419-0004
Air Command and Staff Associate Correspondence Program AF-1511-0003
Air Command and Staff Correspondence Program AF-1511-0003
Air Conditioning Mechanic by Correspondence MC-1701-0002
Air Force Joint Service Supervisor Safety by Correspondence AF-0801-0001
Air Force Technical Order System by Correspondence AF-2203-0053
Air Passenger Specialist by Correspondence AF-0419-0021
Air Traffic Control Radar Repairman by Correspondence AF-1715-0003
Air Traffic Control Radar Technician by Correspondence AF-1715-0009
Air War College Associate Correspondence Program AF-1511-0005
Air War College Correspondence Program AF-1511-0005
Airborne Command Post Communications Equipment Specialist by Correspondence AF-1715-0122
Airborne Warning and Control Radar Specialist by Correspondence AF-1715-0123
Aircraft Armament Systems Specialist by Correspondence AF-1715-0035
Aircraft Control and Warning Radar Specialist by Correspondence AF-1715-0005
Aircraft Control and Warning Radar Technician by Correspondence AF-1715-0010
Aircraft Electrical Systems Specialist by Correspondence AF-1714-0003
Aircraft Electro-Environmental System Technician by Correspondence AF-1704-0221
Aircraft Electro-Environmental Systems Technician by Correspondence AF-1704-0222 AF-1704-0223
Aircraft Environmental Systems Mechanic by Correspondence AF-1704-0200
Aircraft Fuel Systems Mechanic by Correspondence AF-1704-0191
Aircraft Fuel Systems Technician by Correspondence AF-1704-0202
Aircraft Maintenance Specialist and Bombardment Aircraft by Correspondence AF-1704-0184
Aircraft Maintenance Specialist, Airlift and Bombardment Aircraft by Correspondence AF-1704-0181
Aircraft Maintenance Specialist, Tactical Aircraft by Correspondence AF-1704-0102
Aircraft Maintenance Technician, Airlift and Bombardment Aircraft by Correspondence AF-1704-0190
Aircraft Maintenance Technician, Tactical Aircraft by Correspondence AF-1704-0162
Aircraft Pneudraulic Systems Mechanic by Correspondence AF-1704-0201
Aircraft Pneudraulic Systems Technician by Correspondence AF-1704-0203 AF-1704-0230 AF-1704-0231
Aircrew Egress Systems Mechanic by Correspondence AF-1717-0005
Aircrew Life Support Specialist by Correspondence AF-1704-0199
Airframe Repair Specialist by Correspondence AF-1704-0054 AF-1723-0010
Airlift Aircraft Maintenance Specialist by Correspondence AF-1704-0184
Airlift Aircraft Maintenance Technician by Correspondence AF-1704-0249
Antenna Construction and Propagation of Radio Waves by Correspondence MC-1715-0136
Antenna Construction and Propogation of Radio Waves by Correspondence MC-1715-0112
Apprentice Air Cargo Specialist by Correspondence AF-0419-0029
Apprentice Airfield Management Specialist by Correspondence AF-1704-0214
Apprentice Carpenter by Correspondence AF-1710-0025
Apprentice Electrician by Correspondence AF-1714-0023
Apprentice Fitness and Recreation Specialist by Correspondence AF-1406-0055
Apprentice Food Service Specialist by Correspondence AF-1729-0010
Apprentice Heating Systems Specialist by Correspondence AF-1701-0008
Apprentice Mason by Correspondence AF-1710-0030
Apprentice Materiel Facilities Specialist by Correspondence AF-1405-0018
Apprentice Medical Administrative Specialist by Correspondence AF-0709-0028
Apprentice Nondestructive Inspection Specialist by Correspondence AF-1724-0006
Apprentice Operations Resource Management Specialist by Correspondence AF-1402-0073
Apprentice Packaging Specialist by Correspondence AF-1405-0061
Apprentice Pavements Maintenance Specialist by Correspondence AF-1601-0048
Apprentice Plumber by Correspondence AF-1710-0027
Apprentice Services Specialist by Correspondence AF-1729-0013
Apprentice Subsistence Operations Specialist by Correspondence AF-1729-0015
Apprentice Telecommunications Operations Specialist by Correspondence AF-0504-0004 AF-1404-0004
Apprentice Vehicle Operator/Dispatcher by Correspondence AF-0419-0026
Army Joint Service Supervisor Safety by Correspondence AF-0801-0002
Artillery Survey for the Fire Control Man by Correspondence MC-1601-0021
Artillery Survey Instruments by Correspondence MC-1601-0032
Autodin Procedures by Correspondence MC-1715-0094
Automatic Flight Control Systems Specialist by Correspondence AF-1715-0075
Automatic Telephone Equipment by Correspondence MC-1715-0099
Automatic Tracking Radar Specialist by

Correspondence
AF-1715-0007
Automatic Tracking Radar Technician by Correspondence
AF-1715-0011
Automotive Brake Systems by Correspondence
MC-1703-0023
Automotive Cooling and Lubricating Systems by Correspondence
MC-1703-0021
MC-1703-0032
Automotive Engine Maintenance and Repair by Correspondence
MC-1703-0024
Automotive Fuel and Exhaust Systems by Correspondence
MC-1703-0020
MC-1703-0031
Automotive Power Trains by Correspondence
MC-1703-0022
Aviation Corrosion Control by Correspondence
CG-1704-0016
Aviation Electrician Mate, First Class, by Correspondence
CG-1714-0004
Aviation Electrician Mate, Second Class, by Correspondence
CG-1714-0003
Aviation Electrician's Mate First Class (AE1) by Correspondence
CG-1714-0022
Aviation Electrician's Mate Second Class (AE2) By Correspondence
CG-1714-0025
Aviation Electrician's Mate, First Class, by Correspondence
CG-1714-0004
Aviation Electrician's Mate, Second Class, by Correspondence
CG-1714-0003
Aviation Electronics Technician First Class (AT1) by Correspondence
CG-1715-0132
Aviation Electronics Technician, First Class, by Correspondence
CG-1715-0032
Aviation Electronics Technician, Second Class, (AT2) by Correspondence
CG-1715-0031
Aviation Machinist Mate, First Class, by Correspondence
CG-1704-0008
Aviation Machinist's Mate, First Class, by Correspondence
CG-1704-0008
Aviation Machinist's Mate, Second Class, by Correspondence
CG-1704-0007
Aviation Maintenance Administration (AVADMN1) by Correspondence
CG-1408-0003
Aviation Structural Mechanic, First Class, by Correspondence
CG-1704-0015
Aviation Structural Mechanic, Second Class, by Correspondence
CG-1704-0013
Aviation Survivalman, First Class, by Correspondence
CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence
CG-1704-0018
Avionic Communications Specialist by Correspondence
AF-1715-0120
AF-1715-0467
Avionic Guidance and Control Systems Technician by Correspondence
AF-1704-0232
Avionic Inertial and Radar Navigation Systems Specialist by Correspondence
AF-1715-0442
Avionic Sensor Systems Specialist (Electro-Optical Sensors) by Correspondence
AF-1715-0071
Avionic Sensor Systems Specialist (Reconnaissance Electronic Sensors) by Correspondence
AF-1715-0068
Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence
AF-1715-0070
Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence
AF-1715-0077
Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0076
Avionics Guidance and Control Systems Technician by Correspondence
AF-1704-0234
AF-1704-0235
AF-1704-0236
AF-1704-0237
AF-1704-0238
AF-1704-0239
AF-1704-0240
AF-1704-0241
AF-1715-0761
Avionics Instrument Systems Specialist by Correspondence
AF-1715-0080
Avionics Test Station and Component Specialist (F-16/A-10) by Correspondence
AF-1715-0756
AFLC Directorate of Materiel Management by Correspondence
AF-1408-0089
Basic Combat Engineer by Correspondence
MC-1601-0017
Basic Engineer Equipment Mechanic by Correspondence
MC-1601-0018
Basic Nutrition by Correspondence
MC-1729-0021
MC-1729-0041
Basic Pay Entitlement by Correspondence
MC-1401-0008
Basic Pay Entitlements by Correspondence
MC-1401-0003
Basic Personnel Administration by Correspondence
MC-1406-0017
Basic Radar Use and Operation (BARAD) by Correspondence
CG-1715-0076
Basic Search and Rescue (BASAR) by Correspondence
CG-0802-0009
Basic Search and Rescue (SAR) Aircrewman (ACBSC) by Correspondence
CG-0802-0012
Basic Shop Fundamentals for the Mechanic by Correspondence
MC-1717-0005
Basic Warehousing by Correspondence
MC-1405-0020
Biomedical Equipment Maintenance Specialist by Correspondence
AF-1715-0745
Boating Safety by Correspondence
CG-0802-0001
Boatswain's Mate First Class by Correspondence
CG-1708-0004
Boatswain's Mate Second Class by Correspondence
CG-1708-0003
Boatswain's Mate Third Class by Correspondence
CG-1708-0002
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence
AF-1715-0049
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence
AF-1715-0046
Budget by Correspondence
AF-1408-0092
Bulk Fuel Man by Correspondence
MC-1732-0002
Cable and Antenna Systems Installation/Maintenance Specialist by Correspondence
AF-1715-0125
Cable Splicing Installation and Maintenance Specialist by Correspondence
AF-1715-0126
Career Advisory Specialist by Correspondence
AF-1406-0048
Career Advisory Technician by Correspondence
AF-1406-0051
Carpentry Specialist by Correspondence
AF-1710-0024
Celestial Navigation Second Class by Correspondence
CG-1304-0004
Chapel Management Specialist by Correspondence
AF-1408-0085
Chapel Management Technician by Correspondence
AF-1408-0086
Chief Aviation Electrician (AEC) by Correspondence
CG-1408-0015
Chief Aviation Electronics Technician (ATC) by Correspondence
CG-1408-0029
Chief Aviation Machinist (AMC) by Correspondence
CG-1408-0034
Chief Aviation Structural Mechanic (AMC) by Correspondence
CG-1408-0030
Chief Aviation Survivalman (ASMC) by Correspondence
CG-1408-0027
Chief Boatswain's Mate (BMC) by

Correspondence
CG-1408-0016

Chief Damage Controlman (DCC) by Correspondence
CG-1408-0017

Chief Dental Technician (DTC) by Correspondence
CG-1408-0018

Chief Fire Control Technician (FTC) by Correspondence
CG-1408-0032

Chief Firefighter (FIC) by Correspondence
CG-1408-0022

Chief Gunner's Mate (GMC) by Correspondence
CG-1408-0031

Chief Hospital Corpsman (HMC) by Correspondence
CG-1408-0014

Chief Machinery Technician (MKC) by Correspondence
CG-1408-0012

Chief Marine Science Technician (MSTC) by Correspondence
CG-1408-0023

Chief Photojournalist (PAC) by Correspondence
CG-1408-0021

Chief Port Security (PSC) by Correspondence
CG-1408-0020

Chief Quartermaster (QMC) by Correspondence
CG-1408-0008

Chief Radarman (RDC) by Correspondence
CG-1408-0025

Chief Radioman (RMC) by Correspondence
CG-1408-0026

Chief Storekeeper (SKC) by Correspondence
CG-1408-0019

Chief Subsistence Specialist (SSC) by Correspondence
CG-1408-0033

Chief Telephone Technician (TTC) by Correspondence
CG-1408-0028

Chief Yeoman (YNC) by Correspondence
CG-1408-0024

Civil Air Patrol Mission Observer Level II by Correspondence
AF-1704-0195

Civil Air Patrol Scanner by Correspondence
AF-1704-0194

Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence
AF-0801-0005

Civil Law by Correspondence
AF-1511-0007

Closed Circuit Television Systems by Correspondence
CG-1715-0064

Club Management Supervisor by Correspondence
AF-1406-0059

Coast Guard Joint Service Supervisor Safety by Correspondence
AF-0801-0004

Coast Guard Orientation by Correspondence
CG-2205-0013

Cold Weather Operations by Correspondence
MC-0803-0006

Combat Arms Training and Maintenance Specialist/Technician by Correspondence
AF-2203-0054

Combat Control Operator by Correspondence
AF-1704-0216

Combat Engineer Chief, Construction Support by Correspondence
MC-1601-0012

Combat Engineer Noncommissioned Officer (NCO) by Correspondence
MC-1601-0013
MC-1601-0036

Command and Control Specialist by Correspondence
AF-1704-0217

Communication Center by Correspondence
MC-1715-0104

Communication Security by Correspondence
MC-1715-0109

Communication-Electronics Systems Acquisition and Mangement by Correspondence
AF-1715-0753

Communication/Navigation System Technician by Correspondence
AF-1704-0245

Communication/Navigation Systems Technician by Correspondence
AF-1704-0242
AF-1704-0243
AF-1704-0244
AF-1704-0246

Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence
MC-1715-0101

Communications Officer (COMOFF) by Correspondence
CG-1404-0003

Communications Plans and Orders by Correspondence
MC-1715-0106

Communications-Electronics Employment by Correspondence
AF-1715-0748

Communications-Electronics Systems Technology by Correspondence
AF-1715-0747

Communications/Navigations Technician by Correspondence
AF-1715-0116

Compass Systems (COMSYS) by Correspondence
CG-1708-0008

Computer Operations Supervisor by Correspondence
AF-1402-0068

Computer Operator by Correspondence
AF-1402-0017

Construction Equipment Operator by Correspondence
AF-1710-0028

Construction Print Reading by Correspondence
MC-1601-0011
MC-1601-0041

Contract Administration by Correspondence
AF-1408-0087

Contracting Specialist by Correspondence
AF-1408-0071

Contracting Supervisor by Correspondence
AF-1408-0072

Corrections by Correspondence
MC-1728-0008

Corrections Supervisor by Correspondence
MC-1728-0007

Correspondence Course of the Industrial College of the Armed Forces
DD-1511-0001

Correspondence Procedures by Correspondence
MC-1403-0006

Corrosion Control Specialist by Correspondence
AF-1717-0013

Cost and Management Analysis Specialist by Correspondence
AF-1408-0083

Cost and Management Analysis Technician by Correspondence
AF-1408-0084

Crane Operator by Correspondence
MC-1710-0032

Crime Prevention by Correspondence
AF-1728-0042

Damage Control and Stability (DCS) by Correspondence
CG-2205-0012

Damage Control and Stability (DCS) By Correspondence
CG-2205-0024

Damage Control Deck Group Ratings (DCDKGR) by Correspondence
CG-1710-0011

Damage Controlman Chief (DCC) by Correspondence
CG-1408-0037

Damage Controlman First Class (DC1) by Correspondence
CG-1710-0003

Damage Controlman First Class By Correspondence
CG-1710-0020

Damage Controlman Second Class (DC2) by Correspondence
CG-1710-0004
CG-1710-0021

Damage Controlman Third Class (DC3) by Correspondence
CG-1710-0010
CG-1710-0019

Deck Seamanship (DKSNS) by Correspondence
CG-1708-0010

Deck Watch Officer Navigation Rules (DWONR) by Correspondence
CG-1708-0014

Dental Assistant by Correspondence
AF-0701-0002

Dental Assistant Specialist by Correspondence
AF-0701-0003

Dental Laboratory Specialist by Correspondence
AF-0701-0018

Dental Technician First Class (DT1) by Correspondence
CG-0701-0004

Dental Technician Second Class (DT2) by Correspondence
CG-0701-0003

Desert Operations by Correspondence
MC-0803-0007
Diesel Engine Maintenance and Troubleshooting by Correspondence
MC-1712-0007
Dining Facility Sanitation by Correspondence
MC-1729-0025
Direction Finding Operations by Correspondence
MC-1606-0007
MC-1715-0130
Disaster Preparedness Specialist by Correspondence
AF-0802-0026
Disaster Preparedness Technician by Correspondence
AF-0802-0028
Education Specialist by Correspondence
AF-1406-0069
Electrical Power Line Distribution Technician by Correspondence
AF-1714-0025
Electrical Power Line Specialist by Correspondence
AF-1714-0026
Electrical Power Production Specialist by Correspondence
AF-1714-0027
AF-1714-0030
Electrical Power Production Technician by Correspondence
AF-1408-0096
AF-1714-0024
AF-1714-0031
Electrician by Correspondence
AF-1714-0028
Electrician Mate First Class by Correspondence
CG-1714-0011
Electrician Mate Second Class by Correspondence
CG-1714-0010
Electrician-s Mate Third Class (EM3) by Correspondence
CG-1714-0024
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CG-1408-0010
Electrician's Mate First Class by Correspondence
CG-1714-0011
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CG-1714-0023
Electrician's Mate Second Class by Correspondence
CG-1714-0010
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CG-1714-0005
Electronic Computer Systems Specialist by Correspondence
AF-1715-0440
Electronic Cryptographic Communications Equipment Specialist by Correspondence
AF-1715-0024
Electronic Technician First Class by Correspondence
CG-1715-0038
Electronic Technician Second Class by Correspondence
CG-1715-0037
Electronic Tubes and Special Purpose Tubes by Correspondence
AF-1715-0749
Electronic Warfare Systems Specialist by Correspondence
AF-1715-0466
Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence
AF-1715-0026
Electronics Fundamentals by Correspondence
AF-1715-0746
Electronics Technician Chief (EMC) by Correspondence
CG-1408-0009
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CG-1402-0001
Electronics Technician First Class (ET1) by Correspondence
CG-1715-0038
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CG-1715-0037
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MC-1601-0016
Engineer Equipment Mechanic by Correspondence
MC-1601-0019
Engineer Equipment Operator by Correspondence
MC-1601-0014
Engineer Forms and Records by Correspondence
MC-1601-0015
MC-1601-0037
Engineering Assistant Specialist by Correspondence
AF-1601-0046
Explosive Development by Correspondence
AF-0802-0030
F-100 Jet Engine Mechanic by Correspondence
AF-1704-0205
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence
AF-1704-0224
Fabrication and Parachute Specialist by Correspondence
AF-1733-0002
Field Bread Baking by Correspondence
MC-1729-0033
Field Food Service by Correspondence
MC-1729-0028
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MC-1715-0092
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MC-1715-0100
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MC-1715-0098
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AF-1408-0077
Financial Management Specialist by Correspondence
AF-1408-0053
AF-1408-0073
AF-1408-0074
AF-1408-0075
AF-1408-0076
Financial Management Supervisor by Correspondence
AF-1408-0038
AF-1408-0081
Financial Management/Services Supervisor (Functions and Responsibilities) by Correspondence
AF-1408-0082
Financial Management/Services Supervisor by Correspondence
AF-1408-0081
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AF-1408-0079
Financial Services Specialist (Travel) by Correspondence
AF-1408-0080
Financial Services Specialist by Correspondence
AF-1408-0021
AF-1408-0078
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CG-1408-0038
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CG-1715-0135
Fire Control Technician First Class by Correspondence
CG-1715-0036
Fire Control Technician Second Class (FT2) by Correspondence
CG-1715-0137
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CG-1715-0035
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CG-1728-0006
Fire Protection Specialists by Correspondence
AF-1728-0038
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AF-1728-0046
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CG-1728-0008
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CG-1728-0007
Firefighting Ashore (FFASH) by Correspondence
CG-1728-0005
Fireman by Correspondence
CG-1722-0001
First Sergeant by Correspondence
AF-2203-0052
Fitness and Recreation Specialist by Correspondence
AF-1406-0056
Fitness and Recreation Supervisor by Correspondence
AF-1406-0057
Flight Engineer Specialist (Helicopter

Qualified) by Correspondence
AF-1704-0197

Flight Engineer Specialist by Correspondence
AF-1704-0094

Flight Mechanic HH-52A by Correspondence
CG-1704-0010

Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030

Food Service Fundamentals by Correspondence
MC-1729-0027
MC-1729-0038

Food Service Management by Correspondence
MC-1729-0029

Food Service Specialist by Correspondence
AF-1729-0011

Food Service Supervisor by Correspondence
AF-1729-0012

Freight Traffic Specialist by Correspondence
AF-0419-0032

Fuel Specialist by Correspondence
AF-1703-0019

Functions of the Infantry Staff Noncommissioned Officer (NCO) by Correspondence
MC-2204-0056

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AF-1402-0072

Fundamentals of Diesel Engines by Correspondence
MC-1712-0002
MC-1712-0006

Fundamentals of Digital Logic by Correspondence
MC-1715-0093
MC-1715-0131

Fundamentals of Electricity by Correspondence
AF-1714-0029
MC-1714-0009

Fundamentals of Electronics by Correspondence
CG-1715-0061

Fundamentals of Marine Corps Leadership by Correspondence
MC-1406-0023

Fundamentals of Refrigeration by Correspondence
MC-1730-0005

Fundamentals of Solid State Devices by Correspondence
AF-1715-0750

Garrison Food Service Equipment Maintenance by Correspondence
MC-1729-0026

Gas Turbine by Correspondence
CG-1731-0002

General Accounting Specialist by Correspondence
AF-1408-0053

General Personnel Administration for Reserves by Correspondence.
MC-1406-0025

General Purpose Vehicle Mechanic by Correspondence
AF-1703-0018

Ground Radio Communications Specialist by Correspondence
AF-1715-0227

Ground Radio Communications Technician by Correspondence
AF-1715-0465

Ground Radio Operator by Correspondence
AF-0504-0002

Guidance and Control Systems Technician by Correspondence
AF-1704-0233

Gunner-s Mate Chief (GMC) by Correspondence
CG-1408-0040

Gunner's Mate First Class (GM1) by Correspondence
CG-1714-0012

Gunner's Mate Second Class (GM2) by Correspondence
CG-1714-0009

Health Services Technician First Class (HS1) by Correspondence
CG-0709-0006

Health Services Technician Second Class (HS2) by Correspondence
CG-0709-0005

Heating Systems Technician by Correspondence
AF-1701-0009

Helicopter Mechanic (Fully Articulated Rotor) by Correspondence
AF-1704-0207

Helicopter Mechanic (Semirigid Rotor) by Correspondence
AF-1704-0208

Helicopter Mechanic by Correspondence
AF-1704-0206

Helicopter Technician (Fully Articulated Rotor) by Correspondence
AF-1704-0212

Helicopter Technician (Semirigid Rotor) by Correspondence
AF-1704-0213

High Frequency Communications System by Correspondence
MC-1715-0135

Hospital Corpsman First Class (HM1) by Correspondence
CG-0709-0007

Hospital Corpsman Second Class (HM2) by Correspondence
CG-0709-0008

Hydraulic Principles and Troubleshooting by Correspondence
MC-1704-0007

HC-130 Avionicsman by Correspondence
CG-1715-0040

HC-130 Dropmaster (AC-130D-1) by Correspondence
CG-1704-0017

HC-130 Flight Engineer by Correspondence
CG-1704-0009

HC-130 Loadmaster (AC130L) by Correspondence
CG-0419-0002

HF-UHF Field Radio Equipment by Correspondence
MC-1715-0110

HH-3F Avionicsman by Correspondence
CG-1715-0039

HH-3F Flight Mechanic by Correspondence
CG-1704-0011

HU-25A Avionicsman by Correspondence
CG-0802-0007

Ice Observer by Correspondence
CG-1304-0006

Imagery Interpreter Specialist by Correspondence
AF-1709-0027

Individual Personnel Records by Correspondence
MC-1403-0016
MC-1406-0019

Industrial Hydraulics by Correspondence
CG-1704-0014

Information Systems Operator by Correspondence
AF-1402-0070

Information Systems Programming Specialist by Correspondence
AF-1402-0071

Inspection and Repair of the Caliber Machine Gun by Correspondence
MC-2204-0065

Inspection and Repair of Shoulder Weapons by Correspondence
MC-2204-0066

Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence
MC-1601-0023

Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence
MC-1712-0001

Installation, Operation, and Operator's Maintenance of Floodlight, Frequency Convertor, and Dummy Load Bank by Correspondence
MC-1715-0090

Instrumentation Mechanic by Correspondence
AF-1715-0045

Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096

Integrated Avionic Attack Control Systems Specialist by Correspondence
AF-1715-0759

Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence
AF-1704-0226
AF-1704-0227
AF-1715-0095

Integrated Avionic Instrument and Flight Control Systems Techrican by Correspondence
AF-1715-0114

Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1704-0218
AF-1715-0097

Integrated Avionics Attack Control Systems Specialist (F-16) by Correspondence
AF-1704-0219

Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
AF-1715-0760

Integrated Avionics Attack Control Systems Technician by Correspondence
AF-1715-0113

Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220

Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101

Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112

Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117

Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086

Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084

Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence
AF-1715-0081

Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence
AF-1715-0098

Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099

Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence
AF-1715-0094

Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092

Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0093

Integrated Avionics Manual Test Station and Component Specialist by Correspondence
AF-1715-0083

Integrated Avonics Attack Control Systems Specialist by Correspondence
AF-1715-0091

Integrated Organizational Avionic System Specialist by Correspondence
AF-1715-0758

Integrated Organizational Avionic Systems Specialist by Correspondence
AF-1405-0069

Integrated Organizational Avionics Systems Specialist by Correspondence
AF-1715-0757

Intelligence for the Marine Air-Ground Task Force (MAGTF) by Correspondence
MC-1606-0005

Intelligence Brief: The Military Threat by Correspondence
MC-1606-0012

Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence
MC-1606-0011

Intelligence Fundamentals by Correspondence
AF-1606-0119

Intelligence Officer by Correspondence
AF-1606-0120

Intelligence Operations Specialist by Correspondence
AF-1606-0121

Intelligence Operations Technician by Correspondence
AF-1606-0123

Interior Wiring by Correspondence
MC-1601-0033

Introduction to the Quality Function by Correspondence
AF-1405-0067

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AF-1408-0090

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AF-1704-0196

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MC-1606-0009

Introduction to Communication Control by Correspondence
MC-1715-0105

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MC-1601-0039

Introduction to Marine Corps Accounting by Correspondence
MC-1401-0004

Introduction to Test Equipment by Correspondence
MC-1715-0129

Inventory Management Specialist (Munitions) by Correspondence
AF-1405-0064

Inventory Management Specialist by Correspondence
AF-1405-0051

Inventory Management Supervisor (Munitions) by Correspondence
AF-1405-0065

Inventory Management Supervisor by Correspondence
AF-1405-0059

Investigator Chief (IVC) by Correspondence
CG-1408-0013

Investigator 1 (IV1) by Correspondence
CG-1728-0014

Jet Engine Mechanic by Correspondence
AF-1704-0137

Jet Engine Technician by Correspondence
AF-1704-0189

Junior Officer Electronic Indoctrination by Correspondence
CG-1715-0062

Land Navigation by Correspondence
MC-1713-0001
MC-1713-0002

Landmine Warfare and Demolitions by Correspondence
MC-2204-0062

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CG-1728-0013

Law Enforcement Specialist by Correspondence
AF-1728-0009
AF-1728-0044

Law Enforcement Supervisor by Correspondence
AF-1728-0010

Legal Administration for the Reporting Unit by Correspondence
MC-1406-0024

Legal Services Specialist by Correspondence
AF-1406-0047

Light Vehicle Characteristics and Operating Techinques by Correspondence
MC-1703-0015

Light Vehicle Preventive Maintenance by Correspondence
MC-1703-0018

Liquid Fuel Systems Maintenance Specialist by Correspondence
AF-1601-0030

Logistics Plans Specialist by Correspondence
AF-0419-0027

Machinery Technician First Class by Correspondence
CG-1723-0001

Machinery Technician Second Class by Correspondence
CG-1723-0002

Machinery Technician Third Class by Correspondence
CG-1723-0003

Machinist by Correspondence
AF-1723-0008

Mail Orderly by Correspondence
MC-1404-0002

Maintenance of the M60 Series Machine Guns by Correspondence
MC-2204-0064

Maintenance of Bulk Fuel Equipment by Correspondence
MC-1601-0038

Maintenance Scheduling Specialist by Correspondence
AF-1408-0070

Maintenance Scheduling Specialists by Correspondence
AF-1715-0135

Maintenance Systems Analysis Specialist by Correspondence
AF-1402-0069

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Marine Corps Directives System by Correspondence MC-1403-0007

Marine Corps Integrated Maintenance Management System (MIMMS) Procedures for the Supply Clerk by Correspondence MC-1405-0028

Marine Corps Stock Lists by Correspondence MC-1405-0029

Marine Corps Technical Publications System by Correspondence MC-1405-0023, MC-1408-0021

Marine Electrician - Fundamentals by Correspondence MC-1714-0010

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Marine Infantry Small Units in Counterinsurgency Operations by Correspondence MC-2204-0063

Marine Science Technician First Class (MST1) by Correspondence CG-1304-0015

Marine Science Technician Second Class (MST2) by Correspondence CG-1304-0016

Marine Science Technician Second Class by Correspondence CG-1304-0003

Masonry Specialist by Correspondence AF-1710-0026

Materials Handling Equipment by Correspondence MC-1710-0040

Materiel Facilities Specialist by Correspondence AF-1405-0013

Materiel Facilities Supervisor by Correspondence AF-1405-0033

Mathematics for Marines by Correspondence MC-1107-0001

Meats and Meat Cookery by Correspondence MC-1729-0023

Mechanization of Warehousing and Shipment Process (MOWASP) by Correspondence MC-1405-0022

Medical Administrative Specialist by Correspondence AF-0709-0027

Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence AF-0709-0029

Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence AF-0709-0031

Medical Laboratory Technician (Microbiology) by Correspondence AF-0709-0030

Medical Materiel Specialist by Correspondence AF-1406-0094

Medical Service Specialist by Correspondence AF-0703-0012

Medical Service Technician by Correspondence AF-0703-0011

Mental Health Unit Specialist by Correspondence AF-0708-0002

Mess Hall Sanitation by Correspondence MC-1729-0039

Metal Fabricating Specialist by Correspondence AF-1723-0006

Metal Working and Welding Operations by Correspondence MC-1723-0008

Metals Processing Specialist by Correspondence AF-1723-0007, AF-1723-0009

Metalworking and Welding Operations by Correspondence MC-1723-0001

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Meterological Technician by Correspondence (Specialized) AF-1304-0015

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Missile Facilities Specialist by Correspondence AF-1717-0026

Missile Maintenance Specialist (WS-133) by Correspondence AF-1710-0031

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Multichannel Radio Equipment by Correspondence MC-1715-0107

Munitions and Weapons Maintenance by Correspondence AF-0802-0025

M60 Machine Gun by Correspondence MC-2204-0060

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Navigational Aids Equipment Technician by Correspondence AF-1715-0017

Navy Joint Service Supervisor Safety by Correspondence AF-0801-0003

Nondestructive Inspection Specialist by Correspondence AF-1723-0005

Nuclear Weapons Specialist by Correspondence AF-0802-0027

Nursing Service Management by Correspondence AF-0703-0014

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Offensive Avionics Systems Specialist (B-1B) by Correspondence AF-1704-0248

Open Mess Management Specialist by Correspondence AF-1406-0058

Operations Resource Management by Correspondence AF-1408-0095

Optometry Specialist by Correspondence AF-0706-0003

Order-Writing Clerk by Correspondence MC-1403-0008

Organic Property Control by Correspondence MC-1405-0030

Packaging Specialist by Correspondence AF-1405-0062

Passenger and Household Goods Specialist by Correspondence AF-0419-0031

Pastry Baking by Correspondence MC-1729-0032

Pavements Maintenance Specialist by Correspondence AF-1601-0047

Personal Affairs Specialist by Correspondence AF-1406-0049

Personal Affairs Technician by Correspondence AF-1406-0050

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Reporting Unit by Correspondence
MC-1406-0014

Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0026

Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) by Correspondence
MC-1406-0016

Personnel Reporting for REMMPS by Correspondence
MC-1406-0027

Personnel Specialist by Correspondence
AF-1406-0044

Personnel Technician by Correspondence
AF-1406-0043

Pharmacy Specialist by Correspondence
AF-0799-0003

Photojournalist First Class (PA1-1) by Correspondence
CG-1709-0002

Photojournalist School Class (PA2) by Correspondence
CG-1709-0001

Physical Therapy Specialist by Correspondence
AF-0704-0004

Piloting by Correspondence
CG-1708-0006

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CG-1708-0006

Pistol and Revolver Preventive and Corrective Maintenance by Correspondence
MC-2204-0067

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MC-1710-0005
MC-1710-0031
MC-1710-0042

Plumbing Specialist by Correspondence
AF-1710-0021

Plumbing Technician by Correspondence
AF-1710-0023

Pole Line Construction Equipment by Correspondence
MC-1715-0091

Pole Line Construction Techniques by Correspondence
MC-1715-0096

Port Security Basic (PSB) by Correspondence
CG-1728-0011

Port Security Second Class (PS2) by Correspondence
CG-1728-0011

Port Securityman First Class (PS1) by Correspondence
CG-1728-0010

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Position Location Reporting System (PLRS) Capabilities and Employment by Correspondence
MC-1606-0008

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AF-1115-0008

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AF-1715-0752

Precision Imagery and Audiovisual Media Maintenance Specialist by Correspondence
AF-1715-0136

Precision Measuring Equipment Specialist by Correspondence
AF-1715-0073

Precision Measuring Equipment Technician by Correspondence
AF-1715-0074

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MC-1703-0019

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MC-1406-0028

Principles of Instruction for Marine Noncommissioned Officers (NCO) by Correspondence
MC-1406-0013

Production Control Specialist by Correspondence
AF-1405-0060

Programming Specialist by Correspondence
AF-1402-0065

Programming Technician by Correspondence
AF-1402-0012

Quartermaster First Class (QM1) by Correspondence
CG-1304-0007

Quartermaster First Class by Correspondence
CG-2205-0026

Quartermaster Second Class (QM2) by Correspondence
CG-1722-0002

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CG-1722-0003

Radar Operator (RADOP) by Correspondence
CG-1715-0074

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CG-1715-0065

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CG-1408-0036
CG-2205-0015

Radarman Second Class (RD2) by Correspondence
CG-2205-0016
CG-2205-0023

Radarman Third Class (RD3) by Correspondence
CG-2205-0017

Radiology Technician by Correspondence
AF-0705-0003

Radioman First Class (RM1) by Correspondence
CG-1715-0075

Radioman First Class by Correspondence
CG-1715-0136

Radioman Second Class (RM2) by Correspondence
CG-1404-0002

Radiotelegraph and Visual Communication Procedures by Correspondence
MC-1715-0133

Radiotelephone and Alternate Communication Procedures by Correspondence
MC-1715-0137

Radiotelephone, Telegraph, and Visual Communications Procedures by Correspondence
MC-1715-0103

Refrigeration and Air Condition Technician by Correspondence
AF-1730-0017

Refrigeration and Cryogenics Specialist by Correspondence
AF-1730-0016

Refrigeration Mechanic by Correspondence
MC-1730-0003

Refrigeration Servicing by Correspondence
MC-1731-0001

Relays, Generators, Motors and Electromechanical Devices by Correspondence
AF-1714-0032

Reserve Personnel Administration by Correspondence
MC-1406-0015

Resource Advisor by Correspondence
AF-1408-0093

Reverse Osmosis Water Purification Unit by Correspondence
MC-1732-0003

Safety and Security of the Port (PSGEN) by Correspondence
CG-0802-0011

Safety Specialist by Correspondence
AF-0802-0029

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MC-1729-0022

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CG-1708-0009

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CG-0802-0010

Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007

Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence
CG-0802-0008

Security Specialist by Correspondence
AF-1728-0002
AF-1728-0045

Security Supervisor by Correspondence
AF-1728-0003

Services Specialist by Correspondence
AF-1729-0014

Services Supervisor by Correspondence
AF-0419-0028

Shiphandling (SPHNG) by Correspondence
CG-1708-0013

Shore Structure Maintenance by Correspondence
CG-1710-0005

Sinewave Oscillators-Modulation/Demodulation by Correspondence
AF-1715-0751

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CG-1403-0001

Social Actions Technician (Drugs/

Alcohol) by Correspondence
AF-1406-0054
Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence
AF-1406-0053
Soldering and Electrical Connectors by Correspondence
AF-1714-0033
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MC-1715-0132
Sonar Technician Chief (STC) by Correspondence
CG-1408-0011
CG-1408-0039
Sonar Technician First Class by Correspondence
CG-1715-0034
Sonar Technician Second Class (ST2) by Correspondence
CG-1715-0133
Sonar Technician Second Class by Correspondence
CG-1715-0033
Space Communications Systems Equipment by Correspondence
AF-1715-0014
Space Communications Systems Equipment Operator/Technician by Correspondence
AF-1715-0021
Space Systems Equipment Maintenance Specialist by Correspondence
AF-1715-0036
Space Systems Operations Specialist by Correspondence
AF-1715-0755
Special Investigations and Counterintelligence Technician by Correspondence
AF-1728-0039
Special Purpose Vehicle and Equipment Mechanic by Correspondence
AF-1710-0032
Special Vehicle Mechanic (Firetrucks) by Correspondence
AF-1710-0033
Special Vehicle Mechanic (Refueling Vehicles) by Correspondence
AF-1710-0034
Squadron Officer School Correspondence Program
AF-2203-0035
Staff Support Administration Specialist by Correspondence
AF-1403-0003
Storekeeper First Class (SK1) by Correspondence
CG-1405-0003
Storekeeper Second Class (SK2) by Correspondence
CG-1405-0004
Storekeeper Third Class (SK3) by Correspondence
CG-1405-0002
Strategic Aircraft Maintenance Specialist by Correspondence
AF-1704-0181
AF-1704-0188
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AF-1704-0210
AF-1704-0211
AF-1704-0247
Structural Maintenance Technician by Correspondence
AF-1704-0250
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AF-1601-0049
Subsistence Operations Specialist by Correspondence
AF-1729-0016
Subsistence Operations Technician by Correspondence
AF-1729-0017
Supply Management by Correspondence
MC-1405-0027
Supply Systems Analysis Supervisor by Correspondencee
AF-1405-0066
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MC-1405-0026
Supported Activities Supply System (SASSY) Organic Procedures by Correspondence
MC-1405-0024
Surgical Service Specialist by Correspondence
AF-0703-0015
SASSY: Organic Procedures by Correspondence
MC-1405-0044
Tactical Air Command and Control Specialist by Correspondence
AF-1406-0068
Tactics of the Marine Rifle Squad by Correspondence
MC-2204-0068
Target Intelligence Specialist by Correspondence
AF-1606-0122
Tatical Aircraft Maintenance Technician by Correspondence
AF-1704-0228
Telecommunications Operations Specialist by Correspondence
AF-0504-0003
Telecommunications System Control Specialist by Correspondence
AF-1715-0390
Telecommunications System Maintenance Specialist by Correspondence
AF-1715-0031
Telecommunications Systems Control Technician by Correspondence
AF-1715-0034
Telecommunications Systems/Equipment Maintenance by Correspondence
AF-1715-0450
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127
Telephone Equipment Installation and Repair Specialist by Correspondence
AF-1715-0131
Telephone Technician First Class (TT1) by Correspondence
CG-1715-0077
CG-1715-0134
Telephone Technician Second Class (TT2) by Correspondence
CG-1715-0063
Television Equipment Repairman by Correspondence
AF-1715-0013
Terrorism Counteraction for Marines by Correspondence
MC-1606-0010
The Marine Marksman by Correspondence
MC-2204-0057
The Marine Noncommissioned Officer (NCO) by Correspondence
MC-1406-0020
The Marine Squad Leader: Combat Planning and Orders by Correspondence
MC-2204-0058
The Mess Hall Subsistence Clerk by Correspondence
MC-1729-0040
The Military Affiliate Radio System (MARS) Operator by Correspondence
MC-1715-0134
The Noncommissioned Officer (NCO) by Correspondence)
MC-1406-0023
The Reserve Field Food Service Supervisor by Correspondence
MC-1729-0042
The 81mm Mortar Noncommissioned Officer (NCO) by Correspondence
MC-2204-0061
Theory and Construction of Turbine Engines by Correspondence
MC-1710-0004
Tractor-Trailer Operator by Correspondence
MC-1710-0041
Traffic Management Supervisor by Correspondence
AF-0419-0030
Training Specialist by Correspondence
AF-1406-0071
Training Systems Technician by Correspondence
AF-1406-0072
Training Technician by Correspondence
AF-1406-0070
Turboprop Propulsion Mechanic by Correspondence
AF-1704-0172
AF-1704-0204
T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence
CG-1704-0021
Unit Dining Facility by Correspondence
MC-1729-0031
Unit Orderly Room Administration Specialist by Correspondence
AF-1403-0004
USAF Supervisor's by Correspondence
AF-1406-0060
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence
MC-1729-0024
Vehicle Body Mechanic by Correspondence
AF-1710-0035
Vehicle Maintenance Control and Analysis Specialist by Correspondence
AF-1710-0036
Vehicle Operations Supervisor by Correspondence
AF-0419-0023
VHF (FM) Field Radio Equipment by Correspondence
MC-1715-0108
Warehousing Operations by Correspondence
MC-1405-0021
Watchstanding: The Conning Officer (CONOFF) by Correspondence
CG-1708-0012

Waterfront Protection (WATPRO) by Correspondence
CG-1728-0012
Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050
Weapon Control Systems Mechanic (A-7D AN/APQ-126) by Correspondence
AF 1715-0054
Weapon Control Systems Mechanic (F-106A/B MA-1, ASQ-25 Systems) by Correspondence
AF-1715-0051
Weapon Control Systems Mechanic (F-4C/D APQ-109/APA-165) by Correspondence
AF-1715-0052
Weapon Control Systems Mechanic (F-4E APQ-120) by Correspondence
AF-1715-0053
Weapon Control Systems Technician (F-4C/D APQ-109/APA-165) by Correspondence
AF-1715-0056
Weapon Control Systems Technician (F-4E APQ-120) by Correspondence
AF-1715-0063
Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence
AF-1715-0055
Weapons Administration (WEPAD) by Correspondence
CG-1408-0007
Weapons Officer (WEPOFF) by Correspondence
CG-2205-0018
Weather Equipment Specialist by Correspondence
AF-1304-0014
Weather Forecasting and Flight Briefing (WXFBRF) by Correspondence
CG-1304-0014
Weather Specialist by Correspondence
AF-1304-0013
AF-1304-0016
Wideband Communications Equipment Specialist by Correspondence
AF-1715-0208
Wideband Communications Equipment Technician by Correspondence
AF-1715-0015
Yeoman First Class (YN1) by Correspondence
CG-1408-0006
Yeoman Second Class (YN2) by Correspondence
CG-1408-0004
Yeoman Third Class (YN3) by Correspondence
CG-1408-0005

Corrosion
Aviation Corrosion Control by Correspondence
CG-1704-0016
Corrosion Control Specialist by Correspondence
AF-1717-0013

Cost
Advanced Cost and Economic Analysis
AF-1408-0016
Advanced Quantitative Methods in Cost Analysis
AF-1115-0004
Basic Quantitative Methods in Cost Analysis
AF-1115-0005
Cost and Management Analysis Specialist by Correspondence
AF-1408-0083
Cost and Management Analysis Technician by Correspondence
AF-1408-0084
Quantitative Methods in Cost Analysis
AF-1115-0004
Real Estate and Cost Management Analysis Specialist
AF-0331-0001
Real Estate—Cost-Management Analysis Specialist
AF-0331-0001

Counseling
Drug Education and Counseling
AF-1512-0003

Counter-Countermeasures
Electronic Counter-Countermeasures Operator
AF-1715-0587
Operations Officer Electronic Counter-Countermeasures (ECCM)
MC-1715-0067
Technician Electronic Counter-Countermeasures
MC-1715-0001

Counteraction
Terrorism Counteraction for Marines by Correspondence
MC-1606-0010

Counterinsurgency
Marine Infantry Small Units in Counterinsurgency Operations by Correspondence
MC-2204-0063

Counterintelligence
Reserve Special Investigations and Counterintelligence Training (Reserve Refresher)
AF-1728-0005
Special Investigations and Counterintelligence Officer
AF-1728-0020
Special Investigations and Counterintelligence Specialist
AF-1728-0020
Special Investigations and Counterintelligence Technician by Correspondence
AF-1728-0039

Countermeasure
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence
AF-1704-0224

Countermeasures
Airborne Electronic Countermeasures Specialist
AF-1715-0382
Basic Observer Electronic Countermeasures
AF-1715-0564
Electronic Counter-Countermeasures Operator
AF-1715-0587
Electronic Countermeasures Maintenance Technician
AF-1715-0324
Electronic Countermeasures Officer
AF-1715-0449
Electronic Warfare Countermeasures Specialist
AF-1715-0587
Weapons Controller (ECCM Operations Officer)/Electronic Warfare Countermeasures Specialist
AF-1715-0721

Coupler
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058

Court
Legal Clerk/Court Reporter
MC-1407-0001

Coxswain
Coxswain Class C
CG-1708-0007
Reserve Small Boat Coxswain ADT
CG-2205-0021

Crane
Crane Operator by Correspondence
MC-1710-0032
MC-1710-0039

Crew
Master Crew Chief
AF-1704-0070

Crime
Crime Prevention by Correspondence
AF-1728-0042

Criterion
Criterion Referenced Instruction (CRI) Workshop
AF-1406-0009

Cryogenic
Cryogenic Fluids Production Specialist
AF-1730-0013

Cryogenics
Refrigeration and Cryogenics Specialist by Correspondence
AF-1730-0016

Cryptographer
Cryptographer
MC-1409-0003

Cryptographic
Cryptographic Equipment Maintenance Preparatory
MC-1715-0065
Electronic Communications and Cryptographic Equipment Systems Repairman
AF-1715-0174
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT)
AF-1715-0351
Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype)
AF-1715-0102
Electronic Communications and Cryptographic Systems Equipment Repairman (Ciphony) (Encrypted Tel-Data Fax)
AF-1715-0174
Electronic Cryptographic Communications Equipment Specialist by Correspondence
AF-1715-0024
Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence
AF-1715-0026

KG-34 Cryptographic Equipment Maintenance
DD-1715-0004

Cryptologic
Cryptologic Course for Service Supervisors
DD-1404-0005
Cryptologic Skills for Cryptologic Management Personnel
DD-1404-0005
Cryptologic Skills for Noncommissioned Officers (NCO)
DD-1404-0005
Military Officer Advanced Cryptologic
DD-1404-0002
National Cryptologic School Resident Language
DD-0602-0041
Senior Military Cryptologic Supervisors
DD-1404-0001

Cutter
Small Cutter Damage Control
CG-0801-0001

Cytotechnology
Histopathology/Cytotechnology Specialist
AF-0702-0006

Czech
Czech
DD-0602-0009
DD-0602-0044
Czech Aural Comprehension
DD-0602-0137
Czech Basic
DD-0602-0053
DD-0602-0078
DD-0602-0111
DD-0602-0229
Czech Intermediate
DD-0602-0024

CCI-611
CCI-611 and Motorola Triton VHF-FM Transceivers
CG-1715-0057

CDFO-5000
CDFO-5000, Class C
CG-1715-0048

CGM-13B
Missile Electronic Equipment Specialist (CGM-13B, TEMS)
AF-1715-0641
Missile Guidance and Control Specialist (CGM-13B, GEMS)
AF-1715-0477
Missile Guidance and Control Specialist (CGM-13B, GSC)
AF-1715-0481
Missile Launch Officer (CGM-13B)
AF-1715-0658
Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS)
AF-1715-0641
Tactical Missile Guidance Mechanic (CGM-13B)
AF-1715-0481
Tactical Missile Guidance Mechanic (CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Launch Specialist (CGM-13B)
AF-1715-0657

CH-3
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53)
AF-1606-0066

CH-46A
CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance
MC-1715-0071

CH-53
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53)
AF-1606-0066

COBET
Common Basic Electronics Training (COBET)
CG-1715-0043

COBOL
Advanced COBOL Programming Techniques
AF-1402-0049
COBOL Programming
AF-1402-0011
MC-1402-0013
IBM System 360 (DOS) COBOL Programming
MC-1402-0011
IBM System 360 (OS) COBOL Programming
MC-1402-0013
MC-1402-0036
IBM System/360 (OS) COBOL Programming Entry-level
MC-1402-0013
IBM System/360 (OS) COBOL Programming Specialist
MC-1402-0036
System 360 Operating System—COBOL Programming Phase
MC-1402-0007

COL-URG-II
COL-URG-II High Frequency Transmitting System
CG-1715-0072
COL-URG-II HF Transmitting System
CG-1715-0072

COMSEC
National Communications Security (COMSEC)
DD-1404-0004

CRI
Criterion Referenced Instruction (CRI) Workshop
AF-1406-0009

Damage
Chief Damage Controlman (DCC) by Correspondence
CG-1408-0017
Damage Control and Stability (DCS) by Correspondence
CG-2205-0012
Damage Control and Stability (DCS) By Correspondence
CG-2205-0024
Damage Control Deck Group Ratings (DCDKGR) by Correspondence
CG-1710-0011
Damage Control Welding, Class C
CG-1710-0002
Damage Controlman (DC) Advanced Reserve Active Duty for Training (AD7) Class C
CG-1710-0015
Damage Controlman Chief (DCC) by Correspondence
CG-1408-0037
Damage Controlman Class A
CG-1710-0001
CG-1710-0014
Damage Controlman Class C
CG-1710-0002
Damage Controlman First Class (DC1) by Correspondence
CG-1710-0003
Damage Controlman First Class By Correspondence
CG-1710-0020
Damage Controlman Second Class (DC2) by Correspondence
CG-1710-0004
CG-1710-0021
Damage Controlman Third Class (DC3) by Correspondence
CG-1710-0010
CG-1710-0019
Damage Controlman Welding, Class C
CG-1710-0002
Small Cutter Damage Control
CG-0801-0001

Danish
Danish
DD-0602-0006
DD-0602-0011
Danish Basic
DD-0602-0054
DD-0602-0099

Dari
Dari Afghan-Persian
DD-0602-0009
DD-0602-0045

Data
Advanced Data Automation Analysis and Design
AF-1402-0053
AN/UYK-7 Computer and Data Auxiliary Console (UYNK/DEAC) Course Development
CG-1402-0002
AN/UYK-7 Computer and OJ-172 Data Exchange Auxiliary Console (DEAC)
CG-1402-0002
Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II
AF-1402-0060
Data Automation Officer
AF-1402-0046
Data Control Techniques
MC-1402-0042
Data Handling Repair
MC-1715-0019
Data Services Specialist
AF-1115-0006
Electronic Data Processing Officer
AF-1402-0046
Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)
AF-1715-0266
Fire Control Systems Mechanic (MG-10 Series Data Flow Specialist)
AF-1715-0708
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476
IBM System 360 (OS) Data Control Techniques
MC-1402-0042

IBM System 360 (OS) Data Management
MC-1402-0039
IBM System 360 OS System Control and Data Management
MC-1402-0038
Marine Tactical Data System (MTDS) Technician
MC-1715-0043
Marine Tactical Data System (MTDS) Weapons Controller/Operator
MC-1715-0021
Mobile Data Communications Terminal Technician
MC-1715-0081
MC-1715-0118
OS/VS2 MVS Data Control Techniques
MC-1402-0042
Tactical Air Operations Central (TAOC) Data Handling Repair
MC-1715-0019
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician
MC-1715-0026
Tactical Data Communications Central Repairman
MC-1715-0077
Tactical Data Communications Central Technician
MC-1715-0026
Weapons Control Systems Technician (MG-13 Data Flow)
AF-1715-0699

Data Processing
Advanced Data Processing Audit Analysis
AF-1402-0041
Auditing Data Processing Systems
AF-1402-0042
Automated Data Processing Equipment - Fleet Marine Force Programmer
MC-1402-0050
Automated Data Processing Equipment for the Fleet Marine
MC-1402-0050
Automatic Data Processing (ADP) Orientation
MC-1402-0014
Data Processing Installation Management
MC-1402-0020
Data Processing Installation Management Seminar
MC-1402-0020
Data Processing Installation Managers Seminar
MC-1402-0020
Data Processing Machine Operator
AF-1402-0019
Data Processing Machine Supervisor
AF-1402-0036
Data Processing Machine Supervisor (Punched Card)
AF-1402-0036
Data Processing Management Seminar
MC-1402-0020
Electronic Analog Data Processing Equipment Repairman
AF-1715-0061
Electronic Data Processing Officer
AF-1402-0046
Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)
AF-1715-0266
Electronic Digital Data Processing Equipment Repairman
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D)
AF-1715-0701
Electronic Digital Data Processing Equipment Repairman (Data Transmission)
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348
Electronic Digital Data Processing Repairman (AN/FST-2B)
AF-1715-0018
Electronic Digital Data Processing Repairman (Data Processing Equipment/412L)
AF-1715-0110
Electronic Digital Data Processing Repairman (Display Equipment/SACCS)
AF-1715-0441
Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)
AF-1715-0109
Fundamental Principles of Electronic Data Processing Equipment by Correspondence
AF-1402-0072
Management/Supervision of a Data Processing Installation (DPI)
AF-1402-0038

Data Systems
Advanced Data Systems Officer
MC-1402-0021
Data Systems (Enlisted)
MC-1402-0017
Data Systems and Statistics Officer
AF-1402-0001
Data Systems Analysis and Design (Enlisted)
AF-1402-0040
Data Systems Analysis and Design (Officer)
AF-1402-0039
Data Systems Officer
MC-1402-0025
MC-1402-0047
Data Systems Officers
MC-1402-0025
Marine Tactical Data Systems (MTDS) Fundamentals
MC-1715-0017
Tactical Data Systems Digital Repair
MC-1715-0035

Deck
Damage Control Deck Group Ratings (DCDKGR) by Correspondence
CG-1710-0011
Deck Seamanship (DKSNS) by Correspondence
CG-1708-0010
Deck Watch Officer Navigation Rules (DWONR) by Correspondence
CG-1708-0014

Defense
Coastal Defense Exercise Planner, Port Level
CG-1722-0013
Coastal Defense Planner, Port Level
CG-1722-0012
Defense Advance Procurement Pricing
AF-1408-0008
Defense Basic Preservation and Packing
DD-0419-0004
Defense Equal Opportunity Management Institute
DD-1512-0001
Defense Equal Opportunity Management Institute Nonresident/Resident
DD-1512-0002
Defense Intelligence Course
DD-1511-0004
Defense Management Systems
DD-1408-0005
DD-1408-0006
Defense Mapping School Instructor
DD-1406-0001
Defense Missile Guidance Mechanic (GARS)
AF-1715-0635
Defense Missile Guidance Mechanic—Falcon (AIM)
AF-1715-0635
Defense Missile Guidance Mechanic, IM-99B
AF-1715-0308
Defense Missile Guidance Technician (GAR-1/2/11)
AF-1715-0650
Defense Packaging of Hazardous Materials for Transportation
DD-0419-0003
Defense Packaging Design
DD-0419-0006
Defense Packaging Management Training
DD-0419-0005
Defense Packing and Unitization
DD-0419-0002
Defense Preservation and Intermediate Protection
DD-0419-0001
Defense Race Relations Institute
DD-1512-0001
Defense Resources Management
DD-1408-0006
Defense Security Assistance Management Core
DD-1408-0001
Defense Security Assistance Management Overseas
DD-0327-0001
Defense Weapons Systems Management
AF-1408-0011
Enemy Defense Penetration Aids
AF-1715-0744
Inter-American Defense College
DD-1511-0005
Passive Defense Instructor
AF-0802-0004
Tactical Air Defense Controller
MC-1704-0004
Tactical Air Defense Controller Enlisted
MC-1704-0004

Defensive
Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15 Turrets) by Correspondence
AF-1715-0047
Defensive Systems Trainer Specialist, AN/GPQ-T6
AF-1715-0138

Demodulation
Sinewave Oscillators-Modulation/Demodulation by Correspondence
AF-1715-0751

Demolitions
Landmine Warfare and Demolitions by

Correspondence
MC-2204-0062

Demultiplexer
Maintenance of the TD 1220/G Multiplexer-Demultiplexer
DD-1715-0002
Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer
DD-1715-0002

Dental
Chief Dental Technician (DTC) by Correspondence
CG-1408-0018
Dental Assistant (Phase I)
AF-0701-0005
Dental Assistant (Phase II)
AF-0701-0006
Dental Assistant by Correspondence
AF-0701-0002
Dental Assistant Specialist by Correspondence
AF-0701-0003
Dental Laboratory Specialist
AF-0701-0016
Dental Laboratory Specialist by Correspondence
AF-0701-0018
Dental Technician A School
CG-0701-0001
Dental Technician First Class (DT1) by Correspondence
CG-0701-0004
Dental Technician Second Class (DT2) by Correspondence
CG-0701-0003
Dental Technician, Class C
CG-0701-0002

Dentistry
Preventive Dentistry Specialist
AF-0701-0008

Denture
Complete Denture Prosthetics
AF-0701-0010
Removable Partial Denture Prosthetics
AF-0701-0012

Desert
Desert Operations by Correspondence
MC-0803-0007

Design
Advanced Data Automation Analysis and Design
AF-1402-0053
Computer Systems Analysis and Design (Enlisted)
AF-1402-0040
Data Systems Analysis and Design (Enlisted)
AF-1402-0040
Data Systems Analysis and Design (Officer)
AF-1402-0039
Defense Packaging Design
DD-0419-0006
Systems Analysis and Design (Orientation) I
MC-1402-0048
Systems Analysis and Design (Orientation) I The Domain of the Problem
MC-1402-0048
Systems Analysis and Design (Orientation) II
MC-1402-0049
Systems Analysis and Design (Orientation) II The Domain of the Solution
MC-1402-0049

Designer
Automated Systems Program Designer
AF-1402-0010
AF-1402-0044
Automated Systems Program Designer (Management Support Systems)
AF-1402-0010
Course Designer
CG-1406-0006

Desserts
Salads, Sandwiches, and Desserts by Correspondence
MC-1729-0022

Detector
Videograph B Fog Detector Maintenance
CG-1715-0127

Developer
Instructor/Course Developer Class C
CG-1406-0004

Development
Research and Development Procurement Officer
AF-1405-0036
AF-1405-0043
Site Development Specialist
AF-1601-0041

Devices
Solid State Devices by Correspondence
MC-1715-0132

Diagnostic
Test, Measurement and Diagnostic Equipment
MC-1715-0114
Vehicle Diagnostic Test Equipment
AF-1703-0017

Diagnostics
Multiple Virtual Storage (MVS) Diagnostics
MC-1402-0053

Dial
Mobile Dial Central Technician
MC-1715-0085

Diary
Unit Diary Clerk
MC-1403-0001
MC-1403-0013

Diesel
Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397-399, D-333, D-343, D-353, D-379)
CG-1712-0002
Diesel Engine Maintenance and Troubleshooting by Correspondence
MC-1712-0007
Fundamentals of Diesel Engines by Correspondence
MC-1712-0002
MC-1712-0006
Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence
MC-1712-0001
Lister Diesel Overhaul and Engine Power System Equipment Maintenance
CG-1712-0007
VT903M Cummins Diesel Engine Disassembly-Assembly and Tune-up
CG-1712-0006

Diet
Diet Supervisor
AF-1729-0009
Diet Therapy Specialist
AF-0709-0001
Diet Therapy Supervisor
AF-1729-0009

Digital
Automatic Digital Switching Technician
AF-1402-0020
Digital Computer Principles
AF-1402-0062
Digital Microprocessor Class C
CG-1715-0081
Digital Repair
MC-1715-0018
Digital Subscriber Terminal Maintenance
AF-1715-0119
Digital Techniques
AF-1402-0022
Electric Digital Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT)
AF-1715-0351
Electronic Digital Computer Repairman (AN/FSA-21/412L)
AF-1715-0016
Electronic Digital Computer Repairman (Display Equip/465L)
AF-1402-0023
Electronic Digital Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)
AF-1715-0266
Electronic Digital Data Processing Equipment Repairman
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D)
AF-1715-0701
Electronic Digital Data Processing Equipment Repairman (Data Transmission)
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348
Electronic Digital Data Processing Repairman (AN/FST-2B)
AF-1715-0018
Electronic Digital Data Processing Repairman (Data Processing Equipment/412L)
AF-1715-0110
Electronic Digital Data Processing Repairman (Display Equipment/SACCS)
AF-1715-0441
Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)
AF-1715-0109
Fundamentals of Digital Logic
MC-1402-0001
Fundamentals of Digital Logic by Correspondence
MC-1715-0093
MC-1715-0131
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon

Control, Digital Computers, Airborne Displays)
AF-1715-0210
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays)
AF-1715-0210
Solid State Devices and Digital Techniques
AF-1715-0042
AF-1715-0044
Tactical Air Operations Central (TAOC) Digital Repair
MC-1715-0018
Tactical Data Systems Digital Repair
MC-1715-0035

Dining
Dining Facility Sanitation by Correspondence
MC-1729-0025
Unit Dining Facility by Correspondence
MC-1729-0031

Direction
Direction Finding Operations by Correspondence
MC-1606-0007
MC-1715-0130

Directives
Files, Directives, and Publications by Correspondence
MC-1403-0004
Marine Corps Directives System by Correspondence
MC-1403-0007

Disaster
Disaster Control Instructor
AF-0802-0001
Disaster Control Specialist
AF-0802-0001
AF-0802-0002
Disaster Preparedness Specialist
AF-0802-0001
AF-0802-0002
Disaster Preparedness Specialist (Additional Duty)
AF-0802-0001
Disaster Preparedness Specialist (Remote Duty)
AF-0802-0001
Disaster Preparedness Specialist by Correspondence
AF-0802-0026
Disaster Preparedness Technician by Correspondence
AF-0802-0028

Disbursement
Accounting and Finance Supervisor (Disbursement Accounting)
AF-1401-0015
Disbursement Accounting Specialist
AF-1401-0006

Disbursing
Advanced Disbursing
MC-1401-0006
Advanced Disbursing Clerk
MC-1408-0002
Advanced Disbursing Man
MC-1408-0007
Advanced Disbursing Man Leadership
MC-1408-0007
Basic Disbursing Clerk
MC-1403-0003
Disbursing Clerk
AF-1408-0019
Disbursing Clerk Course
MC-1408-0001
Disbursing Officer
AF-1401-0014
MC-1408-0013
MC-1408-0016
Disbursing Officer Leadership
MC-1408-0013
Disbursing Supervisor
AF-1408-0018

Disease
Disease Vector and Pest Control Technology
AF-0101-0001

Disk
Disk Operating System Programming
MC-1402-0004
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
RK11-D/RK05 Disk Systems Maintenance
DD-1715-0015
RP11/RP03 Disk Pack Maintenance
DD-1715-0008

Dispatcher
Apprentice Vehicle Operator/Dispatcher by Correspondence
AF-0419-0026

Display
Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence
AF-1715-0070
Electronic Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Computer Systems Repairman (Display Equipment/412L)
AF-1715-0448
Electronic Digital Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Digital Data Processing Repairman (Display Equipment/SACCS)
AF-1715-0441

Disposal
Disposal Management
AF-1405-0056

Distribution
Electrical Power Line Distribution Technician by Correspondence
AF-1714-0025

Disturbances
Military Functions in Civil Disturbances by Correspondence
MC-1728-0002

Doppler
AN/APN-175 Doppler Radar, Navigation
CG-1715-0027

Drafting
Cartographic Drafting
DD-1713-0002
Construction Drafting
DD-1713-0004
DD-1713-0005

Drill
Drill Instructor
MC-2204-0001

Dropmaster
HC-130 Dropmaster (AC-130D-1) by Correspondence
CG-1704-0017

Drug
Drug Education and Counseling
AF-1512-0003

Drugs
Social Actions Technician (Drugs/Alcohol) by Correspondence
AF-1406-0054

Drum
Drum and Bugle Corps
MC-1205-0002

Dutch
Dutch
DD-0602-0006
DD-0602-0008
Dutch Basic
DD-0602-0031
DD-0602-0223

DOS
IBM System 360 (DOS) COBOL Programming
MC-1402-0011
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018

DPC/465L
Electronic Computer Repairman (DPC/465L)
AF-1715-0057

DPI
Management/Supervision of a Data Processing Installation (DPI)
AF-1402-0038

DSIAT
Defense Senor Interpretation and Applications Training (DSIAT) (Officer)
AF-1606-0048
Defense Sensor Interpretation and Applications Training (DSIAT) (Airman)
AF-1606-0051

E-9
Fire Control Systems Mechanic (E-9 Series)
AF-1715-0201
Weapons Control Systems Mechanic (E-9 System)
AF-1715-0690
Weapons Control Systems Mechanic (E-9, MG-12 Systems)
AF-1715-0689
AF-1715-0690

Early Warning
Airborne Early Warning Radar Repairman (AN/APS-20E)
AF-1715-0025
Airborne Early Warning Radar Repairman (AN/APS-45)
AF-1715-0029
Airborne Early Warning Radar Specialist Principles
AF-1715-0533
Aircraft Early Warning Radar Maintenance Technician
AF-1715-0282
Aircraft Early Warning Radar Repairman
AF-1715-0427

Echelon
ONTOS (M50) (Fourth and Fifth Echelon) Maintenance
MC-1703-0004

Economic
Advanced Cost and Economic Analysis AF-1408-0016

Editing
Sound and Picture Editing Specialist AF-1709-0011

Editor
Editors DD-0504-0003
Military Editor DD-0504-0003
Newspaper Editor DD-0504-0003

Editors
Editors DD-0504-0015

Education
Drug Education and Counseling AF-1512-0003
Troop Information and Education Enlisted DD-0504-0005
Troop Information and Education Officer DD-0504-0006

Egress
Aircrew Egress Systems Mechanic by Correspondence AF-1717-0005

Egyptian
Arabic (Egyptian, Syrian, Iraqi) Basic DD-0602-0026
Arabic—Egyptian/Syrian Intermediate DD-0602-0023
Arabic-Egyptian Extended DD-0602-0211
Arabic-Egyptian Special DD-0602-0208

Electric
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007

Electrical
Advanced Electrical Electronics CG-1715-0066
Advanced Electrical-Electronics Measurements AF-1715-0168
Advanced Electrical/Electronics CG-1715-0066 CG-1715-0105
Aircraft and Missile Electrical Repair Technician AF-1704-0165
Aircraft Electrical Repair Technician AF-1704-0165
Aircraft Electrical Systems Specialist by Correspondence AF-1714-0003
Atomic Energy, Phase I (Electrical) AF-1715-0169
Automotive AC Electrical Systems AF-1703-0008
Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397–399, D-333, D-343, D-353, D-379) CG-1712-0002
Electrical Accounting Machines (EAM) MC-1402-0019
Electrical Engineering AF-1715-0164
Electrical Equipment Repairman MC-1714-0002
Electrical Power Line Distribution Technician by Correspondence AF-1714-0025
Electrical Power Line Specialist by Correspondence AF-1714-0026
Electrical Power Production Operator AF-1712-0005
Electrical Power Production Specialist AF-1712-0005
Electrical Power Production Specialist by Correspondence AF-1714-0027 AF-1714-0030
Electrical Power Production Technician AF-1715-0579
Electrical Power Production Technician by Correspondence AF-1408-0096 AF-1714-0024 AF-1714-0031
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C CG-1715-0107
HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance CG-1704-0030
HH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C CG-1714-0015
HU-25A Electrical Class C CG-1704-0028
Journeyman Electrical Equipment Repairman MC-1714-0008
Soldering and Electrical Connectors by Correspondence AF-1714-0033
Weapons Fuzing Systems Specialist (Electrical) AF-1714-0004
270' WMEC Main Propulsion Control and Monitoring System (Electrical) Operation and Maintenance Class C CG-1710-0013

Electrician
Advanced Electrician MC-1715-0044
Apprentice Electrician by Correspondence AF-1714-0023
Aviation Electrician Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Basic Electrician MC-1714-0003 MC-1714-0011
Chief Aviation Electrician (AEC) by Correspondence CG-1408-0015
Electrician MC-1714-0003
Electrician by Correspondence AF-1714-0028
Electrician Mate Advanced Reserve Active Duty for Training CG-1714-0020
Electrician Mate Class A CG-1714-0018
Electrician Mate First Class by Correspondence CG-1714-0011
Electrician Mate Second Class by Correspondence CG-1714-0010
Electrician/Supervisor (SM-65F) AF-1715-0312
Electrician/Supervisor (SM-68) AF-1715-0307
Electrician's Mate First Class by Correspondence CG-1714-0011
Electrician's Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate Third Class by Correspondence CG-1714-0005
Journeyman Electrician MC-1714-0001 MC-1714-0016
Marine Electrician - Fundamentals by Correspondence MC-1714-0010

Electrician's
Aviation Electrician's Mate (AE) Class A Fixed Wing Track Training CG-1704-0024
Aviation Electrician's Mate (AE) Class A Phase 1 CG-1714-0014
Aviation Electrician's Mate (AE) Class A Rotary Wing Training CG-1704-0025
Aviation Electrician's Mate Second Class (AE2) By Correspondence CG-1714-0025
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Electrician's Mate Chief (EMC) by Correspondence CG-1408-0010
Electrician's Mate Class A CG-1714-0001
Electrician's Mate First Class by Correspondence CG-1714-0011
Electrician's Mate School CG-1714-0001
Electrician's Mate Second Class (EM3) by Correspondence CG-1714-0023
Electrician's Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate Third Class by Correspondence CG-1714-0005

Electricians
Electricians MC-1714-0006

Electricity
Fundamentals of Electricity by

Correspondence
AF-1714-0029
MC-1714-0009
Gunner's Mate A School, Phase II (Advanced Electricity, 3"/50 Caliber Gun, 5"/38 Caliber Gun)
CG-1714-0013

Electro-Environmental
Aircraft Electro-Environmental System Technician by Correspondence
AF-1704-0221
Aircraft Electro-Environmental Systems Technician by Correspondence
AF-1704-0222
AF-1704-0223

Electro-Optical
Avionic Sensor Systems Specialist (Electro-Optical Sensors)
AF-1715-0478
Avionic Sensor Systems Specialist (Electro-Optical Sensors) by Correspondence
AF-1715-0071

Electroencephalographic
Electroencephalographic Specialist
AF-0709-0019

Electromechanical
Communications and Relay Center Equipment Repairman, Electromechanical
AF-1715-0132
Relays, Generators, Motors and Electromechanical Devices by Correspondence
AF-1714-0032
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127

Electronic
Air Control Electronic Operator
MC-2204-0031
Air Control Electronics Operator
MC-2204-0031
Airborne Electronic Countermeasures Specialist
AF-1715-0382
Aircraft Electronic Navigation Equipment Maintenance Technician
AF-1715-0510
Aircraft Electronic Navigation Equipment Technician
AF-1715-0510
Aircraft Sensor Systems Repairman (Electronic Sensors)
AF-1715-0479
Automatic Teletype and Electronic Switching Systems Repairman
AF-1715-0102
Avionic Sensor Systems Specialist (Electronic Sensors)
AF-1715-0475
Avionic Sensor Systems Specialist (Reconnaissance Electronic Sensors) by Correspondence
AF-1715-0068
Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence
AF-1715-0070
Basic Electronics
MC-1715-0004
Basic Observer Electronic Countermeasures
AF-1715-0564
CEJT-SX-100/200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 217 Class C
CG-1715-0113
CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System
CG-1715-0116
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C
CG-1715-0107
Electronic Analog Data Processing Equipment Repairman
AF-1715-0061
Electronic Communications and Cryptographic Equipment Systems Repairman
AF-1715-0174
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT)
AF-1715-0351
Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype)
AF-1715-0102
Electronic Communications and Cryptographic Systems Equipment Repairman (Ciphony) (Encrypted Tel-Data Fax)
AF-1715-0174
Electronic Computer Maintenance Officer
AF-1715-0722
Electronic Computer Principles, FYQ-47 Preparatory (Radar Principles)
AF-1715-0030
Electronic Computer Repairman (AN/FSA-21/412L)
AF-1715-0016
Electronic Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Computer Repairman (DPC/465L)
AF-1715-0057
Electronic Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058
Electronic Computer Repairman BUIC AN/GSA-51A
AF-1715-0677
Electronic Computer Systems Repairman (BUIC AN/GSA-51A)
AF-1715-0447
Electronic Computer Systems Repairman (BUIC AN/GYK-19)
AF-1715-0447
Electronic Computer Systems Repairman (Display Equipment/412L)
AF-1715-0448
Electronic Computer Systems Repairman (EDTCC/SACCS)
AF-1715-0598
Electronic Computer Systems Repairman (FSQ-7/SAGE)
AF-1715-0058
Electronic Computer Systems Repairman (RCC-EDLCC/465L)
AF-1715-0443
Electronic Computer Systems Specialist by Correspondence
AF-1715-0440
Electronic Computer Systems Supervisor/Technician
AF-1402-0050
Electronic Countermeasures Officer
AF-1715-0449
Electronic Cryptographic Communications Equipment Specialist by Correspondence
AF-1715-0024
Electronic Data Processing Officer
AF-1402-0046
Electronic Digital Computer Repairman (AN/FSA-21/412L)
AF-1715-0016
Electronic Digital Computer Repairman (Display Equip/465L)
AF-1402-0023
Electronic Digital Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Digital Data Processing Equipment Maintenance Technician (AN/FSQ-7 Systems Technician)
AF-1715-0266
Electronic Digital Data Processing Equipment Repairman
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D)
AF-1715-0701
Electronic Digital Data Processing Equipment Repairman (Data Transmission)
AF-1715-0018
Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348
Electronic Digital Data Processing Repairman (AN/FST-2B)
AF-1715-0018
Electronic Digital Data Processing Repairman (Data Processing Equipment/412L)
AF-1715-0110
Electronic Digital Data Processing Repairman (Display Equipment/SACCS)
AF-1715-0441
Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)
AF-1715-0109
Electronic Emission Monitor/Analysis Specialist
AF-1715-0551
Electronic Fundamentals
MC-1715-0004
Electronic Instrument Trainer Specialist (C-11 Type)
AF-1715-0653
Electronic Intelligence Operations Specialist
AF-1715-0551
Electronic Intercept Operations Specialist (Interim)
AF-1715-0554
Electronic Intercept Operations/Analysis Specialist
AF-1715-0551
Electronic Technician First Class by Correspondence
CG-1715-0038
Electronic Technician Second Class by

Correspondence
CG-1715-0037

Electronic Teletype Repair
MC-1715-0064

Electronic Tubes and Special Purpose Tubes by Correspondence
AF-1715-0749

Electronics Technician First Class (ET1) by Correspondence
CG-1715-0038

Electronics Technician Second Class by Correspondence
CG-1715-0037

F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence
AF-1704-0224

Fundamental Principles of Electronic Data Processing Equipment by Correspondence
AF-1402-0072

HM4118 Electronic Computer Repairman/Operator/407L
AF-1715-0392

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence
AF-1715-0081

Junior Officer Electronic Indoctrination by Correspondence
CG-1715-0062

Missile Electronic Equipment Specialist (AGM-28A/B)
AF-1715-0458

Missile Electronic Equipment Specialist (CGM-13B,,TEMS)
AF-1715-0641

Missile Electronic Equipment Specialist (LGM-25)
AF-1715-0166

Missile Electronic Equipment Specialist, WS-133A
AF-1715-0456

Missile Electronic Equipment Specialist, WS-133A-M
AF-1715-0711

Missile Electronic Equipment Specialist, WS-133B
AF-1715-0461

Missile Electronic Equipment Technician WS-133(CDB)
AF-1715-0714

Operations Officer Electronic Counter-Countermeasures (ECCM)
MC-1715-0067

Special Electronic Equipment Specialist
AF-1715-0347

Technician Electronic Counter-Countermeasures
MC-1715-0001

Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127

TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C
CG-1715-0115

Weapons Fusing Systems Specialist (Electronic)
AF-1715-0149

Electronic Warfare

Electronic Warfare Countermeasures Specialist
AF-1715-0587

Electronic Warfare Officer
AF-1715-0529

Electronic Warfare Repairman
AF-1715-0532

Electronic Warfare Systems Specialist
AF-1715-0532

Electronic Warfare Systems Specialist by Correspondence
AF-1715-0466

Electronic Warfare Technician
AF-1715-0324

Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082

Introduction to Electronic Warfare by Correspondence
MC-1715-0095

Officer Electronic Warfare
MC-1715-0002

Electronic-Mechanical

Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence
AF-1715-0026

Electronics

Advanced Electrical Electronics
CG-1715-0066

Advanced Electrical-Electronics Measurements
AF-1715-0168

Advanced Electrical/Electronics
CG-1715-0066
CG-1715-0105

Air Control Electronics Operator
MC-2204-0031

Air Control Electronics Operator, Automated System
MC-1704-0001

Air Control/Antiair Warfare Electronics Operator
MC-1704-0002

Air Control/Antiaircraft Warfare Electronics Operator
MC-1704-0002

Air Electronics Officer
AF-1715-0323

Air Electronics Officer, Fighter A/C
AF-1715-0323

Automated Aids to Navigation Electronics Maintenance
CG-1715-0041

Automated Aids Electronics Maintenance Class C
CG-1715-0041

Aviation Electronics Operator
MC-1715-0049

Aviation Electronics Technician (AT) Communications, Class A
CG-1405-0001

Aviation Electronics Technician AN/APS-127
CG-1715-0080

Aviation Electronics Technician AN/ARN-118(V) Class C
CG-1715-0084

Aviation Electronics Technician AN/ARN-133V2 Class C
CG-1715-0083

Aviation Electronics Technician, Class A
CG-1715-0001

Aviation Electronics Technician, First Class, by Correspondence
CG-1715-0032

Aviation Electronics Technician, Second Class, (AT2) by Correspondence
CG-1715-0031

Basic Electronics
CG-1715-0043
MC-1715-0004
MC-1715-0116

Common Basic Electronics Training (COBET)
CG-1715-0043

Communication-Electronics Systems Acquisition and Mangement by Correspondence
AF-1715-0753

Communications-Electronics Employment by Correspondence
AF-1715-0748

Communications-Electronics Engineer
AF-1715-0260

Communications-Electronics Officer
AF-1408-0048

Communications-Electronics Staff Officer
AF-1408-0048

Communications-Electronics Systems Staff Officer
AF-1715-0550

Communications-Electronics Systems Technology by Correspondence
AF-1715-0747

Electronics Fundamentals
CG-1715-0043

Electronics Fundamentals - Communications Track
CG-1715-0090

Electronics Fundamentals - V/S Track #1
CG-1715-0091

Electronics Fundamentals - V/S Track #2
CG-1715-0093

Electronics Fundamentals by Correspondence
AF-1715-0746

Electronics Systems Officer
AF-1715-0588

Electronics Technician Chief (ETC) by Correspondence
CG-1402-0001

Electronics Technician First Class (ET1) by Correspondence
CG-1715-0038

Electronics Technician Second Class by Correspondence
CG-1715-0037

Fundamentals of Electronics by Correspondence
CG-1715-0061

Ground Electronics Officer
AF-1715-0588

Ground Electronics Officer (Electronics)
AF-1715-0588

Ground Electronics Officer (ECCM)
AF-1715-0588

Precision Measuring Equipment Specialist (Electronics)
AF-1715-0033

Special Electronics Equipment Specialist, Q System
AF-1715-0350

Specialized Communications and Electronics (C & E) Training
AF-1715-0198

Electronics Technician

Aviation Electronics Technician (AT) Communications, Class A
CG-1405-0001

Aviation Electronics Technician AN/ARC-160 Class C CG-1715-0078
Aviation Electronics Technician Class C AN/ARC-94 CG-1715-0019
Aviation Electronics Technician 618M-3 Class C CG-1715-0079
Aviation Electronics Technician, Class A CG-1715-0001
Chief Aviation Electronics Technician (ATC) by Correspondence CG-1408-0029
Electronics Technician A School, General Track CG-1715-0071
Electronics Technician Chief (EMC) by Correspondence CG-1408-0009
Electronics Technician Class A CG-1715-0108
Electronics Technician Communications, Class A CG-1715-0011
Electronics Technician, A School CG-1715-0010
Electronics Technician, Class A CG-1715-0010

Emergency
Emergency Medical Technician CG-0709-0002
Emergency Medical Technician Class C CG-0709-0004
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
Introduction to Civil Air Patrol Emergency Services by Correspondence AF-1704-0196

Emission
Electronic Emission Monitor/Analysis Specialist AF-1715-0551

Encrypted
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT) AF-1715-0351
Electronic Communications and Cryptographic Systems Equipment Repairman (Ciphony) (Encrypted Tel-Data Fax) AF-1715-0174

Enemy
Enemy Defense Penetration Aids AF-1715-0744

Energy
Atomic Energy, Phase I AF-1715-0169
Atomic Energy, Phase I (Electrical) AF-1715-0169
Officers Phase I, Atomic Energy AF-1715-0290

Enforcement
Law Enforcement (LAWENF) by Correspondence CG-1728-0013
Law Enforcement Specialist by Correspondence AF-1728-0009
Law Enforcement Supervisor by Correspondence AF-1728-0010
Maritime Law Enforcement CG-1728-0003
Maritime Law Enforcement Advanced Boarding Officer Class C CG-1728-0023
Maritime Law Enforcement Basic Boarding CG-1728-0022
Maritime Law Enforcement Boarding Officer CG-1728-0021
Maritime Law Enforcement Instructor CG-1728-0024

Engine
Aircraft Maintenance Technician, Reciprocating Engine Aircraft AF-1704-0088
Automotive Engine Maintenance and Repair by Correspondence MC-1703-0024
Caterpillar Diesel Engine Maintenance Class C CG-1712-0004
Compression Ignition Engine Fuel Systems Repair MC-1712-0004
Diesel Engine Maintenance and Troubleshooting by Correspondence MC-1712-0007
F-100 Jet Engine Mechanic by Correspondence AF-1704-0205
Flight Engineer Specialist, Reciprocating Engine Aircraft AF-1606-0032
Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence MC-1712-0001
Jet Engine Mechanic by Correspondence AF-1704-0137
Jet Engine Technician by Correspondence AF-1704-0189
Lister Diesel Overhaul and Engine Power System Equipment Maintenance CG-1712-0007
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance CG-1710-0006
Reciprocating Engine Technician AF-1704-0049
T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence CG-1704-0021
T58-GE-8B Engine Maintenance Class C CG-1704-0004
T58-5 and T62 Engine Maintenance Class C CG-1704-0026
VT903M Cummins Diesel Engine Disassembly-Assembly and Tune-up CG-1712-0006

Engineer
Base Civil Engineer AF-1601-0044
Basic Combat Engineer MC-1601-0003
MC-1601-0024
Basic Combat Engineer by Correspondence MC-1601-0017
Basic Engineer Equipment Mechanic MC-1710-0001
Basic Engineer Equipment Mechanic by Correspondence MC-1601-0018
Basic Engineer Equipment Operator MC-1710-0002
Basic Installations Engineering Officer AF-1601-0044
C-141 Flight Engineer Technician AF-1704-0031
C-5 Flight Engineer Technician AF-1704-0033
Combat Engineer Advanced MC-1601-0007
MC-1710-0019
Combat Engineer Basic MC-1710-0020
Combat Engineer Basic Specialist MC-1710-0020
Combat Engineer Chief, Construction Support by Correspondence MC-1601-0012
Combat Engineer Noncommissioned Officer (NCO) by Correspondence MC-1601-0036
Combat Engineer Officer MC-1601-0004
MC-1601-0026
Communications-Electronics Engineer AF-1715-0260
Engineer Environmental Support Specialist AF-1732-0001
Engineer Equipment Chief MC-1710-0016
Engineer Equipment Chief by Correspondence MC-1601-0016
Engineer Equipment Foreman MC-1710-0026
Engineer Equipment Mechanic MC-1710-0001
Engineer Equipment Mechanic by Correspondence MC-1601-0019
Engineer Equipment Mechanic Basic MC-1710-0001
Engineer Equipment Mechanic Foreman MC-1710-0024
Engineer Equipment Mechanics MC-1710-0001
Engineer Equipment Officer MC-1601-0008
Engineer Equipment Officers MC-1601-0001
Engineer Equipment Operator by Correspondence MC-1601-0014
MC-1601-0034
Engineer Equipment Operators MC-1710-0002
Engineer Forms and Records by Correspondence MC-1601-0015
MC-1601-0037
Engineer Officer's Orientation MC-1601-0002
Engineer Operations Chief MC-1601-0007
MC-1601-0027
Flight Engineer School, C-5 AF-1704-0033
Flight Engineer Specialist AF-1704-0027

Flight Engineer Specialist (Helicopter Qualified) by Correspondence AF-1704-0197
Flight Engineer Specialist by Correspondence AF-1704-0094
Flight Engineer Specialist, Jet Aircraft AF-1704-0027
Flight Engineer Specialist, Reciprocating Engine Aircraft AF-1606-0032
Flight Engineer Technician AF-1704-0027
Flight Test Engineer/Navigator AF-1606-0153
HC-130 Flight Engineer by Correspondence CG-1704-0009
Journeyman Combat Engineer MC-1601-0009 MC-1601-0028
Journeyman Engineer Equipment Mechanic MC-1710-0025 MC-1710-0033
Journeyman Engineer Equipment Operator MC-1710-0030 MC-1710-0034
Reserve Combat Engineer Noncommissioned Officer (NCO) MC-1601-0030
Reserve Combat Engineer Officer MC-1601-0029
Reserve Engineer Equipment Supervisor MC-1601-0031

Engineering
Air Conditioning Engineering AF-1701-0001
Applied Engineering AF-1601-0022
Aviation Engineering Administration CG-1405-0005
Basic Installations Engineering Officer AF-1601-0044
Bio-Environmental Engineering AF-0707-0003
Building Systems Engineering AF-1601-0025
Electrical Engineering AF-1715-0164
Engineering Administration CG-1408-0035
Engineering Administration Class C CG-1408-0002
Engineering Assistant Specialist by Correspondence AF-1601-0046
Engineering Entomology Specialist AF-0101-0002
Engineering Entomology Specialist/Technician AF-0101-0003
Executive Engineering AF-1408-0024
Industrial Engineering Techniques AF-1601-0023
Maintenance Engineering Production Analysis AF-1408-0006 AF-1408-0007
Management of Value Engineering by Correspondence AF-1405-0068
Management Engineering Officer AF-1115-0007
Management Engineering Specialist AF-1408-0012
Military Aspects of Sanitary and Industrial Hygiene Engineering AF-0707-0001
Small Boat Engineering CG-1714-0019
System Engineering MC-1402-0002

Engineman
Engineman, Class A CG-1712-0001

Engines
Fundamentals of Diesel Engines by Correspondence MC-1712-0002 MC-1712-0006
Outboard Engines Operation and Maintenance CG-1731-0001

Entertainment
Shipboard Information Training and Entertainment (SITE) System DD-0504-0012
Shipboard Information, Training and Entertainment (SITE) System Operators DD-0504-0010
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat) DD-0504-0010

Entitlement
Basic Pay Entitlement by Correspondence MC-1401-0008

Entomology
Engineering Entomology Specialist AF-0101-0002
Engineering Entomology Specialist/Technician AF-0101-0003
Entomology Specialist AF-0101-0003

Environment
Marine Environment and Systems Officer, Class C CG-1304-0010
Marine Environment and Systems Petty Officer (Class C) CG-1304-0011

Environmental
Aircraft Environmental Systems Mechanic by Correspondence AF-1704-0200
Engineer Environmental Support Specialist AF-1732-0001
Environmental Health Specialist AF-0707-0008
Environmental Protection AF-0707-0007
Marine Environmental Protection CG-1304-0012
Marine Environmental Protection (MEP) by Correspondence CG-1303-0001

Equal
Defense Equal Opportunity Management Institute DD-1512-0001
Defense Equal Opportunity Management Institute Nonresident/Resident DD-1512-0002
Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence AF-1406-0053

Equipment
A-7D Avionics Aerospace Ground Equipment Specialist by Correspondence AF-1715-0078
Aerospace Ground Equipment Repair Technician AF-1717-0012
Airborne Command Post Communications Equipment Specialist by Correspondence AF-1715-0122
Aircraft and Missile Ground Support Equipment Repair AF-1717-0012
Apprentice Construction Equipment Operator AF-1710-0029
Apprentice Medical Equipment Repairman AF-1715-0001
Audiovisual Equipment Repairer AF-1715-0741
Avionics Aerospace Ground Equipment Specialist AF-1715-0537
Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence AF-1715-0077
Avionics Aerospace Ground Equipment Specialist by Correspondence AF-1715-0076
AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance MC-1715-0087
Basic Engineer Equipment Mechanic MC-1710-0001
Basic Engineer Equipment Mechanic by Correspondence MC-1601-0018
Basic Engineer Equipment Operator MC-1710-0002
Basic Hygiene Equipment Operator MC-1601-0025
Basic Weather Service (Equipment Channel) AF-1715-0412
Biomedical Equipment Maintenance Specialist AF-1715-0001
Biomedical Equipment Maintenance Specialist by Correspondence AF-1715-0745
Construction Equipment Operator by Correspondence AF-1710-0028
Cryptographic Equipment Maintenance Preparatory MC-1715-0065
Electrical Equipment Repairman MC-1714-0002
Electronic Cryptographic Communications Equipment Specialist by Correspondence AF-1715-0024
Electronic-Mechanical Communications and Cryptographic Equipment Systems Specialist by Correspondence AF-1715-0026
Engineer Equipment Chief MC-1710-0016

Engineer Equipment Chief by Correspondence
MC-1601-0016
Engineer Equipment Foreman
MC-1710-0026
Engineer Equipment Mechanic
MC-1710-0001
Engineer Equipment Mechanic by Correspondence
MC-1601-0019
Engineer Equipment Mechanic Basic
MC-1710-0001
Engineer Equipment Mechanic Foreman
MC-1710-0024
Engineer Equipment Mechanics
MC-1710-0001
Engineer Equipment Officers
MC-1601-0001
Engineer Equipment Operator by Correspondence
MC-1601-0014
Engineer Equipment Operators
MC-1710-0002
Equipment Cooling Specialist
AF-1730-0002
Flight Facilities Equipment Maintenance Technician
AF-1715-0019
Flight Facilities Equipment Technician
AF-1715-0019
Garrison Food Service Equipment Maintenance by Correspondence
MC-1729-0026
Ground Equipment Maintenance Officer
AF-1717-0021
Ground Weather Equipment Operator
AF-1715-0412
Hydraulic Systems and Equipment Operation and Maintenance
CG-1704-0020
CG-1704-0032
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082
Introduction to Test Equipment by Correspondence
MC-1715-0129
Journeyman Engineer Equipment Mechanic
MC-1710-0025
Journeyman Engineer Equipment Operator
MC-1710-0030
MC-1710-0034
Lister Diesel Overhaul and Engine Power System Equipment Maintenance
CG-1712-0007
Materials Handling Equipment by Correspondence
MC-1710-0040
Medical Equipment Repairman
AF-1715-0001
Microwave Equipment Maintenance
MC-1715-0123
Microwave Equipment Operator
MC-1715-0024
Navigational Aids Equipment Specialist by Correspondence
AF-1715-0012
Navigational Aids Equipment Technician by Correspondence
AF-1715-0017
Precision Measuring Equipment Technician by Correspondence
AF-1715-0074
Reproduction Equipment Repair
DD-1706-0002
Reserve Engineer Equipment Supervisor
MC-1601-0031
Reserve Microwave Equipment Operator
MC-1715-0126
Sound Equipment Repair
MC-1715-0014
MC-1715-0042
Space Communications Systems Equipment Operator/Technician by Correspondence
AF-1715-0021
Space Systems Equipment Maintenance Specialist by Correspondence
AF-1715-0036
Special Electronic Equipment Specialist
AF-1715-0347
Special Electronics Equipment Specialist, Q System
AF-1715-0350
Special Purpose Vehicle and Equipment Mechanic by Correspondence
AF-1710-0032
Telecommunications Systems/Equipment Maintenance by Correspondence
AF-1715-0450
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127
Telephone Equipment Installation and Repair Specialist by Correspondence
AF-1715-0131
Telephone Equipment Installer-Repairman
AF-1715-0048
Television Equipment Repairman by Correspondence
AF-1715-0013
Television Equipment Specialist
AF-1715-0742
Terminal Equipment Repair
MC-1715-0015
Terminal Equipment Theory
MC-1715-0007
Test, Measurement and Diagnostic Equipment
MC-1715-0114
Weapons Location Equipment Repair
MC-1715-0050
Weather Equipment Repairman
AF-1715-0412
Weather Equipment Technician
AF-1715-0417
Wideband Communications Equipment Technician by Correspondence
AF-1715-0015

Escape
Evasion, Escape and Survival Training
MC-0802-0002
Survival, Evasion, Resistance to Interrogation and Escape (SERE)
MC-0802-0002

Evacuation
Aeromedical Evacuation Technician
AF-0709-0011

Evaporator
Fire Tube and Boiler/Flash Type Evaporator Class C
CG-1710-0008
270' S/S Generator Waste Heat Recovery System and Evaporator Operation and Maintenance
CG-1712-0003
270' WMEC S/S Generator, Waste Heat Recovery System and Evaporator Operation and Maintenance, Class C
CG-1712-0005

Evasion
Evasion, Escape and Survival Training
MC-0802-0002
Survival, Evasion, Resistance to Interrogation and Escape (SERE)
MC-0802-0002

Exchange
CEJT-SX-100/200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 217 Class C
CG-1715-0113
CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System
CG-1715-0116
TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C
CG-1715-0115

Executive
Administration Management and Executive Support Officer
AF-1408-0067
Administration Management/Executive Support
AF-1408-0067
Automated Information Systems Management for Intermediate Executives
DD-1402-0003
Computer Orientation for Intermediate Executives
DD-1402-0003
Executive Engineering
AF-1408-0024
Executive Hospital Housekeeper
AF-0902-0001
Officer In Charge/Executive Petty Officer
CG-2205-0020

Exhaust
Automotive Fuel and Exhaust Systems by Correspondence
MC-1703-0020
MC-1703-0031

Explosive
Explosive Development by Correspondence
AF-0802-0030
Explosive Handling Supervisor
CG-0802-0013
Marine Safety Explosive Handling Supervisor
CG-0802-0015

Extended
Arabic-Egyptian Extended
DD-0602-0211
Arabic-Iraqi Extended
DD-0602-0209
Arabic-Syrian Extended
DD-0602-0210
Extended or Basic-Intermediate Chinese—Mandarin
DD-0602-0035
Extended or Basic-Intermediate German
DD-0602-0166
Extended or Basic-Intermediate Japanese
DD-0602-0167
Extended or Basic-Intermediate Korean
DD-0602-0168

Extended or Basic-Intermediate Russian
DD-0602-0169
Extended or Basic-Intermediate Vietnamese
DD-0602-0170
German Extended
DD-0602-0020
DD-0602-0217
Russian Extended
DD-0602-0115

EAM
Electrical Accounting Machines (EAM)
MC-1402-0019

EAME
Radio Relay Equipment Repairman (EAME)
AF-1715-0494

ECCM
ECCM Operator
AF-1715-0587
Ground Electronics Officer (ECCM)
AF-1715-0588
Operations Officer Electronic Counter-Countermeasures (ECCM)
MC-1715-0067
Weapons Contreller (ECCM Operations Officer)
AF-1715-0721
Weapons Controller (ECCM Operations Officer)/Electronic Warfare Countermeasures Specialist
AF-1715-0721

ECM
Airborne ECM Operator
AF-1715-0382
Aircraft ECM Maintenance Technician
AF-1715-0324
ECM Officer
AF-1715-0449
Ground ECM Specialist
AF-1715-0121

EDDT
Electronic Communications and Cryptographic Equipment Systems Repairman (Encrypted Digital Data Terminals)(EDDT)
AF-1715-0351

EDTCC/SACCS
Electronic Computer Systems Repairman (EDTCC/SACCS)
AF-1715-0598

ELINT
Advanced ELINT Collection/Analysis
DD-1715-0017
Intermediate ELINT Collection and Analysis
DD-1715-0016

F-100
F-100 Jet Engine Mechanic by Correspondence
AF-1704-0205

F-106A/B
Weapon Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) by Correspondence
AF-1715-0051
Weapons Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems)
AF-1715-0375

F-111
F-111 Computer/Programmer Test Stations Technician
AF-1715-0203
F-111 Flight Control Test Station Technician
AF-1715-0004
F-111 Radar and Control Test Stations Technician
AF-1715-0261

F-111A
F-111A Computer/Navigation Test Station Technician
AF-1402-0024
F-111A Weapons System Training
AF-1606-0117
F-111A Weapons System Training (Aircraft Commander)
AF-1606-0132
F-111A Weapons System Training (Mark I)
AF-1606-0117
F-111A Weapons System Training (NAV/PILOT)
AF-1606-0117
Weapons Control Systems Mechanic (F-111A)
AF-1715-0486

F-15
Fighter Weapons Instructor F-15
AF-1406-0066
Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1704-0218
AF-1715-0097
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106
Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082
Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence
AF-1715-0098
Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092

F-16
Fighter Weapons Instructor F-16
AF-1406-0064
Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096
Integrated Avionics Attack Control Systems Specialist (F-16) by Correspondence
AF-1704-0219
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084
Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099

F-4
Weapons Control Systems Mechanic (F-4C/D: APQ-109/APA-165)
AF-1715-0535

F-4C/D
Weapon Control Systems Mechanic (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0052

F-4E
Weapon Control Systems Mechanic (F-4E: APQ-120) by Correspondence
AF-1715-0053
Weapon Control Systems Technician (F-4E: APQ-120) by Correspondence
AF-1715-0063
Weapons Control Systems Mechanic (F-4E)
AF-1715-0610
Weapons Control Systems Mechanic (F-4E:APQ-120)
AF-1715-0610

F-5
Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050

F/FB-111
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence
AF-1704-0224
Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
AF-1715-0760
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence
AF-1715-0081
Weapons Control System Mechanic (F/FB-111)
AF-1715-0486

Fabric
Fabric and Rubber Products Specialist
AF-1716-0001
Fabric, Leather and Rubber Products Repairman
AF-1716-0001

Fabricating
Metal Fabricating Specialist by Correspondence
AF-1723-0006

Fabrication
Fabrication and Parachute Specialist by

Correspondence
AF-1733-0002

Facilities
Apprentice Materiel Facilities Specialist by Correspondence
AF-1405-0018
Flight Facilities Equipment Repairman
AF-1715-0490
Flight Facilities Equipment Repairman (ILS)
AF-1715-0632
Flight Facilities Equipment Repairman (Ranges and Beacons)
AF-1715-0253
Materiel Facilities Specialist by Correspondence
AF-1405-0013
Materiel Facilities Supervisor by Correspondence
AF-1405-0033
Missile Facilities Specialist
AF-1715-0637
Missile Facilities Specialist by Correspondence
AF-1717-0026

Facility
Dining Facility Sanitation by Correspondence
MC-1729-0025
Unit Dining Facility by Correspondence
MC-1729-0031

Facsimile
Teletype Facsimile Repair
MC-1715-0076

Falcon
Defense Missile Guidance Mechanic—Falcon (AIM)
AF-1715-0635

Fathometers
Fathometers
CG-1715-0056

Female
Female Recruit Training
MC-2204-0046

Field
Field Artillery Batteryman
MC-2204-0010
Field Artillery Fire Controlman.
MC-2204-0033
Field Artillery Operations Man
MC-2204-0017
Field Bread Baking by Correspondence
MC-1729-0033
Field Food Service by Correspondence
MC-1729-0028
Field Music
MC-1205-0001
Field Radio Operator
MC-1409-0002
Field Radio Systems by Correspondence
MC-1715-0092
Field Wire Equipment by Correspondence
MC-1715-0111
Field Wire Noncommissioned Officer (NCO) by Correspondence
MC-1715-0100
Field Wire Techniques by Correspondence
MC-1715-0098
Field Wireman
MC-17[illegible]-0007
HF-UHF Field Radio Equipment by Correspondence
MC-1715-0110
Introduction to Field Artillery Survey by Correspondence
MC-1601-0039
VHF (FM) Field Radio Equipment by Correspondence
MC-1715-0108

Fighter
Air Electronics Officer, Fighter A/C
AF-1715-0323
Armament Systems Officer (Fighter)
AF-1715-0497
Avionics Officer (Fighter)
AF-1715-0497
Fighter Weapons Instructor
AF-1704-0193
Fighter Weapons Instructor - Air Weapons Controller
AF-1406-0062
Fighter Weapons Instructor A-10
AF-1406-0061
Fighter Weapons Instructor F-15
AF-1406-0066
Fighter Weapons Instructor F-16
AF-1406-0064
RF-4 Fighter Weapons Instructor
AF-1606-0152

File
Advanced Mark IV File Management System
MC-1402-0027

Files
Files, Directives, and Publications by Correspondence
MC-1403-0004

Filipino
Filipino Tagalog
DD-0602-0009
DD-0602-0045

Film
Film Cutting Specialist
AF-1709-0011

Finance
Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II)
AF-1401-0016
Accounting and Finance Automated Materiel System
AF-1401-0016
Accounting and Finance Officer
AF-1401-0009
Accounting and Finance Specialist
AF-1401-0001
Accounting and Finance Supervisor
AF-1401-0010
Accounting and Finance Supervisor (Disbursement Accounting)
AF-1401-0015
Finance Specialist
AF-1401-0001
Finance Supervisor
AF-1408-0062
AF-1408-0065
Personal Finance by Correspondence
MC-1401-0005
MC-1401-0009

Financial
Financial Administration
AF-1408-0002
Financial Management Specialist (Budget) by Correspondence
AF-1408-0077
Financial Management Specialist by Correspondence
AF-1408-0053
AF-1408-0073
AF-1408-0074
AF-1408-0075
AF-1408-0076
Financial Management Supervisor by Correspondence
AF-1408-0038
AF-1408-0081
Financial Management/Services Supervisor (Functions and Responsibilities) by Correspondence
AF-1408-0082
Financial Management/Services Supervisor by Correspondence
AF-1408-0081
Financial Services Specialist (Military Pay) by Correspondence
AF-1408-0079
Financial Services Specialist (Travel) by Correspondence
AF-1408-0080
Financial Services Specialist by Correspondence
AF-1408-0021
AF-1408-0078
Industry Financial Management
DD-1408-0003
Personal Financial Records Clerk
MC-1403-0003
MC-1403-0010

Finnish
Finnish
DD-0602-0009
DD-0602-0044
Finnish Basic
DD-0602-0100

Fire
Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence
MC-1715-0101
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C
CG-1715-0107
Fire Prevention (FIRPREV) by Correspondence
CG-1728-0006
Fire Protection Specialists by Correspondence
AF-1728-0038
Fire Protection Supervisor by Correspondence
AF-1728-0046
Fire Tube and Boiler/Flash Type Evaporator Class C
CG-1710-0008
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Displays)
AF-1715-0210
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays)
AF-1715-0210

Fire Control
Artillery Survey for the Fire Control

Man by Correspondence
MC-1601-0021
Aviation Fire Control Repair
MC-1715-0033
Aviation Fire Control Repair, AN/TPQ-10 (AFC)
MC-1715-0033
Aviation Fire Control Technician
MC-1715-0040
Chief Fire Control Technician (FTC) by Correspondence
CG-1408-0032
Defensive Fire Control System Mechanic (A-3A, MD-9, ASG-15 Turrets)
AF-1715-0482
Defensive Fire Control System Mechanic (B-52H, ASG-21 Turrets)
AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52D/G, MD-9, ASG-15 Turrets) by Correspondence
AF-1715-0047
Defensive Fire Control Systems Mechanic (B-52H, ASG-21 Turrets)
AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52H, B-58, MD-7, ASG-21 Turrets)
AF-1715-0540
Defensive Fire Control Systems Mechanic (MD-7, AN/ASG-21 Turrets)
AF-1715-0540
Field Artillery Fire Controlman
MC-2204-0033
Fire Control Mk 56 System, Class C
CG-1715-0016
Fire Control System Mk 92 MOD 1 Class C
CG-1715-0103
Fire Control Systems Mechanic (AN/ASG-14 System)
AF-1715-0204
Fire Control Systems Mechanic (E-9 Series)
AF-1715-0201
Fire Control Systems Mechanic (MA-7 System)
AF-1715-0688
Fire Control Systems Mechanic (MA-8 System)
AF-1715-0464
Fire Control Systems Mechanic (MG-10 Series Data Flow Specialist)
AF-1715-0708
Fire Control Systems Mechanic, MG-10 Radar
AF-1715-0258
Fire Control Technician Chief (FTC) By Correspondence
CG-1408-0038
Fire Control Technician First Class (FT1) by Correspondence
CG-1715-0135
Fire Control Technician First Class by Correspondence
CG-1715-0036
Fire Control Technician Second Class (FT2) by Correspondence
CG-1715-0137
Fire Control Technician Second Class by Correspondence
CG-1715-0035
Fire Control Technician, Class C
CG-1715-0016

Guided Missile Fire Control Repair
MC-1715-0037
MC-1715-0079
Gun Fire Control Systems (GFCS) MK-52 and MK-56
CG-1715-0016
Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
MC-1715-0036
Medium Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0056
Mk 92 MOD 1 Fire Control System
CG-1715-0103
Offensive Fire Control Systems Mechanic (MA-8 System)
AF-1715-0464

Firefighter
Chief Firefighter (FIC) by Correspondence
CG-1408-0022
Firefighter First Class (FI1) by Correspondence
CG-1728-0008

Firefighting
Firefighting on Vessels (FFVES) by Correspondence
CG-1728-0007
Firefighting Ashore (FFASH) by Correspondence
CG-1728-0005
H-43 Firefighting
AF-1606-0129

Fireman
Fireman by Correspondence
CG-1722-0001

Firetrucks
Special Vehicle Mechanic (Firetrucks) by Correspondence
AF-1710-0033

Fiscal
Fiscal Accounting
MC-1402-0026
MC-1402-0055
Fiscal Accounting Clerk
MC-1402-0026

Fitness
Apprentice Fitness and Recreation Specialist by Correspondence
AF-1406-0055
Fitness and Recreation Specialist by Correspondence
AF-1406-0056
Fitness and Recreation Supervisor by Correspondence
AF-1406-0057

Fixed
Aviation Electrician's Mate (AE) Class A Fixed Wing Track Training
CG-1704-0024
Aviation Machinist's Mate (AD) Fixed Wing Class A
CG-1704-0022

Flight
AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014
C-141 Flight Engineer Technician
AF-1704-0031
C-5 Flight Engineer Technician
AF-1704-0033
Flight Engineer School, C-5
AF-1704-0033

Flight Engineer Specialist
AF-1704-0027
Flight Engineer Specialist (Helicopter Qualified) by Correspondence
AF-1704-0197
Flight Engineer Specialist by Correspondence
AF-1704-0094
Flight Engineer Specialist, Jet Aircraft
AF-1704-0027
Flight Engineer Specialist, Reciprocating Engine Aircraft
AF-1606-0032
Flight Engineer Technician
AF-1704-0027
Flight Facilities Equipment Basic O/I Maintenance
AF-1715-0002
Flight Facilities Equipment Maintenance Technician
AF-1715-0019
Flight Facilities Equipment Repairman
AF-1715-0490
Flight Facilities Equipment Repairman (ILS)
AF-1715-0632
Flight Facilities Equipment Repairman (Ranges and Beacons)
AF-1715-0253
Flight Facilities Equipment Technician
AF-1715-0019
Flight Mechanic Advanced Flying
AF-1606-0064
Flight Mechanic HH-52A by Correspondence
CG-1704-0010
Flight Mechanic Training
AF-1606-0037
Flight Nurse
AF-0703-0008
Flight Simulator Fundamentals
AF-1715-0706
Flight Simulator Specialist
AF-1715-0706
Flight Simulator Technician
AF-1715-0573
Flight Test Engineer/Navigator
AF-1606-0153
HC-130 Flight Engineer by Correspondence
CG-1704-0009
HH-3F Flight Mechanic by Correspondence
CG-1704-0011
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476
Integrated Avionics System Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Medical Officer Flight Familiarization Training (T-33)
AF-1606-0127
Medical Officer Flight Familiarization Training (T-37)
AF-1606-0127
Navigation/Bombing Trainer and Flight

Simulator Tactics Specialist
AF-1715-0455
Weather Forecasting and Flight Briefing (WXFBRF) by Correspondence
CG-1304-0014

Flight Control
Automatic Flight Control System Specialist
AF-1715-0460
Automatic Flight Control Systems Specialist by Correspondence
AF-1715-0075
Automatic Flight Control Systems Technician
AF-1715-0378
Automatic Flight Control Systems Technician (Fighters and B-58)
AF-1715-0378
HH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C
CG-1714-0015
Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence
AF-1704-0226
AF-1704-0227
AF-1715-0095
Integrated Avionic Instrument and Flight Control Systems Technican by Correspondence
AF-1715-0114
Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099
Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence
AF-1715-0094

Floodlight
Installation, Operation, and Operator's Maintenance of Floodlight, Frequency Convertor, and Dummy Load Bank by Correspondence
MC-1715-0090

Fluids
Cryogenic Fluids Production Specialist
AF-1730-0013

Flying
Flight Mechanic Advanced Flying
AF-1606-0064
Helicopter Mechanic Advanced Flying (HH-3E) ARRS
AF-1606-0037
Helicopter Mechanic Advanced Flying (HH-53) ARRS
AF-1606-0037
Helicopter Mechanic Flying (H-3) Basic
AF-1606-0037
Helicopter Mechanic Flying (H-53) Basic
AF-1606-0037
Pararescue Advanced Flying Training—LBR
AF-1606-0130
Pilot Advanced Flying
AF-1606-0065
Pilot Advanced Flying (H-3) Basic
AF-1606-0036
Pilot Advanced Flying (H-53) Basic
AF-1606-0036
Pilot Advanced Flying (HH-3E) ARRS
AF-1606-0036
Pilot Advanced Flying (HH-53) ARRS
AF-1606-0036
Pilot Advanced Flying (TH-1F) Basic
AF-1606-0138
Pilot Advanced Flying (TH-1F) SAC
AF-1606-0139
Pilot Advanced Flying (UH-1N) Basic
AF-1606-0140

Fog
Videograph B Fog Detector Maintenance
CG-1715-0127

Food
Advanced Food Service
MC-1729-0010
Apprentice Food Service Specialist by Correspondence
AF-1729-0010
Basic Food Service
MC-1729-0009
Field Food Service by Correspondence
MC-1729-0028
Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030
Food Service
MC-1729-0013
Food Service Fundamentals by Correspondence
MC-1729-0027
MC-1729-0038
Food Service Management
MC-1729-0008
Food Service Management by Correspondence
MC-1729-0029
Food Service Noncommissioned Officer (NCO)
MC-1729-0034
Food Service Noncommissioned Officer (NCO) Leadership
MC-1729-0005
Food Service Officer
MC-1729-0015
Food Service Specialist by Correspondence
AF-1729-0011
Food Service Staff Noncommissioned Officer (NCO)
MC-1729-0036
Food Service Staff Noncommissioned Officer (NCO) Leadership
MC-1729-0004
Food Service Supervisor by Correspondence
AF-1729-0012
Garrison Food Service Equipment Maintenance by Correspondence
MC-1729-0026
Medical Aspects of Food Handling
AF-0709-0018
Reserve Food Service Refresher
MC-1729-0037
The Reserve Field Food Service Supervisor by Correspondence
MC-1729-0042

Force
Intelligence for the Marine Air-Ground Task Force (MAGTF) by Correspondence
MC-1606-0005

Forces
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence
MC-1606-0011

Forecaster
Weather Forecaster
AF-1304-0002
Weather Forecaster Technician
AF-1304-0002

Forecasting
Weather Forecasting and Flight Briefing (WXFBRF) by Correspondence
CG-1304-0014

Foreign
Foreign Service Institute Language Program
DD-0602-0003
DD-0602-0005
DD-0602-0006
DD-0602-0007
DD-0602-0008
DD-0602-0009
DD-0602-0010
DD-0602-0011
DD-0602-0043
DD-0602-0044
DD-0602-0045
DD-0602-0046
DD-0602-0047
Foreign Service Language Program
DD-0602-0004

Foreman
Construction Foreman
MC-1710-0003
Engineer Equipment Foreman
MC-1710-0026
Engineer Equipment Mechanic Foreman
MC-1710-0024
Metalsmith Foreman
MC-1723-0003

Formal
Formal School Instructor
MC-1406-0012

Forward
Store and Forward Communications System Computer Programmer
AF-1402-0057

Freight
Air Freight Specialist
AF-0419-0007
Basic Freight Operation
MC-0419-0001
Freight Traffic Specialist
AF-0419-0009
Freight Traffic Specialist by Correspondence
AF-0419-0032

French
French
DD-0602-0003
DD-0602-0006
DD-0602-0008
French Aural Comprehension
DD-0602-0138
French Basic
DD-0602-0055
DD-0602-0079
DD-0602-0107
DD-0602-0213
French Intensive
DD-0602-0183
French Intermediate
DD-0602-0172
DD-0602-0221
Short Basic French
DD-0602-0152

Frequency
COL-URG-II High Frequency Transmitting System CG-1715-0072
High Frequency Communications System by Correspondence MC-1715-0135
High Frequency Maintenance MC-1715-0125

Fuel
Aircraft Fuel Systems Mechanic by Correspondence AF-1704-0191
Aircraft Fuel Systems Technician by Correspondence AF-1704-0202
Automotive Fuel and Exhaust Systems by Correspondence MC-1703-0020
MC-1703-0031
Bulk Fuel Man by Correspondence MC-1732-0002
Compression Ignition Engine Fuel Systems Repair MC-1712-0004
Fuel Specialist by Correspondence AF-1703-0019
Fuel Supply Officer AF-1405-0034
Liquid Fuel Systems Maintenance Specialist (Conventional Fuel) AF-1601-0006
Liquid Fuel Systems Maintenance Specialist (HGM-25) AF-1601-0032
Liquid Fuel Systems Maintenance Specialist (SM-68A) AF-1601-0032
Liquid Fuel Systems Maintenance Specialist by Correspondence AF-1601-0030
Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68 AF-1601-0045
Maintenance of Bulk Fuel Equipment by Correspondence MC-1601-0038

Fundamentals
Electronics Fundamentals CG-1715-0043
Electronics Fundamentals - Communications Track CG-1715-0090
Electronics Fundamentals - V/S Track #1 CG-1715-0091
Electronics Fundamentals - V/S Track #2 CG-1715-0093
Electronics Fundamentals by Correspondence AF-1715-0746
Food Service Fundamentals by Correspondence MC-1729-0027
Fundamentals of Diesel Engines by Correspondence MC-1712-0002
Fundamentals of Digital Logic by Correspondence MC-1715-0093
Fundamentals of Electricity by Correspondence AF-1714-0029
MC-1714-0009
Fundamentals of Solid State Devices by Correspondence AF-1715-0750
Multiple Virtual Storage (MVS) Fundamentals and Logic MC-1402-0052
Radar Fundamentals CG-1715-0044

Fusing
Weapons Fusing System Specialist AF-1715-0129
Weapons Fusing Systems Specialist (Electronic) AF-1715-0149

Fuzing
Weapons Fuzing Systems Specialist (Electrical) AF-1714-0004

FB-111
Bomb Navigation Systems Mechanic (FB-111) AF-1715-0006
Navigator Bombardier System Training (FB-111) AF-1606-0146
Navigator Bombardier Upgrade Training (FB-111) AF-1606-0084

FORTRAN
FORTRAN Program Specialist MC-1402-0034
FORTRAN Programming AF-1402-0007
IBM System 360 OS FORTRAN IV Language (Entry-level) MC-1402-0043
IBM System 360 OS FORTRAN Programming MC-1402-0034

FPTS
Ground Communications Equipment Repairman (Heavy)(FPTS) AF-1715-0079
Radio Relay Equipment Repairman (FPTS) AF-1715-0079
Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A) AF-1715-0079

FYQ-47
Electronic Computer Principles, FYQ-47 Preparatory (Radar Principles) AF-1715-0030

Garrison
Garrison Food Service Equipment Maintenance by Correspondence MC-1729-0026

Gas
Gas Turbine by Correspondence CG-1731-0002
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
Pratt and Whitney FT4A Gas Turbine CG-1710-0018
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance CG-1710-0006

Gateway
German Gateway DD-0602-0028
DD-0602-0205
Korean Gateway DD-0602-0129
Turkish Gateway DD-0602-0216

General
General Purpose Automatic Transmission Maintenance AF-1703-0012
General Purpose Vehicle Repairman AF-1703-0006
General Purpose Vehicle Repairman (Accelerated) AF-1703-0007
General Service Indoctrination School CG-2205-0005

Generator
Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence MC-1712-0001
270' S/S Generator Waste Heat Recovery System and Evaporator Operation and Maintenance CG-1712-0003

Generators
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C CG-1715-0107
Relays, Generators, Motors and Electromechanical Devices by Correspondence AF-1714-0032

Geodesy
Mapping, Charting, and Geodesy Officer DD-1601-0007
DD-1601-0021
Mapping, Charting, and Geodesy Senior Officer DD-1601-0017

Geodetic
Advanced Geodetic Survey DD-1601-0014
DD-1601-0022
Advanced Geodetic Surveying DD-1601-0003
Basic Geodetic Survey DD-1601-0010
DD-1601-0023
Basic Geodetic Surveying DD-1601-0010
Cartographic/Geodetic Officer DD-1713-0006
Geodetic Computing DD-1601-0006
Geodetic Surveying DD-1601-0002
DD-1601-0010

German
Extended or Basic-Intermediate German DD-0602-0166
German DD-0602-0003
DD-0602-0006
DD-0602-0008
DD-0602-0011
German Aural Comprehension DD-0602-0016
German Basic DD-0602-0030
DD-0602-0056
DD-0602-0080
DD-0602-0215

German Extended
DD-0602-0020
DD-0602-0217
German Gateway
DD-0602-0028
DD-0602-0205
German Intensive
DD-0602-0184
German Intermediate
DD-0602-0121
DD-0602-0173
DD-0602-0219
German Short
DD-0602-0214
Short Basic German
DD-0602-0153

Global
Global Medicine
AF-0799-0001

Graphics
Graphics Preparation and Illustration Techniques
AF-0202-0001

Gravies
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence
MC-1729-0024

Greek
Greek
DD-0602-0009
DD-0602-0044
Greek Basic
DD-0602-0029
DD-0602-0057
DD-0602-0081
Short Basic Greek
DD-0602-0154

Ground
Aerospace Ground Equipment Mechanic by Correspondence
AF-1704-0187
Aerospace Ground Equipment Repair Technician
AF-1717-0012
Aerospace Ground Equipment Technician by Correspondence
AF-1704-0192
Aircraft and Missile Ground Support Equipment Repair
AF-1717-0012
Avionics Aerospace Ground Equipment Specialist
AF-1715-0537
Avionics Aerospace Ground Equipment Specialist (F/RF-4 Peculiar Avionics AGE) by Correspondence
AF-1715-0077
Avionics Aerospace Ground Equipment Specialist by Correspondence
AF-1715-0076
Ground C-E-M Maintenance Analysis Technician
AF-1113-0001
Ground Communications Equipment Maintenance Technicial (Light)
AF-1715-0230
Ground Communications Equipment Maintenance Technician (Heavy)
AF-1715-0239
Ground Communications Equipment Maintenance Technician (Light)
AF-1715-0230
Ground Communications Equipment Repairman (Heavy) Receivers
AF-1715-0499
Ground Communications Equipment Repairman (Heavy) Transmitters
AF-1715-0530
Ground Communications Equipment Repairman (Light)
AF-1715-0696
Ground Communications Equipment Repairman (VHF-UHF)
AF-1715-0498
Ground Communications Equipment Technician (Light)
AF-1715-0230
Ground Communications Equipment Technician (Light)(TDDL Equipment)
AF-1715-0561
Ground Communications Equipment Technician (TDDL)
AF-1715-0561
Ground Electronics Officer
AF-1715-0588
Ground Electronics Officer (Electronics)
AF-1715-0588
Ground Electronics Officer (ECCM)
AF-1715-0588
Ground Equipment Maintenance Officer
AF-1717-0021
Ground ECM Specialist
AF-1715-0121
Ground Radar Repair
MC-1715-0062
Ground Radar Systems Supervisor/Technician
AF-1715-0367
Ground Radar Technician
MC-1715-0051
MC-1715-0117
Ground Radio Communications Equipment Repairman
AF-1715-0534
Ground Radio Communications Equipment Repairman (Titan II)
AF-1715-0491
Ground Radio Communications Equipment Repairman (WS-133A/B)
AF-1715-0495
Ground Radio Communications Equipment Technician
AF-1715-0088
Ground Radio Communications Specialist by Correspondence
AF-1715-0227
Ground Radio Communications Technician by Correspondence
AF-1715-0465
Ground Radio Officer
AF-1715-0548
Ground Radio Operator by Correspondence
AF-0504-0002
Ground Radio Repair
MC-1715-0009
Ground Radio Repairman
AF-1715-0705
Ground Radio Systems Supervisor/Technician
AF-1715-0577
Ground Radio Technician
MC-1715-0045
Ground Safety Specialist
AF-0802-0016
Ground Supply Officer
MC-1405-0038
Ground Weather Observing Procedures
AF-1304-0003

Guard
Air National Guard Academy of Military Science
AF-2203-0051
Marine Security Guard
MC-1728-0001
MC-1728-0006

Guidance
Air Launch Guidance Mechanic (AGM-28A/B)
AF-1715-0649
Air Launch Missile Guidance Mechanic (AGM-28A/B)
AF-1715-0649
Avionic Guidance and Control Systems Technician by Correspondence
AF-1704-0232
Avionics Guidance and Control Systems Technician by Correspondence
AF-1704-0234
AF-1704-0235
AF-1704-0236
AF-1704-0237
AF-1704-0238
AF-1704-0239
AF-1704-0240
AF-1704-0241
AF-1715-0761
AGM Guidance Mechanic (AGM-28A/B)
AF-1715-0649
Defense Missile Guidance Mechanic (GARS)
AF-1715-0635
Defense Missile Guidance Mechanic—Falcon (AIM)
AF-1715-0635
Defense Missile Guidance Mechanic, IM-99B
AF-1715-0308
Defense Missile Guidance Technician (GAR-1/2/11)
AF-1715-0650
Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D)
AF-1715-0701
Guidance and Control Officer (RIGS) (HGM-25A)
AF-1715-0672
Guidance and Control Officer (RIGS) (SM-68A)
AF-1715-0672
Guidance and Control Systems Technician by Correspondence
AF-1704-0233
Guidance Control Officer (Computer)(SM-68)
AF-1715-0037
Guidance Control Officer (RIGS) (SM-68)
AF-1715-0672
Guidance System Mechanic (TM-76B)
AF-1715-0481
Guidance System Technician (SM68)
AF-1704-0126
Guidance Systems Analyst (TM-76A)
AF-1714-0005
Guidance Systems Mechanic (Ballistic Missile Inertial)
AF-1715-0327
Guidance Systems Mechanic (GAR-1/2/3)
AF-1715-0635
Guidance Systems Mechanic (GAR-3)
AF-1715-0325

Guidance Systems Mechanic (GARS)
AF-1715-0635
Guidance Systems Mechanic (SM-65, 68)
AF-1715-0508
Guidance Systems Mechanics
AF-1715-0326
Guidance Systems Officer
AF-1715-0648
Guidance Systems Officer (Surface-to-Surface) (TM-61C)
AF-1715-0648
Guidance Systems Technician (GAR-1)
AF-1715-0650
Guidance Systems Technician (GAR-1/2)
AF-1715-0650
Guidance Systems Technician (GAR-1/2/11)
AF-1715-0650
GAM Guidance Mechanic, GAM-77
AF-1715-0649
Missile Guidance and Control Specialist (AGM-28)
AF-1715-0649
Missile Guidance and Control Specialist (AGM-28A/B)
AF-1715-0649
Missile Guidance and Control Specialist (AGM/AIM)TAC
AF-1715-0712
Missile Guidance and Control Specialist (AIM)
AF-1715-0671
Missile Guidance and Control Specialist (AIM) (ADC)
AF-1715-0671
Missile Guidance and Control Specialist (CGM-13B, GEMS)
AF-1715-0477
Missile Guidance and Control Specialist (CGM-13B, GSC)
AF-1715-0481
Missile Guidance and Control Specialist (LGM-25)
AF-1715-0137
Pilotless Aircraft Guidance and Control Officer
AF-1715-0648
Tactical Missile Guidance Mechanic (CGM-13B)
AF-1715-0481
Tactical Missile Guidance Mechanic (CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, MGM-13C)
AF-1715-0481
Tactical Missile Guidance Mechanic (MGM-13A)
AF-1715-0484
Tactical Missile Guidance Mechanic (TM-76B, GSC)
AF-1715-0481
Tactical Missile Guidance Mechanic and Checkout Equipment Repairman (TM-76B, GEMS)
AF-1715-0481

Guided Missile
Guided Missile Fire Control Repair
MC-1715-0037
MC-1715-0079
Guided Missile Maintenance Officer TM-76A
AF-1715-0647
Guided Missile Operations Officer (TM-76A)
AF-1715-0133
Guided Missile Operations Officer (TM-76B)
AF-1715-0658
Guided Missile Operations/Maintenance Officer (Ballistic Missiles)
AF-1715-0663

Gun
Gun Fire Control Systems (GFCS) MK-52 and MK-56
CG-1715-0016
Inspection and Repair of the Caliber Machine Gun by Correspondence
MC-2204-0065
M60 Machine Gun by Correspondence
MC-2204-0060
20mm Mk 16 MOD 5 Machine Gun and Magazine Sprinklers Operation and Maintenance Class C
CG-2204-0001
3'50 Gun Mount Mk 22 Operation and Maintenance Class C
CG-2204-0002

Gunfire
Naval Gunfire Officer
MC-2204-0039

Gunlaying
Gunlaying System Mechanic, B-36
AF-1715-0041
Gunlaying System Mechanic, B-47
AF-1715-0040

Gunner
Redeye Gunner—Platoon Training
MC-2204-0012
Redeye Gunner—Platoon Training (Abbreviated Course)
MC-2204-0011
Redeye Gunner/Operator
MC-2204-0012

Gunner–s
Gunner–s Mate Chief (GMC) by Correspondence
CG-1408-0040

Gunner's
Basic Gunner's Mate, Class A
CG-1714-0002
Chief Gunner's Mate (GMC) by Correspondence
CG-1408-0031
Gunner's Mate A School, Phase II (Advanced Electricity, 3"/50 Caliber Gun, 5'/38 Caliber Gun)
CG-1714-0013
Gunner's Mate Advanced
CG-1714-0007
Gunner's Mate Advanced ADT
CG-1714-0007
Gunner's Mate Basic
CG-1714-0002
Gunner's Mate Class A
CG-1714-0017
Gunner's Mate First Class (GM1) by Correspondence
CG-1714-0012
Gunner's Mate Second Class (GM2) by Correspondence
CG-1714-0009
Gunner's Mate, Class A
CG-1714-0002
Gunner's Mate, Class C
CG-1714-0006

Gunnery
Gunnery Trainer Specialist
AF-1715-0216

Guns
Maintenance of the M60 Series Machine Guns by Correspondence
MC-2204-0064

Gyrocompass
AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014
Mk 27 Gyrocompass System Operation and Maintenance
CG-1715-0104
Mk 29 MOD 1 Gyrocompass Operation and Maintenance
CG-1715-0106

GAM
GAM Analyst Mechanic, GAM-77
AF-1715-0454
GAM Guidance Mechanic, GAM-77
AF-1715-0649

GAM-72
Control Systems Mechanic, GAM-72
AF-1715-0318

GAM-77
GAM Analyst Mechanic, GAM-77
AF-1715-0454
GAM Checkout Equipment Repairman (GAM-77)
AF-1715-0458
GAM Guidance Mechanic, GAM-77
AF-1715-0649
Missile Mechanic (GAM-77)
AF-1715-0693

GAR-1
Defense Missile Guidance Technician (GAR-1/2/11)
AF-1715-0650
Guidance Systems Mechanic (GAR-1/2/3)
AF-1715-0635
Guidance Systems Technician (GAR-1)
AF-1715-0650
Guidance Systems Technician (GAR-1/2)
AF-1715-0650
Guidance Systems Technician (GAR-1/2/11)
AF-1715-0650

GAR-3
Guidance Systems Mechanic (GAR-3)
AF-1715-0325

GARS
Defense Missile Guidance Mechanic (GARS)
AF-1715-0635
Guidance Systems Mechanic (GARS)
AF-1715-0635

GCA
GCA Radar Officer
AF-1717-0008

GEMS
Missile Guidance and Control Specialist (CGM-13B, GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic and

Checkout Equipment Repairman (TM-76B, GEMS) AF-1715-0481

GFCS
Gun Fire Control Systems (GFCS) MK-52 and MK-56 CG-1715-0016

H-1
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
H-1 Helicopter Pilot AF-1606-0131
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53) AF-1606-0066

H-1F
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53) AF-1606-0066

H-1N
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53) AF-1606-0066

H-3
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
Helicopter Mechanic Advanced Flying (HH-3E) ARRS AF-1606-0037
Helicopter Mechanic Flying (H-3) Basic AF-1606-0037
Pilot Advanced Flying (H-3) Basic AF-1606-0036
Pilot Advanced Flying (HH-3E) ARRS AF-1606-0036

H-43
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
H-43 Firefighting AF-1606-0129

H-53
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
Helicopter Mechanic Advanced Flying (HH-53) ARRS AF-1606-0037
Helicopter Mechanic Flying (H-53) Basic AF-1606-0037
Pilot Advanced Flying (H-53) Basic AF-1606-0036
Pilot Advanced Flying (HH-53) ARRS AF-1606-0036

Hausa
Hausa DD-0602-0004

Hazardous
Defense Packaging of Hazardous Materials for Transportation DD-0419-0003
Hazardous Chemicals Training CG-0802-0006

Health
Environmental Health Specialist AF-0707-0008
Health Services Administration AF-1401-0017
Health Services Administration—Advanced AF-1408-0068
Health Services Technician (HS) Class A CG-0709-0009
Health Services Technician First Class (HS1) by Correspondence CG-0709-0006
Health Services Technician Second Class (HS2) by Correspondence CG-0709-0005
Health Services Technician, Class A CG-0709-0003
Mental Health Unit Specialist by Correspondence AF-0708-0002

Heat
270' S/S Generator Waste Heat Recovery System and Evaporator Operation and Maintenance CG-1712-0003
270' WMEC S/S Generator, Waste Heat Recovery System and Evaporator Operation and Maintenance, Class C CG-1712-0005

Heating
Apprentice Heating Systems Specialist by Correspondence AF-1701-0008
Heating Systems Technician by Correspondence AF-1701-0009

Heavy
Preventive Maintenance and Operating Techniques on Heavy Vehicles by Correspondence MC-1703-0019

Hebrew
Hebrew DD-0602-0009
DD-0602-0044

Helicopter
Advanced Helicopter Pilot Training AF-1606-0036
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
Advanced Helicopter Training AF-1606-0128
Flight Engineer Specialist (Helicopter Qualified) by Correspondence AF-1704-0197
H-1 Helicopter Pilot AF-1606-0131
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53) AF-1606-0066
Helicopter Instructor Pilot Training AF-1606-0063
Helicopter Mechanic (Fully Articulated Rotor) by Correspondence AF-1704-0207
Helicopter Mechanic (Semirigid Rotor) by Correspondence AF-1704-0208
Helicopter Mechanic by Correspondence AF-1704-0206
Helicopter Mechanic Advanced Flying (HH-3E) ARRS AF-1606-0037
Helicopter Mechanic Advanced Flying (HH-53) ARRS AF-1606-0037
Helicopter Mechanic Flying (H-3) Basic AF-1606-0037
Helicopter Mechanic Flying (H-53) Basic AF-1606-0037
Helicopter Pilot Transition Training (TH-1) AF-1606-0091
Helicopter Technician (Fully Articulated Rotor) by Correspondence AF-1704-0212
Helicopter Technician (Semirigid Rotor) by Correspondence AF-1704-0213
Instrument Pilot Instructor (Helicopter) AF-1406-0029

Hematology
Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence AF-0709-0031

High
COL-URG-II High Frequency Transmitting System CG-1715-0072
High Frequency Communication Central Operator MC-1715-0083
High Frequency Communications System by Correspondence MC-1715-0135
High Intensity Language Training (Vietnamese) MC-0602-0001
High Reliability Soldering Class C CG-1710-0012

Hindi
Hindi-Urdu DD-0602-0009
DD-0602-0044

Histopathology
Histopathology/Cytotechnology Specialist AF-0702-0006

Historian
Unit Historian Development AF-2203-0007

Hospital
Basic Hospital Corpsman, Class A CG-0703-0001
Chief Hospital Corpsman (HMC) by Correspondence CG-1408-0014
Executive Hospital Housekeeper AF-0902-0001
Hospital Corpsman (HM) CG-0709-0001
Hospital Corpsman First Class (HM1) by Correspondence CG-0709-0007
Hospital Corpsman Second Class (HM2) by Correspondence CG-0709-0008

Household
Passenger and Household Goods Specialist AF-0419-0025
Passenger and Household Goods Specialist by Correspondence AF-0419-0031

Housekeeper
Executive Hospital Housekeeper AF-0902-0001

Human
Human Relations Advisor AF-1513-0001
Social Actions Technician (Equal Opportunity/Human Relations) by

Correspondence
AF-1406-0053

Hungarian
Hungarian
DD-0602-0009
DD-0602-0044
Hungarian Aural Comprehension
DD-0602-0139
Hungarian Basic
DD-0602-0058
DD-0602-0082
DD-0602-0132

Hydraulic
Hydraulic Principles and Troubleshooting by Correspondence
MC-1704-0007
Hydraulic Systems and Equipment Operation and Maintenance
CG-1704-0020

Hydraulics
Industrial Hydraulics by Correspondence
CG-1704-0014

Hydrographic
Hydrographic Survey
DD-1722-0001

Hygiene
Basic Hygiene Equipment Operator
MC-1601-0010
MC-1601-0025
Industrial Hygiene Measurements
AF-0707-0006
Journeyman Hygiene Equipment Operator
MC-1601-0020
Military Aspects of Sanitary and Industrial Hygiene Engineering
AF-0707-0001

HC-130
HC-130 Aircrew Instructor Training
AF-1606-0149
HC-130 Avionicsman by Correspondence
CG-1715-0040
HC-130 Dropmaster (AC-130D-1) by Correspondence
CG-1704-0017
HC-130 Flight Engineer by Correspondence
CG-1704-0009
HC-130 Loadmaster (AC130L) by Correspondence
CG-0419-0002

HC-131A
HC-131A Aircraft Maintenance Class C
CG-1704-0006

HF-UHF
HF-UHF Field Radio Equipment by Correspondence
MC-1715-0110

HGM-25
Liquid Fuel Systems Maintenance Specialist (HGM-25)
AF-1601-0032

HGM-25A
Guidance and Control Officer (RIGS) (HGM-25A)
AF-1715-0672

HH-3E
Helicopter Mechanic Advanced Flying (HH-3E) ARRS
AF-1606-0037
Pilot Advanced Flying (HH-3E) ARRS
AF-1606-0036

HH-3F
HH-3F Avionicsman by Correspondence
CG-1715-0039
HH-3F Flight Mechanic by Correspondence
CG-1704-0011

HH-43
Pilot Advanced Flying (HH-43) ARRS
AF-1606-0128

HH-52A
Flight Mechanic HH-52A by Correspondence
CG-1704-0010
HH-52A Airframe and Powertrain Maintenance Class C
CG-1704-0005
HH-52A Airframe and Powertrain, Class C
CG-1704-0005
HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance
CG-1704-0030

HH-53
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53)
AF-1606-0066
Helicopter Mechanic Advanced Flying (HH-53) ARRS
AF-1606-0037
Pilot Advanced Flying (HH-53) ARRS
AF-1606-0036

HH3F
HH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C
CG-1714-0015

HM4118
HM4118 Computer Programmer Tactical and Control System
AF-1402-0033
HM4118 Electronic Computer Repairman/Operator/407L
AF-1715-0392

HU-16E
HU-16E Aircraft Maintenance Class C
CG-1704-0003

HU-25A
Aviation HU-25A Airframe Class C
CG-1704-0029
HU-25A Avionics Class C
CG-1704-0031
HU-25A Avionicsman by Correspondence
CG-0802-0007
HU-25A Electrical Class C
CG-1704-0028
Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007
Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence
CG-0802-0008

Ice
Ice Observer by Correspondence
CG-1304-0006

Identification
Class C Field Oil Identification Laboratory
CG-1601-0001

Igbo
Igbo
DD-0602-0003

Ignition
Compression Ignition Engine Fuel Systems Repair
MC-1712-0004

Illustration
Graphics Preparation and Illustration Techniques
AF-0202-0001

Imagery
Imagery Intelligence Officer
AF-1606-0061
Imagery Interpretation
AF-1709-0014
Imagery Interpreter Specialist
AF-1709-0015
Imagery Interpreter Specialist by Correspondence
AF-1709-0027
Navy Specialized Imagery Interpretation
AF-1709-0016
Precision Imagery and Audiovisual Media Maintenance Specialist by Correspondence
AF-1715-0136

Immunohematology
Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence
AF-0709-0031

Independent
Enlisted Supply Independent Duty
MC-1405-0040
Independent Duty Administration
MC-1403-0011
Subsistence Specialist, Independent Duty
CG-1729-0009

Indoctrination
General Service Indoctrination School
CG-2205-0005
Junior Officer Electronic Indoctrination by Correspondence
CG-1715-0062
Loran Officers Indoctrination
CG-1715-0023
Marine Safety Basic Indoctrination
CG-0802-0002
Officer Candidate School (Seamanship, Orientation, Operations and Military Indoctrination)
CG-2202-0001
Reserve Officer Candidate Indoctrination
CG-2202-0004
Sea Duty Indoctrination
MC-2204-0014
Special Indoctrination
MC-2204-0043
Women Officers Indoctrination
MC-1408-0012

Indonesian
Indonesian
DD-0602-0009
DD-0602-0044
Indonesian Aural Comprehension
DD-0602-0140
Indonesian Basic
DD-0602-0032
Short Basic Indonesian
DD-0602-0155

Indonesian-Malay
Indonesian-Malay Basic
DD-0602-0012

Industrial
Correspondence Course of the Industrial College of the Armed Forces
DD-1511-0001
Industrial College of the Armed Forces (Resident Program)
DD-1511-0003
Industrial Engineering Techniques
AF-1601-0023
Industrial Hydraulics by Correspondence
CG-1704-0014
Industrial Hygiene Measurements
AF-0707-0006
Industrial Property Administration (JT)
AF-0326-0001
Industrial Security Specialist
DD-1728-0001
Military Aspects of Sanitary and Industrial Hygiene Engineering
AF-0707-0001

Industry
Industry Financial Management
DD-1408-0003

Inertial
Aircraft Inertial and Radar Navigation Systems Repairman
AF-1715-0027
Aircraft Inertial and Radar Navigation Systems Repairman (RF-4C Supplement)
AF-1715-0022
Avionic Inertial and Radar Navigation Systems Specialist
AF-1715-0027
Avionic Inertial and Radar Navigation Systems Specialist by Correspondence
AF-1715-0442
Guidance Systems Mechanic (Ballistic Missile Inertial)
AF-1715-0327

Infantry
Functions of the Infantry Staff Noncommissioned Officer (NCO) by Correspondence
MC-2204-0056
Infantry Officer
MC-2204-0055
MC-2204-0081
Infantry Replacement and Individual Combat Training
MC-2204-0008
Infantry Staff Noncommissioned Officer (NCO): Military Symbols and Overlays
MC-1601-0040
Infantry Weapons Armorer
MC-1601-0006
MC-2204-0020
Infantry Weapons Armorer Basic
MC-2204-0052
Infantry Weapons Armorers Advanced
MC-2204-0044
Marine Infantry Small Units in Counterinsurgency Operations by Correspondence
MC-2204-0063

Information
Advanced Information Specialist
DD-0504-0002
Automated Information Systems Management for Intermediate Executives
DD-1402-0003
Automated Information Systems Management for Intermediate Managers
DD-1402-0003
Information Enlisted
DD-0504-0004
Information Officer
DD-0504-0009
Information Officer (Reserve Component)
DD-0504-0011
Information Officer Basic
DD-0504-0009
Information Security Management
DD-1728-0002
Information Specialist
DD-0504-0004
Information Specialist (Broadcaster)
DD-0505-0001
Information Specialist (Journalist)
DD-0504-0001
Information Systems Operator by Correspondence
AF-1402-0070
Information Systems Programming Specialist by Correspondence
AF-1402-0071
Maintenance Management and Information Systems
AF-1408-0013
Personnel Management Information Systems (PMIS) Class C
CG-1406-0003
Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) by Correspondence
MC-1406-0016
Public Information Enlisted
DD-0504-0008
Public Information Officer
DD-0504-0007
Shipboard Information Training and Entertainment (SITE) System
DD-0504-0012
Shipboard Information, Training and Entertainment (SITE) System Operators
DD-0504-0010
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)
DD-0504-0010
Troop Information and Education Enlisted
DD-0504-0005
Troop Information and Education Officer
DD-0504-0006

Initial
Initial Provisioning
AF-1405-0035

Input
Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)
AF-1715-0109

Inspection
Apprentice Nondestructive Inspection Specialist by Correspondence
AF-1724-0006
Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030
Inspection and Repair of the Caliber Machine Gun by Correspondence
MC-2204-0065
Inspection and Repair of Shoulder Weapons by Correspondence
MC-2204-0066
Inspection Department
CG-1728-0019
Non-Destructive Inspection Specialist
AF-1724-0003
Nondestructive Inspection Specialist by Correspondence
AF-1723-0005

Installation
Cable and Antenna Systems Installation/Maintenance Specialist by Correspondence
AF-1715-0125
Cable Splicing Installation and Maintenance Specialist by Correspondence
AF-1715-0126
Data Processing Installation Management
MC-1402-0020
Data Processing Installation Management Seminar
MC-1402-0020
Data Processing Installation Managers Seminar
MC-1402-0020
Field Switchboard Operations and Installation by Correspondence
MC-1715-0097
Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence
MC-1601-0023
Installation, Operation and Maintenance of Diesel Engine Driven Generator Sets by Correspondence
MC-1712-0001
Installation, Operation, and Operator's Maintenance of Floodlight, Frequency Convertor, and Dummy Load Bank by Correspondence
MC-1715-0090
Telephone Equipment Installation and Repair Specialist by Correspondence
AF-1715-0131

Instruction
Criterion Referenced Instruction (CRI) Workshop
AF-1406-0009
Principles of Instruction for the Marine Noncommissioned Officer (NCO) by Correspondence
MC-1406-0028
Principles of Instruction for Marine Noncommissioned Officers (NCO) by Correspondence
MC-1406-0013
PDP-11 Instruction Set
DD-1715-0011
Resident Instruction Team Staff Noncommissioned Officer (NCO) Career
MC-2204-0073

Instructional
Instructional Management
MC-1406-0010
MC-1406-0031
Instructional Programmer
AF-1406-0024
Instructional Systems Materials Development
AF-1406-0024

Instructor
Academic Instructor
AF-1406-0034
Adversary Tactics Instructor (AFSC K1115H)
AF-1406-0065
Adversary Tactics Instructor (AFSC

K1745)
AF-1406-0067
ANG Fighter Weapons Instructor
AF-1606-0151
ATC Instructor Training
AF-1406-0039
AF-1406-0041
ATC Instructor Training (Navigator)
AF-1406-0039
Basic Instructor
CG-1406-0005
Close Combat Instructor
MC-0803-0001
Defense Mapping School Instructor
DD-1406-0001
Disaster Control Instructor
AF-0802-0001
Drill Instructor
MC-2204-0001
Enlisted Instructor Orientation
MC-1406-0001
Fighter Weapons Instructor
AF-1704-0193
Fighter Weapons Instructor - Air Weapons Controller
AF-1406-0062
Fighter Weapons Instructor A-10
AF-1406-0061
Fighter Weapons Instructor F-15
AF-1406-0066
Fighter Weapons Instructor F-16
AF-1406-0064
Formal Instructor
MC-1406-0029
Formal School Instructor
MC-1406-0012
MC-1406-0029
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53)
AF-1606-0066
Helicopter Instructor Pilot Training
AF-1606-0063
HC-130 Aircrew Instructor Training
AF-1606-0149
Instructor
MC-1406-0012
Instructor Orientation
MC-1406-0003
MC-1406-0030
Instructor Training
CG-1406-0002
Instructor Training for Aircraft Observer
AF-1406-0039
Instructor Training, Class C
CG-1406-0001
Instrument Pilot Instructor (Helicopter)
AF-1406-0029
Instrument Pilot Instructor Training (T-38)
AF-1606-0011
Instrument Pilot Instructor Training (T-38/T-39)
AF-1606-0011
Instrument Pilot Instructor Training (T-39)
AF-1606-0011
Maritime Law Enforcement Instructor
CG-1728-0024
Marksmanship Instructor
AF-2203-0001
Military Training Instructor
AF-1512-0002
Navigator Instructor Training
AF-1406-0039
Officer Instructor Orientation
MC-1406-0010
OTS Instructor Training
AF-1406-0027
Passive Defense Instructor
AF-0802-0004
Physical Training Instructor
MC-0802-0001
Physical Training Instructor (Men)
MC-0802-0001
Physical Training Instructor (Women)
MC-1406-0002
Pilot Instructor Training (T-37)
AF-1406-0021
Pilot Instructor Training (T-38)
AF-1406-0010
Pilot Instructor Training (T-41)
AF-1406-0011
RF-4 Fighter Weapons Instructor
AF-1606-0152
Small Arms Instructor
CG-1408-0001
CG-1408-0041
CG-2205-0007
Survival Instructor Training
AF-0802-0018
Technical Instructor
AF-1406-0023
AF-1406-0030
Technical Instructor Basic
MC-1406-0011
Water Safety/Survival Instructor
MC-0803-0002
Women Physical Training Instructor
MC-1406-0002

Instrument
Avionics Instrument Systems Specialist by Correspondence
AF-1715-0080
Electronic Instrument Trainer Specialist (C-11 Type)
AF-1715-0653
Instrument Pilot Instructor (Helicopter)
AF-1406-0029
Instrument Pilot Instructor Training (T-38)
AF-1606-0011
Instrument Pilot Instructor Training (T-38/T-39)
AF-1606-0011
Instrument Pilot Instructor Training (T-39)
AF-1606-0011
Instrument Repair Officer
MC-1721-0003
Instrument Trainer Specialist (C-11)
AF-1715-0653
Integrated Avionic Instrument and Flight Control Systems Specialist by Correspondence
AF-1704-0226
AF-1704-0227
AF-1715-0095
Integrated Avionic Instrument and Flight Control Systems Technican by Correspondence
AF-1715-0114
Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence
AF-1715-0098
Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099
Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence
AF-1715-0094
Optical Instrument Repairman
MC-1721-0001
Optical Instrument Repairman Advanced
MC-1721-0004
Optical Instrument Repairman Basic
MC-1721-0002
Optical Survey Instrument Repair
DD-1721-0001
Test Instrument Repairman
MC-1715-0027
Topographic Instrument Repair
DD-1721-0001
DD-1721-0002

Instrumentation
Instrumentation Mechanic
AF-1715-0719
Instrumentation Mechanic by Correspondence
AF-1715-0045

Instruments
Artillery Survey Instruments by Correspondence
MC-1601-0032

Integrated
Air Force Integrated Command and Control System Computer Programmer
AF-1402-0034
Integrated Avionic Attack Control Systems Specialist (F-16) by Correspondence
AF-1715-0096
Integrated Avionic Instrument and Flight Control Systems Technican by Correspondence
AF-1715-0114
Integrated Avionics Attack Control Systems Specialist (F-15) by Correspondence
AF-1715-0097
Integrated Avionics Attack Control Systems Specialist (F/FB-111) by Correspondence
AF-1715-0090
Integrated Avionics Attack Control Systems Technician by Correspondence
AF-1715-0113
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1715-0106
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117
Integrated Avionics Component Specialist (Navigation/Flight and

Weapons Control)
AF-1715-0476
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476
Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086
Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084
Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F-15) by Correspondence
AF-1715-0082
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence
AF-1715-0081
Integrated Avionics Instrument and Flight Control Systems Specialist (F-15) by Correspondence
AF-1715-0098
Integrated Avionics Instrument and Flight Control Systems Specialist (F-16) by Correspondence
AF-1715-0099
Integrated Avionics Instrument and Flight Control Systems Specialist (F/FB/EF-111) by Correspondence
AF-1715-0094
Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092
Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0093
Integrated Avionics Manual Test Station and Component Specialist by Correspondence
AF-1715-0083
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Displays)
AF-1715-0210
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays)
AF-1715-0210
Integrated Avionics System Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Integrated Avonics Attack Control Systems Specialist by Correspondence
AF-1715-0091
Integrated Organizational Avionics Systems Specialist by Correspondence
AF-1715-0757
Marine Corps Integrated Maintenance Management Officers
MC-1402-0028
Marine Corps Integrated Maintenance Management System (MIMMS)
MC-1402-0028

Intelligence
Advanced Aerospace Photo Intelligence
AF-1606-0047
Air Intelligence Airman
AF-1606-0059
Air Intelligence Officer
AF-1606-0052
AF-1606-0054
AF-1606-0055
Defense Intelligence Course
DD-1511-0004
Electronic Intelligence Operations Specialist
AF-1715-0551
Imagery Intelligence Officer
AF-1606-0061
Intelligence for the Marine Air-Ground Task Force (MAGTF) by Correspondence
MC-1606-0005
Intelligence Area Studies (SEA)
AF-1601-0042
Intelligence Brief: The Military Threat by Correspondence
MC-1606-0012
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence
MC-1606-0011
Intelligence Fundamentals by Correspondence
AF-1606-0119
Intelligence Officer
AF-1606-0052
Intelligence Officer by Correspondence
AF-1606-0120
Intelligence Operations Specialist
AF-1606-0059
Intelligence Operations Specialist by Correspondence
AF-1606-0121
Intelligence Operations Technician
AF-1606-0021
Intelligence Operations Technician by Correspondence
AF-1606-0123
Intelligence Photo-Radar Officer
AF-1709-0017
AF-1709-0021
Intelligence Precision Photographic Officer
AF-1606-0056
Introduction to Combat Intelligence by Correspondence
MC-1606-0009
National Senior Intelligence
DD-1606-0001
Naval Intelligence Officer
AF-1606-0001
Photographic Intelligenceman
AF-1606-0059
Postgraduate Intelligence Course
DD-1511-0004
Target Intelligence Specialist by Correspondence
AF-1606-0122

Intelligenceman
Photographic Intelligenceman
AF-1606-0059

Intensive
Arabic Intensive
DD-0602-0039
Chinese—Mandarin Intensive
DD-0602-0182
French Intensive
DD-0602-0183
German Intensive
DD-0602-0184
Italian Intensive
DD-0602-0185
Portuguese Intensive
DD-0602-0186
Russian Intensive
DD-0602-0187
Spanish Intensive
DD-0602-0188
Turkish Intensive
DD-0602-0189
Vietnamese—Hanoi Intensive
DD-0602-0190
Vietnamese—Saigon Intensive
DD-0602-0191

Inter-American
Inter-American Defense College
DD-1511-0005

Intercept
Electronic Intercept Operations Specialist (Interim)
AF-1715-0554
Electronic Intercept Operations/Analysis Specialist
AF-1715-0551
Navigator Radar Intercept
AF-1606-0045
Radar Intercept Officer Training
AF-1606-0045
Radar Intercept Officer Training (MG-12/13)
AF-1606-0045

Interior
Interior Wiring by Correspondence
MC-1601-0033

Intermediate
Arabic Intermediate
DD-0602-0220
Arabic—Egyptian/Syrian Intermediate
DD-0602-0023
Automotive Intermediate Maintenance
MC-1712-0003
Bulgarian Intermediate
DD-0602-0022
DD-0602-0036
Chinese Intermediate
DD-0602-0120
Chinese—Mandarin Intermediate
DD-0602-0171
Czech Intermediate
DD-0602-0024
Enlisted Supply Intermediate
MC-1405-0039
French Intermediate
DD-0602-0172
DD-0602-0221
German Intermediate
DD-0602-0121
DD-0602-0173
DD-0602-0219
Korean Intermediate
DD-0602-0025
Polish Intermediate
DD-0602-0122
DD-0602-0174
Romanian Intermediate
DD-0602-0175
Russian Intermediate
DD-0602-0123
DD-0602-0176

Serbo-Croatian Intermediate
DD-0602-0177
Spanish Intermediate
DD-0602-0124
DD-0602-0178
DD-0602-0218
Vietnamese Intermediate
DD-0602-0125
DD-0602-0179

Interpretation
Defense Senor Interpretation and Applications Training (DSIAT) (Officer)
AF-1606-0048
Defense Sensor Interpretation and Applications Training (DSIAT) (Airman)
AF-1606-0051
Imagery Interpretation
AF-1709-0014
Navy Specialized Imagery Interpretation
AF-1709-0016
Photo Interpretation Specialist
AF-1606-0050

Interpreter
Imagery Interpreter Specialist
AF-1709-0015
Imagery Interpreter Specialist by Correspondence
AF-1709-0027

Inventory
Inventory Management Specialist (Munitions) by Correspondence
AF-1405-0064
Inventory Management Specialist by Correspondence
AF-1405-0051
Inventory Management Supervisor
AF-1405-0011
Inventory Management Supervisor (Munitions) by Correspondence
AF-1405-0065
Inventory Management Supervisor by Correspondence
AF-1405-0059

Investigation
Investigation Department
CG-1728-0017

Investigations
Reserve Special Investigations and Counterintelligence Training (Reserve Refresher)
AF-1728-0005
Special Investigations and Counterintelligence Officer
AF-1728-0020
Special Investigations and Counterintelligence Specialist
AF-1728-0020
Special Investigations and Counterintelligence Technician by Correspondence
AF-1728-0039

Investigator
Investigator Chief (IVC) by Correspondence
CG-1408-0013
Investigator 1 (IV1) by Correspondence
CG-1728-0014
Reserve Special Investigator
AF-1728-0006

Iraqi
Arabic-Iraqi Extended
DD-0602-0209
Arabic-Iraqi Special
DD-0602-0207

Isochronous
CV-3511 Isochronous Channel Converter
DD-1715-0003
CV-3511(P)/G Isochronous Channel Coverter Maintenance and Repair
DD-1715-0003

Italian
Italian
DD-0602-0003
DD-0602-0006
DD-0602-0008
Italian Basic
DD-0602-0059
DD-0602-0083
DD-0602-0108
DD-0602-0226
Italian Intensive
DD-0602-0185
Short Basic Italian
DD-0602-0156

Italian-Sicilian
Italian-Sicilian Basic
DD-0602-0101

IATS
IATS System Maintenance
DD-1715-0006

IBM
IBM S/360 Assembler Language Coding (Entry)
MC-1402-0051
IBM S/360 OS Computer Operator
MC-1402-0023
IBM System 360 (DOS) COBOL Programming
MC-1402-0011
IBM System 360 (OS) Advanced Coding
MC-1402-0037
IBM System 360 (OS) Advanced Programming Techniques)
MC-1402-0024
IBM System 360 (OS) COBOL Programming
MC-1402-0013
MC-1402-0036
IBM System 360 (OS) Data Control Techniques
MC-1402-0042
IBM System 360 (OS) Data Management
MC-1402-0039
IBM System 360 (OS) Systems Programmer
MC-1402-0041
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
IBM System 360 Operating System (OS) Operations
MC-1402-0023
IBM System 360 OS Assembler Language
MC-1402-0031
IBM System 360 OS FORTRAN IV Language (Entry-level)
MC-1402-0043
IBM System 360 OS FORTRAN Programming
MC-1402-0034
IBM System 360 OS Programming
MC-1402-0030
IBM System 360 OS PL/1 Programming
MC-1402-0035
IBM System 360 OS System Control
MC-1402-0033
IBM System 360 OS System Control and Data Management
MC-1402-0038
IBM System 360 OS Systems Programming
MC-1402-0032
IBM System/360 (OS) COBOL Programming Entry-level
MC-1402-0013
IBM System/360 (OS) COBOL Programming Specialist
MC-1402-0036

IDHS 1410 FFS
IDHS 1410 FFS Operations and Specifications II
AF-1402-0043

IFF
Aircraft Control and Warning Radar Repairman (AN/CPS-1, AN/CPS-4, AN/CPS-5 and IFF)
AF-1715-0104
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF)
AF-1715-0023

ILS
Flight Facilities Equipment Repairman (ILS)
AF-1715-0632

IM-99B
Defense Missile Guidance Mechanic, IM-99B
AF-1715-0308

Japanese
Extended or Basic-Intermediate Japanese
DD-0602-0167
Japanese
DD-0602-0009
DD-0602-0045
DD-0602-0046
Japanese Aural Comprehension
DD-0602-0141
Japanese Basic
DD-0602-0060
DD-0602-0084
DD-0602-0117
Short Basic Japanese
DD-0602-0157

Jet
Aerospace Propulsion Technician (Jet Engine) by Correspondence
AF-1704-0229
Aircraft Maintenance Technician, Jet Engine Aircraft
AF-1717-0006
Aircraft Maintenance Technician, Jet Engine Type Aircraft
AF-1717-0006
F-100 Jet Engine Mechanic by Correspondence
AF-1704-0205
Flight Engineer Specialist, Jet Aircraft
AF-1704-0027
Jet Engine Mechanic by Correspondence
AF-1704-0137
Jet Engine Technician
AF-1704-0078
Jet Engine Technician by Correspondence
AF-1704-0189

Joint
Joint Uniform Military Pay System (JUMPS) Class C
CG-1406-0003

Journalism
- Electronic Journalism DD-0505-0003

Journalist
- Basic Journalist DD-0504-0001
- Basic Military Journalist DD-0504-0001
- Information Specialist (Journalist) DD-0504-0001

Journeyman
- Journeyman Combat Engineer MC-1601-0009 MC-1601-0028
- Journeyman Electrical Equipment Repairman MC-1714-0008
- Journeyman Electrician MC-1714-0001 MC-1714-0016
- Journeyman Engineer Equipment Mechanic MC-1710-0025 MC-1710-0033
- Journeyman Engineer Equipment Operator MC-1710-0030 MC-1710-0034
- Journeyman Hygiene Equipment Operator MC-1601-0020
- Journeyman Metalworker MC-1723-0007
- Journeyman Plumbing and Water Supply Man MC-1710-0012
- Journeyman Refrigeration Mechanic MC-1730-0004 MC-1730-0007
- Loran-C Journeyman CG-1715-0059
- Plumbing and Water Supply Journeyman MC-1710-0012

Judge
- Judge Advocate Staff Officer AF-1728-0027

Junior
- Junior Course MC-1408-0010 MC-2204-0021
- Junior Officer Electronic Indoctrination by Correspondence CG-1715-0062
- Junior Officer Leadership and Management CG-1717-0003
- Junior School MC-2204-0021
- Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs) CG-1717-0003
- Noncommissioned Officer (NCO) Leadership (Junior) MC-2204-0016
- Platoon Leaders (Combined Junior/Senior) MC-2204-0050
- Platoon Leaders Class (Junior) MC-2204-0037
- Platoon Leaders Junior MC-2204-0077
- Women Officer Training (Junior) MC-2204-0005

Justice
- Military Justice by Correspondence AF-1728-0043

JOVIAL
- JOVIAL Programming AF-1402-0013

K-Series
- Bomb Navigation Systems Technician (K-Series Computer) AF-1715-0225
- K-Series Computer Technician AF-1715-0225
- K-Series Radar and Interconnection Equipment Technician AF-1715-0212

K-5 Series
- Bomb Navigation Systems Mechanic (K-5 Series) AF-1715-0268

Korean
- Extended or Basic-Intermediate Korean DD-0602-0168
- Korean DD-0602-0009
- Korean Aural Comprehension DD-0602-0142
- Korean Basic DD-0602-0061 DD-0602-0085 DD-0602-0118
- Korean Gateway DD-0602-0129
- Korean Intermediate DD-0602-0025
- Short Basic Korean DD-0602-0158

Laboratory
- Alternate Phase II of Medical Laboratory Specialist Course AF-0702-0006
- Apprentice Medical Laboratory Specialist AF-0702-0005
- Class C Field Oil Identification Laboratory CG-1601-0001
- Clinical Laboratory Officer AF-0702-0003
- Dental Laboratory Specialist AF-0701-0016
- Dental Laboratory Specialist by Correspondence AF-0701-0018
- Laboratory Animal Technician AF-0102-0002
- Laboratory Management of Research and Development AF-1408-0058
- Medical Laboratory Specialist, Phase I AF-0702-0005
- Medical Laboratory Specialist, Phase II AF-0702-0007
- Medical Laboratory Technician AF-0702-0004
- Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence AF-0709-0029
- Medical Laboratory Technician (Microbiology) by Correspondence AF-0709-0030
- Motion Picture Laboratory Specialist AF-1709-0025
- Still Photographic Laboratory Specialist AF-1709-0018

Land
- Land Navigation by Correspondence MC-1713-0001 MC-1713-0002

Landing
- Basic Landing Support Specialist MC-2204-0029 MC-2204-0069

Landmine
- Landmine Warfare and Demolitions by Correspondence MC-2204-0062

Language
- Assembler Language Code (ALC) Programming (Combination MC-1402-0051
- Foreign Service Institute Language Program DD-0602-0003 DD-0602-0005 DD-0602-0006 DD-0602-0007 DD-0602-0008 DD-0602-0009 DD-0602-0010 DD-0602-0011 DD-0602-0043 DD-0602-0044 DD-0602-0045 DD-0602-0046 DD-0602-0047
- Foreign Service Language Program DD-0602-0004
- High Intensity Language Training (Vietnamese) MC-0602-0001
- IBM S/360 Assembler Language Coding (Entry) MC-1402-0051
- IBM System 360 OS Assembler Language MC-1402-0031

Lao
- Lao DD-0602-0009 DD-0602-0045

Launch
- Air Launch Guidance Mechanic (AGM-28A/B) AF-1715-0649
- Air Launch Missile Checkout Equipment Repairman (AGM-28A/B) AF-1715-0458
- Air Launch Missile Guidance Mechanic (AGM-28A/B) AF-1715-0649
- Missile Launch Officer (CGM-13B) AF-1715-0658
- Missile Launch Officer (MACE, MGM-13C) AF-1715-0658
- Missile Launch Officer (TM-76B) AF-1715-0658
- Missile Launch Officer, LGM-25 AF-1715-0692
- Missile Launch/Missile Officer (ATLAS PGM-16E) AF-1715-0651
- Missile Launch/Missile Officer (Ballistic Missiles) AF-1715-0663
- Missile Launch/Missile Officer (LGM-25) AF-1715-0692

Missile Launch/Missile Officer (SM-65D)
AF-1715-0715
Missile Launch/Missile Officer (SM-65E)
AF-1715-0651
Tactical Missile Launch Specialist (CGM-13B)
AF-1715-0657
Tactical Missile Launch Specialist (Mace, MGM-13C)
AF-1715-0657
Tactical Missile Launch Specialist (MGM-13A)
AF-1715-0666
AF-1715-0667
Tactical Missile Launch Specialist (TM-76B)
AF-1715-0657

Launcher
Terrier Missile Launcher System Repair
MC-1715-0080
Terrier Missile Launcher System Repairman
MC-1715-0080

Law
Civil Law by Correspondence
AF-1511-0007
Contract Law
AF-1408-0042
Law Enforcement (LAWENF) by Correspondence
CG-1728-0013
Law Enforcement Specialist by Correspondence
AF-1728-0009
AF-1728-0044
Law Enforcement Supervisor by Correspondence
AF-1728-0010
Maritime Law Enforcement
CG-1728-0003
Maritime Law Enforcement Advanced Boarding Officer Class C
CG-1728-0023
Maritime Law Enforcement Basic Boarding
CG-1728-0022
Maritime Law Enforcement Boarding Officer
CG-1728-0021
Maritime Law Enforcement Instructor
CG-1728-0024
Port Security/Law Enforcement Enlisted
CG-1728-0002
Port Security/Law Enforcement Officer
CG-1728-0001

Leader
The Marine Squad Leader: Combat Planning and Orders by Correspondence
MC-2204-0058

Leaders
Amphibious Vehicle Unit Leaders (Enlisted)
MC-1710-0010
Platoon Leaders Combined
MC-2204-0079
Platoon Leaders Junior
MC-2204-0077
Platoon Leaders Senior
MC-2204-0078
Tank Unit Leaders (Enlisted)
MC-1710-0009

Leadership
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012
Advanced Disbursing Man Leadership
MC-1408-0007
Bakery Noncommissioned Officer (NCO) Leadership
MC-1729-0006
Disbursing Officer Leadership
MC-1408-0013
Food Service Noncommissioned Officer (NCO) Leadership
MC-1729-0005
Food Service Staff Noncommissioned Officer (NCO) Leadership
MC-1729-0004
Fundamentals of Marine Corps Leadership by Correspondence
MC-1406-0023
Ground Supply Officer Leadership
MC-1401-0002
Junior Officer Leadership and Management
CG-1717-0003
Leadership and Management
CG-1717-0006
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003
Motor Transport Staff Noncommissioned Officer (NCO) Leadership
MC-1703-0016
Mountain Leadership Training, Summer
MC-2204-0007
Mountain Leadership Training, Winter
MC-2204-0006
Noncommissioned Officer (NCO) Leadership (Junior)
MC-2204-0016
Noncommissioned Officers (NCO) Leadership (Senior)
MC-2204-0015
Officer Leadership and Management
CG-1717-0009
Reserve Officer Leadership and Management
CG-1717-0008
Reserve Officer, Chief Leadership and Management
CG-1717-0004
Reserve Petty Officer Leadership and Management
CG-1717-0002
Reserve Senior Petty Officer Leadership and Management
CG-1717-0007
Senior Officer Leadership and Management (SOLAM)
CG-1717-0005
Senior Petty Officer Leadership and Management
CG-1717-0001
CG-1717-0010
Special Mess Leadership Training
MC-1729-0019
Special Mess Training Leadership
MC-1729-0016
Supply Chief Leadership
MC-1405-0011
Supply Noncommissioned Officer (NCO) Leadership
MC-1405-0006
Warehousing Noncommissioned Officer (NCO) Leadership
MC-1405-0002
Warehousing Staff Noncommissioned Officer (NCO) Leadership
MC-1405-0013
Woman Marine Noncommissioned Officer (NCO) Leadership
MC-2204-0018

Leather
Fabric, Leather and Rubber Products Repairman
AF-1716-0001

Legal
(Legal Services Man/Reporter, Phase I and Phase II)
MC-1728-0004
Advanced Legal Services
MC-1728-0003
Basic Legal Administration
MC-1728-0004
Basic Legal Clerk and Reporter
MC-1407-0001
Legal Administration for the Reporting Unit by Correspondence
MC-1406-0024
Legal Clerk/Court Reporter
MC-1407-0001
Legal Service Specialist
AF-1728-0026
Legal Services Man
MC-1728-0004
Legal Services Man/Reporter, Phase III
MC-1728-0005
Legal Services Reporter SPCM (Closed Microphone)
MC-1728-0005
Legal Services Specialist
MC-1728-0004
Legal Services Specialist by Correspondence
AF-1406-0047

Life
Aircrew Life Support Specialist by Correspondence
AF-1704-0199

Light
Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
Light Vehicle Characteristics and Operating Techinques by Correspondence
MC-1703-0015

Lighthouse
Automated Aids to Navigation Lighthouse Technician
CG-1715-0128
Lighthouse Technician
CG-1715-0128

Line
LP11/LP02 Line Printer Maintenance
DD-1715-0007
LP11/LP05 Line Printer Maintenance
DD-1715-0010
Pole Line Construction Equipment by Correspondence
MC-1715-0091
Pole Line Construction Techniques by Correspondence
MC-1715-0096

Lingala
Lingala
DD-0602-0003

Liquid
Liquid Fuel Systems Maintenance

Specialist (Conventional Fuel)
AF-1601-0006
Liquid Fuel Systems Maintenance Specialist (HGM-25)
AF-1601-0032
Liquid Fuel Systems Maintenance Specialist (SM-68A)
AF-1601-0032
Liquid Fuel Systems Maintenance Specialist by Correspondence
AF-1601-0030
Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68
AF-1601-0045

Lithographer
Basic Lithographer
DD-1719-0005
Navy/Air Force Basic Lithographer
DD-1719-0007

Lithographic
Lithographic Photography
DD-1719-0003
Lithographic Stripping and Platemaking
DD-1719-0001

Lithuanian
Lithuanian Basic
DD-0602-0102

Loadmaster
Airborne Radio Operator/Loadmaster
MC-2204-0019
HC-130 Loadmaster (AC130L) by Correspondence
CG-0419-0002

Location
Position Location Reporting System (PLRS) Capabilities and Employment by Correspondence
MC-1606-0008

Logic
Fundamentals of Digital Logic
MC-1402-0001
Fundamentals of Digital Logic by Correspondence
MC-1715-0093
MC-1715-0131
Multiple Virtual Storage (MVS) Fundamentals and Logic
MC-1402-0052

Logistics
Logistics Management
AF-1405-0007
Logistics Officer
AF-1405-0026
Logistics Planner
AF-1405-0039
Logistics Plans Specialist by Correspondence
AF-0419-0027
Logistics Specialist
AF-1405-0003
Logistics Vehicle System Maintenance
MC-1408-0019
Logistics Vehicle System Operator
MC-1703-0030

Loran
ADL-81 Loran 'C' Receiver Class 'C'
CG-1715-0082
AN/APN-180 Loran A Navigation System Class C
CG-1715-0028
AN/FPN-39 Loran Transmitter Class C
CG-1715-0118
AN/FPN-42 Loran Transmitter Class C
CG-1715-0117
AN/FPN-44A Loran Transmitter Class C
CG-1715-0110
AN/FPN-64(V) Loran Solid State Transmitter Class C
CG-1715-0123
AN/UPN-23 Loran A Receiver, Class A
CG-1715-0055
Loran A Enlisted, Class C
CG-1715-0007
Loran Officers Indoctrination
CG-1715-0023
Loran Track #1 for Lorstas, Malone, Senca
CG-1715-0092
Loran Track #10 Lorsta Shetland Island
CG-1715-0102
Loran Track #2 for Lorstas, Kodiac, Yakota
CG-1715-0095
Loran Track #3 for Lorsta Honolulu
CG-1715-0097
Loran Track #4 for Lorstas Grangeville, Raymondville
CG-1715-0096
Loran Track #5 for Lorstas, Attu, Baudette, Caribou, Carolina Beach, Estartit, Jupiter, Kargabarun, Kure, Nantuckett, Port Clarence, Shoal Cove, Sylt, Upolu Point
CG-1715-0094
Loran Track #6 For Lorstas Dana, Fallon, George, Gesashi, Hokkaido, Iwo Jima, Lampeduska, Marcus, Narrowcape Searchlight, Tok, Yap
CG-1715-0098
Loran Track #7 for Lorsta Middletown
CG-1715-0099
Loran Track #8 for Lorsta Sellia Marina
CG-1715-0100
Loran Track #9 for Lorsta Johnston Island, St. Paul Island
CG-1715-0101

Loran-A
Loran-A Apprentice, Class A
CG-1715-0060

Loran-C
Loran-C
CG-1715-0073
Loran-C Control Station Operations
CG-1715-0114
Loran-C Journeyman
CG-1715-0059

Lubricating
Automotive Cooling and Lubricating Systems by Correspondence
MC-1703-0021
MC-1703-0032

LBR
Pararescue Advanced Flying Training—LBR
AF-1606-0130

LGM-25
Missile Electronic Equipment Specialist (LGM-25)
AF-1715-0166
Missile Guidance and Control Specialist (LGM-25)
AF-1715-0137
Missile Launch Officer, LGM-25
AF-1715-0692
Missile Launch/Missile Officer (LGM-25)
AF-1715-0692
Missile Pneudraulic Repairman (LGM-25)
AF-1704-0173
Missile Systems Analyst Specialist (LGM-25)
AF-1715-0376
Plumbing System Maintenance (LGM-25)
AF-1710-0001

Mace
Tactical Missile Launch Specialist (Mace, MGM-13C)
AF-1715-0657

Machine
Data Processing Machine Operator
AF-1402-0019
Data Processing Machine Supervisor
AF-1402-0036
Data Processing Machine Supervisor (Punched Card)
AF-1402-0036
Machine Accounting Supervisor
AF-1402-0036
20mm Mk 16 MOD 5 Machine Gun and Magazine Sprinklers Operation and Maintenance Class C
CG-2204-0001

Machinegunner
Basic Machinegunner
MC-2204-0048
Machinegunner
MC-2204-0048

Machinery
Chief Machinery Technician (MKC) by Correspondence
CG-1408-0012
Class A Machinery Technician
CG-1723-0004
Machinery Technician Class A
CG-1723-0005
Machinery Technician First Class by Correspondence
CG-1723-0001
Machinery Technician Second Class by Correspondence
CG-1723-0002
270' WMEC Machinery Plant Control and Monitoring System
CG-1710-0013

Machinist
Chief Aviation Machinist (AMC) by Correspondence
CG-1408-0034
Machinist
AF-1723-0001
AF-1723-0002
Machinist by Correspondence
AF-1723-0008
Repair Shop Machinist
MC-1723-0006
Weapons Repair Shop Machinist
MC-1723-0004

Machinist's Mate
Aviation Machinist's Mate
CG-1704-0001
Aviation Machinist's Mate (AD) Fixed Wing Class A
CG-1704-0022
Aviation Machinist's Mate (AD) Rotary Wing Class A
CG-1704-0023
Aviation Machinist's Mate Class A
CG-1704-0001
Aviation Machinist's Mate, First Class, by Correspondence
CG-1704-0008

Aviation Machinist's Mate, Second Class, by Correspondence
CG-1704-0007

Magazine
20mm Mk 16 MOD 5 Machine Gun and Magazine Sprinklers Operation and Maintenance Class C
CG-2204-0001

Magnetic
RD-358 Magnetic Tape Subsystem Accelerated
MC-1715-0084

Mail
Mail Orderly by Correspondence
MC-1404-0002

Maintainability
Reliability Maintainability
AF-1115-0003

Maintenance
A/E24U-8 Power Plant Intermediate and Organizational (I & O) Maintenance
AF-1704-0143
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012
Air Force Base Level Maintenance Management
AF-1717-0025
Aircraft and Missile Maintenance Analysis Specialist
AF-1115-0001
Aircraft/Avionics Maintenance Staff Officer
AF-1408-0049
Automotive Intermediate Maintenance
MC-1712-0003
Automotive Maintenance Officer
MC-1703-0014
Automotive Organizational Maintenance
MC-1703-0008
MC-1703-0028
Automotive Preventive Maintenance
MC-1703-0007
Aviation Maintenance Administration (AVADMN1) by Correspondence
CG-1408-0003
AN/MRC-107A, I/O Maintenance
AF-1715-0072
Computer Maintenance Officer
AF-1402-0031
Consolidated Maintenance Management (ADC)
AF-1717-0011
Flight Facilities Equipment Basic O/I Maintenance
AF-1715-0002
Ground C-E-M Maintenance Analysis Technician
AF-1113-0001
HH-52A Airframe and Powertrain Maintenance Class C
CG-1704-0005
HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance
CG-1704-0030
EH3F Automatic Flight Control System (AFCS) and Selected Electrical Maintenance Class C
CG-1714-0015
Liquid Fuel Systems Maintenance Specialist (HGM-25)
AF-1601-0032
Liquid Fuel Systems Maintenance Specialist (SM-68A)
AF-1601-0032
Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68
AF-1601-0045
Logistics Vehicle System Maintenance
MC-1408-0019
Maintenance and Control Specialist
AF-1717-0009
Maintenance Analysis
AF-1408-0006
Maintenance Analysis Specialist
AF-1115-0001
Maintenance Analysis Technician
AF-0306-0001
Maintenance Engineering Production Analysis
AF-1408-0006
AF-1408-0007
Maintenance Management
AF-1717-0023
Maintenance Management and Information Systems
AF-1408-0013
Maintenance Scheduling Specialist
AF-1408-0032
Maintenance Scheduling Specialist by Correspondence
AF-1408-0070
Maintenance Scheduling Specialists by Correspondence
AF-1715-0135
Maintenance Systems Analysis Specialist by Correspondence
AF-1402-0069
Maintenance Systems Analysis Specialists by Correspondence
AF-1715-0134
Marine Corps Integrated Maintenance Management Officers
MC-1402-0028
Marine Corps Integrated Maintenance Management System (MIMMS)
MC-1402-0028
Motor Transport Maintenance Management
MC-0419-0002
Motor Transport Maintenance Officer
MC-1712-0005
Motor Vehicle Maintenance Management
AF-0419-0019
Outboard Engines Operation and Maintenance.
CG-1731-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C
CG-1731-0001
Pavements Maintenance Specialist
AF-1710-0007
Special Weapons Maintenance Technician
AF-1715-0150
AF-1715-0151
AF-1715-0152
Telecommunications System Maintenance Specialist by Correspondence
AF-1715-0031
Tracked Vehicle Maintenance Management
MC-1710-0022
Tracked Vehicle Maintenance Officer
MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management
MC-1710-0022
T58-GE-8B Engine Maintenance Class C
CG-1704-0004
T58-5 and T62 Engine Maintenance Class C
CG-1704-0026
Vehicle Maintenance Technician
AF-1703-0010

Malay
Indonesian-Malay Basic
DD-0602-0012
Malay
DD-0602-0009
Malay Basic
DD-0602-0012

Malone
Loran Track #1 for Lorstas, Malone, Senca
CG-1715-0092

Management
Navy Management Systems
DD-1408-0006
Administration Management and Executive Support Officer
AF-1408-0067
Administration Management Specialist by Correspondence
AF-1403-0002
Administration Management/Executive Support
AF-1408-0067
Advanced Production Management
AF-1408-0014
Aftercare Program Management
MC-0801-0002
Air Force Base Level Maintenance Management
AF-1717-0025
Aircraft Maintenance Management Officer
AF-1717-0002
Airfield Management Specialist
AF-1704-0215
Apprentice Airfield Management Specialist by Correspondence
AF-1704-0214
Apprentice Operations Resource Management Specialist by Correspondence
AF-1402-0073
Automated Information Systems Management for Intermediate Executives
DD-1402-0003
Automated Information Systems Management for Intermediate Managers
DD-1402-0003
Automated Systems Analyst (Management Support Systems)
AF-1402-0064
AF-1402-0066
Automated Systems Program Designer (Management Support Systems)
AF-1402-0010
Automated Systems Programming Technician (Management Support Systems)
AF-1402-0002
Automotive Shop Management
AF-1405-0049
AFLC Directorate of Materiel Management by Correspondence
AF-1408-0089
AMA/Directorate of Materiel Management
AF-1405-0027

Bakery Management
MC-1729-0011
Base Supply Management
AF-1405-0001
Chapel Management Specialist by Correspondence
AF-1408-0085
Chapel Management Technician by Correspondence
AF-1408-0086
Chief of Supply Management
AF-1405-0040
Club Management Supervisor by Correspondence
AF-1406-0059
Consolidated Maintenance Management (ADC)
AF-1717-0011
Contract Management
AF-1408-0037
Contract Management Officer
AF-1408-0051
AF-1408-0052
Cost and Management Analysis Specialist by Correspondence
AF-1408-0083
Cost and Management Analysis Technician by Correspondence
AF-1408-0084
Data Processing Installation Management
MC-1402-0020
Data Processing Installation Management Seminar
MC-1402-0020
Data Processing Management Seminar
MC-1402-0020
Defense Equal Opportunity Management Institute
DD-1512-0001
Defense Equal Opportunity Management Institute Nonresident/Resident
DD-1512-0002
Defense Management Systems
DD-1408-0005
DD-1408-0006
Defense Packaging Management Training
DD-0419-0005
Defense Resources Management
DD-1408-0006
Defense Security Assistance Management Core
DD-1408-0001
Defense Security Assistance Management Overseas
DD-0327-0001
Defense Weapons Systems Management
AF-1408-0011
Disposal Management
AF-1405-0056
Financial Management Specialist (Budget) by Correspondence
AF-1408-0077
Financial Management Specialist by Correspondence
AF-1408-0053
AF-1408-0073
AF-1408-0074
AF-1408-0075
AF-1408-0076
Financial Management Supervisor by Correspondence
AF-1408-0038
AF-1408-0081
Financial Management/Services Supervisor (Functions and Responsibilities) by Correspondence
AF-1408-0082
Financial Management/Services Supervisor by Correspondence
AF-1408-0081
Food Service Management
MC-1729-0008
Food Service Management by Correspondence
MC-1729-0029
Industry Financial Management
DD-1408-0003
Information Security Management
DD-1728-0002
Instructional Management
MC-1406-0010
MC-1406-0031
Inventory Management Specialist (Munitions) by Correspondence
AF-1405-0064
Inventory Management Specialist by Correspondence
AF-1405-0051
Inventory Management Supervisor
AF-1405-0011
Inventory Management Supervisor (Munitions) by Correspondence
AF-1405-0065
Inventory Management Supervisor by Correspondence
AF-1405-0059
IBM System 360 (OS) Data Management
MC-1402-0039
IBM System 360 OS System Control and Data Management
MC-1402-0038
Junior Officer Leadership and Management
CG-1717-0003
KT11-C Memory Management
DD-1715-0014
Laboratory Management of Research and Development
AF-1408-0058
Leadership and Management
CG-1717-0006
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003
Logistics Management
AF-1405-0007
Maintenance Management
AF-1717-0023
Maintenance Management and Information Systems
AF-1408-0013
Management of Value Engineering by Correspondence
AF-1405-0068
Management Analysis Officer
AF-1408-0063
Management Analysis Specialist
AF-1408-0009
Management Analysis Technician
AF-1408-0009
Management Engineering Officer
AF-1115-0007
Management Engineering Specialist
AF-1408-0012
Management Technician
AF-1406-0004
Management/Supervision of a Data Processing Installation (DPI)
AF-1402-0038
Manpower Management Officer
AF-1406-0035
Manpower Management System for Supervisors by Correspondence
MC-1406-0018
Manpower Management Technician
AF-1406-0004
Manpower Management Technician by Correspondence
AF-1406-0052
Marine Corps Integrated Maintenance Management Officers
MC-1402-0028
Marine Corps Integrated Maintenance Management System (MIMMS)
MC-1402-0028
Marine Corps Integrated Maintenance Management System (MIMMS) Procedures for the Supply Clerk by Correspondence
MC-1405-0028
Motor Vehicle Maintenance Management
AF-0419-0019
Motor Vehicle Management Officer
AF-1405-0019
National Security Management (Correspondence/Nonresident/Seminar Course of the National Defense University)
DD-1511-0001
Nursing Service Management
AF-0703-0006
Nursing Service Management by Correspondence
AF-0703-0014
Officer Leadership and Management
CG-1717-0009
Open Mess Management
AF-1729-0007
Open Mess Management Specialist by Correspondence
AF-1406-0058
Operations Resource Management by Correspondence
AF-1408-0095
Personnel Management Information Systems (PMIS) Class C
CG-1406-0003
Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) by Correspondence
MC-1406-0016
Port Physical Security Management
CG-1728-0026
Production Management
AF-1408-0059
Production Management II
AF-1408-0014
Professional Personnel Management
AF-1406-0033
Program Management
DD-1408-0002
Program Management for Contract Administration
DD-1408-0004
Program Management for Functional Managers
DD-1408-0004
Propulsion Shop Management
AF-1717-0001
Reserve Officer Leadership and Management
CG-1717-0008

Reserve Officer, Chief Leadership and Management CG-1717-0004
Reserve Petty Officer Leadership and Management CG-1717-0002
Reserve Senior Petty Officer Leadership and Management CG-1717-0007
Senior Officer Leadership and Management (SOLAM) CG-1717-0005
Senior Petty Officer Leadership and Management CG-1717-0001 CG-1717-0010
Subsistence Specialist, Large Mess Management CG-1729-0008
Supply Management by Correspondence MC-1405-0027
Supported Activities Supply System (SASSY) Management Unit by Correspondence MC-1405-0026
System Program Management AF-1408-0060
Traffic Management and Accident Investigation AF-1728-0004
Traffic Management Supervisor by Correspondence AF-0419-0030

Manager
Armed Forces Radio and Television System Broadcast Manager DD-0505-0002
Armed Forces Radio Television System Broadcast Manager DD-0505-0005
AFRTS Broadcast Manager DD-0505-0002
Broadcast Manager DD-0505-0002

Maneuvering
Maneuvering Boards (MANBD) by Correspondence CG-1708-0015

Manpower
Major Command (MAJCOM) Manpower Procedures AF-1406-0032
Manpower Management Officer AF-1406-0035
Manpower Management System for Supervisors by Correspondence MC-1406-0018
Manpower Management Technician AF-1406-0004
Manpower Management Technician by Correspondence AF-1406-0052
Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) by Correspondence MC-1406-0016

Manual
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence AF-1704-0224
Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence AF-1715-0092
Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence AF-1715-0093
Integrated Avionics Manual Test Station and Component Specialist by Correspondence AF-1715-0083

Map
Map and Aerial Photography Reading by Correspondence MC-1606-0004
Map Compilation DD-1713-0001
Map Reading by Correspondence MC-1601-0022

Mapping
Defense Mapping School Instructor DD-1406-0001
Mapping, Charting, and Geodesy Officer DD-1601-0007 DD-1601-0021
Mapping, Charting, and Geodesy Senior Officer DD-1601-0017

Marine
Chief Marine Science Technician (MSTC) by Correspondence CG-1408-0023
Class A Marine Science Technician CG-1304-0001
Marine Assembler Language Programming MC-1402-0040
Marine Environment and Systems Officer, Class C CG-1304-0010
Marine Environment and Systems Petty Officer (Class C) CG-1304-0011
Marine Environmental Protection CG-1304-0012
Marine Environmental Protection (MEP) by Correspondence CG-1303-0001
Marine Safety Basic Indoctrination CG-0802-0002
Marine Safety Petty Officer CG-1728-0018 CG-1728-0030
Marine Science Technician CG-1304-0001
Marine Science Technician First Class (MST1) by Correspondence CG-1304-0015
Marine Science Technician A CG-1304-0001
Marine Science Technician Class A CG-1304-0001 CG-1304-0017
Marine Science Technician First Class by Correspondence CG-1304-0018
Marine Science Technician Second Class (MST2) by Correspondence CG-1304-0016
Marine Science Technician Second Class by Correspondence CG-1304-0003
Marine Warrant Officer, Basic MC-2204-0004
Marine Warrant Officers, Basic MC-2204-0004
Merchant Marine Safety CG-0802-0002

Marines
Terrorism Counteraction for Marines by Correspondence MC-1606-0010

Maritime
Maritime Law Enforcement Advanced Boarding Officer Class C CG-1728-0023
Maritime Law Enforcement Basic Boarding CG-1728-0022
Maritime Law Enforcement Boarding Officer CG-1728-0021
Maritime Law Enforcement Instructor CG-1728-0024

Mark IV
Advanced Mark IV MC-1402-0027
Advanced Mark IV File Management System MC-1402-0027
Advanced Mark IV Programming MC-1402-0027

Mark 10/IFF
Class C Mark 10/IFF Maintenance and Repair CG-1715-0050

Marksman
The Marine Marksman by Correspondence MC-2204-0057

Marksmanship
Marksmanship Instructor AF-2203-0001

Mason
Apprentice Mason by Correspondence AF-1710-0030

Masonry
Masonry Specialist by Correspondence AF-1710-0026

Master
Master Crew Chief AF-1704-0070

Materials
Materials Handling Equipment by Correspondence MC-1710-0040

Materiel
Accounting and Finance Automated Materiel System AF-1401-0016
Apprentice Medical Materiel Specialist AF-0709-0009
AFLC Directorate of Materiel Management by Correspondence AF-1408-0089
AMA/Directorate of Materiel Management AF-1405-0027
Materiel Facilities Specialist by Correspondence AF-1405-0013
Materiel Facilities Supervisor by Correspondence AF-1405-0033
Medical Materiel Specialist AF-0709-0009
Medical Materiel Supervisor AF-1405-0045

- Medical Materiel Supervisor (B-3500) AF-1405-0045

Mathematics
- Mathematics for Marines by Correspondence MC-1107-0001

Measurement
- Advanced Microwave Measurement and Calibration AF-1715-0181
- DCLF Reference Measurement and Calibration AF-1715-0493
- Microwave Measurement and Calibration AF-1715-0740
- Nuclear Measurement Technician AF-1715-0163
- Physical Measurement and Calibration AF-1715-0743
- Power Measurements by Correspondence AF-1115-0008
- Test, Measurement and Diagnostic Equipment MC-1715-0114

Measurements
- Advanced Electrical-Electronics Measurements AF-1715-0168
- Advanced Microwave Measurements and Calibration AF-1715-0549

Measuring
- Precision Measuring Equipment Specialist AF-1715-0032
- Precision Measuring Equipment Specialist (Electronics) AF-1715-0033
- Precision Measuring Equipment Specialist by Correspondence AF-1715-0073
- Precision Measuring Equipment Technician AF-1715-0032
- Precision Measuring Equipment Technician by Correspondence AF-1715-0074
- Precision Physical Measuring Technician AF-1721-0007

Meat
- Meats and Meat Cookery by Correspondence MC-1729-0023

Mechanic
- Advanced Automotive Mechanic/ Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012
- Aviation Structural Mechanic, Second Class, by Correspondence CG-1704-0013
- AN/APQ-24A System Mechanic AF-1715-0428

Mechanical
- Marine Mechanical Fundamentals MC-1704-0003

Media
- Precision Imagery and Audiovisual Media Maintenance Specialist by Correspondence AF-1715-0136

Medical
- Alternate Phase II of Medical Laboratory Specialist Course AF-0702-0006
- Apprentice Medical Administrative Specialist AF-0799-0004
- Apprentice Medical Administrative Specialist by Correspondence AF-0709-0028
- Apprentice Medical Equipment Repairman AF-1715-0001
- Apprentice Medical Laboratory Specialist AF-0702-0005
- Apprentice Medical Materiel Specialist AF-0709-0009
- Apprentice Medical Service Specialist AF-0709-0015
- Basic Course in Medical Administration AF-0799-0005
- Basic Course in Medical Service Administration AF-0799-0005
- Basic Orientation Course for Officers of the Medical Service AF-1408-0040
- Emergency Medical Technician CG-0709-0002
- Emergency Medical Technician Class C CG-0709-0004
- Medical Administrative Specialist AF-0799-0004
- Medical Administrative Specialist by Correspondence AF-0709-0027
- Medical Administrative Supervisor AF-1408-0043
- Medical Aspects of Food Handling AF-0709-0018
- Medical Equipment Repairman AF-1715-0001
- Medical Laboratory Specialist, Phase I AF-0702-0005
- Medical Laboratory Specialist, Phase II AF-0702-0007
- Medical Laboratory Technician AF-0702-0004
- Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence AF-0709-0029
- Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence AF-0709-0031
- Medical Laboratory Technician (Microbiology) by Correspondence AF-0709-0030
- Medical Materiel Specialist AF-0709-0009
- Medical Materiel Specialist by Correspondence AF-1406-0094
- Medical Materiel Supervisor AF-1405-0045
- Medical Materiel Supervisor (B-3500) AF-1405-0045
- Medical Officer Flight Familiarization Training (T-33) AF-1606-0127
- Medical Officer Flight Familiarization Training (T-37) AF-1606-0127
- Medical Service Fundamentals AF-0703-0007
- Medical Service Specialist AF-0709-0015
- Medical Service Specialist by Correspondence AF-0703-0012
- Medical Service Technician AF-0709-0023
- Medical Service Technician by Correspondence AF-0703-0011
- Medical Supply Officer AF-1405-0006

Medicine
- Apprentice Preventive Medicine Specialist AF-0707-0005
- Global Medicine AF-0799-0001
- Preventive Medicine Specialist AF-0707-0005
- Preventive Medicine Technician AF-0707-0004

Memory
- KT11-C Memory Management DD-1715-0014

Mental
- Mental Health Unit Specialist by Correspondence AF-0708-0002

Mess
- Advanced Special Mess Training MC-1729-0007
- Marine Corps Club and Mess Restaurant Operations by Correpondence MC-1729-0020
- Mess Hall Sanitation by Correspondence MC-1729-0039
- Open Mess Management AF-1729-0007
- Open Mess Management Specialist by Correspondence AF-1406-0058
- Special Mess Leadership Training MC-1729-0019
- Special Mess Training MC-1729-0018
- Special Mess Training Leadership MC-1729-0016
- Subsistence Specialist, Large Mess Management CG-1729-0008
- The Mess Hall Subsistence Clerk by Correspondence MC-1729-0040

Metal
- Metal Fabricating Specialist by Correspondence AF-1723-0006
- Metal Working and Welding Operations by Correspondence MC-1723-0008

Metals
- Aircraft Metals Technology (Welding) by Correspondence AF-1724-0007
- Metals Processing Specialist by Correspondence AF-1723-0007 AF-1723-0009

Metalsmith
- Metalsmith Foreman MC-1723-0003

Metalworker
- Basic Metalworker MC-1723-0005

Journeyman Metalworker MC-1723-0007

Metalworkers

Metalworkers MC-1723-0002

Metalworking

Metalworking and Welding Operations by Correspondence MC-1723-0001

Meteorological

Advanced Meteorological Applications AF-1304-0009

Airborne Meteorological/Atmospheric Research Equipment (MET/ARE) Repairman AF-1715-0453

Meteorology

Meteorology by Correspondence CG-1304-0008

Microbiology

Medical Laboratory Technician (Microbiology) by Correspondence AF-0709-0030

Microminiature

Microminiature Component Repair MC-1715-0089

Microprocessor

Digital Microprocessor Class C CG-1715-0081

Microwave

Advanced Microwave Measurement and Calibration AF-1715-0181

Advanced Microwave Measurements and Calibration AF-1715-0549

Microwave Equipment Maintenance MC-1715-0123

Microwave Equipment Operator MC-1715-0024

Microwave Measurement and Calibration AF-1715-0740

Radio Relay Equipment Repairman (Microwave and Associated Relay Center Equipment) AF-1715-0085

Radio Relay Equipment Repairman (Microwave) AF-1715-0085

Reserve Microwave Equipment Operator MC-1715-0126

Midwifery

Nurse-Midwifery Residency AF-0703-0002

Military

Basic Military Journalist DD-0504-0001

Financial Services Specialist (Military Pay) by Correspondence AF-1408-0079

Infantry Staff Noncommissioned Officer (NCO): Military Symbols and Overlays MC-1601-0040

Intelligence Brief: The Military Threat by Correspondence MC-1606-0012

Military Aspects of Sanitary and Industrial Hygiene Engineering AF-0707-0001

Military Civil Rights (MCR) by Correspondence CG-1512-0001

Military Justice by Correspondence AF-1728-0043

Military Operations on Urban Terrain by Correspondence MC-1606-0006

Military Requirements (MRN-E-3) for E3 by Correspondence CG-2205-0014

Military Training Instructor AF-1512-0002

The Military Affiliate Radio System (MARS) Operator by Correspondence MC-1715-0134

Minefield

(Minefield Maintenance Man Refresher) MC-2204-0054

Guantanamo Minefield Maintenance Preparation MC-2204-0054

Minefield Maintenance MC-2204-0054

Minor

Advanced Minor Aids to Navigation Maintenance CG-1715-0046 CG-1715-0131

Advanced Minor Aids to Navigation, Class C CG-1715-0046

Basic Minor Aids to Navigation Maintenance Class C CG-1715-0042

Basic Minor Aids To Navigation CG-1715-0042

Missile

Air Launch Missile Checkout Equipment Repairman (AGM-28A/B) AF-1715-0458

Air Launch Missile Guidance Mechanic (AGM-28A/B) AF-1715-0649

Air Launched Missile Safety Officer AF-0802-0009

Air Launched Missile Safety Technician AF-0802-0011

Aircraft and Missile Electrical Repair Technician AF-1704-0165

Aircraft and Missile Ground Support Equipment Repair AF-1717-0012

Aircraft and Missile Maintenance Analysis Specialist AF-1115-0001

Ballistic Missile Analyst Specialist, SM-80 AF-1715-0344

Ballistic Missile Analyst Specialist, WS-133A AF-1715-0344 AF-1715-0345

Ballistic Missile Check-Out Equipment Specialist, SM-80 AF-1715-0299

Ballistic Missile Check-Out Equipment Specialist, WS-133A AF-1715-0299

Ballistic Missile Checkout Equipment Specialist, WS-133B AF-1715-0108

Ballistic Missile Safety AF-0802-0008

Defense Missile Guidance Mechanic (GARS) AF-1715-0635

Defense Missile Guidance Mechanic—Falcon (AIM) AF-1715-0635

Defense Missile Guidance Mechanic, IM-99B AF-1715-0308

Defense Missile Guidance Technician (GAR-1/2/11) AF-1715-0650

Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D) AF-1715-0701

Guidance Systems Mechanic (Ballistic Missile Inertial) AF-1715-0327

Guided Missile Fire Control Repair MC-1715-0037 MC-1715-0079

Guided Missile Maintenance Officer TM-76A AF-1715-0647

Guided Missile Operations Officer (TM-76A) AF-1715-0133

Guided Missile Operations Officer (TM-76B) AF-1715-0658

Guided Missile Operations/Maintenance Officer (Ballistic Missiles) AF-1715-0663

Missile Control Communications Systems Repairman AF-1715-0713

Missile Control Communications Systems Repairman by Correspondence AF-1715-0130

Missile Electronic Equipment Specialist (AGM-28A/B) AF-1715-0458

Missile Electronic Equipment Specialist (CGM-13B, TEMS) AF-1715-0641

Missile Electronic Equipment Specialist (LGM-25) AF-1715-0166

Missile Electronic Equipment Specialist, WS-133A AF-1715-0456

Missile Electronic Equipment Specialist, WS-133A-M AF-1715-0711

Missile Electronic Equipment Specialist, WS-133B AF-1715-0461

Missile Electronic Equipment Technician WS-133(CDB) AF-1715-0714

Missile Facilities Specialist AF-1715-0637

Missile Facilities Specialist by Correspondence AF-1717-0026

Missile Guidance and Control Specialist (AGM-28) AF-1715-0649

Missile Guidance and Control Specialist (AGM-28A/B) AF-1715-0649

Missile Guidance and Control Specialist (AGM/AIM)TAC AF-1715-0712

Missile Guidance and Control Specialist (AIM) AF-1715-0671

Missile Guidance and Control Specialist (AIM) (ADC) AF-1715-0671

Missile Guidance and Control Specialist (CGM-13B, GEMS)
AF-1715-0477
Missile Guidance and Control Specialist (CGM-13B, GSC)
AF-1715-0481
Missile Guidance and Control Specialist (LGM-25)
AF-1715-0137
Missile Launch Officer (CGM-13B)
AF-1715-0658
Missile Launch Officer (MACE, MGM-13C)
AF-1715-0658
Missile Launch Officer (TM-76B)
AF-1715-0658
Missile Launch Officer, LGM-25
AF-1715-0692
Missile Launch/Missile Officer (ATLAS PGM-16E)
AF-1715-0651
Missile Launch/Missile Officer (Ballistic Missiles)
AF-1715-0663
Missile Launch/Missile Officer (LGM-25)
AF-1715-0692
Missile Launch/Missile Officer (SM-65D)
AF-1715-0715
Missile Launch/Missile Officer (SM-65E)
AF-1715-0651
Missile Maintenance Officer TM-76B
AF-1715-0638
Missile Maintenance Specialist (WS-133) by Correspondence
AF-1710-0031
Missile Mechanic (AGM-28A/B)
AF-1715-0693
Missile Mechanic (GAM-77)
AF-1715-0693
Missile Mechanic (TM-61A/C)
AF-1715-0642
Missile Officer TM-76A
AF-1715-0647
Missile Officer TM-76B
AF-1715-0638
Missile Officer, SM-80
AF-1717-0015
Missile Officer, WS-133A
AF-1717-0015
AF-1717-0016
AF-1717-0017
Missile Officer, WS-133A-M
AF-1717-0019
Missile Officer, WS-133B
AF-1715-0343
AF-1717-0018
Missile Pneudraulic Repairman (LGM-25)
AF-1704-0173
Missile Safety Technician
AF-0802-0007
Missile Specialist (TM-61C)
AF-1715-0642
Missile Systems Analyst Specialist (LGM-25)
AF-1715-0376
Missile Systems Analyst Specialist (TM-76B)
AF-1715-0668
Missile Systems Analyst Specialist, WS-133A
AF-1715-0344
AF-1715-0345
Missile Systems Analyst Specialist, WS-133A-M
AF-1715-0452
Missile Systems Maintenance Specialist (AGM-28)
AF-1715-0649
Missile Systems Maintenance Specialist by Correspondence
AF-1715-0038
AF-1715-0043
Missile Test Equipment Specialist (TM-76A)
AF-1715-0646
Small Missile Systems
MC-1715-0115
Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS)
AF-1715-0641
Tactical Missile Checkout Equipment Repairman (MACE MGM-13C/TEMS)
AF-1715-0641
Tactical Missile Checkout Equipment Repairman (MGM-13B(TEMS))
AF-1715-0646
Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS)
AF-1715-0641
Tactical Missile Checkout Equipment Repairman (TM/76A/TEMS)
AF-1715-0646
Tactical Missile Control Mechanic (TM-76A/B)
AF-1715-0162
Tactical Missile Guidance Mechanic (CGM-13B)
AF-1715-0481
Tactical Missile Guidance Mechanic (CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, MGM-13C)
AF-1715-0481
Tactical Missile Guidance Mechanic (MGM-13A)
AF-1715-0484
Tactical Missile Guidance Mechanic (TM-76B, GSC)
AF-1715-0481
Tactical Missile Guidance Mechanic and Checkout Equipment Repairman (TM-76B, GEMS)
AF-1715-0481
Tactical Missile Launch Specialist (CGM-13B)
AF-1715-0657
Tactical Missile Launch Specialist (Mace, MGM-13C)
AF-1715-0657
Tactical Missile Launch Specialist (MGM-13A)
AF-1715-0666
AF-1715-0667
Tactical Missile Launch Specialist (TM-76B)
AF-1715-0657
Terrier Missile Launcher System Repair
MC-1715-0080
Terrier Missile Launcher System Repairman
MC-1715-0080
TOW Missile Maintenance
MC-1715-0075

Mission
Civil Air Patrol Mission Observer Level II by Correspondence
AF-1704-0195
Integrated Avionics Component Specialists (Communication/Mission and Traffic Control and Penetration Aids)
AF-1715-0609

Mitel
CEJT-SX-100/200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 217 Class C
CG-1715-0113
CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System
CG-1715-0116

Mk 16
20mm Mk 16 MOD 5 Machine Gun and Magazine Sprinklers Operation and Maintenance Class C
CG-2204-0001

Mk 22
3'50 Gun Mount Mk 22 Operation and Maintenance Class C
CG-2204-0002

Mk 27
Mk 27 Gyrocompass System Operation and Maintenance
CG-1715-0104

Mk 29
Mk 29 MOD 1 Gyrocompass Operation and Maintenance
CG-1715-0106

Mk 92
Fire Control System Mk 92 MOD 1 Class C
CG-1715-0103
Mk 92 MOD 1 Fire Control System
CG-1715-0103

Mobile
Mobile Communication Central Technician
MC-1715-0006
Mobile Communications Central Technician (AN/TGC-37(v))
MC-1715-0006
Mobile Data Central Technician
MC-1715-0085
Mobile Data Communications Terminal Technician
MC-1715-0081
MC-1715-0118
Mobile Dial Central Technician
MC-1715-0085

Modulation
Sinewave Oscillators-Modulation/Demodulation by Correspondence
AF-1715-0751

Monitor
AN/FPN-46 Monitor/Timer
CG-1715-0009
Primary Chain Monitor Set Maintenance Class C
CG-1715-0125

Monitoring
270' WMEC Machinery Plant Control and Monitoring System
CG-1710-0013
270' WMEC Main Propulsion Control and Monitoring System
CG-1710-0009
270' WMEC Main Propulsion Control and Monitoring System (Electrical) Operation and Maintenance Class C
CG-1710-0013

Mortar
The 81mm Mortar Noncommissioned Officer (NCO) by Correspondence MC-2204-0061

Mortarman
Basic Mortarman MC-2204-0047
Mortarman MC-2204-0047

Motion
Motion Picture Laboratory Specialist AF-1709-0025

Motor
Advanced Motor Transport MC-1703-0002
Motor Transport Chief MC-1703-0003
Motor Transport Maintenance Management MC-0419-0002
Motor Transport Maintenance Officer MC-1712-0005
Motor Transport Officer MC-0419-0003 MC-0419-0005
Motor Transport Officer Leadership MC-0419-0004
Motor Transport Officer Orientation MC-0419-0004
Motor Transport Operations Noncommissioned Officer (NCO) MC-1408-0018
Motor Transport Staff Noncommissioned Officer (NCO) MC-1703-0025
Motor Transport Staff Noncommissioned Officer (NCO) Leadership MC-1703-0016
Motor Vehicle Maintenance Management AF-0419-0019
Motor Vehicle Maintenance Officer AF-1405-0019
Motor Vehicle Management Officer AF-1405-0019
Motor Vehicle Operator MC-1703-0027 MC-2101-0001
Motor Vehicle Operator by Correspondence MC-1703-0017
Motor Vehicle Operators MC-2101-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C CG-1731-0001
Reserve Motor Transport Officer Refresher MC-1703-0029

Motorola
CCI-611 and Motorola Triton VHF-FM Transceivers CG-1715-0057

Motors
Relays, Generators, Motors and Electromechanical Devices by Correspondence AF-1714-0032

Mountain
Mountain Leadership Training, Summer MC-2204-0007
Mountain Leadership Training, Winter MC-2204-0006
Mountain Operations (Military Skiing) MC-0803-0004
Mountain Operations (Rock Climbing) MC-0803-0005

Multi-Media
Multi-Media Teaching System (Development) AF-1406-0028

Multichannel
Multichannel Radio Equipment by Correspondence MC-1715-0107

Multilith
Multilith 1250 Repair DD-1706-0001

Multiple
Multiple Virtual Storage (MVS) Diagnostics MC-1402-0053
Multiple Virtual Storage (MVS) Fundamentals and Logic MC-1402-0052
Multiple Virtual Storage (MVS) Performance and Training MC-1402-0054

Multiplexer
Maintenance of the TD 1220/G Multiplexer-Demultiplexer DD-1715-0002
Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer DD-1715-0002

Multiplexer-Demultiplexer
Maintenance of the TD 1220/G Multiplexer-Demultiplexer DD-1715-0002
Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer DD-1715-0002

Munitions
Aerospace Munitions Officer AF-1715-0545
Aerospace Munitions Staff Officer AF-1717-0024
Ammunition Officer (Munitions) AF-1405-0047
Inventory Management Specialist (Munitions) by Correspondence AF-1405-0064
Inventory Management Supervisor (Munitions) by Correspondence AF-1405-0065
Munitions and Weapons Maintenance by Correspondence AF-0802-0025

Music
Field Music MC-1205-0001

MA-1
Weapon Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) by Correspondence AF-1715-0051
Weapons Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) AF-1715-0375
Weapons Control Systems Mechanic (MA-1 System) AF-1715-0375
Weapons Control Systems Mechanic (MA-1 Systems) AF-1715-0375
Weapons Control Systems Mechanic (MA-1, ASQ-25 Systems) AF-1715-0375

MA-2
Bomb Navigation Systems Mechanic (MA-2 System) AF-1715-0483

MA-6A
Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised AF-1715-0256
Bomb Navigation Systems Mechanic (MA-6A and MA-7A Systems) AF-1715-0267
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Radar and Interconnect) AF-1715-0212
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects) AF-1715-0212
Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and Interconnect) AF-1715-0212
Bomb Navigation Systems Technician (MA-6A, 7A Radar and ICE) AF-1715-0212

MA-6A/7A
Navigator Bombardier Training (MA-6A/7A) AF-1606-0106

MA-7
Fire Control Systems Mechanic (MA-7 System) AF-1715-0688

MA-7A
Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised AF-1715-0256
Bomb Navigation Systems Mechanic (MA-6A and MA-7A Systems) AF-1715-0267
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Radar and Interconnect) AF-1715-0212
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects) AF-1715-0212
Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Computer) AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and

Interconnect)
AF-1715-0212

MA-8
Fire Control Systems Mechanic (MA-8 System)
AF-1715-0464
Offensive Fire Control Systems Mechanic (MA-8 System)
AF-1715-0464

MACE
Missile Launch Officer (MACE, MGM-13C)
AF-1715-0658
Tactical Missile Guidance Mechanic (MACE, CGM-13B/GEMS)
AF-1715-0477
Tactical Missile Guidance Mechanic (MACE, MGM-13C)
AF-1715-0481

MAJCOM
Major Command (MAJCOM) Manpower Procedures
AF-1406-0032

MD-7
Defensive Fire Control Systems Mechanic (B-52H, B-58: MD-7, ASG-21 Turrets)
AF-1715-0540
Defensive Fire Control Systems Mechanic (MD-7, AN/ASG-21 Turrets)
AF-1715-0540

MD-9
Defensive Fire Control System Mechanic (A-3A, MD-9, ASG-15 Turrets)
AF-1715-0482
Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15 Turrets) by Correspondence
AF-1715-0047

MET/ARE
Airborne Meteorological/Atmospheric Research Equipment (MET/ARE) Repairman
AF-1715-0453

MG-10
Fire Control Systems Mechanic (MG-10 Series Data Flow Specialist)
AF-1715-0708
Fire Control Systems Mechanic, MG-10 Radar
AF-1715-0258
Weapons Control Systems Mechanic (MG-10/13 Systems)
AF-1715-0546
Weapons Control Systems Mechanic (MG-10, 13 Systems)
AF-1715-0546
Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)
AF-1715-0272

MG-12
Weapons Control Systems Mechanic (E-9, MG-12 Systems)
AF-1715-0689
AF-1715-0690
Weapons Control Systems Mechanic (MG-12 System)
AF-1715-0690

MG-12/13
Radar Intercept Officer Training (MG-12/13)
AF-1606-0045

MG-13
Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)
AF-1715-0272
Weapons Control Systems Technician (MG-13 Data Flow)
AF-1715-0699

MG-3
Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)
AF-1715-0272
Weapons Control Systems Mechanic (MG-3, 10, 13 Systems)
AF-1715-0546

MGM-13A
Tactical Missile Guidance Mechanic (MGM-13A)
AF-1715-0484
Tactical Missile Launch Specialist (MGM-13A)
AF-1715-0666
AF-1715-0667

MGM-13B
Tactical Missile Checkout Equipment Repairman (MGM-13B(TEMS))
AF-1715-0646

MGM-13C
Missile Launch Officer (MACE, MGM-13C)
AF-1715-0658
Tactical Missile Guidance Mechanic (MACE, MGM-13C)
AF-1715-0481
Tactical Missile Launch Specialist (Mace, MGM-13C)
AF-1715-0657

MK-52
Gun Fire Control Systems (GFCS) MK-52 and MK-56
CG-1715-0016

MK-56
Gun Fire Control Systems (GFCS) MK-52 and MK-56
CG-1715-0016

MTDS
Marine Tactical Data System (MTDS) Technician
MC-1715-0043
Marine Tactical Data System (MTDS) Weapons Controller/Operator
MC-1715-0021
Marine Tactical Data Systems (MTDS) Fundamentals
MC-1715-0017

MUX/DEMUX
TD 1220/G MUX/DEMUX Maintenance
DD-1715-0002

M60
Maintenance of the M60 Series Machine Guns by Correspondence
MC-2204-0064
M60 Machine Gun by Correspondence
MC-2204-0060

National
Air National Guard Academy of Military Science
AF-2203-0051
National Boating Safety
CG-0802-0004
CG-0802-0014
National Communications Security (COMSEC)
DD-1404-0004
National Security Management (Correspondence/Nonresident/Seminar Course of the National Defense University)
DD-1511-0001
National Senior Cryptologic
DD-1404-0003
National War College
DD-1511-0002
Reserve Components National Security Seminar
DD-1511-0006

Nautel
Nautel Radiobeacon Maintenance
CG-1715-0127

Naval
Naval Academy Training
MC-2202-0003
Naval Gunfire Officer
MC-2204-0039
Naval Officer Reserve Officer Training Course (NROTC)
MC-2202-0001
Naval Reserve Officer
MC-2202-0002
Naval Reserve Officer Bulldog
MC-2202-0002

Navigation
Advanced Minor Aids to Navigation Maintenance
CG-1715-0046
CG-1715-0131
Advanced Minor Aids to Navigation, Class C
CG-1715-0046
Aerial Navigation
MC-1606-0002
Aids to Navigation Construction
CG-1722-0004
Aids to Navigation Mechanician
CG-1715-0015
Aids to Navigation Officer Advanced Class C
CG-2205-0008
Aids to Navigation Officer Basic
CG-2205-0009
Aids to Navigation Positioning
CG-2205-0025
Aids to Navigation School (Short Course for Officers)
CG-2205-0003
Air Navigation
MC-1606-0002
Aircraft Electronic Navigation Equipment Maintenance Technician
AF-1715-0510
Aircraft Electronic Navigation Equipment Technician
AF-1715-0510
Aircraft Inertial and Radar Navigation Systems Repairman
AF-1715-0027
Aircraft Inertial and Radar Navigation Systems Repairman (RF-4C Supplement)
AF-1715-0022
Automated Aids to Navigation Electronics Maintenance
CG-1715-0041
Automated Aids to Navigation Lighthouse Technician
CG-1715-0128
Avionic Inertial and Radar Navigation

Systems Specialist
AF-1715-0027
Avionic Inertial and Radar Navigation Systems Specialist by Correspondence
AF-1715-0442
AN/APN-175 Doppler Radar, Navigation
CG-1715-0027
AN/APN-180 Loran A Navigation System Class C
CG-1715-0028
AN/AYN-1 Navigation Computer Systems Class C
CG-1715-0024
Basic Minor Aids to Navigation Maintenance Class C
CG-1715-0042
Basic Minor Aids To Navigation
CG-1715-0042
Bomb Navigation System Mechanic (ASB-15 System)
AF-1715-0485
Bomb Navigation System Mechanic (B-52C/D: ASB-15 System)
AF-1715-0485
Bomb Navigation System Mechanic (B-52E, F, G, H, ASB-4A/9A/16 Systems)
AF-1715-0483
Bomb Navigation System Mechanic (B-52G/H:ASQ-38, ASQ-151 Systems) by Correspondence
AF-1715-0049
Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised
AF-1715-0256
Bomb Navigation Systems Mechanic (ASB-4 Systems)
AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4/4A/9/9A/16 Systems)
AF-1715-0483
Bomb Navigation Systems Mechanic (ASB-4A/9A/16 Systems)
AF-1715-0483
Bomb Navigation Systems Mechanic (B-52C/D: ASB-15 System
AF-1715-0485
Bomb Navigation Systems Mechanic (B-52E, F, G, H; ASB-4A/9A/16 Systems)
AF-1715-0483
Bomb Navigation Systems Mechanic (FB-111)
AF-1715-0006
Bomb Navigation Systems Mechanic (K-5 Series)
AF-1715-0268
Bomb Navigation Systems Mechanic (MA-2 System)
AF-1715-0483
Bomb Navigation Systems Mechanic (MA-6A and MA-7A Systems)
AF-1715-0267
Bomb Navigation Systems Specialist (B-52G/H: ASQ-176, ASQ-151 Systems) by Correspondence
AF-1715-0046
Bomb Navigation Systems Technician (K-Series Computer)
AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Computer)
AF-1715-0225
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Radar and Interconnect)
AF-1715-0212
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects)
AF-1715-0212
Bomb Navigation Systems Technician (MA-6A and MA-7A Computer and Stab and Optics)
AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Computer)
AF-1715-0225
Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and Interconnect)
AF-1715-0212
Bomb Navigation Systems Technician (MA-6A, 7A Radar and ICE)
AF-1715-0212
Celestial Navigation Second Class by Correspondence
CG-1304-0004
Communication/Navigation System Technician by Correspondence
AF-1704-0245
Communication/Navigation Systems Technician by Correspondence
AF-1704-0242
AF-1704-0243
AF-1704-0244
AF-1704-0246
Deck Watch Officer Navigation Rules (DWONR) by Correspondence
CG-1708-0014
F-111A Computer/Navigation Test Station Technician
AF-1402-0024
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1704-0220
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist by Correspondence
AF-1715-0100
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1704-0225
AF-1715-0106
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476
Integrated Avionics System Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Land Navigation by Correspondence
MC-1713-0001
MC-1713-0002
Minor Aids to Navigation
CG-2205-0002
Navigation and Bombing Trainer Specialist (AN/APQ-T3)
AF-1715-0274
Navigation Rules by Correspondence
CG-1708-0005
Navigation Systems (NAVSYS) by Correspondence
CG-1708-0011
Navigation/Bombing Trainer and Flight Simulator Tactics Specialist
AF-1715-0455
Navigation/Bombing/Tactics Trainer Specialist
AF-1715-0455
Officers Advanced Aids to Navigation
CG-2205-0008
Officers Basic Aids to Navigation
CG-2205-0009
Officers Basic Aids to Navigation, Class O
CG-2205-0009
Piloting Navigation (PELNAV) by Correspondence
CG-1708-0006
Special Training on Radar Bombing Navigation System, AN/APQ-24A
AF-1715-0617

Navigational
Aircraft Radio Repairman (Navigational)
AF-1715-0069
CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance
MC-1715-0071
Navigational Aids Equipment Specialist by Correspondence
AF-1715-0012
Navigational Aids Equipment Technician by Correspondence
AF-1715-0017

Navigations
Communications/Navigations Technician by Correspondence
AF-1715-0116

Navigator
Advanced Navigator Radar Bombardment Training
AF-1606-0106
Advanced Navigator Reconnaissance Bombardment
AF-1606-0106
ATC Instructor Training (Navigator)
AF-1406-0039
Flight Test Engineer/Navigator
AF-1606-0153
Navigator Bombardier AN/ASQ-38(V)
AF-1606-0080
Navigator Bombardier System Training (FB-111)
AF-1606-0146
Navigator Bombardier Training
AF-1606-0106
Navigator Bombardier Training (ASQ-38)
AF-1606-0080
Navigator Bombardier Training (MA-6A/7A)
AF-1606-0106

Navigator Bombardier Upgrade Training (FB-111)
AF-1606-0084
Navigator Instructor Training
AF-1406-0039
Navigator Radar Intercept
AF-1606-0045
Navigator Reconnaissance Upgrading Training (RF-4C)
AF-1606-0090
Navigator, ECM
AF-1715-0529
Primary-Basic Navigator Training
AF-1606-0145
Primary-Basic Navigator Upgrading
AF-1715-0621
Undergraduate Navigator Training
AF-1606-0145

Nepali
Nepali
DD-0602-0009
DD-0602-0045

Newspaper
Newspaper Editor
DD-0504-0003

Non-Destructive
Non-Destructive Inspection (T/A 455)
AF-1724-0004
Non-Destructive Inspection Specialist
AF-1724-0003
Non-Destructive Testing
AF-1724-0002
Non-Destructive Testing of Aircraft and Related Equipment Components
AF-1724-0002

Nondestructive
Apprentice Nondestructive Inspection Specialist by Correspondence
AF-1724-0006
Nondestructive Inspection Specialist by Correspondence
AF-1723-0005

Nonresident
Air Command and Staff Nonresident Seminar Program
AF-1511-0002
Air War College Nonresident Seminar Program
AF-1511-0004
Associate Air War College Nonresident Seminar Program
AF-1511-0004
Defense Equal Opportunity Management Institute Nonresident/Resident
DD-1512-0002
National Security Management (Correspondence/Nonresident/Seminar Course of the National Defense University)
DD-1511-0001

Norwegian
Norwegian
DD-0602-0006
DD-0602-0011
Norwegian Basic
DD-0602-0062
DD-0602-0086
DD-0602-0130
DD-0602-0224

Nuclear
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence
MC-1606-0011
Nuclear and Chemical Weapons Employment
MC-2204-0036
Nuclear Measurement Technician
AF-1715-0163
Nuclear Technician
AF-1715-0167
Nuclear Weapons Employment
MC-2204-0036
Nuclear Weapons Officer
AF-1715-0545
Nuclear Weapons Specialist by Correspondence
AF-0802-0027
Nuclear, Biological and Chemical (NBC) Warfare Defense
MC-0801-0001
Nuclear, Biological and Chemical (NBC) Weapons Employment
MC-2204-0036

Nurse
Flight Nurse
AF-0703-0008
Nurse Anesthetist
AF-0703-0013
Nurse-Midwifery Residency
AF-0703-0002
Pediatrics Nurse Practitioner
AF-0703-0009

Nursing
Nursing Service Administration
AF-0703-0003
Nursing Service Management
AF-0703-0006
Nursing Service Management by Correspondence
AF-0703-0014

Nutrition
Basic Nutrition by Correspondence
MC-1729-0021
MC-1729-0041

NAV/PILOT
F-111A Weapons System Training (NAV/PILOT)
AF-1606-0117

NBC
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence
MC-1606-0011
Nuclear, Biological and Chemical (NBC) Warfare Defense
MC-0801-0001
Nuclear, Biological and Chemical (NBC) Weapons Employment
MC-2204-0036

NCMC
NCMC Computer Programmer
AF-1402-0009

NCO
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012
Air Police Noncommissioned Officer (NCO)
AF-1728-0001
Baker Noncommissioned Officer (NCO)
MC-1729-0006
Bakery Noncommissioned Officer (NCO) Leadership
MC-1729-0006
Combat Engineer Noncommissioned Officer (NCO) by Correspondence
MC-1601-0013
MC-1601-0036
Cryptologic Skills for Noncommissioned Officers (NCO)
DD-1404-0005
Field Wire Noncommissioned Officer (NCO) by Correspondence
MC-1715-0100
Food Service Noncommissioned Officer (NCO)
MC-1729-0034
Food Service Noncommissioned Officer (NCO) Leadership
MC-1729-0005
Food Service Staff Noncommissioned Officer (NCO)
MC-1729-0036
Food Service Staff Noncommissioned Officer (NCO) Leadership
MC-1729-0004
Functions of the Infantry Staff Noncommissioned Officer (NCO) by Correspondence
MC-2204-0056
Infantry Staff Noncommissioned Officer (NCO): Military Symbols and Overlays
MC-1601-0040
Motor Transport Operations Noncommissioned Officer (NCO)
MC-1408-0018
Motor Transport Staff Noncommissioned Officer (NCO)
MC-1703-0025
Motor Transport Staff Noncommissioned Officer (NCO) Leadership
MC-1703-0016
Noncommissioned Officer (NCO) Basic
MC-2204-0075
Noncommissioned Officer (NCO) Leadership (Junior)
MC-2204-0016
Noncommissioned Officers (NCO) Leadership (Senior)
MC-2204-0015
Principles of Instruction for the Marine Noncommissioned Officer (NCO) by Correspondence
MC-1406-0028
Principles of Instruction for Marine Noncommissioned Officers (NCO) by Correspondence
MC-1406-0013
Reserve Combat Engineer Noncommissioned Officer (NCO)
MC-1601-0030
Reserve Staff Noncommissioned Officer (NCO) Academy
MC-2204-0053
Resident Instruction Team Staff Noncommissioned Officer (NCO) Career
MC-2204-0073
Resident Staff Noncommissioned Officer (NCO) Advanced
MC-2201-0072
Resident Staff Noncommissioned Officer (NCO) Career
MC-1408-0014
Resident Staff Noncommissioned Officer (NCO) Career (Regular)
MC-2204-0074
Resident Staff Noncommissioned Officer (NCO) Career Reserve
MC-2204-0071
Senior Noncommissioned Officer (NCO)

Academy
AF-2203-0009

Staff Noncommissioned Officer (NCO) Academy Reserve
MC-2204-0053

Staff Noncommissioned Officer (NCO) Advanced
MC-2204-0076

Staff Noncommissioned Officers (NCO) Resident Course
MC-1408-0014

Supply Noncommissioned Officer (NCO) Leadership
MC-1405-0006

The Marine Noncommissioned Officer (NCO) by Correspondence
MC-1406-0020

The Noncommissioned Officer (NCO) by Correspondence)
MC-1406-0023

The 81mm Mortar Noncommissioned Officer (NCO) by Correspondence
MC-2204-0061

Warehousing Noncommissioned Officer (NCO) Leadership
MC-1405-0002

Warehousing Staff Noncommissioned Officer (NCO) Leadership
MC-1405-0013

Woman Marine Noncommissioned Officer (NCO) Leadership
MC-2204-0018

Observation

Air Observation
MC-1606-0001

8th Class Air Observation School
MC-1606-0003

Observer

Advanced Observer Reconnaissance Bombardment
AF-1606-0106

Aerial Observer
MC-1704-0005

Air Observer
MC-1704-0005

Aircraft Observer Technical Upgrading
AF-1606-0031

Aircraft Observer Training—Pilot
AF-1606-0030

Artillery Scout Observer
MC-2204-0032

Basic Observer Electronic Countermeasures
AF-1715-0564

Ice Observer by Correspondence
CG-1304-0006

Instructor Training for Aircraft Observer
AF-1406-0039

Primary-Basic Observer Cadet
AF-1606-0034

Primary-Basic Observer Upgrading
AF-1606-0033

Tactical Aerial Observer
MC-1704-0005

Weather Chief Observer
AF-1408-0044

Weather Observer
AF-1304-0001

Weather Observer Technician
AF-1304-0008

Oceanographic

Oceanographic Technician
CG-1304-0002

Oceanography

Oceanography by Correspondence
CG-1304-0005

Oceanography Technician Class C
CG-1304-0013

Offensive

Offensive Avionics Systems Specialist (B-1B) by Correspondence
AF-1704-0248

Offensive Fire Control Systems Mechanic (MA-8 System)
AF-1715-0464

Office

Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127

Typing and General Office Procedures (Women)
MC-1409-0001

Officer

Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012

Naval Reserve Officer
MC-2202-0002

Naval Reserve Officer Bulldog
MC-2202-0002

Officer Candidate
CG-2202-0005
MC-2204-0050
MC-2204-0080

Officer Candidate (Female)
MC-2204-0080

Officer Candidate (Male)
MC-2204-0080

Officer Candidate School
AF-2203-0040
CG-2205-0004
MC-2204-0050

Officer Candidate School (Seamanship, Orientation, Operations and Military Indoctrination)
CG-2202-0001

USAF Officer Candidate School
AF-2203-0040

Offset

Basic Offset Printing
DD-1719-0006

Offset Duplicating
DD-1719-0004

Offset Duplicating Equipment Operator
DD-1719-0004

Offset Printing
DD-1719-0002

Oil

Class C Field Oil Identification Laboratory
CG-1601-0001

Open

Open Mess Management
AF-1729-0007

Open Mess Management Specialist by Correspondence
AF-1406-0058

Operating

Disk Operating System Programming
MC-1402-0004

IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018

IBM System 360 Operating System (OS) Operations
MC-1402-0023

Operating Room Specialist
AF-0709-0010

Operating Room Supervisor
AF-0703-0005

Operating System Programming
MC-1402-0004

System 360 Operating System—Core Phase
MC-1402-0005

System 360 Operating System—COBOL Programming Phase
MC-1402-0007

System 360 Operating System—Operations Phase
MC-1402-0006

Operations

Advanced Operations Techniques
MC-1402-0022

Air Passenger and Operations Specialist
AF-0419-0002

Air Support Operations Operator
MC-1715-0031

IBM System 360 (OS) Advanced Operations Techniques
MC-1402-0022

Operations Officer Electronic Counter-Countermeasures (ECCM)
MC-1715-0067

Operations Resource Management by Correspondence
AF-1408-0095

Space Systems Operations Specialist by Correspondence
AF-1715-0755

Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician
MC-1715-0082

Tactical Air Operations Central (TAOC) Technician
MC-1715-0082

Operator

Crane Operator by Correspondence
MC-1710-0039

Engineer Equipment Operator by Correspondence
MC-1601-0034

Ophthalmology

Ophthalmology Surgical Technician
AF-0706-0001

Opportunity

Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence
AF-1406-0053

Optical

Optical Character Recognition (OCR) Operations
MC-1402-0012

Optical Instrument Repairman
MC-1721-0001

Optical Instrument Repairman Advanced
MC-1721-0004

Optical Instrument Repairman Basic
MC-1721-0002

Optical Survey Instrument Repair
DD-1721-0001

Programming for Optical Character Recognition (OCR) System
MC-1402-0016

Optometry

Optometry Specialist
AF-0706-0002

Optometry Specialist by Correspondence
AF-0706-0003

Orderly
Mail Orderly by Correspondence MC-1404-0002
Unit Orderly Room Administration Specialist by Correspondence AF-1403-0004

Ordnance
Ordnance Chief MC-1405-0009
Ordnance Equipment, Class C CG-1715-0013
Ordnance Officer MC-1408-0003
Ordnance Officer/Chiefs MC-1408-0003

Organic
SASSY: Organic Procedures by Correspondence MC-1405-0044

Organizational
Automotive Organizational Maintenance MC-1703-0028
Integrated Organizational Avionic System Specialist by Correspondence AF-1715-0758
Integrated Organizational Avionic Systems Specialist by Correspondence AF-1405-0069
Integrated Organizational Avionics Systems Specialist by Correspondence AF-1715-0757

Orientation
Basic Orientation Course for Officers of the Medical Service AF-1408-0040
Coast Guard Orientation by Correspondence CG-2205-0013
Coast Guard Orientation-Officers CG-2205-0019
Officer Candidate School (Seamanship, Orientation, Operations and Military Indoctrination) CG-2202-0001

Oscillators
Sinewave Oscillators-Modulation/Demodulation by Correspondence AF-1715-0751

Osmosis
Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence MC-1601-0023
Reverse Osmosis Water Purification Unit by Correspondence MC-1732-0003

Outboard
Outboard Engines Operation and Maintenance CG-1731-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C CG-1731-0001

Outside
Outside Wire and Antenna Maintenance Repairman AF-1714-0015
Outside Wire and Antenna Systems Installation and Maintenance Specialist AF-1714-0015

OCR
Optical Character Recognition (OCR) Operations MC-1402-0012
Programming for Optical Character Recognition (OCR) System MC-1402-0016

ONTOS
ONTOS (M50) (Fourth and Fifth Echelon) Maintenance MC-1703-0004
ONTOS Vehicle Repairman MC-1703-0005
Tracked Vehicle Repairman (ONTOS), Basic MC-1703-0005

OS
IBM S/360 OS Computer Operator MC-1402-0023
IBM System 360 (OS) Advanced Coding MC-1402-0037
IBM System 360 (OS) Advanced Operations Techniques MC-1402-0022
IBM System 360 (OS) Advanced Programming Techniques) MC-1402-0024
IBM System 360 (OS) COBOL Programming MC-1402-0013 MC-1402-0036
IBM System 360 (OS) Data Management MC-1402-0039
IBM System 360 (OS) Systems Programmer MC-1402-0041
IBM System 360 Operating System (OS) Operations MC-1402-0023
IBM System 360 OS Assembler Language MC-1402-0031
IBM System 360 OS FORTRAN IV Language (Entry-level) MC-1402-0043
IBM System 360 OS FORTRAN Programming MC-1402-0034
IBM System 360 OS Programming MC-1402-0030
IBM System 360 OS PL/1 Programming MC-1402-0035
IBM System 360 OS System Control MC-1402-0033
IBM System 360 OS System Control and Data Management MC-1402-0038
IBM System 360 OS Systems Programming MC-1402-0032
IBM System/360 (OS) COBOL Programming Entry-level MC-1402-0013
IBM System/360 (OS) COBOL Programming Specialist MC-1402-0036

OTS
OTS Instructor Training AF-1406-0027

Packaging
Apprentice Packaging Specialist by Correspondence AF-1405-0061
Defense Packaging of Hazardous Materials for Transportation DD-0419-0003
Defense Packaging Management Training DD-0419-0005
Packaging Specialist by Correspondence AF-1405-0062

Packing
Defense Basic Preservation and Packing DD-0419-0004
Defense Packing and Unitization DD-0419-0002

Paper
PC11/PC05 Paper Tape Unit Maintenance DD-1715-0009

Paperwork
Small Unit Paperwork (SUPWK) by Correspondence CG-1403-0001

Parachute
Fabrication and Parachute Specialist by Correspondence AF-1733-0002

Pararescue
Pararescue Advanced Flying Training—LBR AF-1606-0130

Pararescueman
Basic Pararescueman AF-0709-0026

Party
Shore Party Basic Specialist MC-1710-0017
Shore Party Man MC-2204-0029

Passenger
Air Passenger and Operations Specialist AF-0419-0002
Air Passenger Specialist AF-0419-0002
Air Passenger Specialist (Reserve) AF-0419-0022
Air Passenger Specialist by Correspondence AF-0419-0021
Passenger and Household Goods Specialist AF-0419-0025
Passenger and Household Goods Specialist by Correspondence AF-0419-0031
Passenger Traffic Specialist AF-0419-0025

Passive
Passive Defense Instructor AF-0802-0004

Pastry
Pastry Baking by Correspondence MC-1729-0032

Patrol
Civil Air Patrol Mission Observer Level II by Correspondence AF-1704-0195
Civil Air Patrol Scanner by Correspondence AF-1704-0194
Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence AF-0801-0005
Introduction to Civil Air Patrol Emergency Services by Correspondence AF-1704-0196

Pavements
Apprentice Pavements Maintenance Specialist by Correspondence AF-1601-0048

Pavements Maintenance Specialist
AF-1710-0007
Pavements Maintenance Specialist by Correspondence
AF-1601-0047

Pay
Basic Pay Entitlement by Correspondence
MC-1401-0008
Basic Pay Entitlements by Correspondence
MC-1401-0003
Financial Services Specialist (Military Pay) by Correspondence
AF-1408-0079
Joint Uniform Military Pay System (JUMPS) Class C
CG-1406-0003

Pediatrics
Pediatrics Nurse Practitioner
AF-0703-0009

Penetration
Enemy Defense Penetration Aids
AF-1715-0744
Integrated Avionics Communication, Navigation, and Penetration Aids Systems Specialist (F/FB-111) by Correspondence
AF-1715-0101
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-15) by Correspondence
AF-1715-0106
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Specialist (F-16) by Correspondence
AF-1715-0112
Integrated Avionics Communications, Navigation, and Penetration Aids Systems Technician by Correspondence
AF-1715-0117
Integrated Avionics Component Specialists (Communication/Mission and Traffic Control and Penetration Aids)
AF-1715-0609

Persian
Dari Afghan-Persian
DD-0602-0009
Persian
DD-0602-0009
DD-0602-0044
Persian Aural Comprehension
DD-0602-0143
Persian Basic
DD-0602-0063
DD-0602-0087
DD-0602-0126
DD-0602-0230
Short Basic Persian
DD-0602-0159

Personal
Personal Affairs Specialist by Correspondence
AF-1406-0049
Personal Affairs Technician by Correspondence
AF-1406-0050
Personal Finance by Correspondence
MC-1401-0005
MC-1401-0009
Personal Financial Records Clerk
MC-1403-0003
MC-1403-0010

Personnel
Administrative Chief's Personnel Administration
MC-1406-0008
Administrative Officers Personnel Administration
MC-1408-0006
Advanced Personnel Administration
MC-1405-0032
Advanced Personnel Officer
AF-1408-0028
Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II
AF-1402-0060
Base Level Military Personnel System (BLMPS), Phase II
AF-1402-0060
Basic Personnel Administration
MC-1406-0007
Basic Personnel Administration by Correspondence
MC-1406-0017
Basic Typing and Personnel Adminstration
MC-1406-0021
First Sergeants Personnel Administration
MC-1406-0005
General Personnel Administration for Reserves by Correspondence
MC-1406-0025
Individual Personnel Records by Correspondence
MC-1403-0016
MC-1406-0019
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0014
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0026
Personnel Chief's Personnel Administration
MC-1406-0008
Personnel Clerk
MC-1405-0003
MC-1405-0034
Personnel Management Information Systems (PMIS) Class C
CG-1406-0003
Personnel Officer
AF-1406-0036
MC-1405-0033
Personnel Reporting for Marine Manpower Management System (MMS) and the Reserve Personnel Management Information System (REPMIS) by Correspondence
MC-1406-0016
Personnel Reporting for REMMPS by Correspondence
MC-1406-0027
Personnel Services Officer
AF-1408-0023
Personnel Specialist
AF-1406-0005
Personnel Specialist by Correspondence
AF-1406-0044
Personnel Staff Officer
AF-1406-0031
Personnel Technician
AF-1406-0040
Personnel Technician by Correspondence
AF-1406-0043
Professional Personnel Management
AF-1406-0033
Reserve Personnel Administration by Correspondence
MC-1406-0015
Sergeants Major Personnel Administration
MC-1406-0004
Warrant Officer Personnel Administration
MC-1406-0006
Woman Marine Officer's Personnel Administration
MC-1408-0005

Pest
Disease Vector and Pest Control Technology
AF-0101-0001
Pest Control (SEA)
AF-0101-0004

Petty
Chief Petty Officer Academy
CG-1511-0001
CG-1511-0002
Marine Safety Petty Officer
CG-1728-0030
Officer In Charge/Executive Petty Officer
CG-2205-0020
Reserve Senior Petty Officer Leadership and Management
CG-1717-0007
Senior Petty Officer Leadership and Management
CG-1717-0010

Pharmacy
Apprentice Pharmacy Specialist
AF-0709-0014
Pharmacy Specialist
AF-0709-0014
Pharmacy Specialist by Correspondence
AF-0799-0003
Pharmacy Technician
AF-0709-0003

Phase II
Veterinary Specialist Phase II
AF-0102-0003

Photo
Advanced Aerospace Photo Intelligence
AF-1606-0047
Intelligence Photo-Radar Officer
AF-1709-0017
AF-1709-0021
Photo Interpretation Specialist
AF-1606-0050

Photogrammetric
Advanced Photogrammetric Cartographic
AF-1709-0013
Advanced Photogrammetric Cartographic Techniques
DD-1601-0005
Analytical Photogrammetric Positioning System
DD-1601-0015
Analytical Photogrammetric Positioning System I
DD-1601-0026
Analytical Photogrammetric Positioning System IV
DD-1601-0027
Basic Photogrammetric Cartographic Techniques
DD-1601-0001
Photogrammetric Compilation
DD-1601-0009

Photogrammetric-Cartographic Technician AF-1709-0013

Photographer

Aerial Photographer AF-1709-0005
Combat Still Photographer, Operator AF-1709-0002
Photographer AF-1709-0010
Still Photographer AF-1709-0010

Photographic

Aerospace Photographic Systems Repairman AF-1715-0291
Aerospace Photographic Systems Specialist by Correspondence AF-1715-0139
Integrated Avionics System Specialist (Inertial/Bomb Navigation, Fire/Weapon Control, Digital Computers, Airborne Photographic Systems, and Multi-Sensor Displays) AF-1715-0210
Intelligence Precision Photographic Officer AF-1606-0056
Photographic Intelligenceman AF-1606-0059
Photographic Repairman AF-1715-0291
Precision Photographic Processing Control AF-1709-0001
Precision Photographic Processing Control Technician AF-1709-0001
Precision Photographic Processing Specialist AF-1709-0022 AF-1709-0023
Precision Photographic Processing Technician AF-1709-0001
Precision Photographic Processing Techniques AF-1709-0024
Precision Photographic Services Officer AF-1709-0006
Precision Photographic Systems Repairman AF-1715-0028
Still Photographic Camera Specialist AF-1709-0020
Still Photographic Laboratory Specialist AF-1709-0018
Still Photographic Officer AF-1709-0026

Photography

Lithographic Photography DD-1719-0003
Map and Aerial Photography Reading by Correspondence MC-1606-0004

Photojournalism

Intermediate Photojournalism DD-1709-0001
Still Photojournalism AF-1709-0004

Photojournalist

Chief Photojournalist (PAC) by Correspondence CG-1408-0021
Photojournalist First Class (PA1-1) by Correspondence CG-1709-0002
Photojournalist School Class (PA2) by Correspondence CG-1709-0001

Photolithographic

Basic Photolithographic Processes DD-1601-0019

Photomapping

Photomapping AF-1601-0026

Photoprocessing

Precision Photoprocessing Specialist AF-1709-0022 AF-1709-0023

Physical

Physical Therapy Specialist AF-0704-0002
Physical Therapy Specialist by Correspondence AF-0704-0004
Physical Therapy Technician AF-0704-0001
Physical Training Instructor MC-0802-0001
Physical Training Instructor (Men) MC-0802-0001
Physical Training Instructor (Women) MC-1406-0002
Port Physical Security Management CG-1728-0026
Port Physical Security Practical CG-1728-0025
Women Physical Training Instructor MC-1406-0002

Physiological

Apprentice Physiological Training Specialist AF-0709-0016
Physiological Training Officer AF-0709-0017
Physiological Training Specialist AF-0709-0016
Physiological Training Supervisor AF-0709-0022

Physiology

Aerospace Physiology Specialist by Correspondence AF-0709-0032

Picture

Motion Picture Laboratory Specialist AF-1709-0025
Sound and Picture Editing Specialist AF-1709-0011

Pilgrim

Clarinet Pilgrim CG-1715-0018

Pilot

Advanced Helicopter Pilot Training AF-1606-0036
Advanced Helicopter Pilot Training (H-1/H-3/H-43/H-53) AF-1606-0131
Aircraft Observer Training—Pilot AF-1606-0030
Army Primary Pilot Training AF-1606-0143
C-5 Pilot AF-1606-0023
Experimental Test Pilot AF-1606-0150
H-1 Helicopter Pilot AF-1606-0131
Helicopter Instructor Pilot (H-1, H-1N, H-1F, CH-3, CH-53, HH-53) AF-1606-0066
Helicopter Instructor Pilot Training AF-1606-0063
Helicopter Pilot Transition Training (TH-1) AF-1606-0091
Instrument Pilot Instructor (Helicopter) AF-1406-0029
Instrument Pilot Instructor Training (T-38) AF-1606-0011
Instrument Pilot Instructor Training (T-38/T-39) AF-1606-0011
Instrument Pilot Instructor Training (T-39) AF-1606-0011
Pilot Advanced Flying AF-1606-0065
Pilot Advanced Flying (H-3) Basic AF-1606-0036
Pilot Advanced Flying (H-53) Basic AF-1606-0036
Pilot Advanced Flying (HH-3E) ARRS AF-1606-0036
Pilot Advanced Flying (HH-43) ARRS AF-1606-0128
Pilot Advanced Flying (HH-53) ARRS AF-1606-0036
Pilot Advanced Flying (TH-1F) Basic AF-1606-0138
Pilot Advanced Flying (TH-1F) SAC AF-1606-0139
Pilot Advanced Flying (UH-1N) Basic AF-1606-0140
Pilot Instructor Training (T-37) AF-1406-0021
Pilot Instructor Training (T-38) AF-1406-0010
Pilot Instructor Training (T-41) AF-1406-0011
Primary Pilot Training (PA-18/T-6) AF-1606-0110
Primary Pilot Training (T/34/T-28) AF-1606-0110
Undergraduate Pilot Training (T-37/T-33) AF-1606-0022
Undergraduate Pilot Training (T-41/T-37/ T-33) AF-1606-0022
Undergraduate Pilot Training (T-41/T-37/T-38) AF-1606-0022
Undergraduate Pilot Training (T-41, Interim) AF-1606-0003

Piloting

Piloting by Correspondence CG-1708-0006
Piloting Navigation (PELNAV) by Correspondence CG-1708-0006

Pilotless

Pilotless Aircraft Guidance and Control Officer AF-1715-0648

Pilots

Special Operations Training, AC-130E Pilots AF-1606-0020

Planner

Coastal Defense Exercise Planner, Port

- Level
  - CG-1722-0013
- Coastal Defense Planner, Port Level
  - CG-1722-0012
- Logistics Planner
  - AF-1405-0039

Planning
- Coastal Search Planning Class C
  - CG-1722-0010
- Comprehensive Search and Rescue (SAR) Planning Class C
  - CG-1722-0011
- The Marine Squad Leader: Combat Planning and Orders by Correspondence
  - MC-2204-0058

Plans
- Logistics Plans Specialist by Correspondence
  - AF-0419-0027

Plant
- Accounting for Plant Property by Correspondence
  - MC-1405-0025
- 270' WMEC Machinery Plant Control and Monitoring System
  - CG-1710-0013

Platemaking
- Lithographic Stripping and Platemaking
  - DD-1719-0001

Platoon
- Platoon Leaders (Combined Junior/Senior)
  - MC-2204-0050
- Platoon Leaders Class (Junior)
  - MC-2204-0037
- Platoon Leaders Class (Senior)
  - MC-2204-0040
- Platoon Leaders Combined
  - MC-2204-0079
- Platoon Leaders Junior
  - MC-2204-0077
- Platoon Leaders Senior
  - MC-2204-0078

Plumber
- Apprentice Plumber by Correspondence
  - AF-1710-0027
- Plumber
  - AF-1710-0002
- Plumber/Plumbing Supervisor (SM-68B)
  - AF-1710-0001

Plumbing
- Basic Plumbing and Water Supply Man
  - MC-1710-0013
- Journeyman Plumbing and Water Supply Man
  - MC-1710-0012
- Plumber/Plumbing Supervisor (SM-68B)
  - AF-1710-0001
- Plumbing and Sewage Disposal by Correspondence
  - MC-1710-0005
  - MC-1710-0031
- Plumbing and Water Supply Journeyman
  - MC-1710-0012
- Plumbing and Water Supply Man
  - MC-1710-0013
- Plumbing Specialist by Correspondence
  - AF-1710-0021
- Plumbing System Maintenance (LGM-25)
  - AF-1710-0001
- Plumbing Technician by Correspondence
  - AF-1710-0023

Pneudraulic
- Aircraft Pneudraulic Systems Mechanic by Correspondence
  - AF-1704-0201
- Aircraft Pneudraulic Systems Technician by Correspondence
  - AF-1704-0203
  - AF-1704-0230
  - AF-1704-0231
- Missile Pneudraulic Repairman (LGM-25)
  - AF-1704-0173

Police
- Air Police (Basic)
  - AF-1728-0019
- Air Police Noncommissioned Officer (NCO)
  - AF-1728-0001
- Air Police Officer
  - AF-1728-0018
- Air Police Supervisor
  - AF-1728-0001
- Air Policeman
  - AF-1728-0019
- Air Policeman (Basic Air Police)
  - AF-1728-0019
- Police Administration
  - AF-1728-0016
- Security Police Administration
  - AF-1728-0016
- Security Police Officer
  - AF-1728-0018
- Security Police Staff Officer
  - AF-1728-0007
- Security Police Supervisor
  - AF-1728-0028
- Security Policeman
  - AF-1728-0019

Policeman
- Air Policeman
  - AF-1728-0019
- Air Policeman (Basic Air Police)
  - AF-1728-0019
- Security Policeman
  - AF-1728-0019

Polish
- Polish
  - DD-0602-0009
  - DD-0602-0044
- Polish Aural Comprehension
  - DD-0602-0144
- Polish Basic
  - DD-0602-0064
  - DD-0602-0088
  - DD-0602-0112
- Polish Intermediate
  - DD-0602-0122
  - DD-0602-0174

Port
- Chief Port Security (PSC) by Correspondence
  - CG-1408-0020
- Coastal Defense Exercise Planner, Port Level
  - CG-1722-0013
- Coastal Defense Planner, Port Level
  - CG-1722-0012
- Port Operations
  - CG-1728-0020
- Port Operations Department
  - CG-1728-0031
- Port Physical Security Management
  - CG-1728-0026
- Port Physical Security Practical
  - CG-1728-0025
- Port Safety and Security Enlisted
  - CG-1728-0016
- Port Safety/Security Officer Core
  - CG-1728-0015
- Port Security and Safety Officer
  - CG-1728-0029
- Port Security Basic (PSB) by Correspondence
  - CG-1728-0011
- Port Security Safety Enlisted
  - CG-1728-0027
- Port Security School
  - CG-1728-0004
- Port Security Second Class (PS2) by Correspondence
  - CG-1728-0011
- Port Security/Law Enforcement Enlisted
  - CG-1728-0002
- Port Security/Law Enforcement Officer
  - CG-1728-0001
- Port Securityman First Class (PS1) by Correspondence
  - CG-1728-0010
- Port Securityman Third Class (PS3) by Correspondence
  - CG-1728-0009
- Safety and Security of the Port (PSGEN) by Correspondence
  - CG-0802-0011

Portuguese
- Portuguese
  - DD-0602-0003
  - DD-0602-0006
  - DD-0602-0008
- Portuguese Aural Comprehension
  - DD-0602-0145
- Portuguese Basic
  - DD-0602-0065
  - DD-0602-0089
  - DD-0602-0109
  - DD-0602-0212
- Portuguese Intensive
  - DD-0602-0186
- Short Basic Portuguese
  - DD-0602-0160

Postgraduate
- Basic Course, Postgraduate
  - MC-1408-0009
- Postgraduate Intelligence Course
  - DD-1511-0004

Power
- A/E24U-8 Power Plant Intermediate and Organizational (I & O) Maintenance
  - AF-1704-0143
- Automotive Power Trains by Correspondence
  - MC-1703-0022
- AN/URC-114(V) Low Power (1KW) Communications System Class C
  - CG-1715-0124
- Electrical Power Line Distribution Technician by Correspondence
  - AF-1714-0025
- Electrical Power Line Specialist by Correspondence
  - AF-1714-0026
- Electrical Power Production Operator
  - AF-1712-0005
- Electrical Power Production Specialist
  - AF-1712-0005
- Electrical Power Production Specialist by Correspondence
  - AF-1714-0027
  - AF-1714-0030
- Electrical Power Production Technician
  - AF-1715-0579

Electrical Power Production Technician by Correspondence
AF-1408-0096
AF-1714-0024
AF-1714-0031
Power Measurements by Correspondence
AF-1115-0008
Power Supplies by Correspondence
AF-1715-0752

Powertrain
HH-52A Airframe and Powertrain Maintenance Class C
CG-1704-0005
HH-52A Airframe and Powertrain, Class C
CG-1704-0005

Precision
Precision Measuring Equipment Specialist
AF-1715-0032
Precision Measuring Equipment Specialist (Electronics)
AF-1715-0033
Precision Measuring Equipment Specialist by Correspondence
AF-1715-0073
Precision Measuring Equipment Technician
AF-1715-0032
Precision Measuring Equipment Technician by Correspondence
AF-1715-0074
Precision Photographic Processing Control
AF-1709-0001
Precision Photographic Processing Control Technician
AF-1709-0001
Precision Photographic Processing Specialist
AF-1709-0022
AF-1709-0023
Precision Photographic Processing Technician
AF-1709-0001
Precision Photographic Processing Techniques
AF-1709-0024
Precision Photographic Services Officer
AF-1709-0006
Precision Photographic Systems Repairman
AF-1715-0028
Precision Photoprocessing Specialist
AF-1709-0022
AF-1709-0023
Precision Physical Measuring Technician
AF-1721-0007

Preparedness
Disaster Preparedness Specialist
AF-0802-0001
AF-0802-0002
Disaster Preparedness Specialist (Additional Duty)
AF-0802-0001
Disaster Preparedness Specialist (Remote Duty)
AF-0802-0001

Preservation
Defense Basic Preservation and Packing
DD-0419-0004
Defense Preservation and Intermediate Protection
DD-0419-0001

Prevention
Fire Prevention (FIRPREV) by Correspondence
CG-1728-0006

Preventive
Apprentice Preventive Medicine Specialist
AF-0707-0005
Light Vehicle Preventive Maintenance by Correspondence
MC-1703-0018
Pistol and Revolver Preventive and Corrective Maintenance by Correspondence
MC-2204-0067
Preventive Dentistry Specialist
AF-0701-0008
Preventive Maintenance and Operating Techniques on Heavy Vehicles by Correspondence
MC-1703-0019
Preventive Medicine Specialist
AF-0707-0005
Preventive Medicine Technician
AF-0707-0004

Pricing
Defense Advance Procurement Pricing
AF-1408-0008
Defense Contract Pricing Techniques
AF-1408-0003
Principles of Contract Pricing by Correspondence
AF-1408-0091
Quantitative Methods for Advanced Procurement Pricing
AF-1408-0010

Primary
Army Primary Pilot Training
AF-1606-0143
Primary Chain Monitor Set Maintenance Class C
CG-1715-0125
Primary Pilot Training (PA-18/T-6)
AF-1606-0110
Primary Pilot Training (T/34/T-28)
AF-1606-0110
Primary-Basic Navigator Training
AF-1606-0145
Primary-Basic Navigator Upgrading
AF-1715-0621

Principles
Principles of Contract Pricing by Correspondence
AF-1408-0091

Print
Construction Print Reading by Correspondence
MC-1601-0011

Printer
LP11/LP02 Line Printer Maintenance
DD-1715-0007
LP11/LP05 Line Printer Maintenance
DD-1715-0010

Printing
Basic Offset Printing
DD-1719-0006
Offset Printing
DD-1719-0002

Processing
Metals Processing Specialist by Correspondence
AF-1723-0007
AF-1723-0009
Precision Photographic Processing Control
AF-1709-0001
Precision Photographic Processing Control Technician
AF-1709-0001
Precision Photographic Processing Specialist
AF-1709-0022
AF-1709-0023
Precision Photographic Processing Technician
AF-1709-0001
Precision Photographic Processing Techniques
AF-1709-0024

Processor
PDP-11/40 Processor Maintenance
DD-1715-0012
PDP-11/45 Processor Maintenance
DD-1715-0013

Procurement
Advanced Base Procurement Management
AF-1405-0029
Base Procurement Officer
AF-1405-0014
AF-1405-0038
Central Procurement Officer
AF-1405-0015
AF-1405-0032
Defense Advance Procurement Pricing
AF-1408-0008
Procurement and Production Officer Fundamentals
AF-1408-0057
Procurement Officer
AF-1405-0048
AF-1405-0055
Procurement Specialist
AF-1405-0020
AF-1408-0069
Procurement Supervisor
AF-1408-0034
Quantitative Methods for Advanced Procurement Pricing
AF-1408-0010
Research and Development Procurement Officer
AF-1405-0036
AF-1405-0043
Systems Procurement Officer
AF-1405-0016
AF-1405-0017
AF-1405-0037

Production
Advanced Production Management
AF-1408-0014
Electrical Power Production Specialist by Correspondence
AF-1714-0027
Electrical Power Production Technician by Correspondence
AF-1714-0024
Maintenance Engineering Production Analysis
AF-1408-0006
AF-1408-0007
Procurement and Production Officer Fundamentals
AF-1408-0057
Production Control
AF-1601-0001
Production Control Specialist by Correspondence
AF-1405-0060

Production Management AF-1408-0059
Production Management II AF-1408-0014
Television Production Specialist AF-0505-0001

Professional
Professional Military Comptroller AF-1408-0004
Professional Personnel Management AF-1406-0033

Program
Automated Systems Program Designer AF-1402-0010, AF-1402-0044
Automated Systems Program Designer (Management Support Systems) AF-1402-0010
Program Management DD-1408-0002
Program Management for Contract Administration DD-1408-0004
Program Management for Functional Managers DD-1408-0004
System Program Management AF-1408-0060

Programmer
Air Force Integrated Command and Control System Computer Programmer AF-1402-0034
BUIC III Computer Programmer AF-1402-0052
BUIC Systems Computer Programmer AF-1402-0051
Command and Control Systems Computer Programmer AF-1402-0058
F-111 Computer/Programmer Test Stations Technician AF-1715-0203
HM4118 Computer Programmer Tactical and Control System AF-1402-0033
Instructional Programmer AF-1406-0024
IBM System 360 (OS) Systems Programmer MC-1402-0041
NCMC Computer Programmer AF-1402-0009
Store and Forward Communications System Computer Programmer AF-1402-0018, AF-1402-0057
SAGE Computer Programmer AF-1402-0030
Weapon Support Systems Computer Programmer AF-1402-0058

Programming
Advanced COBOL Programming Techniques AF-1402-0049
Advanced Programming Techniques MC-1402-0024
Assembler Language Code (ALC) Programming (Combination MC-1402-0051
Automated Systems Programming Technician (Management Support Systems) AF-1402-0002
B 263 Computer Programming and Operation AF-1402-0015
BUIC Computer Programming AF-1402-0061
Computer Programming AF-1402-0008
Computer Systems Programming Officer AF-1402-0035, AF-1402-0048
Computer Systems Programming Officer, SAGE AF-1402-0032
COBOL Programming AF-1402-0011, MC-1402-0013
Disk Operating System Programming MC-1402-0004
FORTRAN Programming AF-1402-0007
Information Systems Programming Specialist by Correspondence AF-1402-0071
IBM System 360 (DOS) COBOL Programming MC-1402-0011
IBM System 360 (OS) Advanced Programming Techniques) MC-1402-0024
IBM System 360 (OS) COBOL Programming MC-1402-0013, MC-1402-0036
IBM System 360 OS FORTRAN Programming MC-1402-0034
IBM System 360 OS Programming MC-1402-0030
IBM System 360 OS PL/1 Programming MC-1402-0035
IBM System 360 OS Systems Programming MC-1402-0032
IBM System/360 (OS) COBOL Programming Entry-level MC-1402-0013
IBM System/360 (OS) COBOL Programming Specialist MC-1402-0036
JOVIAL Programming AF-1402-0013
Marine Assembler Language Programming MC-1402-0040
Operating System Programming MC-1402-0004
Programming for Optical Character Recognition (OCR) System MC-1402-0016
Programming Specialist AF-1402-0037
Programming Specialist by Correspondence AF-1402-0065
Programming Technician by Correspondence AF-1402-0012
System 360 Operating System—Assembler Language Programming Phase MC-1402-0008
System 360 Operating System—COBOL Programming Phase MC-1402-0007
System 360 Operating System—1401 Programming MC-1402-0009
Systems Programming MC-1402-0015
SCANDATA Programming MC-1402-0046

Programs
Programs and Work Control Specialist AF-1717-0009

Propeller
C-131A Propeller Maintenance, Class C CG-1704-0012
43D50 Propeller Maintenance Class C CG-1704-0002

Property
Accounting for Plant Property by Correspondence MC-1405-0025
Industrial Property Administration (JT) AF-0326-0001
Organic Property Control by Correspondence MC-1405-0030

Propulsion
Aerospace Propulsion Technician (Jet Engine) by Correspondence AF-1704-0229
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
Propulsion Shop Management AF-1717-0001
Turboprop Propulsion Mechanic by Correspondence AF-1704-0172, AF-1704-0204
270' WMEC Main Propulsion Control and Monitoring System CG-1710-0009
270' WMEC Main Propulsion Control and Monitoring System (Electrical) Operation and Maintenance Class C CG-1710-0013

Prosthetics
Complete Denture Prosthetics AF-0701-0010
Removable Partial Denture Prosthetics AF-0701-0012

Protection
Defense Preservation and Intermediate Protection DD-0419-0001
Fire Protection Specialists by Correspondence AF-1728-0038
Fire Protection Supervisor by Correspondence AF-1728-0046
Marine Environmental Protection (MEP) by Correspondence CG-1303-0001
Waterfront Protection (WATPRO) by Correspondence CG-1728-0012

Provisioning
Initial Provisioning AF-1405-0035
Introduction to Air Force Initial Provisioning by Correspondence AF-1408-0090

Public
Public Affairs Officer DD-0504-0009
Public Affairs Officer Course (Reserve

Component)
DD-0504-0013
Public Affairs Supervisor
DD-0504-0002
DD-0504-0014
Public Information Enlisted
DD-0504-0008
Public Information Officer
DD-0504-0007

Publications
Files, Directives, and Publications by Correspondence
MC-1403-0004
Marine Corps Technical Publications System by Correspondence
MC-1405-0023
MC-1408-0021

Pulse
TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C
CG-1715-0115

Punched Card
Data Processing Machine Supervisor (Punched Card)
AF-1402-0036

Purchasing
Purchasing and Contracting Officer
AF-1405-0048

Purification
Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence
MC-1601-0023
Reverse Osmosis Water Purification Unit by Correspondence
MC-1732-0003

PA-18
Primary Pilot Training (PA-18/T-6)
AF-1606-0110

PDP-11
PDP-11 Instruction Set
DD-1715-0011
PDP-11/40 Processor Maintenance
DD-1715-0012
PDP-11/45 Processor Maintenance
DD-1715-0013

PGM-16E
Missile Launch/Missile Officer (ATLAS PGM-16E)
AF-1715-0651

PL/1
IBM System 360 OS PL/1 Programming
MC-1402-0035

Q System
Special Electronics Equipment Specialist, Q System
AF-1715-0350

Quality
Introduction to the Quality Function by Correspondence
AF-1405-0067

Quantitative
Advanced Quantitative Methods in Cost Analysis
AF-1115-0004
Basic Quantitative Methods in Cost Analysis
AF-1115-0005
Quantitative Methods for Advanced Procurement Pricing
AF-1408-0010
Quantitative Methods in Cost Analysis
AF-1115-0004

Quartermaster
Chief Quartermaster (QMC) by Correspondence
CG-1408-0008
Quartermaster Class A
CG-1708-0018
Quartermaster First Class (QM1) by Correspondence
CG-1304-0007
Quartermaster First Class by Correspondence
CG-2205-0026
Quartermaster Second Class (QM2) by Correspondence
CG-1722-0002
Quartermaster Third Class (QM3) by Correspondence
CG-1722-0003

Race
Defense Race Relations Institute
DD-1512-0001

Radar
Advanced Navigator Radar Bombardment Training
AF-1606-0106
Air Traffic Control Radar Maintenance Technician
AF-1715-0397
Air Traffic Control Radar Repairman
AF-1715-0488
Air Traffic Control Radar Repairman (AN/MPN-1)
AF-1715-0488
Air Traffic Control Radar Repairman by Correspondence
AF-1715-0003
Air Traffic Control Radar Repairman AN/CPN-4
AF-1715-0422
Air Traffic Control Radar Technician
AF-1715-0397
Air Traffic Control Radar Technician by Correspondence
AF-1715-0009
Airborne Early Warning Radar Repairman (AN/APS-20E)
AF-1715-0025
Airborne Early Warning Radar Repairman (AN/APS-45)
AF-1715-0029
Airborne Early Warning Radar Specialist Principles
AF-1715-0533
Airborne Warning and Control Radar Specialist by Correspondence
AF-1715-0123
Aircraft Control and Warning Radar Maintenance Technician
AF-1715-0064
Aircraft Control and Warning Radar Repairman
AF-1715-0687
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and AN/FPS-6)
AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/CPS-6B and IFF)
AF-1715-0023
Aircraft Control and Warning Radar Repairman (AN/FPS-18, AN/FST-1, AN-FSA-10, AN/FSW-1)
AF-1715-0060
Aircraft Control and Warning Radar Repairman (AN/FPS-20 and AN/FPS-6)
AF-1715-0115
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6 and IFF)
AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-3, AN/FPS-6)
AF-1715-0103
Aircraft Control and Warning Radar Repairman (AN/FPS-8 and AN/FPS-4)
AF-1715-0105
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D and IFF)
AF-1715-0118
Aircraft Control and Warning Radar Repairman (AN/TPS-1D, AN/TPS-10D)
AF-1715-0118
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4
AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FPS-8, AN/FPS-4, and IFF
AF-1715-0020
Aircraft Control and Warning Radar Repairman, AN/FST-2
AF-1715-0111
Aircraft Control and Warning Radar Specialist by Correspondence
AF-1715-0005
Aircraft Control and Warning Radar Technician
AF-1715-0064
Aircraft Control and Warning Radar Technician by Correspondence
AF-1715-0010
Aircraft Early Warning Radar Maintenance Technician
AF-1715-0282
Aircraft Early Warning Radar Repairman
AF-1715-0427
Aircraft Inertial and Radar Navigation Systems Repairman
AF-1715-0027
Aircraft Inertial and Radar Navigation Systems Repairman (RF-4C Supplement)
AF-1715-0022
Automatic Tracking Radar Repairman
AF-1715-0368
Automatic Tracking Radar Specialist (Rate and Track Subsystems) (SM-65)
AF-1715-0406
Automatic Tracking Radar Specialist by Correspondence
AF-1715-0007
Automatic Tracking Radar Technician by Correspondence
AF-1715-0011
Aviation Radar Repair
MC-1715-0055
Aviation Radar Repair (A)
MC-1715-0055
Aviation Radar Repair (B)
MC-1715-0052
Aviation Radar Repair (C)
MC-1715-0059
Aviation Radar Repair (D)
MC-1715-0054
Aviation Radar Repair A
MC-1715-0055
Aviation Radar Repairman (B)
MC-1715-0052

Aviation Radar Technician
MC-1715-0058
MC-1715-0122
Avionic Inertial and Radar Navigation Systems Specialist
AF-1715-0027
Avionic Inertial and Radar Navigation Systems Specialist by Correspondence
AF-1715-0442
AN/APN-171 Radar Altimeter System Class C
CG-1715-0026
AN/APN-175 Doppler Radar, Navigation
CG-1715-0027
AN/APN-195 Weather Radar Systems Class C
CG-1715-0025
AN/SPS-29D Radar Systems Class C
CG-1715-0049
AN/SPS-51 Radar, Class C
CG-1715-0069
AN/SPS-64(V) -1,2,3,4 Radar
CG-1715-0051
AN/SPS-64(V)4 Radar
CG-1715-0070
Basic Radar
MC-1715-0061
Basic Radar Use and Operation (BARAD) by Correspondence
CG-1715-0076
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Radar and Interconnect)
AF-1715-0212
Bomb Navigation Systems Technician (K, MA-6A, MA-7A Series Radar Interconnects)
AF-1715-0212
Bomb Navigation Systems Technician (MA-6A, MA-7A Radar and Interconnect)
AF-1715-0212
Bomb Navigation Systems Technician (MA-6A, 7A Radar and ICE)
AF-1715-0212
F-111 Radar and Control Test Stations Technician
AF-1715-0261
Fire Control Systems Mechanic, MG-10 Radar
AF-1715-0258
Ground Radar Repair
MC-1715-0062
Ground Radar Systems Supervisor/Technician
AF-1715-0367
Ground Radar Technician
MC-1715-0051
MC-1715-0117
GCA Radar Officer
AF-1717-0008
Intelligence Photo-Radar Officer
AF-1709-0017
AF-1709-0021
K-Series Radar and Interconnection Equipment Technician
AF-1715-0212
Navigator Radar Intercept
AF-1606-0045
Radar Fundamentals
CG-1715-0044
MC-1715-0063
Radar Intercept Officer Training
AF-1606-0045
Radar Intercept Officer Training (MG-12/13)
AF-1606-0045
Radar Operator (RADOP) by Correspondence
CG-1715-0074
Radar Theory and Maintenance by Correspondence
CG-1715-0065
Special Training on Radar Bombing Navigation System, AN/APQ-24A
AF-1715-0617

Radarman
Chief Radarman (RDC) by Correspondence
CG-1408-0025
Radarman Class A
CG-1715-0130
Radarman First Class (RD1) by Correspondence
CG-1408-0036
CG-2205-0015
Radarman Second Class (RD2) by Correspondence
CG-2205-0016
CG-2205-0023
Radarman Third Class (RD3) by Correspondence
CG-2205-0017
Radarman, Class A
CG-1715-0017

Radars
AN/SPS-64(V) 1,2,3 Radars
CG-1715-0119
AN/SPS-64(V) 4 Radars
CG-1715-0120
AN/SPS-66 and AN/SPS-66A Radars Class C
CG-1715-0122

Radio
Airborne Radio Maintenance Technician
AF-1715-0067
Airborne Radio Operator/Loadmaster
MC-2204-0019
Airborne Radio Operators
MC-1715-0032
Airborne Radio Repairman
AF-1715-0341
Aircraft Radio Maintenance Technician
AF-1715-0067
Aircraft Radio Repairman
AF-1715-0065
AF-1715-0069
Aircraft Radio Repairman (Command)
AF-1715-0066
Aircraft Radio Repairman (Communications)
AF-1715-0065
Aircraft Radio Repairman (General)
AF-1715-0065
Aircraft Radio Repairman (Navigational)
AF-1715-0069
Antenna Construction and Propagation of Radio Waves by Correspondence
MC-1715-0136
Antenna Construction and Propogation of Radio Waves by Correspondence
MC-1715-0112
Armed Forces Radio Television System Broadcast Manager
DD-0505-0005
Aviation Radio Repair
MC-1715-0011
Aviation Radio Technician
MC-1715-0047
MC-1715-0127
AN/SRC-21 Radio Set
CG-1715-0045
AN/SRC-42(V) Radio Set
CG-1715-0053
AN/URC-9 Radio Set Class C
CG-1715-0121
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058
Basic Radio
MC-1715-0066
Field Radio Operator
MC-1409-0002
Field Radio Systems by Correspondence
MC-1715-0092
Ground Radio Communications Equipment Repairman
AF-1715-0534
Ground Radio Communications Equipment Repairman (Titan II)
AF-1715-0491
Ground Radio Communications Equipment Repairman (WS-133A/B)
AF-1715-0495
Ground Radio Communications Equipment Technician
AF-1715-0088
Ground Radio Communications Specialist by Correspondence
AF-1715-0227
Ground Radio Communications Technician by Correspondence
AF-1715-0465
Ground Radio Officer
AF-1715-0548
Ground Radio Operator by Correspondence
AF-0504-0002
Ground Radio Repair
MC-1715-0009
Ground Radio Repairman
AF-1715-0705
Ground Radio Systems Supervisor/Technician
AF-1715-0577
Ground Radio Technician
MC-1715-0045
HF-UHF Field Radio Equipment by Correspondence
MC-1715-0110
Multichannel Radio Equipment by Correspondence
MC-1715-0107
Radio and Television Production Specialist
DD-0505-0001
Radio Chief
MC-1717-0002
Radio Fundamentals
MC-1715-0010
Radio Relay Equipment Maintenance Technician
AF-1715-0496
Radio Relay Equipment Repairman
AF-1715-0489
Radio Relay Equipment Repairman (EAME)
AF-1715-0494
Radio Relay Equipment Repairman (FPTS)
AF-1715-0079
Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A)
AF-1715-0079
Radio Relay Equipment Repairman

(Microwave and Associated Relay Center Equipment)
AF-1715-0085
Radio Relay Equipment Repairman (Microwave)
AF-1715-0085
Radio Relay Equipment Repairman (Relay Center Equipment)
AF-1715-0107
Radio Relay Equipment Technician
AF-1715-0496
Radio Relay Repair
MC-1715-0008
Radio Technician
MC-1715-0029
MC-1715-0124
Radio Telegraph Operator
MC-1715-0070
The Military Affiliate Radio System (MARS) Operator by Correspondence
MC-1715-0134
VHF (FM) Field Radio Equipment by Correspondence
MC-1715-0108

Radiobeacon
Nautel Radiobeacon Maintenance
CG-1715-0127
Radiobeacon Operation
CG-2205-0006

Radiology
Radiology Specialist
AF-0705-0002
Radiology Technician
AF-0705-0001
Radiology Technician by Correspondence
AF-0705-0003

Radioman
Chief Radioman (RMC) by Correspondence
CG-1408-0026
Radioman
CG-1404-0001
Radioman Class A
CG-1404-0001
Radioman First Class (RM1) by Correspondence
CG-1715-0075
Radioman First Class by Correspondence
CG-1715-0136
Radioman Second Class (RM2) by Correspondence
CG-1404-0002
Reserve Radioman Class C
CG-1715-0067

Radiotelegraph
Radiotelegraph and Visual Communication Procedures by Correspondence
MC-1715-0133

Radiotelephone
Radiotelephone and Alternate Communication Procedures by Correspondence
MC-1715-0137

Ranges
Flight Facilities Equipment Repairman (Ranges and Beacons)
AF-1715-0253

Rate and Track
Automatic Tracking Radar Specialist (Rate and Track Subsystems) (SM-65)
AF-1715-0406

Rawinsonde
Rawinsonde Operation
AF-1304-0005

Real Estate
Real Estate and Cost Management Analysis Specialist
AF-0331-0001
Real Estate—Cost-Management Analysis Specialist
AF-0331-0001

Receiver
AN/ARN-84(V) TACAN Receiver Intermediate Maintenance
MC-1715-0088
AN/SPN-29 Receiver
CG-1715-0006
AN/SPN-30 Receiver
CG-1715-0008

Recipe
Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030

Reciprocating
Aircraft Maintenance Technician, Reciprocating Engine Aircraft
AF-1704-0088
Flight Engineer Specialist, Reciprocating Engine Aircraft
AF-1606-0032
Reciprocating Engine Technician
AF-1704-0049

Reconnaissance
Advanced Navigator Reconnaissance Bombardment
AF-1606-0106
Advanced Observer Reconnaissance Bombardment
AF-1606-0106
Avionic Sensor Systems Specialist (Reconnaissance Electronic Sensors) by Correspondence
AF-1715-0068
Navigator Reconnaissance Upgrading Training (RF-4C)
AF-1606-0090

Records
Aircraft Logs and Records
CG-1405-0005
Engineer Forms and Records by Correspondence
MC-1601-0015
MC-1601-0037
Individual Personnel Records by Correspondence
MC-1403-0016
MC-1406-0019
Personal Financial Records Clerk
MC-1403-0010
Supply Records Supervisor
AF-1405-0021

Recovery
Vehicle Recovery
MC-1703-0026
270' S/S Generator Waste Heat Recovery System and Evaporator Operation and Maintenance
CG-1712-0003
270' WMEC S/S Generator, Waste Heat Recovery System and Evaporator Operation and Maintenance, Class C
CG-1712-0005

Recreation
Apprentice Fitness and Recreation Specialist by Correspondence
AF-1406-0055
Fitness and Recreation Specialist by Correspondence
AF-1406-0056
Fitness and Recreation Supervisor by Correspondence
AF-1406-0057

Recruit
Female Recruit Training
MC-2204-0046
Recruit Training
CG-2205-0011
MC-2204-0038
Recruit Training (Women)
MC-2204-0046

Recruiter
Air National Guard Recruiter
AF-1406-0038
Marine Corps Recruiter
MC-1406-0009
Recruiter
AF-1406-0003
AF-1406-0006
MC-1406-0009
Recruiter Trainer
CG-1406-0007
USAF Recruiter
AF-1406-0006

Recruiting
Recruiting Officer
AF-1406-0037

Redeye
Redeye Gunner—Platoon Training
MC-2204-0012
Redeye Gunner—Platoon Training (Abbreviated Course)
MC-2204-0011
Redeye Gunner/Operator
MC-2204-0012

Reference
DCLF Reference Measurement and Calibration
AF-1715-0493

Refresher
Russian Refresher
DD-0602-0181

Refrigeration
Basic Refrigeration Mechanic
MC-1730-0002
MC-1730-0006
Fundamentals of Refrigeration by Correspondence
MC-1730-0005
Journeyman Refrigeration Mechanic
MC-1730-0004
MC-1730-0007
Refrigeration and Air Condition Technician by Correspondence
AF-1730-0017
Refrigeration and Air Conditioning
CG-1730-0001
Refrigeration and Air Conditioning (Operation and Maintenance)
CG-1701-0001
Refrigeration and Cryogenics Specialist by Correspondence
AF-1730-0016
Refrigeration Mechanic
MC-1730-0002
Refrigeration Mechanic by Correspondence
MC-1730-0003

Refrigeration Servicing by Correspondence
MC-1731-0001
Refrigeration Specialist
MC-1730-0001
Refrigeration/Air Conditioning Operation and Maintenance Class C
CG-1701-0002

Refueler
Semitrailer Refueler Operator
MC-1710-0038

Refueling
Special Vehicle Mechanic (Refueling Vehicles) by Correspondence
AF-1710-0034

Relations
Defense Race Relations Institute
DD-1512-0001
Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence
AF-1406-0053

Relay
Communications and Relay Center Equipment Repairman, Electromechanical
AF-1715-0132
Radio Relay Equipment Maintenance Technician
AF-1715-0496
Radio Relay Equipment Repairman
AF-1715-0489
Radio Relay Equipment Repairman (EAME)
AF-1715-0494
Radio Relay Equipment Repairman (FPTS)
AF-1715-0079
Radio Relay Equipment Repairman (FPTS)(AN/FRC-39 and AN/FRC-39A)
AF-1715-0079
Radio Relay Equipment Repairman (Microwave and Associated Relay Center Equipment)
AF-1715-0085
Radio Relay Equipment Repairman (Microwave)
AF-1715-0085
Radio Relay Equipment Repairman (Relay Center Equipment)
AF-1715-0107
Radio Relay Equipment Technician
AF-1715-0496
Radio Relay Repair
MC-1715-0008
Relays, Generators, Motors and Electromechanical Devices by Correspondence
AF-1714-0032

Reliability
High Reliability Soldering Class C
CG-1710-0012
Reliability
AF-1115-0002
Reliability Maintainability
AF-1115-0003

Remote
Remote Control System Repairman
MC-1715-0072

Repair
Repair Shop Machinist
MC-1723-0006

Reporter
(Legal Services Man/Reporter, Phase I and Phase II)
MC-1728-0004
Basic Legal Clerk and Reporter
MC-1407-0001
Legal Clerk/Court Reporter
MC-1407-0001
Legal Services Man/Reporter, Phase III
MC-1728-0005
Legal Services Reporter SPCM (Closed Microphone)
MC-1728-0005

Reporting
Legal Administration for the Reporting Unit by Correspondence
MC-1406-0024
Personnel Administration for the Reporting Unit by Correspondence.
MC-1406-0026
Personnel Reporting for REMMPS by Correspondence
MC-1406-0027
Position Location Reporting System (PLRS) Capabilities and Employment by Correspondence
MC-1606-0008

Reproduction
Reproduction Equipment Repair
DD-1706-0002
DD-1706-0003

Rescue
Basic Search and Rescue (BASAR) by Correspondence
CG-0802-0009
Basic Search and Rescue (SAR) Aircrewman (ACBSC) by Correspondence
CG-0802-0012
Comprehensive Search and Rescue (SAR) Planning Class C
CG-1722-0011
Fundamental Search and Rescue (SAR) Class C
CG-0802-0003
Rescue Coordination Center for Reservists
CG-0802-0005
Search and Rescue
CG-0802-0003
Search and Rescue (SAR) by Correspondence
CG-0802-0010
Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007
Search and Rescue (SAR) Class C
CG-0802-0003
Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence
CG-0802-0008

Research
Laboratory Management of Research and Development
AF-1408-0058
Research and Development Procurement Officer
AF-1405-0036
AF-1405-0043

Reserve
Command and Staff College Reserve Phase I, Phase II
MC-1408-0015
Damage Controlman (DC) Advanced Reserve Active Duty for Training (AD7) Class C
CG-1710-0015
Electrician Mate Advanced Reserve Active Duty for Training
CG-1714-0020
Information Officer (Reserve Component)
DD-0504-0011
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003
Naval Officer Reserve Officer Training Course (NROTC)
MC-2202-0001
Naval Reserve Officer
MC-2202-0002
Naval Reserve Officer Bulldog
MC-2202-0002
Public Affairs Officer Course (Reserve Component)
DD-0504-0013
Reserve Administration
MC-1406-0022
Reserve Amphibious Warfare Phase I, Phase II
MC-2204-0034
Reserve Automotive Mechanic
MC-1408-0020
Reserve Boatswain's Mate Basic ADT
CG-2205-0022
Reserve Combat Engineer Noncommissioned Officer (NCO)
MC-1601-0030
Reserve Combat Engineer Officer
MC-1601-0029
Reserve Communication Officer Phase I, II, III
MC-1715-0048
Reserve Communication Officer Phase I, Phase II
MC-1715-0048
Reserve Components National Security Seminar
DD-1511-0006
Reserve Engineer Equipment Supervisor
MC-1601-0031
Reserve Enlisted Unit Supply Refresher
MC-1405-0041
Reserve Food Service Refresher
MC-1729-0037
Reserve Microwave Equipment Operator
MC-1715-0126
Reserve Motor Transport Officer Refresher
MC-1703-0029
Reserve Officer Candidate Indoctrination
CG-2202-0004
Reserve Officer Leadership and Management
CG-1717-0008
Reserve Officer, Chief Leadership and Management
CG-1717-0004
Reserve Personnel Administration by Correspondence
MC-1406-0015
Reserve Petty Officer Leadership and Management
CG-1717-0002
Reserve Radioman Class C
CG-1715-0067
Reserve Senior Petty Officer Leadership and Management
CG-1717-0007

Reserve Small Boat Coxswain ADT
CG-2205-0021
Reserve Small Boat Crewmember
CG-2205-0027
Reserve Special Investigations and Counterintelligence Training (Reserve Refresher)
AF-1728-0005
Reserve Special Investigator
AF-1728-0006
Reserve Staff Noncommissioned Officer (NCO) Academy
MC-2204-0053
Reserve Storekeeper, Basic
CG-1405-0007
Reserve Supply Officer Refresher
MC-1405-0042
Reserve Unit Supply Refresher
MC-1405-0043
Reserve Warrant Officer Basic
MC-2204-0082
Reserve Yeoman Basic
CG-1409-0004
Resident Staff Noncommissioned Officer (NCO) Career Reserve
MC-2204-0071
Resident Staff Noncommissioned Officer Advanced (Reserve)
MC-2204-0072
Staff Noncommissioned Officer (NCO) Academy Reserve
MC-2204-0053
The Reserve Field Food Service Supervisor by Correspondence
MC-1729-0042

Reserves
General Personnel Administration for Reserves by Correspondence
MC-1406-0025

Reservists
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists
MC-0803-0003
Rescue Coordination Center for Reservists
CG-0802-0005
RCC Reservists
CG-0802-0005

Resident
Resident Instruction Team Staff Noncommissioned Officer (NCO) Career
MC-2204-0073
Resident Staff Noncommissioned Officer (NCO) Advanced
MC-2201-0072
Resident Staff Noncommissioned Officer (NCO) Career (Regular)
MC-2204-0074
Resident Staff Noncommissioned Officer (NCO) Career Reserve
MC-2204-0071
Resident Staff Noncommissioned Officer Advanced (Reserve)
MC-2204-0072

Resource
Apprentice Operations Resource Management Specialist by Correspondence
AF-1402-0073
Operations Resource Management by Correspondence
AF-1408-0095
Resource Advisor by Correspondence
AF-1408-0093

Restaurant
Marine Corps Club and Mess Restaurant Operations by Correpondence
MC-1729-0020

Revolver
Pistol and Revolver Preventive and Corrective Maintenance by Correspondence
MC-2204-0067

Rifle
Tactics of the Marine Rifle Squad by Correspondence
MC-2204-0068

Rifleman
Basic Rifleman
MC-2204-0051
Rifleman
MC-2204-0051

Rock
Mountain Operations (Rock Climbing)
MC-0803-0005

Romanian
Romanian Aural Comprehension
DD-0602-0146
Romanian Basic
DD-0602-0090
DD-0602-0110
DD-0602-0225
Romanian Intermediate
DD-0602-0175
Short Basic Romanian
DD-0602-0161

Rotary
Aviation Electrician's Mate (AE) Class A Rotary Wing Training
CG-1704-0025
Aviation Machinist's Mate (AD) Rotary Wing Class A
CG-1704-0023

Rotor
Helicopter Mechanic (Fully Articulated Rotor) by Correspondence
AF-1704-0207
Helicopter Mechanic (Semirigid Rotor) by Correspondence
AF-1704-0208
Helicopter Technician (Fully Articulated Rotor) by Correspondence
AF-1704-0212
Helicopter Technician (Semirigid Rotor) by Correspondence
AF-1704-0213

Rubber
Fabric and Rubber Products Specialist
AF-1716-0001
Fabric, Leather and Rubber Products Repairman
AF-1716-0001

Rumanian
Rumanian
DD-0602-0008
DD-0602-0043

Rundi
Rundi
DD-0602-0003

Russian
Basic Russian—Refresher
DD-0602-0041
Extended or Basic-Intermediate Russian
DD-0602-0169
Russian
DD-0602-0009
DD-0602-0044
Russian Advanced
DD-0602-0128
DD-0602-0180
Russian Aural Comprehension
DD-0602-0017
Russian Basic
DD-0602-0067
DD-0602-0091
DD-0602-0113
DD-0602-0227
Russian Extended
DD-0602-0115
Russian Intensive
DD-0602-0187
Russian Intermediate
DD-0602-0123
DD-0602-0176
Russian Refresher
DD-0602-0181
Russian Stenotype Aural Comprehension
DD-0602-0147
Scientific Russian
DD-0602-0038

RD-358
RD-358 Magnetic Tape Subsystem Accelerated
MC-1715-0084

RF-4
RF-4 Fighter Weapons Instructor
AF-1606-0152

RF-4C
Aircraft Inertial and Radar Navigation Systems Repairman (RF-4C Supplement)
AF-1715-0022
Navigator Reconnaissance Upgrading Training (RF-4C)
AF-1606-0090

RIGS
Guidance and Control Officer (RIGS) (HGM-25A)
AF-1715-0672
Guidance and Control Officer (RIGS) (SM-68A)
AF-1715-0672
Guidance Control Officer (RIGS) (SM-68)
AF-1715-0672

Safety
Air Force Joint Service Supervisor Safety by Correspondence
AF-0801-0001
Air Launched Missile Safety Officer
AF-0802-0009
Air Launched Missile Safety Technician
AF-0802-0011
Army Joint Service Supervisor Safety by Correspondence
AF-0801-0002
Ballistic Missile Safety
AF-0802-0008
Boating Safety by Correspondence
CG-0802-0001
Civil Air Patrol-Safety Officer (Level II Technical Rating) by Correspondence
AF-0801-0005
Coast Guard Joint Service Supervisor Safety by Correspondence
AF-0801-0004
General Safety Specialist
AF-0802-0016
Ground Safety Specialist
AF-0802-0016
Marine Safety Basic Indoctrination
CG-0802-0002

Marine Safety Explosive Handling Supervisor
CG-0802-0015
Marine Safety Petty Officer
CG-1728-0018
CG-1728-0030
Merchant Marine Safety
CG-0802-0002
Merchant Marine Safety Indoctrination School
CG-0419-0001
Missile Safety Technician
AF-0802-0007
National Boating Safety
CG-0802-0004
CG-0802-0014
Navy Joint Service Supervisor Safety by Correspondence
AF-0801-0003
Port Safety and Security Enlisted
CG-1728-0016
Port Safety/Security Officer Core
CG-1728-0015
Port Security and Safety Officer
CG-1728-0029
Port Security Safety Enlisted
CG-1728-0027
Safety and Security of the Port (PSGEN) by Correspondence
CG-0802-0011
Safety Specialist by Correspondence
AF-0802-0029
Water Safety/Survival Instructor
MC-0803-0002

Salads
Salads. Sandwiches, and Desserts by Correspondence
MC-1729-0022

Sandwiches
Salads. Sandwiches, and Desserts by Correspondence
MC-1729-0022

Sanitary
Military Aspects of Sanitary and Industrial Hygiene Engineering
AF-0707-0001

Sanitation
Dining Facility Sanitation by Correspondence
MC-1729-0025
Mess Hall Sanitation by Correspondence
MC-1729-0039

Sauces
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence
MC-1729-0024

Scanner
Civil Air Patrol Scanner by Correspondence
AF-1704-0194

Scheduling
Maintenance Scheduling Specialist by Correspondence
AF-1408-0070
Maintenance Scheduling Specialists by Correspondence
AF-1715-0135

Science
Air National Guard Academy of Military Science
AF-2203-0051
Chief Marine Science Technician (MSTC) by Correspondence
CG-1408-0023
Class A Marine Science Technician
CG-1304-0001
Marine Science Technician
CG-1304-0001
Marine Science Technician First Class (MST1) by Correspondence
CG-1304-0015
Marine Science Technician A
CG-1304-0001
Marine Science Technician Class A
CG-1304-0001
CG-1304-0017
Marine Science Technician First Class by Correspondence
CG-1304-0018
Marine Science Technician Second Class (MST2) by Correspondence
CG-1304-0016
Marine Science Technician Second Class by Correspondence
CG-1304-0003

Scientific
Scientific Russian
DD-0602-0038

Scout
Artillery Scout Observer
MC-2204-0032

Sea
Sea Duty Indoctrination
MC-2204-0014
Sea School
MC-2204-0014

Seaman
Seaman (SN-9) by Correspondence
CG-1708-0009

Seamanship
Deck Seamanship (DKSNS) by Correspondence
CG-1708-0010
Officer Candidate School (Seamanship, Orientation, Operations and Military Indoctrination)
CG-2202-0001

Search
Basic Search and Rescue (BASAR) by Correspondence
CG-0802-0009
Basic Search and Rescue (SAR) Aircrewman (ACBSC) by Correspondence
CG-0802-0012
Coastal Search Planning Class C
CG-1722-0005
CG-1722-0010
Comprehensive Search and Rescue (SAR) Planning Class C
CG-1722-0011
Fundamental Search and Rescue (SAR) Class C
CG-0802-0003
Search and Rescue
CG-0802-0003
Search and Rescue (SAR) by Correspondence
CG-0802-0010
Search and Rescue (SAR) Aircrew HU-25A Avionicsman (ACH25A) by Correspondence
CG-0802-0007
Search and Rescue (SAR) Class C
CG-0802-0003
Search and Rescue (SAR) HU-25A Basic Aircrew (ACG25B) by Correspondence
CG-0802-0008

Security
Chief Port Security (PSC) by Correspondence
CG-1408-0020
Communication Security by Correspondence
MC-1715-0109
Defense Security Assistance Management Core
DD-1408-0001
Defense Security Assistance Management Overseas
DD-0327-0001
Industrial Security Specialist
DD-1728-0001
Information Security Management
DD-1728-0002
Marine Security Guard
MC-1728-0001
MC-1728-0006
National Communications Security (COMSEC)
DD-1404-0004
National Security Management (Correspondence/Nonresident/Seminar Course of the National Defense University)
DD-1511-0001
Port Physical Security Management
CG-1728-0026
Port Physical Security Practical
CG-1728-0025
Port Safety and Security Enlisted
CG-1728-0016
Port Safety/Security Officer Core
CG-1728-0015
Port Security and Safety Officer
CG-1728-0029
Port Security Basic (PSB) by Correspondence
CG-1728-0011
Port Security Safety Enlisted
CG-1728-0027
Port Security School
CG-1728-0004
Port Security Second Class (PS2) by Correspondence
CG-1728-0011
Port Security/Law Enforcement Enlisted
CG-1728-0002
Port Security/Law Enforcement Officer
CG-1728-0001
Reserve Components National Security Seminar
DD-1511-0006
Safety and Security of the Port (PSGEN) by Correspondence
CG-0802-0011
Security Police Administration
AF-1728-0016
Security Police Officer
AF-1728-0018
Security Police Staff Officer
AF-1728-0007
Security Police Supervisor
AF-1728-0028
Security Policeman
AF-1728-0019
Security Specialist
AF-1728-0008
Security Specialist by Correspondence
AF-1728-0002
AF-1728-0045
Security Supervisor by Correspondence
AF-1728-0003

Securityman
Port Securityman First Class (PS1) by Correspondence
CG-1728-0010
Port Securityman Third Class (PS3) by Correspondence
CG-1728-0009

Self-Propelled
Self-Propelled Vehicle Repairman
MC-1703-0006
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic
MC-1703-0006
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006

Seminar
Air Command and Staff Nonresident Seminar Program
AF-1511-0002
Air War College Nonresident Seminar Program
AF-1511-0004
Associate Air War College Nonresident Seminar Program
AF-1511-0004
National Security Management (Correspondence/Nonresident/Seminar Course of the National Defense University)
DD-1511-0001

Semitrailer
Semitrailer Refueler Operator
MC-1710-0038

Senca
Loran Track #1 for Lorstas, Malone, Senca
CG-1715-0092

Senior
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003
National Senior Cryptologic
DD-1404-0003
National Senior Intelligence
DD-1606-0001
Noncommissioned Officers (NCO) Leadership (Senior)
MC-2204-0015
Platoon Leaders (Combined Junior/Senior)
MC-2204-0050
Platoon Leaders Class (Senior)
MC-2204-0040
Platoon Leaders Senior
MC-2204-0078
Reserve Senior Petty Officer Leadership and Management
CG-1717-0007
Senior Clerk
MC-1403-0012
MC-1403-0015
Senior Course
MC-1408-0008
MC-1408-0011
Senior Enlisted Supply
MC-1405-0014
Senior Military Cryptologic Supervisors
DD-1404-0001
Senior Noncommissioned Officer (NCO) Academy
AF-2203-0009
Senior Officer Leadership and Management (SOLAM)
CG-1717-0005
Senior Petty Officer Leadership and Management
CG-1717-0001
CG-1717-0010
Senior School
MC-1408-0008
Women Officers Training (Senior)
MC-2204-0003

Sensor
Aircraft Sensor Systems Repairman (Electronic Sensors)
AF-1715-0479
Avionic Sensor Systems Specialist (Electro-Optical Sensors)
AF-1715-0478
Avionic Sensor Systems Specialist (Electro-Optical Sensors) by Correspondence
AF-1715-0071
Avionic Sensor Systems Specialist (Electronic Sensors)
AF-1715-0475
Avionic Sensor Systems Specialist (Reconnaissance Electronic Sensors) by Correspondence
AF-1715-0068
Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence
AF-1715-0070
Defense Sensor Interpretation and Applications Training (DSIAT) (Airman)
AF-1606-0051

Serbo-Croatian
Serbo-Croatian
DD-0602-0009
DD-0602-0044
Serbo-Croatian Aural Comprehension
DD-0602-0148
Serbo-Croatian Basic
DD-0602-0068
DD-0602-0114
Serbo-Croatian Intermediate
DD-0602-0177

Sergeant
First Sergeant by Correspondence
AF-2203-0052

Sergeants
First Sergeants Personnel Administration
MC-1406-0005
Sergeants Major Personnel Administration
MC-1406-0004

Serology
Medical Laboratory Technician (Hematology, Serology, Blood Banking and Immunohematology) by Correspondence
AF-0709-0031

Service
Air Force Joint Service Supervisor Safety by Correspondence
AF-0801-0001
Army Joint Service Supervisor Safety by Correspondence
AF-0801-0002
Coast Guard Joint Service Supervisor Safety by Correspondence
AF-0801-0004
Food Service Fundamentals by Correspondence
MC-1729-0038
Food Service Noncommissioned Officer (NCO)
MC-1729-0034
Food Service Staff Noncommissioned Officer (NCO)
MC-1729-0036
Navy Joint Service Supervisor Safety by Correspondence
AF-0801-0003
Reserve Food Service Refresher
MC-1729-0037
The Reserve Field Food Service Supervisor by Correspondence
MC-1729-0042

Services
Apprentice Services Specialist by Correspondence
AF-1729-0013
Financial Management/Services Supervisor (Functions and Responsibilities) by Correspondence
AF-1408-0082
Financial Services Specialist (Travel) by Correspondence
AF-1408-0080
Financial Services Specialist by Correspondence
AF-1408-0078
Legal Services Specialist by Correspondence
AF-1406-0047
Marine Corps Special Services Training
MC-0804-0001
Services Specialist by Correspondence
AF-1729-0014
Services Supervisor by Correspondence
AF-0419-0028
Special Services Officer
AF-1408-0064

Sewage
Plumbing and Sewage Disposal by Correspondence
MC-1710-0005
MC-1710-0031

Shipboard
Shipboard Information Training and Entertainment (SITE) System
DD-0504-0012
Shipboard Information, Training and Entertainment (SITE) System Operators
DD-0504-0010
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)
DD-0504-0010

Shiphandling
Shiphandling (SPHNG) by Correspondence
CG-1708-0013

Shipment
Mechanization of Warehousing and Shipment Process (MOWASP) by Correspondence
MC-1405-0022

Shop
Basic Shop Fundamentals for the Mechanic by Correspondence
MC-1717-0005
Propulsion Shop Management
AF-1717-0001

Shore
Shore Party Basic Specialist
MC-1710-0017

Shore Party Man
MC-2204-0029
Shore Structure Maintenance by Correspondence
CG-1710-0005

Short Basic
Short Basic Arabic
DD-0602-0034
Short Basic French
DD-0602-0152
Short Basic German
DD-0602-0153
Short Basic Greek
DD-0602-0154
Short Basic Indonesian
DD-0602-0155
Short Basic Italian
DD-0602-0156
Short Basic Japanese
DD-0602-0157
Short Basic Korean
DD-0602-0158
Short Basic Persian
DD-0602-0159
Short Basic Portuguese
DD-0602-0160
Short Basic Romanian
DD-0602-0161
Short Basic Spanish
DD-0602-0162
Short Basic Thai
DD-0602-0163
Short Basic Turkish
DD-0602-0042
DD-0602-0164
Short Basic Vietnamese—Saigon
DD-0602-0165
Short Basic Vietnamese—Saigon Dialect
DD-0602-0192

Sideband
Single Sideband System Maintenance
AF-1715-0039

Simulator
Flight Simulator Fundamentals
AF-1715-0706
Flight Simulator Specialist
AF-1715-0706
Flight Simulator Technician
AF-1715-0573

Single
Single Sideband System Maintenance
AF-1715-0039

Sinhala
Sinhala
DD-0602-0009

Site
Site Development Specialist
AF-1601-0041

Skiing
Mountain Operations (Military Skiing)
MC-0803-0004

Slovenian
Slovenian Basic
DD-0602-0103

Small
Reserve Small Boat Coxswain ADT
CG-2205-0021
Reserve Small Boat Crewmember
CG-2205-0027
Small Arms Instructor
CG-1408-0041
CG-2205-0007
Small Arms Specialist
AF-2203-0001
Small Boat Crewmember
CG-2205-0027
Small Boat Engineering
CG-1714-0019
Small Cutter Damage Control
CG-0801-0001
Small Missile Systems
MC-1715-0115

Social
Social Actions Technician (Drugs/Alcohol) by Correspondence
AF-1406-0054
Social Actions Technician (Equal Opportunity/Human Relations) by Correspondence
AF-1406-0053

Solar
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance
CG-1710-0007

Soldering
Soldering and Electrical Connectors by Correspondence
AF-1714-0033

Solid State
AN/FPN-64(V) Loran Solid State Transmitter Class C
CG-1715-0123
Fundamentals of Solid State Devices by Correspondence
AF-1715-0750
Solid State Devices and Digital Techniques
AF-1715-0042
AF-1715-0044
Solid State Devices by Correspondence
MC-1715-0132

Sonar
Sonar AN/SQS-53 Maintenance
AF-1715-0276
Sonar Technician Chief (STC) by Correspondence
CG-1408-0011
CG-1408-0039
Sonar Technician First Class by Correspondence
CG-1715-0034
Sonar Technician Second Class (ST2) by Correspondence
CG-1715-0133
Sonar Technician Second Class by Correspondence
CG-1715-0033

Sound
Sound and Picture Editing Specialist
AF-1709-0011
Sound Equipment Repair
MC-1715-0014
MC-1715-0042

Soups
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence
MC-1729-0024

Space
Space Communications Systems Equipment by Correspondence
AF-1715-0014
Space Communications Systems Equipment Operator/Specialist
AF-1715-0480
Space Communications Systems Equipment Operator/Technician by Correspondence
AF-1715-0021
Space Systems Analyst
AF-1303-0001
Space Systems Equipment Maintenance Specialist by Correspondence
AF-1715-0036
Space Systems Operations Specialist by Correspondence
AF-1715-0755

Spanish
Short Basic Spanish
DD-0602-0162
Spanish
DD-0602-0003
DD-0602-0006
DD-0602-0008
Spanish Aural Comprehension
DD-0602-0149
Spanish Basic
DD-0602-0069
DD-0602-0133
DD-0602-0222
Spanish Intensive
DD-0602-0188
Spanish Intermediate
DD-0602-0124
DD-0602-0178
DD-0602-0218

Special
Arabic-Egyptian Special
DD-0602-0208
Arabic-Iraqi Special
DD-0602-0207
Arabic-Syrian Special
DD-0602-0206
Marine Corps Special Services Training
MC-0804-0001
Special Investigations and Counterintelligence Officer
AF-1728-0020
Special Investigations and Counterintelligence Specialist
AF-1728-0020
Special Investigators
AF-1728-0020
Special Mess Leadership Training
MC-1729-0019
Special Operations Training, AC-130E Pilots
AF-1606-0020
Special Purpose Vehicle and Equipment Mechanic by Correspondence
AF-1710-0032
Special Services Officer
AF-1408-0064
Special Vehicle Mechanic (Refueling Vehicles) by Correspondence
AF-1710-0034

Specialist
Surgical Service Specialist by Correspondence
AF-0703-0015

Specification
IDHS 1410 FFS Operations and Specifications II
AF-1402-0043

Splicing
Cable Splicing Installation and Maintenance Specialist by Correspondence
AF-1715-0126

Sprinklers
20mm Mk 16 MOD 5 Machine Gun and Magazine Sprinklers Operation and

Maintenance Class C
CG-2204-0001

Squadron
Squadron Officer Course
AF-2203-0041
Squadron Officer School
AF-2203-0041
Squadron Officer School Correspondence Program
AF-2203-0035

Stability
Damage Control and Stability (DCS) by Correspondence
CG-2205-0012
Damage Control and Stability (DCS) By Correspondence
CG-2205-0024

Stabilization
HH-52A Automatic Stabilization Equipment (ASE) and Selected Electrical Maintenance
CG-1704-0030

Staff
Air Command and Staff Associate Correspondence Program
AF-1511-0003
Air Command and Staff Associate Program
AF-1511-0002
Air Command and Staff College
AF-1511-0001
Air Command and Staff Correspondence Program
AF-1511-0003
Air Command and Staff Nonresident Seminar Program
AF-1511-0002
Armed Forces Staff College
DD-0326-0001
Command and Staff College
AF-1511-0001
Command and Staff College Reserve Phase I, Phase II
MC-1408-0015
Command and Staff Course
AF-1511-0001
Command and Staff School
AF-1511-0001
Food Service Staff Noncommissioned Officer (NCO)
MC-1729-0036
Marine Corps Command and Staff College
MC-1408-0008
MC-1408-0017
Marine Corps Command Staff College
MC-1408-0008
Reserve Staff Noncommissioned Officer (NCO) Academy
MC-2204-0053
Resident Instruction Team Staff Noncommissioned Officer (NCO) Career
MC-2204-0073
Resident Staff Noncommissioned Officer (NCO) Advanced
MC-2201-0072
Resident Staff Noncommissioned Officer (NCO) Career
MC-1408-0014
Resident Staff Noncommissioned Officer (NCO) Career (Regular)
MC-2204-0074
Resident Staff Noncommissioned Officer (NCO) Career Reserve
MC-2204-0071
Resident Staff Noncommissioned Officer Advanced (Reserve)
MC-2204-0072
Staff Noncommissioned Officer (NCO) Academy Reserve
MC-2204-0053
Staff Noncommissioned Officer (NCO) Advanced
MC-2204-0076
Staff Noncommissioned Officers (NCO) Resident Course
MC-1408-0014
Staff Support Administration Specialist by Correspondence
AF-1403-0003
Supply Management Staff Officer
AF-1405-0052
Supply Staff Officer
AF-1405-0052

Station
Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0086
Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence
AF-1715-0084
Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0087
Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence
AF-1715-0092
Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence
AF-1715-0093
Integrated Avionics Manual Test Station and Component Specialist by Correspondence
AF-1715-0083

Statistical
Statistical Services Officer
AF-1402-0001
Statistical Services Supervisor
AF-1408-0015
Statistical Specialist
AF-1115-0006

Statistics
Data Systems and Statistics Officer
AF-1402-0001

Steel
Steel Welding Class C
CG-1710-0017

Steward
Steward
MC-1729-0014

Stewards
Advanced Stewards
MC-1729-0002

Still
Combat Still Photographer, Operator
AF-1709-0002
Still Photo Journalism
AF-1709-0004
Still Photographer
AF-1709-0010
Still Photographic Camera Specialist
AF-1709-0020
Still Photographic Laboratory Specialist
AF-1709-0018
Still Photographic Officer
AF-1709-0026
Still Photojournalism
AF-1709-0004

Stock
Basic Supply Stock Control
MC-1405-0012
MC-1405-0035
Marine Corps Stock Lists by Correspondence
MC-1405-0029

Storage
Food Inspection and Storage, Recipe Conversion, and the Cook's Worksheet by Correspondence
MC-1729-0030
Multiple Virtual Storage (MVS) Diagnostics
MC-1402-0053
Multiple Virtual Storage (MVS) Fundamentals and Logic
MC-1402-0052
Multiple Virtual Storage (MVS) Performance and Training
MC-1402-0054

Store
Store and Forward Communications System Computer Programmer
AF-1402-0018
AF-1402-0057

Storekeeper
Chief Storekeeper (SKC) by Correspondence
CG-1408-0019
Reserve Storekeeper, Basic
CG-1405-0007
Storekeeper First Class (SK1) by Correspondence
CG-1405-0003
Storekeeper Second Class (SK2) by Correspondence
CG-1405-0004
Storekeeper Third Class (SK3) by Correspondence
CG-1405-0002
Storekeeper, Class A
CG-1405-0006
CG-1409-0002

Strategic
Strategic Aircraft Maintenance Specialist by Correspondence
AF-1704-0181
AF-1704-0188
AF-1704-0209
AF-1704-0210
AF-1704-0211
AF-1704-0247

Stripping
Lithographic Stripping and Platemaking
DD-1719-0001

Structural
Aviation Structural Mechanic (AM) Class A
CG-1704-0027
Aviation Structural Mechanic, First Class, by Correspondence
CG-1704-0015
Aviation Structural Mechanic, Second Class, by Correspondence
CG-1704-0013
Chief Aviation Structural Mechanic (AMC) by Correspondence
CG-1408-0030

Structural Maintenance Technician by Correspondence AF-1704-0250
Structural Technician by Correspondence AF-1601-0049

Structure
Shore Structure Maintenance by Correspondence CG-1710-0005

Subscriber
Digital Subscriber Terminal Maintenance AF-1715-0119

Subsistence
Apprentice Subsistence Operations Specialist by Correspondence AF-1729-0015
Chief Subsistence Specialist (SSC) by Correspondence CG-1408-0033
Subsistence Operations Specialist by Correspondence AF-1729-0016
Subsistence Operations Technician by Correspondence AF-1729-0017
Subsistence Specialist CG-1729-0002
Subsistence Specialist, Class A CG-1729-0002
CG-1729-0007
Subsistence Specialist, Class C CG-1729-0003
Subsistence Specialist, Independent Duty CG-1729-0009
Subsistence Specialist, Large Mess Management CG-1729-0008
Subsistence Supply MC-1401-0007
Subsistence Supply Man MC-1401-0001
The Mess Hall Subsistence Clerk by Correspondence MC-1729-0040

Summer
Mountain Leadership Training, Summer MC-2204-0007

Supervision
Management/Supervision of a Data Processing Installation (DPI) AF-1402-0038

Supervisor
Computer Operations Supervisor by Correspondence AF-1402-0068
Financial Management Supervisor by Correspondence AF-1408-0081
Financial Management/Services Supervisor by Correspondence AF-1408-0081
Public Affairs Supervisor DD-0504-0014
Services Supervisor by Correspondence AF-0419-0028
Traffic Management Supervisor by Correspondence AF-0419-0030

Supervisor's
USAF Supervisor's by Correspondence AF-1406-0060

Supervisors
Cryptologic Course for Service Supervisors DD-1404-0005

Supplies
Power Supplies by Correspondence AF-1715-0752

Supply
Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II) AF-1401-0016
Advanced Supply Administration MC-1405-0005
Advanced Supply Officer AF-1405-0052
Aviation Supply Enlisted MC-1405-0001
Aviation Supply Officer MC-1405-0018
Base Supply Management AF-1405-0001
Basic Supply Administration MC-1405-0004
Basic Supply Administration (Mechanized) MC-1405-0005
MC-1405-0008
Basic Supply Fundamentals (Manual) MC-1405-0004
Basic Supply Stock Control MC-1405-0012
MC-1405-0035
Chief of Supply Management AF-1405-0040
Enlisted Supply Advanced MC-1405-0037
Enlisted Supply Basic MC-1405-0035
Enlisted Supply Independent Duty MC-1405-0040
Enlisted Supply Intermediate MC-1405-0039
Enlisted Supply Reorientation MC-1405-0037
Fuel Supply Officer AF-1405-0034
Ground Supply Officer MC-1405-0038
Ground Supply Officer Leadership MC-1401-0002
Marine Corps Integrated Maintenance Management System (MIMMS) Procedures for the Supply Clerk by Correspondence MC-1405-0028
Medical Supply Officer AF-1405-0006
Reserve Enlisted Unit Supply Refresher MC-1405-0041
Reserve Supply Officer Refresher MC-1405-0042
Reserve Unit Supply Refresher MC-1405-0043
Senior Enlisted Supply MC-1405-0014
Special Supply Orientation MC-1405-0010
Subsistence Supply MC-1401-0007
Subsistence Supply Man MC-1401-0001
Supply Administration MC-1405-0005
Supply Chief Leadership MC-1405-0011
Supply Computer System Specialist AF-1402-0005
Supply Management by Correspondence MC-1405-0027
Supply Management Staff Officer AF-1405-0052
Supply Noncommissioned Officer (NCO) Leadership MC-1405-0006
Supply Officer AF-1405-0008
AF-1405-0052
Supply Operations Officer AF-1405-0008
Supply Records Supervisor AF-1405-0021
Supply Services Supervisor AF-0332-0001
Supply Staff Officer AF-1405-0052
Supply Systems Analysis Supervisor by Correspondencee AF-1405-0066
Supply Systems Specialist AF-1402-0005
Supported Activities Supply System (SASSY) Management Unit by Correspondence MC-1405-0026
Supported Activities Supply System (SASSY) Organic Procedures by Correspondence MC-1405-0024
Unit Supply Officer MC-1405-0017

Support
Aircrew Life Support Specialist by Correspondence AF-1704-0199
AN/ALE-41 Dispensing System and Associated Peculiar Ground Support Equipment Intermediate Maintenance MC-1715-0087
Basic Landing Support Specialist MC-2204-0069
Communications for the Combat Operations Center/Fire Support Coordination Center (COC/FSCC) by Correspondence MC-1715-0101
Staff Support Administration Specialist by Correspondence AF-1403-0003

Supported
Supported Activities Supply System (SASSY) Management Unit by Correspondence MC-1405-0026
Supported Activities Supply System (SASSY) Organic Procedures by Correspondence MC-1405-0024

Surface
Surface Transportation Officer AF-0419-0005

Surgical
Ophthalmology Surgical Technician AF-0706-0001
Surgical Service Specialist by Correspondence AF-0703-0015

Survey
Advanced Geodetic Survey DD-1601-0014
DD-1601-0022
Artillery Survey for the Fire Control Man by Correspondence MC-1601-0021

Artillery Survey Instruments by Correspondence
MC-1601-0032
Basic Geodetic Survey
DD-1601-0010
Basic Geodetic Surveying
DD-1601-0010
Construction Survey
DD-1601-0024
Geodetic Surveying
DD-1601-0010
Hydrographic Survey
DD-1722-0001
Introduction to Field Artillery Survey by Correspondence
MC-1601-0039
Optical Survey Instrument Repair
DD-1721-0001

Surveying
Advanced Geodetic Surveying
DD-1601-0003
Basic Geodetic Surveying
DD-1601-0010
Construction Surveying
DD-1601-0008
Geodetic Surveying
DD-1601-0002
DD-1601-0010

Survival
Advanced Survival Training
AF-0803-0003
Evasion, Escape and Survival Training
MC-0802-0002
Survival Instructor Training
AF-0802-0018
Survival Training
AF-0803-0003
Survival Training (SEA)
AF-0803-0003
Survival, Evasion, Resistance to Interrogation and Escape (SERE)
MC-0802-0002
USAF Combat Survival Training
AF-0803-0003
Water Safety/Survival Instructor
MC-0803-0002

Survivalman
Aviation Survivalman Class A
CG-1702-0001
Aviation Survivalman, First Class, by Correspondence
CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence
CG-1704-0018
Chief Aviation Survivalman (ASMC) by Correspondence
CG-1408-0027

Swahili
Swahili
DD-0602-0008
DD-0602-0010
DD-0602-0047
Swahili Basic
DD-0602-0104

Swedish
Swedish
DD-0602-0006
DD-0602-0008
Swedish Basic
DD-0602-0070
DD-0602-0093
DD-0602-0131

Switchboard
Field Switchboard Operations and Installation by Correspondence
MC-1715-0097
Telephone/Switchboard Repair
MC-1715-0073
MC-1715-0121

Switching
Automatic Digital Switching Technician
AF-1402-0020
Automatic Teletype and Electronic Switching Systems Repairman
AF-1715-0102
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127
Telephone Switching Equipment Specialist (Combat Operations Support)
AF-1715-0713

Synchronizer
AN/FPN-38 Timer Synchronizer
CG-1715-0004

Syrian
Arabic (Egyptian, Syrian, Iraqi) Basic
DD-0602-0026
Arabic—Egyptian/Syrian Intermediate
DD-0602-0023
Arabic-Syrian Extended
DD-0602-0210
Arabic-Syrian Special
DD-0602-0206

System
System Engineering
MC-1402-0002
System Program Management
AF-1408-0060

System 360
IBM System 360 (DOS) COBOL Programming
MC-1402-0011
IBM System 360 (OS) Advanced Coding
MC-1402-0037
IBM System 360 (OS) Advanced Operations Techniques
MC-1402-0022
IBM System 360 (OS) Advanced Programming Techniques)
MC-1402-0024
IBM System 360 (OS) COBOL Programming
MC-1402-0013
MC-1402-0036
IBM System 360 (OS) Data Control Techniques
MC-1402-0042
IBM System 360 (OS) Data Management
MC-1402-0039
IBM System 360 (OS) Systems Programmer
MC-1402-0041
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
IBM System 360 Operating System (OS) Operations
MC-1402-0023
IBM System 360 OS Assembler Language
MC-1402-0031
IBM System 360 OS FORTRAN IV Language (Entry-level)
MC-1402-0043
IBM System 360 OS FORTRAN Programming
MC-1402-0034
IBM System 360 OS Programming
MC-1402-0030
IBM System 360 OS PL/1 Programming
MC-1402-0035
IBM System 360 OS System Control
MC-1402-0033
IBM System 360 OS System Control and Data Management
MC-1402-0038
IBM System 360 OS Systems Programming
MC-1402-0032
System 360 Operating System—Assembler Language Programming Phase
MC-1402-0008
System 360 Operating System—Core Phase
MC-1402-0005
System 360 Operating System—COBOL Programming Phase
MC-1402-0007
System 360 Operating System—Operations Phase
MC-1402-0006
System 360 Operating System—1401 Programming
MC-1402-0009

Systems
Advanced Systems Buying
AF-1408-0025
Automated Systems Analyst (Management Support Systems)
AF-1402-0064
Computer Systems Analyst
AF-1402-0003
Systems Analysis and Design
MC-1402-0003
Systems Analysis and Design (Functional)
MC-1402-0010
Systems Analysis and Design (Orientation) I
MC-1402-0048
Systems Analysis and Design (Orientation) I The Domain of the Problem
MC-1402-0048
Systems Analysis and Design (Orientation) II
MC-1402-0049
Systems Analysis and Design (Orientation) II The Domain of the Solution
MC-1402-0049
Systems Procurement Officer
AF-1405-0016
AF-1405-0017
AF-1405-0037
Systems Programming
MC-1402-0015

SAC
Pilot Advanced Flying (TH-1F) SAC
AF-1606-0139

SACCS
Electronic Digital Data Processing Repairman (Display Equipment/SACCS)
AF-1715-0441

SAGE
Computer Systems Programming Officer, SAGE
AF-1402-0032
Electric Digital Computer Repairman (SAGE AN/FSQ-7)
AF-1715-0058

Electronic Computer Repairman (SAGE AN/FSQ-7) AF-1715-0058

Electronic Computer Systems Repairman (FSQ-7/SAGE) AF-1715-0058

SAGE Computer Programmer AF-1402-0030

SASSY

SASSY: Organic Procedures by Correspondence MC-1405-0044

SCANDATA

SCANDATA Programming MC-1402-0046

SEA

Intelligence Area Studies (SEA) AF-1601-0042

SITE

Shipboard Information, Training and Entertainment (SITE) System Operators DD-0504-0010

Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat) DD-0504-0010

SM-65

Automatic Tracking Radar Specialist (Rate and Track Subsystems) (SM-65) AF-1715-0406

Control Systems Mechanic (SM-65, 68) AF-1715-0506

Guidance Systems Mechanic (SM-65, 68) AF-1715-0508

Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68 AF-1601-0045

SM-65D

Electronic Digital Data Processing Equipment Repairman (Ballistic Missile Guidance Computer) (SM-65D) AF-1715-0701

Missile Launch/Missile Officer (SM-65D) AF-1715-0715

SM-65E

Missile Launch/Missile Officer (SM-65E) AF-1715-0651

SM-65F

Electrician/Supervisor (SM-65F) AF-1715-0312

SM-68

Electrician/Supervisor (SM-68) AF-1715-0307

Guidance and Control Officer (RIGS) (SM-68A) AF-1715-0672

Guidance Control Officer (Computer)(SM-68) AF-1715-0037

Guidance Control Officer (RIGS) (SM-68) AF-1715-0672

Liquid Fuel Systems Maintenance Specialist, SM-65 and SM-68 AF-1601-0045

SM-68A

Guidance and Control Officer (RIGS) (SM-68A) AF-1715-0672

Liquid Fuel Systems Maintenance Specialist (SM-68A) AF-1601-0032

SM-68B

Plumber/Plumbing Supervisor (SM-68B) AF-1710-0001

SM-80

Ballistic Missile Analyst Specialist, SM-80 AF-1715-0344

Ballistic Missile Check-Out Equipment Specialist, SM-80 AF-1715-0299

Missile Officer, SM-80 AF-1717-0015

SM68

Guidance System Technician (SM68) AF-1704-0126

SPCM

Legal Services Reporter SPCM (Closed Microphone) MC-1728-0005

T-33

Medical Officer Flight Familiarization Training (T-33) AF-1606-0127

Undergraduate Pilot Training (T-37/T-33) AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/ T-33) AF-1606-0022

T-37

Medical Officer Flight Familiarization Training (T-37) AF-1606-0127

Pilot Instructor Training (T-37) AF-1406-0021

Undergraduate Pilot Training (T-37/T-33) AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/ T-33) AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/T-38) AF-1606-0022

T-38

Instrument Pilot Instructor Training (T-38) AF-1606-0011

Instrument Pilot Instructor Training (T-38/T-39) AF-1606-0011

Pilot Instructor Training (T-38) AF-1406-0010

Undergraduate Pilot Training (T-41/T-37/T-38) AF-1606-0022

T-38/T-39

Instrument Pilot Instructor Training (T-38/T-39) AF-1606-0011

T-39

Instrument Pilot Instructor Training (T-38/T-39) AF-1606-0011

Instrument Pilot Instructor Training (T-39) AF-1606-0011

T-41

Pilot Instructor Training (T-41) AF-1406-0011

Undergraduate Pilot Training (T-41/T-37/ T-33) AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/T-38) AF-1606-0022

Undergraduate Pilot Training (T-41, Interim) AF-1606-0003

T-6

Primary Pilot Training (PA-18/T-6) AF-1606-0110

Tactical

Aircraft Maintenance Specialist, Tactical Aircraft by Correspondence AF-1704-0102

Aircraft Maintenance Technician, Tactical Aircraft by Correspondence AF-1704-0162

Avionic Sensor Systems Specialist (Tactical/Real Time Display Electronic Sensors) by Correspondence AF-1715-0070

Marine Tactical Data System (MTDS) Technician MC-1715-0043

Tactical Air Command and Control Specialist by Correspondence AF-1406-0068

Tactical Air Command Central (TACC AN/TYQ-1) Repair MC-1715-0020

Tactical Air Command Central (TACC) Technician MC-1715-0046

Tactical Air Command Central Repairer MC-1715-0020

Tactical Air Defense Controller MC-1704-0004

Tactical Air Defense Controller Enlisted MC-1704-0004

Tactical Air Operations Central (TAOC AN/TYQ-2) Repair MC-1715-0053

Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician MC-1715-0082

Tactical Air Operations Central (TAOC) Analog Repair MC-1715-0023

Tactical Air Operations Central (TAOC) Digital Repair MC-1715-0018

Tactical Air Operations Central (TAOC) Technician MC-1715-0082

Tactical Air Operations Central (TAOC) Weapons Controller/Operator MC-2204-0013

Tactical Data Communications Central (TDCC AN/TYQ-3) Technician MC-1715-0026

Tactical Data Communications Central Repairman MC-1715-0077

Tactical Data Communications Central Technician MC-1715-0026

Tactical Data System Handling Repair MC-1715-0022

Tactical Data Systems Digital Repair MC-1715-0035

Tactical General Purpose Computer Technician MC-1402-0045 MC-1402-0056

Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS) AF-1715-0641

Tactical Missile Checkout Equipment Repairman (MACE MGM-13C/TEMS)
AF-1715-0641
Tactical Missile Checkout Equipment Repairman (MGM-13B(TEMS))
AF-1715-0646
Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS)
AF-1715-0641
Tactical Missile Checkout Equipment Repairman (TM/76A/TEMS)
AF-1715-0646
Tactical Missile Launch Specialist (CGM-13B)
AF-1715-0657
Tactical Missile Launch Specialist (Mace, MGM-13C)
AF-1715-0657
Tactical Missile Launch Specialist (TM-76B)
AF-1715-0657

Tactics
Adversary Tactics Instructor (AFSC K1115H)
AF-1406-0065
Adversary Tactics Instructor (AFSC K1745)
AF-1406-0067
Tactics of the Marine Rifle Squad by Correspondence
MC-2204-0068

Tagalog
Filipino Tagalog
DD-0602-0009
DD-0602-0045

Tamil
Tamil
DD-0602-0009

Tank
Basic Tank Crewman
MC-1710-0006
Tank Officers Orientation
MC-2204-0027
Tank Unit Leaders (Enlisted)
MC-1710-0009
Tank Vehicle Repairman
MC-1703-0001
Tank/Amphibian Vehicle Officer (Reserve)
MC-2204-0026
Tank/Amphibious Vehicle Officer
MC-2204-0028
Tracked Vehicle Repairman, Tank
MC-1703-0001
Tracked Vehicle Repairman, Tank, Basic
MC-1703-0001

Tape
PC11/PC05 Paper Tape Unit Maintenance
DD-1715-0009
RD-358 Magnetic Tape Subsystem Accelerated
MC-1715-0084

Target
Target Intelligence Specialist by Correspondence
AF-1606-0122

Tatical
Tatical Aircraft Maintenance Technician by Correspondence
AF-1704-0228

Teaching
Multi-Media Teaching System (Development)
AF-1406-0028

Technical
Air Force Technical Order System by Correspondence
AF-2203-0053
Marine Corps Technical Publications System by Correspondence
MC-1408-0021
Technical Instructor
AF-1406-0023
AF-1406-0030
Technical Instructor Basic
MC-1406-0011

Technician
Aviation Electronics Technician AN/APS-127
CG-1715-0080
Aviation Electronics Technician AN/ARN-118(V) Class C
CG-1715-0084
Aviation Electronics Technician AN/ARN-133V2 Class C
CG-1715-0083
Electronics Technician Chief (ETC) by Correspondence
CG-1402-0001
Marine Science Technician First Class by Correspondence
CG-1304-0018
Technician Theory
MC-1715-0005
MC-1715-0128

Telecommunications
Apprentice Telecommunications Operations Specialist by Correspondence
AF-0504-0004
AF-1404-0004
Telecommunications Operations Specialist by Correspondence
AF-0504-0003
Telecommunications System Control Specialist by Correspondence
AF-1715-0390
Telecommunications System Maintenance Specialist by Correspondence
AF-1715-0031
Telecommunications Systems Control Technician by Correspondence
AF-1715-0034
Telecommunications Systems/Equipment Maintenance by Correspondence
AF-1715-0450

Telegraph
Radio Telegraph Operator
MC-1715-0070
Radiotelephone, Telegraph, and Visual Communications Procedures by Correspondence
MC-1715-0103

Telephone
Automatic Telephone Equipment by Correspondence
MC-1715-0099
Chief Telephone Technician (TTC) by Correspondence
CG-1408-0028
CEJT-SX-200 Mitel Electronic Private Automatic Branch Exchange (EPABX) Generic 1000 or 1001 Telephone System
CG-1715-0116
Telephone Central Office Switching Equipment Specialist, Electronic/Electromechanical by Correspondence
AF-1715-0127
Telephone Equipment Installation and Repair Specialist by Correspondence
AF-1715-0131
Telephone Equipment Installer-Repairman
AF-1715-0048
Telephone Repair
MC-1714-0004
MC-1715-0038
Telephone Swirchboard Repair
MC-1715-0073
Telephone Switching Equipment Specialist (Combat Operations Support)
AF-1715-0713
Telephone System, Transportable AN/TTC-28
MC-1715-0016
Telephone Technician
MC-1715-0012
Telephone Technician A School
CG-1715-0002
Telephone Technician Class A
CG-1715-0109
Telephone Technician First Class (TT1) by Correspondence
CG-1715-0077
CG-1715-0134
Telephone Technician School
CG-1715-0002
Telephone Technician Second Class (TT2) by Correspondence
CG-1715-0063
Telephone Technician, Class A
CG-1715-0002
Telephone Technician, Class B
CG-1715-0003
Telephone Teletype Repair (Special)
MC-1715-0028
Telephone-Teletype Repair
MC-1715-0013
Telephone/Switchboard Repair
MC-1715-0073
MC-1715-0121
TEL-14 CDXC-SG-1/1A Pulse 120 Electronic Private Automatic Branch Exchange (EPABX) Telephone System Class C
CG-1715-0115

Teletype
Automatic Teletype and Electronic Switching Systems Repairman
AF-1715-0102
Electronic Communications and Cryptographic Systems Equipment Repairman (Automatic Teletype)
AF-1715-0102
Electronic Teletype Repair
MC-1715-0064
Telephone Teletype Repair (Special)
MC-1715-0028
Telephone-Teletype Repair
MC-1715-0013
Teletype Facsimile Repair
MC-1715-0076
Teletype Model 40/400 Board Level Maintenance
DD-1715-0001
Teletype Operator
MC-1404-0001
Teletype Repair
MC-1715-0076
MC-1715-0120
Teletypewriter Repair
MC-1715-0076
Tempest Model 40 Teletype, Class C
CG-1715-0068

Teletypewriter
Teletypewriter Repair MC-1715-0076

Televised
Bomb Navigation System Mechanic (MA-6A, MA-7A Systems) Televised AF-1715-0256

Television
Armed Forces Radio and Television System Broadcast Manager DD-0505-0002
Armed Forces Radio Television System Broadcast Manager DD-0505-0005
Closed Circuit Television Systems by Correspondence CG-1715-0064
Radio and Television Production Specialist DD-0505-0001
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat) DD-0504-0010
Television Equipment Repairman by Correspondence AF-1715-0013
Television Equipment Specialist AF-1715-0742
Television Production Specialist AF-0505-0001

Tempest
Tempest Model 40 Teletype, Class C CG-1715-0068

Terminal
Mobile Data Communications Terminal Technician MC-1715-0081
MC-1715-0118
Terminal Equipment Repair MC-1715-0015
Terminal Equipment Theory MC-1715-0007

Terrain
Advanced Terrain Analysis DD-1601-0028
Basic Terrain Analysis DD-1601-0020
Military Operations on Urban Terrain by Correspondence MC-1606-0006
Terrain Analysis DD-1601-0004
DD-1601-0018
Terrain Analysis Warrant Officer Certification DD-1601-0029

Terrier
Terrier Missile Launcher System Repair MC-1715-0080
Terrier Missile Launcher System Repairman MC-1715-0080

Terrorism
Terrorism Counteraction for Marines by Correspondence MC-1606-0010

Test
Avionics Test Station and Component Specialist (F-16/A-10) by Correspondence AF-1715-0756
Experimental Test Pilot AF-1606-0150
F-111 Computer/Programmer Test Stations Technician AF-1715-0203
F-111 Flight Control Test Station Technician AF-1715-0004
F-111 Radar and Control Test Stations Technician AF-1715-0261
F-111A Computer/Navigation Test Station Technician AF-1402-0024
F/FB-111 Avionics Manual/Electronic Countermeasures (ECM) Test Station and Component Specialist by Correspondence AF-1704-0224
Flight Test Engineer/Navigator AF-1606-0153
Integrated Avionics Computerized Test Station and Component Specialist (F-15) by Correspondence AF-1715-0086
Integrated Avionics Computerized Test Station and Component Specialist (F-16) by Correspondence AF-1715-0084
Integrated Avionics Computerized Test Station and Component Specialist (F/FB-111) by Correspondence AF-1715-0087
Integrated Avionics Manual Test Station and Component Specialist (F-15) by Correspondence AF-1715-0092
Integrated Avionics Manual Test Station and Component Specialist (F/FB-111) by Correspondence AF-1715-0093
Integrated Avionics Manual Test Station and Component Specialist by Correspondence AF-1715-0083
Introduction to Test Equipment by Correspondence MC-1715-0129
Missile Test Equipment Specialist (TM-76A) AF-1715-0646
Test Instrument Repairman MC-1715-0027
Test, Measurement and Diagnostic Equipment MC-1715-0114
Vehicle Diagnostic Test Equipment AF-1703-0017

Testing
Non-Destructive Testing AF-1724-0002
Non-Destructive Testing of Aircraft and Related Equipment Components AF-1724-0002

Thai
Short Basic Thai DD-0602-0163
Thai DD-0602-0009
DD-0602-0044
Thai Aural Comprehension DD-0602-0150
Thai Basic DD-0602-0094
DD-0602-0119

Theory
Radar Theory and Maintenance by Correspondence CG-1715-0065
Technician Theory MC-1715-0005
MC-1715-0128

Therapy
Diet Therapy Specialist AF-0709-0001
Diet Therapy Supervisor AF-1729-0009
Physical Therapy Specialist AF-0704-0002
Physical Therapy Technician AF-0704-0001

Threat
Intelligence Brief: The Military Threat by Correspondence MC-1606-0012
Intelligence Brief: The Opposing Forces Nuclear, Biological, Chemical (NBC) Threat by Correspondence MC-1606-0011

Timer
AN/FPN-38 Timer Synchronizer CG-1715-0004
AN/FPN-41 Timer CG-1715-0005
AN/FPN-46 Monitor/Timer CG-1715-0009
AN/FPN-46 Timer CG-1715-0009

Timing
Timing and Control Equipment Class C CG-1715-0111

Titan II
Ground Radio Communications Equipment Repairman (Titan II) AF-1715-0491

Topographic
Basic Topographic Officers DD-1601-0012
Topographic Instrument Repair DD-1721-0001
DD-1721-0002

Towing
Special Vehicle Repairman (Towing and/Servicing Vehicle) AF-1703-0005

Tracked
Advanced Tracked Vehicle Repairman MC-1710-0007
Tracked Vehicle Maintenance Management MC-1710-0022
Tracked Vehicle Maintenance Officer MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management MC-1710-0022
Tracked Vehicle Repairman MC-1703-0010
Tracked Vehicle Repairman (Amphibian Vehicle)(Basic) MC-1703-0011
Tracked Vehicle Repairman (ONTOS), Basic MC-1703-0005
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic MC-1703-0006
Tracked Vehicle Repairman Advanced MC-1710-0007
Tracked Vehicle Repairman Amphibian

Tractor
MC-1703-0011
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006
Tracked Vehicle Repairman, Tank
MC-1703-0001
Tracked Vehicle Repairman, Tank, Basic
MC-1703-0001

Tracking
Automatic Tracking Radar Repairman
AF-1715-0368
Automatic Tracking Radar Specialist (Rate and Track Subsystems) (SM-65)
AF-1715-0406
Automatic Tracking Radar Specialist by Correspondence
AF-1715-0007
Automatic Tracking Radar Technician by Correspondence
AF-1715-0011

Tractor
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011
Tractor Trailer Operator
MC-1710-0037
Tractor-Trailer Operator by Correspondence
MC-1710-0041

Traffic
Freight Traffic Specialist
AF-0419-0009
Freight Traffic Specialist by Correspondence
AF-0419-0032
Integrated Avionics Component Specialists (Communication/Mission and Traffic Control and Penetration Aids)
AF-1715-0609
Passenger Traffic Specialist
AF-0419-0025
Traffic Management and Accident Investigation
AF-1728-0004
Traffic Management Supervisor by Correspondence
AF-0419-0030

Trailer
Tractor Trailer Operator
MC-1710-0037
Tractor-Trailer Operator by Correspondence
MC-1710-0041

Trainer
Defensive Systems Trainer Specialist, AN/GPQ-T6
AF-1715-0138
Gunnery Trainer Specialist
AF-1715-0216
Navigation and Bombing Trainer Specialist (AN/APQ-T3)
AF-1715-0274
Navigation/Bombing Trainer and Flight Simulator Tactics Specialist
AF-1715-0455
Navigation/Bombing/Tactics Trainer Specialist
AF-1715-0455

Training
Military Training Instructor
AF-1512-0002
Training Specialist by Correspondence
AF-1406-0071
Training Systems Technician by Correspondence
AF-1406-0072
Training Technician by Correspondence
AF-1406-0070

Trains
Automotive Power Trains by Correspondence
MC-1703-0022

Transmission
General Purpose Automatic Transmission Maintenance
AF-1703-0012

Transmitter
AN/FPN-39 Loran Transmitter Class C
CG-1715-0118
AN/FPN-42 Loran Transmitter Class C
CG-1715-0117
AN/FPN-44A Loran Transmitter Class C
CG-1715-0110
AN/FPN-64(V) Loran Solid State Transmitter Class C
CG-1715-0123

Transmitters
Ground Communications Equipment Repairman (Heavy) Transmitters
AF-1715-0530

Transmitting
AN/URT-41(V) Transmitting System Class C
CG-1715-0112
COL-URG-II High Frequency Transmitting System
CG-1715-0072
COL-URG-II HF Transmitting System
CG-1715-0072

Transport
Advanced Motor Transport
MC-1703-0002
Motor Transport Chief
MC-1703-0003
Motor Transport Maintenance Management
MC-0419-0002
Motor Transport Maintenance Officer
MC-1712-0005
Motor Transport Officer
MC-0419-0003
MC-0419-0005
Motor Transport Officer Leadership
MC-0419-0004
Motor Transport Officer Orientation
MC-0419-0004
Motor Transport Operations Noncommissioned Officer (NCO)
MC-1408-0018
Motor Transport Staff Noncommissioned Officer (NCO)
MC-1703-0025
Motor Transport Staff Noncommissioned Officer (NCO) Leadership
MC-1703-0016
Reserve Motor Transport Officer Refresher
MC-1703-0029

Transportation
Air Transportation Officer
AF-0419-0010
Defense Packaging of Hazardous Materials for Transportation
DD-0419-0003
Surface Transportation Officer
AF-0419-0005
Transportation Officer
AF-0419-0010
AF-0419-0012
Transportation Staff Officer
AF-0419-0012

Travel
Basic Travel Clerk
MC-1403-0005
MC-1403-0009
Financial Services Specialist (Travel) by Correspondence
AF-1408-0080

Triton
CCI-611 and Motorola Triton VHF-FM Transceivers
CG-1715-0057

Turbine
Gas Turbine by Correspondence
CG-1731-0002
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance
CG-1710-0007
Pratt and Whitney FT4A Gas Turbine
CG-1710-0018
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance
CG-1710-0006
Theory and Construction of Turbine Engines by Correspondence
MC-1710-0004

Turboprop
Turboprop Propulsion Mechanic by Correspondence
AF-1704-0172
AF-1704-0204

Turboshaft
T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence
CG-1704-0021

Turkish
Short Basic Turkish
DD-0602-0042
DD-0602-0164
Turkish
DD-0602-0009
DD-0602-0044
Turkish Aural Comprehension
DD-0602-0151
Turkish Basic
DD-0602-0071
DD-0602-0095
DD-0602-0127
DD-0602-0231
Turkish Gateway
DD-0602-0216
Turkish Intensive
DD-0602-0189

Turret
Turret Repairman
MC-1710-0008
MC-1710-0028

Turrets
Defensive Fire Control System Mechanic (A-3A, MD-9, ASG-15 Turrets)
AF-1715-0482
Defensive Fire Control System Mechanic (B-52H, ASG-21 Turrets)
AF-1715-0540
Defensive Fire Control Systems Mechanic (B-52D/G: MD-9, ASG-15

Turrets) by Correspondence
AF-1715-0047

Defensive Fire Control Systems Mechanic (B-52H, ASG-21 Turrets)
AF-1715-0540

Defensive Fire Control Systems Mechanic (B-52H, B-58: MD-7, ASG-21 Turrets)
AF-1715-0540

Defensive Fire Control Systems Mechanic (MD-7, AN/ASG-21 Turrets)
AF-1715-0540

Twi

Twi
DD-0602-0003

Typing

Basic Typing
MC-1406-0021

Basic Typing and Personnel Adminstration
MC-1406-0021

Typing and General Office Procedures (Women)
MC-1409-0001

TAC

Missile Guidance and Control Specialist (AGM/AIM)TAC
AF-1715-0712

TACAN

AN/ARN-84(V) TACAN Receiver Intermediate Maintenance
MC-1715-0088

CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance
MC-1715-0071

TACC

Tactical Air Command Central (TACC AN/TYQ-1) Repair
MC-1715-0020

Tactical Air Command Central (TACC) Technician
MC-1715-0046

TAOC

Tactical Air Operations Central (TAOC AN/TYQ-2) Repair
MC-1715-0053

Tactical Air Operations Central (TAOC) (AN/TYQ-2) Technician
MC-1715-0082

Tactical Air Operations Central (TAOC) Analog Repair
MC-1715-0023

Tactical Air Operations Central (TAOC) Data Handling Repair
MC-1715-0019

Tactical Air Operations Central (TAOC) Digital Repair
MC-1715-0018

Tactical Air Operations Central (TAOC) Technician
MC-1715-0082

Tactical Air Operations Central (TAOC) Weapons Controller/Operator
MC-2204-0013

TD 1220/G

Maintenance of the TD 1220/G Multiplexer-Demultiplexer
DD-1715-0002

Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer
DD-1715-0002

TD 1220/G MUX/DEMUX Maintenance
DD-1715-0002

TD 1246/G

Operation, Maintenance,and Repair of the TD 1220/G and TD 1246/G Multiplexer-Demultiplexer
DD-1715-0002

TDCC

Tactical Data Communications Central (TDCC AN/TYQ-3) Technician
MC-1715-0026

TDDL

Ground Communications Equipment Technician (Light)(TDDL Equipment)
AF-1715-0561

Ground Communications Equipment Technician (TDDL)
AF-1715-0561

TEMS

Missile Electronic Equipment Specialist (CGM-13B, TEMS)
AF-1715-0641

Tactical Missile Checkout Equipment Repairman (CGM-13B TEMS)
AF-1715-0641

Tactical Missile Checkout Equipment Repairman (MACE MGM-13C/TEMS)
AF-1715-0641

Tactical Missile Checkout Equipment Repairman (MGM-13B(TEMS))
AF-1715-0646

Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS)
AF-1715-0641

Tactical Missile Checkout Equipment Repairman (TM/76A/TEMS)
AF-1715-0646

TH-1

Helicopter Pilot Transition Training (TH-1)
AF-1606-0091

TH-1F

Pilot Advanced Flying (TH-1F) Basic
AF-1606-0138

Pilot Advanced Flying (TH-1F) SAC
AF-1606-0139

TM-61A

Missile Mechanic (TM-61A/C)
AF-1715-0642

TM-61C

Control Systems Mechanic (TM-61C)
AF-1715-0292

Guidance Systems Officer (Surface-to-Surface) (TM-61C)
AF-1715-0648

Missile Specialist (TM-61C)
AF-1715-0642

TM-76A

Controls System Analyst (TM-76A)
AF-1715-0180

Guidance Systems Analyst (TM-76A)
AF-1714-0005

Guided Missile Maintenance Officer TM-76A
AF-1715-0647

Guided Missile Operations Officer (TM-76A)
AF-1715-0133

Missile Officer TM-76A
AF-1715-0647

Missile Test Equipment Specialist (TM-76A)
AF-1715-0646

TM-76A/B

Control Systems Mechanic (TM-76A/B)
AF-1715-0162

Tactical Missile Control Mechanic (TM-76A/B)
AF-1715-0162

TM-76B

Guidance System Mechanic (TM-76B)
AF-1715-0481

Guided Missile Operations Officer (TM-76B)
AF-1715-0658

Missile Launch Officer (TM-76B)
AF-1715-0658

Missile Maintenance Officer TM-76B
AF-1715-0638

Missile Officer TM-76B
AF-1715-0638

Missile Systems Analyst Specialist (TM-76B)
AF-1715-0668

Tactical Missile Checkout Equipment Repairman (TM-76B, TEMS)
AF-1715-0641

Tactical Missile Guidance Mechanic (TM-76B, GSC)
AF-1715-0481

Tactical Missile Guidance Mechanic and Checkout Equipment Repairman (TM-76B, GEMS)
AF-1715-0481

Tactical Missile Launch Specialist (TM-76B)
AF-1715-0657

TOW

TOW Missile Maintenance
MC-1715-0075

TSEC/KG-34

TSEC/KG-34 Component Level Maintenance
DD-1715-0004

T58-GE-5

T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence
CG-1704-0021

T58-GE-8B

T58-GE-8B and T58-GE-5 Turboshaft Engine Familiarization (T58FAM) by Correspondence
CG-1704-0021

T58-GE-8B Engine Maintenance Class C
CG-1704-0004

T58-5

T58-5 and T62 Engine Maintenance Class C
CG-1704-0026

T62

T58-5 and T62 Engine Maintenance Class C
CG-1704-0026

Ukranian

Ukranian Basic
DD-0602-0105

Undergraduate

Undergraduate Navigator Training
AF-1606-0145

Undergraduate Pilot Training (T-37/T-33)
AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/ T-33)
AF-1606-0022

Undergraduate Pilot Training (T-41/T-37/T-38)
AF-1606-0022

Undergraduate Pilot Training (T-41, Interim)
AF-1606-0003

Uniform
Joint Uniform Military Pay System (JUMPS) Class C
CG-1406-0003

Unit
Legal Administration for the Reporting Unit by Correspondence
MC-1406-0024
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0014
Personnel Administration for the Reporting Unit by Correspondence
MC-1406-0026
PC11/PC05 Paper Tape Unit Maintenance
DD-1715-0009
Reserve Enlisted Unit Supply Refresher
MC-1405-0041
Reserve Unit Supply Refresher
MC-1405-0043
Reverse Osmosis Water Purification Unit by Correspondence
MC-1732-0003
Small Unit Paperwork (SUPWK) by Correspondence
CG-1403-0001
Unit Diary Clerk
MC-1403-0013
Unit Dining Facility by Correspondence
MC-1729-0031
Unit Historian Development
AF-2203-0007
Unit Orderly Room Administration Specialist by Correspondence
AF-1403-0004
Unit Supply Officer
MC-1405-0017

Unitization
Defense Packing and Unitization
DD-0419-0002

Units
Marine Infantry Small Units in Counterinsurgency Operations by Correspondence
MC-2204-0063

Urban
Military Operations on Urban Terrain by Correspondence
MC-1606-0006

Urdu
Hindi-Urdu
DD-0602-0009
DD-0602-0044

Urinalysis
Medical Laboratory Technician (Chemistry and Urinalysis) by Correspondence
AF-0709-0029

Utilities
Utilities Chief
MC-1710-0014
MC-1710-0035
Utilities Officer
MC-1701-0001
MC-1710-0036
Utilities Officers
MC-1710-0015

UH-1N
Pilot Advanced Flying (UH-1N) Basic
AF-1606-0140

UNIVAC
Accounting and Finance Applications of Base Supply Computer (UNIVAC 1050 II)
AF-1401-0016
Operation and Maintenance of UNIVAC 1218 Computer
AF-1402-0055

V/S
Electronics Fundamentals - V/S Track #1
CG-1715-0091
Electronics Fundamentals - V/S Track #2
CG-1715-0093

Vegetables
Vegetables, Soups, Sauces, Gravies, and Beverages by Correspondence
MC-1729-0024

Vehicle
Advanced Tracked Vehicle Repairman
MC-1710-0007
Amphibian Vehicle Crewman
MC-1708-0001
Amphibian Vehicle Officer
MC-2204-0002
Amphibian Vehicle Repairman
MC-1703-0011
Amphibious Vehicle Company Officer
MC-2204-0041
Amphibious Vehicle Officer Orientation
MC-2204-0025
Amphibious Vehicle Unit Leader
MC-1710-0010
Amphibious Vehicle Unit Leaders (Enlisted)
MC-1710-0010
Apprentice Vehicle Operator/Dispatcher by Correspondence
AF-0419-0026
Assault Amphibian Vehicle Crewman
MC-1708-0001
Assault Amphibian Vehicle Officer
MC-2204-0002
Assault Amphibious Vehicle Unit Leader
MC-1710-0010
General Purpose Vehicle Mechanic by Correspondence
AF-1703-0018
General Purpose Vehicle Repairman
AF-1703-0006
General Purpose Vehicle Repairman (Accelerated)
AF-1703-0007
Light Vehicle Characteristics and Operating Techinques by Correspondence
MC-1703-0015
Light Vehicle Preventive Maintenance by Correspondence
MC-1703-0018
Logistics Vehicle System Maintenance
MC-1408-0019
Logistics Vehicle System Operator
MC-1703-0030
Motor Vehicle Maintenance Management
AF-0419-0019
Motor Vehicle Maintenance Officer
AF-1405-0019
Motor Vehicle Management Officer
AF-1405-0019
Motor Vehicle Operator
MC-1703-0027
MC-2101-0001
Motor Vehicle Operator by Correspondence
MC-1703-0017
Motor Vehicle Operators
MC-2101-0001
ONTOS Vehicle Repairman
MC-1703-0005
Preventive Maintenance and Operating Techniques on Heavy Vehicles by Correspondence
MC-1703-0019
Self-Propelled Vehicle Repairman
MC-1703-0006
Special Purpose Vehicle and Equipment Mechanic by Correspondence
AF-1710-0032
Special Vehicle Mechanic (Firetrucks) by Correspondence
AF-1710-0033
Special Vehicle Mechanic (Refueling Vehicles) by Correspondence
AF-1710-0034
Special Vehicle Repairman (Towing and Servicing Vehicle)
AF-1703-0005
Tank Vehicle Repairman
MC-1703-0001
Tank/Amphibian Vehicle Officer (Reserve)
MC-2204-0026
Tank/Amphibious Vehicle Officer
MC-2204-0028
Tracked Vehicle Maintenance Management
MC-1710-0022
Tracked Vehicle Maintenance Officer
MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management
MC-1710-0022
Tracked Vehicle Repairman
MC-1703-0010
Tracked Vehicle Repairman (Amphibian Vehicle)(Basic)
MC-1703-0011
Tracked Vehicle Repairman (ONTOS), Basic
MC-1703-0005
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic
MC-1703-0006
Tracked Vehicle Repairman Advanced
MC-1710-0007
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006
Tracked Vehicle Repairman, Tank
MC-1703-0001
Tracked Vehicle Repairman, Tank, Basic
MC-1703-0001
Vehicle Body Mechanic by Correspondence
AF-1710-0035
Vehicle Diagnostic Test Equipment
AF-1703-0017
Vehicle Maintenance Control and Analysis Specialist by Correspondence
AF-1710-0036
Vehicle Maintenance Technician
AF-1703-0010
Vehicle Operations Supervisor by

Correspondence AF-0419-0023
Vehicle Recovery MC-1703-0026

Veterinary
Apprentice Veterinary Specialist AF-0102-0003
Veterinary Specialist AF-0102-0003
Veterinary Specialist Phase II AF-0102-0003
Veterinary Technician AF-0104-0001

Videograph
Videograph B Fog Detector Maintenance CG-1715-0127

Vietnamese
Basic Vietnamese DD-0602-0041
Extended or Basic-Intermediate Vietnamese DD-0602-0170
High Intensity Language Training (Vietnamese) MC-0602-0001
Vietnamese DD-0602-0003, DD-0602-0007, DD-0602-0009, DD-0602-0044
Vietnamese Intermediate DD-0602-0125, DD-0602-0179

Vietnamese—Hanoi
Vietnamese—Hanoi Aural Comprehension DD-0602-0193, DD-0602-0194
Vietnamese—Hanoi Basic DD-0602-0013
Vietnamese—Hanoi Intensive DD-0602-0190

Vietnamese—Saigon
Short Basic Vietnamese—Saigon DD-0602-0165
Vietnamese—Saigon Basic DD-0602-0098
Vietnamese—Saigon Dialect Basic DD-0602-0040
Vietnamese—Saigon Intensive DD-0602-0191

Virtual
Multiple Virtual Storage (MVS) Diagnostics MC-1402-0053
Multiple Virtual Storage (MVS) Fundamentals and Logic MC-1402-0052
Multiple Virtual Storage (MVS) Performance and Training MC-1402-0054

Visual
Radiotelegraph and Visual Communication Procedures by Correspondence MC-1715-0133
Radiotelephone, Telegraph, and Visual Communications Procedures by Correspondence MC-1715-0103

VHF
VHF (FM) Field Radio Equipment by Correspondence MC-1715-0108

VHF-FM
CCI-611 and Motorola Triton VHF-FM Transceivers CG-1715-0057

VHF-UHF
Ground Communications Equipment Repairman (VHF-UHF) AF-1715-0498

War
Air War College AF-1511-0006
Air War College Associate Correspondence Program AF-1511-0005
Air War College Correspondence Program AF-1511-0005
Air War College Nonresident Seminar Program AF-1511-0004
Associate Air War College Nonresident Seminar Program AF-1511-0004
National War College DD-1511-0002
War College AF-1511-0006

Warehousing
Advanced Warehousing MC-1405-0013
Basic Warehousing by Correspondence MC-1405-0020
Enlisted Warehousing Intermediate MC-1405-0036
Mechanization of Warehousing and Shipment Process (MOWASP) by Correspondence MC-1405-0022
Officers Warehousing MC-1405-0016
Warehousing Noncommissioned Officer (NCO) Leadership MC-1405-0002
Warehousing Operations by Correspondence MC-1405-0021
Warehousing Staff Noncommissioned Officer (NCO) Leadership MC-1405-0013
Warehousing Supervisor AF-1405-0050

Warfare
Air Control/Antiair Warfare Electronics Operator MC-1704-0002
Air Control/Antiaircraft Warfare Electronics Operator MC-1704-0002
Amphibious Warfare MC-2204-0070
Integrated Avionics Electronic Warfare Equipment and Component Specialist (F/FB-111) by Correspondence AF-1715-0081
Landmine Warfare and Demolitions by Correspondence MC-2204-0062
Reserve Amphibious Warfare Phase I, Phase II MC-2204-0034

Warning
Aerospace Control and Warning Systems Operator by Correspondence AF-1715-0754
Airborne Warning and Control Radar Specialist by Correspondence AF-1715-0123
Aircraft Control and Warning Radar Maintenance Technician AF-1715-0064
Aircraft Control and Warning Radar Specialist by Correspondence AF-1715-0005
Aircraft Control and Warning Radar Technician AF-1715-0064
Aircraft Control and Warning Radar Technician by Correspondence AF-1715-0010

Warrant
Marine Warrant Officer, Basic MC-2204-0004
Marine Warrant Officers, Basic MC-2204-0004
Reserve Warrant Officer Basic MC-2204-0082
Warrant Officer Basic MC-2204-0084
Warrant Officer Candidate MC-2204-0009
Warrant Officer Candidate Screening MC-2204-0009
Warrant Officer Personnel Administration MC-1406-0006

Waste
Water and Waste Processing AF-1732-0002
Water and Waste Processing Specialist AF-1732-0001
270' WMEC S/S Generator, Waste Heat Recovery System and Evaporator Operation and Maintenance, Class C CG-1712-0005

Watch
Deck Watch Officer Navigation Rules (DWONR) by Correspondence CG-1708-0014

Watchstanding
Watchstanding: The Conning Officer (CONOFF) by Correspondence CG-1708-0012

Water
Basic Plumbing and Water Supply Man MC-1710-0013
Electrical/Electronic Control for Fire Tube Boilers/Oily Water Separator/Electrical Generators Operation and Maintenance Class C CG-1715-0107
Field Water Supply by Correspondence MC-1732-0001
Installation of the Reserve Osmosis Water Purification Unit (ROWPU), 600GPH by Correspondence MC-1601-0023
Journeyman Plumbing and Water Supply Man MC-1710-0012
Plumbing and Water Supply Journeyman MC-1710-0012
Plumbing and Water Supply Man MC-1710-0013
Reverse Osmosis Water Purification Unit by Correspondence MC-1732-0003
Water and Waste Processing AF-1732-0002

Water and Waste Processing Specialist
AF-1732-0001
Water Safety/Survival Instructor
MC-0803-0002

Waterfront
Waterfront Protection (WATPRO) by Correspondence
CG-1728-0012

Weapon Control
Weapon Control Systems Mechanic (A-7D, A-10, AC-130, F-5) by Correspondence
AF-1715-0050
Weapon Control Systems Mechanic (A-7D: AN/APQ-126) by Correspondence
AF-1715-0054
Weapon Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems) by Correspondence
AF-1715-0051
Weapon Control Systems Mechanic (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0052
Weapon Control Systems Mechanic (F-4E: APQ-120) by Correspondence
AF-1715-0053
Weapon Control Systems Technician (F-4C/D: APQ-109/APA-165) by Correspondence
AF-1715-0056
Weapon Control Systems Technician (F-4E: APQ-120) by Correspondence
AF-1715-0063
Weapon Control Systems Technician (F-5E, A-7D, A-10, and AC-130) by Correspondence
AF-1715-0055

Weapons
Artillery Weapons Repairman
MC-1601-0005
MC-1710-0011
MC-2204-0022
Artillery Weapons Repairman (Advanced)
MC-1710-0027
Artillery Weapons Repairman (Basic)
MC-1710-0011
Atomic Weapons Employment
MC-2204-0036
Atomic Weapons Officer
AF-1715-0545
ANG Fighter Weapons Instructor
AF-1606-0151
Defense Weapons Systems Management
AF-1408-0011
F-111A Weapons System Training
AF-1606-0117
F-111A Weapons System Training (Aircraft Commander)
AF-1606-0132
F-111A Weapons System Training (Mark 1)
AF-1606-0117
F-111A Weapons System Training (NAV/PILOT)
AF-1606-0117
Fighter Weapons Instructor
AF-1704-0193
Fighter Weapons Instructor - Air Weapons Controller
AF-1406-0062
Fighter Weapons Instructor A-1C
AF-1406-0061
Fighter Weapons Instructor F-15
AF-1406-0066
Fighter Weapons Instructor F-16
AF-1406-0064
Infantry Weapons Armorer
MC-1601-0006
MC-2204-0020
Infantry Weapons Armorer Basic
MC-2204-0052
Infantry Weapons Armorers Advanced
MC-2204-0044
Inspection and Repair of Shoulder Weapons by Correspondence
MC-2204-0066
Marine Tactical Data System (MTDS) Weapons Controller/Operator
MC-1715-0021
Munitions and Weapons Maintenance by Correspondence
AF-0802-0025
Nuclear and Chemical Weapons Employment
MC-2204-0036
Nuclear Weapons Employment
MC-2204-0036
Nuclear Weapons Officer
AF-1715-0545
Nuclear Weapons Specialist by Correspondence
AF-0802-0027
Nuclear, Biological and Chemical (NBC) Weapons Employment
MC-2204-0036
RF-4 Fighter Weapons Instructor
AF-1606-0152
Special Weapons Maintenance Technician
AF-1715-0150
AF-1715-0151
AF-1715-0152
Tactical Air Operations Central (TAOC) Weapons Controller/Operator
MC-2204-0013
Weapons Administration (WEPAD) by Correspondence
CG-1408-0007
Weapons Controller (ECCM Operations Officer)
AF-1715-0721
Weapons Controller (ECCM Operations Officer)/Electronic Warfare Countermeasures Specialist
AF-1715-0721
Weapons Controller/Operator
MC-2204-0013
Weapons Employment
MC-2204-0036
Weapons Fusing System Specialist
AF-1715-0129
Weapons Fusing Systems Specialist (Electronic)
AF-1715-0149
Weapons Fuzing Systems Specialist (Electrical)
AF-1714-0004
Weapons Location Equipment Repair
MC-1715-0050
Weapons Officer (WEPOFF) by Correspondence
CG-2205-0018
Weapons Repair Officer
MC-1710-0023
Weapons Repair Shop Machinist
MC-1723-0004
Weapons Technician
MC-1710-0029

Weapons Control
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Integrated Avionics Component Specialist (Navigation/Flight and Weapons Control, and Flight Data Recorder Systems)
AF-1715-0476
Integrated Avionics System Specialist (Navigation/Flight and Weapons Control)
AF-1715-0476
Weapons Control System Mechanic (F/FB-111)
AF-1715-0486
Weapons Control Systems Mechanic (A-7D; AN/APQ-126)
AF-1715-0538
Weapons Control Systems Mechanic (AMCS-AERO-1A)
AF-1715-0535
Weapons Control Systems Mechanic (E-9 System)
AF-1715-0690
Weapons Control Systems Mechanic (E-9, MG-12 Systems)
AF-1715-0689
AF-1715-0690
Weapons Control Systems Mechanic (F-106A/B: MA-1, ASQ-25 Systems)
AF-1715-0375
Weapons Control Systems Mechanic (F-111A)
AF-1715-0486
Weapons Control Systems Mechanic (F-4C/D: APQ-109/APA-165)
AF-1715-0535
Weapons Control Systems Mechanic (F-4E)
AF-1715-0610
Weapons Control Systems Mechanic (F-4E:APQ-120)
AF-1715-0610
Weapons Control Systems Mechanic (F4, AMCS)
AF-1715-0535
Weapons Control Systems Mechanic (MA-1 System)
AF-1715-0375
Weapons Control Systems Mechanic (MA-1 Systems)
AF-1715-0375
Weapons Control Systems Mechanic (MA-1, ASQ-25 Systems)
AF-1715-0375
Weapons Control Systems Mechanic (MG-10/13 Systems)
AF-1715-0546
Weapons Control Systems Mechanic (MG-10, 13 Systems)
AF-1715-0546
Weapons Control Systems Mechanic (MG-12 System)
AF-1715-0690
Weapons Control Systems Mechanic (MG-3, MG-10, MG-13 Computer Controls)
AF-1715-0272
Weapons Control Systems Mechanic (MG-3, 10, 13 Systems)
AF-1715-0546
Weapons Control Systems Technician (MG-13 Data Flow)
AF-1715-0699

Weather
AN/APN-195 Weather Radar Systems Class C CG-1715-0025
Basic Weather Service (Equipment Channel) AF-1715-0412
Cold Weather Field Indoctrination MC-0803-0003
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists MC-0803-0003
Cold Weather Operations by Correspondence MC-0803-0006
Ground Weather Equipment Operator AF-1715-0412
Ground Weather Observing Procedures AF-1304-0003
Weather Briefer CG-1304-0009
Weather Briefer Analyst Class C CG-1304-0020
Weather Briefer Class C CG-1304-0020
Weather Chief Observer AF-1408-0044
Weather Equipment Repairman AF-1715-0412
Weather Equipment Specialist by Correspondence AF-1304-0014
Weather Equipment Superintendent AF-1715-0683
Weather Equipment Technician AF-1715-0417
Weather Forecaster AF-1304-0002
Weather Forecaster Technician AF-1304-0002
Weather Forecasting and Flight Briefing (WXFBRF) by Correspondence CG-1304-0014
Weather Observer AF-1304-0001
Weather Observer Technician AF-1304-0008
Weather Specialist by Correspondence AF-1304-0013
AF-1304-0016
Weather Technician AF-1304-0002

Welders
Welders MC-1710-0021

Welding
Aircraft Metals Technology (Welding) by Correspondence AF-1724-0007
Aluminum Welding Class C CG-1710-0016
Damage Control Welding, Class C CG-1710-0002
Damage Controlman Welding, Class C CG-1710-0002
Metal Working and Welding Operations by Correspondence MC-1723-0008
Metalworking and Welding Operations by Correspondence MC-1723-0001
Steel Welding Class C CG-1710-0017

Wideband
Wideband Communications Equipment Specialist by Correspondence AF-1715-0208
Wideband Communications Equipment Technician by Correspondence AF-1715-0015

Winter
Mountain Leadership Training, Winter MC-2204-0006

Wire
Field Wire Equipment by Correspondence MC-1715-0111
Field Wire Noncommissioned Officer (NCO) by Correspondence MC-1715-0100
Field Wire Techniques by Correspondence MC-1715-0098
Outside Wire and Antenna Maintenance Repairman AF-1714-0015
Outside Wire and Antenna Systems Installation and Maintenance Specialist AF-1714-0015
Wire Chief MC-1714-0005
MC-1714-0012

Wireman
Field Wireman MC-1714-0007

Wiring
Interior Wiring by Correspondence MC-1601-0033

Woman
Woman Marine Noncommissioned Officer (NCO) Leadership MC-2204-0018
Woman Marine Officer's Personnel Administration MC-1408-0005
Woman Officer Basic MC-2204-0035
Woman Officer Candidate MC-2204-0024

Women
Basic Military Training (Women) MC-2204-0046
Physical Training Instructor (Women) MC-1406-0002
Recruit Training (Women) MC-2204-0046
Typing and General Office Procedures (Women) MC-1409-0001
Women Officer Training MC-2204-0003
Women Officer Training (Junior) MC-2204-0005
Women Officers Indoctrination MC-1408-0012
Women Officers Training (Senior) MC-2204-0003
Women Physical Training Instructor MC-1406-0002

Work
Base Level Military Personnel System (BLMPS)/Personnel Data System (PDS) Work Center Operations, Phase II AF-1402-0060
BLMPS/PDS Work Center Operations, Phase II AF-1402-0060
Programs and Work Control Specialist AF-1717-0009
Work Control Specialist AF-1408-0035

WS-133
Missile Maintenance Specialist (WS-133) by Correspondence AF-1710-0031

WS-133(CDB)
Missile Electronic Equipment Technician WS-133(CDB) AF-1715-0714

WS-133A
Ballistic Missile Analyst Specialist, WS-133A AF-1715-0344
AF-1715-0345
Ballistic Missile Check-Out Equipment Specialist, WS-133A AF-1715-0299
Missile Electronic Equipment Specialist, WS-133A AF-1715-0456
Missile Officer, WS-133A AF-1717-0015
AF-1717-0016
AF-1717-0017
Missile Systems Analyst Specialist, WS-133A AF-1715-0344
AF-1715-0345

WS-133A-M
Missile Electronic Equipment Specialist, WS-133A-M AF-1715-0711
Missile Officer, WS-133A-M AF-1717-0019
Missile Systems Analyst Specialist, WS-133A-M AF-1715-0452

WS-133A/B
Ground Radio Communications Equipment Repairman (WS-133A/B) AF-1715-0495

WS-133B
Ballistic Missile Checkout Equipment Specialist, WS-133B AF-1715-0108
Missile Electronic Equipment Specialist, WS-133B AF-1715-0461
Missile Officer, WS-133B AF-1715-0343
AF-1717-0018

Yeoman
Chief Yeoman (YNC) by Correspondence CG-1408-0024
Reserve Yeoman Basic CG-1409-0004
Yeoman First Class (YN1) by Correspondence CG-1408-0006
Yeoman School, Class A CG-1409-0001
CG-1409-0003
Yeoman Second Class (YN2) by Correspondence CG-1408-0004
Yeoman Third Class (YN3) by Correspondence CG-1408-0005

Yoruba
Yoruba DD-0602-0003

1218 Computer
Operation and Maintenance of UNIVAC 1218 Computer
AF-1402-0055

1401 Programming
System 360 Operating System—1401 Programming
MC-1402-0009

3"/50 Caliber
Gunner's Mate A School, Phase II (Advanced Electricity, 3"/50 Caliber Gun, 5'/38 Caliber Gun)
CG-1714-0013

3'50
3'50 Gun Mount Mk 22 Operation and Maintenance Class C
CG-2204-0002

407L
HM4118 Electronic Computer Repairman/Operator/407L
AF-1715-0392

412L
Electronic Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Computer Systems Repairman (Display Equipment/412L)
AF-1715-0448
Electronic Digital Computer Repairman (Display Equipment/412L)
AF-1715-0059
Electronic Digital Data Processing Repairman (Data Processing Equipment/412L)
AF-1715-0110

416L-AN/FSQ-7
Electronic Digital Data Processing Equipment Repairman, Central-Computer (416L-AN/FSQ-7)
AF-1715-0348

43D50
43D50 Propeller Maintenance Class C
CG-1704-0002

465L
Electronic Digital Computer Repairman (Display Equip/465L)
AF-1402-0023
Electronic Digital Data Processing Repairman (Input-Output/465L Concentrator)
AF-1715-0109

618M-3
Aviation Electronics Technician 618M-3 Class C
CG-1715-0079

81mm
The 81mm Mortar Noncommissioned Officer (NCO) by Correspondence
MC-2204-0061

Appendix F

Defense Language Proficiency Test (DLPT) Credit Recommendations

As of October 1st, 1990, credit recommendations based on scores earned through the Defense Language Proficiency Test (DLPT) III and IV are available for certain languages. The recommendations are valid for examinations taken after October 1, 1990. The list will be updated as DLPTs in other languages are developed and implemented.

The DLPT Testing Program was evaluated by ACE's Credit by Examination Program. The following chart lists the languages by category of difficulty, the passing scores and the credit recommendations for each of the three areas tested: listening, reading and speaking. The chart includes the languages that fall within each category.

Example

A servicemember receives the following scores for the Spanish DLPT test: 25 in listening, 32 in reading, and 37 in speaking. You would use Category I on the chart. In this case, a total of 9 semester hours is recommended: For a listening score of 25, 1 semester hour in the lower-division baccalaureate/associate degree category; for a reading score of 32, 2 semester hours in the lower-division baccalaureate/associate degree category; and for a speaking score of 37, 4 semester hours in the lower-division baccalaureate/associate degree category and 2 semester hours in the upper-division baccalaureate category.

Credit Recommendations

Language Difficulty Category	DLPT III/IV Converted Score	Listening	Reading	Speaking
CATEGORY I *French* *Spanish* *Portuguese* *Italian*	25–29	1LD	1LD	1LD
	30–35	2LD	2LD	3LD
	36–39	4LD	4LD	4LD + 2UD
	40 & above	4LD + 4UD	4LD + 3UD	4LD + 5UD
CATEGORY II *German* *Romanian*	25–29	1LD	1LD	1LD
	30–35	3LD	3LD	3LD
	36–39	4LD + 2UD	4LD + 2UD	4LD + 2UD
	40 & above	4LD + 5UD	4LD + 5UD	4LD + 5UD
CATEGORY III *Czech* *Vietnamese* *Polish* *Turkish* *Russian* *Persian*	25–29	2LD	2LD	2LD
	30–35	4LD	4LD	4LD
	36–39	4LD + 3UD	4LD + 3UD	4LD + 3UD
	40 & above	4LD + 6UD	4LD + 6UD	4LD + 6UD
CATEGORY IV *Arabic* *Korean* *Chinese*	25–29	3LD	3LD	3LD
	30–35	5LD	5LD	5LD
	36–39	5LD + 3UD	5LD + 3UD	5LD + 3UD
	40 & above	5LD + 7UD	5LD + 7UD	5LD + 7UD

LD = Lower-Division Baccalaureate/Associate Degree Category
UD = Upper-Division Baccalaureate Category

Course Number Index

The following columns cross-reference military course numbers to ID numbers for the courses listed in the course exhibit section. Readers who desire to trace courses for which they only have military course numbers as references may find the applicable courses by referring to the cross-reference list.

Each ID number begins with prefix initials which identify a specific branch of the Armed Services. The following prefixes are used:

AF—Air Force
AR—Army
CG—Coast Guard
DD—Department of Defense
MC—Marine Corps
NV—Navy

	AF-1704-0021
A-532-0015	MC-1402-0013
A-532-0030	MC-1402-0051
A-532-0031	MC-1402-0034
A-535-0027	MC-1402-0041
A-570-0010	DD-0504-0012 DD-0505-0001 DD-0505-0004
A-570-0010 (USN)	DD-0505-0001
A-570-0010(S) (USN)	DD-0504-0010
A-570-0011(USN)	DD-0504-0001
A-570-0012 (USN)	DD-0504-0002
A-570-0013	DD-0504-0003 DD-0504-0015
A-570-0016(S)	DD-0504-0010
A-7G-0010	DD-0504-0009
A-7G-0010(USN)	DD-0504-0009
A-7G-0011/CDP 0313	DD-0505-0005
A-7G-011/CDP0313	DD-0505-0002
A-7G0013	DD-0504-0013
A-740-0020	DD-1719-0003
A-740-0025	DD-1719-0007
AAB	MC-1406-0021
AAC	MC-1403-0012 MC-1403-0015
AAD	MC-1405-0032
AAE	MC-1403-0011
AAF	MC-1405-0031
AAR23271	AF-1709-0001
AAR23470	AF-1709-0001
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ACE MC-1710-0036

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E50ZX5135A-000 ... MC-1402-0041
E50ZX5135B-001 ... MC-1402-0031
E50ZX5135B-003 ... MC-1402-0033
E50ZX5135B-005 ... MC-1402-0035
E50ZX5135B-006 ... MC-1402-0036
E50ZX5135B-008 ... MC-1402-0038

F-V5A-A ... AF-1406-0021
F-V5A-B ... AF-1406-0010
F-V5C-B ... AF-1406-0011
F-V5C-B-O ... AF-1406-0011
F-V5F-G-O ... AF-1606-0091
F-V5G-A ... AF-1606-0011
F-V5G-G ... AF-1406-0029
F-V5H-A ... AF-1606-0117
F-V5H-A-0 ... AF-1606-0117

F-400 FWS ... AF-1606-0151

FAC ... MC-1729-0037

FG-46B/570-F4 ... DD-0505-0005

FGP ... MC-1715-0082

FGT ... MC-1715-0053

FGV ... MC-1715-0020

FGX ... MC-1715-0046

FG5 ... MC-1704-0004

FT-2 ... CG-1715-0103
FT-3 ... CG-1402-0002

F111507Q ... AF-1406-0021

F1500IDOPN ... AF-1406-0066

F1600I0DPN ... AF-1406-0064

F50000A1AN ... AF-1406-0065

GA2A79150 ... DD-0504-0015

GM-1 ... CG-2204-0001
GM-3 ... CG-2204-0002

GMA ... CG-1714-0017

G1009 ... CG-0703-0001

G3ABR30435 ... AF-1715-0742
G3ABR40430005 ... AF-1715-0741
G3AZR32470 ... AF-1715-0493
AF-1715-0740
AF-1715-0743

G5ABA79131-000 ... DD-0505-0004
G5ABA7931-001 ... DD-0505-0001
G5ABD22230-000 ... DD-1601-0023
G5AZD22150-000 ... DD-1601-0026

G5OZA7921-004 ... DD-0505-0002

G50BD5731-000 ... DD-1713-0006
G502A7921-001 ... DD-0504-0013
G502A7921-004 ... DD-0505-0005

H1P1 ... AF-1606-0131
H1P2 ... AF-1606-0131

H3FM1 ... AF-1606-0037
H3FM2 ... AF-1606-0037

H3P1 ... AF-1606-0036
H3P2 ... AF-1606-0036

H53M1 ... AF-1606-0064
H53M2 ... AF-1606-0064
H53P1 ... AF-1606-0065
H53P2 ... AF-1606-0065

I-A293X31 ... AF-1606-0149
I-A435X0A1 ... AF-1606-0149
I-A607706 ... AF-1606-0149

I-HC130FE1 ... AF-1606-0149
I-HC130LM1 ... AF-1606-0149
I-HC130N1 ... AF-1606-0149
I-HC130P1 ... AF-1606-0149
I-HC130RO1 ... AF-1606-0149

I-1035B1 ... AF-1606-0149
I-1535Z1 ... AF-1606-0149

IHIPF ... AF-1606-0063
IHIPFA ... AF-1606-0063
IHIPN ... AF-1606-0063
IHIPNA ... AF-1606-0063

IH3PI ... AF-1606-0063
IH3P2/3 ... AF-1606-0063

IH53P1 ... AF-1606-0063
IH53P2 ... AF-1606-0063
IH53P3 ... AF-1606-0063

IT75100 ... AF-1406-0030
IT75100-1 ... AF-1406-0030
IT75100-4 ... AF-1406-0030
IT75100-6 ... AF-1406-0030

I104500H ... AF-1606-0011

I111501Q ... AF-1606-0011

K-130-0102 ... AF-1715-0276

LMDC 400 ... AF-1408-0004
LMDC 501 ... AF-1406-0033
LMDC 900 ... AF-2203-0007

LOR-02 ... CG-1715-0111
LOR-03 ... CG-1715-0118
LOR-04 ... CG-1715-0117

LOR-05 ... CG-1715-0110
LOR-06 ... CG-1715-0123
LOR-07 ... CG-1715-0125
LOR-08 ... CG-1715-0114

L0R-13 ... CG-1715-0048

L5OZN6916-000 ... DD-1408-0006

MBC ... MC-1408-0019

MK-1 ... CG-1408-0002
MK-1(R) ... CG-1408-0035
MK-22 ... CG-1701-0001
CG-1701-0002
MK-23 ... CG-1731-0001
MK-24 ... CG-1712-0002
CG-1712-0004
MK-27 ... CG-1712-0003
CG-1712-0005
MK-3 ... CG-1710-0007
MK-4 ... CG-1710-0006
CG-1710-0018
MK-5 ... CG-1710-0008
MK-6 ... CG-1704-0020
CG-1704-0032

MKA ... CG-1723-0005

MLE ADV ... CG-1728-0023
MLE C ... CG-1728-0022
MLEIC ... CG-1728-0024

MS 400R ... CG-1728-0018
CG-1728-0030
MS 402R ... CG-1728-0015
CG-1728-0029
MS 421R ... CG-1728-0016
CG-1728-0027
MS 422R ... CG-1728-0020
CG-1728-0031
MS 423R ... CG-1728-0025
MS 425R ... CG-1728-0026
MS 426R ... CG-0802-0013
MS 452R ... CG-1728-0019
MS 472R ... CG-1728-0017
MS 496R ... CG-0802-0013
CG-0802-0015
MS 722 R ... CG-1304-0020
MS 729 R ... CG-1304-0017
MS 732 ... CG-1722-0012
MS 735R ... CG-1722-0013

M4F ... MC-2201-0072
MC-2204-0072

N-V-6A-B ... AF-1606-0145
N-V6A-D ... AF-1606-0145
N-V6A-F ... AF-1606-0145

NAV-01 ... CG-1715-0122
NAV-02 ... CG-1715-0119
NAV-03 ... CG-1715-0120
NAV02 ... CG-1715-0054
NAV03 ... CG-1715-0055
NAV04 ... CG-1715-0056
NAV05 ... CG-1715-0049
NAV06 ... CG-1715-0050
NAV09 ... CG-1715-0051
NAV11 ... CG-1715-0044
NAV12 ... CG-1715-0030
NAV14 ... CG-1715-0070

NBSC ... CG-0802-0014

OAR1611 ... AF-1704-0010
OAR3011 ... AF-1408-0048
OAR4311 ... AF-1717-0002
OAR4611 ... AF-1717-0024
OAR6011 ... AF-0419-0012
OAR6411 ... AF-1405-0052
OAR6411-1 ... AF-1405-0052
OAR6731 ... AF-1408-0061
OAR6891 ... AF-1408-0063
OAR7311 ... AF-1406-0031

OAY9755	AF-0703-0009
OA3011	AF-1408-0048
OA4311	AF-1717-0002
OA6411	AF-1405-0052
OA6731	AF-1408-0061
OA6741	AF-1408-0063
OA6891	AF-1408-0063
OA7311	AF-1408-0028
OBM0104	AF-1408-0040
OBR-3121G-1	AF-1717-0019
OBR1631	AF-1704-0002
OBR1741D	AF-1715-0721
OBR1821	AF-1715-0663
OBR1821-1	AF-1715-0133
OBR1821-2	AF-1715-0658
OBR1821B	AF-1715-0663
OBR1821C-2	AF-1715-0658
OBR1821F	AF-1715-0692
OBR1821N	AF-1715-0658
OBR2041	AF-1709-0021
OBR2331	AF-1709-0006
OBR3031	AF-1715-0474
OBR3041	AF-1715-0588
OBR3041A	AF-1715-0588
OBR3041B	AF-1715-0588
OBR3061	AF-1715-0722
OBR3121-3	AF-1715-0663
OBR3121B-1	AF-1715-0647
OBR3121B-2	AF-1715-0638
OBR3121F	AF-1715-0692
OBR3121G	AF-1715-0647 AF-1717-0016
OBR3121G-1	AF-1717-0016
OBR3121G-2	AF-1715-0343
OBR3121H	AF-1715-0343 AF-1715-0638
OBR3231A-1	AF-1715-0497
OBR3231B	AF-1715-0536
OBR3231C	AF-1715-0323
OBR3251A	AF-1405-0047
OBR3271	AF-1715-0545
OBR4341	AF-1717-0003
OBR4381	AF-1717-0021
OBR4621	AF-1715-0545
OBR4721	AF-1405-0019
OBR6021	AF-0419-0010
OBR6031	AF-0419-0005
OBR6041	AF-0419-0010
OBR6421	AF-1405-0008
OBR6531	AF-1405-0055
OBR6621	AF-1405-0055
OBR6721	AF-1401-0009
OBR6831	AF-1402-0001
OBR6851	AF-1402-0046
OBR6891	AF-1408-0063
OBR7321	AF-1406-0036
OBR7321-1	AF-1406-0036
OBR7431	AF-1115-0007
OBR7721	AF-1728-0018
OBR8041	AF-1709-0021
OBR8051	AF-1606-0052
OBR8051-1	AF-1606-0052
OBR8121	AF-1728-0018
OBR9021	AF-0799-0005
OBR9121	AF-0707-0001
OBR9151	AF-0702-0003
OBY9121	AF-0707-0003
OBY9161	AF-0709-0017
OB1631	AF-1704-0002
OB2041	AF-1709-0021
OB2041-1	AF-1709-0021
OB2051	AF-1606-0052
OB2051-1	AF-1606-0052
OB2331	AF-1709-0026
OB3031A	AF-1715-0548
OB3041	AF-1715-0588
OB3041A	AF-1717-0008
OB3051	AF-1715-0323
OB3051B	AF-1715-0323
OB3200	AF-1715-0290
OB3221	AF-1715-0648
OB3221C-1	AF-1715-0648
OB3231A	AF-1715-0497
OB3231B	AF-1715-0536
OB3251	AF-1405-0047
OB3271	AF-1715-0545
OB4381	AF-1717-0021
OB6021	AF-0419-0010
OB6031	AF-0419-0005
OB6421	AF-1405-0008
OB6441	AF-1405-0048
OB6621	AF-1405-0055
OB6771	AF-1401-0014
OB6781	AF-1401-0013
OB6831	AF-1402-0001
OB6871	AF-1401-0013
OB6881	AF-1401-0008
OB7321	AF-1406-0036
OB7341	AF-1408-0023
OB7721	AF-1728-0018
OC-00100	AF-2203-0040
ODD	MC-2204-0075
OGM	MC-1715-0026
OIC	MC-1405-0034
OLY9761	AF-0703-0008
OL7331	AF-1406-0035
OTC3044-5	AF-1715-0037
OTS3044-4	AF-1715-0672
OTS6444-1	AF-0406-0001
OTS6451-1	AF-1405-0034
OTS6631-1	AF-1405-0056
OTS6854-1	AF-1402-0039
OTS8041-1	AF-1709-0017
OTS8044-1	AF-1606-0047
OTS8054	AF-1606-0054
OZR0005	AF-1402-0058
OZR0066-2	AF-1717-0023
OZR0076	AF-1402-0058
OZR0123	AF-1402-0058
OZR0123-3	AF-1402-0057
OZR1821B	AF-1715-0651 AF-1715-0715
OZR1821C	AF-1715-0651
OZR1945	AF-0802-0009
OZR2331	AF-1709-0024
OZR2334	AF-1709-0001
OZR2335	AF-1709-0001
OZR3044-6	AF-1715-0672
OZR3044D	AF-1715-0672
OZR3121B-1	AF-1715-0651
OZR3121B-3	AF-1715-0715
OZR3121C	AF-1715-0651
OZR3121D-1	AF-1717-0015
OZR3121G	AF-1717-0017
OZR3121G-1	AF-1717-0015
OZR3121G-2	AF-1717-0018
OZR4341	AF-1717-0011
OZR4341-2	AF-1704-0083
OZR4344	AF-1408-0006
OZR6411.1	AF-1729-0007
OZR6534-1	AF-1405-0029
OZR6834	AF-1402-0039
OZR8011	AF-1606-0048
OZR9711	AF-0703-0003
OZY9700	AF-0703-0008
O1T	MC-1403-0014
O11	MC-1405-0033
O15	MC-1403-0013
O4M0101	AF-2203-0040
P-V4A-A	AF-1606-0022
P-V4B-T	AF-1606-0003
P-00-3306	DD-1408-0005 DD-1408-0006
P-16-2002	DD-1408-0005
RAC-ADV	CG-1730-0001
RF-400 RWS	AF-1606-0152
RF9	MC-1406-0031
RGA	MC-2204-0070
RGU	MC-2204-0081
RHA	MC-1408-0017
RMA	MC-2204-0080
RMB	MC-2204-0078
RMC	MC-2204-0077
RMD	MC-2202-0002
RMF	MC-2202-0003
RMG	MC-2204-0083
RMJ	MC-2204-0079
RMN	MC-2204-0084
ROCI	CG-2202-0004
R2T	MC-2204-0082
S-V8D-A	AF-1406-0041
S-V8E-A	AF-1606-0127
S-V80-A	AF-0803-0003
S-V81-A	AF-0802-0018
S-V85-A	AF-0803-0003
S-00-3306	DD-1408-0006
S-501-0001	MC-0801-0002
SAF	MC-1405-0040
SAI	CG-1408-0041
SAM-C-11	DD-1408-0001
SAM-0	DD-0327-0001
SBC	CG-2205-0027
SBE-(R)	CG-1714-0019
SBX	CG-2205-0021
SCA	MC-1405-0043
SS32171F-2	AF-1715-0617
SS46150-11	AF-0802-0001
SS67170-2	AF-1408-0062
SS6884	AF-1401-0004
SS99020	AF-1406-0006
TA3	MC-1715-0005 MC-1715-0128
TEL-10	CG-1715-0113
TEL-13	CG-1715-0116
TEL-14	CG-1715-0115

TOA MC-1715-0078

TPS 28XX AF-1606-0153
TPS 2865 .... AF-1606-0150
TPS 2875 .... AF-1606-0153

TT A CG-1715-0109

T1115005 .... AF-1715-0744

T2G MC-1402-0033

T2H MC-1402-0034

T2J MC-1402-0035

T4B MC-1406-0012
MC-1406-0029

T8A MC-2204-0074

T8F MC-2204-0073

T8H MC-2204-0076

USMC-570 .... DD-0505-0001

W227 .... CG-1715-0035

XRG MC-1406-0030

XX25251-1A AF-1304-0003

XX4344 .... AF-1408-0006
XX46132 .... AF-0802-0004

XX99020 .... AF-1406-0006

YAMS-000 .... AF-2203-0051

ZZ29334 .... AF-1715-0382

ZZ30134 .... AF-1715-0382
ZZ3021OZ AF-1715-0529
ZZ302101 .... AF-1715-0564
ZZ302102 .... AF-1715-0449

0ICC47 .... DD-0602-0021

00.1a MC-1406-0028
00.4 .... MC-1606-0008

001-1 .... CG-1408-0015
0015-1 .... CG-1408-0037

003-2 .... CG-1408-0029

0043-2 .... CG-1408-0011

005-4 .... CG-1408-0034

0066-1 .... CG-1408-0013

007-4 .... CG-1408-0030

008-1 .... CG-1408-0027

009-5 .... CG-1408-0016

01.20K MC-1406-0015
01.24 .... MC-1404-0002
01.28 .... MC-1406-0025
01.28A MC-1406-0025
01.31G MC-1403-0006
01.32E MC-1403-0004
01.33e MC-1406-0016
01.34A MC-1406-0018
01.35d MC-1406-0019
01.35e MC-1406-0019
01.35f MC-1406-0019
01.35g MC-1403-0016
01.36a MC-1406-0014
01.36b MC-1406-0014
01.36c MC-1406-0014
01.36e MC-1406-0026
01.36f MC-1406-0026
01.37 .... MC-1406-0017
01.37A MC-1406-0017
01.38 .... MC-1403-0008
01.39 .... MC-1406-0027
01.41 .... MC-1403-0007
01.43 .... MC-1406-0024

01AD DD-0602-0232
01AD47 .... DD-0602-0232

01BU DD-0602-0228
01BU47 .... DD-0602-0228

01CX DD-0602-0229
01CX47 .... DD-0602-0229

01DU DD-0602-0223
01DU25 .... DD-0602-0223

01FR DD-0602-0213
01FR25 .... DD-0602-0213

01GM DD-0602-0215
01GM34 .... DD-0602-0215

01J MC-1406-0022
01JT DD-0602-0226
01JT25 .... DD-0602-0226

01LA DD-0602-0222
01LA25 .... DD-0602-0222

01NR DD-0602-0224
01NR25 .... DD-0602-0224

01PF DD-0602-0230
01PF47 .... DD-0602-0230
01PQ DD-0602-0212
01PQ25 .... DD-0602-0212

01RQ DD-0602-0225
01RQ34 .... DD-0602-0225
01RU DD-0602-0227
01RU47 .... DD-0602-0227

01TU DD-0602-0231
01TU47 .... DD-0602-0231

0103 .... CG-1715-0032

0110 .... CG-0709-0006
01100 .... AF-1406-0060
0115-5; 0115-6 .... CG-1710-0020

01230A AF-1704-0194

0130-1 .... CG-0709-0006
0132 .... CG-1723-0001
0134-2 .... CG-1304-0018
0137-5 .... CG-2205-0026

0141-7 .... CG-1715-0136
0141-8 .... CG-1715-0136

015-2 .... CG-1408-0017

0166-1 .... CG-1728-0014

018-1 .... CG-1408-0018

019-5 .... CG-1408-0010

02.10 .... MC-1606-0010
02.12 .... MC-1606-0012
02.13 .... MC-1606-0011
02.8a MC-1606-0009
02.9a MC-1606-0005

021-4 .... CG-1408-0009
021-9 .... CG-1402-0001
02130B AF-1704-0195
02130D AF-1704-0196
0215-7; 215-8 .... CG-1710-0021
02170 .... AF-0801-0005

0230 .... CG-0709-0005
0230-1 .... CG-0709-0005
0232-3 .... CG-1723-0002
0234-2 .... CG-1304-0016
0234-3 .... CG-1304-0016

025-3 .... CG-1408-0022

0265 .... CG-1728-0011

027-5 .... CG-1408-0032
027-9 .... CG-1408-0038

029-6 .... CG-1408-0031
029-9 .... CG-1408-0040

03.10M MC-2204-0056
03.16J MC-1728-0002
03.17H MC-1606-0004
03.20K MC-2204-0060
03.28C MC-1713-0001
03.3J MC-1406-0020
03.3K MC-1406-0023
03.3M MC-1406-0023
03.30C MC-2204-0063
03.31G MC-2204-0061
03.4M MC-2204-0062
03.43F MC-1601-0022
03.46C MC-2204-0058
03.49C MC-0803-0006
03.54 .... MC-0803-0007
03.62T MC-1713-0002
03.64 .... MC-2204-0057
03.64a MC-2204-0057
03.66a MC-1606-0006
03.7P MC-2204-0068
03.97 .... MC-1601-0040

03GM DD-0602-0205
03GM06 .... DD-0602-0205

03TU DD-0602-0216
03TU12 .... DD-0602-0216

031 .... MC-2204-0051
031-5 .... CG-1408-0014

032-2 .... CG-1408-0012

033 .... MC-2204-0048
0335-2; CG-1728-0011

034 .... MC-2204-0047
034-2 .... CG-1408-0023

036-1 .... CG-1408-0021

037-5 .... CG-1408-0008

039-7 .... CG-1408-0025

04GM DD-0602-0214
04GM12 .... DD-0602-0214

041-5 .... CG-1408-0026

043-9 .... CG-1408-0039

045-4 .... CG-1408-0028
0450 .... CG-1722-0001

0480 .... CG-2205-0012
0480-2 .... CG-2205-0024

049-4 .... CG-1408-0019

05AE DD-0602-0211
05AE16 .... DD-0602-0211
05AP DD-0602-0210
05AP16 .... DD-0602-0210

05DG DD-0602-0209
05DG16 .... DD-0602-0209

051-2 .... CG-1408-0033
0512-1 .... CG-0802-0007
0513-1 .... CG-0802-0008

055-4 .... CG-1408-0024
0551-1 .... CG-1704-0021

06AD DD-0602-0220
06AD32 .... DD-0602-0220

06FR DD-0602-0221
06FR24 .... DD-0602-0221

06GM24 .... DD-0602-0219

06LA DD-0602-0218
06LA24 .... DD-0602-0218

0641 CG-1722-0006

065-1 CG-1408-0020

08.11 MC-1601-0035
08.12 MC-1601-0032
08.8F MC-1601-0021
08.9 MC-1601-0039

0800-1 CG-1512-0001

09AE DD-0602-0208
09AE24 DD-0602-0208
09AP DD-0602-0206
09AP24 DD-0602-0206

09DG DD-0602-0207
09DG24 DD-0602-0207

10-AF-62470 AF-1729-0007

10GM DD-0602-0217
10GM24 DD-0602-0217

101-3 CG-1714-0004
101-4 CG-1714-0022
101-5 CG-1714-0022

1025C-F AF-1606-0131
1025C-1 AF-1606-0128
1025D AF-1606-0066
1025D-0 AF-1606-0138
1025D-1 AF-1606-0139
1025D-3 AF-1606-0140
1025DAF AF-1606-0066
1025DAN AF-1606-0066
1025D7 AF-1606-0131
1025D7A AF-1606-0131
1025D8 AF-1606-0131
1025D8A AF-1606-0131
1025E-1 AF-1606-0036
1025E-2 AF-1606-0036
1025E1 AF-1606-0066
1025E2/3 AF-1606-0066
1025F-1 AF-1606-0036
1025F-2 AF-1606-0036
1025F1 AF-1606-0066
1025F2 AF-1606-0066

103-3 CG-1715-0032
103-6 CG-1715-0032
103-7 CG-1715-0132

104140Z AF-1606-0020

105-6 CG-1704-0008
105400-1 AF-1606-0143

107-5 CG-1704-0015

108-3 CG-1704-0019

109-4 CG-1708-0004
109-5 CG-1708-0004
109-6 CG-1708-0004
1090 AF-2203-0052

11.14D MC-1730-0003
11.15B MC-1701-0002
11.16C MC-1714-0009
11.19C MC-1712-0001
11.20 MC-1732-0001
11.21 MC-1710-0031
11.21a MC-1710-0005
11.21b MC-1710-0005
MC-1710-0042
11.22 MC-1601-0023
11.22a MC-1732-0003
11.24 MC-1715-0090
11.41 MC-1714-0010
11.42b MC-1715-0132
11.43 MC-1601-0033
11.61 MC-1730-0005
11.62 MC-1731-0001

11B MC-1714-0003
MC-1714-0011

11D MC-1730-0006

11E MC-1710-0035

11K MC-1714-0016

11L MC-1730-0007

110 MC-1601-0025

111103 AF-1606-0022
1111038 AF-1606-0022
1111085 AF-1606-0117

112101-1 AF-1606-0110

11350B AF-1704-0197
11350C AF-1704-0094

115-4 CG-1710-0003

11650 AF-1704-0198

118-2 CG-0701-0004

119-3 CG-1714-0011
119-4 CG-1714-0011
119-5 CG-1714-0011

1200 AF-2203-0053
120010 AF-1406-0009

121-5 CG-1715-0038
121-6 CG-1715-0038
121-7 CG-1715-0038

12250 AF-1704-0199

125-3 CG-1728-0008

127-5 CG-1715-0036
127-6 CG-1715-0135
127-7 CG-1715-0135

129-1 CG-1714-0012
129-4 CG-1714-0012

13.19h MC-1601-0036
13.19i MC-1601-0036
13.19H MC-1601-0013
13.28D MC-1601-0016
13.29E MC-1601-0018
13.30 MC-1717-0005
13.31i MC-1601-0034
13.31H MC-1601-0014
13.32g MC-1723-0008
13.32E MC-1723-0001
13.32F MC-1723-0001
13.34G MC-1107-0001
13.35 MC-1712-0002
13.35b MC-1712-0006
13.37F MC-1732-0002
13.37G MC-1732-0002
13.38C MC-1601-0012
13.39 MC-1601-0038
13.40 MC-1710-0040
13.41C MC-1601-0019
13.42c MC-1601-0037
13.43 MC-1712-0007
13.44b MC-1601-0041
13.44A MC-1601-0011
13.44B MC-1601-0011
13.45 MC-1704-0007
13.52 MC-1710-0032
13.52a MC-1710-0039
13.71K MC-1601-0017

13E MC-1710-0016

13G MC-1601-0027

13I MC-2204-0069

130 AF-1405-0027
MC-1601-0024

131-5 CG-0709-0007

132-2 CG-1723-0001
132-3 CG-1723-0001

134-1 CG-1304-0015

136-1 CG-1709-0002

137-4 CG-1304-0007
137-5 CG-1304-0007
137-8 CG-1304-0007

139-5 CG-1408-0036
139-6 CG-2205-0015

14.42B MC-1601-0015

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140001 AF-0802-0018

141-6 CG-1715-0075

142 AF-1408-0003

143-1 CG-1715-0034
143-2 CG-1715-0034

144 AF-1408-0010

145 AF-1408-0008
145-5 CG-1715-0077
145-6 CG-1715-0134

149-6 CG-1405-0003

150 AF-1405-0035

152103 AF-1606-0106
152103A AF-1606-0106
152104A AF-1606-0106
152105 AF-1606-0106
152106B AF-1606-0080

153101 AF-1606-0145
153103 AF-1715-0021
153104R AF-1606-0098
153130 AF-1606-0145
153132 AF-1606-0145
153138 AF-1606-0145

155-8 CG-1408-0009

156103 AF-1606-0045

157104 AF-1715-0529
157105 AF-1715-0529

160 AF-0326-0001

165-2 CG-1728-0010

172 AF-1408-0023

1745IDWN AF-1406-0062
174501AA AF-1406-0067

175 AF-0726-0003

178 AF-1408-0019

188 AF-1115-0005

189 AF-1115-0004

1900 AF-0801-0001
1901 AF-0801-0002
1902 AF-0801-0003
1903 AF-0801-0004

191 AF-1408-0016

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2ASR30573-4 AF-1715-0062
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201-3 CG-1714-0003
201-5 CG-1714-0025
20150 AF-1606-0121

20151 .... AF-1606-0122
20170 .... AF-1606-0123

203-4 .... CG-1715-0031
203-5 .... CG-1715-0031

205-7 .... CG-1704-0007

20650 .... AF-1709-0027

207-6 .... CG-1704-0013

208-2 .... CG-1704-0018
208-4 .... CG-1704-0018
208-5 .... CG-1704-0018

209-7 .... CG-1708-0003

21.28C MC-2204-0066
21.29 .... MC-2204-0067
21.30 .... MC-2204-0064
21.31 .... MC-2204-0065

210 .... AF-1408-0013

212 .... AF-1717-0025

215-5 .... CG-1710-0004

218-3 .... CG-0701-0003

219-1 .... CG-1714-0023
219-8 .... CG-1714-0010
219-9 .... CG-1714-0023

221-5 .... CG-1715-0037
221-6 .... CG-1715-0037

227-6 .... CG-1715-0035
227-7 .... CG-1715-0035
227-8 .... CG-1715-0137

229-3 .... CG-1714-0009
229-4 .... CG-1714-0009

231-8 .... CG-0709-0008

232-2 .... CG-1723-0002

234-1 .... CG-1304-0003
234-2 .... CG-1304-0003

236-2 .... CG-1709-0001

237-5 .... CG-1722-0002

239-8 .... CG-2205-0016
239-9 .... CG-2205-0023

24X MC-1715-0113

241-6 .... CG-1404-0002
241-7 .... CG-1404-0002
241-8 .... CG-1404-0002
24150 .... AF-0802-0029

24250 .... AF-0802-0026
24270 .... AF-0802-0028

243-1 .... CG-1715-0033
243-2 .... CG-1715-0033
    CG-1715-0133

245-4 .... CG-1715-0063
245-6 .... CG-1715-0063

246 .... MC-1715-0126

249-7 .... CG-1405-0004
249-8 .... CG-1405-0004

25.15 .... MC-1715-0136
25.15F MC-1715-0112
25.15G MC-1715-0112
25.20B MC-1715-0102
25.21 .... MC-1715-0105
25.25 .... MC-1715-0109
25.26 .... MC-1715-0095
25.3L MC-1715-0103
25.30e MC-1715-0108
25.31c MC-1715-0107
25.32c MC-1715-0110
25.35 .... MC-1715-0092
25.36 .... MC-1715-0101
25.37 .... MC-1715-0135
25.4d MC-1715-0106
25.40c MC-1715-0104
25.41a MC-1715-0094
25.50b MC-1715-0111
25.51b MC-1715-0098
25.51c MC-1715-0098
25.52b MC-1715-0097
25.53a MC-1715-0100
25.54 .... MC-1715-0099
25.55 .... MC-1715-0091
25.56 .... MC-1715-0096
25.60 .... MC-1715-0137
25.61 .... MC-1715-0133
25.62 .... MC-1715-0134

25A MC-1717-0004

25E MC-1717-0002

25Q MC-1714-0005
    MC-1714-0012

25V MC-1409-0002

25150 .... AF-1304-0013
    AF-1304-0016

253 .... MC-1408-0004

254 .... MC-1409-0004
    MC-1409-0005

255-7 .... CG-1408-0004
255-8 .... CG-1408-0004

2570 .... AF-1304-0015

26.1 .... MC-1606-0007
    MC-1715-0130

26D MC-1715-0076
    MC-1715-0120

269 .... AF-1408-0059

27E MC-1715-0062

27F MC-1715-0051
    MC-1715-0117

27M MC-1715-0009

27P MC-1715-0124

27V MC-1715-0010

27W MC-1715-0063

27131 .... AF-1704-0214
27132 .... AF-1402-0073
27151 .... AF-1704-0215
27152 .... AF-1408-0095

272 .... MC-1715-0116

27350 .... AF-1704-0216

27450 .... AF-1704-0217

27550 .... AF-1406-0068

27650 .... AF-1715-0754

27750 .... AF-1715-0755

279 .... AF-1408-0014

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28.6F MC-1715-0131
28.7 .... MC-1715-0129

28-A5522 .... DD-0505-0002
28-E-1 .... DD-0504-0004
    DD-0504-0005
28-E-2 .... DD-0504-0008
28-G-5505 .... DD-0504-0009
28-O-5 .... DD-0504-0007
28-O-6 .... DD-0504-0006
28-R-F1 .... DD-0504-0002
28-R-701.1 .... DD-0504-0001
    DD-0504-0004
28-R-703.1 .... DD-0504-0004
    DD-0505-0001
28-R-703.2 .... DD-0504-0004
    DD-0505-0001

28E MC-1715-0006

28T MC-1715-0114

28W MC-1715-0073
    MC-1715-0121

28Y MC-1715-0077

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29150 .... AF-0504-0003

29353 .... AF-0504-0002

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3ABR23430 .... AF-1709-0022
3ABR23631 .... AF-1709-0020
3ABR25231 .... AF-1304-0001
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740-309 DD-1719-0005
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740-83D20 DD-1719-0001
DD-1719-0003
740-83E10 DD-1601-0013
DD-1601-0019
740-83F10 DD-1719-0006
740-83F20 DD-1719-0002

74131 AF-1406-0055
74151 AF-1406-0056
74171 AF-1406-0057

74250 AF-1406-0058
74270 AF-1406-0059

75132 AF-1406-0071
75150 AF-1406-0069
75171 AF-1406-0072
75172 AF-1406-0070

753100 AF-1406-0039
753101-N AF-1406-0039
75350 AF-2203-0054

7802A AF-1511-0007

8B-F1(JT) DD-0419-0001
8B-F16(JT) DD-0419-0006
8B-F2(JT) DD-0419-0002
8B-F26(JT) DD-0419-0005
8B-F7(JT) DD-0419-0003

8000 AF-1606-0119
8001 AF-1606-0120

809 MC-2204-0038

81H MC-1728-0006

81N MC-2204-0014

8100 AF-1728-0042

81150 AF-1728-0002
AF-1728-0045
81152 AF-1728-0009
AF-1728-0044
81170 AF-1728-0003
81172 AF-1728-0010

82170 AF-1728-0039

822-F1(JT) DD-0419-0001
822-F13(JT) DD-0419-0004
822-F2(JT) DD-0419-0002
822-F7(JT) DD-0419-0003

83170 AF-1408-0015

8800 AF-1728-0043

90250 AF-0703-0012
90252 AF-0703-0015
90270 AF-0703-0011

90370 AF-0705-0003

90411 AF-0709-0029
90412 AF-0709-0030
90413 AF-0709-0031

90550 AF-0799-0003

90630 AF-0709-0028
90650 AF-0709-0027

91150 AF-0709-0032

91255 AF-0706-0003

91350 AF-0704-0004

91451 AF-0708-0002

91550 AF-1406-0094

91850 AF-1715-0745

923X0-5 AF-1606-0130
92330 AF-0709-0026

96170 AF-1728-0001

9711 AF-0703-0014

98150 AF-0701-0002
AF-0701-0003

98250 AF-0701-0018

99.56 MC-1406-0013

REQUEST FOR COURSE RECOMMENDATION

The applicant for credit must fill out one form for *each* service school course completed. The institutional official is responsible for verifying from official military records that the student completed the entire course, and for submitting the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193. ATTN: Military Evaluations. *Please Print.*

1. *Exact* course title *(do not abbreviate)* ____

2. Service branch offering the course:
   - ☐ Air Force
   - ☐ Army
   - ☐ Coast Guard
   - ☐ Department of Defense
   - ☐ Marine Corps
   - ☐ Navy

3. Name of service school attended: ____________________

4. Location (installation, state): ____________________

5. Length of course *(in weeks)*: ____________________

6. Dates of attendance: From: ________ day/month/year To: ________ day/month/year

7. Official military course number: ____________________

8. MOS/AFSC/Rating: ____________________

9. Course was designed for:
   - ☐ Warrant Officers
   - ☐ Officer Candidates
   - ☐ Commissioned Officers
   - ☐ Enlisted Personnel
   - ☐ Aviation Cadets
   - ☐ Noncommissioned Officers

10. Rank or rating upon completion of the course: ____________________

11. Please give some indication of subjects studied in course: ____________________

NAME OF STUDENT

STATUS (FRESHMAN, SOPHOMORE, ETC.)

DO NOT WRITE IN THIS SPACE
STAFF USE

SIGNATURE OF COLLEGE OFFICIAL

NAME OF COLLEGE OFFICIAL

TITLE

INSTITUTION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

REQUEST FOR COAST GUARD RATING AND WARRANT OFFICER EXHIBITS

Officials should use this form only for requesting exhibits that contain the phrase, "Pending evaluation." As occupations are evaluated, they will be listed in the *Update.* When you want to obtain the recommendation for a newly-evaluated occupation, identify the exhibit you are requesting by using the complete *exhibit I.D. number* (e.g., NER-BT-001), and the title of the occupation. Include the applicant's name if you would like the name mentioned in the reply. Submit the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, ATTN: Military Evaluations.

Exhibit I.D. Number	Title of Occupation Please print; do not abbreviate.	Name of Applicant

DO NOT WRITE IN THIS SPACE
STAFF USE

SIGNATURE OF OFFICIAL

NAME OF OFFICIAL

TITLE

INSTITUTION OR ORGANIZATION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

Please retain file copies of any recommendations received from the Advisory Service.

REQUEST FOR MARINE CORPS ENLISTED MOS EXHIBITS

Officials should use this form only for requesting exhibits that are not in the *Handbook*. As occupations are evaluated, they will be listed in the *Update*. When you want to obtain the recommendation for a newly-evaluated occupation, identify the exhibit you are requesting by using the Marine Corps MOS designator and the title of the occupation. Include the applicant's name if you would like the name mentioned in the reply. Submit the form to The Center for Adult Learning and Educational Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036-1193, ATTN: Military Evaluations.

Exhibit I.D. Number	MOS Title Please print; do not abbreviate.	Name of Applicant

DO NOT WRITE IN THIS SPACE
STAFF USE

Signature of Official

Name of Official

Title

Institution or Organization

Street

City State Zip Code

Area Code Number Ext.

Please retain file copies of any occupation recommendations received from the Advisory Service.

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